



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 13N-16B-M**

**OH
PLAN #1**

Anticollision Report

03 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	10/3/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,343.33	PLAN #1 (OH)	MWD+IFR1	OWSG MWD + IFR1

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
BERG 33-15 (AB_150CC) - OH - OH	4,056.19	3,781.31	406.85	366.88	10.179	CC
BERG 33-15 (AB_150CC) - OH - OH	4,100.00	3,821.69	407.20	366.79	10.077	ES
BERG 33-15 (AB_150CC) - OH - OH	4,300.00	4,006.52	417.47	375.22	9.880	SF
BERRY 22-2(PR_75CC) - OH - OH	7,366.61	6,793.36	1,650.30	1,582.45	24.324	CC, ES
BERRY 22-2(PR_75CC) - OH - OH	7,600.00	6,931.78	1,684.81	1,614.16	23.847	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,370.30	6,899.50	1,669.52	1,601.29	24.468	CC, ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,600.00	7,055.33	1,702.29	1,631.36	23.999	SF
BLACKGOLD 3(AB_150CC) - OH - OH	0.00	24.90	2,901.78			
BLACKGOLD 3(AB_150CC) - OH - OH	100.00	122.81	2,901.79	2,895.22	441.037	ES
BLACKGOLD 3(AB_150CC) - OH - OH	12,000.00	7,093.29	6,386.52	6,246.81	45.713	SF
BURBACH 15-22(SI_150CC) - OH - OH	200.00	181.00	2,496.40	2,487.43	278.464	CC
BURBACH 15-22(SI_150CC) - OH - OH	400.00	380.84	2,499.52	2,483.93	160.273	ES
BURBACH 15-22(SI_150CC) - OH - OH	10,300.00	7,043.01	4,020.62	3,690.76	12.189	SF
BURBACH 15-23(SI_150CC) - OH - OH	1,379.90	1,313.08	2,524.14	2,472.70	49.078	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,700.00	7,029.80	2,566.53	2,248.35	8.066	ES
BURBACH 15-23(SI_150CC) - OH - OH	10,100.00	7,028.61	2,598.89	2,272.68	7.967	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,959.55	7,012.07	1,410.98	1,033.54	3.738	CC
BURMAN 16-42(PR_75CC) - OH - OH	12,000.00	7,011.95	1,411.56	1,033.31	3.732	ES, SF
BURMAN 16-43(PR_75CC) - OH - OH	11,974.38	7,009.03	89.90	-287.84	0.238	Level 1, CC, ES, SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	10,305.28	7,308.52	621.13	496.16	4.970	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	15,343.67	12,357.88	761.86	355.52	1.875	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	10,208.50	7,324.93	806.81	684.64	6.604	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	15,343.67	12,446.09	895.97	485.67	2.184	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	5,786.13	15,917.14	4,736.18	4,470.10	17.800	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	5,900.00	15,919.94	4,737.55	4,468.86	17.632	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	11,200.00	19,118.26	5,147.98	4,696.95	11.414	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	5,750.51	15,868.57	4,545.15	4,278.26	17.030	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	5,900.00	15,872.94	4,547.60	4,277.21	16.819	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	11,200.00	19,018.34	4,947.33	4,497.98	11.010	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,240.62	7,072.46	578.84	347.82	2.506	CC, ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,300.00	7,074.22	581.88	348.89	2.497	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,840.49	6,982.50	1,245.12	788.39	2.726	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,900.00	6,982.32	1,246.54	787.96	2.718	ES, SF
FRITZLER 1-17(PR_150CC) - OH - OH	15,343.67	7,004.00	793.29	493.73	2.648	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	15,343.67	7,357.34	2,915.34	2,802.87	25.922	CC, ES, SF
FRITZLER 17-32-12(PR_150CC) - OH - OH	15,343.67	7,404.15	2,504.70	2,275.30	10.919	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	15,343.67	7,370.49	2,055.58	1,789.13	7.715	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 34-17(PR_150CC) - OH - OH	15,343.67	7,133.07	2,077.61	1,996.71	25.681	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	15,343.67	7,140.69	1,630.71	1,393.00	6.860	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	15,343.67	7,028.63	1,652.31	1,505.19	11.231	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	15,343.67	7,096.84	1,541.31	1,425.96	13.362	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	15,343.67	7,079.10	604.86	356.63	2.437	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,543.08	7,001.71	306.36	-32.49	0.904	Level 1, CC, ES, SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,369.21			
HARVESTER 31-15(SI_150CC) - OH - OH	10,000.00	7,256.03	5,120.13	5,024.12	53.328	SF
HARVESTER 32-15(SI_150CC) - OH - OH	100.00	77.46	569.42	562.85	86.676	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	7,000.00	6,510.97	2,724.62	2,662.00	43.511	SF
HARVESTER STATE 30C-16-M - OH - PLAN #1	200.00	203.00	479.80	473.13	71.864	CC, ES
HARVESTER STATE 30C-16-M - OH - PLAN #1	15,343.67	15,216.01	4,614.65	4,157.16	10.087	SF
HARVESTER STATE 30N-16B-M - OH - PLAN #1	200.00	203.00	460.13	453.46	68.918	CC, ES
HARVESTER STATE 30N-16B-M - OH - PLAN #1	15,343.67	14,942.37	4,392.07	3,934.45	9.598	SF
HARVESTER STATE 31C-16-M - OH - PLAN #1	200.00	202.00	379.98	373.30	56.920	CC, ES
HARVESTER STATE 31C-16-M - OH - PLAN #1	15,343.67	14,997.18	3,515.64	3,058.57	7.692	SF
HARVESTER STATE 33C-16-M - OH - PLAN #1	989.86	1,012.62	77.06	66.24	7.119	CC
HARVESTER STATE 33C-16-M - OH - PLAN #1	1,000.00	1,022.76	77.08	66.18	7.073	ES
HARVESTER STATE 33C-16-M - OH - PLAN #1	15,335.36	15,261.40	855.64	402.15	1.887	SF
HARVESTER STATE 34C-16-M - OH - PLAN #1	1,322.14	1,307.04	37.39	24.04	2.800	CC
HARVESTER STATE 34C-16-M - OH - PLAN #1	1,400.00	1,383.90	37.59	23.57	2.682	ES
HARVESTER STATE 34C-16-M - OH - PLAN #1	15,343.67	15,789.45	451.56	26.57	1.063	Level 2, SF
HARVESTER STATE 5C-16-M - OH - PLAN #1	200.00	202.00	339.90	333.23	50.917	CC, ES
HARVESTER STATE 5C-16-M - OH - PLAN #1	15,343.67	14,987.41	3,076.03	2,619.15	6.733	SF
HARVESTER STATE 12N-16B-M - OH - PLAN #1	846.34	874.11	116.91	107.12	11.940	CC, ES
HARVESTER STATE 12N-16B-M - OH - PLAN #1	15,334.58	14,986.95	1,260.05	802.94	2.757	SF
HARVESTER STATE 13C-16-M - OH - PLAN #1	1,230.89	1,237.93	18.81	6.14	1.484	Level 3, CC
HARVESTER STATE 13C-16-M - OH - PLAN #1	15,343.56	15,440.30	264.47	-123.56	0.682	Level 1, ES, SF
HARVESTER STATE 33N-16C-M - OH - PLAN #1	1,159.11	1,172.42	37.94	25.83	3.132	CC
HARVESTER STATE 33N-16C-M - OH - PLAN #1	15,343.67	15,280.66	424.68	-31.99	0.930	Level 1, ES, SF
HARVESTER STATE 4C-16-M - OH - PLAN #1	200.00	203.00	440.10	436.13	111.010	CC, ES
HARVESTER STATE 4C-16-M - OH - PLAN #1	15,343.67	15,116.21	4,210.65	3,753.42	9.209	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,520.04	11,486.32	297.80	195.47	2.910	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,600.00	11,507.28	312.23	189.36	2.541	ES, SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,378.95	11,528.65	590.09	471.92	4.994	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,400.00	11,534.71	590.77	469.89	4.887	ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,500.00	11,557.76	612.37	480.40	4.640	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,234.10	11,380.21	855.82	725.62	6.573	CC, ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,400.00	11,430.88	890.57	750.73	6.369	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,198.29	11,478.43	1,269.91	1,135.29	9.433	CC
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,200.00	11,478.98	1,269.91	1,135.22	9.428	ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,300.00	11,510.53	1,281.51	1,142.78	9.237	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	942.24	968.77	96.53	86.04	9.209	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	15,343.67	14,915.55	1,058.57	606.21	2.340	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	723.44	749.83	137.72	128.75	15.353	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	15,343.67	15,000.73	1,470.18	1,013.26	3.218	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	200.00	202.00	359.95	353.28	53.920	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	15,343.67	14,817.75	3,295.05	2,838.35	7.215	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	667.73	705.29	157.97	149.31	18.249	CC, ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	15,328.14	15,089.53	1,687.56	1,191.88	3.405	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	200.00	202.00	279.80	273.12	41.913	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	15,343.67	15,002.44	2,415.56	1,958.92	5.290	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	200.00	201.00	179.97	173.30	26.963	CC, ES

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
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Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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						
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	15,343.67	14,871.88	1,879.53	1,422.91	4.116	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	200.00	202.00	260.13	253.45	38.966	CC, ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	15,343.67	14,909.96	2,192.64	1,735.73	4.799	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	1,092.50	1,111.86	57.12	45.51	4.921	CC
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	1,100.00	1,119.36	57.13	45.46	4.898	ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	15,337.38	15,147.69	628.03	170.63	1.373	Level 3, SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	1,311.67	1,304.14	18.65	5.36	1.403	Level 3, CC
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	15,343.67	15,489.17	217.79	-221.48	0.496	Level 1, ES, SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	200.00	202.00	400.02	393.34	59.922	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	15,343.67	14,732.12	3,734.97	3,278.21	8.177	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	200.00	202.00	420.06	413.39	62.924	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	15,343.67	14,969.16	3,853.52	3,396.75	8.436	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	200.00	202.00	299.84	293.16	44.915	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	15,343.67	14,805.04	2,732.21	2,275.37	5.981	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	200.00	202.00	319.87	313.19	47.916	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	15,343.67	14,872.41	2,852.70	2,395.98	6.246	SF
HOOD 41-20(PR_150CC) - OH - OH	15,343.67	6,988.00	1,510.05	1,079.41	3.507	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	15,343.67	7,408.83	2,352.69	2,134.21	10.769	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,186.12	6,985.01	1,217.00	1,046.47	7.137	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,200.00	6,985.75	1,217.08	1,046.08	7.118	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,400.00	6,996.65	1,235.59	1,059.71	7.025	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,800.00	10,052.51	919.04	786.35	6.926	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,900.00	9,953.87	909.75	778.76	6.945	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,174.79	7,680.86	904.10	783.94	7.524	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	7,800.00	9,914.94	631.62	494.70	4.613	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,136.79	7,584.77	604.58	481.62	4.917	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,200.00	7,535.02	605.26	481.05	4.873	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,523.59	6,988.42	1,432.97	1,012.98	3.412	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,600.00	6,988.19	1,435.01	1,012.67	3.398	ES, SF
LOVELY 1(AB_150CC) - OH - OH	13,495.37	7,035.50	5,366.01	4,945.17	12.751	CC
LOVELY 1(AB_150CC) - OH - OH	13,600.00	7,035.19	5,367.03	4,943.47	12.671	ES
LOVELY 1(AB_150CC) - OH - OH	14,700.00	7,031.92	5,499.56	5,051.79	12.282	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,992.00	7,034.05	5,309.82	4,847.01	11.473	CC
LOVELY 14-9(AB_150CC) - OH - OH	15,100.00	7,033.73	5,310.91	4,845.30	11.406	ES
LOVELY 14-9(AB_150CC) - OH - OH	15,343.67	7,033.00	5,321.45	4,849.82	11.283	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	200.00	203.00	4,544.53	4,534.92	473.143	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	400.00	402.84	4,548.40	4,532.06	278.422	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	12,300.00	7,059.06	5,613.57	5,232.35	14.725	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,982.33	7,020.00	5,378.48	5,000.14	14.216	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,100.00	7,019.65	5,379.77	4,998.42	14.107	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	13,400.00	7,015.78	5,562.18	5,152.20	13.567	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,536.57	4,452.00	2,820.65	2,647.13	16.256	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,600.00	4,452.00	2,821.37	2,646.76	16.159	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,700.00	4,452.00	3,051.17	2,848.47	15.052	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	15,343.67	7,109.98	806.41	550.45	3.151	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	15,343.67	7,019.00	4,297.68	3,828.97	9.169	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	225.54	263.24	2,545.98	2,539.22	376.387	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	11,600.00	7,148.18	6,906.55	6,782.29	55.582	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,223.62	7,010.19	1,233.75	947.22	4.306	CC, ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,300.00	7,009.96	1,236.11	948.08	4.292	SF
SENA 15-21(PR_75CC) - OH - OH	200.00	203.00	1,904.63	1,895.02	198.296	CC
SENA 15-21(PR_75CC) - OH - OH	300.00	303.02	1,905.95	1,893.09	148.184	ES
SENA 15-21(PR_75CC) - OH - OH	9,400.00	7,061.69	4,298.64	3,989.76	13.917	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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						
SENA 15-24(PR_75CC) - OH - OH	200.00	183.00	1,120.64	1,111.62	124.215	CC
SENA 15-24(PR_75CC) - OH - OH	800.00	778.62	1,130.21	1,099.92	37.320	ES
SENA 15-24(PR_75CC) - OH - OH	8,700.00	7,049.77	2,887.14	2,592.13	9.787	SF
SENA 15-25(PR_75CC) - OH - OH	200.00	210.00	1,725.60	1,715.78	175.821	CC
SENA 15-25(PR_75CC) - OH - OH	400.00	389.84	1,728.84	1,712.94	108.746	ES
SENA 15-25(PR_75CC) - OH - OH	9,400.00	7,054.69	3,619.09	3,309.78	11.701	SF
STATE 1(AB_150CC) - OH - OH	12,135.90	7,009.55	4,065.35	3,683.16	10.637	CC
STATE 1(AB_150CC) - OH - OH	12,200.00	7,009.36	4,065.86	3,682.05	10.594	ES
STATE 1(AB_150CC) - OH - OH	12,900.00	7,007.27	4,136.54	3,737.38	10.363	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,265.66	7,011.16	4,086.92	3,701.09	10.593	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,400.00	7,010.76	4,089.12	3,699.95	10.507	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	13,100.00	7,008.68	4,171.21	3,767.13	10.323	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,071.72	7,004.74	2,613.90	2,233.64	6.874	CC
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,100.00	7,004.65	2,614.05	2,233.12	6.862	ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,400.00	7,003.76	2,634.43	2,247.25	6.804	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,825.64	7,006.46	77.23	-379.93	0.169	Level 1, CC, ES, SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,681.11	7,009.95	1,407.82	982.67	3.311	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,700.00	7,009.89	1,407.95	982.41	3.309	ES
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,800.00	7,009.59	1,412.83	985.71	3.308	SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,883.53	7,028.40	2,571.17	2,325.20	10.453	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,900.00	7,028.69	2,571.22	2,324.84	10.436	ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	15,200.00	7,033.98	2,590.57	2,338.28	10.269	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,729.36	7,000.73	1,435.84	1,092.10	4.177	CC, ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,800.00	7,000.52	1,437.57	1,092.48	4.166	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	15,343.67	7,171.58	3,390.42	3,166.66	15.152	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	15,343.67	7,010.00	2,898.01	2,435.61	6.267	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	15,343.67	7,293.53	3,917.39	3,673.70	16.076	CC, ES, SF

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	0.00	36.00	3.28	3.28	164.61	-1,280.17	352.42	1,328.29				
100.00	100.00	61.25	97.25	3.28	3.28	164.61	-1,280.24	352.43	1,327.86	1,321.30	6.57	202.192	
200.00	200.00	160.02	196.02	3.34	3.31	164.61	-1,280.55	352.40	1,328.16	1,321.51	6.65	199.698	
300.00	299.98	262.12	298.12	3.44	3.40	-18.82	-1,280.86	352.20	1,326.75	1,319.91	6.84	193.867	
400.00	399.84	362.60	398.59	3.59	3.54	-18.92	-1,280.97	352.12	1,321.88	1,314.75	7.13	185.276	
500.00	499.45	461.88	497.88	3.79	3.73	-19.09	-1,281.08	352.15	1,313.75	1,306.24	7.52	174.787	
600.00	598.70	557.89	593.89	4.03	3.94	-19.34	-1,281.24	352.28	1,302.43	1,294.46	7.97	163.419	
700.00	697.47	654.26	690.25	4.31	4.18	-19.66	-1,281.72	352.38	1,288.17	1,279.68	8.49	151.707	
800.00	795.62	754.59	790.59	4.64	4.46	-20.07	-1,282.31	352.23	1,270.70	1,261.62	9.08	139.928	
900.00	893.06	854.75	890.75	5.00	4.76	-20.55	-1,282.75	351.69	1,249.80	1,240.08	9.72	128.581	
1,000.00	989.64	952.91	988.90	5.40	5.07	-21.13	-1,283.03	351.19	1,225.63	1,215.24	10.39	117.910	
1,100.00	1,085.27	1,047.60	1,083.59	5.83	5.39	-21.80	-1,283.28	350.53	1,198.32	1,187.22	11.09	108.008	
1,200.00	1,179.82	1,140.61	1,176.60	6.29	5.71	-22.59	-1,283.70	349.98	1,168.18	1,156.36	11.82	98.820	
1,300.00	1,273.17	1,234.44	1,270.42	6.79	6.04	-23.52	-1,284.15	349.38	1,135.11	1,122.54	12.58	90.239	
1,400.00	1,365.46	1,327.53	1,363.51	7.32	6.38	-24.39	-1,284.63	348.64	1,099.72	1,086.37	13.36	82.328	
1,500.00	1,457.65	1,421.98	1,457.95	7.87	6.73	-25.22	-1,284.98	347.88	1,064.14	1,049.99	14.15	75.193	
1,600.00	1,549.83	1,516.33	1,552.31	8.43	7.09	-26.10	-1,285.08	347.22	1,028.58	1,013.61	14.97	68.730	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
1,700.00	1,642.02	1,610.13	1,646.10	9.01	7.45	-27.04	-1,285.11	346.30	993.08	977.28	15.79	62.874		
1,800.00	1,734.21	1,699.74	1,735.71	9.59	7.79	-27.99	-1,285.24	345.38	957.90	941.26	16.63	57.596		
1,900.00	1,826.39	1,790.82	1,826.78	10.18	8.15	-29.03	-1,285.50	344.53	923.15	905.66	17.49	52.789		
2,000.00	1,918.58	1,883.50	1,919.45	10.78	8.51	-30.16	-1,285.84	343.63	888.76	870.40	18.36	48.402		
2,100.00	2,010.77	1,975.06	2,011.00	11.39	8.88	-31.36	-1,286.23	342.66	854.71	835.46	19.25	44.403		
2,200.00	2,102.95	2,067.17	2,103.11	11.99	9.25	-32.64	-1,286.76	341.56	821.12	800.96	20.15	40.747		
2,300.00	2,195.14	2,158.55	2,194.49	12.61	9.61	-34.04	-1,287.24	340.67	787.99	766.92	21.07	37.401		
2,400.00	2,287.32	2,250.20	2,286.13	13.22	9.98	-35.57	-1,287.73	340.06	755.50	733.49	22.00	34.338		
2,500.00	2,379.51	2,344.07	2,379.99	13.84	10.37	-37.26	-1,288.31	339.28	723.55	700.59	22.95	31.523		
2,600.00	2,471.70	2,438.02	2,473.94	14.46	10.75	-39.10	-1,288.62	338.35	691.92	668.00	23.92	28.926		
2,700.00	2,563.88	2,530.02	2,565.93	15.08	11.13	-41.09	-1,288.75	337.66	661.00	636.09	24.91	26.539		
2,800.00	2,656.07	2,621.99	2,657.90	15.71	11.50	-43.28	-1,288.75	337.15	630.93	605.02	25.92	24.346		
2,900.00	2,748.26	2,713.10	2,749.01	16.33	11.88	-45.64	-1,288.91	336.68	601.99	575.05	26.95	22.340		
3,000.00	2,840.44	2,805.36	2,841.27	16.96	12.26	-48.23	-1,289.17	336.18	574.26	546.26	28.00	20.507		
3,100.00	2,932.63	2,897.69	2,933.60	17.59	12.64	-51.07	-1,289.38	335.75	547.83	518.75	29.08	18.836		
3,200.00	3,024.81	2,989.51	3,025.42	18.22	13.02	-54.15	-1,289.62	335.35	522.94	492.75	30.19	17.321		
3,300.00	3,117.00	3,081.48	3,117.39	18.86	13.40	-57.48	-1,290.04	334.88	499.85	468.53	31.32	15.957		
3,400.00	3,209.19	3,173.19	3,209.10	19.49	13.79	-61.07	-1,290.47	334.52	478.80	446.32	32.48	14.742		
3,500.00	3,301.37	3,267.39	3,303.30	20.12	14.18	-65.10	-1,290.59	334.32	459.97	426.32	33.65	13.669		
3,600.00	3,393.56	3,360.98	3,396.89	20.76	14.57	-69.39	-1,290.38	333.74	443.23	408.40	34.83	12.724		
3,700.00	3,485.75	3,453.30	3,489.20	21.39	14.95	-73.92	-1,289.93	333.14	429.27	393.25	36.02	11.918		
3,800.00	3,577.93	3,545.16	3,581.06	22.03	15.34	-78.62	-1,289.74	332.43	418.48	381.29	37.18	11.255		
3,900.00	3,670.12	3,636.99	3,672.89	22.67	15.72	-83.45	-1,289.86	331.75	411.19	372.88	38.31	10.733		
4,000.00	3,762.30	3,729.45	3,765.34	23.30	16.11	-88.36	-1,290.54	331.00	407.42	368.03	39.39	10.343		
4,056.19	3,814.10	3,781.31	3,817.19	23.66	16.33	-91.12	-1,291.01	330.57	406.85	366.88	39.97	10.179 CC		
4,100.00	3,854.49	3,821.69	3,857.57	23.94	16.50	-93.27	-1,291.39	330.26	407.20	366.79	40.41	10.077 ES		
4,200.00	3,946.68	3,913.74	3,949.62	24.58	16.88	-98.18	-1,292.01	329.61	410.60	369.23	41.36	9.927		
4,300.00	4,038.86	4,006.52	4,042.40	25.22	17.27	-103.03	-1,292.49	328.95	417.47	375.22	42.25	9.880 SF		
4,400.00	4,131.05	4,099.27	4,135.14	25.86	17.67	-107.72	-1,292.97	328.20	427.59	384.50	43.08	9.924		
4,500.00	4,223.24	4,190.19	4,226.06	26.50	18.05	-112.11	-1,293.33	327.55	440.92	397.07	43.85	10.055		
4,600.00	4,315.42	4,282.01	4,317.88	27.14	18.44	-116.36	-1,293.20	326.91	457.31	412.73	44.58	10.259		
4,700.00	4,407.61	4,373.74	4,409.59	27.78	18.82	-120.38	-1,292.56	326.10	476.41	431.14	45.27	10.523		
4,800.00	4,499.79	4,466.40	4,502.25	28.42	19.21	-124.13	-1,292.05	325.32	497.86	451.89	45.97	10.831		
4,900.00	4,591.98	4,557.48	4,593.32	29.06	19.60	-127.56	-1,291.37	324.36	521.32	474.69	46.63	11.179		
5,000.00	4,684.17	4,645.25	4,681.08	29.70	19.96	-130.65	-1,290.15	323.49	547.04	499.79	47.25	11.578		
5,100.00	4,776.35	4,736.24	4,772.06	30.34	20.35	-133.52	-1,288.96	323.58	575.08	527.16	47.92	12.001		
5,200.00	4,868.54	4,835.79	4,871.60	30.98	20.77	-136.42	-1,287.89	322.70	603.67	554.95	48.73	12.389		
5,300.00	4,960.73	4,931.10	4,966.90	31.63	21.17	-138.90	-1,288.04	321.49	632.39	582.90	49.49	12.778		
5,400.00	5,052.91	5,017.60	5,053.40	32.27	21.53	-140.89	-1,288.49	321.32	662.49	612.34	50.15	13.211		
5,500.00	5,145.10	5,103.35	5,139.15	32.91	21.89	-142.72	-1,288.22	321.52	694.24	643.44	50.80	13.667		
5,600.00	5,237.28	5,189.94	5,225.74	33.55	22.26	-144.45	-1,287.19	321.92	727.48	676.01	51.47	14.134		
5,700.00	5,329.47	5,279.99	5,315.78	34.20	22.64	-146.10	-1,285.81	322.65	761.80	709.59	52.21	14.592		
5,800.00	5,421.66	5,373.63	5,409.40	34.84	23.03	-147.64	-1,284.60	323.73	796.66	743.64	53.02	15.027		
5,900.00	5,513.84	5,474.60	5,510.36	35.48	23.45	-149.11	-1,284.16	325.04	831.39	777.44	53.95	15.410		
6,000.00	5,606.03	5,564.84	5,600.60	36.13	23.83	-150.34	-1,284.22	325.69	865.84	811.10	54.73	15.820		
6,100.00	5,698.22	5,652.77	5,688.52	36.77	24.20	-151.46	-1,283.78	326.53	901.18	845.70	55.48	16.242		
6,200.00	5,790.40	5,747.57	5,783.31	37.41	24.60	-152.55	-1,283.30	327.72	936.99	880.64	56.35	16.629		
6,300.00	5,882.59	5,843.02	5,878.76	38.06	25.00	-153.63	-1,282.91	327.86	972.50	915.28	57.22	16.995		
6,400.00	5,974.77	5,931.45	5,967.19	38.70	25.37	-154.54	-1,282.63	328.35	1,008.38	950.38	58.00	17.386		
6,500.00	6,066.96	6,020.36	6,056.08	39.34	25.75	-155.34	-1,282.39	329.88	1,044.92	986.12	58.80	17.771		
6,600.00	6,159.15	6,119.05	6,154.75	39.99	26.17	-156.14	-1,282.66	331.91	1,081.32	1,021.57	59.75	18.098		
6,700.00	6,251.33	6,209.30	6,245.00	40.63	26.55	-156.85	-1,282.82	333.22	1,117.72	1,057.15	60.57	18.452		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
6,800.00	6,343.52	6,294.25	6,329.93	41.28	26.90	-157.48	-1,282.64	334.63	1,154.67	1,093.34	61.33	18.828		
6,900.00	6,435.71	6,396.42	6,432.08	41.92	27.34	-158.17	-1,282.65	336.63	1,191.69	1,129.36	62.33	19.118		
7,000.00	6,527.86	6,505.64	6,541.27	42.56	27.80	-166.91	-1,284.02	338.73	1,228.09	1,164.65	63.44	19.359		
7,100.00	6,618.85	6,598.49	6,634.10	43.19	28.19	170.95	-1,285.66	339.93	1,268.29	1,203.95	64.35	19.711		
7,200.00	6,706.47	6,679.40	6,715.01	43.76	28.54	153.94	-1,286.52	340.02	1,313.58	1,248.45	65.13	20.168		
7,300.00	6,788.56	6,764.77	6,800.37	44.26	28.90	141.39	-1,287.14	339.93	1,363.29	1,297.26	66.03	20.648		
7,400.00	6,863.10	6,839.47	6,875.06	44.70	29.22	131.60	-1,287.96	340.18	1,416.63	1,349.78	66.84	21.193		
7,500.00	6,928.26	6,904.70	6,940.29	45.07	29.49	123.37	-1,288.68	340.39	1,473.38	1,405.76	67.62	21.789		
7,600.00	6,982.42	6,958.85	6,994.44	45.39	29.73	115.86	-1,289.28	340.56	1,533.16	1,464.81	68.35	22.431		
7,700.00	7,024.26	7,000.61	7,036.19	45.67	29.90	108.58	-1,289.75	340.70	1,595.42	1,526.38	69.03	23.111		
7,800.00	7,052.75	7,028.92	7,064.50	45.92	30.02	101.30	-1,290.06	340.79	1,659.40	1,589.73	69.67	23.818		
7,900.00	7,067.18	7,043.11	7,078.69	46.16	30.08	94.04	-1,290.22	340.84	1,724.11	1,653.85	70.25	24.542		
8,000.00	7,068.85	7,044.48	7,080.06	46.42	30.09	90.33	-1,290.23	340.84	1,788.83	1,718.05	70.78	25.273		
8,100.00	7,068.56	7,043.86	7,079.44	46.78	30.09	90.30	-1,290.22	340.84	1,856.12	1,784.81	71.31	26.027		
8,200.00	7,068.26	7,043.25	7,078.83	47.29	30.08	90.28	-1,290.22	340.84	1,926.26	1,854.41	71.85	26.810		
8,300.00	7,067.96	7,042.63	7,078.21	48.03	30.08	90.25	-1,290.21	340.83	1,998.94	1,926.57	72.38	27.619		
8,400.00	7,067.66	7,042.02	7,077.60	49.02	30.08	90.22	-1,290.20	340.83	2,073.90	2,001.01	72.89	28.454		
8,500.00	7,067.37	7,041.40	7,076.98	50.27	30.08	90.20	-1,290.20	340.83	2,150.90	2,077.52	73.38	29.312		
8,600.00	7,067.07	7,040.79	7,076.37	51.75	30.07	90.17	-1,290.19	340.83	2,229.72	2,155.87	73.85	30.193		
8,700.00	7,066.77	7,040.17	7,075.75	53.42	30.07	90.14	-1,290.18	340.83	2,310.18	2,235.88	74.30	31.093		
8,800.00	7,066.47	7,039.56	7,075.14	55.24	30.07	90.12	-1,290.18	340.82	2,392.11	2,317.39	74.72	32.013		
8,900.00	7,066.18	7,038.94	7,074.52	57.18	30.07	90.09	-1,290.17	340.82	2,475.38	2,400.25	75.13	32.950		
9,000.00	7,065.88	7,038.33	7,073.91	59.21	30.06	90.07	-1,290.16	340.82	2,559.84	2,484.33	75.51	33.902		
9,100.00	7,065.58	7,037.71	7,073.29	61.33	30.06	90.04	-1,290.16	340.82	2,645.39	2,569.52	75.87	34.870		
9,200.00	7,065.28	7,037.10	7,072.68	63.51	30.06	90.01	-1,290.15	340.82	2,731.91	2,655.71	76.20	35.850		
9,300.00	7,064.99	7,036.48	7,072.06	65.76	30.06	89.99	-1,290.14	340.81	2,819.33	2,742.81	76.52	36.842		
9,400.00	7,064.69	7,035.87	7,071.45	68.06	30.05	89.96	-1,290.14	340.81	2,907.56	2,830.73	76.83	37.846		
9,500.00	7,064.39	7,035.25	7,070.83	70.40	30.05	89.94	-1,290.13	340.81	2,996.53	2,919.42	77.11	38.859		
9,600.00	7,064.09	7,034.64	7,070.22	72.78	30.05	89.91	-1,290.12	340.81	3,086.17	3,008.79	77.38	39.882		
9,700.00	7,063.80	7,034.02	7,069.60	75.20	30.05	89.88	-1,290.11	340.81	3,176.44	3,098.80	77.64	40.913		
9,800.00	7,063.50	7,033.41	7,068.99	77.65	30.04	89.86	-1,290.11	340.80	3,267.27	3,189.38	77.88	41.952		
9,900.00	7,063.20	7,032.79	7,068.37	80.13	30.04	89.83	-1,290.10	340.80	3,358.62	3,280.50	78.11	42.998		
10,000.00	7,062.90	7,032.18	7,067.76	82.64	30.04	89.80	-1,290.09	340.80	3,450.45	3,372.12	78.33	44.050		
10,100.00	7,062.61	7,031.56	7,067.14	85.17	30.03	89.78	-1,290.09	340.80	3,542.72	3,464.18	78.54	45.108		
10,200.00	7,062.31	7,030.95	7,066.53	87.72	30.03	89.75	-1,290.08	340.80	3,635.40	3,556.66	78.74	46.172		
10,300.00	7,062.01	7,030.33	7,065.91	90.28	30.03	89.73	-1,290.07	340.79	3,728.46	3,649.53	78.93	47.240		
10,400.00	7,061.71	7,029.72	7,065.30	92.87	30.03	89.70	-1,290.07	340.79	3,821.87	3,742.76	79.11	48.313		
10,500.00	7,061.41	7,029.10	7,064.68	95.47	30.02	89.67	-1,290.06	340.79	3,915.60	3,836.32	79.28	49.390		
10,600.00	7,061.12	7,028.49	7,064.07	98.09	30.02	89.65	-1,290.05	340.79	4,009.64	3,930.20	79.45	50.470		
10,700.00	7,060.82	7,027.87	7,063.46	100.72	30.02	89.62	-1,290.05	340.79	4,103.96	4,024.36	79.61	51.554		
10,800.00	7,060.52	7,027.26	7,062.84	103.37	30.02	89.60	-1,290.04	340.78	4,198.54	4,118.78	79.76	52.641		
10,900.00	7,060.22	7,026.64	7,062.23	106.02	30.01	89.57	-1,290.03	340.78	4,293.37	4,213.47	79.91	53.731		
11,000.00	7,059.93	7,026.03	7,061.61	108.69	30.01	89.54	-1,290.03	340.78	4,388.43	4,308.38	80.05	54.823		
11,100.00	7,059.63	7,025.41	7,061.00	111.36	30.01	89.52	-1,290.02	340.78	4,483.70	4,403.52	80.18	55.917		
11,200.00	7,059.33	7,024.80	7,060.38	114.05	30.01	89.49	-1,290.01	340.78	4,579.17	4,498.86	80.32	57.014		
11,300.00	7,059.03	7,024.18	7,059.77	116.74	30.00	89.46	-1,290.01	340.77	4,674.84	4,594.39	80.45	58.112		
11,400.00	7,058.74	7,023.57	7,059.15	119.44	30.00	89.44	-1,290.00	340.77	4,770.68	4,690.11	80.57	59.212		
11,500.00	7,058.44	7,022.95	7,058.54	122.15	30.00	89.41	-1,289.99	340.77	4,866.69	4,786.00	80.69	60.313		
11,600.00	7,058.14	7,022.34	7,057.92	124.86	30.00	89.39	-1,289.99	340.77	4,962.85	4,882.04	80.81	61.416		
11,700.00	7,057.84	7,021.72	7,057.31	127.58	29.99	89.36	-1,289.98	340.77	5,059.17	4,978.24	80.92	62.520		
11,800.00	7,057.55	7,021.11	7,056.69	130.31	29.99	89.33	-1,289.97	340.76	5,155.62	5,074.59	81.03	63.624		
11,900.00	7,057.25	7,020.49	7,056.08	133.04	29.99	89.31	-1,289.97	340.76	5,252.21	5,171.07	81.14	64.730		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
12,000.00	7,056.95	7,019.88	7,055.46	135.78	29.98	89.28	-1,289.96	340.76	5,348.92	5,267.67	81.25	65.836		
12,100.00	7,056.65	7,019.27	7,054.85	138.52	29.98	89.26	-1,289.95	340.76	5,445.75	5,364.40	81.35	66.942		
12,200.00	7,056.36	7,018.65	7,054.23	141.27	29.98	89.23	-1,289.94	340.76	5,542.70	5,461.24	81.45	68.049		
12,300.00	7,056.06	7,018.04	7,053.62	144.02	29.98	89.20	-1,289.94	340.75	5,639.75	5,558.20	81.55	69.157		
12,400.00	7,055.76	7,017.42	7,053.00	146.78	29.97	89.18	-1,289.93	340.75	5,736.90	5,655.25	81.65	70.264		
12,500.00	7,055.46	7,016.81	7,052.39	149.54	29.97	89.15	-1,289.92	340.75	5,834.14	5,752.40	81.74	71.372		
12,600.00	7,055.17	7,016.19	7,051.77	152.30	29.97	89.13	-1,289.92	340.75	5,931.48	5,849.65	81.84	72.480		
12,700.00	7,054.87	7,015.58	7,051.16	155.07	29.97	89.10	-1,289.91	340.75	6,028.91	5,946.98	81.93	73.588		
12,800.00	7,054.57	7,014.96	7,050.54	157.84	29.96	89.07	-1,289.90	340.74	6,126.42	6,044.40	82.02	74.695		
12,900.00	7,054.27	7,014.35	7,049.93	160.61	29.96	89.05	-1,289.90	340.74	6,224.01	6,141.90	82.11	75.802		
13,000.00	7,053.97	7,013.73	7,049.31	163.39	29.96	89.02	-1,289.89	340.74	6,321.67	6,239.47	82.20	76.909		
13,100.00	7,053.68	7,013.12	7,048.70	166.17	29.96	88.99	-1,289.88	340.74	6,419.41	6,337.12	82.28	78.016		
13,200.00	7,053.38	7,012.50	7,048.08	168.95	29.95	88.97	-1,289.88	340.74	6,517.21	6,434.84	82.37	79.122		
13,300.00	7,053.08	7,011.89	7,047.47	171.73	29.95	88.94	-1,289.87	340.73	6,615.08	6,532.62	82.45	80.227		
13,400.00	7,052.78	7,011.27	7,046.85	174.52	29.95	88.92	-1,289.86	340.73	6,713.01	6,630.47	82.54	81.332		
13,500.00	7,052.49	7,010.66	7,046.24	177.31	29.95	88.89	-1,289.86	340.73	6,811.00	6,728.38	82.62	82.436		
13,600.00	7,052.19	7,010.04	7,045.62	180.10	29.94	88.86	-1,289.85	340.73	6,909.05	6,826.35	82.70	83.539		
13,700.00	7,051.89	7,009.43	7,045.01	182.90	29.94	88.84	-1,289.84	340.73	7,007.16	6,924.37	82.79	84.642		
13,800.00	7,051.59	7,008.81	7,044.39	185.69	29.94	88.81	-1,289.84	340.72	7,105.32	7,022.45	82.87	85.744		
13,900.00	7,051.30	7,008.20	7,043.78	188.49	29.94	88.79	-1,289.83	340.72	7,203.52	7,120.58	82.95	86.845		
14,000.00	7,051.00	7,007.58	7,043.17	191.29	29.93	88.76	-1,289.82	340.72	7,301.78	7,218.75	83.03	87.945		
14,100.00	7,050.70	7,006.97	7,042.55	194.09	29.93	88.73	-1,289.82	340.72	7,400.09	7,316.98	83.11	89.044		
14,200.00	7,050.40	7,006.35	7,041.94	196.89	29.93	88.71	-1,289.81	340.72	7,498.43	7,415.25	83.19	90.141		
14,300.00	7,050.11	7,005.74	7,041.32	199.70	29.92	88.68	-1,289.80	340.71	7,596.82	7,513.56	83.26	91.238		
14,400.00	7,049.81	7,005.12	7,040.71	202.50	29.92	88.65	-1,289.80	340.71	7,695.26	7,611.92	83.34	92.334		
14,500.00	7,049.51	7,004.51	7,040.09	205.31	29.92	88.63	-1,289.79	340.71	7,793.73	7,710.31	83.42	93.428		
14,600.00	7,049.21	7,003.89	7,039.48	208.12	29.92	88.60	-1,289.78	340.71	7,892.24	7,808.74	83.50	94.521		
14,700.00	7,048.92	7,003.28	7,038.86	210.93	29.91	88.58	-1,289.77	340.71	7,990.79	7,907.22	83.57	95.613		
14,800.00	7,048.62	7,002.66	7,038.25	213.74	29.91	88.55	-1,289.77	340.70	8,089.37	8,005.72	83.65	96.704		
14,900.00	7,048.32	7,002.05	7,037.63	216.55	29.91	88.52	-1,289.76	340.70	8,187.99	8,104.26	83.73	97.793		
15,000.00	7,048.02	7,001.43	7,037.02	219.37	29.91	88.50	-1,289.75	340.70	8,286.64	8,202.84	83.80	98.881		
15,100.00	7,047.73	7,000.82	7,036.40	222.18	29.90	88.47	-1,289.75	340.70	8,385.32	8,301.44	83.88	99.967		
15,200.00	7,047.43	7,000.20	7,035.79	225.00	29.90	88.45	-1,289.74	340.70	8,484.04	8,400.08	83.96	101.052		
15,300.00	7,047.13	6,999.59	7,035.17	227.81	29.90	88.42	-1,289.73	340.69	8,582.78	8,498.75	84.03	102.136		
15,343.67	7,047.00	6,999.32	7,034.90	229.04	29.90	88.41	-1,289.73	340.69	8,625.92	8,541.85	84.07	102.609		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	68.00	3.28	3.28	172.24	-4,019.38	548.03	4,057.14				
100.00	100.00	31.38	99.38	3.28	3.28	172.24	-4,019.38	548.01	4,056.57	4,050.00	6.57	617.872	
200.00	200.00	127.05	195.05	3.34	3.30	172.24	-4,019.46	547.80	4,056.62	4,049.98	6.63	611.527	
300.00	299.98	217.95	285.95	3.44	3.36	-11.18	-4,019.71	547.53	4,055.15	4,048.35	6.80	596.530	
400.00	399.84	313.14	381.13	3.59	3.47	-11.21	-4,020.13	547.45	4,050.43	4,043.37	7.06	573.720	
500.00	499.45	415.10	483.09	3.79	3.63	-11.26	-4,020.56	547.49	4,042.30	4,034.88	7.43	544.374	
600.00	598.70	513.23	581.22	4.03	3.83	-11.34	-4,020.98	547.49	4,030.77	4,022.90	7.87	512.325	
700.00	697.47	615.38	683.37	4.31	4.08	-11.44	-4,021.42	547.24	4,015.82	4,007.43	8.39	478.659	
800.00	795.62	717.25	785.25	4.64	4.35	-11.57	-4,021.78	546.75	3,997.39	3,988.41	8.97	445.529	
900.00	893.06	808.40	876.39	5.00	4.62	-11.70	-4,022.20	546.06	3,975.67	3,966.10	9.57	415.250	
1,000.00	989.64	908.20	976.18	5.40	4.93	-11.87	-4,022.73	545.01	3,950.67	3,940.43	10.24	385.662	
1,100.00	1,085.27	986.16	1,054.14	5.83	5.18	-12.05	-4,023.35	543.93	3,922.58	3,911.70	10.88	360.535	
1,200.00	1,179.82	1,071.16	1,139.11	6.29	5.47	-12.25	-4,024.35	542.52	3,891.57	3,880.00	11.57	336.412	
1,300.00	1,273.17	1,160.75	1,228.69	6.79	5.78	-12.49	-4,025.60	540.93	3,857.51	3,845.22	12.30	313.686	
1,400.00	1,365.46	1,258.69	1,326.60	7.32	6.14	-12.66	-4,026.97	539.11	3,820.86	3,807.79	13.08	292.183	
1,500.00	1,457.65	1,358.45	1,426.32	7.87	6.50	-12.76	-4,028.20	537.02	3,783.76	3,769.89	13.87	272.777	
1,600.00	1,549.83	1,452.54	1,520.39	8.43	6.85	-12.85	-4,029.24	535.06	3,746.57	3,731.90	14.66	255.503	
1,700.00	1,642.02	1,541.35	1,609.17	9.01	7.19	-12.95	-4,030.24	533.28	3,709.41	3,693.96	15.45	240.060	
1,800.00	1,734.21	1,636.06	1,703.86	9.59	7.56	-13.06	-4,031.40	531.50	3,672.38	3,656.11	16.27	225.671	
1,900.00	1,826.39	1,735.53	1,803.31	10.18	7.94	-13.17	-4,032.33	529.62	3,635.07	3,617.95	17.12	212.319	
2,000.00	1,918.58	1,818.51	1,886.27	10.78	8.27	-13.27	-4,033.20	528.24	3,597.93	3,580.01	17.92	200.753	
2,100.00	2,010.77	1,907.78	1,975.53	11.39	8.62	-13.38	-4,034.28	526.78	3,560.95	3,542.20	18.75	189.886	
2,200.00	2,102.95	1,994.54	2,062.27	11.99	8.97	-13.49	-4,035.47	525.24	3,524.10	3,504.52	19.58	179.952	
2,300.00	2,195.14	2,079.47	2,147.17	12.61	9.31	-13.59	-4,036.82	523.64	3,487.45	3,467.04	20.42	170.827	
2,400.00	2,287.32	2,171.75	2,239.42	13.22	9.68	-13.70	-4,038.42	521.87	3,450.95	3,429.67	21.28	162.195	
2,500.00	2,379.51	2,292.63	2,360.26	13.84	10.17	-13.86	-4,040.10	519.60	3,414.17	3,391.93	22.23	153.571	
2,600.00	2,471.70	2,426.10	2,493.71	14.46	10.71	-14.05	-4,040.43	517.51	3,376.39	3,353.17	23.22	145.391	
2,700.00	2,563.88	2,546.93	2,614.53	15.08	11.20	-14.23	-4,039.21	515.74	3,337.44	3,313.27	24.17	138.067	
2,800.00	2,656.07	2,639.67	2,707.25	15.71	11.58	-14.38	-4,038.01	514.32	3,298.30	3,273.25	25.04	131.702	
2,900.00	2,748.26	2,730.53	2,798.09	16.33	11.96	-14.52	-4,036.83	512.81	3,259.15	3,233.24	25.91	125.773	
3,000.00	2,840.44	2,818.96	2,886.50	16.96	12.32	-14.66	-4,035.75	511.24	3,220.10	3,193.32	26.78	120.246	
3,100.00	2,932.63	2,909.78	2,977.30	17.59	12.70	-14.80	-4,034.77	509.58	3,181.12	3,153.46	27.66	115.028	
3,200.00	3,024.81	2,996.48	3,063.98	18.22	13.06	-14.95	-4,033.90	507.93	3,142.25	3,113.72	28.52	110.163	
3,300.00	3,117.00	3,093.21	3,160.68	18.86	13.46	-15.10	-4,032.96	506.00	3,103.40	3,073.99	29.42	105.487	
3,400.00	3,209.19	3,190.33	3,257.78	19.49	13.86	-15.27	-4,031.84	504.06	3,064.42	3,034.10	30.32	101.075	
3,500.00	3,301.37	3,273.81	3,341.23	20.12	14.21	-15.42	-4,030.90	502.45	3,025.49	2,994.30	31.19	97.010	
3,600.00	3,393.56	3,357.39	3,424.80	20.76	14.56	-15.56	-4,030.22	500.73	2,986.85	2,954.79	32.06	93.163	
3,700.00	3,485.75	3,443.65	3,511.03	21.39	14.92	-15.71	-4,029.80	498.68	2,948.45	2,915.51	32.94	89.503	
3,800.00	3,577.93	3,531.36	3,598.71	22.03	15.29	-15.86	-4,029.55	496.35	2,910.22	2,876.39	33.83	86.024	
3,900.00	3,670.12	3,619.17	3,686.49	22.67	15.66	-16.01	-4,029.44	494.12	2,872.16	2,837.44	34.72	82.721	
4,000.00	3,762.30	3,710.08	3,777.38	23.30	16.04	-16.19	-4,029.30	492.21	2,834.19	2,798.57	35.62	79.568	
4,100.00	3,854.49	3,797.25	3,864.53	23.94	16.40	-16.36	-4,029.27	490.43	2,796.35	2,759.84	36.51	76.584	
4,200.00	3,946.68	3,890.84	3,958.10	24.58	16.80	-16.54	-4,029.30	488.57	2,758.60	2,721.18	37.42	73.718	
4,300.00	4,038.86	3,984.38	4,051.63	25.22	17.19	-16.74	-4,029.21	486.97	2,720.83	2,682.50	38.33	70.985	
4,400.00	4,131.05	4,076.07	4,143.31	25.86	17.58	-16.95	-4,029.07	485.60	2,683.07	2,643.83	39.24	68.382	
4,500.00	4,223.24	4,170.05	4,237.29	26.50	17.97	-17.18	-4,028.75	484.95	2,645.33	2,605.18	40.15	65.887	
4,600.00	4,315.42	4,270.19	4,337.42	27.14	18.39	-17.47	-4,027.96	485.46	2,607.48	2,566.41	41.07	63.485	
4,700.00	4,407.61	4,384.17	4,451.39	27.78	18.86	-17.82	-4,026.34	486.32	2,569.17	2,527.16	42.01	61.156	
4,800.00	4,499.79	4,476.60	4,543.80	28.42	19.25	-18.12	-4,024.48	487.00	2,530.37	2,487.45	42.92	58.950	
4,900.00	4,591.98	4,556.35	4,623.53	29.06	19.58	-18.38	-4,023.05	487.67	2,491.85	2,448.02	43.83	56.852	
5,000.00	4,684.17	4,631.26	4,698.43	29.70	19.90	-18.63	-4,022.21	488.07	2,453.94	2,409.20	44.74	54.853	
5,100.00	4,776.35	4,704.94	4,772.11	30.34	20.21	-18.87	-4,021.99	488.42	2,416.78	2,371.14	45.64	52.947	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,797.44	4,864.61	30.98	20.59	-19.18	-4,022.03	488.91	2,380.01	2,333.44	46.57	51.104		
5,300.00	4,960.73	4,890.29	4,957.46	31.63	20.98	-19.50	-4,022.08	489.27	2,343.28	2,295.78	47.50	49.331		
5,400.00	5,052.91	4,981.54	5,048.71	32.27	21.36	-19.82	-4,022.17	489.50	2,306.63	2,258.19	48.43	47.626		
5,500.00	5,145.10	5,075.02	5,142.19	32.91	21.76	-20.17	-4,022.21	489.96	2,270.04	2,220.67	49.37	45.983		
5,600.00	5,237.28	5,172.24	5,239.40	33.55	22.16	-20.54	-4,022.06	490.60	2,233.41	2,183.10	50.30	44.398		
5,700.00	5,329.47	5,280.41	5,347.57	34.20	22.62	-20.98	-4,021.38	491.40	2,196.45	2,145.21	51.24	42.863		
5,800.00	5,421.66	5,381.84	5,448.98	34.84	23.05	-21.43	-4,019.88	492.63	2,158.95	2,106.76	52.18	41.374		
5,900.00	5,513.84	5,517.43	5,584.45	35.48	23.62	-22.13	-4,015.67	496.34	2,120.57	2,067.47	53.10	39.936		
6,000.00	5,606.03	5,582.79	5,649.74	36.13	23.90	-22.49	-4,013.43	498.29	2,081.98	2,027.91	54.07	38.504		
6,100.00	5,698.22	5,658.24	5,725.15	36.77	24.22	-22.90	-4,011.52	500.09	2,044.22	1,989.18	55.04	37.141		
6,200.00	5,790.40	5,737.57	5,804.45	37.41	24.55	-23.31	-4,010.32	501.32	2,007.25	1,951.24	56.01	35.839		
6,300.00	5,882.59	5,822.42	5,889.30	38.06	24.91	-23.74	-4,009.69	501.89	1,970.82	1,913.85	56.97	34.592		
6,400.00	5,974.77	5,913.53	5,980.40	38.70	25.30	-24.20	-4,009.33	502.17	1,934.70	1,876.76	57.94	33.393		
6,500.00	6,066.96	6,014.78	6,081.66	39.34	25.73	-24.73	-4,008.74	502.22	1,898.46	1,839.57	58.89	32.237		
6,600.00	6,159.15	6,102.51	6,169.38	39.99	26.10	-25.20	-4,008.22	502.10	1,862.28	1,802.41	59.87	31.107		
6,700.00	6,251.33	6,200.67	6,267.55	40.63	26.51	-25.75	-4,007.54	501.91	1,826.11	1,765.28	60.83	30.019		
6,800.00	6,343.52	6,297.11	6,363.97	41.28	26.92	-26.31	-4,006.59	501.65	1,789.82	1,728.02	61.80	28.961		
6,900.00	6,435.71	6,384.32	6,451.19	41.92	27.29	-26.84	-4,005.72	501.44	1,753.66	1,690.86	62.79	27.927		
7,000.00	6,527.86	6,475.93	6,542.79	42.56	27.68	-35.49	-4,005.00	501.13	1,718.14	1,654.35	63.79	26.935		
7,100.00	6,618.85	6,566.20	6,633.05	43.19	28.07	-57.51	-4,004.38	500.59	1,687.89	1,623.04	64.85	26.029		
7,200.00	6,706.47	6,654.73	6,721.58	43.76	28.44	-73.95	-4,003.63	500.42	1,665.64	1,599.68	65.95	25.256		
7,300.00	6,788.56	6,739.76	6,806.60	44.26	28.80	-85.48	-4,002.59	500.67	1,652.85	1,585.77	67.08	24.639		
7,366.61	6,839.17	6,793.36	6,860.20	44.55	29.03	-91.07	-4,001.90	500.62	1,650.30	1,582.45	67.85	24.324 CC, ES		
7,400.00	6,863.10	6,817.35	6,884.19	44.70	29.13	-93.32	-4,001.59	500.54	1,650.97	1,582.73	68.24	24.194		
7,500.00	6,928.26	6,881.23	6,948.06	45.07	29.41	-98.22	-4,000.79	500.35	1,661.37	1,591.94	69.43	23.928		
7,600.00	6,982.42	6,931.78	6,998.61	45.39	29.62	-100.65	-4,000.15	500.31	1,684.81	1,614.16	70.65	23.847 SF		
7,700.00	7,024.26	6,968.89	7,035.72	45.67	29.78	-100.77	-3,999.63	500.51	1,721.33	1,649.45	71.88	23.947		
7,800.00	7,052.75	6,993.22	7,060.04	45.92	29.88	-98.52	-3,999.26	500.77	1,770.10	1,697.03	73.07	24.223		
7,900.00	7,067.18	7,004.52	7,071.34	46.16	29.93	-93.66	-3,999.09	500.92	1,829.55	1,755.36	74.19	24.660		
8,000.00	7,068.85	7,004.77	7,071.59	46.42	29.93	-89.95	-3,999.08	500.92	1,897.08	1,821.89	75.19	25.230		
8,100.00	7,068.56	7,003.37	7,070.19	46.78	29.92	-89.89	-3,999.10	500.90	1,967.99	1,891.84	76.15	25.844		
8,200.00	7,068.26	7,001.98	7,068.80	47.29	29.92	-89.83	-3,999.13	500.88	2,041.33	1,964.27	77.07	26.488		
8,300.00	7,067.96	7,000.60	7,067.42	48.03	29.91	-89.77	-3,999.15	500.86	2,116.86	2,038.92	77.94	27.160		
8,400.00	7,067.66	7,000.01	7,066.83	49.02	29.91	-89.75	-3,999.16	500.86	2,194.34	2,115.57	78.77	27.858		
8,500.00	7,067.37	6,997.92	7,064.74	50.27	29.90	-89.66	-3,999.19	500.83	2,273.58	2,194.03	79.55	28.581		
8,600.00	7,067.07	6,996.64	7,063.46	51.75	29.90	-89.61	-3,999.21	500.81	2,354.40	2,274.12	80.28	29.326		
8,700.00	7,066.77	6,995.39	7,062.21	53.42	29.89	-89.56	-3,999.23	500.79	2,436.65	2,355.68	80.97	30.093		
8,800.00	7,066.47	6,994.16	7,060.98	55.24	29.89	-89.50	-3,999.25	500.78	2,520.18	2,438.56	81.62	30.879		
8,900.00	7,066.18	6,992.97	7,059.79	57.18	29.88	-89.45	-3,999.27	500.76	2,604.86	2,522.64	82.22	31.682		
9,000.00	7,065.88	6,991.81	7,058.63	59.21	29.88	-89.40	-3,999.28	500.75	2,690.60	2,607.82	82.78	32.502		
9,100.00	7,065.58	6,990.67	7,057.50	61.33	29.87	-89.36	-3,999.30	500.74	2,777.29	2,693.98	83.31	33.336		
9,200.00	7,065.28	6,989.57	7,056.39	63.51	29.87	-89.31	-3,999.32	500.72	2,864.85	2,781.04	83.81	34.184		
9,300.00	7,064.99	6,988.48	7,055.30	65.76	29.86	-89.26	-3,999.34	500.71	2,953.20	2,868.93	84.27	35.044		
9,400.00	7,064.69	6,987.42	7,054.25	68.06	29.86	-89.22	-3,999.35	500.70	3,042.27	2,957.56	84.71	35.915		
9,500.00	7,064.39	6,986.39	7,053.21	70.40	29.85	-89.18	-3,999.37	500.69	3,131.99	3,046.88	85.12	36.797		
9,600.00	7,064.09	6,985.38	7,052.20	72.78	29.85	-89.13	-3,999.38	500.68	3,222.33	3,136.83	85.50	37.687		
9,700.00	7,063.80	6,984.39	7,051.21	75.20	29.84	-89.09	-3,999.40	500.67	3,313.21	3,227.35	85.86	38.586		
9,800.00	7,063.50	6,983.42	7,050.24	77.65	29.84	-89.05	-3,999.41	500.65	3,404.61	3,318.41	86.21	39.493		
9,900.00	7,063.20	6,982.47	7,049.30	80.13	29.84	-89.01	-3,999.43	500.64	3,496.48	3,409.95	86.53	40.407		
10,000.00	7,062.90	6,981.55	7,048.37	82.64	29.83	-88.97	-3,999.44	500.63	3,588.78	3,501.95	86.84	41.328		
10,100.00	7,062.61	6,980.64	7,047.46	85.17	29.83	-88.94	-3,999.46	500.63	3,681.49	3,594.36	87.13	42.255		
10,200.00	7,062.31	6,979.75	7,046.58	87.72	29.82	-88.90	-3,999.47	500.62	3,774.57	3,687.17	87.40	43.187		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	6,978.88	7,045.71	90.28	29.82	-88.86	-3,999.48	500.61	3,867.99	3,780.33	87.66	44.124		
10,400.00	7,061.71	6,978.03	7,044.85	92.87	29.82	-88.83	-3,999.49	500.60	3,961.73	3,873.82	87.91	45.066		
10,500.00	7,061.41	6,977.20	7,044.02	95.47	29.81	-88.79	-3,999.51	500.59	4,055.77	3,967.63	88.15	46.012		
10,600.00	7,061.12	6,976.38	7,043.20	98.09	29.81	-88.76	-3,999.52	500.58	4,150.09	4,061.72	88.37	46.962		
10,700.00	7,060.82	6,975.58	7,042.40	100.72	29.81	-88.72	-3,999.53	500.57	4,244.67	4,156.09	88.59	47.915		
10,800.00	7,060.52	6,974.79	7,041.62	103.37	29.80	-88.69	-3,999.54	500.57	4,339.50	4,250.70	88.79	48.872		
10,900.00	7,060.22	6,974.02	7,040.85	106.02	29.80	-88.66	-3,999.55	500.56	4,434.55	4,345.56	88.99	49.832		
11,000.00	7,059.93	6,973.27	7,040.09	108.69	29.80	-88.63	-3,999.57	500.55	4,529.81	4,440.63	89.18	50.794		
11,100.00	7,059.63	6,972.53	7,039.35	111.36	29.79	-88.59	-3,999.58	500.55	4,625.27	4,535.91	89.36	51.760		
11,200.00	7,059.33	6,971.80	7,038.62	114.05	29.79	-88.56	-3,999.59	500.54	4,720.92	4,631.39	89.54	52.727		
11,300.00	7,059.03	6,971.09	7,037.91	116.74	29.79	-88.53	-3,999.60	500.53	4,816.75	4,727.05	89.70	53.696		
11,400.00	7,058.74	6,970.39	7,037.21	119.44	29.78	-88.50	-3,999.61	500.53	4,912.74	4,822.88	89.87	54.668		
11,500.00	7,058.44	6,969.70	7,036.52	122.15	29.78	-88.48	-3,999.62	500.52	5,008.89	4,918.87	90.02	55.641		
11,600.00	7,058.14	6,969.02	7,035.85	124.86	29.78	-88.45	-3,999.63	500.52	5,105.19	5,015.02	90.17	56.616		
11,700.00	7,057.84	6,968.36	7,035.19	127.58	29.78	-88.42	-3,999.64	500.51	5,201.63	5,111.31	90.32	57.592		
11,800.00	7,057.55	6,967.71	7,034.54	130.31	29.77	-88.39	-3,999.65	500.50	5,298.20	5,207.73	90.46	58.569		
11,900.00	7,057.25	6,967.07	7,033.90	133.04	29.77	-88.37	-3,999.66	500.50	5,394.89	5,304.29	90.60	59.548		
12,000.00	7,056.95	6,966.45	7,033.27	135.78	29.77	-88.34	-3,999.67	500.49	5,491.70	5,400.97	90.73	60.527		
12,100.00	7,056.65	6,965.83	7,032.65	138.52	29.76	-88.31	-3,999.68	500.49	5,588.63	5,497.77	90.86	61.508		
12,200.00	7,056.36	6,965.22	7,032.05	141.27	29.76	-88.29	-3,999.68	500.48	5,685.66	5,594.67	90.99	62.489		
12,300.00	7,056.06	6,964.63	7,031.45	144.02	29.76	-88.26	-3,999.69	500.48	5,782.79	5,691.68	91.11	63.471		
12,400.00	7,055.76	6,964.04	7,030.87	146.78	29.76	-88.24	-3,999.70	500.48	5,880.02	5,788.79	91.23	64.454		
12,500.00	7,055.46	6,963.47	7,030.29	149.54	29.75	-88.21	-3,999.71	500.47	5,977.34	5,885.99	91.34	65.437		
12,600.00	7,055.17	6,962.90	7,029.73	152.30	29.75	-88.19	-3,999.72	500.47	6,074.74	5,983.28	91.46	66.420		
12,700.00	7,054.87	6,962.34	7,029.17	155.07	29.75	-88.17	-3,999.73	500.46	6,172.23	6,080.66	91.57	67.404		
12,800.00	7,054.57	6,961.80	7,028.62	157.84	29.75	-88.14	-3,999.73	500.46	6,269.80	6,178.12	91.68	68.389		
12,900.00	7,054.27	6,961.26	7,028.08	160.61	29.75	-88.12	-3,999.74	500.45	6,367.44	6,275.66	91.79	69.373		
13,000.00	7,053.97	6,960.73	7,027.56	163.39	29.74	-88.10	-3,999.75	500.45	6,465.16	6,373.27	91.89	70.357		
13,100.00	7,053.68	6,960.21	7,027.03	166.17	29.74	-88.08	-3,999.76	500.45	6,562.94	6,470.95	91.99	71.342		
13,200.00	7,053.38	6,959.69	7,026.52	168.95	29.74	-88.06	-3,999.76	500.44	6,660.79	6,568.70	92.09	72.326		
13,300.00	7,053.08	6,959.19	7,026.02	171.73	29.74	-88.03	-3,999.77	500.44	6,758.70	6,666.51	92.19	73.311		
13,400.00	7,052.78	6,958.69	7,025.52	174.52	29.73	-88.01	-3,999.78	500.44	6,856.68	6,764.39	92.29	74.295		
13,500.00	7,052.49	6,958.20	7,025.03	177.31	29.73	-87.99	-3,999.79	500.43	6,954.71	6,862.32	92.39	75.279		
13,600.00	7,052.19	6,957.72	7,024.55	180.10	29.73	-87.97	-3,999.79	500.43	7,052.79	6,960.31	92.48	76.263		
13,700.00	7,051.89	6,957.25	7,024.08	182.90	29.73	-87.95	-3,999.80	500.43	7,150.93	7,058.36	92.57	77.247		
13,800.00	7,051.59	6,956.78	7,023.61	185.69	29.73	-87.93	-3,999.81	500.42	7,249.12	7,156.46	92.66	78.230		
13,900.00	7,051.30	6,956.32	7,023.15	188.49	29.72	-87.91	-3,999.81	500.42	7,347.36	7,254.60	92.75	79.213		
14,000.00	7,051.00	6,955.87	7,022.70	191.29	29.72	-87.90	-3,999.82	500.42	7,445.64	7,352.80	92.84	80.195		
14,100.00	7,050.70	6,955.42	7,022.25	194.09	29.72	-87.88	-3,999.83	500.41	7,543.97	7,451.04	92.93	81.177		
14,200.00	7,050.40	6,954.98	7,021.81	196.89	29.72	-87.86	-3,999.83	500.41	7,642.35	7,549.33	93.02	82.158		
14,300.00	7,050.11	6,954.55	7,021.38	199.70	29.72	-87.84	-3,999.84	500.41	7,740.76	7,647.66	93.11	83.139		
14,400.00	7,049.81	6,954.12	7,020.95	202.50	29.72	-87.82	-3,999.84	500.41	7,839.22	7,746.03	93.19	84.119		
14,500.00	7,049.51	6,953.70	7,020.53	205.31	29.71	-87.80	-3,999.85	500.40	7,937.71	7,844.44	93.28	85.099		
14,600.00	7,049.21	6,953.29	7,020.11	208.12	29.71	-87.79	-3,999.86	500.40	8,036.24	7,942.88	93.36	86.078		
14,700.00	7,048.92	6,952.88	7,019.71	210.93	29.71	-87.77	-3,999.86	500.40	8,134.81	8,041.37	93.44	87.056		
14,800.00	7,048.62	6,952.47	7,019.30	213.74	29.71	-87.75	-3,999.87	500.40	8,233.41	8,139.88	93.53	88.033		
14,900.00	7,048.32	6,952.08	7,018.90	216.55	29.71	-87.74	-3,999.87	500.39	8,332.04	8,238.44	93.61	89.010		
15,000.00	7,048.02	6,951.69	7,018.51	219.37	29.70	-87.72	-3,999.88	500.39	8,430.71	8,337.02	93.69	89.986		
15,100.00	7,047.73	6,951.30	7,018.13	222.18	29.70	-87.70	-3,999.88	500.39	8,529.41	8,435.64	93.77	90.961		
15,200.00	7,047.43	6,950.92	7,017.75	225.00	29.70	-87.69	-3,999.89	500.39	8,628.14	8,534.29	93.85	91.935		
15,300.00	7,047.13	6,950.54	7,017.37	227.81	29.70	-87.67	-3,999.89	500.39	8,726.89	8,632.96	93.93	92.908		
15,343.67	7,047.00	6,950.38	7,017.21	229.04	29.70	-87.67	-3,999.90	500.38	8,770.03	8,676.07	93.97	93.333		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	22.21	-1.79	3.28	3.28	172.24	-4,019.38	548.02	4,056.57					
100.00	100.00	115.60	91.60	3.28	3.29	172.24	-4,019.52	547.92	4,056.70	4,050.13	6.58	616.825		
200.00	200.00	214.77	190.77	3.34	3.36	172.24	-4,019.77	547.80	4,056.94	4,050.24	6.69	606.220		
300.00	299.98	320.57	296.57	3.44	3.48	-11.18	-4,019.95	547.60	4,055.36	4,048.45	6.92	586.148		
400.00	399.84	420.76	396.76	3.59	3.65	-11.21	-4,020.09	547.25	4,050.32	4,043.08	7.24	559.766		
500.00	499.45	522.46	498.46	3.79	3.86	-11.26	-4,020.17	546.94	4,041.80	4,034.16	7.65	528.685		
600.00	598.70	620.21	596.20	4.03	4.09	-11.34	-4,020.27	546.57	4,029.91	4,021.78	8.12	496.196		
700.00	697.47	720.53	696.53	4.31	4.36	-11.44	-4,020.34	546.28	4,014.59	4,005.92	8.67	463.092		
800.00	795.62	815.47	791.47	4.64	4.64	-11.56	-4,020.44	546.08	3,995.95	3,986.70	9.26	431.747		
900.00	893.06	914.26	890.26	5.00	4.95	-11.71	-4,020.56	545.77	3,973.98	3,964.08	9.90	401.470		
1,000.00	989.64	1,009.25	985.24	5.40	5.26	-11.89	-4,020.69	545.49	3,948.70	3,938.13	10.57	373.633		
1,100.00	1,085.27	1,108.65	1,084.64	5.83	5.60	-12.10	-4,020.80	545.22	3,920.11	3,908.83	11.29	347.347		
1,200.00	1,179.82	1,198.70	1,174.69	6.29	5.92	-12.34	-4,020.92	544.89	3,888.30	3,876.30	12.00	324.025		
1,300.00	1,273.17	1,284.89	1,260.89	6.79	6.23	-12.60	-4,021.17	544.53	3,853.41	3,840.69	12.73	302.818		
1,400.00	1,365.46	1,377.65	1,353.65	7.32	6.57	-12.78	-4,021.54	544.09	3,816.04	3,802.54	13.49	282.818		
1,500.00	1,457.65	1,475.58	1,451.57	7.87	6.94	-12.91	-4,021.87	543.54	3,778.34	3,764.06	14.29	264.492		
1,600.00	1,549.83	1,568.39	1,544.38	8.43	7.29	-13.03	-4,022.09	542.91	3,740.56	3,725.48	15.08	248.112		
1,700.00	1,642.02	1,659.85	1,635.84	9.01	7.65	-13.16	-4,022.33	542.32	3,702.82	3,686.94	15.88	233.229		
1,800.00	1,734.21	1,749.92	1,725.90	9.59	8.00	-13.28	-4,022.59	541.75	3,665.12	3,648.43	16.68	219.682		
1,900.00	1,826.39	1,838.28	1,814.26	10.18	8.34	-13.40	-4,022.94	541.09	3,627.52	3,610.02	17.50	207.335		
2,000.00	1,918.58	1,927.38	1,903.35	10.78	8.70	-13.53	-4,023.42	540.30	3,590.04	3,571.72	18.32	195.963		
2,100.00	2,010.77	2,021.15	1,997.12	11.39	9.07	-13.65	-4,023.99	539.24	3,552.61	3,533.44	19.17	185.343		
2,200.00	2,102.95	2,120.93	2,096.88	11.99	9.47	-13.79	-4,024.46	538.04	3,515.06	3,495.01	20.04	175.386		
2,300.00	2,195.14	2,218.51	2,194.45	12.61	9.87	-13.93	-4,024.78	536.74	3,477.37	3,456.46	20.91	166.270		
2,400.00	2,287.32	2,320.80	2,296.73	13.22	10.28	-14.08	-4,024.87	535.39	3,439.48	3,417.67	21.81	157.734		
2,500.00	2,379.51	2,418.27	2,394.20	13.84	10.68	-14.22	-4,024.71	534.17	3,401.39	3,378.70	22.69	149.937		
2,600.00	2,471.70	2,509.49	2,485.42	14.46	11.05	-14.37	-4,024.49	533.20	3,363.28	3,339.73	23.55	142.814		
2,700.00	2,563.88	2,604.17	2,580.09	15.08	11.44	-14.52	-4,024.21	532.36	3,325.16	3,300.73	24.43	136.116		
2,800.00	2,656.07	2,696.07	2,671.99	15.71	11.82	-14.68	-4,023.90	531.58	3,287.03	3,261.72	25.30	129.907		
2,900.00	2,748.26	2,782.61	2,758.52	16.33	12.17	-14.83	-4,023.67	530.84	3,248.99	3,222.83	26.17	124.172		
3,000.00	2,840.44	2,876.72	2,852.63	16.96	12.56	-14.99	-4,023.50	530.11	3,211.06	3,184.01	27.05	118.699		
3,100.00	2,932.63	2,960.79	2,936.70	17.59	12.91	-15.15	-4,023.34	529.57	3,173.17	3,145.25	27.91	113.673		
3,200.00	3,024.81	3,044.55	3,020.45	18.22	13.26	-15.31	-4,023.44	529.17	3,135.61	3,106.83	28.78	108.950		
3,300.00	3,117.00	3,134.74	3,110.65	18.86	13.63	-15.48	-4,023.72	528.72	3,098.24	3,068.57	29.67	104.437		
3,400.00	3,209.19	3,226.70	3,202.61	19.49	14.02	-15.66	-4,023.97	528.22	3,060.86	3,030.31	30.56	100.162		
3,500.00	3,301.37	3,311.06	3,286.97	20.12	14.37	-15.83	-4,024.37	527.73	3,023.69	2,992.25	31.44	96.186		
3,600.00	3,393.56	3,397.75	3,373.65	20.76	14.73	-16.01	-4,024.99	527.17	2,986.74	2,954.42	32.32	92.408		
3,700.00	3,485.75	3,523.53	3,499.43	21.39	15.26	-16.27	-4,025.21	526.53	2,949.35	2,916.06	33.30	88.575		
3,800.00	3,577.93	3,629.89	3,605.78	22.03	15.70	-16.52	-4,024.43	526.40	2,911.26	2,877.03	34.23	85.057		
3,900.00	3,670.12	3,729.45	3,705.34	22.67	16.11	-16.76	-4,023.37	526.18	2,872.88	2,837.74	35.14	81.750		
4,000.00	3,762.30	3,823.99	3,799.87	23.30	16.51	-16.99	-4,022.12	526.00	2,834.33	2,798.28	36.05	78.625		
4,100.00	3,854.49	3,908.10	3,883.98	23.94	16.86	-17.20	-4,021.15	525.75	2,795.94	2,759.00	36.94	75.692		
4,200.00	3,946.68	3,994.74	3,970.61	24.58	17.22	-17.42	-4,020.38	525.41	2,757.80	2,719.96	37.84	72.889		
4,300.00	4,038.86	4,083.28	4,059.15	25.22	17.59	-17.65	-4,019.75	524.96	2,719.84	2,681.10	38.74	70.210		
4,400.00	4,131.05	4,165.03	4,140.89	25.86	17.94	-17.86	-4,019.38	524.45	2,682.13	2,642.50	39.63	67.673		
4,500.00	4,223.24	4,253.16	4,229.02	26.50	18.31	-18.09	-4,019.29	523.93	2,644.79	2,604.25	40.54	65.236		
4,600.00	4,315.42	4,344.47	4,320.33	27.14	18.69	-18.34	-4,019.20	523.42	2,607.49	2,566.04	41.46	62.897		
4,700.00	4,407.61	4,434.71	4,410.57	27.78	19.08	-18.60	-4,019.19	522.97	2,570.33	2,527.96	42.37	60.661		
4,800.00	4,499.79	4,528.06	4,503.92	28.42	19.47	-18.87	-4,019.16	522.57	2,533.22	2,489.93	43.29	58.513		
4,900.00	4,591.98	4,620.57	4,596.42	29.06	19.86	-19.14	-4,019.08	522.13	2,496.10	2,451.89	44.22	56.453		
5,000.00	4,684.17	4,707.73	4,683.58	29.70	20.23	-19.41	-4,019.13	521.66	2,459.15	2,414.01	45.13	54.484		
5,100.00	4,776.35	4,792.70	4,768.55	30.34	20.59	-19.68	-4,019.34	521.45	2,422.48	2,376.42	46.06	52.600		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,884.86	4,860.72	30.98	20.98	-19.99	-4,019.65	521.49	2,386.02	2,339.04	46.98	50.783		
5,300.00	4,960.73	4,977.22	4,953.07	31.63	21.37	-20.31	-4,019.95	521.51	2,349.62	2,301.70	47.92	49.036		
5,400.00	5,052.91	5,067.91	5,043.76	32.27	21.75	-20.63	-4,020.28	521.54	2,313.31	2,264.46	48.85	47.355		
5,500.00	5,145.10	5,158.69	5,134.54	32.91	22.13	-20.97	-4,020.67	521.59	2,277.14	2,227.35	49.79	45.738		
5,600.00	5,237.28	5,252.48	5,228.33	33.55	22.53	-21.32	-4,021.10	521.67	2,241.07	2,190.34	50.73	44.179		
5,700.00	5,329.47	5,346.74	5,322.59	34.20	22.92	-21.69	-4,021.46	521.58	2,204.96	2,153.29	51.67	42.675		
5,800.00	5,421.66	5,438.10	5,413.95	34.84	23.31	-22.05	-4,021.77	521.53	2,168.92	2,116.31	52.61	41.223		
5,900.00	5,513.84	5,536.92	5,512.77	35.48	23.73	-22.46	-4,022.14	521.49	2,132.99	2,079.43	53.56	39.824		
6,000.00	5,606.03	5,643.69	5,619.54	36.13	24.18	-22.94	-4,021.58	521.76	2,096.42	2,041.91	54.51	38.463		
6,100.00	5,698.22	5,732.75	5,708.59	36.77	24.55	-23.35	-4,020.92	521.94	2,059.76	2,004.30	55.46	37.140		
6,200.00	5,790.40	5,816.22	5,792.07	37.41	24.91	-23.74	-4,020.68	521.94	2,023.55	1,967.13	56.42	35.864		
6,300.00	5,882.59	5,905.19	5,881.04	38.06	25.28	-24.17	-4,020.72	521.85	1,987.69	1,930.31	57.39	34.638		
6,400.00	5,974.77	6,000.64	5,976.48	38.70	25.69	-24.64	-4,020.81	521.58	1,951.94	1,893.59	58.35	33.455		
6,500.00	6,066.96	6,090.80	6,066.65	39.34	26.07	-25.09	-4,020.92	521.17	1,916.27	1,856.95	59.32	32.307		
6,600.00	6,159.15	6,183.61	6,159.45	39.99	26.47	-25.57	-4,021.11	520.68	1,880.76	1,820.47	60.29	31.197		
6,700.00	6,251.33	6,284.31	6,260.15	40.63	26.90	-26.11	-4,021.14	520.00	1,845.17	1,783.92	61.25	30.126		
6,800.00	6,343.52	6,382.46	6,358.30	41.28	27.32	-26.65	-4,020.79	519.11	1,809.30	1,747.08	62.22	29.081		
6,900.00	6,435.71	6,474.33	6,450.16	41.92	27.71	-27.18	-4,020.33	518.15	1,773.40	1,710.20	63.20	28.061		
7,000.00	6,527.86	6,570.87	6,546.69	42.56	28.12	-35.84	-4,019.81	517.12	1,737.94	1,673.76	64.18	27.079		
7,100.00	6,618.85	6,663.25	6,639.06	43.19	28.51	-57.86	-4,019.15	515.87	1,707.54	1,642.31	65.23	26.178		
7,200.00	6,706.47	6,751.32	6,727.12	43.76	28.89	-74.24	-4,018.58	514.59	1,685.18	1,618.85	66.33	25.406		
7,300.00	6,788.56	6,838.77	6,814.56	44.26	29.26	-85.75	-4,018.08	512.94	1,672.30	1,604.85	67.45	24.794		
7,370.30	6,841.86	6,899.50	6,875.26	44.57	29.52	-91.67	-4,017.66	511.40	1,669.52	1,601.29	68.23	24.468 CC, ES		
7,400.00	6,863.10	6,922.33	6,898.08	44.70	29.61	-93.68	-4,017.48	510.75	1,670.05	1,601.47	68.58	24.353		
7,500.00	6,928.26	6,992.72	6,968.44	45.07	29.91	-98.75	-4,016.86	508.68	1,679.79	1,610.04	69.74	24.085		
7,600.00	6,982.42	7,055.33	7,031.01	45.39	30.18	-101.56	-4,016.22	506.65	1,702.29	1,631.36	70.93	23.999 SF		
7,700.00	7,024.26	7,105.93	7,081.57	45.67	30.40	-102.20	-4,015.68	504.72	1,737.61	1,665.47	72.14	24.088		
7,800.00	7,052.75	7,137.36	7,112.98	45.92	30.53	-100.38	-4,015.34	503.47	1,785.23	1,711.89	73.34	24.342		
7,900.00	7,067.18	7,155.64	7,131.24	46.16	30.61	-96.02	-4,015.14	502.74	1,843.81	1,769.34	74.47	24.758		
8,000.00	7,068.85	7,161.29	7,136.88	46.42	30.63	-92.66	-4,015.08	502.52	1,910.86	1,835.36	75.50	25.309		
8,100.00	7,068.56	7,164.97	7,140.56	46.78	30.65	-92.82	-4,015.04	502.37	1,981.36	1,904.87	76.49	25.904		
8,200.00	7,068.26	7,168.66	7,144.25	47.29	30.66	-92.97	-4,015.00	502.22	2,054.30	1,976.86	77.44	26.528		
8,300.00	7,067.96	7,172.34	7,147.93	48.03	30.68	-93.12	-4,014.96	502.07	2,129.43	2,051.08	78.35	27.180		
8,400.00	7,067.66	7,176.03	7,151.61	49.02	30.70	-93.27	-4,014.92	501.93	2,206.53	2,127.32	79.21	27.857		
8,500.00	7,067.37	7,179.71	7,155.29	50.27	30.71	-93.43	-4,014.88	501.78	2,285.40	2,205.37	80.03	28.558		
8,600.00	7,067.07	7,183.40	7,158.98	51.75	30.73	-93.58	-4,014.84	501.63	2,365.86	2,285.06	80.80	29.281		
8,700.00	7,066.77	7,187.09	7,162.66	53.42	30.74	-93.73	-4,014.80	501.49	2,447.76	2,366.24	81.52	30.025		
8,800.00	7,066.47	7,190.77	7,166.34	55.24	30.76	-93.88	-4,014.76	501.34	2,530.95	2,448.75	82.21	30.788		
8,900.00	7,066.18	7,194.46	7,170.02	57.18	30.78	-94.04	-4,014.72	501.19	2,615.32	2,532.47	82.85	31.569		
9,000.00	7,065.88	7,198.14	7,173.71	59.21	30.79	-94.19	-4,014.68	501.04	2,700.75	2,617.30	83.45	32.365		
9,100.00	7,065.58	7,201.83	7,177.39	61.33	30.81	-94.34	-4,014.64	500.90	2,787.14	2,703.13	84.01	33.175		
9,200.00	7,065.28	7,205.51	7,181.07	63.51	30.82	-94.49	-4,014.60	500.75	2,874.41	2,789.87	84.54	33.999		
9,300.00	7,064.99	7,209.20	7,184.75	65.76	30.84	-94.65	-4,014.56	500.60	2,962.48	2,877.44	85.04	34.835		
9,400.00	7,064.69	7,212.89	7,188.44	68.06	30.85	-94.80	-4,014.52	500.46	3,051.28	2,965.77	85.52	35.681		
9,500.00	7,064.39	7,216.57	7,192.12	70.40	30.87	-94.95	-4,014.48	500.31	3,140.76	3,054.80	85.96	36.538		
9,600.00	7,064.09	7,220.26	7,195.80	72.78	30.89	-95.10	-4,014.44	500.16	3,230.84	3,144.46	86.38	37.403		
9,700.00	7,063.80	7,223.94	7,199.48	75.20	30.90	-95.26	-4,014.40	500.02	3,321.49	3,234.71	86.78	38.277		
9,800.00	7,063.50	7,227.63	7,203.17	77.65	30.92	-95.41	-4,014.36	499.87	3,412.65	3,325.50	87.15	39.158		
9,900.00	7,063.20	7,231.31	7,206.85	80.13	30.93	-95.56	-4,014.32	499.72	3,504.30	3,416.79	87.51	40.046		
10,000.00	7,062.90	7,235.00	7,210.53	82.64	30.95	-95.71	-4,014.28	499.57	3,596.38	3,508.54	87.84	40.940		
10,100.00	7,062.61	7,238.69	7,214.21	85.17	30.96	-95.86	-4,014.24	499.43	3,688.88	3,600.71	88.17	41.840		
10,200.00	7,062.31	7,242.37	7,217.90	87.72	30.98	-96.01	-4,014.20	499.28	3,781.75	3,693.28	88.47	42.745		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,246.06	7,221.58	90.28	31.00	-96.17	-4,014.16	499.13	3,874.97	3,786.21	88.76	43.655		
10,400.00	7,061.71	7,249.74	7,225.26	92.87	31.01	-96.32	-4,014.12	498.99	3,968.52	3,879.48	89.04	44.569		
10,500.00	7,061.41	7,253.43	7,228.94	95.47	31.03	-96.47	-4,014.08	498.84	4,062.38	3,973.07	89.31	45.488		
10,600.00	7,061.12	7,257.11	7,232.63	98.09	31.04	-96.62	-4,014.04	498.69	4,156.52	4,066.95	89.56	46.409		
10,700.00	7,060.82	7,260.80	7,236.31	100.72	31.06	-96.77	-4,014.00	498.54	4,250.92	4,161.11	89.81	47.334		
10,800.00	7,060.52	7,264.49	7,239.99	103.37	31.07	-96.92	-4,013.96	498.40	4,345.57	4,255.53	90.04	48.262		
10,900.00	7,060.22	7,268.17	7,243.67	106.02	31.09	-97.07	-4,013.92	498.25	4,440.45	4,350.18	90.27	49.193		
11,000.00	7,059.93	7,271.86	7,247.36	108.69	31.11	-97.23	-4,013.88	498.10	4,535.55	4,445.06	90.48	50.126		
11,100.00	7,059.63	7,275.54	7,251.04	111.36	31.12	-97.38	-4,013.84	497.96	4,630.85	4,540.16	90.69	51.061		
11,200.00	7,059.33	7,279.23	7,254.72	114.05	31.14	-97.53	-4,013.80	497.81	4,726.34	4,635.45	90.89	51.998		
11,300.00	7,059.03	7,282.91	7,258.41	116.74	31.15	-97.68	-4,013.76	497.66	4,822.01	4,730.92	91.09	52.937		
11,400.00	7,058.74	7,286.60	7,262.09	119.44	31.17	-97.83	-4,013.72	497.52	4,917.86	4,826.58	91.28	53.877		
11,500.00	7,058.44	7,290.29	7,265.77	122.15	31.19	-97.98	-4,013.68	497.37	5,013.86	4,922.40	91.46	54.819		
11,600.00	7,058.14	7,293.97	7,269.45	124.86	31.20	-98.13	-4,013.64	497.22	5,110.01	5,018.37	91.64	55.762		
11,700.00	7,057.84	7,297.66	7,273.14	127.58	31.22	-98.28	-4,013.60	497.07	5,206.31	5,114.50	91.81	56.707		
11,800.00	7,057.55	7,301.34	7,276.82	130.31	31.23	-98.43	-4,013.56	496.93	5,302.74	5,210.76	91.98	57.652		
11,900.00	7,057.25	7,305.03	7,280.50	133.04	31.25	-98.58	-4,013.52	496.78	5,399.29	5,307.15	92.14	58.598		
12,000.00	7,056.95	7,308.71	7,284.18	135.78	31.26	-98.73	-4,013.48	496.63	5,495.97	5,403.67	92.30	59.545		
12,100.00	7,056.65	7,312.40	7,287.87	138.52	31.28	-98.88	-4,013.44	496.49	5,592.76	5,500.31	92.45	60.492		
12,200.00	7,056.36	7,316.09	7,291.55	141.27	31.30	-99.03	-4,013.40	496.34	5,689.66	5,597.06	92.61	61.440		
12,300.00	7,056.06	7,319.77	7,295.23	144.02	31.31	-99.18	-4,013.36	496.19	5,786.67	5,693.91	92.75	62.388		
12,400.00	7,055.76	7,323.46	7,298.91	146.78	31.33	-99.33	-4,013.32	496.05	5,883.77	5,790.87	92.90	63.337		
12,500.00	7,055.46	7,327.14	7,302.60	149.54	31.34	-99.48	-4,013.28	495.90	5,980.96	5,887.93	93.04	64.285		
12,600.00	7,055.17	7,330.83	7,306.28	152.30	31.36	-99.63	-4,013.24	495.75	6,078.25	5,985.07	93.18	65.234		
12,700.00	7,054.87	7,334.51	7,309.96	155.07	31.37	-99.78	-4,013.20	495.60	6,175.62	6,082.30	93.31	66.183		
12,800.00	7,054.57	7,338.20	7,313.64	157.84	31.39	-99.93	-4,013.16	495.46	6,273.06	6,179.62	93.44	67.132		
12,900.00	7,054.27	7,341.89	7,317.33	160.61	31.41	-100.08	-4,013.12	495.31	6,370.59	6,277.01	93.57	68.080		
13,000.00	7,053.97	7,345.57	7,321.01	163.39	31.42	-100.23	-4,013.08	495.16	6,468.19	6,374.49	93.70	69.028		
13,100.00	7,053.68	7,349.26	7,324.69	166.17	31.44	-100.37	-4,013.04	495.02	6,565.86	6,472.03	93.83	69.977		
13,200.00	7,053.38	7,352.94	7,328.37	168.95	31.45	-100.52	-4,013.00	494.87	6,663.60	6,569.64	93.95	70.924		
13,300.00	7,053.08	7,356.63	7,332.06	171.73	31.47	-100.67	-4,012.96	494.72	6,761.40	6,667.32	94.08	71.872		
13,400.00	7,052.78	7,360.31	7,335.74	174.52	31.48	-100.82	-4,012.92	494.57	6,859.26	6,765.06	94.20	72.819		
13,500.00	7,052.49	7,364.00	7,339.42	177.31	31.50	-100.97	-4,012.88	494.43	6,957.18	6,862.86	94.32	73.765		
13,600.00	7,052.19	7,367.69	7,343.10	180.10	31.52	-101.12	-4,012.84	494.28	7,055.16	6,960.72	94.43	74.711		
13,700.00	7,051.89	7,371.37	7,346.79	182.90	31.53	-101.26	-4,012.80	494.13	7,153.19	7,058.64	94.55	75.656		
13,800.00	7,051.59	7,375.06	7,350.47	185.69	31.55	-101.41	-4,012.76	493.99	7,251.27	7,156.61	94.66	76.601		
13,900.00	7,051.30	7,378.74	7,354.15	188.49	31.56	-101.56	-4,012.72	493.84	7,349.40	7,254.63	94.78	77.545		
14,000.00	7,051.00	7,382.43	7,357.83	191.29	31.58	-101.71	-4,012.68	493.69	7,447.59	7,352.70	94.89	78.488		
14,100.00	7,050.70	7,386.12	7,361.52	194.09	31.60	-101.85	-4,012.64	493.55	7,545.81	7,450.81	95.00	79.430		
14,200.00	7,050.40	7,389.80	7,365.20	196.89	31.61	-102.00	-4,012.60	493.40	7,644.08	7,548.98	95.11	80.372		
14,300.00	7,050.11	7,393.49	7,368.88	199.70	31.63	-102.15	-4,012.56	493.25	7,742.40	7,647.18	95.22	81.312		
14,400.00	7,049.81	7,397.17	7,372.57	202.50	31.64	-102.29	-4,012.52	493.10	7,840.75	7,745.43	95.33	82.252		
14,500.00	7,049.51	7,400.86	7,376.25	205.31	31.66	-102.44	-4,012.48	492.96	7,939.15	7,843.71	95.43	83.191		
14,600.00	7,049.21	7,404.54	7,379.93	208.12	31.67	-102.59	-4,012.44	492.81	8,037.58	7,942.04	95.54	84.129		
14,700.00	7,048.92	7,408.23	7,383.61	210.93	31.69	-102.73	-4,012.40	492.66	8,136.05	8,040.40	95.64	85.065		
14,800.00	7,048.62	7,411.92	7,387.30	213.74	31.71	-102.88	-4,012.36	492.52	8,234.55	8,138.80	95.75	86.001		
14,900.00	7,048.32	7,415.60	7,390.98	216.55	31.72	-103.03	-4,012.32	492.37	8,333.09	8,237.24	95.85	86.936		
15,000.00	7,048.02	7,419.29	7,394.66	219.37	31.74	-103.17	-4,012.28	492.22	8,431.66	8,335.70	95.96	87.869		
15,100.00	7,047.73	7,422.97	7,398.34	222.18	31.75	-103.32	-4,012.24	492.07	8,530.26	8,434.20	96.06	88.802		
15,200.00	7,047.43	7,426.66	7,402.03	225.00	31.77	-103.46	-4,012.20	491.93	8,628.90	8,532.73	96.16	89.733		
15,300.00	7,047.13	7,430.35	7,405.71	227.81	31.79	-103.60	-4,012.16	491.78	8,727.61	8,631.48	96.27	90.664		
15,343.67	7,047.00	7,400.00	7,375.39	229.04	31.65	-102.41	-4,012.49	492.99	8,770.71	8,674.54	96.17	91.200		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	24.90	-0.10	3.28	3.28	-23.42	2,662.73	-1,153.34	2,901.78					
100.00	100.00	122.81	97.81	3.28	3.29	-23.42	2,662.66	-1,153.55	2,901.79	2,895.22	6.58	441.037 ES		
200.00	200.00	220.43	195.43	3.34	3.36	-23.42	2,662.82	-1,153.62	2,901.98	2,895.28	6.70	433.323		
300.00	299.98	330.14	305.14	3.44	3.49	153.18	2,662.81	-1,153.27	2,903.39	2,896.46	6.93	418.858		
400.00	399.84	421.60	396.59	3.59	3.64	153.18	2,662.91	-1,153.15	2,908.10	2,900.86	7.24	401.898		
500.00	499.45	530.13	505.12	3.79	3.87	153.19	2,662.84	-1,153.09	2,915.80	2,908.14	7.66	380.652		
600.00	598.70	637.14	612.13	4.03	4.13	153.22	2,662.67	-1,152.81	2,926.46	2,918.29	8.16	358.511		
700.00	697.47	741.77	716.76	4.31	4.42	153.25	2,662.11	-1,152.21	2,939.74	2,931.01	8.73	336.800		
800.00	795.62	837.75	812.74	4.64	4.70	153.27	2,661.82	-1,151.74	2,956.37	2,947.04	9.33	317.026		
900.00	893.06	944.03	919.02	5.00	5.04	153.31	2,661.18	-1,150.92	2,975.71	2,965.71	10.00	297.510		
1,000.00	989.64	1,032.95	1,007.94	5.40	5.33	153.31	2,660.70	-1,150.36	2,998.27	2,987.61	10.66	281.201		
1,100.00	1,085.27	1,124.01	1,098.99	5.83	5.65	153.31	2,660.41	-1,149.88	3,024.14	3,012.77	11.36	266.145		
1,200.00	1,179.82	1,222.43	1,197.41	6.29	5.99	153.33	2,660.06	-1,149.37	3,053.03	3,040.91	12.12	251.909		
1,300.00	1,273.17	1,315.36	1,290.34	6.79	6.33	153.33	2,659.64	-1,148.95	3,084.92	3,072.04	12.88	239.452		
1,400.00	1,365.46	1,401.37	1,376.35	7.32	6.65	153.50	2,659.43	-1,148.43	3,119.43	3,105.79	13.64	228.687		
1,500.00	1,457.65	1,495.37	1,470.34	7.87	7.00	153.82	2,659.29	-1,147.82	3,154.32	3,139.89	14.44	218.482		
1,600.00	1,549.83	1,597.69	1,572.66	8.43	7.39	154.16	2,658.86	-1,147.34	3,189.14	3,173.86	15.29	208.637		
1,700.00	1,642.02	1,687.25	1,662.22	9.01	7.74	154.45	2,658.23	-1,147.30	3,223.92	3,207.83	16.09	200.318		
1,800.00	1,734.21	1,770.65	1,745.62	9.59	8.06	154.70	2,657.68	-1,147.58	3,258.94	3,242.05	16.89	193.002		
1,900.00	1,826.39	1,878.47	1,853.44	10.18	8.49	155.02	2,657.08	-1,147.77	3,294.08	3,276.29	17.79	185.119		
2,000.00	1,918.58	1,965.85	1,940.81	10.78	8.83	155.28	2,656.23	-1,147.96	3,328.93	3,310.31	18.62	178.779		
2,100.00	2,010.77	2,054.13	2,029.09	11.39	9.18	155.53	2,655.53	-1,148.48	3,364.11	3,344.65	19.46	172.905		
2,200.00	2,102.95	2,154.20	2,129.16	11.99	9.58	155.80	2,654.74	-1,148.86	3,399.29	3,378.93	20.35	167.014		
2,300.00	2,195.14	2,248.26	2,223.21	12.61	9.96	156.06	2,653.80	-1,149.08	3,434.30	3,413.07	21.23	161.785		
2,400.00	2,287.32	2,337.89	2,312.83	13.22	10.33	156.30	2,652.97	-1,149.47	3,469.50	3,447.41	22.08	157.099		
2,500.00	2,379.51	2,431.93	2,406.87	13.84	10.71	156.54	2,651.98	-1,150.13	3,504.71	3,481.74	22.97	152.597		
2,600.00	2,471.70	2,521.49	2,496.42	14.46	11.07	156.76	2,651.01	-1,150.94	3,540.01	3,516.18	23.83	148.548		
2,700.00	2,563.88	2,609.44	2,584.36	15.08	11.43	156.97	2,650.13	-1,151.80	3,575.46	3,550.77	24.69	144.823		
2,800.00	2,656.07	2,691.09	2,666.00	15.71	11.77	157.17	2,649.53	-1,152.53	3,611.16	3,585.65	25.52	141.527		
2,900.00	2,748.26	2,770.60	2,745.51	16.33	12.10	157.36	2,649.22	-1,153.23	3,647.21	3,620.88	26.33	138.509		
3,000.00	2,840.44	2,861.12	2,836.02	16.96	12.47	157.57	2,649.06	-1,154.18	3,683.55	3,656.35	27.21	135.393		
3,100.00	2,932.63	2,955.97	2,930.87	17.59	12.86	157.78	2,648.81	-1,155.22	3,719.86	3,691.75	28.11	132.353		
3,200.00	3,024.81	3,048.27	3,023.15	18.22	13.24	157.98	2,648.40	-1,156.68	3,756.18	3,727.19	28.99	129.552		
3,300.00	3,117.00	3,136.79	3,111.66	18.86	13.61	158.16	2,648.05	-1,158.05	3,792.58	3,762.72	29.86	127.001		
3,400.00	3,209.19	3,222.03	3,196.89	19.49	13.96	158.33	2,647.77	-1,159.67	3,829.17	3,798.46	30.71	124.668		
3,500.00	3,301.37	3,308.83	3,283.67	20.12	14.33	158.50	2,647.53	-1,161.67	3,865.95	3,834.37	31.58	122.430		
3,600.00	3,393.56	3,399.16	3,373.97	20.76	14.70	158.67	2,647.32	-1,163.90	3,902.85	3,870.39	32.46	120.239		
3,700.00	3,485.75	3,500.29	3,475.07	21.39	15.12	158.86	2,647.03	-1,166.30	3,939.69	3,906.29	33.40	117.944		
3,800.00	3,577.93	3,585.18	3,559.93	22.03	15.48	159.01	2,646.81	-1,168.20	3,976.55	3,942.29	34.26	116.082		
3,900.00	3,670.12	3,732.74	3,707.45	22.67	16.10	159.27	2,645.48	-1,171.48	4,012.87	3,977.40	35.47	113.148		
4,000.00	3,762.30	3,837.36	3,812.04	23.30	16.54	159.45	2,643.65	-1,173.65	4,048.42	4,011.98	36.44	111.113		
4,100.00	3,854.49	3,931.76	3,906.40	23.94	16.93	159.61	2,641.89	-1,175.53	4,083.87	4,046.53	37.35	109.346		
4,200.00	3,946.68	4,024.69	3,999.30	24.58	17.33	159.76	2,640.12	-1,177.49	4,119.36	4,081.10	38.25	107.685		
4,300.00	4,038.86	4,120.54	4,095.10	25.22	17.73	159.91	2,638.24	-1,179.58	4,154.82	4,115.65	39.18	106.054		
4,400.00	4,131.05	4,215.70	4,190.22	25.86	18.13	160.06	2,636.33	-1,181.60	4,190.26	4,150.16	40.10	104.506		
4,500.00	4,223.24	4,311.93	4,286.41	26.50	18.54	160.21	2,634.34	-1,183.59	4,225.66	4,184.64	41.02	103.009		
4,600.00	4,315.42	4,402.40	4,376.84	27.14	18.92	160.35	2,632.47	-1,185.45	4,261.08	4,219.17	41.92	101.659		
4,700.00	4,407.61	4,498.35	4,472.74	27.78	19.32	160.49	2,630.46	-1,187.51	4,296.51	4,253.67	42.84	100.289		
4,800.00	4,499.79	4,593.38	4,567.74	28.42	19.73	160.63	2,628.39	-1,189.62	4,331.91	4,288.15	43.76	98.987		
4,900.00	4,591.98	4,683.48	4,657.78	29.06	20.11	160.76	2,626.44	-1,191.61	4,367.34	4,322.69	44.65	97.802		
5,000.00	4,684.17	4,800.67	4,774.92	29.70	20.60	160.92	2,623.68	-1,194.14	4,402.62	4,356.91	45.71	96.320		
5,100.00	4,776.35	4,898.46	4,872.65	30.34	21.02	161.06	2,621.04	-1,196.12	4,437.57	4,390.92	46.65	95.129		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,983.49	4,957.64	30.98	21.38	161.17	2,618.78	-1,197.82	4,472.57	4,425.05	47.51	94.136		
5,300.00	4,960.73	5,069.92	5,044.03	31.63	21.74	161.29	2,616.66	-1,199.47	4,507.74	4,459.36	48.38	93.168		
5,400.00	5,052.91	5,153.85	5,127.92	32.27	22.10	161.41	2,614.76	-1,200.99	4,543.09	4,493.85	49.24	92.266		
5,500.00	5,145.10	5,237.16	5,211.20	32.91	22.45	161.52	2,613.06	-1,202.51	4,578.67	4,528.58	50.09	91.407		
5,600.00	5,237.28	5,319.95	5,293.96	33.55	22.80	161.63	2,611.56	-1,203.94	4,614.45	4,563.51	50.94	90.589		
5,700.00	5,329.47	5,397.68	5,371.67	34.20	23.13	161.74	2,610.46	-1,204.97	4,650.51	4,598.76	51.75	89.859		
5,800.00	5,421.66	5,490.38	5,464.36	34.84	23.53	161.87	2,609.35	-1,205.97	4,686.75	4,634.09	52.66	88.999		
5,900.00	5,513.84	5,574.14	5,548.11	35.48	23.88	161.99	2,608.40	-1,206.98	4,723.08	4,669.57	53.51	88.262		
6,000.00	5,606.03	5,649.24	5,623.20	36.13	24.20	162.09	2,607.74	-1,207.90	4,759.68	4,705.37	54.31	87.642		
6,100.00	5,698.22	5,744.30	5,718.26	36.77	24.60	162.23	2,607.36	-1,208.62	4,796.63	4,741.40	55.23	86.849		
6,200.00	5,790.40	5,860.56	5,834.52	37.41	25.10	162.40	2,606.47	-1,208.45	4,833.06	4,776.77	56.29	85.866		
6,300.00	5,882.59	5,957.65	5,931.60	38.06	25.51	162.55	2,605.58	-1,208.18	4,869.37	4,812.15	57.22	85.097		
6,400.00	5,974.77	6,140.09	6,113.99	38.70	26.28	162.84	2,602.66	-1,205.26	4,904.83	4,846.14	58.69	83.572		
6,500.00	6,066.96	6,333.28	6,306.99	39.34	27.11	163.16	2,596.54	-1,199.64	4,938.74	4,878.53	60.21	82.028		
6,600.00	6,159.15	6,400.00	6,373.62	39.99	27.39	163.27	2,593.61	-1,197.78	4,971.56	4,910.59	60.96	81.548		
6,700.00	6,251.33	6,456.73	6,430.30	40.63	27.63	163.35	2,591.38	-1,196.74	5,005.03	4,943.37	61.66	81.175		
6,800.00	6,343.52	6,500.00	6,473.55	41.28	27.82	163.41	2,590.11	-1,196.33	5,039.50	4,977.24	62.26	80.942		
6,900.00	6,435.71	6,550.84	6,524.37	41.92	28.04	163.48	2,589.03	-1,196.12	5,074.85	5,011.95	62.90	80.676		
7,000.00	6,527.86	6,602.81	6,576.34	42.56	28.26	155.39	2,588.33	-1,196.08	5,110.80	5,047.25	63.55	80.422		
7,100.00	6,618.85	6,682.42	6,655.95	43.19	28.60	134.01	2,587.62	-1,196.24	5,144.39	5,080.02	64.37	79.915		
7,200.00	6,706.47	6,756.17	6,729.69	43.76	28.91	118.39	2,587.10	-1,196.61	5,174.06	5,108.92	65.14	79.430		
7,300.00	6,788.56	6,817.89	6,791.41	44.26	29.17	107.67	2,586.81	-1,197.12	5,199.40	5,133.60	65.80	79.017		
7,400.00	6,863.10	6,863.19	6,836.70	44.70	29.36	100.31	2,586.82	-1,197.65	5,220.27	5,153.94	66.34	78.693		
7,500.00	6,928.26	6,905.41	6,878.93	45.07	29.54	95.32	2,587.04	-1,198.26	5,236.51	5,169.64	66.87	78.306		
7,600.00	6,982.42	6,966.20	6,939.71	45.39	29.80	92.24	2,587.44	-1,199.15	5,247.80	5,180.20	67.61	77.621		
7,700.00	7,024.26	7,013.36	6,986.86	45.67	30.00	90.41	2,587.72	-1,199.77	5,254.13	5,185.76	68.37	76.847		
7,800.00	7,052.75	7,039.34	7,012.84	45.92	30.11	89.46	2,587.88	-1,200.11	5,255.73	5,186.58	69.15	76.005		
7,900.00	7,067.18	7,054.06	7,027.56	46.16	30.17	89.35	2,587.97	-1,200.30	5,252.77	5,182.74	70.03	75.004		
8,000.00	7,068.85	7,056.83	7,030.33	46.42	30.18	89.59	2,587.99	-1,200.33	5,246.15	5,175.15	71.01	73.881		
8,100.00	7,068.56	7,057.75	7,031.25	46.78	30.19	89.60	2,588.00	-1,200.35	5,240.59	5,168.46	72.13	72.652		
8,200.00	7,068.26	7,058.67	7,032.17	47.29	30.19	89.61	2,588.00	-1,200.36	5,236.93	5,163.53	73.40	71.345		
8,300.00	7,067.96	7,059.59	7,033.08	48.03	30.20	89.62	2,588.01	-1,200.37	5,235.18	5,160.38	74.80	69.985		
8,341.67	7,067.84	7,059.97	7,033.47	48.41	30.20	89.62	2,588.01	-1,200.37	5,235.02	5,159.58	75.44	69.395		
8,400.00	7,067.66	7,060.51	7,034.00	49.02	30.20	89.63	2,588.02	-1,200.38	5,235.34	5,159.02	76.32	68.595		
8,500.00	7,067.37	7,061.42	7,034.92	50.27	30.20	89.64	2,588.02	-1,200.39	5,237.41	5,159.47	77.94	67.196		
8,600.00	7,067.07	7,062.34	7,035.84	51.75	30.21	89.65	2,588.03	-1,200.40	5,241.39	5,161.73	79.65	65.804		
8,700.00	7,066.77	7,063.26	7,036.75	53.42	30.21	89.66	2,588.03	-1,200.42	5,247.27	5,165.83	81.44	64.433		
8,800.00	7,066.47	7,064.17	7,037.67	55.24	30.22	89.67	2,588.04	-1,200.43	5,255.04	5,171.75	83.29	63.096		
8,900.00	7,066.18	7,065.09	7,038.58	57.18	30.22	89.68	2,588.05	-1,200.44	5,264.70	5,179.52	85.19	61.801		
9,000.00	7,065.88	7,066.00	7,039.50	59.21	30.22	89.69	2,588.05	-1,200.45	5,276.25	5,189.11	87.13	60.555		
9,100.00	7,065.58	7,066.92	7,040.41	61.33	30.23	89.70	2,588.06	-1,200.46	5,289.65	5,200.54	89.11	59.363		
9,200.00	7,065.28	7,067.83	7,041.33	63.51	30.23	89.71	2,588.06	-1,200.47	5,304.91	5,213.80	91.11	58.227		
9,300.00	7,064.99	7,068.75	7,042.24	65.76	30.24	89.72	2,588.07	-1,200.49	5,322.00	5,228.88	93.12	57.149		
9,400.00	7,064.69	7,069.66	7,043.16	68.06	30.24	89.73	2,588.08	-1,200.50	5,340.91	5,245.76	95.15	56.131		
9,500.00	7,064.39	7,070.58	7,044.07	70.40	30.24	89.74	2,588.08	-1,200.51	5,361.62	5,264.44	97.18	55.172		
9,600.00	7,064.09	7,071.49	7,044.98	72.78	30.25	89.75	2,588.09	-1,200.52	5,384.11	5,284.90	99.21	54.272		
9,700.00	7,063.80	7,072.40	7,045.90	75.20	30.25	89.76	2,588.09	-1,200.53	5,408.35	5,307.13	101.23	53.429		
9,800.00	7,063.50	7,073.31	7,046.81	77.65	30.25	89.77	2,588.10	-1,200.54	5,434.33	5,331.10	103.23	52.642		
9,900.00	7,063.20	7,074.23	7,047.72	80.13	30.26	89.78	2,588.11	-1,200.56	5,462.01	5,356.79	105.22	51.909		
10,000.00	7,062.90	7,075.14	7,048.63	82.64	30.26	89.79	2,588.11	-1,200.57	5,491.38	5,384.18	107.19	51.228		
10,100.00	7,062.61	7,076.05	7,049.54	85.17	30.27	89.80	2,588.12	-1,200.58	5,522.40	5,413.25	109.14	50.598		
10,200.00	7,062.31	7,076.96	7,050.45	87.72	30.27	89.81	2,588.12	-1,200.59	5,555.04	5,443.98	111.06	50.017		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,077.87	7,051.37	90.28	30.27	89.82	2,588.13	-1,200.60	5,589.29	5,476.33	112.96	49.481		
10,400.00	7,061.71	7,078.78	7,052.28	92.87	30.28	89.83	2,588.14	-1,200.61	5,625.10	5,510.28	114.82	48.990		
10,500.00	7,061.41	7,079.69	7,053.18	95.47	30.28	89.84	2,588.14	-1,200.63	5,662.45	5,545.80	116.65	48.541		
10,600.00	7,061.12	7,080.60	7,054.09	98.09	30.29	89.85	2,588.15	-1,200.64	5,701.32	5,582.87	118.45	48.133		
10,700.00	7,060.82	7,081.51	7,055.00	100.72	30.29	89.86	2,588.16	-1,200.65	5,741.66	5,621.44	120.21	47.763		
10,800.00	7,060.52	7,082.42	7,055.91	103.37	30.29	89.87	2,588.16	-1,200.66	5,783.45	5,661.51	121.94	47.429		
10,900.00	7,060.22	7,083.33	7,056.82	106.02	30.30	89.88	2,588.17	-1,200.67	5,826.65	5,703.02	123.63	47.130		
11,000.00	7,059.93	7,084.23	7,057.73	108.69	30.30	89.89	2,588.17	-1,200.68	5,871.24	5,745.96	125.28	46.865		
11,100.00	7,059.63	7,085.14	7,058.63	111.36	30.30	89.90	2,588.18	-1,200.69	5,917.19	5,790.29	126.90	46.631		
11,200.00	7,059.33	7,086.05	7,059.54	114.05	30.31	89.91	2,588.19	-1,200.71	5,964.45	5,835.98	128.47	46.426		
11,300.00	7,059.03	7,086.95	7,060.45	116.74	30.31	89.92	2,588.19	-1,200.72	6,013.01	5,883.00	130.01	46.251		
11,400.00	7,058.74	7,087.86	7,061.35	119.44	30.32	89.93	2,588.20	-1,200.73	6,062.83	5,931.32	131.51	46.102		
11,500.00	7,058.44	7,088.77	7,062.26	122.15	30.32	89.94	2,588.20	-1,200.74	6,113.88	5,980.91	132.97	45.980		
11,600.00	7,058.14	7,089.67	7,063.17	124.86	30.32	89.95	2,588.21	-1,200.75	6,166.13	6,031.74	134.39	45.882		
11,700.00	7,057.84	7,090.58	7,064.07	127.58	30.33	89.96	2,588.22	-1,200.76	6,219.55	6,083.77	135.78	45.807		
11,800.00	7,057.55	7,091.48	7,064.97	130.31	30.33	89.97	2,588.22	-1,200.78	6,274.10	6,136.98	137.12	45.755		
11,900.00	7,057.25	7,092.39	7,065.88	133.04	30.34	89.98	2,588.23	-1,200.79	6,329.77	6,191.33	138.43	45.724		
12,000.00	7,056.95	7,093.29	7,066.78	135.78	30.34	89.99	2,588.24	-1,200.80	6,386.52	6,246.81	139.71	45.713 SF		
12,100.00	7,056.65	7,094.19	7,067.69	138.52	30.34	90.00	2,588.24	-1,200.81	6,444.31	6,303.37	140.95	45.722		
12,200.00	7,056.36	7,095.10	7,068.59	141.27	30.35	90.01	2,588.25	-1,200.82	6,503.14	6,360.99	142.15	45.749		
12,300.00	7,056.06	7,096.00	7,069.49	144.02	30.35	90.02	2,588.25	-1,200.83	6,562.95	6,419.64	143.32	45.793		
12,400.00	7,055.76	7,096.90	7,070.39	146.78	30.35	90.03	2,588.26	-1,200.84	6,623.74	6,479.29	144.45	45.854		
12,500.00	7,055.46	7,097.80	7,071.30	149.54	30.36	90.04	2,588.27	-1,200.86	6,685.47	6,539.92	145.55	45.932		
12,600.00	7,055.17	7,098.71	7,072.20	152.30	30.36	90.05	2,588.27	-1,200.87	6,748.12	6,601.50	146.62	46.024		
12,700.00	7,054.87	7,099.61	7,073.10	155.07	30.37	90.06	2,588.28	-1,200.88	6,811.66	6,664.00	147.66	46.131		
12,800.00	7,054.57	7,100.51	7,074.00	157.84	30.37	90.07	2,588.29	-1,200.89	6,876.07	6,727.41	148.66	46.253		
12,900.00	7,054.27	7,101.41	7,074.90	160.61	30.37	90.08	2,588.29	-1,200.90	6,941.32	6,791.68	149.64	46.387		
13,000.00	7,053.97	7,102.31	7,075.80	163.39	30.38	90.09	2,588.30	-1,200.91	7,007.39	6,856.80	150.59	46.534		
13,100.00	7,053.68	7,103.21	7,076.70	166.17	30.38	90.10	2,588.30	-1,200.92	7,074.25	6,922.75	151.50	46.694		
13,200.00	7,053.38	7,104.11	7,077.60	168.95	30.39	90.11	2,588.31	-1,200.94	7,141.89	6,989.50	152.39	46.865		
13,300.00	7,053.08	7,105.01	7,078.50	171.73	30.39	90.12	2,588.32	-1,200.95	7,210.29	7,057.03	153.25	47.048		
13,400.00	7,052.78	7,106.00	7,079.49	174.52	30.37	90.06	2,588.28	-1,200.88	7,279.41	7,125.36	154.06	47.252		
13,500.00	7,052.49	7,106.44	7,079.93	177.31	30.39	90.12	2,588.32	-1,200.95	7,349.25	7,194.35	154.89	47.447		
13,600.00	7,052.19	7,106.13	7,079.62	180.10	30.39	90.13	2,588.33	-1,200.96	7,419.77	7,264.09	155.68	47.661		
13,700.00	7,051.89	7,106.82	7,080.32	182.90	30.40	90.14	2,588.33	-1,200.97	7,490.96	7,334.53	156.44	47.884		
13,800.00	7,051.59	7,107.51	7,081.00	185.69	30.40	90.14	2,588.34	-1,200.98	7,562.81	7,405.63	157.18	48.116		
13,900.00	7,051.30	7,108.19	7,081.68	188.49	30.40	90.15	2,588.34	-1,200.99	7,635.29	7,477.40	157.89	48.357		
14,000.00	7,051.00	7,108.87	7,082.36	191.29	30.41	90.16	2,588.34	-1,200.99	7,708.39	7,549.80	158.59	48.607		
14,100.00	7,050.70	7,109.54	7,083.03	194.09	30.41	90.17	2,588.35	-1,201.00	7,782.08	7,622.83	159.26	48.865		
14,200.00	7,050.40	7,110.21	7,083.70	196.89	30.41	90.17	2,588.35	-1,201.01	7,856.36	7,696.45	159.91	49.130		
14,300.00	7,050.11	7,110.87	7,084.36	199.70	30.41	90.18	2,588.36	-1,201.02	7,931.20	7,770.66	160.54	49.403		
14,400.00	7,049.81	7,111.53	7,085.02	202.50	30.42	90.19	2,588.36	-1,201.03	8,006.59	7,845.44	161.15	49.683		
14,500.00	7,049.51	7,112.18	7,085.67	205.31	30.42	90.20	2,588.37	-1,201.03	8,082.52	7,920.77	161.75	49.970		
14,600.00	7,049.21	7,112.83	7,086.32	208.12	30.42	90.20	2,588.37	-1,201.04	8,158.96	7,996.64	162.32	50.263		
14,700.00	7,048.92	7,113.47	7,086.96	210.93	30.42	90.21	2,588.38	-1,201.05	8,235.91	8,073.03	162.88	50.563		
14,800.00	7,048.62	7,114.11	7,087.60	213.74	30.43	90.22	2,588.38	-1,201.06	8,313.35	8,149.92	163.43	50.869		
14,900.00	7,048.32	7,114.74	7,088.23	216.55	30.43	90.22	2,588.39	-1,201.07	8,391.27	8,227.32	163.95	51.181		
15,000.00	7,048.02	7,115.37	7,088.86	219.37	30.43	90.23	2,588.39	-1,201.07	8,469.65	8,305.18	164.46	51.499		
15,100.00	7,047.73	7,116.00	7,089.49	222.18	30.44	90.24	2,588.40	-1,201.08	8,548.48	8,383.52	164.96	51.822		
15,200.00	7,047.43	7,116.62	7,090.11	225.00	30.44	90.24	2,588.40	-1,201.09	8,627.75	8,462.31	165.44	52.151		
15,300.00	7,047.13	7,117.24	7,090.73	227.81	30.44	90.25	2,588.41	-1,201.09	8,707.44	8,541.54	165.90	52.485		
15,343.67	7,047.00	7,117.50	7,090.99	229.04	30.44	90.25	2,588.41	-1,201.10	8,742.38	8,576.28	166.10	52.632		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	19.00	3.28	3.28	-60.09	1,244.93	-2,163.83	2,496.47					
100.00	100.00	81.00	100.00	3.28	3.57	-60.09	1,244.93	-2,163.83	2,496.40	2,489.54	6.86	364.094		
200.00	200.00	181.00	200.00	3.34	5.63	-60.09	1,244.93	-2,163.83	2,496.40	2,487.43	8.96	278.464 CC		
300.00	299.98	280.98	299.98	3.44	8.71	116.53	1,244.93	-2,163.83	2,497.18	2,485.03	12.14	205.622		
400.00	399.84	380.84	399.84	3.59	12.01	116.59	1,244.93	-2,163.83	2,499.52	2,483.93	15.60	160.273 ES		
500.00	499.45	480.45	499.45	3.79	15.38	116.70	1,244.93	-2,163.83	2,503.44	2,484.27	19.17	130.603		
600.00	598.70	579.70	598.70	4.03	18.78	116.85	1,244.93	-2,163.83	2,508.97	2,486.15	22.81	109.990		
700.00	697.47	678.47	697.47	4.31	22.18	117.03	1,244.93	-2,163.83	2,516.12	2,489.63	26.50	94.958		
800.00	795.62	776.62	795.62	4.64	25.58	117.26	1,244.93	-2,163.83	2,524.96	2,494.75	30.21	83.574		
900.00	893.06	874.06	893.06	5.00	28.95	117.51	1,244.93	-2,163.83	2,535.52	2,501.57	33.94	74.696		
1,000.00	989.64	970.64	989.64	5.40	32.31	117.79	1,244.93	-2,163.83	2,547.86	2,510.17	37.68	67.610		
1,100.00	1,085.27	1,066.27	1,085.27	5.83	35.63	118.10	1,244.93	-2,163.83	2,562.04	2,520.62	41.43	61.846		
1,200.00	1,179.82	1,160.82	1,179.82	6.29	38.92	118.42	1,244.93	-2,163.83	2,578.14	2,532.98	45.16	57.087		
1,300.00	1,273.17	1,254.17	1,273.17	6.79	42.17	118.76	1,244.93	-2,163.83	2,596.21	2,547.32	48.89	53.108		
1,400.00	1,365.46	1,346.46	1,365.46	7.32	45.38	119.32	1,244.93	-2,163.83	2,616.03	2,563.43	52.60	49.738		
1,500.00	1,457.65	1,438.65	1,457.65	7.87	48.59	120.01	1,244.93	-2,163.83	2,636.40	2,580.08	56.32	46.814		
1,600.00	1,549.83	1,530.83	1,549.83	8.43	51.80	120.69	1,244.93	-2,163.83	2,657.18	2,597.13	60.05	44.250		
1,700.00	1,642.02	1,623.02	1,642.02	9.01	55.01	121.37	1,244.93	-2,163.83	2,678.36	2,614.57	63.79	41.986		
1,800.00	1,734.21	1,715.21	1,734.21	9.59	58.22	122.03	1,244.93	-2,163.83	2,699.93	2,632.39	67.54	39.975		
1,900.00	1,826.39	1,807.39	1,826.39	10.18	61.44	122.68	1,244.93	-2,163.83	2,721.88	2,650.58	71.29	38.178		
2,000.00	1,918.58	1,900.42	1,918.58	10.78	64.68	123.33	1,244.93	-2,163.83	2,744.20	2,669.12	75.08	36.550		
2,100.00	2,010.77	2,008.23	2,010.77	11.39	68.44	123.96	1,244.93	-2,163.83	2,766.88	2,687.50	79.39	34.853		
2,200.00	2,102.95	2,083.95	2,102.95	11.99	71.08	124.59	1,244.93	-2,163.83	2,789.92	2,707.34	82.58	33.786		
2,300.00	2,195.14	2,176.14	2,195.14	12.61	74.30	125.21	1,244.93	-2,163.83	2,813.30	2,726.96	86.34	32.584		
2,400.00	2,287.32	2,268.32	2,287.32	13.22	77.51	125.81	1,244.93	-2,163.83	2,837.02	2,746.92	90.11	31.486		
2,500.00	2,379.51	2,360.51	2,379.51	13.84	80.73	126.41	1,244.93	-2,163.83	2,861.07	2,767.20	93.87	30.479		
2,600.00	2,471.70	2,452.70	2,471.70	14.46	83.94	127.00	1,244.93	-2,163.83	2,885.44	2,787.80	97.64	29.552		
2,700.00	2,563.88	2,544.88	2,563.88	15.08	87.16	127.58	1,244.93	-2,163.83	2,910.12	2,808.71	101.40	28.698		
2,800.00	2,656.07	2,637.07	2,656.07	15.71	90.37	128.15	1,244.93	-2,163.83	2,935.10	2,829.93	105.17	27.908		
2,900.00	2,748.26	2,729.26	2,748.26	16.33	93.59	128.71	1,244.93	-2,163.83	2,960.38	2,851.45	108.94	27.175		
3,000.00	2,840.44	2,821.44	2,840.44	16.96	96.81	129.27	1,244.93	-2,163.83	2,985.95	2,873.25	112.70	26.494		
3,100.00	2,932.63	2,913.63	2,932.63	17.59	100.02	129.81	1,244.93	-2,163.83	3,011.80	2,895.34	116.47	25.860		
3,200.00	3,024.81	3,005.81	3,024.81	18.22	103.24	130.35	1,244.93	-2,163.83	3,037.93	2,917.70	120.23	25.268		
3,300.00	3,117.00	3,102.00	3,117.00	18.86	106.60	130.88	1,244.93	-2,163.83	3,064.32	2,940.19	124.13	24.686		
3,400.00	3,209.19	3,209.81	3,209.19	19.49	110.36	131.40	1,244.93	-2,163.83	3,090.97	2,962.54	128.44	24.066		
3,500.00	3,301.37	3,282.37	3,301.37	20.12	112.89	131.91	1,244.93	-2,163.83	3,117.88	2,986.37	131.51	23.708		
3,600.00	3,393.56	3,374.56	3,393.56	20.76	116.11	132.41	1,244.93	-2,163.83	3,145.03	3,009.76	135.27	23.249		
3,700.00	3,485.75	3,466.75	3,485.75	21.39	119.32	132.91	1,244.93	-2,163.83	3,172.43	3,033.40	139.03	22.818		
3,800.00	3,577.93	3,558.93	3,577.93	22.03	122.54	133.39	1,244.93	-2,163.83	3,200.06	3,057.27	142.79	22.411		
3,900.00	3,670.12	3,651.12	3,670.12	22.67	125.76	133.87	1,244.93	-2,163.83	3,227.92	3,081.37	146.55	22.027		
4,000.00	3,762.30	3,743.30	3,762.30	23.30	128.98	134.35	1,244.93	-2,163.83	3,256.00	3,105.70	150.30	21.663		
4,100.00	3,854.49	3,835.49	3,854.49	23.94	132.19	134.81	1,244.93	-2,163.83	3,284.30	3,130.24	154.06	21.319		
4,200.00	3,946.68	3,927.68	3,946.68	24.58	135.41	135.27	1,244.93	-2,163.83	3,312.81	3,155.00	157.81	20.993		
4,300.00	4,038.86	4,019.86	4,038.86	25.22	138.63	135.72	1,244.93	-2,163.83	3,341.53	3,179.96	161.56	20.683		
4,400.00	4,131.05	4,112.05	4,131.05	25.86	141.84	136.16	1,244.93	-2,163.83	3,370.44	3,205.13	165.31	20.388		
4,500.00	4,223.24	4,204.24	4,223.24	26.50	145.06	136.60	1,244.93	-2,163.83	3,399.56	3,230.49	169.06	20.108		
4,600.00	4,315.42	4,303.58	4,315.42	27.14	148.53	137.03	1,244.93	-2,163.83	3,428.86	3,255.80	173.06	19.813		
4,700.00	4,407.61	4,388.61	4,407.61	27.78	151.50	137.45	1,244.93	-2,163.83	3,458.35	3,281.79	176.56	19.587		
4,800.00	4,499.79	4,480.79	4,499.79	28.42	154.71	137.86	1,244.93	-2,163.83	3,488.02	3,307.71	180.31	19.345		
4,900.00	4,591.98	4,572.98	4,591.98	29.06	157.93	138.27	1,244.93	-2,163.83	3,517.87	3,333.81	184.05	19.113		
5,000.00	4,684.17	4,665.17	4,684.17	29.70	161.15	138.68	1,244.93	-2,163.83	3,547.89	3,360.09	187.80	18.892		
5,100.00	4,776.35	4,757.35	4,776.35	30.34	164.37	139.07	1,244.93	-2,163.83	3,578.07	3,386.53	191.54	18.680		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,849.54	4,868.54	30.98	167.58	139.46	1,244.93	-2,163.83	3,608.43	3,413.14	195.29	18.477		
5,300.00	4,960.73	4,941.73	4,960.73	31.63	170.80	139.85	1,244.93	-2,163.83	3,638.94	3,439.90	199.03	18.283		
5,400.00	5,052.91	5,033.91	5,052.91	32.27	174.02	140.22	1,244.93	-2,163.83	3,669.60	3,466.83	202.77	18.097		
5,500.00	5,145.10	5,126.10	5,145.10	32.91	177.24	140.60	1,244.93	-2,163.83	3,700.42	3,493.91	206.52	17.918		
5,600.00	5,237.28	5,218.28	5,237.28	33.55	180.45	140.96	1,244.93	-2,163.83	3,731.39	3,521.13	210.26	17.747		
5,700.00	5,329.47	5,310.47	5,329.47	34.20	183.67	141.32	1,244.93	-2,163.83	3,762.50	3,548.50	214.00	17.582		
5,800.00	5,421.66	5,402.66	5,421.66	34.84	186.89	141.68	1,244.93	-2,163.83	3,793.75	3,576.01	217.74	17.424		
5,900.00	5,513.84	5,505.16	5,513.84	35.48	190.47	142.03	1,244.93	-2,163.83	3,825.14	3,603.30	221.83	17.243		
6,000.00	5,606.03	5,587.03	5,606.03	36.13	193.33	142.37	1,244.93	-2,163.83	3,856.66	3,631.44	225.21	17.124		
6,100.00	5,698.22	5,679.22	5,698.22	36.77	196.54	142.71	1,244.93	-2,163.83	3,888.31	3,659.36	228.95	16.983		
6,200.00	5,790.40	5,771.40	5,790.40	37.41	199.76	143.04	1,244.93	-2,163.83	3,920.09	3,687.40	232.69	16.847		
6,300.00	5,882.59	5,863.59	5,882.59	38.06	202.98	143.37	1,244.93	-2,163.83	3,952.00	3,715.57	236.42	16.716		
6,400.00	5,974.77	5,955.77	5,974.77	38.70	206.20	143.70	1,244.93	-2,163.83	3,984.02	3,743.86	240.16	16.589		
6,500.00	6,066.96	6,047.96	6,066.96	39.34	209.41	144.02	1,244.93	-2,163.83	4,016.17	3,772.27	243.90	16.467		
6,600.00	6,159.15	6,140.15	6,159.15	39.99	212.63	144.33	1,244.93	-2,163.83	4,048.43	3,800.80	247.63	16.349		
6,700.00	6,251.33	6,232.33	6,251.33	40.63	215.85	144.64	1,244.93	-2,163.83	4,080.80	3,829.43	251.37	16.235		
6,800.00	6,343.52	6,324.52	6,343.52	41.28	219.07	144.94	1,244.93	-2,163.83	4,113.28	3,858.18	255.10	16.124		
6,900.00	6,435.71	6,416.71	6,435.71	41.92	222.29	145.24	1,244.93	-2,163.83	4,145.87	3,887.04	258.83	16.018		
7,000.00	6,527.86	6,508.86	6,527.86	42.56	225.50	137.66	1,244.93	-2,163.83	4,178.14	3,915.57	262.57	15.913		
7,100.00	6,618.85	6,600.15	6,618.85	43.19	228.69	117.51	1,244.93	-2,163.83	4,204.36	3,938.10	266.26	15.790		
7,200.00	6,706.47	6,687.47	6,706.47	43.76	231.74	103.39	1,244.93	-2,163.83	4,222.52	3,952.73	269.79	15.651		
7,300.00	6,788.56	6,769.56	6,788.56	44.26	234.60	94.40	1,244.93	-2,163.83	4,232.56	3,959.46	273.09	15.499		
7,400.00	6,863.10	6,844.10	6,863.10	44.70	237.21	89.01	1,244.93	-2,163.83	4,234.65	3,958.55	276.10	15.338		
7,500.00	6,928.26	6,909.26	6,928.26	45.07	239.48	86.11	1,244.93	-2,163.83	4,229.21	3,950.44	278.76	15.171		
7,600.00	6,982.42	6,963.42	6,982.42	45.39	241.37	85.00	1,244.93	-2,163.83	4,216.80	3,935.71	281.09	15.002		
7,700.00	7,024.26	7,005.26	7,024.26	45.67	242.83	85.22	1,244.93	-2,163.83	4,198.13	3,915.07	283.06	14.831		
7,800.00	7,052.75	7,033.75	7,052.75	45.92	243.83	86.50	1,244.93	-2,163.83	4,173.95	3,889.26	284.69	14.661		
7,900.00	7,067.18	7,048.18	7,067.18	46.16	244.33	88.64	1,244.93	-2,163.83	4,145.04	3,859.08	285.96	14.495		
8,000.00	7,068.85	7,049.85	7,068.85	46.42	244.39	90.06	1,244.93	-2,163.83	4,112.83	3,825.91	286.92	14.334		
8,100.00	7,068.56	7,049.56	7,068.56	46.78	244.38	90.05	1,244.93	-2,163.83	4,082.01	3,794.04	287.97	14.175		
8,200.00	7,068.26	7,049.26	7,068.26	47.29	244.37	90.05	1,244.93	-2,163.83	4,053.41	3,764.25	289.16	14.018		
8,300.00	7,067.96	7,048.96	7,067.96	48.03	244.36	90.04	1,244.93	-2,163.83	4,027.10	3,736.60	290.50	13.863		
8,400.00	7,067.66	7,048.66	7,067.66	49.02	244.35	90.04	1,244.93	-2,163.83	4,003.12	3,711.15	291.97	13.711		
8,500.00	7,067.37	7,048.37	7,067.37	50.27	244.34	90.04	1,244.93	-2,163.83	3,981.50	3,687.94	293.56	13.563		
8,600.00	7,067.07	7,048.07	7,067.07	51.75	244.33	90.03	1,244.93	-2,163.83	3,962.29	3,667.03	295.26	13.420		
8,700.00	7,066.77	7,047.77	7,066.77	53.42	244.31	90.03	1,244.93	-2,163.83	3,945.52	3,648.47	297.05	13.282		
8,800.00	7,066.47	7,047.47	7,066.47	55.24	244.30	90.02	1,244.93	-2,163.83	3,931.22	3,632.29	298.93	13.151		
8,900.00	7,066.18	7,047.18	7,066.18	57.18	244.29	90.02	1,244.93	-2,163.83	3,919.43	3,618.55	300.88	13.026		
9,000.00	7,065.88	7,046.88	7,065.88	59.21	244.28	90.01	1,244.93	-2,163.83	3,910.15	3,607.26	302.89	12.909		
9,100.00	7,065.58	7,046.58	7,065.58	61.33	244.27	90.01	1,244.93	-2,163.83	3,903.42	3,598.47	304.95	12.800		
9,200.00	7,065.28	7,046.28	7,065.28	63.51	244.26	90.00	1,244.93	-2,163.83	3,899.24	3,592.20	307.04	12.699		
9,300.00	7,064.99	7,045.99	7,064.99	65.76	244.25	90.00	1,244.93	-2,163.83	3,897.63	3,588.46	309.17	12.607		
9,313.05	7,064.95	7,045.95	7,064.95	66.06	244.25	90.00	1,244.93	-2,163.83	3,897.60	3,588.16	309.45	12.595		
9,400.00	7,064.69	7,045.69	7,064.69	68.06	244.24	90.00	1,244.93	-2,163.83	3,898.57	3,587.27	311.30	12.523		
9,500.00	7,064.39	7,045.39	7,064.39	70.40	244.23	89.99	1,244.93	-2,163.83	3,902.08	3,588.64	313.44	12.449		
9,600.00	7,064.09	7,045.09	7,064.09	72.78	244.22	89.99	1,244.93	-2,163.83	3,908.15	3,592.57	315.58	12.384		
9,700.00	7,063.80	7,044.80	7,063.80	75.20	244.21	89.98	1,244.93	-2,163.83	3,916.76	3,599.05	317.71	12.328		
9,800.00	7,063.50	7,044.50	7,063.50	77.65	244.20	89.98	1,244.93	-2,163.83	3,927.90	3,608.09	319.82	12.282		
9,900.00	7,063.20	7,044.20	7,063.20	80.13	244.19	89.97	1,244.93	-2,163.83	3,941.55	3,619.65	321.90	12.245		
10,000.00	7,062.90	7,043.90	7,062.90	82.64	244.18	89.97	1,244.93	-2,163.83	3,957.68	3,633.72	323.95	12.217		
10,100.00	7,062.61	7,043.61	7,062.61	85.17	244.17	89.97	1,244.93	-2,163.83	3,976.25	3,650.29	325.97	12.198		
10,200.00	7,062.31	7,043.31	7,062.31	87.72	244.16	89.96	1,244.93	-2,163.83	3,997.25	3,669.31	327.94	12.189		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,300.00	7,062.01	7,043.01	7,062.01	90.28	244.15	89.96	1,244.93	-2,163.83	4,020.62	3,690.76	329.86	12.189 SF	
10,400.00	7,061.71	7,042.71	7,061.71	92.87	244.14	89.95	1,244.93	-2,163.83	4,046.33	3,714.59	331.73	12.197	
10,500.00	7,061.41	7,042.41	7,061.41	95.47	244.13	89.95	1,244.93	-2,163.83	4,074.33	3,740.77	333.55	12.215	
10,600.00	7,061.12	7,042.12	7,061.12	98.09	244.12	89.94	1,244.93	-2,163.83	4,104.58	3,769.26	335.32	12.241	
10,700.00	7,060.82	7,041.82	7,060.82	100.72	244.11	89.94	1,244.93	-2,163.83	4,137.02	3,800.00	337.02	12.275	
10,800.00	7,060.52	7,041.52	7,060.52	103.37	244.10	89.93	1,244.93	-2,163.83	4,171.61	3,832.94	338.67	12.318	
10,900.00	7,060.22	7,041.22	7,060.22	106.02	244.09	89.93	1,244.93	-2,163.83	4,208.29	3,868.03	340.26	12.368	
11,000.00	7,059.93	7,040.93	7,059.93	108.69	244.08	89.93	1,244.93	-2,163.83	4,247.01	3,905.23	341.78	12.426	
11,100.00	7,059.63	7,040.63	7,059.63	111.36	244.07	89.92	1,244.93	-2,163.83	4,287.71	3,944.47	343.25	12.492	
11,200.00	7,059.33	7,040.33	7,059.33	114.05	244.06	89.92	1,244.93	-2,163.83	4,330.34	3,985.70	344.65	12.565	
11,300.00	7,059.03	7,040.03	7,059.03	116.74	244.04	89.91	1,244.93	-2,163.83	4,374.84	4,028.85	345.99	12.644	
11,400.00	7,058.74	7,039.74	7,058.74	119.44	244.03	89.91	1,244.93	-2,163.83	4,421.16	4,073.89	347.27	12.731	
11,500.00	7,058.44	7,039.44	7,058.44	122.15	244.02	89.90	1,244.93	-2,163.83	4,469.23	4,120.73	348.50	12.824	
11,600.00	7,058.14	7,039.14	7,058.14	124.86	244.01	89.90	1,244.93	-2,163.83	4,519.01	4,169.34	349.66	12.924	
11,700.00	7,057.84	7,038.84	7,057.84	127.58	244.00	89.90	1,244.93	-2,163.83	4,570.43	4,219.65	350.77	13.030	
11,800.00	7,057.55	7,038.55	7,057.55	130.31	243.99	89.89	1,244.93	-2,163.83	4,623.44	4,271.61	351.83	13.141	
11,900.00	7,057.25	7,038.25	7,057.25	133.04	243.98	89.89	1,244.93	-2,163.83	4,677.99	4,325.16	352.83	13.258	
12,000.00	7,056.95	7,037.95	7,056.95	135.78	243.97	89.88	1,244.93	-2,163.83	4,734.02	4,380.24	353.78	13.381	
12,100.00	7,056.65	7,037.65	7,056.65	138.52	243.96	89.88	1,244.93	-2,163.83	4,791.49	4,436.80	354.69	13.509	
12,200.00	7,056.36	7,037.36	7,056.36	141.27	243.95	89.87	1,244.93	-2,163.83	4,850.33	4,494.79	355.54	13.642	
12,300.00	7,056.06	7,037.06	7,056.06	144.02	243.94	89.87	1,244.93	-2,163.83	4,910.51	4,554.16	356.35	13.780	
12,400.00	7,055.76	7,036.76	7,055.76	146.78	243.93	89.86	1,244.93	-2,163.83	4,971.97	4,614.86	357.11	13.923	
12,500.00	7,055.46	7,036.46	7,055.46	149.54	243.92	89.86	1,244.93	-2,163.83	5,034.67	4,676.83	357.84	14.070	
12,600.00	7,055.17	7,036.17	7,055.17	152.30	243.91	89.86	1,244.93	-2,163.83	5,098.56	4,740.04	358.52	14.221	
12,700.00	7,054.87	7,035.87	7,054.87	155.07	243.90	89.85	1,244.93	-2,163.83	5,163.59	4,804.43	359.16	14.377	
12,800.00	7,054.57	7,035.57	7,054.57	157.84	243.89	89.85	1,244.93	-2,163.83	5,229.73	4,869.96	359.77	14.536	
12,900.00	7,054.27	7,035.27	7,054.27	160.61	243.88	89.84	1,244.93	-2,163.83	5,296.93	4,936.58	360.34	14.700	
13,000.00	7,053.97	7,034.97	7,053.97	163.39	243.87	89.84	1,244.93	-2,163.83	5,365.15	5,004.27	360.88	14.867	
13,100.00	7,053.68	7,034.68	7,053.68	166.17	243.86	89.83	1,244.93	-2,163.83	5,434.35	5,072.96	361.39	15.037	
13,200.00	7,053.38	7,034.38	7,053.38	168.95	243.85	89.83	1,244.93	-2,163.83	5,504.51	5,142.64	361.87	15.211	
13,300.00	7,053.08	7,034.08	7,053.08	171.73	243.84	89.83	1,244.93	-2,163.83	5,575.57	5,213.25	362.32	15.389	
13,400.00	7,052.78	7,033.78	7,052.78	174.52	243.83	89.82	1,244.93	-2,163.83	5,647.51	5,284.77	362.74	15.569	
13,500.00	7,052.49	7,033.49	7,052.49	177.31	243.82	89.82	1,244.93	-2,163.83	5,720.29	5,357.15	363.14	15.752	
13,600.00	7,052.19	7,033.19	7,052.19	180.10	243.81	89.81	1,244.93	-2,163.83	5,793.89	5,430.38	363.51	15.939	
13,700.00	7,051.89	7,032.89	7,051.89	182.90	243.80	89.81	1,244.93	-2,163.83	5,868.26	5,504.40	363.86	16.128	
13,800.00	7,051.59	7,032.59	7,051.59	185.69	243.78	89.80	1,244.93	-2,163.83	5,943.39	5,579.20	364.19	16.320	
13,900.00	7,051.30	7,032.30	7,051.30	188.49	243.77	89.80	1,244.93	-2,163.83	6,019.24	5,654.75	364.50	16.514	
14,000.00	7,051.00	7,032.00	7,051.00	191.29	243.76	89.79	1,244.93	-2,163.83	6,095.79	5,731.01	364.78	16.711	
14,100.00	7,050.70	7,031.70	7,050.70	194.09	243.75	89.79	1,244.93	-2,163.83	6,173.01	5,807.95	365.05	16.910	
14,200.00	7,050.40	7,031.40	7,050.40	196.89	243.74	89.79	1,244.93	-2,163.83	6,250.87	5,885.57	365.31	17.111	
14,300.00	7,050.11	7,031.11	7,050.11	199.70	243.73	89.78	1,244.93	-2,163.83	6,329.36	5,963.82	365.54	17.315	
14,400.00	7,049.81	7,030.81	7,049.81	202.50	243.72	89.78	1,244.93	-2,163.83	6,408.45	6,042.68	365.76	17.521	
14,500.00	7,049.51	7,030.51	7,049.51	205.31	243.71	89.77	1,244.93	-2,163.83	6,488.11	6,122.14	365.97	17.728	
14,600.00	7,049.21	7,030.21	7,049.21	208.12	243.70	89.77	1,244.93	-2,163.83	6,568.33	6,202.16	366.16	17.938	
14,700.00	7,048.92	7,029.92	7,048.92	210.93	243.69	89.76	1,244.93	-2,163.83	6,649.08	6,282.74	366.35	18.150	
14,800.00	7,048.62	7,029.62	7,048.62	213.74	243.68	89.76	1,244.93	-2,163.83	6,730.36	6,363.84	366.51	18.363	
14,900.00	7,048.32	7,029.32	7,048.32	216.55	243.67	89.76	1,244.93	-2,163.83	6,812.13	6,445.46	366.67	18.578	
15,000.00	7,048.02	7,029.02	7,048.02	219.37	243.66	89.75	1,244.93	-2,163.83	6,894.38	6,527.56	366.82	18.795	
15,100.00	7,047.73	7,028.73	7,047.73	222.18	243.65	89.75	1,244.93	-2,163.83	6,977.09	6,610.14	366.95	19.014	
15,200.00	7,047.43	7,028.43	7,047.43	225.00	243.64	89.74	1,244.93	-2,163.83	7,060.26	6,693.18	367.08	19.234	
15,300.00	7,047.13	7,028.13	7,047.13	227.81	243.63	89.74	1,244.93	-2,163.83	7,143.85	6,776.66	367.20	19.455	
15,343.67	7,047.00	7,028.00	7,047.00	229.04	243.62	89.74	1,244.93	-2,163.83	7,180.49	6,813.25	367.24	19.552	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-92.00	-88.40	-2,533.88	2,535.65					
100.00	100.00	66.00	100.00	3.28	3.48	-92.00	-88.40	-2,533.88	2,535.42	2,528.66	6.76	374.998		
200.00	200.00	166.00	200.00	3.34	5.21	-92.00	-88.40	-2,533.88	2,535.42	2,526.87	8.55	296.599		
300.00	299.98	265.98	299.98	3.44	8.22	84.63	-88.40	-2,533.88	2,535.26	2,523.59	11.66	217.400		
400.00	399.84	365.84	399.84	3.59	11.50	84.76	-88.40	-2,533.88	2,534.77	2,519.68	15.09	167.957		
500.00	499.45	465.45	499.45	3.79	14.87	84.97	-88.40	-2,533.88	2,533.99	2,515.33	18.66	135.828		
600.00	598.70	564.70	598.70	4.03	18.27	85.27	-88.40	-2,533.88	2,532.94	2,510.65	22.29	113.615		
700.00	697.47	663.47	697.47	4.31	21.67	85.64	-88.40	-2,533.88	2,531.69	2,505.71	25.98	97.449		
800.00	795.62	761.62	795.62	4.64	25.06	86.09	-88.40	-2,533.88	2,530.29	2,500.59	29.70	85.207		
900.00	893.06	859.06	893.06	5.00	28.43	86.62	-88.40	-2,533.88	2,528.82	2,495.39	33.43	75.639		
1,000.00	989.64	955.64	989.64	5.40	31.79	87.21	-88.40	-2,533.88	2,527.38	2,490.20	37.18	67.975		
1,100.00	1,085.27	1,051.27	1,085.27	5.83	35.11	87.87	-88.40	-2,533.88	2,526.07	2,485.13	40.94	61.709		
1,200.00	1,179.82	1,145.82	1,179.82	6.29	38.40	88.59	-88.40	-2,533.88	2,525.00	2,480.31	44.69	56.502		
1,300.00	1,273.17	1,239.17	1,273.17	6.79	41.64	89.36	-88.40	-2,533.88	2,524.32	2,475.88	48.44	52.116		
1,379.90	1,347.08	1,313.08	1,347.08	7.21	44.22	90.00	-88.40	-2,533.88	2,524.14	2,472.70	51.43	49.078 CC		
1,400.00	1,365.46	1,331.46	1,365.46	7.32	44.86	90.17	-88.40	-2,533.88	2,524.15	2,471.97	52.18	48.376		
1,500.00	1,457.65	1,423.65	1,457.65	7.87	48.07	90.98	-88.40	-2,533.88	2,524.57	2,468.63	55.94	45.132		
1,600.00	1,549.83	1,515.83	1,549.83	8.43	51.28	91.79	-88.40	-2,533.88	2,525.59	2,465.88	59.71	42.297		
1,700.00	1,642.02	1,608.02	1,642.02	9.01	54.49	92.60	-88.40	-2,533.88	2,527.20	2,463.70	63.50	39.800		
1,800.00	1,734.21	1,700.21	1,734.21	9.59	57.70	93.41	-88.40	-2,533.88	2,529.40	2,462.11	67.29	37.588		
1,900.00	1,826.39	1,807.61	1,826.39	10.18	61.45	94.22	-88.40	-2,533.88	2,532.20	2,460.57	71.63	35.354		
2,000.00	1,918.58	1,884.58	1,918.58	10.78	64.13	95.02	-88.40	-2,533.88	2,535.58	2,460.68	74.90	33.852		
2,100.00	2,010.77	1,976.77	2,010.77	11.39	67.34	95.83	-88.40	-2,533.88	2,539.55	2,460.84	78.72	32.262		
2,200.00	2,102.95	2,068.95	2,102.95	11.99	70.56	96.63	-88.40	-2,533.88	2,544.11	2,461.58	82.53	30.826		
2,300.00	2,195.14	2,161.14	2,195.14	12.61	73.77	97.43	-88.40	-2,533.88	2,549.24	2,462.89	86.35	29.522		
2,400.00	2,287.32	2,253.32	2,287.32	13.22	76.99	98.22	-88.40	-2,533.88	2,554.96	2,464.78	90.17	28.334		
2,500.00	2,379.51	2,345.51	2,379.51	13.84	80.20	99.02	-88.40	-2,533.88	2,561.25	2,467.25	94.00	27.248		
2,600.00	2,471.70	2,437.70	2,471.70	14.46	83.42	99.80	-88.40	-2,533.88	2,568.10	2,470.28	97.82	26.253		
2,700.00	2,563.88	2,529.88	2,563.88	15.08	86.64	100.59	-88.40	-2,533.88	2,575.52	2,473.88	101.64	25.339		
2,800.00	2,656.07	2,622.07	2,656.07	15.71	89.85	101.37	-88.40	-2,533.88	2,583.51	2,478.04	105.47	24.496		
2,900.00	2,748.26	2,714.26	2,748.26	16.33	93.07	102.15	-88.40	-2,533.88	2,592.04	2,482.75	109.29	23.717		
3,000.00	2,840.44	2,806.44	2,840.44	16.96	96.28	102.92	-88.40	-2,533.88	2,601.13	2,488.01	113.11	22.996		
3,100.00	2,932.63	2,901.37	2,932.63	17.59	99.60	103.69	-88.40	-2,533.88	2,610.76	2,493.73	117.03	22.308		
3,200.00	3,024.81	3,009.19	3,024.81	18.22	103.36	104.45	-88.40	-2,533.88	2,620.92	2,499.53	121.40	21.590		
3,300.00	3,117.00	3,083.00	3,117.00	18.86	105.93	105.21	-88.40	-2,533.88	2,631.62	2,507.05	124.58	21.125		
3,400.00	3,209.19	3,175.19	3,209.19	19.49	109.15	105.96	-88.40	-2,533.88	2,642.85	2,514.45	128.39	20.584		
3,500.00	3,301.37	3,267.37	3,301.37	20.12	112.37	106.71	-88.40	-2,533.88	2,654.59	2,522.38	132.21	20.079		
3,600.00	3,393.56	3,359.56	3,393.56	20.76	115.58	107.45	-88.40	-2,533.88	2,666.84	2,530.82	136.02	19.606		
3,700.00	3,485.75	3,451.75	3,485.75	21.39	118.80	108.18	-88.40	-2,533.88	2,679.60	2,539.76	139.84	19.162		
3,800.00	3,577.93	3,543.93	3,577.93	22.03	122.02	108.91	-88.40	-2,533.88	2,692.85	2,549.21	143.65	18.746		
3,900.00	3,670.12	3,636.12	3,670.12	22.67	125.23	109.64	-88.40	-2,533.88	2,706.60	2,559.14	147.46	18.355		
4,000.00	3,762.30	3,728.30	3,762.30	23.30	128.45	110.35	-88.40	-2,533.88	2,720.83	2,569.56	151.26	17.988		
4,100.00	3,854.49	3,820.49	3,854.49	23.94	131.67	111.06	-88.40	-2,533.88	2,735.53	2,580.46	155.06	17.641		
4,200.00	3,946.68	3,912.68	3,946.68	24.58	134.89	111.76	-88.40	-2,533.88	2,750.70	2,591.83	158.87	17.315		
4,300.00	4,038.86	4,004.86	4,038.86	25.22	138.10	112.46	-88.40	-2,533.88	2,766.33	2,603.66	162.66	17.006		
4,400.00	4,131.05	4,102.95	4,131.05	25.86	141.53	113.15	-88.40	-2,533.88	2,782.41	2,615.74	166.67	16.694		
4,500.00	4,223.24	4,189.24	4,223.24	26.50	144.54	113.83	-88.40	-2,533.88	2,798.93	2,628.68	170.25	16.440		
4,600.00	4,315.42	4,281.42	4,315.42	27.14	147.76	114.51	-88.40	-2,533.88	2,815.90	2,641.85	174.05	16.179		
4,700.00	4,407.61	4,373.61	4,407.61	27.78	150.97	115.17	-88.40	-2,533.88	2,833.29	2,655.45	177.83	15.932		
4,800.00	4,499.79	4,465.79	4,499.79	28.42	154.19	115.84	-88.40	-2,533.88	2,851.10	2,669.48	181.62	15.698		
4,900.00	4,591.98	4,557.98	4,591.98	29.06	157.41	116.49	-88.40	-2,533.88	2,869.32	2,683.92	185.40	15.476		
5,000.00	4,684.17	4,650.17	4,684.17	29.70	160.63	117.13	-88.40	-2,533.88	2,887.95	2,698.76	189.19	15.265		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,742.35	4,776.35	30.34	163.84	117.77	-88.40	-2,533.88	2,906.98	2,714.01	192.97	15.065		
5,200.00	4,868.54	4,834.54	4,868.54	30.98	167.06	118.40	-88.40	-2,533.88	2,926.39	2,729.65	196.74	14.874		
5,300.00	4,960.73	4,926.73	4,960.73	31.63	170.28	119.03	-88.40	-2,533.88	2,946.19	2,745.67	200.52	14.693		
5,400.00	5,052.91	5,018.91	5,052.91	32.27	173.50	119.64	-88.40	-2,533.88	2,966.36	2,762.07	204.29	14.520		
5,500.00	5,145.10	5,111.10	5,145.10	32.91	176.71	120.25	-88.40	-2,533.88	2,986.90	2,778.84	208.06	14.356		
5,600.00	5,237.28	5,203.28	5,237.28	33.55	179.93	120.85	-88.40	-2,533.88	3,007.80	2,795.97	211.83	14.199		
5,700.00	5,329.47	5,304.53	5,329.47	34.20	183.47	121.45	-88.40	-2,533.88	3,029.05	2,813.14	215.91	14.029		
5,800.00	5,421.66	5,387.66	5,421.66	34.84	186.37	122.03	-88.40	-2,533.88	3,050.64	2,831.28	219.36	13.907		
5,900.00	5,513.84	5,479.84	5,513.84	35.48	189.58	122.61	-88.40	-2,533.88	3,072.57	2,849.45	223.12	13.771		
6,000.00	5,606.03	5,572.03	5,606.03	36.13	192.80	123.19	-88.40	-2,533.88	3,094.83	2,867.95	226.88	13.641		
6,100.00	5,698.22	5,664.22	5,698.22	36.77	196.02	123.75	-88.40	-2,533.88	3,117.41	2,886.78	230.63	13.517		
6,200.00	5,790.40	5,756.40	5,790.40	37.41	199.24	124.31	-88.40	-2,533.88	3,140.31	2,905.92	234.39	13.398		
6,300.00	5,882.59	5,848.59	5,882.59	38.06	202.46	124.86	-88.40	-2,533.88	3,163.52	2,925.37	238.14	13.284		
6,400.00	5,974.77	5,940.77	5,974.77	38.70	205.67	125.40	-88.40	-2,533.88	3,187.03	2,945.13	241.89	13.175		
6,500.00	6,066.96	6,032.96	6,066.96	39.34	208.89	125.93	-88.40	-2,533.88	3,210.83	2,965.19	245.64	13.071		
6,600.00	6,159.15	6,125.15	6,159.15	39.99	212.11	126.46	-88.40	-2,533.88	3,234.93	2,985.53	249.39	12.971		
6,700.00	6,251.33	6,217.33	6,251.33	40.63	215.33	126.98	-88.40	-2,533.88	3,259.30	3,006.16	253.14	12.876		
6,800.00	6,343.52	6,309.52	6,343.52	41.28	218.54	127.50	-88.40	-2,533.88	3,283.96	3,027.07	256.89	12.784		
6,900.00	6,435.71	6,401.71	6,435.71	41.92	221.76	128.00	-88.40	-2,533.88	3,308.88	3,048.25	260.63	12.696		
7,000.00	6,527.86	6,506.14	6,527.86	42.56	225.41	120.99	-88.40	-2,533.88	3,333.44	3,068.64	264.80	12.589		
7,100.00	6,618.85	6,584.85	6,618.85	43.19	228.16	102.13	-88.40	-2,533.88	3,349.36	3,081.29	268.06	12.495		
7,200.00	6,706.47	6,672.47	6,706.47	43.76	231.21	89.28	-88.40	-2,533.88	3,354.10	3,082.51	271.60	12.350		
7,300.00	6,788.56	6,754.56	6,788.56	44.26	234.08	81.58	-88.40	-2,533.88	3,347.95	3,073.07	274.89	12.179		
7,400.00	6,863.10	6,829.10	6,863.10	44.70	236.68	77.56	-88.40	-2,533.88	3,331.48	3,053.61	277.87	11.990		
7,500.00	6,928.26	6,905.75	6,928.26	45.07	239.36	76.19	-88.40	-2,533.88	3,305.50	3,024.60	280.90	11.768		
7,600.00	6,982.42	6,948.42	6,982.42	45.39	240.85	76.81	-88.40	-2,533.88	3,271.04	2,988.28	282.76	11.568		
7,700.00	7,024.26	7,009.74	7,024.26	45.67	242.99	79.04	-88.40	-2,533.88	3,229.29	2,943.95	285.33	11.318		
7,800.00	7,052.75	7,018.75	7,052.75	45.92	243.30	82.61	-88.40	-2,533.88	3,181.50	2,895.33	286.17	11.118		
7,900.00	7,067.18	7,033.18	7,067.18	46.16	243.81	87.29	-88.40	-2,533.88	3,128.97	2,841.67	287.29	10.891		
8,000.00	7,068.85	7,034.85	7,068.85	46.42	243.86	90.11	-88.40	-2,533.88	3,073.54	2,785.46	288.09	10.669		
8,100.00	7,068.56	7,034.56	7,068.56	46.78	243.85	90.11	-88.40	-2,533.88	3,019.68	2,730.73	288.95	10.451		
8,200.00	7,068.26	7,034.26	7,068.26	47.29	243.84	90.10	-88.40	-2,533.88	2,968.21	2,678.25	289.96	10.237		
8,300.00	7,067.96	7,033.96	7,067.96	48.03	243.83	90.09	-88.40	-2,533.88	2,919.25	2,628.14	291.12	10.028		
8,400.00	7,067.66	7,033.66	7,067.66	49.02	243.82	90.09	-88.40	-2,533.88	2,872.95	2,580.53	292.42	9.825		
8,500.00	7,067.37	7,033.37	7,067.37	50.27	243.81	90.08	-88.40	-2,533.88	2,829.42	2,535.55	293.87	9.628		
8,600.00	7,067.07	7,033.07	7,067.07	51.75	243.80	90.07	-88.40	-2,533.88	2,788.80	2,493.34	295.46	9.439		
8,700.00	7,066.77	7,032.77	7,066.77	53.42	243.79	90.07	-88.40	-2,533.88	2,751.22	2,454.05	297.17	9.258		
8,800.00	7,066.47	7,032.47	7,066.47	55.24	243.78	90.06	-88.40	-2,533.88	2,716.80	2,417.80	299.00	9.086		
8,900.00	7,066.18	7,032.18	7,066.18	57.18	243.77	90.05	-88.40	-2,533.88	2,685.66	2,384.73	300.93	8.924		
9,000.00	7,065.88	7,031.88	7,065.88	59.21	243.76	90.05	-88.40	-2,533.88	2,657.93	2,354.97	302.96	8.773		
9,100.00	7,065.58	7,031.58	7,065.58	61.33	243.75	90.04	-88.40	-2,533.88	2,633.70	2,328.64	305.05	8.634		
9,200.00	7,065.28	7,031.28	7,065.28	63.51	243.74	90.03	-88.40	-2,533.88	2,613.07	2,305.87	307.21	8.506		
9,300.00	7,064.99	7,030.99	7,064.99	65.76	243.73	90.03	-88.40	-2,533.88	2,596.14	2,286.74	309.40	8.391		
9,400.00	7,064.69	7,030.69	7,064.69	68.06	243.72	90.02	-88.40	-2,533.88	2,582.97	2,271.36	311.61	8.289		
9,500.00	7,064.39	7,030.39	7,064.39	70.40	243.71	90.01	-88.40	-2,533.88	2,573.62	2,259.80	313.82	8.201		
9,600.00	7,064.09	7,030.09	7,064.09	72.78	243.70	90.01	-88.40	-2,533.88	2,568.13	2,252.11	316.02	8.127		
9,691.06	7,063.82	7,029.82	7,063.82	74.98	243.69	90.00	-88.40	-2,533.88	2,566.52	2,248.53	317.99	8.071		
9,700.00	7,063.80	7,029.80	7,063.80	75.20	243.69	90.00	-88.40	-2,533.88	2,566.53	2,248.35	318.18	8.066 ES		
9,800.00	7,063.50	7,029.50	7,063.50	77.65	243.68	89.99	-88.40	-2,533.88	2,568.83	2,248.53	320.30	8.020		
9,900.00	7,063.20	7,029.20	7,063.20	80.13	243.67	89.99	-88.40	-2,533.88	2,575.01	2,252.66	322.35	7.988		
10,000.00	7,062.90	7,028.90	7,062.90	82.64	243.66	89.98	-88.40	-2,533.88	2,585.04	2,260.72	324.32	7.971		
10,100.00	7,062.61	7,028.61	7,062.61	85.17	243.65	89.97	-88.40	-2,533.88	2,598.89	2,272.68	326.21	7.967 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,200.00	7,062.31	7,028.31	7,062.31	87.72	243.64	89.97	-88.40	-2,533.88	2,616.49	2,288.49	328.00	7.977		
10,300.00	7,062.01	7,028.01	7,062.01	90.28	243.62	89.96	-88.40	-2,533.88	2,637.77	2,308.07	329.69	8.001		
10,400.00	7,061.71	7,027.71	7,061.71	92.87	243.61	89.95	-88.40	-2,533.88	2,662.63	2,331.35	331.28	8.037		
10,500.00	7,061.41	7,027.41	7,061.41	95.47	243.60	89.95	-88.40	-2,533.88	2,690.98	2,358.24	332.75	8.087		
10,600.00	7,061.12	7,027.12	7,061.12	98.09	243.59	89.94	-88.40	-2,533.88	2,722.71	2,388.61	334.11	8.149		
10,700.00	7,060.82	7,026.82	7,060.82	100.72	243.58	89.93	-88.40	-2,533.88	2,757.71	2,422.36	335.35	8.223		
10,800.00	7,060.52	7,026.52	7,060.52	103.37	243.57	89.93	-88.40	-2,533.88	2,795.84	2,459.35	336.49	8.309		
10,900.00	7,060.22	7,026.22	7,060.22	106.02	243.56	89.92	-88.40	-2,533.88	2,836.99	2,499.47	337.52	8.405		
11,000.00	7,059.93	7,025.93	7,059.93	108.69	243.55	89.91	-88.40	-2,533.88	2,881.03	2,542.57	338.45	8.512		
11,100.00	7,059.63	7,025.63	7,059.63	111.36	243.54	89.91	-88.40	-2,533.88	2,927.82	2,588.53	339.28	8.629		
11,200.00	7,059.33	7,025.33	7,059.33	114.05	243.53	89.90	-88.40	-2,533.88	2,977.23	2,637.21	340.02	8.756		
11,300.00	7,059.03	7,025.03	7,059.03	116.74	243.52	89.89	-88.40	-2,533.88	3,029.14	2,688.46	340.67	8.892		
11,400.00	7,058.74	7,024.74	7,058.74	119.44	243.51	89.89	-88.40	-2,533.88	3,083.42	2,742.17	341.24	9.036		
11,500.00	7,058.44	7,024.44	7,058.44	122.15	243.50	89.88	-88.40	-2,533.88	3,139.94	2,798.21	341.74	9.188		
11,600.00	7,058.14	7,024.14	7,058.14	124.86	243.49	89.87	-88.40	-2,533.88	3,198.60	2,856.44	342.16	9.348		
11,700.00	7,057.84	7,023.84	7,057.84	127.58	243.48	89.87	-88.40	-2,533.88	3,259.27	2,916.75	342.52	9.516		
11,800.00	7,057.55	7,023.55	7,057.55	130.31	243.47	89.86	-88.40	-2,533.88	3,321.84	2,979.02	342.82	9.690		
11,900.00	7,057.25	7,023.25	7,057.25	133.04	243.46	89.85	-88.40	-2,533.88	3,386.20	3,043.14	343.07	9.870		
12,000.00	7,056.95	7,022.95	7,056.95	135.78	243.45	89.85	-88.40	-2,533.88	3,452.27	3,109.01	343.26	10.057		
12,100.00	7,056.65	7,022.65	7,056.65	138.52	243.44	89.84	-88.40	-2,533.88	3,519.94	3,176.52	343.42	10.250		
12,200.00	7,056.36	7,022.36	7,056.36	141.27	243.43	89.83	-88.40	-2,533.88	3,589.11	3,245.58	343.53	10.448		
12,300.00	7,056.06	7,022.06	7,056.06	144.02	243.42	89.83	-88.40	-2,533.88	3,659.72	3,316.10	343.61	10.651		
12,400.00	7,055.76	7,021.76	7,055.76	146.78	243.41	89.82	-88.40	-2,533.88	3,731.66	3,388.00	343.66	10.859		
12,500.00	7,055.46	7,021.46	7,055.46	149.54	243.40	89.81	-88.40	-2,533.88	3,804.88	3,461.20	343.68	11.071		
12,600.00	7,055.17	7,021.17	7,055.17	152.30	243.39	89.81	-88.40	-2,533.88	3,879.29	3,535.62	343.67	11.288		
12,700.00	7,054.87	7,020.87	7,054.87	155.07	243.38	89.80	-88.40	-2,533.88	3,954.83	3,611.18	343.64	11.509		
12,800.00	7,054.57	7,020.57	7,054.57	157.84	243.37	89.79	-88.40	-2,533.88	4,031.43	3,687.84	343.59	11.733		
12,900.00	7,054.27	7,020.27	7,054.27	160.61	243.35	89.79	-88.40	-2,533.88	4,109.04	3,765.51	343.53	11.961		
13,000.00	7,053.97	7,019.97	7,053.97	163.39	243.34	89.78	-88.40	-2,533.88	4,187.60	3,844.16	343.45	12.193		
13,100.00	7,053.68	7,019.68	7,053.68	166.17	243.33	89.77	-88.40	-2,533.88	4,267.06	3,923.71	343.35	12.428		
13,200.00	7,053.38	7,019.38	7,053.38	168.95	243.32	89.77	-88.40	-2,533.88	4,347.36	4,004.12	343.24	12.666		
13,300.00	7,053.08	7,019.08	7,053.08	171.73	243.31	89.76	-88.40	-2,533.88	4,428.47	4,085.34	343.13	12.906		
13,400.00	7,052.78	7,018.78	7,052.78	174.52	243.30	89.75	-88.40	-2,533.88	4,510.34	4,167.33	343.00	13.150		
13,500.00	7,052.49	7,018.49	7,052.49	177.31	243.29	89.75	-88.40	-2,533.88	4,592.92	4,250.05	342.87	13.395		
13,600.00	7,052.19	7,018.19	7,052.19	180.10	243.28	89.74	-88.40	-2,533.88	4,676.18	4,333.45	342.73	13.644		
13,700.00	7,051.89	7,017.89	7,051.89	182.90	243.27	89.73	-88.40	-2,533.88	4,760.09	4,417.50	342.59	13.894		
13,800.00	7,051.59	7,017.59	7,051.59	185.69	243.26	89.73	-88.40	-2,533.88	4,844.61	4,502.17	342.44	14.147		
13,900.00	7,051.30	7,017.30	7,051.30	188.49	243.25	89.72	-88.40	-2,533.88	4,929.71	4,587.42	342.29	14.402		
14,000.00	7,051.00	7,017.00	7,051.00	191.29	243.24	89.71	-88.40	-2,533.88	5,015.36	4,673.22	342.14	14.659		
14,100.00	7,050.70	7,016.70	7,050.70	194.09	243.23	89.71	-88.40	-2,533.88	5,101.53	4,759.55	341.98	14.918		
14,200.00	7,050.40	7,016.40	7,050.40	196.89	243.22	89.70	-88.40	-2,533.88	5,188.20	4,846.37	341.82	15.178		
14,300.00	7,050.11	7,016.11	7,050.11	199.70	243.21	89.69	-88.40	-2,533.88	5,275.33	4,933.67	341.67	15.440		
14,400.00	7,049.81	7,015.81	7,049.81	202.50	243.20	89.69	-88.40	-2,533.88	5,362.92	5,021.41	341.51	15.704		
14,500.00	7,049.51	7,015.51	7,049.51	205.31	243.19	89.68	-88.40	-2,533.88	5,450.94	5,109.59	341.35	15.969		
14,600.00	7,049.21	7,015.21	7,049.21	208.12	243.18	89.67	-88.40	-2,533.88	5,539.36	5,198.17	341.19	16.235		
14,700.00	7,048.92	7,014.92	7,048.92	210.93	243.17	89.67	-88.40	-2,533.88	5,628.17	5,287.13	341.03	16.503		
14,800.00	7,048.62	7,014.62	7,048.62	213.74	243.16	89.66	-88.40	-2,533.88	5,717.35	5,376.47	340.88	16.772		
14,900.00	7,048.32	7,014.32	7,048.32	216.55	243.15	89.65	-88.40	-2,533.88	5,806.88	5,466.15	340.72	17.043		
15,000.00	7,048.02	7,014.02	7,048.02	219.37	243.14	89.65	-88.40	-2,533.88	5,896.75	5,556.18	340.57	17.314		
15,100.00	7,047.73	7,013.73	7,047.73	222.18	243.13	89.64	-88.40	-2,533.88	5,986.93	5,646.52	340.42	17.587		
15,200.00	7,047.43	7,013.43	7,047.43	225.00	243.12	89.63	-88.40	-2,533.88	6,077.43	5,737.16	340.27	17.861		
15,300.00	7,047.13	7,013.13	7,047.13	227.81	243.11	89.63	-88.40	-2,533.88	6,168.22	5,828.10	340.12	18.136		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	7,013.00	7,047.00	229.04	243.10	89.62	-88.40	-2,533.88	6,207.96	5,867.91	340.05	18.256	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	45.00	3.28	3.28	-104.69	-1,257.48	-4,795.40	4,957.74					
100.00	100.00	55.00	100.00	3.28	3.42	-104.69	-1,257.48	-4,795.40	4,957.54	4,950.83	6.70	739.673		
200.00	200.00	155.00	200.00	3.34	4.92	-104.69	-1,257.48	-4,795.40	4,957.54	4,949.28	8.26	600.489		
300.00	299.98	254.98	299.98	3.44	7.87	71.93	-1,257.48	-4,795.40	4,956.99	4,945.68	11.31	438.241		
400.00	399.84	354.84	399.84	3.59	11.14	72.01	-1,257.48	-4,795.40	4,955.37	4,940.65	14.72	336.538		
500.00	499.45	454.45	499.45	3.79	14.50	72.16	-1,257.48	-4,795.40	4,952.68	4,934.40	18.28	270.904		
600.00	598.70	553.70	598.70	4.03	17.89	72.37	-1,257.48	-4,795.40	4,948.94	4,927.03	21.92	225.805		
700.00	697.47	652.47	697.47	4.31	21.29	72.63	-1,257.48	-4,795.40	4,944.18	4,918.59	25.60	193.134		
800.00	795.62	750.62	795.62	4.64	24.68	72.95	-1,257.48	-4,795.40	4,938.44	4,909.13	29.31	168.470		
900.00	893.06	848.06	893.06	5.00	28.05	73.32	-1,257.48	-4,795.40	4,931.76	4,898.71	33.05	149.234		
1,000.00	989.64	944.64	989.64	5.40	31.40	73.74	-1,257.48	-4,795.40	4,924.18	4,887.39	36.79	133.839		
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	74.22	-1,257.48	-4,795.40	4,915.77	4,875.23	40.54	121.254		
1,200.00	1,179.82	1,134.82	1,179.82	6.29	38.01	74.74	-1,257.48	-4,795.40	4,906.60	4,862.31	44.29	110.786		
1,300.00	1,273.17	1,228.17	1,273.17	6.79	41.26	75.31	-1,257.48	-4,795.40	4,896.73	4,848.70	48.03	101.951		
1,400.00	1,365.46	1,320.46	1,365.46	7.32	44.47	75.80	-1,257.48	-4,795.40	4,886.40	4,834.64	51.76	94.396		
1,500.00	1,457.65	1,412.65	1,457.65	7.87	47.68	76.21	-1,257.48	-4,795.40	4,876.29	4,820.77	55.52	87.833		
1,600.00	1,549.83	1,504.83	1,549.83	8.43	50.89	76.62	-1,257.48	-4,795.40	4,866.46	4,807.18	59.29	82.085		
1,700.00	1,642.02	1,602.98	1,642.02	9.01	54.31	77.03	-1,257.48	-4,795.40	4,856.92	4,793.65	63.27	76.759		
1,800.00	1,734.21	1,689.21	1,734.21	9.59	57.32	77.44	-1,257.48	-4,795.40	4,847.68	4,780.82	66.86	72.506		
1,900.00	1,826.39	1,781.39	1,826.39	10.18	60.53	77.86	-1,257.48	-4,795.40	4,838.73	4,768.06	70.66	68.478		
2,000.00	1,918.58	1,873.58	1,918.58	10.78	63.75	78.28	-1,257.48	-4,795.40	4,830.07	4,755.60	74.47	64.860		
2,100.00	2,010.77	1,965.77	2,010.77	11.39	66.96	78.69	-1,257.48	-4,795.40	4,821.70	4,743.42	78.28	61.592		
2,200.00	2,102.95	2,057.95	2,102.95	11.99	70.17	79.11	-1,257.48	-4,795.40	4,813.64	4,731.53	82.11	58.627		
2,300.00	2,195.14	2,150.14	2,195.14	12.61	73.39	79.53	-1,257.48	-4,795.40	4,805.87	4,719.94	85.93	55.926		
2,400.00	2,287.32	2,242.32	2,287.32	13.22	76.60	79.95	-1,257.48	-4,795.40	4,798.40	4,708.64	89.76	53.457		
2,500.00	2,379.51	2,334.51	2,379.51	13.84	79.82	80.37	-1,257.48	-4,795.40	4,791.24	4,697.64	93.60	51.190		
2,600.00	2,471.70	2,426.70	2,471.70	14.46	83.04	80.79	-1,257.48	-4,795.40	4,784.38	4,686.94	97.43	49.104		
2,700.00	2,563.88	2,518.88	2,563.88	15.08	86.25	81.22	-1,257.48	-4,795.40	4,777.82	4,676.55	101.27	47.177		
2,800.00	2,656.07	2,611.07	2,656.07	15.71	89.47	81.64	-1,257.48	-4,795.40	4,771.57	4,666.45	105.12	45.393		
2,900.00	2,748.26	2,703.26	2,748.26	16.33	92.68	82.07	-1,257.48	-4,795.40	4,765.63	4,656.66	108.96	43.736		
3,000.00	2,840.44	2,804.56	2,840.44	16.96	96.22	82.50	-1,257.48	-4,795.40	4,759.99	4,646.86	113.13	42.076		
3,100.00	2,932.63	2,887.63	2,932.63	17.59	99.12	82.92	-1,257.48	-4,795.40	4,754.66	4,638.00	116.66	40.757		
3,200.00	3,024.81	2,979.81	3,024.81	18.22	102.33	83.35	-1,257.48	-4,795.40	4,749.65	4,629.14	120.51	39.413		
3,300.00	3,117.00	3,072.00	3,117.00	18.86	105.55	83.78	-1,257.48	-4,795.40	4,744.94	4,620.58	124.36	38.154		
3,400.00	3,209.19	3,164.19	3,209.19	19.49	108.77	84.21	-1,257.48	-4,795.40	4,740.55	4,612.33	128.22	36.973		
3,500.00	3,301.37	3,256.37	3,301.37	20.12	111.98	84.64	-1,257.48	-4,795.40	4,736.47	4,604.40	132.07	35.863		
3,600.00	3,393.56	3,348.56	3,393.56	20.76	115.20	85.07	-1,257.48	-4,795.40	4,732.70	4,596.77	135.93	34.818		
3,700.00	3,485.75	3,440.75	3,485.75	21.39	118.42	85.50	-1,257.48	-4,795.40	4,729.25	4,589.47	139.78	33.833		
3,800.00	3,577.93	3,532.93	3,577.93	22.03	121.63	85.93	-1,257.48	-4,795.40	4,726.11	4,582.47	143.64	32.903		
3,900.00	3,670.12	3,625.12	3,670.12	22.67	124.85	86.37	-1,257.48	-4,795.40	4,723.29	4,575.79	147.50	32.023		
4,000.00	3,762.30	3,717.30	3,762.30	23.30	128.07	86.80	-1,257.48	-4,795.40	4,720.78	4,569.43	151.35	31.190		
4,100.00	3,854.49	3,809.49	3,854.49	23.94	131.29	87.23	-1,257.48	-4,795.40	4,718.60	4,563.38	155.21	30.401		
4,200.00	3,946.68	3,901.68	3,946.68	24.58	134.50	87.67	-1,257.48	-4,795.40	4,716.73	4,557.65	159.07	29.652		
4,300.00	4,038.86	4,006.14	4,038.86	25.22	138.15	88.10	-1,257.48	-4,795.40	4,715.17	4,551.82	163.36	28.864		
4,400.00	4,131.05	4,086.05	4,131.05	25.86	140.94	88.53	-1,257.48	-4,795.40	4,713.94	4,547.15	166.79	28.263		
4,500.00	4,223.24	4,178.24	4,223.24	26.50	144.15	88.97	-1,257.48	-4,795.40	4,713.02	4,542.37	170.65	27.618		
4,600.00	4,315.42	4,270.42	4,315.42	27.14	147.37	89.40	-1,257.48	-4,795.40	4,712.43	4,537.92	174.51	27.004		
4,700.00	4,407.61	4,362.61	4,407.61	27.78	150.59	89.84	-1,257.48	-4,795.40	4,712.15	4,533.78	178.37	26.418		
4,737.59	4,442.26	4,402.74	4,442.26	28.02	151.99	90.00	-1,257.48	-4,795.40	4,712.12	4,532.12	180.01	26.177		
4,800.00	4,499.79	4,454.79	4,499.79	28.42	153.81	90.27	-1,257.48	-4,795.40	4,712.19	4,529.96	182.22	25.859		
4,900.00	4,591.98	4,546.98	4,591.98	29.06	157.02	90.71	-1,257.48	-4,795.40	4,712.54	4,526.46	186.08	25.325		
5,000.00	4,684.17	4,639.17	4,684.17	29.70	160.24	91.14	-1,257.48	-4,795.40	4,713.22	4,523.28	189.94	24.814		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,731.35	4,776.35	30.34	163.46	91.57	-1,257.48	-4,795.40	4,714.22	4,520.42	193.80	24.325		
5,200.00	4,868.54	4,823.54	4,868.54	30.98	166.68	92.01	-1,257.48	-4,795.40	4,715.53	4,517.87	197.66	23.857		
5,300.00	4,960.73	4,915.73	4,960.73	31.63	169.89	92.44	-1,257.48	-4,795.40	4,717.16	4,515.65	201.51	23.409		
5,400.00	5,052.91	5,007.91	5,052.91	32.27	173.11	92.87	-1,257.48	-4,795.40	4,719.11	4,513.74	205.37	22.979		
5,500.00	5,145.10	5,100.10	5,145.10	32.91	176.33	93.31	-1,257.48	-4,795.40	4,721.38	4,512.15	209.22	22.566		
5,600.00	5,237.28	5,207.72	5,237.28	33.55	180.09	93.74	-1,257.48	-4,795.40	4,723.96	4,510.34	213.62	22.114		
5,700.00	5,329.47	5,284.47	5,329.47	34.20	182.77	94.17	-1,257.48	-4,795.40	4,726.86	4,509.93	216.93	21.790		
5,800.00	5,421.66	5,376.66	5,421.66	34.84	185.98	94.60	-1,257.48	-4,795.40	4,730.08	4,509.29	220.78	21.424		
5,900.00	5,513.84	5,468.84	5,513.84	35.48	189.20	95.04	-1,257.48	-4,795.40	4,733.61	4,508.97	224.64	21.072		
6,000.00	5,606.03	5,561.03	5,606.03	36.13	192.42	95.47	-1,257.48	-4,795.40	4,737.45	4,508.96	228.49	20.734		
6,100.00	5,698.22	5,653.22	5,698.22	36.77	195.64	95.90	-1,257.48	-4,795.40	4,741.61	4,509.27	232.34	20.408		
6,200.00	5,790.40	5,745.40	5,790.40	37.41	198.85	96.33	-1,257.48	-4,795.40	4,746.08	4,509.89	236.19	20.095		
6,300.00	5,882.59	5,837.59	5,882.59	38.06	202.07	96.76	-1,257.48	-4,795.40	4,750.86	4,510.83	240.03	19.793		
6,400.00	5,974.77	5,929.77	5,974.77	38.70	205.29	97.18	-1,257.48	-4,795.40	4,755.96	4,512.08	243.88	19.501		
6,500.00	6,066.96	6,021.96	6,066.96	39.34	208.51	97.61	-1,257.48	-4,795.40	4,761.36	4,513.64	247.72	19.220		
6,600.00	6,159.15	6,114.15	6,159.15	39.99	211.73	98.04	-1,257.48	-4,795.40	4,767.07	4,515.50	251.57	18.949		
6,700.00	6,251.33	6,206.33	6,251.33	40.63	214.94	98.46	-1,257.48	-4,795.40	4,773.09	4,517.68	255.41	18.688		
6,800.00	6,343.52	6,301.48	6,343.52	41.28	218.26	98.89	-1,257.48	-4,795.40	4,779.42	4,520.06	259.36	18.428		
6,900.00	6,435.71	6,409.29	6,435.71	41.92	222.03	99.31	-1,257.48	-4,795.40	4,786.05	4,522.31	263.74	18.147		
7,000.00	6,527.86	6,482.86	6,527.86	42.56	224.60	92.66	-1,257.48	-4,795.40	4,792.14	4,525.21	266.93	17.953		
7,100.00	6,618.85	6,573.85	6,618.85	43.19	227.77	74.72	-1,257.48	-4,795.40	4,786.66	4,515.95	270.72	17.682		
7,200.00	6,706.47	6,661.47	6,706.47	43.76	230.83	62.37	-1,257.48	-4,795.40	4,766.47	4,492.13	274.34	17.375		
7,300.00	6,788.56	6,743.56	6,788.56	44.26	233.70	54.89	-1,257.48	-4,795.40	4,732.10	4,454.40	277.71	17.040		
7,400.00	6,863.10	6,818.10	6,863.10	44.70	236.30	50.97	-1,257.48	-4,795.40	4,684.46	4,403.71	280.75	16.685		
7,500.00	6,928.26	6,883.26	6,928.26	45.07	238.57	49.82	-1,257.48	-4,795.40	4,624.73	4,341.31	283.42	16.317		
7,600.00	6,982.42	6,937.42	6,982.42	45.39	240.46	51.24	-1,257.48	-4,795.40	4,554.38	4,268.70	285.67	15.943		
7,700.00	7,024.26	6,979.26	7,024.26	45.67	241.92	55.62	-1,257.48	-4,795.40	4,475.09	4,187.62	287.47	15.567		
7,800.00	7,052.75	7,007.75	7,052.75	45.92	242.92	64.22	-1,257.48	-4,795.40	4,388.76	4,099.99	288.77	15.198		
7,900.00	7,067.18	7,022.18	7,067.18	46.16	243.42	79.28	-1,257.48	-4,795.40	4,297.43	4,007.86	289.56	14.841		
8,000.00	7,068.85	7,023.85	7,068.85	46.42	243.48	90.48	-1,257.48	-4,795.40	4,203.42	3,913.52	289.89	14.500		
8,100.00	7,068.56	7,023.56	7,068.56	46.78	243.47	90.47	-1,257.48	-4,795.40	4,109.36	3,819.17	290.18	14.161		
8,200.00	7,068.26	7,023.26	7,068.26	47.29	243.46	90.45	-1,257.48	-4,795.40	4,015.58	3,725.07	290.51	13.822		
8,300.00	7,067.96	7,022.96	7,067.96	48.03	243.45	90.44	-1,257.48	-4,795.40	3,922.12	3,631.24	290.88	13.484		
8,400.00	7,067.66	7,022.66	7,067.66	49.02	243.44	90.43	-1,257.48	-4,795.40	3,828.98	3,537.69	291.29	13.145		
8,500.00	7,067.37	7,022.37	7,067.37	50.27	243.43	90.42	-1,257.48	-4,795.40	3,736.20	3,444.45	291.76	12.806		
8,600.00	7,067.07	7,022.07	7,067.07	51.75	243.42	90.41	-1,257.48	-4,795.40	3,643.80	3,351.53	292.27	12.467		
8,700.00	7,066.77	7,021.77	7,066.77	53.42	243.41	90.39	-1,257.48	-4,795.40	3,551.82	3,258.97	292.85	12.128		
8,800.00	7,066.47	7,021.47	7,066.47	55.24	243.40	90.38	-1,257.48	-4,795.40	3,460.27	3,166.78	293.49	11.790		
8,900.00	7,066.18	7,021.18	7,066.18	57.18	243.39	90.37	-1,257.48	-4,795.40	3,369.21	3,075.01	294.21	11.452		
9,000.00	7,065.88	7,020.88	7,065.88	59.21	243.38	90.36	-1,257.48	-4,795.40	3,278.67	2,983.67	295.00	11.114		
9,100.00	7,065.58	7,020.58	7,065.58	61.33	243.37	90.35	-1,257.48	-4,795.40	3,188.70	2,892.82	295.88	10.777		
9,200.00	7,065.28	7,020.28	7,065.28	63.51	243.36	90.33	-1,257.48	-4,795.40	3,099.34	2,802.49	296.85	10.441		
9,300.00	7,064.99	7,019.99	7,064.99	65.76	243.34	90.32	-1,257.48	-4,795.40	3,010.64	2,712.73	297.92	10.106		
9,400.00	7,064.69	7,019.69	7,064.69	68.06	243.33	90.31	-1,257.48	-4,795.40	2,922.68	2,623.59	299.10	9.772		
9,500.00	7,064.39	7,019.39	7,064.39	70.40	243.32	90.30	-1,257.48	-4,795.40	2,835.52	2,535.12	300.40	9.439		
9,600.00	7,064.09	7,019.09	7,064.09	72.78	243.31	90.29	-1,257.48	-4,795.40	2,749.23	2,447.41	301.82	9.109		
9,700.00	7,063.80	7,018.80	7,063.80	75.20	243.30	90.27	-1,257.48	-4,795.40	2,663.90	2,360.51	303.39	8.780		
9,800.00	7,063.50	7,018.50	7,063.50	77.65	243.29	90.26	-1,257.48	-4,795.40	2,579.62	2,274.51	305.11	8.455		
9,900.00	7,063.20	7,018.20	7,063.20	80.13	243.28	90.25	-1,257.48	-4,795.40	2,496.51	2,189.52	306.99	8.132		
10,000.00	7,062.90	7,017.90	7,062.90	82.64	243.27	90.24	-1,257.48	-4,795.40	2,414.67	2,105.63	309.04	7.813		
10,100.00	7,062.61	7,017.61	7,062.61	85.17	243.26	90.22	-1,257.48	-4,795.40	2,334.25	2,022.97	311.28	7.499		
10,200.00	7,062.31	7,017.31	7,062.31	87.72	243.25	90.21	-1,257.48	-4,795.40	2,255.40	1,941.69	313.71	7.189		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,300.00	7,062.01	7,017.01	7,062.01	90.28	243.24	90.20	-1,257.48	-4,795.40	2,178.29	1,861.94	316.35	6.886	
10,400.00	7,061.71	7,016.71	7,061.71	92.87	243.23	90.19	-1,257.48	-4,795.40	2,103.10	1,783.90	319.20	6.589	
10,500.00	7,061.41	7,016.41	7,061.41	95.47	243.22	90.18	-1,257.48	-4,795.40	2,030.05	1,707.78	322.27	6.299	
10,600.00	7,061.12	7,016.12	7,061.12	98.09	243.21	90.16	-1,257.48	-4,795.40	1,959.39	1,633.83	325.56	6.018	
10,700.00	7,060.82	7,015.82	7,060.82	100.72	243.20	90.15	-1,257.48	-4,795.40	1,891.38	1,562.30	329.08	5.747	
10,800.00	7,060.52	7,015.52	7,060.52	103.37	243.19	90.14	-1,257.48	-4,795.40	1,826.31	1,493.50	332.81	5.488	
10,900.00	7,060.22	7,015.22	7,060.22	106.02	243.18	90.13	-1,257.48	-4,795.40	1,764.51	1,427.76	336.74	5.240	
11,000.00	7,059.93	7,014.93	7,059.93	108.69	243.17	90.12	-1,257.48	-4,795.40	1,706.33	1,365.48	340.85	5.006	
11,100.00	7,059.63	7,014.63	7,059.63	111.36	243.16	90.10	-1,257.48	-4,795.40	1,652.17	1,307.06	345.11	4.787	
11,200.00	7,059.33	7,014.33	7,059.33	114.05	243.15	90.09	-1,257.48	-4,795.40	1,602.42	1,252.97	349.46	4.585	
11,300.00	7,059.03	7,014.03	7,059.03	116.74	243.14	90.08	-1,257.48	-4,795.40	1,557.52	1,203.68	353.84	4.402	
11,400.00	7,058.74	7,013.74	7,058.74	119.44	243.13	90.07	-1,257.48	-4,795.40	1,517.88	1,159.69	358.18	4.238	
11,500.00	7,058.44	7,013.44	7,058.44	122.15	243.12	90.06	-1,257.48	-4,795.40	1,483.93	1,121.53	362.40	4.095	
11,600.00	7,058.14	7,013.14	7,058.14	124.86	243.11	90.04	-1,257.48	-4,795.40	1,456.07	1,089.68	366.39	3.974	
11,700.00	7,057.84	7,012.84	7,057.84	127.58	243.10	90.03	-1,257.48	-4,795.40	1,434.65	1,064.59	370.06	3.877	
11,800.00	7,057.55	7,012.55	7,057.55	130.31	243.09	90.02	-1,257.48	-4,795.40	1,419.97	1,046.66	373.31	3.804	
11,900.00	7,057.25	7,012.25	7,057.25	133.04	243.07	90.01	-1,257.48	-4,795.40	1,412.23	1,036.17	376.06	3.755	
11,959.55	7,057.07	7,012.07	7,057.07	134.67	243.07	90.00	-1,257.48	-4,795.40	1,410.98	1,033.54	377.44	3.738 CC	
12,000.00	7,056.95	7,011.95	7,056.95	135.78	243.06	90.00	-1,257.48	-4,795.40	1,411.56	1,033.31	378.25	3.732 ES, SF	
12,100.00	7,056.65	7,011.65	7,056.65	138.52	243.05	89.98	-1,257.48	-4,795.40	1,417.95	1,038.12	379.83	3.733	
12,200.00	7,056.36	7,011.36	7,056.36	141.27	243.04	89.97	-1,257.48	-4,795.40	1,431.32	1,050.52	380.80	3.759	
12,300.00	7,056.06	7,011.06	7,056.06	144.02	243.03	89.96	-1,257.48	-4,795.40	1,451.47	1,070.29	381.18	3.808	
12,400.00	7,055.76	7,010.76	7,055.76	146.78	243.02	89.95	-1,257.48	-4,795.40	1,478.13	1,097.12	381.00	3.880	
12,500.00	7,055.46	7,010.46	7,055.46	149.54	243.01	89.93	-1,257.48	-4,795.40	1,510.94	1,130.61	380.33	3.973	
12,600.00	7,055.17	7,010.17	7,055.17	152.30	243.00	89.92	-1,257.48	-4,795.40	1,549.53	1,170.29	379.24	4.086	
12,700.00	7,054.87	7,009.87	7,054.87	155.07	242.99	89.91	-1,257.48	-4,795.40	1,593.46	1,215.66	377.80	4.218	
12,800.00	7,054.57	7,009.57	7,054.57	157.84	242.98	89.90	-1,257.48	-4,795.40	1,642.32	1,266.23	376.09	4.367	
12,900.00	7,054.27	7,009.27	7,054.27	160.61	242.97	89.89	-1,257.48	-4,795.40	1,695.67	1,321.49	374.18	4.532	
13,000.00	7,053.97	7,008.97	7,053.97	163.39	242.96	89.87	-1,257.48	-4,795.40	1,753.11	1,380.99	372.12	4.711	
13,100.00	7,053.68	7,008.68	7,053.68	166.17	242.95	89.86	-1,257.48	-4,795.40	1,814.24	1,444.27	369.98	4.904	
13,200.00	7,053.38	7,008.38	7,053.38	168.95	242.94	89.85	-1,257.48	-4,795.40	1,878.71	1,510.93	367.79	5.108	
13,300.00	7,053.08	7,008.08	7,053.08	171.73	242.93	89.84	-1,257.48	-4,795.40	1,946.19	1,580.61	365.58	5.324	
13,400.00	7,052.78	7,007.78	7,052.78	174.52	242.92	89.83	-1,257.48	-4,795.40	2,016.37	1,652.97	363.40	5.549	
13,500.00	7,052.49	7,007.49	7,052.49	177.31	242.91	89.81	-1,257.48	-4,795.40	2,088.98	1,727.73	361.25	5.783	
13,600.00	7,052.19	7,007.19	7,052.19	180.10	242.90	89.80	-1,257.48	-4,795.40	2,163.77	1,804.62	359.16	6.025	
13,700.00	7,051.89	7,006.89	7,051.89	182.90	242.89	89.79	-1,257.48	-4,795.40	2,240.54	1,883.41	357.13	6.274	
13,800.00	7,051.59	7,006.59	7,051.59	185.69	242.88	89.78	-1,257.48	-4,795.40	2,319.07	1,963.90	355.17	6.529	
13,900.00	7,051.30	7,006.30	7,051.30	188.49	242.87	89.77	-1,257.48	-4,795.40	2,399.20	2,045.92	353.29	6.791	
14,000.00	7,051.00	7,006.00	7,051.00	191.29	242.86	89.75	-1,257.48	-4,795.40	2,480.78	2,129.30	351.48	7.058	
14,100.00	7,050.70	7,005.70	7,050.70	194.09	242.85	89.74	-1,257.48	-4,795.40	2,563.66	2,213.90	349.76	7.330	
14,200.00	7,050.40	7,005.40	7,050.40	196.89	242.84	89.73	-1,257.48	-4,795.40	2,647.72	2,299.61	348.11	7.606	
14,300.00	7,050.11	7,005.11	7,050.11	199.70	242.83	89.72	-1,257.48	-4,795.40	2,732.86	2,386.32	346.54	7.886	
14,400.00	7,049.81	7,004.81	7,049.81	202.50	242.82	89.71	-1,257.48	-4,795.40	2,818.97	2,473.93	345.04	8.170	
14,500.00	7,049.51	7,004.51	7,049.51	205.31	242.80	89.69	-1,257.48	-4,795.40	2,905.98	2,562.36	343.62	8.457	
14,600.00	7,049.21	7,004.21	7,049.21	208.12	242.79	89.68	-1,257.48	-4,795.40	2,993.79	2,651.53	342.26	8.747	
14,700.00	7,048.92	7,003.92	7,048.92	210.93	242.78	89.67	-1,257.48	-4,795.40	3,082.35	2,741.38	340.97	9.040	
14,800.00	7,048.62	7,003.62	7,048.62	213.74	242.77	89.66	-1,257.48	-4,795.40	3,171.59	2,831.84	339.75	9.335	
14,900.00	7,048.32	7,003.32	7,048.32	216.55	242.76	89.64	-1,257.48	-4,795.40	3,261.45	2,922.87	338.58	9.633	
15,000.00	7,048.02	7,003.02	7,048.02	219.37	242.75	89.63	-1,257.48	-4,795.40	3,351.89	3,014.42	337.47	9.932	
15,100.00	7,047.73	7,002.73	7,047.73	222.18	242.74	89.62	-1,257.48	-4,795.40	3,442.85	3,106.44	336.41	10.234	
15,200.00	7,047.43	7,002.43	7,047.43	225.00	242.73	89.61	-1,257.48	-4,795.40	3,534.30	3,198.90	335.40	10.537	
15,300.00	7,047.13	7,002.13	7,047.13	227.81	242.72	89.60	-1,257.48	-4,795.40	3,626.21	3,291.76	334.45	10.842	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	7,002.00	7,047.00	229.04	242.72	89.59	-1,257.48	-4,795.40	3,666.48	3,332.44	334.04	10.976	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	48.00	3.28	3.28	-119.88	-2,758.41	-4,801.26	5,537.44				
100.00	100.00	52.00	100.00	3.28	3.40	-119.88	-2,758.41	-4,801.26	5,537.23	5,530.54	6.69	827.936	
200.00	200.00	152.00	200.00	3.34	4.84	-119.88	-2,758.41	-4,801.26	5,537.23	5,529.05	8.18	677.064	
300.00	299.98	251.98	299.98	3.44	7.78	56.74	-2,758.41	-4,801.26	5,536.27	5,525.06	11.22	493.596	
400.00	399.84	351.84	399.84	3.59	11.04	56.84	-2,758.41	-4,801.26	5,533.41	5,518.78	14.63	378.344	
500.00	499.45	451.45	499.45	3.79	14.39	56.99	-2,758.41	-4,801.26	5,528.63	5,510.45	18.18	304.083	
600.00	598.70	550.70	598.70	4.03	17.78	57.21	-2,758.41	-4,801.26	5,521.98	5,500.16	21.82	253.127	
700.00	697.47	649.47	697.47	4.31	21.18	57.49	-2,758.41	-4,801.26	5,513.47	5,487.97	25.50	216.250	
800.00	795.62	747.62	795.62	4.64	24.57	57.83	-2,758.41	-4,801.26	5,503.12	5,473.92	29.21	188.424	
900.00	893.06	845.06	893.06	5.00	27.95	58.23	-2,758.41	-4,801.26	5,490.99	5,458.05	32.93	166.727	
1,000.00	989.64	941.64	989.64	5.40	31.30	58.70	-2,758.41	-4,801.26	5,477.11	5,440.44	36.67	149.360	
1,100.00	1,085.27	1,037.27	1,085.27	5.83	34.62	59.22	-2,758.41	-4,801.26	5,461.53	5,421.13	40.41	135.158	
1,200.00	1,179.82	1,131.82	1,179.82	6.29	37.91	59.80	-2,758.41	-4,801.26	5,444.32	5,400.18	44.14	123.336	
1,300.00	1,273.17	1,225.17	1,273.17	6.79	41.16	60.45	-2,758.41	-4,801.26	5,425.54	5,377.68	47.87	113.348	
1,400.00	1,365.46	1,317.46	1,365.46	7.32	44.37	60.92	-2,758.41	-4,801.26	5,405.56	5,353.98	51.58	104.799	
1,500.00	1,457.65	1,409.65	1,457.65	7.87	47.58	61.26	-2,758.41	-4,801.26	5,385.65	5,330.34	55.31	97.374	
1,600.00	1,549.83	1,501.83	1,549.83	8.43	50.79	61.60	-2,758.41	-4,801.26	5,365.94	5,306.89	59.05	90.865	
1,700.00	1,642.02	1,605.98	1,642.02	9.01	54.42	61.95	-2,758.41	-4,801.26	5,346.44	5,283.21	63.23	84.558	
1,800.00	1,734.21	1,686.21	1,734.21	9.59	57.21	62.29	-2,758.41	-4,801.26	5,327.15	5,260.57	66.58	80.011	
1,900.00	1,826.39	1,778.39	1,826.39	10.18	60.43	62.64	-2,758.41	-4,801.26	5,308.08	5,237.72	70.36	75.443	
2,000.00	1,918.58	1,870.58	1,918.58	10.78	63.64	62.99	-2,758.41	-4,801.26	5,289.22	5,215.07	74.15	71.335	
2,100.00	2,010.77	1,962.77	2,010.77	11.39	66.86	63.34	-2,758.41	-4,801.26	5,270.57	5,192.63	77.94	67.623	
2,200.00	2,102.95	2,054.95	2,102.95	11.99	70.07	63.70	-2,758.41	-4,801.26	5,252.15	5,170.41	81.74	64.254	
2,300.00	2,195.14	2,147.14	2,195.14	12.61	73.28	64.05	-2,758.41	-4,801.26	5,233.95	5,148.40	85.55	61.182	
2,400.00	2,287.32	2,239.32	2,287.32	13.22	76.50	64.41	-2,758.41	-4,801.26	5,215.97	5,126.61	89.36	58.372	
2,500.00	2,379.51	2,331.51	2,379.51	13.84	79.72	64.77	-2,758.41	-4,801.26	5,198.22	5,105.05	93.17	55.791	
2,600.00	2,471.70	2,423.70	2,471.70	14.46	82.93	65.13	-2,758.41	-4,801.26	5,180.70	5,083.71	96.99	53.413	
2,700.00	2,563.88	2,515.88	2,563.88	15.08	86.15	65.50	-2,758.41	-4,801.26	5,163.41	5,062.59	100.82	51.215	
2,800.00	2,656.07	2,608.07	2,656.07	15.71	89.36	65.87	-2,758.41	-4,801.26	5,146.36	5,041.71	104.64	49.179	
2,900.00	2,748.26	2,700.26	2,748.26	16.33	92.58	66.24	-2,758.41	-4,801.26	5,129.54	5,021.06	108.48	47.288	
3,000.00	2,840.44	2,807.56	2,840.44	16.96	96.32	66.61	-2,758.41	-4,801.26	5,112.95	5,000.12	112.84	45.313	
3,100.00	2,932.63	2,884.63	2,932.63	17.59	99.01	66.98	-2,758.41	-4,801.26	5,096.61	4,980.47	116.15	43.881	
3,200.00	3,024.81	2,976.81	3,024.81	18.22	102.23	67.36	-2,758.41	-4,801.26	5,080.52	4,960.53	119.98	42.343	
3,300.00	3,117.00	3,069.00	3,117.00	18.86	105.44	67.73	-2,758.41	-4,801.26	5,064.66	4,940.84	123.83	40.901	
3,400.00	3,209.19	3,161.19	3,209.19	19.49	108.66	68.11	-2,758.41	-4,801.26	5,049.06	4,921.39	127.67	39.548	
3,500.00	3,301.37	3,253.37	3,301.37	20.12	111.88	68.50	-2,758.41	-4,801.26	5,033.70	4,902.19	131.52	38.274	
3,600.00	3,393.56	3,345.56	3,393.56	20.76	115.09	68.88	-2,758.41	-4,801.26	5,018.60	4,883.24	135.36	37.075	
3,700.00	3,485.75	3,437.75	3,485.75	21.39	118.31	69.27	-2,758.41	-4,801.26	5,003.75	4,864.54	139.21	35.943	
3,800.00	3,577.93	3,529.93	3,577.93	22.03	121.53	69.65	-2,758.41	-4,801.26	4,989.16	4,846.09	143.07	34.873	
3,900.00	3,670.12	3,622.12	3,670.12	22.67	124.75	70.04	-2,758.41	-4,801.26	4,974.83	4,827.91	146.92	33.861	
4,000.00	3,762.30	3,714.30	3,762.30	23.30	127.96	70.43	-2,758.41	-4,801.26	4,960.76	4,809.98	150.78	32.901	
4,100.00	3,854.49	3,806.49	3,854.49	23.94	131.18	70.83	-2,758.41	-4,801.26	4,946.95	4,792.32	154.63	31.991	
4,200.00	3,946.68	3,901.32	3,946.68	24.58	134.49	71.22	-2,758.41	-4,801.26	4,933.41	4,774.82	158.59	31.109	
4,300.00	4,038.86	4,009.14	4,038.86	25.22	138.25	71.62	-2,758.41	-4,801.26	4,920.14	4,757.14	162.99	30.186	
4,400.00	4,131.05	4,083.05	4,131.05	25.86	140.83	72.02	-2,758.41	-4,801.26	4,907.13	4,740.92	166.22	29.523	
4,500.00	4,223.24	4,175.24	4,223.24	26.50	144.05	72.42	-2,758.41	-4,801.26	4,894.40	4,724.32	170.08	28.777	
4,600.00	4,315.42	4,267.42	4,315.42	27.14	147.27	72.82	-2,758.41	-4,801.26	4,881.94	4,708.00	173.94	28.066	
4,700.00	4,407.61	4,359.61	4,407.61	27.78	150.48	73.23	-2,758.41	-4,801.26	4,869.76	4,691.95	177.81	27.388	
4,800.00	4,499.79	4,451.79	4,499.79	28.42	153.70	73.63	-2,758.41	-4,801.26	4,857.86	4,676.19	181.68	26.739	
4,900.00	4,591.98	4,543.98	4,591.98	29.06	156.92	74.04	-2,758.41	-4,801.26	4,846.24	4,660.70	185.54	26.119	
5,000.00	4,684.17	4,636.17	4,684.17	29.70	160.14	74.45	-2,758.41	-4,801.26	4,834.90	4,645.49	189.41	25.526	
5,100.00	4,776.35	4,728.35	4,776.35	30.34	163.35	74.86	-2,758.41	-4,801.26	4,823.85	4,630.56	193.28	24.957	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,820.54	4,868.54	30.98	166.57	75.28	-2,758.41	-4,801.26	4,813.08	4,615.93	197.15	24.413	
5,300.00	4,960.73	4,912.73	4,960.73	31.63	169.79	75.69	-2,758.41	-4,801.26	4,802.60	4,601.58	201.03	23.890	
5,400.00	5,052.91	5,004.91	5,052.91	32.27	173.01	76.11	-2,758.41	-4,801.26	4,792.41	4,587.52	204.90	23.389	
5,500.00	5,145.10	5,102.90	5,145.10	32.91	176.43	76.52	-2,758.41	-4,801.26	4,782.52	4,573.54	208.97	22.886	
5,600.00	5,237.28	5,189.28	5,237.28	33.55	179.44	76.94	-2,758.41	-4,801.26	4,772.92	4,560.27	212.65	22.445	
5,700.00	5,329.47	5,281.47	5,329.47	34.20	182.66	77.36	-2,758.41	-4,801.26	4,763.61	4,547.09	216.52	22.001	
5,800.00	5,421.66	5,373.66	5,421.66	34.84	185.88	77.79	-2,758.41	-4,801.26	4,754.60	4,534.21	220.40	21.573	
5,900.00	5,513.84	5,465.84	5,513.84	35.48	189.10	78.21	-2,758.41	-4,801.26	4,745.89	4,521.62	224.27	21.161	
6,000.00	5,606.03	5,558.03	5,606.03	36.13	192.31	78.63	-2,758.41	-4,801.26	4,737.49	4,509.34	228.15	20.765	
6,100.00	5,698.22	5,650.22	5,698.22	36.77	195.53	79.06	-2,758.41	-4,801.26	4,729.38	4,497.36	232.02	20.383	
6,200.00	5,790.40	5,742.40	5,790.40	37.41	198.75	79.49	-2,758.41	-4,801.26	4,721.58	4,485.68	235.90	20.015	
6,300.00	5,882.59	5,834.59	5,882.59	38.06	201.97	79.91	-2,758.41	-4,801.26	4,714.08	4,474.31	239.78	19.660	
6,400.00	5,974.77	5,926.77	5,974.77	38.70	205.18	80.34	-2,758.41	-4,801.26	4,706.90	4,463.24	243.65	19.318	
6,500.00	6,066.96	6,018.96	6,066.96	39.34	208.40	80.77	-2,758.41	-4,801.26	4,700.02	4,452.48	247.53	18.988	
6,600.00	6,159.15	6,111.15	6,159.15	39.99	211.62	81.20	-2,758.41	-4,801.26	4,693.45	4,442.04	251.41	18.669	
6,700.00	6,251.33	6,203.33	6,251.33	40.63	214.84	81.64	-2,758.41	-4,801.26	4,687.19	4,431.90	255.28	18.361	
6,800.00	6,343.52	6,304.48	6,343.52	41.28	218.37	82.07	-2,758.41	-4,801.26	4,681.24	4,421.77	259.47	18.041	
6,900.00	6,435.71	6,387.71	6,435.71	41.92	221.27	82.50	-2,758.41	-4,801.26	4,675.61	4,412.57	263.04	17.775	
7,000.00	6,527.86	6,479.86	6,527.86	42.56	224.49	75.88	-2,758.41	-4,801.26	4,669.42	4,402.50	266.91	17.494	
7,100.00	6,618.85	6,570.85	6,618.85	43.19	227.67	57.71	-2,758.41	-4,801.26	4,651.45	4,380.73	270.72	17.182	
7,200.00	6,706.47	6,658.47	6,706.47	43.76	230.73	44.68	-2,758.41	-4,801.26	4,618.62	4,344.27	274.35	16.835	
7,300.00	6,788.56	6,740.56	6,788.56	44.26	233.59	35.99	-2,758.41	-4,801.26	4,571.69	4,293.99	277.71	16.462	
7,400.00	6,863.10	6,815.10	6,863.10	44.70	236.19	30.19	-2,758.41	-4,801.26	4,511.76	4,231.03	280.73	16.072	
7,500.00	6,928.26	6,880.26	6,928.26	45.07	238.47	26.21	-2,758.41	-4,801.26	4,440.22	4,156.87	283.35	15.670	
7,600.00	6,982.42	6,934.42	6,982.42	45.39	240.36	23.34	-2,758.41	-4,801.26	4,358.76	4,073.25	285.52	15.266	
7,700.00	7,024.26	6,976.26	7,024.26	45.67	241.82	20.99	-2,758.41	-4,801.26	4,269.34	3,982.16	287.18	14.867	
7,800.00	7,052.75	7,004.75	7,052.75	45.92	242.81	18.20	-2,758.41	-4,801.26	4,174.09	3,885.79	288.30	14.478	
7,900.00	7,067.18	7,019.18	7,067.18	46.16	243.32	7.46	-2,758.41	-4,801.26	4,075.32	3,786.46	288.86	14.108	
8,000.00	7,068.85	7,020.85	7,068.85	46.42	243.38	-97.50	-2,758.41	-4,801.26	3,975.38	3,686.46	288.92	13.760	
8,100.00	7,068.56	7,020.56	7,068.56	46.78	243.36	-97.31	-2,758.41	-4,801.26	3,875.40	3,586.50	288.90	13.414	
8,200.00	7,068.26	7,020.26	7,068.26	47.29	243.35	-97.12	-2,758.41	-4,801.26	3,775.43	3,486.55	288.88	13.069	
8,300.00	7,067.96	7,019.96	7,067.96	48.03	243.34	-96.94	-2,758.41	-4,801.26	3,675.46	3,386.59	288.86	12.724	
8,400.00	7,067.66	7,019.66	7,067.66	49.02	243.33	-96.75	-2,758.41	-4,801.26	3,575.49	3,286.64	288.85	12.378	
8,500.00	7,067.37	7,019.37	7,067.37	50.27	243.32	-96.56	-2,758.41	-4,801.26	3,475.52	3,186.69	288.83	12.033	
8,600.00	7,067.07	7,019.07	7,067.07	51.75	243.31	-96.37	-2,758.41	-4,801.26	3,375.56	3,086.75	288.81	11.688	
8,700.00	7,066.77	7,018.77	7,066.77	53.42	243.30	-96.19	-2,758.41	-4,801.26	3,275.60	2,986.80	288.79	11.342	
8,800.00	7,066.47	7,018.47	7,066.47	55.24	243.29	-96.00	-2,758.41	-4,801.26	3,175.63	2,886.86	288.78	10.997	
8,900.00	7,066.18	7,018.18	7,066.18	57.18	243.28	-95.81	-2,758.41	-4,801.26	3,075.68	2,786.92	288.76	10.651	
9,000.00	7,065.88	7,017.88	7,065.88	59.21	243.27	-95.62	-2,758.41	-4,801.26	2,975.72	2,686.98	288.74	10.306	
9,100.00	7,065.58	7,017.58	7,065.58	61.33	243.26	-95.44	-2,758.41	-4,801.26	2,875.77	2,587.05	288.72	9.960	
9,200.00	7,065.28	7,017.28	7,065.28	63.51	243.25	-95.25	-2,758.41	-4,801.26	2,775.82	2,487.12	288.70	9.615	
9,300.00	7,064.99	7,016.99	7,064.99	65.76	243.24	-95.06	-2,758.41	-4,801.26	2,675.87	2,387.19	288.68	9.269	
9,400.00	7,064.69	7,016.69	7,064.69	68.06	243.23	-94.87	-2,758.41	-4,801.26	2,575.93	2,287.27	288.66	8.924	
9,500.00	7,064.39	7,016.39	7,064.39	70.40	243.22	-94.68	-2,758.41	-4,801.26	2,476.00	2,187.35	288.64	8.578	
9,600.00	7,064.09	7,016.09	7,064.09	72.78	243.21	-94.49	-2,758.41	-4,801.26	2,376.07	2,087.44	288.62	8.232	
9,700.00	7,063.80	7,015.80	7,063.80	75.20	243.20	-94.31	-2,758.41	-4,801.26	2,276.14	1,987.54	288.60	7.887	
9,800.00	7,063.50	7,015.50	7,063.50	77.65	243.19	-94.12	-2,758.41	-4,801.26	2,176.22	1,887.65	288.58	7.541	
9,900.00	7,063.20	7,015.20	7,063.20	80.13	243.18	-93.93	-2,758.41	-4,801.26	2,076.31	1,787.76	288.55	7.196	
10,000.00	7,062.90	7,014.90	7,062.90	82.64	243.17	-93.74	-2,758.41	-4,801.26	1,976.41	1,687.89	288.53	6.850	
10,100.00	7,062.61	7,014.61	7,062.61	85.17	243.16	-93.55	-2,758.41	-4,801.26	1,876.52	1,588.02	288.50	6.504	
10,200.00	7,062.31	7,014.31	7,062.31	87.72	243.15	-93.36	-2,758.41	-4,801.26	1,776.64	1,488.17	288.47	6.159	
10,300.00	7,062.01	7,014.01	7,062.01	90.28	243.14	-93.17	-2,758.41	-4,801.26	1,676.78	1,388.34	288.44	5.813	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,013.71	7,061.71	92.87	243.13	-92.98	-2,758.41	-4,801.26	1,576.93	1,288.52	288.41	5.468		
10,500.00	7,061.41	7,013.41	7,061.41	95.47	243.12	-92.79	-2,758.41	-4,801.26	1,477.11	1,188.72	288.38	5.122		
10,600.00	7,061.12	7,013.12	7,061.12	98.09	243.11	-92.61	-2,758.41	-4,801.26	1,377.31	1,088.95	288.36	4.776		
10,700.00	7,060.82	7,012.82	7,060.82	100.72	243.09	-92.42	-2,758.41	-4,801.26	1,277.54	989.21	288.33	4.431		
10,800.00	7,060.52	7,012.52	7,060.52	103.37	243.08	-92.23	-2,758.41	-4,801.26	1,177.81	889.50	288.31	4.085		
10,900.00	7,060.22	7,012.22	7,060.22	106.02	243.07	-92.04	-2,758.41	-4,801.26	1,078.13	789.83	288.30	3.740		
11,000.00	7,059.93	7,011.93	7,059.93	108.69	243.06	-91.85	-2,758.41	-4,801.26	978.51	690.21	288.30	3.394		
11,100.00	7,059.63	7,011.63	7,059.63	111.36	243.05	-91.66	-2,758.41	-4,801.26	878.98	590.64	288.34	3.048		
11,200.00	7,059.33	7,011.33	7,059.33	114.05	243.04	-91.47	-2,758.41	-4,801.26	779.57	491.13	288.45	2.703		
11,300.00	7,059.03	7,011.03	7,059.03	116.74	243.03	-91.28	-2,758.41	-4,801.26	680.34	391.68	288.66	2.357		
11,400.00	7,058.74	7,010.74	7,058.74	119.44	243.02	-91.09	-2,758.41	-4,801.26	581.37	292.26	289.10	2.011		
11,500.00	7,058.44	7,010.44	7,058.44	122.15	243.01	-90.90	-2,758.41	-4,801.26	482.82	192.81	290.01	1.665		
11,600.00	7,058.14	7,010.14	7,058.14	124.86	243.00	-90.71	-2,758.41	-4,801.26	385.02	93.05	291.97	1.319	Level 3	
11,700.00	7,057.84	7,009.84	7,057.84	127.58	242.99	-90.52	-2,758.41	-4,801.26	288.73	-7.88	296.60	0.973	Level 1	
11,800.00	7,057.55	7,009.55	7,057.55	130.31	242.98	-90.33	-2,758.41	-4,801.26	196.18	-112.76	308.94	0.635	Level 1	
11,900.00	7,057.25	7,009.25	7,057.25	133.04	242.97	-90.14	-2,758.41	-4,801.26	116.67	-227.42	344.09	0.339	Level 1	
11,974.38	7,057.03	7,009.03	7,057.03	135.08	242.96	-90.00	-2,758.41	-4,801.26	89.90	-287.84	377.74	0.238	Level 1, CC, ES, SF	
12,000.00	7,056.95	7,008.95	7,056.95	135.78	242.96	-89.95	-2,758.41	-4,801.26	93.48	-282.70	376.18	0.248	Level 1	
12,100.00	7,056.65	7,008.65	7,056.65	138.52	242.95	-89.76	-2,758.41	-4,801.26	154.47	-183.45	337.92	0.457	Level 1	
12,200.00	7,056.36	7,008.36	7,056.36	141.27	242.94	-89.57	-2,758.41	-4,801.26	242.87	-73.71	316.59	0.767	Level 1	
12,300.00	7,056.06	7,008.06	7,056.06	144.02	242.93	-89.38	-2,758.41	-4,801.26	337.80	30.74	307.07	1.100	Level 2	
12,400.00	7,055.76	7,007.76	7,055.76	146.78	242.92	-89.19	-2,758.41	-4,801.26	435.01	132.87	302.15	1.440	Level 3	
12,500.00	7,055.46	7,007.46	7,055.46	149.54	242.91	-89.00	-2,758.41	-4,801.26	533.25	233.98	299.27	1.782		
12,600.00	7,055.17	7,007.17	7,055.17	152.30	242.90	-88.81	-2,758.41	-4,801.26	632.05	334.60	297.44	2.125		
12,700.00	7,054.87	7,006.87	7,054.87	155.07	242.89	-88.62	-2,758.41	-4,801.26	731.17	434.97	296.20	2.469		
12,800.00	7,054.57	7,006.57	7,054.57	157.84	242.88	-88.43	-2,758.41	-4,801.26	830.50	535.19	295.31	2.812		
12,900.00	7,054.27	7,006.27	7,054.27	160.61	242.87	-88.24	-2,758.41	-4,801.26	929.97	635.32	294.65	3.156		
13,000.00	7,053.97	7,005.97	7,053.97	163.39	242.86	-88.06	-2,758.41	-4,801.26	1,029.55	735.40	294.15	3.500		
13,100.00	7,053.68	7,005.68	7,053.68	166.17	242.85	-87.87	-2,758.41	-4,801.26	1,129.20	835.44	293.76	3.844		
13,200.00	7,053.38	7,005.38	7,053.38	168.95	242.83	-87.68	-2,758.41	-4,801.26	1,228.91	935.46	293.45	4.188		
13,300.00	7,053.08	7,005.08	7,053.08	171.73	242.82	-87.49	-2,758.41	-4,801.26	1,328.66	1,035.46	293.20	4.532		
13,400.00	7,052.78	7,004.78	7,052.78	174.52	242.81	-87.30	-2,758.41	-4,801.26	1,428.45	1,135.45	293.00	4.875		
13,500.00	7,052.49	7,004.49	7,052.49	177.31	242.80	-87.11	-2,758.41	-4,801.26	1,528.26	1,235.43	292.83	5.219		
13,600.00	7,052.19	7,004.19	7,052.19	180.10	242.79	-86.92	-2,758.41	-4,801.26	1,628.10	1,335.41	292.70	5.562		
13,700.00	7,051.89	7,003.89	7,051.89	182.90	242.78	-86.73	-2,758.41	-4,801.26	1,727.96	1,435.37	292.58	5.906		
13,800.00	7,051.59	7,003.59	7,051.59	185.69	242.77	-86.54	-2,758.41	-4,801.26	1,827.83	1,535.34	292.49	6.249		
13,900.00	7,051.30	7,003.30	7,051.30	188.49	242.76	-86.35	-2,758.41	-4,801.26	1,927.71	1,635.30	292.41	6.592		
14,000.00	7,051.00	7,003.00	7,051.00	191.29	242.75	-86.16	-2,758.41	-4,801.26	2,027.61	1,735.26	292.35	6.936		
14,100.00	7,050.70	7,002.70	7,050.70	194.09	242.74	-85.97	-2,758.41	-4,801.26	2,127.51	1,835.22	292.30	7.279		
14,200.00	7,050.40	7,002.40	7,050.40	196.89	242.73	-85.79	-2,758.41	-4,801.26	2,227.43	1,935.17	292.26	7.622		
14,300.00	7,050.11	7,002.11	7,050.11	199.70	242.72	-85.60	-2,758.41	-4,801.26	2,327.35	2,035.13	292.22	7.964		
14,400.00	7,049.81	7,001.81	7,049.81	202.50	242.71	-85.41	-2,758.41	-4,801.26	2,427.28	2,135.08	292.20	8.307		
14,500.00	7,049.51	7,001.51	7,049.51	205.31	242.70	-85.22	-2,758.41	-4,801.26	2,527.21	2,235.03	292.18	8.650		
14,600.00	7,049.21	7,001.21	7,049.21	208.12	242.69	-85.03	-2,758.41	-4,801.26	2,627.15	2,334.99	292.17	8.992		
14,700.00	7,048.92	7,000.92	7,048.92	210.93	242.68	-84.84	-2,758.41	-4,801.26	2,727.09	2,434.94	292.16	9.334		
14,800.00	7,048.62	7,000.62	7,048.62	213.74	242.67	-84.66	-2,758.41	-4,801.26	2,827.04	2,534.89	292.16	9.676		
14,900.00	7,048.32	7,000.32	7,048.32	216.55	242.66	-84.47	-2,758.41	-4,801.26	2,926.99	2,634.83	292.16	10.019		
15,000.00	7,048.02	7,000.02	7,048.02	219.37	242.65	-84.28	-2,758.41	-4,801.26	3,026.95	2,734.78	292.16	10.360		
15,100.00	7,047.73	7,000.27	7,047.73	222.18	242.66	-84.09	-2,758.41	-4,801.26	3,126.90	2,834.71	292.19	10.702		
15,200.00	7,047.43	7,000.57	7,047.43	225.00	242.67	-83.90	-2,758.41	-4,801.26	3,226.86	2,934.64	292.23	11.042		
15,300.00	7,047.13	7,000.87	7,047.13	227.81	242.68	-83.72	-2,758.41	-4,801.26	3,326.82	3,034.56	292.26	11.383		
15,343.67	7,047.00	7,001.00	7,047.00	229.04	242.68	-83.64	-2,758.41	-4,801.26	3,370.48	3,078.20	292.28	11.532		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	66.00	3.28	3.28	-140.27	-3,929.53	-3,265.90	5,109.96					
100.00	100.00	882.46	918.50	3.28	5.08	-140.43	-3,883.15	-3,209.31	5,103.77	5,095.37	8.40	607.620		
200.00	200.00	981.11	1,015.83	3.34	5.49	-140.46	-3,872.94	-3,196.84	5,087.73	5,078.95	8.78	579.196		
300.00	299.98	1,079.56	1,112.95	3.44	5.92	36.31	-3,862.75	-3,184.41	5,070.31	5,061.07	9.24	548.959		
400.00	399.84	1,177.49	1,209.57	3.59	6.36	36.56	-3,852.61	-3,172.03	5,050.13	5,040.38	9.75	518.026		
500.00	499.45	1,274.80	1,305.58	3.79	6.82	36.86	-3,842.53	-3,159.74	5,027.20	5,016.89	10.31	487.429		
600.00	598.70	1,371.37	1,400.84	4.03	7.28	37.23	-3,832.53	-3,147.54	5,001.58	4,990.65	10.92	457.873		
700.00	697.47	1,467.07	1,495.26	4.31	7.75	37.67	-3,822.62	-3,135.45	4,973.28	4,961.70	11.57	429.787		
800.00	795.62	1,561.80	1,588.71	4.64	8.22	38.17	-3,812.82	-3,123.48	4,942.35	4,930.10	12.25	403.392		
900.00	893.06	1,655.43	1,681.09	5.00	8.69	38.74	-3,803.12	-3,111.65	4,908.84	4,895.88	12.96	378.762		
1,000.00	989.64	1,747.85	1,772.27	5.40	9.16	39.38	-3,793.55	-3,099.98	4,872.81	4,859.12	13.69	355.879		
1,100.00	1,085.27	1,838.95	1,862.14	5.83	9.63	40.10	-3,784.12	-3,088.47	4,834.31	4,819.87	14.45	334.666		
1,200.00	1,179.82	1,928.61	1,950.61	6.29	10.09	40.90	-3,774.84	-3,077.14	4,793.42	4,778.20	15.22	315.020		
1,300.00	1,273.17	2,016.74	2,037.55	6.79	10.55	41.78	-3,765.71	-3,066.01	4,750.20	4,734.20	16.00	296.822		
1,400.00	1,365.46	2,103.53	2,123.17	7.32	11.00	42.33	-3,756.73	-3,055.04	4,705.14	4,688.34	16.80	280.002		
1,500.00	1,457.65	2,190.18	2,208.66	7.87	11.45	42.61	-3,747.76	-3,044.09	4,660.00	4,642.39	17.61	264.586		
1,600.00	1,549.83	2,276.83	2,294.14	8.43	11.91	42.90	-3,738.78	-3,033.15	4,614.95	4,596.52	18.44	250.311		
1,700.00	1,642.02	2,363.48	2,379.63	9.01	12.36	43.19	-3,729.81	-3,022.20	4,570.01	4,550.73	19.28	237.092		
1,800.00	1,734.21	2,450.13	2,465.12	9.59	12.82	43.49	-3,720.84	-3,011.25	4,525.17	4,505.04	20.13	224.846		
1,900.00	1,826.39	2,536.79	2,550.61	10.18	13.28	43.80	-3,711.87	-3,000.30	4,480.43	4,459.45	20.99	213.491		
2,000.00	1,918.58	2,626.57	2,636.10	10.78	13.76	44.11	-3,702.90	-2,989.36	4,435.81	4,413.94	21.87	202.819		
2,100.00	2,010.77	2,710.09	2,721.58	11.39	14.20	44.43	-3,693.93	-2,978.41	4,391.30	4,368.57	22.74	193.147		
2,200.00	2,102.95	2,796.74	2,807.07	11.99	14.67	44.75	-3,684.95	-2,967.46	4,346.91	4,323.29	23.62	184.022		
2,300.00	2,195.14	2,883.39	2,892.56	12.61	15.13	45.08	-3,675.98	-2,956.51	4,302.64	4,278.13	24.51	175.512		
2,400.00	2,287.32	2,970.05	2,978.05	13.22	15.59	45.41	-3,667.01	-2,945.57	4,258.49	4,233.08	25.41	167.563		
2,500.00	2,379.51	3,056.70	3,063.54	13.84	16.06	45.75	-3,658.04	-2,934.62	4,214.48	4,188.16	26.32	160.127		
2,600.00	2,471.70	3,143.35	3,149.02	14.46	16.52	46.10	-3,649.07	-2,923.67	4,170.59	4,143.36	27.23	153.160		
2,700.00	2,563.88	3,230.00	3,234.51	15.08	16.99	46.46	-3,640.10	-2,912.73	4,126.85	4,098.70	28.15	146.621		
2,800.00	2,656.07	3,316.65	3,320.00	15.71	17.46	46.82	-3,631.12	-2,901.78	4,083.24	4,054.17	29.07	140.475		
2,900.00	2,748.26	3,403.30	3,405.49	16.33	17.92	47.19	-3,622.15	-2,890.83	4,039.78	4,009.79	29.99	134.691		
3,000.00	2,840.44	3,489.96	3,490.98	16.96	18.39	47.57	-3,613.18	-2,879.88	3,996.47	3,965.55	30.92	129.238		
3,100.00	2,932.63	3,576.61	3,576.47	17.59	18.86	47.95	-3,604.21	-2,868.94	3,953.32	3,921.46	31.86	124.091		
3,200.00	3,024.81	3,663.26	3,661.95	18.22	19.33	48.35	-3,595.24	-2,857.99	3,910.33	3,877.53	32.80	119.227		
3,300.00	3,117.00	3,749.91	3,747.44	18.86	19.80	48.75	-3,586.27	-2,847.04	3,867.50	3,833.76	33.74	114.624		
3,400.00	3,209.19	3,836.56	3,832.93	19.49	20.27	49.16	-3,577.29	-2,836.09	3,824.85	3,790.16	34.69	110.262		
3,500.00	3,301.37	3,926.80	3,918.42	20.12	20.76	49.57	-3,568.32	-2,825.15	3,782.37	3,746.71	35.66	106.077		
3,600.00	3,393.56	4,009.87	4,003.91	20.76	21.21	50.00	-3,559.35	-2,814.20	3,740.08	3,703.48	36.60	102.196		
3,700.00	3,485.75	4,096.52	4,089.39	21.39	21.68	50.44	-3,550.38	-2,803.25	3,697.98	3,660.42	37.56	98.461		
3,800.00	3,577.93	4,183.17	4,174.88	22.03	22.15	50.88	-3,541.41	-2,792.30	3,656.07	3,617.55	38.52	94.906		
3,900.00	3,670.12	4,269.82	4,260.37	22.67	22.62	51.33	-3,532.44	-2,781.36	3,614.37	3,574.88	39.49	91.520		
4,000.00	3,762.30	4,356.47	4,345.86	23.30	23.09	51.80	-3,523.46	-2,770.41	3,572.88	3,532.41	40.47	88.292		
4,100.00	3,854.49	4,443.13	4,431.35	23.94	23.56	52.27	-3,514.49	-2,759.46	3,531.60	3,490.16	41.45	85.212		
4,200.00	3,946.68	4,529.78	4,516.83	24.58	24.03	52.75	-3,505.52	-2,748.51	3,490.55	3,448.13	42.43	82.269		
4,300.00	4,038.86	4,616.43	4,602.32	25.22	24.50	53.25	-3,496.55	-2,737.57	3,449.74	3,406.32	43.42	79.457		
4,400.00	4,131.05	4,703.08	4,687.81	25.86	24.97	53.75	-3,487.58	-2,726.62	3,409.17	3,364.76	44.41	76.767		
4,500.00	4,223.24	4,789.73	4,773.30	26.50	25.44	54.26	-3,478.61	-2,715.67	3,368.85	3,323.44	45.41	74.191		
4,600.00	4,315.42	4,876.39	4,858.79	27.14	25.92	54.79	-3,469.63	-2,704.72	3,328.79	3,282.37	46.41	71.724		
4,700.00	4,407.61	4,963.04	4,944.27	27.78	26.39	55.33	-3,460.66	-2,693.78	3,288.99	3,241.57	47.42	69.359		
4,800.00	4,499.79	5,049.69	5,029.76	28.42	26.86	55.88	-3,451.69	-2,682.83	3,249.48	3,201.05	48.43	67.091		
4,900.00	4,591.98	5,136.34	5,115.25	29.06	27.33	56.44	-3,442.72	-2,671.88	3,210.26	3,160.81	49.45	64.915		
5,000.00	4,684.17	5,222.03	5,200.74	29.70	27.83	57.01	-3,433.75	-2,660.94	3,171.34	3,120.84	50.50	62.801		
5,100.00	4,776.35	5,309.64	5,286.23	30.34	28.28	57.60	-3,424.78	-2,649.99	3,132.73	3,081.22	51.51	60.816		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,396.30	5,371.71	30.98	28.75	58.19	-3,415.80	-2,639.04	3,094.44	3,041.89	52.55	58.886		
5,300.00	4,960.73	5,482.95	5,457.20	31.63	29.22	58.81	-3,406.83	-2,628.09	3,056.49	3,002.90	53.59	57.030		
5,400.00	5,052.91	5,569.60	5,542.69	32.27	29.70	59.43	-3,397.86	-2,617.15	3,018.89	2,964.24	54.65	55.245		
5,500.00	5,145.10	5,656.25	5,628.18	32.91	30.17	60.07	-3,388.89	-2,606.20	2,981.65	2,925.94	55.70	53.527		
5,600.00	5,237.28	5,742.90	5,713.67	33.55	30.64	60.72	-3,379.92	-2,595.25	2,944.78	2,888.01	56.77	51.873		
5,700.00	5,329.47	5,829.56	5,799.15	34.20	31.12	61.39	-3,370.95	-2,584.30	2,908.30	2,850.46	57.84	50.281		
5,800.00	5,421.66	5,916.21	5,884.64	34.84	31.59	62.07	-3,361.98	-2,573.36	2,872.23	2,813.31	58.92	48.747		
5,900.00	5,513.84	6,002.86	5,970.13	35.48	32.06	62.77	-3,353.00	-2,562.41	2,836.58	2,776.57	60.01	47.269		
6,000.00	5,606.03	6,089.51	6,055.62	36.13	32.54	63.48	-3,344.03	-2,551.46	2,801.36	2,740.26	61.11	45.844		
6,100.00	5,698.22	6,176.16	6,141.11	36.77	33.01	64.20	-3,335.06	-2,540.51	2,766.60	2,704.39	62.21	44.472		
6,200.00	5,790.40	6,262.81	6,226.59	37.41	33.49	64.95	-3,326.09	-2,529.57	2,732.30	2,668.98	63.32	43.149		
6,300.00	5,882.59	6,278.82	6,242.42	38.06	33.57	65.09	-3,324.43	-2,527.81	2,699.66	2,635.30	64.36	41.947		
6,400.00	5,974.77	6,300.00	6,263.41	38.70	33.68	65.28	-3,322.25	-2,526.09	2,669.79	2,604.41	65.38	40.836		
6,500.00	6,066.96	6,315.10	6,278.41	39.34	33.75	65.42	-3,320.70	-2,525.30	2,642.74	2,576.39	66.35	39.829		
6,600.00	6,159.15	6,325.01	6,288.27	39.99	33.79	65.52	-3,319.69	-2,524.97	2,618.70	2,551.44	67.27	38.930		
6,700.00	6,251.33	6,350.00	6,313.12	40.63	33.90	65.76	-3,317.15	-2,524.84	2,597.55	2,529.36	68.19	38.093		
6,800.00	6,343.52	6,370.06	6,333.07	41.28	33.97	65.96	-3,315.13	-2,525.43	2,579.54	2,510.49	69.05	37.359		
6,900.00	6,435.71	6,400.00	6,362.79	41.92	34.08	66.28	-3,312.15	-2,527.50	2,564.80	2,494.88	69.91	36.687		
7,000.00	6,527.86	6,400.00	6,362.79	42.56	34.08	66.28	-3,312.15	-2,527.50	2,552.23	2,481.68	70.55	36.176		
7,100.00	6,618.85	6,425.01	6,387.52	43.19	34.16	40.18	-3,309.69	-2,530.30	2,531.60	2,460.38	71.22	35.544		
7,200.00	6,706.47	6,450.00	6,412.10	43.76	34.23	26.04	-3,307.27	-2,534.07	2,499.93	2,428.17	71.77	34.834		
7,300.00	6,788.56	6,450.00	6,412.10	44.26	34.23	15.56	-3,307.27	-2,534.07	2,457.59	2,385.61	71.98	34.143		
7,400.00	6,863.10	6,478.76	6,440.18	44.70	34.29	7.61	-3,304.53	-2,539.61	2,404.89	2,332.59	72.30	33.262		
7,500.00	6,928.26	6,500.00	6,460.76	45.07	34.34	0.55	-3,302.54	-2,544.51	2,342.95	2,270.49	72.46	32.334		
7,600.00	6,982.42	6,511.07	6,471.41	45.39	34.37	-6.64	-3,301.52	-2,547.34	2,272.52	2,200.09	72.43	31.376		
7,700.00	7,024.26	6,525.01	6,484.76	45.67	34.39	-14.97	-3,300.24	-2,551.16	2,194.82	2,122.48	72.35	30.338		
7,800.00	7,052.75	6,538.04	6,497.15	45.92	34.42	-25.72	-3,299.07	-2,555.00	2,111.22	2,039.02	72.21	29.239		
7,900.00	7,067.18	6,550.00	6,508.46	46.16	34.44	-40.22	-3,298.00	-2,558.75	2,023.36	1,951.32	72.04	28.087		
8,000.00	7,068.85	6,550.00	6,508.46	46.42	34.44	-49.18	-3,298.00	-2,558.75	1,933.38	1,861.64	71.74	26.948		
8,100.00	7,068.56	6,550.00	6,508.46	46.78	34.44	-49.18	-3,298.00	-2,558.75	1,844.07	1,772.61	71.46	25.805		
8,200.00	7,068.26	6,575.46	6,532.28	47.29	34.47	-50.32	-3,295.77	-2,567.43	1,755.25	1,683.72	71.54	24.537		
8,300.00	7,067.96	6,600.00	6,554.91	48.03	34.51	-51.45	-3,293.67	-2,576.70	1,667.99	1,596.34	71.65	23.281		
8,400.00	7,067.66	6,600.00	6,554.91	49.02	34.51	-51.45	-3,293.67	-2,576.70	1,581.54	1,510.04	71.50	22.120		
8,500.00	7,067.37	6,609.12	6,563.22	50.27	34.52	-51.88	-3,292.91	-2,580.37	1,496.69	1,425.14	71.55	20.917		
8,600.00	7,067.07	6,625.01	6,577.58	51.75	34.53	-52.63	-3,291.59	-2,587.05	1,413.48	1,341.67	71.81	19.683		
8,700.00	7,066.77	6,637.14	6,588.43	53.42	34.54	-53.21	-3,290.61	-2,592.38	1,332.11	1,259.95	72.17	18.459		
8,800.00	7,066.47	6,650.00	6,599.82	55.24	34.55	-53.83	-3,289.58	-2,598.26	1,252.92	1,180.19	72.73	17.227		
8,900.00	7,066.18	6,671.19	6,618.32	57.18	34.56	-54.86	-3,287.93	-2,608.45	1,176.20	1,102.54	73.66	15.968		
9,000.00	7,065.88	6,700.00	6,642.92	59.21	34.58	-56.28	-3,285.76	-2,623.29	1,102.48	1,027.48	74.99	14.701		
9,100.00	7,065.58	6,713.16	6,653.92	61.33	34.58	-56.94	-3,284.80	-2,630.44	1,031.93	955.40	76.53	13.485		
9,200.00	7,065.28	6,737.89	6,674.21	63.51	34.59	-58.19	-3,283.05	-2,644.48	965.36	886.71	78.66	12.273		
9,300.00	7,064.99	6,765.64	6,696.30	65.76	34.59	-59.59	-3,281.17	-2,661.16	903.29	821.94	81.35	11.104		
9,400.00	7,064.69	6,800.00	6,722.63	68.06	34.59	-61.33	-3,278.99	-2,683.13	846.36	761.71	84.65	9.998		
9,500.00	7,064.39	6,832.11	6,746.13	70.40	34.59	-62.95	-3,277.09	-2,704.92	795.19	706.67	88.52	8.983		
9,600.00	7,064.09	6,871.90	6,773.70	72.78	34.58	-64.93	-3,274.93	-2,733.52	750.43	657.50	92.93	8.075		
9,700.00	7,063.80	6,916.81	6,802.61	75.20	34.58	-67.09	-3,272.76	-2,767.81	712.54	614.82	97.72	7.292		
9,800.00	7,063.50	6,967.37	6,832.20	77.65	34.58	-69.41	-3,270.68	-2,808.74	681.75	579.05	102.70	6.638		
9,900.00	7,063.20	7,025.01	6,861.87	80.13	34.60	-71.82	-3,268.78	-2,858.10	658.00	550.37	107.62	6.114		
10,000.00	7,062.90	7,086.59	6,888.52	82.64	34.66	-74.07	-3,267.33	-2,913.56	640.84	528.48	112.36	5.704		
10,100.00	7,062.61	7,154.96	6,911.73	85.17	34.82	-76.10	-3,266.43	-2,977.83	629.54	512.78	116.77	5.391		
10,200.00	7,062.31	7,228.11	6,928.81	87.72	35.14	-77.63	-3,266.31	-3,048.91	623.24	502.36	120.88	5.156		
10,300.00	7,062.01	7,304.44	6,937.88	90.28	35.67	-78.47	-3,267.11	-3,124.66	621.14	496.37	124.77	4.978		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,305.28	7,061.99	7,308.52	6,938.11	90.42	35.71	-78.50	-3,267.18	-3,128.73	621.13	496.16	124.97	4.970	CC	
10,400.00	7,061.71	7,392.59	6,938.81	92.87	36.54	-78.61	-3,269.03	-3,212.76	622.36	493.86	128.50	4.843		
10,500.00	7,061.41	7,492.57	6,938.39	95.47	37.86	-78.63	-3,271.35	-3,312.71	624.07	491.67	132.40	4.713		
10,600.00	7,061.12	7,592.56	6,937.98	98.09	39.45	-78.65	-3,273.68	-3,412.67	625.79	489.24	136.55	4.583		
10,700.00	7,060.82	7,692.54	6,937.56	100.72	41.28	-78.67	-3,276.00	-3,512.63	627.51	486.58	140.92	4.453		
10,800.00	7,060.52	7,792.53	6,937.14	103.37	43.29	-78.69	-3,278.33	-3,612.59	629.22	483.74	145.48	4.325		
10,900.00	7,060.22	7,892.51	6,936.72	106.02	45.46	-78.71	-3,280.65	-3,712.54	630.94	480.73	150.21	4.200		
11,000.00	7,059.93	7,992.50	6,936.31	108.69	47.76	-78.73	-3,282.98	-3,812.50	632.66	477.57	155.09	4.079		
11,100.00	7,059.63	8,092.48	6,935.89	111.36	50.18	-78.75	-3,285.30	-3,912.46	634.38	474.29	160.09	3.963		
11,200.00	7,059.33	8,192.47	6,935.47	114.05	52.69	-78.77	-3,287.63	-4,012.41	636.09	470.90	165.19	3.851		
11,300.00	7,059.03	8,292.45	6,935.06	116.74	55.29	-78.79	-3,289.95	-4,112.37	637.81	467.42	170.39	3.743		
11,400.00	7,058.74	8,392.44	6,934.64	119.44	57.97	-78.81	-3,292.28	-4,212.33	639.53	463.85	175.68	3.640		
11,500.00	7,058.44	8,492.42	6,934.22	122.15	60.70	-78.83	-3,294.60	-4,312.29	641.25	460.21	181.03	3.542		
11,600.00	7,058.14	8,592.41	6,933.81	124.86	63.49	-78.85	-3,296.93	-4,412.24	642.97	456.51	186.45	3.448		
11,700.00	7,057.84	8,692.39	6,933.39	127.58	66.34	-78.86	-3,299.25	-4,512.20	644.68	452.76	191.93	3.359		
11,800.00	7,057.55	8,792.38	6,932.97	130.31	69.22	-78.88	-3,301.58	-4,612.16	646.40	448.95	197.45	3.274		
11,900.00	7,057.25	8,892.36	6,932.55	133.04	72.14	-78.90	-3,303.90	-4,712.11	648.12	445.10	203.02	3.192		
12,000.00	7,056.95	8,992.35	6,932.14	135.78	75.09	-78.92	-3,306.23	-4,812.07	649.84	441.22	208.62	3.115		
12,100.00	7,056.65	9,092.33	6,931.72	138.52	78.08	-78.94	-3,308.55	-4,912.03	651.56	437.29	214.26	3.041		
12,200.00	7,056.36	9,192.32	6,931.30	141.27	81.09	-78.96	-3,310.88	-5,011.99	653.27	433.34	219.93	2.970		
12,300.00	7,056.06	9,292.30	6,930.89	144.02	84.12	-78.98	-3,313.20	-5,111.94	654.99	429.36	225.63	2.903		
12,400.00	7,055.76	9,392.29	6,930.47	146.78	87.18	-79.00	-3,315.53	-5,211.90	656.71	425.35	231.36	2.839		
12,500.00	7,055.46	9,492.27	6,930.05	149.54	90.25	-79.02	-3,317.85	-5,311.86	658.43	421.32	237.11	2.777		
12,600.00	7,055.17	9,592.26	6,929.63	152.30	93.34	-79.03	-3,320.18	-5,411.81	660.15	417.27	242.87	2.718		
12,700.00	7,054.87	9,692.24	6,929.22	155.07	96.45	-79.05	-3,322.50	-5,511.77	661.87	413.21	248.66	2.662		
12,800.00	7,054.57	9,792.23	6,928.80	157.84	99.57	-79.07	-3,324.83	-5,611.73	663.59	409.12	254.47	2.608		
12,900.00	7,054.27	9,892.21	6,928.38	160.61	102.70	-79.09	-3,327.15	-5,711.68	665.31	405.02	260.29	2.556		
13,000.00	7,053.97	9,992.20	6,927.97	163.39	105.85	-79.11	-3,329.48	-5,811.64	667.02	400.90	266.13	2.506		
13,100.00	7,053.68	10,092.18	6,927.55	166.17	109.00	-79.12	-3,331.80	-5,911.60	668.74	396.77	271.98	2.459		
13,200.00	7,053.38	10,192.17	6,927.13	168.95	112.17	-79.14	-3,334.13	-6,011.56	670.46	392.62	277.84	2.413		
13,300.00	7,053.08	10,292.15	6,926.72	171.73	115.34	-79.16	-3,336.45	-6,111.51	672.18	388.47	283.71	2.369		
13,400.00	7,052.78	10,392.14	6,926.30	174.52	118.53	-79.18	-3,338.78	-6,211.47	673.90	384.30	289.60	2.327		
13,500.00	7,052.49	10,492.13	6,925.89	177.31	121.74	-79.19	-3,341.10	-6,311.42	675.61	380.14	295.51	2.288		
13,600.00	7,052.19	10,592.12	6,925.48	180.10	124.99	-79.20	-3,343.43	-6,411.37	677.32	375.98	301.44	2.250		
13,700.00	7,051.89	10,692.11	6,925.07	182.90	128.28	-79.21	-3,345.75	-6,511.32	679.03	371.82	307.39	2.213		
13,800.00	7,051.59	10,792.10	6,924.66	185.69	131.57	-79.22	-3,348.08	-6,611.27	680.74	367.67	313.35	2.177		
13,900.00	7,051.30	10,892.09	6,924.25	188.49	134.86	-79.23	-3,350.40	-6,711.22	682.45	363.52	319.32	2.142		
14,000.00	7,051.00	10,992.08	6,923.84	191.29	138.15	-79.24	-3,352.73	-6,811.17	684.16	359.37	325.29	2.107		
14,100.00	7,050.70	11,092.07	6,923.43	194.09	141.44	-79.25	-3,355.05	-6,911.12	685.87	355.22	331.26	2.073		
14,200.00	7,050.40	11,192.06	6,923.02	196.89	144.73	-79.26	-3,357.38	-7,011.07	687.58	351.07	337.23	2.039		
14,300.00	7,050.11	11,292.05	6,922.61	199.70	148.02	-79.27	-3,359.70	-7,111.02	689.29	346.92	343.20	2.005		
14,400.00	7,049.81	11,392.04	6,922.20	202.50	151.31	-79.28	-3,362.03	-7,211.00	691.00	342.77	349.17	1.971		
14,500.00	7,049.51	11,492.03	6,921.79	205.31	154.60	-79.29	-3,364.35	-7,311.00	692.71	338.62	355.14	1.937		
14,600.00	7,049.21	11,592.02	6,921.38	208.12	157.89	-79.30	-3,366.68	-7,411.00	694.42	334.47	361.11	1.903		
14,700.00	7,048.92	11,692.01	6,920.97	210.93	161.18	-79.31	-3,368.99	-7,511.00	696.13	330.32	367.08	1.869		
14,800.00	7,048.62	11,792.00	6,920.56	213.74	164.47	-79.32	-3,371.32	-7,611.00	697.84	326.17	373.05	1.835		
14,900.00	7,048.32	11,892.00	6,920.15	216.55	167.76	-79.33	-3,373.64	-7,711.00	699.55	322.02	379.02	1.801		
15,000.00	7,048.02	11,992.00	6,919.74	219.37	171.05	-79.34	-3,375.97	-7,811.00	701.26	317.87	384.99	1.767		
15,100.00	7,047.73	12,092.00	6,919.33	222.18	174.34	-79.35	-3,378.29	-7,911.00	702.97	313.72	390.96	1.733		
15,200.00	7,047.43	12,192.00	6,918.92	225.00	177.63	-79.36	-3,380.62	-8,011.00	704.68	309.57	396.93	1.699		
15,300.00	7,047.13	12,292.00	6,918.51	227.81	180.92	-79.37	-3,382.94	-8,111.00	706.39	305.42	402.90	1.665		
15,400.00	7,046.83	12,392.00	6,918.10	230.63	184.21	-79.38	-3,385.27	-8,211.00	708.10	301.27	408.87	1.631		
15,500.00	7,046.53	12,492.00	6,917.69	233.44	187.50	-79.39	-3,387.59	-8,311.00	709.81	297.12	414.84	1.597		
15,600.00	7,046.23	12,592.00	6,917.28	236.25	190.79	-79.40	-3,389.92	-8,411.00	711.52	292.97	420.81	1.563		
15,700.00	7,045.93	12,692.00	6,916.87	239.06	194.08	-79.41	-3,392.24	-8,511.00	713.23	288.82	426.78	1.529		
15,800.00	7,045.63	12,792.00	6,916.46	241.87	197.37	-79.42	-3,394.57	-8,611.00	714.94	284.67	432.75	1.495		
15,900.00	7,045.33	12,892.00	6,916.05	244.68	200.66	-79.43	-3,396.89	-8,711.00	716.65	280.52	438.72	1.461		
16,000.00	7,045.03	12,992.00	6,915.64	247.49	203.95	-79.44	-3,399.22	-8,811.00	718.36	276.37	444.69	1.427		
16,100.00	7,044.73	13,092.00	6,915.23	250.30	207.24	-79.45	-3,401.54	-8,911.00	720.07	272.22	450.66	1.393		
16,200.00	7,044.43	13,192.00	6,914.82	253.11	210.53	-79.46	-3,403.87	-9,011.00	721.78	268.07	456.63	1.359		
16,300.00	7,044.13	13,292.00	6,914.41	255.92	213.82	-79.47	-3,406.19	-9,111.00	723.49	263.92	462.60	1.325		
16,400.00	7,043.83	13,392.00	6,914.00	258.73	217.11	-79.48	-3,408.52	-9,211.00	725.20	259.77	468.57	1.291		
16,500.00	7,043.5													



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
0.00	0.00	25.00	66.00	3.28	0.00	-140.41	-3,949.57	-3,265.90	5,125.39					
100.00	100.00	59.00	100.00	3.28	0.07	-140.41	-3,949.57	-3,265.90	5,124.96	5,121.60	3.36	1,525.551		
200.00	200.00	871.89	909.75	3.34	3.69	-140.61	-3,922.17	-3,220.51	5,124.34	5,117.23	7.10	721.297		
300.00	299.98	970.65	1,007.43	3.44	4.19	36.12	-3,914.68	-3,208.10	5,109.09	5,101.45	7.65	668.248		
400.00	399.84	1,068.99	1,104.71	3.59	4.70	36.31	-3,907.23	-3,195.74	5,091.07	5,082.83	8.24	618.110		
500.00	499.45	1,166.80	1,201.46	3.79	5.20	36.57	-3,899.81	-3,183.45	5,070.29	5,061.42	8.87	571.487		
600.00	598.70	1,263.96	1,297.57	4.03	5.71	36.89	-3,892.44	-3,171.25	5,046.77	5,037.23	9.55	528.680		
700.00	697.47	1,360.35	1,392.92	4.31	6.21	37.27	-3,885.13	-3,159.13	5,020.56	5,010.31	10.25	489.692		
800.00	795.62	1,455.86	1,487.39	4.64	6.71	37.71	-3,877.89	-3,147.13	4,991.68	4,980.69	10.99	454.340		
900.00	893.06	1,550.37	1,580.87	5.00	7.20	38.23	-3,870.73	-3,135.26	4,960.18	4,948.43	11.74	422.343		
1,000.00	989.64	1,643.76	1,673.25	5.40	7.69	38.81	-3,863.64	-3,123.52	4,926.11	4,913.58	12.52	393.380		
1,100.00	1,085.27	1,735.92	1,764.41	5.83	8.18	39.47	-3,856.66	-3,111.94	4,889.52	4,876.20	13.32	367.131		
1,200.00	1,179.82	1,826.73	1,854.25	6.29	8.65	40.20	-3,849.77	-3,100.53	4,850.48	4,836.35	14.13	343.291		
1,300.00	1,273.17	1,916.09	1,942.64	6.79	9.12	41.01	-3,842.99	-3,089.31	4,809.05	4,794.10	14.95	321.583		
1,400.00	1,365.46	2,004.19	2,029.78	7.32	9.59	41.51	-3,836.31	-3,078.24	4,765.73	4,749.94	15.79	301.815		
1,500.00	1,457.65	2,092.15	2,116.79	7.87	10.05	41.77	-3,829.64	-3,067.18	4,722.30	4,705.67	16.63	283.925		
1,600.00	1,549.83	2,180.12	2,203.81	8.43	10.51	42.02	-3,822.97	-3,056.13	4,678.95	4,661.47	17.49	267.549		
1,700.00	1,642.02	2,268.08	2,290.82	9.01	10.98	42.29	-3,816.30	-3,045.08	4,635.69	4,617.33	18.36	252.541		
1,800.00	1,734.21	2,356.05	2,377.83	9.59	11.44	42.56	-3,809.63	-3,034.03	4,592.51	4,573.27	19.23	238.764		
1,900.00	1,826.39	2,444.01	2,464.84	10.18	11.91	42.83	-3,802.96	-3,022.97	4,549.41	4,529.29	20.12	226.095		
2,000.00	1,918.58	2,531.98	2,551.86	10.78	12.37	43.11	-3,796.29	-3,011.92	4,506.41	4,485.39	21.02	214.421		
2,100.00	2,010.77	2,630.07	2,638.87	11.39	12.89	43.39	-3,789.62	-3,000.87	4,463.50	4,441.53	21.97	203.205		
2,200.00	2,102.95	2,707.91	2,725.88	11.99	13.30	43.68	-3,782.95	-2,989.81	4,420.68	4,397.85	22.83	193.663		
2,300.00	2,195.14	2,795.87	2,812.90	12.61	13.77	43.97	-3,776.28	-2,978.76	4,377.96	4,354.22	23.74	184.411		
2,400.00	2,287.32	2,883.84	2,899.91	13.22	14.23	44.27	-3,769.61	-2,967.71	4,335.34	4,310.69	24.66	175.813		
2,500.00	2,379.51	2,971.80	2,986.92	13.84	14.70	44.57	-3,762.94	-2,956.66	4,292.83	4,267.25	25.58	167.806		
2,600.00	2,471.70	3,059.77	3,073.93	14.46	15.16	44.88	-3,756.27	-2,945.60	4,250.42	4,223.91	26.51	160.335		
2,700.00	2,563.88	3,147.74	3,160.95	15.08	15.63	45.20	-3,749.60	-2,934.55	4,208.13	4,180.69	27.44	153.351		
2,800.00	2,656.07	3,235.70	3,247.96	15.71	16.09	45.52	-3,742.93	-2,923.50	4,165.94	4,137.57	28.38	146.809		
2,900.00	2,748.26	3,326.35	3,334.97	16.33	16.57	45.85	-3,736.26	-2,912.45	4,123.88	4,094.55	29.33	140.613		
3,000.00	2,840.44	3,411.63	3,421.98	16.96	17.02	46.18	-3,729.59	-2,901.39	4,081.93	4,051.67	30.26	134.905		
3,100.00	2,932.63	3,500.40	3,509.00	17.59	17.49	46.52	-3,722.92	-2,890.34	4,040.11	4,008.90	31.21	129.461		
3,200.00	3,024.81	3,587.56	3,596.01	18.22	17.95	46.87	-3,716.25	-2,879.29	3,998.42	3,966.27	32.15	124.359		
3,300.00	3,117.00	3,675.53	3,683.02	18.86	18.42	47.22	-3,709.58	-2,868.23	3,956.86	3,923.75	33.10	119.527		
3,400.00	3,209.19	3,763.49	3,770.04	19.49	18.89	47.58	-3,702.91	-2,857.18	3,915.43	3,881.37	34.06	114.959		
3,500.00	3,301.37	3,851.46	3,857.05	20.12	19.35	47.95	-3,696.24	-2,846.13	3,874.15	3,839.13	35.02	110.634		
3,600.00	3,393.56	3,939.42	3,944.06	20.76	19.82	48.33	-3,689.57	-2,835.08	3,833.01	3,797.04	35.98	106.535		
3,700.00	3,485.75	4,027.39	4,031.07	21.39	20.28	48.71	-3,682.90	-2,824.02	3,792.03	3,755.08	36.94	102.645		
3,800.00	3,577.93	4,115.35	4,118.09	22.03	20.75	49.10	-3,676.23	-2,812.97	3,751.20	3,713.28	37.91	98.949		
3,900.00	3,670.12	4,203.32	4,205.10	22.67	21.21	49.50	-3,669.56	-2,801.92	3,710.52	3,671.64	38.88	95.433		
4,000.00	3,762.30	4,291.28	4,292.11	23.30	21.68	49.91	-3,662.89	-2,790.87	3,670.02	3,630.16	39.85	92.085		
4,100.00	3,854.49	4,379.25	4,379.13	23.94	22.15	50.32	-3,656.22	-2,779.81	3,629.68	3,588.85	40.83	88.895		
4,200.00	3,946.68	4,467.21	4,466.14	24.58	22.61	50.75	-3,649.55	-2,768.76	3,589.53	3,547.71	41.81	85.851		
4,300.00	4,038.86	4,555.18	4,553.15	25.22	23.08	51.18	-3,642.88	-2,757.71	3,549.55	3,506.76	42.79	82.944		
4,400.00	4,131.05	4,643.14	4,640.16	25.86	23.54	51.62	-3,636.21	-2,746.65	3,509.77	3,465.99	43.78	80.166		
4,500.00	4,223.24	4,731.11	4,727.18	26.50	24.01	52.08	-3,629.54	-2,735.60	3,470.18	3,425.41	44.77	77.509		
4,600.00	4,315.42	4,830.94	4,814.19	27.14	24.54	52.54	-3,622.87	-2,724.55	3,430.79	3,384.97	45.82	74.877		
4,700.00	4,407.61	4,907.04	4,901.20	27.78	24.94	53.01	-3,616.20	-2,713.50	3,391.61	3,344.85	46.76	72.529		
4,800.00	4,499.79	4,995.01	4,988.22	28.42	25.41	53.49	-3,609.53	-2,702.44	3,352.65	3,304.89	47.76	70.193		
4,900.00	4,591.98	5,082.97	5,075.23	29.06	25.88	53.98	-3,602.86	-2,691.39	3,313.92	3,265.15	48.77	67.953		
5,000.00	4,684.17	5,170.94	5,162.24	29.70	26.34	54.48	-3,596.19	-2,680.34	3,275.41	3,225.64	49.78	65.802		
5,100.00	4,776.35	5,258.90	5,249.25	30.34	26.81	54.99	-3,589.52	-2,669.29	3,237.15	3,186.36	50.79	63.736		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,346.87	5,336.27	30.98	27.27	55.52	-3,582.85	-2,658.23	3,199.14	3,147.33	51.81	61.751		
5,300.00	4,960.73	5,434.83	5,423.28	31.63	27.74	56.05	-3,576.18	-2,647.18	3,161.38	3,108.55	52.83	59.843		
5,400.00	5,052.91	5,527.22	5,510.29	32.27	28.23	56.60	-3,569.51	-2,636.13	3,123.89	3,070.02	53.87	57.985		
5,500.00	5,145.10	5,610.76	5,597.31	32.91	28.67	57.16	-3,562.84	-2,625.07	3,086.69	3,031.80	54.88	56.239		
5,600.00	5,237.28	5,701.27	5,684.32	33.55	29.15	57.73	-3,556.17	-2,614.02	3,049.76	2,993.83	55.93	54.526		
5,700.00	5,329.47	5,786.69	5,771.33	34.20	29.61	58.31	-3,549.50	-2,602.97	3,013.14	2,956.18	56.96	52.898		
5,800.00	5,421.66	5,874.66	5,858.34	34.84	30.07	58.90	-3,542.83	-2,591.92	2,976.83	2,918.82	58.01	51.319		
5,900.00	5,513.84	5,962.62	5,945.36	35.48	30.54	59.51	-3,536.16	-2,580.86	2,940.83	2,881.78	59.06	49.796		
6,000.00	5,606.03	6,050.59	6,032.37	36.13	31.00	60.13	-3,529.49	-2,569.81	2,905.17	2,845.06	60.11	48.328		
6,100.00	5,698.22	6,138.55	6,119.38	36.77	31.47	60.77	-3,522.82	-2,558.76	2,869.86	2,808.68	61.18	46.912		
6,200.00	5,790.40	6,226.52	6,206.40	37.41	31.94	61.42	-3,516.15	-2,547.71	2,834.90	2,772.66	62.24	45.546		
6,300.00	5,882.59	6,314.49	6,293.41	38.06	32.40	62.08	-3,509.48	-2,536.65	2,800.32	2,737.00	63.32	44.227		
6,400.00	5,974.77	6,374.99	6,353.26	38.70	32.72	62.55	-3,504.89	-2,529.05	2,766.25	2,701.88	64.37	42.973		
6,500.00	6,066.96	6,400.00	6,378.05	39.34	32.85	62.74	-3,503.00	-2,526.40	2,734.25	2,668.87	65.38	41.821		
6,600.00	6,159.15	6,425.01	6,402.94	39.99	32.97	62.95	-3,501.12	-2,524.72	2,705.04	2,638.68	66.37	40.759		
6,700.00	6,251.33	6,435.84	6,413.73	40.63	33.02	63.05	-3,500.32	-2,524.30	2,678.54	2,611.25	67.29	39.806		
6,800.00	6,343.52	6,450.00	6,427.85	41.28	33.08	63.17	-3,499.27	-2,524.02	2,654.99	2,586.81	68.17	38.944		
6,900.00	6,435.71	6,473.05	6,450.83	41.92	33.16	63.38	-3,497.58	-2,524.25	2,634.36	2,565.32	69.04	38.156		
7,000.00	6,527.86	6,500.00	6,477.68	42.56	33.26	63.67	-3,495.64	-2,525.58	2,616.04	2,546.16	69.88	37.435		
7,100.00	6,618.85	6,510.30	6,487.92	43.19	33.29	63.96	-3,494.90	-2,526.39	2,589.67	2,519.13	70.54	36.710		
7,200.00	6,706.47	6,525.01	6,502.52	43.76	33.34	64.23	-3,493.86	-2,527.83	2,552.62	2,481.54	71.08	35.910		
7,300.00	6,788.56	6,550.00	6,527.24	44.26	33.41	64.45	-3,492.11	-2,531.05	2,505.30	2,433.75	71.55	35.014		
7,400.00	6,863.10	6,550.00	6,527.24	44.70	33.41	64.60	-3,492.11	-2,531.05	2,448.59	2,376.86	71.73	34.135		
7,500.00	6,928.26	6,580.46	6,557.17	45.07	33.48	64.77	-3,490.02	-2,536.28	2,382.84	2,310.82	72.01	33.088		
7,600.00	6,982.42	6,600.00	6,576.23	45.39	33.53	64.93	-3,488.71	-2,540.39	2,309.68	2,237.54	72.13	32.020		
7,700.00	7,024.26	6,609.50	6,585.44	45.67	33.55	65.08	-3,488.08	-2,542.60	2,230.17	2,158.08	72.09	30.935		
7,800.00	7,052.75	6,625.01	6,600.42	45.92	33.58	65.22	-3,487.07	-2,546.51	2,145.92	2,073.87	72.05	29.782		
7,900.00	7,067.18	6,625.01	6,600.42	46.16	33.58	65.35	-3,487.07	-2,546.51	2,058.71	1,986.85	71.86	28.647		
8,000.00	7,068.85	6,638.65	6,613.51	46.42	33.61	65.47	-3,486.19	-2,550.24	1,970.58	1,898.75	71.82	27.436		
8,100.00	7,068.56	6,650.00	6,624.34	46.78	33.63	65.58	-3,485.47	-2,553.56	1,883.40	1,811.58	71.81	26.226		
8,200.00	7,068.26	6,650.00	6,624.34	47.29	33.63	65.68	-3,485.47	-2,553.56	1,797.42	1,725.64	71.77	25.042		
8,300.00	7,067.96	6,650.00	6,624.34	48.03	33.63	65.77	-3,485.47	-2,553.56	1,712.96	1,641.13	71.83	23.848		
8,400.00	7,067.66	6,673.19	6,646.27	49.02	33.66	65.84	-3,484.02	-2,560.95	1,629.73	1,557.52	72.21	22.568		
8,500.00	7,067.37	6,683.89	6,656.30	50.27	33.68	65.89	-3,483.37	-2,564.63	1,548.46	1,475.82	72.64	21.317		
8,600.00	7,067.07	6,700.00	6,671.28	51.75	33.70	65.92	-3,482.40	-2,570.48	1,469.26	1,395.95	73.30	20.043		
8,700.00	7,066.77	6,708.65	6,679.26	53.42	33.71	65.96	-3,481.89	-2,573.78	1,392.36	1,318.21	74.15	18.778		
8,800.00	7,066.47	6,725.01	6,694.23	55.24	33.73	65.99	-3,480.94	-2,580.31	1,318.20	1,242.86	75.34	17.496		
8,900.00	7,066.18	6,739.10	6,706.97	57.18	33.74	66.02	-3,480.13	-2,586.24	1,247.15	1,170.28	76.87	16.224		
9,000.00	7,065.88	6,750.00	6,716.75	59.21	33.75	66.04	-3,479.52	-2,591.03	1,179.73	1,100.95	78.79	14.974		
9,100.00	7,065.58	6,777.23	6,740.80	61.33	33.77	66.05	-3,478.05	-2,603.70	1,116.34	1,035.12	81.22	13.745		
9,200.00	7,065.28	6,800.00	6,760.49	63.51	33.79	66.06	-3,476.86	-2,615.09	1,057.68	973.58	84.10	12.577		
9,300.00	7,064.99	6,825.01	6,781.63	65.76	33.81	66.06	-3,475.61	-2,628.40	1,004.32	916.87	87.45	11.484		
9,400.00	7,064.69	6,850.00	6,802.21	68.06	33.82	66.06	-3,474.42	-2,642.51	956.90	865.65	91.25	10.486		
9,500.00	7,064.39	6,889.57	6,833.63	70.40	33.83	66.06	-3,472.65	-2,666.49	915.87	820.53	95.35	9.606		
9,600.00	7,064.09	6,928.73	6,863.21	72.78	33.85	66.06	-3,471.07	-2,692.09	881.73	782.09	99.64	8.849		
9,700.00	7,063.80	6,973.98	6,895.36	75.20	33.86	66.06	-3,469.43	-2,723.88	854.62	750.67	103.95	8.222		
9,800.00	7,063.50	7,025.01	6,928.82	77.65	33.90	66.06	-3,467.86	-2,762.37	834.40	726.31	108.09	7.720		
9,900.00	7,063.20	7,086.49	6,964.88	80.13	33.96	66.06	-3,466.35	-2,812.10	820.55	708.64	111.91	7.332		
10,000.00	7,062.90	7,155.26	6,999.35	82.64	34.10	66.06	-3,465.18	-2,871.56	812.16	696.74	115.41	7.037		
10,100.00	7,062.61	7,232.57	7,030.22	85.17	34.36	66.06	-3,464.54	-2,942.38	808.02	689.34	118.68	6.808		
10,200.00	7,062.31	7,317.43	7,053.97	87.72	34.84	66.06	-3,464.68	-3,023.78	806.82	684.92	121.90	6.619		
10,208.50	7,062.28	7,324.93	7,055.55	87.93	34.89	66.06	-3,464.73	-3,031.11	806.81	684.64	122.18	6.604 CC		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,407.63	7,067.17	90.28	35.57	-90.36	-3,465.77	-3,112.93	807.40	682.12	125.29	6.444		
10,400.00	7,061.71	7,503.20	7,068.75	92.87	36.58	-90.50	-3,467.86	-3,208.43	809.01	680.02	128.99	6.272		
10,500.00	7,061.41	7,603.19	7,068.15	95.47	37.92	-90.47	-3,470.22	-3,308.39	810.76	677.79	132.98	6.097		
10,600.00	7,061.12	7,703.17	7,067.54	98.09	39.52	-90.45	-3,472.57	-3,408.34	812.52	675.31	137.21	5.922		
10,700.00	7,060.82	7,803.16	7,066.94	100.72	41.32	-90.43	-3,474.93	-3,508.30	814.28	672.61	141.66	5.748		
10,800.00	7,060.52	7,903.14	7,066.34	103.37	43.32	-90.41	-3,477.28	-3,608.25	816.03	669.72	146.31	5.577		
10,900.00	7,060.22	8,003.12	7,065.74	106.02	45.47	-90.38	-3,479.64	-3,708.21	817.79	666.67	151.12	5.411		
11,000.00	7,059.93	8,103.11	7,065.14	108.69	47.76	-90.36	-3,482.00	-3,808.16	819.55	663.46	156.08	5.251		
11,100.00	7,059.63	8,203.09	7,064.53	111.36	50.16	-90.34	-3,484.35	-3,908.12	821.30	660.13	161.17	5.096		
11,200.00	7,059.33	8,303.08	7,063.93	114.05	52.66	-90.32	-3,486.71	-4,008.07	823.06	656.69	166.37	4.947		
11,300.00	7,059.03	8,403.06	7,063.33	116.74	55.25	-90.30	-3,489.07	-4,108.02	824.82	653.16	171.65	4.805		
11,400.00	7,058.74	8,503.04	7,062.73	119.44	57.91	-90.27	-3,491.42	-4,207.98	826.57	649.55	177.03	4.669		
11,500.00	7,058.44	8,603.03	7,062.13	122.15	60.64	-90.25	-3,493.78	-4,307.93	828.33	645.86	182.48	4.539		
11,600.00	7,058.14	8,703.01	7,061.52	124.86	63.43	-90.23	-3,496.13	-4,407.89	830.09	642.10	187.99	4.416		
11,700.00	7,057.84	8,803.00	7,060.92	127.58	66.26	-90.21	-3,498.49	-4,507.84	831.85	638.29	193.55	4.298		
11,800.00	7,057.55	8,902.98	7,060.32	130.31	69.14	-90.19	-3,500.85	-4,607.80	833.61	634.44	199.17	4.185		
11,900.00	7,057.25	9,002.96	7,059.72	133.04	72.06	-90.17	-3,503.20	-4,707.75	835.36	630.53	204.83	4.078		
12,000.00	7,056.95	9,102.95	7,059.12	135.78	75.01	-90.15	-3,505.56	-4,807.71	837.12	626.59	210.53	3.976		
12,100.00	7,056.65	9,202.93	7,058.51	138.52	77.99	-90.12	-3,507.92	-4,907.66	838.88	622.62	216.26	3.879		
12,200.00	7,056.36	9,302.92	7,057.91	141.27	81.00	-90.10	-3,510.27	-5,007.61	840.64	618.61	222.03	3.786		
12,300.00	7,056.06	9,402.90	7,057.31	144.02	84.03	-90.08	-3,512.63	-5,107.57	842.40	614.58	227.82	3.698		
12,400.00	7,055.76	9,502.88	7,056.71	146.78	87.08	-90.06	-3,514.98	-5,207.52	844.15	610.52	233.64	3.613		
12,500.00	7,055.46	9,602.87	7,056.11	149.54	90.16	-90.04	-3,517.34	-5,307.48	845.91	606.44	239.48	3.532		
12,600.00	7,055.17	9,702.85	7,055.50	152.30	93.24	-90.02	-3,519.70	-5,407.43	847.67	602.33	245.34	3.455		
12,700.00	7,054.87	9,802.84	7,054.90	155.07	96.35	-90.00	-3,522.05	-5,507.39	849.43	598.21	251.22	3.381		
12,800.00	7,054.57	9,902.82	7,054.30	157.84	99.47	-89.98	-3,524.41	-5,607.34	851.19	594.07	257.12	3.310		
12,900.00	7,054.27	10,002.80	7,053.70	160.61	102.60	-89.96	-3,526.77	-5,707.30	852.95	589.92	263.03	3.243		
13,000.00	7,053.97	10,102.79	7,053.10	163.39	105.75	-89.94	-3,529.12	-5,807.25	854.71	585.75	268.96	3.178		
13,100.00	7,053.68	10,202.77	7,052.49	166.17	108.90	-89.92	-3,531.48	-5,907.20	856.47	581.56	274.90	3.116		
13,200.00	7,053.38	10,302.76	7,051.89	168.95	112.07	-89.90	-3,533.83	-6,007.16	858.23	577.37	280.86	3.056		
13,300.00	7,053.08	10,402.74	7,051.29	171.73	115.24	-89.88	-3,536.19	-6,107.11	859.99	573.16	286.82	2.998		
13,400.00	7,052.78	10,502.73	7,050.69	174.52	118.42	-89.86	-3,538.55	-6,207.07	861.75	568.95	292.80	2.943		
13,500.00	7,052.49	10,602.71	7,050.09	177.31	121.61	-89.84	-3,540.90	-6,307.02	863.50	564.72	298.79	2.890		
13,600.00	7,052.19	10,702.69	7,049.48	180.10	124.81	-89.82	-3,543.26	-6,406.98	865.26	560.48	304.78	2.839		
13,700.00	7,051.89	10,802.68	7,048.88	182.90	128.01	-89.80	-3,545.62	-6,506.93	867.02	556.24	310.78	2.790		
13,800.00	7,051.59	10,902.66	7,048.28	185.69	131.22	-89.78	-3,547.97	-6,606.89	868.78	551.99	316.80	2.742		
13,900.00	7,051.30	11,002.65	7,047.68	188.49	134.44	-89.76	-3,550.33	-6,706.84	870.54	547.73	322.81	2.697		
14,000.00	7,051.00	11,102.63	7,047.08	191.29	137.66	-89.74	-3,552.68	-6,806.80	872.30	543.47	328.84	2.653		
14,100.00	7,050.70	11,202.61	7,046.47	194.09	140.88	-89.72	-3,555.04	-6,906.75	874.07	539.19	334.87	2.610		
14,200.00	7,050.40	11,302.60	7,045.87	196.89	144.11	-89.70	-3,557.40	-7,006.70	875.83	534.92	340.91	2.569		
14,300.00	7,050.11	11,402.58	7,045.27	199.70	147.35	-89.68	-3,559.75	-7,106.66	877.59	530.63	346.95	2.529		
14,400.00	7,049.81	11,502.57	7,044.67	202.50	150.59	-89.66	-3,562.11	-7,206.61	879.35	526.34	353.00	2.491		
14,500.00	7,049.51	11,602.55	7,044.07	205.31	153.83	-89.64	-3,564.47	-7,306.57	881.11	522.05	359.06	2.454		
14,600.00	7,049.21	11,702.53	7,043.46	208.12	157.07	-89.62	-3,566.82	-7,406.52	882.87	517.75	365.12	2.418		
14,700.00	7,048.92	11,802.52	7,042.86	210.93	160.32	-89.60	-3,569.18	-7,506.48	884.63	513.45	371.18	2.383		
14,800.00	7,048.62	11,902.50	7,042.26	213.74	163.58	-89.59	-3,571.54	-7,606.43	886.39	509.14	377.25	2.350		
14,900.00	7,048.32	12,002.49	7,041.66	216.55	166.83	-89.57	-3,573.89	-7,706.39	888.15	504.83	383.32	2.317		
15,000.00	7,048.02	12,102.47	7,041.06	219.37	170.09	-89.55	-3,576.25	-7,806.34	889.91	500.52	389.39	2.285		
15,100.00	7,047.73	12,202.45	7,040.45	222.18	173.35	-89.53	-3,578.60	-7,906.29	891.67	496.20	395.47	2.255		
15,200.00	7,047.43	12,302.44	7,039.85	225.00	176.61	-89.51	-3,580.96	-8,006.25	893.43	491.88	401.56	2.225		
15,300.00	7,047.13	12,402.42	7,039.25	227.81	179.88	-89.49	-3,583.32	-8,106.20	895.20	487.56	407.64	2.196		
15,343.67	7,047.00	12,446.09	7,038.99	229.04	181.30	-89.48	-3,584.35	-8,149.86	895.97	485.67	410.30	2.184 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	15,808.44	7,241.41	3.28	248.32	0.52	2,423.57	22.04	7,636.24					
100.00	100.00	15,808.20	7,241.41	3.28	248.31	0.52	2,423.57	21.80	7,541.48	7,417.55	123.92	60.856		
200.00	200.00	15,807.95	7,241.41	3.34	248.30	0.51	2,423.57	21.56	7,446.85	7,322.41	124.44	59.843		
300.00	299.98	15,807.61	7,241.41	3.44	248.29	177.36	2,423.57	21.21	7,352.96	7,227.95	125.01	58.820		
400.00	399.84	15,807.06	7,241.41	3.59	248.28	177.56	2,423.57	20.66	7,260.51	7,134.86	125.66	57.780		
500.00	499.45	15,806.32	7,241.41	3.79	248.26	177.72	2,423.57	19.92	7,169.68	7,043.27	126.41	56.719		
600.00	598.70	15,805.37	7,241.41	4.03	248.23	177.86	2,423.57	18.97	7,080.64	6,953.38	127.26	55.640		
700.00	697.47	15,804.23	7,241.42	4.31	248.20	177.97	2,423.58	17.83	6,993.56	6,865.35	128.22	54.545		
800.00	795.62	15,802.89	7,241.42	4.64	248.16	178.06	2,423.58	16.49	6,908.64	6,779.35	129.29	53.435		
900.00	893.06	15,801.35	7,241.42	5.00	248.12	178.13	2,423.58	14.95	6,826.04	6,695.56	130.48	52.314		
1,000.00	989.64	15,800.44	7,241.43	5.40	248.09	178.20	2,423.59	13.22	6,745.98	6,614.16	131.82	51.177		
1,100.00	1,085.27	15,802.36	7,241.43	5.83	248.15	178.25	2,423.59	11.30	6,668.62	6,535.30	133.32	50.018		
1,200.00	1,179.82	15,804.47	7,241.44	6.29	248.21	178.29	2,423.59	9.19	6,594.17	6,459.19	134.98	48.853		
1,300.00	1,273.17	15,806.77	7,241.44	6.79	248.27	178.32	2,423.60	6.90	6,522.82	6,386.03	136.79	47.685		
1,400.00	1,365.46	15,809.21	7,241.45	7.32	248.34	178.31	2,423.60	4.45	6,454.29	6,315.55	138.75	46.519		
1,500.00	1,457.65	15,811.67	7,241.45	7.87	248.41	178.28	2,423.61	1.99	6,386.80	6,245.99	140.81	45.357		
1,600.00	1,549.83	15,814.13	7,241.46	8.43	248.48	178.25	2,423.61	-0.47	6,320.16	6,177.20	142.96	44.209		
1,700.00	1,642.02	15,816.59	7,241.47	9.01	248.55	178.22	2,423.61	-2.93	6,254.42	6,109.23	145.19	43.077		
1,800.00	1,734.21	15,819.05	7,241.47	9.59	248.62	178.19	2,423.62	-5.39	6,189.59	6,042.09	147.50	41.964		
1,900.00	1,826.39	15,821.52	7,241.48	10.18	248.69	178.16	2,423.62	-7.85	6,125.70	5,975.82	149.88	40.869		
2,000.00	1,918.58	15,823.98	7,241.48	10.78	248.76	178.13	2,423.63	-10.31	6,062.80	5,910.45	152.34	39.796		
2,100.00	2,010.77	15,826.44	7,241.49	11.39	248.83	178.10	2,423.63	-12.77	6,000.89	5,846.02	154.88	38.746		
2,200.00	2,102.95	15,828.90	7,241.50	11.99	248.90	178.07	2,423.64	-15.23	5,940.03	5,782.55	157.48	37.720		
2,300.00	2,195.14	15,831.36	7,241.50	12.61	248.97	178.04	2,423.64	-17.69	5,880.23	5,720.09	160.15	36.718		
2,400.00	2,287.32	15,833.82	7,241.51	13.22	249.04	178.01	2,423.65	-20.15	5,821.54	5,658.66	162.88	35.741		
2,500.00	2,379.51	15,836.28	7,241.51	13.84	249.11	177.98	2,423.65	-22.61	5,763.98	5,598.31	165.68	34.791		
2,600.00	2,471.70	15,838.74	7,241.52	14.46	249.17	177.95	2,423.65	-25.07	5,707.60	5,539.07	168.53	33.867		
2,700.00	2,563.88	15,841.20	7,241.53	15.08	249.24	177.92	2,423.66	-27.53	5,652.42	5,480.98	171.44	32.971		
2,800.00	2,656.07	15,843.66	7,241.53	15.71	249.31	177.89	2,423.66	-30.00	5,598.48	5,424.08	174.40	32.101		
2,900.00	2,748.26	15,846.12	7,241.54	16.33	249.38	177.86	2,423.67	-32.46	5,545.82	5,368.40	177.41	31.259		
3,000.00	2,840.44	15,848.58	7,241.55	16.96	249.45	177.83	2,423.67	-34.92	5,494.47	5,314.00	180.47	30.445		
3,100.00	2,932.63	15,851.04	7,241.55	17.59	249.52	177.80	2,423.68	-37.38	5,444.48	5,260.90	183.58	29.657		
3,200.00	3,024.81	15,853.50	7,241.56	18.22	249.59	177.77	2,423.68	-39.84	5,395.87	5,209.15	186.72	28.898		
3,300.00	3,117.00	15,855.96	7,241.56	18.86	249.66	177.74	2,423.68	-42.30	5,348.69	5,158.79	189.90	28.165		
3,400.00	3,209.19	15,858.42	7,241.57	19.49	249.73	177.72	2,423.69	-44.76	5,302.98	5,109.86	193.12	27.460		
3,500.00	3,301.37	15,860.89	7,241.58	20.12	249.80	177.69	2,423.69	-47.22	5,258.77	5,062.41	196.36	26.782		
3,600.00	3,393.56	15,863.35	7,241.58	20.76	249.87	177.66	2,423.70	-49.68	5,216.10	5,016.48	199.62	26.130		
3,700.00	3,485.75	15,865.81	7,241.59	21.39	249.94	177.63	2,423.70	-52.14	5,175.01	4,972.10	202.91	25.504		
3,800.00	3,577.93	15,868.27	7,241.59	22.03	250.01	177.60	2,423.71	-54.60	5,135.54	4,929.33	206.20	24.905		
3,900.00	3,670.12	15,870.73	7,241.60	22.67	250.08	177.57	2,423.71	-57.06	5,097.72	4,888.21	209.51	24.331		
4,000.00	3,762.30	15,873.19	7,241.61	23.30	250.15	177.54	2,423.72	-59.52	5,061.59	4,848.77	212.82	23.783		
4,100.00	3,854.49	15,875.65	7,241.61	23.94	250.22	177.51	2,423.72	-61.98	5,027.20	4,811.06	216.13	23.260		
4,200.00	3,946.68	15,878.11	7,241.62	24.58	250.29	177.48	2,423.72	-64.44	4,994.57	4,775.13	219.44	22.761		
4,300.00	4,038.86	15,880.57	7,241.62	25.22	250.36	177.45	2,423.73	-66.91	4,963.73	4,741.01	222.73	22.286		
4,400.00	4,131.05	15,883.03	7,241.63	25.86	250.43	177.42	2,423.73	-69.37	4,934.73	4,708.74	226.00	21.835		
4,500.00	4,223.24	15,885.49	7,241.64	26.50	250.50	177.39	2,423.74	-71.83	4,907.60	4,678.36	229.24	21.408		
4,600.00	4,315.42	15,887.95	7,241.64	27.14	250.57	177.36	2,423.74	-74.29	4,882.36	4,649.90	232.46	21.003		
4,700.00	4,407.61	15,909.65	7,241.65	27.78	251.18	177.33	2,423.75	-76.75	4,859.05	4,622.96	236.09	20.582		
4,800.00	4,499.79	15,907.19	7,241.65	28.42	251.11	177.30	2,423.75	-79.21	4,837.69	4,598.58	239.11	20.232		
4,900.00	4,591.98	15,904.73	7,241.66	29.06	251.04	177.27	2,423.76	-81.67	4,818.32	4,576.24	242.08	19.904		
5,000.00	4,684.17	15,902.27	7,241.67	29.70	250.97	177.24	2,423.76	-84.13	4,800.94	4,555.95	244.99	19.597		
5,100.00	4,776.35	15,900.26	7,241.67	30.34	250.91	177.21	2,423.76	-86.59	4,785.59	4,537.75	247.84	19.309		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	15,902.72	7,241.68	30.98	250.98	177.18	2,423.77	-89.05	4,772.29	4,521.55	250.74	19.033		
5,300.00	4,960.73	15,905.18	7,241.68	31.63	251.05	177.15	2,423.77	-91.51	4,761.05	4,507.48	253.57	18.776		
5,400.00	5,052.91	15,907.64	7,241.69	32.27	251.12	177.12	2,423.78	-93.97	4,751.89	4,495.57	256.31	18.539		
5,500.00	5,145.10	15,910.10	7,241.70	32.91	251.19	177.09	2,423.78	-96.43	4,744.81	4,485.84	258.97	18.322		
5,600.00	5,237.28	15,912.56	7,241.70	33.55	251.26	177.06	2,423.79	-98.89	4,739.84	4,478.29	261.55	18.122		
5,700.00	5,329.47	15,915.02	7,241.71	34.20	251.33	177.03	2,423.79	-101.35	4,736.96	4,472.94	264.02	17.941		
5,786.13	5,408.87	15,917.14	7,241.71	34.75	251.39	177.01	2,423.79	-103.47	4,736.18	4,470.10	266.08	17.800 CC		
5,800.00	5,421.66	15,917.48	7,241.71	34.84	251.40	177.00	2,423.80	-103.81	4,736.20	4,469.80	266.41	17.778		
5,900.00	5,513.84	15,919.94	7,241.72	35.48	251.47	176.97	2,423.80	-106.28	4,737.55	4,468.86	268.69	17.632 ES		
6,000.00	5,606.03	15,922.40	7,241.73	36.13	251.54	176.94	2,423.80	-108.74	4,741.01	4,470.14	270.86	17.503		
6,100.00	5,698.22	15,924.86	7,241.73	36.77	251.61	176.91	2,423.81	-111.20	4,746.56	4,473.63	272.93	17.391		
6,200.00	5,790.40	15,927.32	7,241.74	37.41	251.68	176.88	2,423.81	-113.66	4,754.22	4,479.33	274.89	17.295		
6,300.00	5,882.59	15,929.78	7,241.74	38.06	251.75	176.85	2,423.82	-116.12	4,763.96	4,487.22	276.74	17.214		
6,400.00	5,974.77	15,932.24	7,241.75	38.70	251.82	176.82	2,423.82	-118.58	4,775.78	4,497.29	278.48	17.149		
6,500.00	6,066.96	15,934.71	7,241.76	39.34	251.89	176.79	2,423.83	-121.04	4,789.65	4,509.54	280.11	17.099		
6,600.00	6,159.15	15,937.17	7,241.76	39.99	251.96	176.76	2,423.83	-123.50	4,805.56	4,523.94	281.62	17.064		
6,700.00	6,251.33	15,939.63	7,241.77	40.63	252.03	176.73	2,423.83	-125.96	4,823.49	4,540.48	283.02	17.043		
6,800.00	6,343.52	15,942.09	7,241.77	41.28	252.10	176.70	2,423.84	-128.42	4,843.42	4,559.12	284.30	17.036		
6,900.00	6,435.71	15,944.55	7,241.78	41.92	252.17	176.67	2,423.84	-130.88	4,865.32	4,579.85	285.48	17.043		
7,000.00	6,527.86	15,947.88	7,241.79	42.56	252.26	168.83	2,423.85	-134.22	4,889.17	4,602.61	286.57	17.061		
7,100.00	6,618.85	15,953.37	7,241.83	43.19	252.70	147.76	2,423.88	-149.70	4,914.71	4,626.83	287.88	17.072		
7,200.00	6,706.47	16,005.97	7,241.90	43.76	253.91	131.66	2,423.93	-180.43	4,941.19	4,651.36	289.83	17.049		
7,300.00	6,788.56	16,039.32	7,242.01	44.26	254.85	119.86	2,424.01	-225.65	4,967.67	4,676.28	291.39	17.048		
7,400.00	6,863.10	16,102.15	7,242.15	44.70	256.63	111.08	2,424.12	-284.25	4,993.14	4,699.45	293.69	17.002		
7,500.00	6,928.26	16,168.45	7,242.33	45.07	258.50	104.42	2,424.25	-354.78	5,016.53	4,720.51	296.02	16.947		
7,600.00	6,982.42	16,249.17	7,242.52	45.39	260.79	99.40	2,424.39	-435.51	5,036.86	4,738.09	298.77	16.859		
7,700.00	7,024.26	16,338.11	7,242.74	45.67	263.31	95.77	2,424.55	-524.45	5,053.22	4,751.39	301.83	16.742		
7,800.00	7,052.75	16,433.07	7,242.97	45.92	266.00	93.37	2,424.72	-619.40	5,064.87	4,759.67	305.20	16.595		
7,900.00	7,067.18	16,531.71	7,243.21	46.16	268.79	92.15	2,424.90	-718.04	5,071.29	4,762.45	308.84	16.420		
8,000.00	7,068.85	16,631.65	7,243.46	46.42	271.62	91.97	2,425.08	-817.98	5,072.85	4,760.15	312.70	16.223		
8,100.00	7,068.56	16,731.65	7,243.70	46.78	274.46	91.98	2,425.26	-917.97	5,073.64	4,756.91	316.73	16.019		
8,200.00	7,068.26	16,831.64	7,243.95	47.29	277.29	91.98	2,425.44	-1,017.97	5,074.44	4,753.52	320.92	15.812		
8,300.00	7,067.96	16,931.64	7,244.19	48.03	280.12	91.99	2,425.62	-1,117.97	5,075.23	4,749.99	325.24	15.604		
8,400.00	7,067.66	17,031.64	7,244.44	49.02	282.96	91.99	2,425.79	-1,217.96	5,076.03	4,746.33	329.70	15.396		
8,500.00	7,067.37	17,131.63	7,244.68	50.27	285.80	92.00	2,425.97	-1,317.96	5,076.83	4,742.56	334.27	15.188		
8,600.00	7,067.07	17,231.63	7,244.92	51.75	288.63	92.01	2,426.15	-1,417.95	5,077.62	4,738.68	338.94	14.981		
8,700.00	7,066.77	17,331.62	7,245.17	53.42	291.47	92.01	2,426.33	-1,517.95	5,078.42	4,734.71	343.70	14.776		
8,800.00	7,066.47	17,431.62	7,245.41	55.24	294.31	92.02	2,426.51	-1,617.94	5,079.21	4,730.66	348.55	14.572		
8,900.00	7,066.18	17,531.61	7,245.66	57.18	297.14	92.02	2,426.69	-1,717.94	5,080.01	4,726.54	353.47	14.372		
9,000.00	7,065.88	17,631.61	7,245.90	59.21	299.98	92.03	2,426.87	-1,817.93	5,080.81	4,722.35	358.46	14.174		
9,100.00	7,065.58	17,731.60	7,246.15	61.33	302.82	92.04	2,427.05	-1,917.93	5,081.60	4,718.10	363.50	13.980		
9,200.00	7,065.28	17,831.60	7,246.39	63.51	305.66	92.04	2,427.23	-2,017.92	5,082.40	4,713.80	368.60	13.788		
9,300.00	7,064.99	17,931.60	7,246.63	65.76	308.50	92.05	2,427.41	-2,117.92	5,083.19	4,709.45	373.74	13.601		
9,400.00	7,064.69	18,031.59	7,246.88	68.06	311.34	92.05	2,427.59	-2,217.91	5,083.99	4,705.06	378.93	13.417		
9,500.00	7,064.39	18,131.59	7,247.12	70.40	314.18	92.06	2,427.77	-2,317.91	5,084.79	4,700.63	384.15	13.236		
9,600.00	7,064.09	18,231.58	7,247.37	72.78	317.02	92.06	2,427.95	-2,417.90	5,085.58	4,696.17	389.41	13.060		
9,700.00	7,063.80	18,331.58	7,247.61	75.20	319.86	92.07	2,428.13	-2,517.90	5,086.38	4,691.68	394.70	12.887		
9,800.00	7,063.50	18,431.57	7,247.86	77.65	322.70	92.08	2,428.31	-2,617.90	5,087.18	4,687.16	400.02	12.717		
9,900.00	7,063.20	18,531.57	7,248.10	80.13	325.54	92.08	2,428.49	-2,717.89	5,087.97	4,682.61	405.36	12.552		
10,000.00	7,062.90	18,631.56	7,248.35	82.64	328.38	92.09	2,428.67	-2,817.89	5,088.77	4,678.04	410.73	12.390		
10,100.00	7,062.61	18,731.56	7,248.59	85.17	331.23	92.09	2,428.85	-2,917.88	5,089.57	4,673.45	416.12	12.231		
10,200.00	7,062.31	18,831.55	7,248.83	87.72	334.07	92.10	2,429.03	-3,017.88	5,090.36	4,668.84	421.53	12.076		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	18,931.55	7,249.08	90.28	336.91	92.10	2,429.20	-3,117.87	5,091.16	4,664.21	426.95	11.924		
10,400.00	7,061.71	19,031.55	7,249.32	92.87	339.75	92.11	2,429.38	-3,217.87	5,091.96	4,659.56	432.39	11.776		
10,500.00	7,061.41	19,118.26	7,249.53	95.47	342.22	92.12	2,429.54	-3,304.58	5,092.77	4,655.32	437.46	11.642		
10,600.00	7,061.12	19,118.26	7,249.53	98.09	342.22	92.12	2,429.54	-3,304.58	5,094.81	4,654.95	439.86	11.583		
10,700.00	7,060.82	19,118.26	7,249.53	100.72	342.22	92.12	2,429.54	-3,304.58	5,098.81	4,656.70	442.11	11.533		
10,800.00	7,060.52	19,118.26	7,249.53	103.37	342.22	92.12	2,429.54	-3,304.58	5,104.77	4,660.55	444.21	11.492		
10,900.00	7,060.22	19,118.26	7,249.53	106.02	342.22	92.12	2,429.54	-3,304.58	5,112.67	4,666.51	446.16	11.459		
11,000.00	7,059.93	19,118.26	7,249.53	108.69	342.22	92.12	2,429.54	-3,304.58	5,122.52	4,674.57	447.94	11.436		
11,100.00	7,059.63	19,118.26	7,249.53	111.36	342.22	92.12	2,429.54	-3,304.58	5,134.29	4,684.72	449.57	11.421		
11,200.00	7,059.33	19,118.26	7,249.53	114.05	342.22	92.12	2,429.54	-3,304.58	5,147.98	4,696.95	451.03	11.414 SF		
11,300.00	7,059.03	19,118.26	7,249.53	116.74	342.22	92.12	2,429.54	-3,304.58	5,163.57	4,711.24	452.34	11.415		
11,400.00	7,058.74	19,118.26	7,249.53	119.44	342.22	92.12	2,429.54	-3,304.58	5,181.05	4,727.57	453.48	11.425		
11,500.00	7,058.44	19,118.26	7,249.53	122.15	342.22	92.12	2,429.54	-3,304.58	5,200.39	4,745.92	454.47	11.443		
11,600.00	7,058.14	19,118.26	7,249.53	124.86	342.22	92.12	2,429.54	-3,304.58	5,221.57	4,766.27	455.30	11.468		
11,700.00	7,057.84	19,118.26	7,249.53	127.58	342.22	92.12	2,429.54	-3,304.58	5,244.58	4,788.60	455.98	11.502		
11,800.00	7,057.55	19,118.26	7,249.53	130.31	342.22	92.12	2,429.54	-3,304.58	5,269.38	4,812.87	456.51	11.543		
11,900.00	7,057.25	19,118.26	7,249.53	133.04	342.22	92.12	2,429.54	-3,304.58	5,295.96	4,839.07	456.89	11.591		
12,000.00	7,056.95	19,118.26	7,249.53	135.78	342.22	92.12	2,429.54	-3,304.58	5,324.28	4,867.15	457.12	11.647		
12,100.00	7,056.65	19,118.26	7,249.53	138.52	342.22	92.12	2,429.54	-3,304.58	5,354.31	4,897.10	457.22	11.711		
12,200.00	7,056.36	19,118.26	7,249.53	141.27	342.22	92.12	2,429.54	-3,304.58	5,386.04	4,928.86	457.18	11.781		
12,300.00	7,056.06	19,118.26	7,249.53	144.02	342.22	92.12	2,429.54	-3,304.58	5,419.43	4,962.42	457.01	11.859		
12,400.00	7,055.76	19,118.26	7,249.53	146.78	342.22	92.12	2,429.54	-3,304.58	5,454.45	4,997.74	456.71	11.943		
12,500.00	7,055.46	19,118.26	7,249.53	149.54	342.22	92.12	2,429.54	-3,304.58	5,491.06	5,034.77	456.29	12.034		
12,600.00	7,055.17	19,118.26	7,249.53	152.30	342.22	92.12	2,429.54	-3,304.58	5,529.25	5,073.49	455.76	12.132		
12,700.00	7,054.87	19,118.26	7,249.53	155.07	342.22	92.12	2,429.54	-3,304.58	5,568.96	5,113.85	455.11	12.237		
12,800.00	7,054.57	19,118.26	7,249.53	157.84	342.22	92.12	2,429.54	-3,304.58	5,610.18	5,155.82	454.36	12.347		
12,900.00	7,054.27	19,118.26	7,249.53	160.61	342.22	92.12	2,429.54	-3,304.58	5,652.86	5,199.36	453.51	12.465		
13,000.00	7,053.97	19,118.26	7,249.53	163.39	342.22	92.12	2,429.54	-3,304.58	5,696.99	5,244.43	452.56	12.588		
13,100.00	7,053.68	19,118.26	7,249.53	166.17	342.22	92.12	2,429.54	-3,304.58	5,742.51	5,290.99	451.52	12.718		
13,200.00	7,053.38	19,118.26	7,249.53	168.95	342.22	92.12	2,429.54	-3,304.58	5,789.40	5,339.00	450.40	12.854		
13,300.00	7,053.08	19,118.26	7,249.53	171.73	342.22	92.12	2,429.54	-3,304.58	5,837.63	5,388.43	449.20	12.996		
13,400.00	7,052.78	19,118.26	7,249.53	174.52	342.22	92.12	2,429.54	-3,304.58	5,887.17	5,439.24	447.92	13.143		
13,500.00	7,052.49	19,118.26	7,249.53	177.31	342.22	92.12	2,429.54	-3,304.58	5,937.97	5,491.39	446.58	13.297		
13,600.00	7,052.19	19,118.26	7,249.53	180.10	342.22	92.12	2,429.54	-3,304.58	5,990.02	5,544.84	445.17	13.456		
13,700.00	7,051.89	19,118.26	7,249.53	182.90	342.22	92.12	2,429.54	-3,304.58	6,043.27	5,599.56	443.70	13.620		
13,800.00	7,051.59	19,118.26	7,249.53	185.69	342.22	92.12	2,429.54	-3,304.58	6,097.69	5,655.51	442.18	13.790		
13,900.00	7,051.30	19,118.26	7,249.53	188.49	342.22	92.12	2,429.54	-3,304.58	6,153.26	5,712.65	440.61	13.965		
14,000.00	7,051.00	19,118.26	7,249.53	191.29	342.22	92.12	2,429.54	-3,304.58	6,209.94	5,770.95	438.99	14.146		
14,100.00	7,050.70	19,118.26	7,249.53	194.09	342.22	92.12	2,429.54	-3,304.58	6,267.71	5,830.38	437.33	14.332		
14,200.00	7,050.40	19,118.26	7,249.53	196.89	342.22	92.12	2,429.54	-3,304.58	6,326.53	5,890.90	435.63	14.523		
14,300.00	7,050.11	19,118.26	7,249.53	199.70	342.22	92.12	2,429.54	-3,304.58	6,386.37	5,952.47	433.89	14.719		
14,400.00	7,049.81	19,118.26	7,249.53	202.50	342.22	92.12	2,429.54	-3,304.58	6,447.21	6,015.08	432.13	14.920		
14,500.00	7,049.51	19,118.26	7,249.53	205.31	342.22	92.12	2,429.54	-3,304.58	6,509.01	6,078.67	430.34	15.125		
14,600.00	7,049.21	19,118.26	7,249.53	208.12	342.22	92.12	2,429.54	-3,304.58	6,571.76	6,143.24	428.52	15.336		
14,700.00	7,048.92	19,118.26	7,249.53	210.93	342.22	92.12	2,429.54	-3,304.58	6,635.42	6,208.73	426.69	15.551		
14,800.00	7,048.62	19,118.26	7,249.53	213.74	342.22	92.12	2,429.54	-3,304.58	6,699.97	6,275.13	424.83	15.771		
14,900.00	7,048.32	19,118.26	7,249.53	216.55	342.22	92.12	2,429.54	-3,304.58	6,765.38	6,342.41	422.96	15.995		
15,000.00	7,048.02	19,118.26	7,249.53	219.37	342.22	92.12	2,429.54	-3,304.58	6,831.63	6,410.54	421.08	16.224		
15,100.00	7,047.73	19,118.26	7,249.53	222.18	342.22	92.12	2,429.54	-3,304.58	6,898.69	6,479.50	419.19	16.457		
15,200.00	7,047.43	19,118.26	7,249.53	225.00	342.22	92.12	2,429.54	-3,304.58	6,966.54	6,549.25	417.29	16.695		
15,300.00	7,047.13	19,118.26	7,249.53	227.81	342.22	92.12	2,429.54	-3,304.58	7,035.16	6,619.77	415.39	16.936		
15,343.67	7,047.00	19,118.26	7,249.53	229.04	342.22	92.12	2,429.54	-3,304.58	7,065.36	6,650.80	414.56	17.043		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	15,720.69	7,133.46	3.28	248.15	-0.15	2,263.25	-5.76	7,483.89					
100.00	100.00	15,720.94	7,133.46	3.28	248.16	-0.15	2,263.25	-6.01	7,388.63	7,266.73	121.91	60.609		
200.00	200.00	15,721.18	7,133.46	3.34	248.17	-0.16	2,263.24	-6.25	7,293.51	7,171.11	122.40	59.588		
300.00	299.98	15,721.55	7,133.46	3.44	248.18	176.76	2,263.24	-6.62	7,199.08	7,076.13	122.94	58.556		
400.00	399.84	15,722.16	7,133.46	3.59	248.20	177.03	2,263.23	-7.23	7,106.03	6,982.45	123.58	57.502		
500.00	499.45	15,723.01	7,133.47	3.79	248.22	177.24	2,263.23	-8.08	7,014.52	6,890.21	124.32	56.424		
600.00	598.70	15,724.10	7,133.47	4.03	248.25	177.41	2,263.22	-9.17	6,924.75	6,799.58	125.17	55.325		
700.00	697.47	15,725.43	7,133.47	4.31	248.29	177.55	2,263.20	-10.50	6,836.88	6,710.75	126.13	54.206		
800.00	795.62	15,727.00	7,133.48	4.64	248.33	177.66	2,263.19	-12.07	6,751.09	6,623.88	127.21	53.069		
900.00	893.06	15,728.81	7,133.48	5.00	248.38	177.75	2,263.17	-13.88	6,667.58	6,539.15	128.43	51.917		
1,000.00	989.64	15,730.85	7,133.49	5.40	248.44	177.83	2,263.15	-15.92	6,586.53	6,456.76	129.78	50.753		
1,100.00	1,085.27	15,733.12	7,133.49	5.83	248.50	177.89	2,263.12	-18.19	6,508.14	6,376.87	131.27	49.578		
1,200.00	1,179.82	15,735.62	7,133.50	6.29	248.58	177.94	2,263.10	-20.69	6,432.60	6,299.69	132.92	48.396		
1,300.00	1,273.17	15,738.35	7,133.50	6.79	248.65	177.98	2,263.07	-23.41	6,360.11	6,225.39	134.72	47.210		
1,400.00	1,365.46	15,741.25	7,133.51	7.32	248.73	177.97	2,263.04	-26.32	6,290.40	6,153.72	136.68	46.024		
1,500.00	1,457.65	15,744.18	7,133.52	7.87	248.82	177.94	2,263.01	-29.25	6,221.72	6,082.97	138.75	44.843		
1,600.00	1,549.83	15,747.11	7,133.53	8.43	248.90	177.90	2,262.98	-32.17	6,153.89	6,012.99	140.90	43.675		
1,700.00	1,642.02	15,750.03	7,133.53	9.01	248.98	177.86	2,262.95	-35.10	6,086.95	5,943.81	143.14	42.523		
1,800.00	1,734.21	15,752.96	7,133.54	9.59	249.07	177.83	2,262.92	-38.03	6,020.93	5,875.45	145.47	41.389		
1,900.00	1,826.39	15,755.89	7,133.55	10.18	249.15	177.79	2,262.89	-40.95	5,955.85	5,807.97	147.88	40.275		
2,000.00	1,918.58	15,758.81	7,133.55	10.78	249.23	177.75	2,262.86	-43.88	5,891.75	5,741.38	150.37	39.182		
2,100.00	2,010.77	15,761.74	7,133.56	11.39	249.31	177.71	2,262.83	-46.81	5,828.65	5,675.72	152.94	38.112		
2,200.00	2,102.95	15,764.67	7,133.57	11.99	249.40	177.68	2,262.80	-49.73	5,766.60	5,611.03	155.58	37.066		
2,300.00	2,195.14	15,767.59	7,133.58	12.61	249.48	177.64	2,262.77	-52.66	5,705.63	5,547.34	158.29	36.045		
2,400.00	2,287.32	15,770.52	7,133.58	13.22	249.56	177.60	2,262.74	-55.58	5,645.77	5,484.69	161.08	35.051		
2,500.00	2,379.51	15,773.44	7,133.59	13.84	249.64	177.57	2,262.71	-58.51	5,587.05	5,423.12	163.93	34.083		
2,600.00	2,471.70	15,776.37	7,133.60	14.46	249.73	177.53	2,262.68	-61.44	5,529.52	5,362.68	166.84	33.142		
2,700.00	2,563.88	15,779.30	7,133.60	15.08	249.81	177.49	2,262.65	-64.36	5,473.21	5,303.39	169.82	32.229		
2,800.00	2,656.07	15,782.22	7,133.61	15.71	249.89	177.46	2,262.62	-67.29	5,418.16	5,245.30	172.86	31.344		
2,900.00	2,748.26	15,785.15	7,133.62	16.33	249.97	177.42	2,262.59	-70.22	5,364.40	5,188.45	175.95	30.487		
3,000.00	2,840.44	15,788.08	7,133.63	16.96	250.06	177.38	2,262.56	-73.14	5,311.99	5,132.89	179.10	29.659		
3,100.00	2,932.63	15,809.06	7,133.63	17.59	250.65	177.35	2,262.53	-76.07	5,260.95	5,078.31	182.63	28.806		
3,200.00	3,024.81	15,806.13	7,133.64	18.22	250.57	177.31	2,262.50	-78.99	5,211.33	5,025.56	185.77	28.053		
3,300.00	3,117.00	15,803.21	7,133.65	18.86	250.48	177.27	2,262.47	-81.92	5,163.16	4,974.22	188.94	27.326		
3,400.00	3,209.19	15,800.28	7,133.65	19.49	250.40	177.24	2,262.44	-84.85	5,116.50	4,924.34	192.15	26.627		
3,500.00	3,301.37	15,802.71	7,133.66	20.12	250.47	177.20	2,262.41	-87.77	5,071.37	4,875.88	195.50	25.941		
3,600.00	3,393.56	15,805.63	7,133.67	20.76	250.55	177.16	2,262.38	-90.70	5,027.83	4,828.96	198.88	25.281		
3,700.00	3,485.75	15,808.56	7,133.68	21.39	250.64	177.12	2,262.35	-93.63	4,985.92	4,783.63	202.28	24.648		
3,800.00	3,577.93	15,811.49	7,133.68	22.03	250.72	177.09	2,262.32	-96.55	4,945.67	4,739.96	205.70	24.043		
3,900.00	3,670.12	15,814.41	7,133.69	22.67	250.80	177.05	2,262.29	-99.48	4,907.12	4,697.98	209.14	23.463		
4,000.00	3,762.30	15,817.34	7,133.70	23.30	250.88	177.01	2,262.26	-102.40	4,870.32	4,657.74	212.58	22.911		
4,100.00	3,854.49	15,820.27	7,133.70	23.94	250.97	176.98	2,262.23	-105.33	4,835.31	4,619.29	216.02	22.384		
4,200.00	3,946.68	15,823.19	7,133.71	24.58	251.05	176.94	2,262.20	-108.26	4,802.12	4,582.67	219.46	21.882		
4,300.00	4,038.86	15,826.12	7,133.72	25.22	251.13	176.90	2,262.17	-111.18	4,770.80	4,547.92	222.88	21.406		
4,400.00	4,131.05	15,829.05	7,133.73	25.86	251.22	176.87	2,262.14	-114.11	4,741.38	4,515.10	226.28	20.954		
4,500.00	4,223.24	15,831.97	7,133.73	26.50	251.30	176.83	2,262.11	-117.03	4,713.90	4,484.24	229.66	20.526		
4,600.00	4,315.42	15,834.90	7,133.74	27.14	251.38	176.79	2,262.08	-119.96	4,688.38	4,455.38	233.00	20.122		
4,700.00	4,407.61	15,837.83	7,133.75	27.78	251.46	176.76	2,262.05	-122.89	4,664.87	4,428.57	236.30	19.741		
4,800.00	4,499.79	15,840.75	7,133.75	28.42	251.55	176.72	2,262.02	-125.81	4,643.39	4,403.83	239.56	19.383		
4,900.00	4,591.98	15,843.68	7,133.76	29.06	251.63	176.68	2,261.99	-128.74	4,623.97	4,381.21	242.76	19.047		
5,000.00	4,684.17	15,846.60	7,133.77	29.70	251.71	176.65	2,261.96	-131.67	4,606.64	4,360.74	245.90	18.734		
5,100.00	4,776.35	15,849.53	7,133.78	30.34	251.79	176.61	2,261.93	-134.59	4,591.42	4,342.45	248.98	18.441		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	15,852.46	7,133.78	30.98	251.88	176.57	2,261.90	-137.52	4,578.34	4,326.36	251.97	18.170		
5,300.00	4,960.73	15,855.38	7,133.79	31.63	251.96	176.53	2,261.87	-140.44	4,567.40	4,312.51	254.89	17.919		
5,400.00	5,052.91	15,858.31	7,133.80	32.27	252.04	176.50	2,261.84	-143.37	4,558.63	4,300.91	257.72	17.688		
5,500.00	5,145.10	15,861.24	7,133.80	32.91	252.12	176.46	2,261.81	-146.30	4,552.04	4,291.58	260.46	17.477		
5,600.00	5,237.28	15,864.16	7,133.81	33.55	252.21	176.42	2,261.78	-149.22	4,547.64	4,284.53	263.10	17.285		
5,700.00	5,329.47	15,867.09	7,133.82	34.20	252.29	176.39	2,261.75	-152.15	4,545.43	4,279.79	265.64	17.111		
5,750.51	5,376.04	15,868.57	7,133.82	34.52	252.33	176.37	2,261.73	-153.63	4,545.15	4,278.26	266.88	17.030 CC		
5,800.00	5,421.66	15,870.02	7,133.83	34.84	252.37	176.35	2,261.72	-155.08	4,545.42	4,277.34	268.07	16.956		
5,900.00	5,513.84	15,872.94	7,133.83	35.48	252.46	176.31	2,261.69	-158.00	4,547.60	4,277.21	270.39	16.819 ES		
6,000.00	5,606.03	15,875.87	7,133.84	36.13	252.54	176.28	2,261.66	-160.93	4,551.98	4,279.39	272.60	16.698		
6,100.00	5,698.22	15,878.79	7,133.85	36.77	252.62	176.24	2,261.63	-163.85	4,558.55	4,283.87	274.69	16.595		
6,200.00	5,790.40	15,881.72	7,133.85	37.41	252.70	176.20	2,261.60	-166.78	4,567.30	4,290.64	276.66	16.509		
6,300.00	5,882.59	15,884.65	7,133.86	38.06	252.79	176.17	2,261.57	-169.71	4,578.21	4,299.71	278.50	16.439		
6,400.00	5,974.77	15,887.57	7,133.87	38.70	252.87	176.13	2,261.54	-172.63	4,591.28	4,311.05	280.23	16.384		
6,500.00	6,066.96	15,890.50	7,133.88	39.34	252.95	176.09	2,261.51	-175.56	4,606.48	4,324.64	281.83	16.345		
6,600.00	6,159.15	15,906.64	7,133.88	39.99	253.41	176.06	2,261.48	-178.49	4,623.78	4,340.11	283.68	16.299		
6,700.00	6,251.33	15,903.71	7,133.89	40.63	253.32	176.02	2,261.45	-181.41	4,643.18	4,358.31	284.87	16.299		
6,800.00	6,343.52	15,900.79	7,133.90	41.28	253.24	175.98	2,261.42	-184.34	4,664.64	4,378.69	285.95	16.313		
6,900.00	6,435.71	15,902.21	7,133.90	41.92	253.28	175.94	2,261.39	-187.26	4,688.13	4,401.11	287.02	16.334		
7,000.00	6,527.86	15,906.01	7,133.91	42.56	253.39	168.04	2,261.35	-191.07	4,713.61	4,425.57	288.05	16.364		
7,100.00	6,618.85	15,921.95	7,133.95	43.19	253.84	146.81	2,261.19	-207.01	4,740.67	4,451.38	289.29	16.387		
7,200.00	6,706.47	15,953.12	7,134.03	43.76	254.72	130.56	2,260.87	-238.18	4,768.47	4,477.64	290.83	16.396		
7,300.00	6,788.56	16,001.31	7,134.14	44.26	256.08	118.64	2,260.40	-283.81	4,796.02	4,503.30	292.73	16.384		
7,400.00	6,863.10	16,057.74	7,134.28	44.70	257.68	109.77	2,259.80	-342.79	4,822.27	4,527.52	294.75	16.360		
7,500.00	6,928.26	16,128.60	7,134.46	45.07	259.68	103.06	2,259.07	-413.65	4,846.14	4,549.00	297.14	16.309		
7,600.00	6,982.42	16,209.60	7,134.66	45.39	261.97	98.02	2,258.24	-494.65	4,866.61	4,566.78	299.83	16.231		
7,700.00	7,024.26	16,301.31	7,134.87	45.67	264.57	94.40	2,257.33	-583.79	4,882.76	4,579.84	302.92	16.119		
7,800.00	7,052.75	16,406.20	7,135.11	45.92	267.53	92.06	2,256.35	-678.90	4,893.86	4,587.33	306.53	15.965		
7,900.00	7,067.18	16,507.49	7,135.35	46.16	270.40	90.91	2,255.34	-777.61	4,899.40	4,589.16	310.24	15.792		
8,000.00	7,068.85	16,607.53	7,135.59	46.42	273.23	90.78	2,254.32	-877.55	4,899.78	4,585.68	314.10	15.599		
8,100.00	7,068.56	16,707.54	7,135.84	46.78	276.06	90.79	2,253.29	-977.55	4,899.36	4,581.23	318.13	15.400		
8,200.00	7,068.26	16,807.54	7,136.08	47.29	278.89	90.79	2,252.27	-1,077.54	4,898.94	4,576.62	322.32	15.199		
8,300.00	7,067.96	16,907.54	7,136.32	48.03	281.73	90.80	2,251.24	-1,177.53	4,898.52	4,571.87	326.66	14.996		
8,400.00	7,067.66	17,007.54	7,136.57	49.02	284.56	90.81	2,250.22	-1,277.52	4,898.10	4,566.99	331.11	14.793		
8,500.00	7,067.37	17,107.55	7,136.81	50.27	287.39	90.81	2,249.19	-1,377.51	4,897.69	4,562.00	335.69	14.590		
8,600.00	7,067.07	17,207.55	7,137.06	51.75	290.22	90.82	2,248.17	-1,477.51	4,897.27	4,556.90	340.37	14.388		
8,700.00	7,066.77	17,307.55	7,137.30	53.42	293.06	90.83	2,247.14	-1,577.50	4,896.85	4,551.71	345.14	14.188		
8,800.00	7,066.47	17,407.56	7,137.55	55.24	295.89	90.83	2,246.12	-1,677.49	4,896.43	4,546.44	349.99	13.990		
8,900.00	7,066.18	17,507.56	7,137.79	57.18	298.73	90.84	2,245.09	-1,777.48	4,896.01	4,541.09	354.92	13.795		
9,000.00	7,065.88	17,607.56	7,138.04	59.21	301.56	90.85	2,244.07	-1,877.48	4,895.59	4,535.68	359.91	13.602		
9,100.00	7,065.58	17,707.56	7,138.28	61.33	304.40	90.85	2,243.04	-1,977.47	4,895.17	4,530.21	364.96	13.413		
9,200.00	7,065.28	17,792.51	7,138.52	63.51	306.81	90.86	2,242.02	-2,077.46	4,894.75	4,525.12	369.63	13.242		
9,300.00	7,064.99	17,907.57	7,138.77	65.76	310.07	90.86	2,240.99	-2,177.45	4,894.33	4,519.12	375.21	13.044		
9,400.00	7,064.69	17,992.50	7,139.01	68.06	312.48	90.87	2,239.97	-2,277.44	4,893.92	4,513.94	379.97	12.880		
9,500.00	7,064.39	18,107.58	7,139.26	70.40	315.74	90.88	2,238.94	-2,377.44	4,893.50	4,507.87	385.63	12.690		
9,600.00	7,064.09	18,207.58	7,139.50	72.78	318.58	90.88	2,237.92	-2,477.43	4,893.08	4,502.18	390.89	12.518		
9,700.00	7,063.80	18,292.49	7,139.75	75.20	320.99	90.89	2,236.89	-2,577.42	4,892.66	4,496.90	395.76	12.363		
9,800.00	7,063.50	18,407.58	7,139.99	77.65	324.26	90.90	2,235.87	-2,677.41	4,892.24	4,490.73	401.51	12.185		
9,900.00	7,063.20	18,492.49	7,140.23	80.13	326.67	90.90	2,234.85	-2,777.40	4,891.82	4,485.39	406.43	12.036		
10,000.00	7,062.90	18,607.59	7,140.48	82.64	329.93	90.91	2,233.82	-2,877.40	4,891.41	4,479.17	412.23	11.866		
10,100.00	7,062.61	18,692.48	7,140.72	85.17	332.34	90.92	2,232.80	-2,977.39	4,890.99	4,473.79	417.19	11.724		
10,200.00	7,062.31	18,807.59	7,140.97	87.72	335.61	90.92	2,231.77	-3,077.38	4,890.57	4,467.53	423.04	11.561		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	18,907.60	7,141.21	90.28	338.45	90.93	2,230.75	-3,177.37	4,890.15	4,461.69	428.46	11.413		
10,400.00	7,061.71	18,992.48	7,141.46	92.87	340.86	90.94	2,229.72	-3,277.36	4,889.73	4,456.25	433.48	11.280		
10,446.29	7,061.57	19,018.34	7,141.52	94.08	341.60	90.94	2,229.46	-3,303.22	4,889.58	4,454.18	435.40	11.230		
10,500.00	7,061.41	19,018.34	7,141.52	95.47	341.60	90.94	2,229.46	-3,303.22	4,889.88	4,453.17	436.71	11.197		
10,600.00	7,061.12	19,018.34	7,141.52	98.09	341.60	90.94	2,229.46	-3,303.22	4,892.00	4,452.98	439.02	11.143		
10,700.00	7,060.82	19,018.34	7,141.52	100.72	341.60	90.94	2,229.46	-3,303.22	4,896.16	4,454.99	441.17	11.098		
10,800.00	7,060.52	19,018.34	7,141.52	103.37	341.60	90.94	2,229.46	-3,303.22	4,902.36	4,459.21	443.15	11.063		
10,900.00	7,060.22	19,018.34	7,141.52	106.02	341.60	90.94	2,229.46	-3,303.22	4,910.59	4,465.63	444.96	11.036		
11,000.00	7,059.93	19,018.34	7,141.52	108.69	341.60	90.94	2,229.46	-3,303.22	4,920.83	4,474.24	446.59	11.019		
11,100.00	7,059.63	19,018.34	7,141.52	111.36	341.60	90.94	2,229.46	-3,303.22	4,933.09	4,485.03	448.06	11.010		
11,200.00	7,059.33	19,018.34	7,141.52	114.05	341.60	90.94	2,229.46	-3,303.22	4,947.33	4,497.98	449.35	11.010 SF		
11,300.00	7,059.03	19,018.34	7,141.52	116.74	341.60	90.94	2,229.46	-3,303.22	4,963.55	4,513.07	450.48	11.018		
11,400.00	7,058.74	19,018.34	7,141.52	119.44	341.60	90.94	2,229.46	-3,303.22	4,981.72	4,530.29	451.43	11.035		
11,500.00	7,058.44	19,018.34	7,141.52	122.15	341.60	90.94	2,229.46	-3,303.22	5,001.83	4,549.62	452.21	11.061		
11,600.00	7,058.14	19,018.34	7,141.52	124.86	341.60	90.94	2,229.46	-3,303.22	5,023.85	4,571.02	452.83	11.094		
11,700.00	7,057.84	19,018.34	7,141.52	127.58	341.60	90.94	2,229.46	-3,303.22	5,047.75	4,594.47	453.28	11.136		
11,800.00	7,057.55	19,018.34	7,141.52	130.31	341.60	90.94	2,229.46	-3,303.22	5,073.51	4,619.93	453.58	11.186		
11,900.00	7,057.25	19,018.34	7,141.52	133.04	341.60	90.94	2,229.46	-3,303.22	5,101.10	4,647.39	453.72	11.243		
12,000.00	7,056.95	19,018.34	7,141.52	135.78	341.60	90.94	2,229.46	-3,303.22	5,130.50	4,676.79	453.71	11.308		
12,100.00	7,056.65	19,018.34	7,141.52	138.52	341.60	90.94	2,229.46	-3,303.22	5,161.66	4,708.11	453.55	11.381		
12,200.00	7,056.36	19,018.34	7,141.52	141.27	341.60	90.94	2,229.46	-3,303.22	5,194.56	4,741.31	453.25	11.461		
12,300.00	7,056.06	19,018.34	7,141.52	144.02	341.60	90.94	2,229.46	-3,303.22	5,229.17	4,776.35	452.82	11.548		
12,400.00	7,055.76	19,018.34	7,141.52	146.78	341.60	90.94	2,229.46	-3,303.22	5,265.45	4,813.19	452.26	11.643		
12,500.00	7,055.46	19,018.34	7,141.52	149.54	341.60	90.94	2,229.46	-3,303.22	5,303.37	4,851.80	451.57	11.744		
12,600.00	7,055.17	19,018.34	7,141.52	152.30	341.60	90.94	2,229.46	-3,303.22	5,342.89	4,892.12	450.77	11.853		
12,700.00	7,054.87	19,018.34	7,141.52	155.07	341.60	90.94	2,229.46	-3,303.22	5,383.97	4,934.12	449.85	11.968		
12,800.00	7,054.57	19,018.34	7,141.52	157.84	341.60	90.94	2,229.46	-3,303.22	5,426.59	4,977.77	448.83	12.091		
12,900.00	7,054.27	19,018.34	7,141.52	160.61	341.60	90.94	2,229.46	-3,303.22	5,470.71	5,023.00	447.71	12.219		
13,000.00	7,053.97	19,018.34	7,141.52	163.39	341.60	90.94	2,229.46	-3,303.22	5,516.29	5,069.79	446.49	12.355		
13,100.00	7,053.68	19,018.34	7,141.52	166.17	341.60	90.94	2,229.46	-3,303.22	5,563.29	5,118.10	445.19	12.496		
13,200.00	7,053.38	19,018.34	7,141.52	168.95	341.60	90.94	2,229.46	-3,303.22	5,611.67	5,167.87	443.80	12.645		
13,300.00	7,053.08	19,018.34	7,141.52	171.73	341.60	90.94	2,229.46	-3,303.22	5,661.42	5,219.07	442.34	12.799		
13,400.00	7,052.78	19,018.34	7,141.52	174.52	341.60	90.94	2,229.46	-3,303.22	5,712.47	5,271.67	440.81	12.959		
13,500.00	7,052.49	19,018.34	7,141.52	177.31	341.60	90.94	2,229.46	-3,303.22	5,764.82	5,325.60	439.21	13.125		
13,600.00	7,052.19	19,018.34	7,141.52	180.10	341.60	90.94	2,229.46	-3,303.22	5,818.41	5,380.85	437.55	13.298		
13,700.00	7,051.89	19,018.34	7,141.52	182.90	341.60	90.94	2,229.46	-3,303.22	5,873.21	5,437.37	435.84	13.476		
13,800.00	7,051.59	19,018.34	7,141.52	185.69	341.60	90.94	2,229.46	-3,303.22	5,929.19	5,495.11	434.08	13.659		
13,900.00	7,051.30	19,018.34	7,141.52	188.49	341.60	90.94	2,229.46	-3,303.22	5,986.32	5,554.05	432.27	13.848		
14,000.00	7,051.00	19,018.34	7,141.52	191.29	341.60	90.94	2,229.46	-3,303.22	6,044.57	5,614.14	430.43	14.043		
14,100.00	7,050.70	19,018.34	7,141.52	194.09	341.60	90.94	2,229.46	-3,303.22	6,103.90	5,675.35	428.54	14.243		
14,200.00	7,050.40	19,018.34	7,141.52	196.89	341.60	90.94	2,229.46	-3,303.22	6,164.28	5,737.65	426.63	14.449		
14,300.00	7,050.11	19,018.34	7,141.52	199.70	341.60	90.94	2,229.46	-3,303.22	6,225.67	5,800.99	424.68	14.660		
14,400.00	7,049.81	19,018.34	7,141.52	202.50	341.60	90.94	2,229.46	-3,303.22	6,288.07	5,865.35	422.72	14.875		
14,500.00	7,049.51	19,018.34	7,141.52	205.31	341.60	90.94	2,229.46	-3,303.22	6,351.42	5,930.69	420.73	15.096		
14,600.00	7,049.21	19,018.34	7,141.52	208.12	341.60	90.94	2,229.46	-3,303.22	6,415.70	5,996.98	418.72	15.322		
14,700.00	7,048.92	19,018.34	7,141.52	210.93	341.60	90.94	2,229.46	-3,303.22	6,480.89	6,064.20	416.70	15.553		
14,800.00	7,048.62	19,018.34	7,141.52	213.74	341.60	90.94	2,229.46	-3,303.22	6,546.96	6,132.30	414.66	15.789		
14,900.00	7,048.32	19,018.34	7,141.52	216.55	341.60	90.94	2,229.46	-3,303.22	6,613.88	6,201.26	412.62	16.029		
15,000.00	7,048.02	19,018.34	7,141.52	219.37	341.60	90.94	2,229.46	-3,303.22	6,681.63	6,271.06	410.57	16.274		
15,100.00	7,047.73	19,018.34	7,141.52	222.18	341.60	90.94	2,229.46	-3,303.22	6,750.18	6,341.66	408.52	16.523		
15,200.00	7,047.43	19,018.34	7,141.52	225.00	341.60	90.94	2,229.46	-3,303.22	6,819.51	6,413.04	406.47	16.778		
15,300.00	7,047.13	19,018.34	7,141.52	227.81	341.60	90.94	2,229.46	-3,303.22	6,889.59	6,485.18	404.41	17.036		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	19,018.34	7,141.52	229.04	341.60	90.94	2,229.46	-3,303.22	6,920.43	6,516.91	403.52	17.150	



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Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1,489.08	1,535.67	3.28	8.01	-116.67	-3,777.27	-7,518.68	8,553.16					
100.00	100.00	1,520.39	1,566.43	3.28	8.17	-116.66	-3,772.91	-7,514.72	8,535.59	8,524.77	10.82	788.728		
200.00	200.00	1,584.00	1,629.02	3.34	8.51	-116.63	-3,764.36	-7,507.38	8,518.99	8,507.86	11.13	765.632		
300.00	299.98	1,584.00	1,629.02	3.44	8.51	60.26	-3,764.36	-7,507.38	8,501.93	8,490.73	11.20	759.214		
400.00	399.84	1,704.63	1,747.77	3.59	9.13	60.69	-3,747.58	-7,494.37	8,483.42	8,471.56	11.86	715.076		
500.00	499.45	1,755.62	1,797.99	3.79	9.40	61.09	-3,740.59	-7,488.98	8,463.57	8,451.31	12.26	690.101		
600.00	598.70	1,851.10	1,892.14	4.03	9.89	61.59	-3,728.37	-7,478.84	8,442.46	8,429.55	12.91	653.999		
700.00	697.47	1,912.87	1,953.07	4.31	10.21	62.09	-3,720.66	-7,472.20	8,419.83	8,406.38	13.44	626.316		
800.00	795.62	800.00	2,058.70	4.64	4.86	62.71	-3,706.79	-7,461.31	8,395.94	8,386.66	9.29	904.163		
900.00	893.06	2,292.65	2,327.22	5.00	12.23	63.71	-3,672.42	-7,428.66	8,368.79	8,353.00	15.79	530.086		
1,000.00	989.64	2,500.49	2,531.26	5.40	13.40	64.70	-3,644.72	-7,400.46	8,338.73	8,321.64	17.10	487.667		
1,100.00	1,085.27	2,553.08	2,582.88	5.83	13.69	65.43	-3,637.80	-7,393.14	8,307.40	8,289.67	17.73	468.422		
1,200.00	1,179.82	2,872.92	2,895.96	6.29	15.56	66.94	-3,592.09	-7,346.71	8,274.19	8,254.56	19.63	421.484		
1,300.00	1,273.17	2,914.86	2,936.89	6.79	15.81	67.78	-3,585.60	-7,340.28	8,238.46	8,218.18	20.29	406.114		
1,400.00	1,365.46	2,956.40	2,977.49	7.32	16.06	68.20	-3,579.40	-7,334.04	8,202.35	8,181.38	20.97	391.182		
1,500.00	1,457.65	1,500.00	3,091.88	7.87	7.67	68.57	-3,562.89	-7,316.28	8,166.55	8,151.75	14.80	551.952		
1,600.00	1,549.83	3,151.89	3,168.67	8.43	17.23	68.82	-3,552.07	-7,303.69	8,130.38	8,107.49	22.89	355.133		
1,700.00	1,642.02	3,200.00	3,215.79	9.01	17.52	68.98	-3,545.76	-7,296.33	8,095.06	8,071.41	23.66	342.198		
1,800.00	1,734.21	3,304.74	3,318.40	9.59	18.13	69.31	-3,532.04	-7,280.41	8,060.23	8,035.55	24.68	326.580		
1,900.00	1,826.39	3,349.20	3,361.94	10.18	18.39	69.46	-3,526.17	-7,273.61	8,025.37	7,999.91	25.45	315.307		
2,000.00	1,918.58	3,391.00	3,402.90	10.78	18.64	69.59	-3,520.70	-7,267.33	7,991.05	7,964.83	26.22	304.728		
2,100.00	2,010.77	3,391.00	3,402.90	11.39	18.64	69.59	-3,520.70	-7,267.33	7,957.67	7,930.85	26.82	296.693		
2,200.00	2,102.95	3,440.06	3,451.06	11.99	18.91	69.75	-3,514.32	-7,260.49	7,924.83	7,897.19	27.64	286.692		
2,300.00	2,195.14	3,486.00	3,496.27	12.61	19.18	69.91	-3,508.35	-7,254.91	7,893.19	7,864.73	28.46	277.366		
2,400.00	2,287.32	3,486.00	3,496.27	13.22	19.18	69.91	-3,508.35	-7,254.91	7,862.18	7,833.10	29.08	270.376		
2,500.00	2,379.51	3,581.00	3,589.77	13.84	19.70	70.23	-3,495.66	-7,243.86	7,831.46	7,801.33	30.12	259.966		
2,600.00	2,471.70	3,619.45	3,627.60	14.46	19.91	70.36	-3,490.34	-7,239.55	7,801.36	7,770.43	30.93	252.231		
2,700.00	2,563.88	3,641.70	3,649.51	15.08	20.04	70.44	-3,487.20	-7,237.34	7,772.26	7,740.59	31.67	245.435		
2,800.00	2,656.07	4,085.00	4,084.14	15.71	22.59	72.07	-3,415.97	-7,187.98	7,741.99	7,707.67	34.32	225.564		
2,900.00	2,748.26	2,900.00	4,203.78	16.33	15.62	72.49	-3,399.46	-7,170.10	7,709.91	7,680.65	29.26	263.464		
3,000.00	2,840.44	4,282.62	4,277.72	16.96	23.76	72.76	-3,389.36	-7,158.44	7,677.41	7,640.92	36.49	210.398		
3,100.00	2,932.63	4,304.61	4,299.28	17.59	23.89	72.84	-3,386.47	-7,155.20	7,645.77	7,608.52	37.25	205.230		
3,200.00	3,024.81	4,343.00	4,336.99	18.22	24.11	72.97	-3,381.57	-7,149.95	7,615.13	7,577.04	38.09	199.910		
3,300.00	3,117.00	4,371.99	4,365.50	18.86	24.28	73.07	-3,377.89	-7,146.19	7,585.26	7,546.37	38.89	195.021		
3,400.00	3,209.19	4,439.00	4,431.35	19.49	24.66	73.31	-3,369.04	-7,137.51	7,555.80	7,515.94	39.86	189.549		
3,500.00	3,301.37	4,495.84	4,487.22	20.12	24.98	73.52	-3,361.40	-7,130.38	7,526.87	7,486.08	40.79	184.521		
3,600.00	3,393.56	4,539.91	4,530.59	20.76	25.23	73.68	-3,355.61	-7,125.14	7,498.73	7,457.06	41.67	179.958		
3,700.00	3,485.75	4,611.75	4,601.38	21.39	25.63	73.94	-3,346.77	-7,116.64	7,471.14	7,428.47	42.66	175.115		
3,800.00	3,577.93	4,629.00	4,618.39	22.03	25.72	74.00	-3,344.79	-7,114.57	7,444.20	7,400.77	43.43	171.400		
3,900.00	3,670.12	4,676.48	4,665.27	22.67	25.97	74.17	-3,339.55	-7,109.17	7,418.00	7,373.67	44.32	167.358		
4,000.00	3,762.30	4,724.00	4,712.28	23.30	26.23	74.33	-3,334.55	-7,104.38	7,392.92	7,347.70	45.22	163.490		
4,100.00	3,854.49	4,778.54	4,766.29	23.94	26.51	74.53	-3,329.09	-7,099.08	7,368.54	7,322.40	46.14	159.692		
4,200.00	3,946.68	4,846.47	4,833.55	24.58	26.85	74.76	-3,322.64	-7,092.14	7,344.31	7,297.19	47.12	155.863		
4,300.00	4,038.86	4,880.41	4,867.19	25.22	27.02	74.88	-3,319.55	-7,088.90	7,320.93	7,272.96	47.96	152.645		
4,400.00	4,131.05	4,915.00	4,901.51	25.86	27.19	75.00	-3,316.49	-7,085.83	7,298.42	7,249.62	48.80	149.545		
4,500.00	4,223.24	4,959.20	4,945.40	26.50	27.40	75.15	-3,312.68	-7,082.18	7,276.75	7,227.07	49.69	146.455		
4,600.00	4,315.42	5,004.19	4,990.09	27.14	27.62	75.31	-3,308.87	-7,078.72	7,255.85	7,205.28	50.57	143.476		
4,700.00	4,407.61	5,049.31	5,034.94	27.78	27.83	75.47	-3,305.12	-7,075.51	7,235.72	7,184.26	51.46	140.611		
4,800.00	4,499.79	5,104.00	5,089.34	28.42	28.09	75.66	-3,300.68	-7,071.96	7,216.37	7,163.99	52.39	137.751		
4,900.00	4,591.98	5,104.00	5,089.34	29.06	28.09	75.66	-3,300.68	-7,071.96	7,197.96	7,144.88	53.09	135.591		
5,000.00	4,684.17	5,175.93	5,160.95	29.70	28.41	75.91	-3,295.37	-7,067.88	7,180.10	7,126.03	54.07	132.781		
5,100.00	4,776.35	5,216.53	5,201.42	30.34	28.58	76.05	-3,292.77	-7,065.87	7,163.25	7,108.31	54.94	130.391		

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



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Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,868.54	5,294.00	5,278.71	30.98	28.92	76.31	-3,288.64	-7,062.63	7,147.44	7,091.49	55.95	127.749		
5,300.00	4,960.73	5,294.00	5,278.71	31.63	28.92	76.31	-3,288.64	-7,062.63	7,132.08	7,075.44	56.64	125.917		
5,400.00	5,052.91	5,361.27	5,345.87	32.27	29.19	76.54	-3,285.68	-7,060.27	7,117.62	7,060.02	57.60	123.575		
5,500.00	5,145.10	5,421.97	5,406.49	32.91	29.43	76.74	-3,283.30	-7,058.36	7,103.77	7,045.24	58.53	121.375		
5,600.00	5,237.28	5,482.94	5,467.41	33.55	29.67	76.94	-3,281.17	-7,056.64	7,090.53	7,031.07	59.46	119.253		
5,700.00	5,329.47	5,544.19	5,528.61	34.20	29.91	77.14	-3,279.32	-7,055.12	7,077.89	7,017.50	60.39	117.204		
5,800.00	5,421.66	5,579.00	5,563.40	34.84	30.05	77.25	-3,278.39	-7,054.35	7,065.93	7,004.71	61.21	115.434		
5,900.00	5,513.84	5,666.24	5,650.59	35.48	30.37	77.53	-3,276.38	-7,052.73	7,054.43	6,992.19	62.24	113.348		
6,000.00	5,606.03	5,727.33	5,711.67	36.13	30.60	77.73	-3,275.22	-7,051.88	7,043.61	6,980.45	63.16	111.525		
6,100.00	5,698.22	5,788.62	5,772.95	36.77	30.83	77.93	-3,274.26	-7,051.25	7,033.40	6,969.33	64.08	109.764		
6,200.00	5,790.40	5,864.00	5,848.32	37.41	31.11	78.17	-3,273.36	-7,050.79	7,023.83	6,958.77	65.05	107.970		
6,300.00	5,882.59	5,917.77	5,902.09	38.06	31.29	78.34	-3,272.85	-7,050.66	7,014.78	6,948.85	65.93	106.390		
6,400.00	5,974.77	5,987.23	5,971.54	38.70	31.54	78.56	-3,272.21	-7,050.68	7,006.27	6,939.39	66.88	104.765		
6,500.00	6,066.96	6,056.72	6,041.03	39.34	31.78	78.78	-3,271.60	-7,050.92	6,998.26	6,930.45	67.82	103.193		
6,600.00	6,159.15	6,126.25	6,110.56	39.99	32.02	79.00	-3,271.02	-7,051.38	6,990.77	6,922.01	68.76	101.672		
6,700.00	6,251.33	6,215.58	6,199.88	40.63	32.34	79.29	-3,270.29	-7,052.18	6,983.69	6,913.91	69.78	100.084		
6,800.00	6,343.52	6,315.72	6,300.02	41.28	32.69	79.61	-3,269.32	-7,053.00	6,976.75	6,905.91	70.84	98.484		
6,900.00	6,435.71	6,415.73	6,400.01	41.92	33.04	79.93	-3,268.19	-7,053.72	6,969.92	6,898.02	71.90	96.933		
7,000.00	6,527.86	6,499.93	6,484.21	42.56	33.34	73.14	-3,267.14	-7,054.32	6,962.41	6,889.51	72.91	95.497		
7,100.00	6,618.85	6,578.96	6,563.23	43.19	33.62	54.69	-3,266.11	-7,055.01	6,943.25	6,869.39	73.86	94.007		
7,200.00	6,706.47	6,655.22	6,639.48	43.76	33.90	41.29	-3,265.08	-7,055.81	6,909.40	6,834.67	74.73	92.453		
7,300.00	6,788.56	6,726.90	6,711.15	44.26	34.15	32.10	-3,264.07	-7,056.68	6,861.63	6,786.11	75.51	90.865		
7,400.00	6,863.10	6,779.22	6,763.46	44.70	34.34	25.55	-3,263.37	-7,057.44	6,801.10	6,724.96	76.13	89.330		
7,500.00	6,928.26	6,826.13	6,810.35	45.07	34.50	20.47	-3,262.82	-7,058.25	6,729.24	6,652.59	76.66	87.785		
7,600.00	6,982.42	6,865.70	6,849.91	45.39	34.64	15.87	-3,262.41	-7,059.04	6,647.71	6,570.64	77.07	86.257		
7,700.00	7,024.26	6,896.90	6,881.11	45.67	34.75	10.44	-3,262.13	-7,059.72	6,558.38	6,481.01	77.37	84.768		
7,800.00	7,052.75	6,918.89	6,903.09	45.92	34.82	0.72	-3,261.95	-7,060.24	6,463.35	6,385.80	77.55	83.342		
7,900.00	7,067.18	6,931.00	6,915.19	46.16	34.87	-31.76	-3,261.85	-7,060.53	6,364.91	6,287.29	77.62	82.000		
8,000.00	7,068.85	6,934.00	6,918.19	46.42	34.88	-77.16	-3,261.83	-7,060.61	6,265.38	6,187.78	77.60	80.743		
8,100.00	7,068.56	6,935.59	6,919.79	46.78	34.88	-77.31	-3,261.82	-7,060.65	6,165.84	6,088.28	77.56	79.499		
8,200.00	7,068.26	6,937.20	6,921.40	47.29	34.89	-77.47	-3,261.81	-7,060.69	6,066.31	5,988.79	77.52	78.253		
8,300.00	7,067.96	6,938.83	6,923.02	48.03	34.89	-77.62	-3,261.80	-7,060.73	5,966.80	5,889.31	77.49	77.005		
8,400.00	7,067.66	6,940.46	6,924.65	49.02	34.90	-77.77	-3,261.78	-7,060.77	5,867.30	5,789.85	77.45	75.755		
8,500.00	7,067.37	6,942.11	6,926.30	50.27	34.90	-77.93	-3,261.77	-7,060.81	5,767.82	5,690.40	77.42	74.502		
8,600.00	7,067.07	6,943.78	6,927.97	51.75	34.91	-78.08	-3,261.76	-7,060.85	5,668.36	5,590.97	77.39	73.247		
8,700.00	7,066.77	6,945.46	6,929.65	53.42	34.92	-78.24	-3,261.75	-7,060.90	5,568.92	5,491.56	77.36	71.989		
8,800.00	7,066.47	6,947.15	6,931.34	55.24	34.92	-78.40	-3,261.74	-7,060.94	5,469.50	5,392.17	77.33	70.729		
8,900.00	7,066.18	6,948.86	6,933.05	57.18	34.93	-78.57	-3,261.72	-7,060.98	5,370.09	5,292.79	77.30	69.466		
9,000.00	7,065.88	6,950.58	6,934.77	59.21	34.93	-78.73	-3,261.71	-7,061.03	5,270.71	5,193.43	77.28	68.201		
9,100.00	7,065.58	6,952.32	6,936.50	61.33	34.94	-78.89	-3,261.70	-7,061.07	5,171.36	5,094.09	77.26	66.932		
9,200.00	7,065.28	6,954.07	6,938.26	63.51	34.95	-79.06	-3,261.69	-7,061.12	5,072.02	4,994.78	77.25	65.661		
9,300.00	7,064.99	6,955.84	6,940.02	65.76	34.95	-79.23	-3,261.68	-7,061.16	4,972.72	4,895.48	77.23	64.386		
9,400.00	7,064.69	6,957.62	6,941.81	68.06	34.96	-79.40	-3,261.66	-7,061.21	4,873.44	4,796.21	77.22	63.108		
9,500.00	7,064.39	6,959.42	6,943.61	70.40	34.97	-79.57	-3,261.65	-7,061.26	4,774.19	4,696.97	77.22	61.826		
9,600.00	7,064.09	6,961.24	6,945.42	72.78	34.97	-79.74	-3,261.64	-7,061.31	4,674.97	4,597.75	77.22	60.541		
9,700.00	7,063.80	6,963.07	6,947.25	75.20	34.98	-79.92	-3,261.63	-7,061.35	4,575.78	4,498.55	77.23	59.252		
9,800.00	7,063.50	6,964.92	6,949.10	77.65	34.98	-80.10	-3,261.62	-7,061.40	4,476.63	4,399.39	77.24	57.958		
9,900.00	7,063.20	6,966.78	6,950.97	80.13	34.99	-80.28	-3,261.60	-7,061.45	4,377.52	4,300.26	77.26	56.660		
10,000.00	7,062.90	6,968.67	6,952.85	82.64	35.00	-80.46	-3,261.59	-7,061.50	4,278.44	4,201.15	77.29	55.357		
10,100.00	7,062.61	6,970.57	6,954.75	85.17	35.00	-80.64	-3,261.58	-7,061.55	4,179.41	4,102.09	77.33	54.050		
10,200.00	7,062.31	6,972.48	6,956.66	87.72	35.01	-80.82	-3,261.57	-7,061.61	4,080.43	4,003.05	77.37	52.737		
10,300.00	7,062.01	6,974.42	6,958.60	90.28	35.02	-81.01	-3,261.56	-7,061.66	3,981.49	3,904.06	77.43	51.418		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	6,976.37	6,960.55	92.87	35.02	-81.20	-3,261.55	-7,061.71	3,882.61	3,805.11	77.51	50.094		
10,500.00	7,061.41	6,978.34	6,962.52	95.47	35.03	-81.39	-3,261.53	-7,061.77	3,783.79	3,706.19	77.60	48.763		
10,600.00	7,061.12	6,980.33	6,964.51	98.09	35.04	-81.58	-3,261.52	-7,061.82	3,685.03	3,607.33	77.70	47.425		
10,700.00	7,060.82	6,982.34	6,966.52	100.72	35.05	-81.77	-3,261.51	-7,061.88	3,586.33	3,508.51	77.83	46.080		
10,800.00	7,060.52	6,984.37	6,968.54	103.37	35.05	-81.97	-3,261.50	-7,061.93	3,487.71	3,409.74	77.98	44.727		
10,900.00	7,060.22	6,986.41	6,970.59	106.02	35.06	-82.17	-3,261.49	-7,061.99	3,389.17	3,311.02	78.15	43.366		
11,000.00	7,059.93	6,988.48	6,972.65	108.69	35.07	-82.37	-3,261.47	-7,062.05	3,290.72	3,212.36	78.36	41.997		
11,100.00	7,059.63	6,990.56	6,974.74	111.36	35.07	-82.57	-3,261.46	-7,062.11	3,192.36	3,113.76	78.59	40.618		
11,200.00	7,059.33	6,992.67	6,976.84	114.05	35.08	-82.78	-3,261.45	-7,062.17	3,094.10	3,015.23	78.87	39.230		
11,300.00	7,059.03	6,994.80	6,978.97	116.74	35.09	-82.98	-3,261.44	-7,062.23	2,995.96	2,916.76	79.19	37.831		
11,400.00	7,058.74	6,996.94	6,981.11	119.44	35.10	-83.19	-3,261.43	-7,062.29	2,897.94	2,818.37	79.56	36.423		
11,500.00	7,058.44	6,999.11	6,983.28	122.15	35.10	-83.40	-3,261.42	-7,062.35	2,800.06	2,720.06	80.00	35.003		
11,600.00	7,058.14	7,001.30	6,985.47	124.86	35.11	-83.62	-3,261.40	-7,062.41	2,702.33	2,621.83	80.49	33.572		
11,700.00	7,057.84	7,003.51	6,987.68	127.58	35.12	-83.83	-3,261.39	-7,062.48	2,604.77	2,523.70	81.07	32.129		
11,800.00	7,057.55	7,005.74	6,989.91	130.31	35.13	-84.05	-3,261.38	-7,062.54	2,507.40	2,425.67	81.74	30.676		
11,900.00	7,057.25	7,008.00	6,992.16	133.04	35.14	-84.27	-3,261.37	-7,062.61	2,410.25	2,327.74	82.51	29.211		
12,000.00	7,056.95	7,010.31	6,994.48	135.78	35.14	-84.50	-3,261.36	-7,062.67	2,313.34	2,229.93	83.41	27.736		
12,100.00	7,056.65	7,012.92	6,997.08	138.52	35.15	-84.75	-3,261.35	-7,062.75	2,216.70	2,132.25	84.44	26.251		
12,200.00	7,056.36	7,015.54	6,999.71	141.27	35.16	-85.01	-3,261.33	-7,062.83	2,120.36	2,034.72	85.65	24.757		
12,300.00	7,056.06	7,018.18	7,002.34	144.02	35.17	-85.27	-3,261.32	-7,062.90	2,024.38	1,937.34	87.04	23.258		
12,400.00	7,055.76	7,020.83	7,004.99	146.78	35.18	-85.53	-3,261.30	-7,062.98	1,928.80	1,840.14	88.66	21.755		
12,500.00	7,055.46	7,023.50	7,007.66	149.54	35.19	-85.79	-3,261.29	-7,063.06	1,833.69	1,743.15	90.55	20.252		
12,600.00	7,055.17	7,026.18	7,010.34	152.30	35.20	-86.05	-3,261.27	-7,063.14	1,739.13	1,646.39	92.74	18.753		
12,700.00	7,054.87	7,028.88	7,013.03	155.07	35.21	-86.32	-3,261.25	-7,063.22	1,645.20	1,549.90	95.30	17.263		
12,800.00	7,054.57	7,031.59	7,015.75	157.84	35.22	-86.59	-3,261.23	-7,063.30	1,552.03	1,453.74	98.29	15.791		
12,900.00	7,054.27	7,034.32	7,018.47	160.61	35.23	-86.86	-3,261.21	-7,063.38	1,459.76	1,357.97	101.79	14.341		
13,000.00	7,053.97	7,037.06	7,021.21	163.39	35.24	-87.13	-3,261.19	-7,063.47	1,368.56	1,262.68	105.88	12.925		
13,100.00	7,053.68	7,039.82	7,023.97	166.17	35.25	-87.40	-3,261.17	-7,063.55	1,278.68	1,167.99	110.69	11.552		
13,200.00	7,053.38	7,042.60	7,026.75	168.95	35.26	-87.67	-3,261.15	-7,063.63	1,190.41	1,074.07	116.34	10.232		
13,300.00	7,053.08	7,045.39	7,029.54	171.73	35.27	-87.95	-3,261.13	-7,063.72	1,104.13	981.16	122.98	8.978		
13,400.00	7,052.78	7,048.20	7,032.34	174.52	35.28	-88.23	-3,261.10	-7,063.80	1,020.36	889.58	130.77	7.802		
13,500.00	7,052.49	7,051.02	7,035.17	177.31	35.29	-88.50	-3,261.08	-7,063.89	939.75	799.85	139.90	6.717		
13,600.00	7,052.19	7,053.86	7,038.01	180.10	35.30	-88.79	-3,261.05	-7,063.97	863.20	712.67	150.53	5.734		
13,700.00	7,051.89	7,056.72	7,040.86	182.90	35.31	-89.07	-3,261.03	-7,064.06	791.89	629.17	162.72	4.866		
13,800.00	7,051.59	7,059.59	7,043.74	185.69	35.32	-89.35	-3,261.00	-7,064.15	727.36	550.96	176.40	4.123		
13,900.00	7,051.30	7,062.49	7,046.63	188.49	35.33	-89.64	-3,260.97	-7,064.24	671.56	480.46	191.09	3.514		
14,000.00	7,051.00	7,065.39	7,049.53	191.29	35.34	-89.93	-3,260.94	-7,064.33	626.83	421.00	205.83	3.045		
14,100.00	7,050.70	7,068.32	7,052.46	194.09	35.35	-90.22	-3,260.91	-7,064.42	595.67	376.70	218.97	2.720		
14,200.00	7,050.40	7,071.26	7,055.40	196.89	35.36	-90.51	-3,260.88	-7,064.51	580.27	351.72	228.55	2.539		
14,240.62	7,050.28	7,072.46	7,056.60	198.03	35.36	-90.63	-3,260.87	-7,064.55	578.84	347.82	231.03	2.506 CC, ES		
14,300.00	7,050.11	7,074.22	7,058.36	199.70	35.37	-90.80	-3,260.85	-7,064.60	581.88	348.89	232.99	2.497 SF		
14,400.00	7,049.81	7,077.20	7,061.33	202.50	35.38	-91.09	-3,260.82	-7,064.69	600.37	368.44	231.93	2.589		
14,500.00	7,049.51	7,080.20	7,064.33	205.31	35.39	-91.39	-3,260.79	-7,064.79	634.26	407.94	226.32	2.802		
14,600.00	7,049.21	7,083.21	7,067.34	208.12	35.40	-91.69	-3,260.75	-7,064.88	681.26	463.44	217.82	3.128		
14,700.00	7,048.92	7,086.25	7,070.37	210.93	35.41	-91.99	-3,260.71	-7,064.98	738.86	530.86	208.00	3.552		
14,800.00	7,048.62	7,089.30	7,073.42	213.74	35.42	-92.29	-3,260.68	-7,065.07	804.80	606.80	198.01	4.065		
14,900.00	7,048.32	7,092.37	7,076.49	216.55	35.43	-92.59	-3,260.64	-7,065.17	877.20	688.71	188.49	4.654		
15,000.00	7,048.02	7,095.45	7,079.58	219.37	35.44	-92.90	-3,260.60	-7,065.27	954.59	774.83	179.75	5.311		
15,100.00	7,047.73	7,098.56	7,082.68	222.18	35.45	-93.21	-3,260.56	-7,065.37	1,035.84	863.94	171.91	6.026		
15,200.00	7,047.43	7,101.69	7,085.81	225.00	35.46	-93.51	-3,260.52	-7,065.47	1,120.13	955.20	164.93	6.792		
15,300.00	7,047.13	7,104.83	7,088.95	227.81	35.48	-93.82	-3,260.48	-7,065.57	1,206.81	1,048.05	158.76	7.602		
15,343.67	7,047.00	7,106.21	7,090.33	229.04	35.48	-93.96	-3,260.46	-7,065.61	1,245.29	1,089.00	156.29	7.968		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	66.00	3.28	3.28	-117.16	-3,930.76	-7,660.40	8,610.28					
100.00	100.00	34.00	100.00	3.28	3.33	-117.16	-3,930.76	-7,660.40	8,610.03	8,603.41	6.62	1,301.006		
200.00	200.00	134.00	200.00	3.34	4.40	-117.16	-3,930.76	-7,660.40	8,610.03	8,602.29	7.74	1,112.873		
300.00	299.98	233.98	299.98	3.44	7.21	59.45	-3,930.76	-7,660.40	8,609.14	8,598.49	10.65	808.273		
400.00	399.84	333.84	399.84	3.59	10.44	59.53	-3,930.76	-7,660.40	8,606.48	8,592.46	14.03	613.572		
500.00	499.45	433.45	499.45	3.79	13.78	59.65	-3,930.76	-7,660.40	8,602.06	8,584.49	17.57	489.589		
600.00	598.70	532.70	598.70	4.03	17.17	59.83	-3,930.76	-7,660.40	8,595.88	8,574.69	21.20	405.512		
700.00	697.47	631.47	697.47	4.31	20.56	60.06	-3,930.76	-7,660.40	8,587.98	8,563.10	24.88	345.241		
800.00	795.62	729.62	795.62	4.64	23.95	60.33	-3,930.76	-7,660.40	8,578.36	8,549.77	28.58	300.109		
900.00	893.06	827.06	893.06	5.00	27.32	60.66	-3,930.76	-7,660.40	8,567.06	8,534.75	32.31	265.138		
1,000.00	989.64	923.64	989.64	5.40	30.67	61.04	-3,930.76	-7,660.40	8,554.12	8,518.07	36.05	237.293		
1,100.00	1,085.27	1,019.27	1,085.27	5.83	34.00	61.46	-3,930.76	-7,660.40	8,539.57	8,499.78	39.79	214.626		
1,200.00	1,179.82	1,113.82	1,179.82	6.29	37.28	61.93	-3,930.76	-7,660.40	8,523.45	8,479.93	43.52	195.836		
1,300.00	1,273.17	1,207.17	1,273.17	6.79	40.53	62.45	-3,930.76	-7,660.40	8,505.82	8,458.57	47.25	180.019		
1,400.00	1,365.46	1,300.54	1,365.46	7.32	43.78	62.80	-3,930.76	-7,660.40	8,487.01	8,436.01	51.00	166.402		
1,500.00	1,457.65	1,408.35	1,457.65	7.87	47.53	63.02	-3,930.76	-7,660.40	8,468.21	8,412.94	55.28	153.191		
1,600.00	1,549.83	1,483.83	1,549.83	8.43	50.16	63.24	-3,930.76	-7,660.40	8,449.55	8,391.11	58.44	144.576		
1,700.00	1,642.02	1,576.02	1,642.02	9.01	53.37	63.46	-3,930.76	-7,660.40	8,431.02	8,368.82	62.20	135.541		
1,800.00	1,734.21	1,668.21	1,734.21	9.59	56.59	63.68	-3,930.76	-7,660.40	8,412.63	8,346.66	65.97	127.516		
1,900.00	1,826.39	1,760.39	1,826.39	10.18	59.80	63.91	-3,930.76	-7,660.40	8,394.38	8,324.63	69.75	120.346		
2,000.00	1,918.58	1,852.58	1,918.58	10.78	63.01	64.13	-3,930.76	-7,660.40	8,376.27	8,302.73	73.54	113.902		
2,100.00	2,010.77	1,944.77	2,010.77	11.39	66.23	64.35	-3,930.76	-7,660.40	8,358.30	8,280.96	77.33	108.082		
2,200.00	2,102.95	2,036.95	2,102.95	11.99	69.44	64.58	-3,930.76	-7,660.40	8,340.47	8,259.33	81.13	102.801		
2,300.00	2,195.14	2,129.14	2,195.14	12.61	72.66	64.80	-3,930.76	-7,660.40	8,322.78	8,237.84	84.94	97.988		
2,400.00	2,287.32	2,221.32	2,287.32	13.22	75.87	65.03	-3,930.76	-7,660.40	8,305.23	8,216.49	88.75	93.585		
2,500.00	2,379.51	2,313.51	2,379.51	13.84	79.09	65.26	-3,930.76	-7,660.40	8,287.83	8,195.27	92.56	89.541		
2,600.00	2,471.70	2,405.70	2,471.70	14.46	82.30	65.48	-3,930.76	-7,660.40	8,270.58	8,174.20	96.38	85.816		
2,700.00	2,563.88	2,502.12	2,563.88	15.08	85.67	65.71	-3,930.76	-7,660.40	8,253.47	8,153.12	100.34	82.252		
2,800.00	2,656.07	2,609.93	2,656.07	15.71	89.43	65.94	-3,930.76	-7,660.40	8,236.50	8,131.79	104.71	78.659		
2,900.00	2,748.26	2,682.26	2,748.26	16.33	91.95	66.17	-3,930.76	-7,660.40	8,219.69	8,111.84	107.85	76.217		
3,000.00	2,840.44	2,774.44	2,840.44	16.96	95.17	66.41	-3,930.76	-7,660.40	8,203.02	8,091.35	111.67	73.455		
3,100.00	2,932.63	2,866.63	2,932.63	17.59	98.38	66.64	-3,930.76	-7,660.40	8,186.50	8,071.00	115.50	70.876		
3,200.00	3,024.81	2,958.81	3,024.81	18.22	101.60	66.87	-3,930.76	-7,660.40	8,170.14	8,050.80	119.34	68.462		
3,300.00	3,117.00	3,051.00	3,117.00	18.86	104.82	67.10	-3,930.76	-7,660.40	8,153.92	8,030.75	123.17	66.199		
3,400.00	3,209.19	3,143.19	3,209.19	19.49	108.03	67.34	-3,930.76	-7,660.40	8,137.86	8,010.85	127.01	64.072		
3,500.00	3,301.37	3,235.37	3,301.37	20.12	111.25	67.57	-3,930.76	-7,660.40	8,121.95	7,991.10	130.85	62.071		
3,600.00	3,393.56	3,327.56	3,393.56	20.76	114.47	67.81	-3,930.76	-7,660.40	8,106.19	7,971.50	134.69	60.184		
3,700.00	3,485.75	3,419.75	3,485.75	21.39	117.68	68.05	-3,930.76	-7,660.40	8,090.59	7,952.06	138.53	58.402		
3,800.00	3,577.93	3,511.93	3,577.93	22.03	120.90	68.29	-3,930.76	-7,660.40	8,075.14	7,932.77	142.38	56.717		
3,900.00	3,670.12	3,604.12	3,670.12	22.67	124.12	68.53	-3,930.76	-7,660.40	8,059.85	7,913.63	146.22	55.121		
4,000.00	3,762.30	3,703.70	3,762.30	23.30	127.59	68.76	-3,930.76	-7,660.40	8,044.72	7,894.40	150.33	53.515		
4,100.00	3,854.49	3,788.49	3,854.49	23.94	130.55	69.00	-3,930.76	-7,660.40	8,029.75	7,875.83	153.92	52.170		
4,200.00	3,946.68	3,880.68	3,946.68	24.58	133.77	69.25	-3,930.76	-7,660.40	8,014.94	7,857.17	157.77	50.803		
4,300.00	4,038.86	3,972.86	4,038.86	25.22	136.99	69.49	-3,930.76	-7,660.40	8,000.28	7,838.67	161.62	49.502		
4,400.00	4,131.05	4,065.05	4,131.05	25.86	140.20	69.73	-3,930.76	-7,660.40	7,985.79	7,820.32	165.47	48.262		
4,500.00	4,223.24	4,157.24	4,223.24	26.50	143.42	69.97	-3,930.76	-7,660.40	7,971.46	7,802.14	169.32	47.079		
4,600.00	4,315.42	4,249.42	4,315.42	27.14	146.64	70.22	-3,930.76	-7,660.40	7,957.30	7,784.12	173.18	45.949		
4,700.00	4,407.61	4,341.61	4,407.61	27.78	149.86	70.46	-3,930.76	-7,660.40	7,943.29	7,766.26	177.03	44.870		
4,800.00	4,499.79	4,433.79	4,499.79	28.42	153.07	70.71	-3,930.76	-7,660.40	7,929.45	7,748.57	180.89	43.837		
4,900.00	4,591.98	4,525.98	4,591.98	29.06	156.29	70.95	-3,930.76	-7,660.40	7,915.78	7,731.04	184.74	42.847		
5,000.00	4,684.17	4,618.17	4,684.17	29.70	159.51	71.20	-3,930.76	-7,660.40	7,902.27	7,713.67	188.60	41.899		
5,100.00	4,776.35	4,710.35	4,776.35	30.34	162.73	71.45	-3,930.76	-7,660.40	7,888.93	7,696.47	192.46	40.990		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,802.54	4,868.54	30.98	165.94	71.70	-3,930.76	-7,660.40	7,875.76	7,679.44	196.32	40.117		
5,300.00	4,960.73	4,905.27	4,960.73	31.63	169.53	71.95	-3,930.76	-7,660.40	7,862.76	7,662.21	200.55	39.206		
5,400.00	5,052.91	4,986.91	5,052.91	32.27	172.38	72.20	-3,930.76	-7,660.40	7,849.93	7,645.88	204.04	38.472		
5,500.00	5,145.10	5,079.10	5,145.10	32.91	175.60	72.45	-3,930.76	-7,660.40	7,837.27	7,629.36	207.91	37.696		
5,600.00	5,237.28	5,171.28	5,237.28	33.55	178.81	72.70	-3,930.76	-7,660.40	7,824.78	7,613.01	211.77	36.949		
5,700.00	5,329.47	5,263.47	5,329.47	34.20	182.03	72.95	-3,930.76	-7,660.40	7,812.46	7,596.82	215.63	36.230		
5,800.00	5,421.66	5,355.66	5,421.66	34.84	185.25	73.20	-3,930.76	-7,660.40	7,800.31	7,580.81	219.50	35.537		
5,900.00	5,513.84	5,447.84	5,513.84	35.48	188.47	73.46	-3,930.76	-7,660.40	7,788.34	7,564.98	223.36	34.868		
6,000.00	5,606.03	5,540.03	5,606.03	36.13	191.69	73.71	-3,930.76	-7,660.40	7,776.54	7,549.31	227.23	34.223		
6,100.00	5,698.22	5,632.22	5,698.22	36.77	194.90	73.97	-3,930.76	-7,660.40	7,764.92	7,533.82	231.10	33.600		
6,200.00	5,790.40	5,724.40	5,790.40	37.41	198.12	74.22	-3,930.76	-7,660.40	7,753.48	7,518.51	234.97	32.998		
6,300.00	5,882.59	5,816.59	5,882.59	38.06	201.34	74.48	-3,930.76	-7,660.40	7,742.21	7,503.38	238.83	32.417		
6,400.00	5,974.77	5,908.77	5,974.77	38.70	204.56	74.73	-3,930.76	-7,660.40	7,731.12	7,488.42	242.70	31.854		
6,500.00	6,066.96	6,000.96	6,066.96	39.34	207.77	74.99	-3,930.76	-7,660.40	7,720.21	7,473.64	246.57	31.310		
6,600.00	6,159.15	6,106.85	6,159.15	39.99	211.47	75.25	-3,930.76	-7,660.40	7,709.48	7,458.56	250.92	30.725		
6,700.00	6,251.33	6,185.33	6,251.33	40.63	214.21	75.51	-3,930.76	-7,660.40	7,698.92	7,444.61	254.31	30.273		
6,800.00	6,343.52	6,277.52	6,343.52	41.28	217.43	75.77	-3,930.76	-7,660.40	7,688.55	7,430.37	258.18	29.779		
6,900.00	6,435.71	6,369.71	6,435.71	41.92	220.65	76.03	-3,930.76	-7,660.40	7,678.36	7,416.31	262.06	29.301		
7,000.00	6,527.86	6,461.86	6,527.86	42.56	223.86	76.18	-3,930.76	-7,660.40	7,667.50	7,401.57	265.92	28.833		
7,100.00	6,618.85	6,552.85	6,618.85	43.19	227.04	76.54	-3,930.76	-7,660.40	7,644.97	7,375.25	269.72	28.344		
7,200.00	6,706.47	6,640.47	6,706.47	43.76	230.10	76.83	-3,930.76	-7,660.40	7,607.88	7,334.55	273.33	27.834		
7,300.00	6,788.56	6,722.56	6,788.56	44.26	232.96	77.13	-3,930.76	-7,660.40	7,557.06	7,280.40	276.66	27.315		
7,400.00	6,863.10	6,802.90	6,863.10	44.70	235.77	77.45	-3,930.76	-7,660.40	7,493.74	7,213.88	279.86	26.777		
7,500.00	6,928.26	6,862.26	6,928.26	45.07	237.84	77.77	-3,930.76	-7,660.40	7,419.42	7,137.17	282.24	26.288		
7,600.00	6,982.42	6,916.42	6,982.42	45.39	239.73	78.07	-3,930.76	-7,660.40	7,335.89	7,051.53	284.36	25.798		
7,700.00	7,024.26	6,958.26	7,024.26	45.67	241.19	78.35	-3,930.76	-7,660.40	7,245.20	6,959.24	285.96	25.337		
7,800.00	7,052.75	6,986.75	7,052.75	45.92	242.18	78.61	-3,930.76	-7,660.40	7,149.56	6,862.55	287.01	24.910		
7,900.00	7,067.18	7,001.18	7,067.18	46.16	242.69	78.85	-3,930.76	-7,660.40	7,051.36	6,763.86	287.50	24.526		
8,000.00	7,068.85	7,002.85	7,068.85	46.42	242.75	79.07	-3,930.76	-7,660.40	6,952.86	6,665.37	287.49	24.185		
8,100.00	7,068.56	7,002.56	7,068.56	46.78	242.74	79.27	-3,930.76	-7,660.40	6,854.50	6,567.09	287.41	23.849		
8,200.00	7,068.26	7,002.26	7,068.26	47.29	242.73	79.45	-3,930.76	-7,660.40	6,756.19	6,468.85	287.34	23.513		
8,300.00	7,067.96	7,001.96	7,067.96	48.03	242.72	79.60	-3,930.76	-7,660.40	6,657.93	6,370.65	287.27	23.176		
8,400.00	7,067.66	7,001.66	7,067.66	49.02	242.71	79.88	-3,930.76	-7,660.40	6,559.72	6,272.50	287.22	22.839		
8,500.00	7,067.37	7,001.37	7,067.37	50.27	242.69	79.87	-3,930.76	-7,660.40	6,461.56	6,174.40	287.16	22.501		
8,600.00	7,067.07	7,001.07	7,067.07	51.75	242.68	79.85	-3,930.76	-7,660.40	6,363.47	6,076.35	287.12	22.163		
8,700.00	7,066.77	7,000.77	7,066.77	53.42	242.67	79.84	-3,930.76	-7,660.40	6,265.43	5,978.34	287.09	21.824		
8,800.00	7,066.47	7,000.47	7,066.47	55.24	242.66	79.83	-3,930.76	-7,660.40	6,167.46	5,880.39	287.06	21.485		
8,900.00	7,066.18	7,000.18	7,066.18	57.18	242.65	79.81	-3,930.76	-7,660.40	6,069.55	5,782.50	287.05	21.144		
9,000.00	7,065.88	7,000.12	7,065.88	59.21	242.65	79.80	-3,930.76	-7,660.40	5,971.71	5,684.65	287.06	20.803		
9,100.00	7,065.58	7,000.42	7,065.58	61.33	242.66	79.79	-3,930.76	-7,660.40	5,873.95	5,586.85	287.10	20.460		
9,200.00	7,065.28	7,000.72	7,065.28	63.51	242.67	79.77	-3,930.76	-7,660.40	5,776.26	5,489.12	287.14	20.116		
9,300.00	7,064.99	7,001.01	7,064.99	65.76	242.68	79.76	-3,930.76	-7,660.40	5,678.65	5,391.44	287.21	19.772		
9,400.00	7,064.69	7,001.31	7,064.69	68.06	242.69	79.74	-3,930.76	-7,660.40	5,581.13	5,293.84	287.29	19.427		
9,500.00	7,064.39	7,001.61	7,064.39	70.40	242.70	79.73	-3,930.76	-7,660.40	5,483.70	5,196.30	287.40	19.081		
9,600.00	7,064.09	7,001.91	7,064.09	72.78	242.71	79.72	-3,930.76	-7,660.40	5,386.36	5,098.84	287.52	18.734		
9,700.00	7,063.80	7,002.20	7,063.80	75.20	242.72	79.70	-3,930.76	-7,660.40	5,289.12	5,001.45	287.67	18.386		
9,800.00	7,063.50	7,002.50	7,063.50	77.65	242.73	79.69	-3,930.76	-7,660.40	5,191.98	4,904.14	287.84	18.038		
9,900.00	7,063.20	7,002.80	7,063.20	80.13	242.74	79.68	-3,930.76	-7,660.40	5,094.96	4,806.92	288.04	17.688		
10,000.00	7,062.90	7,003.10	7,062.90	82.64	242.76	79.66	-3,930.76	-7,660.40	4,998.05	4,709.78	288.27	17.338		
10,100.00	7,062.61	7,003.40	7,062.61	85.17	242.77	79.65	-3,930.76	-7,660.40	4,901.26	4,612.73	288.53	16.987		
10,200.00	7,062.31	7,003.69	7,062.31	87.72	242.78	79.64	-3,930.76	-7,660.40	4,804.61	4,515.78	288.83	16.635		
10,300.00	7,062.01	7,003.99	7,062.01	90.28	242.79	79.62	-3,930.76	-7,660.40	4,708.10	4,418.93	289.17	16.282		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,004.29	7,061.71	92.87	242.80	-90.61	-3,930.76	-7,660.40	4,611.74	4,322.19	289.55	15.927		
10,500.00	7,061.41	7,004.59	7,061.41	95.47	242.81	-90.59	-3,930.76	-7,660.40	4,515.53	4,225.56	289.97	15.572		
10,600.00	7,061.12	7,004.88	7,061.12	98.09	242.82	-90.58	-3,930.76	-7,660.40	4,419.50	4,129.05	290.45	15.216		
10,700.00	7,060.82	7,005.18	7,060.82	100.72	242.83	-90.57	-3,930.76	-7,660.40	4,323.64	4,032.66	290.98	14.859		
10,800.00	7,060.52	7,005.48	7,060.52	103.37	242.84	-90.55	-3,930.76	-7,660.40	4,227.97	3,936.40	291.57	14.501		
10,900.00	7,060.22	7,005.78	7,060.22	106.02	242.85	-90.54	-3,930.76	-7,660.40	4,132.51	3,840.29	292.23	14.142		
11,000.00	7,059.93	7,006.07	7,059.93	108.69	242.86	-90.53	-3,930.76	-7,660.40	4,037.27	3,744.32	292.95	13.781		
11,100.00	7,059.63	7,006.37	7,059.63	111.36	242.87	-90.51	-3,930.76	-7,660.40	3,942.27	3,648.52	293.75	13.420		
11,200.00	7,059.33	7,006.67	7,059.33	114.05	242.88	-90.50	-3,930.76	-7,660.40	3,847.52	3,552.88	294.63	13.059		
11,300.00	7,059.03	7,006.97	7,059.03	116.74	242.89	-90.48	-3,930.76	-7,660.40	3,753.04	3,457.43	295.61	12.696		
11,400.00	7,058.74	7,007.26	7,058.74	119.44	242.90	-90.47	-3,930.76	-7,660.40	3,658.85	3,362.18	296.68	12.333		
11,500.00	7,058.44	7,007.56	7,058.44	122.15	242.91	-90.46	-3,930.76	-7,660.40	3,564.98	3,267.14	297.85	11.969		
11,600.00	7,058.14	7,007.86	7,058.14	124.86	242.92	-90.44	-3,930.76	-7,660.40	3,471.46	3,172.32	299.13	11.605		
11,700.00	7,057.84	7,008.16	7,057.84	127.58	242.93	-90.43	-3,930.76	-7,660.40	3,378.30	3,077.76	300.54	11.241		
11,800.00	7,057.55	7,008.45	7,057.55	130.31	242.94	-90.42	-3,930.76	-7,660.40	3,285.55	2,983.47	302.08	10.876		
11,900.00	7,057.25	7,008.75	7,057.25	133.04	242.95	-90.40	-3,930.76	-7,660.40	3,193.23	2,889.47	303.77	10.512		
12,000.00	7,056.95	7,009.05	7,056.95	135.78	242.96	-90.39	-3,930.76	-7,660.40	3,101.39	2,795.79	305.60	10.148		
12,100.00	7,056.65	7,009.35	7,056.65	138.52	242.97	-90.38	-3,930.76	-7,660.40	3,010.08	2,702.47	307.61	9.785		
12,200.00	7,056.36	7,009.64	7,056.36	141.27	242.98	-90.36	-3,930.76	-7,660.40	2,919.33	2,609.53	309.79	9.424		
12,300.00	7,056.06	7,009.94	7,056.06	144.02	242.99	-90.35	-3,930.76	-7,660.40	2,829.20	2,517.03	312.17	9.063		
12,400.00	7,055.76	6,989.76	7,055.76	146.78	242.29	-90.33	-3,930.76	-7,660.40	2,739.76	2,425.72	314.04	8.724		
12,500.00	7,055.46	6,989.46	7,055.46	149.54	242.28	-90.32	-3,930.76	-7,660.40	2,651.07	2,334.24	316.83	8.368		
12,600.00	7,055.17	6,989.17	7,055.17	152.30	242.27	-90.31	-3,930.76	-7,660.40	2,563.22	2,243.36	319.86	8.014		
12,700.00	7,054.87	6,988.87	7,054.87	155.07	242.26	-90.29	-3,930.76	-7,660.40	2,476.29	2,153.13	323.16	7.663		
12,800.00	7,054.57	6,988.57	7,054.57	157.84	242.25	-90.28	-3,930.76	-7,660.40	2,390.38	2,063.64	326.73	7.316		
12,900.00	7,054.27	6,988.27	7,054.27	160.61	242.24	-90.27	-3,930.76	-7,660.40	2,305.60	1,974.99	330.61	6.974		
13,000.00	7,053.97	6,987.97	7,053.97	163.39	242.23	-90.25	-3,930.76	-7,660.40	2,222.09	1,887.29	334.81	6.637		
13,100.00	7,053.68	6,987.68	7,053.68	166.17	242.22	-90.24	-3,930.76	-7,660.40	2,140.00	1,800.65	339.35	6.306		
13,200.00	7,053.38	6,987.38	7,053.38	168.95	242.21	-90.22	-3,930.76	-7,660.40	2,059.49	1,715.23	344.26	5.982		
13,300.00	7,053.08	6,987.08	7,053.08	171.73	242.20	-90.21	-3,930.76	-7,660.40	1,980.76	1,631.21	349.56	5.666		
13,400.00	7,052.78	6,986.78	7,052.78	174.52	242.19	-90.20	-3,930.76	-7,660.40	1,904.03	1,548.78	355.25	5.360		
13,500.00	7,052.49	6,986.49	7,052.49	177.31	242.18	-90.18	-3,930.76	-7,660.40	1,829.54	1,468.18	361.36	5.063		
13,600.00	7,052.19	6,986.19	7,052.19	180.10	242.17	-90.17	-3,930.76	-7,660.40	1,757.59	1,389.70	367.90	4.777		
13,700.00	7,051.89	6,985.89	7,051.89	182.90	242.15	-90.16	-3,930.76	-7,660.40	1,688.50	1,313.66	374.84	4.505		
13,800.00	7,051.59	6,985.59	7,051.59	185.69	242.14	-90.14	-3,930.76	-7,660.40	1,622.63	1,240.44	382.19	4.246		
13,900.00	7,051.30	6,985.30	7,051.30	188.49	242.13	-90.13	-3,930.76	-7,660.40	1,560.40	1,170.50	389.90	4.002		
14,000.00	7,051.00	6,985.00	7,051.00	191.29	242.12	-90.12	-3,930.76	-7,660.40	1,502.25	1,104.34	397.91	3.775		
14,100.00	7,050.70	6,984.70	7,050.70	194.09	242.11	-90.10	-3,930.76	-7,660.40	1,448.67	1,042.55	406.12	3.567		
14,200.00	7,050.40	6,984.40	7,050.40	196.89	242.10	-90.09	-3,930.76	-7,660.40	1,400.20	985.77	414.42	3.379		
14,300.00	7,050.11	6,984.11	7,050.11	199.70	242.09	-90.07	-3,930.76	-7,660.40	1,357.37	934.72	422.65	3.212		
14,400.00	7,049.81	6,983.81	7,049.81	202.50	242.08	-90.06	-3,930.76	-7,660.40	1,320.74	890.14	430.60	3.067		
14,500.00	7,049.51	6,983.51	7,049.51	205.31	242.07	-90.05	-3,930.76	-7,660.40	1,290.84	852.78	438.06	2.947		
14,600.00	7,049.21	6,983.21	7,049.21	208.12	242.06	-90.03	-3,930.76	-7,660.40	1,268.13	823.34	444.79	2.851		
14,700.00	7,048.92	6,982.92	7,048.92	210.93	242.05	-90.02	-3,930.76	-7,660.40	1,253.02	802.45	450.57	2.781		
14,800.00	7,048.62	6,982.62	7,048.62	213.74	242.04	-90.01	-3,930.76	-7,660.40	1,245.78	790.57	455.21	2.737		
14,840.49	7,048.50	6,982.50	7,048.50	214.88	242.04	-90.00	-3,930.76	-7,660.40	1,245.12	788.39	456.74	2.726 CC		
14,900.00	7,048.32	6,982.32	7,048.32	216.55	242.03	-89.99	-3,930.76	-7,660.40	1,246.54	787.96	458.58	2.718 ES, SF		
15,000.00	7,048.02	6,982.02	7,048.02	219.37	242.02	-89.98	-3,930.76	-7,660.40	1,255.30	794.69	460.60	2.725		
15,100.00	7,047.73	6,981.73	7,047.73	222.18	242.01	-89.96	-3,930.76	-7,660.40	1,271.88	810.57	461.31	2.757		
15,200.00	7,047.43	6,981.43	7,047.43	225.00	242.00	-89.95	-3,930.76	-7,660.40	1,295.98	835.21	460.77	2.813		
15,300.00	7,047.13	6,981.13	7,047.13	227.81	241.99	-89.94	-3,930.76	-7,660.40	1,327.20	868.06	459.14	2.891		
15,343.67	7,047.00	6,981.00	7,047.00	229.04	241.98	-89.93	-3,930.76	-7,660.40	1,342.95	884.82	458.13	2.931		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	51.00	3.28	3.28	-106.26	-2,613.35	-8,960.72	9,334.17					
100.00	100.00	49.00	100.00	3.28	3.39	-106.26	-2,613.35	-8,960.72	9,334.03	9,327.36	6.67	1,398.482		
200.00	200.00	149.00	200.00	3.34	4.76	-106.26	-2,613.35	-8,960.72	9,334.03	9,325.93	8.10	1,152.095		
300.00	299.98	248.98	299.98	3.44	7.68	70.35	-2,613.35	-8,960.72	9,333.45	9,322.32	11.12	839.246		
400.00	399.84	348.84	399.84	3.59	10.94	70.42	-2,613.35	-8,960.72	9,331.69	9,317.16	14.52	642.473		
500.00	499.45	448.45	499.45	3.79	14.29	70.52	-2,613.35	-8,960.72	9,328.76	9,310.68	18.08	516.023		
600.00	598.70	547.70	598.70	4.03	17.68	70.67	-2,613.35	-8,960.72	9,324.69	9,302.97	21.71	429.489		
700.00	697.47	646.47	697.47	4.31	21.08	70.86	-2,613.35	-8,960.72	9,319.47	9,294.08	25.39	367.014		
800.00	795.62	744.62	795.62	4.64	24.47	71.09	-2,613.35	-8,960.72	9,313.15	9,284.04	29.11	319.978		
900.00	893.06	842.06	893.06	5.00	27.84	71.35	-2,613.35	-8,960.72	9,305.74	9,272.90	32.84	283.382		
1,000.00	989.64	938.64	989.64	5.40	31.20	71.66	-2,613.35	-8,960.72	9,297.27	9,260.69	36.58	254.151		
1,100.00	1,085.27	1,034.27	1,085.27	5.83	34.52	72.01	-2,613.35	-8,960.72	9,287.78	9,247.45	40.33	230.299		
1,200.00	1,179.82	1,128.82	1,179.82	6.29	37.80	72.39	-2,613.35	-8,960.72	9,277.31	9,233.23	44.07	210.489		
1,300.00	1,273.17	1,222.17	1,273.17	6.79	41.05	72.81	-2,613.35	-8,960.72	9,265.90	9,218.09	47.81	193.792		
1,400.00	1,365.46	1,314.46	1,365.46	7.32	44.26	73.11	-2,613.35	-8,960.72	9,253.79	9,202.25	51.54	179.530		
1,500.00	1,457.65	1,406.65	1,457.65	7.87	47.47	73.33	-2,613.35	-8,960.72	9,241.74	9,186.45	55.29	167.142		
1,600.00	1,549.83	1,501.17	1,549.83	8.43	50.77	73.54	-2,613.35	-8,960.72	9,229.84	9,170.70	59.14	156.074		
1,700.00	1,642.02	1,608.98	1,642.02	9.01	54.52	73.75	-2,613.35	-8,960.72	9,218.09	9,154.63	63.46	145.262		
1,800.00	1,734.21	1,683.21	1,734.21	9.59	57.11	73.97	-2,613.35	-8,960.72	9,206.48	9,139.86	66.62	138.195		
1,900.00	1,826.39	1,775.39	1,826.39	10.18	60.32	74.18	-2,613.35	-8,960.72	9,195.02	9,124.61	70.42	130.583		
2,000.00	1,918.58	1,867.58	1,918.58	10.78	63.54	74.40	-2,613.35	-8,960.72	9,183.72	9,109.50	74.22	123.740		
2,100.00	2,010.77	1,959.77	2,010.77	11.39	66.75	74.62	-2,613.35	-8,960.72	9,172.56	9,094.53	78.03	117.555		
2,200.00	2,102.95	2,051.95	2,102.95	11.99	69.97	74.83	-2,613.35	-8,960.72	9,161.55	9,079.71	81.84	111.941		
2,300.00	2,195.14	2,144.14	2,195.14	12.61	73.18	75.05	-2,613.35	-8,960.72	9,150.69	9,065.03	85.66	106.823		
2,400.00	2,287.32	2,236.32	2,287.32	13.22	76.40	75.27	-2,613.35	-8,960.72	9,139.99	9,050.50	89.49	102.139		
2,500.00	2,379.51	2,328.51	2,379.51	13.84	79.61	75.49	-2,613.35	-8,960.72	9,129.44	9,036.12	93.31	97.836		
2,600.00	2,471.70	2,420.70	2,471.70	14.46	82.83	75.70	-2,613.35	-8,960.72	9,119.03	9,021.89	97.14	93.871		
2,700.00	2,563.88	2,512.88	2,563.88	15.08	86.04	75.92	-2,613.35	-8,960.72	9,108.79	9,007.81	100.98	90.205		
2,800.00	2,656.07	2,605.07	2,656.07	15.71	89.26	76.14	-2,613.35	-8,960.72	9,098.69	8,993.88	104.81	86.807		
2,900.00	2,748.26	2,702.74	2,748.26	16.33	92.67	76.36	-2,613.35	-8,960.72	9,088.75	8,979.91	108.85	83.502		
3,000.00	2,840.44	2,789.44	2,840.44	16.96	95.69	76.58	-2,613.35	-8,960.72	9,078.97	8,966.47	112.49	80.706		
3,100.00	2,932.63	2,881.63	2,932.63	17.59	98.91	76.80	-2,613.35	-8,960.72	9,069.33	8,953.00	116.34	77.957		
3,200.00	3,024.81	2,973.81	3,024.81	18.22	102.12	77.02	-2,613.35	-8,960.72	9,059.86	8,939.68	120.18	75.384		
3,300.00	3,117.00	3,066.00	3,117.00	18.86	105.34	77.24	-2,613.35	-8,960.72	9,050.54	8,926.51	124.03	72.971		
3,400.00	3,209.19	3,158.19	3,209.19	19.49	108.56	77.47	-2,613.35	-8,960.72	9,041.38	8,913.50	127.88	70.704		
3,500.00	3,301.37	3,250.37	3,301.37	20.12	111.77	77.69	-2,613.35	-8,960.72	9,032.37	8,900.64	131.73	68.569		
3,600.00	3,393.56	3,342.56	3,393.56	20.76	114.99	77.91	-2,613.35	-8,960.72	9,023.52	8,887.95	135.58	66.556		
3,700.00	3,485.75	3,434.75	3,485.75	21.39	118.21	78.13	-2,613.35	-8,960.72	9,014.83	8,875.40	139.43	64.655		
3,800.00	3,577.93	3,526.93	3,577.93	22.03	121.42	78.36	-2,613.35	-8,960.72	9,006.30	8,863.02	143.28	62.857		
3,900.00	3,670.12	3,619.12	3,670.12	22.67	124.64	78.58	-2,613.35	-8,960.72	8,997.93	8,850.79	147.14	61.154		
4,000.00	3,762.30	3,711.30	3,762.30	23.30	127.86	78.80	-2,613.35	-8,960.72	8,989.71	8,838.72	150.99	59.538		
4,100.00	3,854.49	3,803.49	3,854.49	23.94	131.08	79.03	-2,613.35	-8,960.72	8,981.66	8,826.81	154.85	58.003		
4,200.00	3,946.68	3,904.32	3,946.68	24.58	134.59	79.25	-2,613.35	-8,960.72	8,973.76	8,814.76	159.01	56.437		
4,300.00	4,038.86	3,987.86	4,038.86	25.22	137.51	79.48	-2,613.35	-8,960.72	8,966.03	8,803.47	162.56	55.154		
4,400.00	4,131.05	4,080.05	4,131.05	25.86	140.73	79.70	-2,613.35	-8,960.72	8,958.46	8,792.04	166.42	53.830		
4,500.00	4,223.24	4,172.24	4,223.24	26.50	143.94	79.93	-2,613.35	-8,960.72	8,951.04	8,780.76	170.28	52.567		
4,600.00	4,315.42	4,264.42	4,315.42	27.14	147.16	80.16	-2,613.35	-8,960.72	8,943.79	8,769.66	174.14	51.360		
4,700.00	4,407.61	4,356.61	4,407.61	27.78	150.38	80.38	-2,613.35	-8,960.72	8,936.71	8,758.71	178.00	50.206		
4,800.00	4,499.79	4,448.79	4,499.79	28.42	153.60	80.61	-2,613.35	-8,960.72	8,929.78	8,747.92	181.86	49.102		
4,900.00	4,591.98	4,540.98	4,591.98	29.06	156.81	80.83	-2,613.35	-8,960.72	8,923.02	8,737.30	185.72	48.045		
5,000.00	4,684.17	4,633.17	4,684.17	29.70	160.03	81.06	-2,613.35	-8,960.72	8,916.42	8,726.84	189.59	47.031		
5,100.00	4,776.35	4,725.35	4,776.35	30.34	163.25	81.29	-2,613.35	-8,960.72	8,909.99	8,716.54	193.45	46.059		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,817.54	4,868.54	30.98	166.47	81.52	-2,613.35	-8,960.72	8,903.71	8,706.40	197.31	45.125		
5,300.00	4,960.73	4,909.73	4,960.73	31.63	169.69	81.75	-2,613.35	-8,960.72	8,897.61	8,696.43	201.17	44.228		
5,400.00	5,052.91	5,001.91	5,052.91	32.27	172.90	81.97	-2,613.35	-8,960.72	8,891.67	8,686.63	205.04	43.366		
5,500.00	5,145.10	5,105.90	5,145.10	32.91	176.53	82.20	-2,613.35	-8,960.72	8,885.89	8,676.57	209.31	42.452		
5,600.00	5,237.28	5,186.28	5,237.28	33.55	179.34	82.43	-2,613.35	-8,960.72	8,880.28	8,667.51	212.77	41.737		
5,700.00	5,329.47	5,278.47	5,329.47	34.20	182.56	82.66	-2,613.35	-8,960.72	8,874.83	8,658.20	216.63	40.967		
5,800.00	5,421.66	5,370.66	5,421.66	34.84	185.77	82.89	-2,613.35	-8,960.72	8,869.55	8,649.05	220.50	40.225		
5,900.00	5,513.84	5,462.84	5,513.84	35.48	188.99	83.12	-2,613.35	-8,960.72	8,864.44	8,640.07	224.36	39.509		
6,000.00	5,606.03	5,555.03	5,606.03	36.13	192.21	83.35	-2,613.35	-8,960.72	8,859.49	8,631.26	228.23	38.818		
6,100.00	5,698.22	5,647.22	5,698.22	36.77	195.43	83.58	-2,613.35	-8,960.72	8,854.71	8,622.61	232.09	38.151		
6,200.00	5,790.40	5,739.40	5,790.40	37.41	198.64	83.81	-2,613.35	-8,960.72	8,850.10	8,614.13	235.96	37.507		
6,300.00	5,882.59	5,831.59	5,882.59	38.06	201.86	84.04	-2,613.35	-8,960.72	8,845.65	8,605.82	239.83	36.883		
6,400.00	5,974.77	5,923.77	5,974.77	38.70	205.08	84.27	-2,613.35	-8,960.72	8,841.37	8,597.68	243.69	36.281		
6,500.00	6,066.96	6,015.96	6,066.96	39.34	208.30	84.50	-2,613.35	-8,960.72	8,837.26	8,589.70	247.56	35.697		
6,600.00	6,159.15	6,108.15	6,159.15	39.99	211.52	84.73	-2,613.35	-8,960.72	8,833.32	8,581.89	251.43	35.133		
6,700.00	6,251.33	6,200.33	6,251.33	40.63	214.73	84.96	-2,613.35	-8,960.72	8,829.54	8,574.25	255.29	34.586		
6,800.00	6,343.52	6,307.48	6,343.52	41.28	218.47	85.19	-2,613.35	-8,960.72	8,825.94	8,566.25	259.68	33.987		
6,900.00	6,435.71	6,384.71	6,435.71	41.92	221.17	85.42	-2,613.35	-8,960.72	8,822.50	8,559.47	263.03	33.542		
7,000.00	6,527.86	6,476.86	6,527.86	42.56	224.39	78.61	-2,613.35	-8,960.72	8,818.36	8,551.47	266.89	33.041		
7,100.00	6,618.85	6,567.85	6,618.85	43.19	227.56	60.31	-2,613.35	-8,960.72	8,802.24	8,531.55	270.69	32.517		
7,200.00	6,706.47	6,655.47	6,706.47	43.76	230.62	47.23	-2,613.35	-8,960.72	8,771.06	8,496.75	274.32	31.974		
7,300.00	6,788.56	6,737.56	6,788.56	44.26	233.49	38.57	-2,613.35	-8,960.72	8,725.56	8,447.88	277.67	31.424		
7,400.00	6,863.10	6,812.10	6,863.10	44.70	236.09	32.89	-2,613.35	-8,960.72	8,666.81	8,386.12	280.70	30.876		
7,500.00	6,928.26	6,877.26	6,928.26	45.07	238.36	29.18	-2,613.35	-8,960.72	8,596.25	8,312.92	283.32	30.341		
7,600.00	6,982.42	6,931.42	6,982.42	45.39	240.25	26.83	-2,613.35	-8,960.72	8,515.56	8,230.06	285.49	29.828		
7,700.00	7,024.26	6,973.26	7,024.26	45.67	241.71	25.58	-2,613.35	-8,960.72	8,426.69	8,139.53	287.16	29.345		
7,800.00	7,052.75	7,001.75	7,052.75	45.92	242.71	25.56	-2,613.35	-8,960.72	8,331.80	8,043.51	288.30	28.900		
7,900.00	7,067.18	7,016.18	7,067.18	46.16	243.21	29.71	-2,613.35	-8,960.72	8,233.21	7,944.34	288.87	28.501		
8,000.00	7,068.85	7,017.85	7,068.85	46.42	243.27	106.83	-2,613.35	-8,960.72	8,133.27	7,844.32	288.95	28.148		
8,100.00	7,068.56	7,017.56	7,068.56	46.78	243.26	106.63	-2,613.35	-8,960.72	8,033.28	7,744.33	288.95	27.801		
8,200.00	7,068.26	7,017.26	7,068.26	47.29	243.25	106.43	-2,613.35	-8,960.72	7,933.28	7,644.33	288.96	27.455		
8,300.00	7,067.96	7,016.96	7,067.96	48.03	243.24	106.24	-2,613.35	-8,960.72	7,833.29	7,544.33	288.96	27.109		
8,400.00	7,067.66	7,016.66	7,067.66	49.02	243.23	106.04	-2,613.35	-8,960.72	7,733.30	7,444.33	288.97	26.762		
8,500.00	7,067.37	7,016.37	7,067.37	50.27	243.22	105.85	-2,613.35	-8,960.72	7,633.30	7,344.33	288.97	26.415		
8,600.00	7,067.07	7,016.07	7,067.07	51.75	243.21	105.65	-2,613.35	-8,960.72	7,533.31	7,244.33	288.98	26.069		
8,700.00	7,066.77	7,015.77	7,066.77	53.42	243.20	105.45	-2,613.35	-8,960.72	7,433.31	7,144.33	288.99	25.722		
8,800.00	7,066.47	7,015.47	7,066.47	55.24	243.19	105.25	-2,613.35	-8,960.72	7,333.32	7,044.32	289.00	25.375		
8,900.00	7,066.18	7,015.18	7,066.18	57.18	243.18	105.05	-2,613.35	-8,960.72	7,233.33	6,944.32	289.01	25.028		
9,000.00	7,065.88	7,014.88	7,065.88	59.21	243.17	104.85	-2,613.35	-8,960.72	7,133.33	6,844.32	289.02	24.681		
9,100.00	7,065.58	7,014.58	7,065.58	61.33	243.16	104.66	-2,613.35	-8,960.72	7,033.34	6,744.31	289.03	24.334		
9,200.00	7,065.28	7,014.28	7,065.28	63.51	243.15	104.46	-2,613.35	-8,960.72	6,933.35	6,644.31	289.04	23.987		
9,300.00	7,064.99	7,013.99	7,064.99	65.76	243.14	104.26	-2,613.35	-8,960.72	6,833.35	6,544.30	289.06	23.640		
9,400.00	7,064.69	7,013.69	7,064.69	68.06	243.12	104.06	-2,613.35	-8,960.72	6,733.36	6,444.29	289.07	23.293		
9,500.00	7,064.39	7,013.39	7,064.39	70.40	243.11	103.85	-2,613.35	-8,960.72	6,633.37	6,344.28	289.09	22.946		
9,600.00	7,064.09	7,013.09	7,064.09	72.78	243.10	103.65	-2,613.35	-8,960.72	6,533.38	6,244.27	289.11	22.599		
9,700.00	7,063.80	7,012.80	7,063.80	75.20	243.09	103.45	-2,613.35	-8,960.72	6,433.39	6,144.26	289.12	22.251		
9,800.00	7,063.50	7,012.50	7,063.50	77.65	243.08	103.25	-2,613.35	-8,960.72	6,333.39	6,044.25	289.14	21.904		
9,900.00	7,063.20	7,012.20	7,063.20	80.13	243.07	103.05	-2,613.35	-8,960.72	6,233.40	5,944.24	289.16	21.557		
10,000.00	7,062.90	7,011.90	7,062.90	82.64	243.06	102.85	-2,613.35	-8,960.72	6,133.41	5,844.22	289.19	21.209		
10,100.00	7,062.61	7,011.61	7,062.61	85.17	243.05	102.64	-2,613.35	-8,960.72	6,033.42	5,744.21	289.21	20.862		
10,200.00	7,062.31	7,011.31	7,062.31	87.72	243.04	102.44	-2,613.35	-8,960.72	5,933.43	5,644.20	289.23	20.514		
10,300.00	7,062.01	7,011.01	7,062.01	90.28	243.03	102.24	-2,613.35	-8,960.72	5,833.44	5,544.18	289.26	20.167		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,010.71	7,061.71	92.87	243.02	102.03	-2,613.35	-8,960.72	5,733.45	5,444.16	289.29	19.819		
10,500.00	7,061.41	7,010.41	7,061.41	95.47	243.01	101.83	-2,613.35	-8,960.72	5,633.46	5,344.15	289.31	19.472		
10,600.00	7,061.12	7,010.12	7,061.12	98.09	243.00	101.63	-2,613.35	-8,960.72	5,533.47	5,244.13	289.34	19.124		
10,700.00	7,060.82	7,009.82	7,060.82	100.72	242.99	101.42	-2,613.35	-8,960.72	5,433.48	5,144.11	289.37	18.777		
10,800.00	7,060.52	7,009.52	7,060.52	103.37	242.98	101.22	-2,613.35	-8,960.72	5,333.49	5,044.09	289.41	18.429		
10,900.00	7,060.22	7,009.22	7,060.22	106.02	242.97	101.01	-2,613.35	-8,960.72	5,233.50	4,944.07	289.44	18.082		
11,000.00	7,059.93	7,008.93	7,059.93	108.69	242.96	100.81	-2,613.35	-8,960.72	5,133.52	4,844.04	289.47	17.734		
11,100.00	7,059.63	7,008.63	7,059.63	111.36	242.95	100.60	-2,613.35	-8,960.72	5,033.53	4,744.02	289.51	17.386		
11,200.00	7,059.33	7,008.33	7,059.33	114.05	242.94	100.39	-2,613.35	-8,960.72	4,933.54	4,643.99	289.55	17.039		
11,300.00	7,059.03	7,008.03	7,059.03	116.74	242.93	100.19	-2,613.35	-8,960.72	4,833.56	4,543.97	289.59	16.691		
11,400.00	7,058.74	7,007.74	7,058.74	119.44	242.92	99.98	-2,613.35	-8,960.72	4,733.57	4,443.94	289.63	16.344		
11,500.00	7,058.44	7,007.44	7,058.44	122.15	242.91	99.77	-2,613.35	-8,960.72	4,633.59	4,343.91	289.67	15.996		
11,600.00	7,058.14	7,007.14	7,058.14	124.86	242.90	99.57	-2,613.35	-8,960.72	4,533.60	4,243.89	289.72	15.648		
11,700.00	7,057.84	7,006.84	7,057.84	127.58	242.89	99.36	-2,613.35	-8,960.72	4,433.62	4,143.86	289.76	15.301		
11,800.00	7,057.55	7,006.55	7,057.55	130.31	242.88	99.15	-2,613.35	-8,960.72	4,333.64	4,043.82	289.81	14.953		
11,900.00	7,057.25	7,006.25	7,057.25	133.04	242.87	98.94	-2,613.35	-8,960.72	4,233.65	3,943.79	289.86	14.606		
12,000.00	7,056.95	7,005.95	7,056.95	135.78	242.85	98.74	-2,613.35	-8,960.72	4,133.67	3,843.76	289.92	14.258		
12,100.00	7,056.65	7,005.65	7,056.65	138.52	242.84	98.53	-2,613.35	-8,960.72	4,033.69	3,743.72	289.97	13.911		
12,200.00	7,056.36	7,005.36	7,056.36	141.27	242.83	98.32	-2,613.35	-8,960.72	3,933.71	3,643.69	290.03	13.563		
12,300.00	7,056.06	7,005.06	7,056.06	144.02	242.82	98.11	-2,613.35	-8,960.72	3,833.73	3,543.65	290.09	13.216		
12,400.00	7,055.76	7,004.76	7,055.76	146.78	242.81	97.90	-2,613.35	-8,960.72	3,733.76	3,443.61	290.15	12.868		
12,500.00	7,055.46	7,004.46	7,055.46	149.54	242.80	97.69	-2,613.35	-8,960.72	3,633.78	3,343.57	290.22	12.521		
12,600.00	7,055.17	7,004.17	7,055.17	152.30	242.79	97.48	-2,613.35	-8,960.72	3,533.81	3,243.52	290.28	12.174		
12,700.00	7,054.87	7,003.87	7,054.87	155.07	242.78	97.27	-2,613.35	-8,960.72	3,433.83	3,143.48	290.36	11.826		
12,800.00	7,054.57	7,003.57	7,054.57	157.84	242.77	97.06	-2,613.35	-8,960.72	3,333.86	3,043.43	290.43	11.479		
12,900.00	7,054.27	7,003.27	7,054.27	160.61	242.76	96.85	-2,613.35	-8,960.72	3,233.89	2,943.38	290.51	11.132		
13,000.00	7,053.97	7,002.97	7,053.97	163.39	242.75	96.64	-2,613.35	-8,960.72	3,133.92	2,843.33	290.60	10.784		
13,100.00	7,053.68	7,002.68	7,053.68	166.17	242.74	96.43	-2,613.35	-8,960.72	3,033.96	2,743.27	290.69	10.437		
13,200.00	7,053.38	7,002.38	7,053.38	168.95	242.73	96.22	-2,613.35	-8,960.72	2,933.99	2,643.21	290.78	10.090		
13,300.00	7,053.08	7,002.08	7,053.08	171.73	242.72	96.01	-2,613.35	-8,960.72	2,834.03	2,543.15	290.88	9.743		
13,400.00	7,052.78	7,001.78	7,052.78	174.52	242.71	95.80	-2,613.35	-8,960.72	2,734.08	2,443.09	290.99	9.396		
13,500.00	7,052.49	7,001.49	7,052.49	177.31	242.70	95.59	-2,613.35	-8,960.72	2,634.12	2,343.02	291.10	9.049		
13,600.00	7,052.19	7,001.19	7,052.19	180.10	242.69	95.38	-2,613.35	-8,960.72	2,534.17	2,242.94	291.22	8.702		
13,700.00	7,051.89	7,000.89	7,051.89	182.90	242.68	95.17	-2,613.35	-8,960.72	2,434.22	2,142.86	291.36	8.355		
13,800.00	7,051.59	7,000.59	7,051.59	185.69	242.67	94.96	-2,613.35	-8,960.72	2,334.28	2,042.78	291.50	8.008		
13,900.00	7,051.30	7,000.30	7,051.30	188.49	242.66	94.75	-2,613.35	-8,960.72	2,234.34	1,942.69	291.65	7.661		
14,000.00	7,051.00	7,000.00	7,051.00	191.29	242.65	94.53	-2,613.35	-8,960.72	2,134.41	1,842.58	291.82	7.314		
14,100.00	7,050.70	7,000.30	7,050.70	194.09	242.66	94.32	-2,613.35	-8,960.72	2,034.48	1,742.45	292.03	6.967		
14,200.00	7,050.40	7,000.60	7,050.40	196.89	242.67	94.11	-2,613.35	-8,960.72	1,934.56	1,642.31	292.26	6.619		
14,300.00	7,050.11	7,000.89	7,050.11	199.70	242.68	93.90	-2,613.35	-8,960.72	1,834.65	1,542.15	292.51	6.272		
14,400.00	7,049.81	7,001.19	7,049.81	202.50	242.69	93.69	-2,613.35	-8,960.72	1,734.76	1,441.97	292.79	5.925		
14,500.00	7,049.51	7,001.49	7,049.51	205.31	242.70	93.47	-2,613.35	-8,960.72	1,634.87	1,341.77	293.10	5.578		
14,600.00	7,049.21	7,001.79	7,049.21	208.12	242.71	93.26	-2,613.35	-8,960.72	1,535.00	1,241.54	293.45	5.231		
14,700.00	7,048.92	7,002.08	7,048.92	210.93	242.72	93.05	-2,613.35	-8,960.72	1,435.14	1,141.28	293.86	4.884		
14,800.00	7,048.62	7,002.38	7,048.62	213.74	242.73	92.84	-2,613.35	-8,960.72	1,335.31	1,040.97	294.34	4.537		
14,900.00	7,048.32	7,002.68	7,048.32	216.55	242.74	92.62	-2,613.35	-8,960.72	1,235.51	940.60	294.90	4.190		
15,000.00	7,048.02	7,002.98	7,048.02	219.37	242.75	92.41	-2,613.35	-8,960.72	1,135.73	840.15	295.58	3.842		
15,100.00	7,047.73	7,003.27	7,047.73	222.18	242.76	92.20	-2,613.35	-8,960.72	1,036.01	739.59	296.42	3.495		
15,200.00	7,047.43	7,003.57	7,047.43	225.00	242.77	91.99	-2,613.35	-8,960.72	936.34	638.87	297.47	3.148		
15,300.00	7,047.13	7,003.87	7,047.13	227.81	242.78	91.77	-2,613.35	-8,960.72	836.75	537.92	298.83	2.800		
15,343.67	7,047.00	7,004.00	7,047.00	229.04	242.79	91.68	-2,613.35	-8,960.72	793.29	493.73	299.56	2.648 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-106.01	-2,580.20	-8,992.98	9,355.87					
100.00	100.00	30.18	64.18	3.28	3.28	-106.01	-2,580.27	-8,993.02	9,355.93	9,349.37	6.57	1,425.048		
200.00	200.00	75.90	109.90	3.34	3.28	-106.01	-2,580.62	-8,993.24	9,356.60	9,349.98	6.62	1,413.210		
300.00	299.98	121.00	154.99	3.44	3.29	70.57	-2,581.28	-8,993.63	9,357.28	9,350.55	6.73	1,390.698		
400.00	399.84	166.78	200.76	3.59	3.31	70.58	-2,582.07	-8,994.28	9,357.37	9,350.47	6.90	1,366.379		
500.00	499.45	208.00	241.97	3.79	3.34	70.60	-2,582.73	-8,995.12	9,356.89	9,349.77	7.13	1,313.057		
600.00	598.70	208.00	241.97	4.03	3.34	70.62	-2,582.73	-8,995.12	9,356.13	9,348.75	7.37	1,269.243		
700.00	697.47	257.26	291.19	4.31	3.39	70.68	-2,583.34	-8,996.74	9,354.72	9,347.02	7.70	1,214.454		
800.00	795.62	300.00	333.88	4.64	3.44	70.76	-2,583.63	-8,998.91	9,353.22	9,345.14	8.08	1,157.911		
900.00	893.06	300.00	333.88	5.00	3.44	70.80	-2,583.63	-8,998.91	9,351.22	9,342.78	8.44	1,107.924		
1,000.00	989.64	300.00	333.88	5.40	3.44	70.84	-2,583.63	-8,998.91	9,349.15	9,340.31	8.84	1,057.788		
1,100.00	1,085.27	351.48	385.23	5.83	3.52	70.98	-2,583.57	-9,002.47	9,346.43	9,337.09	9.34	1,000.678		
1,200.00	1,179.82	391.00	424.60	6.29	3.59	71.12	-2,583.16	-9,005.91	9,343.62	9,333.76	9.87	946.982		
1,300.00	1,273.17	391.00	424.60	6.79	3.59	71.18	-2,583.16	-9,005.91	9,340.42	9,330.06	10.36	901.236		
1,400.00	1,365.46	391.00	424.60	7.32	3.59	71.20	-2,583.16	-9,005.91	9,337.37	9,326.48	10.89	857.500		
1,500.00	1,457.65	443.65	476.95	7.87	3.69	71.34	-2,582.08	-9,011.44	9,334.70	9,323.17	11.53	809.671		
1,600.00	1,549.83	481.00	514.00	8.43	3.78	71.43	-2,580.94	-9,016.00	9,333.12	9,320.96	12.16	767.395		
1,700.00	1,642.02	481.00	514.00	9.01	3.78	71.43	-2,580.94	-9,016.00	9,332.31	9,319.58	12.73	733.002		
1,725.51	1,665.53	481.00	514.00	9.16	3.78	71.43	-2,580.94	-9,016.00	9,332.27	9,319.40	12.88	724.629		
1,800.00	1,734.21	514.41	547.09	9.59	3.86	71.52	-2,579.70	-9,020.50	9,332.35	9,318.97	13.38	697.297		
1,900.00	1,826.39	538.95	571.35	10.18	3.93	71.59	-2,578.70	-9,024.03	9,333.25	9,319.22	14.03	665.440		
2,000.00	1,918.58	572.00	603.97	10.78	4.02	71.68	-2,577.24	-9,029.09	9,334.99	9,320.29	14.70	635.187		
2,100.00	2,010.77	572.00	603.97	11.39	4.02	71.68	-2,577.24	-9,029.09	9,337.59	9,322.30	15.29	610.644		
2,200.00	2,102.95	572.00	603.97	11.99	4.02	71.68	-2,577.24	-9,029.09	9,341.26	9,325.37	15.89	587.880		
2,300.00	2,195.14	625.16	656.31	12.61	4.20	71.82	-2,574.70	-9,038.06	9,345.32	9,328.69	16.63	561.805		
2,400.00	2,287.32	645.13	675.92	13.22	4.27	71.88	-2,573.71	-9,041.70	9,350.52	9,333.23	17.29	540.716		
2,500.00	2,379.51	693.00	722.80	13.84	4.44	72.01	-2,571.25	-9,051.06	9,356.79	9,338.75	18.04	518.738		
2,600.00	2,471.70	693.00	722.80	14.46	4.44	72.01	-2,571.25	-9,051.06	9,363.57	9,344.93	18.64	502.296		
2,700.00	2,563.88	693.00	722.80	15.08	4.44	72.01	-2,571.25	-9,051.06	9,371.42	9,352.17	19.25	486.941		
2,800.00	2,656.07	730.60	759.52	15.71	4.59	72.12	-2,569.37	-9,058.95	9,380.04	9,360.07	19.97	469.724		
2,900.00	2,748.26	761.00	789.15	16.33	4.72	72.20	-2,568.01	-9,065.59	9,389.55	9,368.88	20.67	454.208		
3,000.00	2,840.44	761.00	789.15	16.96	4.72	72.20	-2,568.01	-9,065.59	9,399.92	9,378.65	21.27	441.858		
3,100.00	2,932.63	813.47	840.15	17.59	4.96	72.35	-2,565.38	-9,077.61	9,410.92	9,388.86	22.07	426.486		
3,200.00	3,024.81	855.00	880.38	18.22	5.16	72.47	-2,562.74	-9,087.61	9,422.79	9,399.98	22.81	413.096		
3,300.00	3,117.00	855.00	880.38	18.86	5.16	72.47	-2,562.74	-9,087.61	9,435.43	9,412.02	23.41	403.117		
3,400.00	3,209.19	855.00	880.38	19.49	5.16	72.47	-2,562.74	-9,087.61	9,449.12	9,425.12	24.00	393.719		
3,500.00	3,301.37	908.84	932.29	20.12	5.45	72.63	-2,558.92	-9,101.33	9,463.19	9,438.39	24.80	381.584		
3,600.00	3,393.56	949.00	970.84	20.76	5.67	72.75	-2,555.98	-9,112.21	9,478.45	9,452.89	25.56	370.867		
3,700.00	3,485.75	949.00	970.84	21.39	5.67	72.75	-2,555.98	-9,112.21	9,494.37	9,468.23	26.14	363.175		
3,800.00	3,577.93	991.36	1,011.36	22.03	5.93	72.88	-2,552.62	-9,124.10	9,511.12	9,484.22	26.91	353.463		
3,900.00	3,670.12	1,044.00	1,061.55	22.67	6.25	73.04	-2,547.78	-9,139.23	9,528.55	9,500.82	27.72	343.681		
4,000.00	3,762.30	1,044.00	1,061.55	23.30	6.25	73.04	-2,547.78	-9,139.23	9,546.68	9,518.38	28.30	337.339		
4,100.00	3,854.49	1,080.54	1,096.25	23.94	6.50	73.16	-2,544.12	-9,150.07	9,565.56	9,536.51	29.05	329.335		
4,200.00	3,946.68	1,101.86	1,116.43	24.58	6.64	73.22	-2,541.94	-9,156.58	9,585.29	9,555.58	29.72	322.565		
4,300.00	4,038.86	1,139.00	1,151.47	25.22	6.90	73.34	-2,538.04	-9,168.25	9,605.90	9,575.44	30.46	315.331		
4,400.00	4,131.05	1,139.00	1,151.47	25.86	6.90	73.34	-2,538.04	-9,168.25	9,627.21	9,596.19	31.02	310.337		
4,500.00	4,223.24	1,139.00	1,151.47	26.50	6.90	73.34	-2,538.04	-9,168.25	9,649.52	9,617.94	31.58	305.596		
4,600.00	4,315.42	1,186.61	1,196.15	27.14	7.26	73.49	-2,532.70	-9,183.82	9,672.35	9,639.97	32.38	298.758		
4,700.00	4,407.61	1,234.00	1,240.31	27.78	7.62	73.65	-2,526.88	-9,200.00	9,696.26	9,663.09	33.17	292.278		
4,800.00	4,499.79	1,234.00	1,240.31	28.42	7.62	73.65	-2,526.88	-9,200.00	9,720.69	9,686.97	33.72	288.316		
4,900.00	4,591.98	1,234.00	1,240.31	29.06	7.62	73.65	-2,526.88	-9,200.00	9,746.08	9,711.83	34.25	284.550		
5,000.00	4,684.17	1,234.00	1,240.31	29.70	7.62	73.65	-2,526.88	-9,200.00	9,772.43	9,737.65	34.78	280.970		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	1,286.75	1,289.10	30.34	8.06	73.82	-2,519.97	-9,218.81	9,799.14	9,763.53	35.61	275.198		
5,200.00	4,868.54	1,329.00	1,327.91	30.98	8.42	73.96	-2,514.24	-9,234.49	9,826.98	9,790.61	36.37	270.164		
5,300.00	4,960.73	1,329.00	1,327.91	31.63	8.42	73.96	-2,514.24	-9,234.49	9,855.38	9,818.49	36.89	267.161		
5,400.00	5,052.91	1,329.00	1,327.91	32.27	8.42	73.96	-2,514.24	-9,234.49	9,884.71	9,847.31	37.40	264.305		
5,500.00	5,145.10	1,363.98	1,359.85	32.91	8.74	74.08	-2,509.34	-9,247.88	9,914.71	9,876.60	38.12	260.110		
5,600.00	5,237.28	1,383.31	1,377.43	33.55	8.92	74.14	-2,506.55	-9,255.43	9,945.52	9,906.79	38.74	256.751		
5,700.00	5,329.47	1,423.00	1,413.34	34.20	9.29	74.28	-2,500.66	-9,271.27	9,977.17	9,937.70	39.48	252.727		
8,100.00	7,068.56	3,366.15	3,175.73	46.78	29.66	6.36	-2,268.90	-10,055.35	9,930.42	9,868.69	61.73	160.856		
8,200.00	7,068.26	3,382.66	3,190.83	47.29	29.83	6.42	-2,266.98	-10,061.73	9,838.46	9,776.56	61.90	158.950		
8,300.00	7,067.96	3,414.00	3,219.47	48.03	30.15	6.52	-2,263.34	-10,073.94	9,746.61	9,684.44	62.17	156.778		
8,400.00	7,067.66	3,418.17	3,223.27	49.02	30.20	6.53	-2,262.86	-10,075.57	9,654.81	9,592.56	62.25	155.092		
8,500.00	7,067.37	3,450.21	3,252.52	50.27	30.53	6.64	-2,259.21	-10,088.13	9,563.09	9,500.55	62.54	152.914		
8,600.00	7,067.07	3,482.40	3,281.90	51.75	30.87	6.74	-2,255.64	-10,100.78	9,471.41	9,408.57	62.83	150.741		
8,700.00	7,066.77	3,515.92	3,312.50	53.42	31.22	6.85	-2,252.03	-10,113.98	9,379.76	9,316.62	63.14	148.554		
8,800.00	7,066.47	3,554.84	3,348.02	55.24	31.63	6.99	-2,247.71	-10,129.31	9,288.13	9,224.64	63.49	146.288		
8,900.00	7,066.18	3,593.65	3,383.40	57.18	32.04	7.13	-2,243.14	-10,144.57	9,196.51	9,132.66	63.85	144.037		
9,000.00	7,065.88	3,625.97	3,412.86	59.21	32.38	7.25	-2,239.20	-10,157.28	9,104.91	9,040.74	64.16	141.900		
9,100.00	7,065.58	3,835.56	3,604.70	61.33	34.55	8.05	-2,214.93	-10,238.08	9,012.99	8,947.28	65.72	137.146		
9,200.00	7,065.28	3,851.95	3,619.76	63.51	34.72	8.12	-2,213.01	-10,244.27	8,920.75	8,854.82	65.93	135.308		
9,300.00	7,064.99	3,887.00	3,651.90	65.76	35.07	8.27	-2,208.80	-10,257.61	8,828.66	8,762.38	66.27	133.214		
9,400.00	7,064.69	3,887.00	3,651.90	68.06	35.07	8.27	-2,208.80	-10,257.61	8,736.57	8,670.19	66.39	131.604		
9,500.00	7,064.39	3,887.00	3,651.90	70.40	35.07	8.27	-2,208.80	-10,257.61	8,644.66	8,578.16	66.50	129.990		
9,600.00	7,064.09	3,914.92	3,677.44	72.78	35.37	8.39	-2,205.40	-10,268.37	8,552.82	8,486.00	66.82	127.999		
9,700.00	7,063.80	3,929.94	3,691.16	75.20	35.52	8.45	-2,203.59	-10,274.22	8,461.12	8,394.06	67.05	126.183		
9,800.00	7,063.50	3,945.17	3,705.05	77.65	35.68	8.52	-2,201.77	-10,280.18	8,369.53	8,302.24	67.30	124.367		
9,900.00	7,063.20	3,982.00	3,738.58	80.13	36.07	8.68	-2,197.43	-10,294.78	8,278.14	8,210.45	67.69	122.287		
10,000.00	7,062.90	3,982.00	3,738.58	82.64	36.07	8.68	-2,197.43	-10,294.78	8,186.75	8,118.90	67.85	120.664		
10,100.00	7,062.61	3,996.87	3,752.10	85.17	36.23	8.74	-2,195.68	-10,300.73	8,095.53	8,027.42	68.11	118.858		
10,200.00	7,062.31	7,272.72	6,891.51	87.72	57.55	78.10	-2,007.78	-11,003.04	8,003.85	7,920.86	82.99	96.445		
10,300.00	7,062.01	7,273.85	6,892.64	90.28	57.55	78.19	-2,007.81	-11,003.06	7,904.26	7,821.14	83.11	95.102		
10,400.00	7,061.71	7,274.99	6,893.78	92.87	57.56	78.28	-2,007.84	-11,003.09	7,804.67	7,721.42	83.24	93.756		
10,500.00	7,061.41	7,276.15	6,894.94	95.47	57.56	78.37	-2,007.86	-11,003.12	7,705.09	7,621.71	83.38	92.409		
10,600.00	7,061.12	7,277.32	6,896.11	98.09	57.56	78.46	-2,007.89	-11,003.15	7,605.52	7,522.00	83.52	91.060		
10,700.00	7,060.82	7,278.51	6,897.30	100.72	57.57	78.55	-2,007.92	-11,003.17	7,505.97	7,422.30	83.67	89.709		
10,800.00	7,060.52	7,279.71	6,898.50	103.37	57.57	78.65	-2,007.95	-11,003.20	7,406.43	7,322.60	83.82	88.356		
10,900.00	7,060.22	7,280.93	6,899.72	106.02	57.57	78.74	-2,007.98	-11,003.23	7,306.90	7,222.91	83.99	87.001		
11,000.00	7,059.93	7,282.17	6,900.95	108.69	57.57	78.84	-2,008.01	-11,003.26	7,207.38	7,123.22	84.15	85.645		
11,100.00	7,059.63	7,283.42	6,902.20	111.36	57.58	78.94	-2,008.04	-11,003.29	7,107.87	7,023.54	84.33	84.287		
11,200.00	7,059.33	7,284.68	6,903.47	114.05	57.58	79.04	-2,008.07	-11,003.32	7,008.38	6,923.87	84.51	82.926		
11,300.00	7,059.03	7,285.97	6,904.75	116.74	57.58	79.14	-2,008.10	-11,003.36	6,908.90	6,824.20	84.70	81.564		
11,400.00	7,058.74	7,287.27	6,906.05	119.44	57.59	79.24	-2,008.13	-11,003.39	6,809.44	6,724.53	84.91	80.201		
11,500.00	7,058.44	7,288.59	6,907.37	122.15	57.59	79.34	-2,008.16	-11,003.42	6,709.99	6,624.88	85.11	78.835		
11,600.00	7,058.14	7,289.92	6,908.70	124.86	57.59	79.45	-2,008.20	-11,003.46	6,610.56	6,525.23	85.33	77.468		
11,700.00	7,057.84	7,291.28	6,910.06	127.58	57.60	79.56	-2,008.23	-11,003.49	6,511.15	6,425.58	85.56	76.098		
11,800.00	7,057.55	7,292.65	6,911.43	130.31	57.60	79.67	-2,008.27	-11,003.52	6,411.75	6,325.95	85.80	74.728		
11,900.00	7,057.25	7,294.04	6,912.82	133.04	57.60	79.78	-2,008.30	-11,003.56	6,312.37	6,226.32	86.05	73.355		
12,000.00	7,056.95	7,295.45	6,914.23	135.78	57.61	79.89	-2,008.34	-11,003.60	6,213.01	6,126.70	86.31	71.981		
12,100.00	7,056.65	7,296.88	6,915.66	138.52	57.61	80.00	-2,008.38	-11,003.63	6,113.68	6,027.09	86.59	70.605		
12,200.00	7,056.36	7,298.34	6,917.11	141.27	57.61	80.12	-2,008.41	-11,003.67	6,014.36	5,927.48	86.88	69.228		
12,300.00	7,056.06	7,299.81	6,918.58	144.02	57.62	80.23	-2,008.45	-11,003.71	5,915.07	5,827.89	87.18	67.849		
12,400.00	7,055.76	7,301.30	6,920.07	146.78	57.62	80.35	-2,008.49	-11,003.75	5,815.80	5,728.30	87.50	66.468		
12,500.00	7,055.46	7,302.81	6,921.59	149.54	57.62	80.47	-2,008.53	-11,003.79	5,716.55	5,628.72	87.83	65.086		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
12,600.00	7,055.17	7,304.35	6,923.12	152.30	57.63	80.59	-2,008.57	-11,003.83	5,617.33	5,529.15	88.18	63.702		
12,700.00	7,054.87	7,305.91	6,924.68	155.07	57.63	80.72	-2,008.61	-11,003.87	5,518.14	5,429.59	88.55	62.318		
12,800.00	7,054.57	7,307.49	6,926.26	157.84	57.63	80.84	-2,008.66	-11,003.92	5,418.98	5,330.04	88.94	60.932		
12,900.00	7,054.27	7,309.10	6,927.86	160.61	57.64	80.97	-2,008.70	-11,003.96	5,319.84	5,230.50	89.34	59.544		
13,000.00	7,053.97	7,310.72	6,929.49	163.39	57.64	81.10	-2,008.74	-11,004.00	5,220.74	5,130.97	89.77	58.156		
13,100.00	7,053.68	7,312.38	6,931.14	166.17	57.65	81.23	-2,008.79	-11,004.05	5,121.68	5,031.46	90.22	56.767		
13,200.00	7,053.38	7,314.06	6,932.82	168.95	57.65	81.37	-2,008.84	-11,004.10	5,022.65	4,931.95	90.70	55.377		
13,300.00	7,053.08	7,315.76	6,934.52	171.73	57.65	81.51	-2,008.88	-11,004.14	4,923.66	4,832.46	91.20	53.986		
13,400.00	7,052.78	7,317.49	6,936.25	174.52	57.66	81.64	-2,008.93	-11,004.19	4,824.71	4,732.97	91.73	52.595		
13,500.00	7,052.49	7,319.25	6,938.01	177.31	57.66	81.78	-2,008.98	-11,004.24	4,725.80	4,633.51	92.30	51.203		
13,600.00	7,052.19	7,321.03	6,939.79	180.10	57.67	81.93	-2,009.03	-11,004.29	4,626.94	4,534.05	92.89	49.811		
13,700.00	7,051.89	7,322.85	6,941.60	182.90	57.67	82.07	-2,009.08	-11,004.35	4,528.13	4,434.61	93.52	48.420		
13,800.00	7,051.59	7,324.69	6,943.44	185.69	57.68	82.22	-2,009.14	-11,004.40	4,429.37	4,335.18	94.19	47.028		
13,900.00	7,051.30	7,326.56	6,945.31	188.49	57.68	82.37	-2,009.19	-11,004.45	4,330.66	4,235.77	94.89	45.638		
14,000.00	7,051.00	7,328.46	6,947.21	191.29	57.69	82.52	-2,009.25	-11,004.51	4,232.02	4,136.37	95.64	44.248		
14,100.00	7,050.70	7,330.39	6,949.14	194.09	57.69	82.68	-2,009.30	-11,004.57	4,133.44	4,037.00	96.44	42.859		
14,200.00	7,050.40	7,332.36	6,951.10	196.89	57.69	82.84	-2,009.36	-11,004.63	4,034.93	3,937.63	97.29	41.473		
14,300.00	7,050.11	7,334.35	6,953.10	199.70	57.70	83.00	-2,009.42	-11,004.69	3,936.49	3,838.29	98.20	40.088		
14,400.00	7,049.81	7,336.38	6,955.13	202.50	57.70	83.16	-2,009.48	-11,004.75	3,838.13	3,738.97	99.16	38.706		
14,500.00	7,049.51	7,338.45	6,957.19	205.31	57.71	83.33	-2,009.55	-11,004.81	3,739.85	3,639.66	100.19	37.327		
14,600.00	7,049.21	7,340.54	6,959.29	208.12	57.71	83.50	-2,009.61	-11,004.88	3,641.67	3,540.38	101.29	35.952		
14,700.00	7,048.92	7,342.68	6,961.42	210.93	57.72	83.67	-2,009.68	-11,004.94	3,543.59	3,441.12	102.47	34.582		
14,800.00	7,048.62	7,344.85	6,963.59	213.74	57.72	83.85	-2,009.74	-11,005.01	3,445.62	3,341.89	103.73	33.216		
14,900.00	7,048.32	7,347.06	6,965.79	216.55	57.73	84.03	-2,009.81	-11,005.08	3,347.76	3,242.68	105.09	31.857		
15,000.00	7,048.02	7,349.31	6,968.04	219.37	57.74	84.21	-2,009.88	-11,005.15	3,250.04	3,143.49	106.54	30.504		
15,100.00	7,047.73	7,351.60	6,970.33	222.18	57.74	84.40	-2,009.95	-11,005.22	3,152.45	3,044.34	108.11	29.159		
15,200.00	7,047.43	7,353.93	6,972.65	225.00	57.75	84.59	-2,010.03	-11,005.30	3,055.02	2,945.22	109.80	27.823		
15,300.00	7,047.13	7,356.30	6,975.02	227.81	57.75	84.78	-2,010.11	-11,005.38	2,957.76	2,846.13	111.62	26.497		
15,343.67	7,047.00	7,357.34	6,976.07	229.04	57.76	84.86	-2,010.14	-11,005.41	2,915.34	2,802.87	112.47	25.922	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-106.01	-2,571.10	-8,960.43	9,322.07					
100.00	100.00	0.00	34.00	3.28	3.28	-106.01	-2,571.10	-8,960.43	9,322.24	9,315.68	6.56	1,420.011		
200.00	200.00	59.03	93.03	3.34	3.28	-106.01	-2,571.49	-8,960.67	9,322.96	9,316.34	6.62	1,408.341		
300.00	299.98	577.00	610.23	3.44	3.96	70.75	-2,556.90	-8,959.52	9,321.81	9,314.40	7.41	1,257.969		
400.00	399.84	577.00	610.23	3.59	3.96	70.83	-2,556.90	-8,959.52	9,317.29	9,309.74	7.55	1,233.627		
500.00	499.45	622.78	655.65	3.79	4.08	70.98	-2,551.22	-8,960.10	9,312.36	9,304.49	7.87	1,183.142		
600.00	598.70	667.00	699.45	4.03	4.21	71.15	-2,545.24	-8,961.25	9,307.08	9,298.84	8.24	1,129.911		
700.00	697.47	739.76	771.36	4.31	4.44	71.40	-2,534.45	-8,963.71	9,301.20	9,292.44	8.75	1,062.816		
800.00	795.62	914.64	943.54	4.64	5.09	71.92	-2,504.47	-8,969.69	9,293.74	9,284.01	9.73	955.061		
900.00	893.06	1,000.48	1,027.57	5.00	5.47	72.30	-2,487.25	-8,972.98	9,285.08	9,274.62	10.46	887.479		
1,000.00	989.64	1,082.55	1,107.43	5.40	5.86	72.71	-2,468.71	-8,976.80	9,275.67	9,264.43	11.25	824.734		
1,100.00	1,085.27	1,156.10	1,178.55	5.83	6.24	73.14	-2,450.39	-8,980.69	9,265.52	9,253.46	12.05	768.662		
1,200.00	1,179.82	1,208.72	1,229.16	6.29	6.53	73.53	-2,436.34	-8,983.87	9,254.89	9,242.08	12.80	722.781		
1,300.00	1,273.17	1,269.35	1,287.16	6.79	6.89	73.97	-2,419.16	-8,987.96	9,243.86	9,230.20	13.65	676.973		
1,400.00	1,365.46	1,331.94	1,346.61	7.32	7.28	74.31	-2,400.13	-8,992.60	9,232.58	9,218.01	14.56	633.990		
1,500.00	1,457.65	1,388.17	1,399.64	7.87	7.65	74.54	-2,382.00	-8,997.11	9,221.81	9,206.33	15.48	595.797		
1,600.00	1,549.83	1,417.00	1,426.69	8.43	7.85	74.66	-2,372.34	-8,999.56	9,211.71	9,195.49	16.23	567.642		
1,700.00	1,642.02	1,455.58	1,462.78	9.01	8.12	74.83	-2,359.15	-9,003.06	9,202.41	9,185.34	17.07	539.037		
1,800.00	1,734.21	1,481.50	1,486.96	9.59	8.31	74.94	-2,350.18	-9,005.61	9,194.00	9,176.16	17.84	515.471		
1,900.00	1,826.39	1,512.00	1,515.35	10.18	8.53	75.07	-2,339.50	-9,008.80	9,186.47	9,167.83	18.64	492.773		
2,000.00	1,918.58	1,551.79	1,552.30	10.78	8.83	75.24	-2,325.40	-9,013.16	9,179.76	9,160.22	19.54	469.883		
2,100.00	2,010.77	1,607.00	1,603.40	11.39	9.25	75.48	-2,305.46	-9,019.42	9,173.75	9,153.20	20.56	446.281		
2,200.00	2,102.95	1,637.48	1,631.52	11.99	9.49	75.62	-2,294.26	-9,023.01	9,168.49	9,147.09	21.40	428.407		
2,300.00	2,195.14	1,672.60	1,663.83	12.61	9.78	75.77	-2,281.16	-9,027.31	9,164.05	9,141.76	22.29	411.154		
2,400.00	2,287.32	1,701.00	1,689.87	13.22	10.01	75.90	-2,270.42	-9,030.91	9,160.43	9,137.30	23.12	396.128		
2,500.00	2,379.51	1,741.02	1,726.44	13.84	10.35	76.08	-2,255.03	-9,036.17	9,157.63	9,133.56	24.07	380.412		
2,600.00	2,471.70	1,774.35	1,756.77	14.46	10.63	76.23	-2,242.00	-9,040.73	9,155.67	9,130.71	24.97	366.720		
2,700.00	2,563.88	1,858.73	1,833.16	15.08	11.37	76.61	-2,208.18	-9,052.61	9,154.49	9,128.17	26.32	347.800		
2,800.00	2,656.07	1,937.83	1,904.41	15.71	12.09	76.98	-2,175.62	-9,063.54	9,153.61	9,125.96	27.65	331.024		
2,882.87	2,732.46	1,984.58	1,946.38	16.23	12.53	77.20	-2,156.10	-9,070.07	9,153.37	9,124.78	28.59	320.151		
2,900.00	2,748.26	1,989.00	1,950.35	16.33	12.57	77.22	-2,154.24	-9,070.69	9,153.39	9,124.65	28.74	318.531		
3,000.00	2,840.44	2,027.33	1,984.70	16.96	12.93	77.40	-2,138.15	-9,076.14	9,153.93	9,124.23	29.71	308.136		
3,100.00	2,932.63	2,062.41	2,016.14	17.59	13.26	77.56	-2,123.43	-9,081.26	9,155.32	9,124.67	30.65	298.726		
3,200.00	3,024.81	2,133.16	2,079.49	18.22	13.94	77.89	-2,093.75	-9,091.77	9,157.50	9,125.56	31.93	286.786		
3,300.00	3,117.00	2,209.79	2,148.02	18.86	14.68	78.25	-2,061.33	-9,102.95	9,160.07	9,126.79	33.28	275.259		
3,400.00	3,209.19	2,255.40	2,188.76	19.49	15.12	78.46	-2,041.97	-9,109.68	9,163.37	9,129.04	34.33	266.947		
3,500.00	3,301.37	2,298.95	2,227.65	20.12	15.55	78.67	-2,023.46	-9,116.20	9,167.43	9,132.08	35.35	259.299		
3,600.00	3,393.56	2,341.31	2,265.49	20.76	15.97	78.86	-2,005.56	-9,122.66	9,172.27	9,135.90	36.37	252.194		
3,700.00	3,485.75	2,369.00	2,290.24	21.39	16.24	78.99	-1,993.91	-9,126.93	9,177.91	9,140.68	37.24	246.466		
3,800.00	3,577.93	2,410.39	2,327.26	22.03	16.65	79.19	-1,976.58	-9,133.46	9,184.37	9,146.13	38.24	240.190		
3,900.00	3,670.12	2,441.19	2,354.81	22.67	16.95	79.33	-1,963.76	-9,138.46	9,191.70	9,152.57	39.13	234.899		
4,000.00	3,762.30	2,484.07	2,393.19	23.30	17.38	79.53	-1,946.00	-9,145.58	9,199.88	9,159.74	40.14	229.201		
4,100.00	3,854.49	2,560.96	2,462.03	23.94	18.14	79.88	-1,914.24	-9,158.36	9,208.67	9,167.19	41.48	221.999		
4,200.00	3,946.68	2,613.25	2,508.93	24.58	18.66	80.12	-1,892.82	-9,167.07	9,218.07	9,175.50	42.57	216.524		
4,300.00	4,038.86	2,722.53	2,607.10	25.22	19.74	80.63	-1,848.40	-9,185.25	9,228.10	9,183.88	44.23	208.658		
4,400.00	4,131.05	2,842.05	2,713.66	25.86	20.96	81.18	-1,797.72	-9,204.28	9,238.17	9,192.17	46.01	200.805		
4,500.00	4,223.24	2,883.09	2,749.96	26.50	21.39	81.38	-1,779.69	-9,210.74	9,248.80	9,201.80	47.00	196.784		
4,600.00	4,315.42	2,924.15	2,786.25	27.14	21.82	81.57	-1,761.66	-9,217.32	9,260.20	9,212.21	47.99	192.963		
4,700.00	4,407.61	4,700.00	2,939.01	27.78	39.80	82.36	-1,689.54	-9,244.20	9,272.00	9,206.27	65.73	141.063		
4,800.00	4,499.79	3,189.46	3,023.33	28.42	24.53	82.80	-1,649.81	-9,258.14	9,283.66	9,231.87	51.79	179.248		
4,900.00	4,591.98	3,232.73	3,061.82	29.06	24.97	83.00	-1,631.13	-9,264.57	9,296.06	9,243.27	52.78	176.114		
5,000.00	4,684.17	3,278.59	3,102.72	29.70	25.44	83.21	-1,611.58	-9,271.51	9,309.20	9,255.40	53.80	173.042		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,776.35	5,100.00	3,186.46	30.34	43.87	83.64	-1,572.90	-9,285.71	9,322.90	9,251.12	71.77	129.891		
5,200.00	4,868.54	3,453.57	3,259.89	30.98	27.21	84.01	-1,539.35	-9,297.89	9,336.94	9,280.31	56.63	164.880		
5,300.00	4,960.73	3,503.00	3,304.45	31.63	27.70	84.23	-1,519.28	-9,305.38	9,351.66	9,294.01	57.65	162.209		
5,400.00	5,052.91	3,542.02	3,339.62	32.27	28.09	84.41	-1,503.47	-9,311.39	9,367.11	9,308.54	58.57	159.940		
5,500.00	5,145.10	3,589.17	3,382.04	32.91	28.57	84.62	-1,484.26	-9,318.74	9,383.25	9,323.70	59.56	157.553		
5,600.00	5,237.28	3,705.70	3,486.83	33.55	29.74	85.15	-1,436.55	-9,336.72	9,399.89	9,338.65	61.24	153.503		
5,700.00	5,329.47	3,783.46	3,556.97	34.20	30.52	85.50	-1,405.15	-9,348.53	9,416.84	9,354.32	62.52	150.631		
5,800.00	5,421.66	3,852.10	3,618.89	34.84	31.21	85.80	-1,377.40	-9,358.89	9,434.27	9,370.57	63.70	148.096		
5,900.00	5,513.84	3,881.00	3,644.87	35.48	31.49	85.93	-1,365.51	-9,363.23	9,452.32	9,387.83	64.49	146.567		
6,000.00	5,606.03	3,917.15	3,677.24	36.13	31.87	86.10	-1,350.39	-9,368.74	9,471.15	9,405.79	65.36	144.913		
6,100.00	5,698.22	3,939.73	3,697.36	36.77	32.11	86.20	-1,340.77	-9,372.28	9,490.86	9,424.78	66.08	143.634		
6,200.00	5,790.40	3,976.00	3,729.52	37.41	32.49	86.37	-1,325.05	-9,378.15	9,511.46	9,444.53	66.93	142.110		
6,300.00	5,882.59	3,976.00	3,729.52	38.06	32.49	86.37	-1,325.05	-9,378.15	9,532.86	9,465.45	67.40	141.431		
6,400.00	5,974.77	4,007.37	3,757.17	38.70	32.83	86.51	-1,311.19	-9,383.38	9,555.11	9,486.90	68.21	140.094		
6,500.00	6,066.96	4,030.02	3,777.06	39.34	33.08	86.62	-1,301.05	-9,387.24	9,578.21	9,509.31	68.91	139.003		
6,600.00	6,159.15	4,071.00	3,812.84	39.99	33.53	86.81	-1,282.42	-9,394.41	9,602.20	9,532.41	69.80	137.571		
6,700.00	6,251.33	6,498.91	6,113.73	40.63	50.64	95.55	-663.46	-9,620.65	9,624.42	9,537.25	87.17	110.411		
6,800.00	6,343.52	6,577.56	6,192.35	41.28	50.85	95.74	-661.48	-9,621.51	9,630.17	9,542.21	87.96	109.482		
6,900.00	6,435.71	6,664.40	6,279.16	41.92	51.08	95.95	-659.82	-9,622.64	9,636.21	9,547.44	88.77	108.552		
7,000.00	6,527.86	6,768.88	6,383.63	42.56	51.34	89.14	-658.36	-9,624.03	9,641.48	9,551.86	89.62	107.586		
7,100.00	6,618.85	6,867.45	6,482.18	43.19	51.59	70.98	-657.43	-9,625.31	9,634.77	9,544.34	90.43	106.546		
7,200.00	6,706.47	6,957.72	6,572.44	43.76	51.81	58.29	-656.80	-9,626.48	9,612.94	9,521.77	91.17	105.442		
7,300.00	6,788.56	7,041.70	6,656.42	44.26	52.01	50.35	-656.37	-9,627.58	9,576.54	9,484.71	91.83	104.287		
7,400.00	6,863.10	7,116.85	6,731.56	44.70	52.20	45.82	-656.01	-9,628.57	9,526.49	9,434.09	92.41	103.092		
7,500.00	6,928.26	7,217.21	6,797.49	45.07	52.44	43.85	-655.69	-9,629.43	9,464.03	9,371.03	93.00	101.766		
7,600.00	6,982.42	7,237.90	6,852.59	45.39	52.49	44.22	-655.43	-9,630.15	9,390.66	9,297.32	93.34	100.611		
7,700.00	7,024.26	7,280.82	6,895.50	45.67	52.60	47.36	-655.22	-9,630.72	9,308.16	9,214.47	93.69	99.350		
7,800.00	7,052.75	7,310.48	6,925.17	45.92	52.68	54.96	-655.08	-9,631.11	9,218.53	9,124.56	93.97	98.098		
7,900.00	7,067.18	7,326.18	6,940.86	46.16	52.72	71.75	-655.01	-9,631.31	9,123.93	9,029.74	94.18	96.876		
8,000.00	7,068.85	7,329.15	6,943.84	46.42	52.72	87.23	-654.99	-9,631.35	9,026.76	8,932.43	94.33	95.696		
8,100.00	7,068.56	7,330.17	6,944.85	46.78	52.73	87.26	-654.99	-9,631.36	8,929.39	8,834.92	94.47	94.519		
8,200.00	7,068.26	7,331.18	6,945.86	47.29	52.73	87.29	-654.98	-9,631.38	8,832.08	8,737.45	94.63	93.333		
8,300.00	7,067.96	7,332.19	6,946.87	48.03	52.73	87.31	-654.98	-9,631.39	8,734.82	8,640.02	94.80	92.138		
8,400.00	7,067.66	7,333.20	6,947.88	49.02	52.73	87.34	-654.97	-9,631.40	8,637.63	8,542.65	94.99	90.935		
8,500.00	7,067.37	7,334.21	6,948.90	50.27	52.74	87.37	-654.97	-9,631.42	8,540.51	8,445.32	95.19	89.722		
8,600.00	7,067.07	7,335.22	6,949.91	51.75	52.74	87.40	-654.96	-9,631.43	8,443.45	8,348.04	95.41	88.501		
8,700.00	7,066.77	7,336.23	6,950.92	53.42	52.74	87.43	-654.96	-9,631.44	8,346.46	8,250.82	95.64	87.271		
8,800.00	7,066.47	7,337.25	6,951.93	55.24	52.74	87.46	-654.95	-9,631.46	8,249.54	8,153.65	95.89	86.032		
8,900.00	7,066.18	7,338.26	6,952.94	57.18	52.75	87.48	-654.95	-9,631.47	8,152.70	8,056.54	96.16	84.785		
9,000.00	7,065.88	7,339.27	6,953.95	59.21	52.75	87.51	-654.94	-9,631.48	8,055.93	7,959.49	96.44	83.529		
9,100.00	7,065.58	7,340.28	6,954.96	61.33	52.75	87.54	-654.94	-9,631.50	7,959.25	7,862.50	96.75	82.265		
9,200.00	7,065.28	7,341.29	6,955.97	63.51	52.75	87.57	-654.93	-9,631.51	7,862.64	7,765.57	97.08	80.993		
9,300.00	7,064.99	7,342.30	6,956.99	65.76	52.76	87.60	-654.93	-9,631.52	7,766.13	7,668.70	97.43	79.713		
9,400.00	7,064.69	7,343.31	6,958.00	68.06	52.76	87.63	-654.92	-9,631.54	7,669.70	7,571.90	97.80	78.425		
9,500.00	7,064.39	7,344.33	6,959.01	70.40	52.76	87.65	-654.92	-9,631.55	7,573.36	7,475.17	98.19	77.129		
9,600.00	7,064.09	7,345.34	6,960.02	72.78	52.76	87.68	-654.92	-9,631.56	7,477.12	7,378.52	98.61	75.827		
9,700.00	7,063.80	7,346.35	6,961.03	75.20	52.77	87.71	-654.91	-9,631.58	7,380.98	7,281.93	99.05	74.517		
9,800.00	7,063.50	7,347.36	6,962.04	77.65	52.77	87.74	-654.91	-9,631.59	7,284.95	7,185.43	99.52	73.201		
9,900.00	7,063.20	7,348.37	6,963.05	80.13	52.77	87.77	-654.90	-9,631.60	7,189.02	7,089.00	100.02	71.879		
10,000.00	7,062.90	7,349.38	6,964.06	82.64	52.77	87.80	-654.90	-9,631.62	7,093.20	6,992.66	100.54	70.552		
10,100.00	7,062.61	7,350.39	6,965.08	85.17	52.78	87.82	-654.89	-9,631.63	6,997.50	6,896.41	101.09	69.218		
10,200.00	7,062.31	7,351.41	6,966.09	87.72	52.78	87.85	-654.89	-9,631.64	6,901.93	6,800.25	101.68	67.881		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	7,352.42	6,967.10	90.28	52.78	87.88	-654.88	-9,631.66	6,806.48	6,704.18	102.29	66.538		
10,400.00	7,061.71	7,353.43	6,968.11	92.87	52.78	87.91	-654.88	-9,631.67	6,711.16	6,608.21	102.94	65.192		
10,500.00	7,061.41	7,354.44	6,969.12	95.47	52.79	87.94	-654.87	-9,631.68	6,615.98	6,512.35	103.63	63.843		
10,600.00	7,061.12	7,355.45	6,970.13	98.09	52.79	87.97	-654.87	-9,631.70	6,520.94	6,416.59	104.35	62.491		
10,700.00	7,060.82	7,356.46	6,971.14	100.72	52.79	87.99	-654.86	-9,631.71	6,426.06	6,320.95	105.11	61.138		
10,800.00	7,060.52	7,357.47	6,972.15	103.37	52.79	88.02	-654.86	-9,631.72	6,331.33	6,225.42	105.91	59.783		
10,900.00	7,060.22	7,358.48	6,973.17	106.02	52.80	88.05	-654.85	-9,631.74	6,236.77	6,130.02	106.74	58.427		
11,000.00	7,059.93	7,359.50	6,974.18	108.69	52.80	88.08	-654.85	-9,631.75	6,142.38	6,034.75	107.63	57.072		
11,100.00	7,059.63	7,360.51	6,975.19	111.36	52.80	88.11	-654.84	-9,631.76	6,048.16	5,939.61	108.55	55.718		
11,200.00	7,059.33	7,361.52	6,976.20	114.05	52.80	88.14	-654.84	-9,631.78	5,954.14	5,844.62	109.52	54.365		
11,300.00	7,059.03	7,362.53	6,977.21	116.74	52.81	88.16	-654.83	-9,631.79	5,860.32	5,749.78	110.54	53.015		
11,400.00	7,058.74	7,363.54	6,978.22	119.44	52.81	88.19	-654.83	-9,631.80	5,766.70	5,655.09	111.61	51.668		
11,500.00	7,058.44	7,364.55	6,979.23	122.15	52.81	88.22	-654.82	-9,631.82	5,673.30	5,560.57	112.73	50.325		
11,600.00	7,058.14	7,365.56	6,980.25	124.86	52.81	88.25	-654.82	-9,631.83	5,580.13	5,466.22	113.91	48.988		
11,700.00	7,057.84	7,366.58	6,981.26	127.58	52.82	88.28	-654.81	-9,631.84	5,487.20	5,372.06	115.14	47.656		
11,800.00	7,057.55	7,367.59	6,982.27	130.31	52.82	88.31	-654.81	-9,631.86	5,394.52	5,278.09	116.43	46.332		
11,900.00	7,057.25	7,368.60	6,983.28	133.04	52.82	88.33	-654.80	-9,631.87	5,302.11	5,184.32	117.79	45.015		
12,000.00	7,056.95	7,369.61	6,984.29	135.78	52.82	88.36	-654.80	-9,631.88	5,209.97	5,090.77	119.20	43.707		
12,100.00	7,056.65	7,370.62	6,985.30	138.52	52.83	88.39	-654.79	-9,631.90	5,118.14	4,997.45	120.69	42.408		
12,200.00	7,056.36	7,371.63	6,986.31	141.27	52.83	88.42	-654.79	-9,631.91	5,026.61	4,904.37	122.24	41.120		
12,300.00	7,056.06	7,372.64	6,987.32	144.02	52.83	88.45	-654.78	-9,631.92	4,935.41	4,811.54	123.87	39.844		
12,400.00	7,055.76	7,373.66	6,988.34	146.78	52.83	88.48	-654.78	-9,631.94	4,844.56	4,718.99	125.57	38.580		
12,500.00	7,055.46	7,374.67	6,989.35	149.54	52.84	88.50	-654.77	-9,631.95	4,754.08	4,626.72	127.36	37.329		
12,600.00	7,055.17	7,375.68	6,990.36	152.30	52.84	88.53	-654.77	-9,631.96	4,663.98	4,534.76	129.22	36.093		
12,700.00	7,054.87	7,376.69	6,991.37	155.07	52.84	88.56	-654.77	-9,631.98	4,574.30	4,443.13	131.17	34.872		
12,800.00	7,054.57	7,377.70	6,992.38	157.84	52.84	88.59	-654.76	-9,631.99	4,485.05	4,351.84	133.22	33.667		
12,900.00	7,054.27	7,378.71	6,993.39	160.61	52.85	88.62	-654.76	-9,632.00	4,396.27	4,260.91	135.36	32.479		
13,000.00	7,053.97	7,379.72	6,994.40	163.39	52.85	88.65	-654.75	-9,632.01	4,307.98	4,170.38	137.59	31.310		
13,100.00	7,053.68	7,380.74	6,995.41	166.17	52.85	88.67	-654.75	-9,632.03	4,220.21	4,080.27	139.93	30.159		
13,200.00	7,053.38	7,381.75	6,996.43	168.95	52.85	88.70	-654.74	-9,632.04	4,132.99	3,990.61	142.38	29.028		
13,300.00	7,053.08	7,382.76	6,997.44	171.73	52.86	88.73	-654.74	-9,632.05	4,046.37	3,901.43	144.94	27.918		
13,400.00	7,052.78	7,383.77	6,998.45	174.52	52.86	88.76	-654.73	-9,632.07	3,960.37	3,812.76	147.61	26.829		
13,500.00	7,052.49	7,384.78	6,999.46	177.31	52.86	88.79	-654.73	-9,632.08	3,875.05	3,724.63	150.41	25.763		
13,600.00	7,052.19	7,385.79	7,000.47	180.10	52.86	88.82	-654.72	-9,632.09	3,790.44	3,637.10	153.34	24.719		
13,700.00	7,051.89	7,386.80	7,001.48	182.90	52.87	88.84	-654.72	-9,632.11	3,706.61	3,550.21	156.40	23.700		
13,800.00	7,051.59	7,387.82	7,002.49	185.69	52.87	88.87	-654.71	-9,632.12	3,623.59	3,463.99	159.60	22.705		
13,900.00	7,051.30	7,388.83	7,003.50	188.49	52.87	88.90	-654.71	-9,632.13	3,541.45	3,378.51	162.94	21.735		
14,000.00	7,051.00	7,389.92	7,004.60	191.29	52.87	88.93	-654.70	-9,632.15	3,460.24	3,293.82	166.43	20.791		
14,100.00	7,050.70	7,391.02	7,005.70	194.09	52.88	88.96	-654.70	-9,632.16	3,380.05	3,209.98	170.07	19.874		
14,200.00	7,050.40	7,392.11	7,006.79	196.89	52.88	88.99	-654.69	-9,632.18	3,300.94	3,127.07	173.87	18.985		
14,300.00	7,050.11	7,393.20	7,007.88	199.70	52.88	89.02	-654.69	-9,632.19	3,222.99	3,045.15	177.84	18.123		
14,400.00	7,049.81	7,394.28	7,008.96	202.50	52.89	89.05	-654.68	-9,632.21	3,146.28	2,964.31	181.97	17.290		
14,500.00	7,049.51	7,395.35	7,010.03	205.31	52.89	89.08	-654.68	-9,632.22	3,070.92	2,884.64	186.28	16.486		
14,600.00	7,049.21	7,396.42	7,011.10	208.12	52.89	89.11	-654.67	-9,632.23	2,996.99	2,806.24	190.75	15.711		
14,700.00	7,048.92	7,397.48	7,012.16	210.93	52.89	89.14	-654.67	-9,632.25	2,924.62	2,729.21	195.41	14.967		
14,800.00	7,048.62	7,398.53	7,013.21	213.74	52.90	89.17	-654.66	-9,632.26	2,853.92	2,653.68	200.24	14.253		
14,900.00	7,048.32	7,399.58	7,014.26	216.55	52.90	89.20	-654.66	-9,632.27	2,785.01	2,579.77	205.24	13.570		
15,000.00	7,048.02	7,400.62	7,015.30	219.37	52.90	89.23	-654.65	-9,632.29	2,718.04	2,507.62	210.41	12.918		
15,100.00	7,047.73	7,401.65	7,016.33	222.18	52.90	89.26	-654.65	-9,632.30	2,653.14	2,437.38	215.75	12.297		
15,200.00	7,047.43	7,402.68	7,017.36	225.00	52.91	89.29	-654.64	-9,632.31	2,590.48	2,369.23	221.25	11.708		
15,300.00	7,047.13	7,403.70	7,018.38	227.81	52.91	89.32	-654.64	-9,632.33	2,530.22	2,303.33	226.89	11.152		
15,343.67	7,047.00	7,404.15	7,018.82	229.04	52.91	89.33	-654.63	-9,632.33	2,504.70	2,275.30	229.40	10.919 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2,162.07	2,097.85	3.28	14.99	-103.08	-2,034.59	-8,753.91	9,228.84					
100.00	100.00	2,207.00	2,138.89	3.28	15.40	-102.98	-2,017.22	-8,748.16	9,206.33	9,188.56	17.77	518.007		
200.00	200.00	2,254.95	2,182.74	3.34	15.82	-102.88	-1,998.77	-8,742.23	9,184.39	9,166.20	18.19	504.887		
300.00	299.98	2,302.00	2,225.88	3.44	16.24	74.25	-1,980.79	-8,736.75	9,162.68	9,144.03	18.65	491.211		
400.00	399.84	400.00	2,352.51	3.59	3.54	75.05	-1,928.34	-8,720.77	9,140.53	9,133.52	7.01	1,304.665		
500.00	499.45	2,541.48	2,445.26	3.79	18.38	75.80	-1,889.07	-8,708.39	9,116.78	9,095.86	20.92	435.716		
600.00	598.70	2,585.00	2,484.87	4.03	18.78	76.41	-1,871.74	-8,703.40	9,092.75	9,071.23	21.51	422.630		
700.00	697.47	2,651.20	2,545.08	4.31	19.39	77.12	-1,845.21	-8,696.09	9,068.46	9,046.11	22.35	405.768		
800.00	795.62	2,883.80	2,755.93	4.64	21.57	78.46	-1,750.78	-8,669.14	9,043.37	9,018.71	24.66	366.692		
900.00	893.06	2,918.71	2,787.54	5.00	21.89	79.13	-1,736.59	-8,664.91	9,017.20	8,991.88	25.32	356.134		
1,000.00	989.64	2,966.85	2,831.27	5.40	22.35	79.85	-1,717.30	-8,659.10	8,991.01	8,964.88	26.13	344.061		
1,100.00	1,085.27	3,037.64	2,895.97	5.83	22.99	80.68	-1,689.92	-8,650.44	8,964.76	8,937.60	27.16	330.094		
1,200.00	1,179.82	3,107.51	2,960.16	6.29	23.63	81.51	-1,663.76	-8,641.70	8,938.41	8,910.19	28.21	316.840		
1,300.00	1,273.17	3,178.78	3,025.47	6.79	24.27	82.37	-1,636.60	-8,632.94	8,912.03	8,882.72	29.32	304.003		
1,400.00	1,365.46	3,257.33	3,097.39	7.32	24.99	82.95	-1,606.55	-8,623.26	8,885.73	8,855.21	30.52	291.157		
1,500.00	1,457.65	3,290.10	3,127.51	7.87	25.28	83.10	-1,594.28	-8,619.23	8,860.03	8,828.67	31.36	282.535		
1,600.00	1,549.83	3,328.74	3,163.19	8.43	25.62	83.28	-1,580.22	-8,614.51	8,835.07	8,802.81	32.27	273.807		
1,700.00	1,642.02	3,346.00	3,179.19	9.01	25.77	83.36	-1,574.08	-8,612.42	8,810.92	8,777.90	33.02	266.842		
1,800.00	1,734.21	3,392.20	3,222.12	9.59	26.17	83.57	-1,557.91	-8,606.98	8,787.52	8,753.51	34.00	258.430		
1,900.00	1,826.39	3,440.00	3,266.68	10.18	26.57	83.78	-1,541.44	-8,601.67	8,765.03	8,730.01	35.01	250.346		
2,000.00	1,918.58	3,524.38	3,345.57	10.78	27.28	84.16	-1,513.04	-8,592.22	8,743.16	8,706.86	36.30	240.860		
2,100.00	2,010.77	3,571.52	3,389.74	11.39	27.67	84.37	-1,497.50	-8,586.77	8,721.60	8,684.29	37.31	233.765		
2,200.00	2,102.95	3,835.83	3,637.26	11.99	29.86	85.54	-1,411.08	-8,553.30	8,699.33	8,659.38	39.94	217.786		
2,300.00	2,195.14	2,300.00	3,716.71	12.61	16.80	85.93	-1,381.84	-8,541.77	8,677.12	8,648.64	28.47	304.772		
2,400.00	2,287.32	3,959.74	3,752.28	13.22	30.93	86.11	-1,368.12	-8,536.72	8,655.54	8,613.27	42.27	204.782		
2,500.00	2,379.51	3,991.67	3,781.78	13.84	31.21	86.26	-1,356.58	-8,532.71	8,634.81	8,591.60	43.21	199.827		
2,600.00	2,471.70	4,030.49	3,817.60	14.46	31.56	86.44	-1,342.37	-8,528.03	8,614.93	8,570.71	44.22	194.825		
2,700.00	2,563.88	4,088.84	3,871.37	15.08	32.08	86.71	-1,320.79	-8,521.15	8,595.74	8,550.34	45.40	189.354		
2,800.00	2,656.07	4,142.97	3,921.22	15.71	32.56	86.97	-1,300.64	-8,514.86	8,577.21	8,530.66	46.54	184.289		
2,900.00	2,748.26	4,195.07	3,969.25	16.33	33.03	87.22	-1,281.33	-8,508.91	8,559.37	8,511.70	47.68	179.529		
3,000.00	2,840.44	4,543.38	4,287.97	16.96	36.24	88.90	-1,148.28	-8,464.61	8,541.33	8,489.99	51.34	166.377		
3,100.00	2,932.63	4,626.03	4,361.32	17.59	37.07	89.33	-1,111.97	-8,453.12	8,522.41	8,469.58	52.83	161.317		
3,200.00	3,024.81	4,679.00	4,408.34	18.22	37.61	89.60	-1,088.76	-8,445.65	8,504.04	8,449.98	54.06	157.315		
3,300.00	3,117.00	4,718.67	4,443.66	18.86	38.01	89.81	-1,071.57	-8,440.13	8,486.46	8,431.31	55.15	153.868		
3,400.00	3,209.19	4,747.87	4,469.76	19.49	38.30	89.96	-1,059.07	-8,436.20	8,469.82	8,413.67	56.16	150.829		
3,500.00	3,301.37	4,774.00	4,493.17	20.12	38.57	90.09	-1,047.98	-8,432.77	8,454.11	8,396.98	57.13	147.986		
3,600.00	3,393.56	4,810.53	4,526.06	20.76	38.92	90.27	-1,032.78	-8,428.12	8,439.30	8,381.12	58.18	145.046		
3,700.00	3,485.75	4,844.25	4,556.62	21.39	39.24	90.44	-1,019.15	-8,423.95	8,425.39	8,366.18	59.21	142.287		
3,800.00	3,577.93	4,893.01	4,601.11	22.03	39.70	90.69	-1,000.06	-8,418.08	8,412.36	8,351.98	60.37	139.346		
3,900.00	3,670.12	4,979.77	4,680.78	22.67	40.49	91.11	-967.39	-8,407.54	8,399.89	8,338.05	61.84	135.825		
4,000.00	3,762.30	5,050.22	4,745.34	23.30	41.14	91.45	-940.54	-8,398.93	8,387.95	8,324.77	63.18	132.769		
4,100.00	3,854.49	5,090.83	4,782.49	23.94	41.51	91.66	-924.90	-8,394.01	8,376.71	8,312.45	64.25	130.371		
4,200.00	3,946.68	5,128.82	4,817.40	24.58	41.85	91.84	-910.56	-8,389.56	8,366.33	8,301.03	65.30	128.113		
4,300.00	4,038.86	5,152.00	4,838.75	25.22	42.06	91.95	-901.96	-8,386.92	8,356.84	8,290.62	66.23	126.187		
4,400.00	4,131.05	5,207.23	4,889.87	25.86	42.55	92.22	-881.94	-8,380.83	8,348.15	8,280.75	67.40	123.853		
4,500.00	4,223.24	5,247.00	4,926.86	26.50	42.89	92.41	-867.97	-8,376.64	8,340.34	8,271.89	68.45	121.844		
4,600.00	4,315.42	5,289.38	4,966.47	27.14	43.24	92.61	-853.53	-8,372.35	8,333.36	8,263.86	69.50	119.907		
4,700.00	4,407.61	5,342.00	5,015.93	27.78	43.68	92.85	-836.29	-8,367.27	8,327.22	8,256.59	70.63	117.905		
4,800.00	4,499.79	5,366.91	5,039.47	28.42	43.86	92.97	-828.46	-8,364.99	8,321.90	8,250.38	71.51	116.370		
4,900.00	4,591.98	5,400.14	5,071.03	29.06	44.12	93.12	-818.46	-8,362.13	8,317.49	8,245.03	72.46	114.793		
5,000.00	4,684.17	5,437.00	5,106.25	29.70	44.40	93.28	-807.99	-8,359.20	8,313.97	8,240.54	73.42	113.234		
5,100.00	4,776.35	5,476.64	5,144.33	30.34	44.67	93.45	-797.39	-8,356.30	8,311.29	8,236.92	74.38	111.746		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,531.00	5,196.87	30.98	45.04	93.68	-783.90	-8,352.66	8,309.43	8,234.00	75.43	110.166		
5,300.00	4,960.73	5,650.71	5,313.36	31.63	45.77	94.16	-757.53	-8,344.81	8,307.90	8,231.06	76.84	108.126		
5,400.00	5,052.91	5,767.67	5,428.19	32.27	46.42	94.61	-736.65	-8,337.30	8,306.53	8,228.38	78.15	106.291		
5,500.00	5,145.10	5,844.80	5,504.19	32.91	46.81	94.89	-724.54	-8,332.12	8,305.03	8,225.82	79.21	104.847		
5,600.00	5,237.28	5,880.72	5,539.70	33.55	46.98	95.02	-719.56	-8,330.01	8,304.34	8,224.28	80.06	103.732		
5,612.93	5,249.21	5,885.42	5,544.35	33.64	47.01	95.04	-718.94	-8,329.76	8,304.31	8,224.14	80.17	103.590		
5,700.00	5,329.47	5,927.68	5,586.23	34.20	47.20	95.18	-713.74	-8,327.64	8,304.46	8,223.52	80.94	102.599		
5,800.00	5,421.66	6,003.00	5,660.98	34.84	47.53	95.44	-705.17	-8,324.07	8,305.08	8,223.14	81.93	101.364		
5,900.00	5,513.84	6,072.41	5,729.95	35.48	47.81	95.67	-698.02	-8,321.02	8,306.14	8,223.26	82.88	100.218		
6,000.00	5,606.03	6,124.76	5,782.03	36.13	48.02	95.84	-693.14	-8,318.97	8,307.77	8,224.02	83.75	99.198		
6,100.00	5,698.22	6,170.11	5,827.18	36.77	48.20	95.99	-689.12	-8,317.47	8,310.11	8,225.53	84.58	98.249		
6,200.00	5,790.40	6,220.05	5,876.92	37.41	48.39	96.15	-684.86	-8,316.10	8,313.15	8,227.73	85.43	97.313		
6,300.00	5,882.59	6,266.00	5,942.60	38.06	48.64	96.36	-679.05	-8,314.56	8,316.85	8,230.52	86.33	96.335		
6,400.00	5,974.77	6,355.56	6,011.90	38.70	48.90	96.58	-673.14	-8,313.17	8,321.04	8,233.79	87.24	95.376		
6,500.00	6,066.96	6,443.79	6,098.86	39.34	49.22	96.86	-666.58	-8,311.56	8,325.49	8,237.28	88.22	94.376		
6,600.00	6,159.15	6,534.53	6,190.40	39.99	49.53	97.14	-660.73	-8,310.09	8,330.20	8,241.02	89.18	93.408		
6,700.00	6,251.33	6,603.08	6,258.84	40.63	49.75	97.34	-656.91	-8,309.12	8,335.19	8,245.14	90.05	92.559		
6,800.00	6,343.52	6,665.00	6,320.68	41.28	49.95	97.53	-653.91	-8,308.61	8,340.77	8,249.88	90.89	91.765		
6,900.00	6,435.71	6,744.59	6,400.20	41.92	50.19	97.76	-650.67	-8,308.29	8,346.80	8,255.02	91.78	90.946		
7,000.00	6,527.86	6,811.16	6,526.71	42.56	50.55	91.06	-646.85	-8,307.75	8,351.97	8,259.17	92.80	90.001		
7,100.00	6,618.85	6,965.04	6,620.57	43.19	50.82	72.95	-644.56	-8,307.25	8,345.18	8,251.48	93.70	89.066		
7,200.00	6,706.47	7,055.96	6,711.46	43.76	51.07	60.39	-642.50	-8,306.75	8,323.41	8,228.87	94.54	88.042		
7,300.00	6,788.56	7,144.00	6,799.48	44.26	51.31	52.65	-640.76	-8,306.27	8,287.20	8,191.89	95.31	86.950		
7,400.00	6,863.10	7,224.05	6,879.52	44.70	51.53	48.40	-639.44	-8,305.82	8,237.45	8,141.45	96.00	85.808		
7,500.00	6,928.26	7,291.27	6,946.73	45.07	51.71	46.82	-638.50	-8,305.44	8,175.41	8,078.82	96.59	84.637		
7,600.00	6,982.42	7,346.83	7,002.29	45.39	51.86	47.72	-637.83	-8,305.14	8,102.61	8,005.50	97.11	83.438		
7,700.00	7,024.26	7,389.67	7,045.13	45.67	51.98	51.61	-637.37	-8,304.91	8,020.81	7,923.26	97.55	82.223		
7,800.00	7,052.75	7,418.69	7,074.14	45.92	52.06	60.14	-637.09	-8,304.76	7,931.99	7,834.07	97.91	81.010		
7,900.00	7,067.18	7,435.67	7,091.13	46.16	52.10	77.21	-636.94	-8,304.67	7,838.28	7,740.07	98.21	79.812		
8,000.00	7,068.85	7,437.08	7,092.53	46.42	52.11	91.28	-636.92	-8,304.66	7,742.08	7,643.65	98.43	78.655		
8,100.00	7,068.56	7,435.98	7,091.43	46.78	52.10	91.25	-636.93	-8,304.67	7,645.71	7,547.05	98.65	77.500		
8,200.00	7,068.26	7,434.89	7,090.34	47.29	52.10	91.22	-636.94	-8,304.68	7,549.43	7,450.53	98.90	76.336		
8,300.00	7,067.96	7,433.81	7,089.26	48.03	52.10	91.19	-636.95	-8,304.68	7,453.24	7,354.08	99.16	75.163		
8,400.00	7,067.66	7,432.73	7,088.18	49.02	52.09	91.16	-636.96	-8,304.69	7,357.16	7,257.72	99.45	73.982		
8,500.00	7,067.37	7,431.66	7,087.12	50.27	52.09	91.13	-636.97	-8,304.69	7,261.19	7,161.44	99.75	72.792		
8,600.00	7,067.07	7,430.60	7,086.06	51.75	52.09	91.10	-636.98	-8,304.70	7,165.32	7,065.24	100.08	71.594		
8,700.00	7,066.77	7,429.55	7,085.01	53.42	52.09	91.07	-636.99	-8,304.71	7,069.57	6,969.14	100.44	70.388		
8,800.00	7,066.47	7,428.51	7,083.96	55.24	52.08	91.04	-637.00	-8,304.71	6,973.94	6,873.12	100.82	69.173		
8,900.00	7,066.18	7,427.47	7,082.93	57.18	52.08	91.01	-637.01	-8,304.72	6,878.44	6,777.21	101.23	67.951		
9,000.00	7,065.88	7,426.45	7,081.90	59.21	52.08	90.98	-637.02	-8,304.72	6,783.06	6,681.39	101.66	66.721		
9,100.00	7,065.58	7,425.43	7,080.88	61.33	52.07	90.96	-637.03	-8,304.73	6,687.82	6,585.69	102.13	65.484		
9,200.00	7,065.28	7,424.41	7,079.87	63.51	52.07	90.93	-637.04	-8,304.73	6,592.71	6,490.09	102.63	64.239		
9,300.00	7,064.99	7,423.41	7,078.86	65.76	52.07	90.90	-637.05	-8,304.74	6,497.76	6,394.60	103.16	62.989		
9,400.00	7,064.69	7,422.41	7,077.86	68.06	52.07	90.87	-637.06	-8,304.74	6,402.96	6,299.23	103.72	61.732		
9,500.00	7,064.39	7,421.49	7,076.95	70.40	52.06	90.85	-637.06	-8,304.75	6,308.32	6,203.99	104.32	60.469		
9,600.00	7,064.09	7,420.64	7,076.09	72.78	52.06	90.82	-637.07	-8,304.75	6,213.84	6,108.88	104.96	59.201		
9,700.00	7,063.80	7,419.78	7,075.23	75.20	52.06	90.80	-637.08	-8,304.76	6,119.55	6,013.91	105.64	57.929		
9,800.00	7,063.50	7,418.92	7,074.37	77.65	52.06	90.77	-637.09	-8,304.76	6,025.43	5,919.07	106.36	56.652		
9,900.00	7,063.20	7,418.05	7,073.51	80.13	52.06	90.75	-637.10	-8,304.77	5,931.51	5,824.39	107.12	55.373		
10,000.00	7,062.90	7,417.19	7,072.65	82.64	52.05	90.73	-637.10	-8,304.77	5,837.79	5,729.86	107.93	54.090		
10,100.00	7,062.61	7,416.33	7,071.79	85.17	52.05	90.70	-637.11	-8,304.77	5,744.28	5,635.50	108.78	52.806		
10,200.00	7,062.31	7,415.47	7,070.92	87.72	52.05	90.68	-637.12	-8,304.78	5,651.00	5,541.31	109.68	51.521		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	7,414.61	7,070.06	90.28	52.05	90.65	-637.13	-8,304.78	5,557.94	5,447.31	110.64	50.236		
10,400.00	7,061.71	7,413.74	7,069.20	92.87	52.04	90.63	-637.14	-8,304.79	5,465.14	5,353.49	111.64	48.952		
10,500.00	7,061.41	7,412.88	7,068.33	95.47	52.04	90.61	-637.14	-8,304.79	5,372.59	5,259.88	112.71	47.669		
10,600.00	7,061.12	7,412.02	7,067.47	98.09	52.04	90.58	-637.15	-8,304.80	5,280.31	5,166.48	113.83	46.389		
10,700.00	7,060.82	7,411.15	7,066.61	100.72	52.04	90.56	-637.16	-8,304.80	5,188.32	5,073.31	115.01	45.112		
10,800.00	7,060.52	7,410.29	7,065.74	103.37	52.03	90.53	-637.17	-8,304.81	5,096.63	4,980.37	116.25	43.840		
10,900.00	7,060.22	7,409.42	7,064.88	106.02	52.03	90.51	-637.18	-8,304.81	5,005.26	4,887.69	117.57	42.574		
11,000.00	7,059.93	7,408.56	7,064.01	108.69	52.03	90.48	-637.18	-8,304.82	4,914.22	4,795.27	118.95	41.315		
11,100.00	7,059.63	7,407.69	7,063.14	111.36	52.03	90.46	-637.19	-8,304.82	4,823.54	4,703.14	120.40	40.063		
11,200.00	7,059.33	7,406.82	7,062.28	114.05	52.02	90.44	-637.20	-8,304.82	4,733.23	4,611.31	121.93	38.820		
11,300.00	7,059.03	7,405.96	7,061.41	116.74	52.02	90.41	-637.21	-8,304.83	4,643.33	4,519.79	123.53	37.587		
11,400.00	7,058.74	7,405.09	7,060.54	119.44	52.02	90.39	-637.22	-8,304.83	4,553.84	4,428.61	125.22	36.366		
11,500.00	7,058.44	7,404.22	7,059.67	122.15	52.02	90.36	-637.23	-8,304.84	4,464.80	4,337.80	127.00	35.157		
11,600.00	7,058.14	7,403.35	7,058.81	124.86	52.02	90.34	-637.23	-8,304.84	4,376.23	4,247.37	128.86	33.961		
11,700.00	7,057.84	7,402.48	7,057.94	127.58	52.01	90.32	-637.24	-8,304.85	4,288.16	4,157.35	130.82	32.780		
11,800.00	7,057.55	7,401.61	7,057.07	130.31	52.01	90.29	-637.25	-8,304.85	4,200.63	4,067.76	132.87	31.615		
11,900.00	7,057.25	7,400.74	7,056.20	133.04	52.01	90.27	-637.26	-8,304.86	4,113.67	3,978.64	135.02	30.467		
12,000.00	7,056.95	7,399.87	7,055.33	135.78	52.01	90.24	-637.27	-8,304.86	4,027.31	3,890.03	137.28	29.337		
12,100.00	7,056.65	7,399.00	7,054.46	138.52	52.00	90.22	-637.28	-8,304.87	3,941.59	3,801.95	139.64	28.226		
12,200.00	7,056.36	7,398.13	7,053.58	141.27	52.00	90.19	-637.29	-8,304.87	3,856.57	3,714.44	142.12	27.135		
12,300.00	7,056.06	7,397.26	7,052.71	144.02	52.00	90.17	-637.29	-8,304.87	3,772.27	3,627.55	144.72	26.066		
12,400.00	7,055.76	7,396.39	7,051.84	146.78	52.00	90.15	-637.30	-8,304.88	3,688.77	3,541.33	147.44	25.019		
12,500.00	7,055.46	7,395.51	7,050.97	149.54	51.99	90.12	-637.31	-8,304.88	3,606.10	3,455.82	150.28	23.995		
12,600.00	7,055.17	7,394.64	7,050.09	152.30	51.99	90.10	-637.32	-8,304.89	3,524.33	3,371.07	153.26	22.996		
12,700.00	7,054.87	7,393.77	7,049.22	155.07	51.99	90.07	-637.33	-8,304.89	3,443.52	3,287.16	156.36	22.023		
12,800.00	7,054.57	7,392.89	7,048.35	157.84	51.99	90.05	-637.34	-8,304.90	3,363.75	3,204.14	159.61	21.075		
12,900.00	7,054.27	7,392.02	7,047.47	160.61	51.98	90.02	-637.35	-8,304.90	3,285.08	3,122.08	162.99	20.155		
13,000.00	7,053.97	7,391.14	7,046.60	163.39	51.98	90.00	-637.35	-8,304.91	3,207.60	3,041.08	166.52	19.262		
13,100.00	7,053.68	7,390.27	7,045.72	166.17	51.98	89.97	-637.36	-8,304.91	3,131.39	2,961.20	170.20	18.399		
13,200.00	7,053.38	7,389.39	7,044.84	168.95	51.98	89.95	-637.37	-8,304.92	3,056.56	2,882.55	174.01	17.565		
13,300.00	7,053.08	7,388.51	7,043.97	171.73	51.98	89.93	-637.38	-8,304.92	2,983.20	2,805.22	177.98	16.761		
13,400.00	7,052.78	7,387.64	7,043.09	174.52	51.97	89.90	-637.39	-8,304.92	2,911.43	2,729.34	182.09	15.989		
13,500.00	7,052.49	7,386.76	7,042.21	177.31	51.97	89.88	-637.40	-8,304.93	2,841.37	2,655.03	186.34	15.248		
13,600.00	7,052.19	7,385.88	7,041.34	180.10	51.97	89.85	-637.41	-8,304.93	2,773.14	2,582.41	190.73	14.540		
13,700.00	7,051.89	7,385.00	7,040.46	182.90	51.97	89.83	-637.42	-8,304.94	2,706.89	2,511.64	195.25	13.864		
13,800.00	7,051.59	7,384.12	7,039.58	185.69	51.96	89.80	-637.43	-8,304.94	2,642.76	2,442.87	199.88	13.221		
13,900.00	7,051.30	7,383.24	7,038.70	188.49	51.96	89.78	-637.43	-8,304.95	2,580.91	2,376.29	204.62	12.613		
14,000.00	7,051.00	7,382.36	7,037.82	191.29	51.96	89.75	-637.44	-8,304.95	2,521.51	2,312.06	209.45	12.039		
14,100.00	7,050.70	7,381.48	7,036.94	194.09	51.96	89.73	-637.45	-8,304.96	2,464.74	2,250.39	214.35	11.499		
14,200.00	7,050.40	7,380.60	7,036.06	196.89	51.95	89.70	-637.46	-8,304.96	2,410.78	2,191.50	219.29	10.994		
14,300.00	7,050.11	7,379.72	7,035.17	199.70	51.95	89.68	-637.47	-8,304.97	2,359.83	2,135.59	224.24	10.524		
14,400.00	7,049.81	7,378.84	7,034.29	202.50	51.95	89.66	-637.48	-8,304.97	2,312.08	2,082.92	229.17	10.089		
14,500.00	7,049.51	7,377.95	7,033.41	205.31	51.95	89.63	-637.49	-8,304.98	2,267.74	2,033.71	234.03	9.690		
14,600.00	7,049.21	7,377.07	7,032.53	208.12	51.94	89.61	-637.50	-8,304.98	2,227.01	1,988.21	238.80	9.326		
14,700.00	7,048.92	7,376.19	7,031.64	210.93	51.94	89.58	-637.51	-8,304.99	2,190.09	1,946.67	243.42	8.997		
14,800.00	7,048.62	7,375.30	7,030.76	213.74	51.94	89.56	-637.52	-8,304.99	2,157.17	1,909.33	247.84	8.704		
14,900.00	7,048.32	7,374.42	7,029.88	216.55	51.94	89.53	-637.53	-8,304.99	2,128.45	1,876.44	252.02	8.446		
15,000.00	7,048.02	7,373.53	7,028.99	219.37	51.94	89.51	-637.54	-8,305.00	2,104.10	1,848.20	255.90	8.222		
15,100.00	7,047.73	7,372.65	7,028.11	222.18	51.93	89.48	-637.54	-8,305.00	2,084.26	1,824.81	259.45	8.033		
15,200.00	7,047.43	7,371.76	7,027.22	225.00	51.93	89.46	-637.55	-8,305.01	2,069.07	1,806.45	262.62	7.879		
15,300.00	7,047.13	7,370.88	7,026.33	227.81	51.93	89.43	-637.56	-8,305.01	2,058.63	1,793.25	265.38	7.757		
15,343.67	7,047.00	7,370.49	7,025.95	229.04	51.93	89.42	-637.57	-8,305.02	2,055.58	1,789.13	266.45	7.715	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-106.33	-2,637.02	-9,001.62	9,379.99					
100.00	100.00	37.41	71.41	3.28	3.28	-106.33	-2,636.94	-9,001.71	9,380.03	9,373.47	6.57	1,428.653		
200.00	200.00	94.08	128.08	3.34	3.29	-106.32	-2,636.51	-9,002.15	9,380.57	9,373.94	6.62	1,416.395		
300.00	299.98	168.00	201.98	3.44	3.30	70.28	-2,635.38	-9,003.30	9,381.00	9,374.27	6.74	1,392.412		
400.00	399.84	168.00	201.98	3.59	3.30	70.28	-2,635.38	-9,003.30	9,380.81	9,373.93	6.89	1,362.051		
500.00	499.45	211.52	245.47	3.79	3.33	70.32	-2,634.54	-9,004.47	9,380.12	9,373.01	7.11	1,318.970		
600.00	598.70	259.00	292.90	4.03	3.37	70.38	-2,633.64	-9,006.43	9,379.22	9,371.82	7.39	1,268.349		
700.00	697.47	259.00	292.90	4.31	3.37	70.41	-2,633.64	-9,006.43	9,377.74	9,370.05	7.68	1,220.763		
800.00	795.62	290.67	324.53	4.64	3.40	70.48	-2,633.13	-9,008.09	9,375.97	9,367.93	8.04	1,166.135		
900.00	893.06	318.39	352.19	5.00	3.44	70.56	-2,632.82	-9,009.73	9,373.81	9,365.38	8.44	1,111.280		
1,000.00	989.64	350.00	383.74	5.40	3.48	70.66	-2,632.62	-9,011.82	9,371.28	9,362.40	8.87	1,056.036		
1,100.00	1,085.27	401.44	435.04	5.83	3.57	70.82	-2,632.47	-9,015.48	9,368.25	9,358.86	9.38	998.375		
1,200.00	1,179.82	470.02	503.44	6.29	3.70	71.02	-2,632.34	-9,020.59	9,364.52	9,354.55	9.97	939.181		
1,300.00	1,273.17	532.00	565.24	6.79	3.84	71.25	-2,632.14	-9,025.30	9,359.96	9,349.36	10.60	883.322		
1,400.00	1,365.46	575.95	609.05	7.32	3.95	71.39	-2,632.08	-9,028.82	9,355.04	9,343.82	11.22	833.718		
1,500.00	1,457.65	610.65	643.62	7.87	4.04	71.47	-2,632.19	-9,031.80	9,350.77	9,338.92	11.85	789.156		
1,600.00	1,549.83	644.00	676.83	8.43	4.14	71.55	-2,632.43	-9,034.84	9,347.23	9,334.74	12.49	748.295		
1,700.00	1,642.02	709.20	741.73	9.01	4.33	71.70	-2,633.11	-9,041.03	9,344.26	9,331.02	13.24	705.961		
1,800.00	1,734.21	824.95	856.95	9.59	4.71	71.97	-2,634.60	-9,052.02	9,341.50	9,327.34	14.16	659.910		
1,900.00	1,826.39	900.91	932.55	10.18	4.98	72.15	-2,635.29	-9,059.27	9,338.84	9,323.86	14.98	623.330		
2,000.00	1,918.58	2,000.00	1,119.35	10.78	9.56	72.60	-2,635.56	-9,076.58	9,335.84	9,315.96	19.87	469.796		
2,100.00	2,010.77	1,132.50	1,163.18	11.39	5.86	72.70	-2,635.49	-9,080.45	9,332.75	9,315.77	16.97	549.911		
2,200.00	2,102.95	1,156.20	1,186.76	11.99	5.96	72.76	-2,635.39	-9,082.77	9,330.52	9,312.86	17.66	528.380		
2,300.00	2,195.14	1,190.00	1,220.36	12.61	6.09	72.84	-2,635.19	-9,086.40	9,329.16	9,310.77	18.39	507.363		
2,400.00	2,287.32	1,190.00	1,220.36	13.22	6.09	72.84	-2,635.19	-9,086.40	9,328.63	9,309.64	18.99	491.148		
2,438.73	2,323.03	1,218.82	1,248.99	13.46	6.21	72.92	-2,634.99	-9,089.75	9,328.58	9,309.24	19.34	482.396		
2,442.35	2,326.37	1,219.91	1,250.07	13.48	6.22	72.92	-2,634.98	-9,089.88	9,328.59	9,309.22	19.36	481.745		
2,500.00	2,379.51	1,237.27	1,267.30	13.84	6.29	72.96	-2,634.87	-9,091.99	9,328.81	9,309.03	19.78	471.608		
2,600.00	2,471.70	1,285.00	1,314.63	14.46	6.50	73.08	-2,634.56	-9,098.12	9,329.87	9,309.29	20.57	453.475		
2,700.00	2,563.88	1,285.00	1,314.63	15.08	6.50	73.08	-2,634.56	-9,098.12	9,331.62	9,310.44	21.18	440.510		
2,800.00	2,656.07	1,332.67	1,361.85	15.71	6.71	73.20	-2,634.52	-9,104.66	9,334.12	9,312.14	21.98	424.633		
2,900.00	2,748.26	1,379.00	1,407.70	16.33	6.92	73.31	-2,634.96	-9,111.33	9,337.40	9,314.63	22.78	409.947		
3,000.00	2,840.44	1,379.00	1,407.70	16.96	6.92	73.31	-2,634.96	-9,111.33	9,341.44	9,318.06	23.39	399.440		
3,100.00	2,932.63	1,432.98	1,461.04	17.59	7.18	73.44	-2,635.51	-9,119.59	9,346.12	9,321.90	24.22	385.942		
3,200.00	3,024.81	1,475.00	1,502.49	18.22	7.38	73.54	-2,635.62	-9,126.48	9,351.62	9,326.62	25.00	374.081		
3,300.00	3,117.00	1,501.07	1,528.17	18.86	7.51	73.61	-2,635.63	-9,130.92	9,357.83	9,332.12	25.72	363.895		
3,400.00	3,209.19	1,537.61	1,564.15	19.49	7.69	73.70	-2,635.75	-9,137.30	9,364.77	9,338.29	26.48	353.695		
3,500.00	3,301.37	1,570.00	1,596.02	20.12	7.85	73.78	-2,635.98	-9,143.13	9,372.41	9,345.19	27.22	344.319		
3,600.00	3,393.56	1,617.36	1,642.56	20.76	8.09	73.89	-2,636.34	-9,151.89	9,380.71	9,352.68	28.03	334.674		
3,700.00	3,485.75	1,665.00	1,689.32	21.39	8.34	74.01	-2,636.64	-9,161.00	9,389.67	9,360.83	28.84	325.572		
3,800.00	3,577.93	1,665.00	1,689.32	22.03	8.34	74.01	-2,636.64	-9,161.00	9,399.42	9,369.98	29.44	319.301		
3,900.00	3,670.12	1,718.15	1,741.38	22.67	8.63	74.14	-2,636.88	-9,171.65	9,409.74	9,379.47	30.27	310.822		
4,000.00	3,762.30	1,759.00	1,781.31	23.30	8.85	74.25	-2,637.03	-9,180.29	9,420.97	9,389.92	31.05	303.377		
4,100.00	3,854.49	1,759.00	1,781.31	23.94	8.85	74.25	-2,637.03	-9,180.29	9,432.97	9,401.33	31.64	298.112		
4,200.00	3,946.68	1,813.51	1,834.49	24.58	9.16	74.38	-2,637.63	-9,192.28	9,445.60	9,413.12	32.48	290.773		
4,300.00	4,038.86	1,853.00	1,872.94	25.22	9.39	74.47	-2,638.61	-9,201.18	9,458.99	9,425.73	33.26	284.438		
4,400.00	4,131.05	1,900.60	1,919.24	25.86	9.67	74.59	-2,640.06	-9,212.12	9,472.99	9,438.93	34.06	278.092		
4,500.00	4,223.24	1,947.00	1,964.35	26.50	9.94	74.69	-2,641.46	-9,222.94	9,487.52	9,452.66	34.87	272.106		
4,600.00	4,315.42	2,014.94	2,030.32	27.14	10.35	74.85	-2,643.49	-9,239.03	9,502.52	9,466.75	35.78	265.606		
4,700.00	4,407.61	2,042.00	2,056.58	27.78	10.52	74.92	-2,644.29	-9,245.51	9,518.07	9,481.58	36.48	260.890		
4,800.00	4,499.79	2,042.00	2,056.58	28.42	10.52	74.92	-2,644.29	-9,245.51	9,534.57	9,497.52	37.05	257.343		
4,900.00	4,591.98	2,042.00	2,056.58	29.06	10.52	74.92	-2,644.29	-9,245.51	9,552.10	9,514.49	37.61	253.966		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,000.00	4,684.17	2,086.24	2,099.35	29.70	10.80	75.02	-2,645.51	-9,256.77	9,569.89	9,531.50	38.40	249.228		
5,100.00	4,776.35	2,137.00	2,147.98	30.34	11.14	75.15	-2,646.71	-9,271.25	9,589.53	9,550.31	39.22	244.523		
5,200.00	4,868.54	2,137.00	2,147.98	30.98	11.14	75.15	-2,646.71	-9,271.25	9,609.19	9,569.42	39.77	241.640		
5,300.00	4,960.73	2,476.31	2,474.92	31.63	13.40	75.97	-2,651.13	-9,361.58	9,626.71	9,584.58	42.13	228.499		
5,400.00	5,052.91	2,513.00	2,510.26	32.27	13.64	76.07	-2,650.53	-9,371.43	9,645.23	9,602.35	42.88	224.927		
5,500.00	5,145.10	2,513.00	2,510.26	32.91	13.64	76.07	-2,650.53	-9,371.43	9,664.38	9,620.95	43.43	222.522		
5,600.00	5,237.28	2,547.02	2,542.93	33.55	13.88	76.16	-2,649.91	-9,380.91	9,684.40	9,640.23	44.16	219.286		
5,700.00	5,329.47	2,609.00	2,602.36	34.20	14.31	76.32	-2,649.08	-9,398.49	9,705.09	9,660.04	45.05	215.437		
5,800.00	5,421.66	2,609.00	2,602.36	34.84	14.31	76.32	-2,649.08	-9,398.49	9,726.34	9,680.75	45.58	213.371		
5,900.00	5,513.84	2,609.00	2,602.36	35.48	14.31	76.32	-2,649.08	-9,398.49	9,748.56	9,702.45	46.11	211.402		
6,000.00	5,606.03	2,653.85	2,645.21	36.13	14.64	76.43	-2,648.80	-9,411.75	9,771.26	9,724.36	46.90	208.357		
6,100.00	5,698.22	2,704.00	2,692.83	36.77	15.02	76.55	-2,648.89	-9,427.44	9,795.19	9,747.48	47.71	205.314		
6,200.00	5,790.40	2,704.00	2,692.83	37.41	15.02	76.55	-2,648.89	-9,427.44	9,819.46	9,771.24	48.22	203.624		
6,300.00	5,882.59	2,704.00	2,692.83	38.06	15.02	76.55	-2,648.89	-9,427.44	9,844.68	9,795.95	48.73	202.017		
6,400.00	5,974.77	3,330.70	3,290.66	38.70	19.71	78.11	-2,644.83	-9,614.04	9,867.52	9,814.58	52.94	186.377		
6,500.00	6,066.96	3,391.14	3,348.77	39.34	20.15	78.24	-2,647.54	-9,630.45	9,888.77	9,834.94	53.83	183.716		
6,600.00	6,159.15	3,453.00	3,408.16	39.99	20.59	78.37	-2,651.11	-9,647.39	9,910.42	9,855.71	54.72	181.124		
6,700.00	6,251.33	3,597.03	3,546.53	40.63	21.63	78.67	-2,658.93	-9,686.57	9,931.98	9,875.89	56.09	177.072		
6,800.00	6,343.52	3,737.00	3,681.40	41.28	22.64	78.99	-2,662.32	-9,723.83	9,952.87	9,895.43	57.44	173.275		
6,900.00	6,435.71	3,790.56	3,733.07	41.92	23.02	79.11	-2,663.33	-9,737.90	9,973.93	9,915.65	58.28	171.126		
7,000.00	6,527.86	3,829.00	3,770.01	42.56	23.30	72.23	-2,663.94	-9,748.52	9,995.16	9,936.12	59.04	169.306		
7,200.00	6,706.47	4,264.46	4,189.85	43.76	26.42	41.37	-2,670.89	-9,863.63	9,996.75	9,934.17	62.58	159.734		
7,300.00	6,788.56	4,300.00	4,224.21	44.26	26.66	32.33	-2,671.14	-9,872.69	9,973.50	9,910.29	63.22	157.768		
7,400.00	6,863.10	4,328.43	4,251.65	44.70	26.87	26.07	-2,671.27	-9,880.11	9,936.03	9,872.27	63.76	155.846		
7,500.00	6,928.26	6,892.11	6,774.87	45.07	40.28	28.21	-2,673.28	-10,244.47	9,881.55	9,805.43	76.12	129.816		
7,600.00	6,982.42	6,938.39	6,821.14	45.39	40.43	25.54	-2,673.94	-10,245.21	9,801.60	9,725.01	76.60	127.964		
7,700.00	7,024.26	6,974.90	6,857.64	45.67	40.55	23.73	-2,674.54	-10,245.82	9,713.34	9,636.38	76.96	126.213		
7,800.00	7,052.75	7,008.84	6,891.57	45.92	40.66	22.53	-2,675.21	-10,246.39	9,618.87	9,541.63	77.23	124.542		
7,900.00	7,067.18	7,026.99	6,909.71	46.16	40.72	21.10	-2,675.63	-10,246.69	9,520.48	9,443.10	77.38	123.040		
8,000.00	7,068.85	7,030.73	6,913.46	46.42	40.74	11.26	-2,675.72	-10,246.75	9,420.58	9,343.17	77.41	121.698		
8,100.00	7,068.56	7,032.25	6,914.97	46.78	40.74	11.38	-2,675.75	-10,246.78	9,320.59	9,243.16	77.43	120.382		
8,200.00	7,068.26	7,033.76	6,916.48	47.29	40.75	11.49	-2,675.79	-10,246.80	9,220.60	9,143.15	77.44	119.065		
8,300.00	7,067.96	7,035.27	6,917.99	48.03	40.75	11.61	-2,675.83	-10,246.83	9,120.60	9,043.15	77.46	117.748		
8,400.00	7,067.66	7,036.78	6,919.50	49.02	40.76	11.74	-2,675.87	-10,246.85	9,020.61	8,943.14	77.48	116.430		
8,500.00	7,067.37	7,038.28	6,921.00	50.27	40.76	11.86	-2,675.91	-10,246.88	8,920.62	8,843.13	77.50	115.112		
8,600.00	7,067.07	7,039.78	6,922.50	51.75	40.77	11.99	-2,675.95	-10,246.90	8,820.63	8,743.12	77.51	113.793		
8,700.00	7,066.77	7,041.27	6,923.99	53.42	40.77	12.12	-2,675.98	-10,246.93	8,720.64	8,643.11	77.54	112.473		
8,800.00	7,066.47	7,042.76	6,925.48	55.24	40.78	12.26	-2,676.02	-10,246.95	8,620.65	8,543.10	77.56	111.153		
8,900.00	7,066.18	7,044.25	6,926.97	57.18	40.78	12.39	-2,676.06	-10,246.97	8,520.66	8,443.08	77.58	109.833		
9,000.00	7,065.88	7,045.73	6,928.45	59.21	40.79	12.53	-2,676.10	-10,247.00	8,420.67	8,343.07	77.60	108.512		
9,100.00	7,065.58	7,047.21	6,929.93	61.33	40.79	12.67	-2,676.14	-10,247.02	8,320.68	8,243.05	77.62	107.191		
9,200.00	7,065.28	7,048.69	6,931.40	63.51	40.80	12.82	-2,676.18	-10,247.05	8,220.69	8,143.04	77.65	105.869		
9,300.00	7,064.99	7,050.16	6,932.88	65.76	40.80	12.97	-2,676.22	-10,247.07	8,120.70	8,043.02	77.67	104.548		
9,400.00	7,064.69	7,051.63	6,934.34	68.06	40.81	13.12	-2,676.26	-10,247.09	8,020.71	7,943.01	77.70	103.226		
9,500.00	7,064.39	7,053.10	6,935.81	70.40	40.81	13.28	-2,676.30	-10,247.12	7,920.72	7,842.99	77.73	101.904		
9,600.00	7,064.09	7,054.56	6,937.27	72.78	40.81	13.44	-2,676.34	-10,247.14	7,820.73	7,742.97	77.76	100.582		
9,700.00	7,063.80	7,056.02	6,938.73	75.20	40.82	13.60	-2,676.38	-10,247.16	7,720.74	7,642.95	77.78	99.259		
9,800.00	7,063.50	7,057.47	6,940.18	77.65	40.82	13.77	-2,676.42	-10,247.19	7,620.74	7,542.93	77.81	97.937		
9,900.00	7,063.20	7,058.93	6,941.64	80.13	40.83	13.94	-2,676.46	-10,247.21	7,520.75	7,442.91	77.84	96.615		
10,000.00	7,062.90	7,060.37	6,943.08	82.64	40.83	14.12	-2,676.50	-10,247.23	7,420.76	7,342.89	77.87	95.292		
10,100.00	7,062.61	7,061.82	6,944.53	85.17	40.84	14.30	-2,676.54	-10,247.26	7,320.77	7,242.87	77.91	93.970		
10,200.00	7,062.31	7,063.26	6,945.97	87.72	40.84	14.48	-2,676.58	-10,247.28	7,220.78	7,142.84	77.94	92.648		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,064.70	6,947.41	90.28	40.85	14.67	-2,676.62	-10,247.30	7,120.79	7,042.82	77.97	91.326		
10,400.00	7,061.71	7,066.13	6,948.84	92.87	40.85	14.87	-2,676.66	-10,247.33	7,020.80	6,942.79	78.01	90.004		
10,500.00	7,061.41	7,067.57	6,950.27	95.47	40.86	15.07	-2,676.71	-10,247.35	6,920.81	6,842.77	78.04	88.682		
10,600.00	7,061.12	7,068.99	6,951.70	98.09	40.86	15.27	-2,676.75	-10,247.37	6,820.82	6,742.74	78.08	87.361		
10,700.00	7,060.82	7,070.42	6,953.12	100.72	40.87	15.48	-2,676.79	-10,247.40	6,720.83	6,642.71	78.11	86.040		
10,800.00	7,060.52	7,071.84	6,954.54	103.37	40.87	15.70	-2,676.83	-10,247.42	6,620.84	6,542.69	78.15	84.719		
10,900.00	7,060.22	7,073.26	6,955.96	106.02	40.88	15.92	-2,676.87	-10,247.44	6,520.85	6,442.66	78.19	83.399		
11,000.00	7,059.93	7,074.67	6,957.37	108.69	40.88	16.15	-2,676.92	-10,247.46	6,420.85	6,342.63	78.23	82.079		
11,100.00	7,059.63	7,076.08	6,958.78	111.36	40.89	16.39	-2,676.96	-10,247.49	6,320.86	6,242.60	78.27	80.760		
11,200.00	7,059.33	7,077.49	6,960.19	114.05	40.89	16.63	-2,677.00	-10,247.51	6,220.87	6,142.56	78.31	79.441		
11,300.00	7,059.03	7,078.90	6,961.59	116.74	40.90	16.88	-2,677.04	-10,247.53	6,120.88	6,042.53	78.35	78.122		
11,400.00	7,058.74	7,080.30	6,963.00	119.44	40.90	17.14	-2,677.09	-10,247.55	6,020.89	5,942.50	78.39	76.804		
11,500.00	7,058.44	7,081.70	6,964.39	122.15	40.90	17.40	-2,677.13	-10,247.57	5,920.90	5,842.46	78.44	75.487		
11,600.00	7,058.14	7,083.09	6,965.79	124.86	40.91	17.68	-2,677.17	-10,247.60	5,820.91	5,742.43	78.48	74.171		
11,700.00	7,057.84	7,084.48	6,967.18	127.58	40.91	17.96	-2,677.22	-10,247.62	5,720.92	5,642.39	78.52	72.855		
11,800.00	7,057.55	7,085.87	6,968.57	130.31	40.92	18.25	-2,677.26	-10,247.64	5,620.93	5,542.36	78.57	71.540		
11,900.00	7,057.25	7,087.26	6,969.95	133.04	40.92	18.55	-2,677.30	-10,247.66	5,520.94	5,442.32	78.62	70.225		
12,000.00	7,056.95	7,088.64	6,971.33	135.78	40.93	18.86	-2,677.35	-10,247.68	5,420.95	5,342.28	78.67	68.912		
12,100.00	7,056.65	7,090.02	6,972.71	138.52	40.93	19.18	-2,677.39	-10,247.71	5,320.96	5,242.24	78.71	67.599		
12,200.00	7,056.36	7,091.39	6,974.08	141.27	40.94	19.51	-2,677.43	-10,247.73	5,220.96	5,142.20	78.76	66.287		
12,300.00	7,056.06	7,092.76	6,975.45	144.02	40.94	19.86	-2,677.48	-10,247.75	5,120.97	5,042.16	78.81	64.976		
12,400.00	7,055.76	7,094.13	6,976.82	146.78	40.95	20.21	-2,677.52	-10,247.77	5,020.98	4,942.12	78.86	63.666		
12,500.00	7,055.46	7,095.50	6,978.19	149.54	40.95	20.58	-2,677.57	-10,247.79	4,920.99	4,842.08	78.92	62.357		
12,600.00	7,055.17	7,096.86	6,979.55	152.30	40.95	20.96	-2,677.61	-10,247.81	4,821.00	4,742.03	78.97	61.049		
12,700.00	7,054.87	7,098.22	6,980.91	155.07	40.96	21.36	-2,677.65	-10,247.83	4,721.01	4,641.99	79.02	59.742		
12,800.00	7,054.57	7,099.58	6,982.26	157.84	40.96	21.77	-2,677.70	-10,247.86	4,621.02	4,541.94	79.08	58.436		
12,900.00	7,054.27	7,100.93	6,983.62	160.61	40.97	22.20	-2,677.74	-10,247.88	4,521.03	4,441.90	79.13	57.131		
13,000.00	7,053.97	7,102.28	6,984.97	163.39	40.97	22.64	-2,677.79	-10,247.90	4,421.04	4,341.85	79.19	55.828		
13,100.00	7,053.68	7,103.63	6,986.31	166.17	40.98	23.10	-2,677.83	-10,247.92	4,321.05	4,241.80	79.25	54.525		
13,200.00	7,053.38	7,104.97	6,987.66	168.95	40.98	23.58	-2,677.88	-10,247.94	4,221.06	4,141.75	79.31	53.224		
13,300.00	7,053.08	7,106.32	6,989.00	171.73	40.99	24.08	-2,677.92	-10,247.96	4,121.07	4,041.70	79.37	51.924		
13,400.00	7,052.78	7,107.65	6,990.33	174.52	40.99	24.60	-2,677.97	-10,247.98	4,021.08	3,941.65	79.43	50.625		
13,500.00	7,052.49	7,108.99	6,991.67	177.31	41.00	25.14	-2,678.02	-10,248.00	3,921.09	3,841.60	79.49	49.328		
13,600.00	7,052.19	7,110.32	6,993.00	180.10	41.00	25.71	-2,678.06	-10,248.02	3,821.10	3,741.54	79.55	48.032		
13,700.00	7,051.89	7,111.65	6,994.33	182.90	41.00	26.30	-2,678.11	-10,248.04	3,721.11	3,641.49	79.62	46.737		
13,800.00	7,051.59	7,112.98	6,995.65	185.69	41.01	26.92	-2,678.15	-10,248.06	3,621.12	3,541.43	79.68	45.444		
13,900.00	7,051.30	7,114.30	6,996.97	188.49	41.01	27.56	-2,678.20	-10,248.08	3,521.13	3,441.38	79.75	44.152		
14,000.00	7,051.00	7,115.62	6,998.29	191.29	41.02	28.24	-2,678.25	-10,248.10	3,421.14	3,341.32	79.82	42.862		
14,100.00	7,050.70	7,116.93	6,999.61	194.09	41.02	28.95	-2,678.29	-10,248.12	3,321.15	3,241.26	79.89	41.573		
14,200.00	7,050.40	7,118.25	7,000.92	196.89	41.03	29.69	-2,678.34	-10,248.14	3,221.16	3,141.20	79.96	40.286		
14,300.00	7,050.11	7,119.56	7,002.23	199.70	41.03	30.47	-2,678.38	-10,248.17	3,121.17	3,041.14	80.03	39.000		
14,400.00	7,049.81	7,120.87	7,003.54	202.50	41.03	31.29	-2,678.43	-10,248.19	3,021.18	2,941.07	80.10	37.716		
14,500.00	7,049.51	7,122.17	7,004.84	205.31	41.04	32.15	-2,678.48	-10,248.21	2,921.19	2,841.01	80.18	36.433		
14,600.00	7,049.21	7,123.47	7,006.14	208.12	41.04	33.05	-2,678.52	-10,248.23	2,821.20	2,740.94	80.26	35.153		
14,700.00	7,048.92	7,124.77	7,007.44	210.93	41.05	34.00	-2,678.57	-10,248.25	2,721.21	2,640.87	80.33	33.873		
14,800.00	7,048.62	7,126.07	7,008.74	213.74	41.05	35.00	-2,678.62	-10,248.26	2,621.22	2,540.80	80.42	32.596		
14,900.00	7,048.32	7,127.36	7,010.03	216.55	41.06	36.06	-2,678.66	-10,248.28	2,521.23	2,440.73	80.50	31.320		
15,000.00	7,048.02	7,128.65	7,011.32	219.37	41.06	37.18	-2,678.71	-10,248.30	2,421.24	2,340.66	80.58	30.046		
15,100.00	7,047.73	7,129.94	7,012.60	222.18	41.06	38.36	-2,678.76	-10,248.32	2,321.25	2,240.58	80.67	28.774		
15,200.00	7,047.43	7,131.22	7,013.89	225.00	41.07	39.60	-2,678.81	-10,248.34	2,221.27	2,140.50	80.76	27.503		
15,300.00	7,047.13	7,132.51	7,015.17	227.81	41.07	40.92	-2,678.85	-10,248.36	2,121.28	2,040.42	80.86	26.234		
15,343.67	7,047.00	7,133.07	7,015.73	229.04	41.07	41.52	-2,678.87	-10,248.37	2,077.61	1,996.71	80.90	25.681	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-106.02	-2,569.28	-8,945.69	9,307.40					
100.00	100.00	37.44	71.44	3.28	3.28	-106.02	-2,569.20	-8,945.77	9,307.44	9,300.87	6.57	1,417.614		
200.00	200.00	94.15	128.15	3.34	3.29	-106.02	-2,568.78	-8,946.21	9,307.98	9,301.35	6.62	1,405.542		
300.00	299.98	462.23	496.07	3.44	3.71	70.68	-2,559.32	-8,945.23	9,305.64	9,298.48	7.16	1,300.270		
400.00	399.84	714.63	748.29	3.59	4.34	70.89	-2,551.39	-8,940.25	9,301.40	9,293.46	7.94	1,171.025		
500.00	499.45	787.75	821.33	3.79	4.56	71.06	-2,548.46	-8,938.21	9,294.82	9,286.46	8.36	1,112.291		
600.00	598.70	850.00	883.47	4.03	4.76	71.26	-2,545.08	-8,937.22	9,287.73	9,278.93	8.79	1,056.345		
700.00	697.47	874.91	908.33	4.31	4.84	71.44	-2,543.46	-8,937.05	9,280.04	9,270.88	9.15	1,013.711		
800.00	795.62	921.17	954.47	4.64	5.00	71.67	-2,540.09	-8,937.03	9,271.88	9,262.25	9.63	962.841		
900.00	893.06	979.05	1,012.13	5.00	5.20	71.94	-2,535.12	-8,937.54	9,263.19	9,253.00	10.19	909.172		
1,000.00	989.64	1,069.83	1,102.32	5.40	5.54	72.32	-2,524.96	-8,939.23	9,253.80	9,242.88	10.91	847.822		
1,100.00	1,085.27	1,179.10	1,210.56	5.83	5.97	72.80	-2,510.16	-8,941.58	9,243.18	9,231.41	11.77	785.227		
1,200.00	1,179.82	1,546.78	1,571.62	6.29	7.65	74.15	-2,441.66	-8,948.82	9,230.40	9,216.49	13.91	663.519		
1,300.00	1,273.17	1,841.38	1,856.66	6.79	9.29	75.51	-2,367.47	-8,951.94	9,215.10	9,199.08	16.02	575.336		
1,400.00	1,365.46	2,010.03	2,018.62	7.32	10.32	76.30	-2,320.46	-8,951.86	9,197.84	9,180.29	17.55	524.159		
1,500.00	1,457.65	2,041.96	2,049.21	7.87	10.53	76.42	-2,311.32	-8,951.83	9,180.72	9,162.43	18.29	501.981		
1,600.00	1,549.83	2,081.00	2,086.61	8.43	10.77	76.58	-2,300.11	-8,952.01	9,164.40	9,145.31	19.09	480.045		
1,700.00	1,642.02	2,108.24	2,112.69	9.01	10.95	76.68	-2,292.24	-8,952.29	9,148.86	9,129.02	19.84	461.191		
1,800.00	1,734.21	2,143.08	2,145.99	9.59	11.18	76.82	-2,282.03	-8,952.82	9,134.10	9,113.45	20.64	442.458		
1,900.00	1,826.39	2,222.57	2,221.79	10.18	11.70	77.14	-2,258.16	-8,954.52	9,120.10	9,098.35	21.76	419.203		
2,000.00	1,918.58	2,392.15	2,383.14	10.78	12.86	77.84	-2,206.01	-8,956.85	9,105.73	9,082.23	23.49	387.572		
2,100.00	2,010.77	2,459.80	2,447.44	11.39	13.33	78.11	-2,185.02	-8,957.60	9,091.68	9,067.12	24.56	370.116		
2,200.00	2,102.95	2,577.47	2,559.53	11.99	14.15	78.59	-2,149.19	-8,958.45	9,077.86	9,051.88	25.98	349.376		
2,300.00	2,195.14	2,641.38	2,620.39	12.61	14.60	78.85	-2,129.71	-8,958.86	9,064.45	9,037.40	27.04	335.193		
2,400.00	2,287.32	2,760.39	2,733.11	13.22	15.46	79.35	-2,091.57	-8,959.70	9,051.30	9,022.78	28.51	317.438		
2,500.00	2,379.51	2,816.80	2,786.39	13.84	15.88	79.59	-2,073.02	-8,960.13	9,038.57	9,009.01	29.55	305.835		
2,600.00	2,471.70	2,874.60	2,841.11	14.46	16.30	79.83	-2,054.43	-8,960.61	9,026.46	8,995.86	30.60	295.005		
2,700.00	2,563.88	2,933.00	2,896.91	15.08	16.71	80.07	-2,037.20	-8,960.94	9,014.94	8,983.30	31.64	284.895		
2,800.00	2,656.07	2,983.19	2,945.03	15.71	17.06	80.27	-2,022.94	-8,961.27	9,004.05	8,971.43	32.62	275.991		
2,900.00	2,748.26	3,149.80	3,104.60	16.33	18.22	80.94	-1,975.02	-8,962.16	8,993.59	8,959.19	34.40	261.418		
3,000.00	2,840.44	3,215.52	3,167.72	16.96	18.67	81.21	-1,956.75	-8,962.03	8,982.99	8,947.50	35.49	253.111		
3,100.00	2,932.63	3,311.00	3,259.44	17.59	19.33	81.59	-1,930.20	-8,961.56	8,972.52	8,935.74	36.78	243.952		
3,200.00	3,024.81	3,366.72	3,312.89	18.22	19.72	81.81	-1,914.46	-8,961.33	8,962.61	8,924.80	37.81	237.048		
3,300.00	3,117.00	3,409.00	3,353.40	18.86	20.02	81.98	-1,902.37	-8,961.46	8,953.58	8,914.83	38.75	231.072		
3,400.00	3,209.19	3,487.18	3,428.36	19.49	20.56	82.30	-1,880.18	-8,961.85	8,945.17	8,905.24	39.93	223.995		
3,500.00	3,301.37	3,550.72	3,489.34	20.12	21.01	82.56	-1,862.33	-8,962.09	8,937.15	8,896.13	41.02	217.856		
3,600.00	3,393.56	3,606.42	3,542.70	20.76	21.40	82.78	-1,846.35	-8,962.48	8,929.76	8,887.70	42.06	212.312		
3,700.00	3,485.75	3,664.89	3,598.65	21.39	21.81	83.02	-1,829.38	-8,963.03	8,922.99	8,879.87	43.12	206.930		
3,800.00	3,577.93	3,725.25	3,656.34	22.03	22.25	83.27	-1,811.63	-8,963.74	8,916.82	8,872.62	44.20	201.728		
3,900.00	3,670.12	3,788.00	3,716.04	22.67	22.71	83.53	-1,792.33	-8,964.64	8,911.25	8,865.94	45.31	196.687		
4,000.00	3,762.30	3,857.74	3,782.17	23.30	23.23	83.83	-1,770.22	-8,965.77	8,906.23	8,859.76	46.48	191.627		
4,100.00	3,854.49	3,940.77	3,860.82	23.94	23.86	84.18	-1,743.65	-8,967.12	8,901.71	8,853.96	47.75	186.424		
4,200.00	3,946.68	4,012.40	3,928.69	24.58	24.40	84.49	-1,720.76	-8,968.22	8,897.60	8,848.67	48.94	181.821		
4,300.00	4,038.86	4,071.00	3,984.31	25.22	24.84	84.74	-1,702.33	-8,969.19	8,894.09	8,844.07	50.02	177.803		
4,400.00	4,131.05	4,115.40	4,026.53	25.86	25.17	84.92	-1,688.63	-8,970.04	8,891.27	8,840.28	50.99	174.361		
4,500.00	4,223.24	4,166.00	4,074.76	26.50	25.55	85.13	-1,673.36	-8,971.20	8,889.21	8,837.20	52.01	170.916		
4,600.00	4,315.42	4,525.24	4,415.42	27.14	28.27	86.66	-1,559.50	-8,974.75	8,887.18	8,831.81	55.37	160.504		
4,700.00	4,407.61	4,574.96	4,462.18	27.78	28.66	86.88	-1,542.62	-8,974.40	8,883.84	8,827.43	56.40	157.501		
4,800.00	4,499.79	4,615.06	4,499.96	28.42	28.97	87.05	-1,529.18	-8,974.28	8,881.28	8,823.91	57.36	154.821		
4,900.00	4,591.98	4,662.52	4,544.80	29.06	29.34	87.26	-1,513.62	-8,974.31	8,879.49	8,821.12	58.37	152.117		
5,000.00	4,684.17	4,721.59	4,600.93	29.70	29.79	87.51	-1,495.22	-8,974.48	8,878.37	8,818.91	59.46	149.321		
5,100.00	4,776.35	4,772.14	4,649.20	30.34	30.16	87.72	-1,480.23	-8,974.76	8,877.90	8,817.43	60.47	146.823		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,117.14	4,792.16	4,780.32	4,657.02	30.45	30.22	87.75	-1,477.84	-8,974.82	8,877.88	8,817.25	60.63	146.415		
5,200.00	4,868.54	4,830.00	4,704.59	30.98	30.57	87.95	-1,463.51	-8,975.29	8,878.14	8,816.62	61.52	144.310		
5,300.00	4,960.73	4,946.02	4,816.56	31.63	31.36	88.41	-1,433.17	-8,976.28	8,878.71	8,815.76	62.95	141.054		
5,400.00	5,052.91	5,012.26	4,880.90	32.27	31.79	88.67	-1,417.44	-8,976.80	8,879.57	8,815.56	64.01	138.729		
5,500.00	5,145.10	5,087.25	4,953.94	32.91	32.26	88.95	-1,400.48	-8,977.53	8,880.92	8,815.81	65.11	136.402		
5,600.00	5,237.28	5,199.44	5,063.75	33.55	32.93	89.36	-1,377.54	-8,978.65	8,882.59	8,816.18	66.41	133.753		
5,700.00	5,329.47	5,322.86	5,185.45	34.20	33.59	89.79	-1,357.04	-8,979.58	8,884.17	8,816.47	67.71	131.213		
5,800.00	5,421.66	5,412.19	5,273.89	34.84	34.03	90.08	-1,344.51	-8,980.25	8,885.94	8,817.15	68.78	129.187		
5,900.00	5,513.84	5,531.23	5,392.24	35.48	34.57	90.45	-1,331.86	-8,981.05	8,887.68	8,817.73	69.95	127.055		
6,000.00	5,606.03	5,797.32	5,657.64	36.13	35.62	91.23	-1,312.97	-8,981.04	8,889.12	8,817.48	71.64	124.082		
6,100.00	5,698.22	5,846.05	5,706.31	36.77	35.80	91.36	-1,310.74	-8,980.69	8,889.70	8,817.25	72.45	122.699		
6,200.00	5,790.40	5,899.48	5,759.70	37.41	35.99	91.51	-1,308.62	-8,980.58	8,890.91	8,817.63	73.27	121.339		
6,300.00	5,882.59	5,966.00	5,826.19	38.06	36.21	91.69	-1,306.65	-8,980.77	8,892.65	8,818.52	74.13	119.954		
6,400.00	5,974.77	6,034.65	5,894.83	38.70	36.44	91.87	-1,305.08	-8,981.20	8,894.83	8,819.84	74.99	118.610		
6,500.00	6,066.96	6,133.26	5,993.41	39.34	36.77	92.12	-1,303.00	-8,981.87	8,897.27	8,821.32	75.95	117.147		
6,600.00	6,159.15	6,241.91	6,102.03	39.99	37.12	92.41	-1,300.91	-8,982.46	8,899.72	8,822.78	76.94	115.671		
6,700.00	6,251.33	6,302.89	6,163.01	40.63	37.33	92.57	-1,299.70	-8,982.87	8,902.48	8,824.70	77.77	114.467		
6,800.00	6,343.52	6,379.00	6,239.09	41.28	37.58	92.76	-1,298.09	-8,983.56	8,905.65	8,826.99	78.66	113.223		
6,900.00	6,435.71	6,446.66	6,306.73	41.92	37.81	92.94	-1,296.62	-8,984.31	8,909.20	8,829.69	79.51	112.051		
7,000.00	6,527.86	6,523.13	6,383.18	42.56	38.07	93.10	-1,295.04	-8,985.30	8,912.23	8,831.83	80.39	110.858		
7,100.00	6,618.85	6,620.01	6,480.03	43.19	38.39	93.74	-1,293.13	-8,986.63	8,903.38	8,822.05	81.33	109.470		
7,200.00	6,706.47	6,718.10	6,578.09	43.76	38.72	94.23	-1,291.25	-8,987.86	8,899.29	8,797.06	82.22	107.990		
7,300.00	6,788.56	6,778.15	6,638.13	44.26	38.93	94.70	-1,290.12	-8,988.70	8,840.73	8,757.81	82.92	106.617		
7,400.00	6,863.10	6,838.89	6,698.86	44.70	39.13	95.23	-1,289.02	-8,989.64	8,788.68	8,705.12	83.56	105.181		
7,500.00	6,928.26	6,895.66	6,755.61	45.07	39.33	95.84	-1,287.95	-8,990.59	8,724.35	8,640.23	84.13	103.706		
7,600.00	6,982.42	6,944.03	6,803.96	45.39	39.50	96.59	-1,286.92	-8,991.42	8,649.25	8,564.63	84.61	102.223		
7,700.00	7,024.26	6,981.77	6,841.68	45.67	39.63	97.41	-1,286.04	-8,992.08	8,565.15	8,480.14	85.01	100.756		
7,800.00	7,052.75	7,007.99	6,867.89	45.92	39.72	98.25	-1,285.38	-8,992.55	8,474.05	8,388.74	85.32	99.327		
7,900.00	7,067.18	7,026.83	6,886.72	46.16	39.79	99.08	-1,284.90	-8,992.88	8,378.15	8,292.60	85.55	97.934		
8,000.00	7,068.85	7,030.99	6,890.88	46.42	39.80	99.77	-1,284.79	-8,992.96	8,279.84	8,194.15	85.69	96.627		
8,100.00	7,068.56	7,032.75	6,892.63	46.78	39.81	100.45	-1,284.75	-8,992.99	8,181.33	8,095.51	85.82	95.331		
8,200.00	7,068.26	7,034.50	6,894.38	47.29	39.81	101.11	-1,284.70	-8,993.02	8,082.86	7,996.90	85.96	94.031		
8,300.00	7,067.96	7,036.24	6,896.12	48.03	39.82	101.83	-1,284.66	-8,993.05	7,984.43	7,898.32	86.11	92.724		
8,400.00	7,067.66	7,037.97	6,897.85	49.02	39.82	102.59	-1,284.62	-8,993.08	7,886.03	7,799.76	86.27	91.412		
8,500.00	7,067.37	7,039.69	6,899.58	50.27	39.83	103.38	-1,284.57	-8,993.11	7,787.68	7,701.24	86.44	90.094		
8,600.00	7,067.07	7,041.41	6,901.29	51.75	39.84	104.19	-1,284.53	-8,993.14	7,689.37	7,602.75	86.62	88.771		
8,700.00	7,066.77	7,043.12	6,903.00	53.42	39.84	104.96	-1,284.49	-8,993.17	7,591.10	7,504.29	86.81	87.441		
8,800.00	7,066.47	7,044.82	6,904.70	55.24	39.85	105.70	-1,284.44	-8,993.20	7,492.88	7,405.86	87.02	86.106		
8,900.00	7,066.18	7,046.51	6,906.39	57.18	39.86	106.41	-1,284.40	-8,993.23	7,394.71	7,307.47	87.24	84.765		
9,000.00	7,065.88	7,048.19	6,908.07	59.21	39.86	107.09	-1,284.36	-8,993.26	7,296.58	7,209.11	87.47	83.419		
9,100.00	7,065.58	7,049.87	6,909.74	61.33	39.87	107.74	-1,284.32	-8,993.28	7,198.51	7,110.79	87.72	82.067		
9,200.00	7,065.28	7,051.53	6,911.41	63.51	39.87	108.36	-1,284.27	-8,993.31	7,100.49	7,012.51	87.98	80.709		
9,300.00	7,064.99	7,053.19	6,913.07	65.76	39.88	108.95	-1,284.23	-8,993.34	7,002.53	6,914.27	88.25	79.346		
9,400.00	7,064.69	7,054.84	6,914.72	68.06	39.88	109.50	-1,284.19	-8,993.37	6,904.62	6,816.07	88.55	77.977		
9,500.00	7,064.39	7,056.49	6,916.36	70.40	39.89	110.01	-1,284.15	-8,993.40	6,806.77	6,717.91	88.86	76.603		
9,600.00	7,064.09	7,058.12	6,918.00	72.78	39.90	110.48	-1,284.11	-8,993.43	6,708.99	6,619.80	89.19	75.223		
9,700.00	7,063.80	7,059.75	6,919.62	75.20	39.90	110.91	-1,284.07	-8,993.45	6,611.27	6,521.74	89.54	73.839		
9,800.00	7,063.50	7,061.37	6,921.24	77.65	39.91	111.30	-1,284.03	-8,993.48	6,513.63	6,423.72	89.91	72.449		
9,900.00	7,063.20	7,062.98	6,922.86	80.13	39.91	111.65	-1,283.99	-8,993.51	6,416.05	6,325.75	90.30	71.054		
10,000.00	7,062.90	7,064.59	6,924.46	82.64	39.92	111.96	-1,283.95	-8,993.53	6,318.55	6,227.84	90.71	69.655		
10,100.00	7,062.61	7,066.19	6,926.06	85.17	39.92	112.23	-1,283.91	-8,993.56	6,221.13	6,129.98	91.15	68.252		
10,200.00	7,062.31	7,067.78	6,927.65	87.72	39.93	112.46	-1,283.87	-8,993.59	6,123.79	6,032.18	91.61	66.844		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,069.36	6,929.23	90.28	39.94	85.32	-1,283.83	-8,993.62	6,026.54	5,934.44	92.10	65.432		
10,400.00	7,061.71	7,070.94	6,930.81	92.87	39.94	85.39	-1,283.79	-8,993.64	5,929.38	5,836.76	92.62	64.017		
10,500.00	7,061.41	7,072.51	6,932.37	95.47	39.95	85.45	-1,283.75	-8,993.67	5,832.31	5,739.14	93.17	62.599		
10,600.00	7,061.12	7,074.07	6,933.93	98.09	39.95	85.51	-1,283.71	-8,993.69	5,735.35	5,641.60	93.75	61.178		
10,700.00	7,060.82	7,075.62	6,935.49	100.72	39.96	85.58	-1,283.67	-8,993.72	5,638.49	5,544.13	94.36	59.754		
10,800.00	7,060.52	7,077.17	6,937.03	103.37	39.96	85.64	-1,283.63	-8,993.75	5,541.74	5,446.73	95.01	58.328		
10,900.00	7,060.22	7,078.71	6,938.57	106.02	39.97	85.70	-1,283.59	-8,993.77	5,445.11	5,349.42	95.69	56.901		
11,000.00	7,059.93	7,080.24	6,940.11	108.69	39.97	85.76	-1,283.55	-8,993.80	5,348.61	5,252.19	96.42	55.473		
11,100.00	7,059.63	7,081.77	6,941.63	111.36	39.98	85.82	-1,283.52	-8,993.82	5,252.23	5,155.05	97.18	54.044		
11,200.00	7,059.33	7,083.29	6,943.15	114.05	39.99	85.89	-1,283.48	-8,993.85	5,155.99	5,058.00	97.99	52.616		
11,300.00	7,059.03	7,084.80	6,944.66	116.74	39.99	85.95	-1,283.44	-8,993.87	5,059.90	4,961.05	98.85	51.188		
11,400.00	7,058.74	7,086.30	6,946.17	119.44	40.00	86.01	-1,283.40	-8,993.90	4,963.96	4,864.20	99.75	49.762		
11,500.00	7,058.44	7,087.80	6,947.66	122.15	40.00	86.07	-1,283.37	-8,993.92	4,868.18	4,767.47	100.71	48.339		
11,600.00	7,058.14	7,089.29	6,949.15	124.86	40.01	86.13	-1,283.33	-8,993.95	4,772.58	4,670.86	101.72	46.918		
11,700.00	7,057.84	7,090.78	6,950.64	127.58	40.01	86.19	-1,283.29	-8,993.97	4,677.16	4,574.37	102.79	45.502		
11,800.00	7,057.55	7,092.26	6,952.12	130.31	40.02	86.25	-1,283.26	-8,993.99	4,581.93	4,478.01	103.92	44.090		
11,900.00	7,057.25	7,093.73	6,953.59	133.04	40.02	86.31	-1,283.22	-8,994.02	4,486.91	4,381.79	105.12	42.684		
12,000.00	7,056.95	7,095.19	6,955.05	135.78	40.03	86.37	-1,283.18	-8,994.04	4,392.12	4,285.73	106.39	41.284		
12,100.00	7,056.65	7,096.65	6,956.51	138.52	40.03	86.43	-1,283.15	-8,994.07	4,297.56	4,189.83	107.73	39.893		
12,200.00	7,056.36	7,098.11	6,957.96	141.27	40.04	86.49	-1,283.11	-8,994.09	4,203.24	4,094.10	109.15	38.510		
12,300.00	7,056.06	7,099.55	6,959.41	144.02	40.04	86.54	-1,283.08	-8,994.11	4,109.20	3,998.55	110.65	37.137		
12,400.00	7,055.76	7,100.99	6,960.85	146.78	40.05	86.60	-1,283.04	-8,994.14	4,015.45	3,903.21	112.24	35.776		
12,500.00	7,055.46	7,102.42	6,962.28	149.54	40.05	86.66	-1,283.01	-8,994.16	3,922.00	3,808.08	113.92	34.426		
12,600.00	7,055.17	7,103.85	6,963.70	152.30	40.06	86.72	-1,282.97	-8,994.18	3,828.89	3,713.18	115.71	33.090		
12,700.00	7,054.87	7,105.27	6,965.12	155.07	40.06	86.78	-1,282.94	-8,994.20	3,736.13	3,618.52	117.60	31.769		
12,800.00	7,054.57	7,106.69	6,966.54	157.84	40.07	86.83	-1,282.90	-8,994.23	3,643.75	3,524.14	119.61	30.464		
12,900.00	7,054.27	7,108.09	6,967.95	160.61	40.07	86.89	-1,282.87	-8,994.25	3,551.78	3,430.05	121.73	29.176		
13,000.00	7,053.97	7,109.50	6,969.35	163.39	40.08	86.95	-1,282.83	-8,994.27	3,460.26	3,336.27	123.99	27.907		
13,100.00	7,053.68	7,110.89	6,970.74	166.17	40.08	87.00	-1,282.80	-8,994.29	3,369.22	3,242.84	126.38	26.659		
13,200.00	7,053.38	7,112.28	6,972.13	168.95	40.09	87.06	-1,282.77	-8,994.32	3,278.71	3,149.78	128.92	25.431		
13,300.00	7,053.08	7,113.67	6,973.52	171.73	40.09	87.12	-1,282.73	-8,994.34	3,188.75	3,057.13	131.62	24.227		
13,400.00	7,052.78	7,115.04	6,974.89	174.52	40.10	87.17	-1,282.70	-8,994.36	3,099.42	2,964.93	134.48	23.047		
13,500.00	7,052.49	7,116.42	6,976.26	177.31	40.10	87.23	-1,282.66	-8,994.38	3,010.75	2,873.23	137.53	21.892		
13,600.00	7,052.19	7,117.78	6,977.63	180.10	40.11	87.28	-1,282.63	-8,994.40	2,922.82	2,782.06	140.76	20.765		
13,700.00	7,051.89	7,119.14	6,978.99	182.90	40.11	87.34	-1,282.60	-8,994.43	2,835.68	2,691.49	144.19	19.666		
13,800.00	7,051.59	7,120.50	6,980.34	185.69	40.12	87.39	-1,282.57	-8,994.45	2,749.42	2,601.59	147.84	18.598		
13,900.00	7,051.30	7,121.84	6,981.69	188.49	40.12	87.45	-1,282.53	-8,994.47	2,664.12	2,512.41	151.71	17.561		
14,000.00	7,051.00	7,123.19	6,983.03	191.29	40.13	87.50	-1,282.50	-8,994.49	2,579.88	2,424.05	155.82	16.556		
14,100.00	7,050.70	7,124.52	6,984.37	194.09	40.13	87.56	-1,282.47	-8,994.51	2,496.80	2,336.60	160.19	15.586		
14,200.00	7,050.40	7,125.86	6,985.70	196.89	40.14	87.61	-1,282.44	-8,994.53	2,414.99	2,250.16	164.83	14.651		
14,300.00	7,050.11	7,127.18	6,987.03	199.70	40.14	87.66	-1,282.40	-8,994.55	2,334.61	2,164.86	169.75	13.753		
14,400.00	7,049.81	7,128.50	6,988.34	202.50	40.15	87.72	-1,282.37	-8,994.57	2,255.80	2,080.84	174.96	12.894		
14,500.00	7,049.51	7,129.82	6,989.66	205.31	40.15	87.77	-1,282.34	-8,994.59	2,178.72	1,998.26	180.46	12.073		
14,600.00	7,049.21	7,131.12	6,990.97	208.12	40.15	87.82	-1,282.31	-8,994.61	2,103.57	1,917.30	186.27	11.293		
14,700.00	7,048.92	7,132.43	6,992.27	210.93	40.16	87.88	-1,282.28	-8,994.63	2,030.57	1,838.18	192.39	10.554		
14,800.00	7,048.62	7,133.73	6,993.57	213.74	40.16	87.93	-1,282.24	-8,994.65	1,959.95	1,761.14	198.81	9.859		
14,900.00	7,048.32	7,135.02	6,994.86	216.55	40.17	87.98	-1,282.21	-8,994.67	1,891.98	1,686.47	205.51	9.206		
15,000.00	7,048.02	7,136.31	6,996.15	219.37	40.17	88.03	-1,282.18	-8,994.69	1,826.96	1,614.49	212.47	8.599		
15,100.00	7,047.73	7,137.59	6,997.43	222.18	40.18	88.09	-1,282.15	-8,994.71	1,765.21	1,545.56	219.66	8.036		
15,200.00	7,047.43	7,138.86	6,998.70	225.00	40.18	88.14	-1,282.12	-8,994.73	1,707.09	1,480.08	227.01	7.520		
15,300.00	7,047.13	7,140.14	6,999.97	227.81	40.19	88.19	-1,282.09	-8,994.75	1,652.98	1,418.53	234.45	7.050		
15,343.67	7,047.00	7,140.69	7,000.53	229.04	40.19	88.21	-1,282.08	-8,994.76	1,630.71	1,393.00	237.71	6.860	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	34.00	3.28	3.28	-106.01	-2,575.10	-8,976.56	9,338.68					
100.00	100.00	170.10	204.08	3.28	3.32	-105.99	-2,572.52	-8,976.30	9,338.23	9,331.63	6.61	1,413.462		
200.00	200.00	303.76	337.70	3.34	3.46	-105.97	-2,569.38	-8,975.29	9,336.84	9,330.04	6.80	1,372.890		
300.00	299.98	405.16	439.05	3.44	3.63	70.68	-2,566.34	-8,974.64	9,334.82	9,327.75	7.07	1,320.093		
400.00	399.84	491.56	525.38	3.59	3.81	70.78	-2,563.20	-8,974.19	9,331.60	9,324.20	7.40	1,261.023		
500.00	499.45	542.00	575.78	3.79	3.93	70.90	-2,561.04	-8,974.18	9,327.59	9,319.87	7.72	1,208.905		
600.00	598.70	587.21	620.94	4.03	4.04	71.03	-2,559.01	-8,974.45	9,323.00	9,314.93	8.07	1,154.999		
700.00	697.47	648.00	681.67	4.31	4.21	71.20	-2,556.31	-8,975.40	9,318.05	9,309.53	8.52	1,093.806		
800.00	795.62	661.27	694.92	4.64	4.24	71.32	-2,555.73	-8,975.70	9,312.50	9,303.62	8.88	1,048.855		
900.00	893.06	704.67	738.27	5.00	4.37	71.50	-2,554.01	-8,976.82	9,306.59	9,297.23	9.36	994.113		
1,000.00	989.64	790.02	823.54	5.40	4.62	71.78	-2,550.87	-8,979.20	9,299.96	9,289.94	10.01	928.909		
1,100.00	1,085.27	828.58	862.04	5.83	4.75	72.00	-2,549.36	-8,980.44	9,292.67	9,282.11	10.56	879.866		
1,200.00	1,179.82	884.00	917.35	6.29	4.93	72.27	-2,546.71	-8,982.78	9,285.03	9,273.83	11.20	828.828		
1,300.00	1,273.17	884.00	917.35	6.79	4.93	72.42	-2,546.71	-8,982.78	9,277.00	9,265.30	11.70	793.097		
1,400.00	1,365.46	922.11	955.36	7.32	5.06	72.59	-2,544.69	-8,984.82	9,268.89	9,256.54	12.35	750.698		
1,500.00	1,457.65	946.91	980.06	7.87	5.14	72.65	-2,543.38	-8,986.38	9,261.56	9,248.59	12.97	713.860		
1,600.00	1,549.83	979.00	1,012.03	8.43	5.25	72.74	-2,541.68	-8,988.66	9,255.08	9,241.44	13.64	678.468		
1,700.00	1,642.02	1,009.36	1,042.25	9.01	5.36	72.82	-2,539.97	-8,991.04	9,249.37	9,235.05	14.32	646.050		
1,800.00	1,734.21	1,052.06	1,084.71	9.59	5.52	72.94	-2,537.22	-8,994.66	9,244.34	9,229.29	15.05	614.330		
1,900.00	1,826.39	1,107.52	1,139.76	10.18	5.73	73.10	-2,533.01	-8,999.78	9,239.95	9,224.11	15.84	583.327		
2,000.00	1,918.58	1,168.00	1,199.70	10.78	5.97	73.28	-2,527.52	-9,005.70	9,236.01	9,219.35	16.66	554.247		
2,100.00	2,010.77	1,202.44	1,233.78	11.39	6.11	73.38	-2,524.00	-9,009.32	9,232.72	9,215.33	17.40	530.647		
2,200.00	2,102.95	1,232.97	1,263.93	11.99	6.24	73.47	-2,520.66	-9,012.77	9,230.23	9,212.11	18.12	509.295		
2,300.00	2,195.14	1,263.00	1,293.53	12.61	6.37	73.56	-2,517.19	-9,016.39	9,228.53	9,209.68	18.85	489.565		
2,400.00	2,287.32	1,263.00	1,293.53	13.22	6.37	73.56	-2,517.19	-9,016.39	9,227.78	9,208.33	19.45	474.315		
2,455.54	2,338.53	1,304.85	1,334.70	13.56	6.56	73.70	-2,511.98	-9,021.85	9,227.52	9,207.55	19.97	461.979		
2,500.00	2,379.51	1,316.64	1,346.27	13.84	6.61	73.73	-2,510.44	-9,023.48	9,227.61	9,207.31	20.30	454.669		
2,600.00	2,471.70	1,358.00	1,386.78	14.46	6.80	73.87	-2,504.70	-9,029.52	9,228.44	9,207.35	21.09	437.660		
2,700.00	2,563.88	1,395.52	1,423.47	15.08	6.98	73.99	-2,499.31	-9,035.23	9,229.98	9,208.12	21.87	422.104		
2,800.00	2,656.07	1,495.63	1,521.41	15.71	7.47	74.32	-2,485.17	-9,050.35	9,231.91	9,208.96	22.94	402.352		
2,900.00	2,748.26	1,569.38	1,593.71	16.33	7.84	74.55	-2,475.52	-9,061.24	9,233.99	9,210.08	23.91	386.252		
3,000.00	2,840.44	1,608.22	1,631.78	16.96	8.04	74.68	-2,470.50	-9,067.14	9,236.72	9,212.01	24.70	373.902		
3,100.00	2,932.63	1,656.23	1,678.77	17.59	8.29	74.83	-2,464.23	-9,074.69	9,240.16	9,214.62	25.55	361.701		
3,200.00	3,024.81	3,200.00	1,822.50	18.22	16.80	75.30	-2,445.80	-9,097.32	9,243.72	9,209.77	33.94	272.328		
3,300.00	3,117.00	1,872.44	1,890.65	18.86	9.43	75.52	-2,436.70	-9,107.84	9,247.26	9,219.42	27.84	332.102		
3,400.00	3,209.19	1,926.00	1,943.04	19.49	9.72	75.69	-2,429.57	-9,116.31	9,251.56	9,222.83	28.73	322.043		
3,500.00	3,301.37	2,053.64	2,068.15	20.12	10.42	76.10	-2,413.55	-9,135.91	9,255.89	9,225.90	29.99	308.607		
3,600.00	3,393.56	2,094.37	2,108.07	20.76	10.64	76.23	-2,408.53	-9,142.19	9,260.60	9,229.79	30.81	300.575		
3,700.00	3,485.75	2,339.61	2,347.91	21.39	12.03	77.02	-2,373.60	-9,179.42	9,265.45	9,232.73	32.73	283.104		
3,800.00	3,577.93	2,378.47	2,385.95	22.03	12.26	77.15	-2,368.01	-9,185.03	9,269.70	9,236.16	33.55	276.321		
3,900.00	3,670.12	2,428.14	2,434.67	22.67	12.54	77.31	-2,361.71	-9,192.35	9,274.65	9,240.23	34.42	269.455		
4,000.00	3,762.30	2,495.00	2,500.21	23.30	12.92	77.52	-2,353.09	-9,202.40	9,280.12	9,244.74	35.38	262.286		
4,100.00	3,854.49	2,532.75	2,537.17	23.94	13.14	77.64	-2,348.06	-9,208.23	9,286.18	9,249.99	36.19	256.597		
4,200.00	3,946.68	2,590.00	2,593.13	24.58	13.47	77.82	-2,340.25	-9,217.41	9,292.97	9,255.87	37.10	250.464		
4,300.00	4,038.86	2,667.30	2,668.66	25.22	13.92	78.07	-2,329.55	-9,229.96	9,300.26	9,262.13	38.13	243.913		
4,400.00	4,131.05	2,739.54	2,739.26	25.86	14.35	78.30	-2,319.61	-9,241.59	9,307.74	9,268.61	39.13	237.885		
4,500.00	4,223.24	4,500.00	2,862.04	26.50	24.74	78.70	-2,303.21	-9,261.54	9,315.36	9,266.40	48.96	190.270		
4,600.00	4,315.42	2,920.96	2,916.91	27.14	15.41	78.88	-2,296.62	-9,270.24	9,323.12	9,281.81	41.31	225.685		
4,700.00	4,407.61	2,969.00	2,964.02	27.78	15.68	79.02	-2,291.42	-9,278.10	9,331.74	9,289.58	42.16	221.339		
4,800.00	4,499.79	2,997.92	2,992.35	28.42	15.85	79.11	-2,288.33	-9,282.98	9,341.02	9,298.11	42.91	217.711		
4,900.00	4,591.98	3,228.77	3,218.86	29.06	17.18	79.81	-2,263.55	-9,319.89	9,349.69	9,304.95	44.74	208.988		
5,000.00	4,684.17	5,000.00	3,406.08	29.70	26.85	80.36	-2,247.10	-9,347.95	9,357.92	9,304.01	53.91	173.580		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	3,703.54	3,687.23	30.34	19.75	81.19	-2,221.33	-9,384.81	9,364.27	9,315.90	48.37	193.607		
5,200.00	4,868.54	3,729.00	3,712.36	30.98	19.88	81.27	-2,218.71	-9,387.91	9,370.80	9,321.70	49.10	190.859		
5,300.00	4,960.73	3,772.65	3,755.40	31.63	20.13	81.40	-2,213.99	-9,393.49	9,378.00	9,328.08	49.93	187.839		
5,400.00	5,052.91	3,824.00	3,805.87	32.27	20.41	81.56	-2,207.88	-9,400.68	9,386.21	9,335.41	50.79	184.795		
5,500.00	5,145.10	3,824.00	3,805.87	32.91	20.41	81.56	-2,207.88	-9,400.68	9,394.99	9,343.62	51.38	182.857		
5,600.00	5,237.28	3,856.93	3,838.17	33.55	20.61	81.66	-2,203.73	-9,405.59	9,404.69	9,352.54	52.14	180.358		
5,700.00	5,329.47	3,890.05	3,870.62	34.20	20.81	81.76	-2,199.50	-9,410.72	9,415.13	9,362.22	52.91	177.954		
5,800.00	5,421.66	3,930.60	3,910.29	34.84	21.05	81.89	-2,194.24	-9,417.24	9,426.32	9,372.61	53.71	175.504		
5,900.00	5,513.84	4,146.89	4,122.24	35.48	22.33	82.55	-2,167.63	-9,451.12	9,437.60	9,382.10	55.50	170.040		
6,000.00	5,606.03	4,201.00	4,175.33	36.13	22.64	82.71	-2,161.10	-9,459.27	9,448.47	9,392.10	56.38	167.595		
6,100.00	5,698.22	4,267.50	4,240.49	36.77	23.04	82.92	-2,152.55	-9,469.46	9,459.84	9,402.52	57.33	165.020		
6,200.00	5,790.40	4,344.82	4,316.09	37.41	23.51	83.16	-2,141.63	-9,481.40	9,471.60	9,413.26	58.34	162.349		
6,300.00	5,882.59	4,411.59	4,381.25	38.06	23.92	83.38	-2,131.33	-9,491.74	9,483.70	9,424.40	59.30	159.929		
6,400.00	5,974.77	4,460.33	4,428.70	38.70	24.22	83.54	-2,123.30	-9,499.43	9,496.37	9,436.21	60.15	157.869		
6,500.00	6,066.96	4,505.92	4,473.01	39.34	24.51	83.69	-2,115.44	-9,506.78	9,509.65	9,448.66	60.99	155.930		
6,600.00	6,159.15	4,559.23	4,529.99	39.99	24.81	83.84	-2,107.42	-9,514.23	9,518.66	9,459.15	61.81	153.932		
6,700.00	6,251.33	4,612.50	4,583.26	40.63	25.11	84.00	-2,099.40	-9,521.72	9,527.66	9,469.64	62.61	151.934		
6,800.00	6,343.52	4,665.77	4,636.53	41.37	25.41	84.16	-2,091.38	-9,529.21	9,537.60	9,479.63	63.41	149.936		
6,900.00	6,435.71	4,719.04	4,689.80	42.11	25.71	84.32	-2,083.36	-9,536.70	9,547.59	9,489.62	64.21	147.938		
7,000.00	6,527.89	4,772.31	4,743.07	42.85	26.01	84.48	-2,075.34	-9,544.19	9,557.58	9,499.61	65.01	145.940		
7,100.00	6,619.85	4,825.58	4,796.34	43.59	26.31	84.64	-2,067.32	-9,551.68	9,567.57	9,509.60	65.81	143.942		
7,200.00	6,706.47	4,878.85	4,849.61	44.33	26.61	84.80	-2,059.30	-9,559.17	9,577.56	9,519.59	66.61	141.944		
7,300.00	6,788.56	4,932.12	4,902.88	45.07	26.91	84.96	-2,051.28	-9,566.66	9,587.55	9,529.58	67.41	139.946		
7,400.00	6,863.10	4,985.39	4,956.15	45.81	27.21	85.12	-2,043.26	-9,574.15	9,597.54	9,539.57	68.21	137.948		
7,500.00	6,928.26	5,038.66	5,009.42	46.55	27.51	85.28	-2,035.24	-9,581.64	9,607.53	9,549.56	69.01	135.950		
7,600.00	6,982.42	5,091.93	5,062.69	47.29	27.81	85.44	-2,027.22	-9,589.13	9,617.52	9,559.55	69.81	133.952		
7,700.00	7,024.26	5,145.20	5,116.45	48.03	28.11	85.60	-2,019.20	-9,596.62	9,627.51	9,569.54	70.61	131.954		
7,800.00	7,052.75	5,198.47	5,169.72	48.77	28.41	85.76	-2,011.18	-9,604.11	9,637.50	9,579.53	71.41	129.956		
7,900.00	7,067.18	5,251.74	5,222.97	49.51	28.71	85.92	-2,003.16	-9,611.60	9,647.49	9,589.52	72.21	127.958		
8,000.00	7,068.85	5,305.01	5,276.24	50.25	29.01	86.08	-1,995.14	-9,619.09	9,657.48	9,599.51	73.01	125.960		
8,100.00	7,068.56	5,358.28	5,330.51	50.99	29.31	86.24	-1,987.12	-9,626.58	9,667.47	9,609.50	73.81	123.962		
8,200.00	7,068.26	5,411.55	5,383.78	51.73	29.61	86.40	-1,979.10	-9,634.07	9,677.46	9,619.49	74.61	121.964		
8,300.00	7,067.96	5,464.82	5,437.05	52.47	29.91	86.56	-1,971.08	-9,641.56	9,687.45	9,629.48	75.41	119.966		
8,400.00	7,067.66	5,518.09	5,490.32	53.21	30.21	86.72	-1,963.06	-9,649.05	9,697.44	9,639.47	76.21	117.968		
8,500.00	7,067.37	5,571.36	5,543.59	53.95	30.51	86.88	-1,955.04	-9,656.54	9,707.43	9,649.46	77.01	115.970		
8,600.00	7,067.07	5,624.63	5,596.86	54.69	30.81	87.04	-1,947.02	-9,664.03	9,717.42	9,659.45	77.81	113.972		
8,700.00	7,066.77	5,677.90	5,650.13	55.43	31.11	87.20	-1,939.00	-9,671.52	9,727.41	9,669.44	78.61	111.974		
8,800.00	7,066.47	5,731.17	5,703.40	56.17	31.41	87.36	-1,930.98	-9,679.01	9,737.40	9,679.43	79.41	109.976		
8,900.00	7,066.18	5,784.44	5,756.67	56.91	31.71	87.52	-1,922.96	-9,686.50	9,747.39	9,689.42	80.21	107.978		
9,000.00	7,065.88	5,837.71	5,809.94	57.65	32.01	87.68	-1,914.94	-9,693.99	9,757.38	9,699.41	81.01	105.980		
9,100.00	7,065.58	5,891.00	5,863.21	58.39	32.31	87.84	-1,906.92	-9,701.48	9,767.37	9,709.40	81.81	103.982		
9,200.00	7,065.28	5,944.27	5,916.48	59.13	32.61	88.00	-1,898.90	-9,708.97	9,777.36	9,719.39	82.61	101.984		
9,300.00	7,064.99	5,997.54	5,969.75	59.87	32.91	88.16	-1,890.88	-9,716.46	9,787.35	9,729.38	83.41	99.986		
9,400.00	7,064.69	6,050.81	6,022.02	60.61	33.21	88.32	-1,882.86	-9,723.95	9,797.34	9,739.37	84.21	97.988		
9,500.00	7,064.39	6,104.08	6,075.29	61.35	33.51	88.48	-1,874.84	-9,731.44	9,807.33	9,749.36	85.01	95.990		
9,600.00	7,064.09	6,157.35	6,128.56	62.09	33.81	88.64	-1,866.82	-9,738.93	9,817.32	9,759.35	85.81	93.992		
9,700.00	7,063.80	6,210.62	6,181.83	62.83	34.11	88.80	-1,858.80	-9,746.42	9,827.31	9,769.34	86.61	91.994		
9,800.00	7,063.50	6,263.89	6,235.10	63.57	34.41	88.96	-1,850.78	-9,753.91	9,837.30	9,779.33	87.41	89.996		
9,900.00	7,063.20	6,317.16	6,288.37	64.31	34.71	89.12	-1,842.76	-9,761.40	9,847.29	9,789.32	88.21	87.998		
10,000.00	7,062.90	6,370.43	6,341.64	65.05	35.01	89.28	-1,834.74	-9,768.89	9,857.28	9,799.31	89.01	85.999		
10,100.00	7,062.61	6,423.70	6,394.91	65.79	35.31	89.44	-1,826.72	-9,776.38	9,867.27	9,809.30	89.81	83.999		
10,200.00	7,062.31	6,476.97	6,448.18	66.53	35.61	89.60	-1,818.70	-9,783.87	9,877.26	9,819.29	90.61	81.999		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	6,903.83	6,854.41	90.28	35.37	75.35	-1,977.84	-9,656.21	6,567.42	6,486.71	80.71	81.372		
10,400.00	7,061.71	6,906.14	6,856.72	92.87	35.38	75.52	-1,977.82	-9,656.28	6,468.07	6,387.17	80.90	79.954		
10,500.00	7,061.41	6,908.46	6,859.05	95.47	35.39	75.69	-1,977.80	-9,656.35	6,368.74	6,287.65	81.10	78.534		
10,600.00	7,061.12	6,910.80	6,861.39	98.09	35.40	75.87	-1,977.78	-9,656.42	6,269.44	6,188.13	81.30	77.111		
10,700.00	7,060.82	6,913.15	6,863.74	100.72	35.40	76.05	-1,977.76	-9,656.50	6,170.15	6,088.63	81.52	75.687		
10,800.00	7,060.52	6,915.52	6,866.10	103.37	35.41	76.22	-1,977.74	-9,656.57	6,070.89	5,989.14	81.75	74.261		
10,900.00	7,060.22	6,917.90	6,868.48	106.02	35.42	76.40	-1,977.72	-9,656.65	5,971.65	5,889.65	81.99	72.833		
11,000.00	7,059.93	6,920.29	6,870.87	108.69	35.43	76.58	-1,977.70	-9,656.72	5,872.43	5,790.19	82.24	71.402		
11,100.00	7,059.63	6,922.69	6,873.27	111.36	35.44	76.76	-1,977.69	-9,656.80	5,773.24	5,690.73	82.51	69.970		
11,200.00	7,059.33	6,925.11	6,875.69	114.05	35.45	76.95	-1,977.67	-9,656.87	5,674.08	5,591.29	82.79	68.536		
11,300.00	7,059.03	6,927.55	6,878.12	116.74	35.46	77.13	-1,977.65	-9,656.95	5,574.94	5,491.86	83.08	67.100		
11,400.00	7,058.74	6,930.00	6,880.57	119.44	35.47	77.32	-1,977.63	-9,657.03	5,475.84	5,392.45	83.39	65.662		
11,500.00	7,058.44	6,932.46	6,883.03	122.15	35.48	77.50	-1,977.61	-9,657.11	5,376.77	5,293.05	83.72	64.222		
11,600.00	7,058.14	6,934.93	6,885.50	124.86	35.49	77.69	-1,977.59	-9,657.19	5,277.73	5,193.67	84.07	62.781		
11,700.00	7,057.84	6,937.42	6,887.99	127.58	35.50	77.88	-1,977.57	-9,657.27	5,178.73	5,094.30	84.43	61.338		
11,800.00	7,057.55	6,939.93	6,890.50	130.31	35.51	78.07	-1,977.55	-9,657.35	5,079.76	4,994.95	84.81	59.893		
11,900.00	7,057.25	6,942.45	6,893.02	133.04	35.52	78.26	-1,977.53	-9,657.43	4,980.84	4,895.62	85.22	58.447		
12,000.00	7,056.95	6,944.98	6,895.55	135.78	35.53	78.46	-1,977.51	-9,657.51	4,881.96	4,796.31	85.65	56.999		
12,100.00	7,056.65	6,947.53	6,898.10	138.52	35.54	78.65	-1,977.50	-9,657.59	4,783.12	4,697.02	86.10	55.551		
12,200.00	7,056.36	6,944.00	6,894.57	141.27	35.52	78.38	-1,977.52	-9,657.48	4,684.33	4,597.77	86.56	54.115		
12,300.00	7,056.06	6,944.00	6,894.57	144.02	35.52	78.38	-1,977.52	-9,657.48	4,585.60	4,498.54	87.06	52.669		
12,400.00	7,055.76	6,944.00	6,894.57	146.78	35.52	78.38	-1,977.52	-9,657.48	4,486.92	4,399.33	87.60	51.223		
12,500.00	7,055.46	6,944.00	6,894.57	149.54	35.52	78.38	-1,977.52	-9,657.48	4,388.30	4,300.14	88.16	49.776		
12,600.00	7,055.17	6,944.00	6,894.57	152.30	35.52	78.38	-1,977.52	-9,657.48	4,289.75	4,200.99	88.76	48.328		
12,700.00	7,054.87	6,959.26	6,909.82	155.07	35.59	79.55	-1,977.40	-9,657.98	4,191.22	4,101.76	89.46	46.851		
12,800.00	7,054.57	6,961.44	6,912.00	157.84	35.60	79.72	-1,977.38	-9,658.05	4,092.80	4,002.65	90.15	45.400		
12,900.00	7,054.27	6,963.65	6,914.21	160.61	35.60	79.89	-1,977.37	-9,658.13	3,994.45	3,903.56	90.89	43.950		
13,000.00	7,053.97	6,965.89	6,916.44	163.39	35.61	80.07	-1,977.35	-9,658.21	3,896.18	3,804.51	91.67	42.501		
13,100.00	7,053.68	6,968.16	6,918.71	166.17	35.62	80.24	-1,977.33	-9,658.28	3,798.01	3,705.49	92.51	41.053		
13,200.00	7,053.38	6,970.46	6,921.01	168.95	35.63	80.42	-1,977.31	-9,658.36	3,699.92	3,606.51	93.41	39.608		
13,300.00	7,053.08	6,972.80	6,923.34	171.73	35.64	80.60	-1,977.29	-9,658.45	3,601.94	3,507.57	94.38	38.166		
13,400.00	7,052.78	6,975.16	6,925.71	174.52	35.65	80.78	-1,977.27	-9,658.53	3,504.08	3,408.67	95.41	36.727		
13,500.00	7,052.49	6,977.56	6,928.10	177.31	35.66	80.97	-1,977.25	-9,658.61	3,406.33	3,309.81	96.52	35.292		
13,600.00	7,052.19	6,979.99	6,930.53	180.10	35.67	81.16	-1,977.22	-9,658.70	3,308.72	3,211.01	97.71	33.863		
13,700.00	7,051.89	6,982.46	6,933.00	182.90	35.68	81.35	-1,977.20	-9,658.79	3,211.25	3,112.26	98.99	32.439		
13,800.00	7,051.59	6,984.96	6,935.50	185.69	35.69	81.54	-1,977.18	-9,658.88	3,113.94	3,013.56	100.38	31.022		
13,900.00	7,051.30	6,987.49	6,938.03	188.49	35.70	81.74	-1,977.15	-9,658.97	3,016.80	2,914.93	101.87	29.614		
14,000.00	7,051.00	6,990.07	6,940.60	191.29	35.71	81.94	-1,977.13	-9,659.06	2,919.86	2,816.37	103.49	28.215		
14,100.00	7,050.70	6,992.68	6,943.21	194.09	35.72	82.15	-1,977.11	-9,659.16	2,823.12	2,717.88	105.24	26.826		
14,200.00	7,050.40	6,995.33	6,945.86	196.89	35.73	82.35	-1,977.08	-9,659.26	2,726.61	2,619.48	107.14	25.450		
14,300.00	7,050.11	6,998.01	6,948.55	199.70	35.74	82.56	-1,977.05	-9,659.36	2,630.37	2,521.17	109.20	24.087		
14,400.00	7,049.81	7,000.74	6,951.27	202.50	35.75	82.78	-1,977.03	-9,659.46	2,534.41	2,422.96	111.45	22.741		
14,500.00	7,049.51	7,003.51	6,954.04	205.31	35.77	82.99	-1,977.00	-9,659.56	2,438.77	2,324.87	113.90	21.412		
14,600.00	7,049.21	7,006.32	6,956.85	208.12	35.78	83.21	-1,976.97	-9,659.67	2,343.49	2,226.91	116.58	20.102		
14,700.00	7,048.92	7,009.17	6,959.70	210.93	35.79	83.44	-1,976.94	-9,659.78	2,248.61	2,129.10	119.51	18.815		
14,800.00	7,048.62	7,012.07	6,962.59	213.74	35.80	83.67	-1,976.91	-9,659.89	2,154.20	2,031.46	122.74	17.551		
14,900.00	7,048.32	7,015.01	6,965.53	216.55	35.81	83.90	-1,976.88	-9,660.01	2,060.31	1,934.02	126.28	16.315		
15,000.00	7,048.02	7,018.00	6,968.52	219.37	35.82	84.13	-1,976.85	-9,660.12	1,967.01	1,836.82	130.19	15.109		
15,100.00	7,047.73	7,021.03	6,971.55	222.18	35.84	84.37	-1,976.82	-9,660.24	1,874.40	1,739.89	134.51	13.935		
15,200.00	7,047.43	7,024.12	6,974.63	225.00	35.85	84.61	-1,976.78	-9,660.37	1,782.58	1,643.28	139.30	12.797		
15,300.00	7,047.13	7,027.25	6,977.76	227.81	35.86	84.86	-1,976.75	-9,660.49	1,691.68	1,547.07	144.61	11.698		
15,343.67	7,047.00	7,028.63	6,979.14	229.04	35.87	84.97	-1,976.73	-9,660.55	1,652.31	1,505.19	147.12	11.231	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
0.00	0.00	0.00	34.00	3.28	3.28	-106.34	-2,633.39	-8,984.93	9,362.95					
100.00	100.00	43.38	77.38	3.28	3.28	-106.33	-2,633.28	-8,985.02	9,362.97	9,356.40	6.57	1,426.048		
200.00	200.00	111.98	145.98	3.34	3.29	-106.33	-2,632.65	-8,985.50	9,363.39	9,356.76	6.63	1,412.413		
300.00	299.98	171.00	204.98	3.44	3.33	70.27	-2,631.68	-8,986.21	9,363.54	9,356.77	6.76	1,384.314		
400.00	399.84	208.74	242.71	3.59	3.36	70.29	-2,631.01	-8,986.90	9,363.08	9,356.13	6.95	1,348.148		
500.00	499.45	263.00	296.94	3.79	3.41	70.35	-2,630.30	-8,988.41	9,362.26	9,355.06	7.20	1,299.980		
600.00	598.70	263.00	296.94	4.03	3.41	70.37	-2,630.30	-8,988.41	9,360.85	9,353.40	7.45	1,256.892		
700.00	697.47	263.00	296.94	4.31	3.41	70.40	-2,630.30	-8,988.41	9,359.34	9,351.60	7.74	1,209.863		
800.00	795.62	305.10	339.01	4.64	3.47	70.49	-2,630.19	-8,990.15	9,357.21	9,349.09	8.12	1,153.024		
900.00	893.06	354.00	387.82	5.00	3.55	70.60	-2,630.86	-8,993.01	9,355.22	9,346.67	8.55	1,094.124		
1,000.00	989.64	354.00	387.82	5.40	3.55	70.65	-2,630.86	-8,993.01	9,352.47	9,343.52	8.95	1,045.134		
1,100.00	1,085.27	354.00	387.82	5.83	3.55	70.70	-2,630.86	-8,993.01	9,349.62	9,340.24	9.38	996.660		
1,200.00	1,179.82	386.45	420.17	6.29	3.61	70.82	-2,631.83	-8,995.32	9,346.47	9,336.57	9.90	944.185		
1,300.00	1,273.17	411.05	444.68	6.79	3.65	70.93	-2,632.88	-8,997.20	9,343.01	9,332.57	10.44	894.939		
1,400.00	1,365.46	445.00	478.46	7.32	3.73	71.03	-2,634.77	-8,999.98	9,339.44	9,328.42	11.03	846.855		
1,500.00	1,457.65	553.94	586.75	7.87	3.99	71.25	-2,642.99	-9,008.54	9,336.20	9,324.39	11.81	790.448		
1,600.00	1,549.83	624.51	656.83	8.43	4.19	71.38	-2,649.44	-9,013.73	9,332.99	9,320.44	12.55	743.715		
1,700.00	1,642.02	742.64	774.02	9.01	4.57	71.59	-2,661.76	-9,022.03	9,329.88	9,316.42	13.46	693.161		
1,800.00	1,734.21	812.77	843.62	9.59	4.82	71.71	-2,668.73	-9,027.06	9,326.87	9,312.61	14.26	654.012		
1,900.00	1,826.39	1,383.00	1,411.90	10.18	7.01	72.88	-2,700.04	-9,058.59	9,320.03	9,303.12	16.91	551.313		
2,000.00	1,918.58	1,383.00	1,411.90	10.78	7.01	72.88	-2,700.04	-9,058.59	9,313.05	9,295.55	17.50	532.150		
2,100.00	2,010.77	1,383.00	1,411.90	11.39	7.01	72.88	-2,700.04	-9,058.59	9,307.14	9,289.03	18.10	514.166		
2,200.00	2,102.95	1,383.00	1,411.90	11.99	7.01	72.88	-2,700.04	-9,058.59	9,302.30	9,283.59	18.71	497.291		
2,300.00	2,195.14	1,383.00	1,411.90	12.61	7.01	72.88	-2,700.04	-9,058.59	9,298.53	9,279.22	19.31	481.453		
2,400.00	2,287.32	1,412.15	1,440.96	13.22	7.13	72.95	-2,700.68	-9,060.71	9,295.35	9,275.32	20.04	463.936		
2,500.00	2,379.51	1,445.00	1,473.62	13.84	7.27	73.02	-2,701.75	-9,064.11	9,293.73	9,272.96	20.78	447.344		
2,600.00	2,471.70	1,445.00	1,473.62	14.46	7.27	73.02	-2,701.75	-9,064.11	9,292.57	9,271.18	21.39	434.478		
2,657.99	2,525.16	1,445.00	1,473.62	14.82	7.27	73.02	-2,701.75	-9,064.11	9,292.39	9,270.64	21.74	427.365		
2,700.00	2,563.88	1,445.00	1,473.62	15.08	7.27	73.02	-2,701.75	-9,064.11	9,292.48	9,270.48	22.00	422.369		
2,800.00	2,656.07	1,462.24	1,490.73	15.71	7.35	73.06	-2,702.44	-9,066.17	9,293.45	9,270.77	22.68	409.694		
2,900.00	2,748.26	1,530.37	1,558.29	16.33	7.65	73.21	-2,705.66	-9,074.31	9,295.00	9,271.43	23.58	394.247		
3,000.00	2,840.44	1,569.00	1,596.58	16.96	7.83	73.29	-2,707.85	-9,078.93	9,297.00	9,272.65	24.35	381.804		
3,100.00	2,932.63	1,614.85	1,641.97	17.59	8.05	73.38	-2,711.08	-9,084.54	9,299.64	9,274.48	25.16	369.603		
3,200.00	3,024.81	1,665.00	1,691.49	18.22	8.29	73.48	-2,715.69	-9,090.97	9,303.10	9,277.11	25.99	357.918		
3,300.00	3,117.00	1,665.00	1,691.49	18.86	8.29	73.48	-2,715.69	-9,090.97	9,307.24	9,280.64	26.60	349.848		
3,400.00	3,209.19	1,665.00	1,691.49	19.49	8.29	73.48	-2,715.69	-9,090.97	9,312.45	9,285.24	27.21	342.209		
3,500.00	3,301.37	1,714.94	1,740.62	20.12	8.54	73.57	-2,721.24	-9,097.93	9,318.11	9,290.06	28.05	332.196		
3,600.00	3,393.56	1,887.92	1,910.45	20.76	9.45	73.88	-2,742.42	-9,123.07	9,324.49	9,295.01	29.47	316.375		
3,700.00	3,485.75	3,700.00	2,020.79	21.39	19.55	74.07	-2,757.09	-9,138.64	9,330.31	9,291.58	38.73	240.895		
3,800.00	3,577.93	2,082.06	2,101.12	22.03	10.49	74.21	-2,767.57	-9,149.53	9,335.67	9,304.04	31.63	295.121		
3,900.00	3,670.12	2,136.00	2,154.05	22.67	10.79	74.31	-2,774.39	-9,157.40	9,341.99	9,309.48	32.51	287.375		
4,000.00	3,762.30	2,136.00	2,154.05	23.30	10.79	74.31	-2,774.39	-9,157.40	9,348.78	9,315.66	33.12	282.310		
4,100.00	3,854.49	4,100.00	2,284.35	23.94	22.15	74.54	-2,791.78	-9,177.57	9,356.23	9,312.90	43.34	215.885		
4,200.00	3,946.68	2,418.49	2,430.91	24.58	12.38	74.79	-2,811.99	-9,198.95	9,362.89	9,327.13	35.76	261.803		
4,300.00	4,038.86	2,460.63	2,472.19	25.22	12.62	74.86	-2,818.03	-9,204.96	9,369.76	9,333.17	36.59	256.061		
4,400.00	4,131.05	2,517.00	2,527.27	25.86	12.95	74.95	-2,826.62	-9,213.27	9,377.29	9,339.79	37.49	250.095		
4,500.00	4,223.24	2,566.26	2,575.34	26.50	13.24	75.02	-2,834.40	-9,220.73	9,385.32	9,346.95	38.36	244.638		
4,600.00	4,315.42	2,607.00	2,615.09	27.14	13.49	75.09	-2,840.82	-9,226.95	9,393.76	9,354.58	39.19	239.720		
4,700.00	4,407.61	3,329.98	3,324.32	27.78	17.64	76.26	-2,942.20	-9,320.69	9,400.99	9,357.38	43.61	215.551		
4,800.00	4,499.79	3,499.02	3,491.28	28.42	18.55	76.54	-2,963.70	-9,336.01	9,402.89	9,357.79	45.10	208.480		
4,900.00	4,591.98	3,550.00	3,541.56	29.06	18.83	76.63	-2,970.73	-9,340.64	9,405.09	9,359.09	46.00	204.464		
5,000.00	4,684.17	3,550.00	3,541.56	29.70	18.83	76.63	-2,970.73	-9,340.64	9,408.02	9,361.39	46.63	201.753		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	3,607.13	3,597.83	30.34	19.14	76.72	-2,978.73	-9,346.35	9,411.51	9,363.95	47.56	197.886		
5,200.00	4,868.54	3,644.00	3,634.14	30.98	19.35	76.78	-2,983.77	-9,350.41	9,415.80	9,367.42	48.38	194.616		
5,300.00	4,960.73	3,644.00	3,634.14	31.63	19.35	76.78	-2,983.77	-9,350.41	9,420.95	9,371.94	49.00	192.252		
5,400.00	5,052.91	3,689.00	3,678.36	32.27	19.61	76.85	-2,990.10	-9,355.83	9,426.71	9,376.85	49.87	189.037		
5,500.00	5,145.10	3,739.00	3,727.32	32.91	19.91	76.93	-2,997.67	-9,362.54	9,433.54	9,382.78	50.76	185.858		
5,600.00	5,237.28	3,739.00	3,727.32	33.55	19.91	76.93	-2,997.67	-9,362.54	9,440.88	9,389.52	51.37	183.794		
5,700.00	5,329.47	3,775.61	3,763.08	34.20	20.13	76.98	-3,003.52	-9,367.80	9,449.11	9,396.93	52.18	181.077		
5,800.00	5,421.66	4,305.00	4,281.41	34.84	23.29	77.78	-3,086.26	-9,435.06	9,457.11	9,401.34	55.78	169.557		
5,900.00	5,513.84	4,305.00	4,281.41	35.48	23.29	77.78	-3,086.26	-9,435.06	9,461.83	9,405.43	56.40	167.753		
6,000.00	5,606.03	4,356.28	4,331.89	36.13	23.59	77.87	-3,093.10	-9,440.89	9,467.18	9,409.88	57.31	165.205		
6,100.00	5,698.22	4,399.00	4,373.88	36.77	23.83	77.93	-3,098.98	-9,446.16	9,473.35	9,415.19	58.16	162.885		
6,200.00	5,790.40	4,429.86	4,404.19	37.41	24.02	77.98	-3,103.21	-9,450.16	9,480.16	9,421.22	58.95	160.829		
6,300.00	5,882.59	4,495.00	4,468.16	38.06	24.40	78.09	-3,111.66	-9,459.00	9,487.62	9,427.70	59.92	158.338		
6,400.00	5,974.77	4,523.58	4,496.22	38.70	24.57	78.14	-3,115.29	-9,463.03	9,495.58	9,434.89	60.69	156.463		
6,500.00	6,066.96	4,588.00	4,559.36	39.34	24.95	78.25	-3,124.01	-9,472.40	9,504.18	9,442.52	61.66	154.142		
6,600.00	6,159.15	4,656.16	4,626.08	39.99	25.37	78.36	-3,133.65	-9,482.46	9,513.16	9,450.51	62.65	151.835		
6,700.00	6,251.33	6,206.99	6,163.85	40.63	32.85	81.44	-3,233.96	-9,610.21	9,520.00	9,449.56	70.43	135.164		
6,800.00	6,343.52	6,294.03	6,250.88	41.28	33.17	81.64	-3,234.02	-9,611.03	9,514.84	9,443.40	71.44	133.181		
6,900.00	6,435.71	6,381.13	6,337.98	41.92	33.49	81.84	-3,233.98	-9,611.91	9,509.90	9,437.44	72.45	131.257		
7,000.00	6,527.86	6,474.29	6,431.13	42.56	33.83	75.00	-3,233.76	-9,612.89	9,504.25	9,430.78	73.47	129.355		
7,100.00	6,618.85	6,566.20	6,523.03	43.19	34.16	56.58	-3,233.30	-9,613.86	9,486.67	9,412.21	74.46	127.401		
7,200.00	6,706.47	6,654.69	6,611.52	43.76	34.48	43.27	-3,232.64	-9,614.81	9,454.09	9,378.72	75.38	125.426		
7,300.00	6,788.56	6,807.06	6,763.87	44.26	35.00	34.42	-3,230.77	-9,615.94	9,407.01	9,330.61	76.40	123.129		
7,400.00	6,863.10	6,948.56	6,905.34	44.70	35.48	28.38	-3,228.05	-9,616.01	9,346.29	9,268.99	77.30	120.907		
7,500.00	6,928.26	6,996.28	6,953.05	45.07	35.64	23.75	-3,227.02	-9,615.92	9,273.85	9,196.02	77.83	119.157		
7,600.00	6,982.42	7,037.41	6,994.17	45.39	35.78	19.92	-3,226.19	-9,615.89	9,191.69	9,113.44	78.25	117.464		
7,700.00	7,024.26	7,069.34	7,026.09	45.67	35.89	15.88	-3,225.59	-9,615.91	9,101.78	9,023.22	78.56	115.857		
7,800.00	7,052.75	7,091.21	7,047.97	45.92	35.96	9.08	-3,225.20	-9,615.94	9,006.24	8,927.49	78.75	114.361		
7,900.00	7,067.18	7,102.41	7,059.17	46.16	36.00	-20.60	-3,225.01	-9,615.96	8,907.41	8,828.57	78.83	112.992		
8,000.00	7,068.85	7,103.85	7,060.60	46.42	36.00	-91.94	-3,224.98	-9,615.96	8,807.59	8,728.77	78.82	111.747		
8,100.00	7,068.56	7,103.77	7,060.52	46.78	36.00	-91.94	-3,224.99	-9,615.96	8,707.77	8,628.98	78.79	110.520		
8,200.00	7,068.26	7,103.69	7,060.44	47.29	36.00	-91.93	-3,224.99	-9,615.96	8,607.96	8,529.19	78.76	109.291		
8,300.00	7,067.96	7,103.61	7,060.36	48.03	36.00	-91.92	-3,224.99	-9,615.96	8,508.15	8,429.41	78.74	108.060		
8,400.00	7,067.66	7,103.53	7,060.28	49.02	36.00	-91.91	-3,224.99	-9,615.96	8,408.34	8,329.63	78.71	106.827		
8,500.00	7,067.37	7,103.45	7,060.20	50.27	36.00	-91.90	-3,224.99	-9,615.96	8,308.54	8,229.86	78.68	105.593		
8,600.00	7,067.07	7,103.37	7,060.12	51.75	36.00	-91.89	-3,224.99	-9,615.96	8,208.75	8,130.09	78.66	104.357		
8,700.00	7,066.77	7,103.29	7,060.04	53.42	36.00	-91.88	-3,224.99	-9,615.96	8,108.96	8,030.32	78.64	103.118		
8,800.00	7,066.47	7,103.21	7,059.96	55.24	36.00	-91.87	-3,225.00	-9,615.96	8,009.17	7,930.56	78.62	101.878		
8,900.00	7,066.18	7,103.13	7,059.88	57.18	36.00	-91.87	-3,225.00	-9,615.96	7,909.39	7,830.80	78.59	100.636		
9,000.00	7,065.88	7,103.04	7,059.80	59.21	36.00	-91.86	-3,225.00	-9,615.96	7,809.62	7,731.04	78.57	99.392		
9,100.00	7,065.58	7,102.96	7,059.71	61.33	36.00	-91.85	-3,225.00	-9,615.96	7,709.85	7,631.29	78.55	98.146		
9,200.00	7,065.28	7,102.88	7,059.63	63.51	36.00	-91.84	-3,225.00	-9,615.96	7,610.09	7,531.55	78.54	96.898		
9,300.00	7,064.99	7,102.79	7,059.55	65.76	36.00	-91.83	-3,225.00	-9,615.96	7,510.33	7,431.81	78.52	95.649		
9,400.00	7,064.69	7,102.71	7,059.46	68.06	36.00	-91.82	-3,225.00	-9,615.96	7,410.58	7,332.08	78.50	94.397		
9,500.00	7,064.39	7,102.63	7,059.38	70.40	36.00	-91.81	-3,225.01	-9,615.96	7,310.84	7,232.35	78.49	93.143		
9,600.00	7,064.09	7,102.54	7,059.29	72.78	36.00	-91.80	-3,225.01	-9,615.96	7,211.10	7,132.63	78.48	91.887		
9,700.00	7,063.80	7,102.46	7,059.21	75.20	36.00	-91.79	-3,225.01	-9,615.96	7,111.38	7,032.91	78.47	90.629		
9,800.00	7,063.50	7,102.37	7,059.12	77.65	36.00	-91.78	-3,225.01	-9,615.96	7,011.66	6,933.20	78.46	89.369		
9,900.00	7,063.20	7,102.28	7,059.04	80.13	36.00	-91.77	-3,225.01	-9,615.96	6,911.94	6,833.49	78.45	88.106		
10,000.00	7,062.90	7,102.20	7,058.95	82.64	36.00	-91.76	-3,225.01	-9,615.96	6,812.24	6,733.80	78.44	86.842		
10,100.00	7,062.61	7,102.11	7,058.86	85.17	36.00	-91.76	-3,225.01	-9,615.96	6,712.55	6,634.10	78.44	85.575		
10,200.00	7,062.31	7,102.02	7,058.77	87.72	36.00	-91.75	-3,225.02	-9,615.96	6,612.86	6,534.42	78.44	84.305		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,101.94	7,058.69	90.28	36.00	-91.74	-3,225.02	-9,615.96	6,513.18	6,434.74	78.44	83.033		
10,400.00	7,061.71	7,101.85	7,058.60	92.87	36.00	-91.73	-3,225.02	-9,615.96	6,413.52	6,335.07	78.44	81.759		
10,500.00	7,061.41	7,101.76	7,058.51	95.47	36.00	-91.72	-3,225.02	-9,615.96	6,313.86	6,235.41	78.45	80.482		
10,600.00	7,061.12	7,101.67	7,058.42	98.09	36.00	-91.71	-3,225.02	-9,615.96	6,214.22	6,135.76	78.46	79.203		
10,700.00	7,060.82	7,101.58	7,058.33	100.72	36.00	-91.70	-3,225.02	-9,615.96	6,114.59	6,036.11	78.47	77.921		
10,800.00	7,060.52	7,101.49	7,058.24	103.37	36.00	-91.69	-3,225.02	-9,615.96	6,014.97	5,936.48	78.49	76.636		
10,900.00	7,060.22	7,101.40	7,058.15	106.02	36.00	-91.68	-3,225.03	-9,615.96	5,915.36	5,836.85	78.51	75.348		
11,000.00	7,059.93	7,101.31	7,058.06	108.69	36.00	-91.67	-3,225.03	-9,615.96	5,815.76	5,737.23	78.53	74.057		
11,100.00	7,059.63	7,101.22	7,057.97	111.36	35.99	-91.66	-3,225.03	-9,615.96	5,716.18	5,637.62	78.56	72.763		
11,200.00	7,059.33	7,101.12	7,057.88	114.05	35.99	-91.65	-3,225.03	-9,615.96	5,616.62	5,538.03	78.59	71.465		
11,300.00	7,059.03	7,101.03	7,057.78	116.74	35.99	-91.64	-3,225.03	-9,615.96	5,517.07	5,438.44	78.63	70.164		
11,400.00	7,058.74	7,100.94	7,057.69	119.44	35.99	-91.63	-3,225.03	-9,615.96	5,417.54	5,338.86	78.67	68.860		
11,500.00	7,058.44	7,100.84	7,057.60	122.15	35.99	-91.62	-3,225.04	-9,615.96	5,318.02	5,239.30	78.72	67.552		
11,600.00	7,058.14	7,100.75	7,057.50	124.86	35.99	-91.61	-3,225.04	-9,615.96	5,218.53	5,139.74	78.78	66.240		
11,700.00	7,057.84	7,100.66	7,057.41	127.58	35.99	-91.60	-3,225.04	-9,615.96	5,119.05	5,040.20	78.85	64.924		
11,800.00	7,057.55	7,100.56	7,057.31	130.31	35.99	-91.59	-3,225.04	-9,615.95	5,019.59	4,940.67	78.92	63.603		
11,900.00	7,057.25	7,100.47	7,057.22	133.04	35.99	-91.58	-3,225.04	-9,615.95	4,920.16	4,841.16	79.00	62.279		
12,000.00	7,056.95	7,100.37	7,057.12	135.78	35.99	-91.57	-3,225.04	-9,615.95	4,820.75	4,741.65	79.09	60.949		
12,100.00	7,056.65	7,100.27	7,057.02	138.52	35.99	-91.56	-3,225.05	-9,615.95	4,721.36	4,642.16	79.20	59.615		
12,200.00	7,056.36	7,100.18	7,056.93	141.27	35.99	-91.55	-3,225.05	-9,615.95	4,622.00	4,542.69	79.31	58.276		
12,300.00	7,056.06	7,100.08	7,056.83	144.02	35.99	-91.53	-3,225.05	-9,615.95	4,522.67	4,443.23	79.44	56.931		
12,400.00	7,055.76	7,099.98	7,056.73	146.78	35.99	-91.52	-3,225.05	-9,615.95	4,423.37	4,343.79	79.58	55.581		
12,500.00	7,055.46	7,099.88	7,056.63	149.54	35.99	-91.51	-3,225.05	-9,615.95	4,324.10	4,244.36	79.74	54.225		
12,600.00	7,055.17	7,099.78	7,056.53	152.30	35.99	-91.50	-3,225.05	-9,615.95	4,224.87	4,144.95	79.92	52.863		
12,700.00	7,054.87	7,099.68	7,056.43	155.07	35.99	-91.49	-3,225.06	-9,615.95	4,125.67	4,045.55	80.12	51.494		
12,800.00	7,054.57	7,099.58	7,056.33	157.84	35.99	-91.48	-3,225.06	-9,615.95	4,026.51	3,946.17	80.34	50.119		
12,900.00	7,054.27	7,099.48	7,056.23	160.61	35.99	-91.47	-3,225.06	-9,615.95	3,927.40	3,846.81	80.58	48.737		
13,000.00	7,053.97	7,099.38	7,056.13	163.39	35.99	-91.46	-3,225.06	-9,615.95	3,828.33	3,747.47	80.86	47.348		
13,100.00	7,053.68	7,099.28	7,056.03	166.17	35.99	-91.45	-3,225.06	-9,615.95	3,729.31	3,648.15	81.16	45.951		
13,200.00	7,053.38	7,099.18	7,055.93	168.95	35.99	-91.44	-3,225.06	-9,615.95	3,630.34	3,548.85	81.50	44.547		
13,300.00	7,053.08	7,099.07	7,055.83	171.73	35.99	-91.43	-3,225.07	-9,615.95	3,531.44	3,449.57	81.87	43.134		
13,400.00	7,052.78	7,098.97	7,055.72	174.52	35.99	-91.41	-3,225.07	-9,615.95	3,432.59	3,350.30	82.29	41.714		
13,500.00	7,052.49	7,098.87	7,055.62	177.31	35.99	-91.40	-3,225.07	-9,615.95	3,333.82	3,251.06	82.75	40.286		
13,600.00	7,052.19	7,098.76	7,055.51	180.10	35.99	-91.39	-3,225.07	-9,615.95	3,235.12	3,151.84	83.27	38.849		
13,700.00	7,051.89	7,098.66	7,055.41	182.90	35.99	-91.38	-3,225.07	-9,615.95	3,136.50	3,052.65	83.85	37.404		
13,800.00	7,051.59	7,098.55	7,055.30	185.69	35.99	-91.37	-3,225.08	-9,615.95	3,037.97	2,953.47	84.50	35.951		
13,900.00	7,051.30	7,098.44	7,055.20	188.49	35.99	-91.36	-3,225.08	-9,615.95	2,939.55	2,854.32	85.23	34.491		
14,000.00	7,051.00	7,098.34	7,055.09	191.29	35.99	-91.35	-3,225.08	-9,615.95	2,841.23	2,755.19	86.04	33.023		
14,100.00	7,050.70	7,098.23	7,054.98	194.09	35.98	-91.33	-3,225.08	-9,615.95	2,743.03	2,656.08	86.95	31.547		
14,200.00	7,050.40	7,098.12	7,054.87	196.89	35.98	-91.32	-3,225.08	-9,615.95	2,644.97	2,557.00	87.97	30.066		
14,300.00	7,050.11	7,098.01	7,054.76	199.70	35.98	-91.31	-3,225.08	-9,615.95	2,547.06	2,457.94	89.12	28.580		
14,400.00	7,049.81	7,097.90	7,054.66	202.50	35.98	-91.30	-3,225.09	-9,615.95	2,449.32	2,358.91	90.41	27.091		
14,500.00	7,049.51	7,097.79	7,054.55	205.31	35.98	-91.29	-3,225.09	-9,615.95	2,351.77	2,259.90	91.87	25.599		
14,600.00	7,049.21	7,097.68	7,054.43	208.12	35.98	-91.27	-3,225.09	-9,615.95	2,254.44	2,160.92	93.52	24.108		
14,700.00	7,048.92	7,097.57	7,054.32	210.93	35.98	-91.26	-3,225.09	-9,615.95	2,157.34	2,061.97	95.38	22.619		
14,800.00	7,048.62	7,097.46	7,054.21	213.74	35.98	-91.25	-3,225.09	-9,615.95	2,060.53	1,963.04	97.49	21.136		
14,900.00	7,048.32	7,097.35	7,054.10	216.55	35.98	-91.24	-3,225.10	-9,615.95	1,964.03	1,864.15	99.88	19.663		
15,000.00	7,048.02	7,097.23	7,053.99	219.37	35.98	-91.23	-3,225.10	-9,615.95	1,867.91	1,765.30	102.61	18.204		
15,100.00	7,047.73	7,097.12	7,053.87	222.18	35.98	-91.21	-3,225.10	-9,615.95	1,772.21	1,666.48	105.72	16.762		
15,200.00	7,047.43	7,097.00	7,053.76	225.00	35.98	-91.20	-3,225.10	-9,615.95	1,677.01	1,567.73	109.29	15.345		
15,300.00	7,047.13	7,096.89	7,053.64	227.81	35.98	-91.19	-3,225.10	-9,615.95	1,582.41	1,469.03	113.37	13.957		
15,343.67	7,047.00	7,096.84	7,053.59	229.04	35.98	-91.18	-3,225.10	-9,615.95	1,541.31	1,425.96	115.35	13.362	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	958.88	982.94	3.28	5.69	-107.08	-2,715.81	-8,837.53	9,297.51					
100.00	100.00	1,024.79	1,047.08	3.28	6.03	-107.17	-2,726.80	-8,827.08	9,287.07	9,277.81	9.27	1,002.310		
200.00	200.00	1,070.27	1,091.40	3.34	6.28	-107.22	-2,734.26	-8,820.15	9,277.17	9,267.63	9.54	972.503		
300.00	299.98	1,098.00	1,118.48	3.44	6.43	69.52	-2,738.67	-8,816.10	9,267.28	9,257.51	9.77	948.143		
400.00	399.84	1,146.09	1,165.54	3.59	6.68	69.68	-2,746.02	-8,809.48	9,256.80	9,246.64	10.16	911.319		
500.00	499.45	1,193.00	1,211.58	3.79	6.93	69.86	-2,752.79	-8,803.61	9,245.87	9,235.28	10.59	873.340		
600.00	598.70	1,242.70	1,260.38	4.03	7.20	70.06	-2,760.09	-8,797.63	9,234.29	9,223.21	11.08	833.563		
700.00	697.47	1,317.74	1,333.87	4.31	7.60	70.27	-2,772.18	-8,788.44	9,221.83	9,210.08	11.75	784.799		
800.00	795.62	1,390.75	1,405.44	4.64	8.00	70.52	-2,783.69	-8,779.79	9,208.48	9,196.02	12.46	739.287		
900.00	893.06	1,706.53	1,716.29	5.00	9.69	70.93	-2,824.42	-8,742.21	9,193.49	9,179.04	14.45	636.374		
1,000.00	989.64	1,757.00	1,765.95	5.40	9.97	71.30	-2,830.80	-8,735.85	9,176.11	9,161.01	15.09	607.903		
1,100.00	1,085.27	1,779.84	1,788.43	5.83	10.10	71.66	-2,833.75	-8,733.11	9,158.20	9,142.57	15.63	585.861		
1,200.00	1,179.82	1,851.00	1,858.42	6.29	10.49	72.09	-2,843.42	-8,724.65	9,139.74	9,123.28	16.46	555.253		
1,300.00	1,273.17	2,251.58	2,251.38	6.79	12.80	72.96	-2,897.08	-8,669.03	9,117.23	9,098.11	19.12	476.748		
1,400.00	1,365.46	2,321.00	2,319.65	7.32	13.19	73.24	-2,904.84	-8,659.08	9,094.05	9,074.05	20.00	454.759		
1,500.00	1,457.65	2,348.66	2,346.90	7.87	13.34	73.29	-2,907.73	-8,655.31	9,071.28	9,050.61	20.67	438.917		
1,600.00	1,549.83	2,382.80	2,380.54	8.43	13.53	73.34	-2,911.47	-8,650.84	9,049.21	9,027.83	21.39	423.124		
1,700.00	1,642.02	2,507.40	2,503.10	9.01	14.24	73.52	-2,926.99	-8,634.66	9,027.82	9,005.22	22.60	399.401		
1,800.00	1,734.21	2,572.50	2,567.00	9.59	14.61	73.61	-2,935.67	-8,625.78	9,006.01	8,982.49	23.52	382.883		
1,900.00	1,826.39	2,748.62	2,739.73	10.18	15.66	73.85	-2,959.67	-8,601.28	8,984.11	8,959.04	25.07	358.394		
2,000.00	1,918.58	2,838.50	2,827.43	10.78	16.22	73.96	-2,973.91	-8,587.74	8,961.69	8,935.52	26.17	342.483		
2,100.00	2,010.77	2,890.00	2,877.83	11.39	16.53	74.03	-2,981.41	-8,580.24	8,939.54	8,912.49	27.05	330.450		
2,200.00	2,102.95	2,936.10	2,923.06	11.99	16.80	74.10	-2,987.66	-8,573.91	8,917.94	8,890.04	27.90	319.643		
2,300.00	2,195.14	2,984.00	2,970.18	12.61	17.08	74.17	-2,993.82	-8,567.86	8,897.08	8,868.32	28.76	309.340		
2,400.00	2,287.32	3,043.91	3,029.10	13.22	17.43	74.25	-3,001.81	-8,560.51	8,876.75	8,847.05	29.69	298.940		
2,500.00	2,379.51	3,102.27	3,086.37	13.84	17.76	74.33	-3,010.33	-8,553.21	8,856.66	8,826.05	30.62	289.258		
2,600.00	2,471.70	3,140.14	3,123.67	14.46	17.97	74.39	-3,015.26	-8,548.89	8,837.22	8,805.78	31.43	281.138		
2,700.00	2,563.88	3,169.00	3,152.18	15.08	18.14	74.44	-3,018.54	-8,545.89	8,818.47	8,786.26	32.20	273.828		
2,800.00	2,656.07	3,222.61	3,205.25	15.71	18.41	74.53	-3,024.16	-8,540.78	8,800.33	8,767.25	33.09	265.988		
2,900.00	2,748.26	3,268.58	3,250.81	16.33	18.65	74.60	-3,028.79	-8,536.76	8,782.84	8,748.91	33.93	258.837		
3,000.00	2,840.44	3,339.21	3,320.77	16.96	19.01	74.72	-3,036.40	-8,530.74	8,765.81	8,730.91	34.90	251.153		
3,100.00	2,932.63	3,404.91	3,385.80	17.59	19.35	74.83	-3,043.96	-8,525.23	8,749.14	8,713.29	35.85	244.041		
3,200.00	3,024.81	3,578.41	3,557.66	18.22	20.24	75.13	-3,062.47	-8,510.38	8,732.11	8,694.78	37.33	233.945		
3,300.00	3,117.00	4,066.87	4,038.31	18.86	23.02	75.87	-3,127.28	-8,454.81	8,714.97	8,674.48	40.49	215.246		
3,400.00	3,209.19	4,112.00	4,082.51	19.49	23.30	75.93	-3,133.88	-8,448.45	8,693.83	8,652.44	41.38	210.075		
3,500.00	3,301.37	4,149.42	4,119.24	20.12	23.52	75.99	-3,138.97	-8,443.52	8,673.33	8,631.10	42.23	205.403		
3,600.00	3,393.56	4,207.00	4,175.91	20.76	23.85	76.08	-3,146.28	-8,436.38	8,653.44	8,610.27	43.17	200.441		
3,700.00	3,485.75	4,265.25	4,233.21	21.39	24.19	76.17	-3,154.06	-8,429.34	8,634.04	8,589.91	44.13	195.658		
3,800.00	3,577.93	4,301.00	4,268.26	22.03	24.40	76.22	-3,159.51	-8,424.91	8,615.04	8,570.07	44.97	191.585		
3,900.00	3,670.12	4,363.68	4,329.75	22.67	24.77	76.31	-3,169.15	-8,417.47	8,596.52	8,550.57	45.95	187.067		
4,000.00	3,762.30	4,408.55	4,373.88	23.30	25.04	76.37	-3,175.61	-8,412.62	8,578.75	8,531.90	46.84	183.136		
4,100.00	3,854.49	4,470.29	4,434.69	23.94	25.38	76.47	-3,184.18	-8,406.31	8,561.48	8,513.67	47.81	179.059		
4,200.00	3,946.68	4,517.55	4,481.31	24.58	25.65	76.54	-3,190.52	-8,401.73	8,544.71	8,496.01	48.70	175.440		
4,300.00	4,038.86	4,557.47	4,520.74	25.22	25.86	76.61	-3,195.63	-8,398.19	8,528.62	8,479.07	49.55	172.106		
4,400.00	4,131.05	4,585.00	4,547.97	25.86	26.01	76.65	-3,199.01	-8,395.93	8,513.25	8,462.91	50.34	169.111		
4,500.00	4,223.24	4,628.25	4,590.81	26.50	26.23	76.73	-3,204.02	-8,392.76	8,498.60	8,447.41	51.19	166.010		
4,600.00	4,315.42	4,680.00	4,642.17	27.14	26.49	76.82	-3,209.48	-8,389.64	8,484.81	8,432.72	52.09	162.900		
4,700.00	4,407.61	4,680.00	4,642.17	27.78	26.49	76.82	-3,209.48	-8,389.64	8,471.72	8,418.99	52.73	160.672		
4,800.00	4,499.79	4,732.86	4,694.72	28.42	26.73	76.92	-3,214.64	-8,387.11	8,459.37	8,405.76	53.61	157.799		
4,900.00	4,591.98	4,900.00	4,798.04	29.06	27.49	77.13	-3,223.40	-8,383.03	8,447.57	8,392.57	55.00	153.591		
5,000.00	4,684.17	4,945.76	4,906.81	29.70	27.68	77.36	-3,230.83	-8,378.46	8,435.30	8,379.48	55.82	151.115		
5,100.00	4,776.35	4,994.60	4,955.53	30.34	27.89	77.47	-3,233.78	-8,376.71	8,423.60	8,366.94	56.66	148.659		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,059.00	5,019.81	30.98	28.16	77.61	-3,237.36	-8,374.91	8,412.60	8,355.03	57.57	146.129		
5,300.00	4,960.73	5,094.62	5,055.39	31.63	28.29	77.69	-3,238.87	-8,374.18	8,402.15	8,343.81	58.34	144.023		
5,400.00	5,052.91	5,154.00	5,114.75	32.27	28.52	77.84	-3,239.82	-8,373.46	8,392.28	8,333.09	59.20	141.770		
5,500.00	5,145.10	5,213.85	5,174.60	32.91	28.72	77.99	-3,239.78	-8,373.15	8,382.95	8,322.91	60.03	139.645		
5,600.00	5,237.28	5,276.50	5,237.25	33.55	28.92	78.16	-3,239.73	-8,373.05	8,374.10	8,313.23	60.87	137.567		
5,700.00	5,329.47	5,343.00	5,303.75	34.20	29.14	78.33	-3,239.89	-8,373.14	8,365.75	8,304.03	61.73	135.528		
5,800.00	5,421.66	5,424.85	5,385.59	34.84	29.41	78.54	-3,240.28	-8,373.41	8,357.78	8,295.14	62.64	133.423		
5,900.00	5,513.84	5,510.97	5,471.72	35.48	29.69	78.76	-3,240.76	-8,373.74	8,350.04	8,286.47	63.57	131.350		
6,000.00	5,606.03	5,597.16	5,557.90	36.13	29.98	78.99	-3,241.32	-8,374.13	8,342.54	8,278.04	64.50	129.338		
6,100.00	5,698.22	5,693.32	5,654.06	36.77	30.29	79.23	-3,241.93	-8,374.60	8,335.23	8,269.77	65.46	127.325		
6,200.00	5,790.40	5,793.30	5,754.04	37.41	30.62	79.50	-3,242.32	-8,375.03	8,328.02	8,261.58	66.44	125.349		
6,300.00	5,882.59	5,893.06	5,853.80	38.06	30.95	79.76	-3,242.44	-8,375.41	8,320.89	8,253.48	67.41	123.431		
6,400.00	5,974.77	5,997.75	5,958.49	38.70	31.30	80.03	-3,242.58	-8,375.68	8,313.83	8,245.41	68.42	121.509		
6,500.00	6,066.96	6,103.45	6,064.18	39.34	31.67	80.31	-3,243.21	-8,375.72	8,306.80	8,237.36	69.44	119.633		
6,600.00	6,159.15	6,217.00	6,177.73	39.99	32.07	80.60	-3,244.42	-8,375.50	8,299.78	8,229.29	70.49	117.746		
6,700.00	6,251.33	6,358.46	6,319.18	40.63	32.61	80.96	-3,246.15	-8,374.55	8,292.49	8,220.82	71.68	115.692		
6,800.00	6,343.52	6,499.90	6,460.59	41.28	33.15	81.33	-3,247.93	-8,372.76	8,284.83	8,211.97	72.86	113.701		
6,900.00	6,435.71	6,563.45	6,524.12	41.92	33.40	81.49	-3,249.01	-8,371.95	8,277.31	8,203.55	73.76	112.216		
7,000.00	6,527.86	6,640.88	6,601.53	42.56	33.71	74.62	-3,250.61	-8,371.02	8,269.25	8,194.54	74.71	110.685		
7,100.00	6,618.85	6,717.52	6,678.15	43.19	34.01	56.14	-3,252.57	-8,370.20	8,249.46	8,173.84	75.63	109.081		
7,200.00	6,706.47	6,797.52	6,758.11	43.76	34.33	42.78	-3,254.88	-8,369.46	8,214.93	8,138.43	76.50	107.391		
7,300.00	6,788.56	6,877.72	6,838.28	44.26	34.65	33.68	-3,256.95	-8,368.77	8,166.34	8,089.05	77.29	105.655		
7,400.00	6,863.10	6,950.25	6,910.79	44.70	34.94	27.33	-3,258.54	-8,368.19	8,104.85	8,026.87	77.98	103.930		
7,500.00	6,928.26	7,013.40	6,973.93	45.07	35.19	22.55	-3,259.71	-8,367.72	8,031.93	7,953.37	78.56	102.236		
7,600.00	6,982.42	7,082.69	7,043.21	45.39	35.46	18.49	-3,260.83	-8,367.19	7,949.29	7,870.20	79.09	100.511		
7,700.00	7,024.26	7,143.23	7,103.74	45.67	35.70	13.92	-3,261.79	-8,366.57	7,858.86	7,779.36	79.50	98.853		
7,800.00	7,052.75	7,183.44	7,143.93	45.92	35.86	5.38	-3,262.43	-8,366.08	7,762.93	7,683.18	79.76	97.333		
7,900.00	7,067.18	7,202.62	7,163.11	46.16	35.94	-35.72	-3,262.74	-8,365.82	7,663.92	7,584.06	79.86	95.967		
8,000.00	7,068.85	7,203.07	7,163.57	46.42	35.94	-101.56	-3,262.74	-8,365.81	7,564.19	7,484.35	79.84	94.744		
8,100.00	7,068.56	7,200.68	7,161.17	46.78	35.93	-101.33	-3,262.70	-8,365.85	7,464.49	7,384.69	79.80	93.541		
8,200.00	7,068.26	7,198.31	7,158.80	47.29	35.92	-101.10	-3,262.67	-8,365.88	7,364.80	7,285.04	79.76	92.336		
8,300.00	7,067.96	7,195.97	7,156.46	48.03	35.91	-100.88	-3,262.63	-8,365.91	7,265.12	7,185.39	79.72	91.129		
8,400.00	7,067.66	7,193.65	7,154.15	49.02	35.90	-100.65	-3,262.59	-8,365.94	7,165.45	7,085.76	79.69	89.919		
8,500.00	7,067.37	7,191.36	7,151.86	50.27	35.89	-100.43	-3,262.56	-8,365.97	7,065.78	6,986.13	79.65	88.706		
8,600.00	7,067.07	7,189.10	7,149.60	51.75	35.89	-100.21	-3,262.52	-8,366.00	6,966.13	6,886.50	79.62	87.491		
8,700.00	7,066.77	7,186.86	7,147.36	53.42	35.88	-100.00	-3,262.49	-8,366.03	6,866.48	6,786.89	79.59	86.273		
8,800.00	7,066.47	7,184.65	7,145.15	55.24	35.87	-99.78	-3,262.45	-8,366.06	6,766.84	6,687.28	79.56	85.053		
8,900.00	7,066.18	7,182.46	7,142.96	57.18	35.86	-99.57	-3,262.42	-8,366.09	6,667.22	6,587.69	79.53	83.830		
9,000.00	7,065.88	7,180.30	7,140.80	59.21	35.85	-99.36	-3,262.38	-8,366.12	6,567.60	6,488.10	79.51	82.604		
9,100.00	7,065.58	7,178.16	7,138.66	61.33	35.84	-99.15	-3,262.35	-8,366.15	6,468.00	6,388.52	79.48	81.375		
9,200.00	7,065.28	7,176.04	7,136.54	63.51	35.83	-98.95	-3,262.31	-8,366.17	6,368.41	6,288.95	79.46	80.144		
9,300.00	7,064.99	7,173.95	7,134.45	65.76	35.83	-98.74	-3,262.28	-8,366.20	6,268.83	6,189.39	79.44	78.909		
9,400.00	7,064.69	7,171.88	7,132.38	68.06	35.82	-98.54	-3,262.25	-8,366.23	6,169.27	6,089.84	79.43	77.672		
9,500.00	7,064.39	7,169.83	7,130.33	70.40	35.81	-98.34	-3,262.22	-8,366.25	6,069.71	5,990.30	79.41	76.431		
9,600.00	7,064.09	7,167.80	7,128.30	72.78	35.80	-98.14	-3,262.18	-8,366.28	5,970.18	5,890.77	79.40	75.188		
9,700.00	7,063.80	7,165.79	7,126.29	75.20	35.79	-97.95	-3,262.15	-8,366.30	5,870.65	5,791.26	79.40	73.941		
9,800.00	7,063.50	7,163.81	7,124.31	77.65	35.78	-97.75	-3,262.12	-8,366.33	5,771.15	5,691.75	79.39	72.691		
9,900.00	7,063.20	7,161.84	7,122.35	80.13	35.78	-97.56	-3,262.09	-8,366.35	5,671.66	5,592.26	79.39	71.437		
10,000.00	7,062.90	7,159.90	7,120.40	82.64	35.77	-97.37	-3,262.06	-8,366.37	5,572.19	5,492.79	79.40	70.180		
10,100.00	7,062.61	7,157.98	7,118.48	85.17	35.76	-97.18	-3,262.03	-8,366.40	5,472.73	5,393.33	79.41	68.919		
10,200.00	7,062.31	7,156.07	7,116.58	87.72	35.75	-96.99	-3,262.00	-8,366.42	5,373.30	5,293.88	79.42	67.655		
10,300.00	7,062.01	7,154.19	7,114.69	90.28	35.75	-96.81	-3,261.97	-8,366.44	5,273.89	5,194.45	79.44	66.386		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	7,152.32	7,112.83	92.87	35.74	-96.62	-3,261.94	-8,366.47	5,174.50	5,095.03	79.47	65.113		
10,500.00	7,061.41	7,150.48	7,110.98	95.47	35.73	-96.44	-3,261.91	-8,366.49	5,075.13	4,995.63	79.50	63.836		
10,600.00	7,061.12	7,148.65	7,109.16	98.09	35.72	-96.26	-3,261.88	-8,366.51	4,975.79	4,896.25	79.54	62.555		
10,700.00	7,060.82	7,146.84	7,107.35	100.72	35.72	-96.08	-3,261.85	-8,366.53	4,876.47	4,796.88	79.59	61.269		
10,800.00	7,060.52	7,145.05	7,105.56	103.37	35.71	-95.90	-3,261.82	-8,366.55	4,777.19	4,697.54	79.65	59.978		
10,900.00	7,060.22	7,143.28	7,103.78	106.02	35.70	-95.73	-3,261.80	-8,366.57	4,677.93	4,598.21	79.72	58.682		
11,000.00	7,059.93	7,141.52	7,102.03	108.69	35.70	-95.55	-3,261.77	-8,366.59	4,578.70	4,498.91	79.80	57.381		
11,100.00	7,059.63	7,139.79	7,100.29	111.36	35.69	-95.38	-3,261.74	-8,366.61	4,479.51	4,399.62	79.89	56.074		
11,200.00	7,059.33	7,138.06	7,098.57	114.05	35.68	-95.21	-3,261.71	-8,366.63	4,380.35	4,300.36	79.99	54.761		
11,300.00	7,059.03	7,136.36	7,096.87	116.74	35.68	-95.04	-3,261.69	-8,366.65	4,281.24	4,201.13	80.11	53.443		
11,400.00	7,058.74	7,134.67	7,095.18	119.44	35.67	-94.88	-3,261.66	-8,366.67	4,182.16	4,101.92	80.24	52.118		
11,500.00	7,058.44	7,133.00	7,093.51	122.15	35.66	-94.71	-3,261.63	-8,366.69	4,083.13	4,002.73	80.40	50.786		
11,600.00	7,058.14	7,131.35	7,091.85	124.86	35.66	-94.54	-3,261.61	-8,366.70	3,984.15	3,903.57	80.57	49.447		
11,700.00	7,057.84	7,129.71	7,090.21	127.58	35.65	-94.38	-3,261.58	-8,366.72	3,885.22	3,804.44	80.77	48.101		
11,800.00	7,057.55	7,128.08	7,088.59	130.31	35.64	-94.22	-3,261.55	-8,366.74	3,786.34	3,705.34	81.00	46.748		
11,900.00	7,057.25	7,126.48	7,086.98	133.04	35.64	-94.06	-3,261.53	-8,366.76	3,687.52	3,606.27	81.25	45.386		
12,000.00	7,056.95	7,124.88	7,085.39	135.78	35.63	-93.90	-3,261.50	-8,366.77	3,588.77	3,507.24	81.53	44.016		
12,100.00	7,056.65	7,123.30	7,083.81	138.52	35.62	-93.74	-3,261.48	-8,366.79	3,490.09	3,408.24	81.85	42.638		
12,200.00	7,056.36	7,121.74	7,082.25	141.27	35.62	-93.59	-3,261.45	-8,366.81	3,391.49	3,309.27	82.21	41.252		
12,300.00	7,056.06	7,120.19	7,080.70	144.02	35.61	-93.43	-3,261.43	-8,366.82	3,292.96	3,210.34	82.62	39.856		
12,400.00	7,055.76	7,118.66	7,079.17	146.78	35.60	-93.28	-3,261.40	-8,366.84	3,194.54	3,111.45	83.08	38.451		
12,500.00	7,055.46	7,117.14	7,077.65	149.54	35.60	-93.13	-3,261.38	-8,366.86	3,096.21	3,012.61	83.60	37.037		
12,600.00	7,055.17	7,115.63	7,076.14	152.30	35.59	-92.98	-3,261.36	-8,366.87	2,997.99	2,913.80	84.18	35.613		
12,700.00	7,054.87	7,114.14	7,074.65	155.07	35.59	-92.83	-3,261.33	-8,366.89	2,899.89	2,815.05	84.84	34.181		
12,800.00	7,054.57	7,112.66	7,073.17	157.84	35.58	-92.68	-3,261.31	-8,366.90	2,801.92	2,716.34	85.58	32.739		
12,900.00	7,054.27	7,111.19	7,071.70	160.61	35.58	-92.53	-3,261.29	-8,366.92	2,704.11	2,617.68	86.42	31.290		
13,000.00	7,053.97	7,109.74	7,070.25	163.39	35.57	-92.39	-3,261.26	-8,366.93	2,606.45	2,519.08	87.37	29.832		
13,100.00	7,053.68	7,108.30	7,068.81	166.17	35.56	-92.25	-3,261.24	-8,366.95	2,508.99	2,420.54	88.44	28.368		
13,200.00	7,053.38	7,106.88	7,067.39	168.95	35.56	-92.10	-3,261.22	-8,366.96	2,411.73	2,322.06	89.66	26.898		
13,300.00	7,053.08	7,105.46	7,065.97	171.73	35.55	-91.96	-3,261.19	-8,366.97	2,314.70	2,223.66	91.04	25.425		
13,400.00	7,052.78	7,104.06	7,064.57	174.52	35.55	-91.82	-3,261.17	-8,366.99	2,217.93	2,125.32	92.61	23.949		
13,500.00	7,052.49	7,102.67	7,063.18	177.31	35.54	-91.68	-3,261.15	-8,367.00	2,121.47	2,027.07	94.39	22.475		
13,600.00	7,052.19	7,101.30	7,061.81	180.10	35.54	-91.54	-3,261.13	-8,367.01	2,025.34	1,928.92	96.42	21.005		
13,700.00	7,051.89	7,099.93	7,060.44	182.90	35.53	-91.41	-3,261.11	-8,367.03	1,929.61	1,830.87	98.74	19.542		
13,800.00	7,051.59	7,098.58	7,059.09	185.69	35.52	-91.27	-3,261.08	-8,367.04	1,834.34	1,732.95	101.39	18.092		
13,900.00	7,051.30	7,097.24	7,057.75	188.49	35.52	-91.14	-3,261.06	-8,367.05	1,739.59	1,635.17	104.42	16.659		
14,000.00	7,051.00	7,095.91	7,056.42	191.29	35.51	-91.00	-3,261.04	-8,367.07	1,645.46	1,537.56	107.90	15.249		
14,100.00	7,050.70	7,094.59	7,055.10	194.09	35.51	-90.87	-3,261.02	-8,367.08	1,552.07	1,440.16	111.91	13.869		
14,200.00	7,050.40	7,093.28	7,053.80	196.89	35.50	-90.74	-3,261.00	-8,367.09	1,459.56	1,343.03	116.52	12.526		
14,300.00	7,050.11	7,091.99	7,052.50	199.70	35.50	-90.61	-3,260.98	-8,367.10	1,368.09	1,246.24	121.86	11.227		
14,400.00	7,049.81	7,090.70	7,051.22	202.50	35.49	-90.48	-3,260.96	-8,367.12	1,277.90	1,149.88	128.03	9.981		
14,500.00	7,049.51	7,089.43	7,049.94	205.31	35.49	-90.35	-3,260.94	-8,367.13	1,189.29	1,054.10	135.19	8.797		
14,600.00	7,049.21	7,088.17	7,048.68	208.12	35.48	-90.23	-3,260.92	-8,367.14	1,102.62	959.11	143.50	7.684		
14,700.00	7,048.92	7,086.91	7,047.43	210.93	35.48	-90.10	-3,260.90	-8,367.15	1,018.39	865.23	153.16	6.649		
14,800.00	7,048.62	7,085.67	7,046.19	213.74	35.47	-89.98	-3,260.88	-8,367.16	937.27	772.93	164.34	5.703		
14,900.00	7,048.32	7,084.44	7,044.95	216.55	35.47	-89.85	-3,260.86	-8,367.17	860.13	682.94	177.19	4.854		
15,000.00	7,048.02	7,083.22	7,043.73	219.37	35.46	-89.73	-3,260.84	-8,367.18	788.15	596.37	191.77	4.110		
15,100.00	7,047.73	7,082.01	7,042.52	222.18	35.46	-89.61	-3,260.82	-8,367.20	722.86	514.97	207.89	3.477		
15,200.00	7,047.43	7,080.81	7,041.32	225.00	35.45	-89.49	-3,260.80	-8,367.21	666.23	441.31	224.92	2.962		
15,300.00	7,047.13	7,079.61	7,040.13	227.81	35.45	-89.37	-3,260.78	-8,367.22	620.65	379.08	241.57	2.569		
15,343.67	7,047.00	7,079.10	7,039.61	229.04	35.45	-89.32	-3,260.77	-8,367.22	604.86	356.63	248.23	2.437 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	63.00	3.28	3.28	-131.37	-2,966.31	-3,368.70	4,489.00					
100.00	100.00	37.00	100.00	3.28	3.34	-131.37	-2,966.31	-3,368.70	4,488.56	4,481.93	6.63	677.242		
200.00	200.00	137.00	200.00	3.34	4.47	-131.37	-2,966.31	-3,368.70	4,488.56	4,480.75	7.81	574.922		
300.00	299.98	236.98	299.98	3.44	7.31	45.26	-2,966.31	-3,368.70	4,487.33	4,476.58	10.74	417.624		
400.00	399.84	336.84	399.84	3.59	10.54	45.36	-2,966.31	-3,368.70	4,483.64	4,469.52	14.13	317.375		
500.00	499.45	436.45	499.45	3.79	13.88	45.52	-2,966.31	-3,368.70	4,477.52	4,459.84	17.67	253.350		
600.00	598.70	535.70	598.70	4.03	17.27	45.76	-2,966.31	-3,368.70	4,468.96	4,447.66	21.30	209.794		
700.00	697.47	634.47	697.47	4.31	20.67	46.06	-2,966.31	-3,368.70	4,458.01	4,433.03	24.98	178.475		
800.00	795.62	732.62	795.62	4.64	24.06	46.43	-2,966.31	-3,368.70	4,444.69	4,416.00	28.68	154.954		
900.00	893.06	830.06	893.06	5.00	27.43	46.87	-2,966.31	-3,368.70	4,429.03	4,396.63	32.41	136.675		
1,000.00	989.64	926.64	989.64	5.40	30.78	47.38	-2,966.31	-3,368.70	4,411.10	4,374.96	36.13	122.077		
1,100.00	1,085.27	1,022.27	1,085.27	5.83	34.10	47.96	-2,966.31	-3,368.70	4,390.93	4,351.07	39.86	110.156		
1,200.00	1,179.82	1,116.82	1,179.82	6.29	37.39	48.61	-2,966.31	-3,368.70	4,368.59	4,325.01	43.58	100.242		
1,300.00	1,273.17	1,210.17	1,273.17	6.79	40.63	49.33	-2,966.31	-3,368.70	4,344.16	4,296.87	47.29	91.867		
1,400.00	1,365.46	1,302.46	1,365.46	7.32	43.85	49.86	-2,966.31	-3,368.70	4,318.08	4,267.10	50.98	84.699		
1,500.00	1,457.65	1,405.35	1,457.65	7.87	47.43	50.24	-2,966.31	-3,368.70	4,292.03	4,236.97	55.06	77.952		
1,600.00	1,549.83	1,486.83	1,549.83	8.43	50.27	50.62	-2,966.31	-3,368.70	4,266.16	4,207.75	58.41	73.041		
1,700.00	1,642.02	1,579.02	1,642.02	9.01	53.48	51.01	-2,966.31	-3,368.70	4,240.49	4,178.35	62.14	68.238		
1,800.00	1,734.21	1,671.21	1,734.21	9.59	56.69	51.40	-2,966.31	-3,368.70	4,215.02	4,149.13	65.89	63.972		
1,900.00	1,826.39	1,763.39	1,826.39	10.18	59.90	51.79	-2,966.31	-3,368.70	4,189.75	4,120.11	69.64	60.160		
2,000.00	1,918.58	1,855.58	1,918.58	10.78	63.12	52.19	-2,966.31	-3,368.70	4,164.70	4,091.29	73.41	56.733		
2,100.00	2,010.77	1,947.77	2,010.77	11.39	66.33	52.60	-2,966.31	-3,368.70	4,139.85	4,062.67	77.18	53.638		
2,200.00	2,102.95	2,039.95	2,102.95	11.99	69.55	53.00	-2,966.31	-3,368.70	4,115.22	4,034.25	80.96	50.830		
2,300.00	2,195.14	2,132.14	2,195.14	12.61	72.76	53.41	-2,966.31	-3,368.70	4,090.80	4,006.06	84.75	48.272		
2,400.00	2,287.32	2,224.32	2,287.32	13.22	75.98	53.83	-2,966.31	-3,368.70	4,066.61	3,978.07	88.54	45.931		
2,500.00	2,379.51	2,316.51	2,379.51	13.84	79.19	54.25	-2,966.31	-3,368.70	4,042.65	3,950.31	92.33	43.783		
2,600.00	2,471.70	2,408.70	2,471.70	14.46	82.41	54.68	-2,966.31	-3,368.70	4,018.91	3,922.78	96.13	41.805		
2,700.00	2,563.88	2,500.88	2,563.88	15.08	85.62	55.11	-2,966.31	-3,368.70	3,995.41	3,895.47	99.94	39.978		
2,800.00	2,656.07	2,606.93	2,656.07	15.71	89.32	55.54	-2,966.31	-3,368.70	3,972.15	3,867.92	104.23	38.108		
2,900.00	2,748.26	2,685.26	2,748.26	16.33	92.06	55.98	-2,966.31	-3,368.70	3,949.14	3,841.57	107.56	36.714		
3,000.00	2,840.44	2,777.44	2,840.44	16.96	95.27	56.42	-2,966.31	-3,368.70	3,926.37	3,814.98	111.38	35.251		
3,100.00	2,932.63	2,869.63	2,932.63	17.59	98.49	56.87	-2,966.31	-3,368.70	3,903.85	3,788.65	115.20	33.886		
3,200.00	3,024.81	2,961.81	3,024.81	18.22	101.70	57.33	-2,966.31	-3,368.70	3,881.59	3,762.56	119.03	32.610		
3,300.00	3,117.00	3,054.00	3,117.00	18.86	104.92	57.78	-2,966.31	-3,368.70	3,859.59	3,736.73	122.86	31.415		
3,400.00	3,209.19	3,146.19	3,209.19	19.49	108.14	58.24	-2,966.31	-3,368.70	3,837.85	3,711.16	126.69	30.293		
3,500.00	3,301.37	3,238.37	3,301.37	20.12	111.35	58.71	-2,966.31	-3,368.70	3,816.39	3,685.86	130.53	29.239		
3,600.00	3,393.56	3,330.56	3,393.56	20.76	114.57	59.18	-2,966.31	-3,368.70	3,795.20	3,660.83	134.36	28.246		
3,700.00	3,485.75	3,422.75	3,485.75	21.39	117.79	59.66	-2,966.31	-3,368.70	3,774.29	3,636.08	138.21	27.309		
3,800.00	3,577.93	3,514.93	3,577.93	22.03	121.01	60.14	-2,966.31	-3,368.70	3,753.66	3,611.61	142.05	26.425		
3,900.00	3,670.12	3,607.12	3,670.12	22.67	124.22	60.63	-2,966.31	-3,368.70	3,733.32	3,587.42	145.90	25.589		
4,000.00	3,762.30	3,700.70	3,762.30	23.30	127.49	61.12	-2,966.31	-3,368.70	3,713.27	3,563.47	149.79	24.789		
4,100.00	3,854.49	3,808.51	3,854.49	23.94	131.25	61.61	-2,966.31	-3,368.70	3,693.52	3,539.33	154.19	23.954		
4,200.00	3,946.68	3,883.68	3,946.68	24.58	133.87	62.11	-2,966.31	-3,368.70	3,674.07	3,516.62	157.45	23.334		
4,300.00	4,038.86	3,975.86	4,038.86	25.22	137.09	62.61	-2,966.31	-3,368.70	3,654.93	3,493.62	161.31	22.658		
4,400.00	4,131.05	4,068.05	4,131.05	25.86	140.31	63.12	-2,966.31	-3,368.70	3,636.11	3,470.94	165.17	22.014		
4,500.00	4,223.24	4,160.24	4,223.24	26.50	143.53	63.64	-2,966.31	-3,368.70	3,617.60	3,448.56	169.03	21.402		
4,600.00	4,315.42	4,252.42	4,315.42	27.14	146.74	64.15	-2,966.31	-3,368.70	3,599.41	3,426.51	172.90	20.818		
4,700.00	4,407.61	4,344.61	4,407.61	27.78	149.96	64.68	-2,966.31	-3,368.70	3,581.55	3,404.78	176.76	20.262		
4,800.00	4,499.79	4,436.79	4,499.79	28.42	153.18	65.20	-2,966.31	-3,368.70	3,564.02	3,383.38	180.63	19.731		
4,900.00	4,591.98	4,528.98	4,591.98	29.06	156.40	65.74	-2,966.31	-3,368.70	3,546.82	3,362.32	184.51	19.223		
5,000.00	4,684.17	4,621.17	4,684.17	29.70	159.61	66.27	-2,966.31	-3,368.70	3,529.97	3,341.60	188.38	18.739		
5,100.00	4,776.35	4,713.35	4,776.35	30.34	162.83	66.81	-2,966.31	-3,368.70	3,513.47	3,321.22	192.25	18.275		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,805.54	4,868.54	30.98	166.05	67.36	-2,966.31	-3,368.70	3,497.32	3,301.19	196.13	17.832	
5,300.00	4,960.73	4,902.27	4,960.73	31.63	169.42	67.91	-2,966.31	-3,368.70	3,481.52	3,281.35	200.17	17.393	
5,400.00	5,052.91	4,989.91	5,052.91	32.27	172.48	68.46	-2,966.31	-3,368.70	3,466.09	3,262.20	203.89	17.000	
5,500.00	5,145.10	5,082.10	5,145.10	32.91	175.70	69.02	-2,966.31	-3,368.70	3,451.02	3,243.24	207.77	16.610	
5,600.00	5,237.28	5,174.28	5,237.28	33.55	178.92	69.58	-2,966.31	-3,368.70	3,436.32	3,224.66	211.66	16.235	
5,700.00	5,329.47	5,266.47	5,329.47	34.20	182.14	70.15	-2,966.31	-3,368.70	3,422.00	3,206.46	215.54	15.876	
5,800.00	5,421.66	5,358.66	5,421.66	34.84	185.35	70.72	-2,966.31	-3,368.70	3,408.06	3,188.63	219.43	15.532	
5,900.00	5,513.84	5,450.84	5,513.84	35.48	188.57	71.29	-2,966.31	-3,368.70	3,394.50	3,171.18	223.32	15.200	
6,000.00	5,606.03	5,543.03	5,606.03	36.13	191.79	71.87	-2,966.31	-3,368.70	3,381.33	3,154.13	227.21	14.882	
6,100.00	5,698.22	5,635.22	5,698.22	36.77	195.01	72.45	-2,966.31	-3,368.70	3,368.56	3,137.46	231.10	14.576	
6,200.00	5,790.40	5,727.40	5,790.40	37.41	198.23	73.04	-2,966.31	-3,368.70	3,356.19	3,121.20	234.99	14.282	
6,300.00	5,882.59	5,819.59	5,882.59	38.06	201.44	73.63	-2,966.31	-3,368.70	3,344.22	3,105.34	238.88	14.000	
6,400.00	5,974.77	5,911.77	5,974.77	38.70	204.66	74.22	-2,966.31	-3,368.70	3,332.65	3,089.88	242.77	13.728	
6,500.00	6,066.96	6,003.96	6,066.96	39.34	207.88	74.82	-2,966.31	-3,368.70	3,321.50	3,074.84	246.66	13.466	
6,600.00	6,159.15	6,103.85	6,159.15	39.99	211.37	75.42	-2,966.31	-3,368.70	3,310.77	3,059.94	250.83	13.199	
6,700.00	6,251.33	6,188.33	6,251.33	40.63	214.31	76.02	-2,966.31	-3,368.70	3,300.45	3,046.00	254.45	12.971	
6,800.00	6,343.52	6,280.52	6,343.52	41.28	217.53	76.63	-2,966.31	-3,368.70	3,290.56	3,032.22	258.35	12.737	
6,900.00	6,435.71	6,372.71	6,435.71	41.92	220.75	77.24	-2,966.31	-3,368.70	3,281.10	3,018.86	262.24	12.512	
7,000.00	6,527.86	6,464.86	6,527.86	42.56	223.97	77.85	-2,966.31	-3,368.70	3,271.21	3,005.08	266.13	12.292	
7,100.00	6,618.85	6,555.85	6,618.85	43.19	227.14	78.46	-2,966.31	-3,368.70	3,261.72	2,991.59	269.95	12.039	
7,200.00	6,706.47	6,643.47	6,706.47	43.76	230.20	79.07	-2,966.31	-3,368.70	3,252.63	2,978.33	273.58	11.748	
7,300.00	6,788.56	6,725.56	6,788.56	44.26	233.07	79.68	-2,966.31	-3,368.70	3,243.94	2,965.34	276.94	11.426	
7,400.00	6,863.10	6,800.10	6,863.10	44.70	235.67	80.29	-2,966.31	-3,368.70	3,235.65	2,952.45	279.96	11.080	
7,500.00	6,928.26	6,865.26	6,928.26	45.07	237.94	80.90	-2,966.31	-3,368.70	3,227.76	2,939.96	282.57	10.718	
7,600.00	6,982.42	6,919.42	6,982.42	45.39	239.83	81.51	-2,966.31	-3,368.70	3,220.27	2,927.87	284.71	10.346	
7,700.00	7,024.26	6,961.26	7,024.26	45.67	241.29	82.12	-2,966.31	-3,368.70	3,212.98	2,916.18	286.34	9.972	
7,800.00	7,052.75	6,989.75	7,052.75	45.92	242.29	82.73	-2,966.31	-3,368.70	3,206.09	2,904.89	287.42	9.601	
7,900.00	7,067.18	7,004.18	7,067.18	46.16	242.79	83.34	-2,966.31	-3,368.70	3,200.00	2,894.00	287.92	9.241	
8,000.00	7,068.85	7,005.85	7,068.85	46.42	242.85	83.95	-2,966.31	-3,368.70	3,194.51	2,883.51	287.93	8.896	
8,100.00	7,068.56	7,005.56	7,068.56	46.78	242.84	84.56	-2,966.31	-3,368.70	3,189.62	2,873.62	287.85	8.554	
8,200.00	7,068.26	7,005.26	7,068.26	47.29	242.83	85.17	-2,966.31	-3,368.70	3,185.33	2,864.33	287.77	8.212	
8,300.00	7,067.96	7,004.96	7,067.96	48.03	242.82	85.78	-2,966.31	-3,368.70	3,181.64	2,855.64	287.69	7.869	
8,400.00	7,067.66	7,004.66	7,067.66	49.02	242.81	86.39	-2,966.31	-3,368.70	3,178.55	2,847.55	287.61	7.527	
8,500.00	7,067.37	7,004.37	7,067.37	50.27	242.80	87.00	-2,966.31	-3,368.70	3,176.06	2,839.06	287.53	7.185	
8,600.00	7,067.07	7,004.07	7,067.07	51.75	242.79	87.61	-2,966.31	-3,368.70	3,174.17	2,831.17	287.45	6.843	
8,700.00	7,066.77	7,003.77	7,066.77	53.42	242.78	88.22	-2,966.31	-3,368.70	3,172.88	2,823.88	287.37	6.501	
8,800.00	7,066.47	7,003.47	7,066.47	55.24	242.77	88.83	-2,966.31	-3,368.70	3,172.19	2,817.19	287.31	6.160	
8,900.00	7,066.18	7,003.18	7,066.18	57.18	242.76	89.44	-2,966.31	-3,368.70	3,172.10	2,811.10	287.25	5.819	
9,000.00	7,065.88	7,002.88	7,065.88	59.21	242.75	90.05	-2,966.31	-3,368.70	3,172.61	2,805.61	287.20	5.478	
9,100.00	7,065.58	7,002.58	7,065.58	61.33	242.74	90.66	-2,966.31	-3,368.70	3,173.72	2,800.72	287.18	5.137	
9,200.00	7,065.28	7,002.28	7,065.28	63.51	242.73	91.27	-2,966.31	-3,368.70	3,175.43	2,797.43	287.19	4.797	
9,300.00	7,064.99	7,001.99	7,064.99	65.76	242.72	91.88	-2,966.31	-3,368.70	3,177.74	2,795.74	287.25	4.457	
9,400.00	7,064.69	7,001.69	7,064.69	68.06	242.71	92.49	-2,966.31	-3,368.70	3,180.65	2,795.65	287.39	4.118	
9,500.00	7,064.39	7,001.39	7,064.39	70.40	242.70	93.10	-2,966.31	-3,368.70	3,184.16	2,796.16	287.64	3.780	
9,600.00	7,064.09	7,001.09	7,064.09	72.78	242.69	93.71	-2,966.31	-3,368.70	3,188.27	2,797.27	288.05	3.442	
9,700.00	7,063.80	7,000.80	7,063.80	75.20	242.67	94.32	-2,966.31	-3,368.70	3,192.98	2,798.98	288.72	3.107	
9,800.00	7,063.50	7,000.50	7,063.50	77.65	242.66	94.93	-2,966.31	-3,368.70	3,198.29	2,801.29	289.79	2.774	
9,900.00	7,063.20	7,000.20	7,063.20	80.13	242.65	95.54	-2,966.31	-3,368.70	3,204.10	2,804.10	291.47	2.444	
10,000.00	7,062.90	7,000.10	7,062.90	82.64	242.65	96.15	-2,966.31	-3,368.70	3,210.41	2,807.41	294.12	2.120	
10,100.00	7,062.61	7,000.40	7,062.61	85.17	242.66	96.76	-2,966.31	-3,368.70	3,217.22	2,811.22	298.27	1.806	
10,200.00	7,062.31	7,000.69	7,062.31	87.72	242.67	97.37	-2,966.31	-3,368.70	3,224.53	2,816.53	304.57	1.510	
10,300.00	7,062.01	7,000.99	7,062.01	90.28	242.68	97.98	-2,966.31	-3,368.70	3,232.34	2,822.34	313.66	1.247	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,400.00	7,061.71	7,001.29	7,061.71	92.87	242.69	-90.08	-2,966.31	-3,368.70	338.12	12.99	325.13	1.040	Level 2
10,500.00	7,061.41	7,001.59	7,061.41	95.47	242.70	-90.02	-2,966.31	-3,368.70	309.37	-26.46	335.83	0.921	Level 1
10,543.08	7,061.29	7,001.71	7,061.29	96.60	242.71	-90.00	-2,966.31	-3,368.70	306.36	-32.49	338.84	0.904	Level 1, CC, ES, SF
10,600.00	7,061.12	7,001.88	7,061.12	98.09	242.71	-89.97	-2,966.31	-3,368.70	311.60	-28.99	340.59	0.915	Level 1
10,700.00	7,060.82	7,002.18	7,060.82	100.72	242.72	-89.91	-2,966.31	-3,368.70	344.21	6.14	338.07	1.018	Level 2
10,800.00	7,060.52	7,002.48	7,060.52	103.37	242.73	-89.86	-2,966.31	-3,368.70	399.83	67.92	331.91	1.205	Level 2
10,900.00	7,060.22	7,002.78	7,060.22	106.02	242.74	-89.80	-2,966.31	-3,368.70	470.37	144.94	325.43	1.445	Level 3
11,000.00	7,059.93	7,003.07	7,059.93	108.69	242.75	-89.75	-2,966.31	-3,368.70	550.12	230.21	319.91	1.720	
11,100.00	7,059.63	7,003.37	7,059.63	111.36	242.76	-89.69	-2,966.31	-3,368.70	635.62	320.10	315.52	2.015	
11,200.00	7,059.33	7,003.67	7,059.33	114.05	242.78	-89.63	-2,966.31	-3,368.70	724.84	412.77	312.07	2.323	
11,300.00	7,059.03	7,003.97	7,059.03	116.74	242.79	-89.58	-2,966.31	-3,368.70	816.57	507.21	309.36	2.640	
11,400.00	7,058.74	7,004.26	7,058.74	119.44	242.80	-89.52	-2,966.31	-3,368.70	910.03	602.83	307.21	2.962	
11,500.00	7,058.44	7,004.56	7,058.44	122.15	242.81	-89.47	-2,966.31	-3,368.70	1,004.76	699.28	305.48	3.289	
11,600.00	7,058.14	7,004.86	7,058.14	124.86	242.82	-89.41	-2,966.31	-3,368.70	1,100.42	796.35	304.07	3.619	
11,700.00	7,057.84	7,005.16	7,057.84	127.58	242.83	-89.36	-2,966.31	-3,368.70	1,196.79	893.88	302.91	3.951	
11,800.00	7,057.55	7,005.45	7,057.55	130.31	242.84	-89.30	-2,966.31	-3,368.70	1,293.71	991.77	301.94	4.285	
11,900.00	7,057.25	7,005.75	7,057.25	133.04	242.85	-89.24	-2,966.31	-3,368.70	1,391.07	1,089.95	301.12	4.620	
12,000.00	7,056.95	7,006.05	7,056.95	135.78	242.86	-89.19	-2,966.31	-3,368.70	1,488.78	1,188.35	300.43	4.955	
12,100.00	7,056.65	7,006.35	7,056.65	138.52	242.87	-89.13	-2,966.31	-3,368.70	1,586.77	1,286.93	299.84	5.292	
12,200.00	7,056.36	7,006.64	7,056.36	141.27	242.88	-89.08	-2,966.31	-3,368.70	1,685.00	1,385.67	299.33	5.629	
12,300.00	7,056.06	7,006.94	7,056.06	144.02	242.89	-89.02	-2,966.31	-3,368.70	1,783.42	1,484.54	298.89	5.967	
12,400.00	7,055.76	7,007.24	7,055.76	146.78	242.90	-88.97	-2,966.31	-3,368.70	1,882.02	1,583.52	298.50	6.305	
12,500.00	7,055.46	7,007.54	7,055.46	149.54	242.91	-88.91	-2,966.31	-3,368.70	1,980.75	1,682.59	298.16	6.643	
12,600.00	7,055.17	7,007.84	7,055.17	152.30	242.92	-88.86	-2,966.31	-3,368.70	2,079.60	1,781.74	297.87	6.982	
12,700.00	7,054.87	7,008.13	7,054.87	155.07	242.93	-88.80	-2,966.31	-3,368.70	2,178.56	1,880.96	297.60	7.320	
12,800.00	7,054.57	7,008.43	7,054.57	157.84	242.94	-88.74	-2,966.31	-3,368.70	2,277.61	1,980.24	297.37	7.659	
12,900.00	7,054.27	7,008.73	7,054.27	160.61	242.95	-88.69	-2,966.31	-3,368.70	2,376.74	2,079.57	297.17	7.998	
13,000.00	7,053.97	7,009.03	7,053.97	163.39	242.96	-88.63	-2,966.31	-3,368.70	2,475.94	2,178.95	296.99	8.337	
13,100.00	7,053.68	7,009.32	7,053.68	166.17	242.97	-88.58	-2,966.31	-3,368.70	2,575.20	2,278.37	296.83	8.676	
13,200.00	7,053.38	7,009.62	7,053.38	168.95	242.98	-88.52	-2,966.31	-3,368.70	2,674.51	2,377.83	296.68	9.015	
13,300.00	7,053.08	7,009.92	7,053.08	171.73	242.99	-88.47	-2,966.31	-3,368.70	2,773.88	2,477.32	296.56	9.354	
13,400.00	7,052.78	6,989.78	7,052.78	174.52	242.29	-88.41	-2,966.31	-3,368.70	2,873.29	2,577.56	295.73	9.716	
13,500.00	7,052.49	6,989.49	7,052.49	177.31	242.28	-88.35	-2,966.31	-3,368.70	2,972.74	2,677.13	295.61	10.056	
13,600.00	7,052.19	6,989.19	7,052.19	180.10	242.27	-88.30	-2,966.31	-3,368.70	3,072.22	2,776.72	295.50	10.397	
13,700.00	7,051.89	6,988.89	7,051.89	182.90	242.26	-88.24	-2,966.31	-3,368.70	3,171.74	2,876.33	295.41	10.737	
13,800.00	7,051.59	6,988.59	7,051.59	185.69	242.25	-88.19	-2,966.31	-3,368.70	3,271.28	2,975.97	295.32	11.077	
13,900.00	7,051.30	6,988.30	7,051.30	188.49	242.24	-88.13	-2,966.31	-3,368.70	3,370.86	3,075.62	295.24	11.417	
14,000.00	7,051.00	6,988.00	7,051.00	191.29	242.23	-88.08	-2,966.31	-3,368.70	3,470.46	3,175.29	295.17	11.758	
14,100.00	7,050.70	6,987.70	7,050.70	194.09	242.22	-88.02	-2,966.31	-3,368.70	3,570.08	3,274.97	295.10	12.098	
14,200.00	7,050.40	6,987.40	7,050.40	196.89	242.21	-87.97	-2,966.31	-3,368.70	3,669.72	3,374.67	295.04	12.438	
14,300.00	7,050.11	6,987.11	7,050.11	199.70	242.20	-87.91	-2,966.31	-3,368.70	3,769.38	3,474.38	294.99	12.778	
14,400.00	7,049.81	6,986.81	7,049.81	202.50	242.19	-87.85	-2,966.31	-3,368.70	3,869.05	3,574.11	294.95	13.118	
14,500.00	7,049.51	6,986.51	7,049.51	205.31	242.18	-87.80	-2,966.31	-3,368.70	3,968.75	3,673.84	294.91	13.458	
14,600.00	7,049.21	6,986.21	7,049.21	208.12	242.17	-87.74	-2,966.31	-3,368.70	4,068.46	3,773.58	294.87	13.797	
14,700.00	7,048.92	6,985.92	7,048.92	210.93	242.16	-87.69	-2,966.31	-3,368.70	4,168.18	3,873.34	294.84	14.137	
14,800.00	7,048.62	6,985.62	7,048.62	213.74	242.15	-87.63	-2,966.31	-3,368.70	4,267.91	3,973.10	294.82	14.477	
14,900.00	7,048.32	6,985.32	7,048.32	216.55	242.13	-87.58	-2,966.31	-3,368.70	4,367.66	4,072.87	294.79	14.816	
15,000.00	7,048.02	6,985.02	7,048.02	219.37	242.12	-87.52	-2,966.31	-3,368.70	4,467.42	4,172.64	294.78	15.155	
15,100.00	7,047.73	6,984.73	7,047.73	222.18	242.11	-87.47	-2,966.31	-3,368.70	4,567.19	4,272.43	294.76	15.495	
15,200.00	7,047.43	6,984.43	7,047.43	225.00	242.10	-87.41	-2,966.31	-3,368.70	4,666.97	4,372.22	294.75	15.834	
15,300.00	7,047.13	6,984.13	7,047.13	227.81	242.09	-87.35	-2,966.31	-3,368.70	4,766.76	4,472.02	294.74	16.173	
15,343.67	7,047.00	6,984.00	7,047.00	229.04	242.09	-87.33	-2,966.31	-3,368.70	4,810.34	4,515.60	294.74	16.321	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	9.00	3.28	3.28	21.07	1,277.62	492.29	1,369.21					
100.00	100.00	87.96	96.96	3.28	3.29	21.07	1,277.70	492.35	1,369.28	1,362.71	6.57	208.409		
200.00	200.00	188.34	197.34	3.34	3.33	21.08	1,277.86	492.55	1,369.50	1,362.83	6.67	205.315		
300.00	299.98	291.79	300.79	3.44	3.44	-162.34	1,277.87	492.75	1,371.24	1,364.37	6.88	199.330		
400.00	399.84	384.10	393.10	3.59	3.58	-162.35	1,277.88	493.19	1,376.41	1,369.24	7.17	191.961		
500.00	499.45	487.28	496.28	3.79	3.78	-162.37	1,277.97	494.21	1,385.16	1,377.59	7.57	183.016		
600.00	598.70	581.36	590.34	4.03	3.99	-162.41	1,277.98	495.13	1,397.14	1,389.12	8.03	174.068		
700.00	697.47	685.39	694.36	4.31	4.26	-162.45	1,277.94	496.68	1,412.56	1,403.99	8.57	164.735		
800.00	795.62	785.09	794.06	4.64	4.55	-162.52	1,277.60	497.96	1,430.92	1,421.75	9.17	156.060		
900.00	893.06	879.29	888.25	5.00	4.84	-162.60	1,277.38	499.08	1,452.62	1,442.83	9.79	148.321		
1,000.00	989.64	978.77	987.72	5.40	5.16	-162.70	1,277.14	500.56	1,477.67	1,467.20	10.48	141.064		
1,100.00	1,085.27	1,068.61	1,077.55	5.83	5.46	-162.80	1,277.00	501.58	1,505.94	1,494.78	11.16	134.977		
1,200.00	1,179.82	1,163.24	1,172.17	6.29	5.79	-162.91	1,277.13	502.91	1,537.77	1,525.89	11.88	129.394		
1,300.00	1,273.17	1,265.86	1,274.78	6.79	6.16	-163.06	1,276.87	504.42	1,572.46	1,559.79	12.67	124.112		
1,400.00	1,365.46	1,360.79	1,369.71	7.32	6.51	-163.33	1,276.27	505.35	1,609.28	1,595.83	13.45	119.686		
1,500.00	1,457.65	1,454.11	1,463.02	7.87	6.86	-163.69	1,275.79	506.00	1,646.42	1,632.20	14.22	115.763		
1,600.00	1,549.83	1,547.34	1,556.25	8.43	7.21	-164.02	1,275.07	507.02	1,683.50	1,668.49	15.02	112.120		
1,700.00	1,642.02	1,637.06	1,645.95	9.01	7.56	-164.32	1,274.43	508.04	1,720.69	1,704.89	15.81	108.869		
1,800.00	1,734.21	1,727.54	1,736.43	9.59	7.91	-164.63	1,274.07	508.79	1,758.11	1,741.51	16.61	105.853		
1,900.00	1,826.39	1,826.18	1,835.07	10.18	8.29	-164.95	1,273.57	509.53	1,795.46	1,777.99	17.46	102.817		
2,000.00	1,918.58	1,924.50	1,933.39	10.78	8.68	-165.27	1,272.74	509.65	1,832.38	1,814.05	18.32	99.999		
2,100.00	2,010.77	2,008.86	2,017.74	11.39	9.01	-165.55	1,272.34	509.38	1,869.54	1,850.42	19.12	97.775		
2,200.00	2,102.95	2,109.48	2,118.36	11.99	9.41	-165.87	1,271.81	509.09	1,906.72	1,886.71	20.01	95.293		
2,300.00	2,195.14	2,186.97	2,195.85	12.61	9.72	-166.10	1,271.58	508.88	1,944.14	1,923.37	20.78	93.566		
2,400.00	2,287.32	2,277.04	2,285.91	13.22	10.09	-166.37	1,271.68	508.74	1,982.00	1,960.38	21.62	91.679		
2,500.00	2,379.51	2,367.12	2,376.00	13.84	10.45	-166.62	1,271.73	508.94	2,019.94	1,997.48	22.46	89.921		
2,600.00	2,471.70	2,463.47	2,472.35	14.46	10.84	-166.88	1,271.85	508.99	2,057.93	2,034.59	23.35	88.143		
2,700.00	2,563.88	2,553.09	2,561.97	15.08	11.20	-167.12	1,271.89	508.60	2,095.78	2,071.58	24.20	86.616		
2,800.00	2,656.07	2,640.02	2,648.90	15.71	11.56	-167.35	1,272.23	508.23	2,133.95	2,108.92	25.03	85.252		
2,900.00	2,748.26	2,733.78	2,742.65	16.33	11.94	-167.59	1,272.66	507.81	2,172.22	2,146.31	25.91	83.840		
3,000.00	2,840.44	2,835.30	2,844.17	16.96	12.36	-167.86	1,272.97	507.02	2,210.31	2,183.48	26.84	82.361		
3,100.00	2,932.63	2,934.22	2,943.08	17.59	12.76	-168.10	1,272.76	506.02	2,247.91	2,220.15	27.75	81.000		
3,200.00	3,024.81	3,020.80	3,029.65	18.22	13.12	-168.32	1,272.80	504.94	2,285.71	2,257.12	28.59	79.938		
3,300.00	3,117.00	3,119.08	3,127.92	18.86	13.53	-168.57	1,272.84	503.15	2,323.41	2,293.90	29.51	78.735		
3,400.00	3,209.19	3,204.26	3,213.09	19.49	13.88	-168.78	1,272.95	501.67	2,361.24	2,330.90	30.34	77.814		
3,500.00	3,301.37	3,313.38	3,322.20	20.12	14.33	-169.03	1,272.74	500.16	2,398.90	2,367.57	31.33	76.561		
3,600.00	3,393.56	3,403.99	3,412.79	20.76	14.71	-169.23	1,272.33	498.83	2,436.33	2,404.13	32.21	75.649		
3,700.00	3,485.75	3,493.48	3,502.27	21.39	15.08	-169.42	1,271.98	497.50	2,473.84	2,440.76	33.07	74.800		
3,800.00	3,577.93	3,578.65	3,587.44	22.03	15.44	-169.59	1,271.73	496.58	2,511.54	2,477.63	33.91	74.061		
3,900.00	3,670.12	3,656.37	3,665.16	22.67	15.76	-169.73	1,271.70	496.22	2,549.64	2,514.94	34.70	73.473		
4,000.00	3,762.30	3,740.34	3,749.13	23.30	16.11	-169.87	1,272.12	496.15	2,588.29	2,552.76	35.53	72.844		
4,100.00	3,854.49	3,837.03	3,845.82	23.94	16.52	-170.04	1,272.58	495.94	2,626.93	2,590.48	36.45	72.071		
4,200.00	3,946.68	3,931.39	3,940.18	24.58	16.91	-170.20	1,272.94	495.42	2,665.42	2,628.07	37.35	71.361		
4,300.00	4,038.86	4,022.48	4,031.26	25.22	17.29	-170.35	1,273.35	494.80	2,703.97	2,665.74	38.23	70.725		
4,400.00	4,131.05	4,120.05	4,128.83	25.86	17.70	-170.51	1,273.63	494.31	2,742.42	2,703.26	39.16	70.033		
4,500.00	4,223.24	4,213.40	4,222.17	26.50	18.10	-170.65	1,273.79	493.75	2,780.77	2,740.71	40.06	69.421		
4,600.00	4,315.42	4,301.73	4,310.51	27.14	18.47	-170.79	1,273.99	493.26	2,819.18	2,778.26	40.92	68.894		
4,700.00	4,407.61	4,393.78	4,402.55	27.78	18.85	-170.92	1,274.25	492.82	2,857.68	2,815.87	41.81	68.347		
4,800.00	4,499.79	4,482.51	4,491.29	28.42	19.23	-171.05	1,274.53	492.47	2,896.24	2,853.56	42.68	67.861		
4,900.00	4,591.98	4,567.72	4,576.50	29.06	19.59	-171.16	1,274.90	492.36	2,934.96	2,891.44	43.52	67.436		
5,000.00	4,684.17	4,659.73	4,668.51	29.70	19.97	-171.27	1,275.43	492.45	2,973.86	2,929.44	44.41	66.958		
5,100.00	4,776.35	4,746.98	4,755.75	30.34	20.34	-171.38	1,275.90	492.48	3,012.73	2,967.46	45.27	66.548		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,825.73	4,834.50	30.98	20.67	-171.47	1,276.53	492.87	3,051.93	3,005.86	46.07	66.248		
5,300.00	4,960.73	4,901.68	4,910.43	31.63	20.99	-171.55	1,277.46	493.55	3,091.59	3,044.75	46.84	65.999		
5,400.00	5,052.91	4,998.73	5,007.48	32.27	21.40	-171.65	1,278.85	494.20	3,131.41	3,083.63	47.77	65.547		
5,500.00	5,145.10	5,121.98	5,130.72	32.91	21.92	-171.79	1,279.98	494.44	3,170.67	3,121.77	48.90	64.843		
5,600.00	5,237.28	5,227.58	5,236.32	33.55	22.37	-171.91	1,280.21	494.10	3,209.22	3,159.33	49.89	64.324		
5,700.00	5,329.47	5,318.74	5,327.47	34.20	22.76	-172.02	1,280.47	493.36	3,247.76	3,196.98	50.78	63.957		
5,800.00	5,421.66	5,433.65	5,442.37	34.84	23.24	-172.15	1,280.25	492.18	3,285.83	3,233.99	51.84	63.381		
5,900.00	5,513.84	5,525.58	5,534.30	35.48	23.63	-172.27	1,279.93	490.67	3,323.68	3,270.94	52.74	63.022		
6,000.00	5,606.03	5,613.69	5,622.40	36.13	24.00	-172.38	1,279.68	489.44	3,361.64	3,308.03	53.61	62.710		
6,100.00	5,698.22	5,707.19	5,715.88	36.77	24.40	-172.49	1,279.42	488.25	3,399.64	3,345.12	54.51	62.363		
6,200.00	5,790.40	5,797.25	5,805.93	37.41	24.78	-172.59	1,279.26	486.68	3,437.66	3,382.27	55.40	62.055		
6,300.00	5,882.59	5,883.37	5,892.04	38.06	25.15	-172.70	1,279.25	484.97	3,475.81	3,419.56	56.25	61.791		
6,400.00	5,974.77	5,971.73	5,980.39	38.70	25.52	-172.81	1,279.35	483.39	3,514.10	3,456.98	57.12	61.520		
6,500.00	6,066.96	6,063.71	6,072.35	39.34	25.91	-172.92	1,279.53	481.59	3,552.47	3,494.45	58.02	61.229		
6,600.00	6,159.15	6,171.47	6,180.08	39.99	26.37	-173.05	1,279.62	479.18	3,590.70	3,531.67	59.03	60.824		
6,700.00	6,251.33	6,258.31	6,266.89	40.63	26.74	-173.15	1,279.40	477.32	3,628.65	3,568.76	59.89	60.584		
6,800.00	6,343.52	6,350.35	6,358.91	41.28	27.13	-173.26	1,279.51	475.00	3,666.88	3,606.09	60.79	60.316		
6,900.00	6,435.71	6,440.39	6,448.91	41.92	27.51	-173.37	1,279.50	472.26	3,704.94	3,643.26	61.68	60.068		
7,000.00	6,527.86	6,516.44	6,524.92	42.56	27.84	-173.48	1,279.81	469.93	3,743.51	3,681.05	62.46	59.937		
7,100.00	6,618.85	6,604.52	6,612.94	43.19	28.21	-173.59	1,280.45	466.78	3,783.90	3,720.58	63.32	59.756		
7,200.00	6,706.47	6,703.48	6,711.82	43.76	28.63	-173.69	1,281.14	462.76	3,825.50	3,761.24	64.26	59.536		
7,300.00	6,788.56	6,796.74	6,805.00	44.26	29.03	-173.79	1,281.53	459.09	3,867.39	3,802.26	65.13	59.380		
7,400.00	6,863.10	6,867.70	6,875.90	44.70	29.33	-173.89	1,281.79	456.25	3,909.10	3,843.27	65.83	59.382		
7,500.00	6,928.26	6,930.85	6,938.99	45.07	29.60	-173.99	1,282.19	453.35	3,950.24	3,883.75	66.49	59.410		
7,600.00	6,982.42	6,985.01	6,993.08	45.39	29.83	-174.09	1,282.63	450.68	3,990.25	3,923.11	67.14	59.430		
7,700.00	7,024.26	7,036.71	7,044.71	45.67	30.05	-174.19	1,283.08	448.02	4,028.60	3,960.73	67.87	59.354		
7,800.00	7,052.75	7,077.28	7,085.23	45.92	30.23	-174.29	1,283.37	445.91	4,064.76	3,996.10	68.65	59.206		
7,900.00	7,067.18	7,101.16	7,109.07	46.16	30.33	-174.39	1,283.50	444.65	4,098.28	4,028.82	69.46	59.004		
8,000.00	7,068.85	7,109.66	7,117.56	46.42	30.37	-174.49	1,283.54	444.20	4,129.30	4,059.01	70.29	58.748		
8,100.00	7,068.56	7,115.78	7,123.67	46.78	30.39	-174.59	1,283.57	443.88	4,161.75	4,090.52	71.23	58.426		
8,200.00	7,068.26	7,119.06	7,126.94	47.29	30.41	-174.69	1,283.60	443.67	4,196.33	4,124.08	72.26	58.076		
8,300.00	7,067.96	7,124.92	7,132.80	48.03	30.43	-174.79	1,283.64	443.33	4,232.98	4,159.59	73.39	57.678		
8,400.00	7,067.66	7,131.06	7,138.92	49.02	30.46	-174.89	1,283.68	442.98	4,271.65	4,197.05	74.60	57.263		
8,500.00	7,067.37	7,137.48	7,145.33	50.27	30.49	-174.99	1,283.73	442.59	4,312.28	4,236.42	75.87	56.841		
8,600.00	7,067.07	7,144.21	7,152.05	51.75	30.52	-175.09	1,283.78	442.18	4,354.83	4,277.65	77.18	56.424		
8,700.00	7,066.77	7,151.28	7,159.11	53.42	30.55	-175.19	1,283.84	441.74	4,399.22	4,320.69	78.53	56.018		
8,800.00	7,066.47	7,158.70	7,166.51	55.24	30.58	-175.29	1,283.90	441.26	4,445.41	4,365.50	79.91	55.631		
8,900.00	7,066.18	7,166.51	7,174.31	57.18	30.61	-175.39	1,283.97	440.75	4,493.35	4,412.04	81.30	55.266		
9,000.00	7,065.88	7,174.74	7,182.52	59.21	30.65	-175.49	1,284.05	440.19	4,542.96	4,460.26	82.71	54.929		
9,100.00	7,065.58	7,183.42	7,191.17	61.33	30.68	-175.59	1,284.14	439.59	4,594.21	4,510.10	84.11	54.620		
9,200.00	7,065.28	7,192.59	7,200.32	63.51	30.72	-175.69	1,284.23	438.94	4,647.03	4,561.51	85.52	54.341		
9,300.00	7,064.99	7,202.29	7,209.99	65.76	30.77	-175.79	1,284.34	438.24	4,701.37	4,614.46	86.91	54.093		
9,400.00	7,064.69	7,212.57	7,220.24	68.06	30.81	-175.89	1,284.46	437.46	4,757.18	4,668.88	88.30	53.877		
9,500.00	7,064.39	7,217.97	7,225.63	70.40	30.83	-175.99	1,284.51	437.10	4,814.41	4,724.78	89.63	53.715		
9,600.00	7,064.09	7,225.82	7,233.45	72.78	30.87	-176.09	1,284.58	436.53	4,873.00	4,782.05	90.96	53.575		
9,700.00	7,063.80	7,233.54	7,241.16	75.20	30.90	-176.19	1,284.65	435.98	4,932.92	4,840.66	92.26	53.467		
9,800.00	7,063.50	7,241.15	7,248.75	77.65	30.93	-176.29	1,284.71	435.44	4,994.11	4,900.57	93.54	53.391		
9,900.00	7,063.20	7,248.65	7,256.23	80.13	30.96	-176.39	1,284.77	434.91	5,056.53	4,961.74	94.79	53.345		
10,000.00	7,062.90	7,256.03	7,263.59	82.64	31.00	-176.49	1,284.82	434.40	5,120.13	5,024.12	96.01	53.328 SF		
10,100.00	7,062.61	7,263.30	7,270.85	85.17	31.03	-176.59	1,284.87	433.89	5,184.87	5,087.66	97.21	53.338		
10,200.00	7,062.31	7,269.65	7,277.18	87.72	31.05	-176.69	1,284.91	433.45	5,250.71	5,152.34	98.37	53.379		
10,300.00	7,062.01	7,276.28	7,283.79	90.28	31.08	-176.79	1,284.95	433.00	5,317.60	5,218.10	99.50	53.443		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	7,282.90	7,290.40	92.87	31.11	93.18	1,285.00	432.54	5,385.52	5,284.91	100.61	53.531		
10,500.00	7,061.41	7,289.53	7,297.01	95.47	31.14	93.27	1,285.04	432.08	5,454.41	5,352.73	101.68	53.642		
10,600.00	7,061.12	7,296.16	7,303.62	98.09	31.17	93.37	1,285.08	431.62	5,524.24	5,421.51	102.73	53.775		
10,700.00	7,060.82	7,302.79	7,310.23	100.72	31.20	93.47	1,285.12	431.16	5,594.99	5,491.24	103.75	53.928		
10,800.00	7,060.52	7,309.41	7,316.85	103.37	31.23	93.56	1,285.17	430.70	5,666.61	5,561.86	104.74	54.101		
10,900.00	7,060.22	7,316.04	7,323.46	106.02	31.26	93.66	1,285.21	430.24	5,739.06	5,633.36	105.71	54.293		
11,000.00	7,059.93	7,322.67	7,330.07	108.69	31.29	93.75	1,285.25	429.78	5,812.33	5,705.69	106.64	54.502		
11,100.00	7,059.63	7,329.30	7,336.68	111.36	31.31	93.85	1,285.29	429.32	5,886.38	5,778.82	107.56	54.728		
11,200.00	7,059.33	7,335.92	7,343.29	114.05	31.34	93.95	1,285.34	428.86	5,961.18	5,852.74	108.44	54.970		
11,300.00	7,059.03	7,342.55	7,349.90	116.74	31.37	94.04	1,285.38	428.40	6,036.70	5,927.39	109.31	55.228		
11,400.00	7,058.74	7,349.18	7,356.51	119.44	31.40	94.14	1,285.42	427.94	6,112.92	6,002.77	110.14	55.500		
11,500.00	7,058.44	7,355.80	7,363.13	122.15	31.43	94.23	1,285.47	427.49	6,189.80	6,078.84	110.96	55.785		
11,600.00	7,058.14	7,362.43	7,369.74	124.86	31.46	94.33	1,285.51	427.03	6,267.33	6,155.58	111.75	56.084		
11,700.00	7,057.84	7,369.06	7,376.35	127.58	31.49	94.43	1,285.55	426.57	6,345.49	6,232.97	112.52	56.395		
11,800.00	7,057.55	7,375.69	7,382.96	130.31	31.52	94.52	1,285.59	426.11	6,424.24	6,310.97	113.27	56.718		
11,900.00	7,057.25	7,382.31	7,389.57	133.04	31.55	94.62	1,285.64	425.65	6,503.57	6,389.58	113.99	57.052		
12,000.00	7,056.95	7,388.94	7,396.18	135.78	31.57	94.71	1,285.68	425.19	6,583.46	6,468.75	114.70	57.396		
12,100.00	7,056.65	7,395.57	7,402.79	138.52	31.60	94.81	1,285.72	424.73	6,663.88	6,548.49	115.39	57.751		
12,200.00	7,056.36	7,402.20	7,409.40	141.27	31.63	94.91	1,285.76	424.27	6,744.82	6,628.76	116.06	58.116		
12,300.00	7,056.06	7,408.82	7,416.02	144.02	31.66	95.00	1,285.81	423.81	6,826.26	6,709.55	116.71	58.490		
12,400.00	7,055.76	7,415.45	7,422.63	146.78	31.69	95.10	1,285.85	423.35	6,908.18	6,790.83	117.34	58.872		
12,500.00	7,055.46	7,422.08	7,429.24	149.54	31.72	95.19	1,285.89	422.89	6,990.56	6,872.60	117.96	59.263		
12,600.00	7,055.17	7,428.71	7,435.85	152.30	31.75	95.29	1,285.94	422.43	7,073.39	6,954.84	118.56	59.662		
12,700.00	7,054.87	7,435.33	7,442.46	155.07	31.78	95.39	1,285.98	421.98	7,156.66	7,037.52	119.14	60.068		
12,800.00	7,054.57	7,441.96	7,449.07	157.84	31.81	95.48	1,286.02	421.52	7,240.34	7,120.63	119.71	60.482		
12,900.00	7,054.27	7,448.59	7,455.68	160.61	31.83	95.58	1,286.06	421.06	7,324.42	7,204.16	120.26	60.903		
13,000.00	7,053.97	7,455.22	7,462.30	163.39	31.86	95.67	1,286.11	420.60	7,408.90	7,288.10	120.80	61.330		
13,100.00	7,053.68	7,443.00	7,450.11	166.17	31.81	95.50	1,286.03	421.44	7,493.77	7,372.56	121.22	61.822		
13,200.00	7,053.38	7,443.00	7,450.11	168.95	31.81	95.50	1,286.03	421.44	7,579.01	7,457.32	121.69	62.282		
13,300.00	7,053.08	7,443.00	7,450.11	171.73	31.81	95.50	1,286.03	421.44	7,664.60	7,542.45	122.15	62.749		
13,400.00	7,052.78	7,443.00	7,450.11	174.52	31.81	95.50	1,286.03	421.44	7,750.54	7,627.94	122.60	63.221		
13,500.00	7,052.49	7,443.00	7,450.11	177.31	31.81	95.50	1,286.03	421.44	7,836.80	7,713.77	123.03	63.698		
13,600.00	7,052.19	7,443.00	7,450.11	180.10	31.81	95.50	1,286.03	421.44	7,923.40	7,799.94	123.46	64.180		
13,700.00	7,051.89	7,443.00	7,450.11	182.90	31.81	95.50	1,286.03	421.44	8,010.30	7,886.43	123.87	64.668		
13,800.00	7,051.59	7,443.00	7,450.11	185.69	31.81	95.50	1,286.03	421.44	8,097.51	7,973.24	124.27	65.160		
13,900.00	7,051.30	7,443.00	7,450.11	188.49	31.81	95.50	1,286.03	421.44	8,185.01	8,060.34	124.66	65.656		
14,000.00	7,051.00	7,443.00	7,450.11	191.29	31.81	95.50	1,286.03	421.44	8,272.79	8,147.74	125.05	66.157		
14,100.00	7,050.70	7,443.00	7,450.11	194.09	31.81	95.50	1,286.03	421.44	8,360.85	8,235.43	125.42	66.662		
14,200.00	7,050.40	7,443.00	7,450.11	196.89	31.81	95.50	1,286.03	421.44	8,449.17	8,323.39	125.79	67.171		
14,300.00	7,050.11	7,443.00	7,450.11	199.70	31.81	95.50	1,286.03	421.44	8,537.75	8,411.61	126.14	67.685		
14,400.00	7,049.81	7,443.00	7,450.11	202.50	31.81	95.50	1,286.03	421.44	8,626.58	8,500.10	126.49	68.201		
14,500.00	7,049.51	7,443.00	7,450.11	205.31	31.81	95.50	1,286.03	421.44	8,715.65	8,588.83	126.83	68.721		
14,600.00	7,049.21	7,443.00	7,450.11	208.12	31.81	95.50	1,286.03	421.44	8,804.96	8,677.81	127.16	69.245		
14,700.00	7,048.92	7,443.00	7,450.11	210.93	31.81	95.50	1,286.03	421.44	8,894.50	8,767.02	127.48	69.772		
14,800.00	7,048.62	7,443.00	7,450.11	213.74	31.81	95.50	1,286.03	421.44	8,984.25	8,856.46	127.79	70.302		
14,900.00	7,048.32	7,443.00	7,450.11	216.55	31.81	95.50	1,286.03	421.44	9,074.22	8,946.12	128.10	70.835		
15,000.00	7,048.02	7,443.00	7,450.11	219.37	31.81	95.50	1,286.03	421.44	9,164.40	9,035.99	128.40	71.371		
15,100.00	7,047.73	7,443.00	7,450.11	222.18	31.81	95.50	1,286.03	421.44	9,254.78	9,126.08	128.70	71.910		
15,200.00	7,047.43	7,443.00	7,450.11	225.00	31.81	95.50	1,286.03	421.44	9,345.35	9,216.37	128.99	72.451		
15,300.00	7,047.13	7,443.00	7,450.11	227.81	31.81	95.50	1,286.03	421.44	9,436.12	9,306.85	129.27	72.995		
15,343.67	7,047.00	7,443.00	7,450.11	229.04	31.81	95.50	1,286.03	421.44	9,475.82	9,346.43	129.39	73.234		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	19.00	3.28	3.28	66.74	224.78	522.90	569.48					
100.00	100.00	77.46	96.45	3.28	3.28	66.69	225.29	522.94	569.42	562.85	6.57	86.676	CC, ES	
200.00	200.00	179.53	198.51	3.34	3.33	66.54	226.89	522.89	569.99	563.33	6.67	85.504		
300.00	299.98	280.94	299.92	3.44	3.43	-117.15	228.21	522.41	570.88	564.01	6.87	83.098		
400.00	399.84	378.37	397.34	3.59	3.57	-117.67	229.35	522.09	573.46	566.30	7.16	80.053		
500.00	499.45	475.85	494.81	3.79	3.76	-118.43	230.51	522.24	578.22	570.67	7.55	76.618		
600.00	598.70	573.13	592.08	4.03	3.98	-119.43	231.79	522.66	585.11	577.11	8.01	73.055		
700.00	697.47	671.63	690.56	4.31	4.23	-120.69	233.35	523.18	594.22	585.68	8.54	69.544		
800.00	795.62	768.26	787.18	4.64	4.50	-122.09	234.69	523.81	605.54	596.40	9.14	66.281		
900.00	893.06	864.30	883.21	5.00	4.80	-123.66	236.31	524.55	619.51	609.73	9.78	63.357		
1,000.00	989.64	961.01	979.91	5.40	5.11	-125.36	237.77	525.45	636.13	625.66	10.47	60.769		
1,100.00	1,085.27	1,056.31	1,075.20	5.83	5.43	-127.14	239.14	526.24	655.44	644.25	11.19	58.560		
1,200.00	1,179.82	1,151.30	1,170.17	6.29	5.76	-128.99	240.62	526.97	677.76	665.81	11.95	56.714		
1,300.00	1,273.17	1,245.23	1,264.09	6.79	6.09	-130.86	241.91	527.51	703.01	690.27	12.73	55.209		
1,400.00	1,365.46	1,336.47	1,355.31	7.32	6.42	-132.94	243.39	527.84	731.16	717.63	13.53	54.054		
1,500.00	1,457.65	1,429.26	1,448.10	7.87	6.77	-135.07	244.81	528.29	760.59	746.25	14.34	53.056		
1,600.00	1,549.83	1,524.55	1,543.38	8.43	7.13	-137.11	245.97	528.42	790.53	775.36	15.17	52.118		
1,700.00	1,642.02	1,616.09	1,634.90	9.01	7.48	-138.95	247.19	528.32	821.25	805.26	15.99	51.359		
1,800.00	1,734.21	1,714.11	1,732.92	9.59	7.86	-140.78	248.27	527.84	852.35	835.49	16.85	50.573		
1,900.00	1,826.39	1,803.38	1,822.19	10.18	8.21	-142.33	249.00	527.51	884.00	866.32	17.68	50.013		
2,000.00	1,918.58	1,893.31	1,912.11	10.78	8.56	-143.78	249.80	527.34	916.42	897.92	18.51	49.523		
2,100.00	2,010.77	1,990.56	2,009.36	11.39	8.95	-145.25	250.64	526.95	949.25	929.87	19.38	48.977		
2,200.00	2,102.95	2,089.07	2,107.87	11.99	9.34	-146.65	250.98	526.19	981.98	961.71	20.27	48.447		
2,300.00	2,195.14	2,179.74	2,198.53	12.61	9.71	-147.84	250.97	525.45	1,014.86	993.75	21.11	48.071		
2,400.00	2,287.32	2,274.83	2,293.62	13.22	10.09	-149.00	250.92	524.81	1,048.19	1,026.20	21.98	47.678		
2,500.00	2,379.51	2,369.82	2,388.60	13.84	10.47	-150.09	250.54	524.08	1,081.54	1,058.68	22.86	47.311		
2,600.00	2,471.70	2,464.43	2,483.21	14.46	10.85	-151.11	250.02	523.23	1,115.04	1,091.30	23.74	46.977		
2,700.00	2,563.88	2,558.61	2,577.39	15.08	11.24	-152.05	249.17	522.60	1,148.65	1,124.04	24.61	46.671		
2,800.00	2,656.07	2,649.64	2,668.41	15.71	11.61	-152.90	248.23	522.12	1,182.47	1,157.01	25.47	46.428		
2,900.00	2,748.26	2,742.34	2,761.10	16.33	11.99	-153.71	247.30	521.97	1,216.72	1,190.38	26.34	46.193		
3,000.00	2,840.44	2,836.08	2,854.84	16.96	12.37	-154.48	246.22	521.61	1,250.95	1,223.73	27.22	45.957		
3,100.00	2,932.63	2,924.61	2,943.36	17.59	12.73	-155.19	245.51	521.13	1,285.59	1,257.53	28.06	45.809		
3,200.00	3,024.81	3,015.38	3,034.13	18.22	13.11	-155.88	244.96	520.63	1,320.59	1,291.66	28.93	45.655		
3,300.00	3,117.00	3,104.25	3,123.00	18.86	13.48	-156.54	244.70	520.01	1,355.95	1,326.18	29.77	45.542		
3,400.00	3,209.19	3,198.03	3,216.78	19.49	13.87	-157.21	244.56	519.22	1,391.54	1,360.88	30.66	45.387		
3,500.00	3,301.37	3,289.99	3,308.72	20.12	14.25	-157.83	244.38	518.42	1,427.25	1,395.71	31.53	45.262		
3,600.00	3,393.56	3,379.55	3,398.29	20.76	14.62	-158.39	244.19	517.90	1,463.19	1,430.80	32.39	45.175		
3,700.00	3,485.75	3,472.80	3,491.54	21.39	15.01	-158.94	243.92	517.78	1,499.34	1,466.06	33.28	45.058		
3,800.00	3,577.93	3,567.30	3,586.03	22.03	15.40	-159.47	243.55	517.54	1,535.49	1,501.31	34.17	44.932		
3,900.00	3,670.12	3,661.87	3,680.61	22.67	15.80	-159.98	243.09	517.17	1,571.61	1,536.53	35.07	44.810		
4,000.00	3,762.30	3,756.53	3,775.26	23.30	16.20	-160.47	242.54	516.67	1,607.70	1,571.72	35.97	44.691		
4,100.00	3,854.49	3,851.26	3,869.99	23.94	16.59	-160.94	241.90	516.03	1,643.76	1,606.88	36.88	44.575		
4,200.00	3,946.68	3,946.08	3,964.80	24.58	16.99	-161.39	241.17	515.25	1,679.77	1,641.99	37.78	44.462		
4,300.00	4,038.86	4,040.97	4,059.68	25.22	17.39	-161.83	240.35	514.35	1,715.75	1,677.07	38.69	44.351		
4,400.00	4,131.05	4,135.94	4,154.64	25.86	17.79	-162.26	239.44	513.30	1,751.68	1,712.09	39.59	44.243		
4,500.00	4,223.24	4,230.99	4,249.67	26.50	18.19	-162.67	238.43	512.12	1,787.56	1,747.06	40.50	44.137		
4,600.00	4,315.42	4,319.27	4,337.95	27.14	18.56	-163.03	237.52	511.21	1,823.60	1,782.25	41.36	44.095		
4,700.00	4,407.61	4,406.54	4,425.22	27.78	18.93	-163.37	236.73	510.60	1,859.92	1,817.71	42.20	44.069		
4,800.00	4,499.79	4,489.96	4,508.63	28.42	19.28	-163.68	236.29	510.06	1,896.65	1,853.63	43.02	44.087		
4,900.00	4,591.98	4,582.14	4,600.81	29.06	19.67	-164.02	236.12	509.33	1,933.69	1,889.78	43.91	44.039		
5,000.00	4,684.17	4,671.96	4,690.63	29.70	20.05	-164.34	235.95	508.65	1,970.80	1,926.02	44.78	44.013		
5,100.00	4,776.35	4,765.47	4,784.13	30.34	20.44	-164.65	235.78	508.20	2,008.04	1,962.36	45.68	43.960		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,852.86	4,871.52	30.98	20.81	-164.93	235.54	507.97	2,045.32	1,998.79	46.53	43.958		
5,300.00	4,960.73	4,939.11	4,957.77	31.63	21.18	-165.19	235.63	507.82	2,082.99	2,035.62	47.37	43.973		
5,400.00	5,052.91	5,031.85	5,050.51	32.27	21.57	-165.47	235.89	507.45	2,120.80	2,072.54	48.26	43.941		
5,500.00	5,145.10	5,125.95	5,144.61	32.91	21.97	-165.75	236.06	507.02	2,158.55	2,109.38	49.17	43.897		
5,600.00	5,237.28	5,217.02	5,235.68	33.55	22.35	-166.01	236.25	506.60	2,196.37	2,146.31	50.05	43.879		
5,700.00	5,329.47	5,314.87	5,333.53	34.20	22.77	-166.28	236.43	505.82	2,234.11	2,183.11	51.00	43.810		
5,800.00	5,421.66	5,414.07	5,432.72	34.84	23.19	-166.56	236.38	504.76	2,271.62	2,219.68	51.95	43.729		
5,900.00	5,513.84	5,500.24	5,518.89	35.48	23.55	-166.78	236.34	503.95	2,309.19	2,256.40	52.79	43.743		
6,000.00	5,606.03	5,592.94	5,611.59	36.13	23.94	-167.02	236.29	503.32	2,346.87	2,293.18	53.69	43.713		
6,100.00	5,698.22	5,695.17	5,713.81	36.77	24.38	-167.26	235.99	502.76	2,384.39	2,329.72	54.67	43.615		
6,200.00	5,790.40	5,788.77	5,807.41	37.41	24.77	-167.47	235.47	502.22	2,421.70	2,366.13	55.58	43.575		
6,300.00	5,882.59	5,870.70	5,889.34	38.06	25.12	-167.65	235.14	501.82	2,459.20	2,402.81	56.38	43.615		
6,400.00	5,974.77	5,959.06	5,977.69	38.70	25.50	-167.84	235.10	501.50	2,497.07	2,439.82	57.25	43.620		
6,500.00	6,066.96	6,056.38	6,075.02	39.34	25.91	-168.05	235.08	500.87	2,534.93	2,476.74	58.19	43.565		
6,600.00	6,159.15	6,150.77	6,169.41	39.99	26.31	-168.25	234.86	500.15	2,572.59	2,513.49	59.10	43.527		
6,700.00	6,251.33	6,238.87	6,257.50	40.63	26.68	-168.43	234.70	499.59	2,610.35	2,550.39	59.96	43.532		
6,800.00	6,343.52	6,326.90	6,345.53	41.28	27.06	-168.59	234.66	499.28	2,648.31	2,587.49	60.83	43.540		
6,900.00	6,435.71	6,418.95	6,437.58	41.92	27.45	-168.76	234.65	499.04	2,686.35	2,624.63	61.72	43.523		
7,000.00	6,527.86	6,510.97	6,529.60	42.56	27.84	-177.17	234.64	498.81	2,724.62	2,662.00	62.62	43.511 SF		
7,100.00	6,618.85	6,601.85	6,620.48	43.19	28.23	160.51	234.63	498.61	2,765.38	2,701.88	63.51	43.545		
7,200.00	6,706.47	6,689.39	6,708.02	43.76	28.60	143.41	234.63	498.43	2,808.60	2,744.24	64.36	43.642		
7,300.00	6,788.56	6,771.43	6,790.05	44.26	28.95	130.74	234.62	498.28	2,853.53	2,788.38	65.15	43.798		
7,400.00	6,863.10	6,845.93	6,864.56	44.70	29.27	121.07	234.62	498.15	2,899.55	2,833.66	65.89	44.007		
7,500.00	6,928.26	6,911.06	6,929.69	45.07	29.55	113.33	234.61	498.05	2,946.15	2,879.58	66.58	44.253		
7,600.00	6,982.42	6,965.23	6,983.86	45.39	29.78	106.86	234.61	497.97	2,992.84	2,925.61	67.23	44.518		
7,700.00	7,024.26	7,007.09	7,025.72	45.67	29.95	101.27	234.61	497.92	3,039.11	2,971.24	67.87	44.778		
7,800.00	7,052.75	7,035.62	7,054.25	45.92	30.08	96.34	234.61	497.88	3,084.38	3,015.85	68.52	45.013		
7,900.00	7,067.18	7,050.13	7,068.76	46.16	30.14	91.99	234.61	497.86	3,127.97	3,058.78	69.19	45.208		
8,000.00	7,068.85	7,051.92	7,070.55	46.42	30.15	89.95	234.61	497.86	3,169.75	3,099.87	69.88	45.357		
8,100.00	7,068.56	7,051.74	7,070.37	46.78	30.14	89.95	234.61	497.86	3,213.38	3,142.72	70.66	45.474		
8,200.00	7,068.26	7,051.56	7,070.19	47.29	30.14	89.95	234.61	497.86	3,259.50	3,187.98	71.52	45.574		
8,300.00	7,067.96	7,051.38	7,070.01	48.03	30.14	89.94	234.61	497.86	3,308.00	3,235.56	72.44	45.667		
8,400.00	7,067.66	7,051.21	7,069.83	49.02	30.14	89.94	234.61	497.86	3,358.78	3,285.38	73.40	45.760		
8,500.00	7,067.37	7,051.03	7,069.65	50.27	30.14	89.94	234.61	497.86	3,411.73	3,337.33	74.40	45.860		
8,600.00	7,067.07	7,050.85	7,069.48	51.75	30.14	89.93	234.61	497.86	3,466.76	3,391.35	75.41	45.972		
8,700.00	7,066.77	7,050.67	7,069.30	53.42	30.14	89.93	234.61	497.86	3,523.76	3,447.33	76.44	46.100		
8,800.00	7,066.47	7,050.49	7,069.12	55.24	30.14	89.93	234.61	497.86	3,582.66	3,505.19	77.47	46.248		
8,900.00	7,066.18	7,050.31	7,068.94	57.18	30.14	89.92	234.61	497.86	3,643.34	3,564.85	78.49	46.418		
9,000.00	7,065.88	7,050.13	7,068.76	59.21	30.14	89.92	234.61	497.86	3,705.73	3,626.23	79.51	46.610		
9,100.00	7,065.58	7,049.96	7,068.58	61.33	30.14	89.91	234.61	497.86	3,769.74	3,689.24	80.51	46.826		
9,200.00	7,065.28	7,049.78	7,068.41	63.51	30.14	89.91	234.61	497.86	3,835.29	3,753.80	81.49	47.065		
9,300.00	7,064.99	7,049.60	7,068.23	65.76	30.14	89.91	234.61	497.86	3,902.31	3,819.85	82.45	47.329		
9,400.00	7,064.69	7,049.42	7,068.05	68.06	30.13	89.90	234.61	497.86	3,970.71	3,887.32	83.39	47.616		
9,500.00	7,064.39	7,049.24	7,067.87	70.40	30.13	89.90	234.61	497.86	4,040.42	3,956.12	84.30	47.927		
9,600.00	7,064.09	7,049.07	7,067.69	72.78	30.13	89.90	234.61	497.86	4,111.39	4,026.20	85.19	48.259		
9,700.00	7,063.80	7,048.89	7,067.52	75.20	30.13	89.89	234.61	497.86	4,183.54	4,097.49	86.06	48.614		
9,800.00	7,063.50	7,048.71	7,067.34	77.65	30.13	89.89	234.61	497.86	4,256.82	4,169.93	86.89	48.989		
9,900.00	7,063.20	7,048.53	7,067.16	80.13	30.13	89.89	234.61	497.86	4,331.17	4,243.47	87.70	49.384		
10,000.00	7,062.90	7,048.36	7,066.98	82.64	30.13	89.88	234.61	497.86	4,406.54	4,318.05	88.49	49.798		
10,100.00	7,062.61	7,048.18	7,066.81	85.17	30.13	89.88	234.61	497.86	4,482.86	4,393.62	89.25	50.230		
10,200.00	7,062.31	7,048.00	7,066.63	87.72	30.13	89.88	234.61	497.86	4,560.11	4,470.13	89.98	50.679		
10,300.00	7,062.01	7,047.82	7,066.45	90.28	30.13	89.87	234.61	497.87	4,638.22	4,547.53	90.69	51.145		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	7,047.65	7,066.27	92.87	30.13	89.87	234.61	497.87	4,717.16	4,625.79	91.37	51.627		
10,500.00	7,061.41	7,047.47	7,066.10	95.47	30.13	89.87	234.61	497.87	4,796.89	4,704.86	92.03	52.123		
10,600.00	7,061.12	7,047.29	7,065.92	98.09	30.13	89.86	234.61	497.87	4,877.36	4,784.69	92.67	52.633		
10,700.00	7,060.82	7,047.11	7,065.74	100.72	30.12	89.86	234.61	497.87	4,958.54	4,865.26	93.28	53.156		
10,800.00	7,060.52	7,046.94	7,065.57	103.37	30.12	89.85	234.61	497.87	5,040.40	4,946.53	93.88	53.692		
10,900.00	7,060.22	7,046.76	7,065.39	106.02	30.12	89.85	234.61	497.87	5,122.91	5,028.46	94.45	54.240		
11,000.00	7,059.93	7,046.58	7,065.21	108.69	30.12	89.85	234.61	497.87	5,206.02	5,111.02	95.00	54.800		
11,100.00	7,059.63	7,046.41	7,065.04	111.36	30.12	89.84	234.61	497.87	5,289.72	5,194.19	95.53	55.370		
11,200.00	7,059.33	7,046.23	7,064.86	114.05	30.12	89.84	234.61	497.87	5,373.98	5,277.93	96.05	55.950		
11,300.00	7,059.03	7,046.05	7,064.68	116.74	30.12	89.84	234.61	497.87	5,458.77	5,362.22	96.55	56.539		
11,400.00	7,058.74	7,045.88	7,064.51	119.44	30.12	89.83	234.61	497.87	5,544.07	5,447.04	97.03	57.138		
11,500.00	7,058.44	7,045.70	7,064.33	122.15	30.12	89.83	234.61	497.87	5,629.85	5,532.36	97.49	57.745		
11,600.00	7,058.14	7,045.53	7,064.15	124.86	30.12	89.83	234.61	497.87	5,716.09	5,618.15	97.94	58.360		
11,700.00	7,057.84	7,045.35	7,063.98	127.58	30.12	89.82	234.61	497.87	5,802.78	5,704.40	98.38	58.984		
11,800.00	7,057.55	7,045.17	7,063.80	130.31	30.12	89.82	234.61	497.87	5,889.89	5,791.09	98.80	59.614		
11,900.00	7,057.25	7,045.00	7,063.62	133.04	30.12	89.82	234.61	497.87	5,977.40	5,878.19	99.21	60.251		
12,000.00	7,056.95	7,044.82	7,063.45	135.78	30.12	89.81	234.61	497.87	6,065.29	5,965.69	99.60	60.895		
12,100.00	7,056.65	7,044.64	7,063.27	138.52	30.11	89.81	234.61	497.87	6,153.56	6,053.58	99.98	61.546		
12,200.00	7,056.36	7,044.47	7,063.10	141.27	30.11	89.81	234.61	497.87	6,242.18	6,141.83	100.35	62.202		
12,300.00	7,056.06	7,044.29	7,062.92	144.02	30.11	89.80	234.61	497.87	6,331.14	6,230.43	100.71	62.863		
12,400.00	7,055.76	7,044.12	7,062.75	146.78	30.11	89.80	234.61	497.87	6,420.42	6,319.36	101.06	63.531		
12,500.00	7,055.46	7,043.94	7,062.57	149.54	30.11	89.79	234.61	497.87	6,510.02	6,408.62	101.40	64.203		
12,600.00	7,055.17	7,043.77	7,062.39	152.30	30.11	89.79	234.61	497.87	6,599.91	6,498.19	101.73	64.880		
12,700.00	7,054.87	7,043.59	7,062.22	155.07	30.11	89.79	234.61	497.87	6,690.09	6,588.05	102.04	65.561		
12,800.00	7,054.57	7,043.42	7,062.04	157.84	30.11	89.78	234.61	497.87	6,780.55	6,678.20	102.35	66.247		
12,900.00	7,054.27	7,043.24	7,061.87	160.61	30.11	89.78	234.61	497.87	6,871.27	6,768.62	102.65	66.937		
13,000.00	7,053.97	7,043.06	7,061.69	163.39	30.11	89.78	234.61	497.87	6,962.25	6,859.30	102.94	67.631		
13,100.00	7,053.68	7,042.89	7,061.52	166.17	30.11	89.77	234.61	497.87	7,053.47	6,950.24	103.23	68.328		
13,200.00	7,053.38	7,042.71	7,061.34	168.95	30.11	89.77	234.61	497.87	7,144.92	7,041.42	103.51	69.029		
13,300.00	7,053.08	7,042.54	7,061.17	171.73	30.11	89.77	234.61	497.87	7,236.60	7,132.83	103.77	69.734		
13,400.00	7,052.78	7,042.36	7,060.99	174.52	30.10	89.76	234.61	497.87	7,328.50	7,224.46	104.04	70.442		
13,500.00	7,052.49	7,042.19	7,060.82	177.31	30.10	89.76	234.61	497.87	7,420.61	7,316.32	104.29	71.152		
13,600.00	7,052.19	7,042.01	7,060.64	180.10	30.10	89.76	234.61	497.87	7,512.92	7,408.38	104.54	71.866		
13,700.00	7,051.89	7,041.84	7,060.47	182.90	30.10	89.75	234.61	497.87	7,605.42	7,500.64	104.78	72.582		
13,800.00	7,051.59	7,041.66	7,060.29	185.69	30.10	89.75	234.61	497.87	7,698.11	7,593.09	105.02	73.301		
13,900.00	7,051.30	7,041.49	7,060.12	188.49	30.10	89.75	234.61	497.87	7,790.99	7,685.73	105.25	74.022		
14,000.00	7,051.00	7,041.32	7,059.94	191.29	30.10	89.74	234.61	497.87	7,884.03	7,778.55	105.48	74.746		
14,100.00	7,050.70	7,041.14	7,059.77	194.09	30.10	89.74	234.61	497.87	7,977.25	7,871.55	105.70	75.472		
14,200.00	7,050.40	7,040.97	7,059.59	196.89	30.10	89.74	234.61	497.87	8,070.62	7,964.71	105.91	76.200		
14,300.00	7,050.11	7,040.79	7,059.42	199.70	30.10	89.73	234.61	497.87	8,164.16	8,058.03	106.12	76.930		
14,400.00	7,049.81	7,040.62	7,059.25	202.50	30.10	89.73	234.61	497.87	8,257.84	8,151.51	106.33	77.662		
14,500.00	7,049.51	7,040.44	7,059.07	205.31	30.10	89.73	234.61	497.87	8,351.68	8,245.14	106.53	78.395		
14,600.00	7,049.21	7,040.27	7,058.90	208.12	30.10	89.72	234.61	497.87	8,445.65	8,338.92	106.73	79.130		
14,700.00	7,048.92	7,040.10	7,058.72	210.93	30.09	89.72	234.61	497.87	8,539.76	8,432.84	106.92	79.867		
14,800.00	7,048.62	7,039.92	7,058.55	213.74	30.09	89.71	234.61	497.87	8,634.00	8,526.89	107.11	80.606		
14,900.00	7,048.32	7,039.75	7,058.38	216.55	30.09	89.71	234.61	497.87	8,728.38	8,621.08	107.30	81.346		
15,000.00	7,048.02	7,039.57	7,058.20	219.37	30.09	89.71	234.61	497.88	8,822.87	8,715.39	107.48	82.087		
15,100.00	7,047.73	7,039.40	7,058.03	222.18	30.09	89.70	234.61	497.88	8,917.49	8,809.83	107.66	82.829		
15,200.00	7,047.43	7,039.23	7,057.85	225.00	30.09	89.70	234.61	497.88	9,012.22	8,904.38	107.84	83.573		
15,300.00	7,047.13	7,039.05	7,057.68	227.81	30.09	89.70	234.61	497.88	9,107.06	8,999.05	108.01	84.318		
15,343.67	7,047.00	7,038.98	7,057.61	229.04	30.09	89.70	234.61	497.88	9,148.52	9,040.44	108.08	84.644		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.46	479.79	3.89	479.80					
100.00	100.00	103.00	100.00	3.28	3.29	0.46	479.79	3.89	479.80	473.23	6.57	73.028		
200.00	200.00	203.00	200.00	3.34	3.34	0.46	479.79	3.89	479.80	473.13	6.68	71.864	CC, ES	
300.00	299.98	288.21	285.19	3.44	3.43	177.04	481.14	3.76	483.12	476.24	6.88	70.224		
400.00	399.84	373.32	370.21	3.59	3.56	177.01	485.00	3.37	492.87	485.69	7.19	68.593		
500.00	499.45	457.39	454.04	3.79	3.72	176.96	491.28	2.74	508.99	501.41	7.58	67.164		
600.00	598.70	539.95	536.15	4.03	3.91	176.89	499.83	1.88	531.37	523.33	8.04	66.105		
700.00	697.47	620.54	616.03	4.31	4.12	176.81	510.44	0.82	559.85	551.31	8.55	65.508		
800.00	795.62	698.76	693.24	4.64	4.35	176.72	522.88	-0.43	594.26	585.18	9.09	65.406		
900.00	893.06	774.25	767.41	5.00	4.58	176.62	536.86	-1.84	634.38	624.74	9.65	65.769		
1,000.00	989.64	846.72	838.24	5.40	4.82	176.52	552.11	-3.37	679.97	669.76	10.21	66.613		
1,100.00	1,085.27	915.91	905.48	5.83	5.06	176.40	568.33	-5.00	730.76	719.99	10.77	67.822		
1,200.00	1,179.82	981.62	968.96	6.29	5.30	176.28	585.22	-6.69	786.49	775.16	11.33	69.409		
1,300.00	1,273.17	1,049.30	1,027.90	6.79	5.57	176.16	602.31	-8.41	846.85	834.96	11.89	71.197		
1,400.00	1,365.46	1,120.25	1,101.79	7.32	5.86	176.09	624.68	-10.65	910.37	897.88	12.49	72.893		
1,500.00	1,457.65	1,202.69	1,175.51	7.87	6.22	176.08	647.00	-12.89	974.10	960.97	13.13	74.170		
1,600.00	1,549.83	1,274.37	1,249.23	8.43	6.53	176.06	669.32	-15.13	1,037.84	1,024.08	13.76	75.449		
1,700.00	1,642.02	1,351.42	1,322.95	9.01	6.88	176.05	691.64	-17.38	1,101.57	1,087.16	14.42	76.403		
1,800.00	1,734.21	1,428.48	1,396.68	9.59	7.24	176.04	713.96	-19.62	1,165.31	1,150.21	15.10	77.192		
1,900.00	1,826.39	1,505.54	1,470.40	10.18	7.60	176.03	736.27	-21.86	1,229.04	1,213.26	15.79	77.844		
2,000.00	1,918.58	1,582.60	1,544.12	10.78	7.97	176.02	758.59	-24.10	1,292.78	1,276.29	16.49	78.383		
2,100.00	2,010.77	1,659.65	1,617.84	11.39	8.34	176.01	780.91	-26.34	1,356.51	1,339.31	17.21	78.829		
2,200.00	2,102.95	1,736.71	1,691.56	11.99	8.71	176.00	803.23	-28.58	1,420.25	1,402.32	17.93	79.198		
2,300.00	2,195.14	1,813.77	1,765.28	12.61	9.09	176.00	825.55	-30.82	1,483.98	1,465.32	18.67	79.502		
2,400.00	2,287.32	1,909.18	1,839.00	13.22	9.56	175.99	847.87	-33.06	1,547.72	1,528.23	19.49	79.406		
2,500.00	2,379.51	1,967.88	1,912.72	13.84	9.86	175.98	870.18	-35.30	1,611.45	1,591.30	20.15	79.960		
2,600.00	2,471.70	2,044.94	1,986.44	14.46	10.24	175.98	892.50	-37.54	1,675.19	1,654.28	20.91	80.130		
2,700.00	2,563.88	2,122.00	2,060.16	15.08	10.63	175.97	914.82	-39.78	1,738.92	1,717.26	21.66	80.268		
2,800.00	2,656.07	2,200.95	2,133.88	15.71	11.03	175.97	937.14	-42.02	1,802.66	1,780.22	22.44	80.348		
2,900.00	2,748.26	2,276.11	2,207.60	16.33	11.41	175.96	959.46	-44.26	1,866.39	1,843.20	23.19	80.470		
3,000.00	2,840.44	2,353.17	2,281.32	16.96	11.81	175.96	981.78	-46.50	1,930.13	1,906.16	23.96	80.541		
3,100.00	2,932.63	2,430.23	2,355.04	17.59	12.20	175.96	1,004.09	-48.74	1,993.86	1,969.12	24.74	80.596		
3,200.00	3,024.81	2,507.28	2,428.76	18.22	12.60	175.95	1,026.41	-50.99	2,057.60	2,032.08	25.52	80.638		
3,300.00	3,117.00	2,584.34	2,502.48	18.86	13.00	175.95	1,048.73	-53.23	2,121.33	2,095.04	26.30	80.668		
3,400.00	3,209.19	2,661.40	2,576.20	19.49	13.40	175.94	1,071.05	-55.47	2,185.07	2,157.99	27.08	80.689		
3,500.00	3,301.37	2,738.46	2,649.92	20.12	13.80	175.94	1,093.37	-57.71	2,248.80	2,220.94	27.87	80.701		
3,600.00	3,393.56	2,815.51	2,723.64	20.76	14.20	175.94	1,115.68	-59.95	2,312.54	2,283.89	28.65	80.706		
3,700.00	3,485.75	2,907.43	2,797.36	21.39	14.67	175.94	1,138.00	-62.19	2,376.27	2,346.76	29.52	80.507		
3,800.00	3,577.93	2,969.63	2,871.08	22.03	15.00	175.93	1,160.32	-64.43	2,440.01	2,409.77	30.24	80.700		
3,900.00	3,670.12	3,046.69	2,944.81	22.67	15.40	175.93	1,182.64	-66.67	2,503.74	2,472.71	31.03	80.690		
4,000.00	3,762.30	3,123.74	3,018.53	23.30	15.81	175.93	1,204.96	-68.91	2,567.48	2,535.65	31.82	80.676		
4,100.00	3,854.49	3,200.80	3,092.25	23.94	16.21	175.93	1,227.28	-71.15	2,631.21	2,598.59	32.62	80.658		
4,200.00	3,946.68	3,277.86	3,165.97	24.58	16.61	175.92	1,249.59	-73.39	2,694.95	2,661.53	33.42	80.638		
4,300.00	4,038.86	3,354.92	3,239.69	25.22	17.02	175.92	1,271.91	-75.63	2,758.68	2,724.46	34.22	80.616		
4,400.00	4,131.05	3,431.97	3,313.41	25.86	17.42	175.92	1,294.23	-77.87	2,822.42	2,787.40	35.02	80.592		
4,500.00	4,223.24	3,509.03	3,387.13	26.50	17.83	175.92	1,316.55	-80.11	2,886.15	2,850.33	35.82	80.566		
4,600.00	4,315.42	3,586.09	3,460.85	27.14	18.24	175.92	1,338.87	-82.35	2,949.89	2,913.26	36.63	80.538		
4,700.00	4,407.61	3,663.14	3,534.57	27.78	18.64	175.92	1,361.19	-84.60	3,013.62	2,976.19	37.43	80.510		
4,800.00	4,499.79	3,740.20	3,608.29	28.42	19.05	175.91	1,383.50	-86.84	3,077.36	3,039.12	38.24	80.480		
4,900.00	4,591.98	3,817.26	3,682.01	29.06	19.46	175.91	1,405.82	-89.08	3,141.09	3,102.05	39.04	80.450		
5,000.00	4,684.17	3,894.32	3,755.73	29.70	19.86	175.91	1,428.14	-91.32	3,204.83	3,164.98	39.85	80.419		
5,100.00	4,776.35	3,971.37	3,829.45	30.34	20.27	175.91	1,450.46	-93.56	3,268.56	3,227.90	40.66	80.387		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	4,868.54	4,048.43	3,903.17	30.98	20.68	175.91	1,472.78	-95.80	3,332.30	3,290.83	41.47	80.355		
5,300.00	4,960.73	4,125.49	3,976.89	31.63	21.09	175.91	1,495.10	-98.04	3,396.03	3,353.75	42.28	80.322		
5,400.00	5,052.91	4,202.55	4,050.61	32.27	21.50	175.91	1,517.41	-100.28	3,459.77	3,416.68	43.09	80.289		
5,500.00	5,145.10	4,279.60	4,124.33	32.91	21.91	175.90	1,539.73	-102.52	3,523.50	3,479.60	43.90	80.256		
5,600.00	5,237.28	4,356.66	4,198.05	33.55	22.32	175.90	1,562.05	-104.76	3,587.24	3,542.52	44.72	80.222		
5,700.00	5,329.47	4,433.72	4,271.77	34.20	22.72	175.90	1,584.37	-107.00	3,650.97	3,605.45	45.53	80.189		
5,800.00	5,421.66	4,510.78	4,345.49	34.84	23.13	175.90	1,606.69	-109.24	3,714.71	3,668.37	46.34	80.155		
5,900.00	5,513.84	4,587.83	4,419.22	35.48	23.54	175.90	1,629.01	-111.48	3,778.45	3,731.29	47.16	80.122		
6,000.00	5,606.03	4,664.89	4,492.94	36.13	23.95	175.90	1,651.32	-113.72	3,842.18	3,794.21	47.97	80.088		
6,100.00	5,698.22	4,741.95	4,566.66	36.77	24.36	175.90	1,673.64	-115.96	3,905.92	3,857.12	48.79	80.055		
6,200.00	5,790.40	4,819.01	4,640.38	37.41	24.77	175.90	1,695.96	-118.21	3,969.65	3,920.04	49.61	80.021		
6,300.00	5,882.59	4,903.94	4,714.10	38.06	25.23	175.90	1,718.28	-120.45	4,033.39	3,982.92	50.46	79.925		
6,400.00	5,974.77	4,973.12	4,787.82	38.70	25.59	175.90	1,740.60	-122.69	4,097.12	4,045.88	51.24	79.954		
6,500.00	6,066.96	5,050.18	4,861.54	39.34	26.01	175.89	1,762.92	-124.93	4,160.86	4,108.79	52.06	79.921		
6,600.00	6,159.15	5,127.23	4,935.26	39.99	26.42	175.89	1,785.23	-127.17	4,224.59	4,171.71	52.88	79.887		
6,700.00	6,251.33	5,204.41	5,009.98	40.63	32.39	176.15	1,985.03	-147.23	4,281.90	4,218.71	63.20	67.755		
6,800.00	6,343.52	5,281.60	5,084.70	41.28	32.72	176.19	1,985.03	-147.23	4,320.58	4,256.52	64.06	67.445		
6,900.00	6,435.71	5,358.79	5,159.42	41.92	33.05	176.22	1,985.03	-147.23	4,359.26	4,294.33	64.93	67.142		
7,000.00	6,527.90	5,435.98	5,234.34	42.56	33.39	167.97	1,985.03	-147.23	4,397.93	4,332.14	65.79	66.845		
7,100.00	6,619.09	5,513.17	5,309.26	43.19	33.72	145.94	1,985.03	-147.23	4,436.23	4,369.57	66.65	66.559		
7,200.00	6,706.47	5,590.36	5,384.18	43.76	34.07	129.44	1,984.97	-154.49	4,473.28	4,405.76	67.52	66.251		
7,300.00	6,788.56	5,667.55	5,459.10	44.26	34.44	117.64	1,984.78	-178.56	4,508.15	4,439.76	68.40	65.912		
7,400.00	6,863.10	5,744.74	5,534.02	44.70	34.81	109.16	1,984.44	-221.84	4,539.98	4,470.68	69.30	65.513		
7,500.00	6,928.26	5,821.93	5,608.94	45.07	35.17	103.02	1,983.94	-286.72	4,567.94	4,497.66	70.28	64.999		
7,600.00	6,982.42	5,899.12	5,683.86	45.39	35.52	98.58	1,983.25	-374.76	4,591.28	4,519.85	71.42	64.283		
7,700.00	7,024.26	5,976.31	5,758.78	45.67	35.89	95.48	1,982.38	-485.44	4,609.33	4,536.45	72.88	63.245		
7,800.00	7,052.75	6,053.50	5,833.70	45.92	36.55	93.49	1,981.37	-614.84	4,621.56	4,546.78	74.78	61.804		
7,900.00	7,067.18	6,130.69	5,908.62	46.16	37.81	92.48	1,980.27	-755.15	4,627.59	4,550.45	77.15	59.982		
8,000.00	7,068.85	6,207.88	5,983.54	46.42	39.09	92.34	1,979.42	-864.39	4,628.17	4,548.66	79.52	58.205		
8,100.00	7,068.56	6,285.07	6,058.46	46.78	40.44	92.34	1,978.64	-964.39	4,627.99	4,545.89	82.10	56.371		
8,200.00	7,068.26	6,362.26	6,133.38	47.29	41.96	92.34	1,977.85	-1,064.38	4,627.80	4,542.81	84.99	54.453		
8,300.00	7,067.96	6,439.45	6,208.30	48.03	43.61	92.34	1,977.07	-1,164.38	4,627.61	4,539.46	88.15	52.497		
8,400.00	7,067.66	6,516.64	6,283.22	49.02	45.38	92.34	1,976.29	-1,264.37	4,627.43	4,535.86	91.56	50.539		
8,500.00	7,067.37	6,593.83	6,358.14	50.27	47.26	92.33	1,975.51	-1,364.37	4,627.24	4,532.05	95.19	48.609		
8,600.00	7,067.07	6,671.02	6,433.06	51.75	49.23	92.33	1,974.73	-1,464.37	4,627.05	4,528.03	99.02	46.728		
8,700.00	7,066.77	6,748.21	6,507.98	53.42	51.29	92.33	1,973.94	-1,564.36	4,626.86	4,523.84	103.02	44.911		
8,800.00	7,066.47	6,825.40	6,582.90	55.24	53.42	92.33	1,973.16	-1,664.36	4,626.68	4,519.50	107.18	43.168		
8,900.00	7,066.18	6,902.59	6,657.82	57.18	55.62	92.33	1,972.38	-1,764.35	4,626.49	4,515.02	111.47	41.503		
9,000.00	7,065.88	6,979.78	6,732.74	59.21	57.88	92.33	1,971.60	-1,864.35	4,626.30	4,510.41	115.89	39.920		
9,100.00	7,065.58	7,056.97	6,807.66	61.33	60.18	92.33	1,970.82	-1,964.35	4,626.11	4,505.70	120.42	38.418		
9,200.00	7,065.28	7,134.16	6,882.58	63.51	62.54	92.33	1,970.03	-2,064.34	4,625.93	4,500.89	125.04	36.996		
9,300.00	7,064.99	7,211.35	6,957.50	65.76	64.93	92.33	1,969.25	-2,164.34	4,625.74	4,495.99	129.75	35.652		
9,400.00	7,064.69	7,288.54	7,032.42	68.06	67.36	92.33	1,968.47	-2,264.33	4,625.55	4,491.02	134.53	34.382		
9,500.00	7,064.39	7,365.73	7,107.34	70.40	69.82	92.33	1,967.69	-2,364.33	4,625.37	4,485.98	139.39	33.183		
9,600.00	7,064.09	7,442.92	7,182.26	72.78	72.31	92.32	1,966.90	-2,464.33	4,625.18	4,480.87	144.31	32.050		
9,700.00	7,063.80	7,520.11	7,257.18	75.20	74.83	92.32	1,966.12	-2,564.32	4,624.99	4,475.71	149.28	30.981		
9,800.00	7,063.50	7,597.30	7,332.10	77.65	77.37	92.32	1,965.34	-2,664.32	4,624.80	4,470.49	154.31	29.971		
9,900.00	7,063.20	7,674.49	7,407.02	80.13	79.93	92.32	1,964.56	-2,764.31	4,624.62	4,465.23	159.38	29.016		
10,000.00	7,062.90	7,751.68	7,481.94	82.64	82.51	92.32	1,963.78	-2,864.31	4,624.43	4,459.93	164.50	28.112		
10,100.00	7,062.61	7,828.87	7,556.86	85.17	85.11	92.32	1,962.99	-2,964.31	4,624.24	4,454.59	169.65	27.257		
10,200.00	7,062.31	7,906.06	7,631.78	87.72	87.73	92.32	1,962.21	-3,064.30	4,624.05	4,449.22	174.84	26.448		
10,300.00	7,062.01	7,983.25	7,706.70	90.28	90.36	92.32	1,961.43	-3,164.30	4,623.87	4,443.81	180.06	25.680		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,061.71	10,317.58	7,248.59	92.87	93.00	92.32	1,960.65	-3,264.29	4,623.68	4,438.37	185.31	24.952		
10,500.00	7,061.41	10,417.58	7,248.21	95.47	95.66	92.32	1,959.87	-3,364.29	4,623.49	4,432.91	190.58	24.260		
10,600.00	7,061.12	10,517.58	7,247.83	98.09	98.33	92.31	1,959.08	-3,464.29	4,623.31	4,427.42	195.88	23.603		
10,700.00	7,060.82	10,617.58	7,247.45	100.72	101.00	92.31	1,958.30	-3,564.28	4,623.12	4,421.92	201.20	22.977		
10,800.00	7,060.52	10,717.58	7,247.07	103.37	103.69	92.31	1,957.52	-3,664.28	4,622.93	4,416.39	206.55	22.382		
10,900.00	7,060.22	10,817.58	7,246.69	106.02	106.39	92.31	1,956.74	-3,764.27	4,622.74	4,410.84	211.91	21.815		
11,000.00	7,059.93	10,917.58	7,246.31	108.69	109.09	92.31	1,955.96	-3,864.27	4,622.56	4,405.27	217.29	21.274		
11,100.00	7,059.63	11,017.58	7,245.93	111.36	111.80	92.31	1,955.17	-3,964.27	4,622.37	4,399.68	222.68	20.757		
11,200.00	7,059.33	11,117.58	7,245.55	114.05	114.52	92.31	1,954.39	-4,064.26	4,622.18	4,394.09	228.10	20.264		
11,300.00	7,059.03	11,217.58	7,245.17	116.74	117.25	92.31	1,953.61	-4,164.26	4,621.99	4,388.47	233.52	19.792		
11,400.00	7,058.74	11,317.58	7,244.80	119.44	119.98	92.31	1,952.83	-4,264.26	4,621.81	4,382.84	238.96	19.341		
11,500.00	7,058.44	11,417.58	7,244.42	122.15	122.72	92.31	1,952.05	-4,364.25	4,621.62	4,377.21	244.41	18.909		
11,600.00	7,058.14	11,517.58	7,244.04	124.86	125.46	92.31	1,951.26	-4,464.25	4,621.43	4,371.55	249.88	18.495		
11,700.00	7,057.84	11,617.58	7,243.66	127.58	128.21	92.30	1,950.48	-4,564.24	4,621.25	4,365.89	255.35	18.097		
11,800.00	7,057.55	11,717.58	7,243.28	130.31	130.96	92.30	1,949.70	-4,664.24	4,621.06	4,360.22	260.84	17.716		
11,900.00	7,057.25	11,817.58	7,242.90	133.04	133.72	92.30	1,948.92	-4,764.24	4,620.87	4,354.54	266.33	17.350		
12,000.00	7,056.95	11,917.58	7,242.52	135.78	136.48	92.30	1,948.14	-4,864.23	4,620.68	4,348.85	271.84	16.998		
12,100.00	7,056.65	12,017.58	7,242.14	138.52	139.25	92.30	1,947.35	-4,964.23	4,620.50	4,343.15	277.35	16.660		
12,200.00	7,056.36	12,117.58	7,241.76	141.27	142.02	92.30	1,946.57	-5,064.22	4,620.31	4,337.44	282.87	16.334		
12,300.00	7,056.06	12,217.58	7,241.38	144.02	144.79	92.30	1,945.79	-5,164.22	4,620.12	4,331.73	288.39	16.020		
12,400.00	7,055.76	12,317.58	7,241.00	146.78	147.57	92.30	1,945.01	-5,264.22	4,619.94	4,326.01	293.93	15.718		
12,500.00	7,055.46	12,417.58	7,240.62	149.54	150.35	92.30	1,944.23	-5,364.21	4,619.75	4,320.28	299.47	15.426		
12,600.00	7,055.17	12,517.58	7,240.24	152.30	153.13	92.30	1,943.44	-5,464.21	4,619.56	4,314.54	305.02	15.145		
12,700.00	7,054.87	12,617.58	7,239.86	155.07	155.91	92.30	1,942.66	-5,564.20	4,619.37	4,308.80	310.57	14.874		
12,800.00	7,054.57	12,717.58	7,239.48	157.84	158.70	92.29	1,941.88	-5,664.20	4,619.19	4,303.06	316.13	14.612		
12,900.00	7,054.27	12,817.58	7,239.10	160.61	161.49	92.29	1,941.10	-5,764.20	4,619.00	4,297.30	321.69	14.358		
13,000.00	7,053.97	12,917.58	7,238.72	163.39	164.28	92.29	1,940.32	-5,864.19	4,618.81	4,291.55	327.26	14.113		
13,100.00	7,053.68	13,017.58	7,238.34	166.17	167.08	92.29	1,939.53	-5,964.19	4,618.62	4,285.79	332.84	13.876		
13,200.00	7,053.38	13,117.58	7,237.96	168.95	169.87	92.29	1,938.75	-6,064.18	4,618.44	4,280.02	338.42	13.647		
13,300.00	7,053.08	13,217.58	7,237.58	171.73	172.67	92.29	1,937.97	-6,164.18	4,618.25	4,274.25	344.00	13.425		
13,400.00	7,052.78	13,317.58	7,237.21	174.52	175.47	92.29	1,937.19	-6,264.18	4,618.06	4,268.47	349.59	13.210		
13,500.00	7,052.49	13,417.58	7,236.83	177.31	178.27	92.29	1,936.41	-6,364.17	4,617.88	4,262.70	355.18	13.002		
13,600.00	7,052.19	13,517.58	7,236.45	180.10	181.08	92.29	1,935.62	-6,464.17	4,617.69	4,256.91	360.78	12.799		
13,700.00	7,051.89	13,617.58	7,236.07	182.90	183.88	92.29	1,934.84	-6,564.16	4,617.50	4,251.13	366.37	12.603		
13,800.00	7,051.59	13,717.58	7,235.69	185.69	186.69	92.29	1,934.06	-6,664.16	4,617.31	4,245.34	371.98	12.413		
13,900.00	7,051.30	13,817.58	7,235.31	188.49	189.50	92.28	1,933.28	-6,764.16	4,617.13	4,239.54	377.58	12.228		
14,000.00	7,051.00	13,917.58	7,234.93	191.29	192.31	92.28	1,932.50	-6,864.15	4,616.94	4,233.75	383.19	12.049		
14,100.00	7,050.70	14,017.58	7,234.55	194.09	195.12	92.28	1,931.71	-6,964.15	4,616.75	4,227.95	388.80	11.874		
14,200.00	7,050.40	14,117.58	7,234.17	196.89	197.93	92.28	1,930.93	-7,064.14	4,616.56	4,222.15	394.42	11.705		
14,300.00	7,050.11	14,217.58	7,233.79	199.70	200.75	92.28	1,930.15	-7,164.14	4,616.38	4,216.34	400.04	11.540		
14,400.00	7,049.81	14,317.58	7,233.41	202.50	203.56	92.28	1,929.37	-7,264.14	4,616.19	4,210.53	405.66	11.380		
14,500.00	7,049.51	14,417.58	7,233.03	205.31	206.38	92.28	1,928.59	-7,364.13	4,616.00	4,204.72	411.28	11.224		
14,600.00	7,049.21	14,517.58	7,232.65	208.12	209.20	92.28	1,927.80	-7,464.13	4,615.82	4,198.91	416.90	11.072		
14,700.00	7,048.92	14,617.58	7,232.27	210.93	212.02	92.28	1,927.02	-7,564.12	4,615.63	4,193.10	422.53	10.924		
14,800.00	7,048.62	14,717.57	7,231.89	213.74	214.84	92.28	1,926.24	-7,664.12	4,615.44	4,187.28	428.16	10.780		
14,900.00	7,048.32	14,817.57	7,231.51	216.55	217.66	92.28	1,925.46	-7,764.12	4,615.25	4,181.46	433.79	10.639		
15,000.00	7,048.02	14,917.57	7,231.13	219.37	220.48	92.27	1,924.68	-7,864.11	4,615.07	4,175.64	439.43	10.502		
15,100.00	7,047.73	15,017.57	7,230.75	222.18	223.30	92.27	1,923.89	-7,964.11	4,614.88	4,169.82	445.06	10.369		
15,200.00	7,047.43	15,117.57	7,230.37	225.00	226.12	92.27	1,923.11	-8,064.10	4,614.69	4,163.99	450.70	10.239		
15,300.00	7,047.13	15,217.57	7,229.99	227.81	228.95	92.27	1,922.33	-8,164.10	4,614.51	4,158.16	456.34	10.112		
15,307.08	7,047.11	15,216.01	7,230.00	228.01	228.91	92.27	1,922.34	-8,162.54	4,614.50	4,158.01	456.49	10.109		
15,343.67	7,047.00	15,216.01	7,230.00	229.04	228.91	92.27	1,922.34	-8,162.54	4,614.65	4,157.16	457.48	10.087 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.48	460.12	3.89	460.13					
100.00	100.00	103.00	100.00	3.28	3.29	0.48	460.12	3.89	460.13	453.56	6.57	70.034		
200.00	200.00	203.00	200.00	3.34	3.34	0.48	460.12	3.89	460.13	453.46	6.68	68.918 CC, ES		
300.00	299.98	302.98	299.98	3.44	3.45	177.08	460.12	3.89	461.88	454.99	6.89	67.046		
400.00	399.84	388.51	385.49	3.59	3.58	177.08	461.47	3.72	468.68	461.49	7.19	65.224		
500.00	499.45	473.64	470.53	3.79	3.75	177.05	465.34	3.23	481.89	474.31	7.57	63.616		
600.00	598.70	557.46	554.11	4.03	3.95	176.99	471.58	2.42	501.42	493.38	8.04	62.404		
700.00	697.47	639.50	635.70	4.31	4.16	176.91	480.05	1.34	527.14	518.59	8.55	61.677		
800.00	795.62	719.32	714.83	4.64	4.39	176.81	490.50	0.00	558.88	549.78	9.09	61.461		
900.00	893.06	796.56	791.08	5.00	4.63	176.69	502.70	-1.56	596.44	586.78	9.66	61.742		
1,000.00	989.64	874.79	863.72	5.40	4.89	176.57	516.27	-3.30	639.58	629.33	10.25	62.401		
1,100.00	1,085.27	958.50	949.99	5.83	5.18	176.43	533.61	-5.52	687.03	676.17	10.86	63.280		
1,200.00	1,179.82	1,044.82	1,034.58	6.29	5.49	176.32	550.61	-7.70	737.51	726.00	11.51	64.059		
1,300.00	1,273.17	1,129.32	1,117.40	6.79	5.81	176.22	567.25	-9.83	790.98	778.80	12.18	64.937		
1,400.00	1,365.46	1,212.26	1,198.70	7.32	6.13	176.19	583.59	-11.93	846.83	833.97	12.86	65.848		
1,500.00	1,457.65	1,304.95	1,279.84	7.87	6.51	176.19	599.89	-14.02	902.92	889.34	13.58	66.480		
1,600.00	1,549.83	1,377.84	1,360.98	8.43	6.81	176.19	616.20	-16.11	959.01	944.76	14.24	67.329		
1,700.00	1,642.02	1,460.64	1,442.12	9.01	7.16	176.19	632.50	-18.20	1,015.09	1,000.13	14.96	67.850		
1,800.00	1,734.21	1,543.43	1,523.26	9.59	7.51	176.20	648.81	-20.29	1,071.18	1,055.49	15.69	68.264		
1,900.00	1,826.39	1,626.22	1,604.41	10.18	7.87	176.20	665.11	-22.37	1,127.27	1,110.83	16.43	68.591		
2,000.00	1,918.58	1,709.01	1,685.55	10.78	8.23	176.20	681.42	-24.46	1,183.35	1,166.17	17.19	68.847		
2,100.00	2,010.77	1,808.20	1,766.69	11.39	8.67	176.20	697.72	-26.55	1,239.44	1,221.42	18.02	68.777		
2,200.00	2,102.95	1,874.59	1,847.83	11.99	8.97	176.20	714.03	-28.64	1,295.53	1,276.81	18.72	69.201		
2,300.00	2,195.14	1,957.38	1,928.97	12.61	9.34	176.20	730.33	-30.73	1,351.62	1,332.12	19.50	69.318		
2,400.00	2,287.32	2,040.17	2,010.11	13.22	9.71	176.20	746.64	-32.82	1,407.70	1,387.42	20.28	69.405		
2,500.00	2,379.51	2,122.96	2,091.26	13.84	10.09	176.20	762.94	-34.91	1,463.79	1,442.72	21.07	69.467		
2,600.00	2,471.70	2,205.75	2,172.40	14.46	10.46	176.21	779.25	-37.00	1,519.88	1,498.01	21.87	69.509		
2,700.00	2,563.88	2,288.54	2,253.54	15.08	10.84	176.21	795.56	-39.09	1,575.96	1,553.30	22.66	69.534		
2,800.00	2,656.07	2,371.33	2,334.68	15.71	11.22	176.21	811.86	-41.18	1,632.05	1,608.58	23.47	69.546		
2,900.00	2,748.26	2,454.12	2,415.82	16.33	11.61	176.21	828.17	-43.27	1,688.14	1,663.87	24.27	69.547		
3,000.00	2,840.44	2,536.91	2,496.97	16.96	11.99	176.21	844.47	-45.36	1,744.23	1,719.14	25.08	69.539		
3,100.00	2,932.63	2,619.70	2,578.11	17.59	12.37	176.21	860.78	-47.45	1,800.31	1,774.42	25.89	69.524		
3,200.00	3,024.81	2,702.49	2,659.25	18.22	12.76	176.21	877.08	-49.54	1,856.40	1,829.69	26.71	69.502		
3,300.00	3,117.00	2,785.28	2,740.39	18.86	13.15	176.21	893.39	-51.63	1,912.49	1,884.96	27.53	69.476		
3,400.00	3,209.19	2,868.07	2,821.53	19.49	13.53	176.21	909.69	-53.72	1,968.57	1,940.23	28.35	69.446		
3,500.00	3,301.37	2,950.86	2,902.68	20.12	13.92	176.21	926.00	-55.81	2,024.66	1,995.49	29.17	69.413		
3,600.00	3,393.56	3,033.65	2,983.82	20.76	14.31	176.21	942.30	-57.90	2,080.75	2,050.76	29.99	69.377		
3,700.00	3,485.75	3,116.44	3,064.96	21.39	14.70	176.21	958.61	-59.98	2,136.84	2,106.02	30.82	69.339		
3,800.00	3,577.93	3,200.77	3,146.10	22.03	15.10	176.21	974.92	-62.07	2,192.92	2,161.27	31.65	69.284		
3,900.00	3,670.12	3,282.02	3,227.24	22.67	15.48	176.21	991.22	-64.16	2,249.01	2,216.54	32.47	69.259		
4,000.00	3,762.30	3,364.81	3,308.38	23.30	15.87	176.21	1,007.53	-66.25	2,305.10	2,271.79	33.30	69.217		
4,100.00	3,854.49	3,447.60	3,389.53	23.94	16.26	176.21	1,023.83	-68.34	2,361.18	2,327.05	34.13	69.175		
4,200.00	3,946.68	3,530.39	3,470.67	24.58	16.65	176.21	1,040.14	-70.43	2,417.27	2,382.31	34.97	69.132		
4,300.00	4,038.86	3,613.18	3,551.81	25.22	17.05	176.21	1,056.44	-72.52	2,473.36	2,437.56	35.80	69.090		
4,400.00	4,131.05	3,704.03	3,632.95	25.86	17.48	176.21	1,072.75	-74.61	2,529.45	2,492.77	36.67	68.977		
4,500.00	4,223.24	3,778.76	3,714.09	26.50	17.83	176.21	1,089.05	-76.70	2,585.53	2,548.06	37.47	69.004		
4,600.00	4,315.42	3,861.55	3,795.24	27.14	18.23	176.21	1,105.36	-78.79	2,641.62	2,603.31	38.31	68.961		
4,700.00	4,407.61	3,944.34	3,876.38	27.78	18.62	176.21	1,121.66	-80.88	2,697.71	2,658.56	39.14	68.919		
4,800.00	4,499.79	4,027.13	3,957.52	28.42	19.01	176.21	1,137.97	-82.97	2,753.79	2,713.81	39.98	68.876		
4,900.00	4,591.98	4,109.93	4,038.66	29.06	19.41	176.22	1,154.28	-85.06	2,809.88	2,769.06	40.82	68.835		
5,000.00	4,684.17	4,207.28	4,119.80	29.70	19.87	176.22	1,170.58	-87.15	2,865.97	2,824.24	41.73	68.682		
5,100.00	4,776.35	4,275.51	4,200.95	30.34	20.20	176.22	1,186.89	-89.24	2,922.06	2,879.55	42.50	68.752		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,868.54	4,358.30	4,282.09	30.98	20.59	176.22	1,203.19	-91.33	2,978.14	2,934.80	43.34	68.712		
5,300.00	4,960.73	4,441.09	4,363.23	31.63	20.99	176.22	1,219.50	-93.42	3,034.23	2,990.04	44.18	68.671		
5,400.00	5,052.91	4,523.88	4,444.37	32.27	21.38	176.22	1,235.80	-95.51	3,090.32	3,045.29	45.03	68.632		
5,500.00	5,145.10	4,606.67	4,525.51	32.91	21.78	176.22	1,252.11	-97.59	3,146.40	3,100.53	45.87	68.593		
5,600.00	5,237.28	4,689.46	4,606.65	33.55	22.17	176.22	1,268.41	-99.68	3,202.49	3,155.78	46.71	68.554		
5,700.00	5,329.47	4,772.25	4,687.80	34.20	22.57	176.22	1,284.72	-101.77	3,258.58	3,211.02	47.56	68.516		
5,800.00	5,421.66	4,855.04	4,768.94	34.84	22.97	176.22	1,301.02	-103.86	3,314.66	3,266.26	48.40	68.478		
5,900.00	5,513.84	4,937.83	4,850.08	35.48	23.36	176.22	1,317.33	-105.95	3,370.75	3,321.50	49.25	68.441		
6,000.00	5,606.03	5,020.62	4,931.22	36.13	23.76	176.22	1,333.63	-108.04	3,426.84	3,376.74	50.10	68.404		
6,100.00	5,698.22	5,103.41	5,012.36	36.77	24.16	176.22	1,349.94	-110.13	3,482.93	3,431.98	50.94	68.368		
6,200.00	5,790.40	5,186.20	5,093.51	37.41	24.55	176.22	1,366.25	-112.22	3,539.01	3,487.22	51.79	68.333		
6,300.00	5,882.59	5,268.99	5,174.65	38.06	24.95	176.22	1,382.55	-114.31	3,595.10	3,542.46	52.64	68.297		
6,400.00	5,974.77	5,351.78	5,255.79	38.70	25.35	176.22	1,398.86	-116.40	3,651.19	3,597.70	53.49	68.263		
6,500.00	6,066.96	5,434.57	5,336.93	39.34	25.74	176.22	1,415.16	-118.49	3,707.27	3,652.94	54.34	68.228		
6,600.00	6,159.15	5,517.36	5,418.07	39.99	26.14	176.22	1,431.47	-120.58	3,763.36	3,708.18	55.19	68.195		
6,700.00	6,251.33	5,600.15	5,499.22	40.63	26.54	176.22	1,447.77	-122.67	3,819.45	3,763.41	56.04	68.161		
6,800.00	6,343.52	5,682.94	5,580.36	41.28	26.94	176.22	1,464.08	-124.76	3,875.54	3,818.65	56.89	68.128		
6,900.00	6,435.71	5,765.73	5,661.50	41.92	27.33	176.22	1,480.38	-126.85	3,931.62	3,873.89	57.74	68.096		
7,000.00	6,527.86	5,848.51	5,742.63	42.56	27.73	167.16	1,496.69	-128.94	3,987.70	3,929.11	58.59	68.063		
7,100.00	6,618.85	5,930.54	5,823.03	43.19	28.13	142.89	1,512.84	-131.01	4,043.22	3,983.80	59.43	68.035		
7,200.00	6,706.47	6,009.90	5,900.81	43.76	28.51	124.39	1,528.47	-133.01	4,097.03	4,036.81	60.23	68.027		
7,300.00	6,788.56	6,084.65	5,974.07	44.26	28.87	110.96	1,543.19	-134.90	4,148.10	4,087.14	60.96	68.044		
7,400.00	6,863.10	6,152.94	6,041.00	44.70	29.20	101.16	1,556.64	-136.62	4,195.59	4,133.96	61.63	68.075		
7,500.00	6,928.26	6,213.10	6,099.96	45.07	29.48	93.89	1,568.49	-138.14	4,238.81	4,176.56	62.25	68.088		
7,600.00	6,982.42	6,263.63	6,149.48	45.39	29.73	88.46	1,578.44	-139.41	4,277.23	4,214.36	62.86	68.039		
7,700.00	7,024.26	6,303.30	6,188.36	45.67	29.92	84.42	1,586.26	-140.41	4,310.38	4,246.87	63.50	67.876		
7,800.00	7,052.75	6,331.12	6,215.63	45.92	30.05	81.49	1,591.74	-141.12	4,337.89	4,273.68	64.21	67.561		
7,900.00	7,067.18	6,346.43	6,230.63	46.16	30.13	79.51	1,594.75	-141.50	4,359.43	4,294.44	64.99	67.075		
8,000.00	7,068.85	6,350.31	6,234.44	46.42	30.14	78.83	1,595.52	-141.60	4,375.69	4,309.82	65.87	66.429		
8,100.00	7,068.56	6,352.42	6,236.51	46.78	30.16	78.86	1,595.93	-141.65	4,392.99	4,326.10	66.90	65.669		
8,200.00	7,068.26	7,841.00	7,068.22	47.29	41.18	90.00	1,756.82	-1,060.64	4,402.90	4,319.03	83.87	52.494		
8,300.00	7,067.96	7,941.00	7,067.94	48.03	42.86	90.00	1,756.07	-1,160.63	4,402.75	4,315.67	87.08	50.562		
8,400.00	7,067.66	8,041.00	7,067.65	49.02	44.66	90.00	1,755.32	-1,260.63	4,402.59	4,312.07	90.53	48.634		
8,500.00	7,067.37	8,141.00	7,067.37	50.27	46.56	90.00	1,754.57	-1,360.63	4,402.44	4,308.24	94.20	46.737		
8,600.00	7,067.07	8,241.00	7,067.08	51.75	48.56	90.00	1,753.81	-1,460.62	4,402.28	4,304.22	98.06	44.893		
8,700.00	7,066.77	8,341.00	7,066.80	53.42	50.65	90.00	1,753.06	-1,560.62	4,402.13	4,300.03	102.10	43.116		
8,800.00	7,066.47	8,441.00	7,066.51	55.24	52.80	90.00	1,752.31	-1,660.62	4,401.97	4,295.68	106.29	41.414		
8,900.00	7,066.18	8,541.00	7,066.23	57.18	55.02	90.00	1,751.56	-1,760.61	4,401.82	4,291.20	110.62	39.792		
9,000.00	7,065.88	8,641.00	7,065.94	59.21	57.30	90.00	1,750.80	-1,860.61	4,401.66	4,286.59	115.07	38.251		
9,100.00	7,065.58	8,741.00	7,065.66	61.33	59.63	90.00	1,750.05	-1,960.61	4,401.51	4,281.88	119.63	36.793		
9,200.00	7,065.28	8,841.00	7,065.37	63.51	62.00	90.00	1,749.30	-2,060.60	4,401.36	4,277.07	124.28	35.414		
9,300.00	7,064.99	8,941.00	7,065.09	65.76	64.41	90.00	1,748.55	-2,160.60	4,401.20	4,272.18	129.02	34.112		
9,400.00	7,064.69	9,041.00	7,064.81	68.06	66.86	90.00	1,747.79	-2,260.59	4,401.05	4,267.21	133.84	32.884		
9,500.00	7,064.39	9,141.00	7,064.52	70.40	69.34	90.00	1,747.04	-2,360.59	4,400.89	4,262.17	138.72	31.725		
9,600.00	7,064.09	9,241.00	7,064.24	72.78	71.85	90.00	1,746.29	-2,460.59	4,400.74	4,257.07	143.67	30.632		
9,700.00	7,063.80	9,341.00	7,063.95	75.20	74.38	90.00	1,745.54	-2,560.58	4,400.58	4,251.92	148.67	29.600		
9,800.00	7,063.50	9,441.00	7,063.67	77.65	76.93	90.00	1,744.78	-2,660.58	4,400.43	4,246.71	153.72	28.627		
9,900.00	7,063.20	9,541.00	7,063.38	80.13	79.51	90.00	1,744.03	-2,760.58	4,400.27	4,241.46	158.81	27.707		
10,000.00	7,062.90	9,641.00	7,063.10	82.64	82.11	90.00	1,743.28	-2,860.57	4,400.12	4,236.17	163.95	26.838		
10,100.00	7,062.61	9,741.00	7,062.81	85.17	84.72	90.00	1,742.53	-2,960.57	4,399.96	4,230.84	169.12	26.016		
10,200.00	7,062.31	9,841.00	7,062.53	87.72	87.34	90.00	1,741.78	-3,060.57	4,399.81	4,225.48	174.33	25.238		
10,300.00	7,062.01	9,941.00	7,062.24	90.28	89.99	90.00	1,741.02	-3,160.56	4,399.66	4,220.09	179.57	24.501		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,061.71	10,041.00	7,061.96	92.87	92.64	90.00	1,740.27	-3,260.56	4,399.50	4,214.67	184.84	23.802		
10,500.00	7,061.41	10,141.00	7,061.67	95.47	95.31	90.00	1,739.52	-3,360.56	4,399.35	4,209.22	190.13	23.139		
10,600.00	7,061.12	10,241.00	7,061.39	98.09	97.98	90.00	1,738.77	-3,460.55	4,399.19	4,203.75	195.45	22.509		
10,700.00	7,060.82	10,341.00	7,061.10	100.72	100.67	90.00	1,738.01	-3,560.55	4,399.04	4,198.25	200.78	21.909		
10,800.00	7,060.52	10,441.00	7,060.82	103.37	103.37	90.00	1,737.26	-3,660.55	4,398.88	4,192.74	206.14	21.339		
10,900.00	7,060.22	10,541.00	7,060.53	106.02	106.07	90.00	1,736.51	-3,760.54	4,398.73	4,187.21	211.52	20.796		
11,000.00	7,059.93	10,641.00	7,060.25	108.69	108.78	90.00	1,735.76	-3,860.54	4,398.57	4,181.66	216.92	20.278		
11,100.00	7,059.63	10,741.00	7,059.96	111.36	111.50	90.00	1,735.00	-3,960.54	4,398.42	4,176.09	222.33	19.783		
11,200.00	7,059.33	10,841.00	7,059.68	114.05	114.23	90.00	1,734.25	-4,060.53	4,398.26	4,170.51	227.75	19.311		
11,300.00	7,059.03	10,941.00	7,059.39	116.74	116.96	90.00	1,733.50	-4,160.53	4,398.11	4,164.92	233.19	18.860		
11,400.00	7,058.74	11,041.00	7,059.11	119.44	119.70	90.01	1,732.75	-4,260.53	4,397.96	4,159.31	238.65	18.429		
11,500.00	7,058.44	11,141.00	7,058.83	122.15	122.45	90.01	1,731.99	-4,360.52	4,397.80	4,153.69	244.11	18.015		
11,600.00	7,058.14	11,241.00	7,058.54	124.86	125.19	90.01	1,731.24	-4,460.52	4,397.65	4,148.06	249.59	17.620		
11,700.00	7,057.84	11,341.00	7,058.26	127.58	127.95	90.01	1,730.49	-4,560.52	4,397.49	4,142.42	255.08	17.240		
11,800.00	7,057.55	11,441.00	7,057.97	130.31	130.71	90.01	1,729.74	-4,660.51	4,397.34	4,136.76	260.57	16.876		
11,900.00	7,057.25	11,541.00	7,057.69	133.04	133.47	90.01	1,728.98	-4,760.51	4,397.18	4,131.10	266.08	16.526		
12,000.00	7,056.95	11,641.00	7,057.40	135.78	136.24	90.01	1,728.23	-4,860.51	4,397.03	4,125.43	271.59	16.190		
12,100.00	7,056.65	11,741.00	7,057.12	138.52	139.01	90.01	1,727.48	-4,960.50	4,396.87	4,119.76	277.12	15.866		
12,200.00	7,056.36	11,841.00	7,056.83	141.27	141.78	90.01	1,726.73	-5,060.50	4,396.72	4,114.07	282.65	15.555		
12,300.00	7,056.06	11,941.00	7,056.55	144.02	144.56	90.01	1,725.97	-5,160.50	4,396.57	4,108.38	288.19	15.256		
12,400.00	7,055.76	12,040.99	7,056.26	146.78	147.34	90.01	1,725.22	-5,260.49	4,396.41	4,102.68	293.73	14.967		
12,500.00	7,055.46	12,140.99	7,055.98	149.54	150.12	90.01	1,724.47	-5,360.49	4,396.26	4,096.97	299.28	14.689		
12,600.00	7,055.17	12,240.99	7,055.69	152.30	152.91	90.01	1,723.72	-5,460.49	4,396.10	4,091.26	304.84	14.421		
12,700.00	7,054.87	12,340.99	7,055.41	155.07	155.70	90.01	1,722.96	-5,560.48	4,395.95	4,085.54	310.40	14.162		
12,800.00	7,054.57	12,440.99	7,055.12	157.84	158.49	90.01	1,722.21	-5,660.48	4,395.79	4,079.82	315.97	13.912		
12,900.00	7,054.27	12,540.99	7,054.84	160.61	161.28	90.01	1,721.46	-5,760.48	4,395.64	4,074.09	321.55	13.670		
13,000.00	7,053.97	12,640.99	7,054.55	163.39	164.08	90.01	1,720.71	-5,860.47	4,395.48	4,068.36	327.13	13.437		
13,100.00	7,053.68	12,740.99	7,054.27	166.17	166.88	90.01	1,719.95	-5,960.47	4,395.33	4,062.62	332.71	13.211		
13,200.00	7,053.38	12,840.99	7,053.98	168.95	169.67	90.01	1,719.20	-6,060.47	4,395.17	4,056.88	338.30	12.992		
13,300.00	7,053.08	12,940.99	7,053.70	171.73	172.48	90.01	1,718.45	-6,160.46	4,395.02	4,051.13	343.89	12.780		
13,400.00	7,052.78	13,040.99	7,053.41	174.52	175.28	90.01	1,717.70	-6,260.46	4,394.87	4,045.38	349.49	12.575		
13,500.00	7,052.49	13,140.99	7,053.13	177.31	178.09	90.01	1,716.94	-6,360.46	4,394.71	4,039.62	355.09	12.376		
13,600.00	7,052.19	13,240.99	7,052.85	180.10	180.89	90.01	1,716.19	-6,460.45	4,394.56	4,033.87	360.69	12.184		
13,700.00	7,051.89	13,340.99	7,052.56	182.90	183.70	90.01	1,715.44	-6,560.45	4,394.40	4,028.10	366.30	11.997		
13,800.00	7,051.59	13,440.99	7,052.28	185.69	186.51	90.01	1,714.69	-6,660.45	4,394.25	4,022.34	371.91	11.815		
13,900.00	7,051.30	13,540.99	7,051.99	188.49	189.32	90.01	1,713.93	-6,760.44	4,394.09	4,016.57	377.52	11.639		
14,000.00	7,051.00	13,640.99	7,051.71	191.29	192.14	90.01	1,713.18	-6,860.44	4,393.94	4,010.80	383.14	11.468		
14,100.00	7,050.70	13,740.99	7,051.42	194.09	194.95	90.01	1,712.43	-6,960.44	4,393.78	4,005.02	388.76	11.302		
14,200.00	7,050.40	13,840.99	7,051.14	196.89	197.77	90.01	1,711.68	-7,060.43	4,393.63	3,999.25	394.38	11.141		
14,300.00	7,050.11	13,940.99	7,050.85	199.70	200.58	90.01	1,710.92	-7,160.43	4,393.47	3,993.47	400.01	10.983		
14,400.00	7,049.81	14,040.99	7,050.57	202.50	203.40	90.01	1,710.17	-7,260.43	4,393.32	3,987.68	405.64	10.831		
14,500.00	7,049.51	14,140.99	7,050.28	205.31	206.22	90.01	1,709.42	-7,360.42	4,393.17	3,981.90	411.27	10.682		
14,600.00	7,049.21	14,240.99	7,050.00	208.12	209.04	90.01	1,708.67	-7,460.42	4,393.01	3,976.11	416.90	10.537		
14,700.00	7,048.92	14,340.99	7,049.71	210.93	211.86	90.01	1,707.91	-7,560.42	4,392.86	3,970.32	422.53	10.396		
14,800.00	7,048.62	14,440.99	7,049.43	213.74	214.68	90.01	1,707.16	-7,660.41	4,392.70	3,964.53	428.17	10.259		
14,900.00	7,048.32	14,540.99	7,049.14	216.55	217.51	90.01	1,706.41	-7,760.41	4,392.55	3,958.74	433.81	10.125		
15,000.00	7,048.02	14,640.99	7,048.86	219.37	220.33	90.01	1,705.66	-7,860.41	4,392.39	3,952.94	439.45	9.995		
15,100.00	7,047.73	14,740.99	7,048.57	222.18	223.15	90.01	1,704.90	-7,960.40	4,392.24	3,947.14	445.10	9.868		
15,200.00	7,047.43	14,840.99	7,048.29	225.00	225.98	90.01	1,704.15	-8,060.40	4,392.08	3,941.34	450.74	9.744		
15,300.00	7,047.13	14,940.99	7,048.00	227.81	228.81	90.01	1,703.40	-8,160.40	4,391.93	3,935.54	456.39	9.623		
15,305.60	7,047.11	14,946.59	7,047.99	227.97	228.96	90.01	1,703.36	-8,165.99	4,391.92	3,935.22	456.70	9.617		
15,343.67	7,047.00	14,942.37	7,048.00	229.04	228.85	90.01	1,703.39	-8,161.78	4,392.07	3,934.45	457.61	9.598 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.46	379.97	3.06	379.98					
100.00	100.00	102.00	100.00	3.28	3.29	0.46	379.97	3.06	379.98	373.41	6.57	57.837		
200.00	200.00	202.00	200.00	3.34	3.34	0.46	379.97	3.06	379.98	373.30	6.68	56.920	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.06	379.97	3.06	381.72	374.83	6.89	55.421		
400.00	399.84	401.84	399.84	3.59	3.61	177.10	379.97	3.06	386.95	379.75	7.20	53.751		
500.00	499.45	501.45	499.45	3.79	3.81	177.15	379.97	3.06	395.65	388.05	7.60	52.048		
600.00	598.70	600.70	598.70	4.03	4.05	177.23	379.97	3.06	407.82	399.74	8.08	50.457		
700.00	697.47	697.58	685.56	4.31	4.28	177.23	381.20	2.54	424.84	416.24	8.60	49.396		
800.00	795.62	772.94	770.83	4.64	4.53	177.10	384.77	1.03	447.98	438.81	9.17	48.877		
900.00	893.06	866.68	864.37	5.00	4.83	176.90	390.40	-1.35	476.22	466.44	9.79	48.658		
1,000.00	989.64	961.54	959.03	5.40	5.14	176.73	396.13	-3.77	507.84	497.39	10.45	48.600		
1,100.00	1,085.27	1,055.24	1,052.53	5.83	5.46	176.59	401.79	-6.16	542.75	531.61	11.14	48.725		
1,200.00	1,179.82	1,147.67	1,144.76	6.29	5.79	176.48	407.37	-8.52	580.90	569.04	11.85	49.008		
1,300.00	1,273.17	1,238.71	1,235.61	6.79	6.13	176.39	412.87	-10.84	622.24	609.66	12.59	49.443		
1,400.00	1,365.46	1,328.54	1,325.25	7.32	6.47	176.36	418.30	-13.13	666.18	652.85	13.33	49.972		
1,500.00	1,457.65	1,418.25	1,414.76	7.87	6.81	176.35	423.72	-15.42	710.36	696.28	14.08	50.450		
1,600.00	1,549.83	1,507.96	1,504.28	8.43	7.16	176.34	429.14	-17.71	754.54	739.70	14.85	50.822		
1,700.00	1,642.02	1,602.33	1,593.80	9.01	7.53	176.33	434.56	-20.00	798.73	783.08	15.65	51.050		
1,800.00	1,734.21	1,687.38	1,683.31	9.59	7.87	176.33	439.98	-22.29	842.91	826.49	16.42	51.334		
1,900.00	1,826.39	1,777.09	1,772.83	10.18	8.23	176.32	445.40	-24.58	887.09	869.87	17.22	51.506		
2,000.00	1,918.58	1,866.80	1,862.35	10.78	8.60	176.32	450.82	-26.87	931.28	913.24	18.03	51.637		
2,100.00	2,010.77	1,956.51	1,951.86	11.39	8.97	176.32	456.24	-29.16	975.46	956.60	18.85	51.736		
2,200.00	2,102.95	2,046.22	2,041.38	11.99	9.34	176.31	461.66	-31.45	1,019.64	999.96	19.68	51.808		
2,300.00	2,195.14	2,135.93	2,130.90	12.61	9.71	176.31	467.07	-33.73	1,063.82	1,043.31	20.51	51.859		
2,400.00	2,287.32	2,225.64	2,220.41	13.22	10.08	176.30	472.49	-36.02	1,108.01	1,086.66	21.35	51.893		
2,500.00	2,379.51	2,315.35	2,309.93	13.84	10.46	176.30	477.91	-38.31	1,152.19	1,130.00	22.19	51.914		
2,600.00	2,471.70	2,405.06	2,399.45	14.46	10.84	176.30	483.33	-40.60	1,196.37	1,173.33	23.04	51.924		
2,700.00	2,563.88	2,505.23	2,488.96	15.08	11.26	176.30	488.75	-42.89	1,240.56	1,216.62	23.94	51.829		
2,800.00	2,656.07	2,584.48	2,578.48	15.71	11.60	176.29	494.17	-45.18	1,284.74	1,259.99	24.75	51.919		
2,900.00	2,748.26	2,674.19	2,668.00	16.33	11.98	176.29	499.59	-47.47	1,328.92	1,303.32	25.60	51.907		
3,000.00	2,840.44	2,763.90	2,757.51	16.96	12.36	176.29	505.01	-49.76	1,373.11	1,346.65	26.46	51.891		
3,100.00	2,932.63	2,853.61	2,847.03	17.59	12.74	176.29	510.43	-52.05	1,417.29	1,389.97	27.32	51.871		
3,200.00	3,024.81	2,943.32	2,936.55	18.22	13.13	176.29	515.85	-54.34	1,461.47	1,433.29	28.19	51.848		
3,300.00	3,117.00	3,033.03	3,026.06	18.86	13.51	176.28	521.27	-56.63	1,505.66	1,476.60	29.05	51.824		
3,400.00	3,209.19	3,122.74	3,115.58	19.49	13.90	176.28	526.69	-58.91	1,549.84	1,519.92	29.92	51.797		
3,500.00	3,301.37	3,212.45	3,205.10	20.12	14.28	176.28	532.11	-61.20	1,594.02	1,563.23	30.79	51.769		
3,600.00	3,393.56	3,302.16	3,294.61	20.76	14.67	176.28	537.53	-63.49	1,638.21	1,606.54	31.66	51.740		
3,700.00	3,485.75	3,408.13	3,384.13	21.39	15.13	176.28	542.94	-65.78	1,682.39	1,649.78	32.61	51.598		
3,800.00	3,577.93	3,481.58	3,473.65	22.03	15.44	176.28	548.36	-68.07	1,726.57	1,693.16	33.41	51.680		
3,900.00	3,670.12	3,571.29	3,563.16	22.67	15.83	176.28	553.78	-70.36	1,770.75	1,736.47	34.28	51.649		
4,000.00	3,762.30	3,661.00	3,652.68	23.30	16.22	176.27	559.20	-72.65	1,814.94	1,779.78	35.16	51.618		
4,100.00	3,854.49	3,750.71	3,742.20	23.94	16.61	176.27	564.62	-74.94	1,859.12	1,823.08	36.04	51.587		
4,200.00	3,946.68	3,840.42	3,831.71	24.58	17.00	176.27	570.04	-77.23	1,903.30	1,866.39	36.92	51.557		
4,300.00	4,038.86	3,930.13	3,921.23	25.22	17.39	176.27	575.46	-79.52	1,947.49	1,909.69	37.80	51.526		
4,400.00	4,131.05	4,019.84	4,010.75	25.86	17.78	176.27	580.88	-81.81	1,991.67	1,952.99	38.68	51.496		
4,500.00	4,223.24	4,109.55	4,100.26	26.50	18.17	176.27	586.30	-84.09	2,035.85	1,996.30	39.56	51.466		
4,600.00	4,315.42	4,200.74	4,189.78	27.14	18.57	176.27	591.72	-86.38	2,080.04	2,039.59	40.45	51.428		
4,700.00	4,407.61	4,288.97	4,279.30	27.78	18.95	176.27	597.14	-88.67	2,124.22	2,082.90	41.32	51.406		
4,800.00	4,499.79	4,378.68	4,368.81	28.42	19.34	176.27	602.56	-90.96	2,168.40	2,126.20	42.21	51.377		
4,900.00	4,591.98	4,468.39	4,458.33	29.06	19.73	176.27	607.98	-93.25	2,212.59	2,169.50	43.09	51.349		
5,000.00	4,684.17	4,558.10	4,547.85	29.70	20.12	176.27	613.40	-95.54	2,256.77	2,212.80	43.97	51.320		
5,100.00	4,776.35	4,647.81	4,637.36	30.34	20.52	176.27	618.82	-97.83	2,300.95	2,256.09	44.86	51.293		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,868.54	4,737.52	4,726.88	30.98	20.91	176.26	624.23	-100.12	2,345.14	2,299.39	45.75	51.265		
5,300.00	4,960.73	4,827.23	4,816.40	31.63	21.30	176.26	629.65	-102.41	2,389.32	2,342.69	46.63	51.238		
5,400.00	5,052.91	4,916.94	4,905.91	32.27	21.69	176.26	635.07	-104.70	2,433.50	2,385.98	47.52	51.212		
5,500.00	5,145.10	5,006.65	4,995.43	32.91	22.09	176.26	640.49	-106.99	2,477.68	2,429.28	48.41	51.186		
5,600.00	5,237.28	5,103.64	5,084.95	33.55	22.51	176.26	645.91	-109.27	2,521.87	2,472.54	49.33	51.127		
5,700.00	5,329.47	5,186.07	5,174.46	34.20	22.87	176.26	651.33	-111.56	2,566.05	2,515.87	50.18	51.135		
5,800.00	5,421.66	5,275.78	5,263.98	34.84	23.27	176.26	656.75	-113.85	2,610.23	2,559.16	51.07	51.111		
5,900.00	5,513.84	5,365.49	5,353.50	35.48	23.66	176.26	662.17	-116.14	2,654.42	2,602.46	51.96	51.086		
6,000.00	5,606.03	5,455.20	5,443.01	36.13	24.05	176.26	667.59	-118.43	2,698.60	2,645.75	52.85	51.062		
6,100.00	5,698.22	5,544.91	5,532.53	36.77	24.45	176.26	673.01	-120.72	2,742.78	2,689.04	53.74	51.039		
6,200.00	5,790.40	5,634.62	5,622.05	37.41	24.84	176.26	678.43	-123.01	2,786.97	2,732.34	54.63	51.016		
6,300.00	5,882.59	5,724.32	5,711.56	38.06	25.23	176.26	683.85	-125.30	2,831.15	2,775.63	55.52	50.993		
6,400.00	5,974.77	5,814.03	5,801.08	38.70	25.63	176.26	689.27	-127.59	2,875.33	2,818.92	56.41	50.971		
6,500.00	6,066.96	5,903.74	5,890.60	39.34	26.02	176.26	694.69	-129.88	2,919.52	2,862.21	57.30	50.949		
6,600.00	6,159.15	6,006.55	5,980.11	39.99	26.47	176.26	700.10	-132.17	2,963.70	2,905.45	58.25	50.877		
6,700.00	6,251.33	6,083.16	6,069.63	40.63	26.81	176.26	705.52	-134.45	3,007.88	2,948.80	59.09	50.906		
6,800.00	6,343.52	6,172.87	6,159.15	41.28	27.20	176.26	710.94	-136.74	3,052.07	2,992.09	59.98	50.885		
6,900.00	6,435.71	6,262.58	6,248.66	41.92	27.60	176.26	716.36	-139.03	3,096.25	3,035.38	60.87	50.865		
7,000.00	6,527.86	6,352.28	6,338.17	42.56	27.99	167.75	721.78	-141.32	3,140.42	3,078.66	61.77	50.844		
7,100.00	6,618.85	6,441.16	6,426.85	43.19	28.38	145.13	727.15	-143.59	3,184.17	3,121.52	62.65	50.827		
7,200.00	6,706.47	6,527.13	6,512.65	43.76	28.76	128.19	732.34	-145.78	3,226.64	3,163.15	63.49	50.822		
7,300.00	6,788.56	6,608.10	6,593.44	44.26	29.12	116.12	737.23	-147.85	3,267.16	3,202.89	64.27	50.834		
7,400.00	6,863.10	6,690.62	6,675.71	44.70	29.48	107.53	742.22	-151.47	3,305.22	3,240.16	65.07	50.795		
7,500.00	6,928.26	6,788.69	6,772.06	45.07	29.91	101.45	748.14	-168.18	3,340.02	3,273.97	66.05	50.571		
7,600.00	6,982.42	6,903.30	6,879.81	45.39	30.42	97.23	754.87	-206.19	3,370.66	3,303.42	67.24	50.130		
7,700.00	7,024.26	7,042.76	6,999.08	45.67	31.06	94.57	762.50	-277.52	3,396.22	3,327.47	68.75	49.402		
7,800.00	7,052.75	7,217.83	7,122.25	45.92	32.01	93.23	770.66	-400.89	3,415.56	3,344.80	70.76	48.272		
7,900.00	7,067.18	7,436.27	7,221.73	46.16	33.71	92.90	777.80	-594.03	3,427.23	3,353.57	73.65	46.532		
8,000.00	7,068.85	7,654.00	7,250.92	46.42	36.14	93.04	780.83	-808.76	3,430.47	3,353.19	77.28	44.390		
8,100.00	7,068.56	7,753.99	7,250.55	46.78	37.50	93.04	781.40	-908.75	3,431.63	3,351.80	79.84	42.983		
8,200.00	7,068.26	7,853.99	7,250.19	47.29	39.01	93.04	781.97	-1,008.74	3,432.79	3,350.09	82.70	41.509		
8,300.00	7,067.96	7,953.98	7,249.82	48.03	40.67	93.03	782.53	-1,108.73	3,433.95	3,348.11	85.85	40.001		
8,400.00	7,067.66	8,053.97	7,249.45	49.02	42.46	93.03	783.10	-1,208.72	3,435.11	3,345.86	89.25	38.489		
8,500.00	7,067.37	8,153.97	7,249.09	50.27	44.36	93.03	783.67	-1,308.71	3,436.27	3,343.39	92.88	36.998		
8,600.00	7,067.07	8,253.96	7,248.72	51.75	46.36	93.03	784.23	-1,408.70	3,437.43	3,340.72	96.71	35.545		
8,700.00	7,066.77	8,353.95	7,248.36	53.42	48.45	93.03	784.80	-1,508.69	3,438.59	3,337.88	100.72	34.142		
8,800.00	7,066.47	8,453.95	7,247.99	55.24	50.61	93.02	785.37	-1,608.69	3,439.75	3,334.87	104.88	32.797		
8,900.00	7,066.18	8,553.94	7,247.62	57.18	52.84	93.02	785.93	-1,708.68	3,440.91	3,331.72	109.19	31.514		
9,000.00	7,065.88	8,653.93	7,247.26	59.21	55.12	93.02	786.50	-1,808.67	3,442.07	3,328.45	113.62	30.296		
9,100.00	7,065.58	8,753.93	7,246.89	61.33	57.46	93.02	787.07	-1,908.66	3,443.23	3,325.07	118.16	29.142		
9,200.00	7,065.28	8,853.92	7,246.52	63.51	59.85	93.01	787.63	-2,008.65	3,444.39	3,321.60	122.79	28.050		
9,300.00	7,064.99	8,953.91	7,246.16	65.76	62.27	93.01	788.20	-2,108.64	3,445.55	3,318.03	127.52	27.020		
9,400.00	7,064.69	9,053.91	7,245.79	68.06	64.73	93.01	788.77	-2,208.63	3,446.71	3,314.39	132.32	26.049		
9,500.00	7,064.39	9,153.90	7,245.43	70.40	67.23	93.01	789.33	-2,308.62	3,447.87	3,310.68	137.19	25.132		
9,600.00	7,064.09	9,253.89	7,245.06	72.78	69.75	93.01	789.90	-2,408.61	3,449.03	3,306.90	142.12	24.268		
9,700.00	7,063.80	9,353.89	7,244.69	75.20	72.29	93.00	790.47	-2,508.60	3,450.19	3,303.07	147.11	23.452		
9,800.00	7,063.50	9,453.88	7,244.33	77.65	74.86	93.00	791.04	-2,608.59	3,451.35	3,299.19	152.16	22.683		
9,900.00	7,063.20	9,553.87	7,243.96	80.13	77.45	93.00	791.60	-2,708.59	3,452.51	3,295.26	157.24	21.957		
10,000.00	7,062.90	9,653.87	7,243.60	82.64	80.06	93.00	792.17	-2,808.58	3,453.67	3,291.29	162.37	21.270		
10,100.00	7,062.61	9,753.86	7,243.23	85.17	82.68	93.00	792.74	-2,908.57	3,454.82	3,287.29	167.54	20.621		
10,200.00	7,062.31	9,853.85	7,242.86	87.72	85.32	92.99	793.30	-3,008.56	3,455.98	3,283.25	172.74	20.007		
10,300.00	7,062.01	9,953.84	7,242.50	90.28	87.98	92.99	793.87	-3,108.55	3,457.14	3,279.17	177.97	19.425		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	7,061.71	10,053.84	7,242.13	92.87	90.65	92.99	794.44	-3,208.54	3,458.30	3,275.07	183.23	18.874		
10,500.00	7,061.41	10,153.83	7,241.76	95.47	93.32	92.99	795.00	-3,308.53	3,459.46	3,270.95	188.52	18.351		
10,600.00	7,061.12	10,253.82	7,241.40	98.09	96.01	92.98	795.57	-3,408.52	3,460.62	3,266.79	193.83	17.854		
10,700.00	7,060.82	10,353.82	7,241.03	100.72	98.71	92.98	796.14	-3,508.51	3,461.78	3,262.62	199.16	17.382		
10,800.00	7,060.52	10,453.81	7,240.67	103.37	101.42	92.98	796.70	-3,608.50	3,462.94	3,258.43	204.52	16.932		
10,900.00	7,060.22	10,553.80	7,240.30	106.02	104.14	92.98	797.27	-3,708.49	3,464.10	3,254.21	209.89	16.504		
11,000.00	7,059.93	10,653.80	7,239.93	108.69	106.86	92.98	797.84	-3,808.49	3,465.26	3,249.98	215.28	16.097		
11,100.00	7,059.63	10,753.79	7,239.57	111.36	109.59	92.97	798.40	-3,908.48	3,466.42	3,245.73	220.69	15.707		
11,200.00	7,059.33	10,853.78	7,239.20	114.05	112.33	92.97	798.97	-4,008.47	3,467.58	3,241.47	226.11	15.336		
11,300.00	7,059.03	10,953.78	7,238.84	116.74	115.07	92.97	799.54	-4,108.46	3,468.74	3,237.20	231.54	14.981		
11,400.00	7,058.74	11,053.77	7,238.47	119.44	117.82	92.97	800.10	-4,208.45	3,469.90	3,232.91	236.99	14.641		
11,500.00	7,058.44	11,153.76	7,238.10	122.15	120.57	92.97	800.67	-4,308.44	3,471.06	3,228.61	242.45	14.316		
11,600.00	7,058.14	11,253.76	7,237.74	124.86	123.33	92.96	801.24	-4,408.43	3,472.22	3,224.29	247.93	14.005		
11,700.00	7,057.84	11,353.75	7,237.37	127.58	126.10	92.96	801.80	-4,508.42	3,473.38	3,219.97	253.41	13.707		
11,800.00	7,057.55	11,453.74	7,237.00	130.31	128.87	92.96	802.37	-4,608.41	3,474.54	3,215.64	258.90	13.420		
11,900.00	7,057.25	11,553.74	7,236.64	133.04	131.64	92.96	802.94	-4,708.40	3,475.70	3,211.29	264.40	13.145		
12,000.00	7,056.95	11,653.73	7,236.27	135.78	134.41	92.95	803.51	-4,808.39	3,476.86	3,206.94	269.91	12.881		
12,100.00	7,056.65	11,753.72	7,235.91	138.52	137.19	92.95	804.07	-4,908.39	3,478.02	3,202.58	275.43	12.627		
12,200.00	7,056.36	11,853.72	7,235.54	141.27	139.98	92.95	804.64	-5,008.38	3,479.18	3,198.22	280.96	12.383		
12,300.00	7,056.06	11,953.71	7,235.17	144.02	142.76	92.95	805.21	-5,108.37	3,480.34	3,193.84	286.50	12.148		
12,400.00	7,055.76	12,053.70	7,234.81	146.78	145.55	92.95	805.77	-5,208.36	3,481.50	3,189.46	292.04	11.921		
12,500.00	7,055.46	12,153.70	7,234.44	149.54	148.34	92.94	806.34	-5,308.35	3,482.66	3,185.07	297.58	11.703		
12,600.00	7,055.17	12,253.69	7,234.08	152.30	151.14	92.94	806.91	-5,408.34	3,483.82	3,180.68	303.14	11.492		
12,700.00	7,054.87	12,353.68	7,233.71	155.07	153.93	92.94	807.47	-5,508.33	3,484.98	3,176.28	308.70	11.289		
12,800.00	7,054.57	12,453.67	7,233.34	157.84	156.73	92.94	808.04	-5,608.32	3,486.14	3,171.87	314.26	11.093		
12,900.00	7,054.27	12,553.67	7,232.98	160.61	159.53	92.94	808.61	-5,708.31	3,487.30	3,167.46	319.83	10.903		
13,000.00	7,053.97	12,653.66	7,232.61	163.39	162.34	92.93	809.17	-5,808.30	3,488.46	3,163.04	325.41	10.720		
13,100.00	7,053.68	12,753.65	7,232.24	166.17	165.14	92.93	809.74	-5,908.29	3,489.61	3,158.62	330.99	10.543		
13,200.00	7,053.38	12,853.65	7,231.88	168.95	167.95	92.93	810.31	-6,008.29	3,490.77	3,154.20	336.58	10.371		
13,300.00	7,053.08	12,953.64	7,231.51	171.73	170.76	92.93	810.87	-6,108.28	3,491.93	3,149.77	342.16	10.205		
13,400.00	7,052.78	13,053.63	7,231.15	174.52	173.57	92.93	811.44	-6,208.27	3,493.09	3,145.34	347.76	10.045		
13,500.00	7,052.49	13,153.63	7,230.78	177.31	176.38	92.92	812.01	-6,308.26	3,494.25	3,140.90	353.35	9.889		
13,600.00	7,052.19	13,253.62	7,230.41	180.10	179.20	92.92	812.57	-6,408.25	3,495.41	3,136.46	358.96	9.738		
13,700.00	7,051.89	13,353.61	7,230.05	182.90	182.01	92.92	813.14	-6,508.24	3,496.57	3,132.01	364.56	9.591		
13,800.00	7,051.59	13,453.61	7,229.68	185.69	184.83	92.92	813.71	-6,608.23	3,497.73	3,127.57	370.17	9.449		
13,900.00	7,051.30	13,553.60	7,229.32	188.49	187.65	92.91	814.27	-6,708.22	3,498.89	3,123.11	375.78	9.311		
14,000.00	7,051.00	13,653.59	7,228.95	191.29	190.47	92.91	814.84	-6,808.21	3,500.05	3,118.66	381.39	9.177		
14,100.00	7,050.70	13,753.59	7,228.58	194.09	193.29	92.91	815.41	-6,908.20	3,501.21	3,114.20	387.01	9.047		
14,200.00	7,050.40	13,853.58	7,228.22	196.89	196.11	92.91	815.98	-7,008.19	3,502.37	3,109.74	392.63	8.920		
14,300.00	7,050.11	13,953.57	7,227.85	199.70	198.94	92.91	816.54	-7,108.19	3,503.53	3,105.28	398.25	8.797		
14,400.00	7,049.81	14,053.57	7,227.48	202.50	201.76	92.90	817.11	-7,208.18	3,504.69	3,100.82	403.88	8.678		
14,500.00	7,049.51	14,153.56	7,227.12	205.31	204.59	92.90	817.68	-7,308.17	3,505.85	3,096.35	409.50	8.561		
14,600.00	7,049.21	14,253.55	7,226.75	208.12	207.41	92.90	818.24	-7,408.16	3,507.01	3,091.88	415.13	8.448		
14,700.00	7,048.92	14,353.55	7,226.39	210.93	210.24	92.90	818.81	-7,508.15	3,508.17	3,087.41	420.77	8.338		
14,800.00	7,048.62	14,453.54	7,226.02	213.74	213.07	92.90	819.38	-7,608.14	3,509.33	3,082.93	426.40	8.230		
14,900.00	7,048.32	14,553.53	7,225.65	216.55	215.90	92.89	819.94	-7,708.13	3,510.49	3,078.45	432.04	8.125		
15,000.00	7,048.02	14,653.53	7,225.29	219.37	218.73	92.89	820.51	-7,808.12	3,511.65	3,073.98	437.68	8.023		
15,100.00	7,047.73	14,753.52	7,224.92	222.18	221.56	92.89	821.08	-7,908.11	3,512.81	3,069.49	443.32	7.924		
15,200.00	7,047.43	14,853.51	7,224.55	225.00	224.39	92.89	821.64	-8,008.10	3,513.97	3,065.01	448.96	7.827		
15,300.00	7,047.13	14,953.50	7,224.19	227.81	227.22	92.89	822.21	-8,108.09	3,515.13	3,060.53	454.60	7.732		
15,343.67	7,047.00	14,997.18	7,224.03	229.04	228.46	92.88	822.46	-8,151.76	3,515.64	3,058.57	457.07	7.692 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.40	80.14	0.56	80.14					
100.00	100.00	101.00	100.00	3.28	3.28	0.40	80.14	0.56	80.14	73.57	6.57	12.199		
200.00	200.00	201.03	200.03	3.34	3.34	0.40	80.14	0.56	80.14	73.47	6.67	12.006		
300.00	299.98	303.90	302.87	3.44	3.44	176.95	78.26	0.40	80.06	73.16	6.90	11.610		
400.00	399.84	406.76	405.58	3.59	3.60	176.85	72.71	-0.06	79.88	72.65	7.23	11.050		
500.00	499.45	509.61	508.01	3.79	3.81	176.69	63.48	-0.83	79.61	71.94	7.67	10.382		
600.00	598.70	612.45	610.03	4.03	4.07	176.45	50.60	-1.90	79.25	71.05	8.20	9.669		
700.00	697.47	715.28	711.50	4.31	4.36	176.15	34.08	-3.27	78.79	70.00	8.80	8.958		
800.00	795.62	818.08	812.30	4.64	4.70	175.77	13.95	-4.95	78.25	68.79	9.46	8.276		
900.00	893.06	920.86	912.28	5.00	5.08	175.32	-9.77	-6.92	77.62	67.46	10.16	7.638		
989.86	979.89	1,012.62	1,000.78	5.35	5.45	174.87	-33.88	-8.93	77.06	66.24	10.82	7.119 CC		
1,000.00	989.64	1,022.76	1,010.54	5.40	5.49	174.82	-36.63	-9.15	77.08	66.18	10.90	7.073 ES		
1,100.00	1,085.27	1,122.73	1,106.72	5.83	5.92	174.49	-63.82	-11.42	79.17	67.52	11.65	6.797		
1,200.00	1,179.82	1,222.57	1,202.77	6.29	6.37	174.41	-90.97	-13.67	84.73	72.29	12.44	6.811		
1,300.00	1,273.17	1,322.16	1,298.58	6.79	6.83	174.54	-118.05	-15.93	93.76	80.49	13.27	7.066		
1,400.00	1,365.46	1,421.45	1,394.10	7.32	7.30	174.79	-145.05	-18.17	105.63	91.50	14.13	7.475		
1,500.00	1,457.65	1,520.71	1,489.59	7.87	7.79	175.02	-172.04	-20.42	117.77	102.76	15.01	7.846		
1,600.00	1,549.83	1,619.97	1,585.09	8.43	8.28	175.20	-199.03	-22.66	129.91	114.00	15.91	8.165		
1,700.00	1,642.02	1,719.23	1,680.58	9.01	8.78	175.36	-226.02	-24.90	142.06	125.23	16.83	8.442		
1,800.00	1,734.21	1,818.48	1,776.07	9.59	9.28	175.48	-253.01	-27.15	154.20	136.45	17.76	8.683		
1,900.00	1,826.39	1,917.74	1,871.56	10.18	9.79	175.59	-280.01	-29.39	166.35	147.65	18.70	8.895		
2,000.00	1,918.58	2,017.00	1,967.06	10.78	10.30	175.69	-307.00	-31.64	178.50	158.84	19.66	9.081		
2,100.00	2,010.77	2,116.26	2,062.55	11.39	10.82	175.77	-333.99	-33.88	190.65	170.03	20.62	9.247		
2,200.00	2,102.95	2,215.52	2,158.04	11.99	11.34	175.84	-360.98	-36.13	202.79	181.21	21.59	9.394		
2,300.00	2,195.14	2,314.78	2,253.53	12.61	11.86	175.91	-387.97	-38.37	214.94	192.38	22.56	9.526		
2,400.00	2,287.32	2,414.04	2,349.03	13.22	12.39	175.96	-414.96	-40.62	227.09	203.54	23.55	9.644		
2,500.00	2,379.51	2,513.30	2,444.52	13.84	12.91	176.02	-441.95	-42.86	239.24	214.70	24.54	9.751		
2,600.00	2,471.70	2,612.56	2,540.01	14.46	13.44	176.06	-468.95	-45.11	251.39	225.86	25.53	9.848		
2,700.00	2,563.88	2,711.82	2,635.50	15.08	13.97	176.10	-495.94	-47.35	263.54	237.01	26.52	9.936		
2,800.00	2,656.07	2,811.08	2,730.99	15.71	14.50	176.14	-522.93	-49.60	275.68	248.16	27.52	10.016		
2,900.00	2,748.26	2,910.33	2,826.49	16.33	15.03	176.18	-549.92	-51.84	287.83	259.31	28.53	10.090		
3,000.00	2,840.44	3,009.59	2,921.98	16.96	15.57	176.21	-576.91	-54.09	299.98	270.45	29.53	10.158		
3,100.00	2,932.63	3,108.85	3,017.47	17.59	16.10	176.24	-603.90	-56.33	312.13	281.59	30.54	10.220		
3,200.00	3,024.81	3,208.11	3,112.96	18.22	16.64	176.27	-630.89	-58.57	324.28	292.73	31.55	10.278		
3,300.00	3,117.00	3,307.37	3,208.46	18.86	17.18	176.29	-657.88	-60.82	336.43	303.87	32.57	10.331		
3,400.00	3,209.19	3,406.63	3,303.95	19.49	17.71	176.32	-684.88	-63.06	348.58	315.00	33.58	10.380		
3,500.00	3,301.37	3,505.89	3,399.44	20.12	18.25	176.34	-711.87	-65.31	360.73	326.13	34.60	10.427		
3,600.00	3,393.56	3,605.15	3,494.93	20.76	18.79	176.36	-738.86	-67.55	372.88	337.26	35.62	10.470		
3,700.00	3,485.75	3,704.41	3,590.43	21.39	19.33	176.38	-765.85	-69.80	385.03	348.39	36.64	10.510		
3,800.00	3,577.93	3,803.67	3,685.92	22.03	19.87	176.40	-792.84	-72.04	397.18	359.52	37.66	10.547		
3,900.00	3,670.12	3,902.93	3,781.41	22.67	20.41	176.42	-819.83	-74.29	409.33	370.65	38.68	10.583		
4,000.00	3,762.30	4,002.18	3,876.90	23.30	20.95	176.43	-846.82	-76.53	421.48	381.78	39.70	10.616		
4,100.00	3,854.49	4,101.44	3,972.40	23.94	21.49	176.45	-873.82	-78.78	433.63	392.90	40.73	10.647		
4,200.00	3,946.68	4,200.70	4,067.89	24.58	22.03	176.46	-900.81	-81.02	445.78	404.03	41.75	10.676		
4,300.00	4,038.86	4,299.96	4,163.38	25.22	22.57	176.48	-927.80	-83.27	457.93	415.15	42.78	10.704		
4,400.00	4,131.05	4,400.78	4,258.87	25.86	23.13	176.49	-954.79	-85.51	470.08	426.26	43.82	10.729		
4,500.00	4,223.24	4,501.52	4,354.37	26.50	23.68	176.50	-981.78	-87.76	482.23	437.38	44.85	10.752		
4,600.00	4,315.42	4,597.74	4,449.86	27.14	24.20	176.51	-1,008.77	-90.00	494.38	448.51	45.87	10.779		
4,700.00	4,407.61	4,697.00	4,545.35	27.78	24.75	176.52	-1,035.76	-92.24	506.53	459.63	46.89	10.801		
4,800.00	4,499.79	4,796.26	4,640.84	28.42	25.29	176.54	-1,062.76	-94.49	518.68	470.75	47.93	10.823		
4,900.00	4,591.98	4,904.48	4,736.33	29.06	25.88	176.55	-1,089.75	-96.73	530.83	481.83	49.00	10.833		
5,000.00	4,684.17	4,994.78	4,831.83	29.70	26.38	176.56	-1,116.74	-98.98	542.98	492.99	49.99	10.862		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 33C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,776.35	5,105.97	4,927.32	30.34	26.99	176.56	-1,143.73	-101.22	555.13	504.05	51.08	10.868	
5,200.00	4,868.54	5,206.71	5,022.81	30.98	27.54	176.57	-1,170.72	-103.47	567.28	515.16	52.12	10.884	
5,300.00	4,960.73	5,307.45	5,118.30	31.63	28.09	176.58	-1,197.71	-105.71	579.43	526.27	53.16	10.900	
5,400.00	5,052.91	5,408.19	5,213.80	32.27	28.64	176.59	-1,224.70	-107.96	591.58	537.38	54.20	10.915	
5,500.00	5,145.10	5,508.93	5,309.29	32.91	29.20	176.60	-1,251.69	-110.20	603.73	548.49	55.24	10.929	
5,600.00	5,237.28	5,590.33	5,404.78	33.55	29.64	176.61	-1,278.69	-112.45	615.88	559.69	56.19	10.961	
5,700.00	5,329.47	5,689.59	5,500.27	34.20	30.19	176.61	-1,305.68	-114.69	628.03	570.81	57.22	10.975	
5,800.00	5,421.66	5,788.85	5,595.77	34.84	30.73	176.62	-1,332.67	-116.94	640.18	581.92	58.26	10.989	
5,900.00	5,513.84	5,888.11	5,691.26	35.48	31.28	176.63	-1,359.66	-119.18	652.33	593.04	59.29	11.002	
6,000.00	5,606.03	5,987.37	5,786.75	36.13	31.82	176.63	-1,386.65	-121.43	664.48	604.15	60.33	11.014	
6,100.00	5,698.22	6,086.63	5,882.24	36.77	32.37	176.64	-1,413.64	-123.67	676.63	615.26	61.37	11.026	
6,200.00	5,790.40	6,185.89	5,977.74	37.41	32.92	176.65	-1,440.63	-125.91	688.78	626.38	62.40	11.038	
6,300.00	5,882.59	6,285.14	6,073.23	38.06	33.46	176.65	-1,467.63	-128.16	700.93	637.49	63.44	11.049	
6,400.00	5,974.77	6,384.40	6,168.72	38.70	34.01	176.66	-1,494.62	-130.40	713.08	648.60	64.48	11.060	
6,500.00	6,066.96	6,483.66	6,264.21	39.34	34.55	176.66	-1,521.61	-132.65	725.23	659.72	65.51	11.070	
6,600.00	6,159.15	6,582.92	6,359.71	39.99	35.10	176.67	-1,548.60	-134.89	737.38	670.83	66.55	11.080	
6,700.00	6,251.33	6,682.18	6,455.20	40.63	35.65	176.67	-1,575.59	-137.14	749.53	681.94	67.59	11.090	
6,800.00	6,343.52	6,781.44	6,550.69	41.28	36.19	176.68	-1,602.58	-139.38	761.68	693.05	68.63	11.099	
6,900.00	6,435.71	6,880.70	6,646.18	41.92	36.74	176.68	-1,629.57	-141.63	773.83	704.17	69.66	11.108	
7,000.00	6,527.86	6,980.20	6,741.40	42.56	37.28	168.82	-1,656.54	-150.95	785.96	715.24	70.72	11.114	
7,100.00	6,618.85	7,078.24	6,832.70	43.19	37.78	148.56	-1,682.51	-175.08	798.01	726.25	71.75	11.122	
7,200.00	6,706.47	7,175.02	6,918.26	43.76	38.23	133.62	-1,706.97	-212.90	809.70	736.95	72.75	11.130	
7,300.00	6,788.56	7,270.71	6,996.44	44.26	38.63	123.23	-1,729.43	-263.11	820.72	747.02	73.70	11.136	
7,400.00	6,863.10	7,365.44	7,065.83	44.70	38.98	115.96	-1,749.49	-324.28	830.79	756.16	74.63	11.132	
7,500.00	6,928.26	7,459.39	7,125.25	45.07	39.29	110.80	-1,766.80	-394.85	839.63	764.04	75.59	11.108	
7,600.00	6,982.42	7,552.68	7,173.72	45.39	39.57	107.14	-1,781.08	-473.17	847.01	770.36	76.66	11.050	
7,700.00	7,024.26	7,645.45	7,210.47	45.67	39.84	104.59	-1,792.10	-557.54	852.74	774.84	77.90	10.946	
7,800.00	7,052.75	7,737.81	7,234.96	45.92	40.13	102.97	-1,799.69	-646.19	856.66	777.27	79.39	10.790	
7,900.00	7,067.18	7,829.89	7,246.83	46.16	40.50	102.15	-1,803.72	-737.33	858.67	777.53	81.14	10.582	
8,000.00	7,068.85	7,926.07	7,247.68	46.42	41.05	102.02	-1,804.69	-833.48	858.91	775.67	83.24	10.318	
8,100.00	7,068.56	8,026.07	7,247.09	46.78	41.88	102.00	-1,805.27	-933.48	858.86	773.15	85.72	10.020	
8,200.00	7,068.26	8,126.07	7,246.49	47.29	42.99	101.98	-1,805.86	-1,033.47	858.82	770.34	88.47	9.707	
8,300.00	7,067.96	8,226.07	7,245.90	48.03	44.34	101.96	-1,806.44	-1,133.47	858.77	767.27	91.49	9.386	
8,400.00	7,067.66	8,326.07	7,245.30	49.02	45.89	101.94	-1,807.02	-1,233.46	858.72	763.97	94.75	9.063	
8,500.00	7,067.37	8,426.07	7,244.71	50.27	47.59	101.92	-1,807.61	-1,333.46	858.67	760.46	98.22	8.743	
8,600.00	7,067.07	8,526.07	7,244.11	51.75	49.42	101.90	-1,808.19	-1,433.46	858.62	756.75	101.87	8.428	
8,700.00	7,066.77	8,626.07	7,243.51	53.42	51.36	101.88	-1,808.78	-1,533.45	858.58	752.87	105.70	8.123	
8,800.00	7,066.47	8,726.07	7,242.92	55.24	53.39	101.86	-1,809.36	-1,633.45	858.53	748.84	109.69	7.827	
8,900.00	7,066.18	8,826.07	7,242.32	57.18	55.50	101.84	-1,809.94	-1,733.44	858.48	744.68	113.81	7.543	
9,000.00	7,065.88	8,926.07	7,241.73	59.21	57.68	101.82	-1,810.53	-1,833.44	858.43	740.39	118.05	7.272	
9,100.00	7,065.58	9,026.07	7,241.13	61.33	59.91	101.80	-1,811.11	-1,933.44	858.39	735.98	122.40	7.013	
9,200.00	7,065.28	9,126.07	7,240.53	63.51	62.20	101.78	-1,811.69	-2,033.43	858.34	731.49	126.85	6.766	
9,300.00	7,064.99	9,226.07	7,239.94	65.76	64.54	101.76	-1,812.28	-2,133.43	858.29	726.90	131.40	6.532	
9,400.00	7,064.69	9,326.06	7,239.34	68.06	66.92	101.74	-1,812.86	-2,233.42	858.25	722.23	136.02	6.310	
9,500.00	7,064.39	9,426.06	7,238.75	70.40	69.34	101.72	-1,813.45	-2,333.42	858.20	717.49	140.71	6.099	
9,600.00	7,064.09	9,526.06	7,238.15	72.78	71.79	101.70	-1,814.03	-2,433.42	858.15	712.68	145.47	5.899	
9,700.00	7,063.80	9,626.06	7,237.56	75.20	74.27	101.68	-1,814.61	-2,533.41	858.11	707.82	150.29	5.710	
9,800.00	7,063.50	9,726.06	7,236.96	77.65	76.77	101.66	-1,815.20	-2,633.41	858.06	702.90	155.16	5.530	
9,900.00	7,063.20	9,826.06	7,236.36	80.13	79.30	101.64	-1,815.78	-2,733.41	858.01	697.93	160.08	5.360	
10,000.00	7,062.90	9,926.06	7,235.77	82.64	81.86	101.62	-1,816.36	-2,833.40	857.97	692.92	165.05	5.198	
10,100.00	7,062.61	10,026.06	7,235.17	85.17	84.43	101.60	-1,816.95	-2,933.40	857.92	687.86	170.06	5.045	
10,200.00	7,062.31	10,126.06	7,234.58	87.72	87.02	101.58	-1,817.53	-3,033.39	857.87	682.77	175.10	4.899	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,062.01	10,226.06	7,233.98	90.28	89.63	101.56	-1,818.12	-3,133.39	857.83	677.65	180.18	4.761		
10,400.00	7,061.71	10,326.06	7,233.38	92.87	92.25	101.54	-1,818.70	-3,233.39	857.78	672.49	185.29	4.629		
10,500.00	7,061.41	10,426.06	7,232.79	95.47	94.88	101.53	-1,819.28	-3,333.38	857.74	667.30	190.43	4.504		
10,600.00	7,061.12	10,526.06	7,232.19	98.09	97.53	101.51	-1,819.87	-3,433.38	857.69	662.09	195.60	4.385		
10,700.00	7,060.82	10,626.06	7,231.60	100.72	100.19	101.49	-1,820.45	-3,533.37	857.64	656.85	200.79	4.271		
10,800.00	7,060.52	10,726.06	7,231.00	103.37	102.86	101.47	-1,821.03	-3,633.37	857.60	651.59	206.01	4.163		
10,900.00	7,060.22	10,826.06	7,230.41	106.02	105.55	101.45	-1,821.62	-3,733.37	857.55	646.31	211.24	4.060		
11,000.00	7,059.93	10,926.06	7,229.81	108.69	108.24	101.43	-1,822.20	-3,833.36	857.51	641.01	216.50	3.961		
11,100.00	7,059.63	11,026.06	7,229.21	111.36	110.93	101.41	-1,822.79	-3,933.36	857.46	635.69	221.77	3.866		
11,200.00	7,059.33	11,126.06	7,228.62	114.05	113.64	101.39	-1,823.37	-4,033.35	857.42	630.35	227.07	3.776		
11,300.00	7,059.03	11,226.06	7,228.02	116.74	116.35	101.37	-1,823.95	-4,133.35	857.37	625.00	232.37	3.690		
11,400.00	7,058.74	11,326.06	7,227.43	119.44	119.08	101.35	-1,824.54	-4,233.35	857.33	619.63	237.70	3.607		
11,500.00	7,058.44	11,426.06	7,226.83	122.15	121.80	101.33	-1,825.12	-4,333.34	857.28	614.25	243.03	3.527		
11,600.00	7,058.14	11,526.06	7,226.23	124.86	124.54	101.31	-1,825.71	-4,433.34	857.24	608.85	248.38	3.451		
11,700.00	7,057.84	11,626.06	7,225.64	127.58	127.27	101.29	-1,826.29	-4,533.33	857.19	603.45	253.75	3.378		
11,800.00	7,057.55	11,726.06	7,225.04	130.31	130.02	101.27	-1,826.87	-4,633.33	857.15	598.03	259.12	3.308		
11,900.00	7,057.25	11,826.06	7,224.45	133.04	132.77	101.25	-1,827.46	-4,733.33	857.11	592.60	264.51	3.240		
12,000.00	7,056.95	11,926.06	7,223.85	135.78	135.52	101.23	-1,828.04	-4,833.32	857.06	587.16	269.91	3.175		
12,100.00	7,056.65	12,026.06	7,223.25	138.52	138.28	101.21	-1,828.62	-4,933.32	857.02	581.71	275.31	3.113		
12,200.00	7,056.36	12,126.06	7,222.66	141.27	141.04	101.19	-1,829.21	-5,033.32	856.97	576.25	280.73	3.053		
12,300.00	7,056.06	12,226.06	7,222.06	144.02	143.80	101.17	-1,829.79	-5,133.31	856.93	570.78	286.15	2.995		
12,400.00	7,055.76	12,326.06	7,221.47	146.78	146.57	101.15	-1,830.38	-5,233.31	856.89	565.30	291.59	2.939		
12,500.00	7,055.46	12,426.06	7,220.87	149.54	149.35	101.13	-1,830.96	-5,333.30	856.84	559.82	297.03	2.885		
12,600.00	7,055.17	12,526.06	7,220.28	152.30	152.12	101.11	-1,831.54	-5,433.30	856.80	554.32	302.47	2.833		
12,700.00	7,054.87	12,626.06	7,219.68	155.07	154.90	101.09	-1,832.13	-5,533.30	856.75	548.82	307.93	2.782		
12,800.00	7,054.57	12,726.06	7,219.08	157.84	157.68	101.07	-1,832.71	-5,633.29	856.71	543.32	313.39	2.734		
12,900.00	7,054.27	12,826.06	7,218.49	160.61	160.47	101.05	-1,833.29	-5,733.29	856.67	537.80	318.86	2.687		
13,000.00	7,053.97	12,926.06	7,217.89	163.39	163.25	101.03	-1,833.88	-5,833.28	856.62	532.29	324.34	2.641		
13,100.00	7,053.68	13,026.06	7,217.30	166.17	166.04	101.01	-1,834.46	-5,933.28	856.58	526.76	329.82	2.597		
13,200.00	7,053.38	13,126.06	7,216.70	168.95	168.83	100.99	-1,835.05	-6,033.28	856.54	521.23	335.31	2.554		
13,300.00	7,053.08	13,226.06	7,216.10	171.73	171.63	100.97	-1,835.63	-6,133.27	856.50	515.70	340.80	2.513		
13,400.00	7,052.78	13,326.06	7,215.51	174.52	174.42	100.95	-1,836.21	-6,233.27	856.45	510.15	346.30	2.473		
13,500.00	7,052.49	13,426.06	7,214.91	177.31	177.22	100.93	-1,836.80	-6,333.26	856.41	504.61	351.80	2.434		
13,600.00	7,052.19	13,526.06	7,214.32	180.10	180.02	100.91	-1,837.38	-6,433.26	856.37	499.06	357.31	2.397		
13,700.00	7,051.89	13,626.06	7,213.72	182.90	182.82	100.89	-1,837.96	-6,533.26	856.32	493.50	362.82	2.360		
13,800.00	7,051.59	13,726.06	7,213.13	185.69	185.63	100.87	-1,838.55	-6,633.25	856.28	487.94	368.34	2.325		
13,900.00	7,051.30	13,826.06	7,212.53	188.49	188.43	100.85	-1,839.13	-6,733.25	856.24	482.38	373.86	2.290		
14,000.00	7,051.00	13,926.06	7,211.93	191.29	191.24	100.83	-1,839.72	-6,833.24	856.20	476.81	379.38	2.257		
14,100.00	7,050.70	14,026.06	7,211.34	194.09	194.05	100.81	-1,840.30	-6,933.24	856.16	471.24	384.91	2.224		
14,200.00	7,050.40	14,126.06	7,210.74	196.89	196.86	100.79	-1,840.88	-7,033.24	856.11	465.67	390.45	2.193		
14,300.00	7,050.11	14,226.06	7,210.15	199.70	199.67	100.77	-1,841.47	-7,133.23	856.07	460.09	395.98	2.162		
14,400.00	7,049.81	14,326.06	7,209.55	202.50	202.48	100.75	-1,842.05	-7,233.23	856.03	454.51	401.52	2.132		
14,500.00	7,049.51	14,426.06	7,208.95	205.31	205.29	100.74	-1,842.63	-7,333.22	855.99	448.92	407.07	2.103		
14,600.00	7,049.21	14,526.06	7,208.36	208.12	208.11	100.72	-1,843.22	-7,433.22	855.95	443.33	412.61	2.074		
14,700.00	7,048.92	14,626.06	7,207.76	210.93	210.93	100.70	-1,843.80	-7,533.22	855.90	437.74	418.16	2.047		
14,800.00	7,048.62	14,726.06	7,207.17	213.74	213.74	100.68	-1,844.39	-7,633.21	855.86	432.15	423.72	2.020		
14,900.00	7,048.32	14,826.06	7,206.57	216.55	216.56	100.66	-1,844.97	-7,733.21	855.82	426.55	429.27	1.994		
15,000.00	7,048.02	14,926.06	7,205.98	219.37	219.38	100.64	-1,845.55	-7,833.21	855.78	420.95	434.83	1.968		
15,100.00	7,047.73	15,026.06	7,205.38	222.18	222.20	100.62	-1,846.14	-7,933.20	855.74	415.34	440.40	1.943		
15,200.00	7,047.43	15,126.06	7,204.78	225.00	225.02	100.60	-1,846.72	-8,033.20	855.70	409.74	445.96	1.919		
15,300.00	7,047.13	15,226.06	7,204.19	227.81	227.84	100.58	-1,847.31	-8,133.19	855.66	404.13	451.53	1.895		
15,335.36	7,047.02	15,261.40	7,203.98	228.81	228.84	100.57	-1,847.51	-8,168.55	855.64	402.15	453.50	1.887 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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: 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	
15,343.67	7,047.00	15,258.04	7,204.00	229.04	228.75	100.57	-1,847.49	-8,165.20	855.72	402.32	453.40	1.887	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-40.07	-0.28	40.07					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.07	-0.28	40.07	33.51	6.57	6.100		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.07	-0.28	40.07	33.40	6.67	6.005		
300.00	299.98	298.62	298.60	3.44	3.44	-3.05	-41.77	-0.36	40.05	33.16	6.89	5.815		
400.00	399.84	397.25	397.09	3.59	3.59	-3.15	-46.85	-0.59	39.98	32.77	7.21	5.546		
500.00	499.45	495.87	495.35	3.79	3.78	-3.32	-55.32	-0.98	39.87	32.24	7.63	5.223		
600.00	598.70	594.50	593.26	4.03	4.02	-3.56	-67.16	-1.53	39.71	31.57	8.14	4.877		
700.00	697.47	693.14	690.71	4.31	4.29	-3.87	-82.37	-2.23	39.51	30.78	8.72	4.530		
800.00	795.62	791.79	787.59	4.64	4.61	-4.26	-100.91	-3.09	39.26	29.90	9.36	4.194		
900.00	893.06	890.44	883.78	5.00	4.96	-4.72	-122.78	-4.10	38.97	28.93	10.05	3.880		
1,000.00	989.64	989.11	979.17	5.40	5.35	-5.26	-147.95	-5.27	38.64	27.87	10.78	3.586		
1,100.00	1,085.27	1,087.78	1,073.64	5.83	5.77	-5.88	-176.39	-6.58	38.28	26.74	11.54	3.317		
1,200.00	1,179.82	1,186.48	1,167.10	6.29	6.23	-6.58	-208.07	-8.05	37.87	25.54	12.34	3.070		
1,300.00	1,273.17	1,285.18	1,259.42	6.79	6.72	-7.38	-242.95	-9.66	37.44	24.27	13.16	2.844		
1,322.14	1,293.69	1,307.04	1,279.70	6.91	6.83	-7.55	-251.10	-10.04	37.39	24.04	13.35	2.800 CC		
1,400.00	1,365.46	1,383.90	1,350.49	7.32	7.24	-8.12	-280.98	-11.42	37.59	23.57	14.02	2.682 ES		
1,500.00	1,457.65	1,482.52	1,440.10	7.87	7.79	-8.25	-322.09	-13.32	40.89	26.00	14.88	2.747		
1,600.00	1,549.83	1,580.79	1,527.95	8.43	8.38	-7.81	-366.09	-15.36	47.59	31.83	15.76	3.020		
1,700.00	1,642.02	1,678.50	1,613.73	9.01	8.99	-7.09	-412.80	-17.52	57.68	41.04	16.63	3.468		
1,800.00	1,734.21	1,775.43	1,697.21	9.59	9.63	-6.30	-462.00	-19.79	71.13	53.62	17.50	4.064		
1,900.00	1,826.39	1,872.62	1,779.37	10.18	10.30	-5.59	-513.87	-22.19	87.60	69.17	18.42	4.755		
2,000.00	1,918.58	1,971.16	1,862.38	10.78	11.00	-5.07	-566.90	-24.64	104.61	85.18	19.43	5.383		
2,100.00	2,010.77	2,069.69	1,945.39	11.39	11.71	-4.70	-619.94	-27.10	121.63	101.17	20.46	5.945		
2,200.00	2,102.95	2,168.23	2,028.41	11.99	12.42	-4.42	-672.97	-29.55	138.65	117.15	21.50	6.448		
2,300.00	2,195.14	2,266.77	2,111.42	12.61	13.15	-4.20	-726.01	-32.00	155.67	133.12	22.56	6.901		
2,400.00	2,287.32	2,365.31	2,194.43	13.22	13.88	-4.02	-779.04	-34.46	172.70	149.07	23.63	7.310		
2,500.00	2,379.51	2,463.85	2,277.44	13.84	14.62	-3.88	-832.08	-36.91	189.73	165.02	24.70	7.680		
2,600.00	2,471.70	2,562.39	2,360.46	14.46	15.36	-3.76	-885.11	-39.36	206.76	180.97	25.79	8.017		
2,700.00	2,563.88	2,660.93	2,443.47	15.08	16.11	-3.66	-938.15	-41.81	223.79	196.90	26.88	8.324		
2,800.00	2,656.07	2,759.46	2,526.48	15.71	16.86	-3.57	-991.18	-44.27	240.82	212.83	27.99	8.605		
2,900.00	2,748.26	2,858.00	2,609.50	16.33	17.61	-3.49	-1,044.22	-46.72	257.85	228.75	29.09	8.863		
3,000.00	2,840.44	2,956.54	2,692.51	16.96	18.37	-3.42	-1,097.25	-49.17	274.88	244.67	30.20	9.101		
3,100.00	2,932.63	3,055.08	2,775.52	17.59	19.13	-3.36	-1,150.29	-51.63	291.91	260.59	31.32	9.320		
3,200.00	3,024.81	3,153.62	2,858.53	18.22	19.89	-3.31	-1,203.32	-54.08	308.94	276.50	32.44	9.523		
3,300.00	3,117.00	3,252.16	2,941.55	18.86	20.65	-3.26	-1,256.36	-56.53	325.97	292.41	33.57	9.711		
3,400.00	3,209.19	3,350.70	3,024.56	19.49	21.41	-3.22	-1,309.39	-58.98	343.00	308.31	34.70	9.886		
3,500.00	3,301.37	3,449.23	3,107.57	20.12	22.18	-3.18	-1,362.43	-61.44	360.04	324.21	35.83	10.049		
3,600.00	3,393.56	3,547.77	3,190.59	20.76	22.95	-3.15	-1,415.46	-63.89	377.07	340.11	36.96	10.202		
3,700.00	3,485.75	3,646.31	3,273.60	21.39	23.72	-3.12	-1,468.50	-66.34	394.10	356.00	38.10	10.344		
3,800.00	3,577.93	3,744.85	3,356.61	22.03	24.48	-3.09	-1,521.53	-68.80	411.13	371.90	39.24	10.478		
3,900.00	3,670.12	3,843.39	3,439.63	22.67	25.26	-3.06	-1,574.57	-71.25	428.17	387.79	40.38	10.604		
4,000.00	3,762.30	3,941.93	3,522.64	23.30	26.03	-3.04	-1,627.60	-73.70	445.20	403.68	41.52	10.722		
4,100.00	3,854.49	4,040.47	3,605.65	23.94	26.80	-3.01	-1,680.64	-76.15	462.23	419.56	42.67	10.834		
4,200.00	3,946.68	4,139.00	3,688.66	24.58	27.57	-2.99	-1,733.67	-78.61	479.26	435.45	43.81	10.939		
4,300.00	4,038.86	4,237.54	3,771.68	25.22	28.35	-2.97	-1,786.71	-81.06	496.30	451.34	44.96	11.038		
4,400.00	4,131.05	4,336.08	3,854.69	25.86	29.12	-2.95	-1,839.74	-83.51	513.33	467.22	46.11	11.132		
4,500.00	4,223.24	4,434.62	3,937.70	26.50	29.89	-2.94	-1,892.78	-85.97	530.36	483.10	47.26	11.222		
4,600.00	4,315.42	4,533.16	4,020.72	27.14	30.67	-2.92	-1,945.81	-88.42	547.40	498.98	48.41	11.306		
4,700.00	4,407.61	4,631.70	4,103.73	27.78	31.45	-2.90	-1,998.85	-90.87	564.43	514.86	49.57	11.387		
4,800.00	4,499.79	4,730.24	4,186.74	28.42	32.22	-2.89	-2,051.88	-93.32	581.46	530.74	50.72	11.464		
4,900.00	4,591.98	4,828.78	4,269.75	29.06	33.00	-2.88	-2,104.91	-95.78	598.49	546.62	51.88	11.537		
5,000.00	4,684.17	4,927.31	4,352.77	29.70	33.78	-2.86	-2,157.95	-98.23	615.53	562.49	53.03	11.606		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 34C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,776.35	5,025.85	4,435.78	30.34	34.55	-2.85	-2,210.98	-100.68	632.56	578.37	54.19	11.673	
5,200.00	4,868.54	5,124.39	4,518.79	30.98	35.33	-2.84	-2,264.02	-103.14	649.59	594.24	55.35	11.736	
5,300.00	4,960.73	5,222.93	4,601.81	31.63	36.11	-2.83	-2,317.05	-105.59	666.63	610.12	56.51	11.797	
5,400.00	5,052.91	5,321.47	4,684.82	32.27	36.89	-2.82	-2,370.09	-108.04	683.66	625.99	57.67	11.855	
5,500.00	5,145.10	5,420.01	4,767.83	32.91	37.67	-2.81	-2,423.12	-110.49	700.69	641.87	58.83	11.911	
5,600.00	5,237.28	5,518.55	4,850.84	33.55	38.45	-2.80	-2,476.16	-112.95	717.73	657.74	59.99	11.964	
5,700.00	5,329.47	5,617.08	4,933.86	34.20	39.23	-2.79	-2,529.19	-115.40	734.76	673.61	61.15	12.016	
5,800.00	5,421.66	5,715.62	5,016.87	34.84	40.01	-2.78	-2,582.23	-117.85	751.79	689.48	62.31	12.065	
5,900.00	5,513.84	5,831.56	5,114.93	35.48	40.91	-2.77	-2,644.00	-120.71	768.29	704.52	63.77	12.049	
6,000.00	5,606.03	5,967.52	5,232.73	36.13	41.94	-2.78	-2,711.79	-123.85	780.74	715.32	65.42	11.934	
6,100.00	5,698.22	6,104.81	5,354.81	36.77	42.92	-2.80	-2,774.50	-126.75	788.45	721.53	66.92	11.782	
6,200.00	5,790.40	6,242.80	5,480.41	37.41	43.84	-2.84	-2,831.56	-129.39	791.37	723.13	68.24	11.597	
6,300.00	5,882.59	6,380.85	5,608.67	38.06	44.70	-2.90	-2,882.54	-131.74	789.47	720.10	69.37	11.381	
6,400.00	5,974.77	6,518.33	5,738.69	38.70	45.50	-2.98	-2,927.12	-133.80	782.77	712.47	70.30	11.135	
6,500.00	6,066.96	6,654.61	5,869.54	39.34	46.22	-3.08	-2,965.11	-135.56	771.31	700.29	71.02	10.860	
6,600.00	6,159.15	6,789.10	6,000.31	39.99	46.88	-3.20	-2,996.46	-137.01	755.18	683.63	71.55	10.554	
6,700.00	6,251.33	6,921.27	6,130.11	40.63	47.47	-3.35	-3,021.27	-138.16	734.48	662.60	71.88	10.218	
6,800.00	6,343.52	7,050.62	6,258.12	41.28	47.99	-3.53	-3,039.73	-139.01	709.35	637.31	72.03	9.847	
6,900.00	6,435.71	7,176.73	6,383.60	41.92	48.44	-3.75	-3,052.16	-139.59	679.93	607.92	72.01	9.442	
7,000.00	6,527.86	7,299.21	6,505.89	42.56	48.84	-12.28	-3,058.94	-139.90	646.42	574.58	71.84	8.998	
7,100.00	6,618.85	7,412.59	6,619.25	43.19	49.13	-36.18	-3,060.59	-140.18	609.73	537.95	71.78	8.494	
7,200.00	6,706.47	7,506.92	6,713.03	43.76	49.36	-55.34	-3,060.65	-149.49	574.01	501.58	72.43	7.925	
7,300.00	6,788.56	7,605.50	6,808.44	44.26	49.60	-70.17	-3,060.80	-173.90	541.79	469.10	72.69	7.454	
7,400.00	6,863.10	7,709.39	6,903.63	44.70	49.84	-81.94	-3,061.05	-215.22	514.16	441.80	72.37	7.105	
7,500.00	6,928.26	7,819.55	6,995.81	45.07	50.06	-91.51	-3,061.42	-275.30	491.89	420.64	71.25	6.904	
7,600.00	6,982.42	7,936.67	7,080.89	45.39	50.27	-99.29	-3,061.91	-355.55	475.21	405.98	69.23	6.865	
7,700.00	7,024.26	8,060.85	7,153.44	45.67	50.43	-105.36	-3,062.53	-456.08	463.83	397.32	66.51	6.974	
7,800.00	7,052.75	8,191.30	7,207.15	45.92	50.55	-109.62	-3,063.26	-574.71	457.00	393.11	63.89	7.153	
7,900.00	7,067.18	8,326.20	7,236.11	46.16	50.62	-111.85	-3,064.06	-706.20	453.88	391.19	62.69	7.240	
7,999.98	7,070.66	8,445.70	7,239.82	46.42	50.66	-111.97	-3,064.79	-825.55	452.12	387.92	64.20	7.042	
8,000.00	7,068.85	8,445.78	7,239.82	46.42	50.66	-112.15	-3,064.79	-825.63	453.50	389.48	64.02	7.083	
8,100.00	7,068.56	8,545.78	7,239.41	46.78	50.72	-112.13	-3,065.41	-925.63	453.47	387.15	66.32	6.837	
8,200.00	7,068.26	8,645.78	7,239.00	47.29	50.79	-112.12	-3,066.02	-1,025.63	453.45	384.48	68.96	6.575	
8,300.00	7,067.96	8,745.78	7,238.60	48.03	50.92	-112.11	-3,066.63	-1,125.62	453.42	381.51	71.90	6.306	
8,400.00	7,067.66	8,845.78	7,238.19	49.02	51.13	-112.09	-3,067.24	-1,225.62	453.39	378.28	75.11	6.036	
8,500.00	7,067.37	8,945.78	7,237.79	50.27	51.56	-112.08	-3,067.86	-1,325.62	453.36	374.80	78.56	5.771	
8,600.00	7,067.07	9,045.78	7,237.38	51.75	52.42	-112.07	-3,068.47	-1,425.61	453.34	371.13	82.21	5.514	
8,700.00	7,066.77	9,145.78	7,236.98	53.42	53.79	-112.05	-3,069.08	-1,525.61	453.31	367.27	86.04	5.268	
8,800.00	7,066.47	9,245.78	7,236.57	55.24	55.51	-112.04	-3,069.69	-1,625.61	453.28	363.25	90.03	5.035	
8,900.00	7,066.18	9,345.78	7,236.16	57.18	57.44	-112.03	-3,070.31	-1,725.61	453.26	359.10	94.16	4.814	
9,000.00	7,065.88	9,445.78	7,235.76	59.21	59.48	-112.01	-3,070.92	-1,825.60	453.23	354.83	98.40	4.606	
9,100.00	7,065.58	9,545.78	7,235.35	61.33	61.61	-112.00	-3,071.53	-1,925.60	453.20	350.45	102.75	4.411	
9,200.00	7,065.28	9,645.78	7,234.95	63.51	63.82	-111.99	-3,072.14	-2,025.60	453.17	345.98	107.20	4.227	
9,300.00	7,064.99	9,745.78	7,234.54	65.76	66.08	-111.97	-3,072.76	-2,125.60	453.15	341.42	111.72	4.056	
9,400.00	7,064.69	9,845.78	7,234.14	68.06	68.39	-111.96	-3,073.37	-2,225.59	453.12	336.80	116.32	3.895	
9,500.00	7,064.39	9,945.78	7,233.73	70.40	70.74	-111.95	-3,073.98	-2,325.59	453.09	332.11	120.98	3.745	
9,600.00	7,064.09	10,045.78	7,233.32	72.78	73.14	-111.93	-3,074.59	-2,425.59	453.07	327.37	125.70	3.604	
9,700.00	7,063.80	10,145.77	7,232.92	75.20	75.56	-111.92	-3,075.21	-2,525.58	453.04	322.57	130.47	3.472	
9,800.00	7,063.50	10,245.77	7,232.51	77.65	78.02	-111.91	-3,075.82	-2,625.58	453.01	317.73	135.29	3.349	
9,900.00	7,063.20	10,345.77	7,232.11	80.13	80.51	-111.89	-3,076.43	-2,725.58	452.99	312.84	140.14	3.232	
10,000.00	7,062.90	10,445.77	7,231.70	82.64	83.02	-111.88	-3,077.04	-2,825.58	452.96	307.92	145.04	3.123	
10,100.00	7,062.61	10,545.77	7,231.30	85.17	85.55	-111.87	-3,077.66	-2,925.57	452.93	302.97	149.97	3.020	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 34C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,200.00	7,062.31	10,645.77	7,230.89	87.72	88.10	-111.85	-3,078.27	-3,025.57	452.91	297.98	154.92	2.923	
10,300.00	7,062.01	10,745.77	7,230.48	90.28	90.67	-111.84	-3,078.88	-3,125.57	452.88	292.97	159.91	2.832	
10,400.00	7,061.71	10,845.77	7,230.08	92.87	93.26	-111.83	-3,079.49	-3,225.56	452.85	287.93	164.92	2.746	
10,500.00	7,061.41	10,945.77	7,229.67	95.47	95.86	-111.81	-3,080.11	-3,325.56	452.83	282.87	169.96	2.664	
10,600.00	7,061.12	11,045.77	7,229.27	98.09	98.48	-111.80	-3,080.72	-3,425.56	452.80	277.79	175.01	2.587	
10,700.00	7,060.82	11,145.77	7,228.86	100.72	101.11	-111.79	-3,081.33	-3,525.56	452.77	272.69	180.09	2.514	
10,800.00	7,060.52	11,245.77	7,228.46	103.37	103.76	-111.77	-3,081.94	-3,625.55	452.75	267.57	185.18	2.445	
10,900.00	7,060.22	11,345.77	7,228.05	106.02	106.41	-111.76	-3,082.56	-3,725.55	452.72	262.43	190.29	2.379	
11,000.00	7,059.93	11,445.77	7,227.64	108.69	109.08	-111.75	-3,083.17	-3,825.55	452.69	257.28	195.41	2.317	
11,100.00	7,059.63	11,545.77	7,227.24	111.36	111.75	-111.73	-3,083.78	-3,925.55	452.67	252.12	200.55	2.257	
11,200.00	7,059.33	11,645.77	7,226.83	114.05	114.43	-111.72	-3,084.39	-4,025.54	452.64	246.94	205.70	2.200	
11,300.00	7,059.03	11,745.77	7,226.43	116.74	117.13	-111.71	-3,085.00	-4,125.54	452.61	241.75	210.87	2.146	
11,400.00	7,058.74	11,845.77	7,226.02	119.44	119.83	-111.69	-3,085.62	-4,225.54	452.59	236.54	216.04	2.095	
11,500.00	7,058.44	11,945.77	7,225.62	122.15	122.53	-111.68	-3,086.23	-4,325.53	452.56	231.33	221.23	2.046	
11,600.00	7,058.14	12,045.77	7,225.21	124.86	125.25	-111.67	-3,086.84	-4,425.53	452.53	226.11	226.43	1.999	
11,700.00	7,057.84	12,145.77	7,224.80	127.58	127.97	-111.65	-3,087.45	-4,525.53	452.51	220.87	231.63	1.954	
11,800.00	7,057.55	12,245.77	7,224.40	130.31	130.69	-111.64	-3,088.07	-4,625.53	452.48	215.63	236.85	1.910	
11,900.00	7,057.25	12,345.77	7,223.99	133.04	133.42	-111.63	-3,088.68	-4,725.52	452.45	210.38	242.07	1.869	
12,000.00	7,056.95	12,445.77	7,223.59	135.78	136.16	-111.61	-3,089.29	-4,825.52	452.43	205.12	247.30	1.829	
12,100.00	7,056.65	12,545.77	7,223.18	138.52	138.90	-111.60	-3,089.90	-4,925.52	452.40	199.86	252.54	1.791	
12,200.00	7,056.36	12,645.77	7,222.78	141.27	141.65	-111.58	-3,090.52	-5,025.52	452.38	194.59	257.79	1.755	
12,300.00	7,056.06	12,745.77	7,222.37	144.02	144.40	-111.57	-3,091.13	-5,125.51	452.35	189.31	263.04	1.720	
12,400.00	7,055.76	12,845.77	7,221.96	146.78	147.16	-111.56	-3,091.74	-5,225.51	452.32	184.02	268.30	1.686	
12,500.00	7,055.46	12,945.77	7,221.56	149.54	149.91	-111.54	-3,092.35	-5,325.51	452.30	178.73	273.57	1.653	
12,600.00	7,055.17	13,045.77	7,221.15	152.30	152.68	-111.53	-3,092.97	-5,425.50	452.27	173.43	278.84	1.622	
12,700.00	7,054.87	13,145.77	7,220.75	155.07	155.44	-111.52	-3,093.58	-5,525.50	452.24	168.13	284.11	1.592	
12,800.00	7,054.57	13,245.77	7,220.34	157.84	158.21	-111.50	-3,094.19	-5,625.50	452.22	162.82	289.40	1.563	
12,900.00	7,054.27	13,345.77	7,219.93	160.61	160.99	-111.49	-3,094.80	-5,725.50	452.19	157.51	294.68	1.535	
13,000.00	7,053.97	13,445.77	7,219.53	163.39	163.76	-111.48	-3,095.42	-5,825.49	452.17	152.19	299.97	1.507	
13,100.00	7,053.68	13,545.77	7,219.12	166.17	166.54	-111.46	-3,096.03	-5,925.49	452.14	146.87	305.27	1.481 Level 3	
13,200.00	7,053.38	13,645.77	7,218.72	168.95	169.32	-111.45	-3,096.64	-6,025.49	452.11	141.54	310.57	1.456 Level 3	
13,300.00	7,053.08	13,745.77	7,218.31	171.73	172.10	-111.44	-3,097.25	-6,125.48	452.09	136.21	315.88	1.431 Level 3	
13,400.00	7,052.78	13,845.77	7,217.91	174.52	174.89	-111.42	-3,097.87	-6,225.48	452.06	130.88	321.18	1.407 Level 3	
13,500.00	7,052.49	13,945.77	7,217.50	177.31	177.68	-111.41	-3,098.48	-6,325.48	452.04	125.54	326.50	1.385 Level 3	
13,600.00	7,052.19	14,045.77	7,217.09	180.10	180.47	-111.40	-3,099.09	-6,425.48	452.01	120.20	331.81	1.362 Level 3	
13,700.00	7,051.89	14,145.77	7,216.69	182.90	183.26	-111.38	-3,099.70	-6,525.47	451.98	114.85	337.13	1.341 Level 3	
13,800.00	7,051.59	14,245.77	7,216.28	185.69	186.06	-111.37	-3,100.32	-6,625.47	451.96	109.50	342.46	1.320 Level 3	
13,900.00	7,051.30	14,345.77	7,215.88	188.49	188.85	-111.36	-3,100.93	-6,725.47	451.93	104.15	347.78	1.299 Level 3	
14,000.00	7,051.00	14,445.77	7,215.47	191.29	191.65	-111.34	-3,101.54	-6,825.47	451.91	98.80	353.11	1.280 Level 3	
14,100.00	7,050.70	14,545.77	7,215.07	194.09	194.45	-111.33	-3,102.15	-6,925.46	451.88	93.44	358.44	1.261 Level 3	
14,200.00	7,050.40	14,645.77	7,214.66	196.89	197.25	-111.32	-3,102.77	-7,025.46	451.86	88.08	363.78	1.242 Level 2	
14,300.00	7,050.11	14,745.77	7,214.25	199.70	200.06	-111.30	-3,103.38	-7,125.46	451.83	82.71	369.12	1.224 Level 2	
14,400.00	7,049.81	14,845.77	7,213.85	202.50	202.86	-111.29	-3,103.99	-7,225.45	451.80	77.34	374.46	1.207 Level 2	
14,500.00	7,049.51	14,945.77	7,213.44	205.31	205.67	-111.28	-3,104.60	-7,325.45	451.78	71.97	379.81	1.189 Level 2	
14,600.00	7,049.21	15,045.77	7,213.04	208.12	208.48	-111.26	-3,105.22	-7,425.45	451.75	66.60	385.15	1.173 Level 2	
14,700.00	7,048.92	15,145.77	7,212.63	210.93	211.28	-111.25	-3,105.83	-7,525.45	451.73	61.22	390.50	1.157 Level 2	
14,800.00	7,048.62	15,245.77	7,212.23	213.74	214.10	-111.24	-3,106.44	-7,625.44	451.70	55.85	395.85	1.141 Level 2	
14,900.00	7,048.32	15,345.77	7,211.82	216.55	216.91	-111.22	-3,107.05	-7,725.44	451.68	50.47	401.21	1.126 Level 2	
15,000.00	7,048.02	15,445.77	7,211.41	219.37	219.72	-111.21	-3,107.67	-7,825.44	451.65	45.08	406.57	1.111 Level 2	
15,100.00	7,047.73	15,545.77	7,211.01	222.18	222.53	-111.20	-3,108.28	-7,925.44	451.62	39.70	411.93	1.096 Level 2	
15,200.00	7,047.43	15,645.77	7,210.60	225.00	225.35	-111.18	-3,108.89	-8,025.43	451.60	34.31	417.29	1.082 Level 2	
15,300.00	7,047.13	15,745.77	7,210.20	227.81	228.17	-111.17	-3,109.50	-8,125.43	451.57	28.92	422.65	1.068 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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							
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)		
15,343.67	7,047.00	15,789.45	7,210.02	229.04	229.40	-111.16	-3,109.77	-8,169.10	451.56	26.57	424.99	1.063 Level 2, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.47	339.89	2.78	339.90					
100.00	100.00	102.00	100.00	3.28	3.29	0.47	339.89	2.78	339.90	333.33	6.57	51.737		
200.00	200.00	202.00	200.00	3.34	3.34	0.47	339.89	2.78	339.90	333.23	6.68	50.917	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.07	339.89	2.78	341.65	334.76	6.89	49.603		
400.00	399.84	401.84	399.84	3.59	3.61	177.11	339.89	2.78	346.87	339.67	7.20	48.184		
500.00	499.45	501.45	499.45	3.79	3.81	177.17	339.89	2.78	355.58	347.98	7.60	46.776		
600.00	598.70	600.70	598.70	4.03	4.05	177.26	339.89	2.78	367.75	359.67	8.08	45.499		
700.00	697.47	706.46	691.53	4.31	4.33	177.15	340.70	1.50	384.21	375.56	8.65	44.429		
800.00	795.62	808.61	789.33	4.64	4.63	176.90	342.23	-0.96	404.78	395.53	9.26	43.733		
900.00	893.06	888.46	886.35	5.00	4.88	176.70	343.76	-3.41	428.76	418.92	9.84	43.573		
1,000.00	989.64	984.63	982.49	5.40	5.20	176.54	345.27	-5.83	456.11	445.60	10.51	43.383		
1,100.00	1,085.27	1,079.80	1,077.62	5.83	5.53	176.41	346.77	-8.22	486.79	475.58	11.22	43.398		
1,200.00	1,179.82	1,173.84	1,171.62	6.29	5.87	176.31	348.25	-10.59	520.77	508.83	11.94	43.598		
1,300.00	1,273.17	1,266.65	1,264.38	6.79	6.21	176.24	349.71	-12.92	558.01	545.32	12.69	43.964		
1,400.00	1,365.46	1,358.35	1,356.05	7.32	6.55	176.22	351.15	-15.23	597.88	584.43	13.46	44.435		
1,500.00	1,457.65	1,449.95	1,447.60	7.87	6.90	176.23	352.59	-17.54	638.01	623.79	14.22	44.857		
1,600.00	1,549.83	1,541.55	1,539.16	8.43	7.26	176.23	354.03	-19.84	678.14	663.13	15.01	45.186		
1,700.00	1,642.02	1,633.14	1,630.71	9.01	7.62	176.23	355.47	-22.14	718.27	702.46	15.81	45.442		
1,800.00	1,734.21	1,724.74	1,722.27	9.59	7.98	176.23	356.91	-24.45	758.39	741.78	16.62	45.641		
1,900.00	1,826.39	1,816.33	1,813.82	10.18	8.35	176.24	358.35	-26.75	798.52	781.09	17.44	45.795		
2,000.00	1,918.58	1,907.93	1,905.38	10.78	8.72	176.24	359.79	-29.06	838.65	820.38	18.27	45.912		
2,100.00	2,010.77	2,000.48	1,996.93	11.39	9.10	176.24	361.23	-31.36	878.78	859.67	19.11	45.991		
2,200.00	2,102.95	2,108.88	2,088.49	11.99	9.54	176.24	362.67	-33.67	918.91	898.89	20.02	45.898		
2,300.00	2,195.14	2,182.71	2,180.04	12.61	9.85	176.24	364.11	-35.97	959.04	938.24	20.80	46.114		
2,400.00	2,287.32	2,274.31	2,271.60	13.22	10.23	176.24	365.55	-38.28	999.16	977.51	21.65	46.146		
2,500.00	2,379.51	2,365.90	2,363.15	13.84	10.61	176.25	366.99	-40.58	1,039.29	1,016.78	22.51	46.167		
2,600.00	2,471.70	2,457.50	2,454.71	14.46	11.00	176.25	368.43	-42.89	1,079.42	1,056.04	23.38	46.178		
2,700.00	2,563.88	2,549.10	2,546.26	15.08	11.38	176.25	369.87	-45.19	1,119.55	1,095.31	24.24	46.182		
2,800.00	2,656.07	2,640.69	2,637.82	15.71	11.77	176.25	371.31	-47.50	1,159.68	1,134.56	25.11	46.179		
2,900.00	2,748.26	2,732.29	2,729.37	16.33	12.15	176.25	372.75	-49.80	1,199.80	1,173.82	25.99	46.171		
3,000.00	2,840.44	2,823.88	2,820.93	16.96	12.54	176.25	374.19	-52.11	1,239.93	1,213.07	26.86	46.160		
3,100.00	2,932.63	2,915.48	2,912.48	17.59	12.93	176.25	375.63	-54.41	1,280.06	1,252.32	27.74	46.145		
3,200.00	3,024.81	3,007.07	3,004.04	18.22	13.32	176.25	377.07	-56.71	1,320.19	1,291.57	28.62	46.127		
3,300.00	3,117.00	3,101.33	3,095.59	18.86	13.72	176.25	378.51	-59.02	1,360.32	1,330.80	29.51	46.090		
3,400.00	3,209.19	3,209.74	3,187.15	19.49	14.19	176.25	379.95	-61.32	1,400.45	1,369.97	30.47	45.960		
3,500.00	3,301.37	3,281.86	3,278.70	20.12	14.50	176.25	381.39	-63.63	1,440.57	1,409.30	31.27	46.064		
3,600.00	3,393.56	3,373.45	3,370.26	20.76	14.89	176.25	382.83	-65.93	1,480.70	1,448.54	32.16	46.041		
3,700.00	3,485.75	3,465.05	3,461.81	21.39	15.28	176.26	384.27	-68.24	1,520.83	1,487.78	33.05	46.016		
3,800.00	3,577.93	3,556.65	3,553.37	22.03	15.67	176.26	385.71	-70.54	1,560.96	1,527.02	33.94	45.992		
3,900.00	3,670.12	3,648.24	3,644.92	22.67	16.07	176.26	387.15	-72.85	1,601.09	1,566.25	34.83	45.967		
4,000.00	3,762.30	3,739.84	3,736.48	23.30	16.46	176.26	388.59	-75.15	1,641.21	1,605.49	35.72	45.942		
4,100.00	3,854.49	3,831.43	3,828.03	23.94	16.86	176.26	390.03	-77.46	1,681.34	1,644.73	36.62	45.917		
4,200.00	3,946.68	3,923.03	3,919.59	24.58	17.25	176.26	391.47	-79.76	1,721.47	1,683.96	37.51	45.892		
4,300.00	4,038.86	4,014.62	4,011.14	25.22	17.65	176.26	392.91	-82.07	1,761.60	1,723.19	38.41	45.867		
4,400.00	4,131.05	4,106.22	4,102.70	25.86	18.05	176.26	394.35	-84.37	1,801.73	1,762.42	39.30	45.842		
4,500.00	4,223.24	4,202.19	4,194.25	26.50	18.46	176.26	395.79	-86.68	1,841.86	1,801.64	40.22	45.796		
4,600.00	4,315.42	4,289.41	4,285.81	27.14	18.84	176.26	397.23	-88.98	1,881.98	1,840.89	41.10	45.793		
4,700.00	4,407.61	4,381.00	4,377.37	27.78	19.24	176.26	398.67	-91.28	1,922.11	1,880.12	42.00	45.769		
4,800.00	4,499.79	4,472.60	4,468.92	28.42	19.63	176.26	400.11	-93.59	1,962.24	1,919.34	42.90	45.745		
4,900.00	4,591.98	4,564.20	4,560.48	29.06	20.03	176.26	401.55	-95.89	2,002.37	1,958.57	43.80	45.721		
5,000.00	4,684.17	4,655.79	4,652.03	29.70	20.43	176.26	402.99	-98.20	2,042.50	1,997.80	44.70	45.698		
5,100.00	4,776.35	4,747.39	4,743.59	30.34	20.83	176.26	404.43	-100.50	2,082.62	2,037.03	45.60	45.675		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,868.54	4,838.98	4,835.14	30.98	21.22	176.26	405.87	-102.81	2,122.75	2,076.25	46.50	45.653		
5,300.00	4,960.73	4,930.58	4,926.70	31.63	21.62	176.26	407.31	-105.11	2,162.88	2,115.48	47.40	45.631		
5,400.00	5,052.91	5,022.17	5,018.25	32.27	22.02	176.26	408.75	-107.42	2,203.01	2,154.71	48.30	45.609		
5,500.00	5,145.10	5,113.77	5,109.81	32.91	22.42	176.26	410.19	-109.72	2,243.14	2,193.93	49.20	45.588		
5,600.00	5,237.28	5,205.36	5,201.36	33.55	22.82	176.26	411.63	-112.03	2,283.27	2,233.16	50.11	45.567		
5,700.00	5,329.47	5,303.04	5,292.92	34.20	23.24	176.26	413.07	-114.33	2,323.39	2,272.35	51.04	45.522		
5,800.00	5,421.66	5,388.55	5,384.47	34.84	23.62	176.26	414.51	-116.64	2,363.52	2,311.61	51.92	45.526		
5,900.00	5,513.84	5,480.15	5,476.03	35.48	24.01	176.26	415.95	-118.94	2,403.65	2,350.83	52.82	45.506		
6,000.00	5,606.03	5,571.75	5,567.58	36.13	24.41	176.26	417.39	-121.25	2,443.78	2,390.05	53.73	45.486		
6,100.00	5,698.22	5,663.34	5,659.14	36.77	24.81	176.26	418.83	-123.55	2,483.91	2,429.27	54.63	45.467		
6,200.00	5,790.40	5,754.94	5,750.69	37.41	25.21	176.26	420.27	-125.85	2,524.03	2,468.50	55.54	45.448		
6,300.00	5,882.59	5,846.53	5,842.25	38.06	25.61	176.26	421.71	-128.16	2,564.16	2,507.72	56.44	45.429		
6,400.00	5,974.77	5,938.13	5,933.80	38.70	26.01	176.26	423.15	-130.46	2,604.29	2,546.94	57.35	45.411		
6,500.00	6,066.96	6,029.72	6,025.36	39.34	26.41	176.26	424.59	-132.77	2,644.42	2,586.16	58.26	45.393		
6,600.00	6,159.15	6,121.32	6,116.91	39.99	26.81	176.27	426.03	-135.07	2,684.55	2,625.38	59.16	45.375		
6,700.00	6,251.33	6,212.91	6,208.47	40.63	27.21	176.27	427.47	-137.38	2,724.68	2,664.60	60.07	45.358		
6,800.00	6,343.52	6,304.51	6,300.02	41.28	27.61	176.27	428.91	-139.68	2,764.80	2,703.82	60.98	45.340		
6,900.00	6,435.71	6,403.90	6,391.58	41.92	28.05	176.27	430.35	-141.99	2,804.93	2,743.01	61.92	45.299		
7,000.00	6,527.86	6,487.69	6,483.12	42.56	28.41	167.93	431.79	-144.29	2,845.05	2,782.26	62.80	45.307		
7,100.00	6,618.85	6,578.42	6,573.82	43.19	28.81	145.81	433.22	-146.57	2,884.78	2,821.09	63.69	45.293		
7,200.00	6,706.47	6,670.40	6,665.69	43.76	29.21	129.36	434.65	-150.30	2,923.37	2,858.78	64.59	45.262		
7,300.00	6,788.56	6,770.90	6,764.61	44.26	29.66	117.68	436.10	-167.35	2,959.90	2,894.35	65.55	45.154		
7,400.00	6,863.10	6,878.73	6,866.34	44.70	30.14	109.35	437.45	-202.68	2,993.45	2,926.87	66.57	44.964		
7,500.00	6,928.26	6,995.54	6,968.10	45.07	30.68	103.36	438.64	-259.70	3,023.15	2,955.46	67.69	44.659		
7,600.00	6,982.42	7,122.65	7,064.97	45.39	31.32	99.10	439.55	-341.67	3,048.17	2,979.17	68.99	44.181		
7,700.00	7,024.26	7,260.44	7,149.34	45.67	32.17	96.17	440.07	-450.27	3,067.69	2,997.10	70.60	43.454		
7,800.00	7,052.75	7,407.62	7,211.45	45.92	33.36	94.32	440.04	-583.33	3,081.04	3,008.37	72.66	42.402		
7,900.00	7,067.18	7,560.71	7,241.93	46.16	34.97	93.39	439.39	-732.98	3,087.67	3,012.41	75.26	41.027		
8,000.00	7,068.85	7,679.51	7,243.79	46.42	36.45	93.25	438.51	-851.72	3,088.32	3,010.52	77.80	39.694		
8,100.00	7,068.56	7,779.51	7,243.48	46.78	37.88	93.25	437.74	-951.72	3,088.15	3,007.72	80.43	38.395		
8,200.00	7,068.26	7,879.51	7,243.17	47.29	39.47	93.25	436.97	-1,051.72	3,087.98	3,004.61	83.37	37.041		
8,300.00	7,067.96	7,979.51	7,242.86	48.03	41.19	93.25	436.21	-1,151.71	3,087.81	3,001.23	86.58	35.665		
8,400.00	7,067.66	8,079.51	7,242.54	49.02	43.03	93.25	435.44	-1,251.71	3,087.64	2,997.60	90.04	34.293		
8,500.00	7,067.37	8,179.51	7,242.23	50.27	44.97	93.25	434.67	-1,351.71	3,087.47	2,993.75	93.71	32.945		
8,600.00	7,067.07	8,279.51	7,241.92	51.75	47.01	93.25	433.90	-1,451.70	3,087.30	2,989.71	97.59	31.636		
8,700.00	7,066.77	8,379.51	7,241.61	53.42	49.14	93.25	433.14	-1,551.70	3,087.13	2,985.50	101.63	30.375		
8,800.00	7,066.47	8,479.51	7,241.30	55.24	51.33	93.25	432.37	-1,651.69	3,086.96	2,981.13	105.83	29.169		
8,900.00	7,066.18	8,579.51	7,240.99	57.18	53.59	93.25	431.60	-1,751.69	3,086.79	2,976.62	110.16	28.020		
9,000.00	7,065.88	8,679.51	7,240.67	59.21	55.90	93.25	430.83	-1,851.69	3,086.62	2,972.00	114.62	26.930		
9,100.00	7,065.58	8,779.51	7,240.36	61.33	58.26	93.25	430.07	-1,951.68	3,086.45	2,967.27	119.18	25.898		
9,200.00	7,065.28	8,879.51	7,240.05	63.51	60.66	93.25	429.30	-2,051.68	3,086.28	2,962.44	123.83	24.923		
9,300.00	7,064.99	8,979.51	7,239.74	65.76	63.10	93.25	428.53	-2,151.68	3,086.11	2,957.54	128.57	24.003		
9,400.00	7,064.69	9,079.51	7,239.43	68.06	65.58	93.25	427.76	-2,251.67	3,085.94	2,952.55	133.39	23.135		
9,500.00	7,064.39	9,179.51	7,239.11	70.40	68.08	93.25	427.00	-2,351.67	3,085.77	2,947.50	138.27	22.317		
9,600.00	7,064.09	9,279.51	7,238.80	72.78	70.62	93.25	426.23	-2,451.67	3,085.60	2,942.38	143.21	21.545		
9,700.00	7,063.80	9,379.51	7,238.49	75.20	73.17	93.25	425.46	-2,551.66	3,085.43	2,937.21	148.21	20.818		
9,800.00	7,063.50	9,479.51	7,238.18	77.65	75.75	93.25	424.69	-2,651.66	3,085.26	2,932.00	153.26	20.131		
9,900.00	7,063.20	9,579.51	7,237.87	80.13	78.35	93.25	423.93	-2,751.66	3,085.09	2,926.73	158.35	19.482		
10,000.00	7,062.90	9,679.51	7,237.55	82.64	80.96	93.25	423.16	-2,851.65	3,084.92	2,921.43	163.49	18.870		
10,100.00	7,062.61	9,779.51	7,237.24	85.17	83.59	93.25	422.39	-2,951.65	3,084.75	2,916.09	168.65	18.290		
10,200.00	7,062.31	9,879.51	7,236.93	87.72	86.24	93.25	421.62	-3,051.64	3,084.58	2,910.72	173.86	17.742		
10,300.00	7,062.01	9,979.51	7,236.62	90.28	88.89	93.25	420.86	-3,151.64	3,084.40	2,905.31	179.09	17.222		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	7,061.71	10,079.51	7,236.31	92.87	91.56	93.25	420.09	-3,251.64	3,084.23	2,899.88	184.35	16.730		
10,500.00	7,061.41	10,179.51	7,235.99	95.47	94.25	93.25	419.32	-3,351.63	3,084.06	2,894.42	189.64	16.262		
10,600.00	7,061.12	10,279.51	7,235.68	98.09	96.94	93.25	418.55	-3,451.63	3,083.89	2,888.94	194.95	15.819		
10,700.00	7,060.82	10,379.51	7,235.37	100.72	99.64	93.25	417.78	-3,551.63	3,083.72	2,883.44	200.29	15.396		
10,800.00	7,060.52	10,479.51	7,235.06	103.37	102.35	93.25	417.02	-3,651.62	3,083.55	2,877.91	205.64	14.995		
10,900.00	7,060.22	10,579.51	7,234.75	106.02	105.06	93.25	416.25	-3,751.62	3,083.38	2,872.37	211.01	14.612		
11,000.00	7,059.93	10,679.51	7,234.44	108.69	107.79	93.24	415.48	-3,851.62	3,083.21	2,866.81	216.40	14.248		
11,100.00	7,059.63	10,779.51	7,234.12	111.36	110.52	93.24	414.71	-3,951.61	3,083.04	2,861.24	221.81	13.900		
11,200.00	7,059.33	10,879.51	7,233.81	114.05	113.26	93.24	413.95	-4,051.61	3,082.87	2,855.65	227.23	13.567		
11,300.00	7,059.03	10,979.51	7,233.50	116.74	116.00	93.24	413.18	-4,151.61	3,082.70	2,850.04	232.66	13.250		
11,400.00	7,058.74	11,079.51	7,233.19	119.44	118.75	93.24	412.41	-4,251.60	3,082.53	2,844.42	238.11	12.946		
11,500.00	7,058.44	11,179.51	7,232.88	122.15	121.50	93.24	411.64	-4,351.60	3,082.36	2,838.80	243.57	12.655		
11,600.00	7,058.14	11,279.51	7,232.56	124.86	124.26	93.24	410.88	-4,451.59	3,082.19	2,833.16	249.04	12.376		
11,700.00	7,057.84	11,379.51	7,232.25	127.58	127.02	93.24	410.11	-4,551.59	3,082.02	2,827.51	254.52	12.109		
11,800.00	7,057.55	11,479.51	7,231.94	130.31	129.79	93.24	409.34	-4,651.59	3,081.85	2,821.85	260.01	11.853		
11,900.00	7,057.25	11,579.51	7,231.63	133.04	132.56	93.24	408.57	-4,751.58	3,081.68	2,816.18	265.51	11.607		
12,000.00	7,056.95	11,679.51	7,231.32	135.78	135.34	93.24	407.81	-4,851.58	3,081.51	2,810.50	271.01	11.370		
12,100.00	7,056.65	11,779.51	7,231.00	138.52	138.12	93.24	407.04	-4,951.58	3,081.34	2,804.81	276.53	11.143		
12,200.00	7,056.36	11,879.51	7,230.69	141.27	140.90	93.24	406.27	-5,051.57	3,081.17	2,799.12	282.05	10.924		
12,300.00	7,056.06	11,979.51	7,230.38	144.02	143.68	93.24	405.50	-5,151.57	3,081.00	2,793.42	287.58	10.713		
12,400.00	7,055.76	12,079.51	7,230.07	146.78	146.47	93.24	404.74	-5,251.57	3,080.83	2,787.71	293.12	10.510		
12,500.00	7,055.46	12,179.51	7,229.76	149.54	149.26	93.24	403.97	-5,351.56	3,080.66	2,782.00	298.66	10.315		
12,600.00	7,055.17	12,279.51	7,229.44	152.30	152.05	93.24	403.20	-5,451.56	3,080.49	2,776.28	304.21	10.126		
12,700.00	7,054.87	12,379.51	7,229.13	155.07	154.84	93.24	402.43	-5,551.56	3,080.32	2,770.55	309.77	9.944		
12,800.00	7,054.57	12,479.51	7,228.82	157.84	157.64	93.24	401.67	-5,651.55	3,080.15	2,764.82	315.33	9.768		
12,900.00	7,054.27	12,579.50	7,228.51	160.61	160.44	93.24	400.90	-5,751.55	3,079.98	2,759.08	320.90	9.598		
13,000.00	7,053.97	12,679.50	7,228.20	163.39	163.24	93.24	400.13	-5,851.54	3,079.81	2,753.34	326.47	9.434		
13,100.00	7,053.68	12,779.50	7,227.88	166.17	166.05	93.24	399.36	-5,951.54	3,079.64	2,747.59	332.04	9.275		
13,200.00	7,053.38	12,879.50	7,227.57	168.95	168.85	93.24	398.60	-6,051.54	3,079.47	2,741.84	337.63	9.121		
13,300.00	7,053.08	12,979.50	7,227.26	171.73	171.66	93.24	397.83	-6,151.53	3,079.30	2,736.09	343.21	8.972		
13,400.00	7,052.78	13,079.50	7,226.95	174.52	174.47	93.24	397.06	-6,251.53	3,079.13	2,730.33	348.80	8.828		
13,500.00	7,052.49	13,179.50	7,226.64	177.31	177.28	93.24	396.29	-6,351.53	3,078.96	2,724.57	354.39	8.688		
13,600.00	7,052.19	13,279.50	7,226.33	180.10	180.09	93.24	395.52	-6,451.52	3,078.79	2,718.80	359.99	8.553		
13,700.00	7,051.89	13,379.50	7,226.01	182.90	182.90	93.24	394.76	-6,551.52	3,078.62	2,713.03	365.59	8.421		
13,800.00	7,051.59	13,479.50	7,225.70	185.69	185.71	93.24	393.99	-6,651.52	3,078.45	2,707.26	371.19	8.293		
13,900.00	7,051.30	13,579.50	7,225.39	188.49	188.53	93.24	393.22	-6,751.51	3,078.28	2,701.48	376.79	8.170		
14,000.00	7,051.00	13,679.50	7,225.08	191.29	191.35	93.24	392.45	-6,851.51	3,078.11	2,695.70	382.40	8.049		
14,100.00	7,050.70	13,779.50	7,224.77	194.09	194.17	93.24	391.69	-6,951.51	3,077.94	2,689.92	388.01	7.933		
14,200.00	7,050.40	13,879.50	7,224.45	196.89	196.98	93.24	390.92	-7,051.50	3,077.77	2,684.14	393.63	7.819		
14,300.00	7,050.11	13,979.50	7,224.14	199.70	199.81	93.24	390.15	-7,151.50	3,077.60	2,678.35	399.25	7.709		
14,400.00	7,049.81	14,079.50	7,223.83	202.50	202.63	93.24	389.38	-7,251.49	3,077.43	2,672.56	404.87	7.601		
14,500.00	7,049.51	14,179.50	7,223.52	205.31	205.45	93.24	388.62	-7,351.49	3,077.26	2,666.77	410.49	7.497		
14,600.00	7,049.21	14,279.50	7,223.21	208.12	208.27	93.24	387.85	-7,451.49	3,077.09	2,660.97	416.11	7.395		
14,700.00	7,048.92	14,379.50	7,222.89	210.93	211.10	93.24	387.08	-7,551.48	3,076.92	2,655.18	421.74	7.296		
14,800.00	7,048.62	14,479.50	7,222.58	213.74	213.92	93.24	386.31	-7,651.48	3,076.75	2,649.38	427.37	7.199		
14,900.00	7,048.32	14,579.50	7,222.27	216.55	216.75	93.24	385.55	-7,751.48	3,076.58	2,643.58	433.00	7.105		
15,000.00	7,048.02	14,679.50	7,221.96	219.37	219.58	93.24	384.78	-7,851.47	3,076.41	2,637.77	438.63	7.014		
15,100.00	7,047.73	14,779.50	7,221.65	222.18	222.40	93.24	384.01	-7,951.47	3,076.23	2,631.97	444.27	6.924		
15,200.00	7,047.43	14,879.50	7,221.33	225.00	225.23	93.24	383.24	-8,051.47	3,076.06	2,626.16	449.90	6.837		
15,300.00	7,047.13	14,979.50	7,221.02	227.81	228.06	93.24	382.48	-8,151.46	3,075.89	2,620.35	455.54	6.752		
15,315.79	7,047.08	14,995.29	7,220.97	228.26	228.51	93.24	382.35	-8,167.25	3,075.87	2,619.43	456.43	6.739		
15,343.67	7,047.00	14,987.41	7,221.00	229.04	228.28	93.24	382.41	-8,159.37	3,076.03	2,619.15	456.88	6.733 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.40	119.85	0.83	119.85					
100.00	100.00	101.00	100.00	3.28	3.28	0.40	119.85	0.83	119.85	113.28	6.57	18.243		
200.00	200.00	201.04	200.04	3.34	3.34	0.40	119.85	0.83	119.85	113.18	6.67	17.956		
300.00	299.98	305.39	304.36	3.44	3.45	176.94	117.92	0.63	119.75	112.85	6.90	17.360		
400.00	399.84	409.72	408.53	3.59	3.61	176.81	112.22	0.02	119.50	112.27	7.24	16.517		
500.00	499.45	514.04	512.41	3.79	3.82	176.58	102.75	-0.99	119.12	111.44	7.68	15.510		
600.00	598.70	618.34	615.85	4.03	4.08	176.27	89.53	-2.40	118.61	110.40	8.21	14.440		
700.00	697.47	722.61	718.72	4.31	4.38	175.86	72.58	-4.21	117.97	109.15	8.82	13.374		
800.00	795.62	826.85	820.86	4.64	4.73	175.36	51.93	-6.41	117.20	107.71	9.49	12.354		
846.34	840.87	874.11	866.93	4.80	4.90	175.10	41.45	-7.53	116.91	107.12	9.79	11.940 CC, ES		
900.00	893.06	927.76	919.21	5.00	5.10	174.85	29.45	-8.81	117.41	107.26	10.15	11.564		
1,000.00	989.64	1,027.69	1,016.58	5.40	5.50	174.50	7.12	-11.19	121.02	110.16	10.86	11.143		
1,100.00	1,085.27	1,127.43	1,113.77	5.83	5.91	174.32	-15.18	-13.57	128.10	116.49	11.61	11.031		
1,200.00	1,179.82	1,226.87	1,210.66	6.29	6.33	174.29	-37.41	-15.94	138.64	126.24	12.40	11.178		
1,300.00	1,273.17	1,325.88	1,307.14	6.79	6.77	174.40	-59.54	-18.30	152.63	139.41	13.23	11.541		
1,400.00	1,365.46	1,424.46	1,403.19	7.32	7.22	174.58	-81.58	-20.65	169.44	155.36	14.07	12.039		
1,500.00	1,457.65	1,522.99	1,499.20	7.87	7.67	174.76	-103.61	-22.99	186.52	171.58	14.94	12.485		
1,600.00	1,549.83	1,621.51	1,595.20	8.43	8.13	174.90	-125.63	-25.34	203.60	187.78	15.82	12.867		
1,700.00	1,642.02	1,720.04	1,691.21	9.01	8.60	175.02	-147.66	-27.69	220.69	203.96	16.72	13.196		
1,800.00	1,734.21	1,818.57	1,787.22	9.59	9.07	175.13	-169.68	-30.04	237.77	220.14	17.64	13.482		
1,900.00	1,826.39	1,917.10	1,883.22	10.18	9.54	175.22	-191.71	-32.39	254.86	236.30	18.56	13.732		
2,000.00	1,918.58	2,015.63	1,979.23	10.78	10.02	175.30	-213.74	-34.74	271.94	252.45	19.49	13.951		
2,100.00	2,010.77	2,114.16	2,075.24	11.39	10.51	175.37	-235.76	-37.09	289.03	268.60	20.43	14.144		
2,200.00	2,102.95	2,212.69	2,171.24	11.99	10.99	175.43	-257.79	-39.44	306.12	284.73	21.38	14.315		
2,300.00	2,195.14	2,311.22	2,267.25	12.61	11.48	175.48	-279.81	-41.79	323.20	300.87	22.34	14.468		
2,400.00	2,287.32	2,409.75	2,363.26	13.22	11.97	175.53	-301.84	-44.13	340.29	316.99	23.30	14.605		
2,500.00	2,379.51	2,508.27	2,459.26	13.84	12.46	175.58	-323.87	-46.48	357.38	333.12	24.26	14.728		
2,600.00	2,471.70	2,606.80	2,555.27	14.46	12.95	175.62	-345.89	-48.83	374.47	349.23	25.23	14.840		
2,700.00	2,563.88	2,705.33	2,651.28	15.08	13.45	175.66	-367.92	-51.18	391.56	365.35	26.21	14.940		
2,800.00	2,656.07	2,803.86	2,747.28	15.71	13.94	175.69	-389.94	-53.53	408.64	381.46	27.18	15.032		
2,900.00	2,748.26	2,902.39	2,843.29	16.33	14.44	175.72	-411.97	-55.88	425.73	397.57	28.16	15.116		
3,000.00	2,840.44	3,000.92	2,939.30	16.96	14.94	175.75	-433.99	-58.23	442.82	413.67	29.15	15.193		
3,100.00	2,932.63	3,100.55	3,035.30	17.59	15.44	175.78	-456.02	-60.58	459.91	429.77	30.14	15.261		
3,200.00	3,024.81	3,197.98	3,131.31	18.22	15.94	175.80	-478.05	-62.92	477.00	445.88	31.12	15.328		
3,300.00	3,117.00	3,303.49	3,227.32	18.86	16.48	175.83	-500.07	-65.27	494.09	461.95	32.14	15.372		
3,400.00	3,209.19	3,404.97	3,323.32	19.49	16.99	175.85	-522.10	-67.62	511.18	478.03	33.15	15.422		
3,500.00	3,301.37	3,506.44	3,419.33	20.12	17.51	175.87	-544.12	-69.97	528.26	494.11	34.15	15.468		
3,600.00	3,393.56	3,607.91	3,515.34	20.76	18.03	175.89	-566.15	-72.32	545.35	510.19	35.16	15.510		
3,700.00	3,485.75	3,709.38	3,611.34	21.39	18.55	175.91	-588.18	-74.67	562.44	526.27	36.17	15.550		
3,800.00	3,577.93	3,789.15	3,707.35	22.03	18.95	175.92	-610.20	-77.02	579.53	542.45	37.08	15.630		
3,900.00	3,670.12	3,887.68	3,803.36	22.67	19.46	175.94	-632.23	-79.37	596.62	558.54	38.08	15.669		
4,000.00	3,762.30	3,986.21	3,899.36	23.30	19.96	175.95	-654.25	-81.72	613.71	574.63	39.08	15.705		
4,100.00	3,854.49	4,084.74	3,995.37	23.94	20.47	175.97	-676.28	-84.06	630.80	590.72	40.08	15.740		
4,200.00	3,946.68	4,183.27	4,091.38	24.58	20.97	175.98	-698.31	-86.41	647.89	606.81	41.08	15.772		
4,300.00	4,038.86	4,281.79	4,187.38	25.22	21.48	175.99	-720.33	-88.76	664.98	622.90	42.08	15.803		
4,400.00	4,131.05	4,380.32	4,283.39	25.86	21.98	176.01	-742.36	-91.11	682.07	638.98	43.08	15.831		
4,500.00	4,223.24	4,478.85	4,379.40	26.50	22.49	176.02	-764.38	-93.46	699.15	655.07	44.09	15.859		
4,600.00	4,315.42	4,577.38	4,475.40	27.14	23.00	176.03	-786.41	-95.81	716.24	671.15	45.09	15.884		
4,700.00	4,407.61	4,675.91	4,571.41	27.78	23.50	176.04	-808.43	-98.16	733.33	687.24	46.10	15.909		
4,800.00	4,499.79	4,774.44	4,667.42	28.42	24.01	176.05	-830.46	-100.51	750.42	703.32	47.10	15.932		
4,900.00	4,591.98	4,872.97	4,763.42	29.06	24.52	176.06	-852.49	-102.86	767.51	719.40	48.11	15.954		
5,000.00	4,684.17	4,971.50	4,859.43	29.70	25.03	176.07	-874.51	-105.20	784.60	735.49	49.12	15.975		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,776.35	5,070.03	4,955.44	30.34	25.53	176.08	-896.54	-107.55	801.69	751.57	50.12	15.995		
5,200.00	4,868.54	5,168.55	5,051.44	30.98	26.04	176.09	-918.56	-109.90	818.78	767.65	51.13	16.014		
5,300.00	4,960.73	5,267.08	5,147.45	31.63	26.55	176.09	-940.59	-112.25	835.87	783.73	52.14	16.032		
5,400.00	5,052.91	5,365.61	5,243.46	32.27	27.06	176.10	-962.62	-114.60	852.96	799.81	53.15	16.049		
5,500.00	5,145.10	5,464.14	5,339.46	32.91	27.57	176.11	-984.64	-116.95	870.05	815.89	54.16	16.065		
5,600.00	5,237.28	5,562.67	5,435.47	33.55	28.08	176.12	-1,006.67	-119.30	887.14	831.97	55.17	16.081		
5,700.00	5,329.47	5,661.20	5,531.48	34.20	28.58	176.12	-1,028.69	-121.65	904.23	848.05	56.18	16.096		
5,800.00	5,421.66	5,759.73	5,627.48	34.84	29.09	176.13	-1,050.72	-123.99	921.32	864.13	57.19	16.111		
5,900.00	5,513.84	5,858.26	5,723.49	35.48	29.60	176.14	-1,072.75	-126.34	938.41	880.21	58.20	16.125		
6,000.00	5,606.03	5,956.79	5,819.50	36.13	30.11	176.14	-1,094.77	-128.69	955.50	896.29	59.21	16.138		
6,100.00	5,698.22	6,055.31	5,915.50	36.77	30.62	176.15	-1,116.80	-131.04	972.59	912.37	60.22	16.151		
6,200.00	5,790.40	6,153.84	6,011.51	37.41	31.13	176.15	-1,138.82	-133.39	989.68	928.44	61.23	16.163		
6,300.00	5,882.59	6,252.37	6,107.52	38.06	31.64	176.16	-1,160.85	-135.74	1,006.76	944.52	62.24	16.175		
6,400.00	5,974.77	6,350.90	6,203.52	38.70	32.15	176.16	-1,182.87	-138.09	1,023.85	960.60	63.25	16.186		
6,500.00	6,066.96	6,449.43	6,299.53	39.34	32.66	176.17	-1,204.90	-140.44	1,040.94	976.68	64.27	16.197		
6,600.00	6,159.15	6,547.96	6,395.54	39.99	33.17	176.17	-1,226.93	-142.79	1,058.03	992.75	65.28	16.208		
6,700.00	6,251.33	6,646.38	6,491.40	40.63	33.68	176.13	-1,248.93	-145.99	1,075.12	1,008.83	66.29	16.218		
6,800.00	6,343.52	6,742.91	6,584.30	41.28	34.17	175.48	-1,270.32	-160.56	1,092.31	1,025.01	67.30	16.230		
6,900.00	6,435.71	6,833.80	6,668.86	41.92	34.59	174.20	-1,289.88	-187.30	1,110.08	1,041.82	68.26	16.262		
7,000.00	6,527.86	6,916.61	6,741.95	42.56	34.96	164.91	-1,306.86	-222.19	1,129.24	1,060.10	69.14	16.333		
7,100.00	6,618.85	6,994.93	6,806.45	43.19	35.27	143.02	-1,321.92	-263.89	1,149.44	1,079.53	69.91	16.442		
7,200.00	6,706.47	7,070.73	6,863.66	43.76	35.55	126.60	-1,335.35	-311.69	1,169.76	1,099.19	70.57	16.575		
7,300.00	6,788.56	7,144.59	6,913.70	44.26	35.81	114.88	-1,347.17	-364.67	1,189.41	1,118.28	71.13	16.722		
7,400.00	6,863.10	7,216.96	6,956.59	44.70	36.04	106.47	-1,357.37	-422.00	1,207.66	1,136.04	71.62	16.862		
7,500.00	6,928.26	7,288.19	6,992.35	45.07	36.26	100.37	-1,365.97	-482.97	1,223.90	1,151.79	72.11	16.973		
7,600.00	6,982.42	7,358.57	7,020.93	45.39	36.50	95.95	-1,372.94	-546.86	1,237.59	1,164.90	72.69	17.026		
7,700.00	7,024.26	7,428.33	7,042.31	45.67	36.77	92.87	-1,378.27	-613.01	1,248.29	1,174.84	73.45	16.995		
7,800.00	7,052.75	7,500.00	7,056.79	45.92	37.13	90.88	-1,382.05	-683.06	1,255.69	1,181.18	74.51	16.853		
7,900.00	7,067.18	7,566.74	7,063.30	46.16	37.57	89.91	-1,383.97	-749.42	1,259.56	1,183.76	75.79	16.618		
8,000.00	7,068.85	7,652.37	7,063.88	46.42	38.33	89.77	-1,384.66	-835.04	1,260.13	1,182.37	77.75	16.207		
8,100.00	7,068.56	7,752.37	7,063.65	46.78	39.45	89.78	-1,385.26	-935.04	1,260.12	1,179.83	80.29	15.695		
8,200.00	7,068.26	7,852.37	7,063.42	47.29	40.81	89.78	-1,385.86	-1,035.04	1,260.12	1,176.98	83.15	15.155		
8,300.00	7,067.96	7,952.37	7,063.19	48.03	42.36	89.78	-1,386.46	-1,135.04	1,260.12	1,173.83	86.29	14.604		
8,400.00	7,067.66	8,052.37	7,062.96	49.02	44.06	89.79	-1,387.06	-1,235.04	1,260.12	1,170.44	89.68	14.051		
8,500.00	7,067.37	8,152.37	7,062.73	50.27	45.88	89.79	-1,387.66	-1,335.03	1,260.12	1,166.81	93.30	13.505		
8,600.00	7,067.07	8,252.37	7,062.50	51.75	47.81	89.79	-1,388.26	-1,435.03	1,260.12	1,162.99	97.13	12.974		
8,700.00	7,066.77	8,352.37	7,062.27	53.42	49.84	89.80	-1,388.85	-1,535.03	1,260.12	1,158.99	101.13	12.460		
8,800.00	7,066.47	8,452.37	7,062.04	55.24	51.95	89.80	-1,389.45	-1,635.03	1,260.12	1,154.82	105.29	11.968		
8,900.00	7,066.18	8,552.37	7,061.81	57.18	54.13	89.80	-1,390.05	-1,735.03	1,260.12	1,150.52	109.59	11.498		
9,000.00	7,065.88	8,652.37	7,061.58	59.21	56.37	89.80	-1,390.65	-1,835.02	1,260.11	1,146.10	114.02	11.052		
9,100.00	7,065.58	8,752.37	7,061.35	61.33	58.67	89.81	-1,391.25	-1,935.02	1,260.11	1,141.56	118.55	10.629		
9,200.00	7,065.28	8,852.37	7,061.12	63.51	61.02	89.81	-1,391.85	-2,035.02	1,260.11	1,136.92	123.19	10.229		
9,300.00	7,064.99	8,952.37	7,060.89	65.76	63.41	89.81	-1,392.45	-2,135.02	1,260.11	1,132.20	127.91	9.851		
9,400.00	7,064.69	9,052.37	7,060.65	68.06	65.83	89.82	-1,393.05	-2,235.02	1,260.11	1,127.40	132.71	9.495		
9,500.00	7,064.39	9,152.37	7,060.42	70.40	68.29	89.82	-1,393.65	-2,335.01	1,260.11	1,122.53	137.58	9.159		
9,600.00	7,064.09	9,252.37	7,060.19	72.78	70.78	89.82	-1,394.24	-2,435.01	1,260.11	1,117.59	142.51	8.842		
9,700.00	7,063.80	9,352.37	7,059.96	75.20	73.30	89.83	-1,394.84	-2,535.01	1,260.11	1,112.60	147.50	8.543		
9,800.00	7,063.50	9,452.37	7,059.73	77.65	75.84	89.83	-1,395.44	-2,635.01	1,260.10	1,107.56	152.55	8.261		
9,900.00	7,063.20	9,552.37	7,059.50	80.13	78.41	89.83	-1,396.04	-2,735.01	1,260.10	1,102.47	157.63	7.994		
10,000.00	7,062.90	9,652.37	7,059.27	82.64	80.99	89.83	-1,396.64	-2,835.00	1,260.10	1,097.34	162.76	7.742		
10,100.00	7,062.61	9,752.37	7,059.04	85.17	83.60	89.84	-1,397.24	-2,935.00	1,260.10	1,092.17	167.93	7.504		
10,200.00	7,062.31	9,852.37	7,058.81	87.72	86.21	89.84	-1,397.84	-3,035.00	1,260.10	1,086.97	173.13	7.278		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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		
10,300.00	7,062.01	9,952.37	7,058.58	90.28	88.85	89.84	-1,398.44	-3,135.00	1,260.10	1,081.74	178.36	7.065		
10,400.00	7,061.71	10,052.37	7,058.35	92.87	91.50	89.85	-1,399.04	-3,234.99	1,260.10	1,076.47	183.63	6.862		
10,500.00	7,061.41	10,152.37	7,058.12	95.47	94.16	89.85	-1,399.63	-3,334.99	1,260.10	1,071.18	188.91	6.670		
10,600.00	7,061.12	10,252.37	7,057.89	98.09	96.83	89.85	-1,400.23	-3,434.99	1,260.10	1,065.87	194.23	6.488		
10,700.00	7,060.82	10,352.37	7,057.66	100.72	99.51	89.86	-1,400.83	-3,534.99	1,260.10	1,060.53	199.56	6.314		
10,800.00	7,060.52	10,452.37	7,057.43	103.37	102.20	89.86	-1,401.43	-3,634.99	1,260.09	1,055.17	204.92	6.149		
10,900.00	7,060.22	10,552.37	7,057.20	106.02	104.90	89.86	-1,402.03	-3,734.98	1,260.09	1,049.80	210.29	5.992		
11,000.00	7,059.93	10,652.37	7,056.97	108.69	107.61	89.87	-1,402.63	-3,834.98	1,260.09	1,044.40	215.69	5.842		
11,100.00	7,059.63	10,752.37	7,056.74	111.36	110.32	89.87	-1,403.23	-3,934.98	1,260.09	1,038.99	221.10	5.699		
11,200.00	7,059.33	10,852.37	7,056.51	114.05	113.05	89.87	-1,403.83	-4,034.98	1,260.09	1,033.57	226.52	5.563		
11,300.00	7,059.03	10,952.37	7,056.28	116.74	115.78	89.87	-1,404.42	-4,134.98	1,260.09	1,028.13	231.96	5.432		
11,400.00	7,058.74	11,052.37	7,056.05	119.44	118.51	89.88	-1,405.02	-4,234.97	1,260.09	1,022.68	237.41	5.308		
11,500.00	7,058.44	11,152.37	7,055.82	122.15	121.25	89.88	-1,405.62	-4,334.97	1,260.09	1,017.21	242.87	5.188		
11,600.00	7,058.14	11,252.37	7,055.59	124.86	124.00	89.88	-1,406.22	-4,434.97	1,260.09	1,011.74	248.35	5.074		
11,700.00	7,057.84	11,352.37	7,055.36	127.58	126.75	89.89	-1,406.82	-4,534.97	1,260.08	1,006.25	253.84	4.964		
11,800.00	7,057.55	11,452.37	7,055.13	130.31	129.51	89.89	-1,407.42	-4,634.97	1,260.08	1,000.75	259.33	4.859		
11,900.00	7,057.25	11,552.37	7,054.90	133.04	132.27	89.89	-1,408.02	-4,734.96	1,260.08	995.25	264.84	4.758		
12,000.00	7,056.95	11,652.37	7,054.66	135.78	135.03	89.90	-1,408.62	-4,834.96	1,260.08	989.73	270.35	4.661		
12,100.00	7,056.65	11,752.37	7,054.43	138.52	137.80	89.90	-1,409.22	-4,934.96	1,260.08	984.21	275.87	4.568		
12,200.00	7,056.36	11,852.37	7,054.20	141.27	140.58	89.90	-1,409.81	-5,034.96	1,260.08	978.68	281.40	4.478		
12,300.00	7,056.06	11,952.37	7,053.97	144.02	143.35	89.91	-1,410.41	-5,134.96	1,260.08	973.14	286.94	4.391		
12,400.00	7,055.76	12,052.37	7,053.74	146.78	146.13	89.91	-1,411.01	-5,234.95	1,260.08	967.59	292.49	4.308		
12,500.00	7,055.46	12,152.37	7,053.51	149.54	148.91	89.91	-1,411.61	-5,334.95	1,260.08	962.04	298.04	4.228		
12,600.00	7,055.17	12,252.37	7,053.28	152.30	151.70	89.91	-1,412.21	-5,434.95	1,260.08	956.48	303.59	4.151		
12,700.00	7,054.87	12,352.37	7,053.05	155.07	154.48	89.92	-1,412.81	-5,534.95	1,260.07	950.92	309.16	4.076		
12,800.00	7,054.57	12,452.37	7,052.82	157.84	157.27	89.92	-1,413.41	-5,634.94	1,260.07	945.35	314.73	4.004		
12,900.00	7,054.27	12,552.37	7,052.59	160.61	160.07	89.92	-1,414.01	-5,734.94	1,260.07	939.77	320.30	3.934		
13,000.00	7,053.97	12,652.37	7,052.36	163.39	162.86	89.93	-1,414.60	-5,834.94	1,260.07	934.19	325.88	3.867		
13,100.00	7,053.68	12,752.37	7,052.13	166.17	165.66	89.93	-1,415.20	-5,934.94	1,260.07	928.61	331.46	3.802		
13,200.00	7,053.38	12,852.37	7,051.90	168.95	168.46	89.93	-1,415.80	-6,034.94	1,260.07	923.02	337.05	3.738		
13,300.00	7,053.08	12,952.37	7,051.67	171.73	171.26	89.94	-1,416.40	-6,134.93	1,260.07	917.42	342.64	3.677		
13,400.00	7,052.78	13,052.37	7,051.44	174.52	174.06	89.94	-1,417.00	-6,234.93	1,260.07	911.83	348.24	3.618		
13,500.00	7,052.49	13,152.37	7,051.21	177.31	176.87	89.94	-1,417.60	-6,334.93	1,260.07	906.22	353.84	3.561		
13,600.00	7,052.19	13,252.37	7,050.98	180.10	179.67	89.94	-1,418.20	-6,434.93	1,260.07	900.62	359.45	3.506		
13,700.00	7,051.89	13,352.37	7,050.75	182.90	182.48	89.95	-1,418.80	-6,534.93	1,260.06	895.01	365.05	3.452		
13,800.00	7,051.59	13,452.37	7,050.52	185.69	185.29	89.95	-1,419.40	-6,634.92	1,260.06	889.40	370.67	3.399		
13,900.00	7,051.30	13,552.37	7,050.29	188.49	188.10	89.95	-1,419.99	-6,734.92	1,260.06	883.78	376.28	3.349		
14,000.00	7,051.00	13,652.37	7,050.06	191.29	190.91	89.96	-1,420.59	-6,834.92	1,260.06	878.16	381.90	3.299		
14,100.00	7,050.70	13,752.37	7,049.83	194.09	193.73	89.96	-1,421.19	-6,934.92	1,260.06	872.54	387.52	3.252		
14,200.00	7,050.40	13,852.37	7,049.60	196.89	196.54	89.96	-1,421.79	-7,034.92	1,260.06	866.92	393.14	3.205		
14,300.00	7,050.11	13,952.37	7,049.37	199.70	199.36	89.97	-1,422.39	-7,134.91	1,260.06	861.29	398.77	3.160		
14,400.00	7,049.81	14,052.37	7,049.14	202.50	202.18	89.97	-1,422.99	-7,234.91	1,260.06	855.66	404.40	3.116		
14,500.00	7,049.51	14,152.37	7,048.91	205.31	205.00	89.97	-1,423.59	-7,334.91	1,260.06	850.03	410.03	3.073		
14,600.00	7,049.21	14,252.37	7,048.67	208.12	207.82	89.98	-1,424.19	-7,434.91	1,260.06	844.40	415.66	3.031		
14,700.00	7,048.92	14,352.37	7,048.44	210.93	210.64	89.98	-1,424.79	-7,534.91	1,260.05	838.76	421.30	2.991		
14,800.00	7,048.62	14,452.37	7,048.21	213.74	213.46	89.98	-1,425.38	-7,634.90	1,260.05	833.12	426.93	2.951		
14,900.00	7,048.32	14,552.37	7,047.98	216.55	216.28	89.98	-1,425.98	-7,734.90	1,260.05	827.48	432.57	2.913		
15,000.00	7,048.02	14,652.37	7,047.75	219.37	219.11	89.99	-1,426.58	-7,834.90	1,260.05	821.84	438.21	2.875		
15,100.00	7,047.73	14,752.37	7,047.52	222.18	221.93	89.99	-1,427.18	-7,934.90	1,260.05	816.19	443.86	2.839		
15,200.00	7,047.43	14,852.37	7,047.29	225.00	224.76	89.99	-1,427.78	-8,034.89	1,260.05	810.55	449.50	2.803		
15,300.00	7,047.13	14,952.37	7,047.06	227.81	227.58	90.00	-1,428.38	-8,134.89	1,260.05	804.90	455.15	2.768		
15,334.58	7,047.03	14,986.95	7,046.98	228.79	228.56	90.00	-1,428.59	-8,169.47	1,260.05	802.94	457.10	2.757 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	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)		
15,343.67	7,047.00	14,979.18	7,047.00	229.04	228.34	90.00	-1,428.54	-8,161.70	1,260.16	803.25	456.91	2.758	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	0.00	20.03	0.00	20.03					
100.00	100.00	100.00	100.00	3.28	3.28	0.00	20.03	0.00	20.03	13.46	6.57	3.049		
200.00	200.00	200.00	200.00	3.34	3.34	0.00	20.03	0.00	20.03	13.35	6.67	3.001		
300.00	299.98	300.70	300.68	3.44	3.44	176.57	18.26	-0.11	20.02	13.13	6.89	2.905		
400.00	399.84	401.40	401.24	3.59	3.59	176.50	12.97	-0.45	19.98	12.76	7.22	2.768		
500.00	499.45	502.10	501.54	3.79	3.80	176.39	4.15	-1.01	19.92	12.27	7.65	2.605		
600.00	598.70	602.80	601.48	4.03	4.04	176.23	-8.19	-1.79	19.84	11.67	8.17	2.430		
700.00	697.47	703.49	700.91	4.31	4.32	176.03	-24.01	-2.80	19.74	10.98	8.76	2.254		
800.00	795.62	804.18	799.72	4.64	4.65	175.78	-43.32	-4.03	19.61	10.20	9.40	2.085		
900.00	893.06	904.87	897.78	5.00	5.02	175.48	-66.08	-5.47	19.46	9.35	10.10	1.926		
1,000.00	989.64	1,005.55	994.97	5.40	5.42	175.13	-92.26	-7.14	19.28	8.44	10.84	1.779		
1,100.00	1,085.27	1,106.22	1,091.18	5.83	5.86	174.73	-121.83	-9.02	19.09	7.47	11.62	1.644		
1,200.00	1,179.82	1,206.88	1,186.28	6.29	6.33	174.27	-154.75	-11.11	18.87	6.45	12.42	1.519		
1,230.89	1,208.78	1,237.93	1,215.37	6.45	6.48	174.12	-165.56	-11.80	18.81	6.14	12.68	1.484 Level 3, CC		
1,300.00	1,273.17	1,307.03	1,280.05	6.79	6.82	174.08	-189.86	-13.34	19.64	6.39	13.25	1.482 Level 3		
1,400.00	1,365.46	1,406.97	1,373.58	7.32	7.34	174.63	-224.99	-15.57	23.15	9.03	14.12	1.639		
1,500.00	1,457.65	1,506.90	1,467.10	7.87	7.87	175.09	-260.12	-17.81	26.94	11.93	15.02	1.794		
1,600.00	1,549.83	1,606.83	1,560.62	8.43	8.41	175.44	-295.25	-20.04	30.74	14.80	15.94	1.928		
1,700.00	1,642.02	1,706.76	1,654.15	9.01	8.96	175.71	-330.39	-22.27	34.53	17.65	16.88	2.046		
1,800.00	1,734.21	1,806.68	1,747.67	9.59	9.52	175.93	-365.52	-24.50	38.32	20.49	17.83	2.149		
1,900.00	1,826.39	1,906.61	1,841.19	10.18	10.09	176.10	-400.65	-26.74	42.12	23.31	18.80	2.240		
2,000.00	1,918.58	2,006.54	1,934.71	10.78	10.66	176.25	-435.78	-28.97	45.91	26.12	19.79	2.320		
2,100.00	2,010.77	2,106.47	2,028.24	11.39	11.24	176.38	-470.91	-31.20	49.71	28.93	20.78	2.392		
2,200.00	2,102.95	2,206.39	2,121.76	11.99	11.82	176.48	-506.04	-33.44	53.50	31.72	21.78	2.456		
2,300.00	2,195.14	2,306.32	2,215.28	12.61	12.40	176.58	-541.17	-35.67	57.30	34.50	22.79	2.514		
2,400.00	2,287.32	2,406.25	2,308.80	13.22	12.99	176.66	-576.30	-37.90	61.09	37.28	23.81	2.566		
2,500.00	2,379.51	2,506.18	2,402.33	13.84	13.58	176.73	-611.43	-40.13	64.89	40.06	24.83	2.613		
2,600.00	2,471.70	2,606.11	2,495.85	14.46	14.17	176.80	-646.56	-42.37	68.68	42.82	25.86	2.656		
2,700.00	2,563.88	2,706.03	2,589.37	15.08	14.76	176.85	-681.69	-44.60	72.48	45.59	26.89	2.695		
2,800.00	2,656.07	2,805.96	2,682.89	15.71	15.36	176.91	-716.82	-46.83	76.27	48.35	27.93	2.731		
2,900.00	2,748.26	2,905.89	2,776.42	16.33	15.96	176.95	-751.95	-49.07	80.07	51.10	28.97	2.764		
3,000.00	2,840.44	3,005.82	2,869.94	16.96	16.55	176.99	-787.08	-51.30	83.87	53.85	30.01	2.794		
3,100.00	2,932.63	3,105.75	2,963.46	17.59	17.15	177.03	-822.21	-53.53	87.66	56.60	31.06	2.822		
3,200.00	3,024.81	3,205.67	3,056.98	18.22	17.75	177.07	-857.34	-55.76	91.46	59.35	32.11	2.848		
3,300.00	3,117.00	3,305.60	3,150.51	18.86	18.36	177.10	-892.47	-58.00	95.25	62.09	33.16	2.873		
3,400.00	3,209.19	3,405.53	3,244.03	19.49	18.96	177.13	-927.60	-60.23	99.05	64.83	34.21	2.895		
3,500.00	3,301.37	3,505.46	3,337.55	20.12	19.56	177.16	-962.73	-62.46	102.84	67.57	35.27	2.916		
3,600.00	3,393.56	3,605.39	3,431.07	20.76	20.17	177.19	-997.87	-64.70	106.64	70.31	36.33	2.935		
3,700.00	3,485.75	3,705.31	3,524.60	21.39	20.77	177.21	-1,033.00	-66.93	110.44	73.05	37.39	2.954		
3,800.00	3,577.93	3,805.24	3,618.12	22.03	21.38	177.23	-1,068.13	-69.16	114.23	75.78	38.45	2.971		
3,900.00	3,670.12	3,905.17	3,711.64	22.67	21.98	177.25	-1,103.26	-71.39	118.03	78.52	39.51	2.987		
4,000.00	3,762.30	4,005.10	3,805.16	23.30	22.59	177.27	-1,138.39	-73.63	121.82	81.25	40.58	3.002		
4,100.00	3,854.49	4,105.03	3,898.69	23.94	23.20	177.29	-1,173.52	-75.86	125.62	83.98	41.64	3.017		
4,200.00	3,946.68	4,204.95	3,992.21	24.58	23.80	177.31	-1,208.65	-78.09	129.42	86.71	42.71	3.030		
4,300.00	4,038.86	4,304.88	4,085.73	25.22	24.41	177.33	-1,243.78	-80.32	133.21	89.44	43.77	3.043		
4,400.00	4,131.05	4,404.81	4,179.25	25.86	25.02	177.34	-1,278.91	-82.56	137.01	92.17	44.84	3.055		
4,500.00	4,223.24	4,504.74	4,272.78	26.50	25.63	177.36	-1,314.04	-84.79	140.81	94.89	45.91	3.067		
4,600.00	4,315.42	4,604.66	4,366.30	27.14	26.24	177.37	-1,349.17	-87.02	144.60	97.62	46.98	3.078		
4,700.00	4,407.61	4,704.59	4,459.82	27.78	26.85	177.39	-1,384.30	-89.26	148.40	100.35	48.05	3.088		
4,800.00	4,499.79	4,804.52	4,553.34	28.42	27.46	177.40	-1,419.43	-91.49	152.19	103.07	49.12	3.098		
4,900.00	4,591.98	4,904.45	4,646.87	29.06	28.07	177.41	-1,454.56	-93.72	155.99	105.79	50.19	3.108		
5,000.00	4,684.17	5,004.38	4,740.39	29.70	28.68	177.42	-1,489.69	-95.95	159.79	108.52	51.27	3.117		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,776.35	5,104.30	4,833.91	30.34	29.29	177.43	-1,524.82	-98.19	163.58	111.24	52.34	3.125		
5,200.00	4,868.54	5,204.23	4,927.43	30.98	29.90	177.44	-1,559.95	-100.42	167.38	113.96	53.41	3.134		
5,300.00	4,960.73	5,304.16	5,020.96	31.63	30.51	177.45	-1,595.08	-102.65	171.17	116.69	54.49	3.141		
5,400.00	5,052.91	5,404.09	5,114.48	32.27	31.12	177.46	-1,630.21	-104.89	174.97	119.41	55.56	3.149		
5,500.00	5,145.10	5,504.02	5,208.00	32.91	31.73	177.47	-1,665.35	-107.12	178.77	122.13	56.64	3.156		
5,600.00	5,237.28	5,603.94	5,301.52	33.55	32.34	177.48	-1,700.48	-109.35	182.56	124.85	57.72	3.163		
5,700.00	5,329.47	5,703.87	5,395.05	34.20	32.95	177.49	-1,735.61	-111.58	186.36	127.57	58.79	3.170		
5,800.00	5,421.66	5,803.80	5,488.57	34.84	33.56	177.50	-1,770.74	-113.82	190.15	130.29	59.87	3.176		
5,900.00	5,513.84	5,903.73	5,582.09	35.48	34.18	177.51	-1,805.87	-116.05	193.95	133.01	60.94	3.182		
6,000.00	5,606.03	6,003.66	5,675.61	36.13	34.79	177.51	-1,841.00	-118.28	197.75	135.72	62.02	3.188		
6,100.00	5,698.22	6,103.58	5,769.13	36.77	35.40	177.52	-1,876.13	-120.52	201.54	138.44	63.10	3.194		
6,200.00	5,790.40	6,203.51	5,862.66	37.41	36.01	177.53	-1,911.26	-122.75	205.34	141.16	64.18	3.200		
6,300.00	5,882.59	6,303.44	5,956.18	38.06	36.62	177.53	-1,946.39	-124.98	209.14	143.88	65.26	3.205		
6,400.00	5,974.77	6,403.37	6,049.70	38.70	37.24	177.54	-1,981.52	-127.21	212.93	146.60	66.33	3.210		
6,500.00	6,066.96	6,503.30	6,143.22	39.34	37.85	177.55	-2,016.65	-129.45	216.73	149.31	67.41	3.215		
6,600.00	6,159.15	6,603.22	6,236.75	39.99	38.46	177.55	-2,051.78	-131.68	220.52	152.03	68.49	3.220		
6,700.00	6,251.33	6,703.15	6,330.27	40.63	39.08	177.56	-2,086.91	-133.91	224.32	154.75	69.57	3.224		
6,800.00	6,343.52	6,803.08	6,423.79	41.28	39.69	177.56	-2,122.04	-136.15	228.12	157.46	70.65	3.229		
6,900.00	6,435.71	6,903.01	6,517.31	41.92	40.30	177.57	-2,157.17	-138.38	231.91	160.18	71.73	3.233		
7,000.00	6,527.86	7,002.92	6,610.82	42.56	40.91	170.63	-2,192.30	-140.61	235.73	162.92	72.81	3.238		
7,100.00	6,618.85	7,103.10	6,704.51	43.19	41.53	154.52	-2,227.50	-144.33	240.03	166.18	73.85	3.250		
7,200.00	6,706.47	7,206.01	6,799.30	43.76	42.14	144.10	-2,263.23	-161.86	245.02	170.12	74.89	3.272		
7,300.00	6,788.56	7,311.39	6,892.28	44.26	42.70	137.84	-2,298.40	-196.46	250.39	174.57	75.82	3.302		
7,400.00	6,863.10	7,419.24	6,980.53	44.70	43.20	134.27	-2,331.94	-248.33	255.86	179.32	76.53	3.343		
7,500.00	6,928.26	7,529.47	7,060.90	45.07	43.64	132.27	-2,362.65	-317.02	261.07	184.08	76.99	3.391		
7,600.00	6,982.42	7,641.89	7,130.17	45.39	44.03	131.19	-2,389.31	-401.26	265.71	188.40	77.31	3.437		
7,700.00	7,024.26	7,756.16	7,185.23	45.67	44.36	130.61	-2,410.74	-498.89	269.44	191.72	77.72	3.467		
7,800.00	7,052.75	7,871.83	7,223.41	45.92	44.66	130.31	-2,425.91	-606.84	272.01	193.45	78.56	3.463		
7,900.00	7,067.18	7,988.33	7,242.75	46.16	44.95	130.14	-2,434.06	-721.27	273.24	193.14	80.09	3.411		
8,000.00	7,068.85	8,096.76	7,244.75	46.42	45.28	130.07	-2,435.65	-829.62	273.25	191.06	82.19	3.324		
8,100.00	7,068.56	8,203.24	7,244.25	46.78	45.75	130.04	-2,436.24	-929.62	273.13	188.67	84.46	3.234		
8,200.00	7,068.26	8,303.24	7,243.75	47.29	46.41	130.00	-2,436.83	-1,029.61	273.01	186.17	86.83	3.144		
8,300.00	7,067.96	8,403.24	7,243.25	48.03	47.32	129.97	-2,437.42	-1,129.61	272.88	183.50	89.38	3.053		
8,400.00	7,067.66	8,503.24	7,242.75	49.02	48.50	129.93	-2,438.01	-1,229.61	272.76	180.67	92.09	2.962		
8,500.00	7,067.37	8,603.24	7,242.25	50.27	49.92	129.90	-2,438.60	-1,329.60	272.64	177.70	94.93	2.872		
8,600.00	7,067.07	8,703.24	7,241.75	51.75	51.53	129.87	-2,439.18	-1,429.60	272.51	174.60	97.91	2.783		
8,700.00	7,066.77	8,803.24	7,241.24	53.42	53.30	129.83	-2,439.77	-1,529.60	272.39	171.38	101.01	2.697		
8,800.00	7,066.47	8,903.24	7,240.74	55.24	55.19	129.80	-2,440.36	-1,629.60	272.27	168.05	104.22	2.612		
8,900.00	7,066.18	9,003.24	7,240.24	57.18	57.18	129.76	-2,440.95	-1,729.59	272.15	164.62	107.53	2.531		
9,000.00	7,065.88	9,103.24	7,239.74	59.21	59.26	129.73	-2,441.54	-1,829.59	272.02	161.09	110.93	2.452		
9,100.00	7,065.58	9,203.24	7,239.24	61.33	61.41	129.69	-2,442.13	-1,929.59	271.90	157.48	114.42	2.376		
9,200.00	7,065.28	9,303.24	7,238.74	63.51	63.62	129.66	-2,442.71	-2,029.58	271.78	153.80	117.98	2.304		
9,300.00	7,064.99	9,403.24	7,238.24	65.76	65.89	129.63	-2,443.30	-2,129.58	271.66	150.04	121.62	2.234		
9,400.00	7,064.69	9,503.24	7,237.74	68.06	68.20	129.59	-2,443.89	-2,229.58	271.54	146.22	125.32	2.167		
9,500.00	7,064.39	9,596.76	7,237.24	70.40	70.41	129.56	-2,444.48	-2,329.57	271.41	142.46	128.96	2.105		
9,600.00	7,064.09	9,703.25	7,236.74	72.78	72.96	129.52	-2,445.07	-2,429.57	271.29	138.40	132.89	2.041		
9,700.00	7,063.80	9,796.75	7,236.24	75.20	75.23	129.49	-2,445.65	-2,529.57	271.17	134.54	136.63	1.985		
9,800.00	7,063.50	9,896.75	7,235.74	77.65	77.69	129.45	-2,446.24	-2,629.56	271.05	130.50	140.55	1.929		
9,900.00	7,063.20	10,003.25	7,235.24	80.13	80.34	129.42	-2,446.83	-2,729.56	270.93	126.30	144.63	1.873		
10,000.00	7,062.90	10,103.25	7,234.74	82.64	82.85	129.39	-2,447.42	-2,829.56	270.81	122.18	148.63	1.822		
10,100.00	7,062.61	10,203.25	7,234.24	85.17	85.39	129.35	-2,448.01	-2,929.55	270.68	118.02	152.66	1.773		
10,200.00	7,062.31	10,303.25	7,233.73	87.72	87.95	129.32	-2,448.60	-3,029.55	270.56	113.83	156.74	1.726		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,062.01	10,403.25	7,233.23	90.28	90.52	129.28	-2,449.18	-3,129.55	270.44	109.60	160.84	1.681		
10,400.00	7,061.71	10,503.25	7,232.73	92.87	93.11	129.25	-2,449.77	-3,229.54	270.32	105.35	164.97	1.639		
10,500.00	7,061.41	10,603.25	7,232.23	95.47	95.72	129.21	-2,450.36	-3,329.54	270.20	101.06	169.14	1.598		
10,600.00	7,061.12	10,703.25	7,231.73	98.09	98.34	129.18	-2,450.95	-3,429.54	270.08	96.75	173.33	1.558		
10,700.00	7,060.82	10,803.25	7,231.23	100.72	100.98	129.14	-2,451.54	-3,529.53	269.96	92.42	177.54	1.521		
10,800.00	7,060.52	10,903.25	7,230.73	103.37	103.63	129.11	-2,452.12	-3,629.53	269.84	88.06	181.78	1.484	Level 3	
10,900.00	7,060.22	11,003.25	7,230.23	106.02	106.28	129.07	-2,452.71	-3,729.53	269.72	83.67	186.04	1.450	Level 3	
11,000.00	7,059.93	11,103.25	7,229.73	108.69	108.95	129.04	-2,453.30	-3,829.52	269.60	79.27	190.33	1.417	Level 3	
11,100.00	7,059.63	11,203.25	7,229.23	111.36	111.63	129.00	-2,453.89	-3,929.52	269.48	74.85	194.63	1.385	Level 3	
11,200.00	7,059.33	11,303.25	7,228.73	114.05	114.32	128.97	-2,454.48	-4,029.52	269.36	70.41	198.95	1.354	Level 3	
11,300.00	7,059.03	11,403.25	7,228.23	116.74	117.01	128.93	-2,455.07	-4,129.52	269.24	65.94	203.29	1.324	Level 3	
11,400.00	7,058.74	11,503.25	7,227.73	119.44	119.72	128.90	-2,455.65	-4,229.51	269.12	61.47	207.65	1.296	Level 3	
11,500.00	7,058.44	11,603.25	7,227.23	122.15	122.43	128.86	-2,456.24	-4,329.51	269.00	56.97	212.02	1.269	Level 3	
11,600.00	7,058.14	11,703.25	7,226.72	124.86	125.14	128.83	-2,456.83	-4,429.51	268.88	52.46	216.41	1.242	Level 2	
11,700.00	7,057.84	11,803.25	7,226.22	127.58	127.87	128.79	-2,457.42	-4,529.50	268.76	47.94	220.82	1.217	Level 2	
11,800.00	7,057.55	11,903.25	7,225.72	130.31	130.59	128.76	-2,458.01	-4,629.50	268.64	43.40	225.24	1.193	Level 2	
11,900.00	7,057.25	12,003.25	7,225.22	133.04	133.33	128.72	-2,458.59	-4,729.50	268.52	38.85	229.67	1.169	Level 2	
12,000.00	7,056.95	12,103.25	7,224.72	135.78	136.07	128.69	-2,459.18	-4,829.49	268.40	34.28	234.12	1.146	Level 2	
12,100.00	7,056.65	12,203.25	7,224.22	138.52	138.81	128.65	-2,459.77	-4,929.49	268.28	29.70	238.58	1.124	Level 2	
12,200.00	7,056.36	12,303.25	7,223.72	141.27	141.56	128.62	-2,460.36	-5,029.49	268.16	25.11	243.05	1.103	Level 2	
12,300.00	7,056.06	12,403.25	7,223.22	144.02	144.32	128.58	-2,460.95	-5,129.48	268.04	20.51	247.53	1.083	Level 2	
12,400.00	7,055.76	12,503.25	7,222.72	146.78	147.07	128.55	-2,461.54	-5,229.48	267.92	15.90	252.03	1.063	Level 2	
12,500.00	7,055.46	12,603.25	7,222.22	149.54	149.83	128.51	-2,462.12	-5,329.48	267.80	11.27	256.53	1.044	Level 2	
12,600.00	7,055.17	12,703.25	7,221.72	152.30	152.60	128.48	-2,462.71	-5,429.47	267.68	6.64	261.05	1.025	Level 2	
12,700.00	7,054.87	12,796.75	7,221.22	155.07	155.19	128.44	-2,463.30	-5,529.47	267.57	2.14	265.43	1.008	Level 2	
12,800.00	7,054.57	12,903.25	7,220.72	157.84	158.14	128.41	-2,463.89	-5,629.47	267.45	-2.66	270.11	0.990	Level 1	
12,900.00	7,054.27	13,003.25	7,220.22	160.61	160.91	128.37	-2,464.48	-5,729.46	267.33	-7.33	274.66	0.973	Level 1	
13,000.00	7,053.97	13,103.25	7,219.72	163.39	163.69	128.34	-2,465.06	-5,829.46	267.21	-12.00	279.21	0.957	Level 1	
13,100.00	7,053.68	13,203.25	7,219.21	166.17	166.47	128.30	-2,465.65	-5,929.46	267.09	-16.68	283.77	0.941	Level 1	
13,200.00	7,053.38	13,303.25	7,218.71	168.95	169.25	128.26	-2,466.24	-6,029.45	266.97	-21.37	288.35	0.926	Level 1	
13,300.00	7,053.08	13,403.25	7,218.21	171.73	172.04	128.23	-2,466.83	-6,129.45	266.86	-26.07	292.93	0.911	Level 1	
13,400.00	7,052.78	13,496.75	7,217.71	174.52	174.65	128.19	-2,467.42	-6,229.45	266.74	-30.64	297.37	0.897	Level 1	
13,500.00	7,052.49	13,603.25	7,217.21	177.31	177.62	128.16	-2,468.01	-6,329.45	266.62	-35.50	302.12	0.883	Level 1	
13,600.00	7,052.19	13,696.75	7,216.71	180.10	180.23	128.12	-2,468.59	-6,429.44	266.50	-40.08	306.58	0.869	Level 1	
13,700.00	7,051.89	13,803.25	7,216.21	182.90	183.20	128.09	-2,469.18	-6,529.44	266.38	-44.95	311.34	0.856	Level 1	
13,800.00	7,051.59	13,903.25	7,215.71	185.69	186.00	128.05	-2,469.77	-6,629.44	266.27	-49.69	315.96	0.843	Level 1	
13,900.00	7,051.30	13,996.75	7,215.21	188.49	188.62	128.02	-2,470.36	-6,729.43	266.15	-54.29	320.44	0.831	Level 1	
14,000.00	7,051.00	14,103.25	7,214.71	191.29	191.60	127.98	-2,470.95	-6,829.43	266.03	-59.19	325.23	0.818	Level 1	
14,100.00	7,050.70	14,203.25	7,214.21	194.09	194.40	127.94	-2,471.53	-6,929.43	265.92	-63.96	329.87	0.806	Level 1	
14,200.00	7,050.40	14,303.25	7,213.71	196.89	197.20	127.91	-2,472.12	-7,029.42	265.80	-68.72	334.52	0.795	Level 1	
14,300.00	7,050.11	14,396.75	7,213.21	199.70	199.83	127.87	-2,472.71	-7,129.42	265.68	-73.35	339.03	0.784	Level 1	
14,400.00	7,049.81	14,503.26	7,212.71	202.50	202.82	127.84	-2,473.30	-7,229.42	265.56	-78.28	343.84	0.772	Level 1	
14,500.00	7,049.51	14,603.26	7,212.21	205.31	205.62	127.80	-2,473.89	-7,329.41	265.45	-83.07	348.52	0.762	Level 1	
14,600.00	7,049.21	14,703.26	7,211.70	208.12	208.43	127.76	-2,474.48	-7,429.41	265.33	-87.86	353.19	0.751	Level 1	
14,700.00	7,048.92	14,803.26	7,211.20	210.93	211.24	127.73	-2,475.06	-7,529.41	265.21	-92.67	357.88	0.741	Level 1	
14,800.00	7,048.62	14,903.26	7,210.70	213.74	214.06	127.69	-2,475.65	-7,629.40	265.10	-97.47	362.57	0.731	Level 1	
14,900.00	7,048.32	15,003.26	7,210.20	216.55	216.87	127.66	-2,476.24	-7,729.40	264.98	-102.29	367.27	0.721	Level 1	
15,000.00	7,048.02	15,103.26	7,209.70	219.37	219.68	127.62	-2,476.83	-7,829.40	264.86	-107.11	371.97	0.712	Level 1	
15,100.00	7,047.73	15,203.26	7,209.20	222.18	222.50	127.58	-2,477.42	-7,929.39	264.75	-111.93	376.68	0.703	Level 1	
15,200.00	7,047.43	15,303.26	7,208.70	225.00	225.32	127.55	-2,478.00	-8,029.39	264.63	-116.76	381.40	0.694	Level 1	
15,300.00	7,047.13	15,396.74	7,208.20	227.81	227.95	127.51	-2,478.59	-8,129.39	264.52	-121.45	385.97	0.685	Level 1	
15,343.56	7,047.00	15,440.30	7,207.98	229.04	229.18	127.50	-2,478.85	-8,172.95	264.47	-123.56	388.03	0.682	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	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)		
15,343.67	7,047.00	15,437.48	7,208.00	229.04	229.10	127.50	-2,478.83	-8,170.12	264.48	-123.31	387.79	0.682	Level 1



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	0.00	0.00	3.28	3.28	0.40	40.07	0.28	40.07					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	40.07	0.28	40.07	33.50	6.57	6.099		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	40.07	0.28	40.07	33.39	6.67	6.003		
300.00	299.98	301.42	301.39	3.44	3.44	176.96	38.27	0.15	40.04	33.15	6.89	5.810		
400.00	399.84	402.83	402.66	3.59	3.60	176.88	32.91	-0.22	39.97	32.75	7.22	5.535		
500.00	499.45	504.24	503.67	3.79	3.80	176.75	23.96	-0.84	39.85	32.20	7.65	5.207		
600.00	598.70	605.64	604.29	4.03	4.05	176.56	11.46	-1.70	39.69	31.51	8.17	4.855		
700.00	697.47	707.04	704.40	4.31	4.34	176.32	-4.58	-2.81	39.48	30.71	8.77	4.503		
800.00	795.62	808.43	803.87	4.64	4.67	176.02	-24.15	-4.16	39.22	29.80	9.42	4.164		
900.00	893.06	909.81	902.57	5.00	5.04	175.67	-47.21	-5.76	38.92	28.80	10.12	3.846		
1,000.00	989.64	1,011.17	1,000.38	5.40	5.44	175.25	-73.74	-7.59	38.58	27.71	10.86	3.551		
1,100.00	1,085.27	1,112.52	1,097.17	5.83	5.88	174.77	-103.70	-9.67	38.19	26.55	11.64	3.281		
1,159.11	1,141.29	1,172.42	1,153.85	6.10	6.16	174.45	-123.00	-11.00	37.94	25.83	12.12	3.132 CC		
1,200.00	1,179.82	1,213.22	1,192.36	6.29	6.35	174.29	-136.46	-11.93	38.16	25.72	12.44	3.067		
1,300.00	1,273.17	1,313.17	1,286.69	6.79	6.84	174.26	-169.44	-14.21	41.13	27.85	13.27	3.098		
1,400.00	1,365.46	1,413.00	1,380.90	7.32	7.35	174.58	-202.37	-16.49	46.93	32.79	14.14	3.319		
1,500.00	1,457.65	1,512.82	1,475.10	7.87	7.87	174.86	-235.30	-18.77	53.02	37.99	15.04	3.526		
1,600.00	1,549.83	1,612.63	1,569.30	8.43	8.40	175.08	-268.24	-21.05	59.11	43.16	15.95	3.706		
1,700.00	1,642.02	1,712.45	1,663.49	9.01	8.94	175.27	-301.17	-23.33	65.20	48.31	16.89	3.861		
1,800.00	1,734.21	1,812.26	1,757.69	9.59	9.48	175.42	-334.10	-25.60	71.29	53.45	17.84	3.997		
1,900.00	1,826.39	1,912.07	1,851.89	10.18	10.03	175.54	-367.03	-27.88	77.38	58.58	18.80	4.116		
2,000.00	1,918.58	2,011.89	1,946.09	10.78	10.59	175.65	-399.96	-30.16	83.47	63.70	19.78	4.221		
2,100.00	2,010.77	2,111.70	2,040.28	11.39	11.15	175.74	-432.90	-32.44	89.56	68.80	20.76	4.314		
2,200.00	2,102.95	2,211.52	2,134.48	11.99	11.71	175.83	-465.83	-34.72	95.66	73.90	21.76	4.396		
2,300.00	2,195.14	2,311.33	2,228.68	12.61	12.28	175.90	-498.76	-36.99	101.75	78.99	22.76	4.471		
2,400.00	2,287.32	2,411.14	2,322.88	13.22	12.85	175.96	-531.69	-39.27	107.84	84.07	23.77	4.537		
2,500.00	2,379.51	2,510.96	2,417.07	13.84	13.42	176.02	-564.62	-41.55	113.93	89.15	24.78	4.597		
2,600.00	2,471.70	2,610.77	2,511.27	14.46	13.99	176.07	-597.56	-43.83	120.02	94.22	25.80	4.652		
2,700.00	2,563.88	2,710.59	2,605.47	15.08	14.57	176.12	-630.49	-46.11	126.11	99.29	26.82	4.702		
2,800.00	2,656.07	2,810.40	2,699.67	15.71	15.14	176.16	-663.42	-48.38	132.21	104.36	27.85	4.747		
2,900.00	2,748.26	2,910.22	2,793.86	16.33	15.72	176.20	-696.35	-50.66	138.30	109.42	28.88	4.788		
3,000.00	2,840.44	3,010.03	2,888.06	16.96	16.30	176.23	-729.28	-52.94	144.39	114.48	29.92	4.827		
3,100.00	2,932.63	3,109.84	2,982.26	17.59	16.88	176.26	-762.22	-55.22	150.48	119.53	30.95	4.862		
3,200.00	3,024.81	3,209.66	3,076.46	18.22	17.47	176.29	-795.15	-57.50	156.58	124.58	31.99	4.894		
3,300.00	3,117.00	3,309.47	3,170.65	18.86	18.05	176.32	-828.08	-59.77	162.67	129.63	33.03	4.924		
3,400.00	3,209.19	3,409.29	3,264.85	19.49	18.64	176.35	-861.01	-62.05	168.76	134.68	34.08	4.952		
3,500.00	3,301.37	3,509.10	3,359.05	20.12	19.22	176.37	-893.94	-64.33	174.85	139.73	35.12	4.978		
3,600.00	3,393.56	3,608.92	3,453.25	20.76	19.81	176.39	-926.87	-66.61	180.95	144.77	36.17	5.002		
3,700.00	3,485.75	3,708.73	3,547.45	21.39	20.39	176.41	-959.81	-68.89	187.04	149.82	37.22	5.025		
3,800.00	3,577.93	3,808.54	3,641.64	22.03	20.98	176.43	-992.74	-71.16	193.13	154.86	38.27	5.046		
3,900.00	3,670.12	3,908.36	3,735.84	22.67	21.57	176.45	-1,025.67	-73.44	199.22	159.90	39.32	5.066		
4,000.00	3,762.30	4,008.17	3,830.04	23.30	22.16	176.47	-1,058.60	-75.72	205.32	164.94	40.38	5.085		
4,100.00	3,854.49	4,107.99	3,924.24	23.94	22.74	176.48	-1,091.53	-78.00	211.41	169.98	41.43	5.103		
4,200.00	3,946.68	4,207.80	4,018.43	24.58	23.33	176.50	-1,124.47	-80.28	217.50	175.01	42.49	5.119		
4,300.00	4,038.86	4,307.62	4,112.63	25.22	23.92	176.51	-1,157.40	-82.55	223.59	180.05	43.54	5.135		
4,400.00	4,131.05	4,407.43	4,206.83	25.86	24.51	176.53	-1,190.33	-84.83	229.69	185.08	44.60	5.150		
4,500.00	4,223.24	4,507.24	4,301.03	26.50	25.10	176.54	-1,223.26	-87.11	235.78	190.12	45.66	5.164		
4,600.00	4,315.42	4,607.06	4,395.22	27.14	25.69	176.55	-1,256.19	-89.39	241.87	195.15	46.72	5.177		
4,700.00	4,407.61	4,706.87	4,489.42	27.78	26.28	176.56	-1,289.13	-91.67	247.96	200.19	47.78	5.190		
4,800.00	4,499.79	4,806.69	4,583.62	28.42	26.87	176.58	-1,322.06	-93.94	254.06	205.22	48.84	5.202		
4,900.00	4,591.98	4,906.50	4,677.82	29.06	27.47	176.59	-1,354.99	-96.22	260.15	210.25	49.90	5.213		
5,000.00	4,684.17	5,006.31	4,772.01	29.70	28.06	176.60	-1,387.92	-98.50	266.24	215.28	50.96	5.224		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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		
5,100.00	4,776.35	5,106.13	4,866.21	30.34	28.65	176.61	-1,420.85	-100.78	272.33	220.31	52.02	5.235		
5,200.00	4,868.54	5,205.94	4,960.41	30.98	29.24	176.62	-1,453.79	-103.06	278.43	225.34	53.09	5.245		
5,300.00	4,960.73	5,305.76	5,054.61	31.63	29.83	176.62	-1,486.72	-105.33	284.52	230.37	54.15	5.254		
5,400.00	5,052.91	5,405.57	5,148.80	32.27	30.42	176.63	-1,519.65	-107.61	290.61	235.40	55.21	5.263		
5,500.00	5,145.10	5,505.39	5,243.00	32.91	31.02	176.64	-1,552.58	-109.89	296.70	240.43	56.28	5.272		
5,600.00	5,237.28	5,605.20	5,337.20	33.55	31.61	176.65	-1,585.51	-112.17	302.80	245.45	57.34	5.280		
5,700.00	5,329.47	5,705.01	5,431.40	34.20	32.20	176.66	-1,618.44	-114.45	308.89	250.48	58.41	5.288		
5,800.00	5,421.66	5,804.83	5,525.59	34.84	32.80	176.66	-1,651.38	-116.72	314.98	255.51	59.48	5.296		
5,900.00	5,513.84	5,904.64	5,619.79	35.48	33.39	176.67	-1,684.31	-119.00	321.08	260.53	60.54	5.303		
6,000.00	5,606.03	6,004.46	5,713.99	36.13	33.98	176.68	-1,717.24	-121.28	327.17	265.56	61.61	5.311		
6,100.00	5,698.22	6,104.27	5,808.19	36.77	34.58	176.68	-1,750.17	-123.56	333.26	270.59	62.67	5.317		
6,200.00	5,790.40	6,204.09	5,902.38	37.41	35.17	176.69	-1,783.10	-125.84	339.35	275.61	63.74	5.324		
6,300.00	5,882.59	6,303.90	5,996.58	38.06	35.76	176.70	-1,816.04	-128.11	345.45	280.64	64.81	5.330		
6,400.00	5,974.77	6,403.71	6,090.78	38.70	36.36	176.70	-1,848.97	-130.39	351.54	285.66	65.88	5.336		
6,500.00	6,066.96	6,503.53	6,184.98	39.34	36.95	176.71	-1,881.90	-132.67	357.63	290.69	66.94	5.342		
6,600.00	6,159.15	6,603.34	6,279.17	39.99	37.54	176.71	-1,914.83	-134.95	363.72	295.71	68.01	5.348		
6,700.00	6,251.33	6,703.16	6,373.37	40.63	38.14	176.72	-1,947.76	-137.23	369.82	300.74	69.08	5.353		
6,800.00	6,343.52	6,802.97	6,467.57	41.28	38.73	176.72	-1,980.70	-139.50	375.91	305.76	70.15	5.359		
6,900.00	6,435.71	6,902.80	6,561.78	41.92	39.33	176.73	-2,013.63	-141.79	382.00	310.78	71.22	5.364		
7,000.00	6,527.86	7,002.25	6,655.01	42.56	39.91	168.40	-2,046.29	-152.37	388.11	315.79	72.32	5.367		
7,100.00	6,618.85	7,099.94	6,743.95	43.19	40.44	147.82	-2,077.57	-177.60	394.39	320.96	73.43	5.371		
7,200.00	6,706.47	7,196.15	6,826.93	43.76	40.92	132.60	-2,106.88	-216.24	400.67	326.18	74.49	5.379		
7,300.00	6,788.56	7,291.02	6,902.43	44.26	41.33	121.96	-2,133.67	-266.90	406.76	331.28	75.48	5.389		
7,400.00	6,863.10	7,384.74	6,969.19	44.70	41.69	114.50	-2,157.50	-328.07	412.43	336.05	76.38	5.399		
7,500.00	6,928.26	7,477.46	7,026.18	45.07	42.00	109.18	-2,177.98	-398.18	417.50	340.25	77.26	5.404		
7,600.00	6,982.42	7,569.36	7,072.57	45.39	42.28	105.39	-2,194.82	-475.61	421.80	343.63	78.17	5.396		
7,700.00	7,024.26	7,660.62	7,107.74	45.67	42.53	102.75	-2,207.78	-558.73	425.16	345.94	79.22	5.367		
7,800.00	7,052.75	7,751.38	7,131.22	45.92	42.78	101.07	-2,216.69	-645.87	427.48	346.98	80.50	5.311		
7,900.00	7,067.18	7,841.83	7,142.76	46.16	43.04	100.21	-2,221.45	-735.38	428.67	346.62	82.05	5.224		
8,000.00	7,068.85	7,937.01	7,143.71	46.42	43.40	100.05	-2,222.55	-830.52	428.80	344.74	84.06	5.101		
8,100.00	7,068.56	8,037.01	7,143.14	46.78	43.95	100.02	-2,223.17	-930.52	428.74	342.24	86.49	4.957		
8,200.00	7,068.26	8,137.01	7,142.57	47.29	44.75	99.98	-2,223.78	-1,030.52	428.67	339.45	89.22	4.805		
8,300.00	7,067.96	8,237.01	7,142.01	48.03	45.82	99.95	-2,224.39	-1,130.51	428.61	336.40	92.21	4.648		
8,400.00	7,067.66	8,337.01	7,141.44	49.02	47.15	99.91	-2,225.01	-1,230.51	428.55	333.11	95.44	4.490		
8,500.00	7,067.37	8,437.01	7,140.87	50.27	48.69	99.88	-2,225.62	-1,330.50	428.49	329.60	98.89	4.333		
8,600.00	7,067.07	8,537.01	7,140.30	51.75	50.40	99.84	-2,226.23	-1,430.50	428.43	325.90	102.53	4.178		
8,700.00	7,066.77	8,637.01	7,139.73	53.42	52.24	99.81	-2,226.84	-1,530.50	428.37	322.02	106.35	4.028		
8,800.00	7,066.47	8,737.01	7,139.16	55.24	54.19	99.77	-2,227.46	-1,630.49	428.31	317.98	110.32	3.882		
8,900.00	7,066.18	8,837.01	7,138.59	57.18	56.23	99.74	-2,228.07	-1,730.49	428.25	313.81	114.44	3.742		
9,000.00	7,065.88	8,937.01	7,138.03	59.21	58.35	99.70	-2,228.68	-1,830.48	428.19	309.51	118.68	3.608		
9,100.00	7,065.58	9,037.01	7,137.46	61.33	60.54	99.67	-2,229.30	-1,930.48	428.12	305.09	123.03	3.480		
9,200.00	7,065.28	9,137.01	7,136.89	63.51	62.78	99.63	-2,229.91	-2,030.48	428.06	300.58	127.49	3.358		
9,300.00	7,064.99	9,237.01	7,136.32	65.76	65.08	99.59	-2,230.52	-2,130.47	428.00	295.97	132.04	3.242		
9,400.00	7,064.69	9,337.01	7,135.75	68.06	67.43	99.56	-2,231.13	-2,230.47	427.94	291.28	136.67	3.131		
9,500.00	7,064.39	9,437.01	7,135.18	70.40	69.81	99.52	-2,231.75	-2,330.47	427.88	286.51	141.37	3.027		
9,600.00	7,064.09	9,537.01	7,134.62	72.78	72.23	99.49	-2,232.36	-2,430.46	427.83	281.68	146.14	2.927		
9,700.00	7,063.80	9,637.01	7,134.05	75.20	74.69	99.45	-2,232.97	-2,530.46	427.77	276.79	150.98	2.833		
9,800.00	7,063.50	9,737.01	7,133.48	77.65	77.17	99.42	-2,233.59	-2,630.45	427.71	271.84	155.86	2.744		
9,900.00	7,063.20	9,837.01	7,132.91	80.13	79.68	99.38	-2,234.20	-2,730.45	427.65	266.84	160.80	2.659		
10,000.00	7,062.90	9,937.01	7,132.34	82.64	82.21	99.35	-2,234.81	-2,830.45	427.59	261.80	165.79	2.579		
10,100.00	7,062.61	10,037.01	7,131.77	85.17	84.76	99.31	-2,235.43	-2,930.44	427.53	256.71	170.82	2.503		
10,200.00	7,062.31	10,137.01	7,131.20	87.72	87.33	99.28	-2,236.04	-3,030.44	427.47	251.59	175.88	2.430		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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		
10,300.00	7,062.01	10,237.01	7,130.64	90.28	89.92	99.24	-2,236.65	-3,130.43	427.41	246.43	180.99	2.362		
10,400.00	7,061.71	10,337.01	7,130.07	92.87	92.53	99.20	-2,237.26	-3,230.43	427.35	241.23	186.12	2.296		
10,500.00	7,061.41	10,437.01	7,129.50	95.47	95.15	99.17	-2,237.88	-3,330.43	427.30	236.01	191.29	2.234		
10,600.00	7,061.12	10,537.01	7,128.93	98.09	97.79	99.13	-2,238.49	-3,430.42	427.24	230.76	196.48	2.174		
10,700.00	7,060.82	10,637.00	7,128.36	100.72	100.43	99.10	-2,239.10	-3,530.42	427.18	225.48	201.70	2.118		
10,800.00	7,060.52	10,737.00	7,127.79	103.37	103.09	99.06	-2,239.72	-3,630.42	427.12	220.18	206.94	2.064		
10,900.00	7,060.22	10,837.00	7,127.23	106.02	105.76	99.03	-2,240.33	-3,730.41	427.07	214.86	212.21	2.012		
11,000.00	7,059.93	10,937.00	7,126.66	108.69	108.44	98.99	-2,240.94	-3,830.41	427.01	209.52	217.49	1.963		
11,100.00	7,059.63	11,037.00	7,126.09	111.36	111.13	98.96	-2,241.56	-3,930.40	426.95	204.15	222.80	1.916		
11,200.00	7,059.33	11,137.00	7,125.52	114.05	113.82	98.92	-2,242.17	-4,030.40	426.89	198.77	228.12	1.871		
11,300.00	7,059.03	11,237.00	7,124.95	116.74	116.53	98.88	-2,242.78	-4,130.40	426.84	193.38	233.46	1.828		
11,400.00	7,058.74	11,337.00	7,124.38	119.44	119.24	98.85	-2,243.39	-4,230.39	426.78	187.96	238.82	1.787		
11,500.00	7,058.44	11,437.00	7,123.81	122.15	121.96	98.81	-2,244.01	-4,330.39	426.72	182.54	244.19	1.748		
11,600.00	7,058.14	11,537.00	7,123.25	124.86	124.68	98.78	-2,244.62	-4,430.38	426.67	177.10	249.57	1.710		
11,700.00	7,057.84	11,637.00	7,122.68	127.58	127.41	98.74	-2,245.23	-4,530.38	426.61	171.64	254.97	1.673		
11,800.00	7,057.55	11,737.00	7,122.11	130.31	130.15	98.71	-2,245.85	-4,630.38	426.56	166.18	260.38	1.638		
11,900.00	7,057.25	11,837.00	7,121.54	133.04	132.89	98.67	-2,246.46	-4,730.37	426.50	160.70	265.80	1.605		
12,000.00	7,056.95	11,937.00	7,120.97	135.78	135.64	98.63	-2,247.07	-4,830.37	426.44	155.21	271.23	1.572		
12,100.00	7,056.65	12,037.00	7,120.40	138.52	138.39	98.60	-2,247.69	-4,930.37	426.39	149.72	276.67	1.541		
12,200.00	7,056.36	12,137.00	7,119.84	141.27	141.14	98.56	-2,248.30	-5,030.36	426.33	144.21	282.13	1.511		
12,300.00	7,056.06	12,237.00	7,119.27	144.02	143.90	98.53	-2,248.91	-5,130.36	426.28	138.69	287.59	1.482 Level 3		
12,400.00	7,055.76	12,337.00	7,118.70	146.78	146.67	98.49	-2,249.52	-5,230.35	426.22	133.17	293.06	1.454 Level 3		
12,500.00	7,055.46	12,437.00	7,118.13	149.54	149.43	98.46	-2,250.14	-5,330.35	426.17	127.63	298.54	1.428 Level 3		
12,600.00	7,055.17	12,537.00	7,117.56	152.30	152.20	98.42	-2,250.75	-5,430.35	426.11	122.09	304.02	1.402 Level 3		
12,700.00	7,054.87	12,637.00	7,116.99	155.07	154.98	98.38	-2,251.36	-5,530.34	426.06	116.54	309.52	1.377 Level 3		
12,800.00	7,054.57	12,737.00	7,116.43	157.84	157.75	98.35	-2,251.98	-5,630.34	426.01	110.99	315.02	1.352 Level 3		
12,900.00	7,054.27	12,837.00	7,115.86	160.61	160.53	98.31	-2,252.59	-5,730.33	425.95	105.42	320.53	1.329 Level 3		
13,000.00	7,053.97	12,937.00	7,115.29	163.39	163.32	98.28	-2,253.20	-5,830.33	425.90	99.85	326.04	1.306 Level 3		
13,100.00	7,053.68	13,037.00	7,114.72	166.17	166.10	98.24	-2,253.82	-5,930.33	425.84	94.28	331.57	1.284 Level 3		
13,200.00	7,053.38	13,137.00	7,114.15	168.95	168.89	98.21	-2,254.43	-6,030.32	425.79	88.70	337.09	1.263 Level 3		
13,300.00	7,053.08	13,237.00	7,113.58	171.73	171.68	98.17	-2,255.04	-6,130.32	425.74	83.11	342.63	1.243 Level 2		
13,400.00	7,052.78	13,336.99	7,113.01	174.52	174.47	98.13	-2,255.65	-6,230.32	425.68	77.52	348.16	1.223 Level 2		
13,500.00	7,052.49	13,436.99	7,112.45	177.31	177.26	98.10	-2,256.27	-6,330.31	425.63	71.92	353.71	1.203 Level 2		
13,600.00	7,052.19	13,536.99	7,111.88	180.10	180.06	98.06	-2,256.88	-6,430.31	425.58	66.32	359.26	1.185 Level 2		
13,700.00	7,051.89	13,636.99	7,111.31	182.90	182.86	98.03	-2,257.49	-6,530.30	425.52	60.71	364.81	1.166 Level 2		
13,800.00	7,051.59	13,736.99	7,110.74	185.69	185.66	97.99	-2,258.11	-6,630.30	425.47	55.10	370.37	1.149 Level 2		
13,900.00	7,051.30	13,836.99	7,110.17	188.49	188.46	97.96	-2,258.72	-6,730.30	425.42	49.49	375.93	1.132 Level 2		
14,000.00	7,051.00	13,936.99	7,109.60	191.29	191.26	97.92	-2,259.33	-6,830.29	425.37	43.87	381.50	1.115 Level 2		
14,100.00	7,050.70	14,036.99	7,109.04	194.09	194.07	97.88	-2,259.94	-6,930.29	425.31	38.24	387.07	1.099 Level 2		
14,200.00	7,050.40	14,136.99	7,108.47	196.89	196.87	97.85	-2,260.56	-7,030.28	425.26	32.61	392.65	1.083 Level 2		
14,300.00	7,050.11	14,236.99	7,107.90	199.70	199.68	97.81	-2,261.17	-7,130.28	425.21	26.98	398.23	1.068 Level 2		
14,400.00	7,049.81	14,336.99	7,107.33	202.50	202.49	97.78	-2,261.78	-7,230.28	425.16	21.35	403.81	1.053 Level 2		
14,500.00	7,049.51	14,436.99	7,106.76	205.31	205.30	97.74	-2,262.40	-7,330.27	425.11	15.71	409.40	1.038 Level 2		
14,600.00	7,049.21	14,536.99	7,106.19	208.12	208.11	97.70	-2,263.01	-7,430.27	425.06	10.07	414.99	1.024 Level 2		
14,700.00	7,048.92	14,636.99	7,105.62	210.93	210.93	97.67	-2,263.62	-7,530.26	425.00	4.42	420.58	1.011 Level 2		
14,800.00	7,048.62	14,736.99	7,105.06	213.74	213.74	97.63	-2,264.24	-7,630.26	424.95	-1.23	426.18	0.997 Level 1		
14,900.00	7,048.32	14,836.99	7,104.49	216.55	216.56	97.60	-2,264.85	-7,730.26	424.90	-6.88	431.78	0.984 Level 1		
15,000.00	7,048.02	14,936.99	7,103.92	219.37	219.37	97.56	-2,265.46	-7,830.25	424.85	-12.53	437.39	0.971 Level 1		
15,100.00	7,047.73	15,036.99	7,103.35	222.18	222.19	97.52	-2,266.07	-7,930.25	424.80	-18.19	442.99	0.959 Level 1		
15,200.00	7,047.43	15,136.99	7,102.78	225.00	225.01	97.49	-2,266.69	-8,030.25	424.75	-23.85	448.60	0.947 Level 1		
15,300.00	7,047.13	15,236.99	7,102.21	227.81	227.83	97.45	-2,267.30	-8,130.24	424.70	-29.51	454.21	0.935 Level 1		
15,343.67	7,047.00	15,280.66	7,101.97	229.04	229.06	97.44	-2,267.57	-8,173.91	424.68	-31.99	456.67	0.930 Level 1, 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	0.01	0.47	440.08	3.62	440.10					
100.00	100.00	103.00	100.00	3.28	0.19	0.47	440.08	3.62	440.10	436.62	3.47	126.706		
200.00	200.00	203.00	200.00	3.34	0.63	0.47	440.08	3.62	440.10	436.13	3.96	111.010 CC, ES		
300.00	299.98	302.98	299.98	3.44	1.07	177.07	440.08	3.62	441.84	437.33	4.51	98.052		
400.00	399.84	402.84	399.84	3.59	1.50	177.10	440.08	3.62	447.07	441.97	5.10	87.720		
500.00	499.45	502.45	499.45	3.79	1.94	177.15	440.08	3.62	455.77	450.04	5.73	79.488		
600.00	598.70	587.53	584.51	4.03	2.32	177.17	441.41	3.44	469.48	463.12	6.36	73.792		
700.00	697.47	671.58	668.48	4.31	2.69	177.16	445.17	2.92	489.51	482.48	7.03	69.630		
800.00	795.62	753.81	750.48	4.64	3.05	177.12	451.21	2.10	515.72	508.00	7.72	66.817		
900.00	893.06	833.78	830.03	5.00	3.41	177.06	459.33	1.00	547.94	539.53	8.41	65.119		
1,000.00	989.64	911.12	906.71	5.40	3.75	176.97	469.26	-0.35	585.97	576.87	9.11	64.335		
1,100.00	1,085.27	985.50	980.18	5.83	4.09	176.87	480.75	-1.92	629.58	619.79	9.79	64.294		
1,200.00	1,179.82	1,062.29	1,055.72	6.29	4.43	176.75	494.43	-3.78	678.37	667.89	10.48	64.718		
1,300.00	1,273.17	1,147.54	1,139.50	6.79	4.81	176.63	510.04	-5.90	730.64	719.42	11.22	65.130		
1,400.00	1,365.46	1,231.26	1,221.78	7.32	5.19	176.57	525.38	-7.99	785.32	773.36	11.96	65.662		
1,500.00	1,457.65	1,314.83	1,303.91	7.87	5.57	176.55	540.68	-10.07	840.24	827.54	12.70	66.167		
1,600.00	1,549.83	1,401.59	1,386.04	8.43	5.97	176.54	555.98	-12.15	895.15	881.69	13.47	66.479		
1,700.00	1,642.02	1,481.98	1,468.17	9.01	6.34	176.52	571.29	-14.23	950.07	935.85	14.21	66.837		
1,800.00	1,734.21	1,565.55	1,550.31	9.59	6.73	176.51	586.59	-16.32	1,004.98	989.99	14.99	67.050		
1,900.00	1,826.39	1,649.12	1,632.44	10.18	7.12	176.49	601.90	-18.40	1,059.90	1,044.13	15.77	67.206		
2,000.00	1,918.58	1,732.69	1,714.57	10.78	7.52	176.48	617.20	-20.48	1,114.81	1,098.25	16.56	67.317		
2,100.00	2,010.77	1,816.27	1,796.70	11.39	7.91	176.47	632.50	-22.56	1,169.73	1,152.37	17.36	67.392		
2,200.00	2,102.95	1,900.16	1,878.84	11.99	8.30	176.46	647.81	-24.64	1,224.64	1,206.48	18.16	67.435		
2,300.00	2,195.14	1,983.41	1,960.97	12.61	8.70	176.46	663.11	-26.73	1,279.56	1,260.59	18.97	67.467		
2,400.00	2,287.32	2,066.98	2,043.10	13.22	9.09	176.45	678.41	-28.81	1,334.47	1,314.70	19.78	67.477		
2,500.00	2,379.51	2,150.55	2,125.23	13.84	9.48	176.44	693.72	-30.89	1,389.39	1,368.80	20.59	67.473		
2,600.00	2,471.70	2,234.13	2,207.37	14.46	9.88	176.43	709.02	-32.97	1,444.30	1,422.89	21.41	67.459		
2,700.00	2,563.88	2,317.70	2,289.50	15.08	10.27	176.43	724.33	-35.05	1,499.22	1,476.99	22.23	67.437		
2,800.00	2,656.07	2,401.27	2,371.63	15.71	10.67	176.42	739.63	-37.14	1,554.14	1,531.08	23.06	67.409		
2,900.00	2,748.26	2,484.84	2,453.76	16.33	11.07	176.42	754.93	-39.22	1,609.05	1,585.17	23.88	67.375		
3,000.00	2,840.44	2,568.41	2,535.90	16.96	11.46	176.41	770.24	-41.30	1,663.97	1,639.26	24.71	67.338		
3,100.00	2,932.63	2,651.99	2,618.03	17.59	11.86	176.41	785.54	-43.38	1,718.88	1,693.34	25.54	67.298		
3,200.00	3,024.81	2,735.56	2,700.16	18.22	12.26	176.40	800.85	-45.46	1,773.80	1,747.42	26.37	67.256		
3,300.00	3,117.00	2,819.13	2,782.29	18.86	12.65	176.40	816.15	-47.54	1,828.71	1,801.50	27.21	67.212		
3,400.00	3,209.19	2,902.70	2,864.43	19.49	13.05	176.39	831.45	-49.63	1,883.63	1,855.58	28.04	67.168		
3,500.00	3,301.37	2,986.27	2,946.56	20.12	13.45	176.39	846.76	-51.71	1,938.54	1,909.66	28.88	67.122		
3,600.00	3,393.56	3,069.85	3,028.69	20.76	13.84	176.39	862.06	-53.79	1,993.46	1,963.74	29.72	67.077		
3,700.00	3,485.75	3,153.42	3,110.82	21.39	14.24	176.38	877.37	-55.87	2,048.38	2,017.82	30.56	67.031		
3,800.00	3,577.93	3,236.99	3,192.95	22.03	14.64	176.38	892.67	-57.95	2,103.29	2,071.89	31.40	66.985		
3,900.00	3,670.12	3,320.56	3,275.09	22.67	15.04	176.38	907.97	-60.04	2,158.21	2,125.97	32.24	66.940		
4,000.00	3,762.30	3,404.13	3,357.22	23.30	15.43	176.38	923.28	-62.12	2,213.12	2,180.04	33.08	66.895		
4,100.00	3,854.49	3,487.71	3,439.35	23.94	15.83	176.37	938.58	-64.20	2,268.04	2,234.11	33.93	66.850		
4,200.00	3,946.68	3,571.28	3,521.48	24.58	16.23	176.37	953.88	-66.28	2,322.95	2,288.18	34.77	66.807		
4,300.00	4,038.86	3,654.85	3,603.62	25.22	16.63	176.37	969.19	-68.36	2,377.87	2,342.25	35.62	66.763		
4,400.00	4,131.05	3,738.42	3,685.75	25.86	17.02	176.37	984.49	-70.45	2,432.78	2,396.32	36.46	66.721		
4,500.00	4,223.24	3,821.99	3,767.88	26.50	17.42	176.36	999.80	-72.53	2,487.70	2,450.39	37.31	66.679		
4,600.00	4,315.42	3,905.57	3,850.01	27.14	17.82	176.36	1,015.10	-74.61	2,542.62	2,504.46	38.16	66.637		
4,700.00	4,407.61	3,989.14	3,932.15	27.78	18.22	176.36	1,030.40	-76.69	2,597.53	2,558.53	39.00	66.597		
4,800.00	4,499.79	4,072.71	4,014.28	28.42	18.62	176.36	1,045.71	-78.77	2,652.45	2,612.59	39.85	66.557		
4,900.00	4,591.98	4,156.28	4,096.41	29.06	19.01	176.36	1,061.01	-80.86	2,707.36	2,666.66	40.70	66.518		
5,000.00	4,684.17	4,239.85	4,178.54	29.70	19.41	176.35	1,076.32	-82.94	2,762.28	2,720.73	41.55	66.479		
5,100.00	4,776.35	4,323.43	4,260.68	30.34	19.81	176.35	1,091.62	-85.02	2,817.19	2,774.79	42.40	66.442		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 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	4,868.54	4,407.00	4,342.81	30.98	20.21	176.35	1,106.92	-87.10	2,872.11	2,828.86	43.25	66.405		
5,300.00	4,960.73	4,509.43	4,424.94	31.63	20.70	176.35	1,122.23	-89.18	2,927.02	2,882.83	44.19	66.236		
5,400.00	5,052.91	4,574.14	4,507.07	32.27	21.01	176.35	1,137.53	-91.27	2,981.94	2,936.99	44.95	66.333		
5,500.00	5,145.10	4,657.71	4,589.21	32.91	21.40	176.35	1,152.84	-93.35	3,036.86	2,991.05	45.81	66.298		
5,600.00	5,237.28	4,741.28	4,671.34	33.55	21.80	176.34	1,168.14	-95.43	3,091.77	3,045.11	46.66	66.264		
5,700.00	5,329.47	4,824.86	4,753.47	34.20	22.20	176.34	1,183.44	-97.51	3,146.69	3,099.18	47.51	66.230		
5,800.00	5,421.66	4,908.43	4,835.60	34.84	22.60	176.34	1,198.75	-99.59	3,201.60	3,153.24	48.37	66.197		
5,900.00	5,513.84	4,992.00	4,917.74	35.48	23.00	176.34	1,214.05	-101.68	3,256.52	3,207.30	49.22	66.164		
6,000.00	5,606.03	5,075.57	4,999.87	36.13	23.40	176.34	1,229.35	-103.76	3,311.43	3,261.36	50.07	66.132		
6,100.00	5,698.22	5,159.14	5,082.00	36.77	23.80	176.34	1,244.66	-105.84	3,366.35	3,315.42	50.93	66.101		
6,200.00	5,790.40	5,242.72	5,164.13	37.41	24.19	176.34	1,259.96	-107.92	3,421.26	3,369.48	51.78	66.070		
6,300.00	5,882.59	5,326.29	5,246.26	38.06	24.59	176.34	1,275.27	-110.00	3,476.18	3,423.54	52.64	66.039		
6,400.00	5,974.77	5,409.86	5,328.40	38.70	24.99	176.33	1,290.57	-112.09	3,531.10	3,477.60	53.49	66.009		
6,500.00	6,066.96	5,506.57	5,410.53	39.34	25.45	176.33	1,305.87	-114.17	3,586.01	3,531.60	54.41	65.906		
6,600.00	6,159.15	5,577.00	5,492.66	39.99	25.79	176.33	1,321.18	-116.25	3,640.93	3,585.72	55.21	65.951		
6,700.00	6,251.33	5,660.58	5,574.79	40.63	26.19	176.33	1,336.48	-118.33	3,695.84	3,639.78	56.06	65.922		
6,800.00	6,343.52	5,744.15	5,656.93	41.28	26.59	176.33	1,351.79	-120.41	3,750.76	3,693.84	56.92	65.894		
6,900.00	6,435.71	5,827.72	5,739.06	41.92	26.99	176.33	1,367.09	-122.50	3,805.67	3,747.90	57.78	65.867		
7,000.00	6,527.86	5,911.28	5,821.18	42.56	27.38	167.33	1,382.39	-124.58	3,860.58	3,801.94	58.64	65.839		
7,100.00	6,618.85	5,994.08	5,902.55	43.19	27.78	143.23	1,397.55	-126.64	3,914.97	3,855.48	59.48	65.816		
7,200.00	6,706.47	6,074.18	5,981.27	43.76	28.16	124.90	1,412.22	-128.64	3,967.70	3,907.42	60.29	65.812		
7,300.00	6,788.56	6,149.62	6,055.41	44.26	28.52	111.60	1,426.04	-130.51	4,017.80	3,956.77	61.03	65.833		
7,400.00	6,863.10	6,218.53	6,123.13	44.70	28.85	101.90	1,438.65	-132.23	4,064.46	4,002.75	61.71	65.867		
7,500.00	6,928.26	6,279.22	6,182.78	45.07	29.14	94.71	1,449.77	-133.74	4,107.03	4,044.69	62.34	65.885		
7,600.00	6,982.42	6,330.19	6,232.87	45.39	29.38	89.32	1,459.10	-135.01	4,144.99	4,082.04	62.95	65.843		
7,700.00	7,024.26	6,370.19	6,272.19	45.67	29.57	85.30	1,466.43	-136.01	4,177.93	4,114.33	63.60	65.695		
7,800.00	7,052.75	6,401.76	6,299.75	45.92	29.72	82.36	1,471.56	-136.71	4,205.48	4,141.16	64.32	65.385		
7,900.00	7,067.18	6,413.64	6,314.89	46.16	29.78	80.35	1,474.38	-137.09	4,227.32	4,162.23	65.09	64.946		
8,000.00	7,068.85	6,417.51	6,318.69	46.42	29.80	79.64	1,475.09	-137.19	4,244.11	4,178.14	65.96	64.340		
8,100.00	7,068.56	6,419.60	6,320.75	46.78	29.81	79.67	1,475.48	-137.24	4,262.04	4,195.06	66.99	63.627		
8,200.00	7,068.26	6,421.69	6,322.80	47.29	29.82	79.70	1,475.86	-137.29	4,282.23	4,214.09	68.14	62.843		
8,300.00	7,067.96	8,153.20	7,257.27	48.03	43.70	92.53	1,633.57	-1,199.30	4,284.91	4,196.53	88.37	48.486		
8,400.00	7,067.66	8,253.19	7,256.85	49.02	45.53	92.53	1,631.91	-1,299.28	4,283.84	4,191.99	91.85	46.640		
8,500.00	7,067.37	8,353.19	7,256.43	50.27	47.46	92.53	1,630.25	-1,399.26	4,282.78	4,187.24	95.54	44.829		
8,600.00	7,067.07	8,453.18	7,256.01	51.75	49.49	92.53	1,628.60	-1,499.24	4,281.71	4,182.30	99.41	43.069		
8,700.00	7,066.77	8,553.18	7,255.59	53.42	51.59	92.53	1,626.94	-1,599.22	4,280.65	4,177.18	103.46	41.374		
8,800.00	7,066.47	8,653.17	7,255.17	55.24	53.76	92.53	1,625.28	-1,699.20	4,279.58	4,171.92	107.66	39.751		
8,900.00	7,066.18	8,753.16	7,254.75	57.18	55.99	92.53	1,623.62	-1,799.18	4,278.52	4,166.53	111.99	38.204		
9,000.00	7,065.88	8,853.16	7,254.32	59.21	58.28	92.53	1,621.96	-1,899.16	4,277.45	4,161.01	116.44	36.735		
9,100.00	7,065.58	8,953.15	7,253.90	61.33	60.62	92.53	1,620.30	-1,999.14	4,276.39	4,155.39	120.99	35.344		
9,200.00	7,065.28	9,053.15	7,253.48	63.51	63.00	92.52	1,618.64	-2,099.12	4,275.32	4,149.68	125.64	34.027		
9,300.00	7,064.99	9,153.14	7,253.06	65.76	65.41	92.52	1,616.99	-2,199.10	4,274.26	4,143.88	130.38	32.784		
9,400.00	7,064.69	9,253.14	7,252.64	68.06	67.87	92.52	1,615.33	-2,299.08	4,273.19	4,138.01	135.18	31.610		
9,500.00	7,064.39	9,353.13	7,252.22	70.40	70.35	92.52	1,613.67	-2,399.06	4,272.12	4,132.06	140.06	30.502		
9,600.00	7,064.09	9,453.12	7,251.80	72.78	72.86	92.52	1,612.01	-2,499.04	4,271.06	4,126.06	145.00	29.456		
9,700.00	7,063.80	9,553.12	7,251.38	75.20	75.39	92.52	1,610.35	-2,599.02	4,269.99	4,120.01	149.99	28.469		
9,800.00	7,063.50	9,653.11	7,250.96	77.65	77.95	92.52	1,608.69	-2,699.00	4,268.93	4,113.90	155.03	27.536		
9,900.00	7,063.20	9,753.11	7,250.54	80.13	80.52	92.52	1,607.03	-2,798.98	4,267.86	4,107.75	160.11	26.655		
10,000.00	7,062.90	9,853.10	7,250.12	82.64	83.12	92.52	1,605.38	-2,898.96	4,266.80	4,101.56	165.24	25.822		
10,100.00	7,062.61	9,953.10	7,249.70	85.17	85.73	92.52	1,603.72	-2,998.94	4,265.73	4,095.33	170.40	25.033		
10,200.00	7,062.31	10,053.09	7,249.28	87.72	88.36	92.51	1,602.06	-3,098.91	4,264.67	4,089.07	175.60	24.286		
10,300.00	7,062.01	10,153.08	7,248.86	90.28	91.00	92.51	1,600.40	-3,198.89	4,263.60	4,082.78	180.83	23.578		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,400.00	7,061.71	10,253.08	7,248.44	92.87	93.65	92.51	1,598.74	-3,298.87	4,262.54	4,076.46	186.08	22.907		
10,500.00	7,061.41	10,353.07	7,248.02	95.47	96.31	92.51	1,597.08	-3,398.85	4,261.47	4,070.11	191.36	22.269		
10,600.00	7,061.12	10,453.07	7,247.60	98.09	98.99	92.51	1,595.42	-3,498.83	4,260.41	4,063.74	196.67	21.663		
10,700.00	7,060.82	10,553.06	7,247.18	100.72	101.67	92.51	1,593.77	-3,598.81	4,259.34	4,057.35	202.00	21.086		
10,800.00	7,060.52	10,653.06	7,246.76	103.37	104.37	92.51	1,592.11	-3,698.79	4,258.28	4,050.93	207.35	20.537		
10,900.00	7,060.22	10,753.05	7,246.34	106.02	107.07	92.51	1,590.45	-3,798.77	4,257.21	4,044.50	212.71	20.014		
11,000.00	7,059.93	10,853.04	7,245.92	108.69	109.78	92.51	1,588.79	-3,898.75	4,256.15	4,038.05	218.10	19.515		
11,100.00	7,059.63	10,953.04	7,245.50	111.36	112.50	92.51	1,587.13	-3,998.73	4,255.08	4,031.59	223.50	19.039		
11,200.00	7,059.33	11,053.03	7,245.08	114.05	115.22	92.50	1,585.47	-4,098.71	4,254.02	4,025.11	228.91	18.584		
11,300.00	7,059.03	11,153.03	7,244.66	116.74	117.95	92.50	1,583.81	-4,198.69	4,252.95	4,018.61	234.34	18.149		
11,400.00	7,058.74	11,253.02	7,244.24	119.44	120.69	92.50	1,582.16	-4,298.67	4,251.89	4,012.11	239.78	17.732		
11,500.00	7,058.44	11,353.02	7,243.82	122.15	123.43	92.50	1,580.50	-4,398.65	4,250.82	4,005.59	245.24	17.334		
11,600.00	7,058.14	11,453.01	7,243.40	124.86	126.17	92.50	1,578.84	-4,498.63	4,249.76	3,999.06	250.70	16.951		
11,700.00	7,057.84	11,553.01	7,242.98	127.58	128.92	92.50	1,577.18	-4,598.61	4,248.69	3,992.51	256.18	16.585		
11,800.00	7,057.55	11,653.00	7,242.56	130.31	131.68	92.50	1,575.52	-4,698.59	4,247.63	3,985.96	261.66	16.233		
11,900.00	7,057.25	11,752.99	7,242.14	133.04	134.44	92.50	1,573.86	-4,798.57	4,246.56	3,979.40	267.16	15.895		
12,000.00	7,056.95	11,852.99	7,241.72	135.78	137.20	92.50	1,572.20	-4,898.55	4,245.50	3,972.83	272.66	15.570		
12,100.00	7,056.65	11,952.98	7,241.30	138.52	139.97	92.50	1,570.55	-4,998.53	4,244.43	3,966.26	278.18	15.258		
12,200.00	7,056.36	12,052.98	7,240.88	141.27	142.74	92.49	1,568.89	-5,098.51	4,243.37	3,959.67	283.70	14.957		
12,300.00	7,056.06	12,152.97	7,240.46	144.02	145.51	92.49	1,567.23	-5,198.49	4,242.30	3,953.08	289.22	14.668		
12,400.00	7,055.76	12,252.97	7,240.03	146.78	148.29	92.49	1,565.57	-5,298.47	4,241.24	3,946.48	294.76	14.389		
12,500.00	7,055.46	12,352.96	7,239.61	149.54	151.07	92.49	1,563.91	-5,398.45	4,240.17	3,939.87	300.30	14.120		
12,600.00	7,055.17	12,452.95	7,239.19	152.30	153.85	92.49	1,562.25	-5,498.43	4,239.11	3,933.26	305.84	13.860		
12,700.00	7,054.87	12,552.95	7,238.77	155.07	156.64	92.49	1,560.59	-5,598.41	4,238.04	3,926.64	311.40	13.610		
12,800.00	7,054.57	12,652.94	7,238.35	157.84	159.43	92.49	1,558.94	-5,698.39	4,236.98	3,920.02	316.96	13.368		
12,900.00	7,054.27	12,752.94	7,237.93	160.61	162.22	92.49	1,557.28	-5,798.37	4,235.91	3,913.39	322.52	13.134		
13,000.00	7,053.97	12,852.93	7,237.51	163.39	165.01	92.49	1,555.62	-5,898.35	4,234.85	3,906.76	328.09	12.908		
13,100.00	7,053.68	12,952.93	7,237.09	166.17	167.80	92.48	1,553.96	-5,998.32	4,233.78	3,900.12	333.66	12.689		
13,200.00	7,053.38	13,052.92	7,236.67	168.95	170.60	92.48	1,552.30	-6,098.30	4,232.72	3,893.48	339.24	12.477		
13,300.00	7,053.08	13,152.91	7,236.25	171.73	173.40	92.48	1,550.64	-6,198.28	4,231.65	3,886.83	344.82	12.272		
13,400.00	7,052.78	13,252.91	7,235.83	174.52	176.20	92.48	1,548.99	-6,298.26	4,230.59	3,880.18	350.41	12.073		
13,500.00	7,052.49	13,352.90	7,235.41	177.31	179.00	92.48	1,547.33	-6,398.24	4,229.52	3,873.52	356.00	11.881		
13,600.00	7,052.19	13,452.90	7,234.99	180.10	181.80	92.48	1,545.67	-6,498.22	4,228.46	3,866.86	361.59	11.694		
13,700.00	7,051.89	13,552.89	7,234.57	182.90	184.61	92.48	1,544.01	-6,598.20	4,227.39	3,860.20	367.19	11.513		
13,800.00	7,051.59	13,652.89	7,234.15	185.69	187.42	92.48	1,542.35	-6,698.18	4,226.33	3,853.54	372.79	11.337		
13,900.00	7,051.30	13,752.88	7,233.73	188.49	190.22	92.48	1,540.69	-6,798.16	4,225.26	3,846.87	378.39	11.166		
14,000.00	7,051.00	13,852.87	7,233.31	191.29	193.03	92.48	1,539.03	-6,898.14	4,224.19	3,840.19	384.00	11.001		
14,100.00	7,050.70	13,952.87	7,232.89	194.09	195.84	92.47	1,537.38	-6,998.12	4,223.13	3,833.52	389.61	10.839		
14,200.00	7,050.40	14,052.86	7,232.47	196.89	198.66	92.47	1,535.72	-7,098.10	4,222.06	3,826.84	395.22	10.683		
14,300.00	7,050.11	14,152.86	7,232.05	199.70	201.47	92.47	1,534.06	-7,198.08	4,221.00	3,820.16	400.84	10.530		
14,400.00	7,049.81	14,252.85	7,231.63	202.50	204.28	92.47	1,532.40	-7,298.06	4,219.93	3,813.48	406.46	10.382		
14,500.00	7,049.51	14,352.85	7,231.21	205.31	207.10	92.47	1,530.74	-7,398.04	4,218.87	3,806.79	412.08	10.238		
14,600.00	7,049.21	14,452.84	7,230.79	208.12	209.92	92.47	1,529.08	-7,498.02	4,217.80	3,800.10	417.70	10.098		
14,700.00	7,048.92	14,552.83	7,230.37	210.93	212.73	92.47	1,527.42	-7,598.00	4,216.74	3,793.41	423.33	9.961		
14,800.00	7,048.62	14,652.83	7,229.95	213.74	215.55	92.47	1,525.77	-7,697.98	4,215.67	3,786.72	428.95	9.828		
14,900.00	7,048.32	14,752.82	7,229.53	216.55	218.37	92.47	1,524.11	-7,797.96	4,214.61	3,780.03	434.58	9.698		
15,000.00	7,048.02	14,852.82	7,229.11	219.37	221.19	92.47	1,522.45	-7,897.94	4,213.54	3,773.33	440.21	9.572		
15,100.00	7,047.73	14,952.81	7,228.69	222.18	224.01	92.46	1,520.79	-7,997.92	4,212.48	3,766.63	445.85	9.448		
15,200.00	7,047.43	15,052.81	7,228.27	225.00	226.84	92.46	1,519.13	-8,097.90	4,211.41	3,759.93	451.48	9.328		
15,300.00	7,047.13	15,152.81	7,228.00	227.81	228.63	92.46	1,518.08	-8,161.29	4,210.51	3,754.44	456.07	9.232		
15,308.26	7,047.11	15,116.21	7,228.00	228.05	228.63	92.46	1,518.08	-8,161.29	4,210.50	3,754.21	456.29	9.228		
15,343.67	7,047.00	15,116.21	7,228.00	229.04	228.63	92.46	1,518.08	-8,161.29	4,210.65	3,753.42	457.23	9.209 SF		



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1.11	0.11	3.28	3.28	8.04	1,750.48	247.25	1,767.86				
100.00	100.00	112.27	111.26	3.28	3.29	8.04	1,750.11	247.32	1,767.54	1,760.96	6.57	268.863	
200.00	200.00	218.69	217.69	3.34	3.34	8.05	1,749.18	247.39	1,766.68	1,760.00	6.68	264.498	
230.75	230.75	250.66	249.65	3.36	3.37	-175.36	1,748.85	247.36	1,766.52	1,759.79	6.74	262.275	
300.00	299.98	322.18	321.17	3.44	3.46	-175.36	1,748.04	247.30	1,767.31	1,760.42	6.90	256.211	
400.00	399.84	412.61	411.59	3.59	3.60	-175.37	1,747.19	247.12	1,771.57	1,764.38	7.19	246.273	
500.00	499.45	507.35	506.33	3.79	3.79	-175.39	1,746.76	246.72	1,779.75	1,772.17	7.58	234.726	
600.00	598.70	616.15	615.13	4.03	4.05	-175.41	1,746.12	246.35	1,791.28	1,783.19	8.08	221.620	
700.00	697.47	709.86	708.84	4.31	4.30	-175.44	1,745.52	245.72	1,806.15	1,797.54	8.61	209.706	
800.00	795.62	807.59	806.55	4.64	4.59	-175.49	1,745.11	244.67	1,824.62	1,815.42	9.21	198.184	
900.00	893.06	910.06	909.02	5.00	4.91	-175.55	1,744.41	243.50	1,846.23	1,836.37	9.86	187.166	
1,000.00	989.64	993.57	992.52	5.40	5.19	-175.60	1,744.03	242.38	1,871.45	1,860.95	10.50	178.293	
1,100.00	1,085.27	1,061.00	1,059.93	5.83	5.42	-175.65	1,744.59	240.64	1,901.10	1,890.01	11.10	171.326	
1,200.00	1,179.82	1,136.84	1,135.68	6.29	5.68	-175.76	1,746.31	237.49	1,935.21	1,923.46	11.74	164.785	
1,300.00	1,273.17	1,203.20	1,201.88	6.79	5.91	-175.89	1,748.74	233.65	1,973.67	1,961.30	12.37	159.509	
1,400.00	1,365.46	1,270.41	1,268.82	7.32	6.15	-176.09	1,752.25	228.69	2,015.99	2,002.97	13.02	154.860	
1,500.00	1,457.65	1,343.00	1,340.94	7.87	6.42	-176.38	1,756.80	221.84	2,059.37	2,045.69	13.69	150.479	
1,600.00	1,549.83	1,413.27	1,410.58	8.43	6.69	-176.68	1,761.95	213.98	2,103.59	2,089.23	14.36	146.496	
1,700.00	1,642.02	1,487.85	1,484.33	9.01	6.99	-177.03	1,768.19	204.88	2,148.70	2,133.63	15.07	142.614	
1,800.00	1,734.21	1,570.88	1,566.37	9.59	7.34	-177.40	1,775.52	194.42	2,194.26	2,178.43	15.83	138.600	
1,900.00	1,826.39	1,671.17	1,665.46	10.18	7.77	-177.84	1,784.31	181.69	2,239.87	2,223.16	16.71	134.071	
2,000.00	1,918.58	1,774.63	1,767.76	10.78	8.23	-178.27	1,792.43	168.56	2,284.70	2,267.09	17.62	129.678	
2,100.00	2,010.77	1,882.75	1,874.79	11.39	8.72	-178.68	1,800.39	155.37	2,329.28	2,310.70	18.57	125.412	
2,200.00	2,102.95	1,990.02	1,981.04	11.99	9.21	-179.07	1,807.17	142.35	2,372.93	2,353.39	19.54	121.462	
2,300.00	2,195.14	2,067.77	2,058.11	12.61	9.57	-179.33	1,811.92	133.23	2,416.52	2,396.19	20.33	118.846	
2,400.00	2,287.32	2,139.44	2,129.09	13.22	9.91	-179.57	1,816.82	124.67	2,460.78	2,439.68	21.10	116.644	
2,500.00	2,379.51	2,215.13	2,204.00	13.84	10.27	-179.83	1,822.54	115.41	2,505.71	2,483.82	21.89	114.481	
2,600.00	2,471.70	2,309.16	2,297.08	14.46	10.72	-179.88	1,829.60	104.12	2,550.66	2,527.86	22.80	111.869	
2,700.00	2,563.88	2,380.21	2,367.42	15.08	11.06	-179.66	1,835.16	95.78	2,595.95	2,572.39	23.57	110.156	
2,800.00	2,656.07	2,476.86	2,463.13	15.71	11.53	-179.39	1,842.92	84.76	2,641.50	2,616.99	24.50	107.804	
2,900.00	2,748.26	2,551.12	2,536.68	16.33	11.89	-179.19	1,848.91	76.49	2,687.11	2,661.82	25.29	106.245	
3,000.00	2,840.44	2,651.80	2,636.38	16.96	12.38	-178.93	1,857.26	65.23	2,732.98	2,706.71	26.26	104.061	
3,100.00	2,932.63	2,748.40	2,732.07	17.59	12.85	-178.69	1,864.70	54.30	2,778.33	2,751.12	27.21	102.098	
3,200.00	3,024.81	2,831.65	2,814.50	18.22	13.27	-178.48	1,871.10	44.47	2,823.70	2,795.62	28.07	100.579	
3,300.00	3,117.00	2,912.39	2,894.37	18.86	13.67	-178.27	1,877.53	34.57	2,869.34	2,840.41	28.92	99.207	
3,400.00	3,209.19	3,012.15	2,993.03	19.49	14.17	-178.01	1,885.58	22.25	2,915.12	2,885.21	29.91	97.463	
3,500.00	3,301.37	3,105.46	3,085.42	20.12	14.64	-177.80	1,892.55	11.15	2,960.37	2,929.52	30.85	95.954	
3,600.00	3,393.56	3,187.43	3,166.56	20.76	15.05	-177.61	1,898.85	1.40	3,005.86	2,974.15	31.71	94.780	
3,700.00	3,485.75	3,320.56	3,298.31	21.39	15.73	-177.31	1,908.65	-15.03	3,051.24	3,018.29	32.95	92.591	
3,800.00	3,577.93	3,425.33	3,402.18	22.03	16.25	-177.09	1,914.87	-27.15	3,095.22	3,061.23	33.98	91.078	
3,900.00	3,670.12	3,513.74	3,489.93	22.67	16.68	-176.93	1,920.01	-36.67	3,139.12	3,104.23	34.89	89.967	
4,000.00	3,762.30	3,578.21	3,553.97	23.30	17.00	-176.83	1,923.97	-42.99	3,183.37	3,147.75	35.62	89.364	
4,100.00	3,854.49	3,641.41	3,616.69	23.94	17.31	-176.73	1,928.43	-49.28	3,228.42	3,192.08	36.34	88.839	
4,200.00	3,946.68	3,702.78	3,678.11	24.58	17.73	-176.59	1,936.84	-57.10	3,274.24	3,237.95	37.29	88.646	
4,300.00	4,038.86	3,763.16	3,738.25	25.22	18.25	-176.41	1,943.20	-65.34	3,320.32	3,283.48	38.33	88.446	
4,400.00	4,131.05	3,824.07	3,799.36	25.86	18.79	-176.19	1,949.08	-73.59	3,366.31	3,329.95	39.43	88.246	
4,500.00	4,223.24	3,884.08	3,859.37	26.50	19.32	-175.96	1,954.41	-81.84	3,412.32	3,376.48	40.57	88.046	
4,600.00	4,315.42	3,944.16	3,919.45	27.14	19.84	-175.74	1,959.11	-90.09	3,458.32	3,422.48	41.71	87.846	
4,700.00	4,407.61	4,004.25	3,979.54	27.78	20.36	-175.52	1,963.11	-98.34	3,504.32	3,468.48	42.85	87.646	
4,800.00	4,499.79	4,064.34	4,039.63	28.42	20.88	-175.30	1,966.41	-106.59	3,550.32	3,514.48	43.99	87.446	
4,900.00	4,591.98	4,124.43	4,100.00	29.06	21.39	-175.08	1,969.11	-114.84	3,596.32	3,560.48	45.13	87.246	
5,000.00	4,684.17	4,184.52	4,160.00	29.70	21.90	-174.86	1,971.11	-123.09	3,642.32	3,606.48	46.27	87.046	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	10,569.61	7,186.98	30.34	83.16	175.04	-1,677.45	-180.89	2,411.98	2,367.83	44.15	54.634		
5,200.00	4,868.54	10,605.19	7,187.01	30.98	83.87	174.92	-1,713.02	-181.91	2,319.84	2,275.11	44.73	51.861		
5,300.00	4,960.73	10,636.00	7,187.05	31.63	84.49	174.81	-1,743.81	-182.99	2,227.74	2,182.41	45.33	49.142		
5,400.00	5,052.91	10,713.76	7,186.70	32.27	86.05	174.51	-1,821.53	-185.27	2,135.41	2,089.59	45.82	46.608		
5,500.00	5,145.10	10,756.12	7,186.14	32.91	86.90	174.36	-1,863.89	-186.01	2,042.72	1,996.35	46.37	44.054		
5,600.00	5,237.28	10,799.57	7,185.33	33.55	87.78	174.19	-1,907.32	-186.83	1,949.83	1,902.92	46.91	41.565		
5,700.00	5,329.47	10,831.15	7,184.76	34.20	88.42	174.05	-1,938.89	-187.37	1,856.98	1,809.47	47.51	39.086		
5,800.00	5,421.66	10,868.12	7,184.18	34.84	89.17	173.89	-1,975.85	-187.83	1,764.19	1,716.10	48.09	36.686		
5,900.00	5,513.84	10,913.07	7,183.36	35.48	90.09	173.66	-2,020.79	-188.55	1,671.32	1,622.71	48.61	34.383		
6,000.00	5,606.03	10,951.28	7,182.52	36.13	90.86	173.44	-2,058.99	-189.17	1,578.32	1,529.15	49.18	32.096		
6,100.00	5,698.22	10,989.32	7,181.70	36.77	91.64	173.19	-2,097.01	-189.76	1,485.34	1,435.59	49.74	29.860		
6,200.00	5,790.40	11,017.37	7,181.14	37.41	92.21	172.98	-2,125.05	-190.22	1,392.42	1,341.99	50.43	27.609		
6,300.00	5,882.59	11,051.13	7,180.66	38.06	92.90	172.69	-2,158.80	-190.88	1,299.72	1,248.64	51.08	25.445		
6,400.00	5,974.77	11,085.16	7,180.23	38.70	93.59	172.34	-2,192.82	-191.62	1,207.09	1,155.34	51.75	23.327		
6,500.00	6,066.96	11,120.93	7,179.88	39.34	94.32	171.96	-2,228.59	-192.13	1,114.57	1,062.17	52.40	21.270		
6,600.00	6,159.15	11,156.54	7,179.60	39.99	95.05	171.54	-2,264.19	-192.54	1,022.12	969.04	53.08	19.256		
6,700.00	6,251.33	11,192.19	7,179.44	40.63	95.78	171.03	-2,299.83	-192.97	929.80	876.01	53.79	17.286		
6,800.00	6,343.52	11,232.28	7,179.23	41.28	96.60	170.33	-2,339.93	-193.48	837.49	783.08	54.41	15.394		
6,900.00	6,435.71	11,271.82	7,178.95	41.92	97.41	169.44	-2,379.46	-194.12	745.12	690.07	55.05	13.535		
7,000.00	6,527.86	11,308.50	7,178.65	42.56	98.17	168.71	-2,416.12	-194.94	652.74	596.93	55.82	11.694		
7,100.00	6,618.85	11,345.09	7,178.43	43.19	98.92	172.55	-2,452.70	-196.06	560.75	504.43	56.31	9.957		
7,200.00	6,706.47	11,381.31	7,178.32	43.76	99.66	179.01	-2,488.90	-197.42	471.90	415.17	56.74	8.317		
7,300.00	6,788.56	11,417.57	7,178.22	44.26	100.40	-175.29	-2,525.13	-198.78	391.40	331.95	59.46	6.583		
7,400.00	6,863.10	11,450.21	7,178.20	44.70	101.07	-171.51	-2,557.75	-199.99	328.88	257.42	71.45	4.603		
7,500.00	6,928.26	11,480.61	7,178.29	45.07	101.70	-168.80	-2,588.12	-201.19	298.72	202.15	96.57	3.093		
7,520.04	6,940.03	11,486.32	7,178.31	45.14	101.81	-168.35	-2,593.82	-201.42	297.80	195.47	102.33	2.910 CC		
7,600.00	6,982.42	11,507.28	7,178.39	45.39	102.24	-166.83	-2,614.77	-202.26	312.23	189.36	122.87	2.541 ES, SF		
7,700.00	7,024.26	11,529.52	7,178.53	45.67	102.70	-165.36	-2,636.99	-203.20	365.28	227.03	138.25	2.642		
7,800.00	7,052.75	11,546.57	7,178.68	45.92	103.05	-164.38	-2,654.02	-203.94	443.62	298.90	144.72	3.065		
7,900.00	7,067.18	11,557.75	7,178.77	46.16	103.28	-164.42	-2,665.19	-204.43	535.36	388.21	147.15	3.638		
8,000.00	7,068.85	11,563.55	7,178.82	46.42	103.40	-164.52	-2,670.98	-204.68	633.01	484.98	148.02	4.276		
8,100.00	7,068.56	11,568.50	7,178.87	46.78	103.50	-162.12	-2,675.93	-204.89	731.62	583.08	148.54	4.925		
8,200.00	7,068.26	11,573.46	7,178.91	47.29	103.60	-159.78	-2,680.88	-205.11	830.54	681.61	148.93	5.577		
8,300.00	7,067.96	11,578.41	7,178.95	48.03	103.71	-157.52	-2,685.83	-205.33	929.66	780.42	149.24	6.229		
8,400.00	7,067.66	11,583.37	7,179.00	49.02	103.81	-155.33	-2,690.78	-205.54	1,028.93	879.43	149.50	6.883		
8,500.00	7,067.37	11,588.32	7,179.04	50.27	103.91	-153.21	-2,695.74	-205.76	1,128.31	978.58	149.72	7.536		
8,600.00	7,067.07	11,587.00	7,179.03	51.75	103.88	-153.77	-2,694.41	-205.70	1,227.78	1,078.02	149.76	8.199		
8,700.00	7,066.77	11,587.00	7,179.03	53.42	103.88	-153.77	-2,694.41	-205.70	1,327.33	1,177.52	149.81	8.860		
8,800.00	7,066.47	11,587.00	7,179.03	55.24	103.88	-153.77	-2,694.41	-205.70	1,426.94	1,277.09	149.85	9.522		
8,900.00	7,066.18	11,587.00	7,179.03	57.18	103.88	-153.77	-2,694.41	-205.70	1,526.61	1,376.72	149.89	10.185		
9,000.00	7,065.88	11,587.00	7,179.03	59.21	103.88	-153.77	-2,694.41	-205.70	1,626.32	1,476.40	149.92	10.848		
9,100.00	7,065.58	11,587.00	7,179.03	61.33	103.88	-153.77	-2,694.41	-205.70	1,726.06	1,576.11	149.94	11.512		
9,200.00	7,065.28	11,587.00	7,179.03	63.51	103.88	-153.77	-2,694.41	-205.70	1,825.82	1,675.86	149.97	12.175		
9,300.00	7,064.99	11,587.00	7,179.03	65.76	103.88	-153.77	-2,694.41	-205.70	1,925.62	1,775.63	149.99	12.839		
9,400.00	7,064.69	11,587.00	7,179.03	68.06	103.88	-153.77	-2,694.41	-205.70	2,025.43	1,875.42	150.01	13.502		
9,500.00	7,064.39	11,587.00	7,179.03	70.40	103.88	-153.77	-2,694.41	-205.70	2,125.26	1,975.23	150.03	14.166		
9,600.00	7,064.09	11,587.00	7,179.03	72.78	103.88	-153.77	-2,694.41	-205.70	2,225.11	2,075.06	150.05	14.829		
9,700.00	7,063.80	11,587.00	7,179.03	75.20	103.88	-153.77	-2,694.41	-205.70	2,324.96	2,174.90	150.07	15.493		
9,800.00	7,063.50	11,587.00	7,179.03	77.65	103.88	-153.77	-2,694.41	-205.70	2,424.83	2,274.75	150.09	16.156		
9,900.00	7,063.20	11,587.00	7,179.03	80.13	103.88	-153.77	-2,694.41	-205.70	2,524.72	2,374.61	150.11	16.819		
10,000.00	7,062.90	11,587.00	7,179.03	82.64	103.88	-153.77	-2,694.41	-205.70	2,624.61	2,474.48	150.13	17.483		
10,100.00	7,062.61	11,587.00	7,179.03	85.17	103.88	-153.77	-2,694.41	-205.70	2,724.50	2,574.36	150.15	18.145		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,200.00	7,062.31	11,587.00	7,179.03	87.72	103.88	-153.77	-2,694.41	-205.70	2,824.41	2,674.24	150.17	18.808		
10,300.00	7,062.01	11,587.00	7,179.03	90.28	103.88	-153.77	-2,694.41	-205.70	2,924.32	2,774.13	150.19	19.471		
10,400.00	7,061.71	11,587.00	7,179.03	92.87	103.88	-153.77	-2,694.41	-205.70	3,024.24	2,874.02	150.21	20.133		
10,500.00	7,061.41	11,587.00	7,179.03	95.47	103.88	-153.77	-2,694.41	-205.70	3,124.16	2,973.92	150.24	20.795		
10,600.00	7,061.12	11,587.00	7,179.03	98.09	103.88	-153.77	-2,694.41	-205.70	3,224.09	3,073.83	150.26	21.457		
10,700.00	7,060.82	11,587.00	7,179.03	100.72	103.88	-153.77	-2,694.41	-205.70	3,324.02	3,173.73	150.29	22.118		
10,800.00	7,060.52	11,587.00	7,179.03	103.37	103.88	-153.77	-2,694.41	-205.70	3,423.96	3,273.64	150.31	22.779		
10,900.00	7,060.22	11,587.00	7,179.03	106.02	103.88	-153.77	-2,694.41	-205.70	3,523.90	3,373.56	150.34	23.440		
11,000.00	7,059.93	11,587.00	7,179.03	108.69	103.88	-153.77	-2,694.41	-205.70	3,623.84	3,473.47	150.36	24.100		
11,100.00	7,059.63	11,587.00	7,179.03	111.36	103.88	-153.77	-2,694.41	-205.70	3,723.78	3,573.39	150.39	24.761		
11,200.00	7,059.33	11,587.00	7,179.03	114.05	103.88	-153.77	-2,694.41	-205.70	3,823.73	3,673.31	150.42	25.420		
11,300.00	7,059.03	11,587.00	7,179.03	116.74	103.88	-153.77	-2,694.41	-205.70	3,923.68	3,773.23	150.45	26.080		
11,400.00	7,058.74	11,587.00	7,179.03	119.44	103.88	-153.77	-2,694.41	-205.70	4,023.64	3,873.16	150.48	26.739		
11,500.00	7,058.44	11,587.00	7,179.03	122.15	103.88	-153.77	-2,694.41	-205.70	4,123.59	3,973.08	150.51	27.397		
11,600.00	7,058.14	11,587.00	7,179.03	124.86	103.88	-153.77	-2,694.41	-205.70	4,223.55	4,073.01	150.54	28.056		
11,700.00	7,057.84	11,587.00	7,179.03	127.58	103.88	-153.77	-2,694.41	-205.70	4,323.51	4,172.94	150.57	28.713		
11,800.00	7,057.55	11,587.00	7,179.03	130.31	103.88	-153.77	-2,694.41	-205.70	4,423.47	4,272.87	150.61	29.371		
11,900.00	7,057.25	11,587.00	7,179.03	133.04	103.88	-153.77	-2,694.41	-205.70	4,523.44	4,372.80	150.64	30.028		
12,000.00	7,056.95	11,587.00	7,179.03	135.78	103.88	-153.77	-2,694.41	-205.70	4,623.40	4,472.73	150.68	30.684		
12,100.00	7,056.65	11,587.00	7,179.03	138.52	103.88	-153.77	-2,694.41	-205.70	4,723.37	4,572.66	150.71	31.340		
12,200.00	7,056.36	11,587.00	7,179.03	141.27	103.88	-153.77	-2,694.41	-205.70	4,823.34	4,672.59	150.75	31.996		
12,300.00	7,056.06	11,587.00	7,179.03	144.02	103.88	-153.77	-2,694.41	-205.70	4,923.31	4,772.52	150.79	32.651		
12,400.00	7,055.76	11,587.00	7,179.03	146.78	103.88	-153.77	-2,694.41	-205.70	5,023.28	4,872.45	150.82	33.306		
12,500.00	7,055.46	11,587.00	7,179.03	149.54	103.88	-153.77	-2,694.41	-205.70	5,123.25	4,972.39	150.86	33.960		
12,600.00	7,055.17	11,587.00	7,179.03	152.30	103.88	-153.77	-2,694.41	-205.70	5,223.22	5,072.32	150.90	34.614		
12,700.00	7,054.87	11,587.00	7,179.03	155.07	103.88	-153.77	-2,694.41	-205.70	5,323.20	5,172.25	150.94	35.267		
12,800.00	7,054.57	11,587.00	7,179.03	157.84	103.88	-153.77	-2,694.41	-205.70	5,423.17	5,272.19	150.98	35.919		
12,900.00	7,054.27	11,587.00	7,179.03	160.61	103.88	-153.77	-2,694.41	-205.70	5,523.15	5,372.12	151.02	36.571		
13,000.00	7,053.97	11,587.00	7,179.03	163.39	103.88	-153.77	-2,694.41	-205.70	5,623.12	5,472.06	151.07	37.223		
13,100.00	7,053.68	11,587.00	7,179.03	166.17	103.88	-153.77	-2,694.41	-205.70	5,723.10	5,571.99	151.11	37.874		
13,200.00	7,053.38	11,587.00	7,179.03	168.95	103.88	-153.77	-2,694.41	-205.70	5,823.08	5,671.93	151.15	38.524		
13,300.00	7,053.08	11,587.00	7,179.03	171.73	103.88	-153.77	-2,694.41	-205.70	5,923.06	5,771.86	151.20	39.174		
13,400.00	7,052.78	11,587.00	7,179.03	174.52	103.88	-153.77	-2,694.41	-205.70	6,023.04	5,871.79	151.24	39.824		
13,500.00	7,052.49	11,587.00	7,179.03	177.31	103.88	-153.77	-2,694.41	-205.70	6,123.02	5,971.73	151.29	40.472		
13,600.00	7,052.19	11,587.00	7,179.03	180.10	103.88	-153.77	-2,694.41	-205.70	6,223.00	6,071.66	151.34	41.121		
13,700.00	7,051.89	11,587.00	7,179.03	182.90	103.88	-153.77	-2,694.41	-205.70	6,322.98	6,171.60	151.38	41.768		
13,800.00	7,051.59	11,587.00	7,179.03	185.69	103.88	-153.77	-2,694.41	-205.70	6,422.96	6,271.53	151.43	42.415		
13,900.00	7,051.30	11,587.00	7,179.03	188.49	103.88	-153.77	-2,694.41	-205.70	6,522.94	6,371.46	151.48	43.061		
14,000.00	7,051.00	11,587.00	7,179.03	191.29	103.88	-153.77	-2,694.41	-205.70	6,622.93	6,471.40	151.53	43.707		
14,100.00	7,050.70	11,587.00	7,179.03	194.09	103.88	-153.77	-2,694.41	-205.70	6,722.91	6,571.33	151.58	44.352		
14,200.00	7,050.40	11,587.00	7,179.03	196.89	103.88	-153.77	-2,694.41	-205.70	6,822.89	6,671.26	151.63	44.996		
14,300.00	7,050.11	11,587.00	7,179.03	199.70	103.88	-153.77	-2,694.41	-205.70	6,922.88	6,771.20	151.68	45.640		
14,400.00	7,049.81	11,587.00	7,179.03	202.50	103.88	-153.77	-2,694.41	-205.70	7,022.86	6,871.13	151.74	46.283		
14,500.00	7,049.51	11,587.00	7,179.03	205.31	103.88	-153.77	-2,694.41	-205.70	7,122.85	6,971.06	151.79	46.926		
14,600.00	7,049.21	11,587.00	7,179.03	208.12	103.88	-153.77	-2,694.41	-205.70	7,222.84	7,070.99	151.84	47.568		
14,700.00	7,048.92	11,587.00	7,179.03	210.93	103.88	-153.77	-2,694.41	-205.70	7,322.82	7,170.92	151.90	48.209		
14,800.00	7,048.62	11,587.00	7,179.03	213.74	103.88	-153.77	-2,694.41	-205.70	7,422.81	7,270.85	151.95	48.849		
14,900.00	7,048.32	11,587.00	7,179.03	216.55	103.88	-153.77	-2,694.41	-205.70	7,522.80	7,370.79	152.01	49.489		
15,000.00	7,048.02	11,587.00	7,179.03	219.37	103.88	-153.77	-2,694.41	-205.70	7,622.78	7,470.72	152.07	50.128		
15,100.00	7,047.73	11,587.00	7,179.03	222.18	103.88	-153.77	-2,694.41	-205.70	7,722.77	7,570.65	152.12	50.766		
15,200.00	7,047.43	11,587.00	7,179.03	225.00	103.88	-153.77	-2,694.41	-205.70	7,822.76	7,670.58	152.18	51.404		
15,300.00	7,047.13	11,587.00	7,179.03	227.81	103.88	-153.77	-2,694.41	-205.70	7,922.75	7,770.50	152.24	52.041		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	11,587.00	7,179.03	229.04	103.88	-153.77	-2,694.41	-205.70	7,966.42	7,814.15	152.27	52.319	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1.04	0.04	3.28	3.28	9.03	1,751.94	278.40	1,773.92					
100.00	100.00	105.38	104.38	3.28	3.29	9.04	1,751.78	278.61	1,773.80	1,767.23	6.57	269.867		
200.00	200.00	214.67	213.67	3.34	3.34	9.06	1,751.19	279.13	1,773.35	1,766.67	6.68	265.638		
227.80	227.80	245.93	244.93	3.36	3.37	-174.35	1,750.89	279.24	1,773.24	1,766.51	6.73	263.569		
300.00	299.98	317.98	316.97	3.44	3.45	-174.36	1,750.27	278.90	1,774.16	1,767.28	6.89	257.538		
400.00	399.84	422.43	421.41	3.59	3.61	-174.39	1,749.28	277.95	1,778.30	1,771.10	7.20	246.830		
500.00	499.45	525.68	524.65	3.79	3.83	-174.40	1,747.86	277.97	1,785.62	1,778.00	7.62	234.463		
600.00	598.70	617.63	616.59	4.03	4.05	-174.40	1,746.74	278.20	1,796.59	1,788.51	8.08	222.366		
700.00	697.47	720.68	719.64	4.31	4.33	-174.40	1,745.52	278.72	1,811.09	1,802.45	8.64	209.685		
800.00	795.62	822.70	821.64	4.64	4.63	-174.40	1,743.97	279.35	1,828.69	1,819.44	9.25	197.690		
900.00	893.06	916.03	914.96	5.00	4.93	-174.39	1,742.64	280.07	1,849.82	1,839.94	9.88	187.178		
1,000.00	989.64	1,005.74	1,004.65	5.40	5.23	-174.37	1,741.50	281.18	1,874.56	1,864.02	10.54	177.867		
1,100.00	1,085.27	1,091.62	1,090.53	5.83	5.53	-174.36	1,740.96	282.05	1,903.21	1,892.00	11.21	169.762		
1,200.00	1,179.82	1,184.59	1,183.50	6.29	5.86	-174.37	1,740.65	282.71	1,935.42	1,923.49	11.93	162.164		
1,300.00	1,273.17	1,279.63	1,278.53	6.79	6.20	-174.38	1,740.34	283.43	1,970.91	1,958.21	12.69	155.284		
1,400.00	1,365.46	1,371.94	1,370.84	7.32	6.55	-174.43	1,739.94	283.97	2,008.93	1,995.47	13.46	149.259		
1,500.00	1,457.65	1,456.03	1,454.93	7.87	6.86	-174.51	1,739.83	284.50	2,047.49	2,033.30	14.19	144.246		
1,600.00	1,549.83	1,548.32	1,547.22	8.43	7.22	-174.60	1,739.85	285.14	2,086.21	2,071.23	14.98	139.286		
1,700.00	1,642.02	1,639.51	1,638.40	9.01	7.57	-174.67	1,739.89	285.87	2,124.96	2,109.19	15.77	134.741		
1,800.00	1,734.21	1,735.88	1,734.77	9.59	7.95	-174.75	1,739.88	286.52	2,163.65	2,147.05	16.60	130.328		
1,900.00	1,826.39	1,835.14	1,834.03	10.18	8.34	-174.83	1,739.50	287.22	2,202.01	2,184.55	17.46	126.125		
2,000.00	1,918.58	1,910.49	1,909.37	10.78	8.63	-174.90	1,739.52	287.26	2,240.66	2,222.46	18.20	123.139		
2,100.00	2,010.77	1,983.48	1,982.36	11.39	8.91	-175.00	1,740.23	286.50	2,280.04	2,261.13	18.91	120.544		
2,200.00	2,102.95	2,051.43	2,050.28	11.99	9.16	-175.10	1,741.58	285.23	2,320.26	2,300.65	19.61	118.328		
2,300.00	2,195.14	2,107.00	2,105.81	12.61	9.37	-175.19	1,743.32	283.86	2,361.52	2,341.28	20.24	116.691		
2,400.00	2,287.32	2,175.26	2,173.98	13.22	9.64	-175.31	1,746.32	281.96	2,403.86	2,382.93	20.93	114.839		
2,500.00	2,379.51	2,241.76	2,240.34	13.84	9.90	-175.43	1,750.12	280.02	2,447.31	2,425.69	21.62	113.208		
2,600.00	2,471.70	2,313.70	2,312.11	14.46	10.18	-175.55	1,754.77	278.05	2,491.47	2,469.13	22.33	111.552		
2,700.00	2,563.88	2,384.98	2,383.17	15.08	10.46	-175.67	1,759.87	276.17	2,536.28	2,513.23	23.05	110.040		
2,800.00	2,656.07	2,460.92	2,458.85	15.71	10.77	-175.80	1,765.80	273.94	2,581.65	2,557.86	23.79	108.509		
2,900.00	2,748.26	2,532.81	2,530.43	16.33	11.06	-175.93	1,771.86	271.39	2,627.52	2,603.01	24.51	107.192		
3,000.00	2,840.44	2,602.76	2,600.05	16.96	11.35	-176.05	1,778.26	268.91	2,674.03	2,648.81	25.22	106.025		
3,100.00	2,932.63	2,674.02	2,670.92	17.59	11.64	-176.18	1,785.24	266.33	2,721.12	2,695.18	25.94	104.910		
3,200.00	3,024.81	2,738.36	2,734.85	18.22	11.91	-176.30	1,792.03	263.79	2,768.86	2,742.26	26.61	104.059		
3,300.00	3,117.00	2,815.09	2,811.00	18.86	12.24	-176.45	1,800.77	260.35	2,817.28	2,789.92	27.36	102.958		
3,400.00	3,209.19	2,919.76	2,914.88	19.49	12.69	-176.65	1,812.55	255.32	2,865.61	2,837.29	28.31	101.208		
3,500.00	3,301.37	3,019.31	3,013.76	20.12	13.12	-176.83	1,823.05	250.36	2,913.28	2,884.04	29.23	99.651		
3,600.00	3,393.56	3,110.72	3,104.51	20.76	13.52	-177.01	1,832.64	245.15	2,960.88	2,930.77	30.10	98.357		
3,700.00	3,485.75	3,216.63	3,209.70	21.39	13.99	-177.21	1,843.40	239.12	3,008.22	2,977.14	31.08	96.798		
3,800.00	3,577.93	3,304.68	3,297.23	22.03	14.38	-177.36	1,851.86	234.67	3,055.13	3,023.20	31.93	95.686		
3,900.00	3,670.12	3,381.71	3,373.81	22.67	14.72	-177.48	1,859.44	231.16	3,102.31	3,069.61	32.70	94.862		
4,000.00	3,762.30	3,459.48	3,451.09	23.30	15.07	-177.60	1,867.39	227.58	3,149.83	3,116.34	33.48	94.070		
4,100.00	3,854.49	3,542.73	3,533.80	23.94	15.45	-177.72	1,876.07	223.91	3,197.55	3,163.24	34.31	93.209		
4,200.00	3,946.68	3,634.98	3,625.46	24.58	15.87	-177.85	1,885.68	219.82	3,245.27	3,210.08	35.19	92.209		
4,300.00	4,038.86	3,727.23	3,717.42	25.22	16.34	-178.06	1,895.25	215.73	3,293.00	3,256.79	36.11	91.186		
4,400.00	4,131.05	3,819.48	3,809.40	25.86	16.86	-178.26	1,904.78	211.64	3,340.73	3,303.48	37.07	90.131		
4,500.00	4,223.24	3,911.73	3,901.49	26.50	17.42	-178.46	1,914.28	207.55	3,388.46	3,350.19	38.07	89.044		
4,600.00	4,315.42	4,004.00	4,003.15	27.14	18.03	-178.66	1,923.75	203.46	3,436.19	3,397.82	39.11	87.925		
4,700.00	4,407.61	4,096.25	4,095.63	27.78	18.69	-178.86	1,933.19	199.37	3,483.92	3,445.45	40.19	86.774		
4,800.00	4,499.79	4,188.50	4,188.11	28.42	19.39	-179.06	1,942.60	195.28	3,531.65	3,493.18	41.31	85.591		
4,900.00	4,591.98	4,280.75	4,280.53	29.06	20.13	-179.26	1,951.99	191.19	3,579.38	3,540.91	42.47	84.376		
5,000.00	4,684.17	4,373.00	4,372.95	29.70	20.91	-179.46	1,961.35	187.10	3,627.11	3,588.64	43.67	83.129		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	10,664.54	7,229.10	30.34	83.63	-163.58	-1,695.73	179.34	2,468.67	2,422.67	46.00	53.668		
5,200.00	4,868.54	5,200.00	7,228.54	30.98	28.93	-162.55	-1,747.35	179.85	2,377.00	2,349.51	27.49	86.463		
5,300.00	4,960.73	10,744.19	7,228.11	31.63	85.25	-161.95	-1,775.37	180.10	2,285.27	2,237.72	47.55	48.062		
5,400.00	5,052.91	10,753.00	7,228.03	32.27	85.43	-161.75	-1,784.18	180.27	2,194.01	2,145.63	48.38	45.350		
5,500.00	5,145.10	10,772.83	7,228.05	32.91	85.83	-161.28	-1,804.00	180.82	2,103.24	2,053.97	49.27	42.688		
5,600.00	5,237.28	10,793.27	7,228.38	33.55	86.25	-160.77	-1,824.43	181.56	2,013.09	1,962.86	50.23	40.080		
5,700.00	5,329.47	10,831.71	7,229.04	34.20	87.04	-159.77	-1,862.84	182.76	1,923.16	1,871.93	51.23	37.543		
5,800.00	5,421.66	10,855.54	7,229.59	34.84	87.52	-159.11	-1,886.65	183.63	1,833.67	1,781.35	52.32	35.047		
5,900.00	5,513.84	10,880.00	7,230.42	35.48	88.03	-158.39	-1,911.07	184.65	1,744.80	1,691.29	53.51	32.609		
6,000.00	5,606.03	10,911.49	7,231.80	36.13	88.67	-157.42	-1,942.51	185.69	1,656.50	1,601.73	54.77	30.245		
6,100.00	5,698.22	10,971.57	7,234.66	36.77	89.90	-155.55	-2,002.52	185.71	1,568.39	1,512.41	55.98	28.017		
6,200.00	5,790.40	11,111.32	7,237.30	37.41	92.73	-150.51	-2,142.06	179.38	1,479.14	1,422.50	56.63	26.118		
6,300.00	5,882.59	11,144.85	7,236.82	38.06	93.41	-149.04	-2,175.53	177.35	1,388.55	1,330.48	58.07	23.913		
6,400.00	5,974.77	11,171.69	7,236.57	38.70	93.96	-147.74	-2,202.34	176.10	1,298.56	1,238.81	59.75	21.732		
6,500.00	6,066.96	11,208.76	7,236.32	39.34	94.71	-145.75	-2,239.38	174.61	1,209.11	1,147.53	61.58	19.635		
6,600.00	6,159.15	11,252.41	7,235.95	39.99	95.60	-143.13	-2,283.00	173.02	1,120.14	1,056.52	63.62	17.606		
6,700.00	6,251.33	11,301.78	7,235.03	40.63	96.61	-139.75	-2,332.32	171.01	1,031.36	965.42	65.94	15.641		
6,800.00	6,343.52	11,339.48	7,234.11	41.28	97.38	-136.79	-2,369.99	169.63	943.23	874.36	68.86	13.697		
6,900.00	6,435.71	11,373.91	7,233.17	41.92	98.08	-133.79	-2,404.38	168.45	856.10	783.63	72.47	11.813		
7,000.00	6,527.86	11,401.84	7,232.48	42.56	98.66	-135.41	-2,432.29	167.83	771.05	693.92	77.12	9.998		
7,100.00	6,618.85	11,428.15	7,232.08	43.19	99.20	-145.90	-2,458.60	167.55	695.25	611.00	84.26	8.252		
7,200.00	6,706.47	11,454.87	7,231.91	43.76	99.75	-153.87	-2,485.31	167.74	635.98	541.40	94.58	6.724		
7,300.00	6,788.56	11,497.70	7,231.52	44.26	100.64	-157.56	-2,528.14	168.32	599.51	492.03	107.48	5.578		
7,378.95	6,848.13	11,528.65	7,230.78	44.60	101.28	-159.31	-2,559.08	168.32	590.09	471.92	118.17	4.994 CC		
7,400.00	6,863.10	11,534.71	7,230.62	44.70	101.41	-159.81	-2,565.14	168.31	590.77	469.89	120.88	4.887 ES		
7,500.00	6,928.26	11,557.76	7,230.08	45.07	101.89	-162.01	-2,588.18	168.25	612.37	480.40	131.97	4.640 SF		
7,600.00	6,982.42	11,575.03	7,229.78	45.39	102.24	-163.89	-2,605.46	168.32	661.48	522.06	139.42	4.744		
7,700.00	7,024.26	11,585.73	7,229.65	45.67	102.47	-166.06	-2,616.15	168.42	731.91	588.25	143.66	5.095		
7,800.00	7,052.75	11,592.15	7,229.60	45.92	102.60	-169.20	-2,622.57	168.53	816.97	671.16	145.81	5.603		
7,900.00	7,067.18	11,594.84	7,229.59	46.16	102.66	-176.03	-2,625.26	168.58	910.93	764.14	146.78	6.206		
8,000.00	7,068.85	11,594.47	7,229.59	46.42	102.65	174.96	-2,624.89	168.57	1,009.16	862.02	147.14	6.858		
8,100.00	7,068.56	11,593.71	7,229.59	46.78	102.63	174.69	-2,624.13	168.56	1,108.03	960.67	147.36	7.519		
8,200.00	7,068.26	11,593.01	7,229.60	47.29	102.62	174.44	-2,623.43	168.54	1,207.09	1,059.56	147.53	8.182		
8,300.00	7,067.96	11,592.37	7,229.60	48.03	102.60	174.20	-2,622.79	168.53	1,306.29	1,158.63	147.66	8.847		
8,400.00	7,067.66	11,591.77	7,229.60	49.02	102.59	173.99	-2,622.19	168.52	1,405.60	1,257.84	147.76	9.513		
8,500.00	7,067.37	11,591.21	7,229.61	50.27	102.58	173.79	-2,621.63	168.51	1,505.00	1,357.16	147.84	10.180		
8,600.00	7,067.07	11,590.69	7,229.61	51.75	102.57	173.60	-2,621.11	168.50	1,604.48	1,456.57	147.91	10.848		
8,700.00	7,066.77	11,590.20	7,229.61	53.42	102.56	173.43	-2,620.62	168.49	1,704.02	1,556.06	147.96	11.516		
8,800.00	7,066.47	11,589.74	7,229.62	55.24	102.55	173.26	-2,620.16	168.48	1,803.61	1,655.60	148.01	12.186		
8,900.00	7,066.18	11,589.31	7,229.62	57.18	102.54	173.11	-2,619.74	168.47	1,903.24	1,755.19	148.05	12.855		
9,000.00	7,065.88	11,588.91	7,229.62	59.21	102.53	172.97	-2,619.33	168.47	2,002.91	1,854.82	148.09	13.525		
9,100.00	7,065.58	11,588.53	7,229.63	61.33	102.52	172.83	-2,618.95	168.46	2,102.61	1,954.48	148.12	14.195		
9,200.00	7,065.28	11,588.17	7,229.63	63.51	102.52	172.70	-2,618.59	168.46	2,202.33	2,054.18	148.15	14.865		
9,300.00	7,064.99	11,587.84	7,229.63	65.76	102.51	172.58	-2,618.26	168.45	2,302.08	2,153.90	148.18	15.536		
9,400.00	7,064.69	11,587.52	7,229.64	68.06	102.50	172.47	-2,617.94	168.45	2,401.85	2,253.65	148.21	16.206		
9,500.00	7,064.39	11,587.21	7,229.64	70.40	102.50	172.36	-2,617.63	168.44	2,501.64	2,353.41	148.23	16.876		
9,600.00	7,064.09	11,586.92	7,229.64	72.78	102.49	172.26	-2,617.34	168.44	2,601.45	2,453.19	148.26	17.547		
9,700.00	7,063.80	11,577.00	7,229.75	75.20	102.28	168.76	-2,607.42	168.33	2,701.32	2,553.29	148.03	18.248		
9,800.00	7,063.50	11,577.00	7,229.75	77.65	102.28	168.76	-2,607.42	168.33	2,801.15	2,653.09	148.06	18.919		
9,900.00	7,063.20	11,577.00	7,229.75	80.13	102.28	168.76	-2,607.42	168.33	2,900.99	2,752.90	148.09	19.589		
10,000.00	7,062.90	11,577.00	7,229.75	82.64	102.28	168.76	-2,607.42	168.33	3,000.84	2,852.72	148.12	20.259		
10,100.00	7,062.61	11,577.00	7,229.75	85.17	102.28	168.76	-2,607.42	168.33	3,100.70	2,952.55	148.15	20.929		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,200.00	7,062.31	11,577.00	7,229.75	87.72	102.28	168.76	-2,607.42	168.33	3,200.57	3,052.39	148.18	21.599		
10,300.00	7,062.01	11,577.00	7,229.75	90.28	102.28	168.76	-2,607.42	168.33	3,300.45	3,152.23	148.21	22.268		
10,400.00	7,061.71	11,577.00	7,229.75	92.87	102.28	168.76	-2,607.42	168.33	3,400.33	3,252.09	148.25	22.937		
10,500.00	7,061.41	11,577.00	7,229.75	95.47	102.28	168.76	-2,607.42	168.33	3,500.22	3,351.95	148.28	23.606		
10,600.00	7,061.12	11,577.00	7,229.75	98.09	102.28	168.76	-2,607.42	168.33	3,600.12	3,451.82	148.31	24.275		
10,700.00	7,060.82	11,577.00	7,229.75	100.72	102.28	168.76	-2,607.42	168.33	3,700.02	3,551.69	148.34	24.943		
10,800.00	7,060.52	11,577.00	7,229.75	103.37	102.28	168.76	-2,607.42	168.33	3,799.93	3,651.56	148.37	25.611		
10,900.00	7,060.22	11,577.00	7,229.75	106.02	102.28	168.76	-2,607.42	168.33	3,899.84	3,751.44	148.40	26.279		
11,000.00	7,059.93	11,577.00	7,229.75	108.69	102.28	168.76	-2,607.42	168.33	3,999.76	3,851.33	148.43	26.946		
11,100.00	7,059.63	11,577.00	7,229.75	111.36	102.28	168.76	-2,607.42	168.33	4,099.68	3,951.22	148.47	27.614		
11,200.00	7,059.33	11,577.00	7,229.75	114.05	102.28	168.76	-2,607.42	168.33	4,199.61	4,051.11	148.50	28.280		
11,300.00	7,059.03	11,577.00	7,229.75	116.74	102.28	168.76	-2,607.42	168.33	4,299.53	4,151.00	148.53	28.947		
11,400.00	7,058.74	11,577.00	7,229.75	119.44	102.28	168.76	-2,607.42	168.33	4,399.47	4,250.90	148.57	29.612		
11,500.00	7,058.44	11,577.00	7,229.75	122.15	102.28	168.76	-2,607.42	168.33	4,499.40	4,350.80	148.60	30.278		
11,600.00	7,058.14	11,577.00	7,229.75	124.86	102.28	168.76	-2,607.42	168.33	4,599.34	4,450.70	148.64	30.943		
11,700.00	7,057.84	11,577.00	7,229.75	127.58	102.28	168.76	-2,607.42	168.33	4,699.28	4,550.60	148.68	31.608		
11,800.00	7,057.55	11,577.00	7,229.75	130.31	102.28	168.76	-2,607.42	168.33	4,799.22	4,650.51	148.71	32.272		
11,900.00	7,057.25	11,577.00	7,229.75	133.04	102.28	168.76	-2,607.42	168.33	4,899.17	4,750.42	148.75	32.936		
12,000.00	7,056.95	11,577.00	7,229.75	135.78	102.28	168.76	-2,607.42	168.33	4,999.11	4,850.32	148.79	33.599		
12,100.00	7,056.65	11,577.00	7,229.75	138.52	102.28	168.76	-2,607.42	168.33	5,099.06	4,950.23	148.83	34.262		
12,200.00	7,056.36	11,577.00	7,229.75	141.27	102.28	168.76	-2,607.42	168.33	5,199.01	5,050.15	148.87	34.924		
12,300.00	7,056.06	11,577.00	7,229.75	144.02	102.28	168.76	-2,607.42	168.33	5,298.97	5,150.06	148.91	35.586		
12,400.00	7,055.76	11,577.00	7,229.75	146.78	102.28	168.76	-2,607.42	168.33	5,398.92	5,249.97	148.95	36.247		
12,500.00	7,055.46	11,577.00	7,229.75	149.54	102.28	168.76	-2,607.42	168.33	5,498.88	5,349.89	148.99	36.908		
12,600.00	7,055.17	11,577.00	7,229.75	152.30	102.28	168.76	-2,607.42	168.33	5,598.83	5,449.80	149.03	37.568		
12,700.00	7,054.87	11,577.00	7,229.75	155.07	102.28	168.76	-2,607.42	168.33	5,698.79	5,549.72	149.07	38.228		
12,800.00	7,054.57	11,577.00	7,229.75	157.84	102.28	168.76	-2,607.42	168.33	5,798.75	5,649.64	149.12	38.887		
12,900.00	7,054.27	11,577.00	7,229.75	160.61	102.28	168.76	-2,607.42	168.33	5,898.72	5,749.56	149.16	39.546		
13,000.00	7,053.97	11,577.00	7,229.75	163.39	102.28	168.76	-2,607.42	168.33	5,998.68	5,849.47	149.21	40.204		
13,100.00	7,053.68	11,577.00	7,229.75	166.17	102.28	168.76	-2,607.42	168.33	6,098.64	5,949.39	149.25	40.861		
13,200.00	7,053.38	11,577.00	7,229.75	168.95	102.28	168.76	-2,607.42	168.33	6,198.61	6,049.31	149.30	41.518		
13,300.00	7,053.08	11,577.00	7,229.75	171.73	102.28	168.76	-2,607.42	168.33	6,298.58	6,149.23	149.35	42.175		
13,400.00	7,052.78	11,577.00	7,229.75	174.52	102.28	168.76	-2,607.42	168.33	6,398.55	6,249.15	149.39	42.830		
13,500.00	7,052.49	11,577.00	7,229.75	177.31	102.28	168.76	-2,607.42	168.33	6,498.51	6,349.07	149.44	43.486		
13,600.00	7,052.19	11,577.00	7,229.75	180.10	102.28	168.76	-2,607.42	168.33	6,598.48	6,448.99	149.49	44.140		
13,700.00	7,051.89	11,577.00	7,229.75	182.90	102.28	168.76	-2,607.42	168.33	6,698.45	6,548.91	149.54	44.794		
13,800.00	7,051.59	11,577.00	7,229.75	185.69	102.28	168.76	-2,607.42	168.33	6,798.43	6,648.84	149.59	45.447		
13,900.00	7,051.30	11,577.00	7,229.75	188.49	102.28	168.76	-2,607.42	168.33	6,898.40	6,748.76	149.64	46.100		
14,000.00	7,051.00	11,577.00	7,229.75	191.29	102.28	168.76	-2,607.42	168.33	6,998.37	6,848.68	149.69	46.752		
14,100.00	7,050.70	11,577.00	7,229.75	194.09	102.28	168.76	-2,607.42	168.33	7,098.35	6,948.60	149.74	47.403		
14,200.00	7,050.40	11,577.00	7,229.75	196.89	102.28	168.76	-2,607.42	168.33	7,198.32	7,048.52	149.80	48.054		
14,300.00	7,050.11	11,577.00	7,229.75	199.70	102.28	168.76	-2,607.42	168.33	7,298.30	7,148.44	149.85	48.704		
14,400.00	7,049.81	11,577.00	7,229.75	202.50	102.28	168.76	-2,607.42	168.33	7,398.27	7,248.37	149.91	49.353		
14,500.00	7,049.51	11,577.00	7,229.75	205.31	102.28	168.76	-2,607.42	168.33	7,498.25	7,348.29	149.96	50.001		
14,600.00	7,049.21	11,577.00	7,229.75	208.12	102.28	168.76	-2,607.42	168.33	7,598.23	7,448.21	150.02	50.649		
14,700.00	7,048.92	11,577.00	7,229.75	210.93	102.28	168.76	-2,607.42	168.33	7,698.20	7,548.13	150.07	51.296		
14,800.00	7,048.62	11,577.00	7,229.75	213.74	102.28	168.76	-2,607.42	168.33	7,798.18	7,648.05	150.13	51.943		
14,900.00	7,048.32	11,577.00	7,229.75	216.55	102.28	168.76	-2,607.42	168.33	7,898.16	7,747.97	150.19	52.589		
15,000.00	7,048.02	11,577.00	7,229.75	219.37	102.28	168.76	-2,607.42	168.33	7,998.14	7,847.89	150.25	53.234		
15,100.00	7,047.73	11,577.00	7,229.75	222.18	102.28	168.76	-2,607.42	168.33	8,098.12	7,947.81	150.30	53.878		
15,200.00	7,047.43	11,577.00	7,229.75	225.00	102.28	168.76	-2,607.42	168.33	8,198.10	8,047.74	150.36	54.521		
15,300.00	7,047.13	11,577.00	7,229.75	227.81	102.28	168.76	-2,607.42	168.33	8,298.08	8,147.66	150.43	55.164		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)			
15,343.67	7,047.00	11,577.00	7,229.75	229.04	102.28	168.76	-2,607.42	168.33	8,341.75	8,191.30	150.45	55.445		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	-1.00	3.28	3.28	9.93	1,747.57	305.93	1,774.15					
100.00	100.00	78.22	77.22	3.28	3.29	9.95	1,747.97	306.54	1,774.80	1,768.23	6.57	270.137		
200.00	200.00	159.88	158.84	3.34	3.30	10.00	1,749.23	308.47	1,776.70	1,770.06	6.64	267.473		
300.00	299.98	281.20	280.10	3.44	3.41	-173.30	1,750.89	312.13	1,780.34	1,773.49	6.85	259.980		
400.00	399.84	373.38	372.23	3.59	3.54	-173.22	1,751.15	314.87	1,786.38	1,779.25	7.13	250.470		
500.00	499.45	463.84	462.66	3.79	3.70	-173.21	1,753.17	315.76	1,797.34	1,789.84	7.50	239.711		
600.00	598.70	592.03	590.84	4.03	3.99	-173.24	1,754.49	315.72	1,810.38	1,802.36	8.02	225.660		
700.00	697.47	679.41	678.23	4.31	4.22	-173.25	1,755.02	316.05	1,826.57	1,818.04	8.53	214.154		
800.00	795.62	767.36	766.16	4.64	4.47	-173.25	1,756.10	316.74	1,846.85	1,837.76	9.09	203.186		
900.00	893.06	877.11	875.90	5.00	4.81	-173.26	1,757.50	317.57	1,870.56	1,860.79	9.76	191.604		
1,000.00	989.64	971.21	969.99	5.40	5.12	-173.28	1,758.36	318.13	1,897.24	1,886.81	10.43	181.937		
1,100.00	1,085.27	1,052.18	1,050.95	5.83	5.39	-173.28	1,759.45	318.55	1,927.64	1,916.56	11.08	173.995		
1,200.00	1,179.82	1,143.51	1,142.27	6.29	5.72	-173.30	1,761.11	319.06	1,961.77	1,949.98	11.79	166.358		
1,300.00	1,273.17	1,247.76	1,246.50	6.79	6.09	-173.35	1,762.87	318.96	1,998.94	1,986.36	12.58	158.913		
1,400.00	1,365.46	1,335.51	1,334.24	7.32	6.41	-173.46	1,764.24	318.32	2,038.53	2,025.21	13.32	153.065		
1,500.00	1,457.65	1,430.19	1,428.91	7.87	6.77	-173.62	1,765.80	317.51	2,078.44	2,064.34	14.09	147.493		
1,600.00	1,549.83	1,501.63	1,500.34	8.43	7.04	-173.72	1,767.08	317.50	2,118.63	2,103.85	14.78	143.337		
1,700.00	1,642.02	1,567.61	1,566.28	9.01	7.30	-173.76	1,768.78	318.96	2,159.85	2,144.40	15.45	139.767		
1,800.00	1,734.21	1,632.00	1,630.57	9.59	7.55	-173.78	1,771.06	321.52	2,202.19	2,186.06	16.12	136.586		
1,900.00	1,826.39	1,707.63	1,706.00	10.18	7.86	-173.76	1,774.23	325.91	2,245.36	2,228.51	16.85	133.222		
2,000.00	1,918.58	1,774.08	1,772.19	10.78	8.13	-173.71	1,777.33	330.92	2,289.23	2,271.69	17.54	130.490		
2,100.00	2,010.77	1,836.10	1,833.87	11.39	8.39	-173.65	1,780.84	336.32	2,334.13	2,315.92	18.21	128.178		
2,200.00	2,102.95	1,895.87	1,893.26	11.99	8.64	-173.60	1,784.92	341.73	2,380.12	2,361.26	18.86	126.167		
2,300.00	2,195.14	1,968.43	1,965.28	12.61	8.95	-173.53	1,790.63	348.40	2,427.03	2,407.44	19.59	123.861		
2,400.00	2,287.32	2,046.47	2,042.71	13.22	9.29	-173.45	1,797.05	355.78	2,474.31	2,453.95	20.36	121.524		
2,500.00	2,379.51	2,125.22	2,120.89	13.84	9.64	-173.41	1,804.08	362.13	2,522.00	2,500.86	21.13	119.331		
2,600.00	2,471.70	2,216.50	2,211.48	14.46	10.05	-173.35	1,812.24	369.82	2,569.75	2,547.76	21.99	116.854		
2,700.00	2,563.88	2,321.54	2,315.64	15.08	10.52	-173.26	1,821.09	379.98	2,617.27	2,594.33	22.94	114.068		
2,800.00	2,656.07	2,435.93	2,429.21	15.71	11.04	-173.16	1,829.39	390.88	2,663.66	2,639.69	23.97	111.143		
2,900.00	2,748.26	2,515.14	2,507.89	16.33	11.40	-173.10	1,835.13	398.01	2,710.03	2,685.27	24.76	109.433		
3,000.00	2,840.44	2,589.36	2,581.58	16.96	11.74	-173.05	1,840.83	404.82	2,756.81	2,731.28	25.53	107.977		
3,100.00	2,932.63	2,656.71	2,648.39	17.59	12.06	-172.99	1,846.39	411.26	2,804.15	2,777.90	26.25	106.811		
3,200.00	3,024.81	2,752.18	2,743.03	18.22	12.51	-172.91	1,854.56	420.84	2,851.85	2,824.68	27.17	104.961		
3,300.00	3,117.00	2,901.79	2,891.35	18.86	13.22	-172.75	1,864.85	437.40	2,898.16	2,869.69	28.47	101.805		
3,400.00	3,209.19	2,995.23	2,984.10	19.49	13.66	-172.66	1,870.44	447.24	2,943.68	2,914.30	29.38	100.187		
3,500.00	3,301.37	3,083.89	3,072.26	20.12	14.07	-172.61	1,875.88	454.90	2,989.04	2,958.78	30.26	98.773		
3,600.00	3,393.56	3,156.87	3,144.79	20.76	14.41	-172.56	1,880.56	461.54	3,034.72	3,003.69	31.03	97.787		
3,700.00	3,485.75	3,226.18	3,213.60	21.39	14.74	-172.51	1,885.32	468.39	3,080.92	3,049.14	31.78	96.938		
3,800.00	3,577.93	3,354.76	3,341.34	22.03	15.35	-172.44	1,894.02	480.13	3,126.96	3,094.01	32.95	94.900		
3,900.00	3,670.12	3,435.77	3,421.91	22.67	15.73	-172.41	1,899.14	486.82	3,172.42	3,138.64	33.78	93.914		
4,000.00	3,762.30	3,520.90	3,506.53	23.30	16.13	-172.37	1,904.60	494.27	3,218.05	3,183.41	34.64	92.894		
4,100.00	3,854.49	3,596.34	3,581.51	23.94	16.49	-172.33	1,909.60	501.02	3,263.90	3,228.47	35.44	92.109		
4,200.00	3,946.68	10,163.47	7,118.30	24.58	75.39	-150.79	-1,313.77	640.56	3,252.32	3,208.86	43.46	74.840		
4,300.00	4,038.86	10,214.73	7,119.04	25.22	76.40	-149.85	-1,364.96	637.94	3,163.09	3,118.69	44.40	71.238		
4,400.00	4,131.05	10,256.24	7,119.59	25.86	77.21	-149.06	-1,406.41	635.74	3,073.95	3,028.62	45.34	67.804		
4,500.00	4,223.24	10,325.72	7,120.06	26.50	78.58	-147.64	-1,475.79	632.27	2,984.73	2,938.32	46.41	64.311		
4,600.00	4,315.42	10,442.89	7,118.56	27.14	80.89	-144.96	-1,592.77	625.81	2,894.73	2,847.06	47.67	60.719		
4,700.00	4,407.61	10,510.43	7,116.49	27.78	82.23	-143.22	-1,660.18	622.00	2,804.43	2,755.65	48.79	57.482		
4,800.00	4,499.79	10,558.26	7,114.78	28.42	83.17	-141.91	-1,707.89	619.21	2,714.18	2,664.31	49.88	54.419		
4,900.00	4,591.98	10,607.09	7,112.91	29.06	84.14	-140.51	-1,756.53	615.44	2,623.86	2,572.86	51.00	51.450		
5,000.00	4,684.17	10,638.97	7,111.76	29.70	84.77	-139.57	-1,788.27	612.63	2,533.76	2,481.62	52.13	48.603		
5,100.00	4,776.35	10,662.82	7,110.96	30.34	85.24	-138.83	-1,812.02	610.55	2,444.02	2,390.70	53.32	45.834		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	10,683.78	7,110.34	30.98	85.66	-138.16	-1,832.91	608.88	2,354.77	2,300.17	54.60	43.130		
5,300.00	4,960.73	10,706.30	7,109.77	31.63	86.10	-137.42	-1,855.36	607.26	2,266.08	2,210.11	55.97	40.487		
5,400.00	5,052.91	10,736.23	7,109.22	32.27	86.70	-136.40	-1,885.18	604.91	2,177.93	2,120.48	57.45	37.910		
5,500.00	5,145.10	10,775.90	7,108.65	32.91	87.49	-135.01	-1,924.70	601.45	2,090.22	2,031.19	59.03	35.408		
5,600.00	5,237.28	10,805.58	7,108.26	33.55	88.07	-133.93	-1,954.25	598.73	2,002.96	1,942.23	60.73	32.979		
5,700.00	5,329.47	10,827.97	7,108.14	34.20	88.52	-133.08	-1,976.55	596.72	1,916.49	1,853.91	62.59	30.622		
5,800.00	5,421.66	10,869.06	7,108.06	34.84	89.34	-131.46	-2,017.48	593.06	1,830.74	1,766.16	64.58	28.349		
5,900.00	5,513.84	10,913.00	7,107.89	35.48	90.21	-129.64	-2,061.24	589.00	1,745.53	1,678.79	66.74	26.155		
6,000.00	5,606.03	10,944.09	7,107.72	36.13	90.83	-128.27	-2,092.20	586.26	1,661.11	1,591.97	69.13	24.027		
6,100.00	5,698.22	10,969.58	7,107.72	36.77	91.34	-127.11	-2,117.60	584.10	1,577.82	1,506.04	71.79	21.980		
6,200.00	5,790.40	10,993.04	7,107.94	37.41	91.81	-126.00	-2,140.98	582.17	1,495.95	1,421.23	74.72	20.021		
6,300.00	5,882.59	11,017.00	7,108.42	38.06	92.29	-124.84	-2,164.86	580.34	1,415.77	1,337.81	77.97	18.159		
6,400.00	5,974.77	11,040.22	7,109.14	38.70	92.76	-123.69	-2,188.01	578.71	1,337.54	1,255.97	81.57	16.397		
6,500.00	6,066.96	11,074.43	7,110.48	39.34	93.45	-121.92	-2,222.13	576.50	1,261.45	1,175.91	85.54	14.747		
6,600.00	6,159.15	11,114.50	7,112.09	39.99	94.26	-119.76	-2,262.09	574.05	1,187.53	1,097.59	89.94	13.204		
6,700.00	6,251.33	11,158.64	7,113.87	40.63	95.16	-117.26	-2,306.12	571.48	1,116.15	1,021.34	94.81	11.772		
6,800.00	6,343.52	11,213.01	7,115.64	41.28	96.27	-114.01	-2,360.35	568.02	1,047.32	947.14	100.18	10.454		
6,900.00	6,435.71	11,249.48	7,116.31	41.92	97.01	-111.71	-2,396.76	566.10	982.03	875.86	106.17	9.249		
7,000.00	6,527.86	11,289.16	7,116.82	42.56	97.82	-115.60	-2,436.40	564.42	922.06	809.33	112.73	8.179		
7,100.00	6,618.85	11,326.46	7,117.31	43.19	98.58	-130.71	-2,473.67	562.79	878.27	758.14	120.13	7.311		
7,200.00	6,706.47	11,367.59	7,117.89	43.76	99.43	-141.09	-2,514.75	561.11	857.30	729.56	127.75	6.711		
7,234.10	6,735.18	11,380.21	7,118.04	43.93	99.69	-143.73	-2,527.36	560.58	855.82	725.62	130.20	6.573 CC, ES		
7,300.00	6,788.56	11,402.74	7,118.29	44.26	100.15	-147.82	-2,549.87	559.68	861.38	726.81	134.57	6.401		
7,400.00	6,863.10	11,430.88	7,118.73	44.70	100.73	-152.20	-2,577.99	558.67	890.57	750.73	139.84	6.369 SF		
7,500.00	6,928.26	11,462.61	7,119.31	45.07	101.38	-154.40	-2,609.70	557.62	942.13	798.60	143.52	6.564		
7,600.00	6,982.42	11,489.06	7,119.82	45.39	101.92	-155.44	-2,636.13	556.74	1,011.74	865.91	145.83	6.938		
7,700.00	7,024.26	11,511.01	7,120.28	45.67	102.38	-155.40	-2,658.07	556.01	1,094.81	947.60	147.20	7.437		
7,800.00	7,052.75	11,527.38	7,120.62	45.92	102.72	-154.00	-2,674.42	555.47	1,186.97	1,038.99	147.98	8.021		
7,900.00	7,067.18	11,537.71	7,120.83	46.16	102.93	-148.48	-2,684.74	555.13	1,284.49	1,136.10	148.38	8.657		
8,000.00	7,068.85	11,542.48	7,120.93	46.42	103.03	-132.14	-2,689.51	554.97	1,384.18	1,235.64	148.54	9.319		
8,100.00	7,068.56	11,546.38	7,121.02	46.78	103.11	-130.17	-2,693.41	554.84	1,484.05	1,335.39	148.66	9.983		
8,200.00	7,068.26	11,550.29	7,121.10	47.29	103.19	-128.36	-2,697.31	554.71	1,583.93	1,435.15	148.78	10.646		
8,300.00	7,067.96	11,554.19	7,121.18	48.03	103.27	-126.68	-2,701.21	554.58	1,683.81	1,534.91	148.90	11.308		
8,400.00	7,067.66	11,558.10	7,121.26	49.02	103.35	-125.14	-2,705.12	554.45	1,783.70	1,634.68	149.02	11.969		
8,500.00	7,067.37	11,562.00	7,121.34	50.27	103.43	-123.71	-2,709.02	554.32	1,883.59	1,734.45	149.14	12.630		
8,600.00	7,067.07	11,565.91	7,121.43	51.75	103.51	-122.38	-2,712.92	554.19	1,983.49	1,834.23	149.26	13.289		
8,700.00	7,066.77	11,569.81	7,121.51	53.42	103.59	-121.15	-2,716.82	554.06	2,083.38	1,934.00	149.38	13.947		
8,800.00	7,066.47	11,565.00	7,121.41	55.24	103.49	-122.68	-2,712.01	554.22	2,183.30	2,033.99	149.31	14.622		
8,900.00	7,066.18	11,565.00	7,121.41	57.18	103.49	-122.68	-2,712.01	554.22	2,283.22	2,133.88	149.34	15.288		
9,000.00	7,065.88	11,565.00	7,121.41	59.21	103.49	-122.68	-2,712.01	554.22	2,383.15	2,233.77	149.38	15.954		
9,100.00	7,065.58	11,565.00	7,121.41	61.33	103.49	-122.68	-2,712.01	554.22	2,483.08	2,333.67	149.41	16.620		
9,200.00	7,065.28	11,565.00	7,121.41	63.51	103.49	-122.68	-2,712.01	554.22	2,583.02	2,433.58	149.44	17.285		
9,300.00	7,064.99	11,565.00	7,121.41	65.76	103.49	-122.68	-2,712.01	554.22	2,682.96	2,533.49	149.47	17.950		
9,400.00	7,064.69	11,565.00	7,121.41	68.06	103.49	-122.68	-2,712.01	554.22	2,782.90	2,633.41	149.49	18.615		
9,500.00	7,064.39	11,565.00	7,121.41	70.40	103.49	-122.68	-2,712.01	554.22	2,882.85	2,733.33	149.52	19.280		
9,600.00	7,064.09	11,565.00	7,121.41	72.78	103.49	-122.68	-2,712.01	554.22	2,982.81	2,833.26	149.55	19.945		
9,700.00	7,063.80	11,565.00	7,121.41	75.20	103.49	-122.68	-2,712.01	554.22	3,082.76	2,933.18	149.58	20.609		
9,800.00	7,063.50	11,565.00	7,121.41	77.65	103.49	-122.68	-2,712.01	554.22	3,182.72	3,033.11	149.61	21.274		
9,900.00	7,063.20	11,565.00	7,121.41	80.13	103.49	-122.68	-2,712.01	554.22	3,282.68	3,133.05	149.64	21.938		
10,000.00	7,062.90	11,565.00	7,121.41	82.64	103.49	-122.68	-2,712.01	554.22	3,382.65	3,232.98	149.67	22.601		
10,100.00	7,062.61	11,565.00	7,121.41	85.17	103.49	-122.68	-2,712.01	554.22	3,482.61	3,332.92	149.70	23.265		
10,200.00	7,062.31	11,565.00	7,121.41	87.72	103.49	-122.68	-2,712.01	554.22	3,582.58	3,432.85	149.73	23.928		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,300.00	7,062.01	11,565.00	7,121.41	90.28	103.49	-122.68	-2,712.01	554.22	3,682.55	3,532.79	149.76	24.590	
10,400.00	7,061.71	11,565.00	7,121.41	92.87	103.49	-122.68	-2,712.01	554.22	3,782.52	3,632.74	149.79	25.253	
10,500.00	7,061.41	11,565.00	7,121.41	95.47	103.49	-122.68	-2,712.01	554.22	3,882.49	3,732.68	149.82	25.915	
10,600.00	7,061.12	11,565.00	7,121.41	98.09	103.49	-122.68	-2,712.01	554.22	3,982.47	3,832.62	149.85	26.577	
10,700.00	7,060.82	11,565.00	7,121.41	100.72	103.49	-122.68	-2,712.01	554.22	4,082.44	3,932.56	149.88	27.238	
10,800.00	7,060.52	11,565.00	7,121.41	103.37	103.49	-122.68	-2,712.01	554.22	4,182.42	4,032.51	149.91	27.899	
10,900.00	7,060.22	11,565.00	7,121.41	106.02	103.49	-122.68	-2,712.01	554.22	4,282.40	4,132.45	149.95	28.560	
11,000.00	7,059.93	11,565.00	7,121.41	108.69	103.49	-122.68	-2,712.01	554.22	4,382.38	4,232.40	149.98	29.220	
11,100.00	7,059.63	11,565.00	7,121.41	111.36	103.49	-122.68	-2,712.01	554.22	4,482.36	4,332.34	150.01	29.880	
11,200.00	7,059.33	11,565.00	7,121.41	114.05	103.49	-122.68	-2,712.01	554.22	4,582.34	4,432.29	150.05	30.539	
11,300.00	7,059.03	11,565.00	7,121.41	116.74	103.49	-122.68	-2,712.01	554.22	4,682.32	4,532.23	150.08	31.198	
11,400.00	7,058.74	11,565.00	7,121.41	119.44	103.49	-122.68	-2,712.01	554.22	4,782.30	4,632.18	150.12	31.857	
11,500.00	7,058.44	11,565.00	7,121.41	122.15	103.49	-122.68	-2,712.01	554.22	4,882.28	4,732.13	150.15	32.515	
11,600.00	7,058.14	11,565.00	7,121.41	124.86	103.49	-122.68	-2,712.01	554.22	4,982.27	4,832.07	150.19	33.173	
11,700.00	7,057.84	11,565.00	7,121.41	127.58	103.49	-122.68	-2,712.01	554.22	5,082.25	4,932.02	150.23	33.830	
11,800.00	7,057.55	11,565.00	7,121.41	130.31	103.49	-122.68	-2,712.01	554.22	5,182.23	5,031.97	150.27	34.487	
11,900.00	7,057.25	11,565.00	7,121.41	133.04	103.49	-122.68	-2,712.01	554.22	5,282.22	5,131.92	150.30	35.143	
12,000.00	7,056.95	11,565.00	7,121.41	135.78	103.49	-122.68	-2,712.01	554.22	5,382.21	5,231.86	150.34	35.799	
12,100.00	7,056.65	11,565.00	7,121.41	138.52	103.49	-122.68	-2,712.01	554.22	5,482.19	5,331.81	150.38	36.455	
12,200.00	7,056.36	11,565.00	7,121.41	141.27	103.49	-122.68	-2,712.01	554.22	5,582.18	5,431.75	150.42	37.110	
12,300.00	7,056.06	11,565.00	7,121.41	144.02	103.49	-122.68	-2,712.01	554.22	5,682.17	5,531.70	150.46	37.764	
12,400.00	7,055.76	11,565.00	7,121.41	146.78	103.49	-122.68	-2,712.01	554.22	5,782.15	5,631.65	150.51	38.418	
12,500.00	7,055.46	11,565.00	7,121.41	149.54	103.49	-122.68	-2,712.01	554.22	5,882.14	5,731.59	150.55	39.071	
12,600.00	7,055.17	11,565.00	7,121.41	152.30	103.49	-122.68	-2,712.01	554.22	5,982.13	5,831.54	150.59	39.724	
12,700.00	7,054.87	11,565.00	7,121.41	155.07	103.49	-122.68	-2,712.01	554.22	6,082.12	5,931.48	150.64	40.376	
12,800.00	7,054.57	11,565.00	7,121.41	157.84	103.49	-122.68	-2,712.01	554.22	6,182.11	6,031.43	150.68	41.028	
12,900.00	7,054.27	11,565.00	7,121.41	160.61	103.49	-122.68	-2,712.01	554.22	6,282.10	6,131.37	150.73	41.679	
13,000.00	7,053.97	11,565.00	7,121.41	163.39	103.49	-122.68	-2,712.01	554.22	6,382.09	6,231.32	150.77	42.330	
13,100.00	7,053.68	11,565.00	7,121.41	166.17	103.49	-122.68	-2,712.01	554.22	6,482.08	6,331.26	150.82	42.980	
13,200.00	7,053.38	11,565.00	7,121.41	168.95	103.49	-122.68	-2,712.01	554.22	6,582.07	6,431.20	150.86	43.629	
13,300.00	7,053.08	11,565.00	7,121.41	171.73	103.49	-122.68	-2,712.01	554.22	6,682.06	6,531.15	150.91	44.278	
13,400.00	7,052.78	11,565.00	7,121.41	174.52	103.49	-122.68	-2,712.01	554.22	6,782.05	6,631.09	150.96	44.926	
13,500.00	7,052.49	11,565.00	7,121.41	177.31	103.49	-122.68	-2,712.01	554.22	6,882.04	6,731.03	151.01	45.574	
13,600.00	7,052.19	11,565.00	7,121.41	180.10	103.49	-122.68	-2,712.01	554.22	6,982.03	6,830.98	151.06	46.221	
13,700.00	7,051.89	11,565.00	7,121.41	182.90	103.49	-122.68	-2,712.01	554.22	7,082.03	6,930.92	151.11	46.867	
13,800.00	7,051.59	11,565.00	7,121.41	185.69	103.49	-122.68	-2,712.01	554.22	7,182.02	7,030.86	151.16	47.513	
13,900.00	7,051.30	11,565.00	7,121.41	188.49	103.49	-122.68	-2,712.01	554.22	7,282.01	7,130.80	151.21	48.158	
14,000.00	7,051.00	11,565.00	7,121.41	191.29	103.49	-122.68	-2,712.01	554.22	7,382.00	7,230.74	151.26	48.802	
14,100.00	7,050.70	11,565.00	7,121.41	194.09	103.49	-122.68	-2,712.01	554.22	7,482.00	7,330.68	151.32	49.446	
14,200.00	7,050.40	11,565.00	7,121.41	196.89	103.49	-122.68	-2,712.01	554.22	7,581.99	7,430.62	151.37	50.089	
14,300.00	7,050.11	11,565.00	7,121.41	199.70	103.49	-122.68	-2,712.01	554.22	7,681.98	7,530.56	151.42	50.732	
14,400.00	7,049.81	11,565.00	7,121.41	202.50	103.49	-122.68	-2,712.01	554.22	7,781.97	7,630.50	151.48	51.373	
14,500.00	7,049.51	11,565.00	7,121.41	205.31	103.49	-122.68	-2,712.01	554.22	7,881.97	7,730.43	151.53	52.014	
14,600.00	7,049.21	11,565.00	7,121.41	208.12	103.49	-122.68	-2,712.01	554.22	7,981.96	7,830.37	151.59	52.655	
14,700.00	7,048.92	11,565.00	7,121.41	210.93	103.49	-122.68	-2,712.01	554.22	8,081.96	7,930.31	151.65	53.295	
14,800.00	7,048.62	11,565.00	7,121.41	213.74	103.49	-122.68	-2,712.01	554.22	8,181.95	8,030.24	151.70	53.933	
14,900.00	7,048.32	11,565.00	7,121.41	216.55	103.49	-122.68	-2,712.01	554.22	8,281.94	8,130.18	151.76	54.572	
15,000.00	7,048.02	11,565.00	7,121.41	219.37	103.49	-122.68	-2,712.01	554.22	8,381.94	8,230.12	151.82	55.209	
15,100.00	7,047.73	11,565.00	7,121.41	222.18	103.49	-122.68	-2,712.01	554.22	8,481.93	8,330.05	151.88	55.846	
15,200.00	7,047.43	11,565.00	7,121.41	225.00	103.49	-122.68	-2,712.01	554.22	8,581.93	8,429.99	151.94	56.482	
15,300.00	7,047.13	11,565.00	7,121.41	227.81	103.49	-122.68	-2,712.01	554.22	8,681.92	8,529.92	152.00	57.117	
15,343.67	7,047.00	11,565.00	7,121.41	229.04	103.49	-122.68	-2,712.01	554.22	8,725.59	8,573.56	152.03	57.395	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	14.47	3.47	3.28	3.28	44.21	1,743.98	1,696.53	2,433.04					
100.00	100.00	146.04	135.03	3.28	3.30	44.19	1,743.87	1,695.15	2,432.25	2,425.67	6.58	369.744		
200.00	200.00	257.23	246.19	3.34	3.37	44.13	1,744.13	1,692.22	2,430.58	2,423.87	6.71	362.256		
277.12	277.11	343.26	332.14	3.41	3.48	-139.37	1,744.87	1,688.87	2,429.76	2,422.87	6.89	352.545		
300.00	299.98	358.00	346.86	3.44	3.50	-139.39	1,745.08	1,688.26	2,429.85	2,422.90	6.94	350.047		
400.00	399.84	444.11	432.88	3.59	3.66	-139.52	1,746.78	1,684.55	2,432.25	2,425.00	7.24	335.820		
500.00	499.45	541.33	529.97	3.79	3.87	-139.70	1,749.22	1,680.13	2,437.57	2,429.91	7.65	318.551		
600.00	598.70	634.91	623.38	4.03	4.11	-139.89	1,752.22	1,675.44	2,445.78	2,437.65	8.13	300.743		
700.00	697.47	726.50	714.78	4.31	4.37	-140.10	1,755.69	1,670.54	2,456.94	2,448.26	8.68	283.217		
800.00	795.62	819.99	808.03	4.64	4.66	-140.34	1,759.89	1,665.31	2,471.21	2,461.93	9.28	266.235		
900.00	893.06	918.09	905.86	5.00	4.99	-140.62	1,764.21	1,659.60	2,488.10	2,478.14	9.96	249.915		
1,000.00	989.64	996.87	984.44	5.40	5.27	-140.79	1,767.92	1,655.26	2,508.25	2,497.64	10.61	236.488		
1,100.00	1,085.27	1,220.46	1,205.88	5.83	6.17	-142.14	1,785.02	1,630.68	2,531.11	2,519.20	11.91	212.507		
1,200.00	1,179.82	1,360.23	1,343.06	6.29	6.83	-143.09	1,795.28	1,605.98	2,551.65	2,538.67	12.98	196.589		
1,300.00	1,273.17	1,451.21	1,432.26	6.79	7.27	-143.62	1,801.67	1,589.24	2,574.94	2,561.07	13.87	185.693		
1,400.00	1,365.46	1,521.39	1,501.06	7.32	7.63	-144.16	1,806.84	1,576.37	2,601.30	2,586.62	14.68	177.229		
1,500.00	1,457.65	1,727.73	1,703.13	7.87	8.72	-146.03	1,817.19	1,536.05	2,625.43	2,609.22	16.21	161.915		
1,600.00	1,549.83	1,600.00	1,800.29	8.43	8.04	-146.88	1,819.97	1,516.31	2,649.07	2,633.03	16.04	165.130		
1,700.00	1,642.02	1,889.39	1,861.59	9.01	9.59	-147.40	1,821.63	1,504.37	2,673.61	2,655.58	18.02	148.336		
1,800.00	1,734.21	1,951.02	1,922.20	9.59	9.91	-147.90	1,823.60	1,493.45	2,699.69	2,680.86	18.83	143.367		
1,900.00	1,826.39	2,011.00	1,981.31	10.18	10.23	-148.37	1,825.72	1,483.48	2,727.09	2,707.46	19.63	138.946		
2,000.00	1,918.58	2,066.95	2,036.53	10.78	10.52	-148.80	1,828.08	1,474.78	2,755.96	2,735.56	20.40	135.123		
2,100.00	2,010.77	2,125.76	2,094.63	11.39	10.82	-149.24	1,831.17	1,466.22	2,786.43	2,765.25	21.18	131.570		
2,200.00	2,102.95	2,205.17	2,173.06	11.99	11.24	-149.83	1,835.89	1,454.66	2,817.83	2,795.76	22.08	127.626		
2,300.00	2,195.14	2,274.78	2,241.75	12.61	11.60	-150.35	1,840.54	1,444.39	2,850.09	2,827.16	22.93	124.313		
2,400.00	2,287.32	2,344.74	2,310.73	13.22	11.97	-150.87	1,845.78	1,434.04	2,883.31	2,859.53	23.78	121.259		
2,500.00	2,379.51	2,428.63	2,393.43	13.84	12.42	-151.48	1,852.57	1,421.68	2,917.39	2,892.68	24.71	118.043		
2,600.00	2,471.70	2,522.74	2,486.38	14.46	12.91	-152.14	1,859.39	1,408.56	2,951.53	2,925.82	25.71	114.799		
2,700.00	2,563.88	2,602.52	2,565.25	15.08	13.32	-152.67	1,865.10	1,398.01	2,986.24	2,959.62	26.61	112.218		
2,800.00	2,656.07	2,698.06	2,659.78	15.71	13.82	-153.29	1,871.65	1,385.83	3,021.23	2,993.63	27.61	109.440		
2,900.00	2,748.26	2,810.12	2,770.63	16.33	14.40	-154.00	1,879.10	1,371.15	3,056.23	3,027.52	28.71	106.447		
3,000.00	2,840.44	2,938.42	2,897.05	16.96	15.10	-154.84	1,887.52	1,351.05	3,090.33	3,060.39	29.95	103.191		
3,100.00	2,932.63	3,033.84	2,990.88	17.59	15.63	-155.47	1,893.70	1,334.80	3,124.17	3,093.19	30.98	100.837		
3,200.00	3,024.81	3,130.22	3,085.83	18.22	16.16	-156.08	1,899.33	1,319.23	3,158.18	3,126.16	32.02	98.637		
3,300.00	3,117.00	3,215.45	3,169.80	18.86	16.63	-156.61	1,904.20	1,305.48	3,192.38	3,159.40	32.98	96.799		
3,400.00	3,209.19	3,312.01	3,265.03	19.49	17.16	-157.18	1,909.53	1,290.44	3,226.92	3,192.91	34.01	94.894		
3,500.00	3,301.37	3,452.53	3,404.14	20.12	17.88	-157.93	1,914.42	1,271.29	3,260.74	3,225.45	35.29	92.394		
3,600.00	3,393.56	3,521.32	3,472.33	20.76	18.23	-158.28	1,916.32	1,262.37	3,294.46	3,258.34	36.11	91.222		
3,700.00	3,485.75	3,582.38	3,532.89	21.39	18.54	-158.58	1,918.33	1,254.87	3,329.05	3,292.17	36.88	90.259		
3,800.00	3,577.93	3,642.52	3,592.50	22.03	18.85	-158.87	1,920.97	1,247.34	3,364.67	3,327.02	37.64	89.387		
3,900.00	3,670.12	3,704.63	3,654.00	22.67	19.17	-159.19	1,924.33	1,239.39	3,401.22	3,362.81	38.41	88.545		
4,000.00	3,762.30	3,777.69	3,726.24	23.30	19.56	-159.56	1,929.05	1,229.52	3,438.58	3,399.32	39.26	87.575		
4,100.00	3,854.49	3,860.31	3,807.69	23.94	20.01	-160.00	1,935.20	1,217.07	3,476.44	3,436.24	40.19	86.490		
4,200.00	3,946.68	10,359.21	7,237.40	24.58	77.47	-141.10	-1,357.90	975.72	3,455.81	3,403.81	52.00	66.457		
4,300.00	4,038.86	10,405.71	7,237.23	25.22	78.38	-140.11	-1,404.39	974.94	3,368.52	3,315.28	53.24	63.269		
4,400.00	4,131.05	10,465.15	7,236.77	25.86	79.55	-138.79	-1,463.81	973.66	3,281.32	3,226.68	54.63	60.059		
4,500.00	4,223.24	10,519.17	7,236.11	26.50	80.62	-137.54	-1,517.81	972.29	3,194.19	3,138.16	56.03	57.004		
4,600.00	4,315.42	10,569.70	7,235.26	27.14	81.62	-136.32	-1,568.32	970.88	3,107.20	3,049.74	57.46	54.074		
4,700.00	4,407.61	10,624.33	7,234.12	27.78	82.70	-134.93	-1,622.92	969.31	3,020.40	2,961.41	58.99	51.205		
4,800.00	4,499.79	10,679.00	7,232.64	28.42	83.79	-133.49	-1,677.54	967.61	2,933.74	2,873.16	60.58	48.427		
4,900.00	4,591.98	10,736.43	7,230.71	29.06	84.93	-131.89	-1,734.90	965.54	2,847.19	2,784.92	62.27	45.724		
5,000.00	4,684.17	10,751.20	7,230.23	29.70	85.22	-131.47	-1,749.65	964.99	2,761.13	2,697.45	63.68	43.360		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	10,772.00	7,229.72	30.34	85.64	-130.86	-1,770.43	964.42	2,675.92	2,610.69	65.23	41.025		
5,200.00	4,868.54	10,780.52	7,229.57	30.98	85.81	-130.61	-1,778.95	964.25	2,591.49	2,524.73	66.76	38.821		
5,300.00	4,960.73	10,804.00	7,229.19	31.63	86.28	-129.91	-1,802.42	963.87	2,507.94	2,439.42	68.51	36.604		
5,400.00	5,052.91	10,818.24	7,229.05	32.27	86.56	-129.47	-1,816.67	963.71	2,425.34	2,355.04	70.29	34.503		
5,500.00	5,145.10	10,835.00	7,229.00	32.91	86.90	-128.95	-1,833.42	963.65	2,343.86	2,271.65	72.21	32.461		
5,600.00	5,237.28	10,854.90	7,229.08	33.55	87.30	-128.32	-1,853.32	963.71	2,263.55	2,189.28	74.27	30.478		
5,700.00	5,329.47	10,883.33	7,229.31	34.20	87.87	-127.40	-1,881.75	963.97	2,184.44	2,107.88	76.56	28.534		
5,800.00	5,421.66	10,926.19	7,229.57	34.84	88.74	-125.98	-1,924.60	964.62	2,106.44	2,027.28	79.16	26.610		
5,900.00	5,513.84	10,974.31	7,229.68	35.48	89.71	-124.32	-1,972.72	965.28	2,029.46	1,947.46	82.00	24.750		
6,000.00	5,606.03	11,029.89	7,229.49	36.13	90.83	-122.33	-2,028.29	965.94	1,953.58	1,868.46	85.12	22.950		
6,100.00	5,698.22	11,071.38	7,229.14	36.77	91.67	-120.80	-2,069.78	966.31	1,878.94	1,790.67	88.27	21.287		
6,200.00	5,790.40	11,135.48	7,228.21	37.41	92.97	-118.35	-2,133.87	966.49	1,805.63	1,713.70	91.93	19.642		
6,300.00	5,882.59	11,168.18	7,227.59	38.06	93.63	-117.06	-2,166.57	966.45	1,733.96	1,638.58	95.38	18.179		
6,400.00	5,974.77	11,202.64	7,226.96	38.70	94.33	-115.68	-2,201.02	966.52	1,664.51	1,565.42	99.08	16.799		
6,500.00	6,066.96	11,237.01	7,226.23	39.34	95.03	-114.26	-2,235.39	966.73	1,597.47	1,494.46	103.01	15.509		
6,600.00	6,159.15	11,275.87	7,225.31	39.99	95.83	-112.63	-2,274.23	967.13	1,533.18	1,425.96	107.22	14.299		
6,700.00	6,251.33	11,298.72	7,224.81	40.63	96.29	-111.65	-2,297.07	967.41	1,472.09	1,360.75	111.34	13.221		
6,800.00	6,343.52	11,327.30	7,224.50	41.28	96.88	-110.42	-2,325.65	967.85	1,414.81	1,299.11	115.70	12.228		
6,900.00	6,435.71	11,371.88	7,224.13	41.92	97.79	-108.47	-2,370.22	968.48	1,361.47	1,240.97	120.50	11.299		
7,000.00	6,527.86	11,414.28	7,223.60	42.56	98.66	-113.29	-2,412.62	968.89	1,313.01	1,187.68	125.33	10.476		
7,100.00	6,618.85	11,448.34	7,223.07	43.19	99.36	-129.70	-2,446.67	969.24	1,280.72	1,150.58	130.14	9.841		
7,198.29	6,705.01	11,478.43	7,222.60	43.75	99.97	-141.35	-2,476.76	969.68	1,269.91	1,135.29	134.62	9.433 CC		
7,200.00	6,706.47	11,478.98	7,222.59	43.76	99.98	-141.51	-2,477.30	969.69	1,269.91	1,135.22	134.70	9.428 ES		
7,300.00	6,788.56	11,510.53	7,222.09	44.26	100.63	-149.18	-2,508.85	970.23	1,281.51	1,142.78	138.73	9.237 SF		
7,400.00	6,863.10	11,537.98	7,221.63	44.70	101.20	-154.28	-2,536.29	970.72	1,314.79	1,172.87	141.91	9.265		
7,500.00	6,928.26	11,556.54	7,221.30	45.07	101.58	-158.05	-2,554.84	971.13	1,367.71	1,223.63	144.08	9.493		
7,600.00	6,982.42	11,575.59	7,220.97	45.39	101.97	-160.75	-2,573.88	971.62	1,437.08	1,291.46	145.62	9.869		
7,700.00	7,024.26	11,592.35	7,220.65	45.67	102.32	-163.06	-2,590.63	972.04	1,519.19	1,372.54	146.65	10.359		
7,800.00	7,052.75	11,600.07	7,220.51	45.92	102.48	-166.53	-2,598.35	972.23	1,610.40	1,463.26	147.14	10.945		
7,900.00	7,067.18	11,602.92	7,220.45	46.16	102.53	-175.44	-2,601.20	972.31	1,707.29	1,559.96	147.33	11.588		
8,000.00	7,068.85	11,602.03	7,220.47	46.42	102.52	167.03	-2,600.30	972.28	1,806.71	1,659.36	147.36	12.261		
8,100.00	7,068.56	11,600.61	7,220.50	46.78	102.49	166.50	-2,598.88	972.24	1,906.38	1,759.04	147.35	12.938		
8,200.00	7,068.26	11,599.23	7,220.52	47.29	102.46	166.00	-2,597.51	972.21	2,006.09	1,858.75	147.34	13.615		
8,300.00	7,067.96	11,597.90	7,220.55	48.03	102.43	165.51	-2,596.18	972.18	2,105.82	1,958.49	147.33	14.293		
8,400.00	7,067.66	11,596.49	7,220.54	49.02	102.44	165.73	-2,596.77	972.19	2,205.57	2,058.20	147.37	14.966		
8,500.00	7,067.37	11,596.38	7,220.58	50.27	102.40	164.96	-2,594.66	972.14	2,305.34	2,158.01	147.34	15.647		
8,600.00	7,067.07	11,594.24	7,220.62	51.75	102.36	164.18	-2,592.52	972.08	2,405.14	2,257.84	147.30	16.328		
8,700.00	7,066.77	11,592.07	7,220.66	53.42	102.31	163.40	-2,590.35	972.03	2,504.94	2,357.68	147.26	17.010		
8,800.00	7,066.47	11,589.87	7,220.70	55.24	102.27	162.62	-2,588.15	971.98	2,604.76	2,457.54	147.22	17.693		
8,900.00	7,066.18	11,587.64	7,220.74	57.18	102.22	161.84	-2,585.93	971.92	2,704.59	2,557.41	147.18	18.376		
9,000.00	7,065.88	11,585.38	7,220.79	59.21	102.17	161.05	-2,583.67	971.86	2,804.44	2,657.30	147.14	19.060		
9,100.00	7,065.58	11,583.10	7,220.83	61.33	102.13	160.26	-2,581.38	971.81	2,904.29	2,757.19	147.10	19.744		
9,200.00	7,065.28	11,580.78	7,220.87	63.51	102.08	159.47	-2,579.06	971.75	3,004.15	2,857.09	147.06	20.429		
9,300.00	7,064.99	11,578.42	7,220.91	65.76	102.03	158.67	-2,576.71	971.69	3,104.02	2,957.00	147.01	21.114		
9,400.00	7,064.69	11,576.04	7,220.96	68.06	101.98	157.87	-2,574.33	971.63	3,203.89	3,056.92	146.97	21.799		
9,500.00	7,064.39	11,573.62	7,221.00	70.40	101.93	157.07	-2,571.91	971.57	3,303.77	3,156.84	146.93	22.486		
9,600.00	7,064.09	11,571.17	7,221.05	72.78	101.88	156.27	-2,569.46	971.50	3,403.66	3,256.77	146.88	23.172		
9,700.00	7,063.80	11,568.68	7,221.09	75.20	101.83	155.47	-2,566.97	971.44	3,503.55	3,356.71	146.84	23.860		
9,800.00	7,063.50	11,566.16	7,221.13	77.65	101.78	154.67	-2,564.45	971.37	3,603.45	3,456.65	146.80	24.547		
9,900.00	7,063.20	11,563.60	7,221.18	80.13	101.72	153.87	-2,561.89	971.31	3,703.35	3,556.59	146.75	25.235		
10,000.00	7,062.90	11,563.00	7,221.19	82.64	101.71	153.68	-2,561.30	971.29	3,803.25	3,656.49	146.76	25.914		
10,100.00	7,062.61	11,563.00	7,221.19	85.17	101.71	153.68	-2,561.30	971.29	3,903.16	3,756.37	146.79	26.590		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,200.00	7,062.31	11,563.00	7,221.19	87.72	101.71	153.68	-2,561.30	971.29	4,003.07	3,856.26	146.81	27.266	
10,300.00	7,062.01	11,563.00	7,221.19	90.28	101.71	153.68	-2,561.30	971.29	4,102.99	3,956.15	146.84	27.942	
10,400.00	7,061.71	11,563.00	7,221.19	92.87	101.71	153.68	-2,561.30	971.29	4,202.91	4,056.04	146.87	28.617	
10,500.00	7,061.41	11,563.00	7,221.19	95.47	101.71	153.68	-2,561.30	971.29	4,302.84	4,155.94	146.90	29.291	
10,600.00	7,061.12	11,563.00	7,221.19	98.09	101.71	153.68	-2,561.30	971.29	4,402.77	4,255.84	146.93	29.966	
10,700.00	7,060.82	11,563.00	7,221.19	100.72	101.71	153.68	-2,561.30	971.29	4,502.70	4,355.74	146.96	30.640	
10,800.00	7,060.52	11,555.14	7,221.33	103.37	101.55	151.29	-2,553.44	971.09	4,602.62	4,455.84	146.78	31.358	
10,900.00	7,060.22	11,554.35	7,221.34	106.02	101.53	151.06	-2,552.65	971.07	4,702.56	4,555.77	146.79	32.036	
11,000.00	7,059.93	11,553.57	7,221.35	108.69	101.52	150.83	-2,551.87	971.06	4,802.49	4,655.69	146.80	32.715	
11,100.00	7,059.63	11,552.82	7,221.37	111.36	101.50	150.61	-2,551.12	971.04	4,902.43	4,755.62	146.81	33.393	
11,200.00	7,059.33	11,552.08	7,221.38	114.05	101.49	150.40	-2,550.38	971.02	5,002.37	4,855.55	146.82	34.070	
11,300.00	7,059.03	11,551.36	7,221.39	116.74	101.47	150.19	-2,549.66	971.00	5,102.32	4,955.48	146.84	34.748	
11,400.00	7,058.74	11,550.65	7,221.41	119.44	101.46	149.98	-2,548.96	970.99	5,202.26	5,055.41	146.86	35.424	
11,500.00	7,058.44	11,549.96	7,221.42	122.15	101.44	149.78	-2,548.27	970.97	5,302.21	5,155.34	146.87	36.101	
11,600.00	7,058.14	11,549.29	7,221.43	124.86	101.43	149.59	-2,547.59	970.96	5,402.16	5,255.27	146.89	36.777	
11,700.00	7,057.84	11,548.63	7,221.44	127.58	101.42	149.40	-2,546.93	970.94	5,502.11	5,355.20	146.91	37.452	
11,800.00	7,057.55	11,547.99	7,221.45	130.31	101.40	149.22	-2,546.29	970.93	5,602.06	5,455.13	146.93	38.127	
11,900.00	7,057.25	11,547.36	7,221.46	133.04	101.39	149.04	-2,545.66	970.91	5,702.02	5,555.07	146.95	38.802	
12,000.00	7,056.95	11,546.74	7,221.47	135.78	101.38	148.86	-2,545.04	970.90	5,801.97	5,655.00	146.97	39.476	
12,100.00	7,056.65	11,546.13	7,221.48	138.52	101.36	148.69	-2,544.44	970.89	5,901.93	5,754.93	147.00	40.150	
12,200.00	7,056.36	11,545.54	7,221.49	141.27	101.35	148.53	-2,543.84	970.87	6,001.89	5,854.87	147.02	40.823	
12,300.00	7,056.06	11,544.96	7,221.51	144.02	101.34	148.37	-2,543.26	970.86	6,101.85	5,954.80	147.05	41.496	
12,400.00	7,055.76	11,544.39	7,221.51	146.78	101.33	148.21	-2,542.70	970.85	6,201.81	6,054.73	147.07	42.168	
12,500.00	7,055.46	11,543.83	7,221.52	149.54	101.32	148.05	-2,542.14	970.84	6,301.77	6,154.67	147.10	42.840	
12,600.00	7,055.17	11,543.29	7,221.53	152.30	101.31	147.90	-2,541.59	970.83	6,401.73	6,254.60	147.13	43.511	
12,700.00	7,054.87	11,542.75	7,221.54	155.07	101.30	147.76	-2,541.06	970.82	6,501.69	6,354.53	147.16	44.181	
12,800.00	7,054.57	11,542.23	7,221.55	157.84	101.28	147.61	-2,540.53	970.81	6,601.66	6,454.47	147.19	44.851	
12,900.00	7,054.27	11,541.71	7,221.56	160.61	101.27	147.47	-2,540.02	970.79	6,701.62	6,554.40	147.22	45.521	
13,000.00	7,053.97	11,541.21	7,221.57	163.39	101.26	147.33	-2,539.51	970.78	6,801.59	6,654.34	147.25	46.189	
13,100.00	7,053.68	11,540.71	7,221.58	166.17	101.25	147.20	-2,539.02	970.77	6,901.56	6,754.27	147.29	46.858	
13,200.00	7,053.38	11,531.00	7,221.75	168.95	101.05	144.64	-2,529.31	970.59	7,001.54	6,854.46	147.09	47.602	
13,300.00	7,053.08	11,531.00	7,221.75	171.73	101.05	144.64	-2,529.31	970.59	7,101.51	6,954.38	147.13	48.266	
13,400.00	7,052.78	11,531.00	7,221.75	174.52	101.05	144.64	-2,529.31	970.59	7,201.48	7,054.30	147.18	48.929	
13,500.00	7,052.49	11,531.00	7,221.75	177.31	101.05	144.64	-2,529.31	970.59	7,301.45	7,154.22	147.23	49.592	
13,600.00	7,052.19	11,531.00	7,221.75	180.10	101.05	144.64	-2,529.31	970.59	7,401.42	7,254.14	147.28	50.254	
13,700.00	7,051.89	11,531.00	7,221.75	182.90	101.05	144.64	-2,529.31	970.59	7,501.39	7,354.06	147.33	50.915	
13,800.00	7,051.59	11,531.00	7,221.75	185.69	101.05	144.64	-2,529.31	970.59	7,601.36	7,453.98	147.38	51.575	
13,900.00	7,051.30	11,531.00	7,221.75	188.49	101.05	144.64	-2,529.31	970.59	7,701.33	7,553.90	147.44	52.235	
14,000.00	7,051.00	11,531.00	7,221.75	191.29	101.05	144.64	-2,529.31	970.59	7,801.30	7,653.82	147.49	52.895	
14,100.00	7,050.70	11,531.00	7,221.75	194.09	101.05	144.64	-2,529.31	970.59	7,901.28	7,753.74	147.54	53.553	
14,200.00	7,050.40	11,531.00	7,221.75	196.89	101.05	144.64	-2,529.31	970.59	8,001.25	7,853.66	147.59	54.211	
14,300.00	7,050.11	11,531.00	7,221.75	199.70	101.05	144.64	-2,529.31	970.59	8,101.23	7,953.58	147.65	54.868	
14,400.00	7,049.81	11,531.00	7,221.75	202.50	101.05	144.64	-2,529.31	970.59	8,201.20	8,053.50	147.70	55.524	
14,500.00	7,049.51	11,531.00	7,221.75	205.31	101.05	144.64	-2,529.31	970.59	8,301.18	8,153.42	147.76	56.180	
14,600.00	7,049.21	11,531.00	7,221.75	208.12	101.05	144.64	-2,529.31	970.59	8,401.15	8,253.34	147.82	56.835	
14,700.00	7,048.92	11,531.00	7,221.75	210.93	101.05	144.64	-2,529.31	970.59	8,501.13	8,353.26	147.87	57.489	
14,800.00	7,048.62	11,531.00	7,221.75	213.74	101.05	144.64	-2,529.31	970.59	8,601.11	8,453.18	147.93	58.142	
14,900.00	7,048.32	11,531.00	7,221.75	216.55	101.05	144.64	-2,529.31	970.59	8,701.09	8,553.10	147.99	58.795	
15,000.00	7,048.02	11,531.00	7,221.75	219.37	101.05	144.64	-2,529.31	970.59	8,801.07	8,653.02	148.05	59.447	
15,100.00	7,047.73	11,531.00	7,221.75	222.18	101.05	144.64	-2,529.31	970.59	8,901.05	8,752.94	148.11	60.098	
15,200.00	7,047.43	11,531.00	7,221.75	225.00	101.05	144.64	-2,529.31	970.59	9,001.02	8,852.85	148.17	60.748	
15,300.00	7,047.13	11,533.74	7,221.70	227.81	101.11	145.35	-2,532.05	970.64	9,101.00	8,952.70	148.30	61.369	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)			
15,343.67	7,047.00	11,533.23	7,221.71	229.04	101.10	145.21	-2,531.54	970.63	9,144.67	8,996.36	148.31	61.658		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	1.00	0.00	3.28	3.28	0.48	99.82	0.83	99.82					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	99.82	0.83	99.82	93.25	6.57	15.194		
200.00	200.00	201.04	200.04	3.34	3.34	0.48	99.82	0.83	99.82	93.14	6.67	14.954		
300.00	299.98	304.63	303.61	3.44	3.45	177.03	97.91	0.66	99.72	92.83	6.90	14.460		
400.00	399.84	408.22	407.04	3.59	3.61	176.91	92.29	0.13	99.51	92.28	7.23	13.760		
500.00	499.45	511.80	510.18	3.79	3.82	176.71	82.94	-0.76	99.19	91.51	7.67	12.926		
600.00	598.70	615.36	612.90	4.03	4.08	176.44	69.89	-1.98	98.75	90.54	8.20	12.035		
700.00	697.47	718.89	715.06	4.31	4.37	176.08	53.16	-3.56	98.20	89.39	8.81	11.148		
800.00	795.62	822.41	816.52	4.64	4.72	175.64	32.77	-5.48	97.54	88.07	9.47	10.299		
900.00	893.06	925.89	917.14	5.00	5.10	175.11	8.75	-7.74	96.78	86.60	10.18	9.505		
942.24	933.97	968.77	958.60	5.16	5.27	174.87	-2.17	-8.77	96.53	86.04	10.48	9.209 CC, ES		
1,000.00	989.64	1,026.52	1,014.41	5.40	5.50	174.60	-16.95	-10.17	97.11	86.21	10.89	8.914		
1,100.00	1,085.27	1,126.44	1,110.97	5.83	5.93	174.29	-42.54	-12.57	100.85	89.21	11.65	8.660		
1,200.00	1,179.82	1,226.18	1,207.35	6.29	6.37	174.19	-68.07	-14.98	108.07	95.63	12.44	8.688		
1,300.00	1,273.17	1,325.60	1,303.43	6.79	6.82	174.26	-93.52	-17.38	118.74	105.48	13.27	8.950		
1,400.00	1,365.46	1,424.68	1,399.18	7.32	7.29	174.45	-118.89	-19.77	132.25	118.12	14.12	9.363		
1,500.00	1,457.65	1,523.73	1,494.90	7.87	7.76	174.63	-144.24	-22.16	146.03	131.02	15.00	9.734		
1,600.00	1,549.83	1,622.77	1,590.61	8.43	8.24	174.78	-169.60	-24.54	159.81	143.91	15.90	10.053		
1,700.00	1,642.02	1,721.82	1,686.33	9.01	8.73	174.90	-194.95	-26.93	173.59	156.78	16.81	10.328		
1,800.00	1,734.21	1,820.86	1,782.04	9.59	9.22	175.00	-220.31	-29.32	187.37	169.64	17.73	10.566		
1,900.00	1,826.39	1,919.91	1,877.76	10.18	9.72	175.09	-245.67	-31.71	201.15	182.48	18.67	10.773		
2,000.00	1,918.58	2,018.95	1,973.47	10.78	10.22	175.17	-271.02	-34.10	214.94	195.32	19.62	10.956		
2,100.00	2,010.77	2,118.00	2,069.19	11.39	10.73	175.24	-296.38	-36.49	228.72	208.15	20.57	11.117		
2,200.00	2,102.95	2,217.04	2,164.90	11.99	11.24	175.30	-321.73	-38.87	242.51	220.97	21.54	11.259		
2,300.00	2,195.14	2,316.09	2,260.62	12.61	11.75	175.36	-347.09	-41.26	256.29	233.78	22.51	11.386		
2,400.00	2,287.32	2,415.13	2,356.33	13.22	12.26	175.41	-372.45	-43.65	270.08	246.59	23.48	11.500		
2,500.00	2,379.51	2,514.18	2,452.05	13.84	12.78	175.45	-397.80	-46.04	283.86	259.40	24.46	11.603		
2,600.00	2,471.70	2,613.22	2,547.76	14.46	13.29	175.49	-423.16	-48.43	297.65	272.20	25.45	11.695		
2,700.00	2,563.88	2,712.27	2,643.48	15.08	13.81	175.53	-448.51	-50.82	311.43	284.99	26.44	11.779		
2,800.00	2,656.07	2,811.31	2,739.19	15.71	14.33	175.56	-473.87	-53.21	325.22	297.78	27.43	11.855		
2,900.00	2,748.26	2,910.36	2,834.90	16.33	14.85	175.59	-499.23	-55.59	339.00	310.57	28.43	11.925		
3,000.00	2,840.44	3,009.40	2,930.62	16.96	15.37	175.62	-524.58	-57.98	352.79	323.36	29.43	11.989		
3,100.00	2,932.63	3,108.45	3,026.33	17.59	15.89	175.65	-549.94	-60.37	366.57	336.15	30.43	12.047		
3,200.00	3,024.81	3,207.49	3,122.05	18.22	16.42	175.67	-575.29	-62.76	380.36	348.93	31.43	12.101		
3,300.00	3,117.00	3,306.54	3,217.76	18.86	16.94	175.69	-600.65	-65.15	394.14	361.71	32.44	12.151		
3,400.00	3,209.19	3,405.58	3,313.48	19.49	17.47	175.72	-626.01	-67.54	407.93	374.49	33.44	12.197		
3,500.00	3,301.37	3,504.63	3,409.19	20.12	17.99	175.74	-651.36	-69.93	421.72	387.26	34.45	12.240		
3,600.00	3,393.56	3,603.67	3,504.91	20.76	18.52	175.75	-676.72	-72.31	435.50	400.04	35.46	12.280		
3,700.00	3,485.75	3,702.72	3,600.62	21.39	19.05	175.77	-702.07	-74.70	449.29	412.81	36.48	12.317		
3,800.00	3,577.93	3,801.76	3,696.34	22.03	19.58	175.79	-727.43	-77.09	463.07	425.58	37.49	12.352		
3,900.00	3,670.12	3,900.81	3,792.05	22.67	20.10	175.80	-752.79	-79.48	476.86	438.35	38.50	12.385		
4,000.00	3,762.30	3,999.86	3,887.77	23.30	20.63	175.82	-778.14	-81.87	490.65	451.13	39.52	12.415		
4,100.00	3,854.49	4,101.10	3,983.48	23.94	21.17	175.83	-803.50	-84.26	504.43	463.88	40.55	12.440		
4,200.00	3,946.68	4,202.05	4,079.20	24.58	21.71	175.84	-828.85	-86.64	518.22	476.64	41.57	12.465		
4,300.00	4,038.86	4,303.01	4,174.91	25.22	22.25	175.86	-854.21	-89.03	532.00	489.40	42.60	12.487		
4,400.00	4,131.05	4,403.96	4,270.62	25.86	22.79	175.87	-879.57	-91.42	545.79	502.16	43.63	12.509		
4,500.00	4,223.24	4,504.92	4,366.34	26.50	23.33	175.88	-904.92	-93.81	559.58	514.91	44.66	12.529		
4,600.00	4,315.42	4,605.87	4,462.05	27.14	23.87	175.89	-930.28	-96.20	573.36	527.67	45.69	12.548		
4,700.00	4,407.61	4,706.83	4,557.77	27.78	24.42	175.90	-955.63	-98.59	587.15	540.42	46.72	12.566		
4,800.00	4,499.79	4,807.78	4,653.48	28.42	24.96	175.91	-980.99	-100.98	600.93	553.18	47.76	12.584		
4,900.00	4,591.98	4,891.26	4,749.20	29.06	25.40	175.92	-1,006.35	-103.36	614.72	566.02	48.70	12.622		
5,000.00	4,684.17	4,990.31	4,844.91	29.70	25.94	175.93	-1,031.70	-105.75	628.51	578.78	49.73	12.639		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
5,100.00	4,776.35	5,089.35	4,940.63	30.34	26.47	175.94	-1,057.06	-108.14	642.29	591.54	50.75	12.656	
5,200.00	4,868.54	5,188.40	5,036.34	30.98	27.00	175.94	-1,082.41	-110.53	656.08	604.30	51.78	12.672	
5,300.00	4,960.73	5,287.44	5,132.06	31.63	27.53	175.95	-1,107.77	-112.92	669.87	617.06	52.80	12.687	
5,400.00	5,052.91	5,386.49	5,227.77	32.27	28.06	175.96	-1,133.13	-115.31	683.65	629.83	53.83	12.701	
5,500.00	5,145.10	5,485.53	5,323.49	32.91	28.60	175.97	-1,158.48	-117.70	697.44	642.59	54.85	12.715	
5,600.00	5,237.28	5,584.58	5,419.20	33.55	29.13	175.97	-1,183.84	-120.08	711.22	655.35	55.88	12.728	
5,700.00	5,329.47	5,683.62	5,514.92	34.20	29.66	175.98	-1,209.19	-122.47	725.01	668.11	56.91	12.741	
5,800.00	5,421.66	5,782.67	5,610.63	34.84	30.20	175.99	-1,234.55	-124.86	738.80	680.86	57.93	12.753	
5,900.00	5,513.84	5,881.71	5,706.34	35.48	30.73	175.99	-1,259.91	-127.25	752.58	693.62	58.96	12.764	
6,000.00	5,606.03	5,980.76	5,802.06	36.13	31.26	176.00	-1,285.26	-129.64	766.37	706.38	59.99	12.775	
6,100.00	5,698.22	6,079.80	5,897.77	36.77	31.79	176.00	-1,310.62	-132.03	780.16	719.14	61.02	12.786	
6,200.00	5,790.40	6,178.85	5,993.49	37.41	32.33	176.01	-1,335.97	-134.41	793.94	731.90	62.04	12.796	
6,300.00	5,882.59	6,277.89	6,089.20	38.06	32.86	176.02	-1,361.33	-136.80	807.73	744.66	63.07	12.806	
6,400.00	5,974.77	6,376.94	6,184.92	38.70	33.40	176.02	-1,386.69	-139.19	821.51	757.41	64.10	12.816	
6,500.00	6,066.96	6,475.98	6,280.63	39.34	33.93	176.03	-1,412.04	-141.58	835.30	770.17	65.13	12.825	
6,600.00	6,159.15	6,574.85	6,376.15	39.99	34.46	175.99	-1,437.35	-144.56	849.09	782.93	66.16	12.834	
6,700.00	6,251.33	6,671.73	6,468.73	40.63	34.97	175.22	-1,461.96	-158.40	863.02	795.82	67.19	12.844	
6,800.00	6,343.52	6,763.15	6,553.26	41.28	35.42	173.64	-1,484.52	-184.65	877.67	809.48	68.19	12.870	
6,900.00	6,435.71	6,846.21	6,626.19	41.92	35.80	171.55	-1,504.07	-219.13	894.15	825.04	69.11	12.938	
7,000.00	6,527.86	6,919.99	6,686.83	42.56	36.10	161.59	-1,520.39	-257.77	913.59	843.73	69.87	13.077	
7,100.00	6,618.85	6,989.61	6,739.72	43.19	36.37	139.09	-1,534.69	-300.67	935.07	864.64	70.43	13.277	
7,200.00	6,706.47	7,057.21	6,786.44	43.76	36.61	122.10	-1,547.39	-347.80	957.16	886.38	70.78	13.524	
7,300.00	6,788.56	7,123.29	6,827.18	44.26	36.83	109.89	-1,558.53	-398.58	978.81	907.88	70.93	13.799	
7,400.00	6,863.10	7,188.21	6,862.03	44.70	37.04	101.09	-1,568.13	-452.47	999.10	928.14	70.95	14.081	
7,500.00	6,928.26	7,250.00	6,890.11	45.07	37.23	94.69	-1,575.95	-506.93	1,017.23	946.34	70.88	14.350	
7,600.00	6,982.42	7,315.64	6,914.20	45.39	37.44	90.01	-1,582.75	-567.58	1,032.54	961.53	71.01	14.540	
7,700.00	7,024.26	7,378.55	6,931.50	45.67	37.67	86.75	-1,587.75	-627.83	1,044.54	973.25	71.30	14.651	
7,800.00	7,052.75	7,441.14	6,942.92	45.92	37.95	84.66	-1,591.20	-689.25	1,052.84	980.96	71.89	14.645	
7,900.00	7,067.18	7,500.00	6,948.29	46.16	38.27	83.63	-1,593.03	-747.81	1,057.20	984.40	72.80	14.522	
8,000.00	7,068.85	7,585.55	6,948.80	46.42	38.89	83.48	-1,593.77	-833.35	1,057.84	983.18	74.66	14.169	
8,100.00	7,068.56	7,685.55	6,948.43	46.78	39.89	83.48	-1,594.37	-933.34	1,057.85	980.68	77.16	13.709	
8,200.00	7,068.26	7,785.55	6,948.05	47.29	41.16	83.47	-1,594.97	-1,033.34	1,057.86	977.86	79.99	13.224	
8,300.00	7,067.96	7,885.55	6,947.67	48.03	42.64	83.47	-1,595.56	-1,133.34	1,057.86	974.75	83.12	12.727	
8,400.00	7,067.66	7,985.55	6,947.29	49.02	44.29	83.47	-1,596.16	-1,233.34	1,057.87	971.37	86.50	12.230	
8,500.00	7,067.37	8,085.55	6,946.91	50.27	46.08	83.46	-1,596.76	-1,333.33	1,057.88	967.76	90.12	11.739	
8,600.00	7,067.07	8,185.55	6,946.53	51.75	47.98	83.46	-1,597.36	-1,433.33	1,057.89	963.95	93.94	11.262	
8,700.00	7,066.77	8,285.55	6,946.15	53.42	49.99	83.45	-1,597.96	-1,533.33	1,057.90	959.96	97.94	10.802	
8,800.00	7,066.47	8,385.55	6,945.77	55.24	52.08	83.45	-1,598.56	-1,633.33	1,057.91	955.81	102.10	10.362	
8,900.00	7,066.18	8,485.55	6,945.39	57.18	54.25	83.44	-1,599.16	-1,733.32	1,057.92	951.52	106.40	9.943	
9,000.00	7,065.88	8,585.55	6,945.01	59.21	56.48	83.44	-1,599.75	-1,833.32	1,057.92	947.10	110.83	9.546	
9,100.00	7,065.58	8,685.55	6,944.63	61.33	58.77	83.44	-1,600.35	-1,933.32	1,057.93	942.57	115.36	9.171	
9,200.00	7,065.28	8,785.55	6,944.25	63.51	61.10	83.43	-1,600.95	-2,033.32	1,057.94	937.95	120.00	8.816	
9,300.00	7,064.99	8,885.55	6,943.87	65.76	63.48	83.43	-1,601.55	-2,133.31	1,057.95	933.23	124.72	8.483	
9,400.00	7,064.69	8,985.55	6,943.49	68.06	65.90	83.42	-1,602.15	-2,233.31	1,057.96	928.44	129.51	8.169	
9,500.00	7,064.39	9,085.55	6,943.11	70.40	68.36	83.42	-1,602.75	-2,333.31	1,057.97	923.59	134.38	7.873	
9,600.00	7,064.09	9,185.55	6,942.74	72.78	70.84	83.41	-1,603.35	-2,433.31	1,057.98	918.67	139.31	7.594	
9,700.00	7,063.80	9,285.55	6,942.36	75.20	73.35	83.41	-1,603.95	-2,533.30	1,057.98	913.69	144.29	7.332	
9,800.00	7,063.50	9,385.55	6,941.98	77.65	75.89	83.40	-1,604.54	-2,633.30	1,057.99	908.66	149.33	7.085	
9,900.00	7,063.20	9,485.55	6,941.60	80.13	78.45	83.40	-1,605.14	-2,733.30	1,058.00	903.59	154.41	6.852	
10,000.00	7,062.90	9,585.55	6,941.22	82.64	81.03	83.40	-1,605.74	-2,833.30	1,058.01	898.48	159.53	6.632	
10,100.00	7,062.61	9,685.55	6,940.84	85.17	83.63	83.39	-1,606.34	-2,933.29	1,058.02	893.33	164.68	6.425	
10,200.00	7,062.31	9,785.55	6,940.46	87.72	86.24	83.39	-1,606.94	-3,033.29	1,058.03	888.15	169.88	6.228	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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	7,062.01	9,885.55	6,940.08	90.28	88.87	83.38	-1,607.54	-3,133.29	1,058.04	882.94	175.10	6.043		
10,400.00	7,061.71	9,985.55	6,939.70	92.87	91.52	83.38	-1,608.14	-3,233.29	1,058.05	877.70	180.34	5.867		
10,500.00	7,061.41	10,085.55	6,939.32	95.47	94.17	83.37	-1,608.73	-3,333.28	1,058.05	872.43	185.62	5.700		
10,600.00	7,061.12	10,185.55	6,938.94	98.09	96.84	83.37	-1,609.33	-3,433.28	1,058.06	867.15	190.92	5.542		
10,700.00	7,060.82	10,285.55	6,938.56	100.72	99.52	83.36	-1,609.93	-3,533.28	1,058.07	861.84	196.24	5.392		
10,800.00	7,060.52	10,385.55	6,938.18	103.37	102.21	83.36	-1,610.53	-3,633.28	1,058.08	856.51	201.57	5.249		
10,900.00	7,060.22	10,485.55	6,937.80	106.02	104.91	83.36	-1,611.13	-3,733.27	1,058.09	851.16	206.93	5.113		
11,000.00	7,059.93	10,585.55	6,937.43	108.69	107.61	83.35	-1,611.73	-3,833.27	1,058.10	845.79	212.31	4.984		
11,100.00	7,059.63	10,685.55	6,937.05	111.36	110.33	83.35	-1,612.33	-3,933.27	1,058.11	840.41	217.70	4.860		
11,200.00	7,059.33	10,785.55	6,936.67	114.05	113.05	83.34	-1,612.93	-4,033.27	1,058.11	835.02	223.10	4.743		
11,300.00	7,059.03	10,885.55	6,936.29	116.74	115.78	83.34	-1,613.52	-4,133.26	1,058.12	829.61	228.52	4.630		
11,400.00	7,058.74	10,985.55	6,935.91	119.44	118.51	83.33	-1,614.12	-4,233.26	1,058.13	824.19	233.95	4.523		
11,500.00	7,058.44	11,085.55	6,935.53	122.15	121.25	83.33	-1,614.72	-4,333.26	1,058.14	818.75	239.39	4.420		
11,600.00	7,058.14	11,185.55	6,935.15	124.86	123.99	83.33	-1,615.32	-4,433.25	1,058.15	813.31	244.84	4.322		
11,700.00	7,057.84	11,285.55	6,934.77	127.58	126.74	83.32	-1,615.92	-4,533.25	1,058.16	807.86	250.30	4.227		
11,800.00	7,057.55	11,385.55	6,934.39	130.31	129.50	83.32	-1,616.52	-4,633.25	1,058.17	802.39	255.78	4.137		
11,900.00	7,057.25	11,485.55	6,934.01	133.04	132.26	83.31	-1,617.12	-4,733.25	1,058.18	796.92	261.26	4.050		
12,000.00	7,056.95	11,585.55	6,933.63	135.78	135.02	83.31	-1,617.71	-4,833.24	1,058.19	791.44	266.75	3.967		
12,100.00	7,056.65	11,685.55	6,933.25	138.52	137.79	83.30	-1,618.31	-4,933.24	1,058.19	785.95	272.24	3.887		
12,200.00	7,056.36	11,785.55	6,932.87	141.27	140.56	83.30	-1,618.91	-5,033.24	1,058.20	780.46	277.75	3.810		
12,300.00	7,056.06	11,885.55	6,932.49	144.02	143.33	83.29	-1,619.51	-5,133.24	1,058.21	774.95	283.26	3.736		
12,400.00	7,055.76	11,985.55	6,932.11	146.78	146.11	83.29	-1,620.11	-5,233.23	1,058.22	769.44	288.78	3.664		
12,500.00	7,055.46	12,085.55	6,931.74	149.54	148.89	83.29	-1,620.71	-5,333.23	1,058.23	763.93	294.30	3.596		
12,600.00	7,055.17	12,185.55	6,931.36	152.30	151.68	83.28	-1,621.31	-5,433.23	1,058.24	758.41	299.83	3.529		
12,700.00	7,054.87	12,285.55	6,930.98	155.07	154.46	83.28	-1,621.90	-5,533.23	1,058.25	752.88	305.37	3.465		
12,800.00	7,054.57	12,385.55	6,930.60	157.84	157.25	83.27	-1,622.50	-5,633.22	1,058.26	747.35	310.91	3.404		
12,900.00	7,054.27	12,485.55	6,930.22	160.61	160.04	83.27	-1,623.10	-5,733.22	1,058.26	741.81	316.45	3.344		
13,000.00	7,053.97	12,585.55	6,929.84	163.39	162.84	83.26	-1,623.70	-5,833.22	1,058.27	736.27	322.00	3.287		
13,100.00	7,053.68	12,685.55	6,929.46	166.17	165.63	83.26	-1,624.30	-5,933.22	1,058.28	730.73	327.56	3.231		
13,200.00	7,053.38	12,785.55	6,929.08	168.95	168.43	83.25	-1,624.90	-6,033.21	1,058.29	725.18	333.12	3.177		
13,300.00	7,053.08	12,885.55	6,928.70	171.73	171.23	83.25	-1,625.50	-6,133.21	1,058.30	719.62	338.68	3.125		
13,400.00	7,052.78	12,985.55	6,928.32	174.52	174.03	83.25	-1,626.10	-6,233.21	1,058.31	714.06	344.24	3.074		
13,500.00	7,052.49	13,085.55	6,927.94	177.31	176.84	83.24	-1,626.69	-6,333.21	1,058.32	708.50	349.81	3.025		
13,600.00	7,052.19	13,185.55	6,927.56	180.10	179.64	83.24	-1,627.29	-6,433.20	1,058.33	702.94	355.39	2.978		
13,700.00	7,051.89	13,285.55	6,927.18	182.90	182.45	83.23	-1,627.89	-6,533.20	1,058.34	697.37	360.96	2.932		
13,800.00	7,051.59	13,385.55	6,926.80	185.69	185.26	83.23	-1,628.49	-6,633.20	1,058.34	691.80	366.54	2.887		
13,900.00	7,051.30	13,485.55	6,926.42	188.49	188.07	83.22	-1,629.09	-6,733.20	1,058.35	686.23	372.13	2.844		
14,000.00	7,051.00	13,585.55	6,926.05	191.29	190.88	83.22	-1,629.69	-6,833.19	1,058.36	680.65	377.71	2.802		
14,100.00	7,050.70	13,685.55	6,925.67	194.09	193.70	83.22	-1,630.29	-6,933.19	1,058.37	675.07	383.30	2.761		
14,200.00	7,050.40	13,785.55	6,925.29	196.89	196.51	83.21	-1,630.88	-7,033.19	1,058.38	669.49	388.89	2.722		
14,300.00	7,050.11	13,885.55	6,924.91	199.70	199.33	83.21	-1,631.48	-7,133.19	1,058.39	663.90	394.49	2.683		
14,400.00	7,049.81	13,985.55	6,924.53	202.50	202.14	83.20	-1,632.08	-7,233.18	1,058.40	658.32	400.08	2.645		
14,500.00	7,049.51	14,085.55	6,924.15	205.31	204.96	83.20	-1,632.68	-7,333.18	1,058.41	652.73	405.68	2.609		
14,600.00	7,049.21	14,185.55	6,923.77	208.12	207.78	83.19	-1,633.28	-7,433.18	1,058.42	647.14	411.28	2.573		
14,700.00	7,048.92	14,285.55	6,923.39	210.93	210.60	83.19	-1,633.88	-7,533.18	1,058.43	641.54	416.88	2.539		
14,800.00	7,048.62	14,385.55	6,923.01	213.74	213.42	83.18	-1,634.48	-7,633.17	1,058.43	635.95	422.48	2.505		
14,900.00	7,048.32	14,485.55	6,922.63	216.55	216.25	83.18	-1,635.08	-7,733.17	1,058.44	630.35	428.09	2.472		
15,000.00	7,048.02	14,585.55	6,922.25	219.37	219.07	83.18	-1,635.67	-7,833.17	1,058.45	624.75	433.70	2.441		
15,100.00	7,047.73	14,685.55	6,921.87	222.18	221.89	83.17	-1,636.27	-7,933.17	1,058.46	619.15	439.31	2.409		
15,200.00	7,047.43	14,785.55	6,921.49	225.00	224.72	83.17	-1,636.87	-8,033.16	1,058.47	613.55	444.92	2.379		
15,300.00	7,047.13	14,885.55	6,921.11	227.81	227.54	83.16	-1,637.47	-8,133.16	1,058.48	607.95	450.53	2.349		
15,300.11	7,047.13	14,885.66	6,921.11	227.82	227.55	83.16	-1,637.47	-8,133.27	1,058.48	607.94	450.54	2.349		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	14,915.55	6,921.00	229.04	228.39	83.16	-1,637.65	-8,163.16	1,058.57	606.21	452.37	2.340 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1.00	0.00	3.28	3.28	0.46	139.89	1.11	139.90					
100.00	100.00	101.00	100.00	3.28	3.28	0.46	139.89	1.11	139.90	133.33	6.57	21.295		
200.00	200.00	201.05	200.05	3.34	3.34	0.46	139.89	1.11	139.90	133.22	6.67	20.959		
300.00	299.98	306.14	305.12	3.44	3.45	176.99	137.94	0.86	139.78	132.88	6.90	20.262		
400.00	399.84	411.23	410.04	3.59	3.61	176.82	132.17	0.12	139.51	132.28	7.24	19.275		
500.00	499.45	516.29	514.65	3.79	3.83	176.53	122.59	-1.12	139.09	131.41	7.69	18.097		
600.00	598.70	621.33	618.82	4.03	4.09	176.14	109.22	-2.84	138.52	130.30	8.22	16.847		
700.00	697.47	726.34	722.38	4.31	4.40	175.62	92.07	-5.06	137.81	128.98	8.83	15.605		
723.44	720.53	749.83	745.48	4.39	4.47	175.49	87.81	-5.61	137.72	128.75	8.97	15.353 CC, ES		
800.00	795.62	826.38	820.73	4.64	4.73	175.13	73.91	-7.40	138.74	129.31	9.43	14.707		
900.00	893.06	926.27	918.94	5.00	5.08	174.76	55.77	-9.74	143.15	133.06	10.09	14.182		
1,000.00	989.64	1,025.95	1,016.93	5.40	5.46	174.54	37.67	-12.07	151.03	140.23	10.80	13.982		
1,100.00	1,085.27	1,125.30	1,114.60	5.83	5.85	174.46	19.63	-14.40	162.38	150.83	11.55	14.058		
1,200.00	1,179.82	1,224.20	1,211.83	6.29	6.26	174.49	1.67	-16.72	177.17	164.83	12.33	14.364		
1,300.00	1,273.17	1,322.52	1,308.48	6.79	6.68	174.60	-16.19	-19.02	195.38	182.23	13.15	14.862		
1,400.00	1,365.46	1,420.28	1,404.60	7.32	7.10	174.78	-33.94	-21.31	216.39	202.41	13.98	15.476		
1,500.00	1,457.65	1,517.99	1,500.65	7.87	7.53	174.94	-51.68	-23.60	237.68	222.84	14.83	16.024		
1,600.00	1,549.83	1,615.70	1,596.71	8.43	7.96	175.08	-69.42	-25.89	258.96	243.26	15.70	16.495		
1,700.00	1,642.02	1,713.40	1,692.76	9.01	8.40	175.19	-87.17	-28.18	280.25	263.67	16.58	16.901		
1,800.00	1,734.21	1,811.11	1,788.82	9.59	8.85	175.29	-104.91	-30.46	301.54	284.06	17.48	17.254		
1,900.00	1,826.39	1,908.81	1,884.87	10.18	9.30	175.38	-122.65	-32.75	322.83	304.45	18.38	17.562		
2,000.00	1,918.58	2,006.52	1,980.92	10.78	9.75	175.46	-140.39	-35.04	344.12	324.82	19.30	17.833		
2,100.00	2,010.77	2,104.23	2,076.98	11.39	10.20	175.52	-158.14	-37.33	365.41	345.19	20.22	18.072		
2,200.00	2,102.95	2,201.93	2,173.03	11.99	10.66	175.58	-175.88	-39.62	386.70	365.56	21.15	18.284		
2,300.00	2,195.14	2,300.36	2,269.09	12.61	11.13	175.64	-193.62	-41.91	408.00	385.91	22.09	18.471		
2,400.00	2,287.32	2,402.65	2,365.14	13.22	11.61	175.69	-211.36	-44.20	429.29	406.24	23.05	18.625		
2,500.00	2,379.51	2,495.05	2,461.20	13.84	12.05	175.73	-229.10	-46.48	450.58	426.61	23.97	18.797		
2,600.00	2,471.70	2,607.24	2,557.25	14.46	12.58	175.77	-246.85	-48.77	471.87	446.89	24.99	18.886		
2,700.00	2,563.88	2,690.47	2,653.31	15.08	12.98	175.81	-264.59	-51.06	493.17	467.29	25.87	19.060		
2,800.00	2,656.07	2,788.17	2,749.36	15.71	13.45	175.84	-282.33	-53.35	514.46	487.63	26.83	19.174		
2,900.00	2,748.26	2,885.88	2,845.42	16.33	13.92	175.87	-300.07	-55.64	535.75	507.96	27.79	19.279		
3,000.00	2,840.44	2,983.58	2,941.47	16.96	14.39	175.90	-317.82	-57.93	557.05	528.29	28.75	19.374		
3,100.00	2,932.63	3,081.29	3,037.53	17.59	14.86	175.93	-335.56	-60.22	578.34	548.62	29.72	19.462		
3,200.00	3,024.81	3,179.00	3,133.58	18.22	15.33	175.95	-353.30	-62.50	599.63	568.95	30.68	19.543		
3,300.00	3,117.00	3,276.70	3,229.63	18.86	15.80	175.97	-371.04	-64.79	620.93	589.28	31.65	19.618		
3,400.00	3,209.19	3,374.41	3,325.69	19.49	16.28	175.99	-388.79	-67.08	642.22	609.60	32.62	19.687		
3,500.00	3,301.37	3,472.12	3,421.74	20.12	16.75	176.01	-406.53	-69.37	663.52	629.92	33.59	19.751		
3,600.00	3,393.56	3,569.82	3,517.80	20.76	17.22	176.03	-424.27	-71.66	684.81	650.24	34.57	19.811		
3,700.00	3,485.75	3,667.53	3,613.85	21.39	17.70	176.05	-442.01	-73.95	706.10	670.56	35.54	19.867		
3,800.00	3,577.93	3,765.23	3,709.91	22.03	18.17	176.07	-459.76	-76.24	727.40	690.88	36.52	19.919		
3,900.00	3,670.12	3,862.94	3,805.96	22.67	18.65	176.08	-477.50	-78.52	748.69	711.20	37.49	19.968		
4,000.00	3,762.30	3,960.65	3,902.02	23.30	19.13	176.10	-495.24	-80.81	769.99	731.51	38.47	20.014		
4,100.00	3,854.49	4,058.35	3,998.07	23.94	19.60	176.11	-512.98	-83.10	791.28	751.83	39.45	20.057		
4,200.00	3,946.68	4,156.06	4,094.13	24.58	20.08	176.12	-530.73	-85.39	812.57	772.14	40.43	20.097		
4,300.00	4,038.86	4,253.77	4,190.18	25.22	20.56	176.14	-548.47	-87.68	833.87	792.46	41.41	20.135		
4,400.00	4,131.05	4,351.47	4,286.24	25.86	21.04	176.15	-566.21	-89.97	855.16	812.77	42.40	20.171		
4,500.00	4,223.24	4,449.18	4,382.29	26.50	21.51	176.16	-583.95	-92.26	876.46	833.08	43.38	20.205		
4,600.00	4,315.42	4,546.89	4,478.34	27.14	21.99	176.17	-601.70	-94.54	897.75	853.39	44.36	20.237		
4,700.00	4,407.61	4,644.59	4,574.40	27.78	22.47	176.18	-619.44	-96.83	919.05	873.70	45.34	20.268		
4,800.00	4,499.79	4,742.30	4,670.45	28.42	22.95	176.19	-637.18	-99.12	940.34	894.01	46.33	20.297		
4,900.00	4,591.98	4,840.00	4,766.51	29.06	23.43	176.20	-654.92	-101.41	961.64	914.32	47.31	20.324		
5,000.00	4,684.17	4,937.71	4,862.56	29.70	23.91	176.21	-672.66	-103.70	982.93	934.63	48.30	20.350		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	5,035.42	4,958.62	30.34	24.39	176.22	-690.41	-105.99	1,004.22	954.94	49.29	20.375		
5,200.00	4,868.54	5,133.12	5,054.67	30.98	24.87	176.23	-708.15	-108.28	1,025.52	975.25	50.27	20.399		
5,300.00	4,960.73	5,230.83	5,150.73	31.63	25.35	176.23	-725.89	-110.57	1,046.81	995.55	51.26	20.422		
5,400.00	5,052.91	5,328.54	5,246.78	32.27	25.83	176.24	-743.63	-112.85	1,068.11	1,015.86	52.25	20.443		
5,500.00	5,145.10	5,426.24	5,342.84	32.91	26.31	176.25	-761.38	-115.14	1,089.40	1,036.17	53.24	20.464		
5,600.00	5,237.28	5,523.95	5,438.89	33.55	26.79	176.25	-779.12	-117.43	1,110.70	1,056.47	54.22	20.484		
5,700.00	5,329.47	5,621.65	5,534.95	34.20	27.27	176.26	-796.86	-119.72	1,131.99	1,076.78	55.21	20.503		
5,800.00	5,421.66	5,719.36	5,631.00	34.84	27.75	176.27	-814.60	-122.01	1,153.29	1,097.09	56.20	20.521		
5,900.00	5,513.84	5,817.07	5,727.05	35.48	28.23	176.27	-832.35	-124.30	1,174.58	1,117.39	57.19	20.538		
6,000.00	5,606.03	5,914.77	5,823.11	36.13	28.71	176.28	-850.09	-126.59	1,195.88	1,137.70	58.18	20.555		
6,100.00	5,698.22	6,012.48	5,919.16	36.77	29.19	176.29	-867.83	-128.87	1,217.17	1,158.00	59.17	20.571		
6,200.00	5,790.40	6,110.19	6,015.22	37.41	29.67	176.29	-885.57	-131.16	1,238.47	1,178.30	60.16	20.586		
6,300.00	5,882.59	6,207.89	6,111.27	38.06	30.15	176.30	-903.32	-133.45	1,259.76	1,198.61	61.15	20.601		
6,400.00	5,974.77	6,305.60	6,207.33	38.70	30.63	176.30	-921.06	-135.74	1,281.05	1,218.91	62.14	20.615		
6,500.00	6,066.96	6,403.30	6,303.38	39.34	31.12	176.31	-938.80	-138.03	1,302.35	1,239.22	63.13	20.629		
6,600.00	6,159.15	6,501.01	6,399.44	39.99	31.60	176.31	-956.54	-140.32	1,323.64	1,259.52	64.12	20.642		
6,700.00	6,251.33	6,601.28	6,495.49	40.63	32.09	176.32	-974.29	-142.61	1,344.94	1,279.81	65.13	20.651		
6,800.00	6,343.52	6,697.90	6,592.81	41.28	32.57	176.18	-992.32	-148.20	1,366.20	1,300.07	66.12	20.661		
6,900.00	6,435.71	6,794.99	6,686.21	41.92	33.03	175.46	-1,009.86	-167.58	1,387.43	1,320.31	67.12	20.672		
7,000.00	6,527.86	6,885.42	6,769.63	42.56	33.43	166.59	-1,025.75	-198.42	1,409.10	1,341.06	68.04	20.709		
7,100.00	6,618.85	6,971.39	6,844.18	43.19	33.78	144.95	-1,040.16	-238.61	1,431.07	1,362.17	68.90	20.770		
7,200.00	6,706.47	7,054.63	6,910.62	43.76	34.10	128.73	-1,053.21	-286.93	1,452.59	1,382.91	69.69	20.844		
7,300.00	6,788.56	7,135.74	6,968.84	44.26	34.39	117.20	-1,064.86	-342.11	1,473.01	1,402.59	70.42	20.917		
7,400.00	6,863.10	7,215.18	7,018.70	44.70	34.65	108.94	-1,075.07	-403.04	1,491.67	1,420.55	71.13	20.972		
7,500.00	6,928.26	7,293.32	7,060.07	45.07	34.91	102.96	-1,083.79	-468.69	1,508.03	1,436.17	71.87	20.984		
7,600.00	6,982.42	7,370.45	7,092.84	45.39	35.21	98.64	-1,090.99	-538.09	1,521.61	1,448.89	72.72	20.925		
7,700.00	7,024.26	7,446.81	7,116.91	45.67	35.58	95.62	-1,096.63	-610.30	1,532.00	1,458.26	73.74	20.775		
7,800.00	7,052.75	7,522.60	7,132.21	45.92	36.09	93.68	-1,100.69	-684.36	1,538.93	1,463.91	75.02	20.514		
7,900.00	7,067.18	7,600.00	7,138.80	46.16	36.76	92.72	-1,103.19	-761.39	1,542.18	1,465.59	76.58	20.137		
8,000.00	7,068.85	7,709.31	7,138.61	46.42	37.97	92.59	-1,104.67	-852.07	1,541.86	1,462.93	78.93	19.534		
8,100.00	7,068.56	7,809.31	7,138.07	46.78	39.30	92.59	-1,106.24	-952.05	1,540.88	1,459.32	81.56	18.894		
8,200.00	7,068.26	7,909.32	7,137.53	47.29	40.82	92.58	-1,107.81	-1,052.03	1,539.90	1,455.41	84.49	18.227		
8,300.00	7,067.96	8,009.32	7,136.99	48.03	42.48	92.57	-1,109.38	-1,152.01	1,538.91	1,451.23	87.69	17.550		
8,400.00	7,067.66	8,109.33	7,136.45	49.02	44.27	92.57	-1,110.95	-1,252.00	1,537.93	1,446.80	91.13	16.875		
8,500.00	7,067.37	8,209.33	7,135.90	50.27	46.17	92.56	-1,112.52	-1,351.98	1,536.95	1,442.15	94.80	16.213		
8,600.00	7,067.07	8,309.34	7,135.36	51.75	48.17	92.55	-1,114.09	-1,451.96	1,535.97	1,437.31	98.66	15.569		
8,700.00	7,066.77	8,409.34	7,134.82	53.42	50.26	92.54	-1,115.66	-1,551.94	1,534.98	1,432.30	102.69	14.948		
8,800.00	7,066.47	8,509.35	7,134.28	55.24	52.42	92.54	-1,117.23	-1,651.92	1,534.00	1,427.13	106.87	14.354		
8,900.00	7,066.18	8,590.65	7,133.74	57.18	54.22	92.53	-1,118.80	-1,751.90	1,533.02	1,422.25	110.77	13.840		
9,000.00	7,065.88	8,709.36	7,133.19	59.21	56.92	92.52	-1,120.37	-1,851.88	1,532.04	1,416.41	115.63	13.250		
9,100.00	7,065.58	8,809.36	7,132.65	61.33	59.26	92.51	-1,121.94	-1,951.86	1,531.06	1,410.88	120.17	12.740		
9,200.00	7,065.28	8,909.37	7,132.11	63.51	61.63	92.51	-1,123.51	-2,051.85	1,530.07	1,405.26	124.82	12.259		
9,300.00	7,064.99	9,009.37	7,131.57	65.76	64.05	92.50	-1,125.08	-2,151.83	1,529.09	1,399.55	129.54	11.804		
9,400.00	7,064.69	9,090.62	7,131.03	68.06	66.04	92.49	-1,126.65	-2,251.81	1,528.11	1,394.23	133.88	11.414		
9,500.00	7,064.39	9,209.38	7,130.48	70.40	68.98	92.48	-1,128.22	-2,351.79	1,527.13	1,387.92	139.21	10.970		
9,600.00	7,064.09	9,309.39	7,129.94	72.78	71.49	92.47	-1,129.79	-2,451.77	1,526.15	1,382.00	144.15	10.588		
9,700.00	7,063.80	9,409.39	7,129.40	75.20	74.03	92.47	-1,131.36	-2,551.75	1,525.17	1,376.03	149.13	10.227		
9,800.00	7,063.50	9,509.40	7,128.86	77.65	76.59	92.46	-1,132.93	-2,651.73	1,524.18	1,370.01	154.17	9.886		
9,900.00	7,063.20	9,609.40	7,128.32	80.13	79.16	92.45	-1,134.50	-2,751.71	1,523.20	1,363.95	159.25	9.565		
10,000.00	7,062.90	9,709.41	7,127.77	82.64	81.76	92.44	-1,136.07	-2,851.70	1,522.22	1,357.84	164.38	9.261		
10,100.00	7,062.61	9,790.59	7,127.23	85.17	83.88	92.44	-1,137.64	-2,951.68	1,521.24	1,352.20	169.04	8.999		
10,200.00	7,062.31	9,909.42	7,126.69	87.72	87.00	92.43	-1,139.21	-3,051.66	1,520.26	1,345.53	174.73	8.701		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	10,009.42	7,126.15	90.28	89.65	92.42	-1,140.78	-3,151.64	1,519.28	1,339.32	179.96	8.442		
10,400.00	7,061.71	10,109.43	7,125.61	92.87	92.30	92.41	-1,142.35	-3,251.62	1,518.29	1,333.08	185.21	8.198		
10,500.00	7,061.41	10,209.43	7,125.06	95.47	94.97	92.41	-1,143.92	-3,351.60	1,517.31	1,326.82	190.49	7.965		
10,600.00	7,061.12	10,309.44	7,124.52	98.09	97.65	92.40	-1,145.49	-3,451.58	1,516.33	1,320.53	195.80	7.744		
10,700.00	7,060.82	10,409.44	7,123.98	100.72	100.34	92.39	-1,147.06	-3,551.56	1,515.35	1,314.22	201.12	7.534		
10,800.00	7,060.52	10,509.45	7,123.44	103.37	103.03	92.38	-1,148.63	-3,651.54	1,514.37	1,307.90	206.47	7.335		
10,900.00	7,060.22	10,609.45	7,122.90	106.02	105.74	92.38	-1,150.20	-3,751.53	1,513.39	1,301.55	211.84	7.144		
11,000.00	7,059.93	10,709.46	7,122.36	108.69	108.45	92.37	-1,151.77	-3,851.51	1,512.40	1,295.18	217.22	6.963		
11,100.00	7,059.63	10,809.46	7,121.81	111.36	111.17	92.36	-1,153.34	-3,951.49	1,511.42	1,288.80	222.62	6.789		
11,200.00	7,059.33	10,909.47	7,121.27	114.05	113.90	92.35	-1,154.91	-4,051.47	1,510.44	1,282.41	228.04	6.624		
11,300.00	7,059.03	11,009.47	7,120.73	116.74	116.63	92.34	-1,156.48	-4,151.45	1,509.46	1,275.99	233.47	6.465		
11,400.00	7,058.74	11,109.48	7,120.19	119.44	119.37	92.34	-1,158.05	-4,251.43	1,508.48	1,269.57	238.91	6.314		
11,500.00	7,058.44	11,190.52	7,119.65	122.15	121.59	92.33	-1,159.62	-4,351.41	1,507.50	1,263.66	243.84	6.182		
11,600.00	7,058.14	11,309.49	7,119.10	124.86	124.86	92.32	-1,161.19	-4,451.39	1,506.52	1,256.69	249.83	6.030		
11,700.00	7,057.84	11,409.49	7,118.56	127.58	127.62	92.31	-1,162.76	-4,551.38	1,505.54	1,250.23	255.30	5.897		
11,800.00	7,057.55	11,509.50	7,118.02	130.31	130.38	92.31	-1,164.33	-4,651.36	1,504.55	1,243.76	260.79	5.769		
11,900.00	7,057.25	11,609.50	7,117.48	133.04	133.14	92.30	-1,165.90	-4,751.34	1,503.57	1,237.29	266.29	5.646		
12,000.00	7,056.95	11,709.51	7,116.94	135.78	135.91	92.29	-1,167.47	-4,851.32	1,502.59	1,230.80	271.79	5.528		
12,100.00	7,056.65	11,809.51	7,116.39	138.52	138.68	92.28	-1,169.04	-4,951.30	1,501.61	1,224.31	277.31	5.415		
12,200.00	7,056.36	11,909.52	7,115.85	141.27	141.45	92.27	-1,170.61	-5,051.28	1,500.63	1,217.80	282.83	5.306		
12,300.00	7,056.06	12,009.52	7,115.31	144.02	144.23	92.27	-1,172.18	-5,151.26	1,499.65	1,211.29	288.35	5.201		
12,400.00	7,055.76	12,109.53	7,114.77	146.78	147.00	92.26	-1,173.75	-5,251.24	1,498.67	1,204.78	293.89	5.099		
12,500.00	7,055.46	12,190.47	7,114.23	149.54	149.26	92.25	-1,175.32	-5,351.22	1,497.69	1,198.78	298.90	5.011		
12,600.00	7,055.17	12,309.54	7,113.68	152.30	152.57	92.24	-1,176.89	-5,451.21	1,496.71	1,191.73	304.98	4.908		
12,700.00	7,054.87	12,409.54	7,113.14	155.07	155.36	92.23	-1,178.46	-5,551.19	1,495.72	1,185.19	310.53	4.817		
12,800.00	7,054.57	12,509.55	7,112.60	157.84	158.15	92.23	-1,180.03	-5,651.17	1,494.74	1,178.65	316.09	4.729		
12,900.00	7,054.27	12,609.55	7,112.06	160.61	160.94	92.22	-1,181.60	-5,751.15	1,493.76	1,172.10	321.66	4.644		
13,000.00	7,053.97	12,709.56	7,111.52	163.39	163.74	92.21	-1,183.17	-5,851.13	1,492.78	1,165.55	327.23	4.562		
13,100.00	7,053.68	12,790.44	7,110.97	166.17	166.00	92.20	-1,184.74	-5,951.11	1,491.80	1,159.53	332.27	4.490		
13,200.00	7,053.38	12,909.57	7,110.43	168.95	169.33	92.20	-1,186.31	-6,051.09	1,490.82	1,152.44	338.38	4.406		
13,300.00	7,053.08	13,009.57	7,109.89	171.73	172.13	92.19	-1,187.88	-6,151.07	1,489.84	1,145.87	343.97	4.331		
13,400.00	7,052.78	13,109.58	7,109.35	174.52	174.94	92.18	-1,189.45	-6,251.06	1,488.86	1,139.30	349.55	4.259		
13,500.00	7,052.49	13,209.58	7,108.81	177.31	177.74	92.17	-1,191.02	-6,351.04	1,487.88	1,132.73	355.15	4.189		
13,600.00	7,052.19	13,309.59	7,108.26	180.10	180.55	92.16	-1,192.59	-6,451.02	1,486.90	1,126.15	360.74	4.122		
13,700.00	7,051.89	13,409.59	7,107.72	182.90	183.35	92.16	-1,194.16	-6,551.00	1,485.92	1,119.57	366.34	4.056		
13,800.00	7,051.59	13,509.60	7,107.18	185.69	186.16	92.15	-1,195.73	-6,650.98	1,484.94	1,112.99	371.94	3.992		
13,900.00	7,051.30	13,609.60	7,106.64	188.49	188.97	92.14	-1,197.30	-6,750.96	1,483.95	1,106.41	377.55	3.930		
14,000.00	7,051.00	13,709.61	7,106.10	191.29	191.78	92.13	-1,198.87	-6,850.94	1,482.97	1,099.82	383.16	3.870		
14,100.00	7,050.70	13,809.61	7,105.56	194.09	194.60	92.12	-1,200.44	-6,950.92	1,481.99	1,093.22	388.77	3.812		
14,200.00	7,050.40	13,909.62	7,105.01	196.89	197.41	92.11	-1,202.01	-7,050.90	1,481.01	1,086.63	394.39	3.755		
14,300.00	7,050.11	14,009.62	7,104.47	199.70	200.22	92.11	-1,203.58	-7,150.89	1,480.03	1,080.03	400.00	3.700		
14,400.00	7,049.81	14,109.63	7,103.93	202.50	203.04	92.10	-1,205.15	-7,250.87	1,479.05	1,073.43	405.62	3.646		
14,500.00	7,049.51	14,190.37	7,103.39	205.31	205.32	92.09	-1,206.72	-7,350.85	1,478.07	1,067.37	410.70	3.599		
14,600.00	7,049.21	14,309.64	7,102.85	208.12	208.68	92.08	-1,208.29	-7,450.83	1,477.09	1,060.22	416.87	3.543		
14,700.00	7,048.92	14,409.64	7,102.30	210.93	211.50	92.07	-1,209.86	-7,550.81	1,476.11	1,053.61	422.50	3.494		
14,800.00	7,048.62	14,509.65	7,101.76	213.74	214.32	92.07	-1,211.43	-7,650.79	1,475.13	1,047.00	428.13	3.446		
14,900.00	7,048.32	14,609.65	7,101.22	216.55	217.14	92.06	-1,213.00	-7,750.77	1,474.15	1,040.39	433.76	3.399		
15,000.00	7,048.02	14,709.66	7,100.68	219.37	219.96	92.05	-1,214.57	-7,850.75	1,473.17	1,033.77	439.39	3.353		
15,100.00	7,047.73	14,809.67	7,100.14	222.18	222.78	92.04	-1,216.14	-7,950.74	1,472.19	1,027.16	445.03	3.308		
15,200.00	7,047.43	14,909.67	7,099.59	225.00	225.61	92.03	-1,217.71	-8,050.72	1,471.21	1,020.54	450.67	3.265		
15,300.00	7,047.13	14,990.33	7,099.05	227.81	227.88	92.03	-1,219.28	-8,150.70	1,470.23	1,014.47	455.76	3.226		
15,319.41	7,047.07	15,009.74	7,098.95	228.36	228.43	92.02	-1,219.58	-8,170.11	1,470.04	1,013.18	456.86	3.218		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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							
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)		
15,343.67	7,047.00	15,000.73	7,099.00	229.04	228.18	92.02	-1,219.44	-8,161.10	1,470.18	1,013.26	456.92	3.218 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.49	359.94	3.06	359.95					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	359.94	3.06	359.95	353.38	6.57	54.788		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	359.94	3.06	359.95	353.28	6.68	53.920	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.09	359.94	3.06	361.69	354.81	6.89	52.514		
400.00	399.84	401.84	399.84	3.59	3.61	177.13	359.94	3.06	366.92	359.72	7.20	50.969		
500.00	499.45	501.45	499.45	3.79	3.81	177.18	359.94	3.06	375.62	368.02	7.60	49.413		
600.00	598.70	599.93	587.91	4.03	4.02	177.15	361.19	2.41	389.19	381.13	8.06	48.273		
700.00	697.47	680.51	678.40	4.31	4.26	176.95	364.85	0.51	408.75	400.17	8.59	47.594		
800.00	795.62	777.66	775.42	4.64	4.55	176.74	369.40	-1.84	432.37	423.19	9.18	47.117		
900.00	893.06	873.94	871.56	5.00	4.85	176.56	373.91	-4.18	459.36	449.55	9.81	46.834		
1,000.00	989.64	969.22	966.71	5.40	5.17	176.42	378.37	-6.49	489.69	479.21	10.47	46.749		
1,100.00	1,085.27	1,063.39	1,060.75	5.83	5.49	176.31	382.78	-8.77	523.32	512.15	11.17	46.845		
1,200.00	1,179.82	1,156.33	1,153.56	6.29	5.82	176.23	387.13	-11.02	560.21	548.32	11.89	47.114		
1,300.00	1,273.17	1,247.93	1,245.03	6.79	6.16	176.16	391.42	-13.24	600.31	587.69	12.63	47.537		
1,400.00	1,365.46	1,338.35	1,335.33	7.32	6.50	176.15	395.65	-15.44	643.02	629.64	13.38	48.058		
1,500.00	1,457.65	1,428.66	1,425.51	7.87	6.85	176.17	399.88	-17.63	685.98	671.84	14.14	48.526		
1,600.00	1,549.83	1,518.96	1,515.68	8.43	7.20	176.18	404.11	-19.82	728.94	714.03	14.91	48.893		
1,700.00	1,642.02	1,609.26	1,605.86	9.01	7.56	176.20	408.34	-22.01	771.89	756.20	15.70	49.180		
1,800.00	1,734.21	1,700.44	1,696.04	9.59	7.92	176.21	412.57	-24.20	814.85	798.36	16.50	49.393		
1,900.00	1,826.39	1,789.87	1,786.21	10.18	8.28	176.22	416.79	-26.39	857.81	840.51	17.30	49.577		
2,000.00	1,918.58	1,880.17	1,876.39	10.78	8.65	176.22	421.02	-28.58	900.77	882.65	18.12	49.711		
2,100.00	2,010.77	1,970.47	1,966.57	11.39	9.02	176.23	425.25	-30.77	943.73	924.78	18.95	49.813		
2,200.00	2,102.95	2,060.78	2,056.74	11.99	9.39	176.24	429.48	-32.95	986.69	966.91	19.78	49.889		
2,300.00	2,195.14	2,151.08	2,146.92	12.61	9.76	176.25	433.71	-35.14	1,029.64	1,009.03	20.62	49.945		
2,400.00	2,287.32	2,241.38	2,237.10	13.22	10.14	176.25	437.93	-37.33	1,072.60	1,051.14	21.46	49.984		
2,500.00	2,379.51	2,331.68	2,327.28	13.84	10.52	176.26	442.16	-39.52	1,115.56	1,093.25	22.31	50.010		
2,600.00	2,471.70	2,421.99	2,417.45	14.46	10.90	176.26	446.39	-41.71	1,158.52	1,135.36	23.16	50.025		
2,700.00	2,563.88	2,512.29	2,507.63	15.08	11.28	176.27	450.62	-43.90	1,201.48	1,177.46	24.01	50.032		
2,800.00	2,656.07	2,602.59	2,597.81	15.71	11.66	176.27	454.85	-46.09	1,244.44	1,219.56	24.87	50.031		
2,900.00	2,748.26	2,707.11	2,687.98	16.33	12.10	176.28	459.08	-48.28	1,287.39	1,261.60	25.80	49.908		
3,000.00	2,840.44	2,783.20	2,778.16	16.96	12.43	176.28	463.30	-50.47	1,330.35	1,303.75	26.60	50.014		
3,100.00	2,932.63	2,873.50	2,868.34	17.59	12.81	176.28	467.53	-52.66	1,373.31	1,345.84	27.47	50.000		
3,200.00	3,024.81	2,963.80	2,958.52	18.22	13.20	176.29	471.76	-54.85	1,416.27	1,387.93	28.34	49.982		
3,300.00	3,117.00	3,054.11	3,048.69	18.86	13.58	176.29	475.99	-57.04	1,459.23	1,430.02	29.21	49.962		
3,400.00	3,209.19	3,144.41	3,138.87	19.49	13.97	176.29	480.22	-59.23	1,502.19	1,472.11	30.08	49.941		
3,500.00	3,301.37	3,234.71	3,229.05	20.12	14.36	176.30	484.44	-61.42	1,545.14	1,514.19	30.95	49.917		
3,600.00	3,393.56	3,325.01	3,319.22	20.76	14.75	176.30	488.67	-63.61	1,588.10	1,556.27	31.83	49.893		
3,700.00	3,485.75	3,415.32	3,409.40	21.39	15.13	176.30	492.90	-65.80	1,631.06	1,598.35	32.71	49.868		
3,800.00	3,577.93	3,505.62	3,499.58	22.03	15.52	176.30	497.13	-67.99	1,674.02	1,640.43	33.59	49.842		
3,900.00	3,670.12	3,604.08	3,589.75	22.67	15.95	176.31	501.36	-70.18	1,716.98	1,682.48	34.50	49.765		
4,000.00	3,762.30	3,686.22	3,679.93	23.30	16.30	176.31	505.59	-72.37	1,759.94	1,724.59	35.35	49.789		
4,100.00	3,854.49	3,776.53	3,770.11	23.94	16.69	176.31	509.81	-74.56	1,802.89	1,766.66	36.23	49.763		
4,200.00	3,946.68	3,866.83	3,860.29	24.58	17.09	176.31	514.04	-76.75	1,845.85	1,808.74	37.11	49.736		
4,300.00	4,038.86	3,957.13	3,950.46	25.22	17.48	176.32	518.27	-78.94	1,888.81	1,850.81	38.00	49.709		
4,400.00	4,131.05	4,047.43	4,040.64	25.86	17.87	176.32	522.50	-81.13	1,931.77	1,892.89	38.88	49.682		
4,500.00	4,223.24	4,137.74	4,130.82	26.50	18.26	176.32	526.73	-83.32	1,974.73	1,934.96	39.77	49.656		
4,600.00	4,315.42	4,228.04	4,220.99	27.14	18.65	176.32	530.95	-85.51	2,017.69	1,977.03	40.65	49.630		
4,700.00	4,407.61	4,318.34	4,311.17	27.78	19.04	176.32	535.18	-87.70	2,060.64	2,019.10	41.54	49.604		
4,800.00	4,499.79	4,408.65	4,401.35	28.42	19.44	176.32	539.41	-89.89	2,103.60	2,061.17	42.43	49.578		
4,900.00	4,591.98	4,501.05	4,491.53	29.06	19.84	176.32	543.64	-92.08	2,146.56	2,103.23	43.33	49.542		
5,000.00	4,684.17	4,589.25	4,581.70	29.70	20.22	176.33	547.87	-94.27	2,189.52	2,145.31	44.21	49.528		
5,100.00	4,776.35	4,679.55	4,671.88	30.34	20.62	176.33	552.09	-96.46	2,232.48	2,187.38	45.10	49.503		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,769.86	4,762.06	30.98	21.01	176.33	556.32	-98.65	2,275.44	2,229.45	45.99	49.479		
5,300.00	4,960.73	4,860.16	4,852.23	31.63	21.40	176.33	560.55	-100.84	2,318.39	2,271.52	46.88	49.455		
5,400.00	5,052.91	4,950.46	4,942.41	32.27	21.80	176.33	564.78	-103.02	2,361.35	2,313.58	47.77	49.431		
5,500.00	5,145.10	5,040.76	5,032.59	32.91	22.19	176.33	569.01	-105.21	2,404.31	2,355.65	48.66	49.408		
5,600.00	5,237.28	5,131.07	5,122.76	33.55	22.59	176.33	573.24	-107.40	2,447.27	2,397.71	49.55	49.385		
5,700.00	5,329.47	5,221.37	5,212.94	34.20	22.98	176.34	577.46	-109.59	2,490.23	2,439.78	50.45	49.363		
5,800.00	5,421.66	5,311.67	5,303.12	34.84	23.38	176.34	581.69	-111.78	2,533.19	2,481.85	51.34	49.341		
5,900.00	5,513.84	5,401.98	5,393.30	35.48	23.77	176.34	585.92	-113.97	2,576.14	2,523.91	52.23	49.319		
6,000.00	5,606.03	5,507.72	5,483.47	36.13	24.23	176.34	590.15	-116.16	2,619.10	2,565.91	53.20	49.235		
6,100.00	5,698.22	5,582.58	5,573.65	36.77	24.56	176.34	594.38	-118.35	2,662.06	2,608.04	54.02	49.277		
6,200.00	5,790.40	5,672.88	5,663.83	37.41	24.95	176.34	598.60	-120.54	2,705.02	2,650.10	54.92	49.256		
6,300.00	5,882.59	5,763.19	5,754.00	38.06	25.35	176.34	602.83	-122.73	2,747.98	2,692.17	55.81	49.236		
6,400.00	5,974.77	5,853.49	5,844.18	38.70	25.75	176.34	607.06	-124.92	2,790.94	2,734.23	56.71	49.215		
6,500.00	6,066.96	5,943.79	5,934.36	39.34	26.14	176.34	611.29	-127.11	2,833.90	2,776.29	57.60	49.196		
6,600.00	6,159.15	6,034.09	6,024.54	39.99	26.54	176.34	615.52	-129.30	2,876.85	2,818.35	58.50	49.176		
6,700.00	6,251.33	6,124.40	6,114.71	40.63	26.93	176.34	619.74	-131.49	2,919.81	2,860.41	59.40	49.157		
6,800.00	6,343.52	6,214.70	6,204.89	41.28	27.33	176.35	623.97	-133.68	2,962.77	2,902.48	60.29	49.138		
6,900.00	6,435.71	6,305.00	6,295.07	41.92	27.72	176.35	628.20	-135.87	3,005.73	2,944.54	61.19	49.120		
7,000.00	6,527.86	6,395.29	6,385.23	42.56	28.12	167.90	632.43	-138.06	3,048.68	2,986.59	62.09	49.102		
7,100.00	6,618.85	6,487.14	6,476.90	43.19	28.52	145.41	636.72	-141.46	3,091.22	3,028.22	63.00	49.069		
7,200.00	6,706.47	6,584.13	6,572.44	43.76	28.95	128.45	641.11	-156.99	3,132.31	3,068.37	63.94	48.989		
7,300.00	6,788.56	6,685.04	6,668.14	44.26	29.39	116.25	645.40	-188.37	3,170.95	3,106.06	64.89	48.863		
7,400.00	6,863.10	6,790.83	6,761.84	44.70	29.87	107.44	649.48	-237.06	3,206.19	3,140.31	65.88	48.665		
7,500.00	6,928.26	6,902.25	6,850.38	45.07	30.41	101.02	653.20	-304.34	3,237.13	3,170.18	66.95	48.348		
7,600.00	6,982.42	7,019.58	6,929.48	45.39	31.08	96.38	656.34	-390.74	3,262.96	3,194.75	68.21	47.838		
7,700.00	7,024.26	7,142.47	6,993.89	45.67	31.95	93.13	658.67	-495.14	3,282.97	3,213.22	69.76	47.062		
7,800.00	7,052.75	7,269.69	7,038.21	45.92	33.11	91.05	659.96	-614.16	3,296.59	3,224.88	71.71	45.969		
7,900.00	7,067.18	7,399.18	7,058.18	46.16	34.54	89.98	660.04	-741.87	3,303.42	3,229.34	74.07	44.596		
8,000.00	7,068.85	7,509.53	7,057.86	46.42	35.97	89.81	659.29	-852.19	3,304.15	3,227.62	76.53	43.173		
8,100.00	7,068.56	7,609.52	7,056.11	46.78	37.43	89.78	658.53	-952.16	3,304.00	3,224.81	79.19	41.722		
8,200.00	7,068.26	7,709.51	7,054.36	47.29	39.05	89.76	657.78	-1,052.13	3,303.86	3,221.69	82.16	40.212		
8,300.00	7,067.96	7,809.50	7,052.61	48.03	40.81	89.73	657.03	-1,152.10	3,303.71	3,218.30	85.41	38.681		
8,400.00	7,067.66	7,909.49	7,050.86	49.02	42.68	89.71	656.28	-1,252.07	3,303.56	3,214.66	88.90	37.159		
8,500.00	7,067.37	8,009.48	7,049.11	50.27	44.66	89.68	655.52	-1,352.05	3,303.41	3,210.79	92.62	35.667		
8,600.00	7,067.07	8,109.47	7,047.36	51.75	46.73	89.66	654.77	-1,452.02	3,303.27	3,206.74	96.53	34.221		
8,700.00	7,066.77	8,209.45	7,045.61	53.42	48.88	89.63	654.02	-1,551.99	3,303.12	3,202.51	100.61	32.831		
8,800.00	7,066.47	8,309.44	7,043.87	55.24	51.10	89.61	653.27	-1,651.96	3,302.97	3,198.13	104.84	31.504		
8,900.00	7,066.18	8,409.43	7,042.12	57.18	53.38	89.58	652.51	-1,751.93	3,302.83	3,193.62	109.21	30.243		
9,000.00	7,065.88	8,509.42	7,040.37	59.21	55.71	89.56	651.76	-1,851.90	3,302.69	3,188.99	113.70	29.048		
9,100.00	7,065.58	8,609.41	7,038.62	61.33	58.09	89.53	651.01	-1,951.87	3,302.54	3,184.25	118.29	27.919		
9,200.00	7,065.28	8,709.40	7,036.87	63.51	60.51	89.51	650.26	-2,051.84	3,302.40	3,179.43	122.97	26.855		
9,300.00	7,064.99	8,809.39	7,035.12	65.76	62.97	89.48	649.50	-2,151.82	3,302.26	3,174.52	127.74	25.851		
9,400.00	7,064.69	8,909.38	7,033.37	68.06	65.46	89.46	648.75	-2,251.79	3,302.12	3,169.53	132.58	24.906		
9,500.00	7,064.39	9,009.37	7,031.62	70.40	67.98	89.43	648.00	-2,351.76	3,301.98	3,164.48	137.49	24.015		
9,600.00	7,064.09	9,109.36	7,029.87	72.78	70.53	89.41	647.25	-2,451.73	3,301.84	3,159.37	142.46	23.177		
9,700.00	7,063.80	9,209.35	7,028.12	75.20	73.09	89.38	646.49	-2,551.70	3,301.70	3,154.21	147.49	22.387		
9,800.00	7,063.50	9,309.34	7,026.37	77.65	75.68	89.36	645.74	-2,651.67	3,301.56	3,149.00	152.56	21.641		
9,900.00	7,063.20	9,409.33	7,024.62	80.13	78.29	89.33	644.99	-2,751.64	3,301.42	3,143.75	157.67	20.939		
10,000.00	7,062.90	9,509.32	7,022.87	82.64	80.92	89.31	644.24	-2,851.61	3,301.28	3,138.46	162.83	20.275		
10,100.00	7,062.61	9,609.31	7,021.12	85.17	83.56	89.28	643.48	-2,951.58	3,301.15	3,133.13	168.02	19.648		
10,200.00	7,062.31	9,709.29	7,019.37	87.72	86.21	89.26	642.73	-3,051.56	3,301.01	3,127.77	173.24	19.054		
10,300.00	7,062.01	9,809.28	7,017.63	90.28	88.88	89.23	641.98	-3,151.53	3,300.87	3,122.38	178.49	18.493		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	9,909.27	7,015.88	92.87	91.55	89.20	641.23	-3,251.50	3,300.74	3,116.96	183.77	17.961		
10,500.00	7,061.41	10,009.26	7,014.13	95.47	94.24	89.18	640.47	-3,351.47	3,300.60	3,111.53	189.08	17.456		
10,600.00	7,061.12	10,109.25	7,012.38	98.09	96.94	89.15	639.72	-3,451.44	3,300.47	3,106.06	194.41	16.977		
10,700.00	7,060.82	10,209.24	7,010.63	100.72	99.65	89.13	638.97	-3,551.41	3,300.34	3,100.58	199.76	16.522		
10,800.00	7,060.52	10,309.23	7,008.88	103.37	102.36	89.10	638.22	-3,651.38	3,300.20	3,095.08	205.13	16.089		
10,900.00	7,060.22	10,409.22	7,007.13	106.02	105.09	89.08	637.46	-3,751.35	3,300.07	3,089.56	210.51	15.676		
11,000.00	7,059.93	10,509.21	7,005.38	108.69	107.82	89.05	636.71	-3,851.33	3,299.94	3,084.03	215.92	15.283		
11,100.00	7,059.63	10,609.20	7,003.63	111.36	110.55	89.03	635.96	-3,951.30	3,299.81	3,078.48	221.34	14.909		
11,200.00	7,059.33	10,709.19	7,001.88	114.05	113.29	89.00	635.21	-4,051.27	3,299.68	3,072.91	226.77	14.551		
11,300.00	7,059.03	10,809.18	7,000.13	116.74	116.04	88.98	634.45	-4,151.24	3,299.55	3,067.34	232.22	14.209		
11,400.00	7,058.74	10,909.17	6,998.38	119.44	118.80	88.95	633.70	-4,251.21	3,299.42	3,061.75	237.67	13.882		
11,500.00	7,058.44	11,009.16	6,996.63	122.15	121.55	88.93	632.95	-4,351.18	3,299.30	3,056.15	243.14	13.569		
11,600.00	7,058.14	11,109.15	6,994.88	124.86	124.32	88.90	632.20	-4,451.15	3,299.17	3,050.54	248.63	13.270		
11,700.00	7,057.84	11,209.14	6,993.13	127.58	127.08	88.88	631.44	-4,551.12	3,299.04	3,044.93	254.12	12.982		
11,800.00	7,057.55	11,309.12	6,991.38	130.31	129.85	88.85	630.69	-4,651.10	3,298.92	3,039.30	259.62	12.707		
11,900.00	7,057.25	11,409.11	6,989.64	133.04	132.63	88.83	629.94	-4,751.07	3,298.79	3,033.66	265.13	12.442		
12,000.00	7,056.95	11,509.10	6,987.89	135.78	135.40	88.80	629.19	-4,851.04	3,298.67	3,028.02	270.64	12.188		
12,100.00	7,056.65	11,609.09	6,986.14	138.52	138.19	88.78	628.43	-4,951.01	3,298.54	3,022.37	276.17	11.944		
12,200.00	7,056.36	11,709.08	6,984.39	141.27	140.97	88.75	627.68	-5,050.98	3,298.42	3,016.72	281.70	11.709		
12,300.00	7,056.06	11,809.07	6,982.64	144.02	143.76	88.72	626.93	-5,150.95	3,298.30	3,011.05	287.24	11.483		
12,400.00	7,055.76	11,909.06	6,980.89	146.78	146.55	88.70	626.17	-5,250.92	3,298.17	3,005.39	292.79	11.265		
12,500.00	7,055.46	12,009.05	6,979.14	149.54	149.34	88.67	625.42	-5,350.89	3,298.05	2,999.71	298.34	11.055		
12,600.00	7,055.17	12,109.04	6,977.39	152.30	152.13	88.65	624.67	-5,450.86	3,297.93	2,994.04	303.90	10.852		
12,700.00	7,054.87	12,209.03	6,975.64	155.07	154.93	88.62	623.92	-5,550.84	3,297.81	2,988.35	309.46	10.657		
12,800.00	7,054.57	12,309.02	6,973.89	157.84	157.73	88.60	623.16	-5,650.81	3,297.69	2,982.66	315.03	10.468		
12,900.00	7,054.27	12,409.01	6,972.14	160.61	160.53	88.57	622.41	-5,750.78	3,297.57	2,976.97	320.60	10.286		
13,000.00	7,053.97	12,509.00	6,970.39	163.39	163.33	88.55	621.66	-5,850.75	3,297.45	2,971.28	326.18	10.109		
13,100.00	7,053.68	12,608.99	6,968.64	166.17	166.14	88.52	620.91	-5,950.72	3,297.34	2,965.58	331.76	9.939		
13,200.00	7,053.38	12,708.98	6,966.89	168.95	168.95	88.50	620.15	-6,050.69	3,297.22	2,959.87	337.35	9.774		
13,300.00	7,053.08	12,808.96	6,965.14	171.73	171.75	88.47	619.40	-6,150.66	3,297.10	2,954.17	342.94	9.614		
13,400.00	7,052.78	12,908.95	6,963.40	174.52	174.56	88.45	618.65	-6,250.63	3,296.99	2,948.46	348.53	9.460		
13,500.00	7,052.49	13,008.94	6,961.65	177.31	177.38	88.42	617.90	-6,350.61	3,296.87	2,942.75	354.13	9.310		
13,600.00	7,052.19	13,108.93	6,959.90	180.10	180.19	88.40	617.14	-6,450.58	3,296.76	2,937.03	359.73	9.165		
13,700.00	7,051.89	13,208.92	6,958.15	182.90	183.00	88.37	616.39	-6,550.55	3,296.64	2,931.31	365.33	9.024		
13,800.00	7,051.59	13,308.91	6,956.40	185.69	185.82	88.35	615.64	-6,650.52	3,296.53	2,925.59	370.94	8.887		
13,900.00	7,051.30	13,408.90	6,954.65	188.49	188.64	88.32	614.89	-6,750.49	3,296.42	2,919.87	376.55	8.754		
14,000.00	7,051.00	13,508.89	6,952.90	191.29	191.45	88.29	614.13	-6,850.46	3,296.31	2,914.15	382.16	8.625		
14,100.00	7,050.70	13,608.88	6,951.15	194.09	194.27	88.27	613.38	-6,950.43	3,296.20	2,908.42	387.77	8.500		
14,200.00	7,050.40	13,708.87	6,949.40	196.89	197.09	88.24	612.63	-7,050.40	3,296.08	2,902.69	393.39	8.379		
14,300.00	7,050.11	13,808.86	6,947.65	199.70	199.92	88.22	611.88	-7,150.38	3,295.97	2,896.96	399.01	8.260		
14,400.00	7,049.81	13,908.85	6,945.90	202.50	202.74	88.19	611.12	-7,250.35	3,295.87	2,891.23	404.63	8.145		
14,500.00	7,049.51	14,008.84	6,944.15	205.31	205.56	88.17	610.37	-7,350.32	3,295.76	2,885.50	410.26	8.033		
14,600.00	7,049.21	14,108.83	6,942.40	208.12	208.39	88.14	609.62	-7,450.29	3,295.65	2,879.77	415.88	7.924		
14,700.00	7,048.92	14,208.82	6,940.65	210.93	211.21	88.12	608.87	-7,550.26	3,295.54	2,874.03	421.51	7.818		
14,800.00	7,048.62	14,308.80	6,938.90	213.74	214.04	88.09	608.11	-7,650.23	3,295.43	2,868.29	427.14	7.715		
14,900.00	7,048.32	14,408.79	6,937.15	216.55	216.86	88.07	607.36	-7,750.20	3,295.33	2,862.55	432.77	7.614		
15,000.00	7,048.02	14,508.78	6,935.41	219.37	219.69	88.04	606.61	-7,850.17	3,295.22	2,856.82	438.41	7.516		
15,100.00	7,047.73	14,608.77	6,933.66	222.18	222.52	88.02	605.86	-7,950.14	3,295.12	2,851.08	444.04	7.421		
15,200.00	7,047.43	14,708.76	6,931.91	225.00	225.35	87.99	605.10	-8,050.12	3,295.01	2,845.33	449.68	7.327		
15,300.00	7,047.13	14,808.75	6,930.16	227.81	228.18	87.97	604.35	-8,150.09	3,294.91	2,839.59	455.32	7.237		
15,310.77	7,047.10	14,819.52	6,929.97	228.12	228.48	87.96	604.27	-8,160.85	3,294.90	2,838.98	455.92	7.227		
15,343.67	7,047.00	14,817.75	6,930.00	229.04	228.43	87.96	604.28	-8,159.08	3,295.05	2,838.35	456.70	7.215 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1.00	0.00	3.28	3.28	0.50	159.93	1.39	159.94					
100.00	100.00	101.00	100.00	3.28	3.28	0.50	159.93	1.39	159.94	153.37	6.57	24.345		
200.00	200.00	201.06	200.06	3.34	3.34	0.50	159.93	1.39	159.94	153.26	6.67	23.961		
300.00	299.98	306.91	305.89	3.44	3.45	177.03	157.95	1.11	159.81	152.91	6.90	23.161		
400.00	399.84	412.76	411.56	3.59	3.61	176.85	152.11	0.29	159.51	152.27	7.24	22.028		
500.00	499.45	518.58	516.93	3.79	3.84	176.56	142.41	-1.08	159.04	151.34	7.69	20.675		
600.00	598.70	624.38	621.83	4.03	4.13	176.14	128.86	-3.00	158.40	150.16	8.23	19.241		
667.73	665.66	705.29	691.27	4.22	4.40	175.80	117.83	-4.56	157.97	149.31	8.66	18.249 CC, ES		
700.00	697.47	726.97	723.09	4.31	4.47	175.65	112.59	-5.30	158.15	149.34	8.81	17.949		
800.00	795.62	826.92	821.69	4.64	4.85	175.25	96.36	-7.59	161.02	151.61	9.41	17.108		
900.00	893.06	926.71	920.12	5.00	5.26	174.97	80.15	-9.88	167.37	157.29	10.08	16.610		
1,000.00	989.64	1,026.22	1,018.29	5.40	5.69	174.80	63.99	-12.16	177.19	166.40	10.79	16.428		
1,100.00	1,085.27	1,125.33	1,116.06	5.83	6.15	174.74	47.89	-14.44	190.46	178.92	11.53	16.513		
1,200.00	1,179.82	1,223.92	1,213.31	6.29	6.61	174.77	31.88	-16.70	207.17	194.85	12.31	16.823		
1,300.00	1,273.17	1,321.86	1,309.93	6.79	7.09	174.86	15.97	-18.95	227.29	214.17	13.12	17.319		
1,400.00	1,365.46	1,419.20	1,405.95	7.32	7.57	175.01	0.16	-21.18	250.20	236.25	13.96	17.929		
1,500.00	1,457.65	1,516.47	1,501.90	7.87	8.06	175.16	-15.64	-23.41	273.39	258.59	14.80	18.473		
1,600.00	1,549.83	1,613.75	1,597.86	8.43	8.55	175.28	-31.44	-25.64	296.57	280.91	15.66	18.937		
1,700.00	1,642.02	1,711.02	1,693.82	9.01	9.06	175.39	-47.23	-27.88	319.76	303.22	16.54	19.336		
1,800.00	1,734.21	1,808.29	1,789.77	9.59	9.56	175.48	-63.03	-30.11	342.95	325.52	17.43	19.681		
1,900.00	1,826.39	1,905.57	1,885.73	10.18	10.08	175.56	-78.83	-32.34	366.14	347.81	18.32	19.981		
2,000.00	1,918.58	2,002.84	1,981.68	10.78	10.59	175.63	-94.63	-34.57	389.32	370.09	19.23	20.244		
2,100.00	2,010.77	2,100.11	2,077.64	11.39	11.11	175.69	-110.43	-36.80	412.51	392.37	20.15	20.475		
2,200.00	2,102.95	2,197.39	2,173.59	11.99	11.63	175.74	-126.23	-39.03	435.70	414.63	21.07	20.679		
2,300.00	2,195.14	2,305.34	2,269.55	12.61	12.21	175.79	-142.02	-41.27	458.89	436.85	22.04	20.817		
2,400.00	2,287.32	2,391.93	2,365.51	13.22	12.68	175.84	-157.82	-43.50	482.08	459.15	22.93	21.023		
2,500.00	2,379.51	2,489.21	2,461.46	13.84	13.20	175.88	-173.62	-45.73	505.28	481.41	23.87	21.169		
2,600.00	2,471.70	2,586.48	2,557.42	14.46	13.73	175.92	-189.42	-47.96	528.47	503.66	24.81	21.300		
2,700.00	2,563.88	2,683.75	2,653.37	15.08	14.26	175.95	-205.22	-50.19	551.66	525.90	25.76	21.418		
2,800.00	2,656.07	2,781.03	2,749.33	15.71	14.79	175.98	-221.02	-52.43	574.85	548.14	26.71	21.525		
2,900.00	2,748.26	2,878.30	2,845.28	16.33	15.32	176.01	-236.81	-54.66	598.04	570.38	27.66	21.623		
3,000.00	2,840.44	2,975.57	2,941.24	16.96	15.85	176.04	-252.61	-56.89	621.23	592.62	28.61	21.712		
3,100.00	2,932.63	3,072.85	3,037.20	17.59	16.39	176.06	-268.41	-59.12	644.42	614.86	29.57	21.794		
3,200.00	3,024.81	3,170.12	3,133.15	18.22	16.92	176.08	-284.21	-61.35	667.62	637.09	30.53	21.870		
3,300.00	3,117.00	3,267.39	3,229.11	18.86	17.45	176.11	-300.01	-63.58	690.81	659.32	31.49	21.939		
3,400.00	3,209.19	3,364.66	3,325.06	19.49	17.99	176.13	-315.81	-65.82	714.00	681.55	32.45	22.003		
3,500.00	3,301.37	3,461.94	3,421.02	20.12	18.53	176.15	-331.60	-68.05	737.19	703.78	33.41	22.062		
3,600.00	3,393.56	3,559.21	3,516.97	20.76	19.06	176.16	-347.40	-70.28	760.38	726.00	34.38	22.117		
3,700.00	3,485.75	3,656.48	3,612.93	21.39	19.60	176.18	-363.20	-72.51	783.58	748.23	35.35	22.168		
3,800.00	3,577.93	3,753.76	3,708.89	22.03	20.14	176.20	-379.00	-74.74	806.77	770.45	36.31	22.216		
3,900.00	3,670.12	3,851.03	3,804.84	22.67	20.68	176.21	-394.80	-76.98	829.96	792.68	37.28	22.260		
4,000.00	3,762.30	3,948.30	3,900.80	23.30	21.21	176.22	-410.60	-79.21	853.15	814.90	38.25	22.302		
4,100.00	3,854.49	4,045.58	3,996.75	23.94	21.75	176.24	-426.39	-81.44	876.34	837.12	39.23	22.341		
4,200.00	3,946.68	4,142.85	4,092.71	24.58	22.29	176.25	-442.19	-83.67	899.54	859.34	40.20	22.378		
4,300.00	4,038.86	4,240.12	4,188.67	25.22	22.83	176.26	-457.99	-85.90	922.73	881.56	41.17	22.412		
4,400.00	4,131.05	4,337.40	4,284.62	25.86	23.37	176.27	-473.79	-88.14	945.92	903.78	42.15	22.444		
4,500.00	4,223.24	4,434.67	4,380.58	26.50	23.91	176.28	-489.59	-90.37	969.12	926.00	43.12	22.475		
4,600.00	4,315.42	4,531.94	4,476.53	27.14	24.45	176.29	-505.39	-92.60	992.31	948.21	44.10	22.504		
4,700.00	4,407.61	4,629.22	4,572.49	27.78	24.99	176.30	-521.18	-94.83	1,015.50	970.43	45.07	22.531		
4,800.00	4,499.79	4,726.49	4,668.44	28.42	25.53	176.31	-536.98	-97.06	1,038.69	992.65	46.05	22.557		
4,900.00	4,591.98	4,823.76	4,764.40	29.06	26.07	176.32	-552.78	-99.29	1,061.89	1,014.86	47.02	22.581		
5,000.00	4,684.17	4,921.04	4,860.36	29.70	26.61	176.33	-568.58	-101.53	1,085.08	1,037.08	48.00	22.605		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	5,018.31	4,956.31	30.34	27.16	176.34	-584.38	-103.76	1,108.27	1,059.29	48.98	22.627		
5,200.00	4,868.54	5,115.58	5,052.27	30.98	27.70	176.35	-600.18	-105.99	1,131.46	1,081.50	49.96	22.648		
5,300.00	4,960.73	5,212.86	5,148.22	31.63	28.24	176.36	-615.97	-108.22	1,154.66	1,103.72	50.94	22.668		
5,400.00	5,052.91	5,310.13	5,244.18	32.27	28.78	176.36	-631.77	-110.45	1,177.85	1,125.93	51.92	22.687		
5,500.00	5,145.10	5,407.40	5,340.13	32.91	29.32	176.37	-647.57	-112.69	1,201.04	1,148.14	52.90	22.705		
5,600.00	5,237.28	5,504.68	5,436.09	33.55	29.87	176.38	-663.37	-114.92	1,224.23	1,170.36	53.88	22.722		
5,700.00	5,329.47	5,601.95	5,532.05	34.20	30.41	176.38	-679.17	-117.15	1,247.43	1,192.57	54.86	22.739		
5,800.00	5,421.66	5,700.78	5,628.00	34.84	30.96	176.39	-694.97	-119.38	1,270.62	1,214.77	55.85	22.752		
5,900.00	5,513.84	5,803.51	5,723.96	35.48	31.53	176.40	-710.77	-121.61	1,293.81	1,236.96	56.85	22.757		
6,000.00	5,606.03	5,906.23	5,819.91	36.13	32.10	176.40	-726.56	-123.84	1,317.01	1,259.15	57.86	22.762		
6,100.00	5,698.22	6,008.96	5,915.87	36.77	32.68	176.41	-742.36	-126.08	1,340.20	1,281.33	58.87	22.766		
6,200.00	5,790.40	6,088.31	6,011.82	37.41	33.12	176.41	-758.16	-128.31	1,363.39	1,303.62	59.77	22.811		
6,300.00	5,882.59	6,185.59	6,107.78	38.06	33.66	176.42	-773.96	-130.54	1,386.59	1,325.83	60.75	22.824		
6,400.00	5,974.77	6,282.86	6,203.74	38.70	34.21	176.42	-789.76	-132.77	1,409.78	1,348.04	61.73	22.837		
6,500.00	6,066.96	6,380.13	6,299.69	39.34	34.75	176.43	-805.56	-135.00	1,432.97	1,370.25	62.72	22.848		
6,600.00	6,159.15	6,477.41	6,395.65	39.99	35.29	176.43	-821.35	-137.24	1,456.16	1,392.46	63.70	22.860		
6,700.00	6,251.33	6,574.68	6,491.60	40.63	35.84	176.44	-837.15	-139.47	1,479.36	1,414.67	64.68	22.871		
6,800.00	6,343.52	6,671.95	6,587.56	41.28	36.38	176.44	-852.95	-141.70	1,502.55	1,436.88	65.67	22.881		
6,900.00	6,435.71	6,769.74	6,683.91	41.92	36.93	176.36	-868.83	-146.13	1,525.73	1,459.07	66.66	22.887		
7,000.00	6,527.86	6,865.79	6,777.03	42.56	37.47	168.06	-884.26	-163.44	1,548.93	1,481.26	67.68	22.887		
7,100.00	6,618.85	6,959.20	6,864.11	43.19	37.99	146.83	-898.79	-193.69	1,572.01	1,503.33	68.68	22.890		
7,200.00	6,706.47	7,050.83	6,944.38	43.76	38.49	130.98	-912.27	-235.59	1,594.37	1,524.72	69.66	22.889		
7,300.00	6,788.56	7,141.05	7,016.81	44.26	38.99	119.76	-924.54	-287.84	1,615.43	1,544.79	70.64	22.869		
7,400.00	6,863.10	7,230.20	7,080.50	44.70	39.49	111.76	-935.43	-349.16	1,634.63	1,562.97	71.66	22.811		
7,500.00	6,928.26	7,318.54	7,134.67	45.07	40.02	105.99	-944.80	-418.22	1,651.47	1,578.69	72.78	22.691		
7,600.00	6,982.42	7,406.28	7,178.61	45.39	40.59	101.83	-952.53	-493.68	1,665.51	1,591.44	74.07	22.486		
7,700.00	7,024.26	7,493.57	7,211.76	45.67	41.25	98.92	-958.53	-574.14	1,676.41	1,600.80	75.61	22.173		
7,800.00	7,052.75	7,580.54	7,233.68	45.92	42.02	97.05	-962.70	-658.13	1,683.87	1,606.43	77.44	21.745		
7,900.00	7,067.18	7,667.26	7,244.10	46.16	42.94	96.12	-964.99	-744.12	1,687.73	1,608.16	79.57	21.212		
8,000.00	7,068.85	7,761.41	7,244.70	46.42	44.11	95.98	-965.72	-838.25	1,688.26	1,606.06	82.19	20.541		
8,100.00	7,068.56	7,861.41	7,244.18	46.78	45.59	95.97	-966.30	-938.25	1,688.25	1,602.95	85.29	19.794		
8,200.00	7,068.26	7,961.41	7,243.65	47.29	47.29	95.96	-966.89	-1,038.24	1,688.23	1,599.52	88.71	19.031		
8,300.00	7,067.96	8,061.41	7,243.12	48.03	49.19	95.96	-967.47	-1,138.24	1,688.22	1,595.82	92.41	18.269		
8,400.00	7,067.66	8,161.41	7,242.59	49.02	51.27	95.95	-968.06	-1,238.24	1,688.21	1,591.86	96.36	17.520		
8,500.00	7,067.37	8,261.41	7,242.06	50.27	53.49	95.94	-968.64	-1,338.23	1,688.20	1,587.68	100.52	16.794		
8,600.00	7,067.07	8,361.41	7,241.53	51.75	55.85	95.93	-969.22	-1,438.23	1,688.19	1,583.31	104.89	16.095		
8,700.00	7,066.77	8,461.41	7,241.00	53.42	58.31	95.92	-969.81	-1,538.23	1,688.18	1,578.76	109.42	15.429		
8,800.00	7,066.47	8,561.41	7,240.47	55.24	60.87	95.92	-970.39	-1,638.22	1,688.17	1,574.07	114.10	14.795		
8,900.00	7,066.18	8,661.41	7,239.95	57.18	63.51	95.91	-970.98	-1,738.22	1,688.16	1,569.24	118.92	14.196		
9,000.00	7,065.88	8,761.41	7,239.42	59.21	66.21	95.90	-971.56	-1,838.22	1,688.15	1,564.30	123.85	13.630		
9,100.00	7,065.58	8,861.41	7,238.89	61.33	68.98	95.89	-972.15	-1,938.21	1,688.14	1,559.25	128.89	13.097		
9,200.00	7,065.28	8,961.41	7,238.36	63.51	71.80	95.88	-972.73	-2,038.21	1,688.13	1,554.11	134.02	12.596		
9,300.00	7,064.99	9,061.41	7,237.83	65.76	74.66	95.88	-973.31	-2,138.21	1,688.12	1,548.88	139.24	12.124		
9,400.00	7,064.69	9,161.41	7,237.30	68.06	77.56	95.87	-973.90	-2,238.20	1,688.11	1,543.58	144.53	11.680		
9,500.00	7,064.39	9,261.41	7,236.77	70.40	80.50	95.86	-974.48	-2,338.20	1,688.10	1,538.22	149.88	11.263		
9,600.00	7,064.09	9,361.41	7,236.25	72.78	83.47	95.85	-975.07	-2,438.20	1,688.09	1,532.79	155.30	10.870		
9,700.00	7,063.80	9,461.41	7,235.72	75.20	86.47	95.85	-975.65	-2,538.19	1,688.08	1,527.32	160.76	10.500		
9,800.00	7,063.50	9,561.40	7,235.19	77.65	89.49	95.84	-976.24	-2,638.19	1,688.07	1,521.79	166.28	10.152		
9,900.00	7,063.20	9,661.40	7,234.66	80.13	92.54	95.83	-976.82	-2,738.19	1,688.06	1,516.22	171.84	9.823		
10,000.00	7,062.90	9,761.40	7,234.13	82.64	95.60	95.82	-977.41	-2,838.18	1,688.05	1,510.61	177.44	9.513		
10,100.00	7,062.61	9,861.40	7,233.60	85.17	98.68	95.81	-977.99	-2,938.18	1,688.04	1,504.96	183.08	9.220		
10,200.00	7,062.31	9,961.40	7,233.07	87.72	101.78	95.81	-978.57	-3,038.18	1,688.03	1,499.29	188.74	8.944		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	10,061.40	7,232.54	90.28	104.90	95.80	-979.16	-3,138.17	1,688.02	1,493.58	194.44	8.681		
10,400.00	7,061.71	10,161.40	7,232.02	92.87	108.02	95.79	-979.74	-3,238.17	1,688.01	1,487.84	200.17	8.433		
10,500.00	7,061.41	10,261.40	7,231.49	95.47	111.16	95.78	-980.33	-3,338.17	1,688.00	1,482.08	205.92	8.197		
10,600.00	7,061.12	10,361.40	7,230.96	98.09	114.31	95.77	-980.91	-3,438.16	1,687.99	1,476.30	211.69	7.974		
10,700.00	7,060.82	10,461.40	7,230.43	100.72	117.48	95.77	-981.50	-3,538.16	1,687.98	1,470.49	217.49	7.761		
10,800.00	7,060.52	10,561.40	7,229.90	103.37	120.65	95.76	-982.08	-3,638.16	1,687.97	1,464.67	223.31	7.559		
10,900.00	7,060.22	10,661.40	7,229.37	106.02	123.83	95.75	-982.66	-3,738.15	1,687.96	1,458.82	229.14	7.367		
11,000.00	7,059.93	10,761.40	7,228.84	108.69	127.01	95.74	-983.25	-3,838.15	1,687.95	1,452.96	234.99	7.183		
11,100.00	7,059.63	10,861.40	7,228.31	111.36	130.21	95.74	-983.83	-3,938.15	1,687.94	1,447.09	240.86	7.008		
11,200.00	7,059.33	10,961.40	7,227.79	114.05	133.41	95.73	-984.42	-4,038.14	1,687.93	1,441.19	246.74	6.841		
11,300.00	7,059.03	11,061.40	7,227.26	116.74	136.62	95.72	-985.00	-4,138.14	1,687.92	1,435.29	252.63	6.681		
11,400.00	7,058.74	11,161.40	7,226.73	119.44	139.83	95.71	-985.59	-4,238.14	1,687.91	1,429.37	258.54	6.529		
11,500.00	7,058.44	11,261.40	7,226.20	122.15	143.05	95.70	-986.17	-4,338.13	1,687.90	1,423.44	264.46	6.382		
11,600.00	7,058.14	11,361.40	7,225.67	124.86	146.28	95.70	-986.76	-4,438.13	1,687.90	1,417.50	270.39	6.242		
11,700.00	7,057.84	11,461.40	7,225.14	127.58	149.51	95.69	-987.34	-4,538.13	1,687.89	1,411.55	276.33	6.108		
11,800.00	7,057.55	11,561.40	7,224.61	130.31	152.74	95.68	-987.92	-4,638.12	1,687.88	1,405.59	282.28	5.979		
11,900.00	7,057.25	11,661.40	7,224.08	133.04	155.98	95.67	-988.51	-4,738.12	1,687.87	1,399.63	288.24	5.856		
12,000.00	7,056.95	11,761.40	7,223.56	135.78	159.22	95.66	-989.09	-4,838.12	1,687.86	1,393.65	294.21	5.737		
12,100.00	7,056.65	11,861.40	7,223.03	138.52	162.47	95.66	-989.68	-4,938.11	1,687.85	1,387.66	300.19	5.623		
12,200.00	7,056.36	11,961.40	7,222.50	141.27	165.72	95.65	-990.26	-5,038.11	1,687.84	1,381.67	306.17	5.513		
12,300.00	7,056.06	12,061.40	7,221.97	144.02	168.97	95.64	-990.85	-5,138.11	1,687.83	1,375.67	312.16	5.407		
12,400.00	7,055.76	12,161.40	7,221.44	146.78	172.23	95.63	-991.43	-5,238.10	1,687.82	1,369.66	318.16	5.305		
12,500.00	7,055.46	12,261.40	7,220.91	149.54	175.49	95.63	-992.01	-5,338.10	1,687.81	1,363.65	324.16	5.207		
12,600.00	7,055.17	12,361.40	7,220.38	152.30	178.75	95.62	-992.60	-5,438.10	1,687.80	1,357.63	330.17	5.112		
12,700.00	7,054.87	12,461.40	7,219.86	155.07	182.02	95.61	-993.18	-5,538.09	1,687.79	1,351.60	336.19	5.020		
12,800.00	7,054.57	12,561.40	7,219.33	157.84	185.28	95.60	-993.77	-5,638.09	1,687.78	1,345.57	342.21	4.932		
12,900.00	7,054.27	12,661.40	7,218.80	160.61	188.55	95.59	-994.35	-5,738.09	1,687.77	1,339.54	348.24	4.847		
13,000.00	7,053.97	12,761.40	7,218.27	163.39	191.82	95.59	-994.94	-5,838.08	1,687.77	1,333.49	354.27	4.764		
13,100.00	7,053.68	12,861.40	7,217.74	166.17	195.10	95.58	-995.52	-5,938.08	1,687.76	1,327.45	360.31	4.684		
13,200.00	7,053.38	12,961.40	7,217.21	168.95	198.37	95.57	-996.10	-6,038.08	1,687.75	1,321.40	366.35	4.607		
13,300.00	7,053.08	13,061.40	7,216.68	171.73	201.65	95.56	-996.69	-6,138.07	1,687.74	1,315.34	372.39	4.532		
13,400.00	7,052.78	13,161.40	7,216.15	174.52	204.93	95.55	-997.27	-6,238.07	1,687.73	1,309.29	378.44	4.460		
13,500.00	7,052.49	13,261.40	7,215.63	177.31	208.21	95.55	-997.86	-6,338.07	1,687.72	1,303.22	384.50	4.389		
13,600.00	7,052.19	13,361.39	7,215.10	180.10	211.50	95.54	-998.44	-6,438.06	1,687.71	1,297.16	390.55	4.321		
13,700.00	7,051.89	13,461.39	7,214.57	182.90	214.78	95.53	-999.03	-6,538.06	1,687.70	1,291.09	396.62	4.255		
13,800.00	7,051.59	13,561.39	7,214.04	185.69	218.07	95.52	-999.61	-6,638.06	1,687.69	1,285.02	402.68	4.191		
13,900.00	7,051.30	13,661.39	7,213.51	188.49	221.35	95.52	-1,000.20	-6,738.05	1,687.69	1,278.94	408.75	4.129		
14,000.00	7,051.00	13,761.39	7,212.98	191.29	224.64	95.51	-1,000.78	-6,838.05	1,687.68	1,272.86	414.82	4.068		
14,100.00	7,050.70	13,861.39	7,212.45	194.09	227.93	95.50	-1,001.36	-6,938.05	1,687.67	1,266.78	420.89	4.010		
14,200.00	7,050.40	13,961.39	7,211.92	196.89	231.22	95.49	-1,001.95	-7,038.04	1,687.66	1,260.69	426.97	3.953		
14,300.00	7,050.11	14,061.39	7,211.40	199.70	234.52	95.48	-1,002.53	-7,138.04	1,687.65	1,254.61	433.05	3.897		
14,400.00	7,049.81	14,161.39	7,210.87	202.50	237.81	95.48	-1,003.12	-7,238.04	1,687.64	1,248.51	439.13	3.843		
14,500.00	7,049.51	14,261.39	7,210.34	205.31	241.10	95.47	-1,003.70	-7,338.03	1,687.63	1,242.42	445.21	3.791		
14,600.00	7,049.21	14,361.39	7,209.81	208.12	244.40	95.46	-1,004.29	-7,438.03	1,687.63	1,236.33	451.30	3.739		
14,700.00	7,048.92	14,461.39	7,209.28	210.93	247.70	95.45	-1,004.87	-7,538.03	1,687.62	1,230.23	457.39	3.690		
14,800.00	7,048.62	14,561.39	7,208.75	213.74	251.00	95.44	-1,005.45	-7,638.02	1,687.61	1,224.13	463.48	3.641		
14,900.00	7,048.32	14,661.39	7,208.22	216.55	254.29	95.44	-1,006.04	-7,738.02	1,687.60	1,218.03	469.57	3.594		
15,000.00	7,048.02	14,761.39	7,207.69	219.37	257.59	95.43	-1,006.62	-7,838.02	1,687.59	1,211.92	475.67	3.548		
15,100.00	7,047.73	14,861.39	7,207.17	222.18	260.89	95.42	-1,007.21	-7,938.01	1,687.58	1,205.82	481.77	3.503		
15,200.00	7,047.43	14,961.39	7,206.64	225.00	264.20	95.41	-1,007.79	-8,038.01	1,687.58	1,199.71	487.87	3.459		
15,300.00	7,047.13	15,061.39	7,206.11	227.81	267.50	95.41	-1,008.38	-8,138.01	1,687.57	1,193.60	493.97	3.416		
15,328.14	7,047.05	15,089.53	7,205.96	228.61	268.43	95.40	-1,008.54	-8,166.15	1,687.56	1,191.88	495.68	3.405 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)					
15,343.67	7,047.00	15,081.89	7,206.00	229.04	268.17	95.40	-1,008.50	-8,158.50	1,687.72	1,192.20	495.52	3.406				



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.46	279.79	2.23	279.80					
100.00	100.00	102.00	100.00	3.28	3.29	0.46	279.79	2.23	279.80	273.23	6.57	42.588		
200.00	200.00	202.00	200.00	3.34	3.34	0.46	279.79	2.23	279.80	273.12	6.68	41.913 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	177.06	279.79	2.23	281.54	274.65	6.89	40.876		
400.00	399.84	401.84	399.84	3.59	3.61	177.11	279.79	2.23	286.76	279.57	7.20	39.834		
500.00	499.45	501.61	499.61	3.79	3.81	177.19	279.79	2.22	295.47	287.87	7.60	38.868		
600.00	598.70	612.14	610.11	4.03	4.06	177.18	277.70	1.54	305.76	297.66	8.10	37.737		
700.00	697.47	723.10	720.87	4.31	4.35	176.97	271.54	-0.48	315.86	307.18	8.68	36.394		
800.00	795.62	822.60	820.07	4.64	4.64	176.71	264.12	-2.92	327.53	318.25	9.27	35.324		
900.00	893.06	921.44	918.60	5.00	4.94	176.50	256.75	-5.33	342.65	332.74	9.91	34.561		
1,000.00	989.64	1,019.69	1,016.55	5.40	5.27	176.34	249.43	-7.74	361.21	350.61	10.60	34.084		
1,100.00	1,085.27	1,117.24	1,113.80	5.83	5.61	176.23	242.15	-10.12	383.19	371.87	11.32	33.859		
1,200.00	1,179.82	1,213.97	1,210.23	6.29	5.95	176.15	234.94	-12.49	408.54	396.48	12.07	33.861		
1,300.00	1,273.17	1,309.75	1,305.72	6.79	6.31	176.10	227.80	-14.83	437.25	424.42	12.84	34.059		
1,400.00	1,365.46	1,404.68	1,400.35	7.32	6.67	176.10	220.72	-17.15	468.69	455.06	13.63	34.386		
1,500.00	1,457.65	1,500.48	1,494.90	7.87	7.05	176.12	213.65	-19.47	500.39	485.96	14.43	34.666		
1,600.00	1,549.83	1,605.63	1,589.45	8.43	7.47	176.13	206.58	-21.79	532.09	516.80	15.29	34.792		
1,700.00	1,642.02	1,689.21	1,684.00	9.01	7.80	176.15	199.51	-24.11	563.79	547.71	16.08	35.058		
1,800.00	1,734.21	1,784.05	1,778.55	9.59	8.19	176.16	192.44	-26.43	595.49	578.56	16.93	35.181		
1,900.00	1,826.39	1,878.89	1,873.10	10.18	8.58	176.17	185.37	-28.75	627.19	609.41	17.78	35.272		
2,000.00	1,918.58	1,973.74	1,967.65	10.78	8.97	176.18	178.30	-31.07	658.89	640.25	18.65	35.337		
2,100.00	2,010.77	2,068.58	2,062.20	11.39	9.37	176.19	171.23	-33.39	690.59	671.07	19.52	35.382		
2,200.00	2,102.95	2,163.42	2,156.75	11.99	9.77	176.20	164.16	-35.71	722.29	701.90	20.40	35.411		
2,300.00	2,195.14	2,258.26	2,251.30	12.61	10.17	176.21	157.09	-38.03	753.99	732.71	21.28	35.428		
2,400.00	2,287.32	2,353.10	2,345.85	13.22	10.57	176.21	150.02	-40.35	785.69	763.52	22.17	35.435		
2,500.00	2,379.51	2,447.95	2,440.40	13.84	10.98	176.22	142.95	-42.67	817.39	794.33	23.07	35.435		
2,600.00	2,471.70	2,542.79	2,534.95	14.46	11.39	176.23	135.87	-44.99	849.09	825.13	23.97	35.428		
2,700.00	2,563.88	2,637.63	2,629.50	15.08	11.80	176.23	128.80	-47.31	880.80	855.93	24.87	35.417		
2,800.00	2,656.07	2,732.47	2,724.05	15.71	12.21	176.24	121.73	-49.63	912.50	886.72	25.78	35.402		
2,900.00	2,748.26	2,827.32	2,818.60	16.33	12.62	176.24	114.66	-51.95	944.20	917.51	26.68	35.384		
3,000.00	2,840.44	2,922.16	2,913.15	16.96	13.03	176.25	107.59	-54.27	975.90	948.30	27.60	35.364		
3,100.00	2,932.63	3,017.00	3,007.70	17.59	13.44	176.25	100.52	-56.59	1,007.60	979.09	28.51	35.343		
3,200.00	3,024.81	3,111.84	3,102.25	18.22	13.86	176.26	93.45	-58.91	1,039.30	1,009.87	29.43	35.320		
3,300.00	3,117.00	3,206.69	3,196.80	18.86	14.27	176.26	86.38	-61.23	1,071.00	1,040.65	30.34	35.296		
3,400.00	3,209.19	3,301.53	3,291.35	19.49	14.69	176.26	79.31	-63.55	1,102.70	1,071.44	31.26	35.271		
3,500.00	3,301.37	3,403.63	3,385.90	20.12	15.14	176.27	72.24	-65.87	1,134.40	1,102.18	32.22	35.212		
3,600.00	3,393.56	3,508.79	3,480.45	20.76	15.60	176.27	65.17	-68.19	1,166.10	1,132.92	33.18	35.140		
3,700.00	3,485.75	3,586.05	3,575.00	21.39	15.94	176.27	58.10	-70.51	1,197.80	1,163.77	34.03	35.196		
3,800.00	3,577.93	3,680.90	3,669.55	22.03	16.36	176.28	51.03	-72.83	1,229.50	1,194.54	34.96	35.171		
3,900.00	3,670.12	3,775.74	3,764.10	22.67	16.78	176.28	43.95	-75.15	1,261.20	1,225.32	35.88	35.146		
4,000.00	3,762.30	3,870.58	3,858.65	23.30	17.20	176.28	36.88	-77.47	1,292.90	1,256.09	36.81	35.121		
4,100.00	3,854.49	3,965.42	3,953.20	23.94	17.62	176.28	29.81	-79.79	1,324.60	1,286.86	37.74	35.096		
4,200.00	3,946.68	4,060.27	4,047.75	24.58	18.04	176.29	22.74	-82.11	1,356.30	1,317.63	38.67	35.072		
4,300.00	4,038.86	4,155.11	4,142.30	25.22	18.46	176.29	15.67	-84.43	1,388.00	1,348.40	39.60	35.048		
4,400.00	4,131.05	4,249.95	4,236.85	25.86	18.88	176.29	8.60	-86.75	1,419.70	1,379.17	40.53	35.025		
4,500.00	4,223.24	4,344.79	4,331.40	26.50	19.30	176.29	1.53	-89.07	1,451.41	1,409.94	41.47	35.002		
4,600.00	4,315.42	4,439.64	4,425.95	27.14	19.73	176.29	-5.54	-91.39	1,483.11	1,440.71	42.40	34.979		
4,700.00	4,407.61	4,534.48	4,520.50	27.78	20.15	176.30	-12.61	-93.71	1,514.81	1,471.47	43.33	34.957		
4,800.00	4,499.79	4,629.32	4,615.05	28.42	20.57	176.30	-19.68	-96.03	1,546.51	1,502.24	44.27	34.935		
4,900.00	4,591.98	4,724.16	4,709.60	29.06	20.99	176.30	-26.75	-98.35	1,578.21	1,533.00	45.20	34.913		
5,000.00	4,684.17	4,819.01	4,804.15	29.70	21.42	176.30	-33.82	-100.67	1,609.91	1,563.77	46.14	34.892		
5,100.00	4,776.35	4,913.85	4,898.70	30.34	21.84	176.30	-40.89	-102.99	1,641.61	1,594.53	47.08	34.872		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	5,008.69	4,993.25	30.98	22.26	176.31	-47.97	-105.31	1,673.31	1,625.30	48.01	34.852		
5,300.00	4,960.73	5,103.53	5,087.80	31.63	22.69	176.31	-55.04	-107.63	1,705.01	1,656.06	48.95	34.832		
5,400.00	5,052.91	5,198.37	5,182.35	32.27	23.11	176.31	-62.11	-109.95	1,736.71	1,686.82	49.89	34.813		
5,500.00	5,145.10	5,306.78	5,276.90	32.91	23.59	176.31	-69.18	-112.27	1,768.41	1,717.53	50.89	34.753		
5,600.00	5,237.28	5,388.06	5,371.45	33.55	23.96	176.31	-76.25	-114.59	1,800.11	1,748.35	51.76	34.775		
5,700.00	5,329.47	5,482.90	5,466.00	34.20	24.38	176.31	-83.32	-116.91	1,831.81	1,779.11	52.70	34.757		
5,800.00	5,421.66	5,577.74	5,560.55	34.84	24.81	176.31	-90.39	-119.22	1,863.51	1,809.87	53.64	34.740		
5,900.00	5,513.84	5,672.59	5,655.10	35.48	25.23	176.31	-97.46	-121.54	1,895.21	1,840.63	54.58	34.722		
6,000.00	5,606.03	5,767.43	5,749.65	36.13	25.65	176.32	-104.53	-123.86	1,926.91	1,871.39	55.52	34.705		
6,100.00	5,698.22	5,862.27	5,844.20	36.77	26.08	176.32	-111.60	-126.18	1,958.61	1,902.15	56.46	34.689		
6,200.00	5,790.40	5,957.11	5,938.75	37.41	26.50	176.32	-118.67	-128.50	1,990.32	1,932.91	57.40	34.672		
6,300.00	5,882.59	6,051.96	6,033.30	38.06	26.93	176.32	-125.74	-130.82	2,022.02	1,963.67	58.34	34.657		
6,400.00	5,974.77	6,146.80	6,127.85	38.70	27.35	176.32	-132.81	-133.14	2,053.72	1,994.43	59.29	34.641		
6,500.00	6,066.96	6,241.64	6,222.40	39.34	27.78	176.32	-139.88	-135.46	2,085.42	2,025.19	60.23	34.626		
6,600.00	6,159.15	6,336.48	6,316.95	39.99	28.20	176.32	-146.96	-137.78	2,117.12	2,055.95	61.17	34.611		
6,700.00	6,251.33	6,431.33	6,411.50	40.63	28.63	176.32	-154.03	-140.10	2,148.82	2,086.71	62.11	34.596		
6,800.00	6,343.52	6,526.17	6,506.05	41.28	29.06	176.32	-161.10	-142.42	2,180.52	2,117.46	63.05	34.582		
6,900.00	6,435.71	6,621.01	6,600.60	41.92	29.48	176.32	-168.17	-144.74	2,212.22	2,148.22	64.00	34.568		
7,000.00	6,527.86	6,717.35	6,696.36	42.56	29.91	168.19	-175.36	-151.48	2,243.89	2,178.93	64.95	34.546		
7,100.00	6,618.85	6,813.53	6,789.92	43.19	30.33	146.58	-182.51	-172.22	2,275.14	2,209.25	65.89	34.527		
7,200.00	6,706.47	6,909.50	6,879.09	43.76	30.74	130.37	-189.44	-206.75	2,305.24	2,238.44	66.80	34.508		
7,300.00	6,788.56	7,005.61	6,962.19	44.26	31.12	118.82	-196.03	-254.40	2,333.43	2,265.75	67.68	34.476		
7,400.00	6,863.10	7,102.15	7,037.51	44.70	31.49	110.54	-202.13	-314.33	2,359.01	2,290.44	68.57	34.404		
7,500.00	6,928.26	7,199.28	7,103.29	45.07	31.88	104.52	-207.61	-385.46	2,381.36	2,311.83	69.52	34.252		
7,600.00	6,982.42	7,297.05	7,157.84	45.39	32.39	100.17	-212.34	-466.35	2,399.91	2,329.28	70.64	33.975		
7,700.00	7,024.26	7,395.39	7,199.60	45.67	33.09	97.13	-216.17	-555.19	2,414.22	2,342.23	71.99	33.535		
7,800.00	7,052.75	7,494.10	7,227.31	45.92	33.98	95.17	-219.01	-649.78	2,423.94	2,350.29	73.65	32.912		
7,900.00	7,067.18	7,592.91	7,240.12	46.16	35.05	94.20	-220.76	-747.64	2,428.82	2,353.20	75.62	32.121		
8,000.00	7,068.85	7,707.57	7,240.75	46.42	36.49	94.06	-221.61	-847.14	2,429.31	2,351.21	78.10	31.104		
8,100.00	7,068.56	7,807.57	7,240.36	46.78	37.93	94.06	-222.40	-947.14	2,429.12	2,348.37	80.75	30.081		
8,200.00	7,068.26	7,892.43	7,239.96	47.29	39.28	94.05	-223.18	-1,047.13	2,428.93	2,345.47	83.46	29.104		
8,300.00	7,067.96	8,007.57	7,239.57	48.03	41.26	94.05	-223.96	-1,147.13	2,428.74	2,341.80	86.94	27.937		
8,400.00	7,067.66	8,107.57	7,239.18	49.02	43.12	94.05	-224.74	-1,247.12	2,428.55	2,338.14	90.41	26.861		
8,500.00	7,067.37	8,207.57	7,238.78	50.27	45.08	94.05	-225.52	-1,347.12	2,428.36	2,334.26	94.10	25.806		
8,600.00	7,067.07	8,307.57	7,238.39	51.75	47.13	94.05	-226.31	-1,447.12	2,428.17	2,330.19	97.98	24.782		
8,700.00	7,066.77	8,407.57	7,238.00	53.42	49.26	94.04	-227.09	-1,547.11	2,427.98	2,325.94	102.03	23.796		
8,800.00	7,066.47	8,507.58	7,237.60	55.24	51.47	94.04	-227.87	-1,647.11	2,427.79	2,321.55	106.24	22.852		
8,900.00	7,066.18	8,607.58	7,237.21	57.18	53.73	94.04	-228.65	-1,747.10	2,427.60	2,317.02	110.57	21.954		
9,000.00	7,065.88	8,707.58	7,236.82	59.21	56.05	94.04	-229.44	-1,847.10	2,427.41	2,312.38	115.03	21.102		
9,100.00	7,065.58	8,807.58	7,236.42	61.33	58.42	94.04	-230.22	-1,947.10	2,427.22	2,307.62	119.59	20.296		
9,200.00	7,065.28	8,907.58	7,236.03	63.51	60.83	94.03	-231.00	-2,047.09	2,427.02	2,302.78	124.25	19.534		
9,300.00	7,064.99	9,007.58	7,235.64	65.76	63.27	94.03	-231.78	-2,147.09	2,426.83	2,297.85	128.99	18.815		
9,400.00	7,064.69	9,107.58	7,235.24	68.06	65.75	94.03	-232.56	-2,247.08	2,426.64	2,292.84	133.80	18.136		
9,500.00	7,064.39	9,207.58	7,234.85	70.40	68.26	94.03	-233.35	-2,347.08	2,426.45	2,287.77	138.68	17.497		
9,600.00	7,064.09	9,307.58	7,234.46	72.78	70.80	94.03	-234.13	-2,447.08	2,426.26	2,282.64	143.62	16.893		
9,700.00	7,063.80	9,407.58	7,234.06	75.20	73.36	94.02	-234.91	-2,547.07	2,426.07	2,277.45	148.62	16.324		
9,800.00	7,063.50	9,507.58	7,233.67	77.65	75.94	94.02	-235.69	-2,647.07	2,425.88	2,272.22	153.67	15.787		
9,900.00	7,063.20	9,607.58	7,233.28	80.13	78.54	94.02	-236.48	-2,747.06	2,425.69	2,266.94	158.75	15.279		
10,000.00	7,062.90	9,707.58	7,232.88	82.64	81.16	94.02	-237.26	-2,847.06	2,425.50	2,261.62	163.88	14.800		
10,100.00	7,062.61	9,807.58	7,232.49	85.17	83.79	94.02	-238.04	-2,947.06	2,425.31	2,256.26	169.05	14.347		
10,200.00	7,062.31	9,907.58	7,232.10	87.72	86.44	94.02	-238.82	-3,047.05	2,425.12	2,250.87	174.25	13.917		
10,300.00	7,062.01	10,007.58	7,231.70	90.28	89.10	94.01	-239.60	-3,147.05	2,424.93	2,245.45	179.48	13.511		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	10,107.58	7,231.31	92.87	91.77	94.01	-240.39	-3,247.04	2,424.74	2,240.00	184.74	13.125		
10,500.00	7,061.41	10,207.58	7,230.92	95.47	94.46	94.01	-241.17	-3,347.04	2,424.55	2,234.52	190.03	12.759		
10,600.00	7,061.12	10,307.58	7,230.52	98.09	97.15	94.01	-241.95	-3,447.04	2,424.36	2,229.02	195.33	12.411		
10,700.00	7,060.82	10,407.58	7,230.13	100.72	99.85	94.01	-242.73	-3,547.03	2,424.17	2,223.50	200.66	12.081		
10,800.00	7,060.52	10,507.58	7,229.74	103.37	102.56	94.00	-243.52	-3,647.03	2,423.98	2,217.96	206.01	11.766		
10,900.00	7,060.22	10,607.58	7,229.34	106.02	105.28	94.00	-244.30	-3,747.02	2,423.79	2,212.41	211.38	11.466		
11,000.00	7,059.93	10,707.58	7,228.95	108.69	108.01	94.00	-245.08	-3,847.02	2,423.59	2,206.83	216.77	11.181		
11,100.00	7,059.63	10,807.58	7,228.56	111.36	110.74	94.00	-245.86	-3,947.02	2,423.40	2,201.24	222.17	10.908		
11,200.00	7,059.33	10,907.58	7,228.16	114.05	113.48	94.00	-246.64	-4,047.01	2,423.21	2,195.63	227.58	10.648		
11,300.00	7,059.03	11,007.58	7,227.77	116.74	116.23	93.99	-247.43	-4,147.01	2,423.02	2,190.01	233.01	10.399		
11,400.00	7,058.74	11,107.58	7,227.38	119.44	118.98	93.99	-248.21	-4,247.00	2,422.83	2,184.38	238.45	10.161		
11,500.00	7,058.44	11,207.58	7,226.99	122.15	121.73	93.99	-248.99	-4,347.00	2,422.64	2,178.73	243.91	9.933		
11,600.00	7,058.14	11,307.58	7,226.59	124.86	124.49	93.99	-249.77	-4,447.00	2,422.45	2,173.08	249.37	9.714		
11,700.00	7,057.84	11,407.58	7,226.20	127.58	127.25	93.99	-250.56	-4,546.99	2,422.26	2,167.41	254.85	9.505		
11,800.00	7,057.55	11,507.58	7,225.81	130.31	130.02	93.98	-251.34	-4,646.99	2,422.07	2,161.73	260.34	9.304		
11,900.00	7,057.25	11,607.58	7,225.41	133.04	132.79	93.98	-252.12	-4,746.98	2,421.88	2,156.05	265.83	9.111		
12,000.00	7,056.95	11,707.58	7,225.02	135.78	135.57	93.98	-252.90	-4,846.98	2,421.69	2,150.36	271.33	8.925		
12,100.00	7,056.65	11,807.58	7,224.63	138.52	138.35	93.98	-253.68	-4,946.98	2,421.50	2,144.65	276.85	8.747		
12,200.00	7,056.36	11,907.58	7,224.23	141.27	141.13	93.98	-254.47	-5,046.97	2,421.31	2,138.94	282.37	8.575		
12,300.00	7,056.06	12,007.58	7,223.84	144.02	143.92	93.97	-255.25	-5,146.97	2,421.12	2,133.23	287.89	8.410		
12,400.00	7,055.76	12,107.58	7,223.45	146.78	146.70	93.97	-256.03	-5,246.96	2,420.93	2,127.50	293.42	8.251		
12,500.00	7,055.46	12,207.58	7,223.05	149.54	149.49	93.97	-256.81	-5,346.96	2,420.74	2,121.77	298.96	8.097		
12,600.00	7,055.17	12,307.58	7,222.66	152.30	152.29	93.97	-257.60	-5,446.95	2,420.55	2,116.04	304.51	7.949		
12,700.00	7,054.87	12,407.58	7,222.27	155.07	155.08	93.97	-258.38	-5,546.95	2,420.36	2,110.29	310.06	7.806		
12,800.00	7,054.57	12,507.58	7,221.87	157.84	157.88	93.96	-259.16	-5,646.95	2,420.17	2,104.55	315.62	7.668		
12,900.00	7,054.27	12,607.58	7,221.48	160.61	160.68	93.96	-259.94	-5,746.94	2,419.98	2,098.79	321.18	7.535		
13,000.00	7,053.97	12,707.58	7,221.09	163.39	163.48	93.96	-260.72	-5,846.94	2,419.78	2,093.04	326.75	7.406		
13,100.00	7,053.68	12,807.58	7,220.69	166.17	166.29	93.96	-261.51	-5,946.93	2,419.59	2,087.27	332.32	7.281		
13,200.00	7,053.38	12,907.58	7,220.30	168.95	169.09	93.96	-262.29	-6,046.93	2,419.40	2,081.51	337.90	7.160		
13,300.00	7,053.08	13,007.58	7,219.91	171.73	171.90	93.95	-263.07	-6,146.93	2,419.21	2,075.74	343.48	7.043		
13,400.00	7,052.78	13,107.58	7,219.51	174.52	174.71	93.95	-263.85	-6,246.92	2,419.02	2,069.96	349.06	6.930		
13,500.00	7,052.49	13,207.58	7,219.12	177.31	177.52	93.95	-264.64	-6,346.92	2,418.83	2,064.18	354.65	6.820		
13,600.00	7,052.19	13,307.58	7,218.73	180.10	180.33	93.95	-265.42	-6,446.91	2,418.64	2,058.40	360.24	6.714		
13,700.00	7,051.89	13,407.58	7,218.33	182.90	183.14	93.95	-266.20	-6,546.91	2,418.45	2,052.61	365.84	6.611		
13,800.00	7,051.59	13,507.58	7,217.94	185.69	185.96	93.94	-266.98	-6,646.91	2,418.26	2,046.82	371.44	6.511		
13,900.00	7,051.30	13,607.58	7,217.55	188.49	188.77	93.94	-267.76	-6,746.90	2,418.07	2,041.03	377.04	6.413		
14,000.00	7,051.00	13,707.58	7,217.15	191.29	191.59	93.94	-268.55	-6,846.90	2,417.88	2,035.24	382.64	6.319		
14,100.00	7,050.70	13,807.58	7,216.76	194.09	194.41	93.94	-269.33	-6,946.89	2,417.69	2,029.44	388.25	6.227		
14,200.00	7,050.40	13,907.58	7,216.37	196.89	197.23	93.94	-270.11	-7,046.89	2,417.50	2,023.64	393.86	6.138		
14,300.00	7,050.11	14,007.58	7,215.97	199.70	200.05	93.93	-270.89	-7,146.89	2,417.31	2,017.83	399.48	6.051		
14,400.00	7,049.81	14,107.58	7,215.58	202.50	202.87	93.93	-271.68	-7,246.88	2,417.12	2,012.03	405.09	5.967		
14,500.00	7,049.51	14,207.58	7,215.19	205.31	205.70	93.93	-272.46	-7,346.88	2,416.93	2,006.22	410.71	5.885		
14,600.00	7,049.21	14,307.58	7,214.79	208.12	208.52	93.93	-273.24	-7,446.87	2,416.74	2,000.41	416.33	5.805		
14,700.00	7,048.92	14,407.58	7,214.40	210.93	211.34	93.93	-274.02	-7,546.87	2,416.55	1,994.59	421.95	5.727		
14,800.00	7,048.62	14,507.58	7,214.01	213.74	214.17	93.93	-274.80	-7,646.87	2,416.36	1,988.78	427.58	5.651		
14,900.00	7,048.32	14,607.58	7,213.61	216.55	217.00	93.92	-275.59	-7,746.86	2,416.17	1,982.96	433.21	5.577		
15,000.00	7,048.02	14,707.58	7,213.22	219.37	219.82	93.92	-276.37	-7,846.86	2,415.98	1,977.14	438.84	5.505		
15,100.00	7,047.73	14,807.58	7,212.83	222.18	222.65	93.92	-277.15	-7,946.85	2,415.79	1,971.32	444.47	5.435		
15,200.00	7,047.43	14,907.58	7,212.43	225.00	225.48	93.92	-277.93	-8,046.85	2,415.59	1,965.49	450.10	5.367		
15,300.00	7,047.13	15,007.58	7,212.04	227.81	227.88	93.92	-278.72	-8,146.85	2,415.40	1,960.10	455.31	5.305		
15,318.08	7,047.08	15,010.49	7,211.97	228.32	228.39	93.91	-278.86	-8,164.93	2,415.37	1,959.04	456.33	5.293		
15,343.67	7,047.00	15,002.44	7,212.00	229.04	228.16	93.92	-278.79	-8,156.87	2,415.56	1,958.92	456.64	5.290 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	1.00	0.00	3.28	3.28	0.44	179.97	1.39	179.97					
100.00	100.00	101.00	100.00	3.28	3.28	0.44	179.97	1.39	179.97	173.40	6.57	27.395		
200.00	200.00	201.00	200.00	3.34	3.34	0.44	179.97	1.39	179.97	173.30	6.67	26.963	CC, ES	
300.00	299.98	301.05	300.05	3.44	3.45	177.06	179.97	1.39	181.71	174.83	6.89	26.388		
400.00	399.84	407.73	406.70	3.59	3.61	177.04	177.97	1.04	185.07	177.86	7.21	25.672		
500.00	499.45	514.54	513.34	3.79	3.82	176.89	172.06	0.02	188.24	180.60	7.64	24.645		
600.00	598.70	621.48	619.80	4.03	4.08	176.60	162.21	-1.69	191.21	183.05	8.16	23.427		
700.00	697.47	727.06	724.49	4.31	4.37	176.20	148.73	-4.03	194.08	185.33	8.75	22.180		
800.00	795.62	826.91	823.34	4.64	4.67	175.83	134.81	-6.45	199.26	189.91	9.35	21.305		
900.00	893.06	926.53	921.95	5.00	5.01	175.55	120.93	-8.86	207.93	197.92	10.01	20.782		
1,000.00	989.64	1,025.78	1,020.21	5.40	5.37	175.37	107.09	-11.26	220.06	209.35	10.71	20.555		
1,100.00	1,085.27	1,124.56	1,117.99	5.83	5.74	175.26	93.32	-13.65	235.63	224.19	11.44	20.589		
1,200.00	1,179.82	1,222.73	1,215.17	6.29	6.12	175.23	79.64	-16.03	254.63	242.42	12.21	20.846		
1,300.00	1,273.17	1,320.18	1,311.65	6.79	6.51	175.25	66.05	-18.39	277.04	264.03	13.01	21.290		
1,400.00	1,365.46	1,416.96	1,407.45	7.32	6.90	175.33	52.56	-20.73	302.21	288.38	13.83	21.849		
1,500.00	1,457.65	1,513.67	1,503.18	7.87	7.31	175.41	39.08	-23.07	327.66	313.00	14.66	22.346		
1,600.00	1,549.83	1,610.37	1,598.92	8.43	7.71	175.48	25.60	-25.41	353.11	337.60	15.51	22.764		
1,700.00	1,642.02	1,707.08	1,694.65	9.01	8.13	175.55	12.12	-27.75	378.56	362.18	16.37	23.118		
1,800.00	1,734.21	1,803.79	1,790.39	9.59	8.55	175.60	-1.36	-30.09	404.01	386.76	17.25	23.421		
1,900.00	1,826.39	1,900.49	1,886.12	10.18	8.97	175.65	-14.84	-32.43	429.45	411.32	18.14	23.680		
2,000.00	1,918.58	1,997.20	1,981.85	10.78	9.40	175.69	-28.32	-34.77	454.90	435.87	19.03	23.904		
2,100.00	2,010.77	2,106.09	2,077.59	11.39	9.88	175.73	-41.80	-37.11	480.35	460.37	19.99	24.035		
2,200.00	2,102.95	2,209.39	2,173.32	11.99	10.34	175.77	-55.28	-39.45	505.80	484.88	20.92	24.174		
2,300.00	2,195.14	2,287.32	2,269.06	12.61	10.69	175.80	-68.76	-41.79	531.25	509.49	21.76	24.416		
2,400.00	2,287.32	2,384.03	2,364.79	13.22	11.13	175.83	-82.24	-44.13	556.70	534.02	22.68	24.547		
2,500.00	2,379.51	2,480.74	2,460.53	13.84	11.57	175.85	-95.72	-46.47	582.15	558.55	23.60	24.663		
2,600.00	2,471.70	2,577.44	2,556.26	14.46	12.01	175.88	-109.20	-48.81	607.60	583.07	24.53	24.766		
2,700.00	2,563.88	2,674.15	2,651.99	15.08	12.45	175.90	-122.68	-51.15	633.05	607.58	25.47	24.858		
2,800.00	2,656.07	2,770.86	2,747.73	15.71	12.89	175.92	-136.17	-53.49	658.50	632.10	26.40	24.941		
2,900.00	2,748.26	2,867.56	2,843.46	16.33	13.33	175.94	-149.65	-55.83	683.95	656.61	27.34	25.015		
3,000.00	2,840.44	2,964.27	2,939.20	16.96	13.78	175.96	-163.13	-58.17	709.40	681.12	28.28	25.082		
3,100.00	2,932.63	3,060.98	3,034.93	17.59	14.22	175.97	-176.61	-60.51	734.85	705.62	29.23	25.143		
3,200.00	3,024.81	3,157.68	3,130.67	18.22	14.67	175.99	-190.09	-62.85	760.30	730.13	30.17	25.198		
3,300.00	3,117.00	3,254.39	3,226.40	18.86	15.12	176.00	-203.57	-65.20	785.75	754.63	31.12	25.248		
3,400.00	3,209.19	3,351.10	3,322.13	19.49	15.57	176.02	-217.05	-67.54	811.20	779.13	32.07	25.294		
3,500.00	3,301.37	3,447.81	3,417.87	20.12	16.01	176.03	-230.53	-69.88	836.65	803.63	33.02	25.336		
3,600.00	3,393.56	3,544.51	3,513.60	20.76	16.46	176.04	-244.01	-72.22	862.10	828.13	33.98	25.374		
3,700.00	3,485.75	3,641.22	3,609.34	21.39	16.91	176.05	-257.49	-74.56	887.55	852.62	34.93	25.410		
3,800.00	3,577.93	3,737.93	3,705.07	22.03	17.36	176.06	-270.97	-76.90	913.00	877.12	35.89	25.442		
3,900.00	3,670.12	3,834.63	3,800.80	22.67	17.81	176.07	-284.45	-79.24	938.45	901.61	36.84	25.473		
4,000.00	3,762.30	3,931.34	3,896.54	23.30	18.26	176.08	-297.93	-81.58	963.91	926.11	37.80	25.500		
4,100.00	3,854.49	4,028.05	3,992.27	23.94	18.72	176.09	-311.41	-83.92	989.36	950.60	38.76	25.526		
4,200.00	3,946.68	4,124.75	4,088.01	24.58	19.17	176.10	-324.89	-86.26	1,014.81	975.09	39.72	25.550		
4,300.00	4,038.86	4,221.46	4,183.74	25.22	19.62	176.11	-338.37	-88.60	1,040.26	999.58	40.68	25.573		
4,400.00	4,131.05	4,318.17	4,279.48	25.86	20.07	176.11	-351.86	-90.94	1,065.71	1,024.07	41.64	25.593		
4,500.00	4,223.24	4,414.88	4,375.21	26.50	20.53	176.12	-365.34	-93.28	1,091.16	1,048.56	42.60	25.613		
4,600.00	4,315.42	4,511.58	4,470.94	27.14	20.98	176.13	-378.82	-95.62	1,116.61	1,073.04	43.56	25.631		
4,700.00	4,407.61	4,608.29	4,566.68	27.78	21.43	176.13	-392.30	-97.96	1,142.06	1,097.53	44.53	25.648		
4,800.00	4,499.79	4,705.00	4,662.41	28.42	21.89	176.14	-405.78	-100.30	1,167.51	1,122.02	45.49	25.664		
4,900.00	4,591.98	4,801.70	4,758.15	29.06	22.34	176.15	-419.26	-102.64	1,192.96	1,146.50	46.46	25.679		
5,000.00	4,684.17	4,901.59	4,853.88	29.70	22.81	176.15	-432.74	-104.98	1,218.41	1,170.98	47.44	25.685		
5,100.00	4,776.35	4,995.12	4,949.62	30.34	23.25	176.16	-446.22	-107.32	1,243.86	1,195.48	48.39	25.706		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	5,108.18	5,045.35	30.98	23.78	176.16	-459.70	-109.66	1,269.31	1,219.89	49.43	25.680		
5,300.00	4,960.73	5,188.53	5,141.08	31.63	24.16	176.17	-473.18	-112.00	1,294.76	1,244.44	50.32	25.730		
5,400.00	5,052.91	5,285.24	5,236.82	32.27	24.61	176.17	-486.66	-114.34	1,320.22	1,268.93	51.29	25.741		
5,500.00	5,145.10	5,381.95	5,332.55	32.91	25.07	176.18	-500.14	-116.68	1,345.67	1,293.41	52.26	25.752		
5,600.00	5,237.28	5,478.65	5,428.29	33.55	25.52	176.18	-513.62	-119.02	1,371.12	1,317.89	53.22	25.762		
5,700.00	5,329.47	5,575.36	5,524.02	34.20	25.98	176.19	-527.10	-121.36	1,396.57	1,342.38	54.19	25.771		
5,800.00	5,421.66	5,672.07	5,619.75	34.84	26.43	176.19	-540.58	-123.70	1,422.02	1,366.86	55.16	25.780		
5,900.00	5,513.84	5,768.77	5,715.49	35.48	26.89	176.20	-554.06	-126.05	1,447.47	1,391.34	56.13	25.788		
6,000.00	5,606.03	5,865.48	5,811.22	36.13	27.34	176.20	-567.55	-128.39	1,472.92	1,415.82	57.10	25.796		
6,100.00	5,698.22	5,962.19	5,906.96	36.77	27.80	176.20	-581.03	-130.73	1,498.37	1,440.30	58.07	25.804		
6,200.00	5,790.40	6,058.90	6,002.69	37.41	28.25	176.21	-594.51	-133.07	1,523.82	1,464.78	59.04	25.811		
6,300.00	5,882.59	6,155.60	6,098.43	38.06	28.71	176.21	-607.99	-135.41	1,549.27	1,489.26	60.01	25.818		
6,400.00	5,974.77	6,252.31	6,194.16	38.70	29.17	176.21	-621.47	-137.75	1,574.72	1,513.74	60.98	25.824		
6,500.00	6,066.96	6,349.02	6,289.89	39.34	29.62	176.22	-634.95	-140.09	1,600.17	1,538.23	61.95	25.830		
6,600.00	6,159.15	6,445.72	6,385.63	39.99	30.08	176.22	-648.43	-142.43	1,625.63	1,562.70	62.92	25.836		
6,700.00	6,251.33	6,542.72	6,481.62	40.63	30.54	176.19	-661.95	-145.60	1,651.07	1,587.18	63.90	25.840		
6,800.00	6,343.52	6,638.69	6,575.47	41.28	30.98	175.77	-675.27	-159.97	1,676.53	1,611.67	64.86	25.847		
6,900.00	6,435.71	6,729.17	6,661.05	41.92	31.38	174.93	-687.53	-186.41	1,702.28	1,636.51	65.77	25.882		
7,000.00	6,527.86	6,811.74	6,735.18	42.56	31.72	165.97	-698.26	-221.01	1,728.82	1,662.23	66.59	25.961		
7,100.00	6,618.85	6,890.02	6,800.80	43.19	32.03	143.94	-707.84	-262.51	1,755.80	1,688.46	67.35	26.071		
7,200.00	6,706.47	6,966.03	6,859.22	43.76	32.30	127.36	-716.47	-310.29	1,782.28	1,714.24	68.04	26.194		
7,300.00	6,788.56	7,040.34	6,910.49	44.26	32.56	115.49	-724.14	-363.48	1,807.43	1,738.74	68.69	26.313		
7,400.00	6,863.10	7,113.41	6,954.57	44.70	32.82	106.94	-730.84	-421.32	1,830.48	1,761.15	69.33	26.403		
7,500.00	6,928.26	7,185.54	6,991.36	45.07	33.11	100.71	-736.55	-483.06	1,850.77	1,780.75	70.01	26.435		
7,600.00	6,982.42	7,257.01	7,020.76	45.39	33.48	96.19	-741.25	-547.99	1,867.72	1,796.91	70.81	26.375		
7,700.00	7,024.26	7,328.00	7,042.65	45.67	33.98	93.02	-744.91	-615.37	1,880.87	1,809.07	71.81	26.193		
7,800.00	7,052.75	7,400.00	7,057.12	45.92	34.61	90.99	-747.55	-685.82	1,889.87	1,816.82	73.06	25.868		
7,900.00	7,067.18	7,469.07	7,063.51	46.16	35.33	89.99	-749.05	-754.54	1,894.48	1,819.93	74.55	25.413		
8,000.00	7,068.85	7,557.41	7,063.76	46.42	36.40	89.85	-749.85	-842.87	1,894.98	1,818.33	76.65	24.724		
8,100.00	7,068.56	7,657.41	7,063.36	46.78	37.78	89.84	-750.66	-942.87	1,894.76	1,815.51	79.26	23.907		
8,200.00	7,068.26	7,757.41	7,062.97	47.29	39.32	89.84	-751.47	-1,042.86	1,894.55	1,812.37	82.18	23.053		
8,300.00	7,067.96	7,857.41	7,062.58	48.03	41.01	89.84	-752.28	-1,142.86	1,894.34	1,808.95	85.39	22.185		
8,400.00	7,067.66	7,957.41	7,062.19	49.02	42.82	89.83	-753.09	-1,242.85	1,894.12	1,805.27	88.85	21.318		
8,500.00	7,067.37	8,057.41	7,061.79	50.27	44.75	89.83	-753.91	-1,342.85	1,893.91	1,801.38	92.53	20.468		
8,600.00	7,067.07	8,157.41	7,061.40	51.75	46.77	89.83	-754.72	-1,442.85	1,893.70	1,797.28	96.41	19.642		
8,700.00	7,066.77	8,257.41	7,061.01	53.42	48.88	89.83	-755.53	-1,542.84	1,893.48	1,793.01	100.47	18.847		
8,800.00	7,066.47	8,357.41	7,060.61	55.24	51.06	89.82	-756.34	-1,642.84	1,893.27	1,788.59	104.68	18.087		
8,900.00	7,066.18	8,457.41	7,060.22	57.18	53.30	89.82	-757.15	-1,742.83	1,893.06	1,784.03	109.02	17.364		
9,000.00	7,065.88	8,557.41	7,059.83	59.21	55.61	89.82	-757.97	-1,842.83	1,892.84	1,779.35	113.49	16.678		
9,100.00	7,065.58	8,657.41	7,059.43	61.33	57.96	89.81	-758.78	-1,942.82	1,892.63	1,774.56	118.07	16.030		
9,200.00	7,065.28	8,757.41	7,059.04	63.51	60.35	89.81	-759.59	-2,042.82	1,892.41	1,769.68	122.74	15.418		
9,300.00	7,064.99	8,857.41	7,058.65	65.76	62.79	89.81	-760.40	-2,142.82	1,892.20	1,764.71	127.49	14.841		
9,400.00	7,064.69	8,957.41	7,058.25	68.06	65.26	89.81	-761.21	-2,242.81	1,891.99	1,759.66	132.33	14.298		
9,500.00	7,064.39	9,057.40	7,057.86	70.40	67.76	89.80	-762.02	-2,342.81	1,891.77	1,754.55	137.23	13.786		
9,600.00	7,064.09	9,157.40	7,057.47	72.78	70.28	89.80	-762.84	-2,442.80	1,891.56	1,749.37	142.19	13.303		
9,700.00	7,063.80	9,257.40	7,057.07	75.20	72.84	89.80	-763.65	-2,542.80	1,891.35	1,744.15	147.20	12.849		
9,800.00	7,063.50	9,357.40	7,056.68	77.65	75.41	89.79	-764.46	-2,642.79	1,891.13	1,738.87	152.27	12.420		
9,900.00	7,063.20	9,457.40	7,056.29	80.13	78.00	89.79	-765.27	-2,742.79	1,890.92	1,733.55	157.37	12.015		
10,000.00	7,062.90	9,557.40	7,055.89	82.64	80.62	89.79	-766.08	-2,842.79	1,890.71	1,728.18	162.52	11.633		
10,100.00	7,062.61	9,657.40	7,055.50	85.17	83.24	89.79	-766.89	-2,942.78	1,890.49	1,722.78	167.71	11.272		
10,200.00	7,062.31	9,757.40	7,055.11	87.72	85.89	89.78	-767.71	-3,042.78	1,890.28	1,717.35	172.93	10.931		
10,300.00	7,062.01	9,857.40	7,054.72	90.28	88.54	89.78	-768.52	-3,142.77	1,890.07	1,711.89	178.18	10.608		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	9,957.40	7,054.32	92.87	91.21	89.78	-769.33	-3,242.77	1,889.85	1,706.40	183.46	10.301		
10,500.00	7,061.41	10,057.40	7,053.93	95.47	93.89	89.77	-770.14	-3,342.76	1,889.64	1,700.88	188.76	10.011		
10,600.00	7,061.12	10,157.40	7,053.54	98.09	96.58	89.77	-770.95	-3,442.76	1,889.43	1,695.34	194.09	9.735		
10,700.00	7,060.82	10,257.40	7,053.14	100.72	99.28	89.77	-771.76	-3,542.75	1,889.21	1,689.78	199.43	9.473		
10,800.00	7,060.52	10,357.40	7,052.75	103.37	101.99	89.76	-772.58	-3,642.75	1,889.00	1,684.20	204.80	9.224		
10,900.00	7,060.22	10,457.40	7,052.36	106.02	104.70	89.76	-773.39	-3,742.75	1,888.79	1,678.60	210.19	8.986		
11,000.00	7,059.93	10,557.40	7,051.96	108.69	107.43	89.76	-774.20	-3,842.74	1,888.57	1,672.98	215.59	8.760		
11,100.00	7,059.63	10,657.40	7,051.57	111.36	110.16	89.76	-775.01	-3,942.74	1,888.36	1,667.35	221.01	8.544		
11,200.00	7,059.33	10,757.40	7,051.18	114.05	112.89	89.75	-775.82	-4,042.73	1,888.15	1,661.70	226.44	8.338		
11,300.00	7,059.03	10,857.40	7,050.78	116.74	115.64	89.75	-776.64	-4,142.73	1,887.93	1,656.04	231.89	8.141		
11,400.00	7,058.74	10,957.40	7,050.39	119.44	118.38	89.75	-777.45	-4,242.72	1,887.72	1,650.37	237.35	7.953		
11,500.00	7,058.44	11,057.40	7,050.00	122.15	121.14	89.74	-778.26	-4,342.72	1,887.51	1,644.68	242.82	7.773		
11,600.00	7,058.14	11,157.40	7,049.60	124.86	123.89	89.74	-779.07	-4,442.72	1,887.29	1,638.99	248.31	7.601		
11,700.00	7,057.84	11,257.40	7,049.21	127.58	126.66	89.74	-779.88	-4,542.71	1,887.08	1,633.28	253.80	7.435		
11,800.00	7,057.55	11,357.40	7,048.82	130.31	129.42	89.74	-780.69	-4,642.71	1,886.87	1,627.56	259.30	7.277		
11,900.00	7,057.25	11,457.40	7,048.42	133.04	132.19	89.73	-781.51	-4,742.70	1,886.65	1,621.84	264.81	7.124		
12,000.00	7,056.95	11,557.40	7,048.03	135.78	134.97	89.73	-782.32	-4,842.70	1,886.44	1,616.11	270.33	6.978		
12,100.00	7,056.65	11,657.40	7,047.64	138.52	137.74	89.73	-783.13	-4,942.69	1,886.23	1,610.36	275.86	6.838		
12,200.00	7,056.36	11,757.40	7,047.25	141.27	140.52	89.72	-783.94	-5,042.69	1,886.01	1,604.61	281.40	6.702		
12,300.00	7,056.06	11,857.40	7,046.85	144.02	143.31	89.72	-784.75	-5,142.69	1,885.80	1,598.86	286.94	6.572		
12,400.00	7,055.76	11,957.40	7,046.46	146.78	146.09	89.72	-785.56	-5,242.68	1,885.59	1,593.10	292.49	6.447		
12,500.00	7,055.46	12,057.40	7,046.07	149.54	148.88	89.71	-786.38	-5,342.68	1,885.37	1,587.33	298.05	6.326		
12,600.00	7,055.17	12,157.40	7,045.67	152.30	151.68	89.71	-787.19	-5,442.67	1,885.16	1,581.55	303.61	6.209		
12,700.00	7,054.87	12,257.40	7,045.28	155.07	154.47	89.71	-788.00	-5,542.67	1,884.95	1,575.77	309.17	6.097		
12,800.00	7,054.57	12,357.40	7,044.89	157.84	157.27	89.71	-788.81	-5,642.66	1,884.73	1,569.99	314.75	5.988		
12,900.00	7,054.27	12,457.40	7,044.49	160.61	160.06	89.70	-789.62	-5,742.66	1,884.52	1,564.19	320.32	5.883		
13,000.00	7,053.97	12,557.40	7,044.10	163.39	162.87	89.70	-790.43	-5,842.66	1,884.31	1,558.40	325.91	5.782		
13,100.00	7,053.68	12,657.40	7,043.71	166.17	165.67	89.70	-791.25	-5,942.65	1,884.09	1,552.60	331.49	5.684		
13,200.00	7,053.38	12,757.39	7,043.31	168.95	168.47	89.69	-792.06	-6,042.65	1,883.88	1,546.79	337.09	5.589		
13,300.00	7,053.08	12,857.39	7,042.92	171.73	171.28	89.69	-792.87	-6,142.64	1,883.67	1,540.98	342.68	5.497		
13,400.00	7,052.78	12,957.39	7,042.53	174.52	174.09	89.69	-793.68	-6,242.64	1,883.45	1,535.17	348.28	5.408		
13,500.00	7,052.49	13,057.39	7,042.13	177.31	176.90	89.69	-794.49	-6,342.63	1,883.24	1,529.36	353.88	5.322		
13,600.00	7,052.19	13,157.39	7,041.74	180.10	179.71	89.68	-795.30	-6,442.63	1,883.03	1,523.53	359.49	5.238		
13,700.00	7,051.89	13,257.39	7,041.35	182.90	182.52	89.68	-796.12	-6,542.62	1,882.81	1,517.71	365.10	5.157		
13,800.00	7,051.59	13,357.39	7,040.95	185.69	185.34	89.68	-796.93	-6,642.62	1,882.60	1,511.88	370.71	5.078		
13,900.00	7,051.30	13,457.39	7,040.56	188.49	188.15	89.67	-797.74	-6,742.62	1,882.39	1,506.06	376.33	5.002		
14,000.00	7,051.00	13,557.39	7,040.17	191.29	190.97	89.67	-798.55	-6,842.61	1,882.17	1,500.22	381.95	4.928		
14,100.00	7,050.70	13,657.39	7,039.78	194.09	193.78	89.67	-799.36	-6,942.61	1,881.96	1,494.39	387.57	4.856		
14,200.00	7,050.40	13,757.39	7,039.38	196.89	196.60	89.66	-800.18	-7,042.60	1,881.75	1,488.55	393.20	4.786		
14,300.00	7,050.11	13,857.39	7,038.99	199.70	199.42	89.66	-800.99	-7,142.60	1,881.53	1,482.71	398.83	4.718		
14,400.00	7,049.81	13,957.39	7,038.60	202.50	202.25	89.66	-801.80	-7,242.59	1,881.32	1,476.86	404.46	4.651		
14,500.00	7,049.51	14,057.39	7,038.20	205.31	205.07	89.66	-802.61	-7,342.59	1,881.11	1,471.02	410.09	4.587		
14,600.00	7,049.21	14,157.39	7,037.81	208.12	207.89	89.65	-803.42	-7,442.58	1,880.89	1,465.17	415.72	4.524		
14,700.00	7,048.92	14,257.39	7,037.42	210.93	210.71	89.65	-804.23	-7,542.58	1,880.68	1,459.32	421.36	4.463		
14,800.00	7,048.62	14,357.39	7,037.02	213.74	213.54	89.65	-805.05	-7,642.58	1,880.47	1,453.47	427.00	4.404		
14,900.00	7,048.32	14,457.39	7,036.63	216.55	216.37	89.64	-805.86	-7,742.57	1,880.25	1,447.61	432.64	4.346		
15,000.00	7,048.02	14,557.39	7,036.24	219.37	219.19	89.64	-806.67	-7,842.57	1,880.04	1,441.76	438.28	4.290		
15,100.00	7,047.73	14,657.39	7,035.84	222.18	222.02	89.64	-807.48	-7,942.56	1,879.83	1,435.90	443.93	4.235		
15,200.00	7,047.43	14,757.39	7,035.45	225.00	224.85	89.64	-808.29	-8,042.56	1,879.61	1,430.04	449.57	4.181		
15,300.00	7,047.13	14,857.39	7,035.06	227.81	227.68	89.63	-809.10	-8,142.56	1,879.40	1,424.18	455.22	4.129		
15,321.54	7,047.07	14,878.92	7,034.97	228.42	228.29	89.63	-809.28	-8,164.09	1,879.35	1,422.92	456.44	4.117		
15,343.67	7,047.00	14,871.88	7,035.00	229.04	228.09	89.63	-809.22	-8,157.05	1,879.53	1,422.91	456.62	4.116 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.49	260.12	2.23	260.13					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	260.12	2.23	260.13	253.56	6.57	39.594		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	260.12	2.23	260.13	253.45	6.68	38.966	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.10	260.12	2.23	261.87	254.98	6.89	38.020		
400.00	399.84	401.84	399.84	3.59	3.61	177.15	260.12	2.23	267.10	259.90	7.20	37.102		
500.00	499.45	501.45	499.45	3.79	3.81	177.23	260.12	2.23	275.80	268.20	7.60	36.282		
600.00	598.70	602.95	600.95	4.03	4.05	177.34	260.03	2.20	287.89	279.81	8.08	35.609		
700.00	697.47	713.17	711.12	4.31	4.33	177.35	257.10	1.52	300.89	292.24	8.64	34.807		
800.00	795.62	823.96	821.67	4.64	4.64	177.24	250.01	-0.14	313.60	304.32	9.28	33.790		
900.00	893.06	931.20	928.35	5.00	4.98	177.01	239.36	-2.62	326.23	316.27	9.96	32.755		
1,000.00	989.64	1,030.02	1,026.56	5.40	5.30	176.81	228.70	-5.12	341.48	330.84	10.65	32.077		
1,100.00	1,085.27	1,128.25	1,124.18	5.83	5.64	176.66	218.09	-7.60	360.17	348.80	11.37	31.685		
1,200.00	1,179.82	1,225.78	1,221.10	6.29	6.00	176.54	207.56	-10.06	382.26	370.14	12.12	31.536		
1,300.00	1,273.17	1,322.47	1,317.20	6.79	6.36	176.46	197.12	-12.49	407.74	394.84	12.90	31.603		
1,400.00	1,365.46	1,418.40	1,412.54	7.32	6.74	176.43	186.77	-14.91	435.98	422.27	13.70	31.814		
1,500.00	1,457.65	1,514.25	1,507.80	7.87	7.12	176.42	176.42	-17.33	464.48	449.96	14.52	31.997		
1,600.00	1,549.83	1,610.10	1,603.06	8.43	7.50	176.41	166.07	-19.75	492.98	477.63	15.35	32.123		
1,700.00	1,642.02	1,705.96	1,698.32	9.01	7.90	176.40	155.72	-22.17	521.48	505.29	16.19	32.207		
1,800.00	1,734.21	1,801.81	1,793.58	9.59	8.29	176.39	145.38	-24.59	549.98	532.93	17.05	32.259		
1,900.00	1,826.39	1,902.34	1,888.85	10.18	8.72	176.38	135.03	-27.01	578.49	560.55	17.94	32.252		
2,000.00	1,918.58	2,006.49	1,984.11	10.78	9.16	176.37	124.68	-29.42	606.99	588.14	18.85	32.203		
2,100.00	2,010.77	2,089.36	2,079.37	11.39	9.51	176.37	114.33	-31.84	635.49	615.81	19.68	32.290		
2,200.00	2,102.95	2,185.22	2,174.63	11.99	9.92	176.36	103.99	-34.26	663.99	643.42	20.57	32.274		
2,300.00	2,195.14	2,281.07	2,269.89	12.61	10.34	176.36	93.64	-36.68	692.49	671.02	21.47	32.251		
2,400.00	2,287.32	2,376.92	2,365.15	13.22	10.76	176.35	83.29	-39.10	720.99	698.62	22.38	32.221		
2,500.00	2,379.51	2,472.77	2,460.41	13.84	11.17	176.35	72.94	-41.51	749.50	726.21	23.29	32.188		
2,600.00	2,471.70	2,568.63	2,555.67	14.46	11.60	176.34	62.59	-43.93	778.00	753.80	24.20	32.151		
2,700.00	2,563.88	2,664.48	2,650.94	15.08	12.02	176.34	52.25	-46.35	806.50	781.38	25.11	32.112		
2,800.00	2,656.07	2,760.33	2,746.20	15.71	12.44	176.33	41.90	-48.77	835.00	808.97	26.04	32.072		
2,900.00	2,748.26	2,856.18	2,841.46	16.33	12.87	176.33	31.55	-51.19	863.50	836.54	26.96	32.031		
3,000.00	2,840.44	2,952.03	2,936.72	16.96	13.29	176.33	21.20	-53.60	892.00	864.12	27.88	31.990		
3,100.00	2,932.63	3,047.89	3,031.98	17.59	13.72	176.32	10.85	-56.02	920.51	891.69	28.81	31.948		
3,200.00	3,024.81	3,143.74	3,127.24	18.22	14.15	176.32	0.51	-58.44	949.01	919.26	29.74	31.907		
3,300.00	3,117.00	3,239.59	3,222.50	18.86	14.58	176.32	-9.84	-60.86	977.51	946.83	30.68	31.867		
3,400.00	3,209.19	3,335.44	3,317.77	19.49	15.01	176.32	-20.19	-63.28	1,006.01	974.40	31.61	31.826		
3,500.00	3,301.37	3,431.30	3,413.03	20.12	15.44	176.31	-30.54	-65.69	1,034.51	1,001.97	32.55	31.787		
3,600.00	3,393.56	3,527.15	3,508.29	20.76	15.87	176.31	-40.89	-68.11	1,063.01	1,029.53	33.48	31.748		
3,700.00	3,485.75	3,623.00	3,603.55	21.39	16.30	176.31	-51.23	-70.53	1,091.52	1,057.09	34.42	31.710		
3,800.00	3,577.93	3,718.85	3,698.81	22.03	16.74	176.31	-61.58	-72.95	1,120.02	1,084.66	35.36	31.673		
3,900.00	3,670.12	3,814.70	3,794.07	22.67	17.17	176.30	-71.93	-75.37	1,148.52	1,112.22	36.30	31.637		
4,000.00	3,762.30	3,910.56	3,889.33	23.30	17.60	176.30	-82.28	-77.78	1,177.02	1,139.78	37.25	31.601		
4,100.00	3,854.49	4,006.41	3,984.59	23.94	18.04	176.30	-92.63	-80.20	1,205.52	1,167.33	38.19	31.567		
4,200.00	3,946.68	4,102.26	4,079.86	24.58	18.47	176.30	-102.97	-82.62	1,234.03	1,194.89	39.13	31.533		
4,300.00	4,038.86	4,201.89	4,175.12	25.22	18.93	176.30	-113.32	-85.04	1,262.53	1,222.43	40.10	31.487		
4,400.00	4,131.05	4,293.97	4,270.38	25.86	19.34	176.30	-123.67	-87.46	1,291.03	1,250.00	41.03	31.469		
4,500.00	4,223.24	4,389.82	4,365.64	26.50	19.78	176.29	-134.02	-89.87	1,319.53	1,277.56	41.97	31.438		
4,600.00	4,315.42	4,485.67	4,460.90	27.14	20.22	176.29	-144.37	-92.29	1,348.03	1,305.11	42.92	31.407		
4,700.00	4,407.61	4,581.52	4,556.16	27.78	20.65	176.29	-154.71	-94.71	1,376.53	1,332.66	43.87	31.378		
4,800.00	4,499.79	4,677.37	4,651.42	28.42	21.09	176.29	-165.06	-97.13	1,405.04	1,360.22	44.82	31.350		
4,900.00	4,591.98	4,773.23	4,746.69	29.06	21.53	176.29	-175.41	-99.55	1,433.54	1,387.77	45.77	31.322		
5,000.00	4,684.17	4,869.08	4,841.95	29.70	21.96	176.29	-185.76	-101.96	1,462.04	1,415.32	46.72	31.295		
5,100.00	4,776.35	4,964.93	4,937.21	30.34	22.40	176.29	-196.10	-104.38	1,490.54	1,442.87	47.67	31.268		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,060.78	5,032.47	30.98	22.84	176.29	-206.45	-106.80	1,519.04	1,470.42	48.62	31.243		
5,300.00	4,960.73	5,156.64	5,127.73	31.63	23.28	176.28	-216.80	-109.22	1,547.54	1,497.97	49.57	31.218		
5,400.00	5,052.91	5,252.49	5,222.99	32.27	23.71	176.28	-227.15	-111.64	1,576.05	1,525.52	50.52	31.194		
5,500.00	5,145.10	5,348.34	5,318.25	32.91	24.15	176.28	-237.50	-114.06	1,604.55	1,553.07	51.48	31.170		
5,600.00	5,237.28	5,444.19	5,413.51	33.55	24.59	176.28	-247.84	-116.47	1,633.05	1,580.62	52.43	31.147		
5,700.00	5,329.47	5,540.04	5,508.78	34.20	25.03	176.28	-258.19	-118.89	1,661.55	1,608.17	53.38	31.124		
5,800.00	5,421.66	5,635.90	5,604.04	34.84	25.47	176.28	-268.54	-121.31	1,690.05	1,635.72	54.34	31.103		
5,900.00	5,513.84	5,731.75	5,699.30	35.48	25.91	176.28	-278.89	-123.73	1,718.56	1,663.26	55.29	31.081		
6,000.00	5,606.03	5,827.60	5,794.56	36.13	26.35	176.28	-289.24	-126.15	1,747.06	1,690.81	56.25	31.060		
6,100.00	5,698.22	5,923.45	5,889.82	36.77	26.79	176.28	-299.58	-128.56	1,775.56	1,718.36	57.20	31.040		
6,200.00	5,790.40	6,019.31	5,985.08	37.41	27.23	176.28	-309.93	-130.98	1,804.06	1,745.90	58.16	31.020		
6,300.00	5,882.59	6,115.16	6,080.34	38.06	27.66	176.28	-320.28	-133.40	1,832.56	1,773.45	59.11	31.001		
6,400.00	5,974.77	6,211.01	6,175.61	38.70	28.10	176.27	-330.63	-135.82	1,861.06	1,801.00	60.07	30.982		
6,500.00	6,066.96	6,306.86	6,270.87	39.34	28.54	176.27	-340.98	-138.24	1,889.57	1,828.54	61.03	30.964		
6,600.00	6,159.15	6,402.71	6,366.13	39.99	28.98	176.27	-351.32	-140.65	1,918.07	1,856.09	61.98	30.946		
6,700.00	6,251.33	6,501.43	6,461.39	40.63	29.44	176.27	-361.67	-143.07	1,946.57	1,883.62	62.95	30.922		
6,800.00	6,343.52	6,595.04	6,557.19	41.28	29.87	176.22	-372.09	-147.09	1,975.06	1,911.16	63.90	30.908		
6,900.00	6,435.71	6,690.20	6,650.32	41.92	30.29	175.81	-382.32	-163.22	2,003.56	1,938.70	64.85	30.895		
7,000.00	6,527.86	6,779.74	6,734.85	42.56	30.68	167.14	-391.71	-190.99	2,032.29	1,966.55	65.74	30.914		
7,100.00	6,618.85	6,865.49	6,811.40	43.19	31.03	145.23	-400.32	-228.51	2,061.02	1,994.44	66.57	30.958		
7,200.00	6,706.47	6,949.05	6,880.51	43.76	31.36	128.76	-408.20	-274.70	2,088.92	2,021.56	67.36	31.011		
7,300.00	6,788.56	7,030.97	6,941.85	44.26	31.66	116.97	-415.29	-328.45	2,115.23	2,047.11	68.12	31.054		
7,400.00	6,863.10	7,111.70	6,995.10	44.70	31.96	108.50	-421.56	-388.74	2,139.21	2,070.34	68.87	31.060		
7,500.00	6,928.26	7,191.59	7,039.90	45.07	32.31	102.32	-426.96	-454.59	2,160.24	2,090.55	69.69	30.997		
7,600.00	6,982.42	7,270.86	7,075.90	45.39	32.78	97.85	-431.44	-525.01	2,177.77	2,107.12	70.65	30.826		
7,700.00	7,024.26	7,350.00	7,102.90	45.67	33.38	94.71	-434.98	-599.27	2,191.33	2,119.53	71.80	30.520		
7,800.00	7,052.75	7,428.22	7,120.37	45.92	34.12	92.70	-437.51	-675.42	2,200.59	2,127.39	73.20	30.061		
7,900.00	7,067.18	7,506.51	7,128.43	46.16	34.98	91.70	-439.02	-753.24	2,205.31	2,130.44	74.87	29.453		
8,000.00	7,068.85	7,601.80	7,128.73	46.42	36.16	91.56	-439.81	-844.91	2,205.83	2,128.75	77.08	28.617		
8,100.00	7,068.56	7,698.20	7,128.29	46.78	37.52	91.55	-440.59	-944.91	2,205.65	2,125.98	79.66	27.688		
8,200.00	7,068.26	7,801.80	7,127.86	47.29	39.15	91.55	-441.36	-1,044.90	2,205.46	2,122.80	82.66	26.681		
8,300.00	7,067.96	7,901.80	7,127.43	48.03	40.87	91.55	-442.14	-1,144.90	2,205.28	2,119.39	85.89	25.677		
8,400.00	7,067.66	8,001.80	7,126.99	49.02	42.71	91.54	-442.92	-1,244.89	2,205.10	2,115.74	89.36	24.677		
8,500.00	7,067.37	8,101.80	7,126.56	50.27	44.66	91.54	-443.70	-1,344.89	2,204.91	2,111.86	93.05	23.695		
8,600.00	7,067.07	8,201.80	7,126.12	51.75	46.70	91.54	-444.47	-1,444.89	2,204.73	2,107.79	96.94	22.743		
8,700.00	7,066.77	8,301.80	7,125.69	53.42	48.83	91.53	-445.25	-1,544.88	2,204.55	2,103.54	101.00	21.826		
8,800.00	7,066.47	8,398.20	7,125.26	55.24	50.94	91.53	-446.03	-1,644.88	2,204.36	2,099.22	105.14	20.966		
8,900.00	7,066.18	8,501.80	7,124.82	57.18	53.28	91.52	-446.81	-1,744.87	2,204.18	2,094.61	109.57	20.117		
9,000.00	7,065.88	8,601.80	7,124.39	59.21	55.60	91.52	-447.58	-1,844.87	2,204.00	2,089.96	114.04	19.326		
9,100.00	7,065.58	8,701.80	7,123.95	61.33	57.96	91.52	-448.36	-1,944.86	2,203.82	2,085.20	118.62	18.579		
9,200.00	7,065.28	8,801.80	7,123.52	63.51	60.37	91.51	-449.14	-2,044.86	2,203.63	2,080.34	123.29	17.874		
9,300.00	7,064.99	8,901.80	7,123.09	65.76	62.82	91.51	-449.91	-2,144.86	2,203.45	2,075.40	128.04	17.208		
9,400.00	7,064.69	9,001.80	7,122.65	68.06	65.29	91.51	-450.69	-2,244.85	2,203.27	2,070.39	132.88	16.581		
9,500.00	7,064.39	9,101.81	7,122.22	70.40	67.80	91.50	-451.47	-2,344.85	2,203.08	2,065.31	137.77	15.991		
9,600.00	7,064.09	9,198.20	7,121.78	72.78	70.25	91.50	-452.25	-2,444.84	2,202.90	2,060.26	142.64	15.444		
9,700.00	7,063.80	9,301.81	7,121.35	75.20	72.90	91.50	-453.02	-2,544.84	2,202.72	2,054.97	147.75	14.909		
9,800.00	7,063.50	9,401.81	7,120.92	77.65	75.48	91.49	-453.80	-2,644.84	2,202.53	2,049.73	152.81	14.414		
9,900.00	7,063.20	9,501.81	7,120.48	80.13	78.08	91.49	-454.58	-2,744.83	2,202.35	2,044.44	157.92	13.946		
10,000.00	7,062.90	9,601.81	7,120.05	82.64	80.70	91.49	-455.36	-2,844.83	2,202.17	2,039.11	163.06	13.505		
10,100.00	7,062.61	9,701.81	7,119.62	85.17	83.33	91.48	-456.13	-2,944.82	2,201.99	2,033.74	168.25	13.088		
10,200.00	7,062.31	9,801.81	7,119.18	87.72	85.98	91.48	-456.91	-3,044.82	2,201.80	2,028.34	173.46	12.693		
10,300.00	7,062.01	9,901.81	7,118.75	90.28	88.64	91.48	-457.69	-3,144.81	2,201.62	2,022.91	178.71	12.319		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	10,001.81	7,118.31	92.87	91.31	91.47	-458.47	-3,244.81	2,201.44	2,017.45	183.99	11.965		
10,500.00	7,061.41	10,101.81	7,117.88	95.47	93.99	91.47	-459.24	-3,344.81	2,201.25	2,011.97	189.29	11.629		
10,600.00	7,061.12	10,201.81	7,117.45	98.09	96.69	91.47	-460.02	-3,444.80	2,201.07	2,006.46	194.61	11.310		
10,700.00	7,060.82	10,298.19	7,117.01	100.72	99.29	91.46	-460.80	-3,544.80	2,200.89	2,001.03	199.86	11.012		
10,800.00	7,060.52	10,401.81	7,116.58	103.37	102.10	91.46	-461.58	-3,644.79	2,200.71	1,995.38	205.32	10.718		
10,900.00	7,060.22	10,501.81	7,116.14	106.02	104.82	91.46	-462.35	-3,744.79	2,200.52	1,989.82	210.70	10.444		
11,000.00	7,059.93	10,601.81	7,115.71	108.69	107.55	91.45	-463.13	-3,844.78	2,200.34	1,984.23	216.11	10.182		
11,100.00	7,059.63	10,701.81	7,115.28	111.36	110.28	91.45	-463.91	-3,944.78	2,200.16	1,978.64	221.52	9.932		
11,200.00	7,059.33	10,801.81	7,114.84	114.05	113.02	91.45	-464.68	-4,044.78	2,199.97	1,973.02	226.95	9.694		
11,300.00	7,059.03	10,901.81	7,114.41	116.74	115.76	91.44	-465.46	-4,144.77	2,199.79	1,967.39	232.40	9.466		
11,400.00	7,058.74	11,001.81	7,113.97	119.44	118.52	91.44	-466.24	-4,244.77	2,199.61	1,961.75	237.85	9.248		
11,500.00	7,058.44	11,101.81	7,113.54	122.15	121.27	91.44	-467.02	-4,344.76	2,199.43	1,956.10	243.32	9.039		
11,600.00	7,058.14	11,201.81	7,113.11	124.86	124.03	91.43	-467.79	-4,444.76	2,199.24	1,950.44	248.80	8.839		
11,700.00	7,057.84	11,301.81	7,112.67	127.58	126.80	91.43	-468.57	-4,544.76	2,199.06	1,944.77	254.29	8.648		
11,800.00	7,057.55	11,401.81	7,112.24	130.31	129.56	91.43	-469.35	-4,644.75	2,198.88	1,939.08	259.79	8.464		
11,900.00	7,057.25	11,501.81	7,111.80	133.04	132.34	91.42	-470.13	-4,744.75	2,198.69	1,933.39	265.30	8.287		
12,000.00	7,056.95	11,601.81	7,111.37	135.78	135.11	91.42	-470.90	-4,844.74	2,198.51	1,927.69	270.82	8.118		
12,100.00	7,056.65	11,701.81	7,110.94	138.52	137.89	91.42	-471.68	-4,944.74	2,198.33	1,921.98	276.35	7.955		
12,200.00	7,056.36	11,801.81	7,110.50	141.27	140.67	91.41	-472.46	-5,044.73	2,198.15	1,916.26	281.88	7.798		
12,300.00	7,056.06	11,901.81	7,110.07	144.02	143.46	91.41	-473.24	-5,144.73	2,197.96	1,910.54	287.42	7.647		
12,400.00	7,055.76	12,001.81	7,109.63	146.78	146.25	91.40	-474.01	-5,244.73	2,197.78	1,904.81	292.97	7.502		
12,500.00	7,055.46	12,101.81	7,109.20	149.54	149.04	91.40	-474.79	-5,344.72	2,197.60	1,899.08	298.52	7.362		
12,600.00	7,055.17	12,201.81	7,108.77	152.30	151.83	91.40	-475.57	-5,444.72	2,197.41	1,893.33	304.08	7.226		
12,700.00	7,054.87	12,298.19	7,108.33	155.07	154.53	91.39	-476.35	-5,544.71	2,197.23	1,887.69	309.55	7.098		
12,800.00	7,054.57	12,401.81	7,107.90	157.84	157.42	91.39	-477.12	-5,644.71	2,197.05	1,881.83	315.22	6.970		
12,900.00	7,054.27	12,501.81	7,107.47	160.61	160.23	91.39	-477.90	-5,744.70	2,196.87	1,876.07	320.79	6.848		
13,000.00	7,053.97	12,601.81	7,107.03	163.39	163.03	91.38	-478.68	-5,844.70	2,196.68	1,870.31	326.37	6.731		
13,100.00	7,053.68	12,701.81	7,106.60	166.17	165.83	91.38	-479.45	-5,944.70	2,196.50	1,864.54	331.96	6.617		
13,200.00	7,053.38	12,801.81	7,106.16	168.95	168.64	91.38	-480.23	-6,044.69	2,196.32	1,858.77	337.55	6.507		
13,300.00	7,053.08	12,901.81	7,105.73	171.73	171.44	91.37	-481.01	-6,144.69	2,196.14	1,852.99	343.14	6.400		
13,400.00	7,052.78	12,998.19	7,105.30	174.52	174.15	91.37	-481.79	-6,244.68	2,195.95	1,847.32	348.64	6.299		
13,500.00	7,052.49	13,101.82	7,104.86	177.31	177.06	91.37	-482.56	-6,344.68	2,195.77	1,841.43	354.34	6.197		
13,600.00	7,052.19	13,201.82	7,104.43	180.10	179.88	91.36	-483.34	-6,444.67	2,195.59	1,835.64	359.95	6.100		
13,700.00	7,051.89	13,301.82	7,103.99	182.90	182.69	91.36	-484.12	-6,544.67	2,195.41	1,829.85	365.55	6.006		
13,800.00	7,051.59	13,401.82	7,103.56	185.69	185.51	91.36	-484.90	-6,644.67	2,195.22	1,824.06	371.17	5.914		
13,900.00	7,051.30	13,501.82	7,103.13	188.49	188.32	91.35	-485.67	-6,744.66	2,195.04	1,818.26	376.78	5.826		
14,000.00	7,051.00	13,601.82	7,102.69	191.29	191.14	91.35	-486.45	-6,844.66	2,194.86	1,812.46	382.40	5.740		
14,100.00	7,050.70	13,701.82	7,102.26	194.09	193.96	91.35	-487.23	-6,944.65	2,194.68	1,806.66	388.02	5.656		
14,200.00	7,050.40	13,801.82	7,101.82	196.89	196.78	91.34	-488.01	-7,044.65	2,194.49	1,800.85	393.64	5.575		
14,300.00	7,050.11	13,901.82	7,101.39	199.70	199.60	91.34	-488.78	-7,144.65	2,194.31	1,795.04	399.27	5.496		
14,400.00	7,049.81	14,001.82	7,100.96	202.50	202.42	91.34	-489.56	-7,244.64	2,194.13	1,789.23	404.90	5.419		
14,500.00	7,049.51	14,101.82	7,100.52	205.31	205.24	91.33	-490.34	-7,344.64	2,193.94	1,783.42	410.53	5.344		
14,600.00	7,049.21	14,201.82	7,100.09	208.12	208.07	91.33	-491.12	-7,444.63	2,193.76	1,777.60	416.16	5.271		
14,700.00	7,048.92	14,301.82	7,099.65	210.93	210.89	91.33	-491.89	-7,544.63	2,193.58	1,771.78	421.80	5.201		
14,800.00	7,048.62	14,401.82	7,099.22	213.74	213.72	91.32	-492.67	-7,644.62	2,193.40	1,765.96	427.43	5.132		
14,900.00	7,048.32	14,501.82	7,098.79	216.55	216.55	91.32	-493.45	-7,744.62	2,193.21	1,760.14	433.07	5.064		
15,000.00	7,048.02	14,601.82	7,098.35	219.37	219.37	91.32	-494.22	-7,844.62	2,193.03	1,754.32	438.71	4.999		
15,100.00	7,047.73	14,701.82	7,097.92	222.18	222.20	91.31	-495.00	-7,944.61	2,192.85	1,748.49	444.36	4.935		
15,200.00	7,047.43	14,801.82	7,097.49	225.00	225.03	91.31	-495.78	-8,044.61	2,192.67	1,742.66	450.00	4.873		
15,300.00	7,047.13	14,898.18	7,097.05	227.81	227.76	91.31	-496.56	-8,144.60	2,192.48	1,736.94	455.55	4.813		
15,322.59	7,047.06	14,920.77	7,096.95	228.45	228.40	91.30	-496.73	-8,167.19	2,192.44	1,735.62	456.82	4.799		
15,343.67	7,047.00	14,909.96	7,097.00	229.04	228.09	91.30	-496.65	-8,156.39	2,192.64	1,735.73	456.90	4.799 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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)			
0.00	0.00	1.00	0.00	3.28	3.28	0.53	60.11	0.56	60.12					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	60.11	0.56	60.12	53.55	6.57	9.151		
200.00	200.00	201.02	200.02	3.34	3.34	0.53	60.11	0.56	60.12	53.44	6.67	9.006		
300.00	299.98	303.16	302.14	3.44	3.44	177.09	58.26	0.41	60.05	53.15	6.89	8.709		
400.00	399.84	405.29	404.12	3.59	3.60	176.99	52.78	-0.01	59.90	52.68	7.23	8.290		
500.00	499.45	507.42	505.83	3.79	3.81	176.83	43.68	-0.70	59.69	52.03	7.66	7.790		
600.00	598.70	609.53	607.14	4.03	4.06	176.60	30.98	-1.68	59.41	51.22	8.19	7.257		
700.00	697.47	711.64	707.92	4.31	4.35	176.31	14.68	-2.93	59.06	50.28	8.78	6.724		
800.00	795.62	813.73	808.04	4.64	4.69	175.95	-5.18	-4.45	58.64	49.20	9.44	6.213		
900.00	893.06	915.80	907.37	5.00	5.06	175.52	-28.59	-6.25	58.16	48.02	10.14	5.734		
1,000.00	989.64	1,017.85	1,005.78	5.40	5.47	175.02	-55.50	-8.31	57.62	46.73	10.89	5.291		
1,092.50	1,078.13	1,111.86	1,095.56	5.79	5.88	174.50	-83.31	-10.45	57.12	45.51	11.61	4.921 CC		
1,100.00	1,085.27	1,119.36	1,102.70	5.83	5.91	174.46	-85.61	-10.63	57.13	45.46	11.66	4.898 ES		
1,200.00	1,179.82	1,219.34	1,197.84	6.29	6.38	174.13	-116.22	-12.97	59.13	46.67	12.45	4.747		
1,300.00	1,273.17	1,319.18	1,292.86	6.79	6.86	174.15	-146.78	-15.32	64.59	51.31	13.29	4.861		
1,400.00	1,365.46	1,418.83	1,387.70	7.32	7.35	174.40	-177.29	-17.66	72.91	58.75	14.15	5.151		
1,500.00	1,457.65	1,518.46	1,482.52	7.87	7.85	174.62	-207.79	-20.00	81.49	66.45	15.04	5.417		
1,600.00	1,549.83	1,618.09	1,577.34	8.43	8.37	174.80	-238.30	-22.34	90.09	74.13	15.95	5.647		
1,700.00	1,642.02	1,717.72	1,672.16	9.01	8.89	174.95	-268.80	-24.68	98.68	81.79	16.88	5.845		
1,800.00	1,734.21	1,817.35	1,766.97	9.59	9.42	175.08	-299.30	-27.02	107.27	89.44	17.83	6.017		
1,900.00	1,826.39	1,916.98	1,861.79	10.18	9.95	175.18	-329.80	-29.36	115.86	97.08	18.78	6.168		
2,000.00	1,918.58	2,016.61	1,956.61	10.78	10.49	175.27	-360.30	-31.70	124.45	104.70	19.75	6.301		
2,100.00	2,010.77	2,116.24	2,051.42	11.39	11.03	175.35	-390.80	-34.04	133.04	112.32	20.73	6.419		
2,200.00	2,102.95	2,215.87	2,146.24	11.99	11.58	175.42	-421.30	-36.38	141.64	119.93	21.71	6.524		
2,300.00	2,195.14	2,315.50	2,241.06	12.61	12.12	175.48	-451.81	-38.72	150.23	127.53	22.70	6.617		
2,400.00	2,287.32	2,415.13	2,335.88	13.22	12.67	175.54	-482.31	-41.06	158.82	135.12	23.70	6.701		
2,500.00	2,379.51	2,514.76	2,430.69	13.84	13.23	175.59	-512.81	-43.40	167.42	142.71	24.71	6.776		
2,600.00	2,471.70	2,614.39	2,525.51	14.46	13.78	175.63	-543.31	-45.74	176.01	150.30	25.71	6.845		
2,700.00	2,563.88	2,714.02	2,620.33	15.08	14.34	175.67	-573.81	-48.08	184.60	157.88	26.73	6.907		
2,800.00	2,656.07	2,813.65	2,715.15	15.71	14.90	175.71	-604.31	-50.43	193.20	165.45	27.74	6.964		
2,900.00	2,748.26	2,913.28	2,809.96	16.33	15.46	175.75	-634.81	-52.77	201.79	173.03	28.76	7.016		
3,000.00	2,840.44	3,012.91	2,904.78	16.96	16.02	175.78	-665.32	-55.11	210.38	180.60	29.79	7.063		
3,100.00	2,932.63	3,112.54	2,999.60	17.59	16.58	175.80	-695.82	-57.45	218.98	188.16	30.81	7.107		
3,200.00	3,024.81	3,212.17	3,094.41	18.22	17.14	175.83	-726.32	-59.79	227.57	195.73	31.84	7.147		
3,300.00	3,117.00	3,311.80	3,189.23	18.86	17.71	175.86	-756.82	-62.13	236.16	203.29	32.87	7.185		
3,400.00	3,209.19	3,411.43	3,284.05	19.49	18.27	175.88	-787.32	-64.47	244.76	210.86	33.90	7.219		
3,500.00	3,301.37	3,511.06	3,378.87	20.12	18.84	175.90	-817.82	-66.81	253.35	218.41	34.94	7.252		
3,600.00	3,393.56	3,610.69	3,473.68	20.76	19.40	175.92	-848.33	-69.15	261.95	225.97	35.97	7.282		
3,700.00	3,485.75	3,710.32	3,568.50	21.39	19.97	175.94	-878.83	-71.49	270.54	233.53	37.01	7.310		
3,800.00	3,577.93	3,809.95	3,663.32	22.03	20.54	175.96	-909.33	-73.83	279.13	241.08	38.05	7.336		
3,900.00	3,670.12	3,909.58	3,758.14	22.67	21.10	175.97	-939.83	-76.17	287.73	248.64	39.09	7.361		
4,000.00	3,762.30	4,009.21	3,852.95	23.30	21.67	175.99	-970.33	-78.51	296.32	256.19	40.13	7.384		
4,100.00	3,854.49	4,108.84	3,947.77	23.94	22.24	176.00	-1,000.83	-80.85	304.92	263.74	41.17	7.406		
4,200.00	3,946.68	4,208.47	4,042.59	24.58	22.81	176.02	-1,031.33	-83.19	313.51	271.29	42.22	7.426		
4,300.00	4,038.86	4,308.10	4,137.40	25.22	23.38	176.03	-1,061.84	-85.53	322.10	278.84	43.26	7.445		
4,400.00	4,131.05	4,407.73	4,232.22	25.86	23.95	176.04	-1,092.34	-87.87	330.70	286.39	44.31	7.464		
4,500.00	4,223.24	4,507.36	4,327.04	26.50	24.52	176.05	-1,122.84	-90.21	339.29	293.94	45.35	7.481		
4,600.00	4,315.42	4,606.99	4,421.86	27.14	25.09	176.06	-1,153.34	-92.55	347.89	301.48	46.40	7.497		
4,700.00	4,407.61	4,706.62	4,516.67	27.78	25.66	176.07	-1,183.84	-94.89	356.48	309.03	47.45	7.513		
4,800.00	4,499.79	4,806.25	4,611.49	28.42	26.23	176.08	-1,214.34	-97.23	365.07	316.58	48.50	7.528		
4,900.00	4,591.98	4,905.88	4,706.31	29.06	26.80	176.09	-1,244.84	-99.57	373.67	324.12	49.55	7.542		
5,000.00	4,684.17	5,005.51	4,801.13	29.70	27.38	176.10	-1,275.35	-101.91	382.26	331.67	50.60	7.555		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	5,105.14	4,895.94	30.34	27.95	176.11	-1,305.85	-104.25	390.86	339.21	51.65	7.568		
5,200.00	4,868.54	5,204.77	4,990.76	30.98	28.52	176.12	-1,336.35	-106.59	399.45	346.75	52.70	7.580		
5,300.00	4,960.73	5,304.40	5,085.58	31.63	29.09	176.13	-1,366.85	-108.93	408.04	354.30	53.75	7.592		
5,400.00	5,052.91	5,404.03	5,180.40	32.27	29.66	176.14	-1,397.35	-111.27	416.64	361.84	54.80	7.603		
5,500.00	5,145.10	5,503.66	5,275.21	32.91	30.24	176.14	-1,427.85	-113.62	425.23	369.38	55.85	7.613		
5,600.00	5,237.28	5,603.29	5,370.03	33.55	30.81	176.15	-1,458.36	-115.96	433.83	376.92	56.91	7.624		
5,700.00	5,329.47	5,702.92	5,464.85	34.20	31.38	176.16	-1,488.86	-118.30	442.42	384.46	57.96	7.633		
5,800.00	5,421.66	5,802.55	5,559.66	34.84	31.95	176.16	-1,519.36	-120.64	451.02	392.00	59.01	7.643		
5,900.00	5,513.84	5,902.18	5,654.48	35.48	32.53	176.17	-1,549.86	-122.98	459.61	399.54	60.07	7.652		
6,000.00	5,606.03	6,001.81	5,749.30	36.13	33.10	176.18	-1,580.36	-125.32	468.20	407.08	61.12	7.660		
6,100.00	5,698.22	6,101.44	5,844.12	36.77	33.67	176.18	-1,610.86	-127.66	476.80	414.62	62.17	7.669		
6,200.00	5,790.40	6,201.08	5,938.93	37.41	34.25	176.19	-1,641.36	-130.00	485.39	422.16	63.23	7.677		
6,300.00	5,882.59	6,300.71	6,033.75	38.06	34.82	176.19	-1,671.87	-132.34	493.99	429.70	64.28	7.684		
6,400.00	5,974.77	6,400.34	6,128.57	38.70	35.39	176.20	-1,702.37	-134.68	502.58	437.24	65.34	7.692		
6,500.00	6,066.96	6,500.04	6,223.39	39.34	35.97	176.20	-1,732.87	-137.02	511.17	444.78	66.40	7.699		
6,600.00	6,159.15	6,600.41	6,318.20	39.99	36.55	176.21	-1,763.37	-139.36	519.77	452.31	67.46	7.705		
6,700.00	6,251.33	6,699.23	6,413.02	40.63	37.12	176.21	-1,793.87	-141.70	528.36	459.86	68.51	7.712		
6,800.00	6,343.52	6,798.80	6,507.77	41.28	37.69	176.16	-1,824.36	-144.55	536.96	467.39	69.57	7.719		
6,900.00	6,435.71	6,896.74	6,599.97	41.92	38.24	174.97	-1,854.10	-158.23	545.71	475.06	70.65	7.724		
7,000.00	6,527.86	6,989.41	6,684.37	42.56	38.72	165.19	-1,881.44	-184.71	555.48	483.73	71.74	7.743		
7,100.00	6,618.85	7,077.97	6,760.78	43.19	39.14	143.27	-1,906.29	-221.79	566.45	493.70	72.76	7.786		
7,200.00	6,706.47	7,163.77	6,829.42	43.76	39.51	126.87	-1,928.72	-268.01	578.00	504.40	73.60	7.853		
7,300.00	6,788.56	7,247.32	6,889.97	44.26	39.83	115.20	-1,948.60	-321.93	589.55	515.31	74.24	7.942		
7,400.00	6,863.10	7,329.03	6,942.17	44.70	40.11	106.87	-1,965.85	-382.30	600.55	525.87	74.68	8.042		
7,500.00	6,928.26	7,409.27	6,985.85	45.07	40.36	100.85	-1,980.40	-447.96	610.51	535.50	75.01	8.139		
7,600.00	6,982.42	7,488.36	7,020.87	45.39	40.59	96.51	-1,992.20	-517.83	619.03	543.66	75.37	8.214		
7,700.00	7,024.26	7,566.59	7,047.12	45.67	40.81	93.48	-2,001.20	-590.93	625.74	549.87	75.87	8.247		
7,800.00	7,052.75	7,644.22	7,064.53	45.92	41.05	91.55	-2,007.38	-666.27	630.40	553.75	76.66	8.224		
7,900.00	7,067.18	7,721.48	7,073.06	46.16	41.33	90.59	-2,010.71	-742.94	632.83	555.01	77.82	8.132		
8,000.00	7,068.85	7,810.32	7,073.83	46.42	41.74	90.45	-2,011.65	-831.75	633.14	553.48	79.66	7.948		
8,100.00	7,068.56	7,910.32	7,073.51	46.78	42.43	90.45	-2,012.31	-931.75	633.07	550.94	82.14	7.708		
8,200.00	7,068.26	8,010.32	7,073.18	47.29	43.39	90.45	-2,012.98	-1,031.75	633.00	548.08	84.92	7.454		
8,300.00	7,067.96	8,110.32	7,072.86	48.03	44.62	90.44	-2,013.65	-1,131.74	632.93	544.95	87.99	7.193		
8,400.00	7,067.66	8,210.32	7,072.53	49.02	46.07	90.44	-2,014.32	-1,231.74	632.86	541.55	91.31	6.931		
8,500.00	7,067.37	8,310.32	7,072.21	50.27	47.71	90.44	-2,014.98	-1,331.74	632.79	537.93	94.86	6.671		
8,600.00	7,067.07	8,410.32	7,071.88	51.75	49.50	90.44	-2,015.65	-1,431.74	632.72	534.11	98.62	6.416		
8,700.00	7,066.77	8,510.32	7,071.56	53.42	51.40	90.43	-2,016.32	-1,531.73	632.65	530.10	102.55	6.169		
8,800.00	7,066.47	8,610.32	7,071.23	55.24	53.41	90.43	-2,016.99	-1,631.73	632.58	525.93	106.65	5.931		
8,900.00	7,066.18	8,710.32	7,070.91	57.18	55.49	90.43	-2,017.65	-1,731.73	632.51	521.62	110.89	5.704		
9,000.00	7,065.88	8,810.32	7,070.58	59.21	57.65	90.43	-2,018.32	-1,831.72	632.44	517.18	115.26	5.487		
9,100.00	7,065.58	8,910.32	7,070.26	61.33	59.88	90.42	-2,018.99	-1,931.72	632.37	512.63	119.74	5.281		
9,200.00	7,065.28	9,010.32	7,069.93	63.51	62.16	90.42	-2,019.66	-2,031.72	632.31	507.98	124.33	5.086		
9,300.00	7,064.99	9,110.32	7,069.61	65.76	64.48	90.42	-2,020.32	-2,131.72	632.24	503.24	129.00	4.901		
9,400.00	7,064.69	9,210.32	7,069.28	68.06	66.85	90.42	-2,020.99	-2,231.71	632.17	498.41	133.75	4.726		
9,500.00	7,064.39	9,310.32	7,068.96	70.40	69.26	90.41	-2,021.66	-2,331.71	632.10	493.51	138.58	4.561		
9,600.00	7,064.09	9,410.32	7,068.63	72.78	71.71	90.41	-2,022.33	-2,431.71	632.03	488.55	143.47	4.405		
9,700.00	7,063.80	9,510.32	7,068.31	75.20	74.18	90.41	-2,022.99	-2,531.70	631.96	483.53	148.43	4.258		
9,800.00	7,063.50	9,610.32	7,067.98	77.65	76.68	90.41	-2,023.66	-2,631.70	631.89	478.46	153.43	4.118		
9,900.00	7,063.20	9,710.32	7,067.66	80.13	79.21	90.40	-2,024.33	-2,731.70	631.82	473.33	158.48	3.987		
10,000.00	7,062.90	9,810.32	7,067.33	82.64	81.76	90.40	-2,025.00	-2,831.70	631.75	468.17	163.58	3.862		
10,100.00	7,062.61	9,910.32	7,067.01	85.17	84.33	90.40	-2,025.66	-2,931.69	631.68	462.96	168.72	3.744		
10,200.00	7,062.31	10,010.32	7,066.68	87.72	86.91	90.40	-2,026.33	-3,031.69	631.61	457.72	173.89	3.632		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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)			
10,300.00	7,062.01	10,110.32	7,066.36	90.28	89.52	90.39	-2,027.00	-3,131.69	631.54	452.44	179.09	3.526		
10,400.00	7,061.71	10,210.32	7,066.03	92.87	92.14	90.39	-2,027.67	-3,231.69	631.47	447.14	184.33	3.426		
10,500.00	7,061.41	10,310.32	7,065.71	95.47	94.77	90.39	-2,028.33	-3,331.68	631.40	441.80	189.59	3.330		
10,600.00	7,061.12	10,410.32	7,065.38	98.09	97.42	90.39	-2,029.00	-3,431.68	631.33	436.45	194.88	3.240		
10,700.00	7,060.82	10,510.32	7,065.06	100.72	100.07	90.38	-2,029.67	-3,531.68	631.26	431.06	200.20	3.153		
10,800.00	7,060.52	10,610.32	7,064.73	103.37	102.74	90.38	-2,030.34	-3,631.67	631.19	425.66	205.53	3.071		
10,900.00	7,060.22	10,710.32	7,064.41	106.02	105.42	90.38	-2,031.00	-3,731.67	631.12	420.23	210.89	2.993		
11,000.00	7,059.93	10,810.32	7,064.08	108.69	108.11	90.38	-2,031.67	-3,831.67	631.05	414.79	216.26	2.918		
11,100.00	7,059.63	10,910.32	7,063.76	111.36	110.81	90.38	-2,032.34	-3,931.67	630.98	409.33	221.65	2.847		
11,200.00	7,059.33	11,010.32	7,063.43	114.05	113.51	90.37	-2,033.01	-4,031.66	630.91	403.86	227.05	2.779		
11,300.00	7,059.03	11,110.32	7,063.11	116.74	116.23	90.37	-2,033.67	-4,131.66	630.84	398.37	232.48	2.714		
11,400.00	7,058.74	11,210.32	7,062.78	119.44	118.94	90.37	-2,034.34	-4,231.66	630.77	392.86	237.91	2.651		
11,500.00	7,058.44	11,310.32	7,062.46	122.15	121.67	90.37	-2,035.01	-4,331.65	630.70	387.34	243.36	2.592		
11,600.00	7,058.14	11,410.32	7,062.13	124.86	124.40	90.36	-2,035.68	-4,431.65	630.63	381.81	248.82	2.535		
11,700.00	7,057.84	11,510.32	7,061.81	127.58	127.14	90.36	-2,036.34	-4,531.65	630.56	376.27	254.29	2.480		
11,800.00	7,057.55	11,610.31	7,061.48	130.31	129.88	90.36	-2,037.01	-4,631.65	630.49	370.72	259.77	2.427		
11,900.00	7,057.25	11,710.31	7,061.16	133.04	132.63	90.36	-2,037.68	-4,731.64	630.42	365.16	265.26	2.377		
12,000.00	7,056.95	11,810.31	7,060.84	135.78	135.38	90.35	-2,038.35	-4,831.64	630.35	359.59	270.76	2.328		
12,100.00	7,056.65	11,910.31	7,060.51	138.52	138.14	90.35	-2,039.01	-4,931.64	630.28	354.01	276.27	2.281		
12,200.00	7,056.36	12,010.31	7,060.19	141.27	140.90	90.35	-2,039.68	-5,031.64	630.21	348.42	281.79	2.236		
12,300.00	7,056.06	12,110.31	7,059.86	144.02	143.66	90.35	-2,040.35	-5,131.63	630.14	342.83	287.32	2.193		
12,400.00	7,055.76	12,210.31	7,059.54	146.78	146.43	90.34	-2,041.02	-5,231.63	630.07	337.22	292.85	2.152		
12,500.00	7,055.46	12,310.31	7,059.21	149.54	149.20	90.34	-2,041.68	-5,331.63	630.00	331.61	298.39	2.111		
12,600.00	7,055.17	12,410.31	7,058.89	152.30	151.98	90.34	-2,042.35	-5,431.62	629.93	326.00	303.94	2.073		
12,700.00	7,054.87	12,510.31	7,058.56	155.07	154.76	90.34	-2,043.02	-5,531.62	629.86	320.38	309.49	2.035		
12,800.00	7,054.57	12,610.31	7,058.24	157.84	157.54	90.33	-2,043.69	-5,631.62	629.79	314.75	315.05	1.999		
12,900.00	7,054.27	12,710.31	7,057.91	160.61	160.32	90.33	-2,044.35	-5,731.62	629.72	309.11	320.61	1.964		
13,000.00	7,053.97	12,810.31	7,057.59	163.39	163.11	90.33	-2,045.02	-5,831.61	629.66	303.47	326.18	1.930		
13,100.00	7,053.68	12,910.31	7,057.26	166.17	165.89	90.33	-2,045.69	-5,931.61	629.59	297.83	331.75	1.898		
13,200.00	7,053.38	13,010.31	7,056.94	168.95	168.69	90.32	-2,046.36	-6,031.61	629.52	292.18	337.33	1.866		
13,300.00	7,053.08	13,110.31	7,056.61	171.73	171.48	90.32	-2,047.02	-6,131.60	629.45	286.53	342.92	1.836		
13,400.00	7,052.78	13,210.31	7,056.29	174.52	174.27	90.32	-2,047.69	-6,231.60	629.38	280.87	348.51	1.806		
13,500.00	7,052.49	13,310.31	7,055.96	177.31	177.07	90.32	-2,048.36	-6,331.60	629.31	275.21	354.10	1.777		
13,600.00	7,052.19	13,410.31	7,055.64	180.10	179.87	90.31	-2,049.03	-6,431.60	629.24	269.54	359.69	1.749		
13,700.00	7,051.89	13,510.31	7,055.31	182.90	182.67	90.31	-2,049.69	-6,531.59	629.17	263.87	365.29	1.722		
13,800.00	7,051.59	13,610.31	7,054.99	185.69	185.47	90.31	-2,050.36	-6,631.59	629.10	258.20	370.90	1.696		
13,900.00	7,051.30	13,710.31	7,054.66	188.49	188.28	90.31	-2,051.03	-6,731.59	629.03	252.52	376.50	1.671		
14,000.00	7,051.00	13,810.31	7,054.34	191.29	191.09	90.30	-2,051.70	-6,831.59	628.96	246.84	382.11	1.646		
14,100.00	7,050.70	13,910.31	7,054.01	194.09	193.89	90.30	-2,052.36	-6,931.58	628.89	241.16	387.73	1.622		
14,200.00	7,050.40	14,010.31	7,053.69	196.89	196.70	90.30	-2,053.03	-7,031.58	628.82	235.48	393.34	1.599		
14,300.00	7,050.11	14,110.31	7,053.36	199.70	199.51	90.30	-2,053.70	-7,131.58	628.75	229.79	398.96	1.576		
14,400.00	7,049.81	14,210.31	7,053.04	202.50	202.32	90.29	-2,054.37	-7,231.57	628.68	224.10	404.58	1.554		
14,500.00	7,049.51	14,310.31	7,052.71	205.31	205.14	90.29	-2,055.03	-7,331.57	628.61	218.40	410.21	1.532		
14,600.00	7,049.21	14,410.31	7,052.39	208.12	207.95	90.29	-2,055.70	-7,431.57	628.54	212.70	415.84	1.512		
14,700.00	7,048.92	14,510.31	7,052.06	210.93	210.77	90.29	-2,056.37	-7,531.57	628.47	207.01	421.46	1.491 Level 3		
14,800.00	7,048.62	14,610.31	7,051.74	213.74	213.58	90.28	-2,057.04	-7,631.56	628.40	201.30	427.10	1.471 Level 3		
14,900.00	7,048.32	14,710.31	7,051.41	216.55	216.40	90.28	-2,057.70	-7,731.56	628.33	195.60	432.73	1.452 Level 3		
15,000.00	7,048.02	14,810.31	7,051.09	219.37	219.22	90.28	-2,058.37	-7,831.56	628.26	189.90	438.37	1.433 Level 3		
15,100.00	7,047.73	14,910.31	7,050.76	222.18	222.04	90.28	-2,059.04	-7,931.55	628.19	184.19	444.00	1.415 Level 3		
15,200.00	7,047.43	15,010.31	7,050.44	225.00	224.86	90.27	-2,059.71	-8,031.55	628.12	178.48	449.64	1.397 Level 3		
15,300.00	7,047.13	15,110.31	7,050.11	227.81	227.68	90.27	-2,060.37	-8,131.55	628.05	172.77	455.29	1.379 Level 3		
15,337.38	7,047.02	15,147.69	7,049.99	228.87	228.74	90.27	-2,060.62	-8,168.93	628.03	170.63	457.39	1.373 Level 3, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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							
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)		
15,343.67	7,047.00	15,145.13	7,050.00	229.04	228.67	90.27	-2,060.61	-8,166.36	628.08	170.85	457.24	1.374	Level 3



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	0.00	0.00	3.28	3.28	-179.20	-20.04	-0.28	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	-179.20	-20.04	-0.28	20.04	13.47	6.57	3.050		
200.00	200.00	200.00	200.00	3.34	3.34	-179.20	-20.04	-0.28	20.04	13.36	6.67	3.002		
300.00	299.98	299.31	299.29	3.44	3.44	-2.64	-21.76	-0.37	20.03	13.14	6.89	2.907		
400.00	399.84	398.61	398.45	3.59	3.59	-2.72	-26.91	-0.65	19.99	12.78	7.21	2.772		
500.00	499.45	497.92	497.38	3.79	3.79	-2.84	-35.49	-1.12	19.93	12.30	7.64	2.610		
600.00	598.70	597.23	595.96	4.03	4.03	-3.02	-47.49	-1.78	19.85	11.70	8.15	2.436		
700.00	697.47	696.55	694.06	4.31	4.30	-3.25	-62.90	-2.62	19.75	11.01	8.73	2.261		
800.00	795.62	795.87	791.58	4.64	4.62	-3.54	-81.69	-3.65	19.62	10.25	9.37	2.093		
900.00	893.06	895.19	888.39	5.00	4.98	-3.88	-103.85	-4.87	19.47	9.41	10.06	1.935		
1,000.00	989.64	994.52	984.37	5.40	5.37	-4.28	-129.34	-6.26	19.30	8.50	10.80	1.788		
1,100.00	1,085.27	1,093.85	1,079.42	5.83	5.80	-4.74	-158.15	-7.84	19.11	7.54	11.57	1.652		
1,200.00	1,179.82	1,193.20	1,173.42	6.29	6.26	-5.27	-190.23	-9.60	18.90	6.53	12.36	1.528		
1,300.00	1,273.17	1,292.55	1,266.25	6.79	6.76	-5.86	-225.55	-11.53	18.67	5.47	13.19	1.415	Level 3	
1,311.67	1,283.99	1,304.14	1,277.01	6.85	6.82	-5.93	-229.88	-11.77	18.65	5.36	13.29	1.403	Level 3, CC	
1,400.00	1,365.46	1,391.90	1,357.81	7.32	7.28	-6.31	-264.06	-13.64	19.04	4.99	14.05	1.356	Level 3	
1,500.00	1,457.65	1,508.22	1,448.99	7.87	7.93	-6.16	-304.78	-15.87	21.31	6.29	15.02	1.419	Level 3	
1,600.00	1,549.83	1,608.24	1,540.24	8.43	8.51	-6.04	-345.56	-18.10	23.61	7.66	15.95	1.481	Level 3	
1,700.00	1,642.02	1,708.27	1,631.49	9.01	9.10	-5.94	-386.35	-20.33	25.91	9.01	16.90	1.533		
1,800.00	1,734.21	1,808.30	1,722.74	9.59	9.70	-5.86	-427.13	-22.57	28.21	10.34	17.87	1.579		
1,900.00	1,826.39	1,891.68	1,813.98	10.18	10.21	-5.78	-467.92	-24.80	30.51	11.74	18.77	1.625		
2,000.00	1,918.58	2,008.35	1,905.23	10.78	10.92	-5.72	-508.70	-27.03	32.82	12.96	19.86	1.653		
2,100.00	2,010.77	2,108.38	1,996.48	11.39	11.54	-5.67	-549.49	-29.27	35.12	14.25	20.87	1.683		
2,200.00	2,102.95	2,191.60	2,087.73	11.99	12.06	-5.62	-590.27	-31.50	37.42	15.61	21.81	1.716		
2,300.00	2,195.14	2,308.43	2,178.98	12.61	12.80	-5.58	-631.05	-33.73	39.72	16.79	22.93	1.732		
2,400.00	2,287.32	2,391.54	2,270.23	13.22	13.32	-5.54	-671.84	-35.97	42.02	18.15	23.88	1.760		
2,500.00	2,379.51	2,508.48	2,361.48	13.84	14.07	-5.51	-712.62	-38.20	44.33	19.31	25.02	1.772		
2,600.00	2,471.70	2,608.51	2,452.73	14.46	14.71	-5.48	-753.41	-40.43	46.63	20.56	26.07	1.789		
2,700.00	2,563.88	2,708.54	2,543.97	15.08	15.35	-5.45	-794.19	-42.66	48.93	21.80	27.13	1.804		
2,800.00	2,656.07	2,808.56	2,635.22	15.71	15.99	-5.43	-834.98	-44.90	51.23	23.04	28.19	1.817		
2,900.00	2,748.26	2,908.59	2,726.47	16.33	16.64	-5.40	-875.76	-47.13	53.54	24.28	29.26	1.830		
3,000.00	2,840.44	3,008.62	2,817.72	16.96	17.28	-5.38	-916.55	-49.36	55.84	25.51	30.33	1.841		
3,100.00	2,932.63	3,091.36	2,908.97	17.59	17.82	-5.36	-957.33	-51.60	58.14	26.83	31.31	1.857		
3,200.00	3,024.81	3,208.67	3,000.22	18.22	18.58	-5.35	-998.12	-53.83	60.44	27.96	32.48	1.861		
3,300.00	3,117.00	3,291.31	3,091.47	18.86	19.12	-5.33	-1,038.90	-56.06	62.74	29.28	33.46	1.875		
3,400.00	3,209.19	3,408.72	3,182.72	19.49	19.88	-5.32	-1,079.68	-58.30	65.05	30.41	34.64	1.878		
3,500.00	3,301.37	3,508.75	3,273.96	20.12	20.54	-5.30	-1,120.47	-60.53	67.35	31.62	35.72	1.885		
3,600.00	3,393.56	3,608.77	3,365.21	20.76	21.19	-5.29	-1,161.25	-62.76	69.65	32.84	36.81	1.892		
3,700.00	3,485.75	3,708.80	3,456.46	21.39	21.84	-5.28	-1,202.04	-64.99	71.95	34.05	37.90	1.899		
3,800.00	3,577.93	3,808.83	3,547.71	22.03	22.50	-5.26	-1,242.82	-67.23	74.25	35.27	38.99	1.904		
3,900.00	3,670.12	3,908.85	3,638.96	22.67	23.16	-5.25	-1,283.61	-69.46	76.56	36.48	40.08	1.910		
4,000.00	3,762.30	4,008.88	3,730.21	23.30	23.81	-5.24	-1,324.39	-71.69	78.86	37.69	41.17	1.915		
4,100.00	3,854.49	4,108.91	3,821.46	23.94	24.47	-5.23	-1,365.18	-73.93	81.16	38.89	42.27	1.920		
4,200.00	3,946.68	4,208.93	3,912.71	24.58	25.13	-5.22	-1,405.96	-76.16	83.46	40.10	43.36	1.925		
4,300.00	4,038.86	4,291.04	4,003.95	25.22	25.67	-5.22	-1,446.75	-78.39	85.77	41.40	44.36	1.933		
4,400.00	4,131.05	4,408.99	4,095.20	25.86	26.44	-5.21	-1,487.53	-80.63	88.07	42.51	45.56	1.933		
4,500.00	4,223.24	4,509.01	4,186.45	26.50	27.10	-5.20	-1,528.31	-82.86	90.37	43.71	46.66	1.937		
4,600.00	4,315.42	4,590.96	4,277.70	27.14	27.64	-5.19	-1,569.10	-85.09	92.67	45.02	47.66	1.945		
4,700.00	4,407.61	4,709.07	4,368.95	27.78	28.42	-5.19	-1,609.88	-87.32	94.97	46.12	48.86	1.944		
4,800.00	4,499.79	4,809.09	4,460.20	28.42	29.08	-5.18	-1,650.67	-89.56	97.28	47.32	49.96	1.947		
4,900.00	4,591.98	4,890.88	4,551.45	29.06	29.62	-5.17	-1,691.45	-91.79	99.58	48.62	50.96	1.954		
5,000.00	4,684.17	5,009.15	4,642.70	29.70	30.40	-5.17	-1,732.24	-94.02	101.88	49.72	52.16	1.953		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	5,090.83	4,733.94	30.34	30.94	-5.16	-1,773.02	-96.26	104.18	51.02	53.16	1.960		
5,200.00	4,868.54	5,209.20	4,825.19	30.98	31.72	-5.15	-1,813.81	-98.49	106.48	52.11	54.37	1.958		
5,300.00	4,960.73	5,290.77	4,916.44	31.63	32.26	-5.15	-1,854.59	-100.72	108.79	53.41	55.37	1.965		
5,400.00	5,052.91	5,409.25	5,007.69	32.27	33.05	-5.14	-1,895.38	-102.96	111.09	54.51	56.58	1.963		
5,500.00	5,145.10	5,509.28	5,098.94	32.91	33.71	-5.14	-1,936.16	-105.19	113.39	55.70	57.69	1.966		
5,600.00	5,237.28	5,609.30	5,190.19	33.55	34.37	-5.13	-1,976.94	-107.42	115.69	56.90	58.79	1.968		
5,700.00	5,329.47	5,709.33	5,281.44	34.20	35.03	-5.13	-2,017.73	-109.65	118.00	58.10	59.90	1.970		
5,800.00	5,421.66	5,790.64	5,372.69	34.84	35.57	-5.13	-2,058.51	-111.89	120.30	59.40	60.90	1.975		
5,900.00	5,513.84	5,909.38	5,463.93	35.48	36.36	-5.12	-2,099.30	-114.12	122.60	60.49	62.11	1.974		
6,000.00	5,606.03	6,009.41	5,555.18	36.13	37.02	-5.12	-2,140.08	-116.35	124.90	61.68	63.22	1.976		
6,100.00	5,698.22	6,090.56	5,646.43	36.77	37.56	-5.11	-2,180.87	-118.59	127.20	62.98	64.22	1.981		
6,200.00	5,790.40	6,190.54	5,737.68	37.41	38.22	-5.11	-2,221.65	-120.82	129.51	64.17	65.33	1.982		
6,300.00	5,882.59	6,309.49	5,828.93	38.06	39.01	-5.11	-2,262.44	-123.05	131.81	65.26	66.55	1.981		
6,400.00	5,974.77	6,409.52	5,920.18	38.70	39.67	-5.10	-2,303.22	-125.29	134.11	66.45	67.66	1.982		
6,500.00	6,066.96	6,509.54	6,011.43	39.34	40.34	-5.10	-2,344.01	-127.52	136.41	67.65	68.77	1.984		
6,600.00	6,159.15	6,609.57	6,102.68	39.99	41.00	-5.10	-2,384.79	-129.75	138.72	68.84	69.88	1.985		
6,700.00	6,251.33	6,690.40	6,193.92	40.63	41.54	-5.09	-2,425.57	-131.98	141.02	70.14	70.88	1.990		
6,800.00	6,343.52	6,790.38	6,285.17	41.28	42.20	-5.09	-2,466.36	-134.22	143.32	71.33	71.99	1.991		
6,900.00	6,435.71	6,890.35	6,376.42	41.92	42.86	-5.09	-2,507.14	-136.45	145.62	72.52	73.10	1.992		
7,000.00	6,527.86	7,009.69	6,467.66	42.56	43.66	-12.39	-2,547.92	-138.68	147.95	73.62	74.33	1.990		
7,100.00	6,618.85	7,089.32	6,558.02	43.19	44.18	-35.50	-2,588.31	-140.90	151.22	75.57	75.66	1.999		
7,200.00	6,706.47	7,190.47	6,650.04	43.76	44.85	-56.82	-2,629.48	-148.12	157.98	80.15	77.83	2.030		
7,300.00	6,788.56	7,296.57	6,744.17	44.26	45.50	-73.00	-2,671.73	-172.35	167.70	87.77	79.93	2.098		
7,400.00	6,863.10	7,407.38	6,837.06	44.70	46.11	-85.07	-2,713.59	-215.55	179.25	98.37	80.87	2.216		
7,500.00	6,928.26	7,523.11	6,925.19	45.07	46.64	-94.03	-2,753.49	-278.78	191.37	111.41	79.96	2.393		
7,600.00	6,982.42	7,643.71	7,004.27	45.39	47.11	-100.56	-2,789.51	-362.13	202.84	125.68	77.16	2.629		
7,700.00	7,024.26	7,768.78	7,069.58	45.67	47.50	-105.13	-2,819.54	-464.25	212.57	139.50	73.07	2.909		
7,800.00	7,052.75	7,897.51	7,116.41	45.92	47.84	-108.02	-2,841.43	-581.90	219.63	150.70	68.93	3.186		
7,900.00	7,067.18	8,028.65	7,140.91	46.16	48.12	-109.42	-2,853.44	-709.93	223.37	156.99	66.38	3.365		
8,000.00	7,068.85	8,145.52	7,143.75	46.42	48.39	-109.55	-2,855.68	-826.68	223.83	156.68	67.14	3.334		
8,100.00	7,068.56	8,245.52	7,143.21	46.78	48.68	-109.49	-2,856.27	-926.67	223.74	154.28	69.45	3.221		
8,200.00	7,068.26	8,345.52	7,142.67	47.29	49.11	-109.43	-2,856.86	-1,026.67	223.65	151.54	72.10	3.102		
8,300.00	7,067.96	8,445.52	7,142.13	48.03	49.70	-109.37	-2,857.44	-1,126.66	223.55	148.49	75.06	2.978		
8,400.00	7,067.66	8,545.52	7,141.58	49.02	50.53	-109.32	-2,858.03	-1,226.66	223.46	145.18	78.29	2.854		
8,500.00	7,067.37	8,645.52	7,141.04	50.27	51.61	-109.26	-2,858.62	-1,326.66	223.37	141.62	81.76	2.732		
8,600.00	7,067.07	8,745.52	7,140.50	51.75	52.94	-109.20	-2,859.21	-1,426.65	223.29	137.85	85.44	2.613		
8,700.00	7,066.77	8,845.52	7,139.96	53.42	54.49	-109.14	-2,859.79	-1,526.65	223.20	133.89	89.30	2.499		
8,800.00	7,066.47	8,945.52	7,139.42	55.24	56.21	-109.08	-2,860.38	-1,626.65	223.11	129.77	93.33	2.390		
8,900.00	7,066.18	9,045.52	7,138.88	57.18	58.07	-109.03	-2,860.97	-1,726.64	223.02	125.51	97.51	2.287		
9,000.00	7,065.88	9,145.52	7,138.34	59.21	60.04	-108.97	-2,861.56	-1,826.64	222.93	121.12	101.81	2.190		
9,100.00	7,065.58	9,245.52	7,137.80	61.33	62.11	-108.91	-2,862.15	-1,926.64	222.84	116.62	106.22	2.098		
9,200.00	7,065.28	9,345.52	7,137.26	63.51	64.25	-108.85	-2,862.73	-2,026.63	222.75	112.02	110.73	2.012		
9,300.00	7,064.99	9,445.52	7,136.71	65.76	66.46	-108.79	-2,863.32	-2,126.63	222.66	107.34	115.33	1.931		
9,400.00	7,064.69	9,545.52	7,136.17	68.06	68.72	-108.73	-2,863.91	-2,226.63	222.58	102.57	120.00	1.855		
9,500.00	7,064.39	9,645.52	7,135.63	70.40	71.03	-108.68	-2,864.50	-2,326.62	222.49	97.74	124.75	1.784		
9,600.00	7,064.09	9,745.52	7,135.09	72.78	73.39	-108.62	-2,865.09	-2,426.62	222.40	92.85	129.56	1.717		
9,700.00	7,063.80	9,845.52	7,134.55	75.20	75.78	-108.56	-2,865.67	-2,526.62	222.31	87.89	134.42	1.654		
9,800.00	7,063.50	9,945.52	7,134.01	77.65	78.21	-108.50	-2,866.26	-2,626.61	222.23	82.89	139.33	1.595		
9,900.00	7,063.20	10,045.52	7,133.47	80.13	80.67	-108.44	-2,866.85	-2,726.61	222.14	77.85	144.30	1.539		
10,000.00	7,062.90	10,145.52	7,132.93	82.64	83.15	-108.38	-2,867.44	-2,826.61	222.05	72.76	149.30	1.487 Level 3		
10,100.00	7,062.61	10,245.52	7,132.39	85.17	85.67	-108.32	-2,868.03	-2,926.60	221.97	67.63	154.34	1.438 Level 3		
10,200.00	7,062.31	10,345.52	7,131.84	87.72	88.20	-108.26	-2,868.61	-3,026.60	221.88	62.47	159.41	1.392 Level 3		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	10,445.51	7,131.30	90.28	90.75	-108.21	-2,869.20	-3,126.59	221.80	57.28	164.52	1.348	Level 3	
10,400.00	7,061.71	10,545.51	7,130.76	92.87	93.32	-108.15	-2,869.79	-3,226.59	221.71	52.06	169.65	1.307	Level 3	
10,500.00	7,061.41	10,645.51	7,130.22	95.47	95.91	-108.09	-2,870.38	-3,326.59	221.63	46.81	174.82	1.268	Level 3	
10,600.00	7,061.12	10,745.51	7,129.68	98.09	98.52	-108.03	-2,870.97	-3,426.58	221.54	41.54	180.00	1.231	Level 2	
10,700.00	7,060.82	10,845.51	7,129.14	100.72	101.13	-107.97	-2,871.55	-3,526.58	221.46	36.24	185.21	1.196	Level 2	
10,800.00	7,060.52	10,945.51	7,128.60	103.37	103.76	-107.91	-2,872.14	-3,626.58	221.37	30.93	190.44	1.162	Level 2	
10,900.00	7,060.22	11,045.51	7,128.06	106.02	106.41	-107.85	-2,872.73	-3,726.57	221.29	25.59	195.70	1.131	Level 2	
11,000.00	7,059.93	11,145.51	7,127.52	108.69	109.06	-107.79	-2,873.32	-3,826.57	221.20	20.24	200.97	1.101	Level 2	
11,100.00	7,059.63	11,245.51	7,126.97	111.36	111.73	-107.73	-2,873.91	-3,926.57	221.12	14.87	206.25	1.072	Level 2	
11,200.00	7,059.33	11,345.51	7,126.43	114.05	114.40	-107.67	-2,874.49	-4,026.56	221.04	9.48	211.56	1.045	Level 2	
11,300.00	7,059.03	11,445.51	7,125.89	116.74	117.09	-107.61	-2,875.08	-4,126.56	220.95	4.08	216.88	1.019	Level 2	
11,400.00	7,058.74	11,545.51	7,125.35	119.44	119.78	-107.55	-2,875.67	-4,226.56	220.87	-1.34	222.21	0.994	Level 1	
11,500.00	7,058.44	11,645.51	7,124.81	122.15	122.48	-107.49	-2,876.26	-4,326.55	220.79	-6.77	227.56	0.970	Level 1	
11,600.00	7,058.14	11,745.51	7,124.27	124.86	125.18	-107.44	-2,876.84	-4,426.55	220.70	-12.21	232.92	0.948	Level 1	
11,700.00	7,057.84	11,845.51	7,123.73	127.58	127.90	-107.38	-2,877.43	-4,526.55	220.62	-17.67	238.29	0.926	Level 1	
11,800.00	7,057.55	11,945.51	7,123.19	130.31	130.62	-107.32	-2,878.02	-4,626.54	220.54	-23.13	243.67	0.905	Level 1	
11,900.00	7,057.25	12,045.51	7,122.65	133.04	133.34	-107.26	-2,878.61	-4,726.54	220.46	-28.61	249.07	0.885	Level 1	
12,000.00	7,056.95	12,145.51	7,122.11	135.78	136.07	-107.20	-2,879.20	-4,826.54	220.38	-34.10	254.47	0.866	Level 1	
12,100.00	7,056.65	12,245.51	7,121.56	138.52	138.81	-107.14	-2,879.78	-4,926.53	220.30	-39.59	259.89	0.848	Level 1	
12,200.00	7,056.36	12,345.51	7,121.02	141.27	141.55	-107.08	-2,880.37	-5,026.53	220.21	-45.10	265.31	0.830	Level 1	
12,300.00	7,056.06	12,445.51	7,120.48	144.02	144.30	-107.02	-2,880.96	-5,126.53	220.13	-50.61	270.75	0.813	Level 1	
12,400.00	7,055.76	12,545.51	7,119.94	146.78	147.05	-106.96	-2,881.55	-5,226.52	220.05	-56.14	276.19	0.797	Level 1	
12,500.00	7,055.46	12,645.51	7,119.40	149.54	149.80	-106.90	-2,882.14	-5,326.52	219.97	-61.67	281.64	0.781	Level 1	
12,600.00	7,055.17	12,745.51	7,118.86	152.30	152.56	-106.84	-2,882.72	-5,426.51	219.89	-67.21	287.10	0.766	Level 1	
12,700.00	7,054.87	12,845.51	7,118.32	155.07	155.32	-106.78	-2,883.31	-5,526.51	219.81	-72.76	292.57	0.751	Level 1	
12,800.00	7,054.57	12,945.51	7,117.78	157.84	158.09	-106.72	-2,883.90	-5,626.51	219.73	-78.31	298.04	0.737	Level 1	
12,900.00	7,054.27	13,045.51	7,117.24	160.61	160.86	-106.66	-2,884.49	-5,726.50	219.65	-83.87	303.53	0.724	Level 1	
13,000.00	7,053.97	13,145.51	7,116.69	163.39	163.63	-106.60	-2,885.08	-5,826.50	219.57	-89.44	309.02	0.711	Level 1	
13,100.00	7,053.68	13,245.51	7,116.15	166.17	166.40	-106.54	-2,885.66	-5,926.50	219.49	-95.02	314.51	0.698	Level 1	
13,200.00	7,053.38	13,345.51	7,115.61	168.95	169.18	-106.48	-2,886.25	-6,026.49	219.42	-100.60	320.02	0.686	Level 1	
13,300.00	7,053.08	13,445.51	7,115.07	171.73	171.96	-106.42	-2,886.84	-6,126.49	219.34	-106.19	325.52	0.674	Level 1	
13,400.00	7,052.78	13,545.51	7,114.53	174.52	174.75	-106.36	-2,887.43	-6,226.49	219.26	-111.78	331.04	0.662	Level 1	
13,500.00	7,052.49	13,645.51	7,113.99	177.31	177.53	-106.30	-2,888.02	-6,326.48	219.18	-117.38	336.56	0.651	Level 1	
13,600.00	7,052.19	13,745.51	7,113.45	180.10	180.32	-106.24	-2,888.60	-6,426.48	219.10	-122.99	342.09	0.640	Level 1	
13,700.00	7,051.89	13,845.50	7,112.91	182.90	183.11	-106.18	-2,889.19	-6,526.48	219.03	-128.60	347.62	0.630	Level 1	
13,800.00	7,051.59	13,945.50	7,112.37	185.69	185.90	-106.11	-2,889.78	-6,626.47	218.95	-134.21	353.16	0.620	Level 1	
13,900.00	7,051.30	14,045.50	7,111.82	188.49	188.69	-106.05	-2,890.37	-6,726.47	218.87	-139.83	358.70	0.610	Level 1	
14,000.00	7,051.00	14,145.50	7,111.28	191.29	191.49	-105.99	-2,890.96	-6,826.47	218.79	-145.46	364.25	0.601	Level 1	
14,100.00	7,050.70	14,245.50	7,110.74	194.09	194.29	-105.93	-2,891.54	-6,926.46	218.72	-151.09	369.81	0.591	Level 1	
14,200.00	7,050.40	14,345.50	7,110.20	196.89	197.09	-105.87	-2,892.13	-7,026.46	218.64	-156.72	375.37	0.582	Level 1	
14,300.00	7,050.11	14,445.50	7,109.66	199.70	199.89	-105.81	-2,892.72	-7,126.46	218.57	-162.36	380.93	0.574	Level 1	
14,400.00	7,049.81	14,545.50	7,109.12	202.50	202.69	-105.75	-2,893.31	-7,226.45	218.49	-168.01	386.50	0.565	Level 1	
14,500.00	7,049.51	14,645.50	7,108.58	205.31	205.50	-105.69	-2,893.89	-7,326.45	218.41	-173.66	392.07	0.557	Level 1	
14,600.00	7,049.21	14,745.50	7,108.04	208.12	208.30	-105.63	-2,894.48	-7,426.44	218.34	-179.31	397.65	0.549	Level 1	
14,700.00	7,048.92	14,845.50	7,107.50	210.93	211.11	-105.57	-2,895.07	-7,526.44	218.26	-184.97	403.23	0.541	Level 1	
14,800.00	7,048.62	14,945.50	7,106.95	213.74	213.92	-105.51	-2,895.66	-7,626.44	218.19	-190.63	408.82	0.534	Level 1	
14,900.00	7,048.32	15,045.50	7,106.41	216.55	216.73	-105.45	-2,896.25	-7,726.43	218.11	-196.30	414.41	0.526	Level 1	
15,000.00	7,048.02	15,145.50	7,105.87	219.37	219.54	-105.39	-2,896.83	-7,826.43	218.04	-201.97	420.01	0.519	Level 1	
15,100.00	7,047.73	15,245.50	7,105.33	222.18	222.35	-105.32	-2,897.42	-7,926.43	217.97	-207.64	425.61	0.512	Level 1	
15,200.00	7,047.43	15,345.50	7,104.79	225.00	225.17	-105.26	-2,898.01	-8,026.42	217.89	-213.32	431.21	0.505	Level 1	
15,300.00	7,047.13	15,445.50	7,104.25	227.81	227.98	-105.20	-2,898.60	-8,126.42	217.82	-219.00	436.82	0.499	Level 1	
15,343.67	7,047.00	15,489.17	7,104.01	229.04	229.21	-105.18	-2,898.86	-8,170.09	217.79	-221.48	439.27	0.496	Level 1, 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.48	400.00	3.34	400.02					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	400.00	3.34	400.02	393.45	6.57	60.887		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	400.00	3.34	400.02	393.34	6.68	59.922 CC, ES		
300.00	299.98	301.98	299.98	3.44	3.45	177.08	400.00	3.34	401.76	394.87	6.89	58.331		
400.00	399.84	401.84	399.84	3.59	3.61	177.11	400.00	3.34	406.99	399.79	7.20	56.535		
500.00	499.45	501.45	499.45	3.79	3.81	177.16	400.00	3.34	415.69	408.09	7.60	54.684		
600.00	598.70	600.70	598.70	4.03	4.05	177.23	400.00	3.34	427.86	419.78	8.08	52.936		
700.00	697.47	698.46	684.45	4.31	4.28	177.26	401.27	3.03	444.94	436.35	8.60	51.748		
800.00	795.62	770.69	768.59	4.64	4.53	177.22	404.95	2.15	468.26	459.10	9.16	51.118		
900.00	893.06	852.84	850.51	5.00	4.79	177.12	410.85	0.74	497.65	487.90	9.75	51.030		
1,000.00	989.64	934.53	929.59	5.40	5.06	176.97	418.73	-1.15	532.93	522.56	10.37	51.409		
1,100.00	1,085.27	1,024.06	1,020.70	5.83	5.36	176.80	429.09	-3.63	572.72	561.69	11.03	51.932		
1,200.00	1,179.82	1,114.35	1,110.37	6.29	5.68	176.65	439.28	-6.07	615.69	603.97	11.72	52.547		
1,300.00	1,273.17	1,203.09	1,198.51	6.79	6.01	176.53	449.31	-8.47	661.77	649.35	12.43	53.261		
1,400.00	1,365.46	1,309.52	1,285.31	7.32	6.41	176.47	459.17	-10.84	710.38	697.16	13.22	53.741		
1,500.00	1,457.65	1,377.74	1,371.98	7.87	6.67	176.45	469.03	-13.20	759.23	745.36	13.87	54.737		
1,600.00	1,549.83	1,464.99	1,458.65	8.43	7.01	176.42	478.88	-15.56	808.08	793.47	14.61	55.302		
1,700.00	1,642.02	1,552.25	1,545.31	9.01	7.36	176.40	488.74	-17.92	856.93	841.56	15.37	55.758		
1,800.00	1,734.21	1,639.51	1,631.98	9.59	7.71	176.38	498.59	-20.28	905.78	889.64	16.14	56.128		
1,900.00	1,826.39	1,726.76	1,718.64	10.18	8.07	176.36	508.44	-22.64	954.63	937.71	16.92	56.427		
2,000.00	1,918.58	1,814.02	1,805.31	10.78	8.43	176.35	518.30	-25.00	1,003.48	985.77	17.71	56.669		
2,100.00	2,010.77	1,901.28	1,891.98	11.39	8.79	176.33	528.15	-27.36	1,052.33	1,033.82	18.51	56.865		
2,200.00	2,102.95	1,988.53	1,978.64	11.99	9.15	176.32	538.01	-29.72	1,101.18	1,081.86	19.31	57.024		
2,300.00	2,195.14	2,075.79	2,065.31	12.61	9.52	176.31	547.86	-32.08	1,150.02	1,129.90	20.12	57.152		
2,400.00	2,287.32	2,163.04	2,151.97	13.22	9.89	176.30	557.71	-34.44	1,198.87	1,177.94	20.94	57.255		
2,500.00	2,379.51	2,250.30	2,238.64	13.84	10.26	176.29	567.57	-36.80	1,247.72	1,225.96	21.76	57.337		
2,600.00	2,471.70	2,337.56	2,325.31	14.46	10.64	176.28	577.42	-39.16	1,296.57	1,273.99	22.59	57.401		
2,700.00	2,563.88	2,424.81	2,411.97	15.08	11.01	176.27	587.28	-41.52	1,345.42	1,322.01	23.42	57.452		
2,800.00	2,656.07	2,512.07	2,498.64	15.71	11.39	176.26	597.13	-43.88	1,394.27	1,370.02	24.25	57.490		
2,900.00	2,748.26	2,600.67	2,585.30	16.33	11.77	176.25	606.98	-46.24	1,443.12	1,418.03	25.10	57.506		
3,000.00	2,840.44	2,686.58	2,671.97	16.96	12.14	176.25	616.84	-48.60	1,491.97	1,466.04	25.93	57.540		
3,100.00	2,932.63	2,773.84	2,758.64	17.59	12.52	176.24	626.69	-50.96	1,540.82	1,514.05	26.77	57.553		
3,200.00	3,024.81	2,861.10	2,845.30	18.22	12.90	176.23	636.55	-53.32	1,589.67	1,562.06	27.62	57.561		
3,300.00	3,117.00	2,948.35	2,931.97	18.86	13.29	176.23	646.40	-55.68	1,638.52	1,610.06	28.46	57.564		
3,400.00	3,209.19	3,035.61	3,018.63	19.49	13.67	176.22	656.25	-58.04	1,687.37	1,658.06	29.31	57.563		
3,500.00	3,301.37	3,122.86	3,105.30	20.12	14.05	176.22	666.11	-60.40	1,736.22	1,706.06	30.16	57.558		
3,600.00	3,393.56	3,210.12	3,191.97	20.76	14.43	176.21	675.96	-62.76	1,785.07	1,754.05	31.02	57.551		
3,700.00	3,485.75	3,302.62	3,278.63	21.39	14.84	176.21	685.82	-65.12	1,833.92	1,802.03	31.89	57.499		
3,800.00	3,577.93	3,384.63	3,365.30	22.03	15.20	176.20	695.67	-67.48	1,882.77	1,850.04	32.73	57.529		
3,900.00	3,670.12	3,471.89	3,451.96	22.67	15.59	176.20	705.52	-69.85	1,931.62	1,898.04	33.58	57.516		
4,000.00	3,762.30	3,559.15	3,538.63	23.30	15.97	176.20	715.38	-72.21	1,980.47	1,946.03	34.44	57.501		
4,100.00	3,854.49	3,646.40	3,625.30	23.94	16.36	176.19	725.23	-74.57	2,029.32	1,994.02	35.30	57.485		
4,200.00	3,946.68	3,733.66	3,711.96	24.58	16.75	176.19	735.09	-76.93	2,078.17	2,042.01	36.16	57.468		
4,300.00	4,038.86	3,820.92	3,798.63	25.22	17.13	176.19	744.94	-79.29	2,127.02	2,090.00	37.02	57.450		
4,400.00	4,131.05	3,908.17	3,885.29	25.86	17.52	176.18	754.79	-81.65	2,175.87	2,137.99	37.89	57.432		
4,500.00	4,223.24	4,004.57	3,971.96	26.50	17.95	176.18	764.65	-84.01	2,224.72	2,185.93	38.79	57.353		
4,600.00	4,315.42	4,082.68	4,058.63	27.14	18.30	176.18	774.50	-86.37	2,273.57	2,233.96	39.61	57.394		
4,700.00	4,407.61	4,169.94	4,145.29	27.78	18.69	176.17	784.36	-88.73	2,322.42	2,281.94	40.48	57.374		
4,800.00	4,499.79	4,257.20	4,231.96	28.42	19.07	176.17	794.21	-91.09	2,371.27	2,329.93	41.34	57.354		
4,900.00	4,591.98	4,344.45	4,318.62	29.06	19.46	176.17	804.06	-93.45	2,420.12	2,377.91	42.21	57.334		
5,000.00	4,684.17	4,431.71	4,405.29	29.70	19.85	176.17	813.92	-95.81	2,468.97	2,425.89	43.08	57.314		
5,100.00	4,776.35	4,518.97	4,491.96	30.34	20.24	176.16	823.77	-98.17	2,517.82	2,473.88	43.95	57.294		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,606.22	4,578.62	30.98	20.63	176.16	833.63	-100.53	2,566.67	2,521.86	44.81	57.274		
5,300.00	4,960.73	4,706.52	4,665.29	31.63	21.08	176.16	843.48	-102.89	2,615.52	2,569.78	45.74	57.181		
5,400.00	5,052.91	4,780.74	4,751.95	32.27	21.41	176.16	853.33	-105.25	2,664.37	2,617.82	46.55	57.234		
5,500.00	5,145.10	4,867.99	4,838.62	32.91	21.80	176.15	863.19	-107.61	2,713.22	2,665.80	47.42	57.214		
5,600.00	5,237.28	4,955.25	4,925.29	33.55	22.19	176.15	873.04	-109.97	2,762.07	2,713.78	48.29	57.194		
5,700.00	5,329.47	5,042.50	5,011.95	34.20	22.58	176.15	882.90	-112.33	2,810.92	2,761.76	49.16	57.174		
5,800.00	5,421.66	5,129.76	5,098.62	34.84	22.97	176.15	892.75	-114.69	2,859.77	2,809.74	50.04	57.154		
5,900.00	5,513.84	5,217.02	5,185.28	35.48	23.36	176.15	902.61	-117.05	2,908.62	2,857.71	50.91	57.135		
6,000.00	5,606.03	5,304.27	5,271.95	36.13	23.76	176.15	912.46	-119.41	2,957.47	2,905.69	51.78	57.116		
6,100.00	5,698.22	5,408.47	5,358.62	36.77	24.22	176.14	922.31	-121.77	3,006.32	2,953.59	52.73	57.014		
6,200.00	5,790.40	5,478.79	5,445.28	37.41	24.54	176.14	932.17	-124.13	3,055.17	3,001.64	53.53	57.077		
6,300.00	5,882.59	5,566.04	5,531.95	38.06	24.93	176.14	942.02	-126.49	3,104.02	3,049.62	54.40	57.058		
6,400.00	5,974.77	5,653.30	5,618.61	38.70	25.32	176.14	951.88	-128.85	3,152.87	3,097.60	55.28	57.040		
6,500.00	6,066.96	5,740.56	5,705.28	39.34	25.71	176.14	961.73	-131.22	3,201.72	3,145.57	56.15	57.021		
6,600.00	6,159.15	5,827.81	5,791.95	39.99	26.10	176.14	971.58	-133.58	3,250.57	3,193.55	57.03	57.003		
6,700.00	6,251.33	5,915.07	5,878.61	40.63	26.50	176.13	981.44	-135.94	3,299.42	3,241.52	57.90	56.984		
6,800.00	6,343.52	6,002.32	5,965.28	41.28	26.89	176.13	991.29	-138.30	3,348.27	3,289.50	58.78	56.966		
6,900.00	6,435.71	6,089.58	6,051.94	41.92	27.28	176.13	1,001.15	-140.66	3,397.12	3,337.47	59.65	56.948		
7,000.00	6,527.86	6,176.83	6,138.60	42.56	27.67	167.43	1,011.00	-143.02	3,445.96	3,385.43	60.53	56.930		
7,100.00	6,618.85	6,263.29	6,224.48	43.19	28.06	144.20	1,020.76	-145.36	3,494.30	3,432.91	61.40	56.915		
7,200.00	6,706.47	6,346.97	6,307.60	43.76	28.44	126.69	1,030.21	-147.62	3,541.16	3,478.94	62.22	56.913		
7,300.00	6,788.56	6,436.81	6,396.63	44.26	28.84	114.17	1,040.31	-153.28	3,585.66	3,522.57	63.09	56.835		
7,400.00	6,863.10	6,538.78	6,495.68	44.70	29.30	105.18	1,051.45	-174.31	3,626.70	3,562.63	64.07	56.605		
7,500.00	6,928.26	6,653.33	6,601.35	45.07	29.80	98.72	1,063.18	-216.53	3,663.24	3,598.06	65.18	56.199		
7,600.00	6,982.42	6,784.49	6,710.85	45.39	30.38	94.17	1,075.16	-287.29	3,694.28	3,627.76	66.51	55.542		
7,700.00	7,024.26	6,935.86	6,816.24	45.67	31.19	91.11	1,086.40	-394.87	3,718.77	3,650.57	68.19	54.533		
7,800.00	7,052.75	7,108.18	6,901.71	45.92	32.46	89.24	1,095.09	-543.63	3,735.69	3,665.24	70.45	53.027		
7,900.00	7,067.18	7,295.84	6,946.19	46.16	34.41	88.31	1,098.88	-725.21	3,744.17	3,670.73	73.44	50.983		
8,000.00	7,068.85	7,425.49	6,948.80	46.42	36.06	88.16	1,098.26	-854.77	3,745.04	3,668.89	76.15	49.178		
8,100.00	7,068.56	7,525.49	6,948.50	46.78	37.52	88.16	1,097.53	-954.76	3,744.90	3,666.10	78.81	47.519		
8,200.00	7,068.26	7,625.49	6,948.20	47.29	39.13	88.16	1,096.79	-1,054.76	3,744.77	3,662.99	81.78	45.791		
8,300.00	7,067.96	7,725.49	6,947.90	48.03	40.88	88.16	1,096.05	-1,154.76	3,744.63	3,659.60	85.03	44.040		
8,400.00	7,067.66	7,825.49	6,947.61	49.02	42.75	88.16	1,095.31	-1,254.75	3,744.49	3,655.96	88.53	42.298		
8,500.00	7,067.37	7,925.49	6,947.31	50.27	44.72	88.16	1,094.58	-1,354.75	3,744.35	3,652.10	92.25	40.591		
8,600.00	7,067.07	8,025.49	6,947.01	51.75	46.78	88.16	1,093.84	-1,454.75	3,744.21	3,648.04	96.16	38.937		
8,700.00	7,066.77	8,125.49	6,946.71	53.42	48.92	88.16	1,093.10	-1,554.74	3,744.07	3,643.82	100.25	37.348		
8,800.00	7,066.47	8,225.49	6,946.41	55.24	51.14	88.16	1,092.36	-1,654.74	3,743.93	3,639.44	104.49	35.831		
8,900.00	7,066.18	8,325.49	6,946.11	57.18	53.41	88.16	1,091.62	-1,754.74	3,743.79	3,634.93	108.86	34.391		
9,000.00	7,065.88	8,425.49	6,945.81	59.21	55.74	88.16	1,090.89	-1,854.73	3,743.65	3,630.29	113.35	33.026		
9,100.00	7,065.58	8,525.49	6,945.52	61.33	58.12	88.16	1,090.15	-1,954.73	3,743.51	3,625.56	117.95	31.738		
9,200.00	7,065.28	8,625.49	6,945.22	63.51	60.53	88.16	1,089.41	-2,054.73	3,743.37	3,620.72	122.64	30.522		
9,300.00	7,064.99	8,725.49	6,944.92	65.76	62.99	88.16	1,088.67	-2,154.73	3,743.23	3,615.81	127.42	29.377		
9,400.00	7,064.69	8,825.49	6,944.62	68.06	65.48	88.16	1,087.94	-2,254.72	3,743.09	3,610.82	132.27	28.299		
9,500.00	7,064.39	8,925.49	6,944.32	70.40	67.99	88.16	1,087.20	-2,354.72	3,742.95	3,605.76	137.18	27.284		
9,600.00	7,064.09	9,025.49	6,944.02	72.78	70.53	88.16	1,086.46	-2,454.72	3,742.81	3,600.65	142.16	26.328		
9,700.00	7,063.80	9,125.49	6,943.73	75.20	73.10	88.16	1,085.72	-2,554.71	3,742.67	3,595.48	147.19	25.428		
9,800.00	7,063.50	9,225.49	6,943.43	77.65	75.69	88.16	1,084.98	-2,654.71	3,742.53	3,590.26	152.27	24.579		
9,900.00	7,063.20	9,325.49	6,943.13	80.13	78.29	88.16	1,084.25	-2,754.71	3,742.39	3,585.00	157.39	23.778		
10,000.00	7,062.90	9,425.49	6,942.83	82.64	80.92	88.16	1,083.51	-2,854.70	3,742.25	3,579.70	162.55	23.022		
10,100.00	7,062.61	9,525.49	6,942.53	85.17	83.55	88.16	1,082.77	-2,954.70	3,742.11	3,574.36	167.74	22.308		
10,200.00	7,062.31	9,625.49	6,942.23	87.72	86.21	88.16	1,082.03	-3,054.70	3,741.97	3,569.00	172.97	21.633		
10,300.00	7,062.01	9,725.49	6,941.94	90.28	88.87	88.16	1,081.30	-3,154.69	3,741.83	3,563.60	178.23	20.994		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	9,825.49	6,941.64	92.87	91.55	88.16	1,080.56	-3,254.69	3,741.69	3,558.17	183.52	20.389		
10,500.00	7,061.41	9,925.49	6,941.34	95.47	94.24	88.16	1,079.82	-3,354.69	3,741.55	3,552.72	188.83	19.814		
10,600.00	7,061.12	10,025.49	6,941.04	98.09	96.93	88.16	1,079.08	-3,454.68	3,741.41	3,547.25	194.16	19.269		
10,700.00	7,060.82	10,125.49	6,940.74	100.72	99.64	88.16	1,078.34	-3,554.68	3,741.27	3,541.75	199.52	18.751		
10,800.00	7,060.52	10,225.49	6,940.44	103.37	102.35	88.16	1,077.61	-3,654.68	3,741.13	3,536.24	204.89	18.259		
10,900.00	7,060.22	10,325.49	6,940.15	106.02	105.08	88.16	1,076.87	-3,754.67	3,740.99	3,530.70	210.29	17.790		
11,000.00	7,059.93	10,425.49	6,939.85	108.69	107.81	88.16	1,076.13	-3,854.67	3,740.85	3,525.16	215.70	17.343		
11,100.00	7,059.63	10,525.49	6,939.55	111.36	110.54	88.16	1,075.39	-3,954.67	3,740.71	3,519.59	221.12	16.917		
11,200.00	7,059.33	10,625.49	6,939.25	114.05	113.28	88.16	1,074.66	-4,054.66	3,740.57	3,514.01	226.56	16.510		
11,300.00	7,059.03	10,725.49	6,938.95	116.74	116.03	88.16	1,073.92	-4,154.66	3,740.43	3,508.42	232.01	16.122		
11,400.00	7,058.74	10,825.49	6,938.65	119.44	118.78	88.16	1,073.18	-4,254.66	3,740.29	3,502.82	237.48	15.750		
11,500.00	7,058.44	10,925.49	6,938.36	122.15	121.54	88.16	1,072.44	-4,354.65	3,740.15	3,497.20	242.95	15.395		
11,600.00	7,058.14	11,025.49	6,938.06	124.86	124.30	88.16	1,071.70	-4,454.65	3,740.01	3,491.57	248.44	15.054		
11,700.00	7,057.84	11,125.49	6,937.76	127.58	127.07	88.16	1,070.97	-4,554.65	3,739.87	3,485.94	253.94	14.728		
11,800.00	7,057.55	11,225.49	6,937.46	130.31	129.84	88.16	1,070.23	-4,654.64	3,739.73	3,480.29	259.44	14.415		
11,900.00	7,057.25	11,325.49	6,937.16	133.04	132.61	88.16	1,069.49	-4,754.64	3,739.59	3,474.64	264.96	14.114		
12,000.00	7,056.95	11,425.49	6,936.86	135.78	135.39	88.16	1,068.75	-4,854.64	3,739.45	3,468.97	270.48	13.825		
12,100.00	7,056.65	11,525.49	6,936.57	138.52	138.17	88.16	1,068.02	-4,954.63	3,739.31	3,463.30	276.01	13.548		
12,200.00	7,056.36	11,625.49	6,936.27	141.27	140.96	88.16	1,067.28	-5,054.63	3,739.18	3,457.62	281.55	13.281		
12,300.00	7,056.06	11,725.49	6,935.97	144.02	143.74	88.16	1,066.54	-5,154.63	3,739.04	3,451.94	287.10	13.024		
12,400.00	7,055.76	11,825.49	6,935.67	146.78	146.53	88.16	1,065.80	-5,254.62	3,738.90	3,446.25	292.65	12.776		
12,500.00	7,055.46	11,925.49	6,935.37	149.54	149.32	88.16	1,065.06	-5,354.62	3,738.76	3,440.55	298.21	12.537		
12,600.00	7,055.17	12,025.49	6,935.07	152.30	152.12	88.16	1,064.33	-5,454.62	3,738.62	3,434.85	303.77	12.307		
12,700.00	7,054.87	12,125.49	6,934.78	155.07	154.92	88.16	1,063.59	-5,554.61	3,738.48	3,429.14	309.34	12.085		
12,800.00	7,054.57	12,225.49	6,934.48	157.84	157.72	88.16	1,062.85	-5,654.61	3,738.34	3,423.42	314.91	11.871		
12,900.00	7,054.27	12,325.49	6,934.18	160.61	160.52	88.16	1,062.11	-5,754.61	3,738.20	3,417.70	320.49	11.664		
13,000.00	7,053.97	12,425.49	6,933.88	163.39	163.32	88.16	1,061.38	-5,854.60	3,738.06	3,411.98	326.08	11.464		
13,100.00	7,053.68	12,525.49	6,933.58	166.17	166.13	88.16	1,060.64	-5,954.60	3,737.92	3,406.25	331.67	11.270		
13,200.00	7,053.38	12,625.49	6,933.28	168.95	168.93	88.16	1,059.90	-6,054.60	3,737.78	3,400.52	337.26	11.083		
13,300.00	7,053.08	12,725.49	6,932.98	171.73	171.74	88.16	1,059.16	-6,154.59	3,737.64	3,394.78	342.86	10.901		
13,400.00	7,052.78	12,825.49	6,932.69	174.52	174.55	88.16	1,058.42	-6,254.59	3,737.50	3,389.04	348.46	10.726		
13,500.00	7,052.49	12,925.49	6,932.39	177.31	177.36	88.16	1,057.69	-6,354.59	3,737.36	3,383.30	354.06	10.556		
13,600.00	7,052.19	13,025.49	6,932.09	180.10	180.18	88.16	1,056.95	-6,454.58	3,737.22	3,377.55	359.67	10.391		
13,700.00	7,051.89	13,125.49	6,931.79	182.90	182.99	88.16	1,056.21	-6,554.58	3,737.08	3,371.80	365.28	10.231		
13,800.00	7,051.59	13,225.49	6,931.49	185.69	185.81	88.16	1,055.47	-6,654.58	3,736.94	3,366.04	370.90	10.075		
13,900.00	7,051.30	13,325.49	6,931.19	188.49	188.62	88.16	1,054.74	-6,754.57	3,736.80	3,360.29	376.51	9.925		
14,000.00	7,051.00	13,425.49	6,930.90	191.29	191.44	88.16	1,054.00	-6,854.57	3,736.66	3,354.53	382.13	9.778		
14,100.00	7,050.70	13,525.49	6,930.60	194.09	194.26	88.16	1,053.26	-6,954.57	3,736.52	3,348.76	387.76	9.636		
14,200.00	7,050.40	13,625.49	6,930.30	196.89	197.08	88.16	1,052.52	-7,054.57	3,736.38	3,343.00	393.38	9.498		
14,300.00	7,050.11	13,725.49	6,930.00	199.70	199.90	88.16	1,051.78	-7,154.56	3,736.24	3,337.23	399.01	9.364		
14,400.00	7,049.81	13,825.49	6,929.70	202.50	202.73	88.16	1,051.05	-7,254.56	3,736.10	3,331.46	404.64	9.233		
14,500.00	7,049.51	13,925.49	6,929.40	205.31	205.55	88.16	1,050.31	-7,354.56	3,735.96	3,325.69	410.27	9.106		
14,600.00	7,049.21	14,025.49	6,929.11	208.12	208.38	88.16	1,049.57	-7,454.55	3,735.82	3,319.91	415.91	8.982		
14,700.00	7,048.92	14,125.49	6,928.81	210.93	211.20	88.16	1,048.83	-7,554.55	3,735.68	3,314.13	421.55	8.862		
14,800.00	7,048.62	14,225.49	6,928.51	213.74	214.03	88.16	1,048.10	-7,654.55	3,735.54	3,308.35	427.19	8.745		
14,900.00	7,048.32	14,325.49	6,928.21	216.55	216.86	88.16	1,047.36	-7,754.54	3,735.40	3,302.57	432.83	8.630		
15,000.00	7,048.02	14,425.49	6,927.91	219.37	219.68	88.16	1,046.62	-7,854.54	3,735.26	3,296.79	438.47	8.519		
15,100.00	7,047.73	14,525.49	6,927.61	222.18	222.51	88.16	1,045.88	-7,954.54	3,735.12	3,291.01	444.12	8.410		
15,200.00	7,047.43	14,625.49	6,927.32	225.00	225.34	88.16	1,045.14	-8,054.53	3,734.98	3,285.22	449.76	8.304		
15,300.00	7,047.13	14,725.49	6,927.02	227.81	228.17	88.16	1,044.41	-8,154.53	3,734.84	3,279.43	455.41	8.201		
15,311.86	7,047.09	14,732.12	6,927.00	228.15	228.36	88.16	1,044.36	-8,161.17	3,734.83	3,278.90	455.93	8.192		
15,343.67	7,047.00	14,732.12	6,927.00	229.04	228.36	88.16	1,044.36	-8,161.17	3,734.97	3,278.21	456.76	8.177 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.46	420.05	3.34	420.06					
100.00	100.00	102.00	100.00	3.28	3.29	0.46	420.05	3.34	420.06	413.49	6.57	63.938		
200.00	200.00	202.00	200.00	3.34	3.34	0.46	420.05	3.34	420.06	413.39	6.68	62.924	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.06	420.05	3.34	421.80	414.92	6.89	61.241		
400.00	399.84	401.84	399.84	3.59	3.61	177.09	420.05	3.34	427.03	419.83	7.20	59.319		
500.00	499.45	501.45	499.45	3.79	3.81	177.14	420.05	3.34	435.73	428.13	7.60	57.321		
600.00	598.70	600.70	598.70	4.03	4.05	177.20	420.05	3.34	447.91	439.82	8.08	55.416		
700.00	697.47	698.76	697.47	4.31	4.28	177.24	421.32	3.13	465.00	456.40	8.60	54.092		
800.00	795.62	796.30	795.62	4.64	4.52	177.23	424.99	2.54	488.35	479.19	9.16	53.333		
900.00	893.06	893.77	893.06	5.00	4.78	177.19	430.88	1.59	517.79	508.04	9.75	53.129		
1,000.00	989.64	989.77	989.64	5.40	5.04	177.11	438.77	0.32	553.14	542.79	10.35	53.436		
1,100.00	1,085.27	1,085.93	1,085.27	5.83	5.30	177.01	448.39	-1.23	594.18	583.22	10.96	54.204		
1,200.00	1,179.82	1,180.91	1,179.82	6.29	5.57	176.88	459.93	-3.09	640.63	629.05	11.58	55.311		
1,300.00	1,273.17	1,274.38	1,273.17	6.79	5.89	176.75	473.74	-5.31	690.85	678.59	12.26	56.349		
1,400.00	1,365.46	1,366.38	1,365.46	7.32	6.20	176.69	487.31	-7.50	743.53	730.57	12.96	57.380		
1,500.00	1,457.65	1,458.23	1,457.65	7.87	6.53	176.65	500.86	-9.68	796.44	782.78	13.66	58.320		
1,600.00	1,549.83	1,550.08	1,549.83	8.43	6.86	176.62	514.42	-11.86	849.35	834.98	14.37	59.095		
1,700.00	1,642.02	1,642.94	1,642.02	9.01	7.20	176.60	527.97	-14.05	902.27	887.16	15.11	59.733		
1,800.00	1,734.21	1,735.21	1,734.21	9.59	7.61	176.58	541.52	-16.23	955.18	939.27	15.91	60.038		
1,900.00	1,826.39	1,827.64	1,826.39	10.18	7.90	176.56	555.07	-18.41	1,008.10	991.49	16.61	60.698		
2,000.00	1,918.58	1,919.49	1,918.58	10.78	8.26	176.54	568.63	-20.59	1,061.01	1,043.63	17.38	61.061		
2,100.00	2,010.77	2,011.35	2,010.77	11.39	8.62	176.52	582.18	-22.78	1,113.92	1,095.77	18.15	61.364		
2,200.00	2,102.95	2,103.20	2,102.95	11.99	8.98	176.51	595.73	-24.96	1,166.84	1,147.90	18.94	61.616		
2,300.00	2,195.14	2,195.05	2,195.14	12.61	9.35	176.49	609.28	-27.14	1,219.75	1,200.03	19.73	61.827		
2,400.00	2,287.32	2,287.21	2,287.32	13.22	9.72	176.48	622.84	-29.33	1,272.67	1,252.14	20.53	62.004		
2,500.00	2,379.51	2,379.76	2,379.51	13.84	10.09	176.47	636.39	-31.51	1,325.58	1,304.25	21.33	62.151		
2,600.00	2,471.70	2,471.61	2,471.70	14.46	10.46	176.46	649.94	-33.69	1,378.50	1,356.36	22.14	62.274		
2,700.00	2,563.88	2,563.46	2,563.88	15.08	10.83	176.45	663.49	-35.87	1,431.41	1,408.46	22.95	62.377		
2,800.00	2,656.07	2,656.32	2,656.07	15.71	11.21	176.44	677.05	-38.06	1,484.33	1,460.56	23.76	62.463		
2,900.00	2,748.26	2,748.17	2,748.26	16.33	11.59	176.43	690.60	-40.24	1,537.24	1,512.66	24.58	62.535		
3,000.00	2,840.44	2,840.12	2,840.44	16.96	11.97	176.42	704.15	-42.42	1,590.16	1,564.75	25.40	62.594		
3,100.00	2,932.63	2,932.35	2,932.63	17.59	12.38	176.41	717.70	-44.61	1,643.07	1,616.80	26.27	62.556		
3,200.00	3,024.81	3,024.73	3,024.81	18.22	12.73	176.41	731.26	-46.79	1,695.99	1,668.93	27.06	62.682		
3,300.00	3,117.00	3,117.00	3,117.00	18.86	13.11	176.40	744.81	-48.97	1,748.90	1,721.01	27.89	62.714		
3,400.00	3,209.19	3,209.19	3,209.19	19.49	13.49	176.39	758.36	-51.15	1,801.81	1,773.10	28.72	62.740		
3,500.00	3,301.37	3,301.37	3,301.37	20.12	13.88	176.39	771.91	-53.34	1,854.73	1,825.18	29.55	62.760		
3,600.00	3,393.56	3,393.56	3,393.56	20.76	14.26	176.38	785.47	-55.52	1,907.64	1,877.26	30.39	62.774		
3,700.00	3,485.75	3,485.75	3,485.75	21.39	14.64	176.38	799.02	-57.70	1,960.56	1,929.33	31.23	62.785		
3,800.00	3,577.93	3,577.93	3,577.93	22.03	15.03	176.37	812.57	-59.89	2,013.47	1,981.41	32.07	62.792		
3,900.00	3,670.12	3,670.12	3,670.12	22.67	15.42	176.37	826.12	-62.07	2,066.39	2,033.48	32.91	62.797		
4,000.00	3,762.30	3,762.30	3,762.30	23.30	15.80	176.36	839.68	-64.25	2,119.30	2,085.56	33.75	62.798		
4,100.00	3,854.49	3,854.49	3,854.49	23.94	16.19	176.36	853.23	-66.43	2,172.22	2,137.63	34.59	62.797		
4,200.00	3,946.68	3,946.68	3,946.68	24.58	16.58	176.35	866.78	-68.62	2,225.13	2,189.70	35.44	62.794		
4,300.00	4,038.86	4,038.86	4,038.86	25.22	16.97	176.35	880.33	-70.80	2,278.05	2,241.77	36.28	62.789		
4,400.00	4,131.05	4,131.05	4,131.05	25.86	17.36	176.35	893.89	-72.98	2,330.96	2,293.83	37.14	62.767		
4,500.00	4,223.24	4,223.24	4,223.24	26.50	17.74	176.34	907.44	-75.17	2,383.88	2,345.90	37.97	62.775		
4,600.00	4,315.42	4,315.42	4,315.42	27.14	18.13	176.34	920.99	-77.35	2,436.79	2,397.97	38.82	62.766		
4,700.00	4,407.61	4,407.61	4,407.61	27.78	18.52	176.34	934.54	-79.53	2,489.71	2,450.03	39.67	62.756		
4,800.00	4,499.79	4,499.79	4,499.79	28.42	18.91	176.33	948.10	-81.71	2,542.62	2,502.10	40.52	62.746		
4,900.00	4,591.98	4,591.98	4,591.98	29.06	19.30	176.33	961.65	-83.90	2,595.54	2,554.16	41.37	62.734		
5,000.00	4,684.17	4,684.17	4,684.17	29.70	19.69	176.33	975.20	-86.08	2,648.45	2,606.23	42.23	62.722		
5,100.00	4,776.35	4,776.35	4,776.35	30.34	20.08	176.33	988.75	-88.26	2,701.37	2,658.29	43.08	62.710		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,477.79	4,428.79	30.98	20.48	176.32	1,002.31	-90.45	2,754.28	2,710.35	43.93	62.697		
5,300.00	4,960.73	4,562.64	4,512.53	31.63	20.87	176.32	1,015.86	-92.63	2,807.20	2,762.41	44.78	62.683		
5,400.00	5,052.91	4,647.49	4,596.26	32.27	21.26	176.32	1,029.41	-94.81	2,860.11	2,814.47	45.64	62.669		
5,500.00	5,145.10	4,732.34	4,680.00	32.91	21.65	176.32	1,042.96	-96.99	2,913.03	2,866.53	46.49	62.655		
5,600.00	5,237.28	4,817.20	4,763.73	33.55	22.04	176.31	1,056.52	-99.18	2,965.94	2,918.59	47.35	62.640		
5,700.00	5,329.47	4,902.05	4,847.47	34.20	22.43	176.31	1,070.07	-101.36	3,018.86	2,970.65	48.20	62.626		
5,800.00	5,421.66	4,986.90	4,931.20	34.84	22.83	176.31	1,083.62	-103.54	3,071.77	3,022.71	49.06	62.611		
5,900.00	5,513.84	5,071.76	5,014.94	35.48	23.22	176.31	1,097.17	-105.73	3,124.69	3,074.77	49.92	62.596		
6,000.00	5,606.03	5,156.61	5,098.67	36.13	23.61	176.30	1,110.73	-107.91	3,177.60	3,126.82	50.78	62.580		
6,100.00	5,698.22	5,241.46	5,182.41	36.77	24.00	176.30	1,124.28	-110.09	3,230.52	3,178.88	51.63	62.565		
6,200.00	5,790.40	5,326.31	5,266.14	37.41	24.40	176.30	1,137.83	-112.28	3,283.43	3,230.94	52.49	62.550		
6,300.00	5,882.59	5,411.17	5,349.88	38.06	24.79	176.30	1,151.38	-114.46	3,336.34	3,282.99	53.35	62.534		
6,400.00	5,974.77	5,503.98	5,433.61	38.70	25.22	176.30	1,164.94	-116.64	3,389.26	3,335.01	54.25	62.477		
6,500.00	6,066.96	5,580.87	5,517.35	39.34	25.58	176.30	1,178.49	-118.82	3,442.17	3,387.10	55.07	62.503		
6,600.00	6,159.15	5,665.73	5,601.08	39.99	25.97	176.29	1,192.04	-121.01	3,495.09	3,439.16	55.93	62.488		
6,700.00	6,251.33	5,750.58	5,684.82	40.63	26.36	176.29	1,205.59	-123.19	3,548.00	3,491.21	56.79	62.472		
6,800.00	6,343.52	5,835.43	5,768.55	41.28	26.76	176.29	1,219.15	-125.37	3,600.92	3,543.26	57.65	62.456		
6,900.00	6,435.71	5,920.28	5,852.29	41.92	27.15	176.29	1,232.70	-127.56	3,653.83	3,595.32	58.52	62.441		
7,000.00	6,527.86	6,005.13	5,936.01	42.56	27.54	167.39	1,246.25	-129.74	3,706.74	3,647.36	59.38	62.425		
7,100.00	6,618.85	6,089.20	6,018.98	43.19	27.93	143.59	1,259.68	-131.90	3,759.14	3,698.91	60.23	62.412		
7,200.00	6,706.47	6,170.55	6,099.26	43.76	28.31	125.54	1,272.67	-133.99	3,809.95	3,748.91	61.04	62.417		
7,300.00	6,788.56	6,247.17	6,174.86	44.26	28.67	112.48	1,284.91	-135.96	3,858.24	3,796.45	61.79	62.443		
7,400.00	6,863.10	6,317.17	6,243.94	44.70	28.99	102.98	1,296.09	-137.77	3,903.28	3,840.81	62.47	62.481		
7,500.00	6,928.26	6,378.83	6,304.79	45.07	29.28	95.94	1,305.94	-139.35	3,944.47	3,881.36	63.11	62.503		
7,600.00	6,982.42	6,430.63	6,355.92	45.39	29.52	90.66	1,314.21	-140.68	3,981.36	3,917.63	63.73	62.470		
7,700.00	7,024.26	6,471.30	6,396.05	45.67	29.71	86.70	1,320.71	-141.73	4,013.57	3,949.18	64.38	62.339		
7,800.00	7,052.75	6,500.16	6,424.21	45.92	29.84	83.78	1,325.26	-142.46	4,040.77	3,975.67	65.10	62.073		
7,900.00	7,067.18	6,515.54	6,439.70	46.16	29.92	81.74	1,327.77	-142.87	4,062.67	3,996.78	65.89	61.662		
8,000.00	7,068.85	7,771.30	7,138.22	46.42	39.03	90.98	1,413.44	-968.33	4,061.24	3,981.57	79.66	50.980		
8,100.00	7,068.56	7,871.26	7,137.78	46.78	40.60	90.98	1,409.99	-1,068.22	4,058.37	3,975.92	82.45	49.221		
8,200.00	7,068.26	7,971.22	7,137.35	47.29	42.30	90.98	1,406.53	-1,168.12	4,055.51	3,969.98	85.53	47.416		
8,300.00	7,067.96	8,071.18	7,136.92	48.03	44.12	90.98	1,403.07	-1,268.02	4,052.64	3,963.78	88.87	45.604		
8,400.00	7,067.66	8,171.14	7,136.48	49.02	46.04	90.98	1,399.61	-1,367.92	4,049.78	3,957.34	92.43	43.813		
8,500.00	7,067.37	8,271.10	7,136.05	50.27	48.06	90.98	1,396.15	-1,467.82	4,046.91	3,950.71	96.20	42.066		
8,600.00	7,067.07	8,371.05	7,135.62	51.75	50.15	90.98	1,392.69	-1,567.71	4,044.05	3,943.89	100.16	40.377		
8,700.00	7,066.77	8,471.01	7,135.18	53.42	52.32	90.98	1,389.23	-1,667.61	4,041.18	3,936.91	104.27	38.756		
8,800.00	7,066.47	8,570.97	7,134.75	55.24	54.55	90.97	1,385.77	-1,767.51	4,038.32	3,929.79	108.53	37.208		
8,900.00	7,066.18	8,670.93	7,134.32	57.18	56.84	90.97	1,382.31	-1,867.41	4,035.45	3,922.54	112.92	35.738		
9,000.00	7,065.88	8,770.89	7,133.88	59.21	59.17	90.97	1,378.86	-1,967.31	4,032.59	3,915.17	117.42	34.344		
9,100.00	7,065.58	8,870.85	7,133.45	61.33	61.55	90.97	1,375.40	-2,067.20	4,029.72	3,907.71	122.02	33.026		
9,200.00	7,065.28	8,970.81	7,133.02	63.51	63.96	90.97	1,371.94	-2,167.10	4,026.86	3,900.15	126.71	31.781		
9,300.00	7,064.99	9,070.77	7,132.58	65.76	66.41	90.97	1,368.48	-2,267.00	4,024.00	3,892.52	131.48	30.606		
9,400.00	7,064.69	9,170.73	7,132.15	68.06	68.89	90.97	1,365.02	-2,366.90	4,021.13	3,884.81	136.32	29.498		
9,500.00	7,064.39	9,270.68	7,131.71	70.40	71.40	90.97	1,361.56	-2,466.80	4,018.27	3,877.04	141.22	28.453		
9,600.00	7,064.09	9,370.64	7,131.28	72.78	73.94	90.96	1,358.10	-2,566.70	4,015.40	3,869.21	146.19	27.468		
9,700.00	7,063.80	9,470.60	7,130.85	75.20	76.49	90.96	1,354.64	-2,666.59	4,012.54	3,861.33	151.20	26.538		
9,800.00	7,063.50	9,570.56	7,130.41	77.65	79.07	90.96	1,351.18	-2,766.49	4,009.67	3,853.41	156.27	25.659		
9,900.00	7,063.20	9,670.52	7,129.98	80.13	81.66	90.96	1,347.72	-2,866.39	4,006.81	3,845.44	161.37	24.830		
10,000.00	7,062.90	9,770.48	7,129.55	82.64	84.27	90.96	1,344.27	-2,966.29	4,003.94	3,837.43	166.52	24.045		
10,100.00	7,062.61	9,870.44	7,129.11	85.17	86.89	90.96	1,340.81	-3,066.19	4,001.08	3,829.38	171.70	23.303		
10,200.00	7,062.31	9,970.40	7,128.68	87.72	89.53	90.96	1,337.35	-3,166.08	3,998.21	3,821.30	176.91	22.600		
10,300.00	7,062.01	10,070.36	7,128.25	90.28	92.18	90.96	1,333.89	-3,265.98	3,995.35	3,813.20	182.15	21.934		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	10,170.32	7,127.81	92.87	94.84	90.95	1,330.43	-3,365.88	3,992.48	3,805.06	187.42	21.302		
10,500.00	7,061.41	10,270.27	7,127.38	95.47	97.51	90.95	1,326.97	-3,465.78	3,989.62	3,796.91	192.71	20.702		
10,600.00	7,061.12	10,370.23	7,126.94	98.09	100.20	90.95	1,323.51	-3,565.68	3,986.76	3,788.73	198.03	20.132		
10,700.00	7,060.82	10,470.19	7,126.51	100.72	102.89	90.95	1,320.05	-3,665.57	3,983.89	3,780.52	203.37	19.590		
10,800.00	7,060.52	10,570.15	7,126.08	103.37	105.59	90.95	1,316.59	-3,765.47	3,981.03	3,772.30	208.72	19.073		
10,900.00	7,060.22	10,670.11	7,125.64	106.02	108.29	90.95	1,313.14	-3,865.37	3,978.16	3,764.06	214.10	18.581		
11,000.00	7,059.93	10,770.07	7,125.21	108.69	111.01	90.95	1,309.68	-3,965.27	3,975.30	3,755.81	219.49	18.111		
11,100.00	7,059.63	10,870.03	7,124.78	111.36	113.73	90.94	1,306.22	-4,065.17	3,972.43	3,747.53	224.90	17.663		
11,200.00	7,059.33	10,969.99	7,124.34	114.05	116.45	90.94	1,302.76	-4,165.06	3,969.57	3,739.25	230.32	17.235		
11,300.00	7,059.03	11,069.95	7,123.91	116.74	119.19	90.94	1,299.30	-4,264.96	3,966.70	3,730.95	235.75	16.826		
11,400.00	7,058.74	11,169.90	7,123.48	119.44	121.92	90.94	1,295.84	-4,364.86	3,963.84	3,722.64	241.20	16.434		
11,500.00	7,058.44	11,269.86	7,123.04	122.15	124.67	90.94	1,292.38	-4,464.76	3,960.97	3,714.31	246.66	16.058		
11,600.00	7,058.14	11,369.82	7,122.61	124.86	127.41	90.94	1,288.92	-4,564.66	3,958.11	3,705.98	252.13	15.699		
11,700.00	7,057.84	11,469.78	7,122.18	127.58	130.16	90.94	1,285.46	-4,664.56	3,955.24	3,697.63	257.61	15.354		
11,800.00	7,057.55	11,569.74	7,121.74	130.31	132.92	90.94	1,282.00	-4,764.45	3,952.38	3,689.28	263.10	15.022		
11,900.00	7,057.25	11,669.70	7,121.31	133.04	135.68	90.93	1,278.55	-4,864.35	3,949.52	3,680.92	268.60	14.704		
12,000.00	7,056.95	11,769.66	7,120.87	135.78	138.44	90.93	1,275.09	-4,964.25	3,946.65	3,672.55	274.10	14.398		
12,100.00	7,056.65	11,869.62	7,120.44	138.52	141.21	90.93	1,271.63	-5,064.15	3,943.79	3,664.17	279.62	14.104		
12,200.00	7,056.36	11,969.58	7,120.01	141.27	143.98	90.93	1,268.17	-5,164.05	3,940.92	3,655.78	285.14	13.821		
12,300.00	7,056.06	12,069.53	7,119.57	144.02	146.75	90.93	1,264.71	-5,263.94	3,938.06	3,647.39	290.67	13.548		
12,400.00	7,055.76	12,169.49	7,119.14	146.78	149.52	90.93	1,261.25	-5,363.84	3,935.19	3,638.99	296.21	13.285		
12,500.00	7,055.46	12,269.45	7,118.71	149.54	152.30	90.93	1,257.79	-5,463.74	3,932.33	3,630.58	301.75	13.032		
12,600.00	7,055.17	12,369.41	7,118.27	152.30	155.08	90.93	1,254.33	-5,563.64	3,929.46	3,622.17	307.30	12.787		
12,700.00	7,054.87	12,469.37	7,117.84	155.07	157.87	90.92	1,250.87	-5,663.54	3,926.60	3,613.75	312.85	12.551		
12,800.00	7,054.57	12,569.33	7,117.41	157.84	160.65	90.92	1,247.42	-5,763.43	3,923.73	3,605.32	318.41	12.323		
12,900.00	7,054.27	12,669.29	7,116.97	160.61	163.44	90.92	1,243.96	-5,863.33	3,920.87	3,596.90	323.97	12.102		
13,000.00	7,053.97	12,769.25	7,116.54	163.39	166.23	90.92	1,240.50	-5,963.23	3,918.01	3,588.46	329.54	11.889		
13,100.00	7,053.68	12,869.21	7,116.10	166.17	169.02	90.92	1,237.04	-6,063.13	3,915.14	3,580.02	335.12	11.683		
13,200.00	7,053.38	12,969.17	7,115.67	168.95	171.81	90.92	1,233.58	-6,163.03	3,912.28	3,571.58	340.69	11.483		
13,300.00	7,053.08	13,069.12	7,115.24	171.73	174.60	90.92	1,230.12	-6,262.93	3,909.41	3,563.14	346.28	11.290		
13,400.00	7,052.78	13,169.08	7,114.80	174.52	177.40	90.91	1,226.66	-6,362.82	3,906.55	3,554.68	351.86	11.102		
13,500.00	7,052.49	13,269.04	7,114.37	177.31	180.20	90.91	1,223.20	-6,462.72	3,903.68	3,546.23	357.45	10.921		
13,600.00	7,052.19	13,369.00	7,113.94	180.10	183.00	90.91	1,219.74	-6,562.62	3,900.82	3,537.77	363.05	10.745		
13,700.00	7,051.89	13,468.96	7,113.50	182.90	185.80	90.91	1,216.28	-6,662.52	3,897.95	3,529.31	368.64	10.574		
13,800.00	7,051.59	13,568.92	7,113.07	185.69	188.60	90.91	1,212.83	-6,762.42	3,895.09	3,520.85	374.24	10.408		
13,900.00	7,051.30	13,668.88	7,112.64	188.49	191.41	90.91	1,209.37	-6,862.31	3,892.22	3,512.38	379.84	10.247		
14,000.00	7,051.00	13,768.84	7,112.20	191.29	194.21	90.91	1,205.91	-6,962.21	3,889.36	3,503.91	385.45	10.090		
14,100.00	7,050.70	13,868.80	7,111.77	194.09	197.02	90.91	1,202.45	-7,062.11	3,886.50	3,495.44	391.06	9.938		
14,200.00	7,050.40	13,968.75	7,111.34	196.89	199.82	90.90	1,198.99	-7,162.01	3,883.63	3,486.96	396.67	9.791		
14,300.00	7,050.11	14,068.71	7,110.90	199.70	202.63	90.90	1,195.53	-7,261.91	3,880.77	3,478.48	402.29	9.647		
14,400.00	7,049.81	14,168.67	7,110.47	202.50	205.44	90.90	1,192.07	-7,361.80	3,877.90	3,470.00	407.90	9.507		
14,500.00	7,049.51	14,268.63	7,110.03	205.31	208.25	90.90	1,188.61	-7,461.70	3,875.04	3,461.52	413.52	9.371		
14,600.00	7,049.21	14,368.59	7,109.60	208.12	211.06	90.90	1,185.15	-7,561.60	3,872.17	3,453.03	419.14	9.238		
14,700.00	7,048.92	14,468.55	7,109.17	210.93	213.88	90.90	1,181.70	-7,661.50	3,869.31	3,444.54	424.77	9.109		
14,800.00	7,048.62	14,568.51	7,108.73	213.74	216.69	90.90	1,178.24	-7,761.40	3,866.44	3,436.05	430.39	8.984		
14,900.00	7,048.32	14,668.47	7,108.30	216.55	219.50	90.89	1,174.78	-7,861.30	3,863.58	3,427.56	436.02	8.861		
15,000.00	7,048.02	14,768.43	7,107.87	219.37	222.32	90.89	1,171.32	-7,961.19	3,860.71	3,419.07	441.65	8.742		
15,100.00	7,047.73	14,868.38	7,107.43	222.18	225.14	90.89	1,167.86	-8,061.09	3,857.85	3,410.57	447.28	8.625		
15,200.00	7,047.43	14,968.34	7,107.00	225.00	227.95	90.89	1,164.40	-8,160.99	3,854.99	3,402.07	452.91	8.512		
15,300.00	7,047.13	14,969.16	7,107.00	227.81	227.97	90.89	1,164.37	-8,161.81	3,853.40	3,397.73	455.67	8.457		
15,311.24	7,047.10	14,969.16	7,107.00	228.13	227.97	90.89	1,164.37	-8,161.81	3,853.38	3,397.42	455.96	8.451		
15,343.67	7,047.00	14,969.16	7,107.00	229.04	227.97	90.89	1,164.37	-8,161.81	3,853.52	3,396.75	456.77	8.436 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.48	299.83	2.50	299.84					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	299.83	2.50	299.84	293.27	6.57	45.638		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	299.83	2.50	299.84	293.16	6.68	44.915	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.08	299.83	2.50	301.58	294.69	6.89	43.786		
400.00	399.84	402.01	400.01	3.59	3.61	177.13	299.83	2.50	306.81	299.61	7.20	42.618		
500.00	499.45	511.10	509.07	3.79	3.82	176.97	298.13	1.17	313.95	306.34	7.62	41.225		
600.00	598.70	611.01	608.90	4.03	4.05	176.63	294.99	-1.31	322.98	314.89	8.09	39.946		
700.00	697.47	710.21	708.02	4.31	4.31	176.35	291.86	-3.77	335.47	326.85	8.62	38.908		
800.00	795.62	808.91	806.65	4.64	4.59	176.12	288.74	-6.22	351.42	342.20	9.22	38.131		
900.00	893.06	907.01	904.66	5.00	4.90	175.95	285.65	-8.65	370.80	360.94	9.86	37.615		
1,000.00	989.64	1,004.37	1,001.95	5.40	5.22	175.81	282.58	-11.07	393.58	383.04	10.54	37.347		
1,100.00	1,085.27	1,100.88	1,098.38	5.83	5.55	175.72	279.54	-13.46	419.74	408.49	11.25	37.305		
1,200.00	1,179.82	1,203.57	1,193.85	6.29	5.92	175.67	276.52	-15.84	449.24	437.22	12.02	37.383		
1,300.00	1,273.17	1,290.89	1,288.23	6.79	6.24	175.64	273.54	-18.18	482.05	469.29	12.75	37.798		
1,400.00	1,365.46	1,384.38	1,381.64	7.32	6.60	175.66	270.60	-20.50	517.54	504.01	13.53	38.246		
1,500.00	1,457.65	1,477.76	1,474.96	7.87	6.96	175.71	267.65	-22.82	553.29	538.98	14.32	38.644		
1,600.00	1,549.83	1,571.15	1,568.27	8.43	7.32	175.74	264.70	-25.14	589.05	573.93	15.12	38.957		
1,700.00	1,642.02	1,664.54	1,661.59	9.01	7.69	175.78	261.76	-27.45	624.80	608.86	15.94	39.205		
1,800.00	1,734.21	1,757.93	1,754.90	9.59	8.06	175.81	258.81	-29.77	660.56	643.79	16.77	39.399		
1,900.00	1,826.39	1,851.32	1,848.21	10.18	8.44	175.83	255.87	-32.09	696.31	678.71	17.60	39.553		
2,000.00	1,918.58	1,944.71	1,941.53	10.78	8.82	175.86	252.92	-34.41	732.06	713.61	18.45	39.673		
2,100.00	2,010.77	2,038.10	2,034.84	11.39	9.21	175.88	249.98	-36.72	767.82	748.51	19.31	39.767		
2,200.00	2,102.95	2,131.49	2,128.16	11.99	9.59	175.90	247.03	-39.04	803.57	783.40	20.17	39.840		
2,300.00	2,195.14	2,224.88	2,221.47	12.61	9.98	175.92	244.09	-41.36	839.33	818.29	21.04	39.895		
2,400.00	2,287.32	2,318.27	2,314.78	13.22	10.37	175.93	241.14	-43.68	875.08	853.17	21.91	39.937		
2,500.00	2,379.51	2,411.66	2,408.10	13.84	10.76	175.95	238.20	-45.99	910.84	888.05	22.79	39.968		
2,600.00	2,471.70	2,505.05	2,501.41	14.46	11.16	175.96	235.25	-48.31	946.59	922.92	23.67	39.989		
2,700.00	2,563.88	2,601.57	2,594.73	15.08	11.57	175.98	232.31	-50.63	982.35	957.78	24.57	39.982		
2,800.00	2,656.07	2,708.18	2,688.04	15.71	12.02	175.99	229.36	-52.95	1,018.10	992.59	25.51	39.903		
2,900.00	2,748.26	2,785.21	2,781.35	16.33	12.35	176.00	226.42	-55.27	1,053.86	1,027.52	26.34	40.015		
3,000.00	2,840.44	2,878.60	2,874.67	16.96	12.75	176.01	223.47	-57.58	1,089.61	1,062.38	27.23	40.014		
3,100.00	2,932.63	2,971.99	2,967.98	17.59	13.15	176.02	220.53	-59.90	1,125.37	1,097.24	28.13	40.009		
3,200.00	3,024.81	3,065.38	3,061.30	18.22	13.55	176.03	217.58	-62.22	1,161.12	1,132.10	29.03	40.002		
3,300.00	3,117.00	3,158.77	3,154.61	18.86	13.95	176.04	214.63	-64.54	1,196.88	1,166.95	29.93	39.993		
3,400.00	3,209.19	3,252.16	3,247.92	19.49	14.35	176.05	211.69	-66.85	1,232.63	1,201.81	30.83	39.982		
3,500.00	3,301.37	3,345.55	3,341.24	20.12	14.75	176.06	208.74	-69.17	1,268.39	1,236.66	31.73	39.970		
3,600.00	3,393.56	3,438.94	3,434.55	20.76	15.16	176.06	205.80	-71.49	1,304.15	1,271.51	32.64	39.957		
3,700.00	3,485.75	3,532.33	3,527.86	21.39	15.56	176.07	202.85	-73.81	1,339.90	1,306.35	33.55	39.942		
3,800.00	3,577.93	3,625.72	3,621.18	22.03	15.96	176.08	199.91	-76.13	1,375.66	1,341.20	34.45	39.927		
3,900.00	3,670.12	3,719.10	3,714.49	22.67	16.37	176.08	196.96	-78.44	1,411.41	1,376.05	35.36	39.911		
4,000.00	3,762.30	3,812.49	3,807.81	23.30	16.77	176.09	194.02	-80.76	1,447.17	1,410.89	36.27	39.895		
4,100.00	3,854.49	3,905.88	3,901.12	23.94	17.18	176.10	191.07	-83.08	1,482.92	1,445.74	37.19	39.879		
4,200.00	3,946.68	4,000.73	3,994.43	24.58	17.59	176.10	188.13	-85.40	1,518.68	1,480.57	38.10	39.856		
4,300.00	4,038.86	4,107.34	4,087.75	25.22	18.05	176.11	185.18	-87.71	1,554.43	1,515.36	39.08	39.781		
4,400.00	4,131.05	4,186.05	4,181.06	25.86	18.40	176.11	182.24	-90.03	1,590.19	1,550.26	39.93	39.829		
4,500.00	4,223.24	4,279.44	4,274.38	26.50	18.80	176.12	179.29	-92.35	1,625.94	1,585.10	40.84	39.812		
4,600.00	4,315.42	4,372.83	4,367.69	27.14	19.21	176.12	176.35	-94.67	1,661.70	1,619.94	41.76	39.795		
4,700.00	4,407.61	4,466.22	4,461.00	27.78	19.62	176.13	173.40	-96.98	1,697.45	1,654.78	42.67	39.778		
4,800.00	4,499.79	4,559.61	4,554.32	28.42	20.03	176.13	170.46	-99.30	1,733.21	1,689.62	43.59	39.762		
4,900.00	4,591.98	4,653.00	4,647.63	29.06	20.43	176.13	167.51	-101.62	1,768.97	1,724.46	44.51	39.745		
5,000.00	4,684.17	4,746.39	4,740.95	29.70	20.84	176.14	164.56	-103.94	1,804.72	1,759.29	45.43	39.729		
5,100.00	4,776.35	4,839.77	4,834.26	30.34	21.25	176.14	161.62	-106.26	1,840.48	1,794.13	46.34	39.713		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,933.16	4,927.57	30.98	21.66	176.14	158.67	-108.57	1,876.23	1,828.97	47.26	39.697		
5,300.00	4,960.73	5,026.55	5,020.89	31.63	22.07	176.15	155.73	-110.89	1,911.99	1,863.80	48.18	39.681		
5,400.00	5,052.91	5,119.94	5,114.20	32.27	22.48	176.15	152.78	-113.21	1,947.74	1,898.64	49.10	39.666		
5,500.00	5,145.10	5,213.33	5,207.52	32.91	22.89	176.15	149.84	-115.53	1,983.50	1,933.47	50.02	39.651		
5,600.00	5,237.28	5,306.72	5,300.83	33.55	23.30	176.16	146.89	-117.84	2,019.25	1,968.31	50.95	39.635		
5,700.00	5,329.47	5,400.11	5,394.14	34.20	23.71	176.16	143.95	-120.16	2,055.01	2,003.14	51.87	39.621		
5,800.00	5,421.66	5,506.50	5,487.46	34.84	24.17	176.16	141.00	-122.48	2,090.76	2,037.92	52.85	39.563		
5,900.00	5,513.84	5,586.89	5,580.77	35.48	24.53	176.17	138.06	-124.80	2,126.52	2,072.81	53.71	39.592		
6,000.00	5,606.03	5,680.28	5,674.09	36.13	24.94	176.17	135.11	-127.11	2,162.28	2,107.64	54.63	39.577		
6,100.00	5,698.22	5,773.67	5,767.40	36.77	25.35	176.17	132.17	-129.43	2,198.03	2,142.47	55.56	39.563		
6,200.00	5,790.40	5,867.06	5,860.71	37.41	25.76	176.17	129.22	-131.75	2,233.79	2,177.31	56.48	39.550		
6,300.00	5,882.59	5,960.44	5,954.03	38.06	26.17	176.18	126.28	-134.07	2,269.54	2,212.14	57.40	39.536		
6,400.00	5,974.77	6,053.83	6,047.34	38.70	26.58	176.18	123.33	-136.39	2,305.30	2,246.97	58.33	39.523		
6,500.00	6,066.96	6,147.22	6,140.65	39.34	26.99	176.18	120.39	-138.70	2,341.05	2,281.80	59.25	39.510		
6,600.00	6,159.15	6,240.61	6,233.97	39.99	27.40	176.18	117.44	-141.02	2,376.81	2,316.63	60.18	39.497		
6,700.00	6,251.33	6,334.00	6,327.28	40.63	27.81	176.19	114.49	-143.34	2,412.56	2,351.46	61.10	39.484		
6,800.00	6,343.52	6,427.39	6,420.60	41.28	28.22	176.19	111.55	-145.66	2,448.32	2,386.29	62.03	39.471		
6,900.00	6,435.71	6,521.46	6,514.30	41.92	28.63	176.08	108.56	-152.52	2,484.06	2,421.10	62.96	39.455		
7,000.00	6,527.86	6,612.82	6,603.41	42.56	29.03	167.49	105.65	-172.09	2,519.83	2,455.97	63.86	39.457		
7,100.00	6,618.85	6,701.67	6,686.52	43.19	29.42	145.17	102.84	-203.16	2,555.29	2,490.56	64.73	39.478		
7,200.00	6,706.47	6,789.23	6,763.42	43.76	29.78	128.31	100.17	-244.80	2,589.52	2,523.97	65.55	39.503		
7,300.00	6,788.56	6,876.05	6,833.32	44.26	30.15	116.18	97.66	-296.13	2,621.66	2,555.30	66.35	39.510		
7,400.00	6,863.10	6,962.55	6,895.38	44.70	30.56	107.41	95.35	-356.25	2,650.87	2,583.70	67.17	39.466		
7,500.00	6,928.26	7,049.02	6,948.70	45.07	31.04	101.00	93.26	-424.19	2,676.44	2,608.38	68.06	39.327		
7,600.00	6,982.42	7,135.61	6,992.40	45.39	31.64	96.34	91.43	-498.86	2,697.72	2,628.62	69.10	39.041		
7,700.00	7,024.26	7,222.40	7,025.63	45.67	32.37	93.07	89.89	-578.94	2,714.19	2,643.83	70.37	38.572		
7,800.00	7,052.75	7,309.34	7,047.70	45.92	33.23	90.98	88.68	-662.95	2,725.47	2,653.56	71.91	37.902		
7,900.00	7,067.18	7,396.32	7,058.14	46.16	34.22	89.93	87.83	-749.24	2,731.26	2,657.52	73.74	37.041		
8,000.00	7,068.85	7,509.07	7,058.74	46.42	35.69	89.79	87.23	-843.82	2,732.05	2,655.83	76.22	35.845		
8,100.00	7,068.56	7,609.07	7,058.31	46.78	37.17	89.79	86.63	-943.82	2,732.05	2,653.15	78.90	34.627		
8,200.00	7,068.26	7,709.07	7,057.87	47.29	38.80	89.78	86.03	-1,043.82	2,732.05	2,650.16	81.89	33.362		
8,300.00	7,067.96	7,809.07	7,057.44	48.03	40.57	89.78	85.43	-1,143.82	2,732.05	2,646.89	85.16	32.081		
8,400.00	7,067.66	7,909.07	7,057.01	49.02	42.46	89.78	84.83	-1,243.81	2,732.05	2,643.37	88.68	30.808		
8,500.00	7,067.37	8,009.07	7,056.57	50.27	44.46	89.77	84.24	-1,343.81	2,732.05	2,639.64	92.41	29.563		
8,600.00	7,067.07	8,109.07	7,056.14	51.75	46.54	89.77	83.64	-1,443.81	2,732.05	2,635.71	96.34	28.357		
8,700.00	7,066.77	8,209.07	7,055.70	53.42	48.70	89.77	83.04	-1,543.81	2,732.05	2,631.61	100.44	27.200		
8,800.00	7,066.47	8,309.07	7,055.27	55.24	50.94	89.77	82.44	-1,643.80	2,732.05	2,627.35	104.70	26.095		
8,900.00	7,066.18	8,409.07	7,054.84	57.18	53.23	89.76	81.84	-1,743.80	2,732.05	2,622.97	109.08	25.046		
9,000.00	7,065.88	8,509.07	7,054.40	59.21	55.57	89.76	81.24	-1,843.80	2,732.05	2,618.47	113.58	24.053		
9,100.00	7,065.58	8,609.07	7,053.97	61.33	57.96	89.76	80.64	-1,943.79	2,732.05	2,613.86	118.19	23.116		
9,200.00	7,065.28	8,709.07	7,053.53	63.51	60.39	89.75	80.04	-2,043.79	2,732.05	2,609.16	122.89	22.232		
9,300.00	7,064.99	8,809.07	7,053.10	65.76	62.86	89.75	79.44	-2,143.79	2,732.05	2,604.38	127.67	21.399		
9,400.00	7,064.69	8,909.07	7,052.67	68.06	65.36	89.75	78.85	-2,243.79	2,732.05	2,599.52	132.53	20.615		
9,500.00	7,064.39	9,009.07	7,052.23	70.40	67.89	89.74	78.25	-2,343.78	2,732.05	2,594.60	137.45	19.877		
9,600.00	7,064.09	9,109.07	7,051.80	72.78	70.44	89.74	77.65	-2,443.78	2,732.05	2,589.62	142.43	19.181		
9,700.00	7,063.80	9,209.07	7,051.36	75.20	73.02	89.74	77.05	-2,543.78	2,732.05	2,584.58	147.47	18.526		
9,800.00	7,063.50	9,309.07	7,050.93	77.65	75.61	89.74	76.45	-2,643.77	2,732.05	2,579.50	152.55	17.909		
9,900.00	7,063.20	9,409.07	7,050.50	80.13	78.23	89.73	75.85	-2,743.77	2,732.05	2,574.37	157.68	17.327		
10,000.00	7,062.90	9,509.07	7,050.06	82.64	80.86	89.73	75.25	-2,843.77	2,732.05	2,569.21	162.84	16.777		
10,100.00	7,062.61	9,609.07	7,049.63	85.17	83.50	89.73	74.65	-2,943.77	2,732.05	2,564.00	168.04	16.258		
10,200.00	7,062.31	9,709.07	7,049.19	87.72	86.16	89.72	74.06	-3,043.76	2,732.05	2,558.77	173.28	15.767		
10,300.00	7,062.01	9,809.07	7,048.76	90.28	88.84	89.72	73.46	-3,143.76	2,732.05	2,553.51	178.54	15.302		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	9,909.07	7,048.33	92.87	91.52	89.72	72.86	-3,243.76	2,732.05	2,548.22	183.83	14.862		
10,500.00	7,061.41	10,009.07	7,047.89	95.47	94.21	89.72	72.26	-3,343.75	2,732.05	2,542.90	189.14	14.444		
10,600.00	7,061.12	10,109.08	7,047.46	98.09	96.92	89.71	71.66	-3,443.75	2,732.05	2,537.57	194.48	14.048		
10,700.00	7,060.82	10,209.08	7,047.02	100.72	99.63	89.71	71.06	-3,543.75	2,732.05	2,532.21	199.84	13.671		
10,800.00	7,060.52	10,309.08	7,046.59	103.37	102.35	89.71	70.46	-3,643.75	2,732.05	2,526.83	205.22	13.313		
10,900.00	7,060.22	10,409.08	7,046.16	106.02	105.07	89.70	69.86	-3,743.74	2,732.05	2,521.43	210.61	12.972		
11,000.00	7,059.93	10,509.08	7,045.72	108.69	107.81	89.70	69.27	-3,843.74	2,732.05	2,516.02	216.03	12.647		
11,100.00	7,059.63	10,609.08	7,045.29	111.36	110.55	89.70	68.67	-3,943.74	2,732.05	2,510.59	221.45	12.337		
11,200.00	7,059.33	10,709.08	7,044.85	114.05	113.30	89.70	68.07	-4,043.73	2,732.05	2,505.15	226.89	12.041		
11,300.00	7,059.03	10,809.08	7,044.42	116.74	116.05	89.69	67.47	-4,143.73	2,732.04	2,499.69	232.35	11.758		
11,400.00	7,058.74	10,909.08	7,043.99	119.44	118.80	89.69	66.87	-4,243.73	2,732.04	2,494.23	237.82	11.488		
11,500.00	7,058.44	11,009.08	7,043.55	122.15	121.56	89.69	66.27	-4,343.73	2,732.04	2,488.75	243.30	11.229		
11,600.00	7,058.14	11,109.08	7,043.12	124.86	124.33	89.68	65.67	-4,443.72	2,732.04	2,483.26	248.79	10.982		
11,700.00	7,057.84	11,209.08	7,042.68	127.58	127.10	89.68	65.07	-4,543.72	2,732.04	2,477.76	254.29	10.744		
11,800.00	7,057.55	11,309.08	7,042.25	130.31	129.87	89.68	64.48	-4,643.72	2,732.04	2,472.25	259.79	10.516		
11,900.00	7,057.25	11,409.08	7,041.82	133.04	132.65	89.68	63.88	-4,743.71	2,732.04	2,466.73	265.31	10.297		
12,000.00	7,056.95	11,509.08	7,041.38	135.78	135.43	89.67	63.28	-4,843.71	2,732.04	2,461.21	270.84	10.087		
12,100.00	7,056.65	11,609.08	7,040.95	138.52	138.22	89.67	62.68	-4,943.71	2,732.04	2,455.67	276.37	9.885		
12,200.00	7,056.36	11,709.08	7,040.51	141.27	141.00	89.67	62.08	-5,043.71	2,732.04	2,450.13	281.91	9.691		
12,300.00	7,056.06	11,809.08	7,040.08	144.02	143.79	89.66	61.48	-5,143.70	2,732.04	2,444.58	287.46	9.504		
12,400.00	7,055.76	11,909.08	7,039.65	146.78	146.59	89.66	60.88	-5,243.70	2,732.04	2,439.03	293.02	9.324		
12,500.00	7,055.46	12,009.08	7,039.21	149.54	149.38	89.66	60.28	-5,343.70	2,732.04	2,433.47	298.58	9.150		
12,600.00	7,055.17	12,109.08	7,038.78	152.30	152.18	89.66	59.69	-5,443.69	2,732.04	2,427.90	304.14	8.983		
12,700.00	7,054.87	12,209.08	7,038.34	155.07	154.98	89.65	59.09	-5,543.69	2,732.04	2,422.33	309.71	8.821		
12,800.00	7,054.57	12,309.08	7,037.91	157.84	157.78	89.65	58.49	-5,643.69	2,732.04	2,416.75	315.29	8.665		
12,900.00	7,054.27	12,409.08	7,037.48	160.61	160.58	89.65	57.89	-5,743.69	2,732.04	2,411.17	320.87	8.514		
13,000.00	7,053.97	12,509.08	7,037.04	163.39	163.39	89.64	57.29	-5,843.68	2,732.04	2,405.58	326.46	8.369		
13,012.57	7,053.94	12,503.49	7,036.99	163.74	163.23	89.64	57.22	-5,856.25	2,732.04	2,405.39	326.65	8.364		
13,100.00	7,053.68	12,609.08	7,036.61	166.17	166.20	89.64	56.69	-5,943.68	2,732.04	2,399.99	332.05	8.228		
13,200.00	7,053.38	12,709.08	7,036.17	168.95	169.01	89.64	56.09	-6,043.68	2,732.04	2,394.40	337.65	8.091		
13,300.00	7,053.08	12,809.08	7,035.74	171.73	171.82	89.64	55.49	-6,143.68	2,732.04	2,388.80	343.25	7.959		
13,400.00	7,052.78	12,909.08	7,035.31	174.52	174.63	89.63	54.90	-6,243.67	2,732.04	2,383.19	348.85	7.832		
13,500.00	7,052.49	13,009.08	7,034.87	177.31	177.44	89.63	54.30	-6,343.67	2,732.04	2,377.59	354.46	7.708		
13,600.00	7,052.19	13,109.08	7,034.44	180.10	180.26	89.63	53.70	-6,443.67	2,732.04	2,371.98	360.07	7.588		
13,700.00	7,051.89	13,209.08	7,034.00	182.90	183.07	89.62	53.10	-6,543.66	2,732.04	2,366.36	365.68	7.471		
13,800.00	7,051.59	13,309.08	7,033.57	185.69	185.89	89.62	52.50	-6,643.66	2,732.04	2,360.75	371.30	7.358		
13,900.00	7,051.30	13,409.08	7,033.14	188.49	188.71	89.62	51.90	-6,743.66	2,732.04	2,355.13	376.92	7.248		
14,000.00	7,051.00	13,509.08	7,032.70	191.29	191.53	89.62	51.30	-6,843.66	2,732.04	2,349.51	382.54	7.142		
14,100.00	7,050.70	13,609.08	7,032.27	194.09	194.35	89.61	50.70	-6,943.65	2,732.04	2,343.88	388.16	7.038		
14,200.00	7,050.40	13,709.08	7,031.83	196.89	197.18	89.61	50.11	-7,043.65	2,732.04	2,338.25	393.79	6.938		
14,300.00	7,050.11	13,809.08	7,031.40	199.70	200.00	89.61	49.51	-7,143.65	2,732.04	2,332.62	399.42	6.840		
14,400.00	7,049.81	13,909.08	7,030.97	202.50	202.82	89.60	48.91	-7,243.64	2,732.04	2,326.99	405.06	6.745		
14,500.00	7,049.51	14,009.08	7,030.53	205.31	205.65	89.60	48.31	-7,343.64	2,732.04	2,321.35	410.69	6.652		
14,600.00	7,049.21	14,109.08	7,030.10	208.12	208.48	89.60	47.71	-7,443.64	2,732.04	2,315.72	416.33	6.562		
14,700.00	7,048.92	14,209.08	7,029.66	210.93	211.30	89.60	47.11	-7,543.64	2,732.04	2,310.08	421.97	6.475		
14,800.00	7,048.62	14,309.08	7,029.23	213.74	214.13	89.59	46.51	-7,643.63	2,732.05	2,304.43	427.61	6.389		
14,900.00	7,048.32	14,409.08	7,028.80	216.55	216.96	89.59	45.91	-7,743.63	2,732.05	2,298.79	433.25	6.306		
15,000.00	7,048.02	14,509.08	7,028.36	219.37	219.79	89.59	45.32	-7,843.63	2,732.05	2,293.15	438.90	6.225		
15,100.00	7,047.73	14,609.08	7,027.93	222.18	222.62	89.58	44.72	-7,943.62	2,732.05	2,287.50	444.55	6.146		
15,200.00	7,047.43	14,709.08	7,027.49	225.00	225.45	89.58	44.12	-8,043.62	2,732.05	2,281.85	450.20	6.069		
15,300.00	7,047.13	14,790.92	7,027.06	227.81	227.77	89.58	43.52	-8,143.62	2,732.05	2,276.71	455.33	6.000		
15,343.67	7,047.00	14,805.04	7,027.00	229.04	228.17	89.58	43.43	-8,157.74	2,732.21	2,275.37	456.83	5.981 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	2.00	0.00	3.28	3.28	0.45	319.86	2.50	319.87					
100.00	100.00	102.00	100.00	3.28	3.29	0.45	319.86	2.50	319.87	313.30	6.57	48.687		
200.00	200.00	202.00	200.00	3.34	3.34	0.45	319.86	2.50	319.87	313.19	6.68	47.916	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	177.05	319.86	2.50	321.61	314.73	6.89	46.694		
400.00	399.84	401.84	399.84	3.59	3.61	177.09	319.86	2.50	326.84	319.64	7.20	45.401		
500.00	499.45	501.45	499.45	3.79	3.81	177.16	319.86	2.50	335.54	327.94	7.60	44.141		
600.00	598.70	600.78	598.77	4.03	4.04	176.98	319.86	0.88	347.70	339.62	8.08	43.056		
700.00	697.47	700.46	697.49	4.31	4.30	176.70	319.86	-1.59	363.31	354.69	8.61	42.173		
800.00	795.62	802.31	795.62	4.64	4.60	176.47	319.86	-4.04	382.35	373.13	9.22	41.478		
900.00	893.06	904.87	893.02	5.00	4.92	176.28	319.86	-6.48	404.81	394.93	9.87	41.000		
1,000.00	989.64	1,008.28	989.59	5.40	5.26	176.14	319.86	-8.89	430.65	420.07	10.57	40.729		
1,100.00	1,085.27	1,087.36	1,085.20	5.83	5.53	176.03	319.86	-11.28	459.83	448.61	11.22	40.970		
1,200.00	1,179.82	1,181.93	1,179.73	6.29	5.87	175.96	319.86	-13.64	492.33	480.38	11.96	41.182		
1,300.00	1,273.17	1,275.31	1,273.08	6.79	6.21	175.91	319.86	-15.98	528.11	515.40	12.71	41.560		
1,400.00	1,365.46	1,367.63	1,365.37	7.32	6.56	175.91	319.86	-18.28	566.53	553.06	13.47	42.043		
1,500.00	1,457.65	1,459.84	1,457.56	7.87	6.91	175.93	319.86	-20.59	605.21	590.96	14.25	42.476		
1,600.00	1,549.83	1,552.06	1,549.75	8.43	7.27	175.96	319.86	-22.89	643.90	628.86	15.04	42.816		
1,700.00	1,642.02	1,644.27	1,641.93	9.01	7.63	175.98	319.86	-25.19	682.58	666.74	15.84	43.084		
1,800.00	1,734.21	1,736.49	1,734.12	9.59	8.00	175.99	319.86	-27.50	721.26	704.60	16.66	43.295		
1,900.00	1,826.39	1,828.70	1,826.30	10.18	8.37	176.01	319.86	-29.80	759.94	742.46	17.49	43.461		
2,000.00	1,918.58	1,920.92	1,918.49	10.78	8.74	176.02	319.86	-32.11	798.63	780.31	18.32	43.591		
2,100.00	2,010.77	2,013.13	2,010.68	11.39	9.12	176.04	319.86	-34.41	837.31	818.14	19.16	43.692		
2,200.00	2,102.95	2,105.35	2,102.86	11.99	9.50	176.05	319.86	-36.72	875.99	855.98	20.01	43.770		
2,300.00	2,195.14	2,202.44	2,195.05	12.61	9.90	176.06	319.86	-39.02	914.67	893.78	20.89	43.787		
2,400.00	2,287.32	2,289.78	2,287.24	13.22	10.26	176.07	319.86	-41.32	953.36	931.63	21.73	43.873		
2,500.00	2,379.51	2,381.99	2,379.42	13.84	10.65	176.08	319.86	-43.63	992.04	969.44	22.60	43.905		
2,600.00	2,471.70	2,474.21	2,471.61	14.46	11.03	176.09	319.86	-45.93	1,030.72	1,007.26	23.46	43.927		
2,700.00	2,563.88	2,566.42	2,563.79	15.08	11.42	176.09	319.86	-48.24	1,069.41	1,045.07	24.34	43.940		
2,800.00	2,656.07	2,658.64	2,655.98	15.71	11.81	176.10	319.86	-50.54	1,108.09	1,082.87	25.21	43.948		
2,900.00	2,748.26	2,750.85	2,748.17	16.33	12.20	176.11	319.86	-52.84	1,146.77	1,120.68	26.09	43.949		
3,000.00	2,840.44	2,843.07	2,840.35	16.96	12.59	176.11	319.86	-55.15	1,185.45	1,158.48	26.97	43.947		
3,100.00	2,932.63	2,935.28	2,932.54	17.59	12.98	176.12	319.86	-57.45	1,224.14	1,196.28	27.86	43.940		
3,200.00	3,024.81	3,027.50	3,024.73	18.22	13.37	176.13	319.86	-59.76	1,262.82	1,234.08	28.75	43.931		
3,300.00	3,117.00	3,119.71	3,116.91	18.86	13.77	176.13	319.86	-62.06	1,301.50	1,271.87	29.63	43.920		
3,400.00	3,209.19	3,211.93	3,209.10	19.49	14.16	176.14	319.86	-64.37	1,340.19	1,309.66	30.52	43.906		
3,500.00	3,301.37	3,304.14	3,301.28	20.12	14.56	176.14	319.86	-66.67	1,378.87	1,347.45	31.42	43.891		
3,600.00	3,393.56	3,403.64	3,393.47	20.76	14.98	176.15	319.86	-68.97	1,417.55	1,385.21	32.34	43.833		
3,700.00	3,485.75	3,488.57	3,485.66	21.39	15.35	176.15	319.86	-71.28	1,456.24	1,423.03	33.20	43.858		
3,800.00	3,577.93	3,580.79	3,577.84	22.03	15.74	176.15	319.86	-73.58	1,494.92	1,460.82	34.10	43.840		
3,900.00	3,670.12	3,673.00	3,670.03	22.67	16.14	176.16	319.86	-75.89	1,533.60	1,498.60	35.00	43.821		
4,000.00	3,762.30	3,765.22	3,762.22	23.30	16.54	176.16	319.86	-78.19	1,572.28	1,536.39	35.89	43.803		
4,100.00	3,854.49	3,857.44	3,854.40	23.94	16.94	176.16	319.86	-80.49	1,610.97	1,574.17	36.79	43.783		
4,200.00	3,946.68	3,949.65	3,946.59	24.58	17.33	176.17	319.86	-82.80	1,649.65	1,611.96	37.69	43.764		
4,300.00	4,038.86	4,041.87	4,038.77	25.22	17.73	176.17	319.86	-85.10	1,688.33	1,649.74	38.60	43.744		
4,400.00	4,131.05	4,134.08	4,130.96	25.86	18.13	176.17	319.86	-87.41	1,727.02	1,687.52	39.50	43.725		
4,500.00	4,223.24	4,226.30	4,223.15	26.50	18.53	176.18	319.86	-89.71	1,765.70	1,725.30	40.40	43.705		
4,600.00	4,315.42	4,318.51	4,315.33	27.14	18.93	176.18	319.86	-92.02	1,804.38	1,763.08	41.30	43.686		
4,700.00	4,407.61	4,410.73	4,407.52	27.78	19.33	176.18	319.86	-94.32	1,843.07	1,800.86	42.21	43.666		
4,800.00	4,499.79	4,502.94	4,499.71	28.42	19.73	176.18	319.86	-96.62	1,881.75	1,838.64	43.11	43.647		
4,900.00	4,591.98	4,604.84	4,591.89	29.06	20.17	176.19	319.86	-98.93	1,920.43	1,876.37	44.06	43.586		
5,000.00	4,684.17	4,687.37	4,684.08	29.70	20.53	176.19	319.86	-101.23	1,959.11	1,914.19	44.92	43.609		
5,100.00	4,776.35	4,779.59	4,776.26	30.34	20.93	176.19	319.86	-103.54	1,997.80	1,951.97	45.83	43.590		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,871.80	4,868.45	30.98	21.33	176.19	319.86	-105.84	2,036.48	1,989.74	46.74	43.572		
5,300.00	4,960.73	4,964.02	4,960.64	31.63	21.73	176.20	319.86	-108.14	2,075.16	2,027.52	47.65	43.554		
5,400.00	5,052.91	5,056.23	5,052.82	32.27	22.13	176.20	319.86	-110.45	2,113.85	2,065.29	48.55	43.536		
5,500.00	5,145.10	5,148.45	5,145.01	32.91	22.54	176.20	319.86	-112.75	2,152.53	2,103.07	49.46	43.518		
5,600.00	5,237.28	5,240.66	5,237.20	33.55	22.94	176.20	319.86	-115.06	2,191.21	2,140.84	50.37	43.501		
5,700.00	5,329.47	5,332.88	5,329.38	34.20	23.34	176.20	319.86	-117.36	2,229.90	2,178.61	51.28	43.484		
5,800.00	5,421.66	5,425.09	5,421.57	34.84	23.74	176.20	319.86	-119.67	2,268.58	2,216.39	52.19	43.467		
5,900.00	5,513.84	5,517.31	5,513.75	35.48	24.14	176.21	319.86	-121.97	2,307.26	2,254.16	53.10	43.450		
6,000.00	5,606.03	5,609.52	5,605.94	36.13	24.54	176.21	319.86	-124.27	2,345.95	2,291.93	54.01	43.434		
6,100.00	5,698.22	5,701.74	5,698.13	36.77	24.95	176.21	319.86	-126.58	2,384.63	2,329.71	54.92	43.417		
6,200.00	5,790.40	5,806.05	5,790.31	37.41	25.40	176.21	319.86	-128.88	2,423.31	2,367.42	55.89	43.361		
6,300.00	5,882.59	5,886.17	5,882.50	38.06	25.75	176.21	319.86	-131.19	2,461.99	2,405.25	56.75	43.386		
6,400.00	5,974.77	5,978.38	5,974.69	38.70	26.15	176.21	319.86	-133.49	2,500.68	2,443.02	57.66	43.370		
6,500.00	6,066.96	6,070.60	6,066.87	39.34	26.56	176.22	319.86	-135.80	2,539.36	2,480.79	58.57	43.355		
6,600.00	6,159.15	6,162.81	6,159.06	39.99	26.96	176.22	319.86	-138.10	2,578.04	2,518.56	59.48	43.340		
6,700.00	6,251.33	6,255.03	6,251.24	40.63	27.36	176.22	319.86	-140.40	2,616.73	2,556.33	60.40	43.325		
6,800.00	6,343.52	6,347.24	6,343.43	41.28	27.77	176.22	319.86	-142.71	2,655.41	2,594.10	61.31	43.311		
6,900.00	6,435.71	6,439.46	6,435.62	41.92	28.17	176.22	319.86	-145.01	2,694.09	2,631.87	62.22	43.297		
7,000.00	6,527.86	6,533.34	6,529.46	42.56	28.58	167.94	319.85	-147.71	2,732.76	2,669.61	63.15	43.272		
7,100.00	6,618.85	6,634.01	6,629.07	43.19	29.03	145.79	319.63	-161.48	2,770.83	2,706.69	64.15	43.196		
7,200.00	6,706.47	6,736.02	6,726.53	43.76	29.48	129.09	319.10	-191.25	2,807.32	2,742.19	65.13	43.101		
7,300.00	6,788.56	6,839.87	6,819.56	44.26	29.95	117.11	318.25	-237.12	2,841.33	2,775.22	66.11	42.978		
7,400.00	6,863.10	6,945.84	6,905.53	44.70	30.46	108.47	317.08	-298.87	2,872.00	2,804.89	67.11	42.797		
7,500.00	6,928.26	7,053.99	6,981.47	45.07	31.04	102.17	315.62	-375.68	2,898.56	2,830.37	68.19	42.508		
7,600.00	6,982.42	7,164.06	7,044.29	45.39	31.76	97.60	313.88	-465.87	2,920.35	2,850.90	69.45	42.048		
7,700.00	7,024.26	7,275.45	7,091.10	45.67	32.67	94.39	311.93	-566.78	2,936.81	2,865.82	70.99	41.370		
7,800.00	7,052.75	7,387.32	7,119.71	45.92	33.79	92.32	309.83	-674.76	2,947.52	2,874.66	72.85	40.457		
7,900.00	7,067.18	7,498.64	7,129.00	46.16	35.09	91.27	307.67	-785.52	2,952.22	2,877.19	75.03	39.346		
8,000.00	7,068.85	7,601.43	7,128.64	46.42	36.46	91.16	305.72	-885.44	2,951.65	2,874.21	77.44	38.117		
8,100.00	7,068.56	7,698.56	7,128.27	46.78	37.92	91.16	303.76	-985.41	2,950.29	2,870.19	80.10	36.832		
8,200.00	7,068.26	7,801.45	7,127.90	47.29	39.62	91.16	301.81	-1,085.38	2,948.93	2,865.77	83.16	35.460		
8,300.00	7,067.96	7,901.46	7,127.54	48.03	41.40	91.16	299.85	-1,185.35	2,947.57	2,861.12	86.45	34.097		
8,400.00	7,067.66	8,001.47	7,127.17	49.02	43.30	91.16	297.90	-1,285.32	2,946.21	2,856.24	89.97	32.745		
8,500.00	7,067.37	8,101.47	7,126.80	50.27	45.30	91.16	295.94	-1,385.29	2,944.85	2,851.14	93.72	31.423		
8,600.00	7,067.07	8,201.48	7,126.44	51.75	47.39	91.16	293.99	-1,485.26	2,943.49	2,845.85	97.65	30.144		
8,700.00	7,066.77	8,301.49	7,126.07	53.42	49.55	91.16	292.03	-1,585.24	2,942.14	2,840.39	101.75	28.916		
8,800.00	7,066.47	8,401.50	7,125.71	55.24	51.79	91.16	290.07	-1,685.21	2,940.78	2,834.78	105.99	27.745		
8,900.00	7,066.18	8,501.51	7,125.34	57.18	54.08	91.16	288.12	-1,785.18	2,939.42	2,829.04	110.37	26.631		
9,000.00	7,065.88	8,601.52	7,124.97	59.21	56.42	91.15	286.16	-1,885.15	2,938.06	2,823.19	114.87	25.577		
9,100.00	7,065.58	8,701.53	7,124.61	61.33	58.80	91.15	284.21	-1,985.12	2,936.70	2,817.23	119.47	24.581		
9,200.00	7,065.28	8,798.46	7,124.24	63.51	61.15	91.15	282.25	-2,085.09	2,935.34	2,811.26	124.08	23.656		
9,300.00	7,064.99	8,901.55	7,123.88	65.76	63.69	91.15	280.30	-2,185.06	2,933.98	2,805.05	128.93	22.756		
9,400.00	7,064.69	9,001.56	7,123.51	68.06	66.19	91.15	278.34	-2,285.03	2,932.62	2,798.84	133.78	21.921		
9,500.00	7,064.39	9,101.57	7,123.14	70.40	68.71	91.15	276.39	-2,385.00	2,931.27	2,792.57	138.69	21.135		
9,600.00	7,064.09	9,201.58	7,122.78	72.78	71.25	91.15	274.43	-2,484.97	2,929.91	2,786.24	143.66	20.394		
9,700.00	7,063.80	9,301.59	7,122.41	75.20	73.82	91.15	272.48	-2,584.95	2,928.55	2,779.86	148.69	19.696		
9,800.00	7,063.50	9,401.59	7,122.04	77.65	76.41	91.15	270.52	-2,684.92	2,927.19	2,773.43	153.76	19.038		
9,900.00	7,063.20	9,498.40	7,121.68	80.13	78.94	91.15	268.57	-2,784.89	2,925.83	2,767.04	158.79	18.426		
10,000.00	7,062.90	9,601.61	7,121.31	82.64	81.65	91.15	266.61	-2,884.86	2,924.47	2,760.44	164.03	17.829		
10,100.00	7,062.61	9,701.62	7,120.95	85.17	84.29	91.15	264.65	-2,984.83	2,923.11	2,753.89	169.22	17.274		
10,200.00	7,062.31	9,801.63	7,120.58	87.72	86.94	91.15	262.70	-3,084.80	2,921.75	2,747.31	174.44	16.749		
10,300.00	7,062.01	9,901.64	7,120.21	90.28	89.60	91.14	260.74	-3,184.77	2,920.39	2,740.70	179.69	16.252		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	10,001.65	7,119.85	92.87	92.28	91.14	258.79	-3,284.74	2,919.04	2,734.06	184.97	15.781		
10,500.00	7,061.41	10,101.66	7,119.48	95.47	94.97	91.14	256.83	-3,384.71	2,917.68	2,727.40	190.28	15.334		
10,600.00	7,061.12	10,201.67	7,119.12	98.09	97.66	91.14	254.88	-3,484.68	2,916.32	2,720.71	195.61	14.909		
10,700.00	7,060.82	10,301.68	7,118.75	100.72	100.37	91.14	252.92	-3,584.65	2,914.96	2,714.00	200.95	14.506		
10,800.00	7,060.52	10,401.69	7,118.38	103.37	103.08	91.14	250.97	-3,684.63	2,913.60	2,707.28	206.32	14.122		
10,900.00	7,060.22	10,501.70	7,118.02	106.02	105.80	91.14	249.01	-3,784.60	2,912.24	2,700.53	211.71	13.756		
11,000.00	7,059.93	10,601.71	7,117.65	108.69	108.53	91.14	247.06	-3,884.57	2,910.88	2,693.77	217.11	13.407		
11,100.00	7,059.63	10,701.71	7,117.28	111.36	111.27	91.14	245.10	-3,984.54	2,909.52	2,686.99	222.53	13.075		
11,200.00	7,059.33	10,801.72	7,116.92	114.05	114.01	91.14	243.15	-4,084.51	2,908.17	2,680.20	227.96	12.757		
11,300.00	7,059.03	10,901.73	7,116.55	116.74	116.75	91.14	241.19	-4,184.48	2,906.81	2,673.40	233.41	12.454		
11,400.00	7,058.74	11,001.74	7,116.19	119.44	119.50	91.14	239.23	-4,284.45	2,905.45	2,666.58	238.87	12.164		
11,500.00	7,058.44	11,098.25	7,115.82	122.15	122.16	91.13	237.28	-4,384.42	2,904.09	2,659.85	244.24	11.890		
11,600.00	7,058.14	11,201.76	7,115.45	124.86	125.02	91.13	235.32	-4,484.39	2,902.73	2,652.91	249.82	11.619		
11,700.00	7,057.84	11,301.77	7,115.09	127.58	127.78	91.13	233.37	-4,584.36	2,901.37	2,646.07	255.31	11.364		
11,800.00	7,057.55	11,401.78	7,114.72	130.31	130.55	91.13	231.41	-4,684.34	2,900.01	2,639.21	260.81	11.119		
11,900.00	7,057.25	11,501.79	7,114.36	133.04	133.32	91.13	229.46	-4,784.31	2,898.65	2,632.34	266.32	10.884		
12,000.00	7,056.95	11,601.80	7,113.99	135.78	136.09	91.13	227.50	-4,884.28	2,897.30	2,625.46	271.83	10.658		
12,100.00	7,056.65	11,701.81	7,113.62	138.52	138.87	91.13	225.55	-4,984.25	2,895.94	2,618.58	277.36	10.441		
12,200.00	7,056.36	11,801.82	7,113.26	141.27	141.65	91.13	223.59	-5,084.22	2,894.58	2,611.69	282.89	10.232		
12,300.00	7,056.06	11,901.83	7,112.89	144.02	144.44	91.13	221.64	-5,184.19	2,893.22	2,604.79	288.43	10.031		
12,400.00	7,055.76	12,001.84	7,112.52	146.78	147.22	91.13	219.68	-5,284.16	2,891.86	2,597.88	293.98	9.837		
12,500.00	7,055.46	12,101.84	7,112.16	149.54	150.01	91.13	217.73	-5,384.13	2,890.50	2,590.97	299.53	9.650		
12,600.00	7,055.17	12,201.85	7,111.79	152.30	152.80	91.13	215.77	-5,484.10	2,889.14	2,584.05	305.09	9.470		
12,700.00	7,054.87	12,301.86	7,111.43	155.07	155.60	91.12	213.81	-5,584.07	2,887.78	2,577.13	310.65	9.296		
12,800.00	7,054.57	12,401.87	7,111.06	157.84	158.39	91.12	211.86	-5,684.05	2,886.42	2,570.20	316.22	9.128		
12,900.00	7,054.27	12,501.88	7,110.69	160.61	161.19	91.12	209.90	-5,784.02	2,885.07	2,563.27	321.79	8.966		
13,000.00	7,053.97	12,601.89	7,110.33	163.39	163.99	91.12	207.95	-5,883.99	2,883.71	2,556.33	327.37	8.809		
13,100.00	7,053.68	12,701.90	7,109.96	166.17	166.79	91.12	205.99	-5,983.96	2,882.35	2,549.39	332.96	8.657		
13,200.00	7,053.38	12,801.91	7,109.60	168.95	169.60	91.12	204.04	-6,083.93	2,880.99	2,542.44	338.54	8.510		
13,300.00	7,053.08	12,901.92	7,109.23	171.73	172.40	91.12	202.08	-6,183.90	2,879.63	2,535.49	344.14	8.368		
13,400.00	7,052.78	13,001.93	7,108.86	174.52	175.21	91.12	200.13	-6,283.87	2,878.27	2,528.54	349.73	8.230		
13,500.00	7,052.49	13,101.94	7,108.50	177.31	178.02	91.12	198.17	-6,383.84	2,876.91	2,521.58	355.33	8.096		
13,600.00	7,052.19	13,201.95	7,108.13	180.10	180.83	91.12	196.22	-6,483.81	2,875.55	2,514.62	360.93	7.967		
13,700.00	7,051.89	13,301.96	7,107.77	182.90	183.64	91.12	194.26	-6,583.78	2,874.20	2,507.65	366.54	7.841		
13,800.00	7,051.59	13,401.96	7,107.40	185.69	186.45	91.12	192.31	-6,683.75	2,872.84	2,500.69	372.15	7.720		
13,900.00	7,051.30	13,501.97	7,107.03	188.49	189.27	91.11	190.35	-6,783.73	2,871.48	2,493.72	377.76	7.601		
14,000.00	7,051.00	13,598.02	7,106.67	191.29	191.97	91.11	188.39	-6,883.70	2,870.12	2,486.85	383.27	7.489		
14,100.00	7,050.70	13,701.99	7,106.30	194.09	194.90	91.11	186.44	-6,983.67	2,868.76	2,479.76	389.00	7.375		
14,200.00	7,050.40	13,802.00	7,105.93	196.89	197.71	91.11	184.48	-7,083.64	2,867.40	2,472.78	394.62	7.266		
14,300.00	7,050.11	13,902.01	7,105.57	199.70	200.53	91.11	182.53	-7,183.61	2,866.04	2,465.80	400.24	7.161		
14,400.00	7,049.81	14,002.02	7,105.20	202.50	203.35	91.11	180.57	-7,283.58	2,864.68	2,458.82	405.87	7.058		
14,500.00	7,049.51	14,102.03	7,104.84	205.31	206.17	91.11	178.62	-7,383.55	2,863.33	2,451.83	411.50	6.958		
14,600.00	7,049.21	14,202.04	7,104.47	208.12	208.99	91.11	176.66	-7,483.52	2,861.97	2,444.84	417.13	6.861		
14,700.00	7,048.92	14,302.05	7,104.10	210.93	211.82	91.11	174.71	-7,583.49	2,860.61	2,437.85	422.76	6.767		
14,800.00	7,048.62	14,402.06	7,103.74	213.74	214.64	91.11	172.75	-7,683.46	2,859.25	2,430.86	428.39	6.674		
14,900.00	7,048.32	14,502.07	7,103.37	216.55	217.46	91.11	170.80	-7,783.44	2,857.89	2,423.86	434.03	6.585		
15,000.00	7,048.02	14,602.08	7,103.01	219.37	220.29	91.11	168.84	-7,883.41	2,856.53	2,416.86	439.67	6.497		
15,100.00	7,047.73	14,702.08	7,102.64	222.18	223.11	91.10	166.89	-7,983.38	2,855.17	2,409.86	445.31	6.412		
15,200.00	7,047.43	14,802.09	7,102.27	225.00	225.94	91.10	164.93	-8,083.35	2,853.81	2,402.86	450.95	6.328		
15,300.00	7,047.13	14,872.41	7,102.00	227.81	227.93	91.10	163.47	-8,157.84	2,852.57	2,396.88	455.69	6.260		
15,313.27	7,047.09	14,872.41	7,102.00	228.19	227.93	91.10	163.47	-8,157.84	2,852.54	2,396.52	456.01	6.255		
15,343.67	7,047.00	14,872.41	7,102.00	229.04	227.93	91.10	163.47	-8,157.84	2,852.70	2,395.98	456.72	6.246 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	59.00	3.28	3.28	-113.75	-3,955.81	-8,992.37	9,824.18				
100.00	100.00	41.00	100.00	3.28	3.36	-113.75	-3,955.81	-8,992.37	9,824.01	9,817.36	6.64	1,479.098	
200.00	200.00	141.00	200.00	3.34	4.57	-113.75	-3,955.81	-8,992.37	9,824.01	9,816.10	7.90	1,243.031	
300.00	299.98	240.98	299.98	3.44	7.43	62.87	-3,955.81	-8,992.37	9,823.21	9,812.34	10.87	903.723	
400.00	399.84	340.84	399.84	3.59	10.67	62.94	-3,955.81	-8,992.37	9,820.82	9,806.56	14.26	688.750	
500.00	499.45	440.45	499.45	3.79	14.02	63.05	-3,955.81	-8,992.37	9,816.85	9,799.05	17.81	551.288	
600.00	598.70	539.70	598.70	4.03	17.41	63.22	-3,955.81	-8,992.37	9,811.31	9,789.88	21.44	457.676	
700.00	697.47	638.47	697.47	4.31	20.80	63.42	-3,955.81	-8,992.37	9,804.22	9,779.10	25.12	390.347	
800.00	795.62	736.62	795.62	4.64	24.19	63.68	-3,955.81	-8,992.37	9,795.59	9,766.77	28.83	339.804	
900.00	893.06	834.06	893.06	5.00	27.57	63.98	-3,955.81	-8,992.37	9,785.46	9,752.90	32.56	300.568	
1,000.00	989.64	930.64	989.64	5.40	30.92	64.32	-3,955.81	-8,992.37	9,773.85	9,737.56	36.30	269.283	
1,100.00	1,085.27	1,026.27	1,085.27	5.83	34.24	64.71	-3,955.81	-8,992.37	9,760.81	9,720.77	40.04	243.788	
1,200.00	1,179.82	1,120.82	1,179.82	6.29	37.53	65.14	-3,955.81	-8,992.37	9,746.37	9,702.59	43.78	222.637	
1,300.00	1,273.17	1,214.17	1,273.17	6.79	40.77	65.61	-3,955.81	-8,992.37	9,730.57	9,683.06	47.51	204.822	
1,400.00	1,365.46	1,306.46	1,365.46	7.32	43.99	65.93	-3,955.81	-8,992.37	9,713.72	9,662.49	51.23	189.616	
1,500.00	1,457.65	1,401.35	1,457.65	7.87	47.29	66.12	-3,955.81	-8,992.37	9,696.88	9,641.82	55.06	176.116	
1,600.00	1,549.83	1,509.17	1,549.83	8.43	51.05	66.32	-3,955.81	-8,992.37	9,680.17	9,620.81	59.36	163.086	
1,700.00	1,642.02	1,583.02	1,642.02	9.01	53.62	66.51	-3,955.81	-8,992.37	9,663.58	9,601.10	62.48	154.661	
1,800.00	1,734.21	1,675.21	1,734.21	9.59	56.83	66.71	-3,955.81	-8,992.37	9,647.12	9,580.87	66.26	145.600	
1,900.00	1,826.39	1,767.39	1,826.39	10.18	60.04	66.91	-3,955.81	-8,992.37	9,630.79	9,560.75	70.04	137.500	
2,000.00	1,918.58	1,859.58	1,918.58	10.78	63.26	67.11	-3,955.81	-8,992.37	9,614.59	9,540.76	73.83	130.219	
2,100.00	2,010.77	1,951.77	2,010.77	11.39	66.47	67.31	-3,955.81	-8,992.37	9,598.52	9,520.88	77.63	123.640	
2,200.00	2,102.95	2,043.95	2,102.95	11.99	69.69	67.51	-3,955.81	-8,992.37	9,582.57	9,501.14	81.44	117.669	
2,300.00	2,195.14	2,136.14	2,195.14	12.61	72.90	67.71	-3,955.81	-8,992.37	9,566.76	9,481.51	85.25	112.225	
2,400.00	2,287.32	2,228.32	2,287.32	13.22	76.12	67.91	-3,955.81	-8,992.37	9,551.08	9,462.02	89.06	107.244	
2,500.00	2,379.51	2,320.51	2,379.51	13.84	79.33	68.11	-3,955.81	-8,992.37	9,535.53	9,442.65	92.88	102.669	
2,600.00	2,471.70	2,412.70	2,471.70	14.46	82.55	68.31	-3,955.81	-8,992.37	9,520.11	9,423.41	96.70	98.452	
2,700.00	2,563.88	2,504.88	2,563.88	15.08	85.76	68.51	-3,955.81	-8,992.37	9,504.82	9,404.30	100.52	94.555	
2,800.00	2,656.07	2,602.93	2,656.07	15.71	89.18	68.72	-3,955.81	-8,992.37	9,489.67	9,385.12	104.55	90.764	
2,900.00	2,748.26	2,689.26	2,748.26	16.33	92.19	68.92	-3,955.81	-8,992.37	9,474.65	9,366.47	108.18	87.584	
3,000.00	2,840.44	2,781.44	2,840.44	16.96	95.41	69.12	-3,955.81	-8,992.37	9,459.77	9,347.76	112.01	84.455	
3,100.00	2,932.63	2,873.63	2,932.63	17.59	98.63	69.33	-3,955.81	-8,992.37	9,445.02	9,329.18	115.84	81.532	
3,200.00	3,024.81	2,965.81	3,024.81	18.22	101.84	69.53	-3,955.81	-8,992.37	9,430.41	9,310.73	119.68	78.797	
3,300.00	3,117.00	3,058.00	3,117.00	18.86	105.06	69.74	-3,955.81	-8,992.37	9,415.94	9,292.42	123.52	76.231	
3,400.00	3,209.19	3,150.19	3,209.19	19.49	108.28	69.94	-3,955.81	-8,992.37	9,401.60	9,274.24	127.36	73.820	
3,500.00	3,301.37	3,242.37	3,301.37	20.12	111.49	70.15	-3,955.81	-8,992.37	9,387.40	9,256.20	131.20	71.551	
3,600.00	3,393.56	3,334.56	3,393.56	20.76	114.71	70.36	-3,955.81	-8,992.37	9,373.34	9,238.30	135.04	69.410	
3,700.00	3,485.75	3,426.75	3,485.75	21.39	117.93	70.57	-3,955.81	-8,992.37	9,359.42	9,220.53	138.89	67.389	
3,800.00	3,577.93	3,518.93	3,577.93	22.03	121.15	70.78	-3,955.81	-8,992.37	9,345.64	9,202.91	142.73	65.477	
3,900.00	3,670.12	3,611.12	3,670.12	22.67	124.36	70.98	-3,955.81	-8,992.37	9,332.00	9,185.42	146.58	63.665	
4,000.00	3,762.30	3,703.30	3,762.30	23.30	127.58	71.19	-3,955.81	-8,992.37	9,318.50	9,168.07	150.43	61.947	
4,100.00	3,854.49	3,804.51	3,854.49	23.94	131.11	71.40	-3,955.81	-8,992.37	9,305.14	9,150.55	154.59	60.192	
4,200.00	3,946.68	3,887.68	3,946.68	24.58	134.01	71.62	-3,955.81	-8,992.37	9,291.93	9,133.80	158.13	58.762	
4,300.00	4,038.86	3,979.86	4,038.86	25.22	137.23	71.83	-3,955.81	-8,992.37	9,278.86	9,116.88	161.98	57.284	
4,400.00	4,131.05	4,072.05	4,131.05	25.86	140.45	72.04	-3,955.81	-8,992.37	9,265.93	9,100.10	165.83	55.875	
4,500.00	4,223.24	4,164.24	4,223.24	26.50	143.67	72.25	-3,955.81	-8,992.37	9,253.15	9,083.46	169.69	54.531	
4,600.00	4,315.42	4,256.42	4,315.42	27.14	146.88	72.46	-3,955.81	-8,992.37	9,240.51	9,066.97	173.54	53.247	
4,700.00	4,407.61	4,348.61	4,407.61	27.78	150.10	72.68	-3,955.81	-8,992.37	9,228.01	9,050.62	177.40	52.019	
4,800.00	4,499.79	4,440.79	4,499.79	28.42	153.32	72.89	-3,955.81	-8,992.37	9,215.67	9,034.41	181.25	50.844	
4,900.00	4,591.98	4,532.98	4,591.98	29.06	156.54	73.10	-3,955.81	-8,992.37	9,203.47	9,018.36	185.11	49.719	
5,000.00	4,684.17	4,625.17	4,684.17	29.70	159.75	73.32	-3,955.81	-8,992.37	9,191.41	9,002.44	188.97	48.640	
5,100.00	4,776.35	4,717.35	4,776.35	30.34	162.97	73.53	-3,955.81	-8,992.37	9,179.51	8,986.68	192.83	47.605	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,809.54	4,868.54	30.98	166.19	73.75	-3,955.81	-8,992.37	9,167.75	8,971.06	196.69	46.611		
5,300.00	4,960.73	4,901.73	4,960.73	31.63	169.41	73.96	-3,955.81	-8,992.37	9,156.14	8,955.59	200.55	45.656		
5,400.00	5,052.91	5,006.09	5,052.91	32.27	173.05	74.18	-3,955.81	-8,992.37	9,144.68	8,939.85	204.83	44.644		
5,500.00	5,145.10	5,086.10	5,145.10	32.91	175.84	74.40	-3,955.81	-8,992.37	9,133.37	8,925.10	208.27	43.853		
5,600.00	5,237.28	5,178.28	5,237.28	33.55	179.06	74.62	-3,955.81	-8,992.37	9,122.21	8,910.08	212.13	43.002		
5,700.00	5,329.47	5,270.47	5,329.47	34.20	182.28	74.83	-3,955.81	-8,992.37	9,111.21	8,895.21	216.00	42.182		
5,800.00	5,421.66	5,362.66	5,421.66	34.84	185.49	75.05	-3,955.81	-8,992.37	9,100.35	8,880.49	219.86	41.392		
5,900.00	5,513.84	5,454.84	5,513.84	35.48	188.71	75.27	-3,955.81	-8,992.37	9,089.65	8,865.92	223.72	40.629		
6,000.00	5,606.03	5,547.03	5,606.03	36.13	191.93	75.49	-3,955.81	-8,992.37	9,079.10	8,851.51	227.59	39.892		
6,100.00	5,698.22	5,639.22	5,698.22	36.77	195.15	75.71	-3,955.81	-8,992.37	9,068.70	8,837.24	231.45	39.181		
6,200.00	5,790.40	5,731.40	5,790.40	37.41	198.37	75.93	-3,955.81	-8,992.37	9,058.45	8,823.13	235.32	38.494		
6,300.00	5,882.59	5,823.59	5,882.59	38.06	201.58	76.15	-3,955.81	-8,992.37	9,048.37	8,809.18	239.19	37.830		
6,400.00	5,974.77	5,915.77	5,974.77	38.70	204.80	76.37	-3,955.81	-8,992.37	9,038.43	8,795.38	243.05	37.187		
6,500.00	6,066.96	6,007.96	6,066.96	39.34	208.02	76.59	-3,955.81	-8,992.37	9,028.65	8,781.73	246.92	36.565		
6,600.00	6,159.15	6,100.15	6,159.15	39.99	211.24	76.81	-3,955.81	-8,992.37	9,019.03	8,768.24	250.79	35.963		
6,700.00	6,251.33	6,207.67	6,251.33	40.63	214.99	77.04	-3,955.81	-8,992.37	9,009.56	8,754.37	255.19	35.305		
6,800.00	6,343.52	6,284.52	6,343.52	41.28	217.67	77.26	-3,955.81	-8,992.37	9,000.25	8,741.73	258.53	34.814		
6,900.00	6,435.71	6,376.71	6,435.71	41.92	220.89	77.48	-3,955.81	-8,992.37	8,991.10	8,728.70	262.40	34.265		
7,000.00	6,527.86	6,468.86	6,527.86	42.56	224.11	70.61	-3,955.81	-8,992.37	8,981.25	8,714.98	266.26	33.731		
7,100.00	6,618.85	6,559.85	6,618.85	43.19	227.28	52.01	-3,955.81	-8,992.37	8,959.64	8,689.58	270.06	33.177		
7,200.00	6,706.47	6,647.47	6,706.47	43.76	230.34	38.37	-3,955.81	-8,992.37	8,923.34	8,649.67	273.67	32.607		
7,300.00	6,788.56	6,729.56	6,788.56	44.26	233.21	28.82	-3,955.81	-8,992.37	8,873.19	8,596.19	277.01	32.033		
7,400.00	6,863.10	6,804.10	6,863.10	44.70	235.81	21.76	-3,955.81	-8,992.37	8,810.40	8,530.40	280.00	31.466		
7,500.00	6,928.26	6,869.26	6,928.26	45.07	238.08	15.86	-3,955.81	-8,992.37	8,736.46	8,453.87	282.59	30.916		
7,600.00	6,982.42	6,923.42	6,982.42	45.39	239.97	9.84	-3,955.81	-8,992.37	8,653.16	8,368.45	284.71	30.393		
7,700.00	7,024.26	6,965.26	7,024.26	45.67	241.43	1.62	-3,955.81	-8,992.37	8,562.55	8,276.23	286.32	29.905		
7,800.00	7,052.75	7,006.25	7,052.75	45.92	242.87	-14.72	-3,955.81	-8,992.37	8,466.82	8,179.00	287.82	29.417		
7,900.00	7,067.18	7,008.18	7,067.18	46.16	242.93	-58.91	-3,955.81	-8,992.37	8,368.36	8,080.48	287.88	29.069		
8,000.00	7,068.85	7,009.85	7,068.85	46.42	242.99	-91.10	-3,955.81	-8,992.37	8,269.45	7,981.56	287.89	28.725		
8,100.00	7,068.56	7,009.56	7,068.56	46.78	242.98	-91.09	-3,955.81	-8,992.37	8,170.63	7,882.82	287.82	28.388		
8,200.00	7,068.26	7,009.26	7,068.26	47.29	242.97	-91.08	-3,955.81	-8,992.37	8,071.85	7,784.10	287.75	28.052		
8,300.00	7,067.96	7,008.96	7,067.96	48.03	242.96	-91.06	-3,955.81	-8,992.37	7,973.10	7,685.41	287.69	27.714		
8,400.00	7,067.66	7,008.66	7,067.66	49.02	242.95	-91.05	-3,955.81	-8,992.37	7,874.37	7,586.74	287.63	27.376		
8,500.00	7,067.37	7,008.37	7,067.37	50.27	242.94	-91.04	-3,955.81	-8,992.37	7,775.68	7,488.10	287.58	27.038		
8,600.00	7,067.07	7,008.07	7,067.07	51.75	242.93	-91.02	-3,955.81	-8,992.37	7,677.03	7,389.49	287.54	26.699		
8,700.00	7,066.77	7,007.77	7,066.77	53.42	242.92	-91.01	-3,955.81	-8,992.37	7,578.41	7,290.91	287.50	26.360		
8,800.00	7,066.47	7,007.47	7,066.47	55.24	242.91	-91.00	-3,955.81	-8,992.37	7,479.82	7,192.35	287.47	26.020		
8,900.00	7,066.18	7,007.18	7,066.18	57.18	242.90	-90.98	-3,955.81	-8,992.37	7,381.28	7,093.83	287.44	25.679		
9,000.00	7,065.88	7,006.88	7,065.88	59.21	242.89	-90.97	-3,955.81	-8,992.37	7,282.77	6,995.34	287.43	25.338		
9,100.00	7,065.58	7,006.58	7,065.58	61.33	242.88	-90.96	-3,955.81	-8,992.37	7,184.30	6,896.89	287.42	24.996		
9,200.00	7,065.28	7,006.28	7,065.28	63.51	242.87	-90.94	-3,955.81	-8,992.37	7,085.88	6,798.46	287.42	24.654		
9,300.00	7,064.99	7,005.99	7,064.99	65.76	242.86	-90.93	-3,955.81	-8,992.37	6,987.50	6,700.08	287.43	24.310		
9,400.00	7,064.69	7,005.69	7,064.69	68.06	242.85	-90.91	-3,955.81	-8,992.37	6,889.17	6,601.72	287.45	23.967		
9,500.00	7,064.39	7,005.39	7,064.39	70.40	242.84	-90.90	-3,955.81	-8,992.37	6,790.89	6,503.41	287.48	23.622		
9,600.00	7,064.09	7,005.09	7,064.09	72.78	242.82	-90.89	-3,955.81	-8,992.37	6,692.66	6,405.13	287.52	23.277		
9,700.00	7,063.80	7,004.80	7,063.80	75.20	242.81	-90.87	-3,955.81	-8,992.37	6,594.48	6,306.90	287.58	22.931		
9,800.00	7,063.50	7,004.50	7,063.50	77.65	242.80	-90.86	-3,955.81	-8,992.37	6,496.36	6,208.70	287.65	22.584		
9,900.00	7,063.20	7,004.20	7,063.20	80.13	242.79	-90.85	-3,955.81	-8,992.37	6,398.29	6,110.55	287.74	22.236		
10,000.00	7,062.90	7,003.90	7,062.90	82.64	242.78	-90.83	-3,955.81	-8,992.37	6,300.29	6,012.45	287.85	21.888		
10,100.00	7,062.61	7,003.61	7,062.61	85.17	242.77	-90.82	-3,955.81	-8,992.37	6,202.35	5,914.38	287.97	21.538		
10,200.00	7,062.31	7,003.31	7,062.31	87.72	242.76	-90.81	-3,955.81	-8,992.37	6,104.48	5,816.37	288.11	21.188		
10,300.00	7,062.01	7,003.01	7,062.01	90.28	242.75	-90.79	-3,955.81	-8,992.37	6,006.67	5,718.41	288.27	20.837		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
10,400.00	7,061.71	7,002.71	7,061.71	92.87	242.74	-90.78	-3,955.81	-8,992.37	5,908.95	5,620.49	288.45	20.485	
10,500.00	7,061.41	7,002.41	7,061.41	95.47	242.73	-90.77	-3,955.81	-8,992.37	5,811.29	5,522.63	288.66	20.132	
10,600.00	7,061.12	7,002.12	7,061.12	98.09	242.72	-90.75	-3,955.81	-8,992.37	5,713.72	5,424.83	288.89	19.778	
10,700.00	7,060.82	7,001.82	7,060.82	100.72	242.71	-90.74	-3,955.81	-8,992.37	5,616.24	5,327.08	289.15	19.423	
10,800.00	7,060.52	7,001.52	7,060.52	103.37	242.70	-90.73	-3,955.81	-8,992.37	5,518.84	5,229.40	289.44	19.067	
10,900.00	7,060.22	7,001.22	7,060.22	106.02	242.69	-90.71	-3,955.81	-8,992.37	5,421.54	5,131.77	289.77	18.710	
11,000.00	7,059.93	7,000.93	7,059.93	108.69	242.68	-90.70	-3,955.81	-8,992.37	5,324.34	5,034.21	290.12	18.352	
11,100.00	7,059.63	7,000.63	7,059.63	111.36	242.67	-90.69	-3,955.81	-8,992.37	5,227.24	4,936.73	290.52	17.993	
11,200.00	7,059.33	7,000.33	7,059.33	114.05	242.66	-90.67	-3,955.81	-8,992.37	5,130.26	4,839.31	290.95	17.633	
11,300.00	7,059.03	7,000.03	7,059.03	116.74	242.65	-90.66	-3,955.81	-8,992.37	5,033.39	4,741.97	291.43	17.271	
11,400.00	7,058.74	7,000.26	7,058.74	119.44	242.66	-90.64	-3,955.81	-8,992.37	4,936.65	4,644.68	291.97	16.908	
11,500.00	7,058.44	7,000.56	7,058.44	122.15	242.67	-90.63	-3,955.81	-8,992.37	4,840.05	4,547.48	292.56	16.544	
11,600.00	7,058.14	7,000.86	7,058.14	124.86	242.68	-90.62	-3,955.81	-8,992.37	4,743.58	4,450.37	293.21	16.178	
11,700.00	7,057.84	7,001.16	7,057.84	127.58	242.69	-90.60	-3,955.81	-8,992.37	4,647.26	4,353.35	293.91	15.812	
11,800.00	7,057.55	7,001.45	7,057.55	130.31	242.70	-90.59	-3,955.81	-8,992.37	4,551.10	4,256.43	294.67	15.445	
11,900.00	7,057.25	7,001.75	7,057.25	133.04	242.71	-90.58	-3,955.81	-8,992.37	4,455.11	4,159.61	295.50	15.077	
12,000.00	7,056.95	7,002.05	7,056.95	135.78	242.72	-90.56	-3,955.81	-8,992.37	4,359.30	4,062.91	296.39	14.708	
12,100.00	7,056.65	7,002.35	7,056.65	138.52	242.73	-90.55	-3,955.81	-8,992.37	4,263.68	3,966.32	297.36	14.338	
12,200.00	7,056.36	7,002.64	7,056.36	141.27	242.74	-90.54	-3,955.81	-8,992.37	4,168.27	3,869.85	298.42	13.968	
12,300.00	7,056.06	7,002.94	7,056.06	144.02	242.75	-90.52	-3,955.81	-8,992.37	4,073.08	3,773.53	299.55	13.597	
12,400.00	7,055.76	7,003.24	7,055.76	146.78	242.76	-90.51	-3,955.81	-8,992.37	3,978.12	3,677.34	300.78	13.226	
12,500.00	7,055.46	7,003.54	7,055.46	149.54	242.77	-90.50	-3,955.81	-8,992.37	3,883.42	3,581.31	302.11	12.854	
12,600.00	7,055.17	7,003.84	7,055.17	152.30	242.78	-90.48	-3,955.81	-8,992.37	3,788.99	3,485.45	303.54	12.483	
12,700.00	7,054.87	7,004.13	7,054.87	155.07	242.79	-90.47	-3,955.81	-8,992.37	3,694.85	3,389.76	305.09	12.111	
12,800.00	7,054.57	7,004.43	7,054.57	157.84	242.80	-90.46	-3,955.81	-8,992.37	3,601.03	3,294.27	306.76	11.739	
12,900.00	7,054.27	7,004.73	7,054.27	160.61	242.81	-90.44	-3,955.81	-8,992.37	3,507.55	3,198.99	308.55	11.368	
13,000.00	7,053.97	7,005.03	7,053.97	163.39	242.82	-90.43	-3,955.81	-8,992.37	3,414.44	3,103.95	310.49	10.997	
13,100.00	7,053.68	7,005.32	7,053.68	166.17	242.83	-90.42	-3,955.81	-8,992.37	3,321.73	3,009.15	312.58	10.627	
13,200.00	7,053.38	7,005.62	7,053.38	168.95	242.84	-90.40	-3,955.81	-8,992.37	3,229.45	2,914.63	314.83	10.258	
13,300.00	7,053.08	7,005.92	7,053.08	171.73	242.85	-90.39	-3,955.81	-8,992.37	3,137.65	2,820.40	317.25	9.890	
13,400.00	7,052.78	7,006.22	7,052.78	174.52	242.86	-90.37	-3,955.81	-8,992.37	3,046.36	2,726.51	319.85	9.524	
13,500.00	7,052.49	7,006.51	7,052.49	177.31	242.87	-90.36	-3,955.81	-8,992.37	2,955.64	2,632.98	322.66	9.160	
13,600.00	7,052.19	7,006.81	7,052.19	180.10	242.88	-90.35	-3,955.81	-8,992.37	2,865.54	2,539.86	325.68	8.799	
13,700.00	7,051.89	7,007.11	7,051.89	182.90	242.90	-90.33	-3,955.81	-8,992.37	2,776.11	2,447.18	328.93	8.440	
13,800.00	7,051.59	7,007.41	7,051.59	185.69	242.91	-90.32	-3,955.81	-8,992.37	2,687.43	2,355.00	332.43	8.084	
13,900.00	7,051.30	7,007.70	7,051.30	188.49	242.92	-90.31	-3,955.81	-8,992.37	2,599.57	2,263.37	336.20	7.732	
14,000.00	7,051.00	7,008.00	7,051.00	191.29	242.93	-90.29	-3,955.81	-8,992.37	2,512.62	2,172.37	340.25	7.385	
14,100.00	7,050.70	7,008.30	7,050.70	194.09	242.94	-90.28	-3,955.81	-8,992.37	2,426.67	2,082.07	344.61	7.042	
14,200.00	7,050.40	7,008.60	7,050.40	196.89	242.95	-90.27	-3,955.81	-8,992.37	2,341.84	1,992.55	349.29	6.704	
14,300.00	7,050.11	7,008.89	7,050.11	199.70	242.96	-90.25	-3,955.81	-8,992.37	2,258.26	1,903.92	354.33	6.373	
14,400.00	7,049.81	7,009.19	7,049.81	202.50	242.97	-90.24	-3,955.81	-8,992.37	2,176.05	1,816.31	359.74	6.049	
14,500.00	7,049.51	7,009.49	7,049.51	205.31	242.98	-90.23	-3,955.81	-8,992.37	2,095.40	1,729.85	365.55	5.732	
14,600.00	7,049.21	7,009.79	7,049.21	208.12	242.99	-90.21	-3,955.81	-8,992.37	2,016.48	1,644.70	371.77	5.424	
14,700.00	7,048.92	6,989.92	7,048.92	210.93	242.30	-90.20	-3,955.81	-8,992.37	1,939.50	1,561.77	377.73	5.135	
14,800.00	7,048.62	6,989.62	7,048.62	213.74	242.28	-90.19	-3,955.81	-8,992.37	1,864.71	1,479.90	384.81	4.846	
14,900.00	7,048.32	6,989.32	7,048.32	216.55	242.27	-90.17	-3,955.81	-8,992.37	1,792.38	1,400.04	392.34	4.568	
15,000.00	7,048.02	6,989.02	7,048.02	219.37	242.26	-90.16	-3,955.81	-8,992.37	1,722.82	1,322.51	400.31	4.304	
15,100.00	7,047.73	6,988.73	7,047.73	222.18	242.25	-90.14	-3,955.81	-8,992.37	1,656.38	1,247.67	408.71	4.053	
15,200.00	7,047.43	6,988.43	7,047.43	225.00	242.24	-90.13	-3,955.81	-8,992.37	1,593.45	1,175.95	417.50	3.817	
15,300.00	7,047.13	6,988.13	7,047.13	227.81	242.23	-90.12	-3,955.81	-8,992.37	1,534.46	1,107.87	426.59	3.597	
15,343.67	7,047.00	6,988.00	7,047.00	229.04	242.23	-90.11	-3,955.81	-8,992.37	1,510.05	1,079.41	430.64	3.507 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	685.19	716.92	3.28	4.37	-106.41	-2,630.18	-8,932.87	9,339.59					
100.00	100.00	724.00	755.32	3.28	4.49	-106.44	-2,634.01	-8,928.78	9,332.23	9,324.48	7.75	1,204.520		
200.00	200.00	724.00	755.32	3.34	4.49	-106.44	-2,634.01	-8,928.78	9,325.74	9,317.95	7.79	1,197.398		
300.00	299.98	724.00	755.32	3.44	4.49	70.27	-2,634.01	-8,928.78	9,319.73	9,311.85	7.88	1,182.397		
400.00	399.84	770.31	801.08	3.59	4.65	70.36	-2,639.58	-8,924.40	9,312.85	9,304.68	8.18	1,138.973		
500.00	499.45	818.00	848.05	3.79	4.81	70.47	-2,647.01	-8,920.81	9,306.43	9,297.90	8.53	1,090.658		
600.00	598.70	818.00	848.05	4.03	4.81	70.60	-2,647.01	-8,920.81	9,299.12	9,290.35	8.77	1,060.245		
700.00	697.47	818.00	848.05	4.31	4.81	70.74	-2,647.01	-8,920.81	9,291.71	9,282.66	9.05	1,026.553		
800.00	795.62	818.00	848.05	4.64	4.81	70.89	-2,647.01	-8,920.81	9,284.23	9,274.86	9.37	990.662		
900.00	893.06	818.00	848.05	5.00	4.81	71.03	-2,647.01	-8,920.81	9,276.68	9,266.95	9.73	953.466		
1,000.00	989.64	860.97	890.26	5.40	4.96	71.19	-2,654.71	-8,918.51	9,268.41	9,258.14	10.28	901.809		
1,100.00	1,085.27	912.00	940.33	5.83	5.15	71.38	-2,664.45	-8,917.10	9,260.67	9,249.78	10.89	850.038		
1,200.00	1,179.82	912.00	940.33	6.29	5.15	71.55	-2,664.45	-8,917.10	9,251.97	9,240.61	11.35	814.899		
1,300.00	1,273.17	912.00	940.33	6.79	5.15	71.71	-2,664.45	-8,917.10	9,243.23	9,231.39	11.85	780.307		
1,400.00	1,365.46	912.00	940.33	7.32	5.15	71.78	-2,664.45	-8,917.10	9,234.68	9,222.31	12.37	746.810		
1,500.00	1,457.65	912.00	940.33	7.87	5.15	71.78	-2,664.45	-8,917.10	9,227.11	9,214.20	12.91	714.958		
1,600.00	1,549.83	912.00	940.33	8.43	5.15	71.78	-2,664.45	-8,917.10	9,220.62	9,207.16	13.46	685.021		
1,700.00	1,642.02	962.72	990.06	9.01	5.34	71.84	-2,674.37	-8,917.31	9,214.24	9,200.02	14.22	647.970		
1,800.00	1,734.21	1,006.00	1,032.51	9.59	5.50	71.89	-2,682.70	-8,918.88	9,209.62	9,194.66	14.96	615.448		
1,900.00	1,826.39	1,006.00	1,032.51	10.18	5.50	71.89	-2,682.70	-8,918.88	9,205.38	9,189.83	15.55	592.157		
2,000.00	1,918.58	1,006.00	1,032.51	10.78	5.50	71.89	-2,682.70	-8,918.88	9,202.22	9,186.09	16.13	570.404		
2,100.00	2,010.77	1,006.00	1,032.51	11.39	5.50	71.89	-2,682.70	-8,918.88	9,200.15	9,183.42	16.72	550.092		
2,200.00	2,102.95	1,006.00	1,032.51	11.99	5.50	71.89	-2,682.70	-8,918.88	9,199.16	9,181.84	17.32	531.122		
2,291.01	2,186.85	1,057.58	1,083.09	12.55	5.69	71.96	-2,692.20	-8,922.26	9,198.44	9,180.37	18.07	509.144		
2,300.00	2,195.14	1,059.21	1,084.69	12.61	5.69	71.96	-2,692.49	-8,922.39	9,198.44	9,180.31	18.13	507.450		
2,400.00	2,287.32	1,101.00	1,125.68	13.22	5.85	72.02	-2,699.66	-8,926.25	9,199.13	9,180.24	18.89	486.877		
2,500.00	2,379.51	1,101.00	1,125.68	13.84	5.85	72.02	-2,699.66	-8,926.25	9,200.40	9,180.91	19.50	471.923		
2,600.00	2,471.70	1,101.00	1,125.68	14.46	5.85	72.02	-2,699.66	-8,926.25	9,202.76	9,182.66	20.10	457.902		
2,700.00	2,563.88	1,101.00	1,125.68	15.08	5.85	72.02	-2,699.66	-8,926.25	9,206.20	9,185.50	20.70	444.746		
2,800.00	2,656.07	1,150.36	1,173.95	15.71	6.04	72.10	-2,708.30	-8,931.85	9,210.03	9,188.52	21.51	428.247		
2,900.00	2,748.26	1,197.00	1,219.30	16.33	6.23	72.16	-2,717.28	-8,938.00	9,215.24	9,192.94	22.31	413.140		
3,000.00	2,840.44	1,197.00	1,219.30	16.96	6.23	72.16	-2,717.28	-8,938.00	9,220.92	9,198.02	22.91	402.549		
3,100.00	2,932.63	1,197.00	1,219.30	17.59	6.23	72.16	-2,717.28	-8,938.00	9,227.68	9,204.17	23.51	392.572		
3,200.00	3,024.81	1,197.00	1,219.30	18.22	6.23	72.16	-2,717.28	-8,938.00	9,235.52	9,211.41	24.10	383.165		
3,300.00	3,117.00	1,247.90	1,268.49	18.86	6.44	72.23	-2,727.90	-8,945.60	9,243.76	9,218.83	24.93	370.743		
3,400.00	3,209.19	1,292.00	1,310.86	19.49	6.64	72.28	-2,737.74	-8,952.89	9,253.24	9,227.51	25.73	359.565		
3,500.00	3,301.37	1,292.00	1,310.86	20.12	6.64	72.28	-2,737.74	-8,952.89	9,263.29	9,236.97	26.33	351.864		
3,600.00	3,393.56	1,292.00	1,310.86	20.76	6.64	72.28	-2,737.74	-8,952.89	9,274.41	9,247.50	26.92	344.580		
3,700.00	3,485.75	1,330.52	1,347.66	21.39	6.83	72.32	-2,746.81	-8,959.78	9,286.22	9,258.53	27.69	335.331		
3,800.00	3,577.93	1,351.23	1,367.35	22.03	6.94	72.35	-2,751.87	-8,963.69	9,298.95	9,270.57	28.39	327.592		
3,900.00	3,670.12	1,387.00	1,401.23	22.67	7.12	72.39	-2,760.91	-8,970.78	9,312.58	9,283.43	29.15	319.422		
4,000.00	3,762.30	1,412.04	1,424.87	23.30	7.26	72.41	-2,767.42	-8,975.87	9,326.90	9,297.03	29.87	312.205		
4,100.00	3,854.49	1,481.00	1,489.84	23.94	7.66	72.48	-2,785.85	-8,989.81	9,341.59	9,310.76	30.84	302.939		
4,200.00	3,946.68	1,533.18	1,538.80	24.58	7.99	72.53	-2,800.44	-9,000.41	9,356.72	9,324.99	31.73	294.881		
4,300.00	4,038.86	1,696.20	1,690.57	25.22	9.12	72.65	-2,850.24	-9,032.89	9,372.13	9,338.78	33.36	280.959		
4,400.00	4,131.05	1,760.00	1,749.48	25.86	9.60	72.68	-2,871.58	-9,044.95	9,387.11	9,352.73	34.38	273.068		
4,500.00	4,223.24	2,477.04	2,394.83	26.50	16.08	72.67	-3,166.87	-9,140.77	9,396.35	9,355.27	41.08	228.734		
4,600.00	4,315.42	2,513.00	2,427.24	27.14	16.42	72.66	-3,181.96	-9,144.61	9,405.34	9,363.34	42.00	223.928		
4,700.00	4,407.61	2,547.33	2,458.18	27.78	16.75	72.66	-3,196.30	-9,148.52	9,415.02	9,372.12	42.91	219.434		
4,800.00	4,499.79	2,608.00	2,512.91	28.42	17.33	72.66	-3,221.40	-9,155.96	9,425.39	9,381.34	44.05	213.981		
4,900.00	4,591.98	2,632.76	2,535.25	29.06	17.56	72.66	-3,231.60	-9,159.16	9,436.25	9,391.39	44.86	210.340		
5,000.00	4,684.17	2,682.88	2,580.36	29.70	18.05	72.66	-3,252.39	-9,165.80	9,447.70	9,401.80	45.91	205.804		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,776.35	2,703.00	2,598.44	30.34	18.24	72.66	-3,260.79	-9,168.52	9,459.77	9,413.10	46.67	202.688		
5,200.00	4,868.54	2,751.46	2,641.80	30.98	18.73	72.65	-3,281.34	-9,175.32	9,472.42	9,424.71	47.71	198.549		
5,300.00	4,960.73	2,798.00	2,683.12	31.63	19.20	72.64	-3,301.60	-9,182.24	9,485.90	9,437.18	48.72	194.685		
5,400.00	5,052.91	2,827.21	2,708.91	32.27	19.50	72.64	-3,314.58	-9,186.70	9,499.97	9,450.39	49.58	191.600		
5,500.00	5,145.10	3,113.77	2,963.21	32.91	22.44	72.59	-3,440.13	-9,227.19	9,512.23	9,459.26	52.96	179.609		
5,600.00	5,237.28	3,371.10	3,192.89	33.55	25.05	72.55	-3,550.96	-9,261.55	9,524.92	9,468.88	56.03	169.984		
5,700.00	5,329.47	3,485.00	3,294.63	34.20	26.21	72.53	-3,600.35	-9,275.01	9,535.48	9,477.75	57.73	165.171		
5,800.00	5,421.66	3,550.00	3,352.63	34.84	26.88	72.52	-3,628.63	-9,282.81	9,546.27	9,487.32	58.95	161.933		
5,900.00	5,513.84	3,775.50	3,555.18	35.48	29.15	72.50	-3,723.75	-9,310.45	9,557.44	9,495.73	61.71	154.881		
6,000.00	5,606.03	3,831.00	3,605.48	36.13	29.69	72.50	-3,746.20	-9,317.22	9,567.48	9,504.66	62.82	152.310		
6,100.00	5,698.22	3,856.68	3,628.70	36.77	29.94	72.50	-3,756.66	-9,320.50	9,578.04	9,514.40	63.64	150.493		
6,200.00	5,790.40	3,925.00	3,690.33	37.41	30.62	72.50	-3,784.80	-9,329.37	9,589.14	9,524.27	64.88	147.806		
6,300.00	5,882.59	3,925.00	3,690.33	38.06	30.62	72.50	-3,784.80	-9,329.37	9,600.85	9,535.40	65.45	146.687		
6,400.00	5,974.77	3,968.51	3,729.23	38.70	31.08	72.49	-3,803.35	-9,335.27	9,613.18	9,546.72	66.46	144.649		
6,500.00	6,066.96	4,020.00	3,774.58	39.34	31.62	72.48	-3,826.59	-9,342.69	9,626.53	9,558.98	67.54	142.524		
6,600.00	6,159.15	4,020.00	3,774.58	39.99	31.62	72.48	-3,826.59	-9,342.69	9,640.33	9,572.23	68.10	141.561		
6,700.00	6,251.33	4,550.57	4,236.33	40.63	37.47	72.24	-4,079.30	-9,407.30	9,652.91	9,578.59	74.32	129.882		
6,800.00	6,343.52	4,588.00	4,269.61	41.28	37.86	72.23	-4,095.88	-9,411.55	9,663.19	9,587.91	75.28	128.363		
6,900.00	6,435.71	6,900.00	6,341.44	41.92	52.19	74.41	-4,580.29	-9,542.43	9,656.80	9,567.42	89.38	108.042		
7,000.00	6,527.86	6,841.03	6,428.06	42.56	52.04	67.48	-4,581.52	-9,542.80	9,645.63	9,555.70	89.93	107.260		
7,100.00	6,618.85	6,896.42	6,483.44	43.19	52.20	48.64	-4,582.49	-9,543.27	9,623.26	9,532.49	90.77	106.016		
7,200.00	6,706.47	6,950.06	6,537.06	43.76	52.34	34.69	-4,583.56	-9,543.90	9,586.69	9,495.15	91.53	104.735		
7,300.00	6,788.56	7,037.00	6,623.97	44.26	52.59	24.75	-4,585.59	-9,545.29	9,536.84	9,444.56	92.28	103.347		
7,400.00	6,863.10	7,054.08	6,641.04	44.70	52.64	17.02	-4,586.02	-9,545.60	9,474.50	9,381.72	92.78	102.122		
7,500.00	6,928.26	7,123.37	6,710.30	45.07	52.84	10.27	-4,587.64	-9,546.90	9,401.29	9,307.99	93.30	100.767		
7,600.00	6,982.42	7,181.34	6,768.25	45.39	53.00	2.91	-4,588.84	-9,548.01	9,318.81	9,225.12	93.69	99.462		
7,700.00	7,024.26	7,226.63	6,813.52	45.67	53.13	-7.39	-4,589.69	-9,548.89	9,229.09	9,135.13	93.96	98.228		
7,800.00	7,052.75	7,258.15	6,845.02	45.92	53.22	-26.04	-4,590.23	-9,549.50	9,134.34	9,040.25	94.09	97.083		
7,900.00	7,067.18	7,275.15	6,862.02	46.16	53.27	-62.22	-4,590.50	-9,549.84	9,036.92	8,942.83	94.10	96.039		
8,000.00	7,068.85	7,278.94	6,865.81	46.42	53.28	-84.66	-4,590.56	-9,549.91	8,939.11	8,845.10	94.01	95.089		
8,100.00	7,068.56	7,280.69	6,867.56	46.78	53.29	-84.71	-4,590.59	-9,549.95	8,841.43	8,747.51	93.91	94.145		
8,200.00	7,068.26	7,282.43	6,869.31	47.29	53.29	-84.76	-4,590.62	-9,549.98	8,743.79	8,649.97	93.83	93.192		
8,300.00	7,067.96	7,284.18	6,871.05	48.03	53.30	-84.82	-4,590.64	-9,550.02	8,646.21	8,552.47	93.75	92.229		
8,400.00	7,067.66	7,285.93	6,872.80	49.02	53.30	-84.87	-4,590.67	-9,550.05	8,548.69	8,455.01	93.68	91.256		
8,500.00	7,067.37	7,287.69	6,874.56	50.27	53.31	-84.92	-4,590.70	-9,550.09	8,451.22	8,357.60	93.62	90.273		
8,600.00	7,067.07	7,289.44	6,876.31	51.75	53.31	-84.97	-4,590.72	-9,550.12	8,353.82	8,260.25	93.57	89.279		
8,700.00	7,066.77	7,291.20	6,878.07	53.42	53.32	-85.03	-4,590.75	-9,550.16	8,256.47	8,162.94	93.53	88.274		
8,800.00	7,066.47	7,292.96	6,879.83	55.24	53.32	-85.08	-4,590.78	-9,550.19	8,159.19	8,065.68	93.51	87.258		
8,900.00	7,066.18	7,294.72	6,881.58	57.18	53.33	-85.13	-4,590.80	-9,550.23	8,061.98	7,968.48	93.49	86.229		
9,000.00	7,065.88	7,296.48	6,883.35	59.21	53.33	-85.19	-4,590.83	-9,550.26	7,964.83	7,871.33	93.50	85.188		
9,100.00	7,065.58	7,298.24	6,885.11	61.33	53.34	-85.24	-4,590.86	-9,550.30	7,867.75	7,774.24	93.51	84.135		
9,200.00	7,065.28	7,300.01	6,886.88	63.51	53.35	-85.29	-4,590.88	-9,550.33	7,770.75	7,677.21	93.55	83.068		
9,300.00	7,064.99	7,301.78	6,888.64	65.76	53.35	-85.34	-4,590.91	-9,550.37	7,673.83	7,580.23	93.60	81.988		
9,400.00	7,064.69	7,303.55	6,890.41	68.06	53.36	-85.40	-4,590.93	-9,550.40	7,576.98	7,483.32	93.67	80.894		
9,500.00	7,064.39	7,305.32	6,892.18	70.40	53.36	-85.45	-4,590.96	-9,550.44	7,480.22	7,386.47	93.75	79.786		
9,600.00	7,064.09	7,307.09	6,893.96	72.78	53.37	-85.50	-4,590.99	-9,550.47	7,383.54	7,289.68	93.86	78.663		
9,700.00	7,063.80	7,308.87	6,895.73	75.20	53.37	-85.56	-4,591.01	-9,550.51	7,286.96	7,192.96	93.99	77.526		
9,800.00	7,063.50	7,310.65	6,897.51	77.65	53.38	-85.61	-4,591.04	-9,550.54	7,190.46	7,096.31	94.15	76.374		
9,900.00	7,063.20	7,312.43	6,899.29	80.13	53.38	-85.67	-4,591.06	-9,550.58	7,094.06	6,999.74	94.33	75.207		
10,000.00	7,062.90	7,314.21	6,901.07	82.64	53.39	-85.72	-4,591.09	-9,550.61	6,997.76	6,903.23	94.53	74.025		
10,100.00	7,062.61	7,315.99	6,902.85	85.17	53.39	-85.77	-4,591.11	-9,550.65	6,901.57	6,806.81	94.77	72.828		
10,200.00	7,062.31	7,317.78	6,904.64	87.72	53.40	-85.83	-4,591.14	-9,550.68	6,805.49	6,710.46	95.03	71.615		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,319.56	6,906.42	90.28	53.40	-85.88	-4,591.16	-9,550.72	6,709.52	6,614.20	95.32	70.387		
10,400.00	7,061.71	7,321.35	6,908.21	92.87	53.41	-85.93	-4,591.19	-9,550.76	6,613.67	6,518.02	95.65	69.144		
10,500.00	7,061.41	7,323.14	6,910.00	95.47	53.41	-85.99	-4,591.21	-9,550.79	6,517.94	6,421.93	96.01	67.886		
10,600.00	7,061.12	7,324.93	6,911.79	98.09	53.42	-86.04	-4,591.24	-9,550.83	6,422.35	6,325.94	96.41	66.613		
10,700.00	7,060.82	7,326.73	6,913.59	100.72	53.42	-86.10	-4,591.26	-9,550.86	6,326.89	6,230.04	96.85	65.326		
10,800.00	7,060.52	7,328.53	6,915.38	103.37	53.43	-86.15	-4,591.29	-9,550.90	6,231.57	6,134.24	97.33	64.026		
10,900.00	7,060.22	7,330.32	6,917.18	106.02	53.43	-86.20	-4,591.31	-9,550.94	6,136.40	6,038.55	97.85	62.712		
11,000.00	7,059.93	7,332.13	6,918.98	108.69	53.44	-86.26	-4,591.34	-9,550.97	6,041.38	5,942.97	98.42	61.385		
11,100.00	7,059.63	7,333.93	6,920.78	111.36	53.44	-86.31	-4,591.36	-9,551.01	5,946.53	5,847.50	99.03	60.046		
11,200.00	7,059.33	7,335.73	6,922.59	114.05	53.45	-86.37	-4,591.39	-9,551.04	5,851.85	5,752.15	99.70	58.697		
11,300.00	7,059.03	7,337.54	6,924.39	116.74	53.45	-86.42	-4,591.41	-9,551.08	5,757.35	5,656.94	100.41	57.337		
11,400.00	7,058.74	7,339.35	6,926.20	119.44	53.46	-86.48	-4,591.43	-9,551.12	5,663.04	5,561.85	101.18	55.968		
11,500.00	7,058.44	7,341.16	6,928.01	122.15	53.46	-86.53	-4,591.46	-9,551.15	5,568.92	5,466.91	102.01	54.591		
11,600.00	7,058.14	7,342.97	6,929.82	124.86	53.47	-86.59	-4,591.48	-9,551.19	5,475.01	5,372.11	102.90	53.207		
11,700.00	7,057.84	7,344.78	6,931.64	127.58	53.47	-86.64	-4,591.51	-9,551.23	5,381.33	5,277.47	103.85	51.817		
11,800.00	7,057.55	7,346.60	6,933.45	130.31	53.48	-86.70	-4,591.53	-9,551.26	5,287.87	5,183.00	104.87	50.423		
11,900.00	7,057.25	7,348.42	6,935.27	133.04	53.48	-86.75	-4,591.55	-9,551.30	5,194.65	5,088.70	105.96	49.027		
12,000.00	7,056.95	7,350.24	6,937.09	135.78	53.49	-86.80	-4,591.58	-9,551.34	5,101.70	4,994.58	107.11	47.629		
12,100.00	7,056.65	7,352.06	6,938.91	138.52	53.50	-86.86	-4,591.60	-9,551.37	5,009.01	4,900.66	108.35	46.232		
12,200.00	7,056.36	7,353.89	6,940.74	141.27	53.50	-86.91	-4,591.62	-9,551.41	4,916.61	4,806.95	109.66	44.836		
12,300.00	7,056.06	7,355.71	6,942.56	144.02	53.51	-86.97	-4,591.65	-9,551.45	4,824.51	4,713.46	111.05	43.444		
12,400.00	7,055.76	7,357.53	6,944.38	146.78	53.51	-87.03	-4,591.68	-9,551.49	4,732.44	4,621.40	112.53	42.059		
12,500.00	7,055.46	7,359.35	6,946.20	149.54	53.52	-87.09	-4,591.70	-9,551.53	4,641.30	4,529.21	114.09	40.680		
12,600.00	7,055.17	7,361.17	6,948.02	152.30	53.52	-87.15	-4,591.72	-9,551.57	4,550.22	4,438.16	115.76	39.309		
12,700.00	7,054.87	7,362.99	6,949.84	155.07	53.53	-87.21	-4,591.75	-9,551.61	4,459.52	4,347.01	117.52	37.948		
12,800.00	7,054.57	7,364.81	6,951.66	157.84	53.53	-87.27	-4,591.77	-9,551.65	4,369.23	4,256.85	119.38	36.600		
12,900.00	7,054.27	7,366.63	6,953.48	160.61	53.54	-87.33	-4,591.80	-9,551.69	4,279.37	4,166.69	121.35	35.265		
13,000.00	7,053.97	7,368.45	6,955.30	163.39	53.54	-87.39	-4,591.82	-9,551.73	4,189.97	4,076.54	123.43	33.946		
13,100.00	7,053.68	7,370.27	6,957.12	166.17	53.55	-87.45	-4,591.85	-9,551.77	4,101.05	3,986.40	125.63	32.645		
13,200.00	7,053.38	7,372.09	6,958.94	168.95	53.55	-87.51	-4,591.88	-9,551.81	4,012.66	3,896.26	127.95	31.362		
13,300.00	7,053.08	7,373.91	6,960.76	171.73	53.56	-87.57	-4,591.90	-9,551.85	3,924.82	3,806.12	130.40	30.099		
13,400.00	7,052.78	7,375.73	6,962.58	174.52	53.56	-87.63	-4,591.93	-9,551.89	3,837.58	3,716.00	132.98	28.859		
13,500.00	7,052.48	7,377.55	6,964.40	177.31	53.57	-87.69	-4,591.95	-9,551.93	3,750.97	3,625.87	135.70	27.642		
13,600.00	7,052.19	7,379.37	6,966.22	180.10	53.57	-87.75	-4,591.98	-9,551.97	3,665.05	3,535.74	138.57	26.450		
13,700.00	7,051.89	7,381.19	6,968.04	182.90	53.58	-87.81	-4,592.00	-9,552.01	3,579.85	3,445.62	141.58	25.284		
13,800.00	7,051.59	7,383.01	6,969.86	185.69	53.58	-87.87	-4,592.03	-9,552.05	3,495.44	3,355.50	144.76	24.146		
13,900.00	7,051.30	7,384.83	6,971.68	188.49	53.59	-87.93	-4,592.06	-9,552.09	3,411.87	3,265.38	148.11	23.036		
14,000.00	7,051.00	7,386.65	6,973.50	191.29	53.59	-88.00	-4,592.09	-9,552.13	3,329.21	3,175.26	151.63	21.956		
14,100.00	7,050.70	7,388.47	6,975.32	194.09	53.60	-88.06	-4,592.12	-9,552.17	3,247.52	3,085.14	155.33	20.908		
14,200.00	7,050.40	7,390.29	6,977.14	196.89	53.60	-88.12	-4,592.15	-9,552.21	3,166.87	3,000.02	159.21	19.891		
14,300.00	7,050.11	7,392.11	6,978.96	199.70	53.61	-88.18	-4,592.18	-9,552.25	3,087.36	2,919.90	163.29	18.907		
14,400.00	7,049.81	7,393.93	6,980.78	202.50	53.61	-88.24	-4,592.21	-9,552.29	3,009.08	2,839.78	167.57	17.957		
14,500.00	7,049.51	7,395.75	6,982.60	205.31	53.62	-88.30	-4,592.24	-9,552.33	2,932.11	2,759.66	172.06	17.041		
14,600.00	7,049.21	7,397.57	6,984.42	208.12	53.62	-88.36	-4,592.27	-9,552.37	2,856.57	2,679.54	176.76	16.161		
14,700.00	7,048.92	7,399.39	6,986.24	210.93	53.63	-88.42	-4,592.30	-9,552.41	2,782.57	2,599.42	181.67	15.316		
14,800.00	7,048.62	7,401.21	6,988.06	213.74	53.63	-88.48	-4,592.33	-9,552.45	2,710.23	2,519.30	186.81	14.508		
14,900.00	7,048.32	7,403.03	6,989.88	216.55	53.64	-88.54	-4,592.36	-9,552.49	2,639.71	2,439.18	192.16	13.737		
15,000.00	7,048.02	7,404.85	6,991.70	219.37	53.64	-88.60	-4,592.39	-9,552.53	2,571.13	2,359.06	197.73	13.003		
15,100.00	7,047.73	7,406.67	6,993.52	222.18	53.65	-88.66	-4,592.42	-9,552.57	2,504.68	2,278.94	203.52	12.307		
15,200.00	7,047.43	7,408.49	6,995.34	225.00	53.65	-88.72	-4,592.45	-9,552.61	2,440.51	2,198.82	209.52	11.648		
15,300.00	7,047.13	7,410.31	6,997.16	227.81	53.66	-88.78	-4,592.48	-9,552.65	2,378.81	2,118.70	215.71	11.028		
15,343.67	7,047.00	7,408.83	6,995.66	229.04	53.65	-88.57	-4,592.29	-9,552.59	2,352.69	2,134.21	218.47	10.769	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	62.00	3.28	3.28	-128.31	-3,883.00	-4,914.14	6,263.42					
100.00	100.00	48.13	110.13	3.28	3.28	-128.31	-3,882.85	-4,914.22	6,263.08	6,256.51	6.57	953.796		
200.00	200.00	176.36	238.35	3.34	3.33	-128.30	-3,881.09	-4,914.98	6,262.70	6,256.03	6.66	939.664		
300.00	299.98	273.99	335.95	3.44	3.43	48.35	-3,879.20	-4,915.67	6,260.90	6,254.03	6.86	912.078		
400.00	399.84	372.00	433.94	3.59	3.57	48.46	-3,877.63	-4,916.24	6,256.88	6,249.72	7.16	874.103		
500.00	499.45	475.39	537.33	3.79	3.76	48.63	-3,876.18	-4,916.63	6,250.52	6,242.97	7.55	827.678		
600.00	598.70	592.14	654.07	4.03	4.03	48.87	-3,874.60	-4,916.79	6,241.73	6,233.67	8.06	774.269		
700.00	697.47	681.73	743.65	4.31	4.26	49.15	-3,873.46	-4,916.74	6,230.57	6,221.99	8.58	726.556		
800.00	795.62	780.84	842.76	4.64	4.54	49.49	-3,872.41	-4,916.63	6,217.27	6,208.09	9.17	677.742		
900.00	893.06	868.97	930.88	5.00	4.81	49.88	-3,871.49	-4,916.56	6,201.79	6,192.00	9.79	633.464		
1,000.00	989.64	958.66	1,020.56	5.40	5.10	50.33	-3,870.63	-4,916.61	6,184.30	6,173.85	10.46	591.441		
1,100.00	1,085.27	1,059.27	1,121.17	5.83	5.43	50.86	-3,869.66	-4,916.70	6,164.74	6,153.54	11.20	550.417		
1,200.00	1,179.82	1,151.37	1,213.26	6.29	5.75	51.43	-3,868.72	-4,916.71	6,143.01	6,131.05	11.95	513.870		
1,300.00	1,273.17	1,232.84	1,294.73	6.79	6.05	52.04	-3,867.90	-4,916.87	6,119.42	6,106.72	12.71	481.579		
1,400.00	1,365.46	1,313.12	1,375.01	7.32	6.34	52.45	-3,867.30	-4,917.06	6,094.45	6,080.97	13.48	451.971		
1,500.00	1,457.65	1,396.48	1,458.37	7.87	6.65	52.70	-3,866.91	-4,917.26	6,069.61	6,055.32	14.29	424.700		
1,600.00	1,549.83	1,499.13	1,561.02	8.43	7.03	53.01	-3,866.47	-4,917.47	6,044.91	6,029.73	15.19	397.991		
1,700.00	1,642.02	1,588.05	1,649.94	9.01	7.37	53.29	-3,866.13	-4,917.53	6,020.31	6,004.25	16.05	375.023		
1,800.00	1,734.21	1,684.44	1,746.32	9.59	7.74	53.58	-3,865.86	-4,917.54	5,995.85	5,978.89	16.96	353.534		
1,900.00	1,826.39	1,773.15	1,835.03	10.18	8.09	53.86	-3,865.54	-4,917.57	5,971.53	5,953.68	17.85	334.531		
2,000.00	1,918.58	1,849.20	1,911.08	10.78	8.39	54.10	-3,865.41	-4,917.62	5,947.49	5,928.79	18.70	317.975		
2,100.00	2,010.77	1,923.57	1,985.45	11.39	8.68	54.33	-3,865.44	-4,917.86	5,923.92	5,904.36	19.56	302.850		
2,200.00	2,102.95	2,006.30	2,068.19	11.99	9.01	54.59	-3,865.55	-4,918.30	5,900.71	5,880.25	20.46	288.461		
2,300.00	2,195.14	2,095.67	2,157.56	12.61	9.36	54.87	-3,865.77	-4,918.81	5,877.75	5,856.37	21.38	274.873		
2,400.00	2,287.32	2,186.67	2,248.55	13.22	9.73	55.17	-3,866.01	-4,919.37	5,854.99	5,832.67	22.32	262.269		
2,500.00	2,379.51	2,271.81	2,333.69	13.84	10.07	55.44	-3,866.16	-4,920.00	5,832.46	5,809.21	23.25	250.860		
2,600.00	2,471.70	2,362.93	2,424.80	14.46	10.44	55.74	-3,866.33	-4,920.77	5,810.18	5,785.98	24.20	240.056		
2,700.00	2,563.88	2,452.83	2,514.70	15.08	10.80	56.03	-3,866.48	-4,921.55	5,788.07	5,762.91	25.16	230.070		
2,800.00	2,656.07	2,538.60	2,600.47	15.71	11.15	56.32	-3,866.66	-4,922.35	5,766.22	5,740.11	26.10	220.913		
2,900.00	2,748.26	2,621.39	2,683.25	16.33	11.49	56.59	-3,866.73	-4,923.32	5,744.66	5,717.62	27.04	212.458		
3,000.00	2,840.44	2,700.02	2,761.88	16.96	11.82	56.86	-3,866.85	-4,924.40	5,723.48	5,695.51	27.96	204.666		
3,100.00	2,932.63	2,785.20	2,847.04	17.59	12.17	57.15	-3,867.10	-4,925.68	5,702.64	5,673.73	28.92	197.190		
3,200.00	3,024.81	2,872.34	2,934.17	18.22	12.53	57.44	-3,867.52	-4,927.01	5,682.10	5,652.21	29.89	190.132		
3,300.00	3,117.00	2,958.29	3,020.11	18.86	12.88	57.73	-3,868.11	-4,928.31	5,661.82	5,630.97	30.85	183.530		
3,400.00	3,209.19	3,053.17	3,114.98	19.49	13.28	58.06	-3,868.74	-4,929.84	5,641.81	5,609.96	31.85	177.130		
3,500.00	3,301.37	3,500.00	3,244.81	20.12	15.13	58.50	-3,869.38	-4,931.31	5,621.47	5,587.17	34.31	163.857		
3,600.00	3,393.56	3,292.44	3,354.23	20.76	14.27	58.88	-3,869.63	-4,931.98	5,600.78	5,566.73	34.05	164.495		
3,700.00	3,485.75	3,400.23	3,462.02	21.39	14.72	59.26	-3,869.72	-4,932.65	5,580.27	5,545.16	35.11	158.955		
3,800.00	3,577.93	3,487.46	3,549.24	22.03	15.08	59.57	-3,869.80	-4,933.07	5,559.84	5,523.75	36.09	154.053		
3,900.00	3,670.12	3,561.42	3,623.21	22.67	15.39	59.83	-3,869.99	-4,933.53	5,539.79	5,502.76	37.03	149.608		
4,000.00	3,762.30	3,634.03	3,695.82	23.30	15.70	60.09	-3,870.14	-4,934.29	5,520.26	5,482.30	37.96	145.406		
4,100.00	3,854.49	3,708.75	3,770.52	23.94	16.01	60.36	-3,870.30	-4,935.37	5,501.26	5,462.35	38.91	141.382		
4,200.00	3,946.68	3,792.55	3,854.31	24.58	16.36	60.66	-3,870.55	-4,936.76	5,482.67	5,442.77	39.89	137.436		
4,300.00	4,038.86	3,879.71	3,941.45	25.22	16.73	60.98	-3,871.01	-4,938.23	5,464.40	5,423.51	40.89	133.638		
4,400.00	4,131.05	3,951.37	4,013.10	25.86	17.03	61.24	-3,871.63	-4,939.47	5,446.53	5,404.70	41.83	130.205		
4,500.00	4,223.24	4,020.18	4,081.89	26.50	17.32	61.49	-3,872.48	-4,940.89	5,429.28	5,386.52	42.76	126.965		
4,600.00	4,315.42	4,093.96	4,155.65	27.14	17.63	61.75	-3,873.75	-4,942.55	5,412.60	5,368.88	43.71	123.818		
4,700.00	4,407.61	4,163.99	4,225.64	27.78	17.92	62.01	-3,875.28	-4,944.26	5,396.47	5,351.82	44.65	120.853		
4,800.00	4,499.79	4,262.71	4,324.29	28.42	18.34	62.36	-3,877.65	-4,946.90	5,380.83	5,335.12	45.70	117.733		
4,900.00	4,591.98	4,373.43	4,434.96	29.06	18.81	62.76	-3,879.80	-4,949.62	5,365.01	5,318.21	46.80	114.633		
5,000.00	4,684.17	4,471.00	4,532.49	29.70	19.22	63.13	-3,881.21	-4,952.05	5,349.24	5,301.39	47.85	111.788		
5,100.00	4,776.35	4,607.03	4,668.48	30.34	19.80	63.64	-3,882.67	-4,955.13	5,333.39	5,284.34	49.05	108.739		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,728.39	4,789.81	30.98	20.31	64.10	-3,883.54	-4,957.09	5,317.04	5,266.86	50.19	105.942		
5,300.00	4,960.73	4,837.85	4,899.27	31.63	20.77	64.52	-3,884.24	-4,958.28	5,300.42	5,249.14	51.29	103.350		
5,400.00	5,052.91	4,928.68	4,990.09	32.27	21.15	64.86	-3,884.78	-4,959.22	5,283.99	5,231.67	52.32	100.999		
5,500.00	5,145.10	5,027.05	5,088.46	32.91	21.57	65.24	-3,885.13	-4,960.30	5,267.73	5,214.35	53.38	98.688		
5,600.00	5,237.28	5,125.37	5,186.77	33.55	21.99	65.63	-3,885.19	-4,961.33	5,251.56	5,197.12	54.44	96.466		
5,700.00	5,329.47	5,213.40	5,274.80	34.20	22.36	65.98	-3,884.89	-4,962.41	5,235.65	5,180.19	55.47	94.394		
5,800.00	5,421.66	5,313.29	5,374.68	34.84	22.78	66.39	-3,884.34	-4,963.68	5,219.95	5,163.41	56.54	92.329		
5,900.00	5,513.84	5,386.55	5,447.93	35.48	23.09	66.68	-3,884.11	-4,964.66	5,204.61	5,147.10	57.51	90.496		
6,000.00	5,606.03	5,507.90	5,569.27	36.13	23.61	67.17	-3,883.72	-4,966.17	5,189.47	5,130.81	58.66	88.462		
6,100.00	5,698.22	5,579.86	5,641.22	36.77	23.92	67.47	-3,883.58	-4,966.96	5,174.46	5,114.82	59.64	86.766		
6,200.00	5,790.40	5,656.33	5,717.68	37.41	24.24	67.77	-3,883.80	-4,967.90	5,159.99	5,099.36	60.63	85.109		
6,300.00	5,882.59	5,741.35	5,802.70	38.06	24.60	68.12	-3,884.05	-4,969.19	5,146.01	5,084.35	61.65	83.469		
6,400.00	5,974.77	5,827.21	5,888.55	38.70	24.97	68.47	-3,884.46	-4,970.46	5,132.30	5,069.62	62.68	81.882		
6,500.00	6,066.96	5,900.01	5,961.33	39.34	25.28	68.77	-3,884.68	-4,971.86	5,119.17	5,055.51	63.66	80.415		
6,600.00	6,159.15	5,985.03	6,046.32	39.99	25.64	69.12	-3,884.77	-4,973.78	5,106.53	5,041.85	64.69	78.944		
6,700.00	6,251.33	6,095.59	6,156.86	40.63	26.11	69.58	-3,884.92	-4,976.14	5,094.06	5,028.26	65.81	77.407		
6,800.00	6,343.52	6,165.84	6,227.10	41.28	26.41	69.87	-3,885.00	-4,977.62	5,081.84	5,015.06	66.78	76.096		
6,900.00	6,435.71	6,242.67	6,303.90	41.92	26.73	70.20	-3,884.90	-4,979.67	5,070.28	5,002.50	67.78	74.805		
7,000.00	6,527.86	6,330.55	6,391.75	42.56	27.11	70.41	-3,885.28	-4,982.00	5,058.30	4,989.48	68.82	73.502		
7,100.00	6,618.85	6,421.29	6,482.46	43.19	27.49	70.66	-3,885.42	-4,984.51	5,035.06	4,965.23	69.83	72.105		
7,200.00	6,706.47	6,508.17	6,569.30	43.76	27.86	70.95	-3,885.46	-4,986.97	4,997.69	4,926.94	70.75	70.636		
7,300.00	6,788.56	6,596.83	6,657.92	44.26	28.24	71.20	-3,885.87	-4,989.34	4,946.96	4,875.36	71.60	69.094		
7,400.00	6,863.10	6,652.53	6,713.60	44.70	28.48	71.49	-3,886.24	-4,990.88	4,884.18	4,811.95	72.23	67.619		
7,500.00	6,928.26	6,700.01	6,761.06	45.07	28.68	71.73	-3,886.40	-4,992.43	4,811.00	4,738.26	72.74	66.137		
7,600.00	6,982.42	6,741.37	6,802.39	45.39	28.86	72.00	-3,886.43	-4,993.98	4,729.09	4,655.95	73.14	64.658		
7,700.00	7,024.26	6,773.63	6,834.62	45.67	29.00	72.24	-3,886.39	-4,995.32	4,640.34	4,566.93	73.41	63.213		
7,800.00	7,052.75	6,800.01	6,860.98	45.92	29.11	72.49	-3,886.31	-4,996.49	4,546.87	4,473.31	73.56	61.809		
7,900.00	7,067.18	6,810.89	6,871.84	46.16	29.15	72.73	-3,886.28	-4,997.00	4,450.96	4,377.38	73.58	60.493		
8,000.00	7,068.85	6,815.62	6,876.57	46.42	29.17	72.97	-3,886.26	-4,997.22	4,354.86	4,281.34	73.51	59.239		
8,100.00	7,068.56	6,818.92	6,879.86	46.78	29.19	73.21	-3,886.25	-4,997.37	4,259.02	4,185.57	73.45	57.986		
8,200.00	7,068.26	6,822.25	6,883.19	47.29	29.20	73.45	-3,886.24	-4,997.53	4,163.37	4,089.97	73.40	56.721		
8,300.00	7,067.96	6,825.61	6,886.55	48.03	29.22	73.69	-3,886.24	-4,997.69	4,067.93	3,994.56	73.37	55.441		
8,400.00	7,067.66	6,829.01	6,889.94	49.02	29.23	73.93	-3,886.23	-4,997.85	3,972.71	3,899.34	73.37	54.147		
8,500.00	7,067.37	6,832.44	6,893.36	50.27	29.25	74.17	-3,886.22	-4,998.01	3,877.73	3,804.34	73.39	52.836		
8,600.00	7,067.07	6,835.90	6,896.82	51.75	29.26	74.41	-3,886.22	-4,998.18	3,783.00	3,709.56	73.44	51.508		
8,700.00	7,066.77	6,839.39	6,900.31	53.42	29.28	74.65	-3,886.21	-4,998.35	3,688.55	3,615.02	73.53	50.163		
8,800.00	7,066.47	6,842.92	6,903.84	55.24	29.29	74.89	-3,886.21	-4,998.52	3,594.39	3,520.73	73.66	48.797		
8,900.00	7,066.18	6,846.49	6,907.40	57.18	29.31	75.13	-3,886.20	-4,998.69	3,500.55	3,426.72	73.83	47.411		
9,000.00	7,065.88	6,850.09	6,911.00	59.21	29.32	75.37	-3,886.20	-4,998.87	3,407.06	3,333.00	74.06	46.004		
9,100.00	7,065.58	6,853.73	6,914.63	61.33	29.34	75.61	-3,886.20	-4,999.05	3,313.94	3,239.59	74.35	44.575		
9,200.00	7,065.28	6,857.40	6,918.30	63.51	29.35	75.85	-3,886.20	-4,999.23	3,221.23	3,146.53	74.70	43.122		
9,300.00	7,064.99	6,861.12	6,922.01	65.76	29.37	76.09	-3,886.20	-4,999.42	3,128.96	3,053.83	75.13	41.646		
9,400.00	7,064.69	6,864.86	6,925.75	68.06	29.38	76.33	-3,886.20	-4,999.60	3,037.17	2,961.52	75.65	40.148		
9,500.00	7,064.39	6,868.65	6,929.54	70.40	29.40	76.57	-3,886.20	-4,999.79	2,945.92	2,869.65	76.27	38.626		
9,600.00	7,064.09	6,872.48	6,933.36	72.78	29.42	76.81	-3,886.20	-4,999.99	2,855.24	2,778.25	77.00	37.083		
9,700.00	7,063.80	6,876.35	6,937.22	75.20	29.43	77.05	-3,886.20	-5,000.18	2,765.21	2,687.35	77.85	35.519		
9,800.00	7,063.50	6,880.25	6,941.12	77.65	29.45	77.29	-3,886.20	-5,000.38	2,675.87	2,597.02	78.84	33.939		
9,900.00	7,063.20	6,884.20	6,945.06	80.13	29.47	77.53	-3,886.21	-5,000.58	2,587.30	2,507.31	79.99	32.344		
10,000.00	7,062.90	6,888.19	6,949.05	82.64	29.48	77.77	-3,886.21	-5,000.79	2,499.59	2,418.27	81.32	30.739		
10,100.00	7,062.61	6,892.22	6,953.07	85.17	29.50	78.01	-3,886.22	-5,000.99	2,412.83	2,330.00	82.83	29.129		
10,200.00	7,062.31	6,896.30	6,957.14	87.72	29.52	78.25	-3,886.23	-5,001.21	2,327.12	2,242.56	84.56	27.520		
10,300.00	7,062.01	6,900.01	6,960.86	90.28	29.53	78.49	-3,886.23	-5,001.40	2,242.59	2,156.07	86.52	25.920		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	6,904.19	6,965.03	92.87	29.55	-85.70	-3,886.24	-5,001.62	2,159.37	2,070.63	88.73	24.335		
10,500.00	7,061.41	6,908.07	6,968.90	95.47	29.57	-85.89	-3,886.25	-5,001.82	2,077.62	1,986.39	91.23	22.775		
10,600.00	7,061.12	6,912.01	6,972.84	98.09	29.59	-86.07	-3,886.27	-5,002.03	1,997.52	1,903.51	94.01	21.247		
10,700.00	7,060.82	6,916.02	6,976.84	100.72	29.60	-86.26	-3,886.28	-5,002.25	1,919.28	1,822.16	97.12	19.762		
10,800.00	7,060.52	6,920.10	6,980.92	103.37	29.62	-86.45	-3,886.29	-5,002.47	1,843.14	1,742.57	100.57	18.328		
10,900.00	7,060.22	6,924.26	6,985.07	106.02	29.64	-86.64	-3,886.31	-5,002.70	1,769.36	1,664.99	104.36	16.954		
11,000.00	7,059.93	6,928.49	6,989.29	108.69	29.66	-86.84	-3,886.33	-5,002.93	1,698.25	1,589.72	108.53	15.648		
11,100.00	7,059.63	6,932.79	6,993.58	111.36	29.67	-87.04	-3,886.35	-5,003.17	1,630.16	1,517.10	113.06	14.419		
11,200.00	7,059.33	6,937.17	6,997.96	114.05	29.69	-87.25	-3,886.37	-5,003.42	1,565.49	1,447.54	117.95	13.273		
11,300.00	7,059.03	6,941.63	7,002.41	116.74	29.71	-87.46	-3,886.40	-5,003.67	1,504.67	1,381.50	123.18	12.215		
11,400.00	7,058.74	6,946.17	7,006.94	119.44	29.73	-87.67	-3,886.42	-5,003.93	1,448.20	1,319.49	128.71	11.252		
11,500.00	7,058.44	6,950.80	7,011.56	122.15	29.75	-87.89	-3,886.45	-5,004.19	1,396.59	1,262.12	134.47	10.386		
11,600.00	7,058.14	6,955.51	7,016.27	124.86	29.77	-88.11	-3,886.48	-5,004.47	1,350.41	1,210.03	140.39	9.619		
11,700.00	7,057.84	6,960.31	7,021.06	127.58	29.79	-88.34	-3,886.51	-5,004.75	1,310.23	1,163.90	146.33	8.954		
11,800.00	7,057.55	6,965.21	7,025.95	130.31	29.81	-88.57	-3,886.55	-5,005.04	1,276.61	1,124.46	152.15	8.390		
11,900.00	7,057.25	6,970.20	7,030.93	133.04	29.83	-88.80	-3,886.59	-5,005.33	1,250.08	1,092.39	157.69	7.927		
12,000.00	7,056.95	6,975.28	7,036.00	135.78	29.86	-89.04	-3,886.63	-5,005.64	1,231.10	1,068.32	162.79	7.563		
12,100.00	7,056.65	6,980.47	7,041.18	138.52	29.88	-89.28	-3,886.67	-5,005.95	1,220.03	1,052.76	167.27	7.294		
12,186.12	7,056.40	6,985.01	7,045.72	140.89	29.90	-89.50	-3,886.71	-5,006.23	1,217.00	1,046.47	170.53	7.137 CC		
12,200.00	7,056.36	6,985.75	7,046.46	141.27	29.90	-89.53	-3,886.72	-5,006.28	1,217.08	1,046.08	170.99	7.118 ES		
12,300.00	7,056.06	6,991.15	7,051.84	144.02	29.92	-89.79	-3,886.77	-5,006.61	1,222.30	1,048.42	173.88	7.030		
12,400.00	7,055.76	6,996.65	7,057.33	146.78	29.95	-90.04	-3,886.83	-5,006.95	1,235.59	1,059.71	175.88	7.025 SF		
12,500.00	7,055.46	7,002.27	7,062.94	149.54	29.97	-90.31	-3,886.88	-5,007.31	1,256.70	1,079.69	177.00	7.100		
12,600.00	7,055.17	7,007.92	7,068.58	152.30	30.00	-90.57	-3,886.94	-5,007.66	1,285.23	1,107.91	177.32	7.248		
12,700.00	7,054.87	7,013.59	7,074.23	155.07	30.02	-90.84	-3,887.01	-5,008.02	1,320.71	1,143.79	176.93	7.465		
12,800.00	7,054.57	7,019.25	7,079.89	157.84	30.04	-91.11	-3,887.07	-5,008.38	1,362.60	1,186.67	175.94	7.745		
12,900.00	7,054.27	7,024.93	7,085.55	160.61	30.07	-91.37	-3,887.14	-5,008.74	1,410.33	1,235.86	174.47	8.084		
13,000.00	7,053.97	7,030.61	7,091.22	163.39	30.09	-91.64	-3,887.20	-5,009.10	1,463.31	1,290.68	172.64	8.476		
13,100.00	7,053.68	7,036.29	7,096.89	166.17	30.12	-91.91	-3,887.27	-5,009.46	1,521.01	1,350.46	170.55	8.918		
13,200.00	7,053.38	7,041.98	7,102.57	168.95	30.14	-92.17	-3,887.34	-5,009.82	1,582.91	1,414.61	168.30	9.405		
13,300.00	7,053.08	7,047.67	7,108.25	171.73	30.16	-92.44	-3,887.42	-5,010.18	1,648.53	1,482.58	165.95	9.934		
13,400.00	7,052.78	7,053.37	7,113.94	174.52	30.19	-92.71	-3,887.49	-5,010.54	1,717.45	1,553.89	163.57	10.500		
13,500.00	7,052.49	7,059.08	7,119.63	177.31	30.21	-92.97	-3,887.57	-5,010.90	1,789.29	1,628.10	161.19	11.101		
13,600.00	7,052.19	7,064.79	7,125.33	180.10	30.24	-93.24	-3,887.64	-5,011.26	1,863.71	1,704.86	158.85	11.733		
13,700.00	7,051.89	7,070.51	7,131.03	182.90	30.26	-93.51	-3,887.72	-5,011.62	1,940.41	1,783.84	156.57	12.393		
13,800.00	7,051.59	7,076.23	7,136.74	185.69	30.29	-93.77	-3,887.81	-5,011.99	2,019.14	1,864.76	154.37	13.080		
13,900.00	7,051.30	7,081.95	7,142.46	188.49	30.31	-94.04	-3,887.89	-5,012.35	2,099.65	1,947.40	152.26	13.790		
14,000.00	7,051.00	7,087.69	7,148.18	191.29	30.34	-94.31	-3,887.98	-5,012.71	2,181.77	2,031.54	150.24	14.522		
14,100.00	7,050.70	7,093.43	7,153.90	194.09	30.36	-94.58	-3,888.06	-5,013.08	2,265.31	2,117.00	148.31	15.274		
14,200.00	7,050.40	7,099.17	7,159.63	196.89	30.38	-94.84	-3,888.15	-5,013.44	2,350.12	2,203.64	146.47	16.045		
14,300.00	7,050.11	7,105.19	7,165.64	199.70	30.41	-95.12	-3,888.25	-5,013.83	2,436.07	2,291.33	144.74	16.831		
14,400.00	7,049.81	7,111.25	7,171.69	202.50	30.44	-95.41	-3,888.34	-5,014.21	2,523.04	2,379.95	143.09	17.633		
14,500.00	7,049.51	7,117.31	7,177.74	205.31	30.46	-95.69	-3,888.44	-5,014.60	2,610.92	2,469.40	141.53	18.448		
14,600.00	7,049.21	7,123.37	7,183.79	208.12	30.49	-95.97	-3,888.54	-5,014.98	2,699.64	2,559.59	140.05	19.276		
14,700.00	7,048.92	7,129.44	7,189.84	210.93	30.51	-96.25	-3,888.63	-5,015.37	2,789.11	2,650.46	138.65	20.116		
14,800.00	7,048.62	7,135.50	7,195.89	213.74	30.54	-96.53	-3,888.73	-5,015.75	2,879.26	2,741.93	137.33	20.966		
14,900.00	7,048.32	7,141.56	7,201.94	216.55	30.57	-96.81	-3,888.82	-5,016.14	2,970.03	2,833.95	136.08	21.826		
15,000.00	7,048.02	7,147.62	7,207.98	219.37	30.59	-97.09	-3,888.92	-5,016.52	3,061.36	2,926.46	134.89	22.695		
15,100.00	7,047.73	7,153.68	7,214.03	222.18	30.62	-97.37	-3,889.01	-5,016.91	3,153.20	3,019.43	133.77	23.571		
15,200.00	7,047.43	7,159.74	7,220.08	225.00	30.65	-97.65	-3,889.11	-5,017.29	3,245.52	3,112.81	132.71	24.455		
15,300.00	7,047.13	7,165.80	7,226.13	227.81	30.67	-97.93	-3,889.20	-5,017.68	3,338.26	3,206.56	131.71	25.346		
15,343.67	7,047.00	7,168.45	7,228.77	229.04	30.68	-98.05	-3,889.25	-5,017.85	3,378.90	3,247.61	131.28	25.737		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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-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	71.00	3.28	3.28	-146.72	-5,013.29	-3,291.08	5,997.45				
100.00	100.00	91.21	137.21	3.28	3.28	-146.72	-5,013.13	-3,290.95	5,996.94	5,990.37	6.57	913.038	
200.00	200.00	192.01	238.00	3.34	3.33	-146.71	-5,012.39	-3,290.76	5,996.21	5,989.55	6.67	899.577	
300.00	299.98	263.83	309.83	3.44	3.39	29.91	-5,011.88	-3,290.98	5,994.28	5,987.45	6.83	877.166	
400.00	399.84	355.02	401.01	3.59	3.51	29.98	-5,011.79	-3,291.10	5,989.73	5,982.62	7.11	842.942	
500.00	499.45	1,483.83	1,516.44	3.79	7.56	31.65	-4,870.87	-3,322.03	5,969.67	5,958.40	11.27	529.903	
600.00	598.70	1,541.87	1,572.95	4.03	7.87	32.07	-4,857.78	-3,324.17	5,942.78	5,931.02	11.76	505.337	
700.00	697.47	1,620.16	1,649.21	4.31	8.30	32.59	-4,840.38	-3,327.33	5,913.57	5,901.17	12.40	477.038	
800.00	795.62	1,684.64	1,711.98	4.64	8.65	33.13	-4,825.97	-3,330.34	5,881.91	5,868.91	13.00	452.317	
900.00	893.06	1,793.62	1,818.18	5.00	9.26	33.86	-4,802.04	-3,335.62	5,848.03	5,834.16	13.87	421.632	
1,000.00	989.64	1,881.86	1,904.04	5.40	9.77	34.60	-4,782.16	-3,339.93	5,811.10	5,796.44	14.67	396.221	
1,100.00	1,085.27	1,968.42	1,988.26	5.83	10.27	35.40	-4,762.65	-3,344.16	5,771.68	5,756.20	15.48	372.771	
1,200.00	1,179.82	2,053.19	2,070.75	6.29	10.77	36.28	-4,743.55	-3,348.30	5,729.83	5,713.52	16.32	351.141	
1,300.00	1,273.17	2,136.07	2,151.40	6.79	11.26	37.22	-4,724.87	-3,352.35	5,685.64	5,668.47	17.17	331.177	
1,400.00	1,365.46	2,217.33	2,230.47	7.32	11.74	37.84	-4,706.56	-3,356.32	5,639.63	5,621.60	18.03	312.766	
1,500.00	1,457.65	2,301.57	2,309.38	7.87	12.25	38.22	-4,688.29	-3,360.28	5,593.65	5,574.73	18.92	295.621	
1,600.00	1,549.83	2,379.53	2,388.29	8.43	12.71	38.61	-4,670.01	-3,364.25	5,547.90	5,528.11	19.80	280.231	
1,700.00	1,642.02	2,460.63	2,467.21	9.01	13.20	39.00	-4,651.74	-3,368.21	5,502.40	5,481.69	20.71	265.715	
1,800.00	1,734.21	2,541.72	2,546.12	9.59	13.70	39.39	-4,633.46	-3,372.17	5,457.15	5,435.51	21.63	252.250	
1,900.00	1,826.39	2,622.82	2,625.03	10.18	14.19	39.79	-4,615.19	-3,376.13	5,412.15	5,389.57	22.57	239.750	
2,000.00	1,918.58	2,703.92	2,703.95	10.78	14.69	40.20	-4,596.91	-3,380.10	5,367.41	5,343.88	23.53	228.135	
2,100.00	2,010.77	2,785.02	2,782.86	11.39	15.19	40.61	-4,578.64	-3,384.06	5,322.93	5,298.44	24.49	217.328	
2,200.00	2,102.95	2,866.12	2,861.77	11.99	15.68	41.03	-4,560.37	-3,388.02	5,278.73	5,253.26	25.47	207.259	
2,300.00	2,195.14	2,956.80	2,940.68	12.61	16.24	41.45	-4,542.09	-3,391.99	5,234.81	5,208.30	26.51	197.462	
2,400.00	2,287.32	3,028.31	3,019.60	13.22	16.69	41.88	-4,523.82	-3,395.95	5,191.18	5,163.73	27.45	189.089	
2,500.00	2,379.51	3,109.41	3,098.51	13.84	17.19	42.32	-4,505.54	-3,399.91	5,147.85	5,119.39	28.46	180.876	
2,600.00	2,471.70	3,190.51	3,177.42	14.46	17.69	42.76	-4,487.27	-3,403.87	5,104.82	5,075.34	29.48	173.181	
2,700.00	2,563.88	3,271.61	3,256.34	15.08	18.19	43.21	-4,468.99	-3,407.84	5,062.09	5,031.59	30.50	165.961	
2,800.00	2,656.07	3,352.70	3,335.25	15.71	18.70	43.66	-4,450.72	-3,411.80	5,019.69	4,988.15	31.54	159.176	
2,900.00	2,748.26	3,433.80	3,414.16	16.33	19.21	44.12	-4,432.44	-3,415.76	4,977.61	4,945.03	32.58	152.792	
3,000.00	2,840.44	3,514.90	3,493.07	16.96	19.71	44.58	-4,414.17	-3,419.73	4,935.87	4,902.24	33.63	146.778	
3,100.00	2,932.63	3,604.00	3,571.99	17.59	20.27	45.06	-4,395.89	-3,423.69	4,894.47	4,859.74	34.73	140.915	
3,200.00	3,024.81	3,677.10	3,650.90	18.22	20.73	45.53	-4,377.62	-3,427.65	4,853.42	4,817.67	35.75	135.746	
3,300.00	3,117.00	3,758.19	3,729.81	18.86	21.23	46.02	-4,359.35	-3,431.62	4,812.74	4,775.91	36.83	130.681	
3,400.00	3,209.19	3,839.28	3,810.81	19.49	21.73	46.51	-4,341.08	-3,435.59	4,768.81	4,737.98	37.96	125.746	
3,500.00	3,301.37	3,920.37	3,891.90	20.12	22.23	47.00	-4,322.81	-3,439.56	4,724.88	4,694.05	39.13	120.811	
3,600.00	3,393.56	4,001.46	3,972.99	20.76	22.73	47.49	-4,304.54	-3,443.53	4,680.95	4,650.12	40.34	115.876	
3,700.00	3,485.75	4,082.55	4,053.12	21.39	23.23	47.98	-4,286.32	-3,447.50	4,637.82	4,606.99	41.59	110.941	
3,800.00	3,577.93	4,163.64	4,133.21	22.03	23.73	48.47	-4,268.10	-3,451.47	4,594.69	4,564.86	42.84	106.006	
3,900.00	3,670.12	4,244.73	4,214.30	22.67	24.23	48.96	-4,249.88	-3,455.44	4,551.56	4,521.73	44.09	101.071	
4,000.00	3,762.30	4,325.82	4,294.39	23.30	24.73	49.45	-4,231.66	-3,459.41	4,508.43	4,478.60	45.34	96.136	
4,100.00	3,854.49	4,406.91	4,376.48	23.94	25.23	49.94	-4,213.44	-3,463.38	4,465.30	4,435.47	46.59	91.201	
4,200.00	3,946.68	4,488.00	4,457.57	24.58	25.73	50.43	-4,195.22	-3,467.35	4,422.17	4,392.34	47.84	86.266	
4,300.00	4,038.86	4,569.09	4,538.66	25.22	26.23	50.92	-4,177.00	-3,471.32	4,379.04	4,349.21	49.09	81.331	
4,400.00	4,131.05	4,650.18	4,619.75	25.86	26.73	51.41	-4,158.78	-3,475.29	4,335.91	4,306.08	50.34	76.396	
4,500.00	4,223.24	4,731.27	4,700.84	26.50	27.23	51.90	-4,140.56	-3,479.26	4,292.78	4,262.95	51.59	71.461	
4,600.00	4,315.42	4,812.36	4,781.93	27.14	27.73	52.39	-4,122.34	-3,483.23	4,249.65	4,219.82	52.84	66.526	
4,700.00	4,407.61	4,893.45	4,863.02	27.78	28.23	52.88	-4,104.12	-3,487.20	4,206.52	4,176.69	54.09	61.591	
4,800.00	4,499.79	4,974.54	4,944.11	28.42	28.73	53.37	-4,085.90	-3,491.17	4,163.39	4,133.56	55.34	56.656	
4,900.00	4,591.98	5,055.63	5,025.20	29.06	29.23	53.86	-4,067.68	-3,495.14	4,120.26	4,090.43	56.59	51.721	
5,000.00	4,684.17	5,136.72	5,106.29	29.70	29.73	54.35	-4,049.46	-3,499.11	4,077.13	4,047.30	57.84	46.786	
5,100.00	4,776.35	5,217.81	5,187.38	30.34	30.23	54.84	-4,031.24	-3,503.08	4,034.00	4,004.17	59.09	41.851	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	10,624.10	7,244.96	30.98	117.80	-11.77	-3,532.36	-54.40	2,991.08	2,901.27	89.82	33.301		
5,300.00	4,960.73	10,620.05	7,245.03	31.63	117.67	-11.47	-3,532.37	-58.46	2,894.51	2,803.75	90.76	31.893		
5,400.00	5,052.91	10,615.99	7,245.10	32.27	117.54	-11.17	-3,532.39	-62.51	2,798.16	2,706.40	91.76	30.494		
5,500.00	5,145.10	10,611.94	7,245.17	32.91	117.41	-10.87	-3,532.40	-66.57	2,702.08	2,609.25	92.83	29.107		
5,600.00	5,237.28	10,607.88	7,245.24	33.55	117.28	-10.57	-3,532.42	-70.62	2,606.28	2,512.30	93.99	27.731		
5,700.00	5,329.47	10,603.82	7,245.32	34.20	117.16	-10.27	-3,532.43	-74.68	2,510.81	2,415.59	95.22	26.368		
5,800.00	5,421.66	10,600.23	7,245.39	34.84	117.04	-9.96	-3,532.44	-78.73	2,415.69	2,319.13	96.56	25.017		
5,900.00	5,513.84	10,595.71	7,245.46	35.48	116.90	-9.66	-3,532.46	-82.79	2,320.98	2,223.00	97.98	23.688		
6,000.00	5,606.03	10,591.66	7,245.53	36.13	116.77	-9.36	-3,532.47	-86.84	2,226.73	2,127.20	99.52	22.374		
6,100.00	5,698.22	10,587.60	7,245.60	36.77	116.64	-9.05	-3,532.48	-90.90	2,132.99	2,031.80	101.19	21.080		
6,200.00	5,790.40	10,583.55	7,245.67	37.41	116.52	-8.75	-3,532.50	-94.95	2,039.83	1,936.85	102.99	19.807		
6,300.00	5,882.59	10,579.49	7,245.74	38.06	116.39	-8.44	-3,532.51	-99.01	1,947.35	1,842.41	104.93	18.558		
6,400.00	5,974.77	10,575.44	7,245.82	38.70	116.26	-8.14	-3,532.52	-103.06	1,855.64	1,748.59	107.05	17.335		
6,500.00	6,066.96	10,571.38	7,245.89	39.34	116.13	-7.83	-3,532.54	-107.12	1,764.81	1,655.48	109.34	16.141		
6,600.00	6,159.15	10,567.33	7,245.96	39.99	116.00	-7.53	-3,532.55	-111.17	1,675.03	1,563.20	111.83	14.979		
6,700.00	6,251.33	10,563.27	7,246.03	40.63	115.88	-7.22	-3,532.56	-115.22	1,586.46	1,471.92	114.53	13.852		
6,800.00	6,343.52	10,559.22	7,246.10	41.28	115.75	-6.91	-3,532.58	-119.28	1,499.31	1,381.84	117.47	12.763		
6,900.00	6,435.71	10,555.16	7,246.17	41.92	115.62	-6.61	-3,532.59	-123.33	1,413.85	1,293.20	120.65	11.719		
7,000.00	6,527.86	10,551.11	7,246.24	42.56	115.49	-6.30	-3,532.61	-127.38	1,330.45	1,206.30	124.16	10.716		
7,100.00	6,618.85	10,547.06	7,246.31	43.20	115.36	-6.00	-3,532.62	-131.43	1,250.54	1,123.22	127.32	9.822		
7,200.00	6,706.47	10,543.01	7,246.38	43.84	115.23	-5.70	-3,532.63	-135.48	1,176.31	1,046.15	130.16	9.037		
7,300.00	6,788.56	10,538.96	7,246.45	44.48	115.10	-5.40	-3,532.64	-139.53	1,109.64	977.20	132.44	8.379		
7,400.00	6,863.10	10,534.91	7,246.52	45.12	114.97	-5.10	-3,532.65	-143.58	1,051.92	917.93	134.00	7.850		
7,500.00	6,928.26	10,530.86	7,246.59	45.76	114.84	-4.80	-3,532.66	-147.63	1,003.79	869.26	134.53	7.461		
7,600.00	6,982.42	10,526.81	7,246.66	46.40	114.71	-4.50	-3,532.67	-151.68	965.63	831.03	134.60	7.174		
7,700.00	7,024.26	10,522.76	7,246.73	47.04	114.58	-4.20	-3,532.68	-155.73	937.52	803.29	134.22	6.985		
7,800.00	7,052.75	10,518.71	7,246.80	47.68	114.45	-3.90	-3,532.69	-159.78	919.04	786.35	132.70	6.926 SF		
7,900.00	7,067.18	9,953.87	7,249.62	46.16	96.86	-101.41	-3,534.60	-724.59	909.75	778.76	130.99	6.945 ES		
8,000.00	7,068.85	9,853.92	7,249.62	46.42	93.80	-101.48	-3,534.93	-824.54	908.35	779.35	129.00	7.042		
8,100.00	7,068.56	9,753.92	7,249.62	46.78	90.75	-101.50	-3,535.27	-924.54	908.15	781.02	127.14	7.143		
8,200.00	7,068.26	9,653.93	7,249.62	47.29	87.72	-101.52	-3,535.60	-1,024.53	907.95	782.49	125.46	7.237		
8,300.00	7,067.96	9,553.93	7,249.62	48.03	84.72	-101.54	-3,535.94	-1,124.53	907.75	783.80	123.95	7.323		
8,400.00	7,067.66	9,453.93	7,249.62	49.02	81.74	-101.57	-3,536.27	-1,224.53	907.55	784.95	122.60	7.402		
8,500.00	7,067.37	9,353.93	7,249.62	50.27	78.79	-101.59	-3,536.60	-1,324.53	907.36	785.96	121.40	7.474		
8,600.00	7,067.07	9,253.93	7,249.62	51.75	75.87	-101.61	-3,536.94	-1,424.53	907.16	786.83	120.33	7.539		
8,700.00	7,066.77	9,153.93	7,249.62	53.42	72.99	-101.63	-3,537.27	-1,524.53	906.96	787.57	119.38	7.597		
8,800.00	7,066.47	9,053.93	7,249.62	55.24	70.15	-101.65	-3,537.61	-1,624.53	906.76	788.20	118.56	7.648		
8,900.00	7,066.18	8,953.93	7,249.62	57.18	67.36	-101.68	-3,537.94	-1,724.52	906.56	788.71	117.85	7.693		
9,000.00	7,065.88	8,853.93	7,249.62	59.21	64.63	-101.70	-3,538.27	-1,824.52	906.36	789.12	117.25	7.730		
9,100.00	7,065.58	8,753.93	7,249.62	61.33	61.96	-101.72	-3,538.61	-1,924.52	906.16	789.41	116.76	7.761		
9,200.00	7,065.28	8,653.93	7,249.62	63.51	59.36	-101.74	-3,538.94	-2,024.52	905.97	789.59	116.37	7.785		
9,300.00	7,064.99	8,553.93	7,249.62	65.76	56.85	-101.76	-3,539.28	-2,124.52	905.77	789.66	116.11	7.801		
9,400.00	7,064.69	8,453.94	7,249.62	68.06	54.44	-101.78	-3,539.61	-2,224.52	905.57	789.62	115.96	7.810		
9,500.00	7,064.39	8,353.94	7,249.62	70.40	52.16	-101.81	-3,539.94	-2,324.52	905.37	789.44	115.93	7.810		
9,600.00	7,064.09	8,253.94	7,249.62	72.78	50.05	-101.83	-3,540.28	-2,424.52	905.18	789.14	116.04	7.801		
9,700.00	7,063.80	8,153.94	7,249.62	75.20	48.13	-101.85	-3,540.61	-2,524.51	904.98	788.68	116.30	7.782		
9,800.00	7,063.50	8,053.94	7,249.62	77.65	46.48	-101.87	-3,540.94	-2,624.51	904.78	788.07	116.72	7.752		
9,900.00	7,063.20	7,953.94	7,249.62	80.13	45.16	-101.89	-3,541.28	-2,724.51	904.58	787.27	117.31	7.711		
10,000.00	7,062.90	7,853.94	7,249.62	82.64	44.20	-101.92	-3,541.61	-2,824.51	904.39	786.28	118.11	7.657		
10,100.00	7,062.61	7,753.94	7,249.62	85.17	43.57	-101.94	-3,541.95	-2,924.51	904.19	785.07	119.12	7.590		
10,174.79	7,062.38	7,680.86	7,247.12	87.07	43.27	-101.79	-3,542.77	-2,997.51	904.10	783.94	120.15	7.524 CC		
10,200.00	7,062.31	7,656.60	7,244.55	87.72	43.19	-101.63	-3,543.45	-3,021.62	904.11	783.53	120.58	7.498		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,563.22	7,226.37	90.28	42.94	-100.47	-3,547.96	-3,113.02	904.63	781.92	122.71	7.372		
10,400.00	7,061.71	7,476.84	7,198.13	92.87	42.76	-98.65	-3,554.78	-3,194.29	906.61	781.23	125.38	7.231		
10,500.00	7,061.41	7,399.46	7,163.93	95.47	42.61	-96.46	-3,562.94	-3,263.18	911.30	782.98	128.32	7.102		
10,600.00	7,061.12	7,331.66	7,127.47	98.09	42.46	-94.14	-3,571.58	-3,319.64	920.02	788.81	131.22	7.011		
10,700.00	7,060.82	7,273.03	7,091.37	100.72	42.32	-91.87	-3,580.09	-3,365.02	933.93	800.11	133.82	6.979		
10,800.00	7,060.52	7,222.64	7,057.20	103.37	42.20	-89.75	-3,588.13	-3,401.16	953.87	817.92	135.95	7.016		
10,900.00	7,060.22	7,179.37	7,025.72	106.02	42.07	-87.83	-3,595.52	-3,429.89	980.32	842.77	137.54	7.127		
11,000.00	7,059.93	7,142.14	6,997.16	108.69	41.96	-86.12	-3,602.22	-3,452.80	1,013.41	874.84	138.57	7.313		
11,100.00	7,059.63	7,109.98	6,971.47	111.36	41.85	-84.60	-3,608.23	-3,471.19	1,053.02	913.94	139.08	7.571		
11,200.00	7,059.33	7,082.06	6,948.46	114.05	41.75	-83.27	-3,613.62	-3,486.06	1,098.80	959.65	139.15	7.897		
11,300.00	7,059.03	7,052.01	6,923.01	116.74	41.65	-81.82	-3,619.56	-3,500.88	1,150.32	1,011.47	138.86	8.284		
11,400.00	7,058.74	7,036.24	6,909.39	119.44	41.58	-81.05	-3,622.74	-3,508.16	1,206.97	1,068.72	138.25	8.731		
11,500.00	7,058.44	7,010.76	6,887.02	122.15	41.48	-79.81	-3,627.96	-3,519.19	1,268.32	1,130.86	137.46	9.227		
11,600.00	7,058.14	7,000.00	6,877.45	124.86	41.44	-79.29	-3,630.20	-3,523.57	1,333.70	1,197.22	136.48	9.772		
11,700.00	7,057.84	6,985.48	6,864.42	127.58	41.37	-78.58	-3,633.24	-3,529.21	1,402.75	1,267.33	135.42	10.359		
11,800.00	7,057.55	6,972.00	6,852.21	130.31	41.32	-77.93	-3,636.08	-3,534.18	1,474.97	1,340.67	134.30	10.983		
11,900.00	7,057.25	6,952.01	6,833.94	133.04	41.23	-76.96	-3,640.34	-3,541.05	1,550.05	1,416.86	133.19	11.638		
12,000.00	7,056.95	6,952.01	6,833.94	135.78	41.23	-76.96	-3,640.34	-3,541.05	1,627.46	1,495.45	132.01	12.328		
12,100.00	7,056.65	6,952.01	6,833.94	138.52	41.23	-76.96	-3,640.34	-3,541.05	1,707.22	1,576.38	130.84	13.048		
12,200.00	7,056.36	6,929.67	6,813.26	141.27	41.12	-75.88	-3,645.15	-3,548.03	1,788.54	1,658.73	129.81	13.778		
12,300.00	7,056.06	6,921.29	6,805.45	144.02	41.08	-75.48	-3,646.97	-3,550.45	1,871.68	1,742.93	128.75	14.537		
12,400.00	7,055.76	6,900.00	6,785.47	146.78	40.98	-74.47	-3,651.62	-3,556.14	1,956.45	1,828.67	127.79	15.310		
12,500.00	7,055.46	6,900.00	6,785.47	149.54	40.98	-74.47	-3,651.62	-3,556.14	2,042.21	1,915.42	126.79	16.107		
12,600.00	7,055.17	6,900.00	6,785.47	152.30	40.98	-74.47	-3,651.62	-3,556.14	2,129.21	2,003.37	125.84	16.920		
12,700.00	7,054.87	6,900.00	6,785.47	155.07	40.98	-74.47	-3,651.62	-3,556.14	2,217.31	2,092.38	124.93	17.748		
12,800.00	7,054.57	6,900.00	6,785.47	157.84	40.98	-74.47	-3,651.62	-3,556.14	2,306.38	2,182.30	124.07	18.589		
12,900.00	7,054.27	6,900.00	6,785.47	160.61	40.98	-74.47	-3,651.62	-3,556.14	2,396.31	2,273.05	123.26	19.442		
13,000.00	7,053.97	6,877.95	6,764.60	163.39	40.87	-73.43	-3,656.48	-3,561.30	2,486.55	2,363.97	122.58	20.285		
13,100.00	7,053.68	6,873.34	6,760.20	166.17	40.85	-73.22	-3,657.50	-3,562.28	2,577.73	2,455.86	121.87	21.151		
13,200.00	7,053.38	6,852.01	6,739.83	168.95	40.74	-72.23	-3,662.23	-3,566.41	2,669.78	2,548.52	121.26	22.017		
13,300.00	7,053.08	6,852.01	6,739.83	171.73	40.74	-72.23	-3,662.23	-3,566.41	2,761.98	2,641.37	120.61	22.900		
13,400.00	7,052.78	6,852.01	6,739.83	174.52	40.74	-72.23	-3,662.23	-3,566.41	2,854.71	2,734.71	120.00	23.790		
13,500.00	7,052.49	6,852.01	6,739.83	177.31	40.74	-72.23	-3,662.23	-3,566.41	2,947.91	2,828.49	119.41	24.687		
13,600.00	7,052.19	6,852.01	6,739.83	180.10	40.74	-72.23	-3,662.23	-3,566.41	3,041.54	2,922.68	118.86	25.589		
13,700.00	7,051.89	6,852.01	6,739.83	182.90	40.74	-72.23	-3,662.23	-3,566.41	3,135.57	3,017.23	118.34	26.496		
13,800.00	7,051.59	6,852.01	6,739.83	185.69	40.74	-72.23	-3,662.23	-3,566.41	3,229.96	3,112.11	117.85	27.408		
13,900.00	7,051.30	6,852.01	6,739.83	188.49	40.74	-72.23	-3,662.23	-3,566.41	3,324.67	3,207.29	117.38	28.324		
14,000.00	7,051.00	6,852.01	6,739.83	191.29	40.74	-72.23	-3,662.23	-3,566.41	3,419.69	3,302.75	116.94	29.244		
14,100.00	7,050.70	6,852.01	6,739.83	194.09	40.74	-72.23	-3,662.23	-3,566.41	3,514.98	3,398.46	116.52	30.167		
14,200.00	7,050.40	6,852.01	6,739.83	196.89	40.74	-72.23	-3,662.23	-3,566.41	3,610.53	3,494.40	116.12	31.093		
14,300.00	7,050.11	6,852.01	6,739.83	199.70	40.74	-72.23	-3,662.23	-3,566.41	3,706.31	3,590.56	115.74	32.022		
14,400.00	7,049.81	6,852.01	6,739.83	202.50	40.74	-72.23	-3,662.23	-3,566.41	3,802.31	3,686.92	115.39	32.953		
14,500.00	7,049.51	6,830.20	6,718.86	205.31	40.62	-71.23	-3,667.11	-3,569.91	3,898.08	3,782.97	115.11	33.865		
14,600.00	7,049.21	6,828.13	6,716.86	208.12	40.61	-71.14	-3,667.57	-3,570.20	3,994.39	3,879.60	114.79	34.798		
14,700.00	7,048.92	6,826.14	6,714.94	210.93	40.60	-71.05	-3,668.02	-3,570.48	4,090.86	3,976.37	114.49	35.732		
14,800.00	7,048.62	6,824.24	6,713.10	213.74	40.58	-70.96	-3,668.44	-3,570.74	4,187.49	4,073.29	114.20	36.669		
14,900.00	7,048.32	6,822.41	6,711.34	216.55	40.57	-70.88	-3,668.85	-3,570.98	4,284.27	4,170.35	113.92	37.606		
15,000.00	7,048.02	6,800.00	6,689.65	219.37	40.45	-69.88	-3,673.89	-3,573.53	4,381.57	4,267.86	113.71	38.534		
15,100.00	7,047.73	6,800.00	6,689.65	222.18	40.45	-69.88	-3,673.89	-3,573.53	4,478.56	4,365.10	113.45	39.474		
15,200.00	7,047.43	6,800.00	6,689.65	225.00	40.45	-69.88	-3,673.89	-3,573.53	4,575.68	4,462.47	113.21	40.416		
15,300.00	7,047.13	6,800.00	6,689.65	227.81	40.45	-69.88	-3,673.89	-3,573.53	4,672.92	4,559.94	112.99	41.359		
15,343.67	7,047.00	6,800.00	6,689.65	229.04	40.45	-69.88	-3,673.89	-3,573.53	4,715.43	4,602.54	112.89	41.770		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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-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	71.00	3.28	3.28	-146.61	-4,993.26	-3,291.08	5,980.71				
100.00	100.00	1,168.32	1,199.42	3.28	6.56	-145.59	-4,845.81	-3,319.60	5,975.82	5,966.02	9.80	609.951	
200.00	200.00	1,260.69	1,288.40	3.34	7.10	-145.41	-4,821.69	-3,325.45	5,957.51	5,947.21	10.30	578.531	
300.00	299.98	1,395.66	1,418.49	3.44	7.90	31.67	-4,786.51	-3,332.95	5,937.42	5,926.32	11.10	535.032	
400.00	399.84	1,476.69	1,496.73	3.59	8.40	32.09	-4,765.78	-3,336.73	5,914.43	5,902.77	11.66	507.339	
500.00	499.45	1,579.07	1,595.67	3.79	9.02	32.61	-4,739.78	-3,340.85	5,888.46	5,876.08	12.38	475.529	
600.00	598.70	1,635.45	1,650.26	4.03	9.37	33.06	-4,725.84	-3,342.96	5,860.15	5,847.25	12.90	454.363	
700.00	697.47	1,787.39	1,797.32	4.31	10.31	33.84	-4,688.15	-3,349.01	5,829.37	5,815.39	13.98	416.967	
800.00	795.62	1,877.08	1,883.79	4.64	10.89	34.53	-4,664.68	-3,353.17	5,795.09	5,780.32	14.77	392.354	
900.00	893.06	1,965.20	1,968.73	5.00	11.47	35.28	-4,641.61	-3,357.26	5,758.26	5,742.68	15.58	369.498	
1,000.00	989.64	2,051.62	2,052.04	5.40	12.03	36.10	-4,618.99	-3,361.28	5,718.96	5,702.55	16.42	348.318	
1,100.00	1,085.27	2,136.25	2,133.62	5.83	12.59	36.99	-4,596.84	-3,365.21	5,677.27	5,660.00	17.27	328.708	
1,200.00	1,179.82	2,218.98	2,213.38	6.29	13.14	37.94	-4,575.19	-3,369.05	5,633.26	5,615.12	18.14	310.546	
1,300.00	1,273.17	2,300.29	2,291.20	6.79	13.68	38.98	-4,554.06	-3,372.80	5,587.02	5,568.00	19.03	293.657	
1,400.00	1,365.46	2,378.73	2,367.38	7.32	14.21	39.66	-4,533.38	-3,376.47	5,539.07	5,519.16	19.92	278.112	
1,500.00	1,457.65	2,457.58	2,443.40	7.87	14.73	40.07	-4,512.74	-3,380.13	5,491.20	5,470.37	20.82	263.730	
1,600.00	1,549.83	2,536.43	2,519.41	8.43	15.26	40.48	-4,492.10	-3,383.79	5,443.59	5,421.85	21.75	250.327	
1,700.00	1,642.02	2,615.28	2,595.43	9.01	15.79	40.90	-4,471.46	-3,387.46	5,396.27	5,373.58	22.69	237.840	
1,800.00	1,734.21	2,694.13	2,671.44	9.59	16.32	41.33	-4,450.82	-3,391.12	5,349.24	5,325.59	23.65	226.203	
1,900.00	1,826.39	2,772.99	2,747.46	10.18	16.86	41.77	-4,430.19	-3,394.78	5,302.50	5,277.88	24.62	215.355	
2,000.00	1,918.58	2,851.84	2,823.47	10.78	17.39	42.21	-4,409.55	-3,398.44	5,256.07	5,230.46	25.61	205.233	
2,100.00	2,010.77	2,930.69	2,899.49	11.39	17.92	42.65	-4,388.91	-3,402.10	5,209.95	5,183.34	26.61	195.779	
2,200.00	2,102.95	3,009.54	2,975.50	11.99	18.46	43.10	-4,368.27	-3,405.76	5,164.15	5,136.52	27.62	186.938	
2,300.00	2,195.14	3,088.39	3,051.51	12.61	18.99	43.56	-4,347.63	-3,409.43	5,118.68	5,090.03	28.65	178.663	
2,400.00	2,287.32	3,167.24	3,127.53	13.22	19.53	44.03	-4,326.99	-3,413.09	5,073.54	5,043.86	29.69	170.906	
2,500.00	2,379.51	3,246.10	3,203.54	13.84	20.07	44.50	-4,306.36	-3,416.75	5,028.76	4,998.03	30.73	163.626	
2,600.00	2,471.70	3,324.95	3,279.56	14.46	20.60	44.98	-4,285.72	-3,420.41	4,984.33	4,952.54	31.79	156.786	
2,700.00	2,563.88	3,403.80	3,355.57	15.08	21.14	45.46	-4,265.08	-3,424.07	4,940.27	4,907.41	32.86	150.351	
2,800.00	2,656.07	3,482.65	3,431.59	15.71	21.68	45.95	-4,244.44	-3,427.74	4,896.58	4,862.64	33.94	144.291	
2,900.00	2,748.26	3,561.50	3,507.60	16.33	22.22	46.45	-4,223.80	-3,431.40	4,853.28	4,818.25	35.02	138.575	
3,000.00	2,840.44	3,640.36	3,583.62	16.96	22.76	46.96	-4,203.16	-3,435.06	4,810.37	4,774.25	36.12	133.180	
3,100.00	2,932.63	3,719.21	3,659.63	17.59	23.30	47.47	-4,182.52	-3,438.72	4,767.88	4,730.65	37.23	128.081	
3,200.00	3,024.81	3,798.06	3,729.64	18.22	23.84	47.98	-4,161.88	-3,442.38	4,725.39	4,687.51	38.36	123.186	
3,300.00	3,117.00	3,876.91	3,801.63	18.86	24.38	48.49	-4,141.24	-3,446.04	4,690.90	4,648.38	39.49	118.301	
3,400.00	3,209.19	3,955.76	3,876.35	19.49	24.92	49.00	-4,120.60	-3,449.70	4,645.41	4,605.26	40.62	113.426	
3,500.00	3,301.37	4,034.61	3,950.79	20.12	25.46	49.51	-4,100.00	-3,453.36	4,600.90	4,560.11	41.75	108.551	
3,600.00	3,393.56	4,113.46	4,024.81	20.76	26.00	50.02	-4,079.40	-3,457.02	4,556.41	4,515.00	42.88	103.676	
3,700.00	3,485.75	4,192.31	4,103.91	21.39	26.54	50.53	-4,058.80	-3,460.68	4,511.90	4,470.85	44.01	98.801	
3,800.00	3,577.93	4,271.16	4,183.01	22.03	27.08	51.04	-4,038.20	-3,464.34	4,467.41	4,426.70	45.14	93.926	
3,900.00	3,670.12	4,350.01	4,262.11	22.67	27.62	51.55	-4,017.60	-3,468.00	4,422.90	4,382.60	46.27	89.051	
4,000.00	3,762.30	4,428.86	4,341.21	23.30	28.16	52.06	-3,997.00	-3,471.66	4,378.41	4,338.51	47.40	84.176	
4,100.00	3,854.49	4,507.71	4,420.31	23.94	28.70	52.57	-3,976.40	-3,475.32	4,333.90	4,294.40	48.53	79.301	
4,200.00	3,946.68	4,586.56	4,500.41	24.58	29.24	53.08	-3,955.80	-3,478.98	4,289.41	4,250.30	49.66	74.426	
4,300.00	4,038.86	4,665.41	4,580.51	25.22	29.78	53.59	-3,935.20	-3,482.64	4,244.90	4,206.20	50.79	69.551	
4,400.00	4,131.05	4,744.26	4,660.61	25.86	30.32	54.10	-3,914.60	-3,486.30	4,199.41	4,162.10	51.92	64.676	
4,500.00	4,223.24	4,823.11	4,740.71	26.50	30.86	54.61	-3,894.00	-3,489.96	4,154.90	4,118.00	53.05	59.801	
4,600.00	4,315.42	4,901.96	4,820.81	27.14	31.40	55.12	-3,873.40	-3,493.62	4,110.41	4,073.90	54.18	54.926	
4,700.00	4,407.61	4,980.81	4,900.91	27.78	31.94	55.63	-3,852.80	-3,497.28	4,065.90	4,030.80	55.31	50.051	
4,800.00	4,499.79	5,059.66	4,980.01	28.42	32.48	56.14	-3,832.20	-3,500.94	4,021.41	4,000.70	56.44	45.176	
4,900.00	4,591.98	5,138.51	5,059.11	29.06	33.02	56.65	-3,811.60	-3,504.60	3,976.90	3,960.60	57.57	40.301	
5,000.00	4,684.17	5,217.36	5,138.21	29.70	33.56	57.16	-3,791.00	-3,508.26	3,932.41	3,920.10	58.70	35.426	
5,100.00	4,776.35	5,296.21	5,217.31	30.34	34.10	57.67	-3,770.40	-3,511.92	3,887.90	3,875.80	59.83	30.551	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	10,437.16	7,075.91	30.98	116.38	-8.56	-3,269.07	-108.31	2,698.63	2,612.98	85.65	31.508		
5,300.00	4,960.73	10,435.04	7,075.91	31.63	116.32	-8.35	-3,269.06	-110.43	2,601.06	2,514.50	86.56	30.051		
5,400.00	5,052.91	10,437.12	7,075.90	32.27	116.38	-8.14	-3,269.06	-112.55	2,503.67	2,416.06	87.62	28.575		
5,500.00	5,145.10	10,439.23	7,075.90	32.91	116.45	-7.93	-3,269.05	-114.67	2,406.50	2,317.74	88.76	27.113		
5,600.00	5,237.28	10,441.35	7,075.90	33.55	116.52	-7.72	-3,269.05	-116.78	2,309.57	2,219.58	89.99	25.665		
5,700.00	5,329.47	10,426.57	7,075.90	34.20	116.05	-7.52	-3,269.04	-118.90	2,212.90	2,121.93	90.97	24.325		
5,800.00	5,421.66	10,424.46	7,075.90	34.84	115.98	-7.31	-3,269.04	-121.02	2,116.55	2,024.23	92.32	22.926		
5,900.00	5,513.84	10,422.34	7,075.89	35.48	115.92	-7.10	-3,269.03	-123.14	2,020.55	1,926.76	93.79	21.544		
6,000.00	5,606.03	10,420.22	7,075.89	36.13	115.85	-6.89	-3,269.03	-125.25	1,924.95	1,829.56	95.39	20.180		
6,100.00	5,698.22	10,418.10	7,075.89	36.77	115.78	-6.68	-3,269.02	-127.37	1,829.82	1,732.68	97.14	18.836		
6,200.00	5,790.40	10,415.99	7,075.89	37.41	115.72	-6.47	-3,269.02	-129.49	1,735.23	1,636.16	99.07	17.515		
6,300.00	5,882.59	10,413.87	7,075.89	38.06	115.65	-6.26	-3,269.01	-131.61	1,641.29	1,540.10	101.19	16.220		
6,400.00	5,974.77	10,411.75	7,075.88	38.70	115.59	-6.05	-3,269.01	-133.72	1,548.10	1,444.56	103.54	14.952		
6,500.00	6,066.96	10,409.63	7,075.88	39.34	115.52	-5.84	-3,269.00	-135.84	1,455.81	1,349.68	106.13	13.717		
6,600.00	6,159.15	10,407.52	7,075.88	39.99	115.45	-5.63	-3,269.00	-137.96	1,364.61	1,255.60	109.01	12.518		
6,700.00	6,251.33	10,405.40	7,075.88	40.63	115.39	-5.42	-3,268.99	-140.08	1,274.72	1,162.51	112.21	11.360		
6,800.00	6,343.52	10,403.28	7,075.88	41.28	115.32	-5.21	-3,268.99	-142.19	1,186.45	1,070.67	115.78	10.248		
6,900.00	6,435.71	10,401.16	7,075.87	41.92	115.25	-5.00	-3,268.98	-144.31	1,100.18	980.45	119.73	9.189		
7,000.00	6,527.86	10,401.83	7,075.87	42.56	115.27	-16.17	-3,268.97	-147.30	1,016.45	892.28	124.17	8.186		
7,100.00	6,618.85	10,383.03	7,075.86	43.19	114.68	-44.93	-3,268.93	-162.45	936.79	808.38	128.41	7.295		
7,200.00	6,706.47	10,352.62	7,075.82	43.76	113.73	-64.81	-3,268.86	-192.85	863.67	731.27	132.41	6.523		
7,300.00	6,788.56	10,307.71	7,075.78	44.26	112.32	-77.34	-3,268.75	-237.77	799.23	663.48	135.76	5.887		
7,400.00	6,863.10	10,249.39	7,075.72	44.70	110.50	-84.74	-3,268.60	-296.09	744.99	606.83	138.16	5.392		
7,500.00	6,928.26	10,179.10	7,075.65	45.07	108.30	-88.69	-3,268.43	-366.37	701.65	562.24	139.41	5.033		
7,600.00	6,982.42	10,101.43	7,075.57	45.39	105.89	-90.43	-3,268.23	-446.90	669.01	529.45	139.56	4.794		
7,700.00	7,024.26	10,009.79	7,075.48	45.67	103.05	-90.88	-3,268.01	-535.68	646.12	507.58	138.53	4.664		
7,800.00	7,052.75	9,914.94	7,075.39	45.92	100.13	-90.75	-3,267.78	-630.54	631.62	494.70	136.92	4.613 SF		
7,900.00	7,067.18	9,816.35	7,075.29	46.16	97.10	-90.58	-3,267.53	-729.12	624.26	489.30	134.96	4.626		
8,000.00	7,068.85	9,716.42	7,075.19	46.42	94.06	-90.58	-3,267.29	-829.06	622.57	489.66	132.91	4.684		
8,100.00	7,068.56	9,616.42	7,075.09	46.78	91.03	-90.60	-3,267.04	-929.05	621.72	490.71	131.01	4.745		
8,200.00	7,068.26	9,516.42	7,074.99	47.29	88.02	-90.62	-3,266.79	-1,029.05	620.88	491.58	129.30	4.802		
8,300.00	7,067.96	9,416.43	7,074.89	48.03	85.05	-90.64	-3,266.55	-1,129.04	620.04	492.29	127.74	4.854		
8,400.00	7,067.66	9,316.43	7,074.79	49.02	82.10	-90.66	-3,266.30	-1,229.04	619.19	492.85	126.34	4.901		
8,500.00	7,067.37	9,216.40	7,074.67	50.27	79.18	-90.68	-3,266.05	-1,329.07	618.35	493.27	125.08	4.944		
8,600.00	7,067.07	9,116.39	7,073.85	51.75	76.30	-90.63	-3,265.80	-1,429.08	617.50	493.54	123.96	4.982		
8,700.00	7,066.77	9,016.39	7,073.03	53.42	73.46	-90.58	-3,265.56	-1,529.07	616.65	493.69	122.96	5.015		
8,800.00	7,066.47	8,916.40	7,072.20	55.24	70.67	-90.53	-3,265.31	-1,629.06	615.80	493.71	122.09	5.044		
8,900.00	7,066.18	8,816.40	7,071.37	57.18	67.94	-90.49	-3,265.06	-1,729.05	614.95	493.63	121.32	5.069		
9,000.00	7,065.88	8,716.41	7,070.54	59.21	65.27	-90.44	-3,264.81	-1,829.04	614.10	493.43	120.67	5.089		
9,100.00	7,065.58	8,616.41	7,069.72	61.33	62.68	-90.39	-3,264.57	-1,929.04	613.25	493.12	120.13	5.105		
9,200.00	7,065.28	8,516.42	7,068.89	63.51	60.19	-90.34	-3,264.32	-2,029.03	612.40	492.70	119.71	5.116		
9,300.00	7,064.99	8,416.42	7,068.06	65.76	57.80	-90.29	-3,264.07	-2,129.02	611.55	492.16	119.40	5.122		
9,400.00	7,064.69	8,316.43	7,067.24	68.06	55.56	-90.24	-3,263.83	-2,229.01	610.71	491.50	119.21	5.123		
9,500.00	7,064.39	8,216.43	7,066.41	70.40	53.50	-90.19	-3,263.58	-2,329.00	609.86	490.71	119.15	5.118		
9,600.00	7,064.09	8,116.44	7,065.58	72.78	51.66	-90.14	-3,263.33	-2,428.99	609.01	489.78	119.23	5.108		
9,700.00	7,063.80	8,016.44	7,064.75	75.20	50.10	-90.09	-3,263.08	-2,528.98	608.17	488.70	119.47	5.091		
9,800.00	7,063.50	7,916.45	7,063.93	77.65	48.85	-90.04	-3,262.84	-2,628.97	607.32	487.44	119.88	5.066		
9,900.00	7,063.20	7,816.45	7,063.10	80.13	47.92	-89.99	-3,262.59	-2,728.97	606.48	486.00	120.48	5.034		
10,000.00	7,062.90	7,716.46	7,062.27	82.64	47.27	-89.94	-3,262.34	-2,828.96	605.63	484.34	121.29	4.993		
10,100.00	7,062.61	7,616.46	7,061.44	85.17	46.84	-89.89	-3,262.10	-2,928.95	604.79	482.45	122.33	4.944		
10,136.79	7,062.50	7,584.77	7,060.87	86.10	46.74	-89.85	-3,262.10	-2,960.63	604.58	481.62	122.96	4.917 CC		
10,200.00	7,062.31	7,535.02	7,057.05	87.72	46.60	-89.50	-3,262.90	-3,010.22	605.26	481.05	124.21	4.873 ES		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,457.09	7,043.61	90.28	46.42	-88.26	-3,266.19	-3,086.86	609.31	483.07	126.24	4.827		
10,400.00	7,061.71	7,383.89	7,022.84	92.87	46.26	-86.35	-3,271.49	-3,156.81	617.67	489.41	128.26	4.816		
10,500.00	7,061.41	7,316.35	6,996.93	95.47	46.12	-84.03	-3,278.23	-3,218.78	631.30	501.25	130.05	4.854		
10,600.00	7,061.12	7,255.16	6,968.10	98.09	45.98	-81.51	-3,285.80	-3,272.20	651.15	519.66	131.49	4.952		
10,700.00	7,060.82	7,200.00	6,937.98	100.72	45.85	-78.98	-3,293.75	-3,317.70	677.93	545.56	132.37	5.122		
10,800.00	7,060.52	7,150.00	6,907.49	103.37	45.72	-76.53	-3,301.84	-3,356.47	711.96	579.25	132.71	5.365		
10,900.00	7,060.22	7,109.02	6,880.38	106.02	45.60	-74.43	-3,309.05	-3,386.33	753.17	620.56	132.60	5.680		
11,000.00	7,059.93	7,071.20	6,853.76	108.69	45.48	-72.45	-3,316.15	-3,412.23	801.20	669.12	132.08	6.066		
11,100.00	7,059.63	7,035.01	6,826.94	111.36	45.36	-70.55	-3,323.32	-3,435.44	855.48	724.26	131.22	6.519		
11,200.00	7,059.33	7,008.28	6,806.34	114.05	45.27	-69.14	-3,328.83	-3,451.55	915.31	785.10	130.21	7.029		
11,300.00	7,059.03	6,982.07	6,785.52	116.74	45.17	-67.77	-3,334.41	-3,466.47	980.04	850.99	129.05	7.594		
11,400.00	7,058.74	6,950.00	6,759.27	119.44	45.05	-66.10	-3,341.45	-3,483.49	1,049.09	921.31	127.78	8.210		
11,500.00	7,058.44	6,935.01	6,746.73	122.15	44.98	-65.33	-3,344.81	-3,490.97	1,121.62	995.07	126.55	8.863		
11,600.00	7,058.14	6,919.17	6,733.29	124.86	44.92	-64.53	-3,348.42	-3,498.55	1,197.36	1,072.03	125.32	9.554		
11,700.00	7,057.84	6,900.00	6,716.80	127.58	44.83	-63.57	-3,352.86	-3,507.25	1,275.79	1,151.67	124.12	10.279		
11,800.00	7,057.55	6,900.00	6,716.80	130.31	44.83	-63.57	-3,352.86	-3,507.25	1,356.71	1,233.76	122.95	11.035		
11,900.00	7,057.25	6,873.23	6,693.35	133.04	44.71	-62.24	-3,359.17	-3,518.52	1,439.26	1,317.38	121.87	11.809		
12,000.00	7,056.95	6,850.00	6,672.66	135.78	44.60	-61.12	-3,364.74	-3,527.48	1,523.83	1,402.97	120.86	12.609		
12,100.00	7,056.65	6,850.00	6,672.66	138.52	44.60	-61.12	-3,364.74	-3,527.48	1,609.65	1,489.78	119.87	13.429		
12,200.00	7,056.36	6,835.01	6,659.14	141.27	44.53	-60.41	-3,368.38	-3,532.83	1,696.90	1,577.93	118.97	14.263		
12,300.00	7,056.06	6,835.01	6,659.14	144.02	44.53	-60.41	-3,368.38	-3,532.83	1,785.30	1,667.21	118.09	15.118		
12,400.00	7,055.76	6,819.85	6,645.35	146.78	44.45	-59.71	-3,372.10	-3,537.92	1,874.64	1,757.32	117.32	15.979		
12,500.00	7,055.46	6,800.00	6,627.13	149.54	44.35	-58.80	-3,377.01	-3,544.06	1,965.03	1,848.42	116.61	16.852		
12,600.00	7,055.17	6,800.00	6,627.13	152.30	44.35	-58.80	-3,377.01	-3,544.06	2,055.94	1,940.05	115.90	17.740		
12,700.00	7,054.87	6,800.00	6,627.13	155.07	44.35	-58.80	-3,377.01	-3,544.06	2,147.66	2,032.44	115.23	18.639		
12,800.00	7,054.57	6,800.00	6,627.13	157.84	44.35	-58.80	-3,377.01	-3,544.06	2,240.10	2,125.49	114.60	19.547		
12,900.00	7,054.27	6,800.00	6,627.13	160.61	44.35	-58.80	-3,377.01	-3,544.06	2,333.15	2,219.13	114.02	20.463		
13,000.00	7,053.97	6,778.01	6,606.73	163.39	44.23	-57.82	-3,382.51	-3,550.17	2,426.29	2,312.74	113.55	21.368		
13,100.00	7,053.68	6,772.55	6,601.64	166.17	44.20	-57.58	-3,383.89	-3,551.57	2,520.13	2,407.07	113.06	22.291		
13,200.00	7,053.38	6,750.56	6,581.01	168.95	44.08	-56.63	-3,389.46	-3,556.76	2,614.65	2,502.00	112.65	23.211		
13,300.00	7,053.08	6,750.56	6,581.01	171.73	44.08	-56.63	-3,389.46	-3,556.76	2,709.13	2,596.92	112.20	24.145		
13,400.00	7,052.78	6,750.56	6,581.01	174.52	44.08	-56.63	-3,389.46	-3,556.76	2,803.99	2,692.20	111.78	25.084		
13,500.00	7,052.49	6,750.56	6,581.01	177.31	44.08	-56.63	-3,389.46	-3,556.76	2,899.19	2,787.80	111.39	26.027		
13,600.00	7,052.19	6,750.56	6,581.01	180.10	44.08	-56.63	-3,389.46	-3,556.76	2,994.71	2,883.69	111.02	26.973		
13,700.00	7,051.89	6,750.56	6,581.01	182.90	44.08	-56.63	-3,389.46	-3,556.76	3,090.52	2,979.84	110.68	27.923		
13,800.00	7,051.59	6,742.18	6,573.10	185.69	44.04	-56.28	-3,391.60	-3,558.55	3,186.51	3,076.13	110.38	28.868		
13,900.00	7,051.30	6,735.01	6,566.33	188.49	44.00	-55.98	-3,393.43	-3,559.99	3,282.76	3,172.66	110.10	29.817		
14,000.00	7,051.00	6,735.01	6,566.33	191.29	44.00	-55.98	-3,393.43	-3,559.99	3,379.17	3,269.36	109.81	30.773		
14,100.00	7,050.70	6,735.01	6,566.33	194.09	44.00	-55.98	-3,393.43	-3,559.99	3,475.79	3,366.25	109.54	31.731		
14,200.00	7,050.40	6,735.01	6,566.33	196.89	44.00	-55.98	-3,393.43	-3,559.99	3,572.60	3,463.31	109.29	32.690		
14,300.00	7,050.11	6,735.01	6,566.33	199.70	44.00	-55.98	-3,393.43	-3,559.99	3,669.57	3,560.53	109.05	33.651		
14,400.00	7,049.81	6,735.01	6,566.33	202.50	44.00	-55.98	-3,393.43	-3,559.99	3,766.71	3,657.89	108.82	34.613		
14,500.00	7,049.51	6,735.01	6,566.33	205.31	44.00	-55.98	-3,393.43	-3,559.99	3,863.99	3,755.38	108.61	35.576		
14,600.00	7,049.21	6,718.62	6,550.77	208.12	43.90	-55.30	-3,397.63	-3,562.99	3,961.16	3,852.71	108.45	36.525		
14,700.00	7,048.92	6,716.24	6,548.50	210.93	43.88	-55.21	-3,398.25	-3,563.39	4,058.63	3,950.36	108.27	37.487		
14,800.00	7,048.62	6,700.00	6,533.02	213.74	43.79	-54.56	-3,402.44	-3,565.89	4,156.38	4,048.26	108.12	38.441		
14,900.00	7,048.32	6,700.00	6,533.02	216.55	43.79	-54.56	-3,402.44	-3,565.89	4,254.01	4,146.06	107.96	39.405		
15,000.00	7,048.02	6,700.00	6,533.02	219.37	43.79	-54.56	-3,402.44	-3,565.89	4,351.75	4,243.95	107.80	40.369		
15,100.00	7,047.73	6,700.00	6,533.02	222.18	43.79	-54.56	-3,402.44	-3,565.89	4,449.59	4,341.94	107.65	41.334		
15,200.00	7,047.43	6,700.00	6,533.02	225.00	43.79	-54.56	-3,402.44	-3,565.89	4,547.52	4,440.01	107.51	42.299		
15,300.00	7,047.13	6,700.00	6,533.02	227.81	43.79	-54.56	-3,402.44	-3,565.89	4,645.54	4,538.17	107.38	43.264		
15,343.67	7,047.00	6,700.00	6,533.02	229.04	43.79	-54.56	-3,402.44	-3,565.89	4,688.38	4,581.06	107.32	43.685		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	64.00	3.28	3.28	-122.95	-4,110.73	-6,342.41	7,558.33					
100.00	100.00	36.00	100.00	3.28	3.34	-122.95	-4,110.73	-6,342.41	7,558.06	7,551.43	6.62	1,140.947		
200.00	200.00	136.00	200.00	3.34	4.45	-122.95	-4,110.73	-6,342.41	7,558.06	7,550.27	7.78	971.023		
300.00	299.98	235.98	299.98	3.44	7.27	53.67	-4,110.73	-6,342.41	7,557.02	7,546.31	10.71	705.367		
400.00	399.84	335.84	399.84	3.59	10.50	53.75	-4,110.73	-6,342.41	7,553.92	7,539.83	14.09	535.985		
500.00	499.45	435.45	499.45	3.79	13.85	53.89	-4,110.73	-6,342.41	7,548.76	7,531.12	17.64	427.974		
600.00	598.70	534.70	598.70	4.03	17.24	54.08	-4,110.73	-6,342.41	7,541.56	7,520.29	21.27	354.619		
700.00	697.47	633.47	697.47	4.31	20.63	54.32	-4,110.73	-6,342.41	7,532.33	7,507.39	24.94	301.969		
800.00	795.62	731.62	795.62	4.64	24.02	54.63	-4,110.73	-6,342.41	7,521.11	7,492.46	28.65	262.501		
900.00	893.06	829.06	893.06	5.00	27.39	54.98	-4,110.73	-6,342.41	7,507.92	7,475.54	32.38	231.891		
1,000.00	989.64	925.64	989.64	5.40	30.74	55.39	-4,110.73	-6,342.41	7,492.80	7,456.69	36.11	207.496		
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	55.85	-4,110.73	-6,342.41	7,475.78	7,435.94	39.84	187.622		
1,200.00	1,179.82	1,115.82	1,179.82	6.29	37.35	56.37	-4,110.73	-6,342.41	7,456.93	7,413.36	43.57	171.133		
1,300.00	1,273.17	1,209.17	1,273.17	6.79	40.60	56.95	-4,110.73	-6,342.41	7,436.29	7,388.99	47.29	157.241		
1,400.00	1,365.46	1,301.46	1,365.46	7.32	43.81	57.33	-4,110.73	-6,342.41	7,414.24	7,363.24	51.00	145.379		
1,500.00	1,457.65	1,406.35	1,457.65	7.87	47.46	57.57	-4,110.73	-6,342.41	7,392.18	7,337.02	55.16	134.008		
1,600.00	1,549.83	1,485.83	1,549.83	8.43	50.23	57.81	-4,110.73	-6,342.41	7,370.26	7,311.80	58.46	126.083		
1,700.00	1,642.02	1,578.02	1,642.02	9.01	53.44	58.05	-4,110.73	-6,342.41	7,348.48	7,286.27	62.20	118.135		
1,800.00	1,734.21	1,670.21	1,734.21	9.59	56.66	58.30	-4,110.73	-6,342.41	7,326.83	7,260.87	65.96	111.074		
1,900.00	1,826.39	1,762.39	1,826.39	10.18	59.87	58.54	-4,110.73	-6,342.41	7,305.33	7,235.60	69.73	104.763		
2,000.00	1,918.58	1,854.58	1,918.58	10.78	63.08	58.78	-4,110.73	-6,342.41	7,283.97	7,210.47	73.51	99.091		
2,100.00	2,010.77	1,946.77	2,010.77	11.39	66.30	59.03	-4,110.73	-6,342.41	7,262.76	7,185.47	77.29	93.966		
2,200.00	2,102.95	2,038.95	2,102.95	11.99	69.51	59.28	-4,110.73	-6,342.41	7,241.69	7,160.61	81.08	89.314		
2,300.00	2,195.14	2,131.14	2,195.14	12.61	72.73	59.53	-4,110.73	-6,342.41	7,220.77	7,135.89	84.88	85.075		
2,400.00	2,287.32	2,223.32	2,287.32	13.22	75.94	59.78	-4,110.73	-6,342.41	7,200.00	7,111.32	88.68	81.195		
2,500.00	2,379.51	2,315.51	2,379.51	13.84	79.16	60.03	-4,110.73	-6,342.41	7,179.37	7,086.89	92.48	77.632		
2,600.00	2,471.70	2,407.70	2,471.70	14.46	82.37	60.28	-4,110.73	-6,342.41	7,158.89	7,062.61	96.29	74.349		
2,700.00	2,563.88	2,500.12	2,563.88	15.08	85.60	60.54	-4,110.73	-6,342.41	7,138.57	7,038.46	100.11	71.310		
2,800.00	2,656.07	2,607.93	2,656.07	15.71	89.36	60.79	-4,110.73	-6,342.41	7,118.40	7,013.93	104.47	68.141		
2,900.00	2,748.26	2,684.26	2,748.26	16.33	92.02	61.05	-4,110.73	-6,342.41	7,098.38	6,990.65	107.73	65.890		
3,000.00	2,840.44	2,776.44	2,840.44	16.96	95.24	61.31	-4,110.73	-6,342.41	7,078.52	6,966.97	111.55	63.455		
3,100.00	2,932.63	2,868.63	2,932.63	17.59	98.45	61.57	-4,110.73	-6,342.41	7,058.82	6,943.44	115.37	61.182		
3,200.00	3,024.81	2,960.81	3,024.81	18.22	101.67	61.83	-4,110.73	-6,342.41	7,039.27	6,920.07	119.20	59.054		
3,300.00	3,117.00	3,053.00	3,117.00	18.86	104.89	62.09	-4,110.73	-6,342.41	7,019.89	6,896.86	123.03	57.059		
3,400.00	3,209.19	3,145.19	3,209.19	19.49	108.10	62.35	-4,110.73	-6,342.41	7,000.66	6,873.80	126.86	55.185		
3,500.00	3,301.37	3,237.37	3,301.37	20.12	111.32	62.62	-4,110.73	-6,342.41	6,981.60	6,850.91	130.69	53.421		
3,600.00	3,393.56	3,329.56	3,393.56	20.76	114.54	62.88	-4,110.73	-6,342.41	6,962.70	6,828.17	134.52	51.758		
3,700.00	3,485.75	3,421.75	3,485.75	21.39	117.75	63.15	-4,110.73	-6,342.41	6,943.96	6,805.60	138.36	50.187		
3,800.00	3,577.93	3,513.93	3,577.93	22.03	120.97	63.42	-4,110.73	-6,342.41	6,925.40	6,783.20	142.20	48.702		
3,900.00	3,670.12	3,606.12	3,670.12	22.67	124.19	63.69	-4,110.73	-6,342.41	6,906.99	6,760.96	146.04	47.296		
4,000.00	3,762.30	3,701.70	3,762.30	23.30	127.52	63.96	-4,110.73	-6,342.41	6,888.76	6,738.76	150.00	45.926		
4,100.00	3,854.49	3,809.51	3,854.49	23.94	131.29	64.23	-4,110.73	-6,342.41	6,870.70	6,716.31	154.39	44.503		
4,200.00	3,946.68	3,882.68	3,946.68	24.58	133.84	64.51	-4,110.73	-6,342.41	6,852.81	6,695.24	157.57	43.491		
4,300.00	4,038.86	3,974.86	4,038.86	25.22	137.06	64.78	-4,110.73	-6,342.41	6,835.09	6,673.68	161.41	42.345		
4,400.00	4,131.05	4,067.05	4,131.05	25.86	140.27	65.06	-4,110.73	-6,342.41	6,817.55	6,652.29	165.26	41.253		
4,500.00	4,223.24	4,159.24	4,223.24	26.50	143.49	65.33	-4,110.73	-6,342.41	6,800.18	6,631.07	169.11	40.211		
4,600.00	4,315.42	4,251.42	4,315.42	27.14	146.71	65.61	-4,110.73	-6,342.41	6,782.99	6,610.03	172.96	39.217		
4,700.00	4,407.61	4,343.61	4,407.61	27.78	149.93	65.89	-4,110.73	-6,342.41	6,765.97	6,589.16	176.81	38.266		
4,800.00	4,499.79	4,435.79	4,499.79	28.42	153.14	66.17	-4,110.73	-6,342.41	6,749.14	6,568.47	180.67	37.357		
4,900.00	4,591.98	4,527.98	4,591.98	29.06	156.36	66.45	-4,110.73	-6,342.41	6,732.49	6,547.97	184.52	36.486		
5,000.00	4,684.17	4,620.17	4,684.17	29.70	159.58	66.74	-4,110.73	-6,342.41	6,716.02	6,527.64	188.38	35.652		
5,100.00	4,776.35	4,712.35	4,776.35	30.34	162.80	67.02	-4,110.73	-6,342.41	6,699.73	6,507.50	192.23	34.852		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,804.54	4,868.54	30.98	166.01	67.31	-4,110.73	-6,342.41	6,683.63	6,487.54	196.09	34.084		
5,300.00	4,960.73	4,903.27	4,960.73	31.63	169.46	67.59	-4,110.73	-6,342.41	6,667.72	6,467.54	200.18	33.309		
5,400.00	5,052.91	4,988.91	5,052.91	32.27	172.45	67.88	-4,110.73	-6,342.41	6,651.99	6,448.18	203.81	32.638		
5,500.00	5,145.10	5,081.10	5,145.10	32.91	175.67	68.17	-4,110.73	-6,342.41	6,636.45	6,428.78	207.67	31.956		
5,600.00	5,237.28	5,173.28	5,237.28	33.55	178.88	68.46	-4,110.73	-6,342.41	6,621.10	6,409.57	211.54	31.300		
5,700.00	5,329.47	5,265.47	5,329.47	34.20	182.10	68.75	-4,110.73	-6,342.41	6,605.95	6,390.55	215.40	30.668		
5,800.00	5,421.66	5,357.66	5,421.66	34.84	185.32	69.05	-4,110.73	-6,342.41	6,590.98	6,371.72	219.27	30.059		
5,900.00	5,513.84	5,449.84	5,513.84	35.48	188.54	69.34	-4,110.73	-6,342.41	6,576.21	6,353.08	223.13	29.472		
6,000.00	5,606.03	5,542.03	5,606.03	36.13	191.76	69.63	-4,110.73	-6,342.41	6,561.64	6,334.64	227.00	28.906		
6,100.00	5,698.22	5,634.22	5,698.22	36.77	194.97	69.93	-4,110.73	-6,342.41	6,547.26	6,316.40	230.87	28.360		
6,200.00	5,790.40	5,726.40	5,790.40	37.41	198.19	70.23	-4,110.73	-6,342.41	6,533.09	6,298.35	234.73	27.832		
6,300.00	5,882.59	5,818.59	5,882.59	38.06	201.41	70.53	-4,110.73	-6,342.41	6,519.11	6,280.50	238.60	27.322		
6,400.00	5,974.77	5,910.77	5,974.77	38.70	204.63	70.83	-4,110.73	-6,342.41	6,505.33	6,262.85	242.47	26.829		
6,500.00	6,066.96	6,002.96	6,066.96	39.34	207.84	71.13	-4,110.73	-6,342.41	6,491.75	6,245.41	246.35	26.352		
6,600.00	6,159.15	6,104.85	6,159.15	39.99	211.40	71.43	-4,110.73	-6,342.41	6,478.38	6,227.82	250.56	25.856		
6,700.00	6,251.33	6,187.33	6,251.33	40.63	214.28	71.73	-4,110.73	-6,342.41	6,465.21	6,211.12	254.09	25.444		
6,800.00	6,343.52	6,279.52	6,343.52	41.28	217.50	72.03	-4,110.73	-6,342.41	6,452.25	6,194.29	257.96	25.012		
6,900.00	6,435.71	6,371.71	6,435.71	41.92	220.72	72.34	-4,110.73	-6,342.41	6,439.50	6,177.66	261.84	24.593		
7,000.00	6,527.86	6,463.86	6,527.86	42.56	223.93	72.64	-4,110.73	-6,342.41	6,426.11	6,160.40	265.71	24.185		
7,100.00	6,618.85	6,554.85	6,618.85	43.19	227.11	72.94	-4,110.73	-6,342.41	6,413.00	6,143.79	269.51	23.752		
7,200.00	6,706.47	6,642.47	6,706.47	43.76	230.17	73.24	-4,110.73	-6,342.41	6,362.23	6,089.12	273.11	23.296		
7,300.00	6,788.56	6,724.56	6,788.56	44.26	233.03	73.54	-4,110.73	-6,342.41	6,309.82	6,033.38	276.44	22.825		
7,400.00	6,863.10	6,800.90	6,863.10	44.70	235.70	73.84	-4,110.73	-6,342.41	6,245.27	5,965.79	279.48	22.346		
7,500.00	6,928.26	6,864.26	6,928.26	45.07	237.91	74.14	-4,110.73	-6,342.41	6,170.14	5,888.15	281.99	21.881		
7,600.00	6,982.42	6,918.42	6,982.42	45.39	239.80	74.44	-4,110.73	-6,342.41	6,086.24	5,802.16	284.08	21.424		
7,700.00	7,024.26	6,960.26	7,024.26	45.67	241.26	74.74	-4,110.73	-6,342.41	5,995.64	5,709.98	285.66	20.989		
7,800.00	7,052.75	6,988.75	7,052.75	45.92	242.25	75.04	-4,110.73	-6,342.41	5,900.57	5,613.88	286.69	20.582		
7,900.00	7,067.18	7,003.18	7,067.18	46.16	242.76	75.34	-4,110.73	-6,342.41	5,803.42	5,516.26	287.15	20.210		
8,000.00	7,068.85	7,004.85	7,068.85	46.42	242.82	75.64	-4,110.73	-6,342.41	5,706.41	5,419.29	287.13	19.874		
8,100.00	7,068.56	7,004.56	7,068.56	46.78	242.81	75.94	-4,110.73	-6,342.41	5,609.67	5,322.64	287.03	19.544		
8,200.00	7,068.26	7,004.26	7,068.26	47.29	242.80	76.24	-4,110.73	-6,342.41	5,513.05	5,226.10	286.95	19.212		
8,300.00	7,067.96	7,003.96	7,067.96	48.03	242.79	76.54	-4,110.73	-6,342.41	5,416.55	5,129.66	286.89	18.880		
8,400.00	7,067.66	7,003.66	7,067.66	49.02	242.78	76.84	-4,110.73	-6,342.41	5,320.18	5,033.34	286.84	18.548		
8,500.00	7,067.37	7,003.37	7,067.37	50.27	242.76	77.14	-4,110.73	-6,342.41	5,223.95	4,937.14	286.80	18.214		
8,600.00	7,067.07	7,003.07	7,067.07	51.75	242.75	77.44	-4,110.73	-6,342.41	5,127.86	4,841.06	286.79	17.880		
8,700.00	7,066.77	7,002.77	7,066.77	53.42	242.74	77.74	-4,110.73	-6,342.41	5,031.92	4,745.11	286.80	17.545		
8,800.00	7,066.47	7,002.47	7,066.47	55.24	242.73	78.04	-4,110.73	-6,342.41	4,936.14	4,649.30	286.84	17.209		
8,900.00	7,066.18	7,002.18	7,066.18	57.18	242.72	78.34	-4,110.73	-6,342.41	4,840.53	4,553.63	286.90	16.872		
9,000.00	7,065.88	7,001.88	7,065.88	59.21	242.71	78.64	-4,110.73	-6,342.41	4,745.11	4,458.11	287.00	16.534		
9,100.00	7,065.58	7,001.58	7,065.58	61.33	242.70	78.94	-4,110.73	-6,342.41	4,649.88	4,362.75	287.12	16.195		
9,200.00	7,065.28	7,001.28	7,065.28	63.51	242.69	79.24	-4,110.73	-6,342.41	4,554.85	4,267.56	287.29	15.855		
9,300.00	7,064.99	7,000.99	7,064.99	65.76	242.68	79.54	-4,110.73	-6,342.41	4,460.04	4,172.54	287.50	15.513		
9,400.00	7,064.69	7,000.69	7,064.69	68.06	242.67	79.84	-4,110.73	-6,342.41	4,365.46	4,077.71	287.75	15.171		
9,500.00	7,064.39	7,000.39	7,064.39	70.40	242.66	80.14	-4,110.73	-6,342.41	4,271.13	3,983.07	288.05	14.828		
9,600.00	7,064.09	7,000.09	7,064.09	72.78	242.65	80.44	-4,110.73	-6,342.41	4,177.06	3,888.65	288.41	14.483		
9,700.00	7,063.80	7,000.20	7,063.80	75.20	242.65	80.74	-4,110.73	-6,342.41	4,083.27	3,794.42	288.85	14.136		
9,800.00	7,063.50	7,000.50	7,063.50	77.65	242.66	81.04	-4,110.73	-6,342.41	3,989.78	3,700.43	289.36	13.789		
9,900.00	7,063.20	7,000.80	7,063.20	80.13	242.68	81.34	-4,110.73	-6,342.41	3,896.62	3,606.69	289.94	13.440		
10,000.00	7,062.90	7,001.10	7,062.90	82.64	242.69	81.64	-4,110.73	-6,342.41	3,803.81	3,513.21	290.60	13.089		
10,100.00	7,062.61	7,001.40	7,062.61	85.17	242.70	81.94	-4,110.73	-6,342.41	3,711.37	3,420.02	291.35	12.739		
10,200.00	7,062.31	7,001.69	7,062.31	87.72	242.71	82.24	-4,110.73	-6,342.41	3,619.33	3,327.13	292.20	12.387		
10,300.00	7,062.01	7,001.99	7,062.01	90.28	242.72	82.54	-4,110.73	-6,342.41	3,527.72	3,234.58	293.15	12.034		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,002.29	7,061.71	92.87	242.73	-90.37	-4,110.73	-6,342.41	3,436.58	3,142.38	294.21	11.681	
10,500.00	7,061.41	7,002.59	7,061.41	95.47	242.74	-90.36	-4,110.73	-6,342.41	3,345.95	3,050.56	295.39	11.327	
10,600.00	7,061.12	7,002.88	7,061.12	98.09	242.75	-90.35	-4,110.73	-6,342.41	3,255.87	2,959.16	296.71	10.973	
10,700.00	7,060.82	7,003.18	7,060.82	100.72	242.76	-90.34	-4,110.73	-6,342.41	3,166.38	2,868.21	298.17	10.619	
10,800.00	7,060.52	7,003.48	7,060.52	103.37	242.77	-90.32	-4,110.73	-6,342.41	3,077.54	2,777.76	299.78	10.266	
10,900.00	7,060.22	7,003.78	7,060.22	106.02	242.78	-90.31	-4,110.73	-6,342.41	2,989.41	2,687.85	301.56	9.913	
11,000.00	7,059.93	7,004.07	7,059.93	108.69	242.79	-90.30	-4,110.73	-6,342.41	2,902.04	2,598.53	303.51	9.562	
11,100.00	7,059.63	7,004.37	7,059.63	111.36	242.80	-90.29	-4,110.73	-6,342.41	2,815.52	2,509.86	305.65	9.211	
11,200.00	7,059.33	7,004.67	7,059.33	114.05	242.81	-90.28	-4,110.73	-6,342.41	2,729.91	2,421.91	308.00	8.863	
11,300.00	7,059.03	7,004.97	7,059.03	116.74	242.82	-90.26	-4,110.73	-6,342.41	2,645.32	2,334.75	310.56	8.518	
11,400.00	7,058.74	7,005.26	7,058.74	119.44	242.83	-90.25	-4,110.73	-6,342.41	2,561.83	2,248.48	313.35	8.176	
11,500.00	7,058.44	7,005.56	7,058.44	122.15	242.84	-90.24	-4,110.73	-6,342.41	2,479.57	2,163.18	316.39	7.837	
11,600.00	7,058.14	7,005.86	7,058.14	124.86	242.85	-90.23	-4,110.73	-6,342.41	2,398.66	2,078.98	319.68	7.503	
11,700.00	7,057.84	7,006.16	7,057.84	127.58	242.86	-90.22	-4,110.73	-6,342.41	2,319.23	1,995.99	323.25	7.175	
11,800.00	7,057.55	7,006.45	7,057.55	130.31	242.87	-90.21	-4,110.73	-6,342.41	2,241.46	1,914.36	327.09	6.853	
11,900.00	7,057.25	7,006.75	7,057.25	133.04	242.88	-90.19	-4,110.73	-6,342.41	2,165.51	1,834.27	331.24	6.538	
12,000.00	7,056.95	7,007.05	7,056.95	135.78	242.89	-90.18	-4,110.73	-6,342.41	2,091.58	1,755.89	335.68	6.231	
12,100.00	7,056.65	7,007.35	7,056.65	138.52	242.90	-90.17	-4,110.73	-6,342.41	2,019.90	1,679.46	340.44	5.933	
12,200.00	7,056.36	7,007.64	7,056.36	141.27	242.91	-90.16	-4,110.73	-6,342.41	1,950.71	1,605.20	345.51	5.646	
12,300.00	7,056.06	7,007.94	7,056.06	144.02	242.92	-90.15	-4,110.73	-6,342.41	1,884.29	1,533.42	350.88	5.370	
12,400.00	7,055.76	7,008.24	7,055.76	146.78	242.93	-90.13	-4,110.73	-6,342.41	1,820.95	1,464.41	356.54	5.107	
12,500.00	7,055.46	7,008.54	7,055.46	149.54	242.95	-90.12	-4,110.73	-6,342.41	1,761.00	1,398.54	362.46	4.858	
12,600.00	7,055.17	7,008.84	7,055.17	152.30	242.96	-90.11	-4,110.73	-6,342.41	1,704.82	1,336.21	368.61	4.625	
12,700.00	7,054.87	7,009.13	7,054.87	155.07	242.97	-90.10	-4,110.73	-6,342.41	1,652.78	1,277.85	374.93	4.408	
12,800.00	7,054.57	7,009.43	7,054.57	157.84	242.98	-90.09	-4,110.73	-6,342.41	1,605.30	1,223.94	381.35	4.209	
12,900.00	7,054.27	7,009.73	7,054.27	160.61	242.99	-90.07	-4,110.73	-6,342.41	1,562.77	1,174.98	387.79	4.030	
13,000.00	7,053.97	6,989.97	7,053.97	163.39	242.30	-90.06	-4,110.73	-6,342.41	1,525.63	1,132.20	393.43	3.878	
13,100.00	7,053.68	6,989.68	7,053.68	166.17	242.29	-90.05	-4,110.73	-6,342.41	1,494.27	1,094.74	399.53	3.740	
13,200.00	7,053.38	6,989.38	7,053.38	168.95	242.28	-90.04	-4,110.73	-6,342.41	1,469.05	1,063.77	405.28	3.625	
13,300.00	7,053.08	6,989.08	7,053.08	171.73	242.27	-90.03	-4,110.73	-6,342.41	1,450.31	1,039.76	410.55	3.533	
13,400.00	7,052.78	6,988.78	7,052.78	174.52	242.26	-90.01	-4,110.73	-6,342.41	1,438.29	1,023.07	415.22	3.464	
13,500.00	7,052.49	6,988.49	7,052.49	177.31	242.25	-90.00	-4,110.73	-6,342.41	1,433.16	1,013.99	419.17	3.419	
13,523.59	7,052.42	6,988.42	7,052.42	177.97	242.24	-90.00	-4,110.73	-6,342.41	1,432.97	1,012.98	419.99	3.412 CC	
13,600.00	7,052.19	6,988.19	7,052.19	180.10	242.23	-89.99	-4,110.73	-6,342.41	1,435.01	1,012.67	422.34	3.398 ES, SF	
13,700.00	7,051.89	6,987.89	7,051.89	182.90	242.22	-89.98	-4,110.73	-6,342.41	1,443.79	1,019.12	424.67	3.400	
13,800.00	7,051.59	6,987.59	7,051.59	185.69	242.21	-89.97	-4,110.73	-6,342.41	1,459.39	1,033.21	426.17	3.424	
13,900.00	7,051.30	6,987.30	7,051.30	188.49	242.20	-89.96	-4,110.73	-6,342.41	1,481.58	1,054.72	426.86	3.471	
14,000.00	7,051.00	6,987.00	7,051.00	191.29	242.19	-89.94	-4,110.73	-6,342.41	1,510.09	1,083.28	426.81	3.538	
14,100.00	7,050.70	6,986.70	7,050.70	194.09	242.18	-89.93	-4,110.73	-6,342.41	1,544.56	1,118.47	426.09	3.625	
14,200.00	7,050.40	6,986.40	7,050.40	196.89	242.17	-89.92	-4,110.73	-6,342.41	1,584.59	1,159.80	424.80	3.730	
14,300.00	7,050.11	6,986.11	7,050.11	199.70	242.16	-89.91	-4,110.73	-6,342.41	1,629.79	1,206.76	423.03	3.853	
14,400.00	7,049.81	6,985.81	7,049.81	202.50	242.15	-89.90	-4,110.73	-6,342.41	1,679.73	1,258.84	420.89	3.991	
14,500.00	7,049.51	6,985.51	7,049.51	205.31	242.14	-89.88	-4,110.73	-6,342.41	1,734.01	1,315.54	418.47	4.144	
14,600.00	7,049.21	6,985.21	7,049.21	208.12	242.13	-89.87	-4,110.73	-6,342.41	1,792.22	1,376.39	415.84	4.310	
14,700.00	7,048.92	6,984.92	7,048.92	210.93	242.12	-89.86	-4,110.73	-6,342.41	1,854.01	1,440.94	413.07	4.488	
14,800.00	7,048.62	6,984.62	7,048.62	213.74	242.11	-89.85	-4,110.73	-6,342.41	1,919.02	1,508.79	410.22	4.678	
14,900.00	7,048.32	6,984.32	7,048.32	216.55	242.10	-89.84	-4,110.73	-6,342.41	1,986.93	1,579.59	407.34	4.878	
15,000.00	7,048.02	6,984.02	7,048.02	219.37	242.09	-89.82	-4,110.73	-6,342.41	2,057.47	1,653.00	404.47	5.087	
15,100.00	7,047.73	6,983.73	7,047.73	222.18	242.08	-89.81	-4,110.73	-6,342.41	2,130.37	1,728.74	401.63	5.304	
15,200.00	7,047.43	6,983.43	7,047.43	225.00	242.07	-89.80	-4,110.73	-6,342.41	2,205.39	1,806.54	398.85	5.529	
15,300.00	7,047.13	6,983.13	7,047.13	227.81	242.06	-89.79	-4,110.73	-6,342.41	2,282.33	1,886.19	396.13	5.762	
15,343.67	7,047.00	6,983.00	7,047.00	229.04	242.05	-89.78	-4,110.73	-6,342.41	2,316.48	1,921.51	394.97	5.865	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	17.00	3.28	3.28	-67.07	2,688.30	-6,354.84	6,900.09					
100.00	100.00	83.00	100.00	3.28	3.59	-67.07	2,688.30	-6,354.84	6,900.07	6,893.20	6.87	1,004.315		
200.00	200.00	183.00	200.00	3.34	5.68	-67.07	2,688.30	-6,354.84	6,900.07	6,891.05	9.02	764.825		
300.00	299.98	282.98	299.98	3.44	8.77	109.52	2,688.30	-6,354.84	6,900.65	6,888.44	12.21	565.202		
400.00	399.84	382.84	399.84	3.59	12.07	109.53	2,688.30	-6,354.84	6,902.41	6,886.74	15.66	440.705		
500.00	499.45	482.45	499.45	3.79	15.45	109.54	2,688.30	-6,354.84	6,905.33	6,886.09	19.24	358.980		
600.00	598.70	581.70	598.70	4.03	18.85	109.56	2,688.30	-6,354.84	6,909.44	6,886.56	22.88	301.999		
700.00	697.47	680.47	697.47	4.31	22.25	109.58	2,688.30	-6,354.84	6,914.73	6,888.17	26.57	260.280		
800.00	795.62	778.62	795.62	4.64	25.65	109.61	2,688.30	-6,354.84	6,921.24	6,890.96	30.28	228.552		
900.00	893.06	876.06	893.06	5.00	29.02	109.63	2,688.30	-6,354.84	6,928.97	6,894.95	34.02	203.685		
1,000.00	989.64	972.64	989.64	5.40	32.38	109.66	2,688.30	-6,354.84	6,937.94	6,900.18	37.76	183.724		
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	109.68	2,688.30	-6,354.84	6,948.18	6,906.67	41.51	167.382		
1,200.00	1,179.82	1,162.82	1,179.82	6.29	38.99	109.70	2,688.30	-6,354.84	6,959.70	6,914.45	45.26	153.786		
1,300.00	1,273.17	1,256.17	1,273.17	6.79	42.23	109.72	2,688.30	-6,354.84	6,972.55	6,923.55	48.99	142.319		
1,400.00	1,365.46	1,348.46	1,365.46	7.32	45.45	109.89	2,688.30	-6,354.84	6,986.52	6,933.80	52.72	132.523		
1,500.00	1,457.65	1,440.65	1,457.65	7.87	48.66	110.17	2,688.30	-6,354.84	7,000.77	6,944.31	56.46	123.992		
1,600.00	1,549.83	1,532.83	1,549.83	8.43	51.87	110.45	2,688.30	-6,354.84	7,015.21	6,954.99	60.22	116.498		
1,700.00	1,642.02	1,625.02	1,642.02	9.01	55.08	110.72	2,688.30	-6,354.84	7,029.83	6,965.84	63.98	109.868		
1,800.00	1,734.21	1,717.21	1,734.21	9.59	58.29	111.00	2,688.30	-6,354.84	7,044.63	6,976.87	67.76	103.964		
1,900.00	1,826.39	1,809.39	1,826.39	10.18	61.51	111.27	2,688.30	-6,354.84	7,059.62	6,988.07	71.54	98.676		
2,000.00	1,918.58	1,901.58	1,918.58	10.78	64.72	111.54	2,688.30	-6,354.84	7,074.78	6,999.45	75.33	93.914		
2,100.00	2,010.77	2,006.23	2,010.77	11.39	68.37	111.82	2,688.30	-6,354.84	7,090.13	7,010.57	79.56	89.115		
2,200.00	2,102.95	2,085.95	2,102.95	11.99	71.15	112.09	2,688.30	-6,354.84	7,105.65	7,022.73	82.92	85.688		
2,300.00	2,195.14	2,178.14	2,195.14	12.61	74.37	112.36	2,688.30	-6,354.84	7,121.35	7,034.62	86.73	82.114		
2,400.00	2,287.32	2,270.32	2,287.32	13.22	77.58	112.62	2,688.30	-6,354.84	7,137.23	7,046.70	90.53	78.839		
2,500.00	2,379.51	2,362.51	2,379.51	13.84	80.80	112.89	2,688.30	-6,354.84	7,153.28	7,058.94	94.34	75.828		
2,600.00	2,471.70	2,454.70	2,471.70	14.46	84.01	113.16	2,688.30	-6,354.84	7,169.50	7,071.36	98.14	73.051		
2,700.00	2,563.88	2,546.88	2,563.88	15.08	87.23	113.42	2,688.30	-6,354.84	7,185.90	7,083.95	101.95	70.483		
2,800.00	2,656.07	2,639.07	2,656.07	15.71	90.44	113.69	2,688.30	-6,354.84	7,202.47	7,096.70	105.76	68.100		
2,900.00	2,748.26	2,731.26	2,748.26	16.33	93.66	113.95	2,688.30	-6,354.84	7,219.20	7,109.63	109.57	65.884		
3,000.00	2,840.44	2,823.44	2,840.44	16.96	96.88	114.21	2,688.30	-6,354.84	7,236.11	7,122.72	113.39	63.818		
3,100.00	2,932.63	2,915.63	2,932.63	17.59	100.09	114.48	2,688.30	-6,354.84	7,253.19	7,135.99	117.20	61.887		
3,200.00	3,024.81	3,007.81	3,024.81	18.22	103.31	114.74	2,688.30	-6,354.84	7,270.43	7,149.41	121.01	60.080		
3,300.00	3,117.00	3,100.00	3,117.00	18.86	106.53	115.00	2,688.30	-6,354.84	7,287.83	7,163.01	124.83	58.384		
3,400.00	3,209.19	3,207.81	3,209.19	19.49	110.29	115.25	2,688.30	-6,354.84	7,305.40	7,176.22	129.18	56.550		
3,500.00	3,301.37	3,284.37	3,301.37	20.12	112.96	115.51	2,688.30	-6,354.84	7,323.14	7,190.68	132.45	55.289		
3,600.00	3,393.56	3,376.56	3,393.56	20.76	116.18	115.77	2,688.30	-6,354.84	7,341.03	7,204.77	136.27	53.873		
3,700.00	3,485.75	3,468.75	3,485.75	21.39	119.39	116.02	2,688.30	-6,354.84	7,359.09	7,219.01	140.08	52.535		
3,800.00	3,577.93	3,560.93	3,577.93	22.03	122.61	116.27	2,688.30	-6,354.84	7,377.30	7,233.41	143.89	51.269		
3,900.00	3,670.12	3,653.12	3,670.12	22.67	125.83	116.53	2,688.30	-6,354.84	7,395.67	7,247.97	147.71	50.070		
4,000.00	3,762.30	3,745.30	3,762.30	23.30	129.05	116.78	2,688.30	-6,354.84	7,414.20	7,262.69	151.52	48.933		
4,100.00	3,854.49	3,837.49	3,854.49	23.94	132.26	117.03	2,688.30	-6,354.84	7,432.89	7,277.56	155.33	47.852		
4,200.00	3,946.68	3,929.68	3,946.68	24.58	135.48	117.28	2,688.30	-6,354.84	7,451.73	7,292.59	159.14	46.825		
4,300.00	4,038.86	4,021.86	4,038.86	25.22	138.70	117.53	2,688.30	-6,354.84	7,470.73	7,307.77	162.95	45.846		
4,400.00	4,131.05	4,114.05	4,131.05	25.86	141.91	117.77	2,688.30	-6,354.84	7,489.87	7,323.11	166.76	44.913		
4,500.00	4,223.24	4,206.24	4,223.24	26.50	145.13	118.02	2,688.30	-6,354.84	7,509.17	7,338.60	170.57	44.023		
4,600.00	4,315.42	4,301.58	4,315.42	27.14	148.46	118.26	2,688.30	-6,354.84	7,528.62	7,354.12	174.49	43.146		
4,700.00	4,407.61	4,409.39	4,407.61	27.78	152.22	118.51	2,688.30	-6,354.84	7,548.21	7,369.37	178.85	42.205		
4,800.00	4,499.79	4,482.79	4,499.79	28.42	154.78	118.75	2,688.30	-6,354.84	7,567.96	7,385.96	182.00	41.582		
4,900.00	4,591.98	4,574.98	4,591.98	29.06	158.00	118.99	2,688.30	-6,354.84	7,587.85	7,402.04	185.81	40.837		
5,000.00	4,684.17	4,667.17	4,684.17	29.70	161.22	119.23	2,688.30	-6,354.84	7,607.88	7,418.27	189.61	40.123		
5,100.00	4,776.35	4,759.35	4,776.35	30.34	164.44	119.47	2,688.30	-6,354.84	7,628.06	7,434.64	193.42	39.438		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,851.54	4,868.54	30.98	167.65	119.71	2,688.30	-6,354.84	7,648.39	7,451.16	197.23	38.780		
5,300.00	4,960.73	4,943.73	4,960.73	31.63	170.87	119.94	2,688.30	-6,354.84	7,668.85	7,467.82	201.03	38.148		
5,400.00	5,052.91	5,035.91	5,052.91	32.27	174.09	120.18	2,688.30	-6,354.84	7,689.46	7,484.62	204.83	37.540		
5,500.00	5,145.10	5,128.10	5,145.10	32.91	177.31	120.42	2,688.30	-6,354.84	7,710.20	7,501.57	208.64	36.955		
5,600.00	5,237.28	5,220.28	5,237.28	33.55	180.52	120.65	2,688.30	-6,354.84	7,731.09	7,518.65	212.44	36.392		
5,700.00	5,329.47	5,312.47	5,329.47	34.20	183.74	120.88	2,688.30	-6,354.84	7,752.11	7,535.87	216.24	35.849		
5,800.00	5,421.66	5,404.66	5,421.66	34.84	186.96	121.11	2,688.30	-6,354.84	7,773.27	7,553.23	220.04	35.326		
5,900.00	5,513.84	5,503.16	5,513.84	35.48	190.40	121.34	2,688.30	-6,354.84	7,794.56	7,570.50	224.06	34.787		
6,000.00	5,606.03	5,589.03	5,606.03	36.13	193.40	121.57	2,688.30	-6,354.84	7,815.99	7,588.35	227.64	34.334		
6,100.00	5,698.22	5,681.22	5,698.22	36.77	196.61	121.80	2,688.30	-6,354.84	7,837.55	7,606.11	231.44	33.864		
6,200.00	5,790.40	5,773.40	5,790.40	37.41	199.83	122.03	2,688.30	-6,354.84	7,859.24	7,624.00	235.24	33.409		
6,300.00	5,882.59	5,865.59	5,882.59	38.06	203.05	122.25	2,688.30	-6,354.84	7,881.07	7,642.03	239.04	32.970		
6,400.00	5,974.77	5,957.77	5,974.77	38.70	206.27	122.48	2,688.30	-6,354.84	7,903.02	7,660.18	242.83	32.545		
6,500.00	6,066.96	6,049.96	6,066.96	39.34	209.48	122.70	2,688.30	-6,354.84	7,925.10	7,678.47	246.63	32.134		
6,600.00	6,159.15	6,142.15	6,159.15	39.99	212.70	122.92	2,688.30	-6,354.84	7,947.31	7,696.88	250.42	31.735		
6,700.00	6,251.33	6,234.33	6,251.33	40.63	215.92	123.14	2,688.30	-6,354.84	7,969.65	7,715.43	254.22	31.350		
6,800.00	6,343.52	6,326.52	6,343.52	41.28	219.14	123.36	2,688.30	-6,354.84	7,992.11	7,734.09	258.01	30.976		
6,900.00	6,435.71	6,418.71	6,435.71	41.92	222.36	123.58	2,688.30	-6,354.84	8,014.69	7,752.89	261.81	30.613		
7,000.00	6,527.86	6,510.86	6,527.86	42.56	225.57	116.38	2,688.30	-6,354.84	8,036.72	7,771.12	265.60	30.259		
7,100.00	6,618.85	6,601.85	6,618.85	43.19	228.75	97.45	2,688.30	-6,354.84	8,049.27	7,779.92	269.35	29.884		
7,200.00	6,706.47	6,689.47	6,706.47	43.76	231.81	84.45	2,688.30	-6,354.84	8,049.48	7,776.52	272.96	29.490		
7,300.00	6,788.56	6,771.56	6,788.56	44.26	234.67	76.57	2,688.30	-6,354.84	8,037.50	7,761.17	276.33	29.086		
7,400.00	6,863.10	6,846.10	6,863.10	44.70	237.27	72.39	2,688.30	-6,354.84	8,013.77	7,734.36	279.41	28.681		
7,500.00	6,928.26	6,911.26	6,928.26	45.07	239.55	70.95	2,688.30	-6,354.84	7,979.00	7,696.87	282.13	28.281		
7,600.00	6,982.42	6,965.42	6,982.42	45.39	241.44	71.74	2,688.30	-6,354.84	7,934.17	7,649.68	284.49	27.889		
7,700.00	7,024.26	7,007.26	7,024.26	45.67	242.90	74.53	2,688.30	-6,354.84	7,880.45	7,594.00	286.45	27.510		
7,800.00	7,052.75	7,035.75	7,052.75	45.92	243.90	79.26	2,688.30	-6,354.84	7,819.21	7,531.20	288.01	27.150		
7,900.00	7,067.18	7,050.18	7,067.18	46.16	244.40	85.94	2,688.30	-6,354.84	7,751.93	7,462.81	289.13	26.811		
8,000.00	7,068.85	7,051.85	7,068.85	46.42	244.46	90.17	2,688.30	-6,354.84	7,680.68	7,390.82	289.86	26.498		
8,100.00	7,068.56	7,051.56	7,068.56	46.78	244.45	90.17	2,688.30	-6,354.84	7,609.46	7,318.84	290.61	26.184		
8,200.00	7,068.26	7,051.26	7,068.26	47.29	244.44	90.17	2,688.30	-6,354.84	7,538.88	7,247.43	291.46	25.866		
8,300.00	7,067.96	7,050.96	7,067.96	48.03	244.43	90.17	2,688.30	-6,354.84	7,468.98	7,176.59	292.40	25.544		
8,400.00	7,067.66	7,050.66	7,067.66	49.02	244.42	90.16	2,688.30	-6,354.84	7,399.77	7,106.34	293.43	25.218		
8,500.00	7,067.37	7,050.37	7,067.37	50.27	244.41	90.16	2,688.30	-6,354.84	7,331.27	7,036.72	294.56	24.889		
8,600.00	7,067.07	7,050.07	7,067.07	51.75	244.39	90.16	2,688.30	-6,354.84	7,263.50	6,967.73	295.77	24.558		
8,700.00	7,066.77	7,049.77	7,066.77	53.42	244.38	90.15	2,688.30	-6,354.84	7,196.49	6,899.40	297.08	24.224		
8,800.00	7,066.47	7,049.47	7,066.47	55.24	244.37	90.15	2,688.30	-6,354.84	7,130.24	6,831.76	298.48	23.888		
8,900.00	7,066.18	7,049.18	7,066.18	57.18	244.36	90.15	2,688.30	-6,354.84	7,064.79	6,764.83	299.97	23.552		
9,000.00	7,065.88	7,048.88	7,065.88	59.21	244.35	90.14	2,688.30	-6,354.84	7,000.16	6,698.62	301.54	23.215		
9,100.00	7,065.58	7,048.58	7,065.58	61.33	244.34	90.14	2,688.30	-6,354.84	6,936.37	6,633.17	303.20	22.878		
9,200.00	7,065.28	7,048.28	7,065.28	63.51	244.33	90.14	2,688.30	-6,354.84	6,873.44	6,568.50	304.93	22.541		
9,300.00	7,064.99	7,047.99	7,064.99	65.76	244.32	90.13	2,688.30	-6,354.84	6,811.39	6,504.64	306.75	22.205		
9,400.00	7,064.69	7,047.69	7,064.69	68.06	244.31	90.13	2,688.30	-6,354.84	6,750.26	6,441.61	308.65	21.871		
9,500.00	7,064.39	7,047.39	7,064.39	70.40	244.30	90.13	2,688.30	-6,354.84	6,690.06	6,379.45	310.62	21.538		
9,600.00	7,064.09	7,047.09	7,064.09	72.78	244.29	90.12	2,688.30	-6,354.84	6,630.83	6,318.17	312.66	21.208		
9,700.00	7,063.80	7,046.80	7,063.80	75.20	244.28	90.12	2,688.30	-6,354.84	6,572.58	6,257.80	314.77	20.880		
9,800.00	7,063.50	7,046.50	7,063.50	77.65	244.27	90.12	2,688.30	-6,354.84	6,515.34	6,198.39	316.96	20.556		
9,900.00	7,063.20	7,046.20	7,063.20	80.13	244.26	90.11	2,688.30	-6,354.84	6,459.15	6,139.95	319.21	20.235		
10,000.00	7,062.90	7,045.90	7,062.90	82.64	244.25	90.11	2,688.30	-6,354.84	6,404.03	6,082.51	321.52	19.918		
10,100.00	7,062.61	7,045.61	7,062.61	85.17	244.24	90.11	2,688.30	-6,354.84	6,350.00	6,026.10	323.90	19.605		
10,200.00	7,062.31	7,045.31	7,062.31	87.72	244.23	90.10	2,688.30	-6,354.84	6,297.10	5,970.77	326.33	19.297		
10,300.00	7,062.01	7,045.01	7,062.01	90.28	244.22	90.10	2,688.30	-6,354.84	6,245.35	5,916.52	328.83	18.993		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,044.71	7,061.71	92.87	244.21	90.10	2,688.30	-6,354.84	6,194.78	5,863.41	331.37	18.694		
10,500.00	7,061.41	7,044.41	7,061.41	95.47	244.20	90.10	2,688.30	-6,354.84	6,145.42	5,811.45	333.98	18.401		
10,600.00	7,061.12	7,044.12	7,061.12	98.09	244.19	90.09	2,688.30	-6,354.84	6,097.31	5,760.68	336.63	18.113		
10,700.00	7,060.82	7,043.82	7,060.82	100.72	244.18	90.09	2,688.30	-6,354.84	6,050.46	5,711.14	339.33	17.831		
10,800.00	7,060.52	7,043.52	7,060.52	103.37	244.17	90.09	2,688.30	-6,354.84	6,004.92	5,662.85	342.07	17.555		
10,900.00	7,060.22	7,043.22	7,060.22	106.02	244.16	90.08	2,688.30	-6,354.84	5,960.70	5,615.85	344.86	17.285		
11,000.00	7,059.93	7,042.93	7,059.93	108.69	244.15	90.08	2,688.30	-6,354.84	5,917.84	5,570.16	347.68	17.021		
11,100.00	7,059.63	7,042.63	7,059.63	111.36	244.14	90.08	2,688.30	-6,354.84	5,876.38	5,525.84	350.54	16.764		
11,200.00	7,059.33	7,042.33	7,059.33	114.05	244.12	90.07	2,688.30	-6,354.84	5,836.33	5,482.89	353.44	16.513		
11,300.00	7,059.03	7,042.03	7,059.03	116.74	244.11	90.07	2,688.30	-6,354.84	5,797.73	5,441.37	356.36	16.269		
11,400.00	7,058.74	7,041.74	7,058.74	119.44	244.10	90.07	2,688.30	-6,354.84	5,760.61	5,401.29	359.31	16.032		
11,500.00	7,058.44	7,041.44	7,058.44	122.15	244.09	90.06	2,688.30	-6,354.84	5,724.99	5,362.70	362.29	15.802		
11,600.00	7,058.14	7,041.14	7,058.14	124.86	244.08	90.06	2,688.30	-6,354.84	5,690.91	5,325.62	365.29	15.579		
11,700.00	7,057.84	7,040.84	7,057.84	127.58	244.07	90.06	2,688.30	-6,354.84	5,658.39	5,290.09	368.30	15.364		
11,800.00	7,057.55	7,040.55	7,057.55	130.31	244.06	90.05	2,688.30	-6,354.84	5,627.46	5,256.14	371.33	15.155		
11,900.00	7,057.25	7,040.25	7,057.25	133.04	244.05	90.05	2,688.30	-6,354.84	5,598.15	5,223.79	374.36	14.954		
12,000.00	7,056.95	7,039.95	7,056.95	135.78	244.04	90.05	2,688.30	-6,354.84	5,570.47	5,193.07	377.40	14.760		
12,100.00	7,056.65	7,039.65	7,056.65	138.52	244.03	90.04	2,688.30	-6,354.84	5,544.47	5,164.02	380.44	14.574		
12,200.00	7,056.36	7,039.36	7,056.36	141.27	244.02	90.04	2,688.30	-6,354.84	5,520.15	5,136.67	383.48	14.395		
12,300.00	7,056.06	7,039.06	7,056.06	144.02	244.01	90.04	2,688.30	-6,354.84	5,497.54	5,111.03	386.52	14.223		
12,400.00	7,055.76	7,038.76	7,055.76	146.78	244.00	90.03	2,688.30	-6,354.84	5,476.67	5,087.13	389.54	14.059		
12,500.00	7,055.46	7,038.46	7,055.46	149.54	243.99	90.03	2,688.30	-6,354.84	5,457.55	5,065.00	392.55	13.903		
12,600.00	7,055.17	7,038.17	7,055.17	152.30	243.98	90.03	2,688.30	-6,354.84	5,440.20	5,044.66	395.54	13.754		
12,700.00	7,054.87	7,037.87	7,054.87	155.07	243.97	90.03	2,688.30	-6,354.84	5,424.64	5,026.13	398.51	13.612		
12,800.00	7,054.57	7,037.57	7,054.57	157.84	243.96	90.02	2,688.30	-6,354.84	5,410.88	5,009.43	401.45	13.478		
12,900.00	7,054.27	7,037.27	7,054.27	160.61	243.95	90.02	2,688.30	-6,354.84	5,398.94	4,994.58	404.36	13.352		
13,000.00	7,053.97	7,036.97	7,053.97	163.39	243.94	90.02	2,688.30	-6,354.84	5,388.83	4,981.59	407.23	13.233		
13,100.00	7,053.68	7,036.68	7,053.68	166.17	243.93	90.01	2,688.30	-6,354.84	5,380.56	4,970.49	410.07	13.121		
13,200.00	7,053.38	7,036.38	7,053.38	168.95	243.92	90.01	2,688.30	-6,354.84	5,374.13	4,961.27	412.87	13.017		
13,300.00	7,053.08	7,036.08	7,053.08	171.73	243.91	90.01	2,688.30	-6,354.84	5,369.57	4,953.95	415.62	12.919		
13,400.00	7,052.78	7,035.78	7,052.78	174.52	243.90	90.00	2,688.30	-6,354.84	5,366.86	4,948.54	418.32	12.830		
13,495.37	7,052.50	7,035.50	7,052.50	177.18	243.89	90.00	2,688.30	-6,354.84	5,366.01	4,945.17	420.85	12.751 CC		
13,500.00	7,052.49	7,035.49	7,052.49	177.31	243.89	90.00	2,688.30	-6,354.84	5,366.01	4,945.05	420.97	12.747		
13,600.00	7,052.19	7,035.19	7,052.19	180.10	243.88	90.00	2,688.30	-6,354.84	5,367.03	4,943.47	423.56	12.671 ES		
13,700.00	7,051.89	7,034.89	7,051.89	182.90	243.87	89.99	2,688.30	-6,354.84	5,369.91	4,943.82	426.10	12.603		
13,800.00	7,051.59	7,034.59	7,051.59	185.69	243.85	89.99	2,688.30	-6,354.84	5,374.65	4,946.08	428.57	12.541		
13,900.00	7,051.30	7,034.30	7,051.30	188.49	243.84	89.99	2,688.30	-6,354.84	5,381.25	4,950.26	430.98	12.486		
14,000.00	7,051.00	7,034.00	7,051.00	191.29	243.83	89.98	2,688.30	-6,354.84	5,389.69	4,956.36	433.33	12.438		
14,100.00	7,050.70	7,033.70	7,050.70	194.09	243.82	89.98	2,688.30	-6,354.84	5,399.97	4,964.36	435.60	12.396		
14,200.00	7,050.40	7,033.40	7,050.40	196.89	243.81	89.98	2,688.30	-6,354.84	5,412.08	4,974.26	437.81	12.362		
14,300.00	7,050.11	7,033.11	7,050.11	199.70	243.80	89.97	2,688.30	-6,354.84	5,426.00	4,986.05	439.95	12.333		
14,400.00	7,049.81	7,032.81	7,049.81	202.50	243.79	89.97	2,688.30	-6,354.84	5,441.73	4,999.71	442.02	12.311		
14,500.00	7,049.51	7,032.51	7,049.51	205.31	243.78	89.97	2,688.30	-6,354.84	5,459.24	5,015.24	444.01	12.295		
14,600.00	7,049.21	7,032.21	7,049.21	208.12	243.77	89.96	2,688.30	-6,354.84	5,478.53	5,032.60	445.93	12.286		
14,700.00	7,048.92	7,031.92	7,048.92	210.93	243.76	89.96	2,688.30	-6,354.84	5,499.56	5,051.79	447.77	12.282 SF		
14,800.00	7,048.62	7,031.62	7,048.62	213.74	243.75	89.96	2,688.30	-6,354.84	5,522.33	5,072.79	449.54	12.284		
14,900.00	7,048.32	7,031.32	7,048.32	216.55	243.74	89.96	2,688.30	-6,354.84	5,546.81	5,095.57	451.23	12.293		
15,000.00	7,048.02	7,031.02	7,048.02	219.37	243.73	89.95	2,688.30	-6,354.84	5,572.97	5,120.11	452.85	12.306		
15,100.00	7,047.73	7,030.73	7,047.73	222.18	243.72	89.95	2,688.30	-6,354.84	5,600.79	5,146.39	454.40	12.326		
15,200.00	7,047.43	7,030.43	7,047.43	225.00	243.71	89.95	2,688.30	-6,354.84	5,630.26	5,174.39	455.87	12.351		
15,300.00	7,047.13	7,030.13	7,047.13	227.81	243.70	89.94	2,688.30	-6,354.84	5,661.34	5,204.07	457.27	12.381		
15,343.67	7,047.00	7,030.00	7,047.00	229.04	243.69	89.94	2,688.30	-6,354.84	5,675.41	5,217.55	457.86	12.396		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	14.00	3.28	3.28	-71.52	2,623.16	-7,851.10	8,277.74					
100.00	100.00	86.00	100.00	3.28	3.61	-71.52	2,623.16	-7,851.10	8,277.73	8,270.83	6.89	1,201.081		
200.00	200.00	186.00	200.00	3.34	5.77	-71.52	2,623.16	-7,851.10	8,277.73	8,268.62	9.11	908.879		
300.00	299.98	285.98	299.98	3.44	8.87	105.07	2,623.16	-7,851.10	8,278.18	8,265.87	12.31	672.675		
400.00	399.84	385.84	399.84	3.59	12.17	105.08	2,623.16	-7,851.10	8,279.54	8,263.78	15.76	525.257		
500.00	499.45	485.45	499.45	3.79	15.55	105.09	2,623.16	-7,851.10	8,281.82	8,262.48	19.34	428.266		
600.00	598.70	584.70	598.70	4.03	18.95	105.11	2,623.16	-7,851.10	8,285.02	8,262.03	22.98	360.502		
700.00	697.47	683.47	697.47	4.31	22.36	105.13	2,623.16	-7,851.10	8,289.14	8,262.47	26.67	310.803		
800.00	795.62	781.62	795.62	4.64	25.75	105.16	2,623.16	-7,851.10	8,294.22	8,263.83	30.39	272.947		
900.00	893.06	879.06	893.06	5.00	29.13	105.19	2,623.16	-7,851.10	8,300.25	8,266.13	34.12	243.238		
1,000.00	989.64	975.64	989.64	5.40	32.48	105.22	2,623.16	-7,851.10	8,307.26	8,269.39	37.87	219.358		
1,100.00	1,085.27	1,071.27	1,085.27	5.83	35.80	105.25	2,623.16	-7,851.10	8,315.27	8,273.65	41.62	199.783		
1,200.00	1,179.82	1,165.82	1,179.82	6.29	39.09	105.28	2,623.16	-7,851.10	8,324.30	8,278.93	45.37	183.476		
1,300.00	1,273.17	1,259.17	1,273.17	6.79	42.34	105.31	2,623.16	-7,851.10	8,334.38	8,285.27	49.11	169.705		
1,400.00	1,365.46	1,351.46	1,365.46	7.32	45.55	105.46	2,623.16	-7,851.10	8,345.36	8,292.52	52.84	157.926		
1,500.00	1,457.65	1,443.65	1,457.65	7.87	48.76	105.70	2,623.16	-7,851.10	8,356.58	8,299.99	56.59	147.663		
1,600.00	1,549.83	1,535.83	1,549.83	8.43	51.97	105.94	2,623.16	-7,851.10	8,367.97	8,307.61	60.36	138.645		
1,700.00	1,642.02	1,628.02	1,642.02	9.01	55.19	106.17	2,623.16	-7,851.10	8,379.52	8,315.39	64.13	130.665		
1,800.00	1,734.21	1,720.21	1,734.21	9.59	58.40	106.41	2,623.16	-7,851.10	8,391.23	8,323.31	67.91	123.558		
1,900.00	1,826.39	1,812.39	1,826.39	10.18	61.61	106.65	2,623.16	-7,851.10	8,403.10	8,331.40	71.70	117.190		
2,000.00	1,918.58	1,904.58	1,918.58	10.78	64.83	106.88	2,623.16	-7,851.10	8,415.14	8,339.64	75.50	111.456		
2,100.00	2,010.77	2,003.23	2,010.77	11.39	68.27	107.11	2,623.16	-7,851.10	8,427.34	8,347.81	79.53	105.964		
2,200.00	2,102.95	2,088.95	2,102.95	11.99	71.26	107.35	2,623.16	-7,851.10	8,439.69	8,356.58	83.11	101.547		
2,300.00	2,195.14	2,181.14	2,195.14	12.61	74.47	107.58	2,623.16	-7,851.10	8,452.21	8,365.29	86.92	97.239		
2,400.00	2,287.32	2,273.32	2,287.32	13.22	77.69	107.81	2,623.16	-7,851.10	8,464.88	8,374.15	90.73	93.292		
2,500.00	2,379.51	2,365.51	2,379.51	13.84	80.90	108.05	2,623.16	-7,851.10	8,477.72	8,383.17	94.55	89.663		
2,600.00	2,471.70	2,457.70	2,471.70	14.46	84.12	108.28	2,623.16	-7,851.10	8,490.71	8,392.34	98.37	86.315		
2,700.00	2,563.88	2,549.88	2,563.88	15.08	87.33	108.51	2,623.16	-7,851.10	8,503.86	8,401.67	102.19	83.218		
2,800.00	2,656.07	2,642.07	2,656.07	15.71	90.55	108.74	2,623.16	-7,851.10	8,517.16	8,411.15	106.01	80.344		
2,900.00	2,748.26	2,734.26	2,748.26	16.33	93.76	108.97	2,623.16	-7,851.10	8,530.62	8,420.79	109.83	77.670		
3,000.00	2,840.44	2,826.44	2,840.44	16.96	96.98	109.20	2,623.16	-7,851.10	8,544.24	8,430.58	113.65	75.178		
3,100.00	2,932.63	2,918.63	2,932.63	17.59	100.20	109.42	2,623.16	-7,851.10	8,558.00	8,440.53	117.48	72.848		
3,200.00	3,024.81	3,010.81	3,024.81	18.22	103.41	109.65	2,623.16	-7,851.10	8,571.92	8,450.62	121.30	70.666		
3,300.00	3,117.00	3,103.00	3,117.00	18.86	106.63	109.88	2,623.16	-7,851.10	8,586.00	8,460.87	125.13	68.618		
3,400.00	3,209.19	3,204.81	3,209.19	19.49	110.18	110.10	2,623.16	-7,851.10	8,600.22	8,470.93	129.29	66.520		
3,500.00	3,301.37	3,287.37	3,301.37	20.12	113.06	110.33	2,623.16	-7,851.10	8,614.60	8,481.82	132.78	64.880		
3,600.00	3,393.56	3,379.56	3,393.56	20.76	116.28	110.55	2,623.16	-7,851.10	8,629.12	8,492.52	136.60	63.169		
3,700.00	3,485.75	3,471.75	3,485.75	21.39	119.50	110.78	2,623.16	-7,851.10	8,643.80	8,503.37	140.43	61.553		
3,800.00	3,577.93	3,563.93	3,577.93	22.03	122.72	111.00	2,623.16	-7,851.10	8,658.62	8,514.37	144.26	60.023		
3,900.00	3,670.12	3,656.12	3,670.12	22.67	125.93	111.22	2,623.16	-7,851.10	8,673.59	8,525.51	148.08	58.573		
4,000.00	3,762.30	3,748.30	3,762.30	23.30	129.15	111.45	2,623.16	-7,851.10	8,688.71	8,536.81	151.91	57.198		
4,100.00	3,854.49	3,840.49	3,854.49	23.94	132.37	111.67	2,623.16	-7,851.10	8,703.98	8,548.24	155.73	55.891		
4,200.00	3,946.68	3,932.68	3,946.68	24.58	135.58	111.89	2,623.16	-7,851.10	8,719.39	8,559.83	159.56	54.648		
4,300.00	4,038.86	4,024.86	4,038.86	25.22	138.80	112.11	2,623.16	-7,851.10	8,734.94	8,571.56	163.38	53.463		
4,400.00	4,131.05	4,117.05	4,131.05	25.86	142.02	112.33	2,623.16	-7,851.10	8,750.64	8,583.43	167.21	52.334		
4,500.00	4,223.24	4,209.24	4,223.24	26.50	145.24	112.55	2,623.16	-7,851.10	8,766.48	8,595.45	171.03	51.257		
4,600.00	4,315.42	4,301.42	4,315.42	27.14	148.45	112.77	2,623.16	-7,851.10	8,782.47	8,607.61	174.85	50.227		
4,700.00	4,407.61	4,406.39	4,407.61	27.78	152.12	112.98	2,623.16	-7,851.10	8,798.59	8,619.47	179.12	49.120		
4,800.00	4,499.79	4,485.79	4,499.79	28.42	154.89	113.20	2,623.16	-7,851.10	8,814.86	8,632.36	182.50	48.301		
4,900.00	4,591.98	4,577.98	4,591.98	29.06	158.11	113.42	2,623.16	-7,851.10	8,831.27	8,644.94	186.32	47.398		
5,000.00	4,684.17	4,670.17	4,684.17	29.70	161.32	113.63	2,623.16	-7,851.10	8,847.81	8,657.67	190.14	46.532		
5,100.00	4,776.35	4,762.35	4,776.35	30.34	164.54	113.85	2,623.16	-7,851.10	8,864.50	8,670.53	193.97	45.701		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,854.54	4,868.54	30.98	167.76	114.06	2,623.16	-7,851.10	8,881.32	8,683.53	197.79	44.904		
5,300.00	4,960.73	4,946.73	4,960.73	31.63	170.98	114.27	2,623.16	-7,851.10	8,898.28	8,696.67	201.61	44.137		
5,400.00	5,052.91	5,038.91	5,052.91	32.27	174.19	114.48	2,623.16	-7,851.10	8,915.38	8,709.95	205.43	43.399		
5,500.00	5,145.10	5,131.10	5,145.10	32.91	177.41	114.70	2,623.16	-7,851.10	8,932.61	8,723.36	209.25	42.690		
5,600.00	5,237.28	5,223.28	5,237.28	33.55	180.63	114.91	2,623.16	-7,851.10	8,949.97	8,736.91	213.06	42.006		
5,700.00	5,329.47	5,315.47	5,329.47	34.20	183.85	115.12	2,623.16	-7,851.10	8,967.47	8,750.59	216.88	41.347		
5,800.00	5,421.66	5,407.66	5,421.66	34.84	187.06	115.33	2,623.16	-7,851.10	8,985.10	8,764.41	220.70	40.712		
5,900.00	5,513.84	5,500.16	5,513.84	35.48	190.29	115.54	2,623.16	-7,851.10	9,002.87	8,778.34	224.53	40.097		
6,000.00	5,606.03	5,607.97	5,606.03	36.13	194.06	115.74	2,623.16	-7,851.10	9,020.77	8,791.88	228.89	39.411		
6,100.00	5,698.22	5,684.22	5,698.22	36.77	196.72	115.95	2,623.16	-7,851.10	9,038.79	8,806.65	232.15	38.936		
6,200.00	5,790.40	5,776.40	5,790.40	37.41	199.94	116.16	2,623.16	-7,851.10	9,056.95	8,820.99	235.96	38.383		
6,300.00	5,882.59	5,868.59	5,882.59	38.06	203.15	116.36	2,623.16	-7,851.10	9,075.24	8,835.46	239.78	37.849		
6,400.00	5,974.77	5,960.77	5,974.77	38.70	206.37	116.57	2,623.16	-7,851.10	9,093.65	8,850.06	243.59	37.332		
6,500.00	6,066.96	6,052.96	6,066.96	39.34	209.59	116.77	2,623.16	-7,851.10	9,112.19	8,864.79	247.40	36.832		
6,600.00	6,159.15	6,145.15	6,159.15	39.99	212.81	116.98	2,623.16	-7,851.10	9,130.86	8,879.65	251.21	36.347		
6,700.00	6,251.33	6,237.33	6,251.33	40.63	216.03	117.18	2,623.16	-7,851.10	9,149.66	8,894.63	255.03	35.877		
6,800.00	6,343.52	6,329.52	6,343.52	41.28	219.24	117.38	2,623.16	-7,851.10	9,168.58	8,909.74	258.84	35.422		
6,900.00	6,435.71	6,421.71	6,435.71	41.92	222.46	117.58	2,623.16	-7,851.10	9,187.62	8,924.98	262.65	34.981		
7,000.00	6,527.86	6,513.86	6,527.86	42.56	225.68	110.48	2,623.16	-7,851.10	9,206.05	8,939.60	266.45	34.550		
7,100.00	6,618.85	6,604.85	6,618.85	43.19	228.85	91.82	2,623.16	-7,851.10	9,214.25	8,944.02	270.22	34.099		
7,200.00	6,706.47	6,707.53	6,706.47	43.76	232.44	79.03	2,623.16	-7,851.10	9,209.21	8,934.83	274.37	33.565		
7,300.00	6,788.56	6,774.56	6,788.56	44.26	234.78	71.32	2,623.16	-7,851.10	9,191.15	8,913.92	277.23	33.154		
7,400.00	6,863.10	6,849.10	6,863.10	44.70	237.38	67.31	2,623.16	-7,851.10	9,160.64	8,880.33	280.31	32.681		
7,500.00	6,928.26	6,914.26	6,928.26	45.07	239.65	66.10	2,623.16	-7,851.10	9,118.49	8,835.46	283.04	32.217		
7,600.00	6,982.42	6,968.42	6,982.42	45.39	241.54	67.25	2,623.16	-7,851.10	9,065.82	8,780.44	285.38	31.768		
7,700.00	7,024.26	7,010.26	7,024.26	45.67	243.01	70.66	2,623.16	-7,851.10	9,003.96	8,716.65	287.31	31.339		
7,800.00	7,052.75	7,038.75	7,052.75	45.92	244.00	76.45	2,623.16	-7,851.10	8,934.43	8,645.63	288.80	30.936		
7,900.00	7,067.18	7,053.18	7,067.18	46.16	244.50	84.81	2,623.16	-7,851.10	8,858.93	8,569.08	289.84	30.564		
8,000.00	7,068.85	7,054.85	7,068.85	46.42	244.56	90.22	2,623.16	-7,851.10	8,779.62	8,489.15	290.47	30.225		
8,100.00	7,068.56	7,054.56	7,068.56	46.78	244.55	90.22	2,623.16	-7,851.10	8,700.19	8,409.10	291.09	29.888		
8,200.00	7,068.26	7,054.26	7,068.26	47.29	244.54	90.22	2,623.16	-7,851.10	8,621.19	8,329.41	291.79	29.546		
8,300.00	7,067.96	7,053.96	7,067.96	48.03	244.53	90.21	2,623.16	-7,851.10	8,542.63	8,250.08	292.55	29.200		
8,400.00	7,067.66	7,053.66	7,067.66	49.02	244.52	90.21	2,623.16	-7,851.10	8,464.53	8,171.13	293.39	28.850		
8,500.00	7,067.37	7,053.37	7,067.37	50.27	244.51	90.21	2,623.16	-7,851.10	8,386.88	8,092.57	294.31	28.497		
8,600.00	7,067.07	7,053.07	7,067.07	51.75	244.50	90.21	2,623.16	-7,851.10	8,309.72	8,014.42	295.30	28.140		
8,700.00	7,066.77	7,052.77	7,066.77	53.42	244.49	90.20	2,623.16	-7,851.10	8,233.04	7,936.68	296.36	27.780		
8,800.00	7,066.47	7,052.47	7,066.47	55.24	244.48	90.20	2,623.16	-7,851.10	8,156.88	7,859.38	297.50	27.418		
8,900.00	7,066.18	7,052.18	7,066.18	57.18	244.47	90.20	2,623.16	-7,851.10	8,081.23	7,782.52	298.71	27.054		
9,000.00	7,065.88	7,051.88	7,065.88	59.21	244.46	90.19	2,623.16	-7,851.10	8,006.11	7,706.12	300.00	26.687		
9,100.00	7,065.58	7,051.58	7,065.58	61.33	244.45	90.19	2,623.16	-7,851.10	7,931.55	7,630.20	301.35	26.320		
9,200.00	7,065.28	7,051.28	7,065.28	63.51	244.44	90.19	2,623.16	-7,851.10	7,857.55	7,554.77	302.78	25.951		
9,300.00	7,064.99	7,050.99	7,064.99	65.76	244.43	90.18	2,623.16	-7,851.10	7,784.13	7,479.85	304.28	25.582		
9,400.00	7,064.69	7,050.69	7,064.69	68.06	244.42	90.18	2,623.16	-7,851.10	7,711.31	7,405.46	305.85	25.212		
9,500.00	7,064.39	7,050.39	7,064.39	70.40	244.41	90.18	2,623.16	-7,851.10	7,639.10	7,331.61	307.49	24.843		
9,600.00	7,064.09	7,050.09	7,064.09	72.78	244.40	90.17	2,623.16	-7,851.10	7,567.53	7,258.33	309.20	24.474		
9,700.00	7,063.80	7,049.80	7,063.80	75.20	244.39	90.17	2,623.16	-7,851.10	7,496.61	7,185.63	310.98	24.107		
9,800.00	7,063.50	7,049.50	7,063.50	77.65	244.37	90.17	2,623.16	-7,851.10	7,426.35	7,113.53	312.82	23.740		
9,900.00	7,063.20	7,049.20	7,063.20	80.13	244.36	90.16	2,623.16	-7,851.10	7,356.79	7,042.06	314.73	23.375		
10,000.00	7,062.90	7,048.90	7,062.90	82.64	244.35	90.16	2,623.16	-7,851.10	7,287.93	6,971.23	316.71	23.012		
10,100.00	7,062.61	7,048.61	7,062.61	85.17	244.34	90.16	2,623.16	-7,851.10	7,219.80	6,901.06	318.75	22.651		
10,200.00	7,062.31	7,048.31	7,062.31	87.72	244.33	90.15	2,623.16	-7,851.10	7,152.42	6,831.57	320.85	22.292		
10,300.00	7,062.01	7,048.01	7,062.01	90.28	244.32	90.15	2,623.16	-7,851.10	7,085.82	6,762.80	323.02	21.936		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	7,047.71	7,061.71	92.87	244.31	90.15	2,623.16	-7,851.10	7,020.00	6,694.76	325.24	21.584		
10,500.00	7,061.41	7,047.41	7,061.41	95.47	244.30	90.14	2,623.16	-7,851.10	6,955.00	6,627.47	327.53	21.235		
10,600.00	7,061.12	7,047.12	7,061.12	98.09	244.29	90.14	2,623.16	-7,851.10	6,890.84	6,560.95	329.88	20.889		
10,700.00	7,060.82	7,046.82	7,060.82	100.72	244.28	90.14	2,623.16	-7,851.10	6,827.53	6,495.25	332.29	20.547		
10,800.00	7,060.52	7,046.52	7,060.52	103.37	244.27	90.13	2,623.16	-7,851.10	6,765.12	6,430.36	334.75	20.209		
10,900.00	7,060.22	7,046.22	7,060.22	106.02	244.26	90.13	2,623.16	-7,851.10	6,703.61	6,366.34	337.28	19.876		
11,000.00	7,059.93	7,045.93	7,059.93	108.69	244.25	90.13	2,623.16	-7,851.10	6,643.04	6,303.19	339.85	19.547		
11,100.00	7,059.63	7,045.63	7,059.63	111.36	244.24	90.12	2,623.16	-7,851.10	6,583.44	6,240.95	342.49	19.223		
11,200.00	7,059.33	7,045.33	7,059.33	114.05	244.23	90.12	2,623.16	-7,851.10	6,524.82	6,179.65	345.17	18.903		
11,300.00	7,059.03	7,045.03	7,059.03	116.74	244.22	90.12	2,623.16	-7,851.10	6,467.21	6,119.30	347.91	18.589		
11,400.00	7,058.74	7,044.74	7,058.74	119.44	244.21	90.12	2,623.16	-7,851.10	6,410.65	6,059.95	350.70	18.280		
11,500.00	7,058.44	7,044.44	7,058.44	122.15	244.20	90.11	2,623.16	-7,851.10	6,355.16	6,001.62	353.54	17.976		
11,600.00	7,058.14	7,044.14	7,058.14	124.86	244.19	90.11	2,623.16	-7,851.10	6,300.77	5,944.35	356.42	17.678		
11,700.00	7,057.84	7,043.84	7,057.84	127.58	244.18	90.11	2,623.16	-7,851.10	6,247.50	5,888.15	359.35	17.385		
11,800.00	7,057.55	7,043.55	7,057.55	130.31	244.17	90.10	2,623.16	-7,851.10	6,195.39	5,833.06	362.33	17.099		
11,900.00	7,057.25	7,043.25	7,057.25	133.04	244.16	90.10	2,623.16	-7,851.10	6,144.47	5,779.12	365.35	16.818		
12,000.00	7,056.95	7,042.95	7,056.95	135.78	244.15	90.10	2,623.16	-7,851.10	6,094.76	5,726.35	368.41	16.544		
12,100.00	7,056.65	7,042.65	7,056.65	138.52	244.14	90.09	2,623.16	-7,851.10	6,046.30	5,674.80	371.50	16.275		
12,200.00	7,056.36	7,042.36	7,056.36	141.27	244.13	90.09	2,623.16	-7,851.10	5,999.11	5,624.48	374.63	16.013		
12,300.00	7,056.06	7,042.06	7,056.06	144.02	244.12	90.09	2,623.16	-7,851.10	5,953.23	5,575.43	377.80	15.758		
12,400.00	7,055.76	7,041.76	7,055.76	146.78	244.10	90.08	2,623.16	-7,851.10	5,908.68	5,527.69	380.99	15.509		
12,500.00	7,055.46	7,041.46	7,055.46	149.54	244.09	90.08	2,623.16	-7,851.10	5,865.50	5,481.29	384.22	15.266		
12,600.00	7,055.17	7,041.17	7,055.17	152.30	244.08	90.08	2,623.16	-7,851.10	5,823.72	5,436.26	387.47	15.030		
12,700.00	7,054.87	7,040.87	7,054.87	155.07	244.07	90.07	2,623.16	-7,851.10	5,783.37	5,392.63	390.73	14.801		
12,800.00	7,054.57	7,040.57	7,054.57	157.84	244.06	90.07	2,623.16	-7,851.10	5,744.47	5,350.45	394.02	14.579		
12,900.00	7,054.27	7,040.27	7,054.27	160.61	244.05	90.07	2,623.16	-7,851.10	5,707.06	5,309.74	397.33	14.364		
13,000.00	7,053.97	7,039.97	7,053.97	163.39	244.04	90.06	2,623.16	-7,851.10	5,671.17	5,270.53	400.64	14.155		
13,100.00	7,053.68	7,039.68	7,053.68	166.17	244.03	90.06	2,623.16	-7,851.10	5,636.82	5,232.86	403.96	13.954		
13,200.00	7,053.38	7,039.38	7,053.38	168.95	244.02	90.06	2,623.16	-7,851.10	5,604.05	5,196.76	407.29	13.759		
13,300.00	7,053.08	7,039.08	7,053.08	171.73	244.01	90.05	2,623.16	-7,851.10	5,572.88	5,162.26	410.61	13.572		
13,400.00	7,052.78	7,038.78	7,052.78	174.52	244.00	90.05	2,623.16	-7,851.10	5,543.34	5,129.40	413.94	13.392		
13,500.00	7,052.49	7,038.49	7,052.49	177.31	243.99	90.05	2,623.16	-7,851.10	5,515.45	5,098.20	417.25	13.219		
13,600.00	7,052.19	7,038.19	7,052.19	180.10	243.98	90.04	2,623.16	-7,851.10	5,489.24	5,068.69	420.55	13.053		
13,700.00	7,051.89	7,037.89	7,051.89	182.90	243.97	90.04	2,623.16	-7,851.10	5,464.74	5,040.91	423.83	12.894		
13,800.00	7,051.59	7,037.59	7,051.59	185.69	243.96	90.04	2,623.16	-7,851.10	5,441.96	5,014.87	427.10	12.742		
13,900.00	7,051.30	7,037.30	7,051.30	188.49	243.95	90.04	2,623.16	-7,851.10	5,420.94	4,990.61	430.33	12.597		
14,000.00	7,051.00	7,037.00	7,051.00	191.29	243.94	90.03	2,623.16	-7,851.10	5,401.68	4,968.14	433.54	12.459		
14,100.00	7,050.70	7,036.70	7,050.70	194.09	243.93	90.03	2,623.16	-7,851.10	5,384.22	4,947.50	436.71	12.329		
14,200.00	7,050.40	7,036.40	7,050.40	196.89	243.92	90.03	2,623.16	-7,851.10	5,368.56	4,928.71	439.85	12.206		
14,300.00	7,050.11	7,036.11	7,050.11	199.70	243.91	90.02	2,623.16	-7,851.10	5,354.72	4,911.78	442.94	12.089		
14,400.00	7,049.81	7,035.81	7,049.81	202.50	243.90	90.02	2,623.16	-7,851.10	5,342.71	4,896.74	445.98	11.980		
14,500.00	7,049.51	7,035.51	7,049.51	205.31	243.89	90.02	2,623.16	-7,851.10	5,332.56	4,883.59	448.97	11.877		
14,600.00	7,049.21	7,035.21	7,049.21	208.12	243.88	90.01	2,623.16	-7,851.10	5,324.26	4,872.36	451.90	11.782		
14,700.00	7,048.92	7,034.92	7,048.92	210.93	243.87	90.01	2,623.16	-7,851.10	5,317.84	4,863.06	454.78	11.693		
14,800.00	7,048.62	7,034.62	7,048.62	213.74	243.86	90.01	2,623.16	-7,851.10	5,313.29	4,855.69	457.59	11.611		
14,900.00	7,048.32	7,034.32	7,048.32	216.55	243.85	90.00	2,623.16	-7,851.10	5,310.61	4,850.27	460.34	11.536		
14,992.00	7,048.05	7,034.05	7,048.05	219.14	243.84	90.00	2,623.16	-7,851.10	5,309.82	4,847.01	462.80	11.473 CC		
15,000.00	7,048.02	7,034.02	7,048.02	219.37	243.83	90.00	2,623.16	-7,851.10	5,309.82	4,846.81	463.01	11.468		
15,100.00	7,047.73	7,033.73	7,047.73	222.18	243.82	90.00	2,623.16	-7,851.10	5,310.91	4,845.30	465.61	11.406 ES		
15,200.00	7,047.43	7,033.43	7,047.43	225.00	243.81	89.99	2,623.16	-7,851.10	5,313.89	4,845.75	468.14	11.351		
15,300.00	7,047.13	7,033.13	7,047.13	227.81	243.80	89.99	2,623.16	-7,851.10	5,318.74	4,848.15	470.59	11.302		
15,343.67	7,047.00	7,033.00	7,047.00	229.04	243.80	89.99	2,623.16	-7,851.10	5,321.45	4,849.82	471.63	11.283 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	3.00	0.00	3.28	3.28	-52.94	2,738.75	-3,626.56	4,544.53				
100.00	100.00	103.00	100.00	3.28	3.77	-52.94	2,738.75	-3,626.56	4,544.53	4,537.48	7.05	644.562	
200.00	200.00	203.00	200.00	3.34	6.27	-52.94	2,738.75	-3,626.56	4,544.53	4,534.92	9.60	473.143 CC	
300.00	299.98	302.98	299.98	3.44	9.42	123.65	2,738.75	-3,626.56	4,545.49	4,532.63	12.86	353.447	
400.00	399.84	402.84	399.84	3.59	12.75	123.66	2,738.75	-3,626.56	4,548.40	4,532.06	16.34	278.422 ES	
500.00	499.45	502.45	499.45	3.79	16.13	123.67	2,738.75	-3,626.56	4,553.24	4,533.32	19.92	228.574	
600.00	598.70	601.70	598.70	4.03	19.54	123.68	2,738.75	-3,626.56	4,560.03	4,536.47	23.57	193.483	
700.00	697.47	700.47	697.47	4.31	22.94	123.70	2,738.75	-3,626.56	4,568.79	4,541.53	27.26	167.618	
800.00	795.62	801.38	795.62	4.64	26.43	123.72	2,738.75	-3,626.56	4,579.51	4,548.44	31.07	147.404	
900.00	893.06	903.94	893.06	5.00	29.99	123.73	2,738.75	-3,626.56	4,592.23	4,557.25	34.98	131.292	
1,000.00	989.64	1,007.36	989.64	5.40	33.58	123.75	2,738.75	-3,626.56	4,606.95	4,567.99	38.95	118.271	
1,100.00	1,085.27	1,088.27	1,085.27	5.83	36.39	123.76	2,738.75	-3,626.56	4,623.69	4,581.52	42.18	109.622	
1,200.00	1,179.82	1,182.82	1,179.82	6.29	39.68	123.76	2,738.75	-3,626.56	4,642.49	4,596.58	45.91	101.124	
1,300.00	1,273.17	1,276.17	1,273.17	6.79	42.93	123.76	2,738.75	-3,626.56	4,663.35	4,613.72	49.63	93.969	
1,400.00	1,365.46	1,368.46	1,365.46	7.32	46.14	123.97	2,738.75	-3,626.56	4,685.96	4,632.63	53.33	87.866	
1,500.00	1,457.65	1,460.65	1,457.65	7.87	49.35	124.34	2,738.75	-3,626.56	4,708.94	4,651.89	57.05	82.547	
1,600.00	1,549.83	1,552.83	1,549.83	8.43	52.57	124.71	2,738.75	-3,626.56	4,732.11	4,671.34	60.77	77.867	
1,700.00	1,642.02	1,645.02	1,642.02	9.01	55.78	125.08	2,738.75	-3,626.56	4,755.49	4,690.99	64.51	73.718	
1,800.00	1,734.21	1,737.21	1,734.21	9.59	58.99	125.44	2,738.75	-3,626.56	4,779.08	4,710.82	68.25	70.019	
1,900.00	1,826.39	1,829.39	1,826.39	10.18	62.21	125.79	2,738.75	-3,626.56	4,802.85	4,730.85	72.00	66.702	
2,000.00	1,918.58	1,921.58	1,918.58	10.78	65.42	126.15	2,738.75	-3,626.56	4,826.83	4,751.06	75.76	63.711	
2,100.00	2,010.77	2,013.77	2,010.77	11.39	68.63	126.50	2,738.75	-3,626.56	4,850.99	4,771.47	79.52	61.002	
2,200.00	2,102.95	2,105.95	2,102.95	11.99	71.85	126.85	2,738.75	-3,626.56	4,875.34	4,792.05	83.29	58.537	
2,300.00	2,195.14	2,201.86	2,195.14	12.61	75.19	127.19	2,738.75	-3,626.56	4,899.88	4,812.69	87.18	56.203	
2,400.00	2,287.32	2,309.68	2,287.32	13.22	78.95	127.53	2,738.75	-3,626.56	4,924.59	4,833.10	91.50	53.823	
2,500.00	2,379.51	2,382.51	2,379.51	13.84	81.49	127.87	2,738.75	-3,626.56	4,949.49	4,854.90	94.59	52.325	
2,600.00	2,471.70	2,474.70	2,471.70	14.46	84.71	128.21	2,738.75	-3,626.56	4,974.57	4,876.21	98.36	50.574	
2,700.00	2,563.88	2,566.88	2,563.88	15.08	87.93	128.54	2,738.75	-3,626.56	4,999.82	4,897.69	102.14	48.953	
2,800.00	2,656.07	2,659.07	2,656.07	15.71	91.14	128.87	2,738.75	-3,626.56	5,025.24	4,919.33	105.91	47.449	
2,900.00	2,748.26	2,751.26	2,748.26	16.33	94.36	129.20	2,738.75	-3,626.56	5,050.84	4,941.15	109.68	46.049	
3,000.00	2,840.44	2,843.44	2,840.44	16.96	97.57	129.52	2,738.75	-3,626.56	5,076.60	4,963.14	113.46	44.745	
3,100.00	2,932.63	2,935.63	2,932.63	17.59	100.79	129.84	2,738.75	-3,626.56	5,102.52	4,985.29	117.23	43.525	
3,200.00	3,024.81	3,027.81	3,024.81	18.22	104.01	130.16	2,738.75	-3,626.56	5,128.60	5,007.60	121.01	42.383	
3,300.00	3,117.00	3,120.00	3,117.00	18.86	107.22	130.47	2,738.75	-3,626.56	5,154.85	5,030.07	124.78	41.312	
3,400.00	3,209.19	3,212.19	3,209.19	19.49	110.44	130.79	2,738.75	-3,626.56	5,181.25	5,052.70	128.55	40.304	
3,500.00	3,301.37	3,304.37	3,301.37	20.12	113.66	131.09	2,738.75	-3,626.56	5,207.81	5,075.48	132.33	39.355	
3,600.00	3,393.56	3,403.44	3,393.56	20.76	117.11	131.40	2,738.75	-3,626.56	5,234.51	5,098.17	136.34	38.393	
3,700.00	3,485.75	3,488.75	3,485.75	21.39	120.09	131.70	2,738.75	-3,626.56	5,261.37	5,121.50	139.87	37.615	
3,800.00	3,577.93	3,580.93	3,577.93	22.03	123.31	132.00	2,738.75	-3,626.56	5,288.38	5,144.73	143.65	36.815	
3,900.00	3,670.12	3,673.12	3,670.12	22.67	126.53	132.30	2,738.75	-3,626.56	5,315.53	5,168.11	147.42	36.057	
4,000.00	3,762.30	3,765.30	3,762.30	23.30	129.74	132.59	2,738.75	-3,626.56	5,342.82	5,191.63	151.19	35.339	
4,100.00	3,854.49	3,857.49	3,854.49	23.94	132.96	132.89	2,738.75	-3,626.56	5,370.26	5,215.29	154.96	34.656	
4,200.00	3,946.68	3,949.68	3,946.68	24.58	136.18	133.18	2,738.75	-3,626.56	5,397.83	5,239.10	158.73	34.006	
4,300.00	4,038.86	4,041.86	4,038.86	25.22	139.39	133.46	2,738.75	-3,626.56	5,425.54	5,263.04	162.50	33.388	
4,400.00	4,131.05	4,134.05	4,131.05	25.86	142.61	133.75	2,738.75	-3,626.56	5,453.38	5,287.11	166.27	32.798	
4,500.00	4,223.24	4,226.24	4,223.24	26.50	145.83	134.03	2,738.75	-3,626.56	5,481.36	5,311.32	170.04	32.236	
4,600.00	4,315.42	4,318.42	4,315.42	27.14	149.05	134.31	2,738.75	-3,626.56	5,509.47	5,335.66	173.81	31.699	
4,700.00	4,407.61	4,410.61	4,407.61	27.78	152.26	134.58	2,738.75	-3,626.56	5,537.71	5,360.13	177.57	31.186	
4,800.00	4,499.79	4,502.79	4,499.79	28.42	155.48	134.85	2,738.75	-3,626.56	5,566.07	5,384.73	181.34	30.694	
4,900.00	4,591.98	4,605.02	4,591.98	29.06	159.05	135.12	2,738.75	-3,626.56	5,594.56	5,409.10	185.45	30.167	
5,000.00	4,684.17	4,687.17	4,684.17	29.70	161.92	135.39	2,738.75	-3,626.56	5,623.17	5,434.30	188.87	29.773	
5,100.00	4,776.35	4,779.35	4,776.35	30.34	165.13	135.66	2,738.75	-3,626.56	5,651.90	5,459.26	192.63	29.340	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,871.54	4,868.54	30.98	168.35	135.92	2,738.75	-3,626.56	5,680.75	5,484.35	196.40	28.925		
5,300.00	4,960.73	4,963.73	4,960.73	31.63	171.57	136.18	2,738.75	-3,626.56	5,709.71	5,509.55	200.16	28.526		
5,400.00	5,052.91	5,055.91	5,052.91	32.27	174.79	136.44	2,738.75	-3,626.56	5,738.80	5,534.87	203.92	28.142		
5,500.00	5,145.10	5,148.10	5,145.10	32.91	178.01	136.70	2,738.75	-3,626.56	5,767.99	5,560.31	207.68	27.773		
5,600.00	5,237.28	5,240.28	5,237.28	33.55	181.22	136.95	2,738.75	-3,626.56	5,797.30	5,585.86	211.45	27.418		
5,700.00	5,329.47	5,332.47	5,329.47	34.20	184.44	137.20	2,738.75	-3,626.56	5,826.72	5,611.52	215.21	27.075		
5,800.00	5,421.66	5,424.66	5,421.66	34.84	187.66	137.45	2,738.75	-3,626.56	5,856.25	5,637.28	218.97	26.745		
5,900.00	5,513.84	5,516.84	5,513.84	35.48	190.88	137.70	2,738.75	-3,626.56	5,885.88	5,663.16	222.72	26.427		
6,000.00	5,606.03	5,609.03	5,606.03	36.13	194.09	137.94	2,738.75	-3,626.56	5,915.62	5,689.14	226.48	26.120		
6,100.00	5,698.22	5,701.22	5,698.22	36.77	197.31	138.18	2,738.75	-3,626.56	5,945.47	5,715.23	230.24	25.823		
6,200.00	5,790.40	5,806.60	5,790.40	37.41	200.99	138.42	2,738.75	-3,626.56	5,975.41	5,740.95	234.46	25.486		
6,300.00	5,882.59	5,885.59	5,882.59	38.06	203.75	138.66	2,738.75	-3,626.56	6,005.46	5,767.70	237.75	25.259		
6,400.00	5,974.77	5,977.77	5,974.77	38.70	206.97	138.89	2,738.75	-3,626.56	6,035.60	5,794.09	241.51	24.991		
6,500.00	6,066.96	6,069.96	6,066.96	39.34	210.18	139.13	2,738.75	-3,626.56	6,065.85	5,820.58	245.27	24.732		
6,600.00	6,159.15	6,162.15	6,159.15	39.99	213.40	139.36	2,738.75	-3,626.56	6,096.19	5,847.17	249.02	24.481		
6,700.00	6,251.33	6,254.33	6,251.33	40.63	216.62	139.58	2,738.75	-3,626.56	6,126.62	5,873.85	252.77	24.238		
6,800.00	6,343.52	6,346.52	6,343.52	41.28	219.84	139.81	2,738.75	-3,626.56	6,157.15	5,900.62	256.53	24.002		
6,900.00	6,435.71	6,438.71	6,435.71	41.92	223.05	140.03	2,738.75	-3,626.56	6,187.77	5,927.49	260.28	23.773		
7,000.00	6,527.86	6,530.86	6,527.86	42.56	226.27	132.49	2,738.75	-3,626.56	6,217.98	5,953.95	264.03	23.550		
7,100.00	6,618.85	6,621.85	6,618.85	43.19	229.45	112.57	2,738.75	-3,626.56	6,241.21	5,973.46	267.75	23.310		
7,200.00	6,706.47	6,709.47	6,706.47	43.76	232.51	98.67	2,738.75	-3,626.56	6,255.13	5,983.81	271.32	23.054		
7,300.00	6,788.56	6,808.44	6,788.56	44.26	235.96	89.91	2,738.75	-3,626.56	6,259.67	5,984.42	275.25	22.742		
7,400.00	6,863.10	6,866.10	6,863.10	44.70	237.97	84.79	2,738.75	-3,626.56	6,254.98	5,977.28	277.71	22.524		
7,500.00	6,928.26	6,931.26	6,928.26	45.07	240.25	82.25	2,738.75	-3,626.56	6,241.47	5,961.05	280.42	22.258		
7,600.00	6,982.42	6,985.42	6,982.42	45.39	242.14	81.61	2,738.75	-3,626.56	6,219.71	5,936.93	282.79	21.994		
7,700.00	7,024.26	7,027.26	7,024.26	45.67	243.60	82.50	2,738.75	-3,626.56	6,190.48	5,905.68	284.80	21.736		
7,800.00	7,052.75	7,055.75	7,052.75	45.92	244.59	84.67	2,738.75	-3,626.56	6,154.65	5,868.20	286.45	21.486		
7,900.00	7,067.18	7,070.18	7,067.18	46.16	245.10	87.96	2,738.75	-3,626.56	6,113.18	5,825.45	287.73	21.246		
8,000.00	7,068.85	7,071.85	7,068.85	46.42	245.16	90.09	2,738.75	-3,626.56	6,067.69	5,779.01	288.68	21.019		
8,100.00	7,068.56	7,071.56	7,068.56	46.78	245.14	90.08	2,738.75	-3,626.56	6,022.75	5,733.05	289.69	20.790		
8,200.00	7,068.26	7,071.26	7,068.26	47.29	245.13	90.08	2,738.75	-3,626.56	5,979.14	5,688.30	290.85	20.558		
8,300.00	7,067.96	7,070.96	7,067.96	48.03	245.12	90.08	2,738.75	-3,626.56	5,936.90	5,644.77	292.13	20.323		
8,400.00	7,067.66	7,070.66	7,067.66	49.02	245.11	90.07	2,738.75	-3,626.56	5,896.05	5,602.51	293.54	20.086		
8,500.00	7,067.37	7,070.37	7,067.37	50.27	245.10	90.07	2,738.75	-3,626.56	5,856.62	5,561.56	295.07	19.848		
8,600.00	7,067.07	7,070.07	7,067.07	51.75	245.09	90.07	2,738.75	-3,626.56	5,818.65	5,521.94	296.71	19.611		
8,700.00	7,066.77	7,069.77	7,066.77	53.42	245.08	90.07	2,738.75	-3,626.56	5,782.16	5,483.70	298.46	19.373		
8,800.00	7,066.47	7,069.47	7,066.47	55.24	245.07	90.06	2,738.75	-3,626.56	5,747.17	5,446.87	300.30	19.138		
8,900.00	7,066.18	7,069.18	7,066.18	57.18	245.06	90.06	2,738.75	-3,626.56	5,713.72	5,411.48	302.24	18.905		
9,000.00	7,065.88	7,068.88	7,065.88	59.21	245.05	90.06	2,738.75	-3,626.56	5,681.83	5,377.58	304.26	18.674		
9,100.00	7,065.58	7,068.58	7,065.58	61.33	245.04	90.05	2,738.75	-3,626.56	5,651.54	5,345.18	306.35	18.448		
9,200.00	7,065.28	7,068.28	7,065.28	63.51	245.03	90.05	2,738.75	-3,626.56	5,622.86	5,314.34	308.52	18.225		
9,300.00	7,064.99	7,067.99	7,064.99	65.76	245.02	90.05	2,738.75	-3,626.56	5,595.82	5,285.07	310.75	18.008		
9,400.00	7,064.69	7,067.69	7,064.69	68.06	245.01	90.04	2,738.75	-3,626.56	5,570.44	5,257.41	313.03	17.795		
9,500.00	7,064.39	7,067.39	7,064.39	70.40	245.00	90.04	2,738.75	-3,626.56	5,546.75	5,231.38	315.37	17.588		
9,600.00	7,064.09	7,067.09	7,064.09	72.78	244.99	90.04	2,738.75	-3,626.56	5,524.77	5,207.02	317.74	17.387		
9,700.00	7,063.80	7,066.80	7,063.80	75.20	244.98	90.03	2,738.75	-3,626.56	5,504.52	5,184.36	320.16	17.193		
9,800.00	7,063.50	7,066.50	7,063.50	77.65	244.97	90.03	2,738.75	-3,626.56	5,486.01	5,163.40	322.61	17.005		
9,900.00	7,063.20	7,066.20	7,063.20	80.13	244.96	90.03	2,738.75	-3,626.56	5,469.28	5,144.19	325.09	16.824		
10,000.00	7,062.90	7,065.90	7,062.90	82.64	244.95	90.02	2,738.75	-3,626.56	5,454.32	5,126.74	327.58	16.650		
10,100.00	7,062.61	7,065.61	7,062.61	85.17	244.94	90.02	2,738.75	-3,626.56	5,441.16	5,111.06	330.10	16.483		
10,200.00	7,062.31	7,065.31	7,062.31	87.72	244.93	90.02	2,738.75	-3,626.56	5,429.81	5,097.19	332.62	16.324		
10,300.00	7,062.01	7,065.01	7,062.01	90.28	244.92	90.01	2,738.75	-3,626.56	5,420.29	5,085.13	335.16	16.172		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,400.00	7,061.71	7,064.71	7,061.71	92.87	244.91	90.01	2,738.75	-3,626.56	5,412.59	5,074.90	337.69	16.028		
10,500.00	7,061.41	7,064.41	7,061.41	95.47	244.90	90.01	2,738.75	-3,626.56	5,406.74	5,066.52	340.22	15.892		
10,600.00	7,061.12	7,064.12	7,061.12	98.09	244.89	90.01	2,738.75	-3,626.56	5,402.72	5,059.98	342.74	15.763		
10,700.00	7,060.82	7,063.82	7,060.82	100.72	244.87	90.00	2,738.75	-3,626.56	5,400.56	5,055.31	345.26	15.642		
10,766.83	7,060.62	7,063.62	7,060.62	102.49	244.87	90.00	2,738.75	-3,626.56	5,400.15	5,053.22	346.93	15.566		
10,800.00	7,060.52	7,063.52	7,060.52	103.37	244.86	90.00	2,738.75	-3,626.56	5,400.25	5,052.50	347.75	15.529		
10,900.00	7,060.22	7,063.22	7,060.22	106.02	244.85	90.00	2,738.75	-3,626.56	5,401.79	5,051.56	350.23	15.424		
11,000.00	7,059.93	7,062.93	7,059.93	108.69	244.84	89.99	2,738.75	-3,626.56	5,405.18	5,052.50	352.68	15.326		
11,100.00	7,059.63	7,062.63	7,059.63	111.36	244.83	89.99	2,738.75	-3,626.56	5,410.42	5,055.30	355.11	15.236		
11,200.00	7,059.33	7,062.33	7,059.33	114.05	244.82	89.99	2,738.75	-3,626.56	5,417.49	5,059.98	357.51	15.153		
11,300.00	7,059.03	7,062.03	7,059.03	116.74	244.81	89.98	2,738.75	-3,626.56	5,426.40	5,066.53	359.88	15.078		
11,400.00	7,058.74	7,061.74	7,058.74	119.44	244.80	89.98	2,738.75	-3,626.56	5,437.14	5,074.93	362.21	15.011		
11,500.00	7,058.44	7,061.44	7,058.44	122.15	244.79	89.98	2,738.75	-3,626.56	5,449.69	5,085.19	364.50	14.951		
11,600.00	7,058.14	7,061.14	7,058.14	124.86	244.78	89.97	2,738.75	-3,626.56	5,464.04	5,097.29	366.75	14.898		
11,700.00	7,057.84	7,060.84	7,057.84	127.58	244.77	89.97	2,738.75	-3,626.56	5,480.18	5,111.22	368.96	14.853		
11,800.00	7,057.55	7,060.55	7,057.55	130.31	244.76	89.97	2,738.75	-3,626.56	5,498.09	5,126.97	371.13	14.815		
11,900.00	7,057.25	7,060.25	7,057.25	133.04	244.75	89.96	2,738.75	-3,626.56	5,517.76	5,144.51	373.25	14.783		
12,000.00	7,056.95	7,059.95	7,056.95	135.78	244.74	89.96	2,738.75	-3,626.56	5,539.16	5,163.84	375.32	14.759		
12,100.00	7,056.65	7,059.65	7,056.65	138.52	244.73	89.96	2,738.75	-3,626.56	5,562.28	5,184.94	377.34	14.741		
12,200.00	7,056.36	7,059.36	7,056.36	141.27	244.72	89.95	2,738.75	-3,626.56	5,587.09	5,207.78	379.31	14.730		
12,300.00	7,056.06	7,059.06	7,056.06	144.02	244.71	89.95	2,738.75	-3,626.56	5,613.57	5,232.35	381.23	14.725 SF		
12,400.00	7,055.76	7,058.76	7,055.76	146.78	244.70	89.95	2,738.75	-3,626.56	5,641.70	5,258.61	383.09	14.727		
12,500.00	7,055.46	7,058.46	7,055.46	149.54	244.69	89.95	2,738.75	-3,626.56	5,671.46	5,286.55	384.91	14.735		
12,600.00	7,055.17	7,058.17	7,055.17	152.30	244.68	89.94	2,738.75	-3,626.56	5,702.81	5,316.15	386.67	14.749		
12,700.00	7,054.87	7,057.87	7,054.87	155.07	244.67	89.94	2,738.75	-3,626.56	5,735.74	5,347.37	388.38	14.769		
12,800.00	7,054.57	7,057.57	7,054.57	157.84	244.66	89.94	2,738.75	-3,626.56	5,770.21	5,380.18	390.03	14.794		
12,900.00	7,054.27	7,057.27	7,054.27	160.61	244.65	89.93	2,738.75	-3,626.56	5,806.20	5,414.57	391.63	14.826		
13,000.00	7,053.97	7,056.97	7,053.97	163.39	244.64	89.93	2,738.75	-3,626.56	5,843.68	5,450.50	393.18	14.863		
13,100.00	7,053.68	7,056.68	7,053.68	166.17	244.63	89.93	2,738.75	-3,626.56	5,882.62	5,487.95	394.67	14.905		
13,200.00	7,053.38	7,056.38	7,053.38	168.95	244.62	89.92	2,738.75	-3,626.56	5,923.00	5,526.88	396.11	14.953		
13,300.00	7,053.08	7,056.08	7,053.08	171.73	244.60	89.92	2,738.75	-3,626.56	5,964.77	5,567.27	397.51	15.005		
13,400.00	7,052.78	7,055.78	7,052.78	174.52	244.59	89.92	2,738.75	-3,626.56	6,007.92	5,609.08	398.85	15.063		
13,500.00	7,052.49	7,055.49	7,052.49	177.31	244.58	89.91	2,738.75	-3,626.56	6,052.42	5,652.28	400.14	15.126		
13,600.00	7,052.19	7,055.19	7,052.19	180.10	244.57	89.91	2,738.75	-3,626.56	6,098.23	5,696.85	401.38	15.193		
13,700.00	7,051.89	7,054.89	7,051.89	182.90	244.56	89.91	2,738.75	-3,626.56	6,145.33	5,742.76	402.57	15.265		
13,800.00	7,051.59	7,054.59	7,051.59	185.69	244.55	89.90	2,738.75	-3,626.56	6,193.68	5,789.97	403.71	15.342		
13,900.00	7,051.30	7,054.30	7,051.30	188.49	244.54	89.90	2,738.75	-3,626.56	6,243.26	5,838.45	404.81	15.423		
14,000.00	7,051.00	7,054.00	7,051.00	191.29	244.53	89.90	2,738.75	-3,626.56	6,294.04	5,888.18	405.86	15.508		
14,100.00	7,050.70	7,053.70	7,050.70	194.09	244.52	89.89	2,738.75	-3,626.56	6,345.99	5,939.12	406.87	15.597		
14,200.00	7,050.40	7,053.40	7,050.40	196.89	244.51	89.89	2,738.75	-3,626.56	6,399.08	5,991.24	407.84	15.690		
14,300.00	7,050.11	7,053.11	7,050.11	199.70	244.50	89.89	2,738.75	-3,626.56	6,453.28	6,044.52	408.76	15.787		
14,400.00	7,049.81	7,052.81	7,049.81	202.50	244.49	89.89	2,738.75	-3,626.56	6,508.57	6,098.92	409.65	15.888		
14,500.00	7,049.51	7,052.51	7,049.51	205.31	244.48	89.88	2,738.75	-3,626.56	6,564.91	6,154.42	410.49	15.993		
14,600.00	7,049.21	7,052.21	7,049.21	208.12	244.47	89.88	2,738.75	-3,626.56	6,622.29	6,210.99	411.29	16.101		
14,700.00	7,048.92	7,051.92	7,048.92	210.93	244.46	89.88	2,738.75	-3,626.56	6,680.67	6,268.60	412.06	16.213		
14,800.00	7,048.62	7,051.62	7,048.62	213.74	244.45	89.87	2,738.75	-3,626.56	6,740.03	6,327.23	412.80	16.328		
14,900.00	7,048.32	7,051.32	7,048.32	216.55	244.44	89.87	2,738.75	-3,626.56	6,800.34	6,386.84	413.50	16.446		
15,000.00	7,048.02	7,051.02	7,048.02	219.37	244.43	89.87	2,738.75	-3,626.56	6,861.57	6,447.41	414.16	16.567		
15,100.00	7,047.73	7,050.73	7,047.73	222.18	244.42	89.86	2,738.75	-3,626.56	6,923.72	6,508.92	414.79	16.692		
15,200.00	7,047.43	7,050.43	7,047.43	225.00	244.41	89.86	2,738.75	-3,626.56	6,986.73	6,571.34	415.40	16.819		
15,300.00	7,047.13	7,050.13	7,047.13	227.81	244.40	89.86	2,738.75	-3,626.56	7,050.61	6,634.64	415.97	16.950		
15,343.67	7,047.00	7,050.00	7,047.00	229.04	244.39	89.86	2,738.75	-3,626.56	7,078.77	6,662.56	416.21	17.008		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	37.00	3.28	3.28	-60.77	2,709.82	-4,841.91	5,548.75					
100.00	100.00	63.00	100.00	3.28	3.46	-60.77	2,709.82	-4,841.91	5,548.62	5,541.88	6.74	822.731		
200.00	200.00	163.00	200.00	3.34	5.13	-60.77	2,709.82	-4,841.91	5,548.62	5,540.16	8.47	655.297		
300.00	299.98	262.98	299.98	3.44	8.13	115.83	2,709.82	-4,841.91	5,549.38	5,537.82	11.57	479.805		
400.00	399.84	362.84	399.84	3.59	11.40	115.83	2,709.82	-4,841.91	5,551.67	5,536.67	14.99	370.305		
500.00	499.45	462.45	499.45	3.79	14.77	115.85	2,709.82	-4,841.91	5,555.48	5,536.92	18.55	299.407		
600.00	598.70	561.70	598.70	4.03	18.16	115.86	2,709.82	-4,841.91	5,560.82	5,538.63	22.19	250.574		
700.00	697.47	660.47	697.47	4.31	21.56	115.88	2,709.82	-4,841.91	5,567.72	5,541.84	25.88	215.168		
800.00	795.62	758.62	795.62	4.64	24.95	115.90	2,709.82	-4,841.91	5,576.18	5,546.59	29.59	188.451		
900.00	893.06	856.06	893.06	5.00	28.33	115.92	2,709.82	-4,841.91	5,586.22	5,552.90	33.32	167.649		
1,000.00	989.64	952.64	989.64	5.40	31.68	115.95	2,709.82	-4,841.91	5,597.86	5,560.80	37.06	151.041		
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	115.96	2,709.82	-4,841.91	5,611.12	5,570.32	40.80	137.512		
1,200.00	1,179.82	1,142.82	1,179.82	6.29	38.29	115.98	2,709.82	-4,841.91	5,626.03	5,581.49	44.54	126.306		
1,300.00	1,273.17	1,236.17	1,273.17	6.79	41.54	115.99	2,709.82	-4,841.91	5,642.62	5,594.35	48.27	116.894		
1,400.00	1,365.46	1,328.46	1,365.46	7.32	44.75	116.18	2,709.82	-4,841.91	5,660.63	5,608.64	51.99	108.883		
1,500.00	1,457.65	1,420.65	1,457.65	7.87	47.96	116.51	2,709.82	-4,841.91	5,678.97	5,623.25	55.72	101.922		
1,600.00	1,549.83	1,512.83	1,549.83	8.43	51.17	116.84	2,709.82	-4,841.91	5,697.52	5,638.06	59.46	95.817		
1,700.00	1,642.02	1,605.02	1,642.02	9.01	54.38	117.17	2,709.82	-4,841.91	5,716.27	5,653.05	63.22	90.423		
1,800.00	1,734.21	1,702.79	1,734.21	9.59	57.79	117.49	2,709.82	-4,841.91	5,735.22	5,668.04	67.17	85.379		
1,900.00	1,826.39	1,789.39	1,826.39	10.18	60.81	117.81	2,709.82	-4,841.91	5,754.36	5,683.61	70.75	81.335		
2,000.00	1,918.58	1,881.58	1,918.58	10.78	64.02	118.13	2,709.82	-4,841.91	5,773.71	5,699.18	74.52	77.475		
2,100.00	2,010.77	1,973.77	2,010.77	11.39	67.24	118.45	2,709.82	-4,841.91	5,793.25	5,714.94	78.30	73.985		
2,200.00	2,102.95	2,065.95	2,102.95	11.99	70.45	118.76	2,709.82	-4,841.91	5,812.98	5,730.89	82.09	70.815		
2,300.00	2,195.14	2,158.14	2,195.14	12.61	73.67	119.08	2,709.82	-4,841.91	5,832.90	5,747.03	85.87	67.925		
2,400.00	2,287.32	2,250.32	2,287.32	13.22	76.88	119.39	2,709.82	-4,841.91	5,853.01	5,763.35	89.66	65.279		
2,500.00	2,379.51	2,342.51	2,379.51	13.84	80.10	119.70	2,709.82	-4,841.91	5,873.31	5,779.86	93.45	62.849		
2,600.00	2,471.70	2,434.70	2,471.70	14.46	83.31	120.01	2,709.82	-4,841.91	5,893.79	5,796.55	97.24	60.608		
2,700.00	2,563.88	2,526.88	2,563.88	15.08	86.53	120.32	2,709.82	-4,841.91	5,914.45	5,813.42	101.04	58.538		
2,800.00	2,656.07	2,619.07	2,656.07	15.71	89.75	120.62	2,709.82	-4,841.91	5,935.30	5,830.47	104.83	56.618		
2,900.00	2,748.26	2,711.26	2,748.26	16.33	92.96	120.92	2,709.82	-4,841.91	5,956.33	5,847.70	108.63	54.834		
3,000.00	2,840.44	2,803.44	2,840.44	16.96	96.18	121.22	2,709.82	-4,841.91	5,977.53	5,865.11	112.42	53.171		
3,100.00	2,932.63	2,904.37	2,932.63	17.59	99.70	121.52	2,709.82	-4,841.91	5,998.91	5,882.39	116.52	51.484		
3,200.00	3,024.81	2,987.81	3,024.81	18.22	102.61	121.82	2,709.82	-4,841.91	6,020.46	5,900.45	120.01	50.166		
3,300.00	3,117.00	3,080.00	3,117.00	18.86	105.83	122.11	2,709.82	-4,841.91	6,042.18	5,918.38	123.81	48.803		
3,400.00	3,209.19	3,172.19	3,209.19	19.49	109.05	122.41	2,709.82	-4,841.91	6,064.08	5,936.47	127.60	47.523		
3,500.00	3,301.37	3,264.37	3,301.37	20.12	112.26	122.70	2,709.82	-4,841.91	6,086.14	5,954.74	131.40	46.319		
3,600.00	3,393.56	3,356.56	3,393.56	20.76	115.48	122.99	2,709.82	-4,841.91	6,108.36	5,973.17	135.19	45.183		
3,700.00	3,485.75	3,448.75	3,485.75	21.39	118.70	123.27	2,709.82	-4,841.91	6,130.76	5,991.77	138.99	44.111		
3,800.00	3,577.93	3,540.93	3,577.93	22.03	121.91	123.56	2,709.82	-4,841.91	6,153.31	6,010.53	142.78	43.096		
3,900.00	3,670.12	3,633.12	3,670.12	22.67	125.13	123.84	2,709.82	-4,841.91	6,176.03	6,029.45	146.57	42.136		
4,000.00	3,762.30	3,725.30	3,762.30	23.30	128.35	124.13	2,709.82	-4,841.91	6,198.90	6,048.53	150.37	41.225		
4,100.00	3,854.49	3,817.49	3,854.49	23.94	131.56	124.41	2,709.82	-4,841.91	6,221.93	6,067.77	154.16	40.361		
4,200.00	3,946.68	3,909.68	3,946.68	24.58	134.78	124.68	2,709.82	-4,841.91	6,245.12	6,087.17	157.95	39.538		
4,300.00	4,038.86	4,001.86	4,038.86	25.22	138.00	124.96	2,709.82	-4,841.91	6,268.46	6,106.72	161.74	38.756		
4,400.00	4,131.05	4,105.95	4,131.05	25.86	141.63	125.23	2,709.82	-4,841.91	6,291.95	6,126.00	165.95	37.915		
4,500.00	4,223.24	4,186.24	4,223.24	26.50	144.43	125.51	2,709.82	-4,841.91	6,315.60	6,146.27	169.32	37.299		
4,600.00	4,315.42	4,278.42	4,315.42	27.14	147.65	125.78	2,709.82	-4,841.91	6,339.39	6,166.28	173.11	36.620		
4,700.00	4,407.61	4,370.61	4,407.61	27.78	150.87	126.05	2,709.82	-4,841.91	6,363.33	6,186.43	176.90	35.971		
4,800.00	4,499.79	4,462.79	4,499.79	28.42	154.09	126.31	2,709.82	-4,841.91	6,387.41	6,206.72	180.69	35.351		
4,900.00	4,591.98	4,554.98	4,591.98	29.06	157.30	126.58	2,709.82	-4,841.91	6,411.64	6,227.17	184.47	34.756		
5,000.00	4,684.17	4,647.17	4,684.17	29.70	160.52	126.84	2,709.82	-4,841.91	6,436.01	6,247.75	188.26	34.187		
5,100.00	4,776.35	4,739.35	4,776.35	30.34	163.74	127.10	2,709.82	-4,841.91	6,460.52	6,268.47	192.05	33.641		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,831.54	4,868.54	30.98	166.96	127.36	2,709.82	-4,841.91	6,485.17	6,289.34	195.83	33.116		
5,300.00	4,960.73	4,923.73	4,960.73	31.63	170.17	127.62	2,709.82	-4,841.91	6,509.96	6,310.34	199.61	32.613		
5,400.00	5,052.91	5,015.91	5,052.91	32.27	173.39	127.88	2,709.82	-4,841.91	6,534.88	6,331.48	203.40	32.129		
5,500.00	5,145.10	5,108.10	5,145.10	32.91	176.61	128.13	2,709.82	-4,841.91	6,559.94	6,352.76	207.18	31.663		
5,600.00	5,237.28	5,200.28	5,237.28	33.55	179.83	128.38	2,709.82	-4,841.91	6,585.13	6,374.17	210.96	31.215		
5,700.00	5,329.47	5,307.53	5,329.47	34.20	183.57	128.64	2,709.82	-4,841.91	6,610.45	6,395.18	215.27	30.708		
5,800.00	5,421.66	5,384.66	5,421.66	34.84	186.26	128.88	2,709.82	-4,841.91	6,635.90	6,417.38	218.52	30.367		
5,900.00	5,513.84	5,476.84	5,513.84	35.48	189.48	129.13	2,709.82	-4,841.91	6,661.48	6,439.18	222.30	29.966		
6,000.00	5,606.03	5,569.03	5,606.03	36.13	192.70	129.38	2,709.82	-4,841.91	6,687.18	6,461.10	226.08	29.579		
6,100.00	5,698.22	5,661.22	5,698.22	36.77	195.92	129.62	2,709.82	-4,841.91	6,713.01	6,483.16	229.85	29.205		
6,200.00	5,790.40	5,753.40	5,790.40	37.41	199.13	129.86	2,709.82	-4,841.91	6,738.97	6,505.34	233.63	28.844		
6,300.00	5,882.59	5,845.59	5,882.59	38.06	202.35	130.10	2,709.82	-4,841.91	6,765.04	6,527.64	237.41	28.496		
6,400.00	5,974.77	5,937.77	5,974.77	38.70	205.57	130.34	2,709.82	-4,841.91	6,791.24	6,550.06	241.18	28.158		
6,500.00	6,066.96	6,029.96	6,066.96	39.34	208.79	130.58	2,709.82	-4,841.91	6,817.56	6,572.60	244.96	27.832		
6,600.00	6,159.15	6,122.15	6,159.15	39.99	212.00	130.82	2,709.82	-4,841.91	6,844.00	6,595.26	248.73	27.516		
6,700.00	6,251.33	6,214.33	6,251.33	40.63	215.22	131.05	2,709.82	-4,841.91	6,870.55	6,618.04	252.50	27.210		
6,800.00	6,343.52	6,306.52	6,343.52	41.28	218.44	131.28	2,709.82	-4,841.91	6,897.22	6,640.94	256.28	26.913		
6,900.00	6,435.71	6,401.29	6,435.71	41.92	221.75	131.51	2,709.82	-4,841.91	6,924.00	6,663.86	260.14	26.617		
7,000.00	6,527.86	6,509.14	6,527.86	42.56	225.51	124.15	2,709.82	-4,841.91	6,950.30	6,685.84	264.46	26.282		
7,100.00	6,618.85	6,581.85	6,618.85	43.19	228.05	104.78	2,709.82	-4,841.91	6,968.25	6,700.70	267.55	26.045		
7,200.00	6,706.47	6,669.47	6,706.47	43.76	231.11	91.40	2,709.82	-4,841.91	6,975.24	6,704.10	271.14	25.726		
7,300.00	6,788.56	6,751.56	6,788.56	44.26	233.97	83.16	2,709.82	-4,841.91	6,971.31	6,696.82	274.50	25.397		
7,400.00	6,863.10	6,826.10	6,863.10	44.70	236.58	78.60	2,709.82	-4,841.91	6,956.77	6,679.21	277.56	25.064		
7,500.00	6,928.26	6,908.75	6,928.26	45.07	239.46	76.70	2,709.82	-4,841.91	6,932.16	6,651.27	280.89	24.679		
7,600.00	6,982.42	6,945.42	6,982.42	45.39	240.74	76.86	2,709.82	-4,841.91	6,898.29	6,615.65	282.65	24.406		
7,700.00	7,024.26	6,987.26	7,024.26	45.67	242.20	78.75	2,709.82	-4,841.91	6,856.14	6,571.50	284.64	24.087		
7,800.00	7,052.75	7,015.75	7,052.75	45.92	243.20	82.18	2,709.82	-4,841.91	6,806.82	6,520.57	286.25	23.779		
7,900.00	7,067.18	7,030.18	7,067.18	46.16	243.70	87.05	2,709.82	-4,841.91	6,751.59	6,464.13	287.46	23.487		
8,000.00	7,068.85	7,031.85	7,068.85	46.42	243.76	90.13	2,709.82	-4,841.91	6,692.30	6,403.98	288.31	23.212		
8,100.00	7,068.56	7,031.56	7,068.56	46.78	243.75	90.12	2,709.82	-4,841.91	6,633.28	6,344.07	289.21	22.936		
8,200.00	7,068.26	7,031.26	7,068.26	47.29	243.74	90.12	2,709.82	-4,841.91	6,575.25	6,285.02	290.23	22.655		
8,300.00	7,067.96	7,030.96	7,067.96	48.03	243.73	90.12	2,709.82	-4,841.91	6,518.24	6,226.88	291.36	22.372		
8,400.00	7,067.66	7,030.66	7,067.66	49.02	243.72	90.11	2,709.82	-4,841.91	6,462.28	6,169.67	292.61	22.085		
8,500.00	7,067.37	7,030.37	7,067.37	50.27	243.71	90.11	2,709.82	-4,841.91	6,407.38	6,113.42	293.97	21.796		
8,600.00	7,067.07	7,030.07	7,067.07	51.75	243.70	90.11	2,709.82	-4,841.91	6,353.59	6,058.16	295.43	21.506		
8,700.00	7,066.77	7,029.77	7,066.77	53.42	243.69	90.10	2,709.82	-4,841.91	6,300.92	6,003.92	297.00	21.215		
8,800.00	7,066.47	7,029.47	7,066.47	55.24	243.68	90.10	2,709.82	-4,841.91	6,249.41	5,950.74	298.67	20.924		
8,900.00	7,066.18	7,029.18	7,066.18	57.18	243.67	90.10	2,709.82	-4,841.91	6,199.09	5,898.65	300.44	20.633		
9,000.00	7,065.88	7,028.88	7,065.88	59.21	243.66	90.09	2,709.82	-4,841.91	6,149.98	5,847.68	302.30	20.344		
9,100.00	7,065.58	7,028.58	7,065.58	61.33	243.64	90.09	2,709.82	-4,841.91	6,102.11	5,797.88	304.24	20.057		
9,200.00	7,065.28	7,028.28	7,065.28	63.51	243.63	90.09	2,709.82	-4,841.91	6,055.52	5,749.26	306.26	19.772		
9,300.00	7,064.99	7,027.99	7,064.99	65.76	243.62	90.09	2,709.82	-4,841.91	6,010.23	5,701.86	308.37	19.490		
9,400.00	7,064.69	7,027.69	7,064.69	68.06	243.61	90.08	2,709.82	-4,841.91	5,966.27	5,655.73	310.54	19.212		
9,500.00	7,064.39	7,027.39	7,064.39	70.40	243.60	90.08	2,709.82	-4,841.91	5,923.68	5,610.89	312.79	18.938		
9,600.00	7,064.09	7,027.09	7,064.09	72.78	243.59	90.08	2,709.82	-4,841.91	5,882.47	5,567.38	315.10	18.669		
9,700.00	7,063.80	7,026.80	7,063.80	75.20	243.58	90.07	2,709.82	-4,841.91	5,842.69	5,525.22	317.47	18.404		
9,800.00	7,063.50	7,026.50	7,063.50	77.65	243.57	90.07	2,709.82	-4,841.91	5,804.36	5,484.47	319.89	18.145		
9,900.00	7,063.20	7,026.20	7,063.20	80.13	243.56	90.07	2,709.82	-4,841.91	5,767.50	5,445.13	322.37	17.891		
10,000.00	7,062.90	7,025.90	7,062.90	82.64	243.55	90.06	2,709.82	-4,841.91	5,732.16	5,407.27	324.89	17.643		
10,100.00	7,062.61	7,025.61	7,062.61	85.17	243.54	90.06	2,709.82	-4,841.91	5,698.35	5,370.89	327.46	17.402		
10,200.00	7,062.31	7,025.31	7,062.31	87.72	243.53	90.06	2,709.82	-4,841.91	5,666.10	5,336.04	330.07	17.167		
10,300.00	7,062.01	7,025.01	7,062.01	90.28	243.52	90.05	2,709.82	-4,841.91	5,635.45	5,302.74	332.71	16.938		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,024.71	7,061.71	92.87	243.51	90.05	2,709.82	-4,841.91	5,606.41	5,271.03	335.38	16.717		
10,500.00	7,061.41	7,024.41	7,061.41	95.47	243.50	90.05	2,709.82	-4,841.91	5,579.01	5,240.93	338.07	16.502		
10,600.00	7,061.12	7,024.12	7,061.12	98.09	243.49	90.04	2,709.82	-4,841.91	5,553.28	5,212.48	340.79	16.295		
10,700.00	7,060.82	7,023.82	7,060.82	100.72	243.48	90.04	2,709.82	-4,841.91	5,529.23	5,185.70	343.53	16.095		
10,800.00	7,060.52	7,023.52	7,060.52	103.37	243.47	90.04	2,709.82	-4,841.91	5,506.90	5,160.62	346.28	15.903		
10,900.00	7,060.22	7,023.22	7,060.22	106.02	243.46	90.03	2,709.82	-4,841.91	5,486.30	5,137.26	349.03	15.718		
11,000.00	7,059.93	7,022.93	7,059.93	108.69	243.45	90.03	2,709.82	-4,841.91	5,467.45	5,115.65	351.80	15.541		
11,100.00	7,059.63	7,022.63	7,059.63	111.36	243.44	90.03	2,709.82	-4,841.91	5,450.37	5,095.81	354.56	15.372		
11,200.00	7,059.33	7,022.33	7,059.33	114.05	243.43	90.02	2,709.82	-4,841.91	5,435.08	5,077.76	357.32	15.211		
11,300.00	7,059.03	7,022.03	7,059.03	116.74	243.42	90.02	2,709.82	-4,841.91	5,421.59	5,061.52	360.07	15.057		
11,400.00	7,058.74	7,021.74	7,058.74	119.44	243.41	90.02	2,709.82	-4,841.91	5,409.91	5,047.10	362.81	14.911		
11,500.00	7,058.44	7,021.44	7,058.44	122.15	243.40	90.02	2,709.82	-4,841.91	5,400.06	5,034.53	365.54	14.773		
11,600.00	7,058.14	7,021.14	7,058.14	124.86	243.39	90.01	2,709.82	-4,841.91	5,392.05	5,023.81	368.24	14.643		
11,700.00	7,057.84	7,020.84	7,057.84	127.58	243.37	90.01	2,709.82	-4,841.91	5,385.88	5,014.96	370.92	14.520		
11,800.00	7,057.55	7,020.55	7,057.55	130.31	243.36	90.01	2,709.82	-4,841.91	5,381.57	5,007.99	373.58	14.405		
11,900.00	7,057.25	7,020.25	7,057.25	133.04	243.35	90.00	2,709.82	-4,841.91	5,379.11	5,002.91	376.20	14.298		
11,982.33	7,057.00	7,020.00	7,057.00	135.30	243.35	90.00	2,709.82	-4,841.91	5,378.48	5,000.14	378.34	14.216 CC		
12,000.00	7,056.95	7,019.95	7,056.95	135.78	243.34	90.00	2,709.82	-4,841.91	5,378.51	4,999.72	378.79	14.199		
12,100.00	7,056.65	7,019.65	7,056.65	138.52	243.33	90.00	2,709.82	-4,841.91	5,379.77	4,998.42	381.34	14.107 ES		
12,200.00	7,056.36	7,019.36	7,056.36	141.27	243.32	89.99	2,709.82	-4,841.91	5,382.88	4,999.03	383.86	14.023		
12,300.00	7,056.06	7,019.06	7,056.06	144.02	243.31	89.99	2,709.82	-4,841.91	5,387.85	5,001.53	386.32	13.946		
12,400.00	7,055.76	7,018.76	7,055.76	146.78	243.30	89.99	2,709.82	-4,841.91	5,394.67	5,005.93	388.75	13.877		
12,500.00	7,055.46	7,018.46	7,055.46	149.54	243.29	89.98	2,709.82	-4,841.91	5,403.33	5,012.21	391.12	13.815		
12,600.00	7,055.17	7,018.17	7,055.17	152.30	243.28	89.98	2,709.82	-4,841.91	5,413.83	5,020.39	393.44	13.760		
12,700.00	7,054.87	7,017.87	7,054.87	155.07	243.27	89.98	2,709.82	-4,841.91	5,426.15	5,030.44	395.71	13.712		
12,800.00	7,054.57	7,017.57	7,054.57	157.84	243.26	89.97	2,709.82	-4,841.91	5,440.28	5,042.35	397.92	13.672		
12,900.00	7,054.27	7,017.27	7,054.27	160.61	243.25	89.97	2,709.82	-4,841.91	5,456.20	5,056.12	400.08	13.638		
13,000.00	7,053.97	7,016.97	7,053.97	163.39	243.24	89.97	2,709.82	-4,841.91	5,473.91	5,071.73	402.18	13.611		
13,100.00	7,053.68	7,016.68	7,053.68	166.17	243.23	89.96	2,709.82	-4,841.91	5,493.38	5,089.16	404.22	13.590		
13,200.00	7,053.38	7,016.38	7,053.38	168.95	243.22	89.96	2,709.82	-4,841.91	5,514.59	5,108.39	406.20	13.576		
13,300.00	7,053.08	7,016.08	7,053.08	171.73	243.21	89.96	2,709.82	-4,841.91	5,537.53	5,129.42	408.12	13.568		
13,400.00	7,052.78	7,015.78	7,052.78	174.52	243.20	89.96	2,709.82	-4,841.91	5,562.18	5,152.20	409.97	13.567 SF		
13,500.00	7,052.49	7,015.49	7,052.49	177.31	243.19	89.95	2,709.82	-4,841.91	5,588.50	5,176.73	411.77	13.572		
13,600.00	7,052.19	7,015.19	7,052.19	180.10	243.18	89.95	2,709.82	-4,841.91	5,616.48	5,202.99	413.50	13.583		
13,700.00	7,051.89	7,014.89	7,051.89	182.90	243.17	89.95	2,709.82	-4,841.91	5,646.10	5,230.93	415.16	13.600		
13,800.00	7,051.59	7,014.59	7,051.59	185.69	243.16	89.94	2,709.82	-4,841.91	5,677.32	5,260.55	416.77	13.622		
13,900.00	7,051.30	7,014.30	7,051.30	188.49	243.15	89.94	2,709.82	-4,841.91	5,710.12	5,291.81	418.31	13.650		
14,000.00	7,051.00	7,014.00	7,051.00	191.29	243.14	89.94	2,709.82	-4,841.91	5,744.48	5,324.68	419.80	13.684		
14,100.00	7,050.70	7,013.70	7,050.70	194.09	243.13	89.93	2,709.82	-4,841.91	5,780.36	5,359.14	421.22	13.723		
14,200.00	7,050.40	7,013.40	7,050.40	196.89	243.12	89.93	2,709.82	-4,841.91	5,817.74	5,395.16	422.58	13.767		
14,300.00	7,050.11	7,013.11	7,050.11	199.70	243.10	89.93	2,709.82	-4,841.91	5,856.58	5,432.71	423.88	13.817		
14,400.00	7,049.81	7,012.81	7,049.81	202.50	243.09	89.92	2,709.82	-4,841.91	5,896.87	5,471.75	425.12	13.871		
14,500.00	7,049.51	7,012.51	7,049.51	205.31	243.08	89.92	2,709.82	-4,841.91	5,938.57	5,512.27	426.31	13.930		
14,600.00	7,049.21	7,012.21	7,049.21	208.12	243.07	89.92	2,709.82	-4,841.91	5,981.65	5,554.22	427.44	13.994		
14,700.00	7,048.92	7,011.92	7,048.92	210.93	243.06	89.91	2,709.82	-4,841.91	6,026.09	5,597.58	428.51	14.063		
14,800.00	7,048.62	7,011.62	7,048.62	213.74	243.05	89.91	2,709.82	-4,841.91	6,071.84	5,642.31	429.53	14.136		
14,900.00	7,048.32	7,011.32	7,048.32	216.55	243.04	89.91	2,709.82	-4,841.91	6,118.89	5,688.39	430.50	14.213		
15,000.00	7,048.02	7,011.02	7,048.02	219.37	243.03	89.90	2,709.82	-4,841.91	6,167.19	5,735.78	431.42	14.295		
15,100.00	7,047.73	7,010.73	7,047.73	222.18	243.02	89.90	2,709.82	-4,841.91	6,216.74	5,784.45	432.28	14.381		
15,200.00	7,047.43	7,010.43	7,047.43	225.00	243.01	89.90	2,709.82	-4,841.91	6,267.48	5,834.38	433.10	14.471		
15,300.00	7,047.13	7,010.13	7,047.13	227.81	243.00	89.89	2,709.82	-4,841.91	6,319.40	5,885.53	433.88	14.565		
15,343.67	7,047.00	7,010.00	7,047.00	229.04	243.00	89.89	2,709.82	-4,841.91	6,342.44	5,908.24	434.20	14.607		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	64.00	3.28	3.28	-121.64	-3,911.82	-6,349.03	7,457.65				
100.00	100.00	36.00	100.00	3.28	3.34	-121.64	-3,911.82	-6,349.03	7,457.38	7,450.75	6.62	1,125.749	
200.00	200.00	136.00	200.00	3.34	4.45	-121.64	-3,911.82	-6,349.03	7,457.38	7,449.60	7.78	958.089	
300.00	299.98	235.98	299.98	3.44	7.27	54.98	-3,911.82	-6,349.03	7,456.38	7,445.66	10.71	695.974	
400.00	399.84	335.84	399.84	3.59	10.50	55.06	-3,911.82	-6,349.03	7,453.37	7,439.28	14.09	528.854	
500.00	499.45	435.45	499.45	3.79	13.85	55.20	-3,911.82	-6,349.03	7,448.38	7,430.74	17.64	422.286	
600.00	598.70	534.70	598.70	4.03	17.24	55.39	-3,911.82	-6,349.03	7,441.40	7,420.14	21.27	349.912	
700.00	697.47	633.47	697.47	4.31	20.63	55.64	-3,911.82	-6,349.03	7,432.47	7,407.53	24.94	297.965	
800.00	795.62	731.62	795.62	4.64	24.02	55.94	-3,911.82	-6,349.03	7,421.61	7,392.95	28.65	259.025	
900.00	893.06	829.06	893.06	5.00	27.39	56.29	-3,911.82	-6,349.03	7,408.84	7,376.46	32.38	228.824	
1,000.00	989.64	925.64	989.64	5.40	30.74	56.70	-3,911.82	-6,349.03	7,394.21	7,358.09	36.11	204.755	
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	57.17	-3,911.82	-6,349.03	7,377.75	7,337.90	39.85	185.147	
1,200.00	1,179.82	1,115.82	1,179.82	6.29	37.35	57.68	-3,911.82	-6,349.03	7,359.52	7,315.95	43.58	168.879	
1,300.00	1,273.17	1,209.17	1,273.17	6.79	40.60	58.25	-3,911.82	-6,349.03	7,339.57	7,292.27	47.30	155.175	
1,400.00	1,365.46	1,301.46	1,365.46	7.32	43.81	58.64	-3,911.82	-6,349.03	7,318.28	7,267.27	51.01	143.472	
1,500.00	1,457.65	1,406.35	1,457.65	7.87	47.46	58.89	-3,911.82	-6,349.03	7,296.98	7,241.81	55.17	132.254	
1,600.00	1,549.83	1,485.83	1,549.83	8.43	50.23	59.14	-3,911.82	-6,349.03	7,275.83	7,217.36	58.47	124.437	
1,700.00	1,642.02	1,578.02	1,642.02	9.01	53.44	59.38	-3,911.82	-6,349.03	7,254.82	7,192.60	62.22	116.597	
1,800.00	1,734.21	1,670.21	1,734.21	9.59	56.66	59.63	-3,911.82	-6,349.03	7,233.96	7,167.98	65.98	109.633	
1,900.00	1,826.39	1,762.39	1,826.39	10.18	59.87	59.88	-3,911.82	-6,349.03	7,213.25	7,143.49	69.76	103.408	
2,000.00	1,918.58	1,854.58	1,918.58	10.78	63.08	60.13	-3,911.82	-6,349.03	7,192.68	7,119.15	73.53	97.814	
2,100.00	2,010.77	1,946.77	2,010.77	11.39	66.30	60.39	-3,911.82	-6,349.03	7,172.27	7,094.95	77.32	92.760	
2,200.00	2,102.95	2,038.95	2,102.95	11.99	69.51	60.64	-3,911.82	-6,349.03	7,152.01	7,070.89	81.11	88.173	
2,300.00	2,195.14	2,131.14	2,195.14	12.61	72.73	60.90	-3,911.82	-6,349.03	7,131.90	7,046.99	84.91	83.993	
2,400.00	2,287.32	2,223.32	2,287.32	13.22	75.94	61.15	-3,911.82	-6,349.03	7,111.94	7,023.23	88.71	80.168	
2,500.00	2,379.51	2,315.51	2,379.51	13.84	79.16	61.41	-3,911.82	-6,349.03	7,092.15	6,999.63	92.52	76.655	
2,600.00	2,471.70	2,407.70	2,471.70	14.46	82.37	61.67	-3,911.82	-6,349.03	7,072.50	6,976.17	96.33	73.419	
2,700.00	2,563.88	2,500.12	2,563.88	15.08	85.60	61.93	-3,911.82	-6,349.03	7,053.02	6,952.87	100.15	70.422	
2,800.00	2,656.07	2,607.93	2,656.07	15.71	89.36	62.19	-3,911.82	-6,349.03	7,033.70	6,929.18	104.52	67.298	
2,900.00	2,748.26	2,684.26	2,748.26	16.33	92.02	62.45	-3,911.82	-6,349.03	7,014.53	6,906.75	107.78	65.080	
3,000.00	2,840.44	2,776.44	2,840.44	16.96	95.24	62.72	-3,911.82	-6,349.03	6,995.53	6,883.93	111.61	62.680	
3,100.00	2,932.63	2,868.63	2,932.63	17.59	98.45	62.98	-3,911.82	-6,349.03	6,976.69	6,861.26	115.43	60.440	
3,200.00	3,024.81	2,960.81	3,024.81	18.22	101.67	63.25	-3,911.82	-6,349.03	6,958.02	6,838.76	119.26	58.343	
3,300.00	3,117.00	3,053.00	3,117.00	18.86	104.89	63.52	-3,911.82	-6,349.03	6,939.51	6,816.42	123.09	56.377	
3,400.00	3,209.19	3,145.19	3,209.19	19.49	108.10	63.79	-3,911.82	-6,349.03	6,921.18	6,794.25	126.92	54.530	
3,500.00	3,301.37	3,237.37	3,301.37	20.12	111.32	64.06	-3,911.82	-6,349.03	6,903.01	6,772.25	130.76	52.792	
3,600.00	3,393.56	3,329.56	3,393.56	20.76	114.54	64.33	-3,911.82	-6,349.03	6,885.01	6,750.41	134.60	51.153	
3,700.00	3,485.75	3,421.75	3,485.75	21.39	117.75	64.60	-3,911.82	-6,349.03	6,867.18	6,728.74	138.44	49.606	
3,800.00	3,577.93	3,513.93	3,577.93	22.03	120.97	64.88	-3,911.82	-6,349.03	6,849.52	6,707.24	142.28	48.142	
3,900.00	3,670.12	3,606.12	3,670.12	22.67	124.19	65.15	-3,911.82	-6,349.03	6,832.04	6,685.92	146.12	46.757	
4,000.00	3,762.30	3,701.70	3,762.30	23.30	127.52	65.43	-3,911.82	-6,349.03	6,814.73	6,664.65	150.08	45.407	
4,100.00	3,854.49	3,809.51	3,854.49	23.94	131.29	65.71	-3,911.82	-6,349.03	6,797.60	6,643.13	154.47	44.005	
4,200.00	3,946.68	3,882.68	3,946.68	24.58	133.84	65.99	-3,911.82	-6,349.03	6,780.65	6,623.00	157.66	43.009	
4,300.00	4,038.86	3,974.86	4,038.86	25.22	137.06	66.27	-3,911.82	-6,349.03	6,763.88	6,602.38	161.50	41.881	
4,400.00	4,131.05	4,067.05	4,131.05	25.86	140.27	66.55	-3,911.82	-6,349.03	6,747.29	6,581.94	165.35	40.805	
4,500.00	4,223.24	4,159.24	4,223.24	26.50	143.49	66.83	-3,911.82	-6,349.03	6,730.88	6,561.68	169.21	39.779	
4,600.00	4,315.42	4,251.42	4,315.42	27.14	146.71	67.12	-3,911.82	-6,349.03	6,714.66	6,541.60	173.06	38.800	
4,700.00	4,407.61	4,343.61	4,407.61	27.78	149.93	67.40	-3,911.82	-6,349.03	6,698.62	6,521.71	176.91	37.864	
4,800.00	4,499.79	4,435.79	4,499.79	28.42	153.14	67.69	-3,911.82	-6,349.03	6,682.76	6,502.00	180.77	36.969	
4,900.00	4,591.98	4,452.00	4,591.98	29.06	153.71	67.74	-3,911.82	-6,349.03	6,667.53	6,485.54	181.99	36.636	
5,000.00	4,684.17	4,452.00	4,684.17	29.70	153.71	67.74	-3,911.82	-6,349.03	6,653.75	6,471.12	182.63	36.433	
5,100.00	4,776.35	4,452.00	4,776.35	30.34	153.71	67.74	-3,911.82	-6,349.03	6,641.44	6,458.21	183.23	36.246	

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,452.00	4,516.00	30.98	153.71	67.74	-3,911.82	-6,349.03	6,630.62	6,446.82	183.80	36.076		
5,300.00	4,960.73	4,452.00	4,516.00	31.63	153.71	67.74	-3,911.82	-6,349.03	6,621.29	6,436.96	184.33	35.921		
5,400.00	5,052.91	4,452.00	4,516.00	32.27	153.71	67.74	-3,911.82	-6,349.03	6,613.46	6,428.63	184.83	35.782		
5,500.00	5,145.10	4,452.00	4,516.00	32.91	153.71	67.74	-3,911.82	-6,349.03	6,607.13	6,421.84	185.29	35.659		
5,600.00	5,237.28	4,452.00	4,516.00	33.55	153.71	67.74	-3,911.82	-6,349.03	6,602.31	6,416.60	185.71	35.552		
5,700.00	5,329.47	4,452.00	4,516.00	34.20	153.71	67.74	-3,911.82	-6,349.03	6,599.01	6,412.91	186.10	35.460		
5,800.00	5,421.66	4,452.00	4,516.00	34.84	153.71	67.74	-3,911.82	-6,349.03	6,597.22	6,410.77	186.45	35.384		
5,868.16	5,484.49	4,452.00	4,516.00	35.28	153.71	67.74	-3,911.82	-6,349.03	6,596.87	6,410.20	186.66	35.341		
5,900.00	5,513.84	4,452.00	4,516.00	35.48	153.71	67.74	-3,911.82	-6,349.03	6,596.94	6,410.19	186.76	35.324		
6,000.00	5,606.03	4,452.00	4,516.00	36.13	153.71	67.74	-3,911.82	-6,349.03	6,598.18	6,411.15	187.03	35.279		
6,100.00	5,698.22	4,452.00	4,516.00	36.77	153.71	67.74	-3,911.82	-6,349.03	6,600.94	6,413.67	187.27	35.249		
6,200.00	5,790.40	4,452.00	4,516.00	37.41	153.71	67.74	-3,911.82	-6,349.03	6,605.21	6,417.75	187.46	35.235		
6,300.00	5,882.59	4,452.00	4,516.00	38.06	153.71	67.74	-3,911.82	-6,349.03	6,610.99	6,423.36	187.62	35.236		
6,400.00	5,974.77	4,452.00	4,516.00	38.70	153.71	67.74	-3,911.82	-6,349.03	6,618.27	6,430.53	187.74	35.252		
6,500.00	6,066.96	4,452.00	4,516.00	39.34	153.71	67.74	-3,911.82	-6,349.03	6,627.06	6,439.23	187.82	35.283		
6,600.00	6,159.15	4,452.00	4,516.00	39.99	153.71	67.74	-3,911.82	-6,349.03	6,637.34	6,449.47	187.87	35.329		
6,700.00	6,251.33	4,452.00	4,516.00	40.63	153.71	67.74	-3,911.82	-6,349.03	6,649.11	6,461.23	187.88	35.390		
6,800.00	6,343.52	4,452.00	4,516.00	41.28	153.71	67.74	-3,911.82	-6,349.03	6,662.36	6,474.50	187.85	35.466		
6,900.00	6,435.71	4,452.00	4,516.00	41.92	153.71	67.74	-3,911.82	-6,349.03	6,677.08	6,489.29	187.79	35.557		
7,000.00	6,527.86	4,452.00	4,516.00	42.56	153.71	60.84	-3,911.82	-6,349.03	6,692.44	6,504.75	187.68	35.658		
7,100.00	6,618.85	4,452.00	4,516.00	43.19	153.71	42.48	-3,911.82	-6,349.03	6,697.75	6,510.25	187.50	35.721		
7,200.00	6,706.47	4,452.00	4,516.00	43.76	153.71	28.96	-3,911.82	-6,349.03	6,689.68	6,502.45	187.23	35.730		
7,300.00	6,788.56	4,452.00	4,516.00	44.26	153.71	19.45	-3,911.82	-6,349.03	6,668.37	6,481.50	186.87	35.685		
7,400.00	6,863.10	4,452.00	4,516.00	44.70	153.71	12.43	-3,911.82	-6,349.03	6,634.23	6,447.79	186.44	35.583		
7,500.00	6,928.26	4,452.00	4,516.00	45.07	153.71	6.74	-3,911.82	-6,349.03	6,587.90	6,401.93	185.97	35.424		
7,600.00	6,982.42	4,452.00	4,516.00	45.39	153.71	1.53	-3,911.82	-6,349.03	6,530.29	6,344.82	185.47	35.210		
7,700.00	7,024.26	4,452.00	4,516.00	45.67	153.71	-3.96	-3,911.82	-6,349.03	6,462.52	6,277.56	184.96	34.941		
7,800.00	7,052.75	4,452.00	4,516.00	45.92	153.71	-10.60	-3,911.82	-6,349.03	6,385.97	6,201.52	184.46	34.620		
7,900.00	7,067.18	4,452.00	4,516.00	46.16	153.71	-19.65	-3,911.82	-6,349.03	6,302.25	6,118.26	184.00	34.252		
8,000.00	7,068.85	4,452.00	4,516.00	46.42	153.71	-25.94	-3,911.82	-6,349.03	6,213.67	6,030.08	183.59	33.845		
8,100.00	7,068.56	4,452.00	4,516.00	46.78	153.71	-25.94	-3,911.82	-6,349.03	6,124.74	5,941.54	183.19	33.434		
8,200.00	7,068.26	4,452.00	4,516.00	47.29	153.71	-25.94	-3,911.82	-6,349.03	6,036.15	5,853.36	182.79	33.023		
8,300.00	7,067.96	4,452.00	4,516.00	48.03	153.71	-25.94	-3,911.82	-6,349.03	5,947.92	5,765.54	182.38	32.612		
8,400.00	7,067.66	4,452.00	4,516.00	49.02	153.71	-25.94	-3,911.82	-6,349.03	5,860.07	5,678.09	181.98	32.202		
8,500.00	7,067.37	4,452.00	4,516.00	50.27	153.71	-25.94	-3,911.82	-6,349.03	5,772.62	5,591.05	181.57	31.792		
8,600.00	7,067.07	4,452.00	4,516.00	51.75	153.71	-25.94	-3,911.82	-6,349.03	5,685.58	5,504.41	181.17	31.383		
8,700.00	7,066.77	4,452.00	4,516.00	53.42	153.71	-25.94	-3,911.82	-6,349.03	5,598.97	5,418.21	180.76	30.974		
8,800.00	7,066.47	4,452.00	4,516.00	55.24	153.71	-25.94	-3,911.82	-6,349.03	5,512.82	5,332.46	180.36	30.565		
8,900.00	7,066.18	4,452.00	4,516.00	57.18	153.71	-25.94	-3,911.82	-6,349.03	5,427.14	5,247.18	179.96	30.158		
9,000.00	7,065.88	4,452.00	4,516.00	59.21	153.71	-25.94	-3,911.82	-6,349.03	5,341.96	5,162.40	179.56	29.750		
9,100.00	7,065.58	4,452.00	4,516.00	61.33	153.71	-25.94	-3,911.82	-6,349.03	5,257.30	5,078.14	179.16	29.344		
9,200.00	7,065.28	4,452.00	4,516.00	63.51	153.71	-25.94	-3,911.82	-6,349.03	5,173.19	4,994.42	178.77	28.938		
9,300.00	7,064.99	4,452.00	4,516.00	65.76	153.71	-25.94	-3,911.82	-6,349.03	5,089.66	4,911.28	178.38	28.532		
9,400.00	7,064.69	4,452.00	4,516.00	68.06	153.71	-25.94	-3,911.82	-6,349.03	5,006.73	4,828.73	178.00	28.128		
9,500.00	7,064.39	4,452.00	4,516.00	70.40	153.71	-25.94	-3,911.82	-6,349.03	4,924.43	4,746.81	177.62	27.725		
9,600.00	7,064.09	4,452.00	4,516.00	72.78	153.71	-25.94	-3,911.82	-6,349.03	4,842.80	4,665.55	177.24	27.323		
9,700.00	7,063.80	4,452.00	4,516.00	75.20	153.71	-25.94	-3,911.82	-6,349.03	4,761.87	4,584.99	176.87	26.922		
9,800.00	7,063.50	4,452.00	4,516.00	77.65	153.71	-25.94	-3,911.82	-6,349.03	4,681.67	4,505.16	176.51	26.523		
9,900.00	7,063.20	4,452.00	4,516.00	80.13	153.71	-25.94	-3,911.82	-6,349.03	4,602.25	4,426.10	176.15	26.126		
10,000.00	7,062.90	4,452.00	4,516.00	82.64	153.71	-25.94	-3,911.82	-6,349.03	4,523.65	4,347.85	175.80	25.731		
10,100.00	7,062.61	4,452.00	4,516.00	85.17	153.71	-25.94	-3,911.82	-6,349.03	4,445.91	4,270.45	175.46	25.338		
10,200.00	7,062.31	4,452.00	4,516.00	87.72	153.71	-25.94	-3,911.82	-6,349.03	4,369.07	4,193.95	175.13	24.948		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	4,452.00	4,516.00	90.28	153.71	-25.94	-3,911.82	-6,349.03	4,293.19	4,118.39	174.79	24.561		
10,400.00	7,061.71	4,452.00	4,516.00	92.87	153.71	-25.94	-3,911.82	-6,349.03	4,218.31	4,043.84	174.47	24.178		
10,500.00	7,061.41	4,452.00	4,516.00	95.47	153.71	-25.94	-3,911.82	-6,349.03	4,144.50	3,970.34	174.15	23.798		
10,600.00	7,061.12	4,452.00	4,516.00	98.09	153.71	-25.94	-3,911.82	-6,349.03	4,071.80	3,897.96	173.84	23.423		
10,700.00	7,060.82	4,452.00	4,516.00	100.72	153.71	-25.94	-3,911.82	-6,349.03	4,000.28	3,826.75	173.53	23.053		
10,800.00	7,060.52	4,452.00	4,516.00	103.37	153.71	-25.94	-3,911.82	-6,349.03	3,930.00	3,756.78	173.22	22.688		
10,900.00	7,060.22	4,452.00	4,516.00	106.02	153.71	-25.94	-3,911.82	-6,349.03	3,861.03	3,688.12	172.92	22.329		
11,000.00	7,059.93	4,452.00	4,516.00	108.69	153.71	-25.94	-3,911.82	-6,349.03	3,793.45	3,620.84	172.61	21.976		
11,100.00	7,059.63	4,452.00	4,516.00	111.36	153.71	-25.94	-3,911.82	-6,349.03	3,727.33	3,555.02	172.31	21.631		
11,200.00	7,059.33	4,452.00	4,516.00	114.05	153.71	-25.94	-3,911.82	-6,349.03	3,662.74	3,490.73	172.01	21.294		
11,300.00	7,059.03	4,452.00	4,516.00	116.74	153.71	-25.94	-3,911.82	-6,349.03	3,599.77	3,428.07	171.70	20.966		
11,400.00	7,058.74	4,452.00	4,516.00	119.44	153.71	-25.94	-3,911.82	-6,349.03	3,538.51	3,367.12	171.39	20.646		
11,500.00	7,058.44	4,452.00	4,516.00	122.15	153.71	-25.94	-3,911.82	-6,349.03	3,479.04	3,307.96	171.07	20.337		
11,600.00	7,058.14	4,452.00	4,516.00	124.86	153.71	-25.94	-3,911.82	-6,349.03	3,421.46	3,250.71	170.75	20.037		
11,700.00	7,057.84	4,452.00	4,516.00	127.58	153.71	-25.94	-3,911.82	-6,349.03	3,365.87	3,195.44	170.43	19.749		
11,800.00	7,057.55	4,452.00	4,516.00	130.31	153.71	-25.94	-3,911.82	-6,349.03	3,312.36	3,142.26	170.10	19.473		
11,900.00	7,057.25	4,452.00	4,516.00	133.04	153.71	-25.94	-3,911.82	-6,349.03	3,261.05	3,091.28	169.77	19.209		
12,000.00	7,056.95	4,452.00	4,516.00	135.78	153.71	-25.94	-3,911.82	-6,349.03	3,212.03	3,042.59	169.44	18.957		
12,100.00	7,056.65	4,452.00	4,516.00	138.52	153.71	-25.94	-3,911.82	-6,349.03	3,165.41	2,996.29	169.12	18.717		
12,200.00	7,056.36	4,452.00	4,516.00	141.27	153.71	-25.94	-3,911.82	-6,349.03	3,121.30	2,952.49	168.80	18.491		
12,300.00	7,056.06	4,452.00	4,516.00	144.02	153.71	-25.94	-3,911.82	-6,349.03	3,079.80	2,911.29	168.51	18.277		
12,400.00	7,055.76	4,452.00	4,516.00	146.78	153.71	-25.94	-3,911.82	-6,349.03	3,041.03	2,872.78	168.25	18.075		
12,500.00	7,055.46	4,452.00	4,516.00	149.54	153.71	-25.94	-3,911.82	-6,349.03	3,005.09	2,837.06	168.03	17.884		
12,600.00	7,055.17	4,452.00	4,516.00	152.30	153.71	-25.94	-3,911.82	-6,349.03	2,972.08	2,804.20	167.87	17.704		
12,700.00	7,054.87	4,452.00	4,516.00	155.07	153.71	-25.94	-3,911.82	-6,349.03	2,942.10	2,774.30	167.80	17.534		
12,800.00	7,054.57	4,452.00	4,516.00	157.84	153.71	-25.94	-3,911.82	-6,349.03	2,915.24	2,747.42	167.82	17.371		
12,900.00	7,054.27	4,452.00	4,516.00	160.61	153.71	-25.94	-3,911.82	-6,349.03	2,891.59	2,723.62	167.97	17.215		
13,000.00	7,053.97	4,452.00	4,516.00	163.39	153.71	-25.94	-3,911.82	-6,349.03	2,871.23	2,702.96	168.27	17.063		
13,100.00	7,053.68	4,452.00	4,516.00	166.17	153.71	-25.94	-3,911.82	-6,349.03	2,854.24	2,685.48	168.76	16.913		
13,200.00	7,053.38	4,452.00	4,516.00	168.95	153.71	-25.94	-3,911.82	-6,349.03	2,840.66	2,671.21	169.45	16.764		
13,300.00	7,053.08	4,452.00	4,516.00	171.73	153.71	-25.94	-3,911.82	-6,349.03	2,830.56	2,660.19	170.36	16.615		
13,400.00	7,052.78	4,452.00	4,516.00	174.52	153.71	-25.94	-3,911.82	-6,349.03	2,823.96	2,652.43	171.52	16.464		
13,500.00	7,052.49	4,452.00	4,516.00	177.31	153.71	-25.94	-3,911.82	-6,349.03	2,820.89	2,647.95	172.94	16.312		
13,536.57	7,052.38	4,452.00	4,516.00	178.33	153.71	-25.94	-3,911.82	-6,349.03	2,820.65	2,647.13	173.52	16.256 CC		
13,600.00	7,052.19	4,452.00	4,516.00	180.10	153.71	-25.94	-3,911.82	-6,349.03	2,821.37	2,646.76	174.61	16.159 ES		
13,700.00	7,051.89	4,452.00	4,516.00	182.90	153.71	-25.94	-3,911.82	-6,349.03	2,825.38	2,648.87	176.52	16.006		
13,800.00	7,051.59	4,452.00	4,516.00	185.69	153.71	-25.94	-3,911.82	-6,349.03	2,832.93	2,654.27	178.65	15.857		
13,900.00	7,051.30	4,452.00	4,516.00	188.49	153.71	-25.94	-3,911.82	-6,349.03	2,843.97	2,662.98	180.99	15.713		
14,000.00	7,051.00	4,452.00	4,516.00	191.29	153.71	-25.94	-3,911.82	-6,349.03	2,858.47	2,674.98	183.49	15.578		
14,100.00	7,050.70	4,452.00	4,516.00	194.09	153.71	-25.94	-3,911.82	-6,349.03	2,876.38	2,690.25	186.13	15.454		
14,200.00	7,050.40	4,452.00	4,516.00	196.89	153.71	-25.94	-3,911.82	-6,349.03	2,897.62	2,708.77	188.86	15.343		
14,300.00	7,050.11	4,452.00	4,516.00	199.70	153.71	-25.94	-3,911.82	-6,349.03	2,922.14	2,730.50	191.64	15.248		
14,400.00	7,049.81	4,452.00	4,516.00	202.50	153.71	-25.94	-3,911.82	-6,349.03	2,949.85	2,755.40	194.45	15.170		
14,500.00	7,049.51	4,452.00	4,516.00	205.31	153.71	-25.94	-3,911.82	-6,349.03	2,980.65	2,783.41	197.24	15.111		
14,600.00	7,049.21	4,452.00	4,516.00	208.12	153.71	-25.94	-3,911.82	-6,349.03	3,014.46	2,814.45	200.00	15.072		
14,700.00	7,048.92	4,452.00	4,516.00	210.93	153.71	-25.94	-3,911.82	-6,349.03	3,051.17	2,848.47	202.70	15.052 SF		
14,800.00	7,048.62	4,452.00	4,516.00	213.74	153.71	-25.94	-3,911.82	-6,349.03	3,090.68	2,885.36	205.33	15.053		
14,900.00	7,048.32	4,452.00	4,516.00	216.55	153.71	-25.94	-3,911.82	-6,349.03	3,132.89	2,925.04	207.85	15.073		
15,000.00	7,048.02	4,452.00	4,516.00	219.37	153.71	-25.94	-3,911.82	-6,349.03	3,177.69	2,967.42	210.27	15.112		
15,100.00	7,047.73	4,452.00	4,516.00	222.18	153.71	-25.94	-3,911.82	-6,349.03	3,224.96	3,012.38	212.58	15.171		
15,200.00	7,047.43	4,452.00	4,516.00	225.00	153.71	-25.94	-3,911.82	-6,349.03	3,274.61	3,059.84	214.77	15.247		
15,300.00	7,047.13	4,452.00	4,516.00	227.81	153.71	-25.94	-3,911.82	-6,349.03	3,326.52	3,109.69	216.84	15.341		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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)		
15,343.67	7,047.00	4,452.00	4,516.00	229.04	153.71	-25.94	-3,911.82	-6,349.03	3,349.88	3,132.18	217.70	15.387	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
0.00	0.00	1,353.08	1,281.66	3.28	7.27	-105.78	-2,491.92	-8,815.28	9,249.95					
100.00	100.00	1,377.00	1,305.28	3.28	7.39	-105.77	-2,489.16	-8,812.66	9,236.43	9,226.28	10.15	909.865		
200.00	200.00	1,434.13	1,361.72	3.34	7.67	-105.74	-2,482.48	-8,806.81	9,223.46	9,213.03	10.43	884.133		
300.00	299.98	1,474.97	1,402.07	3.44	7.86	-11.12	-2,477.39	-8,803.07	9,210.63	9,199.93	10.69	861.269		
400.00	399.84	1,660.00	1,584.91	3.59	8.77	71.55	-2,455.35	-8,785.33	9,196.39	9,184.74	11.65	789.090		
500.00	499.45	1,699.53	1,623.99	3.79	8.96	71.89	-2,451.07	-8,781.12	9,180.82	9,168.81	12.01	764.578		
600.00	598.70	1,717.69	1,641.97	4.03	9.05	72.21	-2,449.18	-8,779.43	9,165.18	9,152.87	12.31	744.373		
700.00	697.47	700.00	1,704.27	4.31	4.60	72.61	-2,442.72	-8,774.24	9,149.43	9,140.79	8.64	1,058.361		
800.00	795.62	1,978.39	1,899.86	4.64	10.34	73.29	-2,418.76	-8,756.77	9,131.66	9,117.59	14.07	648.878		
900.00	893.06	2,290.90	2,207.90	5.00	11.99	74.32	-2,377.01	-8,724.89	9,111.41	9,095.52	15.89	573.289		
1,000.00	989.64	1,000.00	2,393.96	5.40	5.28	75.19	-2,350.80	-8,703.00	9,089.39	9,078.85	10.54	862.014		
1,100.00	1,085.27	2,544.93	2,457.71	5.83	13.38	75.82	-2,342.04	-8,694.88	9,065.80	9,047.90	17.90	506.449		
1,200.00	1,179.82	2,570.09	2,482.49	6.29	13.52	76.36	-2,338.86	-8,691.87	9,042.14	9,023.67	18.47	489.535		
1,300.00	1,273.17	2,750.16	2,659.79	6.79	14.50	77.37	-2,316.12	-8,670.15	9,017.89	8,998.09	19.80	455.378		
1,400.00	1,365.46	2,792.00	2,700.94	7.32	14.74	77.70	-2,310.64	-8,664.96	8,992.81	8,972.29	20.52	438.271		
1,500.00	1,457.65	2,792.00	2,700.94	7.87	14.74	77.70	-2,310.64	-8,664.96	8,968.55	8,947.49	21.06	425.856		
1,600.00	1,549.83	2,792.00	2,700.94	8.43	14.74	77.70	-2,310.64	-8,664.96	8,945.34	8,923.72	21.62	413.779		
1,700.00	1,642.02	2,841.29	2,749.55	9.01	14.99	77.85	-2,304.64	-8,659.45	8,922.44	8,900.02	22.42	398.018		
1,800.00	1,734.21	2,887.00	2,794.81	9.59	15.23	77.99	-2,299.82	-8,655.27	8,901.08	8,877.87	23.21	383.479		
1,900.00	1,826.39	1,900.00	2,819.40	10.18	10.27	78.06	-2,297.08	-8,653.03	8,880.11	8,860.84	19.27	460.826		
2,000.00	1,918.58	3,054.77	2,960.71	10.78	16.10	78.51	-2,280.37	-8,639.69	8,859.12	8,833.94	25.18	351.803		
2,100.00	2,010.77	3,189.19	3,093.42	11.39	16.81	78.93	-2,263.33	-8,626.81	8,838.05	8,811.63	26.42	334.487		
2,200.00	2,102.95	3,246.07	3,149.59	11.99	17.11	79.11	-2,256.29	-8,621.26	8,817.14	8,789.83	27.31	322.874		
2,300.00	2,195.14	3,371.26	3,273.25	12.61	17.78	79.50	-2,241.26	-8,608.86	8,796.40	8,767.89	28.51	308.494		
2,400.00	2,287.32	3,422.50	3,323.86	13.22	18.05	79.67	-2,235.02	-8,603.80	8,775.91	8,746.52	29.38	298.655		
2,500.00	2,379.51	3,525.21	3,425.33	13.84	18.59	79.99	-2,222.59	-8,593.88	8,755.88	8,725.39	30.50	287.093		
2,600.00	2,471.70	3,543.00	3,442.90	14.46	18.69	80.05	-2,220.41	-8,592.12	8,736.16	8,704.93	31.22	279.787		
2,700.00	2,563.88	4,488.00	4,366.51	15.08	24.30	83.29	-2,072.03	-8,465.61	8,712.69	8,676.26	36.43	239.155		
2,800.00	2,656.07	4,525.15	4,402.53	15.71	24.54	83.42	-2,065.92	-8,458.86	8,685.78	8,648.49	37.28	232.967		
2,900.00	2,748.26	4,549.27	4,425.97	16.33	24.69	83.50	-2,062.06	-8,454.67	8,659.74	8,621.66	38.08	227.421		
3,000.00	2,840.44	4,583.00	4,458.81	16.96	24.90	83.62	-2,056.81	-8,449.05	8,634.57	8,595.64	38.92	221.843		
3,100.00	2,932.63	4,583.00	4,458.81	17.59	24.90	83.62	-2,056.81	-8,449.05	8,610.25	8,570.65	39.61	217.386		
3,200.00	3,024.81	4,583.00	4,458.81	18.22	24.90	83.62	-2,056.81	-8,449.05	8,587.04	8,546.74	40.30	213.100		
3,300.00	3,117.00	4,623.73	4,498.61	18.86	25.14	83.76	-2,050.86	-8,442.82	8,564.41	8,523.24	41.17	208.015		
3,400.00	3,209.19	4,639.58	4,514.16	19.49	25.24	83.81	-2,048.70	-8,440.60	8,542.93	8,500.99	41.94	203.714		
3,500.00	3,301.37	4,678.00	4,551.95	20.12	25.46	83.94	-2,043.85	-8,435.69	8,522.57	8,479.76	42.81	199.099		
3,600.00	3,393.56	4,678.00	4,551.95	20.76	25.46	83.94	-2,043.85	-8,435.69	8,502.87	8,459.37	43.50	195.479		
3,700.00	3,485.75	4,701.21	4,574.84	21.39	25.58	84.02	-2,041.13	-8,432.96	8,484.23	8,439.94	44.29	191.551		
3,800.00	3,577.93	4,739.22	4,612.37	22.03	25.79	84.14	-2,036.89	-8,428.65	8,466.38	8,421.22	45.15	187.500		
3,900.00	3,670.12	4,772.00	4,644.77	22.67	25.96	84.25	-2,033.45	-8,425.07	8,449.28	8,403.29	45.99	183.708		
4,000.00	3,762.30	4,828.89	4,701.07	23.30	26.26	84.43	-2,027.81	-8,419.12	8,432.86	8,385.92	46.93	179.676		
4,100.00	3,854.49	4,867.00	4,738.81	23.94	26.45	84.56	-2,024.21	-8,415.27	8,417.09	8,369.30	47.79	176.115		
4,200.00	3,946.68	4,908.77	4,780.22	24.58	26.66	84.69	-2,020.45	-8,411.27	8,402.07	8,353.40	48.66	172.652		
4,300.00	4,038.86	4,961.00	4,832.06	25.22	26.92	84.85	-2,016.00	-8,406.72	8,387.91	8,338.33	49.58	169.173		
4,400.00	4,131.05	4,987.90	4,858.77	25.86	27.05	84.94	-2,013.80	-8,404.52	8,374.44	8,324.05	50.39	166.203		
4,500.00	4,223.24	5,056.00	4,926.46	26.50	27.37	85.15	-2,008.49	-8,399.13	8,361.63	8,310.26	51.37	162.779		
4,600.00	4,315.42	5,056.00	4,926.46	27.14	27.37	85.15	-2,008.49	-8,399.13	8,349.57	8,297.51	52.06	160.398		
4,700.00	4,407.61	5,103.11	4,973.33	27.78	27.59	85.30	-2,005.09	-8,395.81	8,338.23	8,285.29	52.94	157.504		
4,800.00	4,499.79	5,150.00	5,020.04	28.42	27.80	85.44	-2,002.01	-8,393.13	8,327.99	8,274.17	53.82	154.729		
4,900.00	4,591.98	5,164.01	5,034.00	29.06	27.86	85.48	-2,001.15	-8,392.42	8,318.47	8,263.91	54.56	152.461		
5,000.00	4,684.17	5,236.72	5,106.51	29.70	28.18	85.70	-1,997.10	-8,388.83	8,309.62	8,254.08	55.54	149.603		
5,100.00	4,776.35	5,271.65	5,141.36	30.34	28.32	85.81	-1,995.40	-8,387.23	8,301.36	8,245.00	56.36	147.282		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	5,303.13	5,172.79	30.98	28.45	85.90	-1,994.00	-8,386.01	8,293.95	8,236.79	57.17	145.085		
5,300.00	4,960.73	5,336.00	5,205.61	31.63	28.59	86.00	-1,992.69	-8,384.97	8,287.40	8,229.43	57.97	142.956		
5,400.00	5,052.91	5,394.18	5,263.75	32.27	28.81	86.16	-1,990.83	-8,383.43	8,281.57	8,222.69	58.87	140.670		
5,500.00	5,145.10	5,430.00	5,299.54	32.91	28.95	86.26	-1,990.02	-8,382.58	8,276.32	8,216.64	59.68	138.678		
5,600.00	5,237.28	5,510.64	5,380.15	33.55	29.26	86.49	-1,988.31	-8,380.97	8,271.53	8,210.87	60.67	136.343		
5,700.00	5,329.47	5,567.52	5,437.00	34.20	29.47	86.65	-1,986.89	-8,380.13	8,267.38	8,205.82	61.56	134.305		
5,800.00	5,421.66	5,624.25	5,493.71	34.84	29.68	86.82	-1,985.28	-8,379.52	8,263.81	8,201.36	62.45	132.337		
5,900.00	5,513.84	5,711.00	5,580.41	35.48	30.01	87.07	-1,982.47	-8,379.05	8,260.91	8,197.45	63.46	130.183		
6,000.00	5,606.03	5,741.61	5,611.01	36.13	30.13	87.16	-1,981.41	-8,379.01	8,258.41	8,194.18	64.23	128.567		
6,100.00	5,698.22	5,807.39	5,676.75	36.77	30.37	87.35	-1,979.20	-8,379.06	8,256.50	8,191.35	65.16	126.718		
6,200.00	5,790.40	5,873.26	5,742.58	37.41	30.61	87.54	-1,977.07	-8,379.31	8,255.08	8,189.00	66.08	124.928		
6,300.00	5,882.59	5,939.21	5,808.50	38.06	30.86	87.73	-1,975.02	-8,379.76	8,254.15	8,187.15	67.00	123.197		
6,400.00	5,974.77	6,011.21	5,880.46	38.70	31.13	87.93	-1,972.87	-8,380.47	8,253.69	8,185.75	67.94	121.476		
6,500.00	6,066.96	6,115.90	5,985.11	39.34	31.51	88.23	-1,969.89	-8,381.50	8,253.44	8,184.42	69.03	119.570		
6,600.00	6,159.15	6,220.74	6,089.90	39.99	31.90	88.53	-1,967.07	-8,382.37	8,253.25	8,183.14	70.11	117.723		
6,700.00	6,251.33	6,325.71	6,194.83	40.63	32.28	88.83	-1,964.40	-8,383.07	8,253.11	8,181.92	71.19	115.933		
6,705.32	6,256.24	6,331.30	6,200.42	40.67	32.31	88.85	-1,964.26	-8,383.10	8,253.11	8,181.86	71.25	115.840		
6,800.00	6,343.52	6,387.69	6,256.78	41.28	32.53	89.01	-1,962.32	-8,383.63	8,253.37	8,181.27	72.10	114.470		
6,900.00	6,435.71	6,462.59	6,331.63	41.92	32.81	89.23	-1,959.50	-8,384.36	8,253.98	8,180.92	73.06	112.971		
7,000.00	6,527.86	6,537.04	6,406.00	42.56	33.09	89.42	-1,956.25	-8,385.21	8,254.11	8,180.08	74.02	111.511		
7,100.00	6,618.85	6,633.09	6,501.91	43.19	33.48	89.62	-1,951.33	-8,386.35	8,242.38	8,167.31	75.07	109.792		
7,200.00	6,706.47	6,736.74	6,605.36	43.76	33.90	91.48	-1,945.03	-8,387.32	8,215.37	8,139.25	76.11	107.935		
7,300.00	6,788.56	6,832.81	6,701.19	44.26	34.28	91.48	-1,938.24	-8,387.96	8,173.73	8,096.67	77.05	106.077		
7,400.00	6,863.10	6,888.32	6,756.54	44.70	34.51	91.48	-1,933.98	-8,388.28	8,118.63	8,040.88	77.75	104.422		
7,500.00	6,928.26	6,932.17	6,800.26	45.07	34.70	91.48	-1,930.54	-8,388.65	8,051.57	7,973.25	78.32	102.797		
7,600.00	6,982.42	6,968.92	6,836.89	45.39	34.85	91.48	-1,927.61	-8,389.03	7,974.08	7,895.27	78.81	101.184		
7,700.00	7,024.26	6,997.66	6,865.53	45.67	34.97	91.48	-1,925.29	-8,389.38	7,887.95	7,808.75	79.19	99.604		
7,800.00	7,052.75	7,017.63	6,885.44	45.92	35.06	91.48	-1,923.67	-8,389.65	7,795.17	7,715.69	79.48	98.079		
7,900.00	7,067.18	7,028.30	6,896.06	46.16	35.10	91.48	-1,922.80	-8,389.80	7,697.94	7,618.28	79.66	96.633		
8,000.00	7,068.85	7,030.41	6,898.17	46.42	35.11	91.48	-1,922.62	-8,389.83	7,598.64	7,518.88	79.76	95.272		
8,100.00	7,068.56	7,031.21	6,898.96	46.78	35.11	91.48	-1,922.56	-8,389.85	7,499.18	7,419.34	79.84	93.926		
8,200.00	7,068.26	7,032.00	6,899.75	47.29	35.12	91.48	-1,922.49	-8,389.86	7,399.73	7,319.80	79.93	92.578		
8,300.00	7,067.96	7,032.81	6,900.56	48.03	35.12	91.48	-1,922.43	-8,389.87	7,300.30	7,220.27	80.02	91.226		
8,400.00	7,067.66	7,033.62	6,901.36	49.02	35.12	91.48	-1,922.36	-8,389.88	7,200.88	7,120.76	80.12	89.873		
8,500.00	7,067.37	7,034.43	6,902.17	50.27	35.13	91.48	-1,922.30	-8,389.89	7,101.48	7,021.25	80.23	88.516		
8,600.00	7,067.07	7,035.25	6,902.99	51.75	35.13	91.48	-1,922.23	-8,389.91	7,002.09	6,921.75	80.34	87.157		
8,700.00	7,066.77	7,036.08	6,903.82	53.42	35.13	91.48	-1,922.16	-8,389.92	6,902.73	6,822.27	80.46	85.796		
8,800.00	7,066.47	7,036.92	6,904.65	55.24	35.14	91.48	-1,922.09	-8,389.93	6,803.38	6,722.80	80.58	84.432		
8,900.00	7,066.18	7,037.76	6,905.49	57.18	35.14	91.48	-1,922.02	-8,389.94	6,704.05	6,623.34	80.71	83.065		
9,000.00	7,065.88	7,038.60	6,906.33	59.21	35.14	91.48	-1,921.95	-8,389.96	6,604.74	6,523.89	80.85	81.696		
9,100.00	7,065.58	7,039.46	6,907.18	61.33	35.15	91.48	-1,921.88	-8,389.97	6,505.45	6,424.46	80.99	80.324		
9,200.00	7,065.28	7,040.32	6,908.04	63.51	35.15	91.48	-1,921.81	-8,389.98	6,406.18	6,325.04	81.14	78.949		
9,300.00	7,064.99	7,041.19	6,908.90	65.76	35.16	91.48	-1,921.74	-8,389.99	6,306.94	6,225.64	81.30	77.572		
9,400.00	7,064.69	7,042.06	6,909.78	68.06	35.16	91.48	-1,921.67	-8,390.01	6,207.72	6,126.25	81.47	76.192		
9,500.00	7,064.39	7,042.94	6,910.65	70.40	35.16	91.48	-1,921.60	-8,390.02	6,108.53	6,026.87	81.65	74.810		
9,600.00	7,064.09	7,043.83	6,911.54	72.78	35.17	91.48	-1,921.52	-8,390.04	6,009.36	5,927.52	81.84	73.425		
9,700.00	7,063.80	7,044.72	6,912.43	75.20	35.17	91.48	-1,921.45	-8,390.05	5,910.22	5,828.18	82.04	72.037		
9,800.00	7,063.50	7,045.62	6,913.33	77.65	35.17	91.48	-1,921.37	-8,390.06	5,811.11	5,728.85	82.26	70.646		
9,900.00	7,063.20	7,046.53	6,914.23	80.13	35.18	91.48	-1,921.30	-8,390.08	5,712.03	5,629.55	82.48	69.253		
10,000.00	7,062.90	7,047.45	6,915.15	82.64	35.18	91.48	-1,921.22	-8,390.09	5,612.98	5,530.27	82.72	67.857		
10,100.00	7,062.61	7,048.37	6,916.07	85.17	35.19	91.48	-1,921.15	-8,390.11	5,513.97	5,431.00	82.97	66.459		
10,200.00	7,062.31	7,049.30	6,917.00	87.72	35.19	91.48	-1,921.07	-8,390.12	5,414.99	5,331.76	83.23	65.057		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,062.01	7,050.24	6,917.93	90.28	35.19	80.52	-1,920.99	-8,390.13	5,316.06	5,232.54	83.52	63.654		
10,400.00	7,061.71	7,051.19	6,918.87	92.87	35.20	80.59	-1,920.92	-8,390.15	5,217.16	5,133.34	83.81	62.247		
10,500.00	7,061.41	7,052.14	6,919.82	95.47	35.20	80.66	-1,920.84	-8,390.16	5,118.30	5,034.17	84.13	60.839		
10,600.00	7,061.12	7,053.11	6,920.78	98.09	35.21	80.73	-1,920.76	-8,390.18	5,019.49	4,935.03	84.46	59.427		
10,700.00	7,060.82	7,054.07	6,921.75	100.72	35.21	80.80	-1,920.68	-8,390.20	4,920.73	4,835.91	84.82	58.014		
10,800.00	7,060.52	7,055.05	6,922.72	103.37	35.21	80.87	-1,920.60	-8,390.21	4,822.02	4,736.82	85.20	56.598		
10,900.00	7,060.22	7,056.04	6,923.71	106.02	35.22	80.94	-1,920.51	-8,390.23	4,723.36	4,637.76	85.60	55.179		
11,000.00	7,059.93	7,057.03	6,924.70	108.69	35.22	81.02	-1,920.43	-8,390.24	4,624.76	4,538.73	86.03	53.759		
11,100.00	7,059.63	7,058.03	6,925.69	111.36	35.23	81.09	-1,920.35	-8,390.26	4,526.22	4,439.74	86.48	52.337		
11,200.00	7,059.33	7,059.05	6,926.70	114.05	35.23	81.16	-1,920.27	-8,390.28	4,427.74	4,340.78	86.97	50.913		
11,300.00	7,059.03	7,060.07	6,927.72	116.74	35.23	81.24	-1,920.18	-8,390.29	4,329.34	4,241.85	87.48	49.487		
11,400.00	7,058.74	7,061.09	6,928.74	119.44	35.24	81.31	-1,920.10	-8,390.31	4,231.01	4,142.97	88.04	48.060		
11,500.00	7,058.44	7,062.13	6,929.78	122.15	35.24	81.39	-1,920.01	-8,390.33	4,132.76	4,044.13	88.63	46.631		
11,600.00	7,058.14	7,063.18	6,930.82	124.86	35.25	81.47	-1,919.92	-8,390.34	4,034.59	3,945.34	89.26	45.202		
11,700.00	7,057.84	7,064.23	6,931.87	127.58	35.25	81.54	-1,919.84	-8,390.36	3,936.52	3,846.59	89.93	43.773		
11,800.00	7,057.55	7,065.29	6,932.93	130.31	35.26	81.62	-1,919.75	-8,390.38	3,838.55	3,747.89	90.65	42.343		
11,900.00	7,057.25	7,066.37	6,934.00	133.04	35.26	81.70	-1,919.66	-8,390.39	3,740.68	3,649.25	91.43	40.914		
12,000.00	7,056.95	7,067.45	6,935.08	135.78	35.27	81.78	-1,919.57	-8,390.41	3,642.93	3,550.67	92.26	39.485		
12,100.00	7,056.65	7,068.54	6,936.16	138.52	35.27	81.86	-1,919.48	-8,390.43	3,545.30	3,452.15	93.16	38.058		
12,200.00	7,056.36	7,069.64	6,937.26	141.27	35.27	81.94	-1,919.39	-8,390.45	3,447.81	3,353.69	94.12	36.633		
12,300.00	7,056.06	7,070.75	6,938.37	144.02	35.28	82.02	-1,919.29	-8,390.47	3,350.47	3,255.31	95.15	35.211		
12,400.00	7,055.76	7,071.87	6,939.48	146.78	35.28	82.11	-1,919.20	-8,390.49	3,253.29	3,157.01	96.27	33.792		
12,500.00	7,055.46	7,073.00	6,940.61	149.54	35.29	82.19	-1,919.11	-8,390.51	3,156.28	3,058.80	97.48	32.379		
12,600.00	7,055.17	7,074.15	6,941.75	152.30	35.29	82.27	-1,919.01	-8,390.53	3,059.46	2,960.68	98.79	30.971		
12,700.00	7,054.87	7,075.30	6,942.89	155.07	35.30	82.36	-1,918.92	-8,390.55	2,962.86	2,862.66	100.20	29.569		
12,800.00	7,054.57	7,076.46	6,944.05	157.84	35.30	82.44	-1,918.82	-8,390.56	2,866.49	2,764.75	101.73	28.176		
12,900.00	7,054.27	7,077.63	6,945.22	160.61	35.31	82.53	-1,918.72	-8,390.58	2,770.37	2,666.97	103.40	26.793		
13,000.00	7,053.97	7,078.81	6,946.40	163.39	35.31	82.62	-1,918.62	-8,390.61	2,674.54	2,569.33	105.21	25.420		
13,100.00	7,053.68	7,080.01	6,947.59	166.17	35.32	82.70	-1,918.52	-8,390.63	2,579.03	2,471.84	107.19	24.061		
13,200.00	7,053.38	7,081.21	6,948.79	168.95	35.32	82.79	-1,918.42	-8,390.65	2,483.87	2,374.53	109.34	22.717		
13,300.00	7,053.08	7,082.43	6,950.00	171.73	35.33	82.88	-1,918.32	-8,390.67	2,389.10	2,277.40	111.70	21.389		
13,400.00	7,052.78	7,083.65	6,951.22	174.52	35.33	82.97	-1,918.22	-8,390.69	2,294.78	2,180.50	114.27	20.081		
13,500.00	7,052.49	7,084.89	6,952.45	177.31	35.34	83.06	-1,918.12	-8,390.71	2,200.95	2,083.85	117.10	18.795		
13,600.00	7,052.19	7,086.14	6,953.70	180.10	35.34	83.16	-1,918.01	-8,390.73	2,107.70	1,987.48	120.21	17.533		
13,700.00	7,051.89	7,087.40	6,954.96	182.90	35.35	83.25	-1,917.91	-8,390.76	2,015.09	1,891.45	123.64	16.299		
13,800.00	7,051.59	7,088.68	6,956.23	185.69	35.35	83.34	-1,917.80	-8,390.78	1,923.21	1,795.80	127.41	15.095		
13,900.00	7,051.30	7,089.96	6,957.51	188.49	35.36	83.44	-1,917.69	-8,390.80	1,832.19	1,700.61	131.58	13.924		
14,000.00	7,051.00	7,091.26	6,958.80	191.29	35.37	83.53	-1,917.58	-8,390.82	1,742.16	1,605.96	136.20	12.791		
14,100.00	7,050.70	7,092.57	6,960.11	194.09	35.37	83.63	-1,917.47	-8,390.85	1,653.27	1,511.95	141.31	11.699		
14,200.00	7,050.40	7,093.89	6,961.42	196.89	35.38	83.73	-1,917.36	-8,390.87	1,565.71	1,418.72	146.99	10.652		
14,300.00	7,050.11	7,095.23	6,962.75	199.70	35.38	83.82	-1,917.25	-8,390.90	1,479.74	1,326.45	153.29	9.653		
14,400.00	7,049.81	7,096.58	6,964.10	202.50	35.39	83.92	-1,917.14	-8,390.92	1,395.63	1,235.35	160.28	8.707		
14,500.00	7,049.51	7,097.94	6,965.45	205.31	35.39	84.02	-1,917.02	-8,390.94	1,313.75	1,145.72	168.03	7.818		
14,600.00	7,049.21	7,099.31	6,966.82	208.12	35.40	84.13	-1,916.91	-8,390.97	1,234.54	1,057.94	176.60	6.991		
14,700.00	7,048.92	7,100.70	6,968.21	210.93	35.40	84.23	-1,916.79	-8,390.99	1,158.55	972.53	186.02	6.228		
14,800.00	7,048.62	7,102.10	6,969.60	213.74	35.41	84.33	-1,916.67	-8,391.02	1,086.46	890.19	196.27	5.535		
14,900.00	7,048.32	7,103.52	6,971.02	216.55	35.42	84.44	-1,916.55	-8,391.05	1,019.08	811.80	207.28	4.916		
15,000.00	7,048.02	7,104.95	6,972.44	219.37	35.42	84.54	-1,916.43	-8,391.07	957.43	738.59	218.84	4.375		
15,100.00	7,047.73	7,106.40	6,973.88	222.18	35.43	84.65	-1,916.31	-8,391.10	902.66	672.08	230.59	3.915		
15,200.00	7,047.43	7,107.86	6,975.33	225.00	35.43	84.76	-1,916.19	-8,391.13	856.11	614.17	241.94	3.539		
15,300.00	7,047.13	7,109.33	6,976.80	227.81	35.44	84.86	-1,916.06	-8,391.16	819.18	567.06	252.12	3.249		
15,343.67	7,047.00	7,109.98	6,977.45	229.04	35.44	84.91	-1,916.01	-8,391.17	806.41	550.45	255.96	3.151	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	28.00	3.28	3.28	-80.69	1,497.90	-9,141.96	9,263.90				
100.00	100.00	72.00	100.00	3.28	3.51	-80.69	1,497.90	-9,141.96	9,263.86	9,257.06	6.80	1,362.884	
200.00	200.00	172.00	200.00	3.34	5.38	-80.69	1,497.90	-9,141.96	9,263.86	9,255.15	8.71	1,063.261	
300.00	299.98	271.98	299.98	3.44	8.41	95.90	1,497.90	-9,141.96	9,264.04	9,252.18	11.85	781.499	
400.00	399.84	371.84	399.84	3.59	11.70	95.92	1,497.90	-9,141.96	9,264.58	9,249.29	15.29	605.817	
500.00	499.45	471.45	499.45	3.79	15.07	95.96	1,497.90	-9,141.96	9,265.48	9,246.62	18.86	491.271	
600.00	598.70	570.70	598.70	4.03	18.47	96.01	1,497.90	-9,141.96	9,266.76	9,244.26	22.50	411.850	
700.00	697.47	669.47	697.47	4.31	21.87	96.07	1,497.90	-9,141.96	9,268.43	9,242.24	26.19	353.936	
800.00	795.62	767.62	795.62	4.64	25.27	96.14	1,497.90	-9,141.96	9,270.50	9,240.59	29.90	310.011	
900.00	893.06	865.06	893.06	5.00	28.64	96.23	1,497.90	-9,141.96	9,272.99	9,239.34	33.64	275.648	
1,000.00	989.64	961.64	989.64	5.40	31.99	96.32	1,497.90	-9,141.96	9,275.91	9,238.53	37.39	248.091	
1,100.00	1,085.27	1,057.27	1,085.27	5.83	35.32	96.43	1,497.90	-9,141.96	9,279.31	9,238.17	41.14	225.540	
1,200.00	1,179.82	1,151.82	1,179.82	6.29	38.60	96.54	1,497.90	-9,141.96	9,283.19	9,238.30	44.90	206.775	
1,300.00	1,273.17	1,245.17	1,273.17	6.79	41.85	96.66	1,497.90	-9,141.96	9,287.60	9,238.96	48.64	190.939	
1,400.00	1,365.46	1,337.46	1,365.46	7.32	45.06	96.84	1,497.90	-9,141.96	9,292.49	9,240.11	52.38	177.402	
1,500.00	1,457.65	1,429.65	1,457.65	7.87	48.28	97.06	1,497.90	-9,141.96	9,297.57	9,241.43	56.14	165.619	
1,600.00	1,549.83	1,521.83	1,549.83	8.43	51.49	97.28	1,497.90	-9,141.96	9,302.80	9,242.89	59.91	155.279	
1,700.00	1,642.02	1,614.02	1,642.02	9.01	54.70	97.49	1,497.90	-9,141.96	9,308.20	9,244.50	63.69	146.139	
1,800.00	1,734.21	1,706.21	1,734.21	9.59	57.91	97.71	1,497.90	-9,141.96	9,313.75	9,246.26	67.49	138.007	
1,900.00	1,826.39	1,801.61	1,826.39	10.18	61.24	97.93	1,497.90	-9,141.96	9,319.46	9,248.06	71.40	130.523	
2,000.00	1,918.58	1,909.42	1,918.58	10.78	65.00	98.15	1,497.90	-9,141.96	9,325.33	9,249.58	75.75	123.101	
2,100.00	2,010.77	1,982.77	2,010.77	11.39	67.55	98.37	1,497.90	-9,141.96	9,331.36	9,252.45	78.91	118.253	
2,200.00	2,102.95	2,074.95	2,102.95	11.99	70.77	98.58	1,497.90	-9,141.96	9,337.54	9,254.81	82.73	112.870	
2,300.00	2,195.14	2,167.14	2,195.14	12.61	73.98	98.80	1,497.90	-9,141.96	9,343.88	9,257.33	86.55	107.960	
2,400.00	2,287.32	2,259.32	2,287.32	13.22	77.20	99.02	1,497.90	-9,141.96	9,350.37	9,260.00	90.37	103.462	
2,500.00	2,379.51	2,351.51	2,379.51	13.84	80.41	99.23	1,497.90	-9,141.96	9,357.03	9,262.82	94.20	99.328	
2,600.00	2,471.70	2,443.70	2,471.70	14.46	83.63	99.45	1,497.90	-9,141.96	9,363.83	9,265.80	98.03	95.517	
2,700.00	2,563.88	2,535.88	2,563.88	15.08	86.84	99.67	1,497.90	-9,141.96	9,370.79	9,268.93	101.87	91.992	
2,800.00	2,656.07	2,628.07	2,656.07	15.71	90.06	99.88	1,497.90	-9,141.96	9,377.91	9,272.21	105.70	88.722	
2,900.00	2,748.26	2,720.26	2,748.26	16.33	93.28	100.10	1,497.90	-9,141.96	9,385.18	9,275.65	109.54	85.682	
3,000.00	2,840.44	2,812.44	2,840.44	16.96	96.49	100.31	1,497.90	-9,141.96	9,392.61	9,279.24	113.37	82.848	
3,100.00	2,932.63	2,904.63	2,932.63	17.59	99.71	100.53	1,497.90	-9,141.96	9,400.19	9,282.98	117.21	80.200	
3,200.00	3,024.81	3,003.19	3,024.81	18.22	103.15	100.74	1,497.90	-9,141.96	9,407.92	9,286.65	121.27	77.578	
3,300.00	3,117.00	3,089.00	3,117.00	18.86	106.14	100.96	1,497.90	-9,141.96	9,415.81	9,290.92	124.89	75.394	
3,400.00	3,209.19	3,181.19	3,209.19	19.49	109.36	101.17	1,497.90	-9,141.96	9,423.85	9,295.12	128.73	73.207	
3,500.00	3,301.37	3,273.37	3,301.37	20.12	112.58	101.38	1,497.90	-9,141.96	9,432.04	9,299.47	132.57	71.148	
3,600.00	3,393.56	3,365.56	3,393.56	20.76	115.79	101.60	1,497.90	-9,141.96	9,440.39	9,303.98	136.41	69.206	
3,700.00	3,485.75	3,457.75	3,485.75	21.39	119.01	101.81	1,497.90	-9,141.96	9,448.88	9,308.63	140.25	67.371	
3,800.00	3,577.93	3,549.93	3,577.93	22.03	122.23	102.02	1,497.90	-9,141.96	9,457.53	9,313.43	144.09	65.635	
3,900.00	3,670.12	3,642.12	3,670.12	22.67	125.44	102.23	1,497.90	-9,141.96	9,466.33	9,318.39	147.94	63.990	
4,000.00	3,762.30	3,734.30	3,762.30	23.30	128.66	102.45	1,497.90	-9,141.96	9,475.27	9,323.50	151.78	62.429	
4,100.00	3,854.49	3,826.49	3,854.49	23.94	131.88	102.66	1,497.90	-9,141.96	9,484.37	9,328.75	155.62	60.946	
4,200.00	3,946.68	3,918.68	3,946.68	24.58	135.10	102.87	1,497.90	-9,141.96	9,493.62	9,334.16	159.46	59.535	
4,300.00	4,038.86	4,010.86	4,038.86	25.22	138.31	103.08	1,497.90	-9,141.96	9,503.01	9,339.71	163.30	58.192	
4,400.00	4,131.05	4,103.05	4,131.05	25.86	141.53	103.29	1,497.90	-9,141.96	9,512.56	9,345.41	167.15	56.912	
4,500.00	4,223.24	4,204.76	4,223.24	26.50	145.08	103.50	1,497.90	-9,141.96	9,522.25	9,350.93	171.32	55.582	
4,600.00	4,315.42	4,287.42	4,315.42	27.14	147.97	103.71	1,497.90	-9,141.96	9,532.09	9,357.26	174.83	54.522	
4,700.00	4,407.61	4,379.61	4,407.61	27.78	151.18	103.92	1,497.90	-9,141.96	9,542.08	9,363.41	178.67	53.406	
4,800.00	4,499.79	4,471.79	4,499.79	28.42	154.40	104.13	1,497.90	-9,141.96	9,552.21	9,369.70	182.51	52.337	
4,900.00	4,591.98	4,563.98	4,591.98	29.06	157.62	104.34	1,497.90	-9,141.96	9,562.49	9,376.14	186.35	51.314	
5,000.00	4,684.17	4,656.17	4,684.17	29.70	160.84	104.55	1,497.90	-9,141.96	9,572.92	9,382.73	190.19	50.332	
5,100.00	4,776.35	4,748.35	4,776.35	30.34	164.05	104.75	1,497.90	-9,141.96	9,583.49	9,389.46	194.03	49.391	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,840.54	4,868.54	30.98	167.27	104.96	1,497.90	-9,141.96	9,594.21	9,396.34	197.87	48.486		
5,300.00	4,960.73	4,932.73	4,960.73	31.63	170.49	105.17	1,497.90	-9,141.96	9,605.07	9,403.36	201.71	47.617		
5,400.00	5,052.91	5,024.91	5,052.91	32.27	173.71	105.38	1,497.90	-9,141.96	9,616.08	9,410.52	205.55	46.781		
5,500.00	5,145.10	5,117.10	5,145.10	32.91	176.92	105.58	1,497.90	-9,141.96	9,627.22	9,417.83	209.39	45.977		
5,600.00	5,237.28	5,209.28	5,237.28	33.55	180.14	105.79	1,497.90	-9,141.96	9,638.52	9,425.28	213.23	45.202		
5,700.00	5,329.47	5,301.47	5,329.47	34.20	183.36	105.99	1,497.90	-9,141.96	9,649.95	9,432.88	217.07	44.456		
5,800.00	5,421.66	5,406.34	5,421.66	34.84	187.02	106.20	1,497.90	-9,141.96	9,661.53	9,440.18	221.35	43.648		
5,900.00	5,513.84	5,485.84	5,513.84	35.48	189.79	106.40	1,497.90	-9,141.96	9,673.24	9,448.50	224.74	43.041		
6,000.00	5,606.03	5,578.03	5,606.03	36.13	193.01	106.61	1,497.90	-9,141.96	9,685.10	9,456.52	228.58	42.371		
6,100.00	5,698.22	5,670.22	5,698.22	36.77	196.23	106.81	1,497.90	-9,141.96	9,697.10	9,464.68	232.42	41.723		
6,200.00	5,790.40	5,762.40	5,790.40	37.41	199.45	107.01	1,497.90	-9,141.96	9,709.24	9,472.98	236.25	41.097		
6,300.00	5,882.59	5,854.59	5,882.59	38.06	202.67	107.22	1,497.90	-9,141.96	9,721.51	9,481.43	240.09	40.492		
6,400.00	5,974.77	5,946.77	5,974.77	38.70	205.88	107.42	1,497.90	-9,141.96	9,733.93	9,490.01	243.92	39.906		
6,500.00	6,066.96	6,038.96	6,066.96	39.34	209.10	107.62	1,497.90	-9,141.96	9,746.48	9,498.73	247.76	39.339		
6,600.00	6,159.15	6,131.15	6,159.15	39.99	212.32	107.82	1,497.90	-9,141.96	9,759.18	9,507.59	251.59	38.790		
6,700.00	6,251.33	6,223.33	6,251.33	40.63	215.54	108.02	1,497.90	-9,141.96	9,772.01	9,516.58	255.42	38.258		
6,800.00	6,343.52	6,315.52	6,343.52	41.28	218.75	108.22	1,497.90	-9,141.96	9,784.97	9,525.72	259.26	37.743		
6,900.00	6,435.71	6,407.71	6,435.71	41.92	221.97	108.42	1,497.90	-9,141.96	9,798.07	9,534.99	263.09	37.243		
7,000.00	6,527.86	6,500.14	6,527.86	42.56	225.20	101.46	1,497.90	-9,141.96	9,810.51	9,543.58	266.93	36.753		
7,100.00	6,618.85	6,609.15	6,618.85	43.19	229.00	83.13	1,497.90	-9,141.96	9,811.79	9,540.45	271.34	36.160		
7,200.00	6,706.47	6,678.47	6,706.47	43.76	231.42	70.54	1,497.90	-9,141.96	9,798.79	9,524.45	274.33	35.718		
7,300.00	6,788.56	6,760.56	6,788.56	44.26	234.29	62.93	1,497.90	-9,141.96	9,771.87	9,494.15	277.72	35.186		
7,400.00	6,863.10	6,835.10	6,863.10	44.70	236.89	58.99	1,497.90	-9,141.96	9,731.76	9,450.96	280.80	34.658		
7,500.00	6,928.26	6,900.26	6,928.26	45.07	239.17	57.86	1,497.90	-9,141.96	9,679.48	9,395.98	283.50	34.142		
7,600.00	6,982.42	6,954.42	6,982.42	45.39	241.06	59.25	1,497.90	-9,141.96	9,616.34	9,330.53	285.81	33.646		
7,700.00	7,024.26	7,003.74	7,024.26	45.67	242.78	63.33	1,497.90	-9,141.96	9,543.88	9,255.95	287.93	33.146		
7,800.00	7,052.75	7,024.75	7,052.75	45.92	243.51	70.72	1,497.90	-9,141.96	9,463.88	9,174.82	289.06	32.740		
7,900.00	7,067.18	7,039.18	7,067.18	46.16	244.01	82.35	1,497.90	-9,141.96	9,378.26	9,088.29	289.96	32.343		
8,000.00	7,068.85	7,040.85	7,068.85	46.42	244.07	90.34	1,497.90	-9,141.96	9,289.33	8,998.91	290.42	31.986		
8,100.00	7,068.56	7,040.56	7,068.56	46.78	244.06	90.33	1,497.90	-9,141.96	9,200.20	8,909.36	290.84	31.634		
8,200.00	7,068.26	7,040.26	7,068.26	47.29	244.05	90.33	1,497.90	-9,141.96	9,111.30	8,820.00	291.30	31.278		
8,300.00	7,067.96	7,039.96	7,067.96	48.03	244.04	90.32	1,497.90	-9,141.96	9,022.63	8,730.82	291.81	30.920		
8,400.00	7,067.66	7,039.66	7,067.66	49.02	244.03	90.32	1,497.90	-9,141.96	8,934.20	8,641.84	292.36	30.558		
8,500.00	7,067.37	7,039.37	7,067.37	50.27	244.02	90.32	1,497.90	-9,141.96	8,846.02	8,553.05	292.97	30.195		
8,600.00	7,067.07	7,039.07	7,067.07	51.75	244.01	90.31	1,497.90	-9,141.96	8,758.09	8,464.47	293.62	29.828		
8,700.00	7,066.77	7,038.77	7,066.77	53.42	244.00	90.31	1,497.90	-9,141.96	8,670.43	8,376.11	294.32	29.459		
8,800.00	7,066.47	7,038.47	7,066.47	55.24	243.99	90.30	1,497.90	-9,141.96	8,583.03	8,287.96	295.07	29.088		
8,900.00	7,066.18	7,038.18	7,066.18	57.18	243.98	90.30	1,497.90	-9,141.96	8,495.91	8,200.04	295.88	28.714		
9,000.00	7,065.88	7,037.88	7,065.88	59.21	243.97	90.30	1,497.90	-9,141.96	8,409.08	8,112.35	296.73	28.339		
9,100.00	7,065.58	7,037.58	7,065.58	61.33	243.96	90.29	1,497.90	-9,141.96	8,322.54	8,024.90	297.64	27.962		
9,200.00	7,065.28	7,037.28	7,065.28	63.51	243.95	90.29	1,497.90	-9,141.96	8,236.31	7,937.71	298.60	27.583		
9,300.00	7,064.99	7,036.99	7,064.99	65.76	243.94	90.28	1,497.90	-9,141.96	8,150.39	7,850.78	299.62	27.203		
9,400.00	7,064.69	7,036.69	7,064.69	68.06	243.93	90.28	1,497.90	-9,141.96	8,064.80	7,764.11	300.69	26.821		
9,500.00	7,064.39	7,036.39	7,064.39	70.40	243.92	90.28	1,497.90	-9,141.96	7,979.54	7,677.73	301.82	26.438		
9,600.00	7,064.09	7,036.09	7,064.09	72.78	243.91	90.27	1,497.90	-9,141.96	7,894.63	7,591.63	303.00	26.055		
9,700.00	7,063.80	7,035.80	7,063.80	75.20	243.90	90.27	1,497.90	-9,141.96	7,810.08	7,505.84	304.24	25.671		
9,800.00	7,063.50	7,035.50	7,063.50	77.65	243.89	90.26	1,497.90	-9,141.96	7,725.89	7,420.36	305.54	25.286		
9,900.00	7,063.20	7,035.20	7,063.20	80.13	243.88	90.26	1,497.90	-9,141.96	7,642.09	7,335.20	306.89	24.902		
10,000.00	7,062.90	7,034.90	7,062.90	82.64	243.87	90.26	1,497.90	-9,141.96	7,558.68	7,250.37	308.30	24.517		
10,100.00	7,062.61	7,034.61	7,062.61	85.17	243.86	90.25	1,497.90	-9,141.96	7,475.67	7,165.90	309.78	24.133		
10,200.00	7,062.31	7,034.31	7,062.31	87.72	243.84	90.25	1,497.90	-9,141.96	7,393.09	7,081.78	311.31	23.749		
10,300.00	7,062.01	7,034.01	7,062.01	90.28	243.83	90.24	1,497.90	-9,141.96	7,310.94	6,998.04	312.90	23.365		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,033.71	7,061.71	92.87	243.82	90.24	1,497.90	-9,141.96	7,229.25	6,914.70	314.55	22.983	
10,500.00	7,061.41	7,033.41	7,061.41	95.47	243.81	90.24	1,497.90	-9,141.96	7,148.01	6,831.75	316.26	22.601	
10,600.00	7,061.12	7,033.12	7,061.12	98.09	243.80	90.23	1,497.90	-9,141.96	7,067.26	6,749.22	318.04	22.221	
10,700.00	7,060.82	7,032.82	7,060.82	100.72	243.79	90.23	1,497.90	-9,141.96	6,987.01	6,667.13	319.87	21.843	
10,800.00	7,060.52	7,032.52	7,060.52	103.37	243.78	90.22	1,497.90	-9,141.96	6,907.27	6,585.50	321.77	21.466	
10,900.00	7,060.22	7,032.22	7,060.22	106.02	243.77	90.22	1,497.90	-9,141.96	6,828.07	6,504.33	323.74	21.092	
11,000.00	7,059.93	7,031.93	7,059.93	108.69	243.76	90.22	1,497.90	-9,141.96	6,749.41	6,423.65	325.76	20.719	
11,100.00	7,059.63	7,031.63	7,059.63	111.36	243.75	90.21	1,497.90	-9,141.96	6,671.33	6,343.48	327.85	20.349	
11,200.00	7,059.33	7,031.33	7,059.33	114.05	243.74	90.21	1,497.90	-9,141.96	6,593.84	6,263.84	330.00	19.981	
11,300.00	7,059.03	7,031.03	7,059.03	116.74	243.73	90.20	1,497.90	-9,141.96	6,516.97	6,184.74	332.22	19.616	
11,400.00	7,058.74	7,030.74	7,058.74	119.44	243.72	90.20	1,497.90	-9,141.96	6,440.73	6,106.22	334.51	19.254	
11,500.00	7,058.44	7,030.44	7,058.44	122.15	243.71	90.19	1,497.90	-9,141.96	6,365.14	6,028.28	336.86	18.895	
11,600.00	7,058.14	7,030.14	7,058.14	124.86	243.70	90.19	1,497.90	-9,141.96	6,290.24	5,950.96	339.28	18.540	
11,700.00	7,057.84	7,029.84	7,057.84	127.58	243.69	90.19	1,497.90	-9,141.96	6,216.05	5,874.28	341.76	18.188	
11,800.00	7,057.55	7,029.55	7,057.55	130.31	243.68	90.18	1,497.90	-9,141.96	6,142.58	5,798.27	344.31	17.840	
11,900.00	7,057.25	7,029.25	7,057.25	133.04	243.67	90.18	1,497.90	-9,141.96	6,069.88	5,722.95	346.93	17.496	
12,000.00	7,056.95	7,028.95	7,056.95	135.78	243.66	90.17	1,497.90	-9,141.96	5,997.96	5,648.34	349.62	17.156	
12,100.00	7,056.65	7,028.65	7,056.65	138.52	243.65	90.17	1,497.90	-9,141.96	5,926.86	5,574.48	352.38	16.820	
12,200.00	7,056.36	7,028.36	7,056.36	141.27	243.64	90.17	1,497.90	-9,141.96	5,856.60	5,501.40	355.20	16.488	
12,300.00	7,056.06	7,028.06	7,056.06	144.02	243.63	90.16	1,497.90	-9,141.96	5,787.21	5,429.12	358.09	16.161	
12,400.00	7,055.76	7,027.76	7,055.76	146.78	243.62	90.16	1,497.90	-9,141.96	5,718.73	5,357.69	361.05	15.839	
12,500.00	7,055.46	7,027.46	7,055.46	149.54	243.61	90.15	1,497.90	-9,141.96	5,651.19	5,287.12	364.07	15.522	
12,600.00	7,055.17	7,027.17	7,055.17	152.30	243.60	90.15	1,497.90	-9,141.96	5,584.63	5,217.46	367.17	15.210	
12,700.00	7,054.87	7,026.87	7,054.87	155.07	243.59	90.15	1,497.90	-9,141.96	5,519.07	5,148.75	370.32	14.903	
12,800.00	7,054.57	7,026.57	7,054.57	157.84	243.57	90.14	1,497.90	-9,141.96	5,454.57	5,081.02	373.55	14.602	
12,900.00	7,054.27	7,026.27	7,054.27	160.61	243.56	90.14	1,497.90	-9,141.96	5,391.14	5,014.30	376.84	14.306	
13,000.00	7,053.97	7,025.97	7,053.97	163.39	243.55	90.13	1,497.90	-9,141.96	5,328.83	4,948.64	380.19	14.016	
13,100.00	7,053.68	7,025.68	7,053.68	166.17	243.54	90.13	1,497.90	-9,141.96	5,267.69	4,884.09	383.60	13.732	
13,200.00	7,053.38	7,025.38	7,053.38	168.95	243.53	90.13	1,497.90	-9,141.96	5,207.75	4,820.67	387.08	13.454	
13,300.00	7,053.08	7,025.08	7,053.08	171.73	243.52	90.12	1,497.90	-9,141.96	5,149.05	4,758.45	390.61	13.182	
13,400.00	7,052.78	7,024.78	7,052.78	174.52	243.51	90.12	1,497.90	-9,141.96	5,091.64	4,697.45	394.19	12.917	
13,500.00	7,052.49	7,024.49	7,052.49	177.31	243.50	90.11	1,497.90	-9,141.96	5,035.57	4,637.73	397.83	12.657	
13,600.00	7,052.19	7,024.19	7,052.19	180.10	243.49	90.11	1,497.90	-9,141.96	4,980.87	4,579.34	401.52	12.405	
13,700.00	7,051.89	7,023.89	7,051.89	182.90	243.48	90.11	1,497.90	-9,141.96	4,927.59	4,522.33	405.26	12.159	
13,800.00	7,051.59	7,023.59	7,051.59	185.69	243.47	90.10	1,497.90	-9,141.96	4,875.78	4,466.74	409.04	11.920	
13,900.00	7,051.30	7,023.30	7,051.30	188.49	243.46	90.10	1,497.90	-9,141.96	4,825.48	4,412.63	412.86	11.688	
14,000.00	7,051.00	7,023.00	7,051.00	191.29	243.45	90.09	1,497.90	-9,141.96	4,776.75	4,360.05	416.71	11.463	
14,100.00	7,050.70	7,022.70	7,050.70	194.09	243.44	90.09	1,497.90	-9,141.96	4,729.64	4,309.05	420.59	11.245	
14,200.00	7,050.40	7,022.40	7,050.40	196.89	243.43	90.08	1,497.90	-9,141.96	4,684.18	4,259.69	424.50	11.035	
14,300.00	7,050.11	7,022.11	7,050.11	199.70	243.42	90.08	1,497.90	-9,141.96	4,640.44	4,212.02	428.42	10.832	
14,400.00	7,049.81	7,021.81	7,049.81	202.50	243.41	90.08	1,497.90	-9,141.96	4,598.45	4,166.10	432.36	10.636	
14,500.00	7,049.51	7,021.51	7,049.51	205.31	243.40	90.07	1,497.90	-9,141.96	4,558.27	4,121.98	436.30	10.448	
14,600.00	7,049.21	7,021.21	7,049.21	208.12	243.39	90.07	1,497.90	-9,141.96	4,519.95	4,079.71	440.23	10.267	
14,700.00	7,048.92	7,020.92	7,048.92	210.93	243.38	90.06	1,497.90	-9,141.96	4,483.53	4,039.36	444.17	10.094	
14,800.00	7,048.62	7,020.62	7,048.62	213.74	243.37	90.06	1,497.90	-9,141.96	4,449.06	4,000.98	448.08	9.929	
14,900.00	7,048.32	7,020.32	7,048.32	216.55	243.36	90.06	1,497.90	-9,141.96	4,416.58	3,964.62	451.97	9.772	
15,000.00	7,048.02	7,020.02	7,048.02	219.37	243.35	90.05	1,497.90	-9,141.96	4,386.15	3,930.32	455.82	9.622	
15,100.00	7,047.73	7,019.73	7,047.73	222.18	243.34	90.05	1,497.90	-9,141.96	4,357.79	3,898.16	459.64	9.481	
15,200.00	7,047.43	7,019.43	7,047.43	225.00	243.33	90.04	1,497.90	-9,141.96	4,331.57	3,868.17	463.40	9.347	
15,300.00	7,047.13	7,019.13	7,047.13	227.81	243.31	90.04	1,497.90	-9,141.96	4,307.50	3,840.39	467.11	9.222	
15,343.67	7,047.00	7,019.00	7,047.00	229.04	243.31	90.04	1,497.90	-9,141.96	4,297.68	3,828.97	468.70	9.169 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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	16.57	1.57	3.28	3.28	2.70	2,544.30	120.14	2,547.13					
100.00	100.00	128.09	113.09	3.28	3.30	2.69	2,544.01	119.75	2,546.86	2,540.28	6.58	386.943		
200.00	200.00	237.54	222.53	3.34	3.38	2.69	2,543.18	119.63	2,546.10	2,539.38	6.71	379.176		
225.54	225.54	263.24	248.24	3.36	3.41	179.28	2,542.96	119.63	2,545.98	2,539.22	6.76	376.387 CC, ES		
300.00	299.98	334.20	319.19	3.44	3.50	179.28	2,542.34	119.59	2,546.97	2,540.03	6.94	367.036		
400.00	399.84	423.75	408.74	3.59	3.65	179.27	2,541.87	119.04	2,551.65	2,544.41	7.24	352.315		
500.00	499.45	512.09	497.07	3.79	3.83	179.25	2,541.80	118.27	2,560.24	2,552.62	7.62	335.803		
600.00	598.70	602.44	587.42	4.03	4.05	179.23	2,542.08	117.40	2,572.69	2,564.61	8.08	318.408		
700.00	697.47	690.69	675.66	4.31	4.28	179.22	2,542.67	116.96	2,588.96	2,580.38	8.59	301.439		
800.00	795.62	811.37	796.35	4.64	4.62	179.23	2,543.22	117.01	2,608.51	2,599.27	9.24	282.231		
900.00	893.06	890.17	875.14	5.00	4.87	179.23	2,543.55	117.15	2,631.40	2,621.58	9.82	267.973		
1,000.00	989.64	1,007.93	992.90	5.40	5.25	179.24	2,543.94	117.49	2,657.62	2,647.06	10.56	251.675		
1,100.00	1,085.27	1,100.85	1,085.82	5.83	5.56	179.25	2,543.89	117.91	2,686.82	2,675.57	11.25	238.785		
1,200.00	1,179.82	1,188.73	1,173.69	6.29	5.87	179.26	2,543.95	118.57	2,719.47	2,707.52	11.95	227.515		
1,300.00	1,273.17	1,296.32	1,281.29	6.79	6.26	179.28	2,543.92	119.32	2,755.32	2,742.57	12.75	216.069		
1,400.00	1,365.46	1,381.21	1,366.18	7.32	6.57	179.29	2,543.76	119.49	2,793.65	2,780.16	13.48	207.192		
1,500.00	1,457.65	1,483.70	1,468.66	7.87	6.95	179.30	2,543.62	119.57	2,832.27	2,817.98	14.29	198.186		
1,600.00	1,549.83	1,586.41	1,571.37	8.43	7.34	179.32	2,543.00	119.85	2,870.48	2,855.37	15.12	189.868		
1,700.00	1,642.02	1,679.35	1,664.31	9.01	7.70	179.32	2,542.28	119.72	2,908.51	2,892.60	15.92	182.707		
1,800.00	1,734.21	1,777.01	1,761.97	9.59	8.08	179.32	2,541.50	119.10	2,946.50	2,929.74	16.75	175.882		
1,900.00	1,826.39	1,860.17	1,845.12	10.18	8.40	179.32	2,540.82	118.37	2,984.46	2,966.93	17.53	170.241		
2,000.00	1,918.58	1,954.93	1,939.87	10.78	8.78	179.31	2,540.36	117.60	3,022.73	3,004.36	18.37	164.548		
2,100.00	2,010.77	2,047.35	2,032.29	11.39	9.15	179.30	2,539.62	116.86	3,060.71	3,041.50	19.21	159.363		
2,200.00	2,102.95	2,128.03	2,112.96	11.99	9.47	179.29	2,539.28	115.84	3,099.00	3,079.01	19.99	155.019		
2,300.00	2,195.14	2,210.37	2,195.30	12.61	9.80	179.28	2,539.16	114.91	3,137.57	3,116.79	20.79	150.933		
2,400.00	2,287.32	2,281.27	2,266.19	13.22	10.09	179.28	2,539.43	114.31	3,176.63	3,155.10	21.53	147.547		
2,500.00	2,379.51	2,358.21	2,343.13	13.84	10.40	179.27	2,540.17	113.64	3,216.23	3,193.92	22.30	144.206		
2,600.00	2,471.70	2,434.96	2,419.87	14.46	10.71	179.25	2,541.26	112.55	3,256.21	3,233.13	23.08	141.101		
2,700.00	2,563.88	2,509.31	2,494.19	15.08	11.02	179.24	2,542.69	111.45	3,296.67	3,272.83	23.84	138.285		
2,800.00	2,656.07	2,586.40	2,571.25	15.71	11.33	179.22	2,544.54	110.27	3,337.55	3,312.93	24.62	135.575		
2,900.00	2,748.26	2,705.68	2,690.49	16.33	11.82	179.20	2,547.27	108.42	3,378.35	3,352.72	25.63	131.814		
3,000.00	2,840.44	2,784.96	2,769.73	16.96	12.15	179.18	2,548.86	107.11	3,418.87	3,392.44	26.43	129.379		
3,100.00	2,932.63	2,891.01	2,875.74	17.59	12.59	179.15	2,550.99	104.89	3,459.38	3,432.01	27.37	126.380		
3,200.00	3,024.81	2,989.30	2,973.99	18.22	13.00	179.12	2,552.60	102.66	3,499.54	3,471.26	28.28	123.746		
3,300.00	3,117.00	3,066.43	3,051.09	18.86	13.32	179.10	2,553.92	101.12	3,539.78	3,510.71	29.07	121.773		
3,400.00	3,209.19	3,159.96	3,144.59	19.49	13.71	179.08	2,555.83	99.37	3,580.32	3,550.37	29.95	119.534		
3,500.00	3,301.37	3,242.19	3,226.79	20.12	14.05	179.06	2,557.35	98.05	3,620.71	3,589.94	30.77	117.664		
3,600.00	3,393.56	3,308.72	3,293.30	20.76	14.33	179.05	2,559.00	97.00	3,661.67	3,630.17	31.50	116.251		
3,700.00	3,485.75	3,377.19	3,361.73	21.39	14.61	179.04	2,561.13	96.06	3,703.20	3,670.97	32.23	114.885		
3,800.00	3,577.93	3,511.64	3,496.11	22.03	15.18	179.04	2,565.16	95.23	3,744.75	3,711.39	33.37	112.226		
3,900.00	3,670.12	3,580.80	3,565.24	22.67	15.47	179.04	2,566.97	95.00	3,785.86	3,751.75	34.11	110.988		
4,000.00	3,762.30	3,729.40	3,713.81	23.30	16.09	179.03	2,569.94	93.82	3,826.38	3,791.05	35.33	108.289		
4,100.00	3,854.49	3,814.80	3,799.19	23.94	16.44	179.03	2,571.18	93.02	3,866.41	3,830.23	36.18	106.867		
4,200.00	3,946.68	3,934.86	3,919.22	24.58	16.95	179.00	2,572.61	90.77	3,906.19	3,868.95	37.24	104.905		
4,300.00	4,038.86	4,050.33	4,034.66	25.22	17.43	178.97	2,573.08	87.83	3,945.19	3,906.92	38.27	103.100		
4,400.00	4,131.05	4,135.73	4,120.02	25.86	17.79	178.94	2,573.28	85.43	3,984.05	3,944.93	39.12	101.854		
4,500.00	4,223.24	4,211.77	4,196.04	26.50	18.11	178.92	2,573.73	83.74	4,023.25	3,983.34	39.91	100.814		
4,600.00	4,315.42	4,299.83	4,284.08	27.14	18.48	178.91	2,574.44	82.13	4,062.66	4,021.89	40.77	99.641		
4,700.00	4,407.61	4,370.30	4,354.54	27.78	18.78	178.90	2,575.21	81.16	4,102.36	4,060.83	41.53	98.783		
4,800.00	4,499.79	4,448.91	4,433.14	28.42	19.11	178.90	2,576.42	80.47	4,142.48	4,100.14	42.33	97.851		
4,900.00	4,591.98	4,526.94	4,511.15	29.06	19.44	178.89	2,577.80	79.57	4,182.81	4,139.67	43.14	96.968		
5,000.00	4,684.17	4,600.01	4,584.19	29.70	19.75	178.88	2,579.48	78.45	4,223.59	4,179.68	43.90	96.199		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,725.21	4,709.35	30.34	20.28	178.86	2,582.09	76.23	4,264.19	4,219.18	45.01	94.737		
5,200.00	4,868.54	4,845.38	4,829.47	30.98	20.79	178.84	2,583.75	73.58	4,304.14	4,258.06	46.09	93.396		
5,300.00	4,960.73	4,943.14	4,927.20	31.63	21.20	178.81	2,584.50	71.07	4,343.49	4,296.47	47.02	92.382		
5,400.00	5,052.91	5,023.50	5,007.52	32.27	21.54	178.79	2,585.41	68.73	4,383.14	4,335.31	47.84	91.628		
5,500.00	5,145.10	5,128.00	5,111.99	32.91	21.98	178.76	2,586.33	66.22	4,422.60	4,373.79	48.81	90.604		
5,600.00	5,237.28	5,204.29	5,188.26	33.55	22.31	178.76	2,587.08	65.09	4,462.20	4,412.59	49.61	89.954		
5,700.00	5,329.47	5,286.69	5,270.65	34.20	22.65	178.75	2,588.11	64.07	4,502.05	4,451.61	50.44	89.260		
5,800.00	5,421.66	5,378.46	5,362.41	34.84	23.04	178.75	2,589.37	63.09	4,542.01	4,490.68	51.33	88.484		
5,900.00	5,513.84	5,467.58	5,451.52	35.48	23.42	178.75	2,590.56	62.77	4,581.97	4,529.76	52.21	87.763		
6,000.00	5,606.03	5,543.95	5,527.88	36.13	23.74	178.76	2,591.69	62.62	4,622.07	4,569.07	53.00	87.208		
6,100.00	5,698.22	5,624.42	5,608.34	36.77	24.09	178.77	2,593.22	62.84	4,662.56	4,608.74	53.82	86.634		
6,200.00	5,790.40	5,760.40	5,744.29	37.41	24.66	178.80	2,595.21	63.99	4,702.70	4,647.69	55.01	85.487		
6,300.00	5,882.59	5,884.13	5,868.03	38.06	25.18	178.82	2,595.92	64.31	4,741.97	4,685.85	56.12	84.497		
6,400.00	5,974.77	6,027.19	6,011.08	38.70	25.79	178.83	2,595.57	63.92	4,780.46	4,723.10	57.35	83.352		
6,500.00	6,066.96	6,132.08	6,115.97	39.34	26.23	178.83	2,594.64	63.38	4,818.36	4,760.02	58.33	82.599		
6,600.00	6,159.15	6,225.14	6,209.02	39.99	26.63	178.83	2,593.68	62.91	4,856.13	4,796.89	59.24	81.974		
6,700.00	6,251.33	6,307.66	6,291.53	40.63	26.98	178.84	2,592.94	62.30	4,894.02	4,833.94	60.08	81.462		
6,800.00	6,343.52	6,388.02	6,371.88	41.28	27.32	178.83	2,592.41	61.40	4,932.12	4,871.22	60.90	80.986		
6,900.00	6,435.71	6,452.79	6,436.65	41.92	27.59	178.83	2,592.23	60.49	4,970.57	4,908.95	61.62	80.666		
7,000.00	6,527.86	6,531.77	6,515.63	42.56	27.93	170.52	2,592.49	59.38	5,009.57	4,947.13	62.43	80.240		
7,100.00	6,618.85	6,649.33	6,633.17	43.19	28.43	148.41	2,592.45	57.97	5,048.36	4,984.86	63.50	79.501		
7,200.00	6,706.47	6,747.06	6,730.89	43.76	28.85	131.79	2,592.15	56.38	5,086.36	5,021.94	64.42	78.960		
7,300.00	6,788.56	6,834.75	6,818.57	44.26	29.22	119.88	2,591.73	54.98	5,122.98	5,057.74	65.25	78.519		
7,400.00	6,863.10	6,908.99	6,892.80	44.70	29.54	111.20	2,591.37	53.81	5,157.81	5,091.83	65.97	78.181		
7,500.00	6,928.26	6,971.69	6,955.49	45.07	29.80	104.72	2,591.09	53.02	5,190.42	5,123.78	66.64	77.887		
7,600.00	6,982.42	7,029.23	7,013.03	45.39	30.05	99.85	2,590.82	52.59	5,220.43	5,153.10	67.33	77.532		
7,700.00	7,024.26	7,078.79	7,062.59	45.67	30.26	96.16	2,590.51	52.40	5,247.45	5,179.38	68.08	77.082		
7,800.00	7,052.75	7,125.82	7,109.62	45.92	30.46	93.50	2,590.11	52.33	5,271.20	5,202.25	68.95	76.451		
7,900.00	7,067.18	7,161.67	7,145.46	46.16	30.61	91.64	2,589.65	52.30	5,291.36	5,221.45	69.91	75.689		
8,000.00	7,068.85	7,166.03	7,149.82	46.42	30.63	90.86	2,589.59	52.30	5,308.39	5,237.57	70.81	74.964		
8,100.00	7,068.56	7,165.52	7,149.31	46.78	30.63	90.85	2,589.60	52.30	5,326.47	5,254.64	71.83	74.153		
8,200.00	7,068.26	7,165.01	7,148.80	47.29	30.62	90.85	2,589.60	52.30	5,346.35	5,273.38	72.98	73.260		
8,300.00	7,067.96	7,164.50	7,148.29	48.03	30.62	90.84	2,589.61	52.30	5,368.03	5,293.79	74.24	72.308		
8,400.00	7,067.66	7,163.99	7,147.78	49.02	30.62	90.84	2,589.62	52.30	5,391.48	5,315.88	75.60	71.320		
8,500.00	7,067.37	7,163.48	7,147.28	50.27	30.62	90.83	2,589.63	52.30	5,416.67	5,339.63	77.04	70.313		
8,600.00	7,067.07	7,162.98	7,146.77	51.75	30.62	90.82	2,589.63	52.30	5,443.58	5,365.03	78.55	69.303		
8,700.00	7,066.77	7,162.47	7,146.26	53.42	30.61	90.82	2,589.64	52.30	5,472.19	5,392.07	80.12	68.304		
8,800.00	7,066.47	7,161.96	7,145.76	55.24	30.61	90.81	2,589.65	52.30	5,502.46	5,420.73	81.73	67.325		
8,900.00	7,066.18	7,161.46	7,145.25	57.18	30.61	90.81	2,589.66	52.30	5,534.38	5,451.00	83.38	66.376		
9,000.00	7,065.88	7,160.96	7,144.75	59.21	30.61	90.80	2,589.66	52.30	5,567.91	5,482.85	85.06	65.462		
9,100.00	7,065.58	7,160.45	7,144.25	61.33	30.60	90.80	2,589.67	52.30	5,603.02	5,516.27	86.75	64.588		
9,200.00	7,065.28	7,159.95	7,143.75	63.51	30.60	90.79	2,589.68	52.30	5,639.69	5,551.24	88.46	63.756		
9,300.00	7,064.99	7,159.45	7,143.24	65.76	30.60	90.79	2,589.69	52.30	5,677.89	5,587.72	90.17	62.970		
9,400.00	7,064.69	7,158.95	7,142.75	68.06	30.60	90.78	2,589.69	52.30	5,717.58	5,625.70	91.88	62.229		
9,500.00	7,064.39	7,158.45	7,142.25	70.40	30.60	90.77	2,589.70	52.30	5,758.73	5,665.14	93.59	61.534		
9,600.00	7,064.09	7,157.95	7,141.75	72.78	30.59	90.77	2,589.71	52.30	5,801.31	5,706.03	95.28	60.885		
9,700.00	7,063.80	7,157.46	7,141.25	75.20	30.59	90.76	2,589.72	52.30	5,845.29	5,748.33	96.97	60.281		
9,800.00	7,063.50	7,156.96	7,140.76	77.65	30.59	90.76	2,589.72	52.31	5,890.65	5,792.01	98.64	59.721		
9,900.00	7,063.20	7,156.47	7,140.26	80.13	30.59	90.75	2,589.73	52.31	5,937.34	5,837.05	100.29	59.204		
10,000.00	7,062.90	7,155.97	7,139.77	82.64	30.59	90.75	2,589.74	52.31	5,985.34	5,883.42	101.92	58.729		
10,100.00	7,062.61	7,155.48	7,139.27	85.17	30.58	90.74	2,589.74	52.31	6,034.61	5,931.09	103.52	58.293		
10,200.00	7,062.31	7,154.99	7,138.78	87.72	30.58	90.74	2,589.75	52.31	6,085.13	5,980.02	105.10	57.897		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,154.49	7,138.29	90.28	30.58	90.73	2,589.76	52.31	6,136.86	6,030.20	106.66	57.538		
10,400.00	7,061.71	7,154.00	7,137.80	92.87	30.58	90.73	2,589.76	52.31	6,189.77	6,081.59	108.19	57.214		
10,500.00	7,061.41	7,153.51	7,137.31	95.47	30.57	90.72	2,589.77	52.31	6,243.84	6,134.15	109.69	56.924		
10,600.00	7,061.12	7,153.02	7,136.82	98.09	30.57	90.71	2,589.78	52.31	6,299.03	6,187.87	111.16	56.667		
10,700.00	7,060.82	7,152.54	7,136.33	100.72	30.57	90.71	2,589.78	52.31	6,355.32	6,242.72	112.60	56.440		
10,800.00	7,060.52	7,152.05	7,135.84	103.37	30.57	90.70	2,589.79	52.31	6,412.67	6,298.65	114.02	56.244		
10,900.00	7,060.22	7,151.56	7,135.36	106.02	30.57	90.70	2,589.80	52.31	6,471.06	6,355.66	115.40	56.075		
11,000.00	7,059.93	7,151.08	7,134.87	108.69	30.56	90.69	2,589.80	52.31	6,530.45	6,413.70	116.75	55.934		
11,100.00	7,059.63	7,150.59	7,134.39	111.36	30.56	90.69	2,589.81	52.31	6,590.83	6,472.76	118.08	55.818		
11,200.00	7,059.33	7,150.11	7,133.90	114.05	30.56	90.68	2,589.82	52.31	6,652.17	6,532.80	119.37	55.726		
11,300.00	7,059.03	7,149.63	7,133.42	116.74	30.56	90.68	2,589.82	52.31	6,714.43	6,593.80	120.64	55.658		
11,400.00	7,058.74	7,149.14	7,132.94	119.44	30.56	90.67	2,589.83	52.31	6,777.60	6,655.73	121.87	55.612		
11,500.00	7,058.44	7,148.66	7,132.46	122.15	30.55	90.67	2,589.84	52.31	6,841.65	6,718.57	123.08	55.587		
11,600.00	7,058.14	7,148.18	7,131.98	124.86	30.55	90.66	2,589.84	52.31	6,906.55	6,782.29	124.26	55.582 SF		
11,700.00	7,057.84	7,147.70	7,131.50	127.58	30.55	90.66	2,589.85	52.31	6,972.28	6,846.87	125.41	55.597		
11,800.00	7,057.55	7,147.22	7,131.02	130.31	30.55	90.65	2,589.86	52.31	7,038.81	6,912.28	126.53	55.630		
11,900.00	7,057.25	7,146.75	7,130.54	133.04	30.55	90.65	2,589.86	52.31	7,106.14	6,978.51	127.62	55.680		
12,000.00	7,056.95	7,146.27	7,130.06	135.78	30.54	90.64	2,589.87	52.31	7,174.22	7,045.53	128.69	55.747		
12,100.00	7,056.65	7,145.79	7,129.59	138.52	30.54	90.64	2,589.87	52.31	7,243.04	7,113.31	129.73	55.830		
12,200.00	7,056.36	7,145.32	7,129.11	141.27	30.54	90.63	2,589.88	52.32	7,312.59	7,181.84	130.75	55.928		
12,300.00	7,056.06	7,144.84	7,128.64	144.02	30.54	90.63	2,589.89	52.32	7,382.83	7,251.09	131.74	56.041		
12,400.00	7,055.76	7,144.37	7,128.16	146.78	30.54	90.62	2,589.89	52.32	7,453.75	7,321.05	132.70	56.168		
12,500.00	7,055.46	7,143.90	7,127.69	149.54	30.53	90.61	2,589.90	52.32	7,525.34	7,391.69	133.65	56.308		
12,600.00	7,055.17	7,143.43	7,127.22	152.30	30.53	90.61	2,589.91	52.32	7,597.56	7,463.00	134.56	56.461		
12,700.00	7,054.87	7,142.95	7,126.75	155.07	30.53	90.60	2,589.91	52.32	7,670.41	7,534.95	135.46	56.626		
12,800.00	7,054.57	7,142.48	7,126.28	157.84	30.53	90.60	2,589.92	52.32	7,743.87	7,607.54	136.33	56.803		
12,900.00	7,054.27	7,142.01	7,125.81	160.61	30.53	90.59	2,589.92	52.32	7,817.91	7,680.73	137.18	56.990		
13,000.00	7,053.97	7,141.55	7,125.34	163.39	30.52	90.59	2,589.93	52.32	7,892.53	7,754.52	138.01	57.189		
13,100.00	7,053.68	7,141.08	7,124.87	166.17	30.52	90.58	2,589.93	52.32	7,967.70	7,828.88	138.82	57.397		
13,200.00	7,053.38	7,140.61	7,124.41	168.95	30.52	90.58	2,589.94	52.32	8,043.41	7,903.81	139.60	57.616		
13,300.00	7,053.08	7,140.15	7,123.94	171.73	30.52	90.57	2,589.95	52.32	8,119.65	7,979.28	140.37	57.844		
13,400.00	7,052.78	7,139.68	7,123.48	174.52	30.52	90.57	2,589.95	52.32	8,196.40	8,055.28	141.12	58.081		
13,500.00	7,052.49	7,139.22	7,123.01	177.31	30.51	90.56	2,589.96	52.32	8,273.65	8,131.80	141.85	58.326		
13,600.00	7,052.19	7,138.75	7,122.55	180.10	30.51	90.56	2,589.96	52.32	8,351.38	8,208.82	142.56	58.580		
13,700.00	7,051.89	7,138.29	7,122.08	182.90	30.51	90.55	2,589.97	52.32	8,429.58	8,286.32	143.26	58.842		
13,800.00	7,051.59	7,137.83	7,121.62	185.69	30.51	90.55	2,589.97	52.32	8,508.23	8,364.30	143.93	59.112		
13,900.00	7,051.30	7,137.37	7,121.16	188.49	30.51	90.54	2,589.98	52.32	8,587.33	8,442.74	144.59	59.389		
14,000.00	7,051.00	7,136.91	7,120.70	191.29	30.50	90.54	2,589.99	52.32	8,666.86	8,521.63	145.24	59.673		
14,100.00	7,050.70	7,136.45	7,120.24	194.09	30.50	90.53	2,589.99	52.32	8,746.82	8,600.95	145.87	59.964		
14,200.00	7,050.40	7,135.99	7,119.78	196.89	30.50	90.53	2,590.00	52.32	8,827.18	8,680.70	146.48	60.262		
14,300.00	7,050.11	7,135.53	7,119.32	199.70	30.50	90.52	2,590.00	52.32	8,907.93	8,760.85	147.08	60.566		
14,400.00	7,049.81	7,135.07	7,118.87	202.50	30.50	90.52	2,590.01	52.32	8,989.08	8,841.42	147.66	60.875		
14,500.00	7,049.51	7,134.61	7,118.41	205.31	30.49	90.51	2,590.01	52.33	9,070.60	8,922.37	148.23	61.191		
14,600.00	7,049.21	7,134.16	7,117.96	208.12	30.49	90.51	2,590.02	52.33	9,152.49	9,003.70	148.79	61.513		
14,700.00	7,048.92	7,133.70	7,117.50	210.93	30.49	90.50	2,590.02	52.33	9,234.73	9,085.40	149.33	61.840		
14,800.00	7,048.62	7,133.25	7,117.05	213.74	30.49	90.50	2,590.03	52.33	9,317.33	9,167.46	149.86	62.172		
14,900.00	7,048.32	7,132.80	7,116.59	216.55	30.49	90.49	2,590.03	52.33	9,400.26	9,249.87	150.38	62.509		
15,000.00	7,048.02	7,132.34	7,116.14	219.37	30.49	90.49	2,590.04	52.33	9,483.52	9,332.63	150.89	62.851		
15,100.00	7,047.73	7,131.89	7,115.69	222.18	30.48	90.48	2,590.04	52.33	9,567.10	9,415.71	151.38	63.198		
15,200.00	7,047.43	7,131.44	7,115.24	225.00	30.48	90.48	2,590.05	52.33	9,650.99	9,499.12	151.87	63.549		
15,300.00	7,047.13	7,130.99	7,114.79	227.81	30.48	90.47	2,590.06	52.33	9,735.18	9,582.85	152.34	63.905		
15,343.67	7,047.00	7,130.80	7,114.59	229.04	30.48	90.47	2,590.06	52.33	9,772.05	9,619.51	152.54	64.062		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	58.00	3.28	3.28	-164.94	-3,879.82	-1,043.75	4,018.19					
100.00	100.00	42.00	100.00	3.28	3.36	-164.94	-3,879.82	-1,043.75	4,017.77	4,011.12	6.65	604.571		
200.00	200.00	142.00	200.00	3.34	4.59	-164.94	-3,879.82	-1,043.75	4,017.77	4,009.84	7.93	506.806		
300.00	299.98	241.98	299.98	3.44	7.46	11.66	-3,879.82	-1,043.75	4,016.06	4,005.16	10.90	368.390		
400.00	399.84	341.84	399.84	3.59	10.70	11.70	-3,879.82	-1,043.75	4,010.93	3,996.64	14.30	280.580		
500.00	499.45	441.45	499.45	3.79	14.05	11.76	-3,879.82	-1,043.75	4,002.40	3,984.55	17.85	224.275		
600.00	598.70	540.70	598.70	4.03	17.44	11.84	-3,879.82	-1,043.75	3,990.46	3,968.99	21.48	185.812		
700.00	697.47	639.47	697.47	4.31	20.84	11.95	-3,879.82	-1,043.75	3,975.15	3,950.00	25.15	158.056		
800.00	795.62	737.62	795.62	4.64	24.23	12.09	-3,879.82	-1,043.75	3,956.47	3,927.62	28.85	137.143		
900.00	893.06	835.06	893.06	5.00	27.60	12.25	-3,879.82	-1,043.75	3,934.46	3,901.90	32.56	120.842		
1,000.00	989.64	931.64	989.64	5.40	30.95	12.44	-3,879.82	-1,043.75	3,909.14	3,872.87	36.27	107.784		
1,100.00	1,085.27	1,027.27	1,085.27	5.83	34.27	12.67	-3,879.82	-1,043.75	3,880.54	3,840.58	39.97	97.089		
1,200.00	1,179.82	1,121.82	1,179.82	6.29	37.56	12.92	-3,879.82	-1,043.75	3,848.71	3,805.06	43.65	88.166		
1,300.00	1,273.17	1,215.17	1,273.17	6.79	40.81	13.21	-3,879.82	-1,043.75	3,813.69	3,766.38	47.31	80.603		
1,400.00	1,365.46	1,307.46	1,365.46	7.32	44.02	13.42	-3,879.82	-1,043.75	3,776.09	3,725.13	50.95	74.109		
1,500.00	1,457.65	1,400.35	1,457.65	7.87	47.25	13.56	-3,879.82	-1,043.75	3,738.25	3,683.63	54.61	68.447		
1,600.00	1,549.83	1,508.17	1,549.83	8.43	51.01	13.70	-3,879.82	-1,043.75	3,700.43	3,641.62	58.81	62.923		
1,700.00	1,642.02	1,584.02	1,642.02	9.01	53.65	13.84	-3,879.82	-1,043.75	3,662.63	3,600.73	61.90	59.170		
1,800.00	1,734.21	1,676.21	1,734.21	9.59	56.87	13.99	-3,879.82	-1,043.75	3,624.85	3,559.28	65.57	55.282		
1,900.00	1,826.39	1,768.39	1,826.39	10.18	60.08	14.13	-3,879.82	-1,043.75	3,587.09	3,517.85	69.25	51.802		
2,000.00	1,918.58	1,860.58	1,918.58	10.78	63.29	14.29	-3,879.82	-1,043.75	3,549.36	3,476.43	72.93	48.668		
2,100.00	2,010.77	1,952.77	2,010.77	11.39	66.51	14.44	-3,879.82	-1,043.75	3,511.64	3,435.02	76.62	45.832		
2,200.00	2,102.95	2,044.95	2,102.95	11.99	69.72	14.60	-3,879.82	-1,043.75	3,473.95	3,393.63	80.31	43.254		
2,300.00	2,195.14	2,137.14	2,195.14	12.61	72.94	14.76	-3,879.82	-1,043.75	3,436.28	3,352.27	84.01	40.902		
2,400.00	2,287.32	2,229.32	2,287.32	13.22	76.15	14.93	-3,879.82	-1,043.75	3,398.64	3,310.92	87.72	38.746		
2,500.00	2,379.51	2,321.51	2,379.51	13.84	79.37	15.10	-3,879.82	-1,043.75	3,361.02	3,269.59	91.42	36.764		
2,600.00	2,471.70	2,413.70	2,471.70	14.46	82.58	15.27	-3,879.82	-1,043.75	3,323.42	3,228.29	95.13	34.935		
2,700.00	2,563.88	2,505.88	2,563.88	15.08	85.80	15.45	-3,879.82	-1,043.75	3,285.86	3,187.01	98.85	33.242		
2,800.00	2,656.07	2,601.93	2,656.07	15.71	89.15	15.63	-3,879.82	-1,043.75	3,248.32	3,145.62	102.70	31.631		
2,900.00	2,748.26	2,709.74	2,748.26	16.33	92.91	15.81	-3,879.82	-1,043.75	3,210.81	3,103.85	106.96	30.019		
3,000.00	2,840.44	2,782.44	2,840.44	16.96	95.45	16.00	-3,879.82	-1,043.75	3,173.33	3,063.33	110.00	28.849		
3,100.00	2,932.63	2,874.63	2,932.63	17.59	98.66	16.20	-3,879.82	-1,043.75	3,135.88	3,022.16	113.72	27.575		
3,200.00	3,024.81	2,966.81	3,024.81	18.22	101.88	16.40	-3,879.82	-1,043.75	3,098.47	2,981.02	117.45	26.382		
3,300.00	3,117.00	3,059.00	3,117.00	18.86	105.10	16.60	-3,879.82	-1,043.75	3,061.08	2,939.91	121.17	25.262		
3,400.00	3,209.19	3,151.19	3,209.19	19.49	108.31	16.81	-3,879.82	-1,043.75	3,023.73	2,898.83	124.90	24.209		
3,500.00	3,301.37	3,243.37	3,301.37	20.12	111.53	17.02	-3,879.82	-1,043.75	2,986.42	2,857.79	128.63	23.217		
3,600.00	3,393.56	3,335.56	3,393.56	20.76	114.75	17.24	-3,879.82	-1,043.75	2,949.14	2,816.78	132.36	22.281		
3,700.00	3,485.75	3,427.75	3,485.75	21.39	117.96	17.46	-3,879.82	-1,043.75	2,911.91	2,775.81	136.10	21.396		
3,800.00	3,577.93	3,519.93	3,577.93	22.03	121.18	17.70	-3,879.82	-1,043.75	2,874.71	2,734.88	139.83	20.558		
3,900.00	3,670.12	3,612.12	3,670.12	22.67	124.40	17.93	-3,879.82	-1,043.75	2,837.55	2,693.98	143.57	19.764		
4,000.00	3,762.30	3,704.30	3,762.30	23.30	127.61	18.17	-3,879.82	-1,043.75	2,800.44	2,653.13	147.31	19.011		
4,100.00	3,854.49	3,803.51	3,854.49	23.94	131.08	18.42	-3,879.82	-1,043.75	2,763.37	2,612.08	151.29	18.265		
4,200.00	3,946.68	3,888.68	3,946.68	24.58	134.05	18.68	-3,879.82	-1,043.75	2,726.35	2,571.56	154.79	17.613		
4,300.00	4,038.86	3,980.86	4,038.86	25.22	137.27	18.94	-3,879.82	-1,043.75	2,689.38	2,530.84	158.53	16.964		
4,400.00	4,131.05	4,073.05	4,131.05	25.86	140.48	19.21	-3,879.82	-1,043.75	2,652.46	2,490.18	162.28	16.345		
4,500.00	4,223.24	4,165.24	4,223.24	26.50	143.70	19.49	-3,879.82	-1,043.75	2,615.59	2,449.56	166.03	15.754		
4,600.00	4,315.42	4,257.42	4,315.42	27.14	146.92	19.77	-3,879.82	-1,043.75	2,578.78	2,409.00	169.78	15.189		
4,700.00	4,407.61	4,349.61	4,407.61	27.78	150.14	20.06	-3,879.82	-1,043.75	2,542.02	2,368.49	173.53	14.649		
4,800.00	4,499.79	4,441.79	4,499.79	28.42	153.35	20.37	-3,879.82	-1,043.75	2,505.32	2,328.04	177.28	14.132		
4,900.00	4,591.98	4,533.98	4,591.98	29.06	156.57	20.68	-3,879.82	-1,043.75	2,468.69	2,287.66	181.04	13.636		
5,000.00	4,684.17	4,626.17	4,684.17	29.70	159.79	20.99	-3,879.82	-1,043.75	2,432.13	2,247.33	184.79	13.161		
5,100.00	4,776.35	4,718.35	4,776.35	30.34	163.01	21.32	-3,879.82	-1,043.75	2,395.63	2,207.07	188.55	12.705		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,810.54	4,868.54	30.98	166.22	21.66	-3,879.82	-1,043.75	2,359.20	2,166.89	192.31	12.267		
5,300.00	4,960.73	4,902.73	4,960.73	31.63	169.44	22.01	-3,879.82	-1,043.75	2,322.85	2,126.77	196.08	11.847		
5,400.00	5,052.91	5,005.09	5,052.91	32.27	173.01	22.37	-3,879.82	-1,043.75	2,286.58	2,086.38	200.20	11.421		
5,500.00	5,145.10	5,087.10	5,145.10	32.91	175.88	22.74	-3,879.82	-1,043.75	2,250.39	2,046.77	203.61	11.052		
5,600.00	5,237.28	5,179.28	5,237.28	33.55	179.09	23.13	-3,879.82	-1,043.75	2,214.29	2,006.90	207.39	10.677		
5,700.00	5,329.47	5,271.47	5,329.47	34.20	182.31	23.52	-3,879.82	-1,043.75	2,178.27	1,967.11	211.16	10.316		
5,800.00	5,421.66	5,363.66	5,421.66	34.84	185.53	23.93	-3,879.82	-1,043.75	2,142.36	1,927.42	214.94	9.967		
5,900.00	5,513.84	5,455.84	5,513.84	35.48	188.75	24.35	-3,879.82	-1,043.75	2,106.54	1,887.82	218.72	9.631		
6,000.00	5,606.03	5,548.03	5,606.03	36.13	191.96	24.79	-3,879.82	-1,043.75	2,070.83	1,848.33	222.50	9.307		
6,100.00	5,698.22	5,640.22	5,698.22	36.77	195.18	25.24	-3,879.82	-1,043.75	2,035.23	1,808.94	226.29	8.994		
6,200.00	5,790.40	5,732.40	5,790.40	37.41	198.40	25.71	-3,879.82	-1,043.75	1,999.75	1,769.67	230.08	8.691		
6,300.00	5,882.59	5,824.59	5,882.59	38.06	201.62	26.19	-3,879.82	-1,043.75	1,964.39	1,730.52	233.88	8.399		
6,400.00	5,974.77	5,916.77	5,974.77	38.70	204.84	26.69	-3,879.82	-1,043.75	1,929.17	1,691.49	237.68	8.117		
6,500.00	6,066.96	6,008.96	6,066.96	39.34	208.05	27.21	-3,879.82	-1,043.75	1,894.08	1,652.60	241.48	7.844		
6,600.00	6,159.15	6,101.15	6,159.15	39.99	211.27	27.74	-3,879.82	-1,043.75	1,859.13	1,613.84	245.29	7.579		
6,700.00	6,251.33	6,206.67	6,251.33	40.63	214.95	28.30	-3,879.82	-1,043.75	1,824.34	1,574.77	249.57	7.310		
6,800.00	6,343.52	6,285.52	6,343.52	41.28	217.71	28.88	-3,879.82	-1,043.75	1,789.71	1,536.79	252.92	7.076		
6,900.00	6,435.71	6,377.71	6,435.71	41.92	220.92	29.48	-3,879.82	-1,043.75	1,755.26	1,498.51	256.75	6.836		
7,000.00	6,527.86	6,469.86	6,527.86	42.56	224.14	22.08	-3,879.82	-1,043.75	1,720.54	1,459.96	260.57	6.603		
7,100.00	6,618.85	6,560.85	6,618.85	43.19	227.32	0.39	-3,879.82	-1,043.75	1,679.91	1,415.62	264.28	6.356		
7,200.00	6,706.47	6,648.47	6,706.47	43.76	230.38	-17.48	-3,879.82	-1,043.75	1,632.39	1,364.63	267.76	6.097		
7,300.00	6,788.56	6,730.56	6,788.56	44.26	233.24	-32.42	-3,879.82	-1,043.75	1,579.32	1,308.41	270.91	5.830		
7,400.00	6,863.10	6,805.10	6,863.10	44.70	235.84	-45.71	-3,879.82	-1,043.75	1,522.56	1,248.87	273.69	5.563		
7,500.00	6,928.26	6,870.26	6,928.26	45.07	238.12	-57.88	-3,879.82	-1,043.75	1,464.43	1,188.39	276.04	5.305		
7,600.00	6,982.42	6,924.42	6,982.42	45.39	240.01	-68.73	-3,879.82	-1,043.75	1,407.69	1,129.71	277.98	5.064		
7,700.00	7,024.26	6,966.26	7,024.26	45.67	241.47	-77.74	-3,879.82	-1,043.75	1,355.39	1,075.84	279.55	4.848		
7,800.00	7,052.75	7,005.25	7,052.75	45.92	242.83	-84.48	-3,879.82	-1,043.75	1,310.63	1,029.42	281.20	4.661		
7,900.00	7,067.18	7,009.18	7,067.18	46.16	242.97	-88.77	-3,879.82	-1,043.75	1,276.28	994.33	281.95	4.527		
8,000.00	7,068.85	7,010.85	7,068.85	46.42	243.03	-90.03	-3,879.82	-1,043.75	1,253.85	970.86	282.99	4.431		
8,100.00	7,068.56	7,010.56	7,068.56	46.78	243.02	-90.02	-3,879.82	-1,043.75	1,239.93	955.56	284.37	4.360		
8,200.00	7,068.26	7,010.26	7,068.26	47.29	243.01	-90.00	-3,879.82	-1,043.75	1,233.98	947.90	286.08	4.313		
8,223.62	7,068.19	7,010.19	7,068.19	47.45	243.00	-90.00	-3,879.82	-1,043.75	1,233.75	947.22	286.53	4.306 CC, ES		
8,300.00	7,067.96	7,009.96	7,067.96	48.03	242.99	-89.99	-3,879.82	-1,043.75	1,236.11	948.08	288.03	4.292 SF		
8,400.00	7,067.66	7,009.66	7,067.66	49.02	242.98	-89.98	-3,879.82	-1,043.75	1,246.30	956.17	290.13	4.296		
8,500.00	7,067.37	7,009.37	7,067.37	50.27	242.97	-89.96	-3,879.82	-1,043.75	1,264.33	972.06	292.27	4.326		
8,600.00	7,067.07	7,009.07	7,067.07	51.75	242.96	-89.95	-3,879.82	-1,043.75	1,289.89	995.53	294.36	4.382		
8,700.00	7,066.77	7,008.77	7,066.77	53.42	242.95	-89.93	-3,879.82	-1,043.75	1,322.53	1,026.20	296.33	4.463		
8,800.00	7,066.47	7,008.47	7,066.47	55.24	242.94	-89.92	-3,879.82	-1,043.75	1,361.75	1,063.60	298.15	4.567		
8,900.00	7,066.18	7,008.18	7,066.18	57.18	242.93	-89.91	-3,879.82	-1,043.75	1,406.99	1,107.21	299.78	4.693		
9,000.00	7,065.88	7,007.88	7,065.88	59.21	242.92	-89.89	-3,879.82	-1,043.75	1,457.70	1,156.48	301.23	4.839		
9,100.00	7,065.58	7,007.58	7,065.58	61.33	242.91	-89.88	-3,879.82	-1,043.75	1,513.33	1,210.84	302.49	5.003		
9,200.00	7,065.28	7,007.28	7,065.28	63.51	242.90	-89.87	-3,879.82	-1,043.75	1,573.36	1,269.78	303.57	5.183		
9,300.00	7,064.99	7,006.99	7,064.99	65.76	242.89	-89.85	-3,879.82	-1,043.75	1,637.29	1,332.79	304.50	5.377		
9,400.00	7,064.69	7,006.69	7,064.69	68.06	242.88	-89.84	-3,879.82	-1,043.75	1,704.70	1,399.41	305.29	5.584		
9,500.00	7,064.39	7,006.39	7,064.39	70.40	242.87	-89.82	-3,879.82	-1,043.75	1,775.18	1,469.23	305.95	5.802		
9,600.00	7,064.09	7,006.09	7,064.09	72.78	242.86	-89.81	-3,879.82	-1,043.75	1,848.39	1,541.88	306.51	6.030		
9,700.00	7,063.80	7,005.80	7,063.80	75.20	242.85	-89.80	-3,879.82	-1,043.75	1,924.01	1,617.03	306.98	6.268		
9,800.00	7,063.50	7,005.50	7,063.50	77.65	242.84	-89.78	-3,879.82	-1,043.75	2,001.77	1,694.40	307.37	6.513		
9,900.00	7,063.20	7,005.20	7,063.20	80.13	242.83	-89.77	-3,879.82	-1,043.75	2,081.43	1,773.74	307.70	6.765		
10,000.00	7,062.90	7,004.90	7,062.90	82.64	242.82	-89.75	-3,879.82	-1,043.75	2,162.78	1,854.82	307.96	7.023		
10,100.00	7,062.61	7,004.61	7,062.61	85.17	242.81	-89.74	-3,879.82	-1,043.75	2,245.64	1,937.45	308.19	7.287		
10,200.00	7,062.31	7,004.31	7,062.31	87.72	242.80	-89.73	-3,879.82	-1,043.75	2,329.84	2,021.47	308.37	7.555		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	7,004.01	7,062.01	90.28	242.79	-89.71	-3,879.82	-1,043.75	2,415.25	2,106.73	308.52	7.829		
10,400.00	7,061.71	7,003.71	7,061.71	92.87	242.78	-89.70	-3,879.82	-1,043.75	2,501.74	2,193.10	308.64	8.106		
10,500.00	7,061.41	7,003.41	7,061.41	95.47	242.77	-89.69	-3,879.82	-1,043.75	2,589.21	2,280.47	308.74	8.386		
10,600.00	7,061.12	7,003.12	7,061.12	98.09	242.76	-89.67	-3,879.82	-1,043.75	2,677.55	2,368.73	308.82	8.670		
10,700.00	7,060.82	7,002.82	7,060.82	100.72	242.75	-89.66	-3,879.82	-1,043.75	2,766.68	2,457.80	308.88	8.957		
10,800.00	7,060.52	7,002.52	7,060.52	103.37	242.74	-89.64	-3,879.82	-1,043.75	2,856.54	2,547.61	308.93	9.247		
10,900.00	7,060.22	7,002.22	7,060.22	106.02	242.72	-89.63	-3,879.82	-1,043.75	2,947.05	2,638.08	308.97	9.538		
11,000.00	7,059.93	7,001.93	7,059.93	108.69	242.71	-89.62	-3,879.82	-1,043.75	3,038.15	2,729.15	309.00	9.832		
11,100.00	7,059.63	7,001.63	7,059.63	111.36	242.70	-89.60	-3,879.82	-1,043.75	3,129.79	2,820.78	309.02	10.128		
11,200.00	7,059.33	7,001.33	7,059.33	114.05	242.69	-89.59	-3,879.82	-1,043.75	3,221.94	2,912.91	309.03	10.426		
11,300.00	7,059.03	7,001.03	7,059.03	116.74	242.68	-89.57	-3,879.82	-1,043.75	3,314.54	3,005.50	309.04	10.725		
11,400.00	7,058.74	7,000.74	7,058.74	119.44	242.67	-89.56	-3,879.82	-1,043.75	3,407.55	3,098.52	309.04	11.026		
11,500.00	7,058.44	7,000.44	7,058.44	122.15	242.66	-89.55	-3,879.82	-1,043.75	3,500.96	3,191.92	309.04	11.329		
11,600.00	7,058.14	7,000.14	7,058.14	124.86	242.65	-89.53	-3,879.82	-1,043.75	3,594.71	3,285.68	309.03	11.632		
11,700.00	7,057.84	7,000.16	7,057.84	127.58	242.65	-89.52	-3,879.82	-1,043.75	3,688.80	3,379.76	309.04	11.936		
11,800.00	7,057.55	7,000.45	7,057.55	130.31	242.66	-89.51	-3,879.82	-1,043.75	3,783.19	3,474.14	309.05	12.241		
11,900.00	7,057.25	7,000.75	7,057.25	133.04	242.67	-89.49	-3,879.82	-1,043.75	3,877.86	3,568.80	309.06	12.547		
12,000.00	7,056.95	7,001.05	7,056.95	135.78	242.68	-89.48	-3,879.82	-1,043.75	3,972.79	3,663.72	309.07	12.854		
12,100.00	7,056.65	7,001.35	7,056.65	138.52	242.69	-89.46	-3,879.82	-1,043.75	4,067.96	3,758.88	309.08	13.162		
12,200.00	7,056.36	7,001.64	7,056.36	141.27	242.70	-89.45	-3,879.82	-1,043.75	4,163.36	3,854.27	309.09	13.470		
12,300.00	7,056.06	7,001.94	7,056.06	144.02	242.71	-89.44	-3,879.82	-1,043.75	4,258.97	3,949.88	309.10	13.779		
12,400.00	7,055.76	7,002.24	7,055.76	146.78	242.73	-89.42	-3,879.82	-1,043.75	4,354.78	4,045.68	309.11	14.088		
12,500.00	7,055.46	7,002.54	7,055.46	149.54	242.74	-89.41	-3,879.82	-1,043.75	4,450.77	4,141.66	309.11	14.398		
12,600.00	7,055.17	7,002.84	7,055.17	152.30	242.75	-89.40	-3,879.82	-1,043.75	4,546.94	4,237.82	309.12	14.709		
12,700.00	7,054.87	7,003.13	7,054.87	155.07	242.76	-89.38	-3,879.82	-1,043.75	4,643.27	4,334.13	309.13	15.020		
12,800.00	7,054.57	7,003.43	7,054.57	157.84	242.77	-89.37	-3,879.82	-1,043.75	4,739.75	4,430.60	309.14	15.332		
12,900.00	7,054.27	7,003.73	7,054.27	160.61	242.78	-89.35	-3,879.82	-1,043.75	4,836.37	4,527.22	309.15	15.644		
13,000.00	7,053.97	7,004.03	7,053.97	163.39	242.79	-89.34	-3,879.82	-1,043.75	4,933.12	4,623.96	309.16	15.956		
13,100.00	7,053.68	7,004.32	7,053.68	166.17	242.80	-89.33	-3,879.82	-1,043.75	5,030.01	4,720.84	309.17	16.269		
13,200.00	7,053.38	7,004.62	7,053.38	168.95	242.81	-89.31	-3,879.82	-1,043.75	5,127.01	4,817.83	309.18	16.582		
13,300.00	7,053.08	7,004.92	7,053.08	171.73	242.82	-89.30	-3,879.82	-1,043.75	5,224.13	4,914.93	309.20	16.896		
13,400.00	7,052.78	7,005.22	7,052.78	174.52	242.83	-89.28	-3,879.82	-1,043.75	5,321.35	5,012.14	309.21	17.209		
13,500.00	7,052.49	7,005.51	7,052.49	177.31	242.84	-89.27	-3,879.82	-1,043.75	5,418.68	5,109.45	309.22	17.523		
13,600.00	7,052.19	7,005.81	7,052.19	180.10	242.85	-89.26	-3,879.82	-1,043.75	5,516.10	5,206.86	309.24	17.838		
13,700.00	7,051.89	7,006.11	7,051.89	182.90	242.86	-89.24	-3,879.82	-1,043.75	5,613.61	5,304.35	309.26	18.152		
13,800.00	7,051.59	7,006.41	7,051.59	185.69	242.87	-89.23	-3,879.82	-1,043.75	5,711.20	5,401.93	309.27	18.467		
13,900.00	7,051.30	7,006.70	7,051.30	188.49	242.88	-89.22	-3,879.82	-1,043.75	5,808.88	5,499.59	309.29	18.781		
14,000.00	7,051.00	7,007.00	7,051.00	191.29	242.89	-89.20	-3,879.82	-1,043.75	5,906.64	5,597.33	309.31	19.096		
14,100.00	7,050.70	7,007.30	7,050.70	194.09	242.90	-89.19	-3,879.82	-1,043.75	6,004.47	5,695.14	309.33	19.411		
14,200.00	7,050.40	7,007.60	7,050.40	196.89	242.91	-89.17	-3,879.82	-1,043.75	6,102.37	5,793.02	309.35	19.726		
14,300.00	7,050.11	7,007.89	7,050.11	199.70	242.92	-89.16	-3,879.82	-1,043.75	6,200.34	5,890.96	309.37	20.042		
14,400.00	7,049.81	7,008.19	7,049.81	202.50	242.93	-89.15	-3,879.82	-1,043.75	6,298.37	5,988.97	309.40	20.357		
14,500.00	7,049.51	7,008.49	7,049.51	205.31	242.94	-89.13	-3,879.82	-1,043.75	6,396.46	6,087.04	309.42	20.672		
14,600.00	7,049.21	7,008.79	7,049.21	208.12	242.95	-89.12	-3,879.82	-1,043.75	6,494.61	6,185.17	309.44	20.988		
14,700.00	7,048.92	7,009.08	7,048.92	210.93	242.96	-89.11	-3,879.82	-1,043.75	6,592.82	6,283.35	309.47	21.304		
14,800.00	7,048.62	7,009.38	7,048.62	213.74	242.97	-89.09	-3,879.82	-1,043.75	6,691.08	6,381.58	309.50	21.619		
14,900.00	7,048.32	7,009.68	7,048.32	216.55	242.99	-89.08	-3,879.82	-1,043.75	6,789.39	6,479.86	309.52	21.935		
15,000.00	7,048.02	7,009.98	7,048.02	219.37	243.00	-89.06	-3,879.82	-1,043.75	6,887.74	6,578.19	309.55	22.251		
15,100.00	7,047.73	6,989.73	7,047.73	222.18	242.99	-89.05	-3,879.82	-1,043.75	6,986.15	6,677.29	308.86	22.619		
15,200.00	7,047.43	6,989.43	7,047.43	225.00	242.28	-89.04	-3,879.82	-1,043.75	7,084.60	6,775.73	308.87	22.937		
15,300.00	7,047.13	6,989.13	7,047.13	227.81	242.27	-89.02	-3,879.82	-1,043.75	7,183.09	6,874.21	308.88	23.255		
15,343.67	7,047.00	6,989.00	7,047.00	229.04	242.26	-89.02	-3,879.82	-1,043.75	7,226.12	6,917.23	308.89	23.394		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	3.00	0.00	3.28	3.28	-37.51	1,510.80	-1,159.78	1,904.63					
100.00	100.00	103.00	100.00	3.28	3.77	-37.51	1,510.80	-1,159.78	1,904.63	1,897.58	7.05	270.139		
200.00	200.00	203.00	200.00	3.34	6.27	-37.51	1,510.80	-1,159.78	1,904.63	1,895.02	9.60	198.296 CC		
300.00	299.98	303.02	299.98	3.44	9.42	139.10	1,510.80	-1,159.78	1,905.95	1,893.09	12.86	148.184 ES		
400.00	399.84	403.16	399.84	3.59	12.76	139.15	1,510.80	-1,159.78	1,909.91	1,893.56	16.35	116.826		
500.00	499.45	503.55	499.45	3.79	16.17	139.23	1,510.80	-1,159.78	1,916.51	1,896.55	19.96	96.021		
600.00	598.70	604.30	598.70	4.03	19.63	139.34	1,510.80	-1,159.78	1,925.78	1,902.12	23.66	81.397		
700.00	697.47	705.53	697.47	4.31	23.12	139.49	1,510.80	-1,159.78	1,937.72	1,910.29	27.43	70.638		
800.00	795.62	807.38	795.62	4.64	26.64	139.66	1,510.80	-1,159.78	1,952.36	1,921.09	31.27	62.433		
900.00	893.06	909.94	893.06	5.00	30.20	139.85	1,510.80	-1,159.78	1,969.72	1,934.54	35.17	56.000		
1,000.00	989.64	986.64	989.64	5.40	32.86	140.06	1,510.80	-1,159.78	1,989.81	1,951.60	38.21	52.076		
1,100.00	1,085.27	1,082.27	1,085.27	5.83	36.19	140.29	1,510.80	-1,159.78	2,012.67	1,970.74	41.93	48.000		
1,200.00	1,179.82	1,176.82	1,179.82	6.29	39.47	140.52	1,510.80	-1,159.78	2,038.32	1,992.68	45.64	44.661		
1,300.00	1,273.17	1,270.17	1,273.17	6.79	42.72	140.76	1,510.80	-1,159.78	2,066.77	2,017.44	49.33	41.897		
1,400.00	1,365.46	1,362.46	1,365.46	7.32	45.94	141.25	1,510.80	-1,159.78	2,097.59	2,044.59	53.00	39.576		
1,500.00	1,457.65	1,454.65	1,457.65	7.87	49.15	141.88	1,510.80	-1,159.78	2,128.87	2,072.19	56.67	37.563		
1,600.00	1,549.83	1,546.83	1,549.83	8.43	52.36	142.50	1,510.80	-1,159.78	2,160.39	2,100.03	60.36	35.792		
1,700.00	1,642.02	1,639.02	1,642.02	9.01	55.57	143.10	1,510.80	-1,159.78	2,192.14	2,128.09	64.05	34.224		
1,800.00	1,734.21	1,731.21	1,734.21	9.59	58.78	143.68	1,510.80	-1,159.78	2,224.11	2,156.36	67.75	32.827		
1,900.00	1,826.39	1,823.39	1,826.39	10.18	62.00	144.25	1,510.80	-1,159.78	2,256.30	2,184.84	71.46	31.575		
2,000.00	1,918.58	1,915.58	1,918.58	10.78	65.21	144.80	1,510.80	-1,159.78	2,288.69	2,213.52	75.17	30.448		
2,100.00	2,010.77	2,007.77	2,010.77	11.39	68.42	145.34	1,510.80	-1,159.78	2,321.27	2,242.39	78.88	29.427		
2,200.00	2,102.95	2,100.05	2,102.95	11.99	71.64	145.87	1,510.80	-1,159.78	2,354.04	2,271.44	82.60	28.499		
2,300.00	2,195.14	2,207.86	2,195.14	12.61	75.40	146.38	1,510.80	-1,159.78	2,386.99	2,300.13	86.86	27.479		
2,400.00	2,287.32	2,284.32	2,287.32	13.22	78.07	146.87	1,510.80	-1,159.78	2,420.11	2,330.08	90.04	26.879		
2,500.00	2,379.51	2,376.51	2,379.51	13.84	81.28	147.36	1,510.80	-1,159.78	2,453.40	2,359.64	93.76	26.167		
2,600.00	2,471.70	2,468.70	2,471.70	14.46	84.50	147.83	1,510.80	-1,159.78	2,486.85	2,389.36	97.48	25.511		
2,700.00	2,563.88	2,560.88	2,563.88	15.08	87.72	148.29	1,510.80	-1,159.78	2,520.44	2,419.24	101.21	24.904		
2,800.00	2,656.07	2,653.07	2,656.07	15.71	90.93	148.73	1,510.80	-1,159.78	2,554.19	2,449.26	104.93	24.342		
2,900.00	2,748.26	2,745.26	2,748.26	16.33	94.15	149.17	1,510.80	-1,159.78	2,588.07	2,479.41	108.66	23.819		
3,000.00	2,840.44	2,837.44	2,840.44	16.96	97.37	149.60	1,510.80	-1,159.78	2,622.09	2,509.71	112.38	23.332		
3,100.00	2,932.63	2,929.63	2,932.63	17.59	100.58	150.01	1,510.80	-1,159.78	2,656.24	2,540.13	116.11	22.877		
3,200.00	3,024.81	3,021.81	3,024.81	18.22	103.80	150.42	1,510.80	-1,159.78	2,690.51	2,570.67	119.84	22.452		
3,300.00	3,117.00	3,114.00	3,117.00	18.86	107.01	150.81	1,510.80	-1,159.78	2,724.90	2,601.34	123.56	22.053		
3,400.00	3,209.19	3,206.19	3,209.19	19.49	110.23	151.20	1,510.80	-1,159.78	2,759.41	2,632.12	127.29	21.678		
3,500.00	3,301.37	3,301.63	3,301.37	20.12	113.56	151.57	1,510.80	-1,159.78	2,794.03	2,662.90	131.13	21.307		
3,600.00	3,393.56	3,409.44	3,393.56	20.76	117.32	151.94	1,510.80	-1,159.78	2,828.76	2,693.35	135.40	20.891		
3,700.00	3,485.75	3,482.75	3,485.75	21.39	119.88	152.30	1,510.80	-1,159.78	2,863.59	2,725.12	138.47	20.680		
3,800.00	3,577.93	3,574.93	3,577.93	22.03	123.10	152.65	1,510.80	-1,159.78	2,898.52	2,756.32	142.20	20.383		
3,900.00	3,670.12	3,667.12	3,670.12	22.67	126.32	152.99	1,510.80	-1,159.78	2,933.54	2,787.62	145.93	20.103		
4,000.00	3,762.30	3,759.30	3,762.30	23.30	129.53	153.33	1,510.80	-1,159.78	2,968.66	2,819.01	149.66	19.837		
4,100.00	3,854.49	3,851.49	3,854.49	23.94	132.75	153.65	1,510.80	-1,159.78	3,003.87	2,850.49	153.38	19.584		
4,200.00	3,946.68	3,943.68	3,946.68	24.58	135.97	153.97	1,510.80	-1,159.78	3,039.17	2,882.05	157.11	19.344		
4,300.00	4,038.86	4,035.86	4,038.86	25.22	139.19	154.28	1,510.80	-1,159.78	3,074.54	2,913.70	160.84	19.116		
4,400.00	4,131.05	4,128.05	4,131.05	25.86	142.40	154.59	1,510.80	-1,159.78	3,110.00	2,945.43	164.57	18.898		
4,500.00	4,223.24	4,220.24	4,223.24	26.50	145.62	154.89	1,510.80	-1,159.78	3,145.54	2,977.24	168.29	18.691		
4,600.00	4,315.42	4,312.42	4,315.42	27.14	148.84	155.18	1,510.80	-1,159.78	3,181.15	3,009.12	172.02	18.493		
4,700.00	4,407.61	4,404.61	4,407.61	27.78	152.06	155.47	1,510.80	-1,159.78	3,216.83	3,041.08	175.75	18.304		
4,800.00	4,499.79	4,503.21	4,499.79	28.42	155.50	155.75	1,510.80	-1,159.78	3,252.58	3,072.88	179.70	18.100		
4,900.00	4,591.98	4,588.98	4,591.98	29.06	158.49	156.02	1,510.80	-1,159.78	3,288.40	3,105.20	183.20	17.949		
5,000.00	4,684.17	4,681.17	4,684.17	29.70	161.71	156.29	1,510.80	-1,159.78	3,324.29	3,137.36	186.93	17.784		
5,100.00	4,776.35	4,773.35	4,776.35	30.34	164.93	156.55	1,510.80	-1,159.78	3,360.24	3,169.58	190.66	17.624		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,865.54	4,868.54	30.98	168.14	156.81	1,510.80	-1,159.78	3,396.25	3,201.87	194.39	17.472		
5,300.00	4,960.73	4,957.73	4,960.73	31.63	171.36	157.06	1,510.80	-1,159.78	3,432.33	3,234.21	198.11	17.325		
5,400.00	5,052.91	5,049.91	5,052.91	32.27	174.58	157.31	1,510.80	-1,159.78	3,468.46	3,266.62	201.84	17.184		
5,500.00	5,145.10	5,142.10	5,145.10	32.91	177.80	157.55	1,510.80	-1,159.78	3,504.64	3,299.07	205.57	17.049		
5,600.00	5,237.28	5,234.28	5,237.28	33.55	181.01	157.79	1,510.80	-1,159.78	3,540.88	3,331.59	209.29	16.918		
5,700.00	5,329.47	5,326.47	5,329.47	34.20	184.23	158.02	1,510.80	-1,159.78	3,577.17	3,364.15	213.02	16.793		
5,800.00	5,421.66	5,418.66	5,421.66	34.84	187.45	158.25	1,510.80	-1,159.78	3,613.52	3,396.77	216.75	16.671		
5,900.00	5,513.84	5,510.84	5,513.84	35.48	190.67	158.47	1,510.80	-1,159.78	3,649.91	3,429.44	220.48	16.555		
6,000.00	5,606.03	5,603.03	5,606.03	36.13	193.88	158.69	1,510.80	-1,159.78	3,686.35	3,462.15	224.20	16.442		
6,100.00	5,698.22	5,704.78	5,698.22	36.77	197.44	158.90	1,510.80	-1,159.78	3,722.84	3,494.58	228.26	16.309		
6,200.00	5,790.40	5,787.40	5,790.40	37.41	200.32	159.11	1,510.80	-1,159.78	3,759.37	3,527.72	231.66	16.228		
6,300.00	5,882.59	5,879.59	5,882.59	38.06	203.54	159.32	1,510.80	-1,159.78	3,795.95	3,560.57	235.39	16.127		
6,400.00	5,974.77	5,971.77	5,974.77	38.70	206.76	159.52	1,510.80	-1,159.78	3,832.57	3,593.46	239.11	16.028		
6,500.00	6,066.96	6,063.96	6,066.96	39.34	209.97	159.72	1,510.80	-1,159.78	3,869.23	3,626.39	242.84	15.933		
6,600.00	6,159.15	6,156.15	6,159.15	39.99	213.19	159.92	1,510.80	-1,159.78	3,905.94	3,659.37	246.57	15.841		
6,700.00	6,251.33	6,248.33	6,251.33	40.63	216.41	160.11	1,510.80	-1,159.78	3,942.68	3,692.38	250.30	15.752		
6,800.00	6,343.52	6,340.52	6,343.52	41.28	219.63	160.30	1,510.80	-1,159.78	3,979.46	3,725.43	254.02	15.666		
6,900.00	6,435.71	6,432.71	6,435.71	41.92	222.84	160.48	1,510.80	-1,159.78	4,016.27	3,758.52	257.75	15.582		
7,000.00	6,527.86	6,524.86	6,527.86	42.56	226.06	160.66	1,510.80	-1,159.78	4,053.09	3,791.42	261.48	15.500		
7,100.00	6,618.85	6,615.85	6,618.85	43.19	229.24	160.84	1,510.80	-1,159.78	4,089.91	3,824.31	265.21	15.418		
7,200.00	6,706.47	6,703.47	6,706.47	43.76	232.30	161.05	1,510.80	-1,159.78	4,126.84	3,857.24	268.95	15.334		
7,300.00	6,788.56	6,785.56	6,788.56	44.26	235.16	161.27	1,510.80	-1,159.78	4,163.87	3,890.17	272.68	15.250		
7,400.00	6,863.10	6,860.10	6,863.10	44.70	237.76	161.49	1,510.80	-1,159.78	4,200.99	3,923.09	276.41	15.166		
7,500.00	6,928.26	6,925.26	6,928.26	45.07	240.04	161.71	1,510.80	-1,159.78	4,238.20	3,956.00	280.14	15.082		
7,600.00	6,982.42	6,979.42	6,982.42	45.39	241.93	161.93	1,510.80	-1,159.78	4,275.49	3,988.91	283.87	15.000		
7,700.00	7,024.26	7,021.26	7,024.26	45.67	243.39	162.15	1,510.80	-1,159.78	4,312.86	4,021.82	287.60	14.918		
7,800.00	7,052.75	7,049.75	7,052.75	45.92	244.38	162.37	1,510.80	-1,159.78	4,350.31	4,054.73	291.33	14.836		
7,900.00	7,067.18	7,064.18	7,067.18	46.16	244.89	162.59	1,510.80	-1,159.78	4,387.84	4,087.64	295.06	14.754		
8,000.00	7,068.85	7,065.85	7,068.85	46.42	244.95	162.81	1,510.80	-1,159.78	4,425.45	4,120.55	298.79	14.672		
8,100.00	7,068.56	7,065.56	7,068.56	46.78	244.94	163.03	1,510.80	-1,159.78	4,463.14	4,153.46	302.52	14.590		
8,200.00	7,068.26	7,065.26	7,068.26	47.29	244.93	163.25	1,510.80	-1,159.78	4,500.91	4,186.37	306.25	14.508		
8,300.00	7,067.96	7,064.96	7,067.96	48.03	244.91	163.47	1,510.80	-1,159.78	4,538.76	4,219.28	310.00	14.426		
8,400.00	7,067.66	7,064.66	7,067.66	49.02	244.90	163.69	1,510.80	-1,159.78	4,576.69	4,252.19	313.75	14.344		
8,500.00	7,067.37	7,064.37	7,067.37	50.27	244.89	163.91	1,510.80	-1,159.78	4,614.70	4,285.10	317.50	14.262		
8,600.00	7,067.07	7,064.07	7,067.07	51.75	244.88	164.13	1,510.80	-1,159.78	4,652.79	4,318.01	321.25	14.180		
8,700.00	7,066.77	7,063.77	7,066.77	53.42	244.87	164.35	1,510.80	-1,159.78	4,690.96	4,350.92	325.00	14.098		
8,800.00	7,066.47	7,063.47	7,066.47	55.24	244.86	164.57	1,510.80	-1,159.78	4,729.31	4,383.83	328.75	14.016		
8,900.00	7,066.18	7,063.18	7,066.18	57.18	244.85	164.79	1,510.80	-1,159.78	4,767.84	4,416.74	332.50	13.934		
9,000.00	7,065.88	7,062.88	7,065.88	59.21	244.84	165.01	1,510.80	-1,159.78	4,806.55	4,449.65	336.25	13.852		
9,100.00	7,065.58	7,062.58	7,065.58	61.33	244.83	165.23	1,510.80	-1,159.78	4,845.44	4,482.56	340.00	13.770		
9,200.00	7,065.28	7,062.28	7,065.28	63.51	244.82	165.45	1,510.80	-1,159.78	4,884.51	4,515.47	343.75	13.688		
9,300.00	7,064.99	7,061.99	7,064.99	65.76	244.81	165.67	1,510.80	-1,159.78	4,923.76	4,548.38	347.50	13.606		
9,400.00	7,064.69	7,061.69	7,064.69	68.06	244.80	165.89	1,510.80	-1,159.78	4,963.19	4,581.29	351.25	13.524		
9,500.00	7,064.39	7,061.39	7,064.39	70.40	244.79	166.11	1,510.80	-1,159.78	5,002.80	4,614.20	355.00	13.442		
9,600.00	7,064.09	7,061.09	7,064.09	72.78	244.78	166.33	1,510.80	-1,159.78	5,042.59	4,647.11	358.75	13.360		
9,700.00	7,063.80	7,060.80	7,063.80	75.20	244.77	166.55	1,510.80	-1,159.78	5,082.56	4,680.02	362.50	13.278		
9,800.00	7,063.50	7,060.50	7,063.50	77.65	244.76	166.77	1,510.80	-1,159.78	5,122.71	4,712.93	366.25	13.196		
9,900.00	7,063.20	7,060.20	7,063.20	80.13	244.75	166.99	1,510.80	-1,159.78	5,163.04	4,745.84	370.00	13.114		
10,000.00	7,062.90	7,059.90	7,062.90	82.64	244.74	167.21	1,510.80	-1,159.78	5,203.55	4,778.75	373.75	13.032		
10,100.00	7,062.61	7,059.61	7,062.61	85.17	244.73	167.43	1,510.80	-1,159.78	5,244.24	4,811.66	377.50	12.950		
10,200.00	7,062.31	7,059.31	7,062.31	87.72	244.72	167.65	1,510.80	-1,159.78	5,285.11	4,844.57	381.25	12.868		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	7,059.01	7,062.01	90.28	244.71	89.92	1,510.80	-1,159.78	4,610.30	4,285.80	324.51	14.207		
10,400.00	7,061.71	7,058.71	7,061.71	92.87	244.70	89.91	1,510.80	-1,159.78	4,654.40	4,328.34	326.06	14.275		
10,500.00	7,061.41	7,058.41	7,061.41	95.47	244.69	89.91	1,510.80	-1,159.78	4,700.21	4,372.65	327.56	14.349		
10,600.00	7,061.12	7,058.12	7,061.12	98.09	244.68	89.91	1,510.80	-1,159.78	4,747.68	4,418.66	329.02	14.430		
10,700.00	7,060.82	7,057.82	7,060.82	100.72	244.67	89.90	1,510.80	-1,159.78	4,796.77	4,466.33	330.43	14.517		
10,800.00	7,060.52	7,057.52	7,060.52	103.37	244.66	89.90	1,510.80	-1,159.78	4,847.42	4,515.62	331.80	14.610		
10,900.00	7,060.22	7,057.22	7,060.22	106.02	244.64	89.89	1,510.80	-1,159.78	4,899.59	4,566.47	333.12	14.708		
11,000.00	7,059.93	7,056.93	7,059.93	108.69	244.63	89.89	1,510.80	-1,159.78	4,953.23	4,618.83	334.40	14.812		
11,100.00	7,059.63	7,056.63	7,059.63	111.36	244.62	89.89	1,510.80	-1,159.78	5,008.29	4,672.66	335.63	14.922		
11,200.00	7,059.33	7,056.33	7,059.33	114.05	244.61	89.88	1,510.80	-1,159.78	5,064.73	4,727.91	336.82	15.037		
11,300.00	7,059.03	7,056.03	7,059.03	116.74	244.60	89.88	1,510.80	-1,159.78	5,122.50	4,784.54	337.97	15.157		
11,400.00	7,058.74	7,055.74	7,058.74	119.44	244.59	89.87	1,510.80	-1,159.78	5,181.56	4,842.49	339.07	15.282		
11,500.00	7,058.44	7,055.44	7,058.44	122.15	244.58	89.87	1,510.80	-1,159.78	5,241.86	4,901.72	340.13	15.411		
11,600.00	7,058.14	7,055.14	7,058.14	124.86	244.57	89.86	1,510.80	-1,159.78	5,303.35	4,962.20	341.15	15.545		
11,700.00	7,057.84	7,054.84	7,057.84	127.58	244.56	89.86	1,510.80	-1,159.78	5,366.01	5,023.87	342.14	15.684		
11,800.00	7,057.55	7,054.55	7,057.55	130.31	244.55	89.86	1,510.80	-1,159.78	5,429.79	5,086.70	343.08	15.826		
11,900.00	7,057.25	7,054.25	7,057.25	133.04	244.54	89.85	1,510.80	-1,159.78	5,494.64	5,150.65	343.99	15.973		
12,000.00	7,056.95	7,053.95	7,056.95	135.78	244.53	89.85	1,510.80	-1,159.78	5,560.54	5,215.67	344.87	16.124		
12,100.00	7,056.65	7,053.65	7,056.65	138.52	244.52	89.84	1,510.80	-1,159.78	5,627.44	5,281.74	345.71	16.278		
12,200.00	7,056.36	7,053.36	7,056.36	141.27	244.51	89.84	1,510.80	-1,159.78	5,695.32	5,348.80	346.51	16.436		
12,300.00	7,056.06	7,053.06	7,056.06	144.02	244.50	89.84	1,510.80	-1,159.78	5,764.12	5,416.84	347.29	16.598		
12,400.00	7,055.76	7,052.76	7,055.76	146.78	244.49	89.83	1,510.80	-1,159.78	5,833.84	5,485.81	348.03	16.762		
12,500.00	7,055.46	7,052.46	7,055.46	149.54	244.48	89.83	1,510.80	-1,159.78	5,904.42	5,555.67	348.74	16.931		
12,600.00	7,055.17	7,052.17	7,055.17	152.30	244.47	89.82	1,510.80	-1,159.78	5,975.84	5,626.41	349.43	17.102		
12,700.00	7,054.87	7,051.87	7,054.87	155.07	244.46	89.82	1,510.80	-1,159.78	6,048.07	5,697.98	350.09	17.276		
12,800.00	7,054.57	7,051.57	7,054.57	157.84	244.45	89.82	1,510.80	-1,159.78	6,121.09	5,770.37	350.72	17.453		
12,900.00	7,054.27	7,051.27	7,054.27	160.61	244.44	89.81	1,510.80	-1,159.78	6,194.85	5,843.53	351.33	17.633		
13,000.00	7,053.97	7,050.97	7,053.97	163.39	244.43	89.81	1,510.80	-1,159.78	6,269.35	5,917.44	351.91	17.815		
13,100.00	7,053.68	7,050.68	7,053.68	166.17	244.42	89.80	1,510.80	-1,159.78	6,344.54	5,992.07	352.47	18.000		
13,200.00	7,053.38	7,050.38	7,053.38	168.95	244.41	89.80	1,510.80	-1,159.78	6,420.41	6,067.41	353.00	18.188		
13,300.00	7,053.08	7,050.08	7,053.08	171.73	244.40	89.80	1,510.80	-1,159.78	6,496.94	6,143.42	353.52	18.378		
13,400.00	7,052.78	7,049.78	7,052.78	174.52	244.38	89.79	1,510.80	-1,159.78	6,574.10	6,220.08	354.01	18.570		
13,500.00	7,052.49	7,049.49	7,052.49	177.31	244.37	89.79	1,510.80	-1,159.78	6,651.86	6,297.37	354.49	18.765		
13,600.00	7,052.19	7,049.19	7,052.19	180.10	244.36	89.78	1,510.80	-1,159.78	6,730.21	6,375.27	354.95	18.961		
13,700.00	7,051.89	7,048.89	7,051.89	182.90	244.35	89.78	1,510.80	-1,159.78	6,809.13	6,453.74	355.39	19.160		
13,800.00	7,051.59	7,048.59	7,051.59	185.69	244.34	89.77	1,510.80	-1,159.78	6,888.60	6,532.79	355.81	19.360		
13,900.00	7,051.30	7,048.30	7,051.30	188.49	244.33	89.77	1,510.80	-1,159.78	6,968.59	6,612.38	356.21	19.563		
14,000.00	7,051.00	7,048.00	7,051.00	191.29	244.32	89.77	1,510.80	-1,159.78	7,049.10	6,692.50	356.60	19.767		
14,100.00	7,050.70	7,047.70	7,050.70	194.09	244.31	89.76	1,510.80	-1,159.78	7,130.10	6,773.12	356.98	19.974		
14,200.00	7,050.40	7,047.40	7,050.40	196.89	244.30	89.76	1,510.80	-1,159.78	7,211.57	6,854.24	357.34	20.181		
14,300.00	7,050.11	7,047.11	7,050.11	199.70	244.29	89.75	1,510.80	-1,159.78	7,293.51	6,935.83	357.68	20.391		
14,400.00	7,049.81	7,046.81	7,049.81	202.50	244.28	89.75	1,510.80	-1,159.78	7,375.89	7,017.88	358.02	20.602		
14,500.00	7,049.51	7,046.51	7,049.51	205.31	244.27	89.75	1,510.80	-1,159.78	7,458.71	7,100.37	358.34	20.815		
14,600.00	7,049.21	7,046.21	7,049.21	208.12	244.26	89.74	1,510.80	-1,159.78	7,541.94	7,183.29	358.65	21.029		
14,700.00	7,048.92	7,045.92	7,048.92	210.93	244.25	89.74	1,510.80	-1,159.78	7,625.57	7,266.62	358.95	21.244		
14,800.00	7,048.62	7,045.62	7,048.62	213.74	244.24	89.73	1,510.80	-1,159.78	7,709.59	7,350.36	359.23	21.461		
14,900.00	7,048.32	7,045.32	7,048.32	216.55	244.23	89.73	1,510.80	-1,159.78	7,793.99	7,434.49	359.51	21.680		
15,000.00	7,048.02	7,045.02	7,048.02	219.37	244.22	89.73	1,510.80	-1,159.78	7,878.76	7,518.98	359.77	21.899		
15,100.00	7,047.73	7,044.73	7,047.73	222.18	244.21	89.72	1,510.80	-1,159.78	7,963.88	7,603.85	360.03	22.120		
15,200.00	7,047.43	7,044.43	7,047.43	225.00	244.20	89.72	1,510.80	-1,159.78	8,049.34	7,689.06	360.28	22.342		
15,300.00	7,047.13	7,044.13	7,047.13	227.81	244.19	89.71	1,510.80	-1,159.78	8,135.13	7,774.61	360.52	22.565		
15,343.67	7,047.00	7,044.00	7,047.00	229.04	244.18	89.71	1,510.80	-1,159.78	8,172.70	7,812.08	360.62	22.663		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	17.00	3.28	3.28	-79.38	206.59	-1,101.43	1,120.77					
100.00	100.00	83.00	100.00	3.28	3.59	-79.38	206.59	-1,101.43	1,120.64	1,113.77	6.87	163.110		
200.00	200.00	183.00	200.00	3.34	5.68	-79.38	206.59	-1,101.43	1,120.64	1,111.62	9.02	124.215 CC		
300.00	299.98	282.98	299.98	3.44	8.77	97.30	206.59	-1,101.43	1,120.86	1,108.65	12.21	91.805		
400.00	399.84	382.84	399.84	3.59	12.07	97.55	206.59	-1,101.43	1,121.54	1,105.87	15.66	71.609		
500.00	499.45	482.45	499.45	3.79	15.45	97.96	206.59	-1,101.43	1,122.72	1,103.48	19.24	58.367		
600.00	598.70	581.70	598.70	4.03	18.85	98.54	206.59	-1,101.43	1,124.48	1,101.60	22.88	49.150		
700.00	697.47	680.47	697.47	4.31	22.25	99.27	206.59	-1,101.43	1,126.93	1,100.36	26.57	42.419		
800.00	795.62	778.62	795.62	4.64	25.65	100.14	206.59	-1,101.43	1,130.21	1,099.92	30.28	37.320 ES		
900.00	893.06	876.06	893.06	5.00	29.02	101.15	206.59	-1,101.43	1,134.47	1,100.45	34.02	33.346		
1,000.00	989.64	972.64	989.64	5.40	32.38	102.28	206.59	-1,101.43	1,139.90	1,102.13	37.77	30.181		
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	103.51	206.59	-1,101.43	1,146.71	1,105.19	41.52	27.619		
1,200.00	1,179.82	1,162.82	1,179.82	6.29	38.99	104.84	206.59	-1,101.43	1,155.12	1,109.85	45.27	25.518		
1,300.00	1,273.17	1,256.17	1,273.17	6.79	42.23	106.24	206.59	-1,101.43	1,165.35	1,116.35	49.00	23.781		
1,400.00	1,365.46	1,348.46	1,365.46	7.32	45.45	107.83	206.59	-1,101.43	1,177.46	1,124.74	52.73	22.331		
1,500.00	1,457.65	1,440.65	1,457.65	7.87	48.66	109.48	206.59	-1,101.43	1,190.79	1,134.32	56.47	21.089		
1,600.00	1,549.83	1,532.83	1,549.83	8.43	51.87	111.10	206.59	-1,101.43	1,205.21	1,145.00	60.21	20.016		
1,700.00	1,642.02	1,625.02	1,642.02	9.01	55.08	112.68	206.59	-1,101.43	1,220.70	1,156.74	63.96	19.084		
1,800.00	1,734.21	1,717.21	1,734.21	9.59	58.29	114.23	206.59	-1,101.43	1,237.20	1,169.48	67.72	18.269		
1,900.00	1,826.39	1,809.39	1,826.39	10.18	61.51	115.74	206.59	-1,101.43	1,254.69	1,183.21	71.48	17.553		
2,000.00	1,918.58	1,901.58	1,918.58	10.78	64.72	117.22	206.59	-1,101.43	1,273.12	1,197.88	75.24	16.921		
2,100.00	2,010.77	2,006.23	2,010.77	11.39	68.37	118.66	206.59	-1,101.43	1,292.44	1,213.01	79.43	16.271		
2,200.00	2,102.95	2,085.95	2,102.95	11.99	71.15	120.05	206.59	-1,101.43	1,312.62	1,229.87	82.75	15.862		
2,300.00	2,195.14	2,178.14	2,195.14	12.61	74.37	121.41	206.59	-1,101.43	1,333.63	1,247.12	86.51	15.416		
2,400.00	2,287.32	2,270.32	2,287.32	13.22	77.58	122.74	206.59	-1,101.43	1,355.42	1,265.15	90.27	15.016		
2,500.00	2,379.51	2,362.51	2,379.51	13.84	80.80	124.02	206.59	-1,101.43	1,377.95	1,283.93	94.02	14.656		
2,600.00	2,471.70	2,454.70	2,471.70	14.46	84.01	125.27	206.59	-1,101.43	1,401.19	1,303.43	97.77	14.332		
2,700.00	2,563.88	2,546.88	2,563.88	15.08	87.23	126.47	206.59	-1,101.43	1,425.11	1,323.60	101.51	14.038		
2,800.00	2,656.07	2,639.07	2,656.07	15.71	90.44	127.65	206.59	-1,101.43	1,449.67	1,344.41	105.26	13.772		
2,900.00	2,748.26	2,731.26	2,748.26	16.33	93.66	128.78	206.59	-1,101.43	1,474.84	1,365.84	109.00	13.530		
3,000.00	2,840.44	2,823.44	2,840.44	16.96	96.88	129.88	206.59	-1,101.43	1,500.59	1,387.84	112.74	13.310		
3,100.00	2,932.63	2,915.63	2,932.63	17.59	100.09	130.95	206.59	-1,101.43	1,526.88	1,410.40	116.48	13.108		
3,200.00	3,024.81	3,007.81	3,024.81	18.22	103.31	131.99	206.59	-1,101.43	1,553.70	1,433.48	120.22	12.924		
3,300.00	3,117.00	3,100.00	3,117.00	18.86	106.53	132.99	206.59	-1,101.43	1,581.01	1,457.06	123.95	12.755		
3,400.00	3,209.19	3,207.81	3,209.19	19.49	110.29	133.96	206.59	-1,101.43	1,608.80	1,480.57	128.23	12.546		
3,500.00	3,301.37	3,284.37	3,301.37	20.12	112.96	134.90	206.59	-1,101.43	1,637.03	1,505.61	131.41	12.457		
3,600.00	3,393.56	3,376.56	3,393.56	20.76	116.18	135.80	206.59	-1,101.43	1,665.68	1,530.54	135.14	12.325		
3,700.00	3,485.75	3,468.75	3,485.75	21.39	119.39	136.68	206.59	-1,101.43	1,694.73	1,555.86	138.87	12.204		
3,800.00	3,577.93	3,560.93	3,577.93	22.03	122.61	137.54	206.59	-1,101.43	1,724.17	1,581.57	142.59	12.091		
3,900.00	3,670.12	3,653.12	3,670.12	22.67	125.83	138.36	206.59	-1,101.43	1,753.96	1,607.65	146.32	11.987		
4,000.00	3,762.30	3,745.30	3,762.30	23.30	129.05	139.16	206.59	-1,101.43	1,784.11	1,634.06	150.04	11.891		
4,100.00	3,854.49	3,837.49	3,854.49	23.94	132.26	139.94	206.59	-1,101.43	1,814.57	1,660.81	153.76	11.801		
4,200.00	3,946.68	3,929.68	3,946.68	24.58	135.48	140.69	206.59	-1,101.43	1,845.35	1,687.87	157.49	11.718		
4,300.00	4,038.86	4,021.86	4,038.86	25.22	138.70	141.42	206.59	-1,101.43	1,876.43	1,715.22	161.21	11.640		
4,400.00	4,131.05	4,114.05	4,131.05	25.86	141.91	142.12	206.59	-1,101.43	1,907.78	1,742.86	164.92	11.568		
4,500.00	4,223.24	4,206.24	4,223.24	26.50	145.13	142.80	206.59	-1,101.43	1,939.41	1,770.76	168.64	11.500		
4,600.00	4,315.42	4,301.58	4,315.42	27.14	148.46	143.47	206.59	-1,101.43	1,971.28	1,798.81	172.47	11.430		
4,700.00	4,407.61	4,409.39	4,407.61	27.78	152.22	144.11	206.59	-1,101.43	2,003.40	1,826.67	176.74	11.336		
4,800.00	4,499.79	4,482.79	4,499.79	28.42	154.78	144.73	206.59	-1,101.43	2,035.76	1,855.96	179.80	11.323		
4,900.00	4,591.98	4,574.98	4,591.98	29.06	158.00	145.34	206.59	-1,101.43	2,068.33	1,884.81	183.51	11.271		
5,000.00	4,684.17	4,667.17	4,684.17	29.70	161.22	145.92	206.59	-1,101.43	2,101.11	1,913.88	187.23	11.222		
5,100.00	4,776.35	4,759.35	4,776.35	30.34	164.44	146.49	206.59	-1,101.43	2,134.09	1,943.14	190.95	11.176		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,851.54	4,868.54	30.98	167.65	147.05	206.59	-1,101.43	2,167.26	1,972.60	194.66	11.133		
5,300.00	4,960.73	4,943.73	4,960.73	31.63	170.87	147.58	206.59	-1,101.43	2,200.61	2,002.23	198.38	11.093		
5,400.00	5,052.91	5,035.91	5,052.91	32.27	174.09	148.10	206.59	-1,101.43	2,234.14	2,032.05	202.09	11.055		
5,500.00	5,145.10	5,128.10	5,145.10	32.91	177.31	148.61	206.59	-1,101.43	2,267.84	2,062.03	205.81	11.019		
5,600.00	5,237.28	5,220.28	5,237.28	33.55	180.52	149.10	206.59	-1,101.43	2,301.69	2,092.17	209.53	10.985		
5,700.00	5,329.47	5,312.47	5,329.47	34.20	183.74	149.58	206.59	-1,101.43	2,335.70	2,122.46	213.24	10.953		
5,800.00	5,421.66	5,404.66	5,421.66	34.84	186.96	150.05	206.59	-1,101.43	2,369.85	2,152.89	216.96	10.923		
5,900.00	5,513.84	5,503.16	5,513.84	35.48	190.40	150.50	206.59	-1,101.43	2,404.14	2,183.25	220.89	10.884		
6,000.00	5,606.03	5,589.03	5,606.03	36.13	193.40	150.94	206.59	-1,101.43	2,438.57	2,214.18	224.39	10.868		
6,100.00	5,698.22	5,681.22	5,698.22	36.77	196.61	151.37	206.59	-1,101.43	2,473.12	2,245.01	228.10	10.842		
6,200.00	5,790.40	5,773.40	5,790.40	37.41	199.83	151.79	206.59	-1,101.43	2,507.79	2,275.97	231.82	10.818		
6,300.00	5,882.59	5,865.59	5,882.59	38.06	203.05	152.19	206.59	-1,101.43	2,542.59	2,307.05	235.54	10.795		
6,400.00	5,974.77	5,957.77	5,974.77	38.70	206.27	152.59	206.59	-1,101.43	2,577.49	2,338.24	239.25	10.773		
6,500.00	6,066.96	6,049.96	6,066.96	39.34	209.48	152.97	206.59	-1,101.43	2,612.51	2,369.54	242.97	10.752		
6,600.00	6,159.15	6,142.15	6,159.15	39.99	212.70	153.35	206.59	-1,101.43	2,647.63	2,400.94	246.69	10.733		
6,700.00	6,251.33	6,234.33	6,251.33	40.63	215.92	153.71	206.59	-1,101.43	2,682.85	2,432.45	250.40	10.714		
6,800.00	6,343.52	6,326.52	6,343.52	41.28	219.14	154.07	206.59	-1,101.43	2,718.16	2,464.04	254.12	10.696		
6,900.00	6,435.71	6,418.71	6,435.71	41.92	222.36	154.42	206.59	-1,101.43	2,753.57	2,495.73	257.84	10.680		
7,000.00	6,527.86	6,510.86	6,527.86	42.56	225.57	146.71	206.59	-1,101.43	2,788.76	2,527.21	261.55	10.662		
7,100.00	6,618.85	6,601.85	6,618.85	43.19	228.75	126.09	206.59	-1,101.43	2,819.59	2,554.37	265.21	10.631		
7,200.00	6,706.47	6,689.47	6,706.47	43.76	231.81	111.49	206.59	-1,101.43	2,844.52	2,575.81	268.72	10.586		
7,300.00	6,788.56	6,771.56	6,788.56	44.26	234.67	101.97	206.59	-1,101.43	2,863.52	2,591.54	271.98	10.528		
7,400.00	6,863.10	6,846.10	6,863.10	44.70	237.27	95.98	206.59	-1,101.43	2,876.79	2,601.85	274.94	10.463		
7,500.00	6,928.26	6,911.26	6,928.26	45.07	239.55	92.34	206.59	-1,101.43	2,884.73	2,607.17	277.56	10.393		
7,600.00	6,982.42	6,965.42	6,982.42	45.39	241.44	90.30	206.59	-1,101.43	2,887.88	2,608.04	279.84	10.320		
7,700.00	7,024.26	7,007.26	7,024.26	45.67	242.90	89.36	206.59	-1,101.43	2,886.82	2,605.06	281.77	10.245		
7,800.00	7,052.75	7,035.75	7,052.75	45.92	243.90	89.20	206.59	-1,101.43	2,882.14	2,598.78	283.36	10.171		
7,900.00	7,067.18	7,050.18	7,067.18	46.16	244.40	89.61	206.59	-1,101.43	2,874.33	2,589.73	284.60	10.100		
8,000.00	7,068.85	7,051.85	7,068.85	46.42	244.46	90.02	206.59	-1,101.43	2,864.47	2,578.93	285.54	10.032		
8,100.00	7,068.56	7,051.56	7,068.56	46.78	244.45	90.01	206.59	-1,101.43	2,857.24	2,570.68	286.56	9.971		
8,200.00	7,068.26	7,051.26	7,068.26	47.29	244.44	90.00	206.59	-1,101.43	2,853.50	2,565.77	287.72	9.917		
8,256.87	7,068.09	7,051.09	7,068.09	47.68	244.43	90.00	206.59	-1,101.43	2,852.93	2,564.47	288.46	9.890		
8,300.00	7,067.96	7,050.96	7,067.96	48.03	244.43	90.00	206.59	-1,101.43	2,853.25	2,564.24	289.01	9.872		
8,400.00	7,067.66	7,050.66	7,067.66	49.02	244.42	89.99	206.59	-1,101.43	2,856.52	2,566.11	290.40	9.836		
8,500.00	7,067.37	7,050.37	7,067.37	50.27	244.41	89.99	206.59	-1,101.43	2,863.27	2,571.39	291.88	9.810		
8,600.00	7,067.07	7,050.07	7,067.07	51.75	244.39	89.98	206.59	-1,101.43	2,873.49	2,580.07	293.42	9.793		
8,700.00	7,066.77	7,049.77	7,066.77	53.42	244.38	89.97	206.59	-1,101.43	2,887.14	2,592.13	295.01	9.787 SF		
8,800.00	7,066.47	7,049.47	7,066.47	55.24	244.37	89.97	206.59	-1,101.43	2,904.17	2,607.55	296.62	9.791		
8,900.00	7,066.18	7,049.18	7,066.18	57.18	244.36	89.96	206.59	-1,101.43	2,924.52	2,626.27	298.25	9.806		
9,000.00	7,065.88	7,048.88	7,065.88	59.21	244.35	89.96	206.59	-1,101.43	2,948.13	2,648.25	299.87	9.831		
9,100.00	7,065.58	7,048.58	7,065.58	61.33	244.34	89.95	206.59	-1,101.43	2,974.91	2,673.42	301.48	9.868		
9,200.00	7,065.28	7,048.28	7,065.28	63.51	244.33	89.94	206.59	-1,101.43	3,004.78	2,701.71	303.07	9.914		
9,300.00	7,064.99	7,047.99	7,064.99	65.76	244.32	89.94	206.59	-1,101.43	3,037.65	2,733.03	304.62	9.972		
9,400.00	7,064.69	7,047.69	7,064.69	68.06	244.31	89.93	206.59	-1,101.43	3,073.42	2,767.29	306.13	10.039		
9,500.00	7,064.39	7,047.39	7,064.39	70.40	244.30	89.93	206.59	-1,101.43	3,112.00	2,804.41	307.60	10.117		
9,600.00	7,064.09	7,047.09	7,064.09	72.78	244.29	89.92	206.59	-1,101.43	3,153.28	2,844.27	309.01	10.204		
9,700.00	7,063.80	7,046.80	7,063.80	75.20	244.28	89.91	206.59	-1,101.43	3,197.16	2,886.79	310.37	10.301		
9,800.00	7,063.50	7,046.50	7,063.50	77.65	244.27	89.91	206.59	-1,101.43	3,243.52	2,931.86	311.67	10.407		
9,900.00	7,063.20	7,046.20	7,063.20	80.13	244.26	89.90	206.59	-1,101.43	3,292.27	2,979.37	312.91	10.522		
10,000.00	7,062.90	7,045.90	7,062.90	82.64	244.25	89.90	206.59	-1,101.43	3,343.30	3,029.22	314.09	10.644		
10,100.00	7,062.61	7,045.61	7,062.61	85.17	244.24	89.89	206.59	-1,101.43	3,396.51	3,081.30	315.21	10.775		
10,200.00	7,062.31	7,045.31	7,062.31	87.72	244.23	89.88	206.59	-1,101.43	3,451.80	3,135.52	316.28	10.914		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,062.01	7,045.01	7,062.01	90.28	244.22	89.88	206.59	-1,101.43	3,509.07	3,191.78	317.29	11.060		
10,400.00	7,061.71	7,044.71	7,061.71	92.87	244.21	89.87	206.59	-1,101.43	3,568.22	3,249.98	318.24	11.212		
10,500.00	7,061.41	7,044.41	7,061.41	95.47	244.20	89.87	206.59	-1,101.43	3,629.16	3,310.02	319.14	11.372		
10,600.00	7,061.12	7,044.12	7,061.12	98.09	244.19	89.86	206.59	-1,101.43	3,691.80	3,371.81	319.99	11.537		
10,700.00	7,060.82	7,043.82	7,060.82	100.72	244.18	89.85	206.59	-1,101.43	3,756.07	3,435.28	320.79	11.709		
10,800.00	7,060.52	7,043.52	7,060.52	103.37	244.17	89.85	206.59	-1,101.43	3,821.87	3,500.32	321.54	11.886		
10,900.00	7,060.22	7,043.22	7,060.22	106.02	244.16	89.84	206.59	-1,101.43	3,889.12	3,566.87	322.25	12.069		
11,000.00	7,059.93	7,042.93	7,059.93	108.69	244.15	89.84	206.59	-1,101.43	3,957.77	3,634.85	322.91	12.256		
11,100.00	7,059.63	7,042.63	7,059.63	111.36	244.14	89.83	206.59	-1,101.43	4,027.72	3,704.18	323.54	12.449		
11,200.00	7,059.33	7,042.33	7,059.33	114.05	244.12	89.82	206.59	-1,101.43	4,098.92	3,774.79	324.13	12.646		
11,300.00	7,059.03	7,042.03	7,059.03	116.74	244.11	89.82	206.59	-1,101.43	4,171.30	3,846.62	324.68	12.847		
11,400.00	7,058.74	7,041.74	7,058.74	119.44	244.10	89.81	206.59	-1,101.43	4,244.81	3,919.61	325.20	13.053		
11,500.00	7,058.44	7,041.44	7,058.44	122.15	244.09	89.81	206.59	-1,101.43	4,319.38	3,993.69	325.68	13.263		
11,600.00	7,058.14	7,041.14	7,058.14	124.86	244.08	89.80	206.59	-1,101.43	4,394.96	4,068.82	326.14	13.476		
11,700.00	7,057.84	7,040.84	7,057.84	127.58	244.07	89.79	206.59	-1,101.43	4,471.49	4,144.93	326.57	13.692		
11,800.00	7,057.55	7,040.55	7,057.55	130.31	244.06	89.79	206.59	-1,101.43	4,548.94	4,221.97	326.97	13.912		
11,900.00	7,057.25	7,040.25	7,057.25	133.04	244.05	89.78	206.59	-1,101.43	4,627.26	4,299.91	327.35	14.136		
12,000.00	7,056.95	7,039.95	7,056.95	135.78	244.04	89.78	206.59	-1,101.43	4,706.39	4,378.69	327.70	14.362		
12,100.00	7,056.65	7,039.65	7,056.65	138.52	244.03	89.77	206.59	-1,101.43	4,786.31	4,458.27	328.04	14.591		
12,200.00	7,056.36	7,039.36	7,056.36	141.27	244.02	89.76	206.59	-1,101.43	4,866.97	4,538.62	328.35	14.822		
12,300.00	7,056.06	7,039.06	7,056.06	144.02	244.01	89.76	206.59	-1,101.43	4,948.33	4,619.68	328.65	15.057		
12,400.00	7,055.76	7,038.76	7,055.76	146.78	244.00	89.75	206.59	-1,101.43	5,030.37	4,701.44	328.92	15.293		
12,500.00	7,055.46	7,038.46	7,055.46	149.54	243.99	89.75	206.59	-1,101.43	5,113.04	4,783.86	329.18	15.533		
12,600.00	7,055.17	7,038.17	7,055.17	152.30	243.98	89.74	206.59	-1,101.43	5,196.33	4,866.90	329.43	15.774		
12,700.00	7,054.87	7,037.87	7,054.87	155.07	243.97	89.73	206.59	-1,101.43	5,280.19	4,950.53	329.66	16.017		
12,800.00	7,054.57	7,037.57	7,054.57	157.84	243.96	89.73	206.59	-1,101.43	5,364.61	5,034.73	329.88	16.262		
12,900.00	7,054.27	7,037.27	7,054.27	160.61	243.95	89.72	206.59	-1,101.43	5,449.56	5,119.47	330.08	16.510		
13,000.00	7,053.97	7,036.97	7,053.97	163.39	243.94	89.72	206.59	-1,101.43	5,535.01	5,204.73	330.28	16.759		
13,100.00	7,053.68	7,036.68	7,053.68	166.17	243.93	89.71	206.59	-1,101.43	5,620.94	5,290.47	330.46	17.009		
13,200.00	7,053.38	7,036.38	7,053.38	168.95	243.92	89.70	206.59	-1,101.43	5,707.32	5,376.69	330.63	17.262		
13,300.00	7,053.08	7,036.08	7,053.08	171.73	243.91	89.70	206.59	-1,101.43	5,794.15	5,463.35	330.80	17.516		
13,400.00	7,052.78	7,035.78	7,052.78	174.52	243.90	89.69	206.59	-1,101.43	5,881.39	5,550.44	330.95	17.771		
13,500.00	7,052.49	7,035.49	7,052.49	177.31	243.89	89.69	206.59	-1,101.43	5,969.04	5,637.94	331.10	18.028		
13,600.00	7,052.19	7,035.19	7,052.19	180.10	243.88	89.68	206.59	-1,101.43	6,057.06	5,725.83	331.24	18.286		
13,700.00	7,051.89	7,034.89	7,051.89	182.90	243.87	89.67	206.59	-1,101.43	6,145.46	5,814.09	331.37	18.546		
13,800.00	7,051.59	7,034.59	7,051.59	185.69	243.85	89.67	206.59	-1,101.43	6,234.20	5,902.71	331.49	18.806		
13,900.00	7,051.30	7,034.30	7,051.30	188.49	243.84	89.66	206.59	-1,101.43	6,323.28	5,991.67	331.61	19.068		
14,000.00	7,051.00	7,034.00	7,051.00	191.29	243.83	89.66	206.59	-1,101.43	6,412.68	6,080.96	331.72	19.331		
14,100.00	7,050.70	7,033.70	7,050.70	194.09	243.82	89.65	206.59	-1,101.43	6,502.39	6,170.56	331.83	19.596		
14,200.00	7,050.40	7,033.40	7,050.40	196.89	243.81	89.64	206.59	-1,101.43	6,592.40	6,260.47	331.93	19.861		
14,300.00	7,050.11	7,033.11	7,050.11	199.70	243.80	89.64	206.59	-1,101.43	6,682.69	6,350.66	332.03	20.127		
14,400.00	7,049.81	7,032.81	7,049.81	202.50	243.79	89.63	206.59	-1,101.43	6,773.25	6,441.13	332.12	20.394		
14,500.00	7,049.51	7,032.51	7,049.51	205.31	243.78	89.63	206.59	-1,101.43	6,864.08	6,531.87	332.21	20.662		
14,600.00	7,049.21	7,032.21	7,049.21	208.12	243.77	89.62	206.59	-1,101.43	6,955.15	6,622.86	332.29	20.931		
14,700.00	7,048.92	7,031.92	7,048.92	210.93	243.76	89.61	206.59	-1,101.43	7,046.47	6,714.10	332.37	21.201		
14,800.00	7,048.62	7,031.62	7,048.62	213.74	243.75	89.61	206.59	-1,101.43	7,138.02	6,805.58	332.45	21.471		
14,900.00	7,048.32	7,031.32	7,048.32	216.55	243.74	89.60	206.59	-1,101.43	7,229.80	6,897.28	332.52	21.742		
15,000.00	7,048.02	7,031.02	7,048.02	219.37	243.73	89.60	206.59	-1,101.43	7,321.79	6,989.20	332.59	22.014		
15,100.00	7,047.73	7,030.73	7,047.73	222.18	243.72	89.59	206.59	-1,101.43	7,413.99	7,081.33	332.66	22.287		
15,200.00	7,047.43	7,030.43	7,047.43	225.00	243.71	89.59	206.59	-1,101.43	7,506.39	7,173.66	332.73	22.560		
15,300.00	7,047.13	7,030.13	7,047.13	227.81	243.70	89.58	206.59	-1,101.43	7,598.98	7,266.19	332.79	22.834		
15,343.67	7,047.00	7,030.00	7,047.00	229.04	243.69	89.58	206.59	-1,101.43	7,639.47	7,306.66	332.82	22.954		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	10.00	0.00	3.28	3.28	-59.03	887.86	-1,479.66	1,725.60					
100.00	100.00	110.00	100.00	3.28	3.89	-59.03	887.86	-1,479.66	1,725.60	1,718.42	7.18	240.453		
200.00	200.00	210.00	200.00	3.34	6.48	-59.03	887.86	-1,479.66	1,725.60	1,715.78	9.81	175.821 CC		
300.00	299.98	289.98	299.98	3.44	9.00	117.59	887.86	-1,479.66	1,726.40	1,713.97	12.44	138.819		
400.00	399.84	389.84	399.84	3.59	12.31	117.70	887.86	-1,479.66	1,728.84	1,712.94	15.90	108.746 ES		
500.00	499.45	489.45	499.45	3.79	15.69	117.89	887.86	-1,479.66	1,732.91	1,713.44	19.48	88.979		
600.00	598.70	588.70	598.70	4.03	19.09	118.14	887.86	-1,479.66	1,738.67	1,715.55	23.12	75.201		
700.00	697.47	687.47	697.47	4.31	22.49	118.45	887.86	-1,479.66	1,746.16	1,719.35	26.81	65.135		
800.00	795.62	785.62	795.62	4.64	25.89	118.83	887.86	-1,479.66	1,755.43	1,724.91	30.52	57.511		
900.00	893.06	883.06	893.06	5.00	29.27	119.26	887.86	-1,479.66	1,766.57	1,732.32	34.26	51.571		
1,000.00	989.64	979.64	989.64	5.40	32.62	119.74	887.86	-1,479.66	1,779.66	1,741.66	37.99	46.839		
1,100.00	1,085.27	1,075.27	1,085.27	5.83	35.94	120.26	887.86	-1,479.66	1,794.77	1,753.04	41.73	43.005		
1,200.00	1,179.82	1,169.82	1,179.82	6.29	39.23	120.81	887.86	-1,479.66	1,812.01	1,766.54	45.47	39.853		
1,300.00	1,273.17	1,263.17	1,273.17	6.79	42.48	121.39	887.86	-1,479.66	1,831.46	1,782.27	49.19	37.235		
1,400.00	1,365.46	1,355.46	1,365.46	7.32	45.69	122.21	887.86	-1,479.66	1,852.90	1,800.01	52.89	35.033		
1,500.00	1,457.65	1,447.65	1,457.65	7.87	48.90	123.16	887.86	-1,479.66	1,875.04	1,818.43	56.60	33.126		
1,600.00	1,549.83	1,539.83	1,549.83	8.43	52.11	124.08	887.86	-1,479.66	1,897.71	1,837.38	60.33	31.457		
1,700.00	1,642.02	1,632.02	1,642.02	9.01	55.33	124.99	887.86	-1,479.66	1,920.89	1,856.83	64.06	29.987		
1,800.00	1,734.21	1,724.21	1,734.21	9.59	58.54	125.88	887.86	-1,479.66	1,944.57	1,876.78	67.79	28.684		
1,900.00	1,826.39	1,816.39	1,826.39	10.18	61.75	126.75	887.86	-1,479.66	1,968.73	1,897.19	71.53	27.521		
2,000.00	1,918.58	1,908.58	1,918.58	10.78	64.97	127.60	887.86	-1,479.66	1,993.35	1,918.07	75.28	26.480		
2,100.00	2,010.77	2,000.77	2,010.77	11.39	68.18	128.43	887.86	-1,479.66	2,018.41	1,939.38	79.02	25.542		
2,200.00	2,102.95	2,107.05	2,102.95	11.99	71.89	129.24	887.86	-1,479.66	2,043.90	1,960.63	83.26	24.547		
2,300.00	2,195.14	2,185.14	2,195.14	12.61	74.61	130.03	887.86	-1,479.66	2,069.80	1,983.28	86.52	23.923		
2,400.00	2,287.32	2,277.32	2,287.32	13.22	77.83	130.81	887.86	-1,479.66	2,096.10	2,005.83	90.27	23.221		
2,500.00	2,379.51	2,369.51	2,379.51	13.84	81.04	131.57	887.86	-1,479.66	2,122.77	2,028.76	94.02	22.579		
2,600.00	2,471.70	2,461.70	2,471.70	14.46	84.26	132.31	887.86	-1,479.66	2,149.82	2,052.06	97.77	21.990		
2,700.00	2,563.88	2,553.88	2,563.88	15.08	87.47	133.03	887.86	-1,479.66	2,177.22	2,075.71	101.51	21.448		
2,800.00	2,656.07	2,646.07	2,656.07	15.71	90.69	133.74	887.86	-1,479.66	2,204.96	2,099.70	105.26	20.948		
2,900.00	2,748.26	2,738.26	2,748.26	16.33	93.90	134.43	887.86	-1,479.66	2,233.03	2,124.02	109.01	20.485		
3,000.00	2,840.44	2,830.44	2,840.44	16.96	97.12	135.10	887.86	-1,479.66	2,261.42	2,148.66	112.75	20.056		
3,100.00	2,932.63	2,922.63	2,932.63	17.59	100.34	135.76	887.86	-1,479.66	2,290.10	2,173.61	116.50	19.658		
3,200.00	3,024.81	3,014.81	3,024.81	18.22	103.55	136.40	887.86	-1,479.66	2,319.09	2,198.84	120.24	19.287		
3,300.00	3,117.00	3,107.00	3,117.00	18.86	106.77	137.03	887.86	-1,479.66	2,348.35	2,224.36	123.98	18.941		
3,400.00	3,209.19	3,200.81	3,209.19	19.49	110.04	137.65	887.86	-1,479.66	2,377.88	2,250.10	127.78	18.609		
3,500.00	3,301.37	3,308.63	3,301.37	20.12	113.81	138.25	887.86	-1,479.66	2,407.68	2,275.61	132.07	18.230		
3,600.00	3,393.56	3,383.56	3,393.56	20.76	116.42	138.83	887.86	-1,479.66	2,437.73	2,302.52	135.21	18.029		
3,700.00	3,485.75	3,475.75	3,485.75	21.39	119.64	139.41	887.86	-1,479.66	2,468.02	2,329.07	138.95	17.762		
3,800.00	3,577.93	3,567.93	3,577.93	22.03	122.86	139.97	887.86	-1,479.66	2,498.54	2,355.85	142.69	17.511		
3,900.00	3,670.12	3,660.12	3,670.12	22.67	126.07	140.51	887.86	-1,479.66	2,529.29	2,382.87	146.42	17.274		
4,000.00	3,762.30	3,752.30	3,762.30	23.30	129.29	141.05	887.86	-1,479.66	2,560.26	2,410.10	150.16	17.050		
4,100.00	3,854.49	3,844.49	3,854.49	23.94	132.51	141.57	887.86	-1,479.66	2,591.43	2,437.54	153.90	16.839		
4,200.00	3,946.68	3,936.68	3,946.68	24.58	135.72	142.08	887.86	-1,479.66	2,622.81	2,465.18	157.63	16.639		
4,300.00	4,038.86	4,028.86	4,038.86	25.22	138.94	142.58	887.86	-1,479.66	2,654.38	2,493.02	161.36	16.450		
4,400.00	4,131.05	4,121.05	4,131.05	25.86	142.16	143.07	887.86	-1,479.66	2,686.14	2,521.05	165.10	16.270		
4,500.00	4,223.24	4,213.24	4,223.24	26.50	145.38	143.55	887.86	-1,479.66	2,718.09	2,549.26	168.83	16.099		
4,600.00	4,315.42	4,305.42	4,315.42	27.14	148.59	144.02	887.86	-1,479.66	2,750.20	2,577.64	172.56	15.937		
4,700.00	4,407.61	4,402.39	4,407.61	27.78	151.98	144.47	887.86	-1,479.66	2,782.49	2,606.03	176.46	15.768		
4,800.00	4,499.79	4,489.79	4,499.79	28.42	155.03	144.92	887.86	-1,479.66	2,814.94	2,634.91	180.03	15.636		
4,900.00	4,591.98	4,581.98	4,591.98	29.06	158.25	145.36	887.86	-1,479.66	2,847.55	2,663.79	183.76	15.496		
5,000.00	4,684.17	4,674.17	4,684.17	29.70	161.46	145.78	887.86	-1,479.66	2,880.31	2,692.82	187.49	15.363		
5,100.00	4,776.35	4,766.35	4,776.35	30.34	164.68	146.20	887.86	-1,479.66	2,913.21	2,722.00	191.22	15.235		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,200.00	4,868.54	4,858.54	4,868.54	30.98	167.90	146.61	887.86	-1,479.66	2,946.26	2,751.32	194.95	15.113		
5,300.00	4,960.73	4,950.73	4,960.73	31.63	171.12	147.01	887.86	-1,479.66	2,979.45	2,780.77	198.67	14.997		
5,400.00	5,052.91	5,042.91	5,052.91	32.27	174.33	147.41	887.86	-1,479.66	3,012.77	2,810.36	202.40	14.885		
5,500.00	5,145.10	5,135.10	5,145.10	32.91	177.55	147.79	887.86	-1,479.66	3,046.21	2,840.08	206.13	14.778		
5,600.00	5,237.28	5,227.28	5,237.28	33.55	180.77	148.17	887.86	-1,479.66	3,079.79	2,869.93	209.86	14.676		
5,700.00	5,329.47	5,319.47	5,329.47	34.20	183.99	148.53	887.86	-1,479.66	3,113.48	2,899.89	213.58	14.577		
5,800.00	5,421.66	5,411.66	5,421.66	34.84	187.20	148.89	887.86	-1,479.66	3,147.29	2,929.98	217.31	14.483		
5,900.00	5,513.84	5,503.84	5,513.84	35.48	190.42	149.25	887.86	-1,479.66	3,181.21	2,960.17	221.04	14.392		
6,000.00	5,606.03	5,603.97	5,606.03	36.13	193.92	149.59	887.86	-1,479.66	3,215.24	2,990.20	225.04	14.287		
6,100.00	5,698.22	5,688.22	5,698.22	36.77	196.86	149.93	887.86	-1,479.66	3,249.38	3,020.88	228.49	14.221		
6,200.00	5,790.40	5,780.40	5,790.40	37.41	200.08	150.27	887.86	-1,479.66	3,283.61	3,051.40	232.22	14.140		
6,300.00	5,882.59	5,872.59	5,882.59	38.06	203.29	150.59	887.86	-1,479.66	3,317.95	3,082.01	235.94	14.063		
6,400.00	5,974.77	5,964.77	5,974.77	38.70	206.51	150.91	887.86	-1,479.66	3,352.39	3,112.72	239.67	13.988		
6,500.00	6,066.96	6,056.96	6,066.96	39.34	209.73	151.22	887.86	-1,479.66	3,386.91	3,143.52	243.39	13.915		
6,600.00	6,159.15	6,149.15	6,159.15	39.99	212.95	151.53	887.86	-1,479.66	3,421.53	3,174.41	247.12	13.846		
6,700.00	6,251.33	6,241.33	6,251.33	40.63	216.16	151.83	887.86	-1,479.66	3,456.24	3,205.39	250.84	13.778		
6,800.00	6,343.52	6,333.52	6,343.52	41.28	219.38	152.13	887.86	-1,479.66	3,491.03	3,236.46	254.57	13.713		
6,900.00	6,435.71	6,425.71	6,435.71	41.92	222.60	152.42	887.86	-1,479.66	3,525.90	3,267.61	258.29	13.651		
7,000.00	6,527.86	6,517.86	6,527.86	42.56	225.82	152.71	887.86	-1,479.66	3,560.52	3,298.50	262.02	13.589		
7,100.00	6,618.85	6,608.85	6,618.85	43.19	228.99	152.99	887.86	-1,479.66	3,595.37	3,329.68	265.69	13.513		
7,200.00	6,706.47	6,696.47	6,706.47	43.76	232.30	153.26	887.86	-1,479.66	3,630.36	3,360.93	269.47	13.411		
7,300.00	6,798.56	6,788.56	6,798.56	44.26	235.92	153.51	887.86	-1,479.66	3,665.46	3,392.24	273.29	13.323		
7,400.00	6,890.65	6,880.65	6,890.65	44.70	239.52	153.74	887.86	-1,479.66	3,700.66	3,423.61	277.14	13.216		
7,500.00	6,982.74	6,972.74	6,982.74	45.07	243.09	153.95	887.86	-1,479.66	3,735.95	3,455.06	281.01	13.105		
7,600.00	7,074.83	7,064.83	7,074.83	45.39	246.61	154.14	887.86	-1,479.66	3,771.33	3,486.59	284.91	12.992		
7,700.00	7,166.92	7,156.92	7,166.92	45.67	250.09	154.31	887.86	-1,479.66	3,806.80	3,517.20	288.84	12.878		
7,800.00	7,259.01	7,249.01	7,259.01	45.92	253.52	154.46	887.86	-1,479.66	3,842.34	3,547.86	292.79	12.765		
7,900.00	7,351.10	7,341.10	7,351.10	46.16	256.90	154.59	887.86	-1,479.66	3,877.95	3,577.57	296.76	12.654		
8,000.00	7,443.19	7,433.19	7,443.19	46.42	260.23	154.70	887.86	-1,479.66	3,913.62	3,607.24	300.75	12.548		
8,100.00	7,535.28	7,525.28	7,535.28	46.78	263.51	154.79	887.86	-1,479.66	3,949.34	3,636.87	304.76	12.445		
8,200.00	7,627.37	7,617.37	7,627.37	47.29	266.74	154.86	887.86	-1,479.66	3,985.11	3,666.46	308.79	12.347		
8,300.00	7,719.46	7,709.46	7,719.46	48.03	269.92	154.90	887.86	-1,479.66	4,020.93	3,696.01	312.84	12.252		
8,400.00	7,811.55	7,801.55	7,811.55	49.02	273.05	154.91	887.86	-1,479.66	4,056.80	3,725.52	316.90	12.164		
8,500.00	7,903.64	7,893.64	7,903.64	50.27	276.13	154.90	887.86	-1,479.66	4,092.72	3,755.00	320.97	12.081		
8,600.00	7,995.73	7,985.73	7,995.73	51.75	279.16	154.87	887.86	-1,479.66	4,128.69	3,784.44	325.05	12.005		
8,631.02	7,066.98	7,056.98	7,066.98	52.26	244.64	90.00	887.86	-1,479.66	3,536.45	3,241.33	295.12	11.983		
8,700.00	7,066.77	7,056.77	7,066.77	53.42	244.63	90.00	887.86	-1,479.66	3,537.12	3,240.81	296.31	11.937		
8,800.00	7,066.47	7,056.47	7,066.47	55.24	244.62	89.99	887.86	-1,479.66	3,540.48	3,242.38	298.10	11.877		
8,900.00	7,066.18	7,056.18	7,066.18	57.18	244.61	89.99	887.86	-1,479.66	3,546.66	3,246.73	299.93	11.825		
9,000.00	7,065.88	7,055.88	7,065.88	59.21	244.60	89.98	887.86	-1,479.66	3,555.65	3,253.85	301.79	11.782		
9,100.00	7,065.58	7,055.58	7,065.58	61.33	244.59	89.98	887.86	-1,479.66	3,567.41	3,263.74	303.67	11.747		
9,200.00	7,065.28	7,055.28	7,065.28	63.51	244.58	89.97	887.86	-1,479.66	3,581.93	3,276.37	305.56	11.722		
9,300.00	7,064.99	7,054.99	7,064.99	65.76	244.57	89.97	887.86	-1,479.66	3,599.17	3,291.73	307.44	11.707		
9,400.00	7,064.69	7,054.69	7,064.69	68.06	244.56	89.96	887.86	-1,479.66	3,619.09	3,309.78	309.31	11.701 SF		
9,500.00	7,064.39	7,054.39	7,064.39	70.40	244.55	89.96	887.86	-1,479.66	3,641.65	3,330.49	311.16	11.704		
9,600.00	7,064.09	7,054.09	7,064.09	72.78	244.54	89.95	887.86	-1,479.66	3,666.80	3,353.82	312.97	11.716		
9,700.00	7,063.80	7,053.80	7,063.80	75.20	244.52	89.95	887.86	-1,479.66	3,694.48	3,379.72	314.76	11.738		
9,800.00	7,063.50	7,053.50	7,063.50	77.65	244.51	89.94	887.86	-1,479.66	3,724.64	3,408.15	316.50	11.768		
9,900.00	7,063.20	7,053.20	7,063.20	80.13	244.50	89.94	887.86	-1,479.66	3,757.23	3,439.03	318.19	11.808		
10,000.00	7,062.90	7,052.90	7,062.90	82.64	244.49	89.93	887.86	-1,479.66	3,792.17	3,472.33	319.84	11.856		
10,100.00	7,062.61	7,052.61	7,062.61	85.17	244.48	89.93	887.86	-1,479.66	3,829.41	3,507.97	321.44	11.913		
10,200.00	7,062.31	7,052.31	7,062.31	87.72	244.47	89.92	887.86	-1,479.66	3,868.87	3,545.89	322.98	11.979		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,052.01	7,062.01	90.28	244.46	89.92	887.86	-1,479.66	3,910.49	3,586.02	324.47	12.052		
10,400.00	7,061.71	7,051.71	7,061.71	92.87	244.45	89.91	887.86	-1,479.66	3,954.21	3,628.30	325.91	12.133		
10,500.00	7,061.41	7,051.41	7,061.41	95.47	244.44	89.91	887.86	-1,479.66	3,999.94	3,672.66	327.28	12.222		
10,600.00	7,061.12	7,051.12	7,061.12	98.09	244.43	89.91	887.86	-1,479.66	4,047.63	3,719.03	328.60	12.318		
10,700.00	7,060.82	7,050.82	7,060.82	100.72	244.42	89.90	887.86	-1,479.66	4,097.21	3,767.34	329.86	12.421		
10,800.00	7,060.52	7,050.52	7,060.52	103.37	244.41	89.90	887.86	-1,479.66	4,148.60	3,817.53	331.07	12.531		
10,900.00	7,060.22	7,050.22	7,060.22	106.02	244.40	89.89	887.86	-1,479.66	4,201.75	3,869.52	332.23	12.647		
11,000.00	7,059.93	7,049.93	7,059.93	108.69	244.39	89.89	887.86	-1,479.66	4,256.58	3,923.26	333.33	12.770		
11,100.00	7,059.63	7,049.63	7,059.63	111.36	244.38	89.88	887.86	-1,479.66	4,313.04	3,978.66	334.37	12.899		
11,200.00	7,059.33	7,049.33	7,059.33	114.05	244.37	89.88	887.86	-1,479.66	4,371.05	4,035.68	335.37	13.033		
11,300.00	7,059.03	7,049.03	7,059.03	116.74	244.36	89.87	887.86	-1,479.66	4,430.56	4,094.24	336.32	13.174		
11,400.00	7,058.74	7,048.74	7,058.74	119.44	244.35	89.87	887.86	-1,479.66	4,491.51	4,154.29	337.22	13.319		
11,500.00	7,058.44	7,048.44	7,058.44	122.15	244.34	89.86	887.86	-1,479.66	4,553.84	4,215.76	338.08	13.470		
11,600.00	7,058.14	7,048.14	7,058.14	124.86	244.33	89.86	887.86	-1,479.66	4,617.49	4,278.60	338.89	13.625		
11,700.00	7,057.84	7,047.84	7,057.84	127.58	244.32	89.85	887.86	-1,479.66	4,682.42	4,342.76	339.66	13.786		
11,800.00	7,057.55	7,047.55	7,057.55	130.31	244.31	89.85	887.86	-1,479.66	4,748.56	4,408.17	340.39	13.950		
11,900.00	7,057.25	7,047.25	7,057.25	133.04	244.30	89.84	887.86	-1,479.66	4,815.87	4,474.79	341.09	14.119		
12,000.00	7,056.95	7,046.95	7,056.95	135.78	244.29	89.84	887.86	-1,479.66	4,884.30	4,542.56	341.74	14.292		
12,100.00	7,056.65	7,046.65	7,056.65	138.52	244.28	89.83	887.86	-1,479.66	4,953.81	4,611.44	342.36	14.469		
12,200.00	7,056.36	7,046.36	7,056.36	141.27	244.27	89.83	887.86	-1,479.66	5,024.34	4,681.39	342.95	14.650		
12,300.00	7,056.06	7,046.06	7,056.06	144.02	244.25	89.82	887.86	-1,479.66	5,095.86	4,752.35	343.51	14.835		
12,400.00	7,055.76	7,045.76	7,055.76	146.78	244.24	89.82	887.86	-1,479.66	5,168.32	4,824.29	344.04	15.023		
12,500.00	7,055.46	7,045.46	7,055.46	149.54	244.23	89.81	887.86	-1,479.66	5,241.69	4,897.16	344.53	15.214		
12,600.00	7,055.17	7,045.17	7,055.17	152.30	244.22	89.81	887.86	-1,479.66	5,315.93	4,970.93	345.01	15.408		
12,700.00	7,054.87	7,044.87	7,054.87	155.07	244.21	89.80	887.86	-1,479.66	5,391.01	5,045.55	345.45	15.606		
12,800.00	7,054.57	7,044.57	7,054.57	157.84	244.20	89.80	887.86	-1,479.66	5,466.88	5,121.00	345.88	15.806		
12,900.00	7,054.27	7,044.27	7,054.27	160.61	244.19	89.79	887.86	-1,479.66	5,543.51	5,197.24	346.28	16.009		
13,000.00	7,053.97	7,043.97	7,053.97	163.39	244.18	89.79	887.86	-1,479.66	5,620.88	5,274.23	346.65	16.215		
13,100.00	7,053.68	7,043.68	7,053.68	166.17	244.17	89.78	887.86	-1,479.66	5,698.96	5,351.94	347.01	16.423		
13,200.00	7,053.38	7,043.38	7,053.38	168.95	244.16	89.78	887.86	-1,479.66	5,777.71	5,430.35	347.35	16.634		
13,300.00	7,053.08	7,043.08	7,053.08	171.73	244.15	89.77	887.86	-1,479.66	5,857.10	5,509.43	347.67	16.847		
13,400.00	7,052.78	7,042.78	7,052.78	174.52	244.14	89.77	887.86	-1,479.66	5,937.13	5,589.15	347.98	17.062		
13,500.00	7,052.49	7,042.49	7,052.49	177.31	244.13	89.77	887.86	-1,479.66	6,017.74	5,669.48	348.26	17.279		
13,600.00	7,052.19	7,042.19	7,052.19	180.10	244.12	89.76	887.86	-1,479.66	6,098.94	5,750.40	348.54	17.499		
13,700.00	7,051.89	7,041.89	7,051.89	182.90	244.11	89.76	887.86	-1,479.66	6,180.68	5,831.89	348.79	17.720		
13,800.00	7,051.59	7,041.59	7,051.59	185.69	244.10	89.75	887.86	-1,479.66	6,262.96	5,913.92	349.04	17.944		
13,900.00	7,051.30	7,041.30	7,051.30	188.49	244.09	89.75	887.86	-1,479.66	6,345.74	5,996.47	349.27	18.169		
14,000.00	7,051.00	7,041.00	7,051.00	191.29	244.08	89.74	887.86	-1,479.66	6,429.01	6,079.52	349.49	18.396		
14,100.00	7,050.70	7,040.70	7,050.70	194.09	244.07	89.74	887.86	-1,479.66	6,512.75	6,163.06	349.69	18.624		
14,200.00	7,050.40	7,040.40	7,050.40	196.89	244.06	89.73	887.86	-1,479.66	6,596.95	6,247.06	349.89	18.854		
14,300.00	7,050.11	7,040.11	7,050.11	199.70	244.05	89.73	887.86	-1,479.66	6,681.58	6,331.50	350.08	19.086		
14,400.00	7,049.81	7,039.81	7,049.81	202.50	244.04	89.72	887.86	-1,479.66	6,766.63	6,416.38	350.26	19.319		
14,500.00	7,049.51	7,039.51	7,049.51	205.31	244.03	89.72	887.86	-1,479.66	6,852.09	6,501.67	350.42	19.554		
14,600.00	7,049.21	7,039.21	7,049.21	208.12	244.02	89.71	887.86	-1,479.66	6,937.93	6,587.35	350.58	19.790		
14,700.00	7,048.92	7,038.92	7,048.92	210.93	244.01	89.71	887.86	-1,479.66	7,024.15	6,673.42	350.73	20.027		
14,800.00	7,048.62	7,038.62	7,048.62	213.74	244.00	89.70	887.86	-1,479.66	7,110.73	6,759.85	350.88	20.266		
14,900.00	7,048.32	7,038.32	7,048.32	216.55	243.98	89.70	887.86	-1,479.66	7,197.66	6,846.64	351.01	20.505		
15,000.00	7,048.02	7,038.02	7,048.02	219.37	243.97	89.69	887.86	-1,479.66	7,284.92	6,933.78	351.14	20.746		
15,100.00	7,047.73	7,037.73	7,047.73	222.18	243.96	89.69	887.86	-1,479.66	7,372.50	7,021.24	351.27	20.988		
15,200.00	7,047.43	7,037.43	7,047.43	225.00	243.95	89.68	887.86	-1,479.66	7,460.40	7,109.02	351.38	21.231		
15,300.00	7,047.13	7,037.13	7,047.13	227.81	243.94	89.68	887.86	-1,479.66	7,548.60	7,197.11	351.50	21.476		
15,343.67	7,047.00	7,037.00	7,047.00	229.04	243.94	89.68	887.86	-1,479.66	7,587.21	7,235.67	351.54	21.583		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	47.00	3.28	3.28	-74.37	1,395.79	-4,987.63	5,179.47					
100.00	100.00	53.00	100.00	3.28	3.41	-74.37	1,395.79	-4,987.63	5,179.26	5,172.56	6.69	773.867		
200.00	200.00	153.00	200.00	3.34	4.87	-74.37	1,395.79	-4,987.63	5,179.26	5,171.05	8.20	631.306		
300.00	299.98	252.98	299.98	3.44	7.81	102.24	1,395.79	-4,987.63	5,179.63	5,168.38	11.25	460.507		
400.00	399.84	352.84	399.84	3.59	11.07	102.27	1,395.79	-4,987.63	5,180.74	5,166.08	14.66	353.449		
500.00	499.45	452.45	499.45	3.79	14.43	102.33	1,395.79	-4,987.63	5,182.60	5,164.39	18.21	284.542		
600.00	598.70	551.70	598.70	4.03	17.82	102.41	1,395.79	-4,987.63	5,185.23	5,163.38	21.85	237.330		
700.00	697.47	650.47	697.47	4.31	21.22	102.51	1,395.79	-4,987.63	5,188.65	5,163.11	25.53	203.228		
800.00	795.62	748.62	795.62	4.64	24.61	102.63	1,395.79	-4,987.63	5,192.87	5,163.63	29.25	177.560		
900.00	893.06	846.06	893.06	5.00	27.98	102.76	1,395.79	-4,987.63	5,197.94	5,164.96	32.98	157.607		
1,000.00	989.64	942.64	989.64	5.40	31.33	102.92	1,395.79	-4,987.63	5,203.89	5,167.16	36.73	141.693		
1,100.00	1,085.27	1,038.27	1,085.27	5.83	34.66	103.08	1,395.79	-4,987.63	5,210.75	5,170.27	40.48	128.734		
1,200.00	1,179.82	1,132.82	1,179.82	6.29	37.94	103.26	1,395.79	-4,987.63	5,218.57	5,174.35	44.23	117.998		
1,300.00	1,273.17	1,226.17	1,273.17	6.79	41.19	103.45	1,395.79	-4,987.63	5,227.40	5,179.44	47.97	108.978		
1,400.00	1,365.46	1,318.46	1,365.46	7.32	44.40	103.75	1,395.79	-4,987.63	5,237.15	5,185.45	51.70	101.297		
1,500.00	1,457.65	1,410.65	1,457.65	7.87	47.61	104.13	1,395.79	-4,987.63	5,247.22	5,191.77	55.45	94.628		
1,600.00	1,549.83	1,502.83	1,549.83	8.43	50.82	104.51	1,395.79	-4,987.63	5,257.57	5,198.35	59.21	88.788		
1,700.00	1,642.02	1,604.98	1,642.02	9.01	54.38	104.89	1,395.79	-4,987.63	5,268.18	5,204.84	63.34	83.177		
1,800.00	1,734.21	1,687.21	1,734.21	9.59	57.25	105.27	1,395.79	-4,987.63	5,279.05	5,212.27	66.77	79.059		
1,900.00	1,826.39	1,779.39	1,826.39	10.18	60.46	105.64	1,395.79	-4,987.63	5,290.18	5,219.61	70.57	74.969		
2,000.00	1,918.58	1,871.58	1,918.58	10.78	63.68	106.02	1,395.79	-4,987.63	5,301.57	5,227.21	74.36	71.294		
2,100.00	2,010.77	1,963.77	2,010.77	11.39	66.89	106.39	1,395.79	-4,987.63	5,313.22	5,235.06	78.16	67.975		
2,200.00	2,102.95	2,055.95	2,102.95	11.99	70.10	106.76	1,395.79	-4,987.63	5,325.13	5,243.16	81.97	64.965		
2,300.00	2,195.14	2,148.14	2,195.14	12.61	73.32	107.13	1,395.79	-4,987.63	5,337.29	5,251.51	85.78	62.222		
2,400.00	2,287.32	2,240.32	2,287.32	13.22	76.53	107.50	1,395.79	-4,987.63	5,349.71	5,260.12	89.59	59.713		
2,500.00	2,379.51	2,332.51	2,379.51	13.84	79.75	107.87	1,395.79	-4,987.63	5,362.37	5,268.97	93.40	57.411		
2,600.00	2,471.70	2,424.70	2,471.70	14.46	82.97	108.23	1,395.79	-4,987.63	5,375.29	5,278.07	97.22	55.291		
2,700.00	2,563.88	2,516.88	2,563.88	15.08	86.18	108.60	1,395.79	-4,987.63	5,388.45	5,287.42	101.03	53.333		
2,800.00	2,656.07	2,609.07	2,656.07	15.71	89.40	108.96	1,395.79	-4,987.63	5,401.86	5,297.01	104.85	51.519		
2,900.00	2,748.26	2,701.26	2,748.26	16.33	92.61	109.32	1,395.79	-4,987.63	5,415.51	5,306.84	108.67	49.835		
3,000.00	2,840.44	2,806.56	2,840.44	16.96	96.29	109.68	1,395.79	-4,987.63	5,429.41	5,316.46	112.95	48.071		
3,100.00	2,932.63	2,885.63	2,932.63	17.59	99.05	110.04	1,395.79	-4,987.63	5,443.55	5,327.24	116.31	46.803		
3,200.00	3,024.81	2,977.81	3,024.81	18.22	102.26	110.39	1,395.79	-4,987.63	5,457.92	5,337.80	120.13	45.435		
3,300.00	3,117.00	3,070.00	3,117.00	18.86	105.48	110.75	1,395.79	-4,987.63	5,472.53	5,348.59	123.94	44.153		
3,400.00	3,209.19	3,162.19	3,209.19	19.49	108.70	111.10	1,395.79	-4,987.63	5,487.38	5,359.62	127.76	42.949		
3,500.00	3,301.37	3,254.37	3,301.37	20.12	111.91	111.45	1,395.79	-4,987.63	5,502.46	5,370.88	131.58	41.818		
3,600.00	3,393.56	3,346.56	3,393.56	20.76	115.13	111.80	1,395.79	-4,987.63	5,517.77	5,382.37	135.40	40.752		
3,700.00	3,485.75	3,438.75	3,485.75	21.39	118.35	112.15	1,395.79	-4,987.63	5,533.31	5,394.09	139.22	39.746		
3,800.00	3,577.93	3,530.93	3,577.93	22.03	121.56	112.49	1,395.79	-4,987.63	5,549.07	5,406.04	143.03	38.795		
3,900.00	3,670.12	3,623.12	3,670.12	22.67	124.78	112.84	1,395.79	-4,987.63	5,565.06	5,418.21	146.85	37.896		
4,000.00	3,762.30	3,715.30	3,762.30	23.30	128.00	113.18	1,395.79	-4,987.63	5,581.28	5,430.61	150.67	37.044		
4,100.00	3,854.49	3,807.49	3,854.49	23.94	131.22	113.52	1,395.79	-4,987.63	5,597.72	5,443.23	154.48	36.235		
4,200.00	3,946.68	3,900.32	3,946.68	24.58	134.46	113.86	1,395.79	-4,987.63	5,614.37	5,456.05	158.32	35.462		
4,300.00	4,038.86	4,008.14	4,038.86	25.22	138.22	114.20	1,395.79	-4,987.63	5,631.24	5,468.56	162.68	34.616		
4,400.00	4,131.05	4,084.05	4,131.05	25.86	140.87	114.53	1,395.79	-4,987.63	5,648.33	5,482.41	165.92	34.042		
4,500.00	4,223.24	4,176.24	4,223.24	26.50	144.08	114.87	1,395.79	-4,987.63	5,665.63	5,495.90	169.74	33.379		
4,600.00	4,315.42	4,268.42	4,315.42	27.14	147.30	115.20	1,395.79	-4,987.63	5,683.15	5,509.60	173.55	32.747		
4,700.00	4,407.61	4,360.61	4,407.61	27.78	150.52	115.53	1,395.79	-4,987.63	5,700.87	5,523.51	177.36	32.144		
4,800.00	4,499.79	4,452.79	4,499.79	28.42	153.74	115.86	1,395.79	-4,987.63	5,718.80	5,537.63	181.17	31.567		
4,900.00	4,591.98	4,544.98	4,591.98	29.06	156.95	116.19	1,395.79	-4,987.63	5,736.94	5,551.96	184.97	31.015		
5,000.00	4,684.17	4,637.17	4,684.17	29.70	160.17	116.51	1,395.79	-4,987.63	5,755.28	5,566.50	188.78	30.487		
5,100.00	4,776.35	4,729.35	4,776.35	30.34	163.39	116.83	1,395.79	-4,987.63	5,773.82	5,581.23	192.59	29.980		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,821.54	4,868.54	30.98	166.61	117.15	1,395.79	-4,987.63	5,792.56	5,596.17	196.39	29.495		
5,300.00	4,960.73	4,913.73	4,960.73	31.63	169.82	117.47	1,395.79	-4,987.63	5,811.50	5,611.30	200.20	29.029		
5,400.00	5,052.91	5,005.91	5,052.91	32.27	173.04	117.79	1,395.79	-4,987.63	5,830.63	5,626.64	204.00	28.582		
5,500.00	5,145.10	5,101.90	5,145.10	32.91	176.39	118.11	1,395.79	-4,987.63	5,849.96	5,642.03	207.93	28.134		
5,600.00	5,237.28	5,209.72	5,237.28	33.55	180.16	118.42	1,395.79	-4,987.63	5,869.49	5,657.21	212.28	27.650		
5,700.00	5,329.47	5,282.47	5,329.47	34.20	182.70	118.73	1,395.79	-4,987.63	5,889.20	5,673.80	215.40	27.340		
5,800.00	5,421.66	5,374.66	5,421.66	34.84	185.91	119.04	1,395.79	-4,987.63	5,909.10	5,689.90	219.20	26.957		
5,900.00	5,513.84	5,466.84	5,513.84	35.48	189.13	119.35	1,395.79	-4,987.63	5,929.19	5,706.19	223.00	26.588		
6,000.00	5,606.03	5,559.03	5,606.03	36.13	192.35	119.66	1,395.79	-4,987.63	5,949.46	5,722.66	226.80	26.233		
6,100.00	5,698.22	5,651.22	5,698.22	36.77	195.57	119.96	1,395.79	-4,987.63	5,969.91	5,739.32	230.59	25.890		
6,200.00	5,790.40	5,743.40	5,790.40	37.41	198.78	120.26	1,395.79	-4,987.63	5,990.55	5,756.16	234.39	25.559		
6,300.00	5,882.59	5,835.59	5,882.59	38.06	202.00	120.56	1,395.79	-4,987.63	6,011.36	5,773.18	238.18	25.239		
6,400.00	5,974.77	5,927.77	5,974.77	38.70	205.22	120.86	1,395.79	-4,987.63	6,032.35	5,790.38	241.97	24.930		
6,500.00	6,066.96	6,019.96	6,066.96	39.34	208.44	121.16	1,395.79	-4,987.63	6,053.52	5,807.76	245.76	24.632		
6,600.00	6,159.15	6,112.15	6,159.15	39.99	211.66	121.45	1,395.79	-4,987.63	6,074.86	5,825.31	249.55	24.343		
6,700.00	6,251.33	6,204.33	6,251.33	40.63	214.87	121.75	1,395.79	-4,987.63	6,096.37	5,843.03	253.34	24.064		
6,800.00	6,343.52	6,303.48	6,343.52	41.28	218.33	122.04	1,395.79	-4,987.63	6,118.05	5,860.68	257.37	23.771		
6,900.00	6,435.71	6,388.71	6,435.71	41.92	221.31	122.33	1,395.79	-4,987.63	6,139.90	5,878.99	260.92	23.532		
7,000.00	6,527.86	6,480.86	6,527.86	42.56	224.53	115.22	1,395.79	-4,987.63	6,161.23	5,896.52	264.70	23.276		
7,100.00	6,618.85	6,571.85	6,618.85	43.19	227.70	96.43	1,395.79	-4,987.63	6,172.97	5,904.52	268.45	22.995		
7,200.00	6,706.47	6,659.47	6,706.47	43.76	230.76	83.57	1,395.79	-4,987.63	6,172.28	5,900.23	272.05	22.688		
7,300.00	6,788.56	6,741.56	6,788.56	44.26	233.63	75.83	1,395.79	-4,987.63	6,159.36	5,883.95	275.40	22.365		
7,400.00	6,863.10	6,816.10	6,863.10	44.70	236.23	71.79	1,395.79	-4,987.63	6,134.72	5,856.26	278.46	22.031		
7,500.00	6,928.26	6,881.26	6,928.26	45.07	238.50	70.50	1,395.79	-4,987.63	6,099.13	5,817.96	281.17	21.692		
7,600.00	6,982.42	6,935.42	6,982.42	45.39	240.39	71.44	1,395.79	-4,987.63	6,053.61	5,770.11	283.50	21.353		
7,700.00	7,024.26	6,977.26	7,024.26	45.67	241.85	74.36	1,395.79	-4,987.63	5,999.39	5,713.94	285.44	21.018		
7,800.00	7,052.75	7,005.75	7,052.75	45.92	242.85	79.21	1,395.79	-4,987.63	5,937.84	5,650.87	286.97	20.691		
7,900.00	7,067.18	7,020.18	7,067.18	46.16	243.35	85.94	1,395.79	-4,987.63	5,870.49	5,582.41	288.08	20.378		
8,000.00	7,068.85	7,021.85	7,068.85	46.42	243.41	90.17	1,395.79	-4,987.63	5,799.37	5,510.57	288.80	20.081		
8,100.00	7,068.56	7,021.56	7,068.56	46.78	243.40	90.17	1,395.79	-4,987.63	5,728.48	5,438.94	289.54	19.785		
8,200.00	7,068.26	7,021.26	7,068.26	47.29	243.39	90.17	1,395.79	-4,987.63	5,658.47	5,368.08	290.39	19.486		
8,300.00	7,067.96	7,020.96	7,067.96	48.03	243.38	90.16	1,395.79	-4,987.63	5,589.38	5,298.04	291.33	19.185		
8,400.00	7,067.66	7,020.66	7,067.66	49.02	243.37	90.16	1,395.79	-4,987.63	5,521.23	5,228.84	292.39	18.883		
8,500.00	7,067.37	7,020.37	7,067.37	50.27	243.36	90.15	1,395.79	-4,987.63	5,454.06	5,160.52	293.54	18.580		
8,600.00	7,067.07	7,020.07	7,067.07	51.75	243.35	90.15	1,395.79	-4,987.63	5,387.91	5,093.11	294.80	18.276		
8,700.00	7,066.77	7,019.77	7,066.77	53.42	243.34	90.14	1,395.79	-4,987.63	5,322.82	5,026.66	296.17	17.972		
8,800.00	7,066.47	7,019.47	7,066.47	55.24	243.33	90.14	1,395.79	-4,987.63	5,258.83	4,961.19	297.63	17.669		
8,900.00	7,066.18	7,019.18	7,066.18	57.18	243.32	90.14	1,395.79	-4,987.63	5,195.97	4,896.77	299.20	17.366		
9,000.00	7,065.88	7,018.88	7,065.88	59.21	243.31	90.13	1,395.79	-4,987.63	5,134.29	4,833.42	300.87	17.065		
9,100.00	7,065.58	7,018.58	7,065.58	61.33	243.30	90.13	1,395.79	-4,987.63	5,073.83	4,771.19	302.63	16.766		
9,200.00	7,065.28	7,018.28	7,065.28	63.51	243.29	90.12	1,395.79	-4,987.63	5,014.63	4,710.14	304.50	16.469		
9,300.00	7,064.99	7,017.99	7,064.99	65.76	243.27	90.12	1,395.79	-4,987.63	4,956.75	4,650.30	306.45	16.175		
9,400.00	7,064.69	7,017.69	7,064.69	68.06	243.26	90.11	1,395.79	-4,987.63	4,900.22	4,591.73	308.50	15.884		
9,500.00	7,064.39	7,017.39	7,064.39	70.40	243.25	90.11	1,395.79	-4,987.63	4,845.10	4,534.47	310.63	15.598		
9,600.00	7,064.09	7,017.09	7,064.09	72.78	243.24	90.11	1,395.79	-4,987.63	4,791.43	4,478.59	312.85	15.316		
9,700.00	7,063.80	7,016.80	7,063.80	75.20	243.23	90.10	1,395.79	-4,987.63	4,739.27	4,424.12	315.15	15.038		
9,800.00	7,063.50	7,016.50	7,063.50	77.65	243.22	90.10	1,395.79	-4,987.63	4,688.66	4,371.13	317.52	14.766		
9,900.00	7,063.20	7,016.20	7,063.20	80.13	243.21	90.09	1,395.79	-4,987.63	4,639.65	4,319.67	319.97	14.500		
10,000.00	7,062.90	7,015.90	7,062.90	82.64	243.20	90.09	1,395.79	-4,987.63	4,592.29	4,269.80	322.49	14.240		
10,100.00	7,062.61	7,015.61	7,062.61	85.17	243.19	90.09	1,395.79	-4,987.63	4,546.64	4,221.57	325.07	13.986		
10,200.00	7,062.31	7,015.31	7,062.31	87.72	243.18	90.08	1,395.79	-4,987.63	4,502.75	4,175.04	327.72	13.740		
10,300.00	7,062.01	7,015.01	7,062.01	90.28	243.17	90.08	1,395.79	-4,987.63	4,460.67	4,130.26	330.41	13.500		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,014.71	7,061.71	92.87	243.16	90.07	1,395.79	-4,987.63	4,420.46	4,087.29	333.16	13.268		
10,500.00	7,061.41	7,014.41	7,061.41	95.47	243.15	90.07	1,395.79	-4,987.63	4,382.15	4,046.20	335.95	13.044		
10,600.00	7,061.12	7,014.12	7,061.12	98.09	243.14	90.06	1,395.79	-4,987.63	4,345.81	4,007.03	338.78	12.828		
10,700.00	7,060.82	7,013.82	7,060.82	100.72	243.13	90.06	1,395.79	-4,987.63	4,311.48	3,969.84	341.65	12.620		
10,800.00	7,060.52	7,013.52	7,060.52	103.37	243.12	90.06	1,395.79	-4,987.63	4,279.22	3,934.69	344.53	12.420		
10,900.00	7,060.22	7,013.22	7,060.22	106.02	243.11	90.05	1,395.79	-4,987.63	4,249.06	3,901.62	347.44	12.230		
11,000.00	7,059.93	7,012.93	7,059.93	108.69	243.10	90.05	1,395.79	-4,987.63	4,221.06	3,870.70	350.36	12.048		
11,100.00	7,059.63	7,012.63	7,059.63	111.36	243.09	90.04	1,395.79	-4,987.63	4,195.26	3,841.97	353.29	11.875		
11,200.00	7,059.33	7,012.33	7,059.33	114.05	243.08	90.04	1,395.79	-4,987.63	4,171.69	3,815.48	356.21	11.711		
11,300.00	7,059.03	7,012.03	7,059.03	116.74	243.07	90.04	1,395.79	-4,987.63	4,150.40	3,791.27	359.13	11.557		
11,400.00	7,058.74	7,011.74	7,058.74	119.44	243.06	90.03	1,395.79	-4,987.63	4,131.42	3,769.40	362.03	11.412		
11,500.00	7,058.44	7,011.44	7,058.44	122.15	243.05	90.03	1,395.79	-4,987.63	4,114.79	3,749.88	364.90	11.276		
11,600.00	7,058.14	7,011.14	7,058.14	124.86	243.04	90.02	1,395.79	-4,987.63	4,100.52	3,732.77	367.75	11.150		
11,700.00	7,057.84	7,010.84	7,057.84	127.58	243.03	90.02	1,395.79	-4,987.63	4,088.66	3,718.10	370.56	11.034		
11,800.00	7,057.55	7,010.55	7,057.55	130.31	243.02	90.01	1,395.79	-4,987.63	4,079.21	3,705.89	373.32	10.927		
11,900.00	7,057.25	7,010.25	7,057.25	133.04	243.00	90.01	1,395.79	-4,987.63	4,072.19	3,696.16	376.03	10.829		
12,000.00	7,056.95	7,009.95	7,056.95	135.78	242.99	90.01	1,395.79	-4,987.63	4,067.62	3,688.93	378.69	10.741		
12,100.00	7,056.65	7,009.65	7,056.65	138.52	242.98	90.00	1,395.79	-4,987.63	4,065.51	3,684.23	381.28	10.663		
12,135.90	7,056.55	7,009.55	7,056.55	139.51	242.98	90.00	1,395.79	-4,987.63	4,065.35	3,683.16	382.20	10.637 CC		
12,200.00	7,056.36	7,009.36	7,056.36	141.27	242.97	90.00	1,395.79	-4,987.63	4,065.86	3,682.05	383.80	10.594 ES		
12,300.00	7,056.06	7,009.06	7,056.06	144.02	242.96	89.99	1,395.79	-4,987.63	4,068.66	3,682.41	386.25	10.534		
12,400.00	7,055.76	7,008.76	7,055.76	146.78	242.95	89.99	1,395.79	-4,987.63	4,073.92	3,685.30	388.62	10.483		
12,500.00	7,055.46	7,008.46	7,055.46	149.54	242.94	89.98	1,395.79	-4,987.63	4,081.62	3,690.71	390.91	10.441		
12,600.00	7,055.17	7,008.17	7,055.17	152.30	242.93	89.98	1,395.79	-4,987.63	4,091.76	3,698.65	393.11	10.409		
12,700.00	7,054.87	7,007.87	7,054.87	155.07	242.92	89.98	1,395.79	-4,987.63	4,104.30	3,709.08	395.22	10.385		
12,800.00	7,054.57	7,007.57	7,054.57	157.84	242.91	89.97	1,395.79	-4,987.63	4,119.24	3,722.00	397.23	10.370		
12,900.00	7,054.27	7,007.27	7,054.27	160.61	242.90	89.97	1,395.79	-4,987.63	4,136.54	3,737.38	399.16	10.363 SF		
13,000.00	7,053.97	7,006.97	7,053.97	163.39	242.89	89.96	1,395.79	-4,987.63	4,156.17	3,755.19	400.98	10.365		
13,100.00	7,053.68	7,006.68	7,053.68	166.17	242.88	89.96	1,395.79	-4,987.63	4,178.11	3,775.39	402.71	10.375		
13,200.00	7,053.38	7,006.38	7,053.38	168.95	242.87	89.96	1,395.79	-4,987.63	4,202.31	3,797.96	404.34	10.393		
13,300.00	7,053.08	7,006.08	7,053.08	171.73	242.86	89.95	1,395.79	-4,987.63	4,228.73	3,822.86	405.88	10.419		
13,400.00	7,052.78	7,005.78	7,052.78	174.52	242.85	89.95	1,395.79	-4,987.63	4,257.35	3,850.03	407.32	10.452		
13,500.00	7,052.49	7,005.49	7,052.49	177.31	242.84	89.94	1,395.79	-4,987.63	4,288.10	3,879.44	408.66	10.493		
13,600.00	7,052.19	7,005.19	7,052.19	180.10	242.83	89.94	1,395.79	-4,987.63	4,320.95	3,911.04	409.91	10.541		
13,700.00	7,051.89	7,004.89	7,051.89	182.90	242.82	89.93	1,395.79	-4,987.63	4,355.85	3,944.79	411.07	10.596		
13,800.00	7,051.59	7,004.59	7,051.59	185.69	242.81	89.93	1,395.79	-4,987.63	4,392.75	3,980.62	412.14	10.658		
13,900.00	7,051.30	7,004.30	7,051.30	188.49	242.80	89.93	1,395.79	-4,987.63	4,431.60	4,018.48	413.12	10.727		
14,000.00	7,051.00	7,004.00	7,051.00	191.29	242.79	89.92	1,395.79	-4,987.63	4,472.35	4,058.33	414.02	10.802		
14,100.00	7,050.70	7,003.70	7,050.70	194.09	242.78	89.92	1,395.79	-4,987.63	4,514.95	4,100.11	414.83	10.884		
14,200.00	7,050.40	7,003.40	7,050.40	196.89	242.77	89.91	1,395.79	-4,987.63	4,559.34	4,143.77	415.57	10.971		
14,300.00	7,050.11	7,003.11	7,050.11	199.70	242.76	89.91	1,395.79	-4,987.63	4,605.47	4,189.24	416.23	11.065		
14,400.00	7,049.81	7,002.81	7,049.81	202.50	242.75	89.91	1,395.79	-4,987.63	4,653.30	4,236.48	416.82	11.164		
14,500.00	7,049.51	7,002.51	7,049.51	205.31	242.73	89.90	1,395.79	-4,987.63	4,702.76	4,285.42	417.34	11.268		
14,600.00	7,049.21	7,002.21	7,049.21	208.12	242.72	89.90	1,395.79	-4,987.63	4,753.82	4,336.02	417.80	11.378		
14,700.00	7,048.92	7,001.92	7,048.92	210.93	242.71	89.89	1,395.79	-4,987.63	4,806.41	4,388.22	418.19	11.493		
14,800.00	7,048.62	7,001.62	7,048.62	213.74	242.70	89.89	1,395.79	-4,987.63	4,860.50	4,441.97	418.53	11.613		
14,900.00	7,048.32	7,001.32	7,048.32	216.55	242.69	89.88	1,395.79	-4,987.63	4,916.02	4,497.21	418.81	11.738		
15,000.00	7,048.02	7,001.02	7,048.02	219.37	242.68	89.88	1,395.79	-4,987.63	4,972.93	4,553.89	419.04	11.867		
15,100.00	7,047.73	7,000.73	7,047.73	222.18	242.67	89.88	1,395.79	-4,987.63	5,031.19	4,611.97	419.22	12.001		
15,200.00	7,047.43	7,000.43	7,047.43	225.00	242.66	89.87	1,395.79	-4,987.63	5,090.75	4,671.39	419.35	12.140		
15,300.00	7,047.13	7,000.13	7,047.13	227.81	242.65	89.87	1,395.79	-4,987.63	5,151.55	4,732.11	419.44	12.282		
15,343.67	7,047.00	7,000.00	7,047.00	229.04	242.65	89.87	1,395.79	-4,987.63	5,178.49	4,759.02	419.47	12.345		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	
0.00	0.00	0.00	45.00	3.28	3.28	-74.53	1,416.58	-5,117.51	5,310.15				
100.00	100.00	55.00	100.00	3.28	3.42	-74.53	1,416.58	-5,117.51	5,309.95	5,303.25	6.70	792.255	
200.00	200.00	155.00	200.00	3.34	4.92	-74.53	1,416.58	-5,117.51	5,309.95	5,301.70	8.26	643.176	
300.00	299.98	254.98	299.98	3.44	7.87	102.07	1,416.58	-5,117.51	5,310.32	5,299.01	11.31	469.479	
400.00	399.84	354.84	399.84	3.59	11.14	102.11	1,416.58	-5,117.51	5,311.42	5,296.69	14.72	360.723	
500.00	499.45	454.45	499.45	3.79	14.50	102.16	1,416.58	-5,117.51	5,313.26	5,294.97	18.28	290.631	
600.00	598.70	553.70	598.70	4.03	17.89	102.24	1,416.58	-5,117.51	5,315.85	5,293.93	21.92	242.546	
700.00	697.47	652.47	697.47	4.31	21.29	102.34	1,416.58	-5,117.51	5,319.22	5,293.62	25.60	207.781	
800.00	795.62	750.62	795.62	4.64	24.68	102.45	1,416.58	-5,117.51	5,323.39	5,294.07	29.31	181.593	
900.00	893.06	848.06	893.06	5.00	28.05	102.59	1,416.58	-5,117.51	5,328.39	5,295.34	33.05	161.223	
1,000.00	989.64	944.64	989.64	5.40	31.40	102.73	1,416.58	-5,117.51	5,334.25	5,297.46	36.80	144.968	
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	102.89	1,416.58	-5,117.51	5,341.02	5,300.47	40.55	131.725	
1,200.00	1,179.82	1,134.82	1,179.82	6.29	38.01	103.07	1,416.58	-5,117.51	5,348.73	5,304.43	44.30	120.751	
1,300.00	1,273.17	1,228.17	1,273.17	6.79	41.26	103.25	1,416.58	-5,117.51	5,357.43	5,309.40	48.04	111.526	
1,400.00	1,365.46	1,320.46	1,365.46	7.32	44.47	103.54	1,416.58	-5,117.51	5,367.04	5,315.27	51.77	103.668	
1,500.00	1,457.65	1,412.65	1,457.65	7.87	47.68	103.91	1,416.58	-5,117.51	5,376.96	5,321.44	55.52	96.845	
1,600.00	1,549.83	1,504.83	1,549.83	8.43	50.89	104.29	1,416.58	-5,117.51	5,387.15	5,327.87	59.29	90.867	
1,700.00	1,642.02	1,602.98	1,642.02	9.01	54.31	104.66	1,416.58	-5,117.51	5,397.60	5,334.33	63.27	85.312	
1,800.00	1,734.21	1,689.21	1,734.21	9.59	57.32	105.02	1,416.58	-5,117.51	5,408.30	5,341.46	66.85	80.907	
1,900.00	1,826.39	1,781.39	1,826.39	10.18	60.53	105.39	1,416.58	-5,117.51	5,419.26	5,348.62	70.64	76.719	
2,000.00	1,918.58	1,873.58	1,918.58	10.78	63.75	105.76	1,416.58	-5,117.51	5,430.48	5,356.04	74.43	72.956	
2,100.00	2,010.77	1,965.77	2,010.77	11.39	66.96	106.12	1,416.58	-5,117.51	5,441.94	5,363.71	78.24	69.557	
2,200.00	2,102.95	2,057.95	2,102.95	11.99	70.17	106.48	1,416.58	-5,117.51	5,453.66	5,371.62	82.04	66.473	
2,300.00	2,195.14	2,150.14	2,195.14	12.61	73.39	106.85	1,416.58	-5,117.51	5,465.63	5,379.78	85.85	63.663	
2,400.00	2,287.32	2,242.32	2,287.32	13.22	76.60	107.21	1,416.58	-5,117.51	5,477.85	5,388.18	89.67	61.092	
2,500.00	2,379.51	2,334.51	2,379.51	13.84	79.82	107.57	1,416.58	-5,117.51	5,490.31	5,396.83	93.48	58.733	
2,600.00	2,471.70	2,426.70	2,471.70	14.46	83.04	107.92	1,416.58	-5,117.51	5,503.02	5,405.72	97.29	56.560	
2,700.00	2,563.88	2,518.88	2,563.88	15.08	86.25	108.28	1,416.58	-5,117.51	5,515.97	5,414.86	101.11	54.553	
2,800.00	2,656.07	2,611.07	2,656.07	15.71	89.47	108.63	1,416.58	-5,117.51	5,529.16	5,424.23	104.93	52.694	
2,900.00	2,748.26	2,703.26	2,748.26	16.33	92.68	108.99	1,416.58	-5,117.51	5,542.59	5,433.84	108.75	50.967	
3,000.00	2,840.44	2,804.44	2,840.44	16.96	96.22	109.34	1,416.58	-5,117.51	5,556.26	5,443.37	112.89	49.220	
3,100.00	2,932.63	2,887.63	2,932.63	17.59	99.12	109.69	1,416.58	-5,117.51	5,570.16	5,453.78	116.39	47.859	
3,200.00	3,024.81	2,979.81	3,024.81	18.22	102.33	110.04	1,416.58	-5,117.51	5,584.30	5,464.10	120.21	46.455	
3,300.00	3,117.00	3,072.00	3,117.00	18.86	105.55	110.38	1,416.58	-5,117.51	5,598.68	5,474.65	124.03	45.141	
3,400.00	3,209.19	3,164.19	3,209.19	19.49	108.77	110.73	1,416.58	-5,117.51	5,613.28	5,485.43	127.85	43.906	
3,500.00	3,301.37	3,256.37	3,301.37	20.12	111.98	111.07	1,416.58	-5,117.51	5,628.11	5,496.44	131.67	42.745	
3,600.00	3,393.56	3,348.56	3,393.56	20.76	115.20	111.42	1,416.58	-5,117.51	5,643.17	5,507.68	135.49	41.651	
3,700.00	3,485.75	3,440.75	3,485.75	21.39	118.42	111.76	1,416.58	-5,117.51	5,658.45	5,519.15	139.31	40.619	
3,800.00	3,577.93	3,532.93	3,577.93	22.03	121.63	112.10	1,416.58	-5,117.51	5,673.96	5,530.84	143.12	39.644	
3,900.00	3,670.12	3,625.12	3,670.12	22.67	124.85	112.43	1,416.58	-5,117.51	5,689.69	5,542.75	146.94	38.721	
4,000.00	3,762.30	3,717.30	3,762.30	23.30	128.07	112.77	1,416.58	-5,117.51	5,705.64	5,554.88	150.76	37.846	
4,100.00	3,854.49	3,809.49	3,854.49	23.94	131.29	113.10	1,416.58	-5,117.51	5,721.80	5,567.23	154.57	37.016	
4,200.00	3,946.68	3,901.68	3,946.68	24.58	134.50	113.44	1,416.58	-5,117.51	5,738.19	5,579.80	158.39	36.228	
4,300.00	4,038.86	4,006.14	4,038.86	25.22	138.15	113.77	1,416.58	-5,117.51	5,754.78	5,592.15	162.63	35.385	
4,400.00	4,131.05	4,086.05	4,131.05	25.86	140.94	114.10	1,416.58	-5,117.51	5,771.59	5,605.57	166.02	34.764	
4,500.00	4,223.24	4,178.24	4,223.24	26.50	144.15	114.42	1,416.58	-5,117.51	5,788.61	5,618.78	169.83	34.084	
4,600.00	4,315.42	4,270.42	4,315.42	27.14	147.37	114.75	1,416.58	-5,117.51	5,805.84	5,632.20	173.65	33.435	
4,700.00	4,407.61	4,362.61	4,407.61	27.78	150.59	115.07	1,416.58	-5,117.51	5,823.28	5,645.82	177.46	32.815	
4,800.00	4,499.79	4,454.79	4,499.79	28.42	153.81	115.40	1,416.58	-5,117.51	5,840.92	5,659.65	181.27	32.223	
4,900.00	4,591.98	4,546.98	4,591.98	29.06	157.02	115.72	1,416.58	-5,117.51	5,858.77	5,673.69	185.08	31.656	
5,000.00	4,684.17	4,639.17	4,684.17	29.70	160.24	116.04	1,416.58	-5,117.51	5,876.81	5,687.92	188.89	31.113	
5,100.00	4,776.35	4,731.35	4,776.35	30.34	163.46	116.35	1,416.58	-5,117.51	5,895.06	5,702.36	192.69	30.593	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,868.54	4,823.54	4,868.54	30.98	166.68	116.67	1,416.58	-5,117.51	5,913.50	5,717.00	196.50	30.094		
5,300.00	4,960.73	4,915.73	4,960.73	31.63	169.89	116.98	1,416.58	-5,117.51	5,932.14	5,731.83	200.31	29.615		
5,400.00	5,052.91	5,007.91	5,052.91	32.27	173.11	117.30	1,416.58	-5,117.51	5,950.97	5,746.86	204.11	29.155		
5,500.00	5,145.10	5,100.10	5,145.10	32.91	176.33	117.61	1,416.58	-5,117.51	5,970.00	5,762.08	207.92	28.714		
5,600.00	5,237.28	5,207.72	5,237.28	33.55	180.09	117.92	1,416.58	-5,117.51	5,989.21	5,776.95	212.26	28.217		
5,700.00	5,329.47	5,284.47	5,329.47	34.20	182.77	118.22	1,416.58	-5,117.51	6,008.61	5,793.09	215.52	27.880		
5,800.00	5,421.66	5,376.66	5,421.66	34.84	185.98	118.53	1,416.58	-5,117.51	6,028.20	5,808.88	219.32	27.486		
5,900.00	5,513.84	5,468.84	5,513.84	35.48	189.20	118.83	1,416.58	-5,117.51	6,047.98	5,824.86	223.12	27.106		
6,000.00	5,606.03	5,561.03	5,606.03	36.13	192.42	119.13	1,416.58	-5,117.51	6,067.94	5,841.02	226.92	26.741		
6,100.00	5,698.22	5,653.22	5,698.22	36.77	195.64	119.43	1,416.58	-5,117.51	6,088.08	5,857.36	230.72	26.388		
6,200.00	5,790.40	5,745.40	5,790.40	37.41	198.85	119.73	1,416.58	-5,117.51	6,108.40	5,873.88	234.51	26.047		
6,300.00	5,882.59	5,837.59	5,882.59	38.06	202.07	120.03	1,416.58	-5,117.51	6,128.89	5,890.58	238.31	25.718		
6,400.00	5,974.77	5,929.77	5,974.77	38.70	205.29	120.32	1,416.58	-5,117.51	6,149.56	5,907.46	242.10	25.401		
6,500.00	6,066.96	6,021.96	6,066.96	39.34	208.51	120.61	1,416.58	-5,117.51	6,170.41	5,924.51	245.90	25.094		
6,600.00	6,159.15	6,114.15	6,159.15	39.99	211.73	120.91	1,416.58	-5,117.51	6,191.43	5,941.74	249.69	24.797		
6,700.00	6,251.33	6,206.33	6,251.33	40.63	214.94	121.19	1,416.58	-5,117.51	6,212.62	5,959.14	253.48	24.509		
6,800.00	6,343.52	6,301.48	6,343.52	41.28	218.26	121.48	1,416.58	-5,117.51	6,233.98	5,976.60	257.37	24.222		
6,900.00	6,435.71	6,409.29	6,435.71	41.92	222.03	121.77	1,416.58	-5,117.51	6,255.50	5,993.79	261.71	23.903		
7,000.00	6,527.86	6,482.86	6,527.86	42.56	224.60	114.67	1,416.58	-5,117.51	6,276.49	6,011.65	264.85	23.699		
7,100.00	6,618.85	6,573.85	6,618.85	43.19	227.77	95.90	1,416.58	-5,117.51	6,287.83	6,019.24	268.59	23.410		
7,200.00	6,706.47	6,661.47	6,706.47	43.76	230.83	83.06	1,416.58	-5,117.51	6,286.64	6,014.45	272.19	23.096		
7,300.00	6,788.56	6,743.56	6,788.56	44.26	233.70	75.33	1,416.58	-5,117.51	6,273.14	5,997.59	275.55	22.766		
7,400.00	6,863.10	6,818.10	6,863.10	44.70	236.30	71.31	1,416.58	-5,117.51	6,247.84	5,969.23	278.61	22.425		
7,500.00	6,928.26	6,883.26	6,928.26	45.07	238.57	70.04	1,416.58	-5,117.51	6,211.52	5,930.20	281.32	22.080		
7,600.00	6,982.42	6,937.42	6,982.42	45.39	240.46	71.01	1,416.58	-5,117.51	6,165.21	5,881.56	283.65	21.735		
7,700.00	7,024.26	6,979.26	7,024.26	45.67	241.92	74.00	1,416.58	-5,117.51	6,110.15	5,824.56	285.59	21.395		
7,800.00	7,052.75	7,007.75	7,052.75	45.92	242.92	78.95	1,416.58	-5,117.51	6,047.74	5,760.62	287.12	21.063		
7,900.00	7,067.18	7,022.18	7,067.18	46.16	243.42	85.84	1,416.58	-5,117.51	5,979.50	5,691.29	288.22	20.746		
8,000.00	7,068.85	7,023.85	7,068.85	46.42	243.48	90.18	1,416.58	-5,117.51	5,907.50	5,618.57	288.93	20.446		
8,100.00	7,068.56	7,023.56	7,068.56	46.78	243.47	90.17	1,416.58	-5,117.51	5,835.70	5,546.04	289.66	20.147		
8,200.00	7,068.26	7,023.26	7,068.26	47.29	243.46	90.17	1,416.58	-5,117.51	5,764.75	5,474.26	290.49	19.845		
8,300.00	7,067.96	7,022.96	7,067.96	48.03	243.45	90.17	1,416.58	-5,117.51	5,694.66	5,403.24	291.42	19.541		
8,400.00	7,067.66	7,022.66	7,067.66	49.02	243.44	90.16	1,416.58	-5,117.51	5,625.48	5,333.03	292.45	19.235		
8,500.00	7,067.37	7,022.37	7,067.37	50.27	243.43	90.16	1,416.58	-5,117.51	5,557.24	5,263.65	293.59	18.929		
8,600.00	7,067.07	7,022.07	7,067.07	51.75	243.42	90.15	1,416.58	-5,117.51	5,489.97	5,195.15	294.82	18.621		
8,700.00	7,066.77	7,021.77	7,066.77	53.42	243.41	90.15	1,416.58	-5,117.51	5,423.72	5,127.55	296.16	18.313		
8,800.00	7,066.47	7,021.47	7,066.47	55.24	243.40	90.14	1,416.58	-5,117.51	5,358.50	5,060.90	297.60	18.006		
8,900.00	7,066.18	7,021.18	7,066.18	57.18	243.39	90.14	1,416.58	-5,117.51	5,294.38	4,995.24	299.14	17.698		
9,000.00	7,065.88	7,020.88	7,065.88	59.21	243.38	90.14	1,416.58	-5,117.51	5,231.38	4,930.60	300.78	17.393		
9,100.00	7,065.58	7,020.58	7,065.58	61.33	243.37	90.13	1,416.58	-5,117.51	5,169.54	4,867.03	302.52	17.088		
9,200.00	7,065.28	7,020.28	7,065.28	63.51	243.36	90.13	1,416.58	-5,117.51	5,108.92	4,804.57	304.35	16.786		
9,300.00	7,064.99	7,019.99	7,064.99	65.76	243.34	90.12	1,416.58	-5,117.51	5,049.55	4,743.27	306.27	16.487		
9,400.00	7,064.69	7,019.69	7,064.69	68.06	243.33	90.12	1,416.58	-5,117.51	4,991.47	4,683.18	308.29	16.191		
9,500.00	7,064.39	7,019.39	7,064.39	70.40	243.32	90.12	1,416.58	-5,117.51	4,934.74	4,624.35	310.39	15.898		
9,600.00	7,064.09	7,019.09	7,064.09	72.78	243.31	90.11	1,416.58	-5,117.51	4,879.40	4,566.82	312.58	15.610		
9,700.00	7,063.80	7,018.80	7,063.80	75.20	243.30	90.11	1,416.58	-5,117.51	4,825.50	4,510.65	314.85	15.326		
9,800.00	7,063.50	7,018.50	7,063.50	77.65	243.29	90.10	1,416.58	-5,117.51	4,773.08	4,455.88	317.20	15.048		
9,900.00	7,063.20	7,018.20	7,063.20	80.13	243.28	90.10	1,416.58	-5,117.51	4,722.20	4,402.58	319.62	14.774		
10,000.00	7,062.90	7,017.90	7,062.90	82.64	243.27	90.09	1,416.58	-5,117.51	4,672.91	4,350.79	322.12	14.507		
10,100.00	7,062.61	7,017.61	7,062.61	85.17	243.26	90.09	1,416.58	-5,117.51	4,625.25	4,300.57	324.68	14.246		
10,200.00	7,062.31	7,017.31	7,062.31	87.72	243.25	90.09	1,416.58	-5,117.51	4,579.28	4,251.98	327.30	13.991		
10,300.00	7,062.01	7,017.01	7,062.01	90.28	243.24	90.08	1,416.58	-5,117.51	4,535.05	4,205.06	329.99	13.743		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	7,061.71	7,016.71	7,061.71	92.87	243.23	90.08	1,416.58	-5,117.51	4,492.61	4,159.89	332.72	13.503		
10,500.00	7,061.41	7,016.41	7,061.41	95.47	243.22	90.07	1,416.58	-5,117.51	4,452.01	4,116.51	335.51	13.270		
10,600.00	7,061.12	7,016.12	7,061.12	98.09	243.21	90.07	1,416.58	-5,117.51	4,413.31	4,074.97	338.33	13.044		
10,700.00	7,060.82	7,015.82	7,060.82	100.72	243.20	90.07	1,416.58	-5,117.51	4,376.55	4,035.35	341.20	12.827		
10,800.00	7,060.52	7,015.52	7,060.52	103.37	243.19	90.06	1,416.58	-5,117.51	4,341.78	3,997.68	344.09	12.618		
10,900.00	7,060.22	7,015.22	7,060.22	106.02	243.18	90.06	1,416.58	-5,117.51	4,309.05	3,962.03	347.02	12.417		
11,000.00	7,059.93	7,014.93	7,059.93	108.69	243.17	90.05	1,416.58	-5,117.51	4,278.41	3,928.45	349.95	12.226		
11,100.00	7,059.63	7,014.63	7,059.63	111.36	243.16	90.05	1,416.58	-5,117.51	4,249.90	3,896.99	352.91	12.043		
11,200.00	7,059.33	7,014.33	7,059.33	114.05	243.15	90.04	1,416.58	-5,117.51	4,223.57	3,867.70	355.86	11.869		
11,300.00	7,059.03	7,014.03	7,059.03	116.74	243.14	90.04	1,416.58	-5,117.51	4,199.45	3,840.63	358.82	11.704		
11,400.00	7,058.74	7,013.74	7,058.74	119.44	243.13	90.04	1,416.58	-5,117.51	4,177.59	3,815.83	361.76	11.548		
11,500.00	7,058.44	7,013.44	7,058.44	122.15	243.12	90.03	1,416.58	-5,117.51	4,158.02	3,793.33	364.69	11.402		
11,600.00	7,058.14	7,013.14	7,058.14	124.86	243.11	90.03	1,416.58	-5,117.51	4,140.77	3,773.18	367.60	11.264		
11,700.00	7,057.84	7,012.84	7,057.84	127.58	243.10	90.02	1,416.58	-5,117.51	4,125.88	3,755.41	370.47	11.137		
11,800.00	7,057.55	7,012.55	7,057.55	130.31	243.09	90.02	1,416.58	-5,117.51	4,113.36	3,740.05	373.31	11.019		
11,900.00	7,057.25	7,012.25	7,057.25	133.04	243.07	90.02	1,416.58	-5,117.51	4,103.24	3,727.14	376.10	10.910		
12,000.00	7,056.95	7,011.95	7,056.95	135.78	243.06	90.01	1,416.58	-5,117.51	4,095.54	3,716.70	378.84	10.811		
12,100.00	7,056.65	7,011.65	7,056.65	138.52	243.05	90.01	1,416.58	-5,117.51	4,090.27	3,708.75	381.53	10.721		
12,200.00	7,056.36	7,011.36	7,056.36	141.27	243.04	90.00	1,416.58	-5,117.51	4,087.44	3,703.30	384.15	10.640		
12,265.66	7,056.16	7,011.16	7,056.16	143.08	243.04	90.00	1,416.58	-5,117.51	4,086.92	3,701.09	385.83	10.593 CC		
12,300.00	7,056.06	7,011.06	7,056.06	144.02	243.03	90.00	1,416.58	-5,117.51	4,087.06	3,700.36	386.70	10.569		
12,400.00	7,055.76	7,010.76	7,055.76	146.78	243.02	89.99	1,416.58	-5,117.51	4,089.12	3,699.95	389.17	10.507 ES		
12,500.00	7,055.46	7,010.46	7,055.46	149.54	243.01	89.99	1,416.58	-5,117.51	4,093.63	3,702.06	391.57	10.454		
12,600.00	7,055.17	7,010.17	7,055.17	152.30	243.00	89.99	1,416.58	-5,117.51	4,100.57	3,706.69	393.88	10.411		
12,700.00	7,054.87	7,009.87	7,054.87	155.07	242.99	89.98	1,416.58	-5,117.51	4,109.93	3,713.82	396.11	10.376		
12,800.00	7,054.57	7,009.57	7,054.57	157.84	242.98	89.98	1,416.58	-5,117.51	4,121.70	3,723.46	398.24	10.350		
12,900.00	7,054.27	7,009.27	7,054.27	160.61	242.97	89.97	1,416.58	-5,117.51	4,135.85	3,735.57	400.28	10.332		
13,000.00	7,053.97	7,008.97	7,053.97	163.39	242.96	89.97	1,416.58	-5,117.51	4,152.37	3,750.14	402.23	10.323		
13,100.00	7,053.68	7,008.68	7,053.68	166.17	242.95	89.97	1,416.58	-5,117.51	4,171.21	3,767.13	404.08	10.323 SF		
13,200.00	7,053.38	7,008.38	7,053.38	168.95	242.94	89.96	1,416.58	-5,117.51	4,192.36	3,786.53	405.83	10.330		
13,300.00	7,053.08	7,008.08	7,053.08	171.73	242.93	89.96	1,416.58	-5,117.51	4,215.77	3,808.29	407.48	10.346		
13,400.00	7,052.78	7,007.78	7,052.78	174.52	242.92	89.95	1,416.58	-5,117.51	4,241.42	3,832.38	409.04	10.369		
13,500.00	7,052.49	7,007.49	7,052.49	177.31	242.91	89.95	1,416.58	-5,117.51	4,269.25	3,858.75	410.49	10.400		
13,600.00	7,052.19	7,007.19	7,052.19	180.10	242.90	89.94	1,416.58	-5,117.51	4,299.23	3,887.37	411.86	10.439		
13,700.00	7,051.89	7,006.89	7,051.89	182.90	242.89	89.94	1,416.58	-5,117.51	4,331.31	3,918.18	413.12	10.484		
13,800.00	7,051.59	7,006.59	7,051.59	185.69	242.88	89.94	1,416.58	-5,117.51	4,365.44	3,951.15	414.29	10.537		
13,900.00	7,051.30	7,006.30	7,051.30	188.49	242.87	89.93	1,416.58	-5,117.51	4,401.58	3,986.21	415.38	10.597		
14,000.00	7,051.00	7,006.00	7,051.00	191.29	242.86	89.93	1,416.58	-5,117.51	4,439.68	4,023.32	416.37	10.663		
14,100.00	7,050.70	7,005.70	7,050.70	194.09	242.85	89.92	1,416.58	-5,117.51	4,479.70	4,062.42	417.28	10.736		
14,200.00	7,050.40	7,005.40	7,050.40	196.89	242.84	89.92	1,416.58	-5,117.51	4,521.56	4,103.46	418.10	10.815		
14,300.00	7,050.11	7,005.11	7,050.11	199.70	242.83	89.92	1,416.58	-5,117.51	4,565.24	4,146.39	418.84	10.900		
14,400.00	7,049.81	7,004.81	7,049.81	202.50	242.82	89.91	1,416.58	-5,117.51	4,610.67	4,191.16	419.51	10.991		
14,500.00	7,049.51	7,004.51	7,049.51	205.31	242.80	89.91	1,416.58	-5,117.51	4,657.80	4,237.70	420.11	11.087		
14,600.00	7,049.21	7,004.21	7,049.21	208.12	242.79	89.90	1,416.58	-5,117.51	4,706.59	4,285.96	420.63	11.189		
14,700.00	7,048.92	7,003.92	7,048.92	210.93	242.78	89.90	1,416.58	-5,117.51	4,756.98	4,335.89	421.09	11.297		
14,800.00	7,048.62	7,003.62	7,048.62	213.74	242.77	89.89	1,416.58	-5,117.51	4,808.92	4,387.44	421.48	11.410		
14,900.00	7,048.32	7,003.32	7,048.32	216.55	242.76	89.89	1,416.58	-5,117.51	4,862.36	4,440.55	421.82	11.527		
15,000.00	7,048.02	7,003.02	7,048.02	219.37	242.75	89.89	1,416.58	-5,117.51	4,917.26	4,495.17	422.09	11.650		
15,100.00	7,047.73	7,002.73	7,047.73	222.18	242.74	89.88	1,416.58	-5,117.51	4,973.56	4,551.24	422.32	11.777		
15,200.00	7,047.43	7,002.43	7,047.43	225.00	242.73	89.88	1,416.58	-5,117.51	5,031.22	4,608.73	422.49	11.908		
15,300.00	7,047.13	7,002.13	7,047.13	227.81	242.72	89.87	1,416.58	-5,117.51	5,090.19	4,667.57	422.62	12.044		
15,343.67	7,047.00	7,002.00	7,047.00	229.04	242.72	89.87	1,416.58	-5,117.51	5,116.34	4,693.69	422.66	12.105		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	52.00	3.28	3.28	-90.64	-55.25	-4,914.77	4,915.36					
100.00	100.00	48.00	100.00	3.28	3.39	-90.64	-55.25	-4,914.77	4,915.08	4,908.41	6.67	736.889		
200.00	200.00	148.00	200.00	3.34	4.74	-90.64	-55.25	-4,914.77	4,915.08	4,907.01	8.08	608.564		
300.00	299.98	247.98	299.98	3.44	7.65	85.97	-55.25	-4,914.77	4,914.96	4,903.87	11.09	443.205		
400.00	399.84	347.84	399.84	3.59	10.90	86.04	-55.25	-4,914.77	4,914.59	4,900.10	14.49	339.150		
500.00	499.45	447.45	499.45	3.79	14.26	86.15	-55.25	-4,914.77	4,914.00	4,895.95	18.04	272.341		
600.00	598.70	546.70	598.70	4.03	17.65	86.31	-55.25	-4,914.77	4,913.19	4,891.51	21.68	226.661		
700.00	697.47	645.47	697.47	4.31	21.04	86.51	-55.25	-4,914.77	4,912.20	4,886.84	25.36	193.709		
800.00	795.62	743.62	795.62	4.64	24.44	86.75	-55.25	-4,914.77	4,911.05	4,881.98	29.07	168.921		
900.00	893.06	841.06	893.06	5.00	27.81	87.03	-55.25	-4,914.77	4,909.80	4,876.99	32.81	149.650		
1,000.00	989.64	937.64	989.64	5.40	31.16	87.35	-55.25	-4,914.77	4,908.49	4,871.93	36.56	134.272		
1,100.00	1,085.27	1,033.27	1,085.27	5.83	34.48	87.70	-55.25	-4,914.77	4,907.16	4,866.85	40.31	121.737		
1,200.00	1,179.82	1,127.82	1,179.82	6.29	37.77	88.08	-55.25	-4,914.77	4,905.90	4,861.83	44.06	111.340		
1,300.00	1,273.17	1,221.17	1,273.17	6.79	41.02	88.50	-55.25	-4,914.77	4,904.75	4,856.94	47.81	102.589		
1,400.00	1,365.46	1,313.46	1,365.46	7.32	44.23	88.92	-55.25	-4,914.77	4,903.81	4,852.26	51.55	95.126		
1,500.00	1,457.65	1,405.65	1,457.65	7.87	47.44	89.34	-55.25	-4,914.77	4,903.17	4,847.86	55.31	88.649		
1,600.00	1,549.83	1,502.17	1,549.83	8.43	50.80	89.75	-55.25	-4,914.77	4,902.84	4,843.60	59.24	82.769		
1,659.01	1,604.23	1,552.23	1,604.23	8.77	52.55	90.00	-55.25	-4,914.77	4,902.79	4,841.47	61.32	79.956		
1,700.00	1,642.02	1,609.98	1,642.02	9.01	54.56	90.17	-55.25	-4,914.77	4,902.81	4,839.24	63.57	77.129		
1,800.00	1,734.21	1,682.21	1,734.21	9.59	57.07	90.59	-55.25	-4,914.77	4,903.09	4,836.42	66.67	73.545		
1,900.00	1,826.39	1,774.39	1,826.39	10.18	60.29	91.01	-55.25	-4,914.77	4,903.67	4,833.20	70.47	69.583		
2,000.00	1,918.58	1,866.58	1,918.58	10.78	63.50	91.42	-55.25	-4,914.77	4,904.57	4,830.28	74.28	66.025		
2,100.00	2,010.77	1,958.77	2,010.77	11.39	66.72	91.84	-55.25	-4,914.77	4,905.76	4,827.66	78.10	62.813		
2,200.00	2,102.95	2,050.95	2,102.95	11.99	69.93	92.26	-55.25	-4,914.77	4,907.27	4,825.34	81.92	59.901		
2,300.00	2,195.14	2,143.14	2,195.14	12.61	73.15	92.67	-55.25	-4,914.77	4,909.07	4,823.33	85.75	57.250		
2,400.00	2,287.32	2,235.32	2,287.32	13.22	76.36	93.09	-55.25	-4,914.77	4,911.19	4,821.61	89.58	54.826		
2,500.00	2,379.51	2,327.51	2,379.51	13.84	79.58	93.51	-55.25	-4,914.77	4,913.60	4,820.20	93.41	52.603		
2,600.00	2,471.70	2,419.70	2,471.70	14.46	82.79	93.92	-55.25	-4,914.77	4,916.33	4,819.08	97.24	50.557		
2,700.00	2,563.88	2,511.88	2,563.88	15.08	86.01	94.34	-55.25	-4,914.77	4,919.35	4,818.27	101.08	48.669		
2,800.00	2,656.07	2,604.07	2,656.07	15.71	89.22	94.75	-55.25	-4,914.77	4,922.68	4,817.77	104.92	46.920		
2,900.00	2,748.26	2,703.74	2,748.26	16.33	92.70	95.17	-55.25	-4,914.77	4,926.31	4,817.30	109.02	45.189		
3,000.00	2,840.44	2,788.44	2,840.44	16.96	95.66	95.58	-55.25	-4,914.77	4,930.25	4,817.65	112.60	43.787		
3,100.00	2,932.63	2,880.63	2,932.63	17.59	98.87	95.99	-55.25	-4,914.77	4,934.48	4,818.05	116.44	42.379		
3,200.00	3,024.81	2,972.81	3,024.81	18.22	102.09	96.41	-55.25	-4,914.77	4,939.02	4,818.74	120.28	41.064		
3,300.00	3,117.00	3,065.00	3,117.00	18.86	105.30	96.82	-55.25	-4,914.77	4,943.85	4,819.73	124.12	39.832		
3,400.00	3,209.19	3,157.19	3,209.19	19.49	108.52	97.23	-55.25	-4,914.77	4,948.99	4,821.03	127.96	38.676		
3,500.00	3,301.37	3,249.37	3,301.37	20.12	111.74	97.64	-55.25	-4,914.77	4,954.42	4,822.61	131.80	37.589		
3,600.00	3,393.56	3,341.56	3,393.56	20.76	114.96	98.05	-55.25	-4,914.77	4,960.15	4,824.50	135.65	36.567		
3,700.00	3,485.75	3,433.75	3,485.75	21.39	118.17	98.46	-55.25	-4,914.77	4,966.17	4,826.68	139.49	35.603		
3,800.00	3,577.93	3,525.93	3,577.93	22.03	121.39	98.87	-55.25	-4,914.77	4,972.49	4,829.16	143.33	34.692		
3,900.00	3,670.12	3,618.12	3,670.12	22.67	124.61	99.27	-55.25	-4,914.77	4,979.10	4,831.93	147.17	33.832		
4,000.00	3,762.30	3,710.30	3,762.30	23.30	127.82	99.68	-55.25	-4,914.77	4,986.01	4,834.99	151.01	33.017		
4,100.00	3,854.49	3,802.49	3,854.49	23.94	131.04	100.09	-55.25	-4,914.77	4,993.20	4,838.35	154.86	32.244		
4,200.00	3,946.68	3,905.32	3,946.68	24.58	134.63	100.49	-55.25	-4,914.77	5,000.69	4,841.62	159.07	31.437		
4,300.00	4,038.86	3,986.86	4,038.86	25.22	137.48	100.89	-55.25	-4,914.77	5,008.46	4,845.93	162.54	30.814		
4,400.00	4,131.05	4,079.05	4,131.05	25.86	140.69	101.29	-55.25	-4,914.77	5,016.53	4,850.15	166.38	30.152		
4,500.00	4,223.24	4,171.24	4,223.24	26.50	143.91	101.70	-55.25	-4,914.77	5,024.87	4,854.66	170.21	29.521		
4,600.00	4,315.42	4,263.42	4,315.42	27.14	147.13	102.10	-55.25	-4,914.77	5,033.51	4,859.45	174.05	28.919		
4,700.00	4,407.61	4,355.61	4,407.61	27.78	150.34	102.49	-55.25	-4,914.77	5,042.42	4,864.53	177.89	28.346		
4,800.00	4,499.79	4,447.79	4,499.79	28.42	153.56	102.89	-55.25	-4,914.77	5,051.62	4,869.89	181.73	27.798		
4,900.00	4,591.98	4,539.98	4,591.98	29.06	156.78	103.29	-55.25	-4,914.77	5,061.10	4,875.53	185.56	27.275		
5,000.00	4,684.17	4,632.17	4,684.17	29.70	160.00	103.68	-55.25	-4,914.77	5,070.85	4,881.46	189.40	26.774		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,776.35	4,724.35	4,776.35	30.34	163.21	104.08	-55.25	-4,914.77	5,080.88	4,887.65	193.23	26.295		
5,200.00	4,868.54	4,816.54	4,868.54	30.98	166.43	104.47	-55.25	-4,914.77	5,091.19	4,894.13	197.06	25.836		
5,300.00	4,960.73	4,908.73	4,960.73	31.63	169.65	104.86	-55.25	-4,914.77	5,101.77	4,900.88	200.89	25.396		
5,400.00	5,052.91	5,000.91	5,052.91	32.27	172.87	105.25	-55.25	-4,914.77	5,112.62	4,907.90	204.72	24.973		
5,500.00	5,145.10	5,106.90	5,145.10	32.91	176.57	105.64	-55.25	-4,914.77	5,123.75	4,914.71	209.03	24.512		
5,600.00	5,237.28	5,185.28	5,237.28	33.55	179.30	106.02	-55.25	-4,914.77	5,135.14	4,922.76	212.38	24.179		
5,700.00	5,329.47	5,277.47	5,329.47	34.20	182.52	106.41	-55.25	-4,914.77	5,146.80	4,930.59	216.21	23.805		
5,800.00	5,421.66	5,369.66	5,421.66	34.84	185.74	106.79	-55.25	-4,914.77	5,158.72	4,938.69	220.03	23.445		
5,900.00	5,513.84	5,461.84	5,513.84	35.48	188.96	107.17	-55.25	-4,914.77	5,170.90	4,947.05	223.86	23.099		
6,000.00	5,606.03	5,554.03	5,606.03	36.13	192.17	107.55	-55.25	-4,914.77	5,183.35	4,955.67	227.68	22.766		
6,100.00	5,698.22	5,646.22	5,698.22	36.77	195.39	107.93	-55.25	-4,914.77	5,196.06	4,964.56	231.50	22.445		
6,200.00	5,790.40	5,738.40	5,790.40	37.41	198.61	108.31	-55.25	-4,914.77	5,209.02	4,973.70	235.32	22.136		
6,300.00	5,882.59	5,830.59	5,882.59	38.06	201.83	108.68	-55.25	-4,914.77	5,222.24	4,983.10	239.14	21.838		
6,400.00	5,974.77	5,922.77	5,974.77	38.70	205.05	109.06	-55.25	-4,914.77	5,235.71	4,992.75	242.96	21.550		
6,500.00	6,066.96	6,014.96	6,066.96	39.34	208.26	109.43	-55.25	-4,914.77	5,249.43	5,002.66	246.77	21.272		
6,600.00	6,159.15	6,107.15	6,159.15	39.99	211.48	109.80	-55.25	-4,914.77	5,263.41	5,012.82	250.59	21.004		
6,700.00	6,251.33	6,200.67	6,251.33	40.63	214.75	110.17	-55.25	-4,914.77	5,277.63	5,023.18	254.45	20.741		
6,800.00	6,343.52	6,308.48	6,343.52	41.28	218.51	110.54	-55.25	-4,914.77	5,292.09	5,033.29	258.81	20.448		
6,900.00	6,435.71	6,383.71	6,435.71	41.92	221.13	110.90	-55.25	-4,914.77	5,306.80	5,044.78	262.03	20.253		
7,000.00	6,527.86	6,475.86	6,527.86	42.56	224.35	110.47	-55.25	-4,914.77	5,320.97	5,055.13	265.84	20.016		
7,100.00	6,618.85	6,566.85	6,618.85	43.19	227.53	85.83	-55.25	-4,914.77	5,324.34	5,054.74	269.60	19.749		
7,200.00	6,706.47	6,654.47	6,706.47	43.76	230.59	73.40	-55.25	-4,914.77	5,313.87	5,040.67	273.21	19.450		
7,300.00	6,788.56	6,736.56	6,788.56	44.26	233.45	66.01	-55.25	-4,914.77	5,289.96	5,013.39	276.57	19.127		
7,400.00	6,863.10	6,811.10	6,863.10	44.70	236.05	62.31	-55.25	-4,914.77	5,253.31	4,973.69	279.62	18.787		
7,500.00	6,928.26	6,876.26	6,928.26	45.07	238.33	61.45	-55.25	-4,914.77	5,204.94	4,922.63	282.31	18.437		
7,600.00	6,982.42	6,930.42	6,982.42	45.39	240.22	63.04	-55.25	-4,914.77	5,146.10	4,861.50	284.60	18.082		
7,700.00	7,024.26	6,972.26	7,024.26	45.67	241.68	67.11	-55.25	-4,914.77	5,078.28	4,791.81	286.47	17.727		
7,800.00	7,052.75	7,000.75	7,052.75	45.92	242.67	73.92	-55.25	-4,914.77	5,003.14	4,715.25	287.89	17.379		
7,900.00	7,067.18	7,015.18	7,067.18	46.16	243.18	83.83	-55.25	-4,914.77	4,922.48	4,633.64	288.85	17.042		
8,000.00	7,068.85	7,016.85	7,068.85	46.42	243.24	90.27	-55.25	-4,914.77	4,838.52	4,549.14	289.38	16.720		
8,100.00	7,068.56	7,016.56	7,068.56	46.78	243.23	90.26	-55.25	-4,914.77	4,754.67	4,464.77	289.91	16.401		
8,200.00	7,068.26	7,016.26	7,068.26	47.29	243.21	90.25	-55.25	-4,914.77	4,671.46	4,380.96	290.51	16.080		
8,300.00	7,067.96	7,015.96	7,067.96	48.03	243.20	90.25	-55.25	-4,914.77	4,588.93	4,297.75	291.18	15.760		
8,400.00	7,067.66	7,015.66	7,067.66	49.02	243.19	90.24	-55.25	-4,914.77	4,507.10	4,215.16	291.94	15.438		
8,500.00	7,067.37	7,015.37	7,067.37	50.27	243.18	90.23	-55.25	-4,914.77	4,426.01	4,133.23	292.78	15.117		
8,600.00	7,067.07	7,015.07	7,067.07	51.75	243.17	90.23	-55.25	-4,914.77	4,345.71	4,052.00	293.72	14.796		
8,700.00	7,066.77	7,014.77	7,066.77	53.42	243.16	90.22	-55.25	-4,914.77	4,266.25	3,971.51	294.74	14.475		
8,800.00	7,066.47	7,014.47	7,066.47	55.24	243.15	90.21	-55.25	-4,914.77	4,187.67	3,891.80	295.87	14.154		
8,900.00	7,066.18	7,014.18	7,066.18	57.18	243.14	90.21	-55.25	-4,914.77	4,110.01	3,812.92	297.09	13.834		
9,000.00	7,065.88	7,013.88	7,065.88	59.21	243.13	90.20	-55.25	-4,914.77	4,033.35	3,734.93	298.42	13.516		
9,100.00	7,065.58	7,013.58	7,065.58	61.33	243.12	90.19	-55.25	-4,914.77	3,957.72	3,657.87	299.85	13.199		
9,200.00	7,065.28	7,013.28	7,065.28	63.51	243.11	90.19	-55.25	-4,914.77	3,883.19	3,581.80	301.40	12.884		
9,300.00	7,064.99	7,012.99	7,064.99	65.76	243.10	90.18	-55.25	-4,914.77	3,809.84	3,506.78	303.05	12.571		
9,400.00	7,064.69	7,012.69	7,064.69	68.06	243.09	90.17	-55.25	-4,914.77	3,737.72	3,432.89	304.82	12.262		
9,500.00	7,064.39	7,012.39	7,064.39	70.40	243.08	90.17	-55.25	-4,914.77	3,666.90	3,360.19	306.71	11.956		
9,600.00	7,064.09	7,012.09	7,064.09	72.78	243.07	90.16	-55.25	-4,914.77	3,597.48	3,288.76	308.71	11.653		
9,700.00	7,063.80	7,011.80	7,063.80	75.20	243.06	90.15	-55.25	-4,914.77	3,529.52	3,218.69	310.83	11.355		
9,800.00	7,063.50	7,011.50	7,063.50	77.65	243.05	90.15	-55.25	-4,914.77	3,463.11	3,150.05	313.07	11.062		
9,900.00	7,063.20	7,011.20	7,063.20	80.13	243.04	90.14	-55.25	-4,914.77	3,398.35	3,082.93	315.42	10.774		
10,000.00	7,062.90	7,010.90	7,062.90	82.64	243.03	90.14	-55.25	-4,914.77	3,335.34	3,017.45	317.89	10.492		
10,100.00	7,062.61	7,010.61	7,062.61	85.17	243.02	90.13	-55.25	-4,914.77	3,274.16	2,953.70	320.47	10.217		
10,200.00	7,062.31	7,010.31	7,062.31	87.72	243.01	90.12	-55.25	-4,914.77	3,214.93	2,891.78	323.15	9.949		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,062.01	7,010.01	7,062.01	90.28	243.00	90.12	-55.25	-4,914.77	3,157.76	2,831.82	325.94	9.688	
10,400.00	7,061.71	7,009.71	7,061.71	92.87	242.99	90.11	-55.25	-4,914.77	3,102.76	2,773.92	328.83	9.436	
10,500.00	7,061.41	7,009.41	7,061.41	95.47	242.98	90.10	-55.25	-4,914.77	3,050.04	2,718.23	331.81	9.192	
10,600.00	7,061.12	7,009.12	7,061.12	98.09	242.97	90.10	-55.25	-4,914.77	2,999.74	2,664.86	334.88	8.958	
10,700.00	7,060.82	7,008.82	7,060.82	100.72	242.96	90.09	-55.25	-4,914.77	2,951.96	2,613.95	338.02	8.733	
10,800.00	7,060.52	7,008.52	7,060.52	103.37	242.94	90.08	-55.25	-4,914.77	2,906.84	2,565.63	341.21	8.519	
10,900.00	7,060.22	7,008.22	7,060.22	106.02	242.93	90.08	-55.25	-4,914.77	2,864.51	2,520.04	344.46	8.316	
11,000.00	7,059.93	7,007.93	7,059.93	108.69	242.92	90.07	-55.25	-4,914.77	2,825.08	2,477.33	347.74	8.124	
11,100.00	7,059.63	7,007.63	7,059.63	111.36	242.91	90.06	-55.25	-4,914.77	2,788.68	2,437.63	351.04	7.944	
11,200.00	7,059.33	7,007.33	7,059.33	114.05	242.90	90.06	-55.25	-4,914.77	2,755.43	2,401.08	354.35	7.776	
11,300.00	7,059.03	7,007.03	7,059.03	116.74	242.89	90.05	-55.25	-4,914.77	2,725.44	2,367.81	357.63	7.621	
11,400.00	7,058.74	7,006.74	7,058.74	119.44	242.88	90.04	-55.25	-4,914.77	2,698.83	2,337.95	360.88	7.479	
11,500.00	7,058.44	7,006.44	7,058.44	122.15	242.87	90.04	-55.25	-4,914.77	2,675.69	2,311.63	364.07	7.349	
11,600.00	7,058.14	7,006.14	7,058.14	124.86	242.86	90.03	-55.25	-4,914.77	2,656.12	2,288.94	367.18	7.234	
11,700.00	7,057.84	7,005.84	7,057.84	127.58	242.85	90.02	-55.25	-4,914.77	2,640.20	2,270.00	370.20	7.132	
11,800.00	7,057.55	7,005.55	7,057.55	130.31	242.84	90.02	-55.25	-4,914.77	2,627.98	2,254.88	373.10	7.044	
11,900.00	7,057.25	7,005.25	7,057.25	133.04	242.83	90.01	-55.25	-4,914.77	2,619.53	2,243.67	375.87	6.969	
12,000.00	7,056.95	7,004.95	7,056.95	135.78	242.82	90.00	-55.25	-4,914.77	2,614.88	2,236.40	378.49	6.909	
12,071.72	7,056.74	7,004.74	7,056.74	137.75	242.81	90.00	-55.25	-4,914.77	2,613.90	2,233.64	380.26	6.874 CC	
12,100.00	7,056.65	7,004.65	7,056.65	138.52	242.81	90.00	-55.25	-4,914.77	2,614.05	2,233.12	380.94	6.862 ES	
12,200.00	7,056.36	7,004.36	7,056.36	141.27	242.80	89.99	-55.25	-4,914.77	2,617.05	2,233.83	383.21	6.829	
12,300.00	7,056.06	7,004.06	7,056.06	144.02	242.79	89.99	-55.25	-4,914.77	2,623.85	2,238.55	385.30	6.810	
12,400.00	7,055.76	7,003.76	7,055.76	146.78	242.78	89.98	-55.25	-4,914.77	2,634.43	2,247.25	387.19	6.804 SF	
12,500.00	7,055.46	7,003.46	7,055.46	149.54	242.77	89.97	-55.25	-4,914.77	2,648.75	2,259.87	388.88	6.811	
12,600.00	7,055.17	7,003.17	7,055.17	152.30	242.76	89.97	-55.25	-4,914.77	2,666.75	2,276.38	390.37	6.831	
12,700.00	7,054.87	7,002.87	7,054.87	155.07	242.75	89.96	-55.25	-4,914.77	2,688.35	2,296.69	391.66	6.864	
12,800.00	7,054.57	7,002.57	7,054.57	157.84	242.74	89.95	-55.25	-4,914.77	2,713.46	2,320.70	392.75	6.909	
12,900.00	7,054.27	7,002.27	7,054.27	160.61	242.73	89.95	-55.25	-4,914.77	2,741.99	2,348.33	393.66	6.965	
13,000.00	7,053.97	7,001.97	7,053.97	163.39	242.72	89.94	-55.25	-4,914.77	2,773.84	2,379.46	394.38	7.033	
13,100.00	7,053.68	7,001.68	7,053.68	166.17	242.71	89.93	-55.25	-4,914.77	2,808.88	2,413.96	394.92	7.112	
13,200.00	7,053.38	7,001.38	7,053.38	168.95	242.70	89.93	-55.25	-4,914.77	2,847.01	2,451.70	395.31	7.202	
13,300.00	7,053.08	7,001.08	7,053.08	171.73	242.68	89.92	-55.25	-4,914.77	2,888.10	2,492.56	395.54	7.302	
13,400.00	7,052.78	7,000.78	7,052.78	174.52	242.67	89.91	-55.25	-4,914.77	2,932.03	2,536.40	395.63	7.411	
13,500.00	7,052.49	7,000.49	7,052.49	177.31	242.66	89.91	-55.25	-4,914.77	2,978.66	2,583.08	395.58	7.530	
13,600.00	7,052.19	7,000.19	7,052.19	180.10	242.65	89.90	-55.25	-4,914.77	3,027.88	2,632.46	395.43	7.657	
13,700.00	7,051.89	7,000.11	7,051.89	182.90	242.65	89.89	-55.25	-4,914.77	3,079.57	2,684.40	395.17	7.793	
13,800.00	7,051.59	7,000.41	7,051.59	185.69	242.66	89.89	-55.25	-4,914.77	3,133.59	2,738.76	394.83	7.936	
13,900.00	7,051.30	7,000.70	7,051.30	188.49	242.67	89.88	-55.25	-4,914.77	3,189.83	2,795.42	394.41	8.088	
14,000.00	7,051.00	7,001.00	7,051.00	191.29	242.68	89.87	-55.25	-4,914.77	3,248.18	2,854.26	393.92	8.246	
14,100.00	7,050.70	7,001.30	7,050.70	194.09	242.69	89.87	-55.25	-4,914.77	3,308.53	2,915.16	393.36	8.411	
14,200.00	7,050.40	7,001.60	7,050.40	196.89	242.70	89.86	-55.25	-4,914.77	3,370.76	2,978.01	392.75	8.582	
14,300.00	7,050.11	7,001.89	7,050.11	199.70	242.71	89.85	-55.25	-4,914.77	3,434.77	3,042.68	392.09	8.760	
14,400.00	7,049.81	7,002.19	7,049.81	202.50	242.72	89.85	-55.25	-4,914.77	3,500.47	3,109.08	391.39	8.944	
14,500.00	7,049.51	7,002.49	7,049.51	205.31	242.73	89.84	-55.25	-4,914.77	3,567.77	3,177.10	390.66	9.133	
14,600.00	7,049.21	7,002.79	7,049.21	208.12	242.74	89.84	-55.25	-4,914.77	3,636.56	3,246.66	389.91	9.327	
14,700.00	7,048.92	7,003.08	7,048.92	210.93	242.75	89.83	-55.25	-4,914.77	3,706.78	3,317.65	389.13	9.526	
14,800.00	7,048.62	7,003.38	7,048.62	213.74	242.77	89.82	-55.25	-4,914.77	3,778.35	3,390.01	388.34	9.729	
14,900.00	7,048.32	7,003.68	7,048.32	216.55	242.78	89.82	-55.25	-4,914.77	3,851.18	3,463.64	387.54	9.938	
15,000.00	7,048.02	7,003.98	7,048.02	219.37	242.79	89.81	-55.25	-4,914.77	3,925.20	3,538.47	386.73	10.150	
15,100.00	7,047.73	7,004.27	7,047.73	222.18	242.80	89.80	-55.25	-4,914.77	4,000.36	3,614.44	385.91	10.366	
15,200.00	7,047.43	7,004.57	7,047.43	225.00	242.81	89.80	-55.25	-4,914.77	4,076.58	3,691.48	385.10	10.586	
15,300.00	7,047.13	7,004.87	7,047.13	227.81	242.82	89.79	-55.25	-4,914.77	4,153.81	3,769.53	384.28	10.809	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	7,005.00	7,047.00	229.04	242.82	89.79	-55.25	-4,914.77	4,187.84	3,803.92	383.93	10.908	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	55.00	3.28	3.28	-109.85	-2,762.79	-7,652.53	8,136.17					
100.00	100.00	45.00	100.00	3.28	3.37	-109.85	-2,762.79	-7,652.53	8,135.99	8,129.33	6.66	1,222.085		
200.00	200.00	145.00	200.00	3.34	4.66	-109.85	-2,762.79	-7,652.53	8,135.99	8,127.98	8.00	1,016.808		
300.00	299.98	244.98	299.98	3.44	7.56	66.76	-2,762.79	-7,652.53	8,135.30	8,124.30	11.00	739.894		
400.00	399.84	344.84	399.84	3.59	10.80	66.83	-2,762.79	-7,652.53	8,133.23	8,118.84	14.39	565.135		
500.00	499.45	444.45	499.45	3.79	14.16	66.95	-2,762.79	-7,652.53	8,129.80	8,111.86	17.94	453.101		
600.00	598.70	543.70	598.70	4.03	17.54	67.12	-2,762.79	-7,652.53	8,125.02	8,103.44	21.57	376.609		
700.00	697.47	642.47	697.47	4.31	20.94	67.33	-2,762.79	-7,652.53	8,118.90	8,093.64	25.25	321.481		
800.00	795.62	740.62	795.62	4.64	24.33	67.59	-2,762.79	-7,652.53	8,111.47	8,082.50	28.97	280.030		
900.00	893.06	838.06	893.06	5.00	27.71	67.90	-2,762.79	-7,652.53	8,102.76	8,070.06	32.70	247.809		
1,000.00	989.64	934.64	989.64	5.40	31.06	68.25	-2,762.79	-7,652.53	8,092.80	8,056.36	36.44	222.090		
1,100.00	1,085.27	1,030.27	1,085.27	5.83	34.38	68.65	-2,762.79	-7,652.53	8,081.64	8,041.46	40.18	201.113		
1,200.00	1,179.82	1,124.82	1,179.82	6.29	37.66	69.08	-2,762.79	-7,652.53	8,069.32	8,025.39	43.93	183.697		
1,300.00	1,273.17	1,218.17	1,273.17	6.79	40.91	69.56	-2,762.79	-7,652.53	8,055.88	8,008.22	47.66	169.018		
1,400.00	1,365.46	1,310.46	1,365.46	7.32	44.12	69.91	-2,762.79	-7,652.53	8,041.61	7,990.22	51.39	156.483		
1,500.00	1,457.65	1,402.65	1,457.65	7.87	47.33	70.15	-2,762.79	-7,652.53	8,027.40	7,972.26	55.13	145.599		
1,600.00	1,549.83	1,505.17	1,549.83	8.43	50.91	70.39	-2,762.79	-7,652.53	8,013.35	7,954.09	59.25	135.240		
1,700.00	1,642.02	1,587.02	1,642.02	9.01	53.76	70.64	-2,762.79	-7,652.53	7,999.46	7,936.79	62.66	127.654		
1,800.00	1,734.21	1,679.21	1,734.21	9.59	56.97	70.88	-2,762.79	-7,652.53	7,985.74	7,919.29	66.45	120.181		
1,900.00	1,826.39	1,771.39	1,826.39	10.18	60.18	71.12	-2,762.79	-7,652.53	7,972.18	7,901.94	70.24	113.500		
2,000.00	1,918.58	1,863.58	1,918.58	10.78	63.40	71.37	-2,762.79	-7,652.53	7,958.79	7,884.75	74.04	107.495		
2,100.00	2,010.77	1,955.77	2,010.77	11.39	66.61	71.62	-2,762.79	-7,652.53	7,945.56	7,867.72	77.84	102.069		
2,200.00	2,102.95	2,047.95	2,102.95	11.99	69.83	71.86	-2,762.79	-7,652.53	7,932.50	7,850.85	81.66	97.145		
2,300.00	2,195.14	2,140.14	2,195.14	12.61	73.04	72.11	-2,762.79	-7,652.53	7,919.61	7,834.14	85.47	92.656		
2,400.00	2,287.32	2,232.32	2,287.32	13.22	76.26	72.36	-2,762.79	-7,652.53	7,906.89	7,817.60	89.29	88.549		
2,500.00	2,379.51	2,324.51	2,379.51	13.84	79.47	72.61	-2,762.79	-7,652.53	7,894.34	7,801.22	93.12	84.777		
2,600.00	2,471.70	2,416.70	2,471.70	14.46	82.69	72.86	-2,762.79	-7,652.53	7,881.96	7,785.01	96.95	81.302		
2,700.00	2,563.88	2,508.88	2,563.88	15.08	85.90	73.11	-2,762.79	-7,652.53	7,869.75	7,768.97	100.78	78.089		
2,800.00	2,656.07	2,601.07	2,656.07	15.71	89.12	73.36	-2,762.79	-7,652.53	7,857.71	7,753.10	104.61	75.112		
2,900.00	2,748.26	2,706.74	2,748.26	16.33	92.81	73.61	-2,762.79	-7,652.53	7,845.84	7,736.92	108.92	72.033		
3,000.00	2,840.44	2,785.44	2,840.44	16.96	95.55	73.86	-2,762.79	-7,652.53	7,834.15	7,721.86	112.29	69.768		
3,100.00	2,932.63	2,877.63	2,932.63	17.59	98.77	74.12	-2,762.79	-7,652.53	7,822.63	7,706.50	116.13	67.361		
3,200.00	3,024.81	2,969.81	3,024.81	18.22	101.98	74.37	-2,762.79	-7,652.53	7,811.29	7,691.32	119.97	65.108		
3,300.00	3,117.00	3,062.00	3,117.00	18.86	105.20	74.62	-2,762.79	-7,652.53	7,800.13	7,676.31	123.82	62.996		
3,400.00	3,209.19	3,154.19	3,209.19	19.49	108.42	74.88	-2,762.79	-7,652.53	7,789.14	7,661.47	127.67	61.012		
3,500.00	3,301.37	3,246.37	3,301.37	20.12	111.63	75.13	-2,762.79	-7,652.53	7,778.33	7,646.81	131.51	59.144		
3,600.00	3,393.56	3,338.56	3,393.56	20.76	114.85	75.39	-2,762.79	-7,652.53	7,767.70	7,632.33	135.36	57.384		
3,700.00	3,485.75	3,430.75	3,485.75	21.39	118.07	75.65	-2,762.79	-7,652.53	7,757.24	7,618.03	139.22	55.721		
3,800.00	3,577.93	3,522.93	3,577.93	22.03	121.28	75.90	-2,762.79	-7,652.53	7,746.97	7,603.90	143.07	54.149		
3,900.00	3,670.12	3,615.12	3,670.12	22.67	124.50	76.16	-2,762.79	-7,652.53	7,736.87	7,589.95	146.92	52.660		
4,000.00	3,762.30	3,707.30	3,762.30	23.30	127.72	76.42	-2,762.79	-7,652.53	7,726.96	7,576.18	150.78	51.248		
4,100.00	3,854.49	3,800.51	3,854.49	23.94	130.97	76.68	-2,762.79	-7,652.53	7,717.23	7,562.56	154.67	49.895		
4,200.00	3,946.68	3,908.32	3,946.68	24.58	134.73	76.94	-2,762.79	-7,652.53	7,707.68	7,548.61	159.07	48.455		
4,300.00	4,038.86	3,983.86	4,038.86	25.22	137.37	77.20	-2,762.79	-7,652.53	7,698.32	7,535.97	162.35	47.419		
4,400.00	4,131.05	4,076.05	4,131.05	25.86	140.59	77.46	-2,762.79	-7,652.53	7,689.14	7,522.93	166.21	46.263		
4,500.00	4,223.24	4,168.24	4,223.24	26.50	143.81	77.72	-2,762.79	-7,652.53	7,680.14	7,510.07	170.07	45.160		
4,600.00	4,315.42	4,260.42	4,315.42	27.14	147.02	77.98	-2,762.79	-7,652.53	7,671.33	7,497.40	173.93	44.107		
4,700.00	4,407.61	4,352.61	4,407.61	27.78	150.24	78.25	-2,762.79	-7,652.53	7,662.70	7,484.92	177.79	43.100		
4,800.00	4,499.79	4,444.79	4,499.79	28.42	153.46	78.51	-2,762.79	-7,652.53	7,654.26	7,472.62	181.65	42.138		
4,900.00	4,591.98	4,536.98	4,591.98	29.06	156.68	78.77	-2,762.79	-7,652.53	7,646.01	7,460.50	185.51	41.216		
5,000.00	4,684.17	4,629.17	4,684.17	29.70	159.89	79.04	-2,762.79	-7,652.53	7,637.95	7,448.57	189.38	40.332		
5,100.00	4,776.35	4,721.35	4,776.35	30.34	163.11	79.30	-2,762.79	-7,652.53	7,630.07	7,436.83	193.24	39.485		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,868.54	4,813.54	4,868.54	30.98	166.33	79.56	-2,762.79	-7,652.53	7,622.39	7,425.28	197.10	38.672		
5,300.00	4,960.73	4,905.73	4,960.73	31.63	169.55	79.83	-2,762.79	-7,652.53	7,614.89	7,413.92	200.97	37.891		
5,400.00	5,052.91	5,002.09	5,052.91	32.27	172.91	80.09	-2,762.79	-7,652.53	7,607.58	7,402.60	204.98	37.114		
5,500.00	5,145.10	5,109.90	5,145.10	32.91	176.67	80.36	-2,762.79	-7,652.53	7,600.46	7,391.07	209.39	36.298		
5,600.00	5,237.28	5,182.28	5,237.28	33.55	179.20	80.63	-2,762.79	-7,652.53	7,593.54	7,380.97	212.57	35.723		
5,700.00	5,329.47	5,274.47	5,329.47	34.20	182.42	80.89	-2,762.79	-7,652.53	7,586.80	7,370.37	216.43	35.054		
5,800.00	5,421.66	5,366.66	5,421.66	34.84	185.63	81.16	-2,762.79	-7,652.53	7,580.26	7,359.96	220.30	34.409		
5,900.00	5,513.84	5,458.84	5,513.84	35.48	188.85	81.43	-2,762.79	-7,652.53	7,573.91	7,349.75	224.17	33.787		
6,000.00	5,606.03	5,551.03	5,606.03	36.13	192.07	81.70	-2,762.79	-7,652.53	7,567.76	7,339.72	228.03	33.187		
6,100.00	5,698.22	5,643.22	5,698.22	36.77	195.29	81.96	-2,762.79	-7,652.53	7,561.79	7,329.89	231.90	32.608		
6,200.00	5,790.40	5,735.40	5,790.40	37.41	198.50	82.23	-2,762.79	-7,652.53	7,556.02	7,320.25	235.77	32.048		
6,300.00	5,882.59	5,827.59	5,882.59	38.06	201.72	82.50	-2,762.79	-7,652.53	7,550.45	7,310.81	239.64	31.508		
6,400.00	5,974.77	5,919.77	5,974.77	38.70	204.94	82.77	-2,762.79	-7,652.53	7,545.07	7,301.56	243.51	30.985		
6,500.00	6,066.96	6,011.96	6,066.96	39.34	208.16	83.04	-2,762.79	-7,652.53	7,539.89	7,292.51	247.38	30.479		
6,600.00	6,159.15	6,104.15	6,159.15	39.99	211.38	83.31	-2,762.79	-7,652.53	7,534.90	7,283.65	251.24	29.990		
6,700.00	6,251.33	6,203.67	6,251.33	40.63	214.85	83.58	-2,762.79	-7,652.53	7,530.11	7,274.74	255.37	29.487		
6,800.00	6,343.52	6,288.52	6,343.52	41.28	217.81	83.85	-2,762.79	-7,652.53	7,525.51	7,266.53	258.98	29.058		
6,900.00	6,435.71	6,380.71	6,435.71	41.92	221.03	84.12	-2,762.79	-7,652.53	7,521.11	7,258.26	262.85	28.614		
7,000.00	6,527.86	6,472.86	6,527.86	42.56	224.25	77.35	-2,762.79	-7,652.53	7,516.04	7,249.32	266.72	28.180		
7,100.00	6,618.85	6,563.85	6,618.85	43.19	227.42	59.05	-2,762.79	-7,652.53	7,499.04	7,228.52	270.52	27.721		
7,200.00	6,706.47	6,651.47	6,706.47	43.76	230.48	45.94	-2,762.79	-7,652.53	7,467.03	7,192.89	274.14	27.238		
7,300.00	6,788.56	6,733.56	6,788.56	44.26	233.35	37.20	-2,762.79	-7,652.53	7,420.77	7,143.27	277.50	26.742		
7,400.00	6,863.10	6,808.10	6,863.10	44.70	235.95	31.39	-2,762.79	-7,652.53	7,361.37	7,080.85	280.52	26.242		
7,500.00	6,928.26	6,873.26	6,928.26	45.07	238.22	27.45	-2,762.79	-7,652.53	7,290.23	7,007.09	283.14	25.748		
7,600.00	6,982.42	6,927.42	6,982.42	45.39	240.11	24.71	-2,762.79	-7,652.53	7,209.07	6,923.77	285.31	25.268		
7,700.00	7,024.26	6,969.26	7,024.26	45.67	241.57	22.71	-2,762.79	-7,652.53	7,119.85	6,832.88	286.97	24.811		
7,800.00	7,052.75	7,002.25	7,052.75	45.92	242.73	20.86	-2,762.79	-7,652.53	7,024.71	6,736.46	288.25	24.370		
7,900.00	7,067.18	7,012.18	7,067.18	46.16	243.07	15.78	-2,762.79	-7,652.53	6,925.99	6,637.34	288.66	23.994		
8,000.00	7,068.85	7,013.85	7,068.85	46.42	243.13	-104.74	-2,762.79	-7,652.53	6,826.04	6,537.32	288.72	23.642		
8,100.00	7,068.56	7,013.56	7,068.56	46.78	243.12	-104.53	-2,762.79	-7,652.53	6,726.05	6,437.34	288.71	23.297		
8,200.00	7,068.26	7,013.26	7,068.26	47.29	243.11	-104.32	-2,762.79	-7,652.53	6,626.06	6,337.35	288.70	22.951		
8,300.00	7,067.96	7,012.96	7,067.96	48.03	243.10	-104.12	-2,762.79	-7,652.53	6,526.06	6,237.37	288.69	22.606		
8,400.00	7,067.66	7,012.66	7,067.66	49.02	243.09	-103.91	-2,762.79	-7,652.53	6,426.07	6,137.39	288.69	22.260		
8,500.00	7,067.37	7,012.37	7,067.37	50.27	243.08	-103.70	-2,762.79	-7,652.53	6,326.08	6,037.40	288.68	21.914		
8,600.00	7,067.07	7,012.07	7,067.07	51.75	243.07	-103.49	-2,762.79	-7,652.53	6,226.09	5,937.42	288.67	21.568		
8,700.00	7,066.77	7,011.77	7,066.77	53.42	243.06	-103.28	-2,762.79	-7,652.53	6,126.09	5,837.43	288.66	21.222		
8,800.00	7,066.47	7,011.47	7,066.47	55.24	243.05	-103.07	-2,762.79	-7,652.53	6,026.10	5,737.45	288.66	20.876		
8,900.00	7,066.18	7,011.18	7,066.18	57.18	243.04	-102.86	-2,762.79	-7,652.53	5,926.11	5,637.46	288.65	20.530		
9,000.00	7,065.88	7,010.88	7,065.88	59.21	243.03	-102.65	-2,762.79	-7,652.53	5,826.12	5,537.47	288.65	20.184		
9,100.00	7,065.58	7,010.58	7,065.58	61.33	243.02	-102.44	-2,762.79	-7,652.53	5,726.13	5,437.49	288.64	19.838		
9,200.00	7,065.28	7,010.28	7,065.28	63.51	243.01	-102.23	-2,762.79	-7,652.53	5,626.14	5,337.50	288.64	19.492		
9,300.00	7,064.99	7,009.99	7,064.99	65.76	243.00	-102.02	-2,762.79	-7,652.53	5,526.15	5,237.51	288.64	19.146		
9,400.00	7,064.69	7,009.69	7,064.69	68.06	242.99	-101.81	-2,762.79	-7,652.53	5,426.16	5,137.53	288.63	18.800		
9,500.00	7,064.39	7,009.39	7,064.39	70.40	242.97	-101.60	-2,762.79	-7,652.53	5,326.17	5,037.54	288.63	18.453		
9,600.00	7,064.09	7,009.09	7,064.09	72.78	242.96	-101.39	-2,762.79	-7,652.53	5,226.18	4,937.55	288.63	18.107		
9,700.00	7,063.80	7,008.80	7,063.80	75.20	242.95	-101.17	-2,762.79	-7,652.53	5,126.19	4,837.57	288.63	17.761		
9,800.00	7,063.50	7,008.50	7,063.50	77.65	242.94	-100.96	-2,762.79	-7,652.53	5,026.21	4,737.58	288.63	17.414		
9,900.00	7,063.20	7,008.20	7,063.20	80.13	242.93	-100.75	-2,762.79	-7,652.53	4,926.22	4,637.59	288.63	17.068		
10,000.00	7,062.90	7,007.90	7,062.90	82.64	242.92	-100.53	-2,762.79	-7,652.53	4,826.23	4,537.61	288.63	16.721		
10,100.00	7,062.61	7,007.61	7,062.61	85.17	242.91	-100.32	-2,762.79	-7,652.53	4,726.25	4,437.62	288.63	16.375		
10,200.00	7,062.31	7,007.31	7,062.31	87.72	242.90	-100.11	-2,762.79	-7,652.53	4,626.26	4,337.63	288.63	16.029		
10,300.00	7,062.01	7,007.01	7,062.01	90.28	242.89	-99.89	-2,762.79	-7,652.53	4,526.27	4,237.65	288.63	15.682		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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	7,061.71	7,006.71	7,061.71	92.87	242.88	-99.68	-2,762.79	-7,652.53	4,426.29	4,137.66	288.63	15.336		
10,500.00	7,061.41	7,006.41	7,061.41	95.47	242.87	-99.46	-2,762.79	-7,652.53	4,326.31	4,037.67	288.63	14.989		
10,600.00	7,061.12	7,006.12	7,061.12	98.09	242.86	-99.25	-2,762.79	-7,652.53	4,226.32	3,937.69	288.63	14.643		
10,700.00	7,060.82	7,005.82	7,060.82	100.72	242.85	-99.03	-2,762.79	-7,652.53	4,126.34	3,837.70	288.64	14.296		
10,800.00	7,060.52	7,005.52	7,060.52	103.37	242.84	-98.82	-2,762.79	-7,652.53	4,026.36	3,737.72	288.64	13.950		
10,900.00	7,060.22	7,005.22	7,060.22	106.02	242.83	-98.60	-2,762.79	-7,652.53	3,926.38	3,637.74	288.64	13.603		
11,000.00	7,059.93	7,004.93	7,059.93	108.69	242.82	-98.39	-2,762.79	-7,652.53	3,826.40	3,537.75	288.64	13.256		
11,100.00	7,059.63	7,004.63	7,059.63	111.36	242.81	-98.17	-2,762.79	-7,652.53	3,726.42	3,437.77	288.65	12.910		
11,200.00	7,059.33	7,004.33	7,059.33	114.05	242.80	-97.95	-2,762.79	-7,652.53	3,626.44	3,337.79	288.65	12.563		
11,300.00	7,059.03	7,004.03	7,059.03	116.74	242.79	-97.74	-2,762.79	-7,652.53	3,526.47	3,237.81	288.65	12.217		
11,400.00	7,058.74	7,003.74	7,058.74	119.44	242.78	-97.52	-2,762.79	-7,652.53	3,426.49	3,137.83	288.66	11.870		
11,500.00	7,058.44	7,003.44	7,058.44	122.15	242.77	-97.30	-2,762.79	-7,652.53	3,326.52	3,037.86	288.66	11.524		
11,600.00	7,058.14	7,003.14	7,058.14	124.86	242.76	-97.09	-2,762.79	-7,652.53	3,226.54	2,937.88	288.67	11.177		
11,700.00	7,057.84	7,002.84	7,057.84	127.58	242.75	-96.87	-2,762.79	-7,652.53	3,126.57	2,837.91	288.67	10.831		
11,800.00	7,057.55	7,002.55	7,057.55	130.31	242.74	-96.65	-2,762.79	-7,652.53	3,026.61	2,737.93	288.67	10.485		
11,900.00	7,057.25	7,002.25	7,057.25	133.04	242.73	-96.43	-2,762.79	-7,652.53	2,926.64	2,637.96	288.68	10.138		
12,000.00	7,056.95	7,001.95	7,056.95	135.78	242.72	-96.21	-2,762.79	-7,652.53	2,826.68	2,538.00	288.68	9.792		
12,100.00	7,056.65	7,001.65	7,056.65	138.52	242.70	-96.00	-2,762.79	-7,652.53	2,726.72	2,438.03	288.69	9.445		
12,200.00	7,056.36	7,001.36	7,056.36	141.27	242.69	-95.78	-2,762.79	-7,652.53	2,626.76	2,338.07	288.69	9.099		
12,300.00	7,056.06	7,001.06	7,056.06	144.02	242.68	-95.56	-2,762.79	-7,652.53	2,526.80	2,238.11	288.69	8.753		
12,400.00	7,055.76	7,000.76	7,055.76	146.78	242.67	-95.34	-2,762.79	-7,652.53	2,426.85	2,138.16	288.70	8.406		
12,500.00	7,055.46	7,000.46	7,055.46	149.54	242.66	-95.12	-2,762.79	-7,652.53	2,326.91	2,038.20	288.70	8.060		
12,600.00	7,055.17	7,000.17	7,055.17	152.30	242.65	-94.90	-2,762.79	-7,652.53	2,226.96	1,938.26	288.71	7.714		
12,700.00	7,054.87	7,000.13	7,054.87	155.07	242.65	-94.68	-2,762.79	-7,652.53	2,127.03	1,838.31	288.72	7.367		
12,800.00	7,054.57	7,000.43	7,054.57	157.84	242.66	-94.46	-2,762.79	-7,652.53	2,027.10	1,738.35	288.75	7.020		
12,900.00	7,054.27	7,000.73	7,054.27	160.61	242.67	-94.24	-2,762.79	-7,652.53	1,927.17	1,638.40	288.78	6.674		
13,000.00	7,053.97	7,001.03	7,053.97	163.39	242.68	-94.02	-2,762.79	-7,652.53	1,827.26	1,538.45	288.81	6.327		
13,100.00	7,053.68	7,001.32	7,053.68	166.17	242.69	-93.80	-2,762.79	-7,652.53	1,727.35	1,438.51	288.85	5.980		
13,200.00	7,053.38	7,001.62	7,053.38	168.95	242.70	-93.58	-2,762.79	-7,652.53	1,627.46	1,338.58	288.88	5.634		
13,300.00	7,053.08	7,001.92	7,053.08	171.73	242.71	-93.36	-2,762.79	-7,652.53	1,527.58	1,238.65	288.93	5.287		
13,400.00	7,052.78	7,002.22	7,052.78	174.52	242.72	-93.14	-2,762.79	-7,652.53	1,427.72	1,138.73	288.99	4.940		
13,500.00	7,052.49	7,002.51	7,052.49	177.31	242.73	-92.92	-2,762.79	-7,652.53	1,327.88	1,038.81	289.06	4.594		
13,600.00	7,052.19	7,002.81	7,052.19	180.10	242.75	-92.70	-2,762.79	-7,652.53	1,228.06	938.90	289.16	4.247		
13,700.00	7,051.89	7,003.11	7,051.89	182.90	242.76	-92.48	-2,762.79	-7,652.53	1,128.28	838.99	289.29	3.900		
13,800.00	7,051.59	7,003.41	7,051.59	185.69	242.77	-92.26	-2,762.79	-7,652.53	1,028.53	739.07	289.47	3.553		
13,900.00	7,051.30	7,003.70	7,051.30	188.49	242.78	-92.04	-2,762.79	-7,652.53	928.85	639.12	289.73	3.206		
14,000.00	7,051.00	7,004.00	7,051.00	191.29	242.79	-91.82	-2,762.79	-7,652.53	829.24	539.11	290.12	2.858		
14,100.00	7,050.70	7,004.30	7,050.70	194.09	242.80	-91.60	-2,762.79	-7,652.53	729.73	438.99	290.74	2.510		
14,200.00	7,050.40	7,004.60	7,050.40	196.89	242.81	-91.38	-2,762.79	-7,652.53	630.38	338.64	291.74	2.161		
14,300.00	7,050.11	7,004.89	7,050.11	199.70	242.82	-91.16	-2,762.79	-7,652.53	531.28	237.82	293.45	1.810		
14,400.00	7,049.81	7,005.19	7,049.81	202.50	242.83	-90.94	-2,762.79	-7,652.53	432.58	135.99	296.59	1.459	Level 3	
14,500.00	7,049.51	7,005.49	7,049.51	205.31	242.84	-90.72	-2,762.79	-7,652.53	334.67	31.81	302.86	1.105	Level 2	
14,600.00	7,049.21	7,005.79	7,049.21	208.12	242.85	-90.50	-2,762.79	-7,652.53	238.48	-78.40	316.88	0.753	Level 1	
14,700.00	7,048.92	7,006.08	7,048.92	210.93	242.86	-90.28	-2,762.79	-7,652.53	147.47	-205.95	353.43	0.417	Level 1	
14,800.00	7,048.62	7,006.38	7,048.62	213.74	242.87	-90.06	-2,762.79	-7,652.53	81.37	-362.03	443.40	0.184	Level 1	
14,825.64	7,048.54	7,006.46	7,048.54	214.46	242.87	-90.00	-2,762.79	-7,652.53	77.23	-379.93	457.15	0.169	Level 1, CC, ES, SF	
14,900.00	7,048.32	7,006.68	7,048.32	216.55	242.88	-89.84	-2,762.79	-7,652.53	107.21	-300.74	407.96	0.263	Level 1	
15,000.00	7,048.02	7,006.98	7,048.02	219.37	242.89	-89.62	-2,762.79	-7,652.53	190.70	-157.99	348.69	0.547	Level 1	
15,100.00	7,047.73	7,007.27	7,047.73	222.18	242.90	-89.39	-2,762.79	-7,652.53	285.03	-40.02	325.04	0.877	Level 1	
15,200.00	7,047.43	7,007.57	7,047.43	225.00	242.91	-89.17	-2,762.79	-7,652.53	382.25	68.32	313.92	1.218	Level 2	
15,300.00	7,047.13	7,007.87	7,047.13	227.81	242.92	-88.95	-2,762.79	-7,652.53	480.61	172.77	307.84	1.561		
15,343.67	7,047.00	7,008.00	7,047.00	229.04	242.93	-88.86	-2,762.79	-7,652.53	523.76	217.75	306.02	1.712		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	42.00	3.28	3.28	-101.04	-1,270.93	-6,516.91	6,639.82				
100.00	100.00	58.00	100.00	3.28	3.43	-101.04	-1,270.93	-6,516.91	6,639.69	6,632.97	6.72	988.429	
200.00	200.00	158.00	200.00	3.34	5.00	-101.04	-1,270.93	-6,516.91	6,639.69	6,631.35	8.33	796.663	
300.00	299.98	257.98	299.98	3.44	7.97	75.58	-1,270.93	-6,516.91	6,639.25	6,627.84	11.41	582.062	
400.00	399.84	357.84	399.84	3.59	11.24	75.65	-1,270.93	-6,516.91	6,637.95	6,623.12	14.82	447.767	
500.00	499.45	457.45	499.45	3.79	14.60	75.76	-1,270.93	-6,516.91	6,635.79	6,617.40	18.38	360.957	
600.00	598.70	556.70	598.70	4.03	17.99	75.92	-1,270.93	-6,516.91	6,632.79	6,610.77	22.02	301.220	
700.00	697.47	655.47	697.47	4.31	21.39	76.12	-1,270.93	-6,516.91	6,628.96	6,603.26	25.70	257.903	
800.00	795.62	753.62	795.62	4.64	24.78	76.37	-1,270.93	-6,516.91	6,624.35	6,594.93	29.42	225.180	
900.00	893.06	851.06	893.06	5.00	28.16	76.66	-1,270.93	-6,516.91	6,618.97	6,585.82	33.15	199.652	
1,000.00	989.64	947.64	989.64	5.40	31.51	76.99	-1,270.93	-6,516.91	6,612.88	6,575.98	36.90	179.217	
1,100.00	1,085.27	1,043.27	1,085.27	5.83	34.83	77.36	-1,270.93	-6,516.91	6,606.10	6,565.46	40.65	162.514	
1,200.00	1,179.82	1,137.82	1,179.82	6.29	38.12	77.77	-1,270.93	-6,516.91	6,598.71	6,554.31	44.40	148.623	
1,300.00	1,273.17	1,231.17	1,273.17	6.79	41.36	78.21	-1,270.93	-6,516.91	6,590.75	6,542.60	48.14	136.900	
1,400.00	1,365.46	1,323.46	1,365.46	7.32	44.58	78.58	-1,270.93	-6,516.91	6,582.40	6,530.52	51.88	126.879	
1,500.00	1,457.65	1,415.65	1,457.65	7.87	47.79	78.88	-1,270.93	-6,516.91	6,574.21	6,518.58	55.63	118.169	
1,600.00	1,549.83	1,507.83	1,549.83	8.43	51.00	79.19	-1,270.93	-6,516.91	6,566.24	6,506.84	59.40	110.534	
1,700.00	1,642.02	1,600.02	1,642.02	9.01	54.21	79.50	-1,270.93	-6,516.91	6,558.49	6,495.30	63.19	103.794	
1,800.00	1,734.21	1,707.79	1,734.21	9.59	57.97	79.81	-1,270.93	-6,516.91	6,550.96	6,483.44	67.52	97.017	
1,900.00	1,826.39	1,784.39	1,826.39	10.18	60.64	80.11	-1,270.93	-6,516.91	6,543.65	6,472.87	70.78	92.446	
2,000.00	1,918.58	1,876.58	1,918.58	10.78	63.85	80.42	-1,270.93	-6,516.91	6,536.57	6,461.97	74.59	87.630	
2,100.00	2,010.77	1,968.77	2,010.77	11.39	67.06	80.73	-1,270.93	-6,516.91	6,529.70	6,451.29	78.41	83.278	
2,200.00	2,102.95	2,060.95	2,102.95	11.99	70.28	81.04	-1,270.93	-6,516.91	6,523.06	6,440.83	82.23	79.327	
2,300.00	2,195.14	2,153.14	2,195.14	12.61	73.49	81.36	-1,270.93	-6,516.91	6,516.64	6,430.59	86.06	75.726	
2,400.00	2,287.32	2,245.32	2,287.32	13.22	76.71	81.67	-1,270.93	-6,516.91	6,510.45	6,420.56	89.89	72.430	
2,500.00	2,379.51	2,337.51	2,379.51	13.84	79.92	81.98	-1,270.93	-6,516.91	6,504.48	6,410.76	93.72	69.404	
2,600.00	2,471.70	2,429.70	2,471.70	14.46	83.14	82.29	-1,270.93	-6,516.91	6,498.74	6,401.18	97.56	66.615	
2,700.00	2,563.88	2,521.88	2,563.88	15.08	86.36	82.60	-1,270.93	-6,516.91	6,493.22	6,391.83	101.40	64.038	
2,800.00	2,656.07	2,614.07	2,656.07	15.71	89.57	82.92	-1,270.93	-6,516.91	6,487.93	6,382.69	105.24	61.650	
2,900.00	2,748.26	2,706.26	2,748.26	16.33	92.79	83.23	-1,270.93	-6,516.91	6,482.87	6,373.79	109.08	59.431	
3,000.00	2,840.44	2,801.56	2,840.44	16.96	96.11	83.54	-1,270.93	-6,516.91	6,478.03	6,365.00	113.04	57.309	
3,100.00	2,932.63	2,909.37	2,932.63	17.59	99.87	83.86	-1,270.93	-6,516.91	6,473.43	6,356.00	117.43	55.126	
3,200.00	3,024.81	2,982.81	3,024.81	18.22	102.44	84.17	-1,270.93	-6,516.91	6,469.05	6,348.42	120.62	53.629	
3,300.00	3,117.00	3,075.00	3,117.00	18.86	105.65	84.49	-1,270.93	-6,516.91	6,464.90	6,340.43	124.48	51.937	
3,400.00	3,209.19	3,167.19	3,209.19	19.49	108.87	84.80	-1,270.93	-6,516.91	6,460.98	6,332.66	128.33	50.348	
3,500.00	3,301.37	3,259.37	3,301.37	20.12	112.09	85.12	-1,270.93	-6,516.91	6,457.29	6,325.11	132.18	48.852	
3,600.00	3,393.56	3,351.56	3,393.56	20.76	115.30	85.44	-1,270.93	-6,516.91	6,453.84	6,317.80	136.03	47.443	
3,700.00	3,485.75	3,443.75	3,485.75	21.39	118.52	85.75	-1,270.93	-6,516.91	6,450.61	6,310.72	139.89	46.112	
3,800.00	3,577.93	3,535.93	3,577.93	22.03	121.74	86.07	-1,270.93	-6,516.91	6,447.61	6,303.87	143.75	44.855	
3,900.00	3,670.12	3,628.12	3,670.12	22.67	124.96	86.39	-1,270.93	-6,516.91	6,444.85	6,297.25	147.60	43.664	
4,000.00	3,762.30	3,720.30	3,762.30	23.30	128.17	86.70	-1,270.93	-6,516.91	6,442.32	6,290.86	151.46	42.535	
4,100.00	3,854.49	3,812.49	3,854.49	23.94	131.39	87.02	-1,270.93	-6,516.91	6,440.02	6,284.70	155.32	41.464	
4,200.00	3,946.68	3,904.68	3,946.68	24.58	134.61	87.34	-1,270.93	-6,516.91	6,437.95	6,278.78	159.17	40.446	
4,300.00	4,038.86	4,003.14	4,038.86	25.22	138.04	87.66	-1,270.93	-6,516.91	6,436.12	6,272.86	163.25	39.425	
4,400.00	4,131.05	4,089.05	4,131.05	25.86	141.04	87.97	-1,270.93	-6,516.91	6,434.51	6,267.62	166.89	38.555	
4,500.00	4,223.24	4,181.24	4,223.24	26.50	144.26	88.29	-1,270.93	-6,516.91	6,433.15	6,262.40	170.75	37.676	
4,600.00	4,315.42	4,273.42	4,315.42	27.14	147.48	88.61	-1,270.93	-6,516.91	6,432.01	6,257.40	174.61	36.837	
4,700.00	4,407.61	4,365.61	4,407.61	27.78	150.69	88.93	-1,270.93	-6,516.91	6,431.11	6,252.64	178.47	36.035	
4,800.00	4,499.79	4,457.79	4,499.79	28.42	153.91	89.25	-1,270.93	-6,516.91	6,430.44	6,248.11	182.33	35.269	
4,900.00	4,591.98	4,549.98	4,591.98	29.06	157.13	89.57	-1,270.93	-6,516.91	6,430.00	6,243.82	186.19	34.535	
5,000.00	4,684.17	4,642.17	4,684.17	29.70	160.35	89.88	-1,270.93	-6,516.91	6,429.80	6,239.75	190.05	33.833	
5,036.45	4,717.77	4,675.77	4,717.77	29.93	161.52	90.00	-1,270.93	-6,516.91	6,429.79	6,238.33	191.45	33.584	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,734.35	4,776.35	30.34	163.56	90.20	-1,270.93	-6,516.91	6,429.83	6,235.93	193.91	33.160		
5,200.00	4,868.54	4,826.54	4,868.54	30.98	166.78	90.52	-1,270.93	-6,516.91	6,430.10	6,232.33	197.77	32.514		
5,300.00	4,960.73	4,918.73	4,960.73	31.63	170.00	90.84	-1,270.93	-6,516.91	6,430.60	6,228.97	201.62	31.894		
5,400.00	5,052.91	5,010.91	5,052.91	32.27	173.22	91.16	-1,270.93	-6,516.91	6,431.33	6,225.85	205.48	31.299		
5,500.00	5,145.10	5,103.10	5,145.10	32.91	176.43	91.48	-1,270.93	-6,516.91	6,432.29	6,222.95	209.34	30.726		
5,600.00	5,237.28	5,204.72	5,237.28	33.55	179.98	91.79	-1,270.93	-6,516.91	6,433.49	6,219.96	213.53	30.129		
5,700.00	5,329.47	5,287.47	5,329.47	34.20	182.87	92.11	-1,270.93	-6,516.91	6,434.93	6,217.87	217.06	29.646		
5,800.00	5,421.66	5,379.66	5,421.66	34.84	186.09	92.43	-1,270.93	-6,516.91	6,436.59	6,215.67	220.92	29.136		
5,900.00	5,513.84	5,471.84	5,513.84	35.48	189.31	92.75	-1,270.93	-6,516.91	6,438.49	6,213.71	224.77	28.644		
6,000.00	5,606.03	5,564.03	5,606.03	36.13	192.52	93.06	-1,270.93	-6,516.91	6,440.62	6,211.99	228.63	28.170		
6,100.00	5,698.22	5,656.22	5,698.22	36.77	195.74	93.38	-1,270.93	-6,516.91	6,442.98	6,210.49	232.49	27.713		
6,200.00	5,790.40	5,748.40	5,790.40	37.41	198.96	93.70	-1,270.93	-6,516.91	6,445.58	6,209.23	236.35	27.272		
6,300.00	5,882.59	5,840.59	5,882.59	38.06	202.18	94.02	-1,270.93	-6,516.91	6,448.40	6,208.20	240.20	26.846		
6,400.00	5,974.77	5,932.77	5,974.77	38.70	205.39	94.33	-1,270.93	-6,516.91	6,451.46	6,207.40	244.06	26.434		
6,500.00	6,066.96	6,024.96	6,066.96	39.34	208.61	94.65	-1,270.93	-6,516.91	6,454.75	6,206.84	247.91	26.037		
6,600.00	6,159.15	6,117.15	6,159.15	39.99	211.83	94.96	-1,270.93	-6,516.91	6,458.27	6,206.51	251.77	25.652		
6,700.00	6,251.33	6,209.33	6,251.33	40.63	215.05	95.28	-1,270.93	-6,516.91	6,462.02	6,206.40	255.62	25.280		
6,800.00	6,343.52	6,301.52	6,343.52	41.28	218.27	95.60	-1,270.93	-6,516.91	6,466.00	6,206.53	259.47	24.920		
6,900.00	6,435.71	6,406.29	6,435.71	41.92	221.92	95.91	-1,270.93	-6,516.91	6,470.21	6,206.45	263.76	24.530		
7,000.00	6,527.86	6,485.86	6,527.86	42.56	224.70	96.18	-1,270.93	-6,516.91	6,473.79	6,206.62	267.17	24.231		
7,100.00	6,618.85	6,576.85	6,618.85	43.19	227.88	71.12	-1,270.93	-6,516.91	6,465.58	6,194.61	270.97	23.861		
7,200.00	6,706.47	6,664.47	6,706.47	43.76	230.93	58.58	-1,270.93	-6,516.91	6,442.40	6,167.80	274.60	23.461		
7,300.00	6,788.56	6,746.56	6,788.56	44.26	233.80	50.80	-1,270.93	-6,516.91	6,404.83	6,126.86	277.97	23.041		
7,400.00	6,863.10	6,821.10	6,863.10	44.70	236.40	46.48	-1,270.93	-6,516.91	6,353.83	6,072.81	281.02	22.610		
7,500.00	6,928.26	6,886.26	6,928.26	45.07	238.68	44.79	-1,270.93	-6,516.91	6,290.62	6,006.93	283.69	22.174		
7,600.00	6,982.42	6,940.42	6,982.42	45.39	240.57	45.53	-1,270.93	-6,516.91	6,216.73	5,930.81	285.92	21.743		
7,700.00	7,024.26	6,982.26	7,024.26	45.67	242.03	49.22	-1,270.93	-6,516.91	6,133.95	5,846.27	287.68	21.322		
7,800.00	7,052.75	7,010.75	7,052.75	45.92	243.02	57.64	-1,270.93	-6,516.91	6,044.26	5,755.32	288.94	20.919		
7,900.00	7,067.18	7,025.18	7,067.18	46.16	243.53	75.34	-1,270.93	-6,516.91	5,949.79	5,660.12	289.67	20.540		
8,000.00	7,068.85	7,026.85	7,068.85	46.42	243.58	90.69	-1,270.93	-6,516.91	5,852.92	5,563.01	289.92	20.188		
8,100.00	7,068.56	7,026.56	7,068.56	46.78	243.57	90.68	-1,270.93	-6,516.91	5,755.91	5,465.81	290.11	19.841		
8,200.00	7,068.26	7,026.26	7,068.26	47.29	243.56	90.66	-1,270.93	-6,516.91	5,659.00	5,368.69	290.31	19.493		
8,300.00	7,067.96	7,025.96	7,067.96	48.03	243.55	90.65	-1,270.93	-6,516.91	5,562.20	5,271.66	290.54	19.144		
8,400.00	7,067.66	7,025.66	7,067.66	49.02	243.54	90.64	-1,270.93	-6,516.91	5,465.52	5,174.73	290.79	18.795		
8,500.00	7,067.37	7,025.37	7,067.37	50.27	243.53	90.63	-1,270.93	-6,516.91	5,368.95	5,077.89	291.06	18.446		
8,600.00	7,067.07	7,025.07	7,067.07	51.75	243.52	90.62	-1,270.93	-6,516.91	5,272.52	4,981.16	291.36	18.096		
8,700.00	7,066.77	7,024.77	7,066.77	53.42	243.51	90.60	-1,270.93	-6,516.91	5,176.22	4,884.53	291.69	17.746		
8,800.00	7,066.47	7,024.47	7,066.47	55.24	243.50	90.59	-1,270.93	-6,516.91	5,080.06	4,788.02	292.04	17.395		
8,900.00	7,066.18	7,024.18	7,066.18	57.18	243.49	90.58	-1,270.93	-6,516.91	4,984.05	4,691.63	292.43	17.044		
9,000.00	7,065.88	7,023.88	7,065.88	59.21	243.48	90.57	-1,270.93	-6,516.91	4,888.21	4,595.37	292.84	16.692		
9,100.00	7,065.58	7,023.58	7,065.58	61.33	243.47	90.55	-1,270.93	-6,516.91	4,792.53	4,499.24	293.30	16.340		
9,200.00	7,065.28	7,023.28	7,065.28	63.51	243.46	90.54	-1,270.93	-6,516.91	4,697.04	4,403.25	293.79	15.988		
9,300.00	7,064.99	7,022.99	7,064.99	65.76	243.45	90.53	-1,270.93	-6,516.91	4,601.73	4,307.41	294.32	15.635		
9,400.00	7,064.69	7,022.69	7,064.69	68.06	243.44	90.52	-1,270.93	-6,516.91	4,506.63	4,211.73	294.90	15.282		
9,500.00	7,064.39	7,022.39	7,064.39	70.40	243.43	90.51	-1,270.93	-6,516.91	4,411.75	4,116.23	295.52	14.929		
9,600.00	7,064.09	7,022.09	7,064.09	72.78	243.42	90.49	-1,270.93	-6,516.91	4,317.09	4,020.90	296.20	14.575		
9,700.00	7,063.80	7,021.80	7,063.80	75.20	243.41	90.48	-1,270.93	-6,516.91	4,222.69	3,925.76	296.93	14.221		
9,800.00	7,063.50	7,021.50	7,063.50	77.65	243.40	90.46	-1,270.93	-6,516.91	4,128.54	3,830.83	297.71	13.867		
9,900.00	7,063.20	7,021.20	7,063.20	80.13	243.39	90.46	-1,270.93	-6,516.91	4,034.68	3,736.12	298.56	13.514		
10,000.00	7,062.90	7,020.90	7,062.90	82.64	243.38	90.45	-1,270.93	-6,516.91	3,941.12	3,641.64	299.48	13.160		
10,100.00	7,062.61	7,020.61	7,062.61	85.17	243.37	90.43	-1,270.93	-6,516.91	3,847.88	3,547.41	300.47	12.806		
10,200.00	7,062.31	7,020.31	7,062.31	87.72	243.36	90.42	-1,270.93	-6,516.91	3,755.00	3,453.45	301.54	12.453		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,062.01	7,020.01	7,062.01	90.28	243.35	90.41	-1,270.93	-6,516.91	3,662.48	3,359.79	302.70	12.100	
10,400.00	7,061.71	7,019.71	7,061.71	92.87	243.34	90.40	-1,270.93	-6,516.91	3,570.37	3,266.44	303.94	11.747	
10,500.00	7,061.41	7,019.41	7,061.41	95.47	243.32	90.39	-1,270.93	-6,516.91	3,478.70	3,173.42	305.28	11.395	
10,600.00	7,061.12	7,019.12	7,061.12	98.09	243.31	90.37	-1,270.93	-6,516.91	3,387.50	3,080.78	306.72	11.044	
10,700.00	7,060.82	7,018.82	7,060.82	100.72	243.30	90.36	-1,270.93	-6,516.91	3,296.80	2,988.53	308.27	10.694	
10,800.00	7,060.52	7,018.52	7,060.52	103.37	243.29	90.35	-1,270.93	-6,516.91	3,206.67	2,896.72	309.95	10.346	
10,900.00	7,060.22	7,018.22	7,060.22	106.02	243.28	90.34	-1,270.93	-6,516.91	3,117.13	2,805.38	311.75	9.999	
11,000.00	7,059.93	7,017.93	7,059.93	108.69	243.27	90.32	-1,270.93	-6,516.91	3,028.24	2,714.55	313.69	9.654	
11,100.00	7,059.63	7,017.63	7,059.63	111.36	243.26	90.31	-1,270.93	-6,516.91	2,940.08	2,624.30	315.78	9.311	
11,200.00	7,059.33	7,017.33	7,059.33	114.05	243.25	90.30	-1,270.93	-6,516.91	2,852.69	2,534.67	318.02	8.970	
11,300.00	7,059.03	7,017.03	7,059.03	116.74	243.24	90.29	-1,270.93	-6,516.91	2,766.15	2,445.72	320.44	8.632	
11,400.00	7,058.74	7,016.74	7,058.74	119.44	243.23	90.28	-1,270.93	-6,516.91	2,680.56	2,357.53	323.03	8.298	
11,500.00	7,058.44	7,016.44	7,058.44	122.15	243.22	90.26	-1,270.93	-6,516.91	2,595.99	2,270.18	325.82	7.968	
11,600.00	7,058.14	7,016.14	7,058.14	124.86	243.21	90.25	-1,270.93	-6,516.91	2,512.56	2,183.75	328.81	7.641	
11,700.00	7,057.84	7,015.84	7,057.84	127.58	243.20	90.24	-1,270.93	-6,516.91	2,430.38	2,098.37	332.01	7.320	
11,800.00	7,057.55	7,015.55	7,057.55	130.31	243.19	90.23	-1,270.93	-6,516.91	2,349.58	2,014.13	335.45	7.004	
11,900.00	7,057.25	7,015.25	7,057.25	133.04	243.18	90.22	-1,270.93	-6,516.91	2,270.31	1,931.19	339.12	6.695	
12,000.00	7,056.95	7,014.95	7,056.95	135.78	243.17	90.20	-1,270.93	-6,516.91	2,192.73	1,849.69	343.04	6.392	
12,100.00	7,056.65	7,014.65	7,056.65	138.52	243.16	90.19	-1,270.93	-6,516.91	2,117.04	1,769.82	347.22	6.097	
12,200.00	7,056.36	7,014.36	7,056.36	141.27	243.15	90.18	-1,270.93	-6,516.91	2,043.44	1,691.77	351.67	5.811	
12,300.00	7,056.06	7,014.06	7,056.06	144.02	243.14	90.17	-1,270.93	-6,516.91	1,972.16	1,615.79	356.37	5.534	
12,400.00	7,055.76	7,013.76	7,055.76	146.78	243.13	90.16	-1,270.93	-6,516.91	1,903.47	1,542.13	361.34	5.268	
12,500.00	7,055.46	7,013.46	7,055.46	149.54	243.12	90.14	-1,270.93	-6,516.91	1,837.66	1,471.11	366.55	5.013	
12,600.00	7,055.17	7,013.17	7,055.17	152.30	243.11	90.13	-1,270.93	-6,516.91	1,775.04	1,403.06	371.98	4.772	
12,700.00	7,054.87	7,012.87	7,054.87	155.07	243.10	90.12	-1,270.93	-6,516.91	1,715.97	1,338.37	377.59	4.544	
12,800.00	7,054.57	7,012.57	7,054.57	157.84	243.09	90.11	-1,270.93	-6,516.91	1,660.82	1,277.47	383.35	4.332	
12,900.00	7,054.27	7,012.27	7,054.27	160.61	243.08	90.09	-1,270.93	-6,516.91	1,610.00	1,220.82	389.18	4.137	
13,000.00	7,053.97	7,011.97	7,053.97	163.39	243.07	90.08	-1,270.93	-6,516.91	1,563.93	1,168.94	394.99	3.959	
13,100.00	7,053.68	7,011.68	7,053.68	166.17	243.05	90.07	-1,270.93	-6,516.91	1,523.04	1,122.35	400.69	3.801	
13,200.00	7,053.38	7,011.38	7,053.38	168.95	243.04	90.06	-1,270.93	-6,516.91	1,487.76	1,081.61	406.15	3.663	
13,300.00	7,053.08	7,011.08	7,053.08	171.73	243.03	90.05	-1,270.93	-6,516.91	1,458.50	1,047.24	411.25	3.546	
13,400.00	7,052.78	7,010.78	7,052.78	174.52	243.02	90.03	-1,270.93	-6,516.91	1,435.61	1,019.75	415.86	3.452	
13,500.00	7,052.49	7,010.49	7,052.49	177.31	243.01	90.02	-1,270.93	-6,516.91	1,419.42	999.58	419.85	3.381	
13,600.00	7,052.19	7,010.19	7,052.19	180.10	243.00	90.01	-1,270.93	-6,516.91	1,410.16	987.06	423.10	3.333	
13,681.11	7,051.95	7,009.95	7,051.95	182.37	242.99	90.00	-1,270.93	-6,516.91	1,407.82	982.67	425.15	3.311 CC	
13,700.00	7,051.89	7,009.89	7,051.89	182.90	242.99	90.00	-1,270.93	-6,516.91	1,407.95	982.41	425.54	3.309 ES	
13,800.00	7,051.59	7,009.59	7,051.59	185.69	242.98	89.99	-1,270.93	-6,516.91	1,412.83	985.71	427.13	3.308 SF	
13,900.00	7,051.30	7,009.30	7,051.30	188.49	242.97	89.97	-1,270.93	-6,516.91	1,424.74	996.90	427.84	3.330	
14,000.00	7,051.00	7,009.00	7,051.00	191.29	242.96	89.96	-1,270.93	-6,516.91	1,443.49	1,015.77	427.72	3.375	
14,100.00	7,050.70	7,008.70	7,050.70	194.09	242.95	89.95	-1,270.93	-6,516.91	1,468.82	1,041.99	426.83	3.441	
14,200.00	7,050.40	7,008.40	7,050.40	196.89	242.94	89.94	-1,270.93	-6,516.91	1,500.40	1,075.15	425.25	3.528	
14,300.00	7,050.11	7,008.11	7,050.11	199.70	242.93	89.93	-1,270.93	-6,516.91	1,537.85	1,114.75	423.10	3.635	
14,400.00	7,049.81	7,007.81	7,049.81	202.50	242.92	89.91	-1,270.93	-6,516.91	1,580.75	1,160.26	420.48	3.759	
14,500.00	7,049.51	7,007.51	7,049.51	205.31	242.91	89.90	-1,270.93	-6,516.91	1,628.66	1,211.15	417.51	3.901	
14,600.00	7,049.21	7,007.21	7,049.21	208.12	242.90	89.89	-1,270.93	-6,516.91	1,681.16	1,266.89	414.27	4.058	
14,700.00	7,048.92	7,006.92	7,048.92	210.93	242.89	89.88	-1,270.93	-6,516.91	1,737.84	1,326.98	410.86	4.230	
14,800.00	7,048.62	7,006.62	7,048.62	213.74	242.88	89.86	-1,270.93	-6,516.91	1,798.29	1,390.93	407.36	4.415	
14,900.00	7,048.32	7,006.32	7,048.32	216.55	242.87	89.85	-1,270.93	-6,516.91	1,862.16	1,458.34	403.82	4.611	
15,000.00	7,048.02	7,006.02	7,048.02	219.37	242.86	89.84	-1,270.93	-6,516.91	1,929.10	1,528.80	400.30	4.819	
15,100.00	7,047.73	7,005.73	7,047.73	222.18	242.85	89.83	-1,270.93	-6,516.91	1,998.80	1,601.97	396.83	5.037	
15,200.00	7,047.43	7,005.43	7,047.43	225.00	242.84	89.82	-1,270.93	-6,516.91	2,070.98	1,677.55	393.43	5.264	
15,300.00	7,047.13	7,005.13	7,047.13	227.81	242.83	89.80	-1,270.93	-6,516.91	2,145.40	1,755.26	390.14	5.499	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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)		
15,343.67	7,047.00	7,005.00	7,047.00	229.04	242.82	89.80	-1,270.93	-6,516.91	2,178.54	1,789.80	388.74	5.604	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	37.00	3.28	3.28	-91.01	-134.34	-7,655.61	7,656.88					
100.00	100.00	109.89	146.88	3.28	3.29	-91.00	-133.94	-7,655.22	7,656.54	7,649.96	6.58	1,164.475		
200.00	200.00	181.62	218.61	3.34	3.33	-91.00	-133.45	-7,654.92	7,656.11	7,649.44	6.67	1,148.593		
300.00	299.98	255.44	292.43	3.44	3.40	85.61	-132.99	-7,654.88	7,655.91	7,649.07	6.84	1,119.965		
400.00	399.84	331.36	368.36	3.59	3.49	85.64	-132.79	-7,655.08	7,655.77	7,648.68	7.08	1,080.859		
500.00	499.45	413.57	450.56	3.79	3.63	85.70	-132.87	-7,655.54	7,655.66	7,648.24	7.42	1,032.197		
600.00	598.70	521.79	558.78	4.03	3.85	85.80	-133.14	-7,656.14	7,655.31	7,647.43	7.88	971.405		
700.00	697.47	612.60	649.59	4.31	4.07	85.91	-133.81	-7,656.65	7,654.74	7,646.36	8.38	913.147		
800.00	795.62	699.73	736.71	4.64	4.30	86.04	-134.68	-7,657.25	7,654.09	7,645.15	8.94	856.306		
900.00	893.06	799.66	836.63	5.00	4.59	86.22	-135.70	-7,657.99	7,653.31	7,643.72	9.59	798.196		
1,000.00	989.64	900.92	937.89	5.40	4.90	86.43	-136.70	-7,658.70	7,652.32	7,642.02	10.30	743.069		
1,100.00	1,085.27	1,001.02	1,037.98	5.83	5.23	86.66	-137.55	-7,659.35	7,651.15	7,640.10	11.06	692.024		
1,200.00	1,179.82	1,095.91	1,132.86	6.29	5.55	86.92	-138.10	-7,659.93	7,649.88	7,638.03	11.84	645.882		
1,300.00	1,273.17	1,186.42	1,223.37	6.79	5.87	87.18	-138.44	-7,660.51	7,648.58	7,635.92	12.66	604.112		
1,400.00	1,365.46	1,289.11	1,326.06	7.32	6.24	87.49	-138.73	-7,661.12	7,647.29	7,633.73	13.56	564.028		
1,500.00	1,457.65	1,376.41	1,413.36	7.87	6.56	87.74	-138.94	-7,661.59	7,646.12	7,631.69	14.43	529.922		
1,600.00	1,549.83	1,467.42	1,504.37	8.43	6.90	88.00	-139.29	-7,662.14	7,645.20	7,629.87	15.33	498.629		
1,700.00	1,642.02	1,555.37	1,592.31	9.01	7.23	88.25	-139.63	-7,662.69	7,644.49	7,628.25	16.24	470.696		
1,800.00	1,734.21	1,646.84	1,683.78	9.59	7.59	88.52	-139.89	-7,663.32	7,644.04	7,626.87	17.18	445.036		
1,900.00	1,826.39	1,741.51	1,778.45	10.18	7.95	88.79	-139.99	-7,663.92	7,643.74	7,625.60	18.14	421.474		
2,000.00	1,918.58	1,834.06	1,871.00	10.78	8.32	89.06	-140.13	-7,664.51	7,643.64	7,624.54	19.10	400.257		
2,010.56	1,928.31	1,844.26	1,881.20	10.85	8.36	89.09	-140.15	-7,664.58	7,643.64	7,624.44	19.20	398.094		
2,100.00	2,010.77	1,926.57	1,963.50	11.39	8.68	89.33	-140.34	-7,665.08	7,643.70	7,623.64	20.07	380.927		
2,200.00	2,102.95	2,017.57	2,054.50	11.99	9.05	89.59	-140.53	-7,665.70	7,644.02	7,622.99	21.04	363.371		
2,300.00	2,195.14	2,142.92	2,179.86	12.61	9.55	89.95	-140.57	-7,666.16	7,644.24	7,622.09	22.15	345.099		
2,400.00	2,287.32	2,249.91	2,286.84	13.22	9.98	90.26	-141.06	-7,666.32	7,644.45	7,621.26	23.20	329.552		
2,500.00	2,379.51	2,348.69	2,385.62	13.84	10.38	90.54	-141.67	-7,666.28	7,644.66	7,620.45	24.21	315.722		
2,600.00	2,471.70	2,437.65	2,474.58	14.46	10.74	90.80	-142.12	-7,666.27	7,645.10	7,619.91	25.19	303.447		
2,700.00	2,563.88	2,542.36	2,579.28	15.08	11.17	91.10	-142.52	-7,666.22	7,645.71	7,619.47	26.24	291.350		
2,800.00	2,656.07	2,659.01	2,695.94	15.71	11.64	91.44	-142.76	-7,665.79	7,646.22	7,618.88	27.34	279.654		
2,900.00	2,748.26	2,752.56	2,789.49	16.33	12.02	91.71	-142.67	-7,665.25	7,646.77	7,618.42	28.35	269.728		
3,000.00	2,840.44	2,821.22	2,858.14	16.96	12.30	91.91	-142.40	-7,664.91	7,647.63	7,618.37	29.26	261.377		
3,100.00	2,932.63	2,869.58	2,906.50	17.59	12.50	92.05	-142.07	-7,664.90	7,649.14	7,619.05	30.09	254.243		
3,200.00	3,024.81	2,920.15	2,957.07	18.22	12.71	92.20	-141.59	-7,665.17	7,651.37	7,620.45	30.92	247.438		
3,300.00	3,117.00	2,974.62	3,011.54	18.86	12.94	92.36	-140.98	-7,665.73	7,654.27	7,622.50	31.78	240.884		
3,400.00	3,209.19	3,042.87	3,079.77	19.49	13.22	92.57	-140.14	-7,666.73	7,657.78	7,625.10	32.69	234.273		
3,500.00	3,301.37	3,100.01	3,136.89	20.12	13.46	92.74	-139.34	-7,667.64	7,661.71	7,628.16	33.55	228.351		
3,600.00	3,393.56	3,165.11	3,201.98	20.76	13.73	92.93	-138.33	-7,668.92	7,666.20	7,631.74	34.45	222.524		
3,700.00	3,485.75	3,220.62	3,257.46	21.39	13.96	93.10	-137.38	-7,670.35	7,671.39	7,636.09	35.31	217.268		
3,800.00	3,577.93	3,287.27	3,324.07	22.03	14.24	93.30	-136.14	-7,672.30	7,677.14	7,640.93	36.21	211.996		
3,900.00	3,670.12	3,370.46	3,407.20	22.67	14.59	93.55	-134.36	-7,674.89	7,683.32	7,646.12	37.19	206.589		
4,000.00	3,762.30	3,477.07	3,513.73	23.30	15.03	93.87	-131.58	-7,678.11	7,689.68	7,651.41	38.27	200.918		
4,100.00	3,854.49	3,598.32	3,634.89	23.94	15.54	94.24	-128.29	-7,681.36	7,695.95	7,656.53	39.42	195.234		
4,200.00	3,946.68	3,695.96	3,732.47	24.58	15.95	94.54	-125.99	-7,683.78	7,702.22	7,661.76	40.46	190.355		
4,300.00	4,038.86	3,795.14	3,831.60	25.22	16.37	94.83	-123.94	-7,686.20	7,708.61	7,667.10	41.51	185.692		
4,400.00	4,131.05	3,891.69	3,928.11	25.86	16.78	95.12	-122.15	-7,688.50	7,715.13	7,672.58	42.55	181.311		
4,500.00	4,223.24	3,996.44	4,032.82	26.50	17.22	95.43	-120.56	-7,690.94	7,721.76	7,678.13	43.63	176.992		
4,600.00	4,315.42	4,102.25	4,138.59	27.14	17.66	95.74	-119.05	-7,693.23	7,728.42	7,683.71	44.71	172.863		
4,700.00	4,407.61	4,193.11	4,229.42	27.78	18.05	96.01	-117.77	-7,695.12	7,735.20	7,689.48	45.72	169.174		
4,800.00	4,499.79	4,295.29	4,331.57	28.42	18.48	96.30	-116.63	-7,697.24	7,742.13	7,695.34	46.79	165.471		
4,900.00	4,591.98	4,401.07	4,437.33	29.06	18.92	96.61	-115.80	-7,699.32	7,749.10	7,701.23	47.87	161.879		
5,000.00	4,684.17	4,516.12	4,552.36	29.70	19.41	96.94	-115.22	-7,701.41	7,756.08	7,707.09	48.99	158.312		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,645.39	4,681.62	30.34	19.95	97.31	-114.80	-7,703.12	7,762.75	7,712.57	50.18	154.704		
5,200.00	4,868.54	4,734.08	4,770.30	30.98	20.33	97.56	-114.52	-7,704.19	7,769.52	7,718.33	51.18	151.795		
5,300.00	4,960.73	4,825.80	4,862.01	31.63	20.72	97.82	-114.25	-7,705.34	7,776.52	7,724.32	52.20	148.965		
5,400.00	5,052.91	4,925.74	4,961.94	32.27	21.14	98.10	-113.91	-7,706.49	7,783.63	7,730.37	53.26	146.146		
5,500.00	5,145.10	5,018.12	5,054.32	32.91	21.53	98.36	-113.52	-7,707.52	7,790.91	7,736.63	54.28	143.528		
5,600.00	5,237.28	5,119.23	5,155.43	33.55	21.96	98.65	-113.06	-7,708.55	7,798.30	7,742.96	55.34	140.911		
5,700.00	5,329.47	5,211.18	5,247.36	34.20	22.35	98.91	-112.73	-7,709.47	7,805.85	7,749.48	56.36	138.496		
5,800.00	5,421.66	5,318.77	5,354.95	34.84	22.80	99.21	-112.41	-7,710.50	7,813.53	7,756.08	57.45	136.004		
5,900.00	5,513.84	5,461.16	5,497.33	35.48	23.40	99.62	-111.57	-7,710.95	7,820.85	7,762.15	58.69	133.251		
6,000.00	5,606.03	5,545.76	5,581.93	36.13	23.76	99.86	-110.98	-7,710.98	7,828.17	7,768.50	59.68	131.173		
6,100.00	5,698.22	5,623.37	5,659.54	36.77	24.09	100.08	-110.70	-7,711.26	7,835.89	7,775.26	60.63	129.237		
6,200.00	5,790.40	5,715.45	5,751.62	37.41	24.48	100.34	-110.42	-7,711.64	7,843.84	7,782.19	61.65	127.231		
6,300.00	5,882.59	5,796.24	5,832.41	38.06	24.82	100.57	-110.12	-7,712.04	7,852.05	7,789.44	62.62	125.396		
6,400.00	5,974.77	5,885.55	5,921.72	38.70	25.20	100.82	-109.74	-7,712.54	7,860.54	7,796.92	63.62	123.549		
6,500.00	6,066.96	5,961.50	5,997.67	39.34	25.52	101.03	-109.44	-7,713.06	7,869.30	7,804.74	64.57	121.879		
6,600.00	6,159.15	6,053.77	6,089.93	39.99	25.92	101.28	-109.24	-7,713.91	7,878.42	7,812.83	65.58	120.127		
6,700.00	6,251.33	6,138.41	6,174.57	40.63	26.28	101.52	-109.13	-7,714.62	7,887.63	7,821.06	66.57	118.493		
6,800.00	6,343.52	6,205.11	6,241.26	41.28	26.56	101.70	-109.07	-7,715.40	7,897.29	7,829.82	67.46	117.058		
6,900.00	6,435.71	6,304.10	6,340.25	41.92	26.98	101.97	-109.17	-7,716.72	7,907.22	7,838.71	68.51	115.415		
7,000.00	6,527.86	6,394.27	6,430.40	42.56	27.37	95.12	-109.38	-7,717.94	7,916.47	7,846.95	69.52	113.880		
7,100.00	6,618.85	6,521.36	6,557.49	43.19	27.91	77.04	-109.86	-7,719.40	7,913.94	7,843.26	70.68	111.964		
7,200.00	6,706.47	6,617.12	6,653.25	43.76	28.31	64.53	-110.35	-7,720.27	7,896.42	7,824.76	71.66	110.186		
7,300.00	6,788.56	6,705.78	6,741.90	44.26	28.69	56.90	-111.19	-7,721.13	7,864.56	7,792.00	72.56	108.390		
7,400.00	6,863.10	6,765.56	6,801.67	44.70	28.95	52.75	-111.98	-7,721.83	7,819.29	7,746.02	73.27	106.723		
7,500.00	6,928.26	6,820.04	6,856.14	45.07	29.18	51.34	-112.74	-7,722.58	7,761.79	7,687.89	73.91	105.019		
7,600.00	6,982.42	6,866.46	6,902.54	45.39	29.38	52.44	-113.34	-7,723.26	7,693.44	7,618.96	74.48	103.293		
7,700.00	7,024.26	6,900.01	6,936.09	45.67	29.52	56.35	-113.72	-7,723.78	7,615.85	7,540.88	74.97	101.583		
7,800.00	7,052.75	6,921.34	6,957.42	45.92	29.61	64.13	-113.95	-7,724.13	7,530.88	7,455.49	75.39	99.895		
7,900.00	7,067.18	6,931.75	6,967.83	46.16	29.65	77.88	-114.05	-7,724.31	7,440.53	7,364.79	75.74	98.241		
8,000.00	7,068.85	6,933.99	6,970.06	46.42	29.66	88.26	-114.07	-7,724.35	7,347.14	7,271.10	76.04	96.627		
8,100.00	7,068.56	6,934.96	6,971.03	46.78	29.67	88.28	-114.08	-7,724.36	7,253.56	7,177.21	76.35	95.005		
8,200.00	7,068.26	6,935.94	6,972.01	47.29	29.67	88.30	-114.09	-7,724.38	7,160.15	7,083.46	76.69	93.361		
8,300.00	7,067.96	6,936.93	6,973.00	48.03	29.68	88.32	-114.10	-7,724.40	7,066.92	6,989.85	77.07	91.694		
8,400.00	7,067.66	6,937.93	6,974.00	49.02	29.68	88.34	-114.11	-7,724.42	6,973.88	6,896.40	77.48	90.005		
8,500.00	7,067.37	6,938.93	6,975.00	50.27	29.68	88.37	-114.12	-7,724.44	6,881.03	6,803.10	77.93	88.296		
8,600.00	7,067.07	6,939.95	6,976.02	51.75	29.69	88.39	-114.13	-7,724.45	6,788.39	6,709.97	78.42	86.568		
8,700.00	7,066.77	6,940.97	6,977.04	53.42	29.69	88.41	-114.14	-7,724.47	6,695.96	6,617.01	78.94	84.820		
8,800.00	7,066.47	6,942.01	6,978.08	55.24	29.70	88.43	-114.15	-7,724.49	6,603.74	6,524.23	79.51	83.056		
8,900.00	7,066.18	6,943.05	6,979.12	57.18	29.70	88.46	-114.16	-7,724.51	6,511.76	6,431.64	80.12	81.275		
9,000.00	7,065.88	6,944.10	6,980.17	59.21	29.71	88.48	-114.17	-7,724.53	6,420.02	6,339.24	80.77	79.480		
9,100.00	7,065.58	6,945.17	6,981.24	61.33	29.71	88.50	-114.18	-7,724.55	6,328.53	6,247.05	81.48	77.673		
9,200.00	7,065.28	6,946.24	6,982.31	63.51	29.72	88.53	-114.19	-7,724.57	6,237.29	6,155.07	82.23	75.854		
9,300.00	7,064.99	6,947.32	6,983.39	65.76	29.72	88.55	-114.20	-7,724.59	6,146.33	6,063.31	83.03	74.027		
9,400.00	7,064.69	6,948.41	6,984.48	68.06	29.72	88.58	-114.21	-7,724.61	6,055.66	5,971.78	83.88	72.192		
9,500.00	7,064.39	6,949.51	6,985.58	70.40	29.73	88.60	-114.22	-7,724.63	5,965.28	5,880.49	84.79	70.352		
9,600.00	7,064.09	6,950.63	6,986.70	72.78	29.73	88.63	-114.23	-7,724.65	5,875.22	5,789.46	85.76	68.510		
9,700.00	7,063.80	6,951.75	6,987.82	75.20	29.74	88.65	-114.24	-7,724.67	5,785.48	5,698.70	86.78	66.667		
9,800.00	7,063.50	6,952.88	6,988.95	77.65	29.74	88.68	-114.25	-7,724.70	5,696.08	5,608.21	87.87	64.826		
9,900.00	7,063.20	6,954.03	6,990.10	80.13	29.75	88.70	-114.26	-7,724.72	5,607.04	5,518.02	89.02	62.989		
10,000.00	7,062.90	6,955.19	6,991.25	82.64	29.75	88.73	-114.27	-7,724.74	5,518.38	5,428.14	90.23	61.158		
10,100.00	7,062.61	6,956.35	6,992.42	85.17	29.76	88.75	-114.28	-7,724.76	5,430.10	5,338.59	91.51	59.337		
10,200.00	7,062.31	6,957.53	6,993.60	87.72	29.76	88.78	-114.29	-7,724.79	5,342.25	5,249.38	92.87	57.527		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	6,958.72	6,994.79	90.28	29.77	88.81	-114.30	-7,724.81	5,254.82	5,160.53	94.29	55.730		
10,400.00	7,061.71	6,959.92	6,995.99	92.87	29.77	88.83	-114.31	-7,724.83	5,167.85	5,072.06	95.79	53.949		
10,500.00	7,061.41	6,961.13	6,997.20	95.47	29.78	88.86	-114.32	-7,724.86	5,081.36	4,983.99	97.37	52.187		
10,600.00	7,061.12	6,962.36	6,998.43	98.09	29.78	88.89	-114.33	-7,724.88	4,995.38	4,896.35	99.03	50.445		
10,700.00	7,060.82	6,963.60	6,999.66	100.72	29.79	88.91	-114.34	-7,724.91	4,909.92	4,809.15	100.77	48.725		
10,800.00	7,060.52	6,964.85	7,000.91	103.37	29.79	88.94	-114.35	-7,724.93	4,825.02	4,722.43	102.59	47.030		
10,900.00	7,060.22	6,966.11	7,002.17	106.02	29.80	88.97	-114.37	-7,724.96	4,740.72	4,636.21	104.51	45.362		
11,000.00	7,059.93	6,967.38	7,003.45	108.69	29.81	89.00	-114.38	-7,724.98	4,657.03	4,550.51	106.51	43.723		
11,100.00	7,059.63	6,968.67	7,004.74	111.36	29.81	89.03	-114.39	-7,725.01	4,574.00	4,465.38	108.61	42.113		
11,200.00	7,059.33	6,969.97	7,006.04	114.05	29.82	89.06	-114.40	-7,725.03	4,491.65	4,380.85	110.81	40.536		
11,300.00	7,059.03	6,971.29	7,007.35	116.74	29.82	89.09	-114.41	-7,725.06	4,410.04	4,296.94	113.10	38.992		
11,400.00	7,058.74	6,972.61	7,008.68	119.44	29.83	89.12	-114.42	-7,725.09	4,329.20	4,213.70	115.50	37.483		
11,500.00	7,058.44	6,973.95	7,010.02	122.15	29.83	89.15	-114.43	-7,725.11	4,249.17	4,131.18	118.00	36.011		
11,600.00	7,058.14	6,975.31	7,011.37	124.86	29.84	89.18	-114.44	-7,725.14	4,170.01	4,049.40	120.61	34.576		
11,700.00	7,057.84	6,976.68	7,012.74	127.58	29.84	89.21	-114.46	-7,725.17	4,091.76	3,968.43	123.32	33.179		
11,800.00	7,057.55	6,978.06	7,014.13	130.31	29.85	89.24	-114.47	-7,725.20	4,014.47	3,888.32	126.15	31.822		
11,900.00	7,057.25	6,979.46	7,015.52	133.04	29.86	89.27	-114.48	-7,725.23	3,938.20	3,809.11	129.10	30.506		
12,000.00	7,056.95	6,980.87	7,016.94	135.78	29.86	89.30	-114.49	-7,725.26	3,863.02	3,730.86	132.16	29.231		
12,100.00	7,056.65	6,982.30	7,018.36	138.52	29.87	89.33	-114.50	-7,725.29	3,788.98	3,653.65	135.33	27.997		
12,200.00	7,056.36	6,983.75	7,019.81	141.27	29.88	89.36	-114.51	-7,725.32	3,716.16	3,577.53	138.63	26.806		
12,300.00	7,056.06	6,985.21	7,021.27	144.02	29.88	89.40	-114.53	-7,725.35	3,644.63	3,502.58	142.05	25.658		
12,400.00	7,055.76	6,986.68	7,022.74	146.78	29.89	89.43	-114.54	-7,725.38	3,574.46	3,428.88	145.58	24.553		
12,500.00	7,055.46	6,988.17	7,024.23	149.54	29.89	89.46	-114.55	-7,725.41	3,505.74	3,356.51	149.24	23.491		
12,600.00	7,055.17	6,989.68	7,025.74	152.30	29.90	89.50	-114.56	-7,725.45	3,438.56	3,285.55	153.01	22.473		
12,700.00	7,054.87	6,991.20	7,027.26	155.07	29.91	89.53	-114.57	-7,725.48	3,373.00	3,216.10	156.90	21.498		
12,800.00	7,054.57	6,992.74	7,028.80	157.84	29.91	89.56	-114.59	-7,725.51	3,309.16	3,148.27	160.90	20.567		
12,900.00	7,054.27	6,994.30	7,030.36	160.61	29.92	89.60	-114.60	-7,725.55	3,247.15	3,082.15	165.00	19.680		
13,000.00	7,053.97	6,995.88	7,031.93	163.39	29.93	89.63	-114.61	-7,725.58	3,187.07	3,017.86	169.21	18.835		
13,100.00	7,053.68	6,997.47	7,033.53	166.17	29.93	89.67	-114.62	-7,725.62	3,129.03	2,955.52	173.51	18.034		
13,200.00	7,053.38	6,999.08	7,035.14	168.95	29.94	89.71	-114.64	-7,725.65	3,073.15	2,895.26	177.89	17.276		
13,300.00	7,053.08	7,000.75	7,036.81	171.73	29.95	89.74	-114.65	-7,725.69	3,019.54	2,837.20	182.34	16.560		
13,400.00	7,052.78	7,002.48	7,038.54	174.52	29.95	89.78	-114.66	-7,725.73	2,968.34	2,781.49	186.85	15.886		
13,500.00	7,052.49	7,004.21	7,040.27	177.31	29.96	89.82	-114.67	-7,725.77	2,919.66	2,728.26	191.40	15.254		
13,600.00	7,052.19	7,005.95	7,042.00	180.10	29.97	89.86	-114.69	-7,725.81	2,873.64	2,677.67	195.97	14.663		
13,700.00	7,051.89	7,007.69	7,043.74	182.90	29.98	89.90	-114.70	-7,725.85	2,830.40	2,629.85	200.55	14.113		
13,800.00	7,051.59	7,009.43	7,045.48	185.69	29.98	89.94	-114.71	-7,725.89	2,790.08	2,584.97	205.11	13.603		
13,900.00	7,051.30	7,011.17	7,047.22	188.49	29.99	89.97	-114.73	-7,725.92	2,752.80	2,543.18	209.62	13.132		
14,000.00	7,051.00	7,012.91	7,048.96	191.29	30.00	90.01	-114.74	-7,725.96	2,718.69	2,504.62	214.07	12.700		
14,100.00	7,050.70	7,014.66	7,050.71	194.09	30.01	90.05	-114.75	-7,726.00	2,687.87	2,469.45	218.42	12.306		
14,200.00	7,050.40	7,016.40	7,052.45	196.89	30.01	90.09	-114.76	-7,726.04	2,660.45	2,437.81	222.64	11.950		
14,300.00	7,050.11	7,018.15	7,054.20	199.70	30.02	90.13	-114.77	-7,726.08	2,636.53	2,409.82	226.71	11.630		
14,400.00	7,049.81	7,019.90	7,055.95	202.50	30.03	90.17	-114.79	-7,726.12	2,616.23	2,385.63	230.59	11.346		
14,500.00	7,049.51	7,021.66	7,057.71	205.31	30.04	90.21	-114.80	-7,726.16	2,599.61	2,365.34	234.27	11.097		
14,600.00	7,049.21	7,023.41	7,059.46	208.12	30.04	90.25	-114.81	-7,726.20	2,586.75	2,349.04	237.71	10.882		
14,700.00	7,048.92	7,025.17	7,061.22	210.93	30.05	90.29	-114.82	-7,726.24	2,577.71	2,336.82	240.88	10.701		
14,800.00	7,048.62	7,026.93	7,062.98	213.74	30.06	90.33	-114.83	-7,726.28	2,572.53	2,328.74	243.78	10.553		
14,883.53	7,048.37	7,028.40	7,064.45	216.09	30.07	90.36	-114.84	-7,726.31	2,571.17	2,325.20	245.97	10.453 CC		
14,900.00	7,048.32	7,028.69	7,064.74	216.55	30.07	90.36	-114.84	-7,726.32	2,571.22	2,324.84	246.38	10.436 ES		
15,000.00	7,048.02	7,030.45	7,066.50	219.37	30.07	90.40	-114.85	-7,726.36	2,573.80	2,325.14	248.67	10.350		
15,100.00	7,047.73	7,032.22	7,068.26	222.18	30.08	90.44	-114.87	-7,726.40	2,580.26	2,329.63	250.64	10.295		
15,200.00	7,047.43	7,033.98	7,070.03	225.00	30.09	90.48	-114.88	-7,726.44	2,590.57	2,338.28	252.28	10.269 SF		
15,300.00	7,047.13	7,035.75	7,071.80	227.81	30.10	90.52	-114.89	-7,726.48	2,604.67	2,351.07	253.60	10.271		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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)		
15,343.67	7,047.00	7,036.52	7,072.57	229.04	30.10	90.54	-114.89	-7,726.50	2,612.00	2,357.93	254.08	10.280	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	60.00	3.28	3.28	-108.97	-1,225.26	-3,565.40	3,770.53					
100.00	100.00	40.00	100.00	3.28	3.35	-108.97	-1,225.26	-3,565.40	3,770.06	3,763.42	6.64	567.932		
200.00	200.00	140.00	200.00	3.34	4.54	-108.97	-1,225.26	-3,565.40	3,770.06	3,762.18	7.88	478.491		
300.00	299.98	239.98	299.98	3.44	7.40	67.66	-1,225.26	-3,565.40	3,769.39	3,758.55	10.84	347.783		
400.00	399.84	339.84	399.84	3.59	10.64	67.77	-1,225.26	-3,565.40	3,767.40	3,753.18	14.23	264.836		
500.00	499.45	439.45	499.45	3.79	13.99	67.96	-1,225.26	-3,565.40	3,764.11	3,746.34	17.77	211.791		
600.00	598.70	538.70	598.70	4.03	17.37	68.21	-1,225.26	-3,565.40	3,759.53	3,738.13	21.40	175.657		
700.00	697.47	637.47	697.47	4.31	20.77	68.54	-1,225.26	-3,565.40	3,753.70	3,728.62	25.08	149.655		
800.00	795.62	735.62	795.62	4.64	24.16	68.94	-1,225.26	-3,565.40	3,746.67	3,717.88	28.79	130.121		
900.00	893.06	833.06	893.06	5.00	27.53	69.41	-1,225.26	-3,565.40	3,738.49	3,705.96	32.53	114.942		
1,000.00	989.64	929.64	989.64	5.40	30.88	69.94	-1,225.26	-3,565.40	3,729.22	3,692.95	36.27	102.825		
1,100.00	1,085.27	1,025.27	1,085.27	5.83	34.20	70.54	-1,225.26	-3,565.40	3,718.94	3,678.93	40.01	92.941		
1,200.00	1,179.82	1,119.82	1,179.82	6.29	37.49	71.21	-1,225.26	-3,565.40	3,707.73	3,663.97	43.76	84.731		
1,300.00	1,273.17	1,213.17	1,273.17	6.79	40.74	71.93	-1,225.26	-3,565.40	3,695.68	3,648.19	47.50	77.808		
1,400.00	1,365.46	1,305.46	1,365.46	7.32	43.95	72.56	-1,225.26	-3,565.40	3,683.09	3,631.86	51.23	71.895		
1,500.00	1,457.65	1,402.35	1,457.65	7.87	47.32	73.10	-1,225.26	-3,565.40	3,670.77	3,615.63	55.14	66.570		
1,600.00	1,549.83	1,489.83	1,549.83	8.43	50.37	73.63	-1,225.26	-3,565.40	3,658.82	3,600.08	58.74	62.285		
1,700.00	1,642.02	1,582.02	1,642.02	9.01	53.58	74.18	-1,225.26	-3,565.40	3,647.25	3,584.72	62.52	58.335		
1,800.00	1,734.21	1,674.21	1,734.21	9.59	56.80	74.72	-1,225.26	-3,565.40	3,636.05	3,569.73	66.31	54.832		
1,900.00	1,826.39	1,766.39	1,826.39	10.18	60.01	75.27	-1,225.26	-3,565.40	3,625.23	3,555.12	70.11	51.706		
2,000.00	1,918.58	1,858.58	1,918.58	10.78	63.22	75.82	-1,225.26	-3,565.40	3,614.79	3,540.87	73.92	48.901		
2,100.00	2,010.77	1,950.77	2,010.77	11.39	66.44	76.37	-1,225.26	-3,565.40	3,604.74	3,527.01	77.74	46.372		
2,200.00	2,102.95	2,042.95	2,102.95	11.99	69.65	76.93	-1,225.26	-3,565.40	3,595.08	3,513.52	81.56	44.080		
2,300.00	2,195.14	2,135.14	2,195.14	12.61	72.87	77.49	-1,225.26	-3,565.40	3,585.81	3,500.43	85.38	41.996		
2,400.00	2,287.32	2,227.32	2,287.32	13.22	76.08	78.05	-1,225.26	-3,565.40	3,576.94	3,487.73	89.21	40.094		
2,500.00	2,379.51	2,319.51	2,379.51	13.84	79.30	78.61	-1,225.26	-3,565.40	3,568.47	3,475.42	93.05	38.350		
2,600.00	2,471.70	2,411.70	2,471.70	14.46	82.51	79.18	-1,225.26	-3,565.40	3,560.40	3,463.51	96.89	36.747		
2,700.00	2,563.88	2,503.88	2,563.88	15.08	85.73	79.74	-1,225.26	-3,565.40	3,552.73	3,452.00	100.73	35.270		
2,800.00	2,656.07	2,603.93	2,656.07	15.71	89.22	80.31	-1,225.26	-3,565.40	3,545.47	3,440.62	104.85	33.815		
2,900.00	2,748.26	2,688.26	2,748.26	16.33	92.16	80.88	-1,225.26	-3,565.40	3,538.62	3,430.20	108.42	32.637		
3,000.00	2,840.44	2,780.44	2,840.44	16.96	95.38	81.46	-1,225.26	-3,565.40	3,532.18	3,419.91	112.27	31.461		
3,100.00	2,932.63	2,872.63	2,932.63	17.59	98.59	82.03	-1,225.26	-3,565.40	3,526.16	3,410.03	116.12	30.366		
3,200.00	3,024.81	2,964.81	3,024.81	18.22	101.81	82.61	-1,225.26	-3,565.40	3,520.55	3,400.57	119.98	29.344		
3,300.00	3,117.00	3,057.00	3,117.00	18.86	105.03	83.19	-1,225.26	-3,565.40	3,515.36	3,391.53	123.83	28.388		
3,400.00	3,209.19	3,149.19	3,209.19	19.49	108.24	83.77	-1,225.26	-3,565.40	3,510.59	3,382.90	127.69	27.494		
3,500.00	3,301.37	3,241.37	3,301.37	20.12	111.46	84.35	-1,225.26	-3,565.40	3,506.24	3,374.70	131.54	26.655		
3,600.00	3,393.56	3,333.56	3,393.56	20.76	114.68	84.93	-1,225.26	-3,565.40	3,502.32	3,366.92	135.40	25.866		
3,700.00	3,485.75	3,425.75	3,485.75	21.39	117.89	85.51	-1,225.26	-3,565.40	3,498.82	3,359.56	139.26	25.125		
3,800.00	3,577.93	3,517.93	3,577.93	22.03	121.11	86.10	-1,225.26	-3,565.40	3,495.74	3,352.63	143.12	24.426		
3,900.00	3,670.12	3,610.12	3,670.12	22.67	124.33	86.68	-1,225.26	-3,565.40	3,493.10	3,346.12	146.98	23.766		
4,000.00	3,762.30	3,702.30	3,762.30	23.30	127.54	87.27	-1,225.26	-3,565.40	3,490.88	3,340.04	150.84	23.144		
4,100.00	3,854.49	3,805.51	3,854.49	23.94	131.15	87.85	-1,225.26	-3,565.40	3,489.09	3,334.01	155.08	22.499		
4,200.00	3,946.68	3,886.68	3,946.68	24.58	133.98	88.44	-1,225.26	-3,565.40	3,487.73	3,329.18	158.55	21.997		
4,300.00	4,038.86	3,978.86	4,038.86	25.22	137.20	89.03	-1,225.26	-3,565.40	3,486.80	3,324.39	162.41	21.469		
4,400.00	4,131.05	4,071.05	4,131.05	25.86	140.41	89.61	-1,225.26	-3,565.40	3,486.30	3,320.03	166.27	20.968		
4,465.82	4,191.73	4,131.73	4,191.73	26.28	142.53	90.00	-1,225.26	-3,565.40	3,486.21	3,317.40	168.81	20.652		
4,500.00	4,223.24	4,163.24	4,223.24	26.50	143.63	90.20	-1,225.26	-3,565.40	3,486.23	3,316.11	170.13	20.492		
4,600.00	4,315.42	4,255.42	4,315.42	27.14	146.85	90.79	-1,225.26	-3,565.40	3,486.60	3,312.61	173.99	20.040		
4,700.00	4,407.61	4,347.61	4,407.61	27.78	150.07	91.37	-1,225.26	-3,565.40	3,487.39	3,309.55	177.84	19.610		
4,800.00	4,499.79	4,439.79	4,499.79	28.42	153.28	91.96	-1,225.26	-3,565.40	3,488.61	3,306.92	181.70	19.200		
4,900.00	4,591.98	4,531.98	4,591.98	29.06	156.50	92.55	-1,225.26	-3,565.40	3,490.27	3,304.71	185.55	18.810		
5,000.00	4,684.17	4,624.17	4,684.17	29.70	159.72	93.13	-1,225.26	-3,565.40	3,492.35	3,302.94	189.41	18.439		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,100.00	4,776.35	4,716.35	4,776.35	30.34	162.94	93.72	-1,225.26	-3,565.40	3,494.86	3,301.60	193.26	18.084		
5,200.00	4,868.54	4,808.54	4,868.54	30.98	166.15	94.30	-1,225.26	-3,565.40	3,497.80	3,300.69	197.11	17.746		
5,300.00	4,960.73	4,900.73	4,960.73	31.63	169.37	94.89	-1,225.26	-3,565.40	3,501.16	3,300.21	200.96	17.422		
5,400.00	5,052.91	5,007.09	5,052.91	32.27	173.08	95.47	-1,225.26	-3,565.40	3,504.95	3,299.65	205.30	17.072		
5,500.00	5,145.10	5,085.10	5,145.10	32.91	175.81	96.05	-1,225.26	-3,565.40	3,509.17	3,300.51	208.65	16.818		
5,600.00	5,237.28	5,177.28	5,237.28	33.55	179.02	96.63	-1,225.26	-3,565.40	3,513.80	3,301.31	212.50	16.536		
5,700.00	5,329.47	5,269.47	5,329.47	34.20	182.24	97.21	-1,225.26	-3,565.40	3,518.86	3,302.52	216.34	16.265		
5,800.00	5,421.66	5,361.66	5,421.66	34.84	185.46	97.78	-1,225.26	-3,565.40	3,524.34	3,304.15	220.18	16.006		
5,900.00	5,513.84	5,453.84	5,513.84	35.48	188.68	98.36	-1,225.26	-3,565.40	3,530.23	3,306.21	224.02	15.758		
6,000.00	5,606.03	5,546.03	5,606.03	36.13	191.89	98.93	-1,225.26	-3,565.40	3,536.54	3,308.68	227.86	15.521		
6,100.00	5,698.22	5,638.22	5,698.22	36.77	195.11	99.51	-1,225.26	-3,565.40	3,543.26	3,311.56	231.70	15.293		
6,200.00	5,790.40	5,730.40	5,790.40	37.41	198.33	100.08	-1,225.26	-3,565.40	3,550.39	3,314.86	235.53	15.074		
6,300.00	5,882.59	5,822.59	5,882.59	38.06	201.55	100.64	-1,225.26	-3,565.40	3,557.93	3,318.57	239.36	14.864		
6,400.00	5,974.77	5,914.77	5,974.77	38.70	204.77	101.21	-1,225.26	-3,565.40	3,565.87	3,322.68	243.19	14.663		
6,500.00	6,066.96	6,006.96	6,066.96	39.34	207.98	101.77	-1,225.26	-3,565.40	3,574.22	3,327.20	247.02	14.469		
6,600.00	6,159.15	6,100.85	6,159.15	39.99	211.26	102.34	-1,225.26	-3,565.40	3,582.96	3,332.06	250.90	14.280		
6,700.00	6,251.33	6,208.67	6,251.33	40.63	215.02	102.90	-1,225.26	-3,565.40	3,592.11	3,336.83	255.27	14.072		
6,800.00	6,343.52	6,283.52	6,343.52	41.28	217.64	103.45	-1,225.26	-3,565.40	3,601.64	3,343.15	258.49	13.933		
6,900.00	6,435.71	6,375.71	6,435.71	41.92	220.86	104.01	-1,225.26	-3,565.40	3,611.57	3,349.26	262.31	13.768		
7,000.00	6,527.86	6,467.86	6,527.86	42.56	224.07	97.45	-1,225.26	-3,565.40	3,621.05	3,354.93	266.12	13.607		
7,100.00	6,618.85	6,558.85	6,618.85	43.19	227.25	79.58	-1,225.26	-3,565.40	3,619.36	3,349.48	269.88	13.411		
7,200.00	6,706.47	6,646.47	6,706.47	43.76	230.31	67.42	-1,225.26	-3,565.40	3,603.39	3,329.91	273.49	13.176		
7,300.00	6,788.56	6,728.56	6,788.56	44.26	233.17	60.24	-1,225.26	-3,565.40	3,573.68	3,296.84	276.84	12.909		
7,400.00	6,863.10	6,803.10	6,863.10	44.70	235.77	56.73	-1,225.26	-3,565.40	3,531.07	3,251.20	279.87	12.617		
7,500.00	6,928.26	6,868.26	6,928.26	45.07	238.05	56.07	-1,225.26	-3,565.40	3,476.70	3,194.17	282.53	12.305		
7,600.00	6,982.42	6,922.42	6,982.42	45.39	239.94	57.98	-1,225.26	-3,565.40	3,411.97	3,127.18	284.79	11.981		
7,700.00	7,024.26	6,964.26	7,024.26	45.67	241.40	62.62	-1,225.26	-3,565.40	3,338.47	3,051.86	286.61	11.648		
7,800.00	7,052.75	7,007.25	7,052.75	45.92	242.90	70.55	-1,225.26	-3,565.40	3,257.99	2,969.52	288.46	11.294		
7,900.00	7,067.18	7,007.18	7,067.18	46.16	242.90	82.45	-1,225.26	-3,565.40	3,172.41	2,883.57	288.83	10.984		
8,000.00	7,068.85	7,008.85	7,068.85	46.42	242.96	90.32	-1,225.26	-3,565.40	3,083.99	2,794.71	289.28	10.661		
8,100.00	7,068.56	7,008.56	7,068.56	46.78	242.95	90.31	-1,225.26	-3,565.40	2,995.85	2,706.14	289.71	10.341		
8,200.00	7,068.26	7,008.26	7,068.26	47.29	242.94	90.30	-1,225.26	-3,565.40	2,908.48	2,618.26	290.21	10.022		
8,300.00	7,067.96	7,007.96	7,067.96	48.03	242.93	90.29	-1,225.26	-3,565.40	2,821.94	2,531.15	290.80	9.704		
8,400.00	7,067.66	7,007.66	7,067.66	49.02	242.91	90.28	-1,225.26	-3,565.40	2,736.33	2,444.86	291.47	9.388		
8,500.00	7,067.37	7,007.37	7,067.37	50.27	242.90	90.26	-1,225.26	-3,565.40	2,651.72	2,359.48	292.24	9.074		
8,600.00	7,067.07	7,007.07	7,067.07	51.75	242.89	90.25	-1,225.26	-3,565.40	2,568.22	2,275.09	293.13	8.761		
8,700.00	7,066.77	7,006.77	7,066.77	53.42	242.88	90.24	-1,225.26	-3,565.40	2,485.94	2,191.81	294.13	8.452		
8,800.00	7,066.47	7,006.47	7,066.47	55.24	242.87	90.23	-1,225.26	-3,565.40	2,405.00	2,109.73	295.27	8.145		
8,900.00	7,066.18	7,006.18	7,066.18	57.18	242.86	90.22	-1,225.26	-3,565.40	2,325.54	2,029.00	296.55	7.842		
9,000.00	7,065.88	7,005.88	7,065.88	59.21	242.85	90.21	-1,225.26	-3,565.40	2,247.73	1,949.75	297.98	7.543		
9,100.00	7,065.58	7,005.58	7,065.58	61.33	242.84	90.19	-1,225.26	-3,565.40	2,171.73	1,872.14	299.59	7.249		
9,200.00	7,065.28	7,005.28	7,065.28	63.51	242.83	90.18	-1,225.26	-3,565.40	2,097.75	1,796.38	301.37	6.961		
9,300.00	7,064.99	7,004.99	7,064.99	65.76	242.82	90.17	-1,225.26	-3,565.40	2,026.00	1,722.67	303.34	6.679		
9,400.00	7,064.69	7,004.69	7,064.69	68.06	242.81	90.16	-1,225.26	-3,565.40	1,956.74	1,651.24	305.50	6.405		
9,500.00	7,064.39	7,004.39	7,064.39	70.40	242.80	90.15	-1,225.26	-3,565.40	1,890.22	1,582.37	307.85	6.140		
9,600.00	7,064.09	7,004.09	7,064.09	72.78	242.79	90.13	-1,225.26	-3,565.40	1,826.77	1,516.36	310.40	5.885		
9,700.00	7,063.80	7,003.80	7,063.80	75.20	242.78	90.12	-1,225.26	-3,565.40	1,766.69	1,453.55	313.14	5.642		
9,800.00	7,063.50	7,003.50	7,063.50	77.65	242.77	90.11	-1,225.26	-3,565.40	1,710.36	1,394.31	316.05	5.412		
9,900.00	7,063.20	7,003.20	7,063.20	80.13	242.76	90.10	-1,225.26	-3,565.40	1,658.15	1,339.03	319.12	5.196		
10,000.00	7,062.90	7,002.90	7,062.90	82.64	242.75	90.09	-1,225.26	-3,565.40	1,610.46	1,288.17	322.30	4.997		
10,100.00	7,062.61	7,002.61	7,062.61	85.17	242.74	90.07	-1,225.26	-3,565.40	1,567.71	1,242.16	325.55	4.816		
10,200.00	7,062.31	7,002.31	7,062.31	87.72	242.73	90.06	-1,225.26	-3,565.40	1,530.31	1,201.49	328.82	4.654		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,002.01	7,062.01	90.28	242.72	90.05	-1,225.26	-3,565.40	1,498.66	1,166.61	332.05	4.513		
10,400.00	7,061.71	7,001.71	7,061.71	92.87	242.71	90.04	-1,225.26	-3,565.40	1,473.13	1,137.96	335.17	4.395		
10,500.00	7,061.41	7,001.41	7,061.41	95.47	242.70	90.03	-1,225.26	-3,565.40	1,454.04	1,115.95	338.09	4.301		
10,600.00	7,061.12	7,001.12	7,061.12	98.09	242.69	90.02	-1,225.26	-3,565.40	1,441.65	1,100.89	340.76	4.231		
10,700.00	7,060.82	7,000.82	7,060.82	100.72	242.68	90.00	-1,225.26	-3,565.40	1,436.14	1,093.02	343.11	4.186		
10,729.36	7,060.73	7,000.73	7,060.73	101.50	242.67	90.00	-1,225.26	-3,565.40	1,435.84	1,092.10	343.74	4.177	CC, ES	
10,800.00	7,060.52	7,000.52	7,060.52	103.37	242.67	89.99	-1,225.26	-3,565.40	1,437.57	1,092.48	345.09	4.166	SF	
10,900.00	7,060.22	7,000.22	7,060.22	106.02	242.65	89.98	-1,225.26	-3,565.40	1,445.94	1,099.27	346.67	4.171		
11,000.00	7,059.93	7,000.07	7,059.93	108.69	242.65	89.97	-1,225.26	-3,565.40	1,461.12	1,113.28	347.84	4.201		
11,100.00	7,059.63	7,000.37	7,059.63	111.36	242.66	89.96	-1,225.26	-3,565.40	1,482.90	1,134.29	348.61	4.254		
11,200.00	7,059.33	7,000.67	7,059.33	114.05	242.67	89.94	-1,225.26	-3,565.40	1,511.00	1,162.00	349.00	4.330		
11,300.00	7,059.03	7,000.97	7,059.03	116.74	242.68	89.93	-1,225.26	-3,565.40	1,545.07	1,196.04	349.03	4.427		
11,400.00	7,058.74	7,001.26	7,058.74	119.44	242.69	89.92	-1,225.26	-3,565.40	1,584.73	1,235.97	348.76	4.544		
11,500.00	7,058.44	7,001.56	7,058.44	122.15	242.70	89.91	-1,225.26	-3,565.40	1,629.57	1,281.34	348.23	4.680		
11,600.00	7,058.14	7,001.86	7,058.14	124.86	242.71	89.90	-1,225.26	-3,565.40	1,679.18	1,331.69	347.49	4.832		
11,700.00	7,057.84	7,002.16	7,057.84	127.58	242.72	89.88	-1,225.26	-3,565.40	1,733.14	1,386.56	346.58	5.001		
11,800.00	7,057.55	7,002.45	7,057.55	130.31	242.73	89.87	-1,225.26	-3,565.40	1,791.06	1,445.52	345.54	5.183		
11,900.00	7,057.25	7,002.75	7,057.25	133.04	242.74	89.86	-1,225.26	-3,565.40	1,852.57	1,508.15	344.42	5.379		
12,000.00	7,056.95	7,003.05	7,056.95	135.78	242.75	89.85	-1,225.26	-3,565.40	1,917.33	1,574.09	343.24	5.586		
12,100.00	7,056.65	7,003.35	7,056.65	138.52	242.76	89.84	-1,225.26	-3,565.40	1,985.01	1,642.99	342.02	5.804		
12,200.00	7,056.36	7,003.64	7,056.36	141.27	242.77	89.83	-1,225.26	-3,565.40	2,055.33	1,714.54	340.80	6.031		
12,300.00	7,056.06	7,003.94	7,056.06	144.02	242.78	89.81	-1,225.26	-3,565.40	2,128.03	1,788.46	339.57	6.267		
12,400.00	7,055.76	7,004.24	7,055.76	146.78	242.80	89.80	-1,225.26	-3,565.40	2,202.87	1,864.50	338.37	6.510		
12,500.00	7,055.46	7,004.54	7,055.46	149.54	242.81	89.79	-1,225.26	-3,565.40	2,279.64	1,942.46	337.18	6.761		
12,600.00	7,055.17	7,004.84	7,055.17	152.30	242.82	89.78	-1,225.26	-3,565.40	2,358.15	2,022.12	336.03	7.018		
12,700.00	7,054.87	7,005.13	7,054.87	155.07	242.83	89.77	-1,225.26	-3,565.40	2,438.24	2,103.32	334.92	7.280		
12,800.00	7,054.57	7,005.43	7,054.57	157.84	242.84	89.75	-1,225.26	-3,565.40	2,519.75	2,185.90	333.84	7.548		
12,900.00	7,054.27	7,005.73	7,054.27	160.61	242.85	89.74	-1,225.26	-3,565.40	2,602.55	2,269.74	332.81	7.820		
13,000.00	7,053.97	7,006.03	7,053.97	163.39	242.86	89.73	-1,225.26	-3,565.40	2,686.52	2,354.70	331.82	8.096		
13,100.00	7,053.68	7,006.32	7,053.68	166.17	242.87	89.72	-1,225.26	-3,565.40	2,771.55	2,440.68	330.87	8.377		
13,200.00	7,053.38	7,006.62	7,053.38	168.95	242.88	89.71	-1,225.26	-3,565.40	2,857.56	2,527.59	329.96	8.660		
13,300.00	7,053.08	7,006.92	7,053.08	171.73	242.89	89.69	-1,225.26	-3,565.40	2,944.44	2,615.35	329.10	8.947		
13,400.00	7,052.78	7,007.22	7,052.78	174.52	242.90	89.68	-1,225.26	-3,565.40	3,032.14	2,703.87	328.27	9.237		
13,500.00	7,052.49	7,007.51	7,052.49	177.31	242.91	89.67	-1,225.26	-3,565.40	3,120.58	2,793.09	327.48	9.529		
13,600.00	7,052.19	7,007.81	7,052.19	180.10	242.92	89.66	-1,225.26	-3,565.40	3,209.69	2,882.96	326.73	9.824		
13,700.00	7,051.89	7,008.11	7,051.89	182.90	242.93	89.65	-1,225.26	-3,565.40	3,299.43	2,973.41	326.02	10.120		
13,800.00	7,051.59	7,008.41	7,051.59	185.69	242.94	89.64	-1,225.26	-3,565.40	3,389.74	3,064.41	325.34	10.419		
13,900.00	7,051.30	7,008.70	7,051.30	188.49	242.95	89.62	-1,225.26	-3,565.40	3,480.59	3,155.90	324.69	10.720		
14,000.00	7,051.00	7,009.00	7,051.00	191.29	242.96	89.61	-1,225.26	-3,565.40	3,571.92	3,247.85	324.07	11.022		
14,100.00	7,050.70	7,009.30	7,050.70	194.09	242.97	89.60	-1,225.26	-3,565.40	3,663.71	3,340.22	323.48	11.326		
14,200.00	7,050.40	7,009.60	7,050.40	196.89	242.98	89.59	-1,225.26	-3,565.40	3,755.91	3,432.99	322.92	11.631		
14,300.00	7,050.11	7,009.89	7,050.11	199.70	242.99	89.58	-1,225.26	-3,565.40	3,848.50	3,526.11	322.39	11.937		
14,400.00	7,049.81	6,989.81	7,049.81	202.50	242.29	89.56	-1,225.26	-3,565.40	3,941.46	3,620.29	321.17	12.272		
14,500.00	7,049.51	6,989.51	7,049.51	205.31	242.28	89.55	-1,225.26	-3,565.40	4,034.75	3,714.09	320.66	12.583		
14,600.00	7,049.21	6,989.21	7,049.21	208.12	242.27	89.54	-1,225.26	-3,565.40	4,128.36	3,808.18	320.18	12.894		
14,700.00	7,048.92	6,988.92	7,048.92	210.93	242.26	89.53	-1,225.26	-3,565.40	4,222.26	3,902.54	319.72	13.206		
14,800.00	7,048.62	6,988.62	7,048.62	213.74	242.25	89.52	-1,225.26	-3,565.40	4,316.43	3,997.15	319.28	13.519		
14,900.00	7,048.32	6,988.32	7,048.32	216.55	242.24	89.50	-1,225.26	-3,565.40	4,410.86	4,092.00	318.86	13.833		
15,000.00	7,048.02	6,988.02	7,048.02	219.37	242.23	89.49	-1,225.26	-3,565.40	4,505.53	4,187.08	318.46	14.148		
15,100.00	7,047.73	6,987.73	7,047.73	222.18	242.22	89.48	-1,225.26	-3,565.40	4,600.43	4,282.36	318.07	14.464		
15,200.00	7,047.43	6,987.43	7,047.43	225.00	242.21	89.47	-1,225.26	-3,565.40	4,695.54	4,377.83	317.70	14.780		
15,300.00	7,047.13	6,987.13	7,047.13	227.81	242.20	89.46	-1,225.26	-3,565.40	4,790.84	4,473.49	317.35	15.096		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	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)		
15,343.67	7,047.00	6,987.00	7,047.00	229.04	242.19	89.45	-1,225.26	-3,565.40	4,832.53	4,515.33	317.20	15.235	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
0.00	0.00	0.00	57.59	3.28	3.28	-90.09	-13.74	-9,142.31	9,142.50					
100.00	100.00	185.16	209.15	3.28	3.34	-90.08	-12.28	-9,140.74	9,141.40	9,134.78	6.62	1,380.437		
200.00	200.00	290.03	314.01	3.34	3.45	-90.07	-11.77	-9,139.40	9,140.12	9,133.33	6.79	1,346.450		
300.00	299.98	370.53	394.50	3.44	3.58	86.55	-11.60	-9,138.49	9,138.88	9,131.87	7.02	1,302.689		
400.00	399.84	465.66	489.62	3.59	3.76	86.61	-11.36	-9,137.53	9,137.56	9,130.21	7.35	1,243.242		
500.00	499.45	548.70	572.66	3.79	3.95	86.68	-11.14	-9,136.78	9,136.14	9,128.40	7.74	1,180.812		
600.00	598.70	625.14	649.09	4.03	4.15	86.77	-11.27	-9,136.25	9,134.74	9,126.57	8.17	1,117.491		
700.00	697.47	738.28	762.23	4.31	4.47	86.91	-11.41	-9,135.68	9,133.38	9,124.60	8.78	1,040.627		
800.00	795.62	846.13	870.08	4.64	4.80	87.08	-11.27	-9,134.86	9,131.58	9,122.15	9.43	967.966		
900.00	893.06	927.16	951.11	5.00	5.06	87.23	-11.14	-9,134.26	9,129.68	9,119.62	10.06	907.611		
1,000.00	989.64	984.00	1,007.95	5.40	5.26	87.35	-11.19	-9,133.94	9,127.90	9,117.25	10.65	857.277		
1,100.00	1,085.27	984.00	1,007.95	5.83	5.26	87.38	-11.19	-9,133.94	9,126.84	9,115.76	11.08	823.732		
1,200.00	1,179.82	1,044.80	1,068.74	6.29	5.46	87.51	-11.21	-9,134.16	9,125.99	9,114.24	11.75	776.909		
1,242.51	1,219.65	1,055.98	1,079.93	6.50	5.49	87.53	-11.19	-9,134.32	9,125.93	9,113.93	11.99	760.819		
1,300.00	1,273.17	1,112.00	1,135.93	6.79	5.68	87.66	-10.97	-9,135.61	9,126.37	9,113.89	12.47	731.690		
1,302.38	1,275.38	1,112.00	1,135.93	6.81	5.68	87.66	-10.97	-9,135.61	9,126.37	9,113.88	12.49	730.960		
1,400.00	1,365.46	1,112.00	1,135.93	7.32	5.68	87.66	-10.97	-9,135.61	9,126.85	9,113.84	13.00	702.016		
1,500.00	1,457.65	1,112.00	1,135.93	7.87	5.68	87.66	-10.97	-9,135.61	9,128.41	9,114.86	13.55	673.710		
1,600.00	1,549.83	1,112.00	1,135.93	8.43	5.68	87.66	-10.97	-9,135.61	9,131.06	9,116.95	14.11	647.091		
1,700.00	1,642.02	1,167.71	1,191.60	9.01	5.87	87.80	-10.69	-9,137.84	9,134.14	9,119.27	14.87	614.311		
1,800.00	1,734.21	1,190.79	1,214.64	9.59	5.95	87.86	-10.60	-9,139.06	9,138.30	9,122.78	15.53	588.548		
1,900.00	1,826.39	1,241.00	1,264.74	10.18	6.12	87.98	-10.45	-9,142.33	9,143.49	9,127.20	16.29	561.455		
2,000.00	1,918.58	1,241.00	1,264.74	10.78	6.12	87.98	-10.45	-9,142.33	9,149.22	9,132.34	16.88	542.153		
2,100.00	2,010.77	1,241.00	1,264.74	11.39	6.12	87.98	-10.45	-9,142.33	9,156.03	9,138.56	17.47	524.122		
2,200.00	2,102.95	1,241.00	1,264.74	11.99	6.12	87.98	-10.45	-9,142.33	9,163.94	9,145.87	18.07	507.275		
2,300.00	2,195.14	1,302.20	1,325.73	12.61	6.34	88.13	-10.30	-9,147.47	9,172.05	9,153.17	18.88	485.754		
2,400.00	2,287.32	1,369.00	1,392.14	13.22	6.58	88.29	-10.13	-9,154.59	9,181.87	9,162.15	19.72	465.497		
2,500.00	2,379.51	1,369.00	1,392.14	13.84	6.58	88.29	-10.13	-9,154.59	9,191.74	9,171.41	20.32	452.259		
2,600.00	2,471.70	1,369.00	1,392.14	14.46	6.58	88.29	-10.13	-9,154.59	9,202.68	9,181.75	20.92	439.845		
2,700.00	2,563.88	1,369.00	1,392.14	15.08	6.58	88.29	-10.13	-9,154.59	9,214.69	9,193.17	21.52	428.194		
2,800.00	2,656.07	1,415.63	1,438.40	15.71	6.75	88.40	-10.13	-9,160.44	9,227.33	9,205.04	22.29	413.904		
2,900.00	2,748.26	1,440.10	1,462.64	16.33	6.85	88.46	-10.22	-9,163.78	9,240.89	9,217.91	22.98	402.080		
3,000.00	2,840.44	1,498.00	1,519.90	16.96	7.07	88.59	-10.69	-9,172.40	9,255.50	9,231.69	23.80	388.812		
3,100.00	2,932.63	1,498.00	1,519.90	17.59	7.07	88.59	-10.69	-9,172.40	9,270.48	9,246.08	24.40	380.002		
3,200.00	3,024.81	1,498.00	1,519.90	18.22	7.07	88.59	-10.69	-9,172.40	9,286.51	9,261.53	24.98	371.697		
3,300.00	3,117.00	1,498.00	1,519.90	18.86	7.07	88.59	-10.69	-9,172.40	9,303.60	9,278.03	25.57	363.863		
3,400.00	3,209.19	1,556.77	1,577.82	19.49	7.31	88.73	-11.40	-9,182.25	9,320.96	9,294.56	26.39	353.158		
3,500.00	3,301.37	1,579.00	1,599.69	20.12	7.41	88.78	-11.70	-9,186.28	9,339.43	9,312.37	27.07	345.067		
3,600.00	3,393.56	1,626.00	1,645.80	20.76	7.60	88.88	-12.37	-9,195.34	9,358.86	9,331.02	27.84	336.152		
3,700.00	3,485.75	1,626.00	1,645.80	21.39	7.60	88.88	-12.37	-9,195.34	9,378.82	9,350.41	28.41	330.078		
3,800.00	3,577.93	1,626.00	1,645.80	22.03	7.60	88.88	-12.37	-9,195.34	9,399.81	9,370.83	28.98	324.329		
3,900.00	3,670.12	1,626.00	1,645.80	22.67	7.60	88.88	-12.37	-9,195.34	9,421.81	9,392.27	29.55	318.885		
4,000.00	3,762.30	1,686.65	1,705.07	23.30	7.88	89.02	-13.39	-9,208.15	9,443.98	9,413.60	30.38	310.889		
4,100.00	3,854.49	1,707.63	1,725.51	23.94	7.98	89.06	-13.80	-9,212.89	9,467.31	9,436.28	31.03	305.114		
4,200.00	3,946.68	1,754.00	1,770.54	24.58	8.19	89.16	-14.79	-9,223.91	9,491.58	9,459.78	31.79	298.536		
4,300.00	4,038.86	1,754.00	1,770.54	25.22	8.19	89.16	-14.79	-9,223.91	9,516.35	9,484.00	32.34	294.243		
4,400.00	4,131.05	1,754.00	1,770.54	25.86	8.19	89.16	-14.79	-9,223.91	9,542.10	9,509.21	32.88	290.170		
4,500.00	4,223.24	1,799.31	1,814.37	26.50	8.43	89.26	-15.75	-9,235.32	9,568.44	9,534.80	33.64	284.437		
4,600.00	4,315.42	1,824.57	1,838.76	27.14	8.56	89.31	-16.23	-9,241.90	9,595.59	9,561.30	34.30	279.780		
4,700.00	4,407.61	1,883.00	1,894.99	27.78	8.86	89.44	-17.19	-9,257.75	9,623.68	9,588.56	35.12	274.053		
4,800.00	4,499.79	1,883.00	1,894.99	28.42	8.86	89.44	-17.19	-9,257.75	9,652.08	9,616.44	35.64	270.810		
4,900.00	4,591.98	1,883.00	1,894.99	29.06	8.86	89.44	-17.19	-9,257.75	9,681.44	9,645.27	36.16	267.731		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
5,000.00	4,684.17	1,932.10	1,942.07	29.70	9.14	89.54	-17.92	-9,271.69	9,711.35	9,674.42	36.93	262.969		
5,100.00	4,776.35	1,961.39	1,970.08	30.34	9.31	89.61	-18.38	-9,280.24	9,741.99	9,704.40	37.59	259.140		
5,200.00	4,868.54	2,011.00	2,017.39	30.98	9.60	89.71	-19.20	-9,295.12	9,773.36	9,735.00	38.36	254.758		
5,300.00	4,960.73	2,011.00	2,017.39	31.63	9.60	89.71	-19.20	-9,295.12	9,805.26	9,766.40	38.86	252.293		
5,400.00	5,052.91	2,064.01	2,067.81	32.27	9.93	89.82	-20.10	-9,311.46	9,837.77	9,798.12	39.65	248.100		
5,500.00	5,145.10	2,104.66	2,106.40	32.91	10.18	89.90	-20.78	-9,324.22	9,870.83	9,830.46	40.37	244.500		
5,600.00	5,237.28	5,600.00	2,355.26	33.55	34.29	90.45	-24.48	-9,404.75	9,903.61	9,845.38	58.23	170.090		
5,700.00	5,329.47	2,451.12	2,436.28	34.20	12.50	90.62	-25.78	-9,429.97	9,935.39	9,892.04	43.35	229.185		
5,800.00	5,421.66	2,492.54	2,475.76	34.84	12.78	90.71	-26.38	-9,442.46	9,967.67	9,923.58	44.09	226.080		
7,900.00	7,067.18	6,994.73	6,844.68	46.16	39.59	72.87	-52.74	-10,302.24	9,921.45	9,843.46	77.99	127.221		
8,000.00	7,068.85	6,999.00	6,848.95	46.42	39.60	85.86	-52.84	-10,302.37	9,825.45	9,747.21	78.23	125.590		
8,100.00	7,068.56	7,001.48	6,851.43	46.78	39.61	85.91	-52.90	-10,302.45	9,729.21	9,650.72	78.48	123.966		
8,200.00	7,068.26	7,003.97	6,853.92	47.29	39.62	85.97	-52.97	-10,302.52	9,633.04	9,554.29	78.75	122.325		
8,300.00	7,067.96	7,006.48	6,856.42	48.03	39.63	86.02	-53.03	-10,302.60	9,536.95	9,457.92	79.04	120.665		
8,400.00	7,067.66	7,008.99	6,858.93	49.02	39.64	86.07	-53.09	-10,302.67	9,440.95	9,361.60	79.34	118.988		
8,500.00	7,067.37	7,011.52	6,861.46	50.27	39.65	86.13	-53.16	-10,302.75	9,345.02	9,265.35	79.67	117.294		
8,600.00	7,067.07	7,014.06	6,864.00	51.75	39.65	86.18	-53.22	-10,302.83	9,249.18	9,169.16	80.02	115.584		
8,700.00	7,066.77	7,016.61	6,866.55	53.42	39.66	86.24	-53.29	-10,302.91	9,153.43	9,073.04	80.39	113.857		
8,800.00	7,066.47	7,019.18	6,869.11	55.24	39.67	86.29	-53.36	-10,302.98	9,057.77	8,976.98	80.79	112.115		
8,900.00	7,066.18	7,021.75	6,871.68	57.18	39.68	86.35	-53.42	-10,303.06	8,962.21	8,881.00	81.21	110.359		
9,000.00	7,065.88	7,024.34	6,874.27	59.21	39.69	86.40	-53.49	-10,303.14	8,866.74	8,785.09	81.66	108.588		
9,100.00	7,065.58	7,026.53	6,876.45	61.33	39.70	86.45	-53.54	-10,303.21	8,771.37	8,689.25	82.12	106.806		
9,200.00	7,065.28	7,028.96	6,878.89	63.51	39.71	86.50	-53.61	-10,303.28	8,676.11	8,593.49	82.62	105.010		
9,300.00	7,064.99	7,031.40	6,881.32	65.76	39.72	86.56	-53.67	-10,303.36	8,580.95	8,497.80	83.15	103.202		
9,400.00	7,064.69	7,033.82	6,883.74	68.06	39.73	86.61	-53.73	-10,303.43	8,485.91	8,402.20	83.70	101.384		
9,500.00	7,064.39	7,036.24	6,886.16	70.40	39.73	86.66	-53.79	-10,303.50	8,390.97	8,306.69	84.28	99.556		
9,600.00	7,064.09	7,038.65	6,888.56	72.78	39.74	86.71	-53.84	-10,303.57	8,296.16	8,211.26	84.90	97.719		
9,700.00	7,063.80	7,041.05	6,890.97	75.20	39.75	86.76	-53.90	-10,303.65	8,201.47	8,115.92	85.54	95.875		
9,800.00	7,063.50	7,043.45	6,893.36	77.65	39.76	86.81	-53.96	-10,303.72	8,106.90	8,020.68	86.22	94.025		
9,900.00	7,063.20	7,045.84	6,895.75	80.13	39.77	86.87	-54.01	-10,303.79	8,012.47	7,925.54	86.93	92.169		
10,000.00	7,062.90	7,048.22	6,898.13	82.64	39.78	86.92	-54.07	-10,303.86	7,918.17	7,830.49	87.68	90.309		
10,100.00	7,062.61	7,050.60	6,900.50	85.17	39.79	86.97	-54.12	-10,303.93	7,824.01	7,735.55	88.46	88.447		
10,200.00	7,062.31	7,052.97	6,902.87	87.72	39.79	87.02	-54.18	-10,304.01	7,730.00	7,640.72	89.28	86.583		
10,300.00	7,062.01	7,055.33	6,905.23	90.28	39.80	87.07	-54.23	-10,304.08	7,636.14	7,546.01	90.14	84.719		
10,400.00	7,061.71	7,057.68	6,907.59	92.87	39.81	87.12	-54.28	-10,304.15	7,542.44	7,451.41	91.03	82.856		
10,500.00	7,061.41	7,060.03	6,909.94	95.47	39.82	87.17	-54.34	-10,304.22	7,448.90	7,356.93	91.97	80.995		
10,600.00	7,061.12	7,062.38	6,912.28	98.09	39.83	87.22	-54.39	-10,304.29	7,355.53	7,262.58	92.95	79.138		
10,700.00	7,060.82	7,064.71	6,914.61	100.72	39.84	87.27	-54.44	-10,304.36	7,262.33	7,168.37	93.97	77.287		
10,800.00	7,060.52	7,067.04	6,916.94	103.37	39.85	87.32	-54.49	-10,304.43	7,169.32	7,074.29	95.03	75.442		
10,900.00	7,060.22	7,069.37	6,919.26	106.02	39.85	87.37	-54.54	-10,304.50	7,076.50	6,980.36	96.14	73.605		
11,000.00	7,059.93	7,071.68	6,921.58	108.69	39.86	87.42	-54.58	-10,304.56	6,983.87	6,886.57	97.30	71.777		
11,100.00	7,059.63	7,073.99	6,923.88	111.36	39.87	87.47	-54.63	-10,304.63	6,891.45	6,792.95	98.51	69.960		
11,200.00	7,059.33	7,076.30	6,926.19	114.05	39.88	87.52	-54.68	-10,304.70	6,799.25	6,699.48	99.76	68.154		
11,300.00	7,059.03	7,078.59	6,928.48	116.74	39.89	87.57	-54.73	-10,304.77	6,707.26	6,606.19	101.07	66.362		
11,400.00	7,058.74	7,080.88	6,930.77	119.44	39.90	87.62	-54.77	-10,304.84	6,615.51	6,513.08	102.43	64.584		
11,500.00	7,058.44	7,083.17	6,933.05	122.15	39.90	87.67	-54.82	-10,304.90	6,524.00	6,420.15	103.85	62.822		
11,600.00	7,058.14	7,085.45	6,935.33	124.86	39.91	87.72	-54.86	-10,304.97	6,432.74	6,327.42	105.32	61.077		
11,700.00	7,057.84	7,087.72	6,937.60	127.58	39.92	87.77	-54.90	-10,305.04	6,341.74	6,234.89	106.85	59.350		
11,800.00	7,057.55	7,089.98	6,939.87	130.31	39.93	87.82	-54.95	-10,305.11	6,251.02	6,142.57	108.44	57.643		
11,900.00	7,057.25	7,092.24	6,942.12	133.04	39.94	87.87	-54.99	-10,305.17	6,160.58	6,050.48	110.10	55.955		
12,000.00	7,056.95	7,094.50	6,944.37	135.78	39.94	87.92	-55.03	-10,305.24	6,070.44	5,958.63	111.82	54.289		
12,100.00	7,056.65	7,096.74	6,946.62	138.52	39.95	87.96	-55.07	-10,305.30	5,980.62	5,867.02	113.60	52.645		

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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
12,200.00	7,056.36	7,098.98	6,948.86	141.27	39.96	88.01	-55.11	-10,305.37	5,891.12	5,775.66	115.46	51.025		
12,300.00	7,056.06	7,101.22	6,951.09	144.02	39.97	88.06	-55.15	-10,305.43	5,801.96	5,684.58	117.38	49.429		
12,400.00	7,055.76	7,103.44	6,953.32	146.78	39.98	88.11	-55.19	-10,305.50	5,713.17	5,593.79	119.38	47.858		
12,500.00	7,055.46	7,105.67	6,955.54	149.54	39.99	88.16	-55.23	-10,305.56	5,624.74	5,503.29	121.45	46.313		
12,600.00	7,055.17	7,107.88	6,957.75	152.30	39.99	88.20	-55.27	-10,305.63	5,536.71	5,413.11	123.60	44.794		
12,700.00	7,054.87	7,110.09	6,959.96	155.07	40.00	88.25	-55.31	-10,305.69	5,449.09	5,323.26	125.84	43.303		
12,800.00	7,054.57	7,112.30	6,962.16	157.84	40.01	88.30	-55.34	-10,305.76	5,361.91	5,233.76	128.15	41.840		
12,900.00	7,054.27	7,114.49	6,964.36	160.61	40.02	88.35	-55.38	-10,305.82	5,275.18	5,144.62	130.55	40.406		
13,000.00	7,053.97	7,116.68	6,966.55	163.39	40.02	88.39	-55.42	-10,305.89	5,188.92	5,055.87	133.04	39.001		
13,100.00	7,053.68	7,118.87	6,968.74	166.17	40.03	88.44	-55.45	-10,305.95	5,103.16	4,967.54	135.63	37.626		
13,200.00	7,053.38	7,121.05	6,970.91	168.95	40.04	88.49	-55.49	-10,306.01	5,017.93	4,879.63	138.31	36.281		
13,300.00	7,053.08	7,123.22	6,973.09	171.73	40.05	88.54	-55.52	-10,306.07	4,933.26	4,792.18	141.08	34.967		
13,400.00	7,052.78	7,125.39	6,975.25	174.52	40.06	88.58	-55.55	-10,306.14	4,849.17	4,705.21	143.96	33.684		
13,500.00	7,052.49	7,127.55	6,977.41	177.31	40.06	88.63	-55.59	-10,306.20	4,765.69	4,618.74	146.94	32.433		
13,600.00	7,052.19	7,129.71	6,979.57	180.10	40.07	88.68	-55.62	-10,306.26	4,682.85	4,532.82	150.03	31.213		
13,700.00	7,051.89	7,131.86	6,981.72	182.90	40.08	88.72	-55.65	-10,306.32	4,600.70	4,447.47	153.23	30.025		
13,800.00	7,051.59	7,134.00	6,983.86	185.69	40.09	88.77	-55.68	-10,306.38	4,519.26	4,362.72	156.54	28.869		
13,900.00	7,051.30	7,136.14	6,986.00	188.49	40.10	88.82	-55.71	-10,306.45	4,438.59	4,278.61	159.97	27.746		
14,000.00	7,051.00	7,138.28	6,988.13	191.29	40.10	88.86	-55.74	-10,306.51	4,358.71	4,195.19	163.52	26.655		
14,100.00	7,050.70	7,140.40	6,990.26	194.09	40.11	88.91	-55.77	-10,306.57	4,279.68	4,112.48	167.19	25.597		
14,200.00	7,050.40	7,142.53	6,992.38	196.89	40.12	88.95	-55.80	-10,306.63	4,201.54	4,030.54	170.99	24.571		
14,300.00	7,050.11	7,144.64	6,994.49	199.70	40.13	89.00	-55.83	-10,306.69	4,124.34	3,949.42	174.92	23.579		
14,400.00	7,049.81	7,147.00	6,996.85	202.50	40.13	89.05	-55.86	-10,306.76	4,048.14	3,869.16	178.98	22.618		
14,500.00	7,049.51	7,149.45	6,999.30	205.31	40.14	89.10	-55.89	-10,306.83	3,972.99	3,789.83	183.16	21.691		
14,600.00	7,049.21	7,152.19	7,002.04	208.12	40.15	89.16	-55.93	-10,306.90	3,898.96	3,711.47	187.49	20.796		
14,700.00	7,048.92	7,154.91	7,004.75	210.93	40.16	89.22	-55.96	-10,306.98	3,826.11	3,634.16	191.94	19.933		
14,800.00	7,048.62	7,157.58	7,007.43	213.74	40.17	89.28	-56.00	-10,307.06	3,754.50	3,557.97	196.54	19.103		
14,900.00	7,048.32	7,160.23	7,010.07	216.55	40.18	89.34	-56.03	-10,307.13	3,684.22	3,482.96	201.26	18.306		
15,000.00	7,048.02	7,162.84	7,012.68	219.37	40.19	89.39	-56.07	-10,307.20	3,615.34	3,409.22	206.11	17.540		
15,100.00	7,047.73	7,165.42	7,015.26	222.18	40.20	89.45	-56.10	-10,307.27	3,547.93	3,336.83	211.10	16.807		
15,200.00	7,047.43	7,167.97	7,017.81	225.00	40.21	89.50	-56.13	-10,307.34	3,482.09	3,265.88	216.21	16.105		
15,300.00	7,047.13	7,170.49	7,020.33	227.81	40.22	89.56	-56.16	-10,307.41	3,417.91	3,196.47	221.44	15.435		
15,343.67	7,047.00	7,171.58	7,021.42	229.04	40.22	89.58	-56.17	-10,307.44	3,390.42	3,166.66	223.76	15.152 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	37.00	3.28	3.28	-89.75	40.68	-9,145.28	9,145.44				
100.00	100.00	63.00	100.00	3.28	3.46	-89.75	40.68	-9,145.28	9,145.37	9,138.63	6.74	1,356.044	
200.00	200.00	163.00	200.00	3.34	5.13	-89.75	40.68	-9,145.28	9,145.37	9,136.90	8.47	1,080.076	
300.00	299.98	262.98	299.98	3.44	8.13	86.86	40.68	-9,145.28	9,145.27	9,133.71	11.57	790.719	
400.00	399.84	362.84	399.84	3.59	11.40	86.90	40.68	-9,145.28	9,144.99	9,130.00	14.99	610.016	
500.00	499.45	462.45	499.45	3.79	14.77	86.96	40.68	-9,145.28	9,144.52	9,125.97	18.55	492.869	
600.00	598.70	561.70	598.70	4.03	18.16	87.05	40.68	-9,145.28	9,143.88	9,121.69	22.19	412.051	
700.00	697.47	660.47	697.47	4.31	21.56	87.16	40.68	-9,145.28	9,143.08	9,117.20	25.88	353.342	
800.00	795.62	758.62	795.62	4.64	24.95	87.30	40.68	-9,145.28	9,142.14	9,112.55	29.59	308.937	
900.00	893.06	856.06	893.06	5.00	28.33	87.46	40.68	-9,145.28	9,141.08	9,107.75	33.33	274.271	
1,000.00	989.64	952.64	989.64	5.40	31.68	87.63	40.68	-9,145.28	9,139.93	9,102.86	37.08	246.511	
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	87.83	40.68	-9,145.28	9,138.72	9,097.89	40.83	223.819	
1,200.00	1,179.82	1,142.82	1,179.82	6.29	38.29	88.05	40.68	-9,145.28	9,137.49	9,092.91	44.58	204.950	
1,300.00	1,273.17	1,236.17	1,273.17	6.79	41.54	88.29	40.68	-9,145.28	9,136.26	9,087.93	48.33	189.032	
1,400.00	1,365.46	1,328.46	1,365.46	7.32	44.75	88.52	40.68	-9,145.28	9,135.10	9,083.03	52.07	175.430	
1,500.00	1,457.65	1,420.65	1,457.65	7.87	47.96	88.74	40.68	-9,145.28	9,134.10	9,078.27	55.83	163.599	
1,600.00	1,549.83	1,512.83	1,549.83	8.43	51.17	88.97	40.68	-9,145.28	9,133.26	9,073.65	59.61	153.225	
1,700.00	1,642.02	1,605.02	1,642.02	9.01	54.38	89.19	40.68	-9,145.28	9,132.58	9,069.19	63.39	144.062	
1,800.00	1,734.21	1,702.79	1,734.21	9.59	57.79	89.41	40.68	-9,145.28	9,132.07	9,064.68	67.38	135.521	
1,900.00	1,826.39	1,789.39	1,826.39	10.18	60.81	89.64	40.68	-9,145.28	9,131.72	9,060.73	71.00	128.625	
2,000.00	1,918.58	1,881.58	1,918.58	10.78	64.02	89.86	40.68	-9,145.28	9,131.54	9,056.73	74.81	122.068	
2,061.22	1,975.02	1,938.02	1,975.02	11.15	65.99	90.00	40.68	-9,145.28	9,131.51	9,054.36	77.14	118.370	
2,100.00	2,010.77	1,973.77	2,010.77	11.39	67.24	90.09	40.68	-9,145.28	9,131.52	9,052.90	78.62	116.141	
2,200.00	2,102.95	2,065.95	2,102.95	11.99	70.45	90.31	40.68	-9,145.28	9,131.67	9,049.22	82.45	110.758	
2,300.00	2,195.14	2,158.14	2,195.14	12.61	73.67	90.54	40.68	-9,145.28	9,131.98	9,045.70	86.27	105.848	
2,400.00	2,287.32	2,250.32	2,287.32	13.22	76.88	90.76	40.68	-9,145.28	9,132.45	9,042.35	90.10	101.354	
2,500.00	2,379.51	2,342.51	2,379.51	13.84	80.10	90.98	40.68	-9,145.28	9,133.09	9,039.15	93.94	97.225	
2,600.00	2,471.70	2,434.70	2,471.70	14.46	83.31	91.21	40.68	-9,145.28	9,133.89	9,036.12	97.77	93.418	
2,700.00	2,563.88	2,526.88	2,563.88	15.08	86.53	91.43	40.68	-9,145.28	9,134.86	9,033.25	101.61	89.899	
2,800.00	2,656.07	2,619.07	2,656.07	15.71	89.75	91.66	40.68	-9,145.28	9,135.99	9,030.54	105.45	86.636	
2,900.00	2,748.26	2,711.26	2,748.26	16.33	92.96	91.88	40.68	-9,145.28	9,137.29	9,028.00	109.30	83.602	
3,000.00	2,840.44	2,803.44	2,840.44	16.96	96.18	92.10	40.68	-9,145.28	9,138.75	9,025.61	113.14	80.775	
3,100.00	2,932.63	2,904.37	2,932.63	17.59	99.70	92.33	40.68	-9,145.28	9,140.38	9,023.09	117.29	77.930	
3,200.00	3,024.81	2,987.81	3,024.81	18.22	102.61	92.55	40.68	-9,145.28	9,142.17	9,021.33	120.83	75.661	
3,300.00	3,117.00	3,080.00	3,117.00	18.86	105.83	92.77	40.68	-9,145.28	9,144.12	9,019.44	124.68	73.342	
3,400.00	3,209.19	3,172.19	3,209.19	19.49	109.05	93.00	40.68	-9,145.28	9,146.23	9,017.71	128.53	71.162	
3,500.00	3,301.37	3,264.37	3,301.37	20.12	112.26	93.22	40.68	-9,145.28	9,148.51	9,016.14	132.38	69.110	
3,600.00	3,393.56	3,356.56	3,393.56	20.76	115.48	93.45	40.68	-9,145.28	9,150.96	9,014.73	136.23	67.175	
3,700.00	3,485.75	3,448.75	3,485.75	21.39	118.70	93.67	40.68	-9,145.28	9,153.56	9,013.49	140.08	65.347	
3,800.00	3,577.93	3,540.93	3,577.93	22.03	121.91	93.89	40.68	-9,145.28	9,156.33	9,012.41	143.93	63.618	
3,900.00	3,670.12	3,633.12	3,670.12	22.67	125.13	94.11	40.68	-9,145.28	9,159.27	9,011.49	147.78	61.980	
4,000.00	3,762.30	3,725.30	3,762.30	23.30	128.35	94.34	40.68	-9,145.28	9,162.36	9,010.73	151.63	60.426	
4,100.00	3,854.49	3,817.49	3,854.49	23.94	131.56	94.56	40.68	-9,145.28	9,165.62	9,010.14	155.48	58.950	
4,200.00	3,946.68	3,909.68	3,946.68	24.58	134.78	94.78	40.68	-9,145.28	9,169.04	9,009.71	159.33	57.546	
4,300.00	4,038.86	4,001.86	4,038.86	25.22	138.00	95.01	40.68	-9,145.28	9,172.63	9,009.44	163.19	56.210	
4,400.00	4,131.05	4,105.95	4,131.05	25.86	141.63	95.23	40.68	-9,145.28	9,176.37	9,008.92	167.45	54.799	
4,500.00	4,223.24	4,186.24	4,223.24	26.50	144.43	95.45	40.68	-9,145.28	9,180.28	9,009.39	170.89	53.720	
4,600.00	4,315.42	4,278.42	4,315.42	27.14	147.65	95.67	40.68	-9,145.28	9,184.35	9,009.61	174.74	52.559	
4,700.00	4,407.61	4,370.61	4,407.61	27.78	150.87	95.89	40.68	-9,145.28	9,188.58	9,009.99	178.60	51.449	
4,800.00	4,499.79	4,462.79	4,499.79	28.42	154.09	96.12	40.68	-9,145.28	9,192.98	9,010.53	182.45	50.387	
4,900.00	4,591.98	4,554.98	4,591.98	29.06	157.30	96.34	40.68	-9,145.28	9,197.53	9,011.23	186.30	49.369	
5,000.00	4,684.17	4,647.17	4,684.17	29.70	160.52	96.56	40.68	-9,145.28	9,202.25	9,012.09	190.15	48.394	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	4,776.35	4,739.35	4,776.35	30.34	163.74	96.78	40.68	-9,145.28	9,207.12	9,013.12	194.01	47.458		
5,200.00	4,868.54	4,831.54	4,868.54	30.98	166.96	97.00	40.68	-9,145.28	9,212.16	9,014.30	197.86	46.559		
5,300.00	4,960.73	4,923.73	4,960.73	31.63	170.17	97.22	40.68	-9,145.28	9,217.36	9,015.65	201.71	45.696		
5,400.00	5,052.91	5,015.91	5,052.91	32.27	173.39	97.44	40.68	-9,145.28	9,222.71	9,017.15	205.56	44.866		
5,500.00	5,145.10	5,108.10	5,145.10	32.91	176.61	97.66	40.68	-9,145.28	9,228.23	9,018.81	209.42	44.067		
5,600.00	5,237.28	5,200.28	5,237.28	33.55	179.83	97.88	40.68	-9,145.28	9,233.91	9,020.64	213.27	43.297		
5,700.00	5,329.47	5,307.53	5,329.47	34.20	183.57	98.10	40.68	-9,145.28	9,239.74	9,022.10	217.64	42.454		
5,800.00	5,421.66	5,384.66	5,421.66	34.84	186.26	98.32	40.68	-9,145.28	9,245.73	9,024.76	220.97	41.842		
5,900.00	5,513.84	5,476.84	5,513.84	35.48	189.48	98.54	40.68	-9,145.28	9,251.88	9,027.07	224.82	41.153		
6,000.00	5,606.03	5,569.03	5,606.03	36.13	192.70	98.76	40.68	-9,145.28	9,258.19	9,029.52	228.67	40.487		
6,100.00	5,698.22	5,661.22	5,698.22	36.77	195.92	98.98	40.68	-9,145.28	9,264.66	9,032.14	232.52	39.845		
6,200.00	5,790.40	5,753.40	5,790.40	37.41	199.13	99.20	40.68	-9,145.28	9,271.29	9,034.92	236.37	39.224		
6,300.00	5,882.59	5,845.59	5,882.59	38.06	202.35	99.42	40.68	-9,145.28	9,278.07	9,037.85	240.22	38.623		
6,400.00	5,974.77	5,937.77	5,974.77	38.70	205.57	99.63	40.68	-9,145.28	9,285.01	9,040.94	244.07	38.043		
6,500.00	6,066.96	6,029.96	6,066.96	39.34	208.79	99.85	40.68	-9,145.28	9,292.10	9,044.19	247.92	37.481		
6,600.00	6,159.15	6,122.15	6,159.15	39.99	212.00	100.07	40.68	-9,145.28	9,299.36	9,047.59	251.76	36.937		
6,700.00	6,251.33	6,214.33	6,251.33	40.63	215.22	100.29	40.68	-9,145.28	9,306.76	9,051.15	255.61	36.410		
6,800.00	6,343.52	6,306.52	6,343.52	41.28	218.44	100.50	40.68	-9,145.28	9,314.33	9,054.87	259.46	35.899		
6,900.00	6,435.71	6,401.29	6,435.71	41.92	221.75	100.72	40.68	-9,145.28	9,322.04	9,058.65	263.40	35.392		
7,000.00	6,527.86	6,509.14	6,527.86	42.56	225.51	93.86	40.68	-9,145.28	9,329.07	9,061.28	267.79	34.837		
7,100.00	6,618.85	6,581.85	6,618.85	43.19	228.05	75.68	40.68	-9,145.28	9,324.44	9,053.49	270.94	34.415		
7,200.00	6,706.47	6,669.47	6,706.47	43.76	231.11	63.11	40.68	-9,145.28	9,304.95	9,030.37	274.58	33.888		
7,300.00	6,788.56	6,751.56	6,788.56	44.26	233.97	55.40	40.68	-9,145.28	9,271.12	8,993.16	277.96	33.354		
7,400.00	6,863.10	6,826.10	6,863.10	44.70	236.58	51.23	40.68	-9,145.28	9,223.81	8,942.79	281.02	32.823		
7,500.00	6,928.26	6,908.75	6,928.26	45.07	239.46	49.80	40.68	-9,145.28	9,164.18	8,879.87	284.32	32.323		
7,600.00	6,982.42	6,945.42	6,982.42	45.39	240.74	50.90	40.68	-9,145.28	9,093.70	8,807.73	285.97	31.800		
7,700.00	7,024.26	6,987.26	7,024.26	45.67	242.20	54.95	40.68	-9,145.28	9,014.08	8,726.31	287.76	31.325		
7,800.00	7,052.75	7,015.75	7,052.75	45.92	243.20	63.28	40.68	-9,145.28	8,927.23	8,638.16	289.07	30.883		
7,900.00	7,067.18	7,030.18	7,067.18	46.16	243.70	78.63	40.68	-9,145.28	8,835.25	8,545.40	289.85	30.482		
8,000.00	7,068.85	7,031.85	7,068.85	46.42	243.76	90.52	40.68	-9,145.28	8,740.53	8,450.36	290.17	30.123		
8,100.00	7,068.56	7,031.56	7,068.56	46.78	243.75	90.51	40.68	-9,145.28	8,645.61	8,355.18	290.42	29.769		
8,200.00	7,068.26	7,031.26	7,068.26	47.29	243.74	90.51	40.68	-9,145.28	8,550.80	8,260.09	290.71	29.414		
8,300.00	7,067.96	7,030.96	7,067.96	48.03	243.73	90.50	40.68	-9,145.28	8,456.12	8,165.10	291.02	29.057		
8,400.00	7,067.66	7,030.66	7,067.66	49.02	243.72	90.49	40.68	-9,145.28	8,361.56	8,070.20	291.35	28.699		
8,500.00	7,067.37	7,030.37	7,067.37	50.27	243.71	90.49	40.68	-9,145.28	8,267.12	7,975.40	291.72	28.339		
8,600.00	7,067.07	7,030.07	7,067.07	51.75	243.70	90.48	40.68	-9,145.28	8,172.82	7,880.71	292.11	27.979		
8,700.00	7,066.77	7,029.77	7,066.77	53.42	243.69	90.47	40.68	-9,145.28	8,078.66	7,786.12	292.53	27.616		
8,800.00	7,066.47	7,029.47	7,066.47	55.24	243.68	90.47	40.68	-9,145.28	7,984.63	7,691.65	292.99	27.253		
8,900.00	7,066.18	7,029.18	7,066.18	57.18	243.67	90.46	40.68	-9,145.28	7,890.76	7,597.29	293.47	26.888		
9,000.00	7,065.88	7,028.88	7,065.88	59.21	243.66	90.46	40.68	-9,145.28	7,797.04	7,503.05	293.99	26.521		
9,100.00	7,065.58	7,028.58	7,065.58	61.33	243.64	90.45	40.68	-9,145.28	7,703.47	7,408.93	294.54	26.154		
9,200.00	7,065.28	7,028.28	7,065.28	63.51	243.63	90.44	40.68	-9,145.28	7,610.07	7,314.94	295.13	25.785		
9,300.00	7,064.99	7,027.99	7,064.99	65.76	243.62	90.44	40.68	-9,145.28	7,516.84	7,221.08	295.76	25.416		
9,400.00	7,064.69	7,027.69	7,064.69	68.06	243.61	90.43	40.68	-9,145.28	7,423.78	7,127.36	296.42	25.045		
9,500.00	7,064.39	7,027.39	7,064.39	70.40	243.60	90.42	40.68	-9,145.28	7,330.91	7,033.78	297.13	24.673		
9,600.00	7,064.09	7,027.09	7,064.09	72.78	243.59	90.42	40.68	-9,145.28	7,238.23	6,940.36	297.87	24.300		
9,700.00	7,063.80	7,026.80	7,063.80	75.20	243.58	90.41	40.68	-9,145.28	7,145.74	6,847.08	298.66	23.926		
9,800.00	7,063.50	7,026.50	7,063.50	77.65	243.57	90.41	40.68	-9,145.28	7,053.46	6,753.97	299.49	23.552		
9,900.00	7,063.20	7,026.20	7,063.20	80.13	243.56	90.40	40.68	-9,145.28	6,961.39	6,661.03	300.36	23.176		
10,000.00	7,062.90	7,025.90	7,062.90	82.64	243.55	90.39	40.68	-9,145.28	6,869.55	6,568.26	301.29	22.801		
10,100.00	7,062.61	7,025.61	7,062.61	85.17	243.54	90.39	40.68	-9,145.28	6,777.93	6,475.68	302.26	22.424		
10,200.00	7,062.31	7,025.31	7,062.31	87.72	243.53	90.38	40.68	-9,145.28	6,686.56	6,383.28	303.28	22.048		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
10,300.00	7,062.01	7,025.01	7,062.01	90.28	243.52	90.37	40.68	-9,145.28	6,595.43	6,291.09	304.35	21.671		
10,400.00	7,061.71	7,024.71	7,061.71	92.87	243.51	90.37	40.68	-9,145.28	6,504.57	6,199.10	305.47	21.294		
10,500.00	7,061.41	7,024.41	7,061.41	95.47	243.50	90.36	40.68	-9,145.28	6,413.98	6,107.33	306.65	20.916		
10,600.00	7,061.12	7,024.12	7,061.12	98.09	243.49	90.36	40.68	-9,145.28	6,323.67	6,015.79	307.88	20.539		
10,700.00	7,060.82	7,023.82	7,060.82	100.72	243.48	90.35	40.68	-9,145.28	6,233.66	5,924.49	309.17	20.162		
10,800.00	7,060.52	7,023.52	7,060.52	103.37	243.47	90.34	40.68	-9,145.28	6,143.96	5,833.44	310.52	19.786		
10,900.00	7,060.22	7,023.22	7,060.22	106.02	243.46	90.34	40.68	-9,145.28	6,054.58	5,742.64	311.93	19.410		
11,000.00	7,059.93	7,022.93	7,059.93	108.69	243.45	90.33	40.68	-9,145.28	5,965.53	5,652.13	313.41	19.034		
11,100.00	7,059.63	7,022.63	7,059.63	111.36	243.44	90.32	40.68	-9,145.28	5,876.84	5,561.90	314.95	18.660		
11,200.00	7,059.33	7,022.33	7,059.33	114.05	243.43	90.32	40.68	-9,145.28	5,788.52	5,471.97	316.55	18.286		
11,300.00	7,059.03	7,022.03	7,059.03	116.74	243.42	90.31	40.68	-9,145.28	5,700.58	5,382.36	318.23	17.914		
11,400.00	7,058.74	7,021.74	7,058.74	119.44	243.41	90.31	40.68	-9,145.28	5,613.05	5,293.08	319.97	17.542		
11,500.00	7,058.44	7,021.44	7,058.44	122.15	243.40	90.30	40.68	-9,145.28	5,525.94	5,204.15	321.79	17.172		
11,600.00	7,058.14	7,021.14	7,058.14	124.86	243.39	90.29	40.68	-9,145.28	5,439.28	5,115.59	323.69	16.804		
11,700.00	7,057.84	7,020.84	7,057.84	127.58	243.37	90.29	40.68	-9,145.28	5,353.07	5,027.42	325.66	16.438		
11,800.00	7,057.55	7,020.55	7,057.55	130.31	243.36	90.28	40.68	-9,145.28	5,267.36	4,939.65	327.71	16.073		
11,900.00	7,057.25	7,020.25	7,057.25	133.04	243.35	90.27	40.68	-9,145.28	5,182.16	4,852.32	329.84	15.711		
12,000.00	7,056.95	7,019.95	7,056.95	135.78	243.34	90.27	40.68	-9,145.28	5,097.50	4,765.43	332.06	15.351		
12,100.00	7,056.65	7,019.65	7,056.65	138.52	243.33	90.26	40.68	-9,145.28	5,013.40	4,679.03	334.37	14.994		
12,200.00	7,056.36	7,019.36	7,056.36	141.27	243.32	90.26	40.68	-9,145.28	4,929.89	4,593.13	336.77	14.639		
12,300.00	7,056.06	7,019.06	7,056.06	144.02	243.31	90.25	40.68	-9,145.28	4,847.01	4,507.76	339.25	14.287		
12,400.00	7,055.76	7,018.76	7,055.76	146.78	243.30	90.24	40.68	-9,145.28	4,764.79	4,422.95	341.84	13.939		
12,500.00	7,055.46	7,018.46	7,055.46	149.54	243.29	90.24	40.68	-9,145.28	4,683.26	4,338.74	344.52	13.594		
12,600.00	7,055.17	7,018.17	7,055.17	152.30	243.28	90.23	40.68	-9,145.28	4,602.46	4,255.15	347.30	13.252		
12,700.00	7,054.87	7,017.87	7,054.87	155.07	243.27	90.22	40.68	-9,145.28	4,522.42	4,172.24	350.18	12.914		
12,800.00	7,054.57	7,017.57	7,054.57	157.84	243.26	90.22	40.68	-9,145.28	4,443.19	4,090.02	353.17	12.581		
12,900.00	7,054.27	7,017.27	7,054.27	160.61	243.25	90.21	40.68	-9,145.28	4,364.82	4,008.55	356.27	12.251		
13,000.00	7,053.97	7,016.97	7,053.97	163.39	243.24	90.21	40.68	-9,145.28	4,287.35	3,927.87	359.47	11.927		
13,100.00	7,053.68	7,016.68	7,053.68	166.17	243.23	90.20	40.68	-9,145.28	4,210.82	3,848.03	362.79	11.607		
13,200.00	7,053.38	7,016.38	7,053.38	168.95	243.22	90.19	40.68	-9,145.28	4,135.30	3,769.08	366.22	11.292		
13,300.00	7,053.08	7,016.08	7,053.08	171.73	243.21	90.19	40.68	-9,145.28	4,060.84	3,691.07	369.76	10.982		
13,400.00	7,052.78	7,015.78	7,052.78	174.52	243.20	90.18	40.68	-9,145.28	3,987.49	3,614.07	373.42	10.678		
13,500.00	7,052.49	7,015.49	7,052.49	177.31	243.19	90.17	40.68	-9,145.28	3,915.32	3,538.13	377.20	10.380		
13,600.00	7,052.19	7,015.19	7,052.19	180.10	243.18	90.17	40.68	-9,145.28	3,844.41	3,463.31	381.09	10.088		
13,700.00	7,051.89	7,014.89	7,051.89	182.90	243.17	90.16	40.68	-9,145.28	3,774.80	3,389.70	385.10	9.802		
13,800.00	7,051.59	7,014.59	7,051.59	185.69	243.16	90.16	40.68	-9,145.28	3,706.59	3,317.37	389.22	9.523		
13,900.00	7,051.30	7,014.30	7,051.30	188.49	243.15	90.15	40.68	-9,145.28	3,639.85	3,246.39	393.46	9.251		
14,000.00	7,051.00	7,014.00	7,051.00	191.29	243.14	90.14	40.68	-9,145.28	3,574.66	3,176.86	397.80	8.986		
14,100.00	7,050.70	7,013.70	7,050.70	194.09	243.13	90.14	40.68	-9,145.28	3,511.11	3,108.86	402.25	8.729		
14,200.00	7,050.40	7,013.40	7,050.40	196.89	243.12	90.13	40.68	-9,145.28	3,449.28	3,042.48	406.80	8.479		
14,300.00	7,050.11	7,013.11	7,050.11	199.70	243.10	90.12	40.68	-9,145.28	3,389.28	2,977.84	411.45	8.237		
14,400.00	7,049.81	7,012.81	7,049.81	202.50	243.09	90.12	40.68	-9,145.28	3,331.20	2,915.03	416.17	8.004		
14,500.00	7,049.51	7,012.51	7,049.51	205.31	243.08	90.11	40.68	-9,145.28	3,275.15	2,854.17	420.98	7.780		
14,600.00	7,049.21	7,012.21	7,049.21	208.12	243.07	90.11	40.68	-9,145.28	3,221.23	2,795.38	425.85	7.564		
14,700.00	7,048.92	7,011.92	7,048.92	210.93	243.06	90.10	40.68	-9,145.28	3,169.54	2,738.77	430.76	7.358		
14,800.00	7,048.62	7,011.62	7,048.62	213.74	243.05	90.09	40.68	-9,145.28	3,120.20	2,684.48	435.72	7.161		
14,900.00	7,048.32	7,011.32	7,048.32	216.55	243.04	90.09	40.68	-9,145.28	3,073.33	2,632.64	440.69	6.974		
15,000.00	7,048.02	7,011.02	7,048.02	219.37	243.03	90.08	40.68	-9,145.28	3,029.03	2,583.38	445.65	6.797		
15,100.00	7,047.73	7,010.73	7,047.73	222.18	243.02	90.07	40.68	-9,145.28	2,987.42	2,536.83	450.60	6.630		
15,200.00	7,047.43	7,010.43	7,047.43	225.00	243.01	90.07	40.68	-9,145.28	2,948.62	2,493.13	455.50	6.473		
15,300.00	7,047.13	7,010.13	7,047.13	227.81	243.00	90.06	40.68	-9,145.28	2,912.74	2,452.42	460.32	6.328		
15,343.67	7,047.00	7,010.00	7,047.00	229.04	243.00	90.06	40.68	-9,145.28	2,898.01	2,435.61	462.40	6.267	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 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	24.00	3.28	3.28	-89.93	11.53	-9,142.51	9,142.55					
100.00	100.00	112.33	136.33	3.28	3.29	-89.93	11.25	-9,142.14	9,142.22	9,135.64	6.58	1,389.878		
200.00	200.00	186.28	210.28	3.34	3.34	-89.93	11.33	-9,141.95	9,141.97	9,135.29	6.67	1,370.012		
300.00	299.98	261.36	285.36	3.44	3.41	86.67	11.38	-9,141.97	9,141.89	9,135.04	6.85	1,335.082		
400.00	399.84	348.34	372.34	3.59	3.53	86.70	11.29	-9,142.18	9,141.82	9,134.70	7.12	1,284.847		
500.00	499.45	436.52	460.52	3.79	3.68	86.75	11.17	-9,142.50	9,141.69	9,134.22	7.47	1,223.827		
600.00	598.70	616.77	640.76	4.03	4.10	86.90	10.65	-9,142.77	9,141.29	9,133.16	8.12	1,125.256		
700.00	697.47	679.57	703.56	4.31	4.26	86.98	10.33	-9,142.60	9,140.17	9,131.60	8.58	1,065.787		
800.00	795.62	727.00	750.99	4.64	4.40	87.05	10.10	-9,142.64	9,139.32	9,130.28	9.03	1,011.709		
900.00	893.06	727.00	750.99	5.00	4.40	87.05	10.10	-9,142.64	9,139.18	9,129.78	9.40	972.674		
915.34	907.93	770.50	794.49	5.06	4.52	87.12	10.06	-9,142.96	9,138.92	9,129.33	9.58	953.776		
923.21	915.55	772.93	796.93	5.09	4.53	87.12	10.07	-9,142.99	9,138.92	9,129.30	9.62	950.007		
1,000.00	989.64	796.61	820.60	5.40	4.60	87.16	10.20	-9,143.36	9,139.13	9,129.13	10.00	914.100		
1,100.00	1,085.27	856.00	879.96	5.83	4.78	87.26	10.94	-9,144.86	9,140.08	9,129.46	10.61	861.250		
1,200.00	1,179.82	856.00	879.96	6.29	4.78	87.23	10.94	-9,144.86	9,141.35	9,130.27	11.08	825.088		
1,300.00	1,273.17	856.00	879.96	6.79	4.78	87.19	10.94	-9,144.86	9,143.54	9,131.97	11.58	789.640		
1,400.00	1,365.46	901.67	925.58	7.32	4.93	87.28	11.91	-9,146.68	9,146.23	9,133.97	12.25	746.586		
1,500.00	1,457.65	923.81	947.69	7.87	5.00	87.34	12.49	-9,147.81	9,149.89	9,137.02	12.87	710.948		
1,600.00	1,549.83	984.00	1,007.72	8.43	5.20	87.50	14.45	-9,151.72	9,154.75	9,141.12	13.63	671.715		
1,700.00	1,642.02	984.00	1,007.72	9.01	5.20	87.50	14.45	-9,151.72	9,159.88	9,145.68	14.20	645.077		
1,800.00	1,734.21	984.00	1,007.72	9.59	5.20	87.50	14.45	-9,151.72	9,166.10	9,151.33	14.78	620.250		
1,900.00	1,826.39	984.00	1,007.72	10.18	5.20	87.50	14.45	-9,151.72	9,173.41	9,158.05	15.36	597.139		
2,000.00	1,918.58	1,038.39	1,061.86	10.78	5.39	87.64	16.90	-9,156.22	9,181.20	9,165.06	16.14	568.907		
2,100.00	2,010.77	1,062.11	1,085.45	11.39	5.47	87.71	18.25	-9,158.44	9,190.02	9,173.21	16.81	546.585		
2,200.00	2,102.95	1,112.00	1,134.95	11.99	5.65	87.85	21.60	-9,163.64	9,199.84	9,182.25	17.59	523.143		
2,300.00	2,195.14	1,112.00	1,134.95	12.61	5.65	87.85	21.60	-9,163.64	9,210.22	9,192.03	18.18	506.573		
2,400.00	2,287.32	1,112.00	1,134.95	13.22	5.65	87.85	21.60	-9,163.64	9,221.67	9,202.89	18.78	491.100		
2,500.00	2,379.51	1,174.12	1,196.43	13.84	5.89	88.02	26.73	-9,170.86	9,233.63	9,214.02	19.61	470.947		
2,600.00	2,471.70	1,241.00	1,262.44	14.46	6.15	88.22	33.37	-9,179.32	9,246.64	9,226.18	20.46	451.925		
2,700.00	2,563.88	1,241.00	1,262.44	15.08	6.15	88.22	33.37	-9,179.32	9,260.06	9,239.00	21.06	439.777		
2,800.00	2,656.07	1,287.57	1,308.28	15.71	6.35	88.36	38.83	-9,185.49	9,274.34	9,252.50	21.84	424.654		
2,900.00	2,748.26	1,335.75	1,355.57	16.33	6.55	88.51	45.39	-9,191.97	9,289.21	9,266.58	22.63	410.451		
3,000.00	2,840.44	1,369.00	1,388.11	16.96	6.70	88.62	50.45	-9,196.49	9,304.73	9,281.37	23.36	398.280		
3,100.00	2,932.63	1,411.58	1,429.70	17.59	6.89	88.76	57.45	-9,202.44	9,320.93	9,296.79	24.14	386.109		
3,200.00	3,024.81	1,444.00	1,461.28	18.22	7.05	88.87	63.07	-9,207.12	9,337.90	9,313.03	24.87	375.421		
3,300.00	3,117.00	1,498.00	1,513.73	18.86	7.31	89.05	73.03	-9,215.24	9,355.69	9,329.99	25.70	363.999		
3,400.00	3,209.19	1,498.00	1,513.73	19.49	7.31	89.05	73.03	-9,215.24	9,374.11	9,347.82	26.28	356.645		
3,500.00	3,301.37	1,538.08	1,552.53	20.12	7.51	89.19	80.81	-9,221.53	9,393.33	9,366.27	27.06	347.170		
3,600.00	3,393.56	1,568.43	1,581.86	20.76	7.67	89.29	86.89	-9,226.46	9,413.31	9,385.53	27.78	338.850		
3,700.00	3,485.75	1,626.00	1,637.33	21.39	7.98	89.49	98.82	-9,236.20	9,434.17	9,405.53	28.64	329.452		
3,800.00	3,577.93	1,626.00	1,637.33	22.03	7.98	89.49	98.82	-9,236.20	9,455.56	9,426.36	29.20	323.779		
3,900.00	3,670.12	1,626.00	1,637.33	22.67	7.98	89.49	98.82	-9,236.20	9,477.96	9,448.19	29.77	318.407		
4,000.00	3,762.30	1,690.08	1,698.78	23.30	8.35	89.71	113.01	-9,247.55	9,500.79	9,470.12	30.67	309.800		
4,100.00	3,854.49	1,754.00	1,759.70	23.94	8.72	89.94	128.37	-9,259.32	9,524.68	9,493.11	31.57	301.735		
4,200.00	3,946.68	1,754.00	1,759.70	24.58	8.72	89.94	128.37	-9,259.32	9,548.99	9,516.87	32.12	297.314		
4,300.00	4,038.86	1,754.00	1,759.70	25.22	8.72	89.94	128.37	-9,259.32	9,574.28	9,541.62	32.66	293.119		
4,400.00	4,131.05	1,754.00	1,759.70	25.86	8.72	89.94	128.37	-9,259.32	9,600.55	9,567.35	33.20	289.138		
4,500.00	4,223.24	1,813.32	1,815.87	26.50	9.10	90.16	143.49	-9,270.90	9,627.10	9,593.01	34.09	282.435		
4,600.00	4,315.42	1,833.72	1,835.12	27.14	9.24	90.24	148.84	-9,275.08	9,654.74	9,620.00	34.74	277.938		
4,700.00	4,407.61	1,883.00	1,881.40	27.78	9.56	90.42	162.07	-9,285.59	9,683.33	9,647.78	35.55	272.357		
4,800.00	4,499.79	1,883.00	1,881.40	28.42	9.56	90.42	162.07	-9,285.59	9,712.40	9,676.32	36.07	269.229		
4,900.00	4,591.98	2,019.02	2,008.85	29.06	10.52	90.92	199.66	-9,314.66	9,742.11	9,704.67	37.44	260.196		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,000.00	4,684.17	2,130.24	2,113.34	29.70	11.33	91.33	229.94	-9,337.83	9,771.57	9,732.90	38.67	252.683		
5,100.00	4,776.35	2,201.61	2,180.56	30.34	11.85	91.59	248.70	-9,352.75	9,801.22	9,761.57	39.64	247.228		
5,200.00	4,868.54	2,271.78	2,246.75	30.98	12.37	91.84	266.64	-9,367.62	9,831.26	9,790.65	40.61	242.101		
5,300.00	4,960.73	5,300.00	2,352.42	31.63	35.71	92.23	294.17	-9,391.21	9,861.29	9,802.64	58.65	168.145		
5,400.00	5,052.91	2,448.34	2,413.78	32.27	13.69	92.46	310.08	-9,404.87	9,891.64	9,848.87	42.77	231.270		
5,500.00	5,145.10	2,488.08	2,451.29	32.91	13.99	92.60	320.10	-9,413.33	9,922.59	9,879.06	43.53	227.945		
5,600.00	5,237.28	2,530.76	2,491.48	33.55	14.32	92.75	331.13	-9,422.50	9,954.15	9,909.85	44.31	224.665		
5,700.00	5,329.47	2,625.66	2,580.78	34.20	15.06	93.08	356.01	-9,442.86	9,986.07	9,940.62	45.44	219.748		
7,700.00	7,024.26	7,353.45	7,197.34	45.67	39.11	59.83	841.56	-9,863.86	9,954.15	9,875.19	78.96	126.058		
7,800.00	7,052.75	7,373.17	7,217.05	45.92	39.17	68.29	841.24	-9,863.62	9,869.21	9,789.85	79.35	124.371		
7,900.00	7,067.18	7,382.79	7,226.68	46.16	39.20	82.65	841.09	-9,863.51	9,779.16	9,699.48	79.69	122.720		
8,000.00	7,068.85	7,383.20	7,227.09	46.42	39.20	92.99	841.08	-9,863.51	9,686.35	9,606.37	79.97	121.121		
8,100.00	7,068.56	7,382.18	7,226.07	46.78	39.20	92.98	841.10	-9,863.52	9,593.35	9,513.08	80.27	119.508		
8,200.00	7,068.26	7,381.15	7,225.04	47.29	39.20	92.96	841.12	-9,863.53	9,500.50	9,419.90	80.60	117.865		
8,300.00	7,067.96	7,380.11	7,224.00	48.03	39.19	92.94	841.13	-9,863.54	9,407.80	9,326.83	80.97	116.192		
8,400.00	7,067.66	7,379.07	7,222.96	49.02	39.19	92.93	841.15	-9,863.55	9,315.24	9,233.88	81.36	114.491		
8,500.00	7,067.37	7,378.02	7,221.91	50.27	39.19	92.91	841.17	-9,863.56	9,222.84	9,141.05	81.79	112.761		
8,600.00	7,067.07	7,376.96	7,220.85	51.75	39.18	92.89	841.18	-9,863.58	9,130.60	9,048.35	82.25	111.006		
8,700.00	7,066.77	7,375.90	7,219.79	53.42	39.18	92.87	841.20	-9,863.59	9,038.53	8,955.78	82.75	109.225		
8,800.00	7,066.47	7,374.83	7,218.72	55.24	39.18	92.86	841.22	-9,863.60	8,946.62	8,863.34	83.29	107.421		
8,900.00	7,066.18	7,373.76	7,217.64	57.18	39.17	92.84	841.24	-9,863.61	8,854.89	8,771.04	83.86	105.596		
9,000.00	7,065.88	7,372.67	7,216.56	59.21	39.17	92.82	841.25	-9,863.63	8,763.34	8,678.88	84.47	103.750		
9,100.00	7,065.58	7,371.58	7,215.47	61.33	39.17	92.81	841.27	-9,863.64	8,671.98	8,586.87	85.11	101.886		
9,200.00	7,065.28	7,370.49	7,214.37	63.51	39.16	92.79	841.29	-9,863.65	8,580.81	8,495.01	85.80	100.007		
9,300.00	7,064.99	7,369.38	7,213.27	65.76	39.16	92.77	841.31	-9,863.66	8,489.84	8,403.31	86.53	98.113		
9,400.00	7,064.69	7,368.27	7,212.16	68.06	39.15	92.75	841.32	-9,863.68	8,399.08	8,311.77	87.30	96.207		
9,500.00	7,064.39	7,367.15	7,211.04	70.40	39.15	92.73	841.34	-9,863.69	8,308.52	8,220.41	88.12	94.291		
9,600.00	7,064.09	7,366.03	7,209.92	72.78	39.15	92.72	841.36	-9,863.70	8,218.19	8,129.21	88.97	92.367		
9,700.00	7,063.80	7,364.90	7,208.79	75.20	39.14	92.70	841.38	-9,863.72	8,128.08	8,038.20	89.87	90.438		
9,800.00	7,063.50	7,363.76	7,207.65	77.65	39.14	92.68	841.40	-9,863.73	8,038.20	7,947.38	90.82	88.506		
9,900.00	7,063.20	7,362.61	7,206.50	80.13	39.14	92.66	841.42	-9,863.75	7,948.57	7,856.75	91.81	86.572		
10,000.00	7,062.90	7,361.46	7,205.35	82.64	39.13	92.64	841.43	-9,863.76	7,859.18	7,766.33	92.85	84.639		
10,100.00	7,062.61	7,360.29	7,204.18	85.17	39.13	92.62	841.45	-9,863.77	7,770.06	7,676.12	93.94	82.710		
10,200.00	7,062.31	7,359.12	7,203.02	87.72	39.13	92.60	841.47	-9,863.79	7,681.20	7,586.12	95.08	80.786		
10,300.00	7,062.01	7,357.95	7,201.84	90.28	39.12	92.58	841.49	-9,863.80	7,592.62	7,496.35	96.27	78.869		
10,400.00	7,061.71	7,356.76	7,200.65	92.87	39.12	92.57	841.51	-9,863.82	7,504.33	7,406.82	97.51	76.962		
10,500.00	7,061.41	7,355.57	7,199.46	95.47	39.12	92.55	841.53	-9,863.83	7,416.33	7,317.53	98.80	75.067		
10,600.00	7,061.12	7,354.37	7,198.26	98.09	39.11	92.53	841.55	-9,863.85	7,328.64	7,228.50	100.14	73.184		
10,700.00	7,060.82	7,353.16	7,197.05	100.72	39.11	92.51	841.57	-9,863.86	7,241.27	7,139.73	101.54	71.317		
10,800.00	7,060.52	7,351.94	7,195.84	103.37	39.10	92.49	841.59	-9,863.88	7,154.23	7,051.24	102.99	69.466		
10,900.00	7,060.22	7,350.72	7,194.61	106.02	39.10	92.47	841.61	-9,863.89	7,067.53	6,963.03	104.50	67.634		
11,000.00	7,059.93	7,349.49	7,193.38	108.69	39.10	92.45	841.63	-9,863.91	6,981.19	6,875.13	106.06	65.822		
11,100.00	7,059.63	7,348.24	7,192.14	111.36	39.09	92.43	841.65	-9,863.93	6,895.22	6,787.53	107.68	64.032		
11,200.00	7,059.33	7,346.99	7,190.89	114.05	39.09	92.41	841.67	-9,863.94	6,809.63	6,700.26	109.37	62.264		
11,300.00	7,059.03	7,345.74	7,189.63	116.74	39.08	92.39	841.69	-9,863.96	6,724.43	6,613.32	111.11	60.520		
11,400.00	7,058.74	7,344.47	7,188.36	119.44	39.08	92.37	841.71	-9,863.97	6,639.65	6,526.74	112.91	58.802		
11,500.00	7,058.44	7,343.19	7,187.09	122.15	39.08	92.35	841.73	-9,863.99	6,555.30	6,440.52	114.78	57.111		
11,600.00	7,058.14	7,341.91	7,185.80	124.86	39.07	92.33	841.75	-9,864.01	6,471.40	6,354.68	116.71	55.447		
11,700.00	7,057.84	7,340.62	7,184.51	127.58	39.07	92.30	841.77	-9,864.02	6,387.95	6,269.24	118.71	53.811		
11,800.00	7,057.55	7,339.31	7,183.21	130.31	39.06	92.28	841.79	-9,864.04	6,304.99	6,184.22	120.77	52.204		
11,900.00	7,057.25	7,338.00	7,181.90	133.04	39.06	92.26	841.81	-9,864.06	6,222.53	6,099.62	122.91	50.628		
12,000.00	7,056.95	7,336.68	7,180.58	135.78	39.06	92.24	841.84	-9,864.08	6,140.59	6,015.48	125.11	49.082		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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		
12,100.00	7,056.65	7,335.35	7,179.25	138.52	39.05	92.22	841.86	-9,864.09	6,059.19	5,931.81	127.38	47.568		
12,200.00	7,056.36	7,334.01	7,177.91	141.27	39.05	92.20	841.88	-9,864.11	5,978.36	5,848.63	129.72	46.085		
12,300.00	7,056.06	7,332.67	7,176.56	144.02	39.04	92.18	841.90	-9,864.13	5,898.11	5,765.97	132.14	44.635		
12,400.00	7,055.76	7,331.31	7,175.21	146.78	39.04	92.15	841.92	-9,864.15	5,818.48	5,683.84	134.63	43.217		
12,500.00	7,055.46	7,329.94	7,173.84	149.54	39.03	92.13	841.94	-9,864.17	5,739.48	5,602.28	137.20	41.832		
12,600.00	7,055.17	7,328.56	7,172.46	152.30	39.03	92.11	841.97	-9,864.18	5,661.14	5,521.29	139.85	40.481		
12,700.00	7,054.87	7,327.18	7,171.08	155.07	39.03	92.09	841.99	-9,864.20	5,583.50	5,440.93	142.57	39.162		
12,800.00	7,054.57	7,325.78	7,169.68	157.84	39.02	92.06	842.01	-9,864.22	5,506.58	5,361.20	145.38	37.878		
12,900.00	7,054.27	7,324.37	7,168.27	160.61	39.02	92.04	842.04	-9,864.24	5,430.41	5,282.14	148.26	36.627		
13,000.00	7,053.97	7,322.96	7,166.86	163.39	39.01	92.02	842.06	-9,864.26	5,355.02	5,203.79	151.23	35.409		
13,100.00	7,053.68	7,321.53	7,165.43	166.17	39.01	92.00	842.08	-9,864.28	5,280.45	5,126.17	154.28	34.225		
13,200.00	7,053.38	7,320.09	7,163.99	168.95	39.00	91.97	842.10	-9,864.30	5,206.73	5,049.31	157.42	33.075		
13,300.00	7,053.08	7,318.64	7,162.54	171.73	39.00	91.95	842.13	-9,864.32	5,133.91	4,973.26	160.64	31.959		
13,400.00	7,052.78	7,317.19	7,161.09	174.52	38.99	91.93	842.15	-9,864.34	5,062.00	4,898.06	163.95	30.875		
13,500.00	7,052.49	7,315.72	7,159.62	177.31	38.99	91.90	842.18	-9,864.36	4,991.07	4,823.73	167.34	29.825		
13,600.00	7,052.19	7,314.24	7,158.14	180.10	38.99	91.88	842.20	-9,864.38	4,921.15	4,750.32	170.82	28.809		
13,700.00	7,051.89	7,312.75	7,156.65	182.90	38.98	91.85	842.22	-9,864.40	4,852.27	4,677.89	174.39	27.824		
13,800.00	7,051.59	7,311.24	7,155.14	185.69	38.98	91.83	842.25	-9,864.43	4,784.50	4,606.46	178.04	26.873		
13,900.00	7,051.30	7,309.73	7,153.63	188.49	38.97	91.81	842.27	-9,864.45	4,717.87	4,536.09	181.78	25.954		
14,000.00	7,051.00	7,308.21	7,152.11	191.29	38.97	91.78	842.30	-9,864.47	4,652.44	4,466.84	185.60	25.067		
14,100.00	7,050.70	7,306.67	7,150.57	194.09	38.96	91.76	842.32	-9,864.49	4,588.25	4,398.74	189.51	24.211		
14,200.00	7,050.40	7,305.12	7,149.02	196.89	38.96	91.73	842.35	-9,864.51	4,525.36	4,331.87	193.50	23.387		
14,300.00	7,050.11	7,303.56	7,147.47	199.70	38.95	91.71	842.37	-9,864.54	4,463.83	4,266.27	197.56	22.595		
14,400.00	7,049.81	7,301.99	7,145.89	202.50	38.95	91.68	842.40	-9,864.56	4,403.71	4,202.00	201.71	21.832		
14,500.00	7,049.51	7,300.41	7,144.31	205.31	38.94	91.65	842.42	-9,864.58	4,345.05	4,139.13	205.92	21.101		
14,600.00	7,049.21	7,298.81	7,142.72	208.12	38.94	91.63	842.45	-9,864.61	4,287.92	4,077.72	210.21	20.399		
14,700.00	7,048.92	7,297.21	7,141.11	210.93	38.93	91.60	842.48	-9,864.63	4,232.39	4,017.83	214.56	19.726		
14,800.00	7,048.62	7,295.59	7,139.49	213.74	38.93	91.58	842.50	-9,864.66	4,178.51	3,959.55	218.97	19.083		
14,900.00	7,048.32	7,293.95	7,137.86	216.55	38.92	91.55	842.53	-9,864.68	4,126.35	3,902.92	223.43	18.468		
15,000.00	7,048.02	7,292.31	7,136.21	219.37	38.92	91.52	842.56	-9,864.70	4,075.98	3,848.04	227.94	17.882		
15,100.00	7,047.73	7,300.46	7,144.36	222.18	38.94	91.66	842.39	-9,864.57	4,027.44	3,794.92	232.52	17.321		
15,200.00	7,047.43	7,297.62	7,141.53	225.00	38.93	91.61	842.44	-9,864.62	3,980.84	3,743.75	237.09	16.791		
15,300.00	7,047.13	7,294.78	7,138.68	227.81	38.92	91.56	842.50	-9,864.66	3,936.23	3,694.55	241.68	16.287		
15,343.67	7,047.00	7,293.53	7,137.44	229.04	38.92	91.54	842.52	-9,864.68	3,917.39	3,673.70	243.69	16.076	CC, ES, SF	

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 @ 4819.00ft

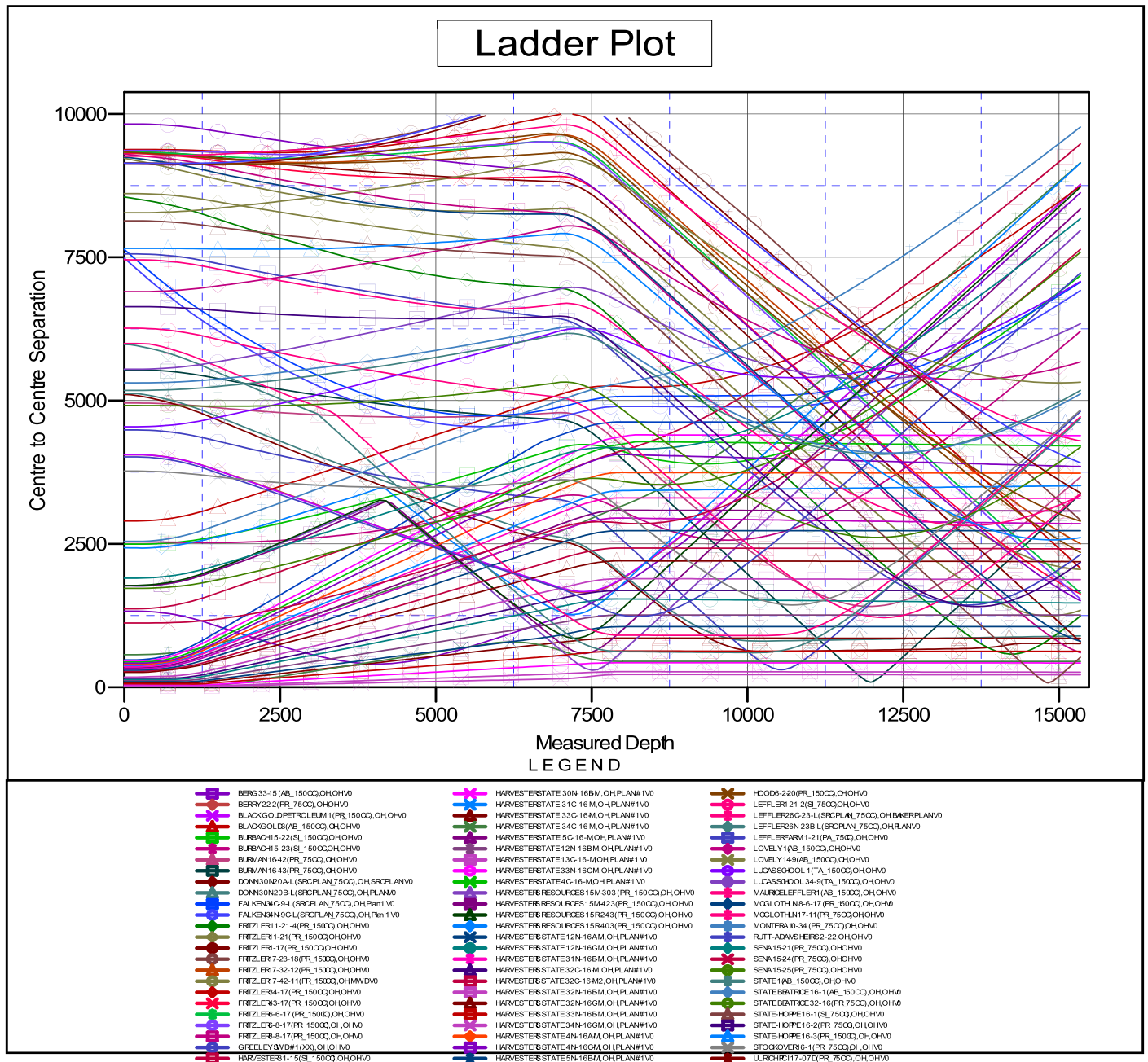
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 13N-16B-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°



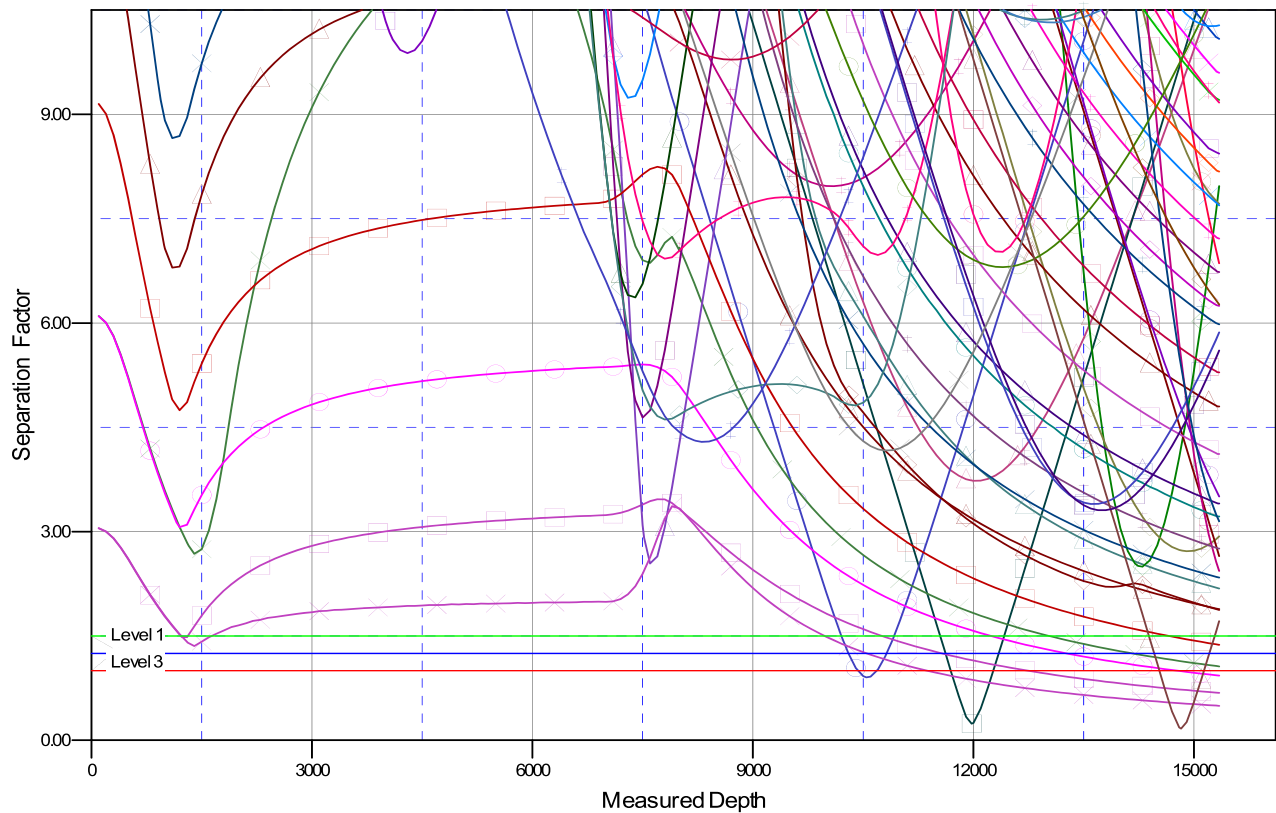
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 13N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 13N-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 @ 4819.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 13N-16B-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-15 (AB, 1500Q, OH, OHV0)	HARVESTER STATE 30N-16BM, OH, PLAN#1V0	H006-220 (PR, 1500Q, OH, OHV0)
BERR 22-2 (PR, 750Q, OH, OHV0)	HARVESTER STATE 31C-16M, OH, PLAN#1V0	LEFFLER 21-2 (SL, 750Q, OH, OHV0)
BLACK GOLD ESTERLUM 1 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 33C-16M, OH, PLAN#1V0	LEFFLER 26-23-L (SRCPLAN, 750Q, OH, PLANV0)
BLACK GOLD AB, 1500Q, OH, OHV0	HARVESTER STATE 34C-16M, OH, PLAN#1V0	LEFFLER 26N-23B-L (SRCPLAN, 750Q, OH, PLANV0)
BURBACH 15-22 (SL, 1500Q, OH, OHV0)	HARVESTER STATE 12N-16BM, OH, PLAN#1V0	LOVELY 1 (AB, 1500Q, OH, OHV0)
BURBACH 15-23 (SL, 1500Q, OH, OHV0)	HARVESTER STATE 13C-16M, OH, PLAN#1V0	LOVELY 149 (AB, 1500Q, OH, OHV0)
BURMAN 16-42 (PR, 750Q, OH, OHV0)	HARVESTER STATE 33N-16CM, OH, PLAN#1V0	LUCAS SCHOOL 1 (TA, 1500Q, OH, OHV0)
BURMAN 16-43 (PR, 750Q, OH, OHV0)	HARVESTER STATE 3C-16M, OH, PLAN#1V0	LUCAS SCHOOL 34-9 (TA, 1500Q, OH, OHV0)
DOHN 020-0-1 (SRCPLAN, 750Q, OH, SRCPLANV0)	HARVESTER RESOURCES 15M303 (PR, 1500Q, OH, OHV0)	MAURICE LEFFLER 1 (AB, 1500Q, OH, OHV0)
DOHN 020-0-1 (SRCPLAN, 750Q, OH, PLANV0)	HARVESTER RESOURCES 15M423 (PR, 1500Q, OH, OHV0)	MOGLOTHUN 6-17 (PR, 600Q, OH, OHV0)
FALKEN 30-9-L (SRCPLAN, 750Q, OH, Plan1 V0)	HARVESTER RESOURCES 15R243 (PR, 1500Q, OH, OHV0)	MOGLOTHUN 17-11 (PR, 750Q, OH, OHV0)
FALKEN 30-9-L (SRCPLAN, 750Q, OH, Plan1 V0)	HARVESTER RESOURCES 15R403 (PR, 1500Q, OH, OHV0)	MONTERA 10-34 (PR, 750Q, OH, OHV0)
FITZLER 11-21-4 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 12N-16AM, OH, PLAN#1V0	RUTT-ADAMS HERS 2-22, OH, OHV0
FITZLER 11-21 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 12N-16GM, OH, PLAN#1V0	SENA 15-21 (PR, 750Q, OH, OHV0)
FITZLER 16-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 31N-16BM, OH, PLAN#1V0	SENA 15-24 (PR, 750Q, OH, OHV0)
FITZLER 17-23-16 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 32C-16M, OH, PLAN#1V0	SENA 15-25 (PR, 750Q, OH, OHV0)
FITZLER 17-32-12 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 32C-16M2, OH, PLAN#1V0	STATE 1 (AB, 1500Q, OH, OHV0)
FITZLER 17-42-11 (PR, 1500Q, OH, MWV0)	HARVESTER STATE 32N-16BM, OH, PLAN#1V0	STATEBATRICE 16-1 (AB, 1500Q, OH, OHV0)
FITZLER 18-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 32N-16GM, OH, PLAN#1V0	STATEBATRICE 32-16 (PR, 750Q, OH, OHV0)
FITZLER 18-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 33N-16BM, OH, PLAN#1V0	STATE HOPE 16-1 (SL, 750Q, OH, OHV0)
FITZLER 18-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 33N-16GM, OH, PLAN#1V0	STATE HOPE 16-2 (PR, 750Q, OH, OHV0)
FITZLER 18-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 4N-16AM, OH, PLAN#1V0	STATE HOPE 16-3 (PR, 1500Q, OH, OHV0)
GRIFFIN 18-17 (PR, 1500Q, OH, OHV0)	HARVESTER STATE 4N-16CM, OH, PLAN#1V0	STOCKOVER 6-13 (PR, 750Q, OH, OHV0)
HARVESTER 11-15 (SL, 1500Q, OH, OHV0)	HARVESTER STATE 5N-16BM, OH, PLAN#1V0	ULRICH 17-07 (PR, 750Q, OH, OHV0)