

PDC ENERGY

**WELD COUNTY, COLORADO
NE SW SEC. 7 T4N R64W 6th P.M.
HONEBEIN 7O-243**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

09 July, 2015



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #2
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 98.4usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.0 us
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	09/07/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,145.0	PROPOSAL #2 (ORIGINAL WELLBORE)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NE SW SEC. 7 T4N R64W 6th P.M.						
ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1	14,010.4	6,959.5	1,519.3	1,380.7	10.958	CC, ES
ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1	14,145.0	6,954.2	1,525.2	1,384.0	10.800	SF
EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1	12,123.0	7,010.3	867.7	752.4	7.526	CC, ES
EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1	12,204.7	7,008.9	871.6	754.7	7.457	SF
EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1	12,125.3	7,312.0	2,277.2	2,157.3	19.002	CC
EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1	12,200.0	7,310.2	2,278.4	2,157.1	18.786	ES
EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1	12,992.1	7,290.5	2,436.5	2,299.9	17.837	SF
EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1	13,179.4	7,488.9	2,267.3	2,118.6	15.252	CC
EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1	13,200.0	7,488.9	2,267.4	2,118.3	15.211	ES
EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1	13,877.9	7,489.2	2,372.5	2,210.2	14.624	SF
EXIST VERT FARR #18-12 - Wellbore #1 - Design #1	12,700.6	6,881.7	1,569.8	1,320.4	6.294	CC, ES
EXIST VERT FARR #18-12 - Wellbore #1 - Design #1	12,893.7	6,879.9	1,581.6	1,328.5	6.249	SF
EXIST VERT FARR #18-14 - Wellbore #1 - Design #1	14,145.0	6,893.5	314.4	37.0	1.133	Level 2, CC, ES, SF
EXIST VERT FARR #2 - Wellbore #1 - Design #1	12,608.8	6,897.5	345.7	98.0	1.395	Level 3, CC, ES, SF
EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1	13,321.0	6,888.0	862.0	600.5	3.297	CC, ES
EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1	13,385.8	6,887.4	864.4	601.7	3.291	SF
FRY 18-1 - Wellbore #1 - Wellbore #1	11,264.6	5,400.0	2,195.0	2,127.0	32.288	CC
FRY 18-1 - Wellbore #1 - Wellbore #1	11,300.0	5,400.0	2,195.2	2,126.7	32.042	ES
FRY 18-1 - Wellbore #1 - Wellbore #1	12,303.1	5,400.0	2,428.3	2,344.6	29.032	SF
FRY 21-18 - Wellbore #1 - Wellbore #1	9,957.9	6,941.3	365.7	305.3	6.056	CC, ES
FRY 21-18 - Wellbore #1 - Wellbore #1	10,000.0	6,941.5	368.1	306.9	6.017	SF
FRY 21-6I - Wellbore #1 - Wellbore #1	10,709.7	7,020.2	206.0	113.0	2.215	CC, ES, SF
FRY 22-18 - Wellbore #1 - Wellbore #1	11,256.3	6,916.4	415.0	329.9	4.875	CC, ES
FRY 22-18 - Wellbore #1 - Wellbore #1	11,300.0	6,916.2	417.3	331.3	4.854	SF
FRY 5 - Wellbore #1 - Wellbore #1	10,617.9	6,913.7	986.5	913.5	13.499	CC
FRY 5 - Wellbore #1 - Wellbore #1	10,629.9	6,913.0	986.6	913.3	13.458	ES
FRY 5 - Wellbore #1 - Wellbore #1	10,900.0	6,900.0	1,025.9	947.5	13.081	SF
FRY PM C 18-4 - Wellbore #1 - Wellbore #1	9,953.5	7,000.0	1,431.8	1,371.1	23.572	CC
FRY PM C 18-4 - Wellbore #1 - Wellbore #1	10,000.0	7,000.0	1,432.6	1,371.0	23.251	ES
FRY PM C 18-4 - Wellbore #1 - Wellbore #1	10,600.0	7,000.0	1,571.0	1,498.0	21.533	SF
HONEBEIN 13-7U - Wellbore #1 - Wellbore #1	98.4	72.6	962.0	961.9	5,603.292	CC
HONEBEIN 13-7U - Wellbore #1 - Wellbore #1	689.0	658.2	963.0	960.9	442.201	ES
HONEBEIN 13-7U - Wellbore #1 - Wellbore #1	9,744.1	6,965.4	3,067.7	2,998.9	44.566	SF
HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL	1,000.0	994.0	178.4	174.2	42.219	CC, ES
HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL	14,145.0	14,170.4	2,117.5	1,836.6	7.537	SF
HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL	1,000.0	995.0	147.8	143.5	34.944	CC, ES

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NE SW SEC. 7 T4N R64W 6th P.M.						
HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOS	14,145.0	14,210.5	1,864.3	1,587.6	6.737	SF
HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOS	1,000.0	998.0	58.6	54.3	13.824	CC, ES
HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOS	14,145.0	14,079.0	638.7	357.2	2.269	SF
HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOS	1,000.0	996.0	119.9	115.7	28.336	CC, ES
HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOS	14,145.0	14,075.1	1,280.7	1,003.3	4.617	SF
HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOS	1,000.0	999.0	27.9	23.6	6.579	CC
HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOS	14,145.0	14,162.0	278.0	6.8	1.025	Level 2, ES, SF
HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOS	1,000.0	997.0	89.2	85.0	21.076	CC, ES
HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOS	14,145.0	14,219.1	918.3	646.5	3.379	SF
HOW SAD C 18-31 - Wellbore #1 - Design #1	10,554.1	6,881.2	2,408.4	2,200.1	11.564	CC
HOW SAD C 18-31 - Wellbore #1 - Design #1	10,600.0	6,880.8	2,408.8	2,199.7	11.519	ES
HOW SAD C 18-31 - Wellbore #1 - Design #1	11,100.0	6,876.3	2,469.5	2,250.9	11.297	SF
LATHAM 7-1 - Wellbore #1 - Wellbore #1	1,027.7	1,002.0	705.6	702.8	251.410	CC, ES
LATHAM 7-1 - Wellbore #1 - Wellbore #1	8,700.0	6,932.1	1,475.6	1,438.1	39.286	SF
LATHAM 7-2 - Wellbore #1 - Wellbore #1	7,580.9	6,989.7	346.7	325.2	16.128	CC, ES
LATHAM 7-2 - Wellbore #1 - Wellbore #1	7,677.1	6,990.0	359.8	337.3	15.969	SF
LATHAM 7-3 - Wellbore #1 - Wellbore #1	8,628.2	6,942.6	1,506.3	1,469.8	41.327	CC
LATHAM 7-3 - Wellbore #1 - Wellbore #1	8,661.4	6,942.6	1,506.6	1,469.6	40.698	ES
LATHAM 7-3 - Wellbore #1 - Wellbore #1	9,800.0	6,942.6	1,908.4	1,850.7	33.093	SF
LATHAM 7-4 - Wellbore #1 - Wellbore #1	8,701.4	6,966.9	470.1	432.4	12.446	CC, ES
LATHAM 7-4 - Wellbore #1 - Wellbore #1	8,800.0	6,966.6	480.4	440.9	12.164	SF
SE SE SEC. 18 T4N R64W 6th P.M.						
COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOS	9,866.3	11,613.7	389.7	243.7	2.669	CC, ES
COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOS	14,145.0	7,314.4	407.5	250.3	2.591	SF
NEI C17-33D - Wellbore #1 - Wellbore #1	13,187.1	6,568.3	2,472.2	2,329.3	17.305	CC
NEI C17-33D - Wellbore #1 - Wellbore #1	13,200.0	6,570.3	2,472.2	2,329.1	17.272	ES
NEI C17-33D - Wellbore #1 - Wellbore #1	14,074.8	6,679.1	2,624.8	2,463.5	16.270	SF
NEI C18-21D - Wellbore #1 - Wellbore #1	11,862.9	6,980.8	502.9	392.0	4.538	CC, ES
NEI C18-21D - Wellbore #1 - Wellbore #1	11,909.4	6,980.6	505.0	393.3	4.520	SF
NEI C18-22D - Wellbore #1 - Wellbore #1	11,897.2	7,171.5	1,590.8	1,476.5	13.918	CC
NEI C18-22D - Wellbore #1 - Wellbore #1	11,909.4	7,171.3	1,590.8	1,476.3	13.890	ES
NEI C18-22D - Wellbore #1 - Wellbore #1	12,303.1	7,166.4	1,641.8	1,519.6	13.440	SF
NEI C18-23D - Wellbore #1 - Wellbore #1	13,379.0	7,356.2	1,641.1	1,486.5	10.616	CC
NEI C18-23D - Wellbore #1 - Wellbore #1	13,400.0	7,355.4	1,641.2	1,486.2	10.589	ES
NEI C18-23D - Wellbore #1 - Wellbore #1	13,700.0	7,344.4	1,672.2	1,511.3	10.395	SF
NEI C18-24D - Wellbore #1 - Wellbore #1	13,194.7	7,058.6	498.0	353.2	3.441	CC
NEI C18-24D - Wellbore #1 - Wellbore #1	13,200.0	7,058.6	498.0	353.2	3.439	ES, SF
OSTER C19-27D - Wellbore #1 - Wellbore #1	14,145.0	7,262.2	1,635.1	1,450.2	8.843	CC, ES, SF

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-173.69	-6,940.0	-767.0	6,982.3				
98.4	98.4	102.7	102.7	0.1	0.1	-173.69	-6,939.9	-766.8	6,982.2	6,982.0	0.15	N/A	
100.0	100.0	104.4	104.4	0.1	0.1	-173.69	-6,939.9	-766.8	6,982.2	6,982.0	0.15	N/A	
196.8	196.8	204.5	204.5	0.3	0.2	-173.70	-6,939.7	-766.5	6,981.9	6,981.4	0.53	N/A	
200.0	200.0	207.4	207.4	0.3	0.2	-173.70	-6,939.7	-766.5	6,981.9	6,981.4	0.54	N/A	

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
295.3	295.3	294.1	294.1	0.5	0.3	-173.70	-173.70	-6,939.5	-766.4	6,981.7	6,980.9	0.83	8,446.830	
300.0	300.0	300.0	300.0	0.5	0.3	-173.70	-173.70	-6,939.5	-766.4	6,981.7	6,980.8	0.84	8,291.320	
393.7	393.7	386.3	386.3	0.8	0.3	-173.70	-173.70	-6,939.4	-766.2	6,981.6	6,980.5	1.09	6,388.348	
400.0	400.0	392.2	392.2	0.8	0.4	-173.70	-173.70	-6,939.4	-766.2	6,981.6	6,980.5	1.11	6,291.018	
432.6	432.6	420.1	420.1	0.8	0.4	-173.70	-173.70	-6,939.4	-766.1	6,981.6	6,980.4	1.20	5,826.119	
492.1	492.1	469.3	469.3	1.0	0.4	-173.70	-173.70	-6,939.5	-765.9	6,981.6	6,980.2	1.36	5,130.335	
500.0	500.0	475.8	475.8	1.0	0.4	-173.70	-173.70	-6,939.5	-765.8	6,981.6	6,980.2	1.38	5,050.567	
590.5	590.5	556.9	556.9	1.2	0.4	-173.71	-173.71	-6,939.7	-765.4	6,981.8	6,980.2	1.63	4,276.957	
600.0	600.0	565.6	565.6	1.2	0.4	-173.71	-173.71	-6,939.8	-765.4	6,981.9	6,980.2	1.66	4,209.328	
689.0	689.0	646.2	646.2	1.4	0.5	-173.71	-173.71	-6,940.1	-765.0	6,982.2	6,980.3	1.90	3,673.120	
700.0	700.0	656.1	656.0	1.4	0.5	-173.71	-173.71	-6,940.1	-765.0	6,982.2	6,980.3	1.93	3,616.909	
787.4	787.4	734.7	734.7	1.6	0.5	-173.71	-173.71	-6,940.6	-764.8	6,982.7	6,980.5	2.17	3,224.929	
800.0	800.0	746.3	746.2	1.7	0.5	-173.71	-173.71	-6,940.6	-764.7	6,982.8	6,980.6	2.20	3,175.678	
885.8	885.8	826.0	825.9	1.9	0.6	-173.71	-173.71	-6,941.2	-764.5	6,983.3	6,980.9	2.43	2,875.821	
900.0	900.0	839.6	839.6	1.9	0.6	-173.72	-173.72	-6,941.3	-764.4	6,983.4	6,980.9	2.47	2,831.794	
984.2	984.2	919.3	919.3	2.1	0.6	-173.72	-173.72	-6,941.9	-764.3	6,984.0	6,981.3	2.69	2,596.287	
1,000.0	1,000.0	933.5	933.4	2.1	0.6	-173.72	-173.72	-6,942.0	-764.3	6,984.1	6,981.4	2.73	2,557.140	
1,082.7	1,082.7	1,007.6	1,007.6	2.3	0.6	116.19	116.19	-6,942.6	-764.1	6,985.3	6,982.4	2.92	2,395.527	
1,100.0	1,100.0	1,022.8	1,022.8	2.3	0.6	116.18	116.18	-6,942.8	-764.1	6,985.8	6,982.8	2.96	2,360.194	
1,181.1	1,181.0	1,100.0	1,100.0	2.5	0.7	116.16	116.16	-6,943.5	-764.0	6,988.3	6,985.2	3.17	2,207.653	
1,200.0	1,199.8	1,113.0	1,113.0	2.6	0.7	116.16	116.16	-6,943.7	-764.0	6,989.1	6,985.9	3.21	2,176.315	
1,279.5	1,279.1	1,198.1	1,198.1	2.7	0.7	116.14	116.14	-6,944.6	-764.0	6,992.8	6,989.4	3.43	2,041.469	
1,300.0	1,299.5	1,219.7	1,219.7	2.8	0.7	116.14	116.14	-6,944.8	-764.0	6,993.9	6,990.5	3.48	2,009.619	
1,377.9	1,376.9	1,301.6	1,301.5	3.0	0.8	116.12	116.12	-6,945.5	-764.2	6,998.7	6,995.0	3.70	1,890.025	
1,400.0	1,398.7	1,324.7	1,324.7	3.0	0.8	116.12	116.12	-6,945.7	-764.3	7,000.3	6,996.5	3.77	1,859.032	
1,476.4	1,474.2	1,405.6	1,405.6	3.2	0.8	116.11	116.11	-6,946.4	-764.5	7,006.1	7,002.1	4.00	1,750.378	
1,500.0	1,497.5	1,436.1	1,436.0	3.3	0.8	116.11	116.11	-6,946.6	-764.7	7,008.0	7,004.0	4.08	1,719.139	
1,574.8	1,571.0	1,532.5	1,532.4	3.5	0.8	116.13	116.13	-6,947.0	-765.2	7,014.7	7,010.3	4.33	1,618.205	
1,600.1	1,595.7	1,565.2	1,565.2	3.6	0.8	116.13	116.13	-6,947.1	-765.4	7,017.1	7,012.6	4.42	1,587.182	
1,673.2	1,667.2	1,660.5	1,660.4	3.9	0.8	116.28	116.28	-6,947.2	-765.8	7,024.0	7,019.3	4.67	1,502.802	
1,700.0	1,693.4	1,695.5	1,695.4	4.0	0.8	116.34	116.34	-6,947.1	-765.8	7,026.4	7,021.7	4.76	1,475.122	
1,771.6	1,763.5	1,774.3	1,774.2	4.2	0.9	116.46	116.46	-6,946.9	-765.7	7,033.0	7,028.0	5.03	1,399.390	
1,800.0	1,791.3	1,805.7	1,805.7	4.3	0.9	116.50	116.50	-6,946.8	-765.6	7,035.6	7,030.4	5.13	1,371.677	
1,870.1	1,859.8	1,890.3	1,890.3	4.6	0.9	116.63	116.63	-6,946.4	-765.4	7,041.8	7,036.4	5.40	1,304.615	
1,900.0	1,889.1	1,921.0	1,920.9	4.7	0.9	116.68	116.68	-6,946.2	-765.3	7,044.5	7,039.0	5.51	1,278.149	
1,968.5	1,956.1	1,986.5	1,986.5	5.0	0.9	116.78	116.78	-6,945.9	-765.1	7,050.6	7,044.8	5.78	1,220.159	
2,000.0	1,986.9	2,015.2	2,015.2	5.1	0.9	116.82	116.82	-6,945.7	-765.0	7,053.4	7,047.5	5.90	1,195.309	
2,066.9	2,052.3	2,073.7	2,073.7	5.4	0.9	116.91	116.91	-6,945.4	-764.8	7,059.4	7,053.3	6.17	1,144.876	
2,100.0	2,084.7	2,100.0	2,100.0	5.5	0.9	116.94	116.94	-6,945.3	-764.6	7,062.5	7,056.2	6.30	1,121.627	
2,165.3	2,148.6	2,163.1	2,163.1	5.8	0.9	117.04	117.04	-6,945.1	-764.2	7,068.5	7,061.9	6.56	1,077.034	
2,200.0	2,182.5	2,195.1	2,195.1	5.9	0.9	117.08	117.08	-6,945.0	-764.0	7,071.7	7,065.0	6.70	1,054.902	
2,263.8	2,244.9	2,258.2	2,258.2	6.2	1.0	117.17	117.17	-6,944.8	-763.6	7,077.6	7,070.6	6.97	1,015.926	
2,300.0	2,280.3	2,294.3	2,294.2	6.3	1.0	117.23	117.23	-6,944.7	-763.4	7,081.0	7,073.8	7.12	995.083	
2,362.2	2,341.2	2,344.5	2,344.5	6.6	1.0	117.30	117.30	-6,944.6	-763.1	7,086.8	7,079.4	7.37	961.256	
2,400.0	2,378.1	2,374.3	2,374.3	6.8	1.0	117.34	117.34	-6,944.6	-762.9	7,090.4	7,082.9	7.53	941.871	
2,460.6	2,437.4	2,423.0	2,422.9	7.0	1.0	117.41	117.41	-6,944.6	-762.6	7,096.3	7,088.5	7.78	912.136	
2,500.0	2,476.0	2,455.3	2,455.2	7.2	1.0	117.46	117.46	-6,944.6	-762.5	7,100.1	7,092.2	7.94	893.883	
2,559.0	2,533.7	2,504.3	2,504.3	7.4	1.0	117.53	117.53	-6,944.8	-762.4	7,106.0	7,097.8	8.19	867.613	
2,600.0	2,573.8	2,544.0	2,544.0	7.6	1.0	117.59	117.59	-6,944.9	-762.3	7,110.1	7,101.8	8.36	850.136	
2,657.5	2,630.0	2,600.0	2,599.9	7.9	1.1	117.67	117.67	-6,945.0	-762.1	7,115.9	7,107.3	8.61	826.657	
2,700.0	2,671.6	2,638.0	2,637.9	8.1	1.1	117.73	117.73	-6,945.2	-762.0	7,120.2	7,111.4	8.79	810.276	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,755.9	2,726.3	2,688.2	2,688.2	8.3	1.1	117.80	-6,945.3	-761.9	7,125.9	7,116.9	9.02	789.639		
2,800.0	2,769.4	2,727.4	2,727.3	8.5	1.1	117.86	-6,945.5	-761.8	7,130.4	7,121.2	9.21	774.054		
2,854.3	2,822.5	2,775.4	2,775.3	8.7	1.1	117.93	-6,945.7	-761.8	7,136.0	7,126.6	9.44	755.607		
2,900.0	2,867.2	2,815.9	2,815.8	8.9	1.1	117.99	-6,945.9	-761.8	7,140.8	7,131.2	9.64	740.796		
2,952.7	2,918.8	2,862.7	2,862.7	9.2	1.1	118.06	-6,946.2	-761.8	7,146.4	7,136.5	9.87	724.360		
3,000.0	2,965.0	2,900.0	2,899.9	9.4	1.1	118.12	-6,946.4	-761.8	7,151.4	7,141.3	10.07	710.353		
3,051.2	3,015.1	2,949.7	2,949.6	9.6	1.2	118.19	-6,946.8	-761.8	7,156.9	7,146.6	10.29	695.602		
3,100.0	3,062.8	2,992.7	2,992.6	9.8	1.2	118.25	-6,947.1	-761.9	7,162.1	7,151.6	10.50	682.187		
3,149.6	3,111.4	3,038.3	3,038.3	10.0	1.2	118.32	-6,947.5	-761.9	7,167.5	7,156.8	10.71	669.036		
3,200.0	3,160.7	3,085.2	3,085.1	10.3	1.2	118.39	-6,947.9	-761.9	7,173.0	7,162.1	10.93	656.208		
3,248.0	3,207.6	3,133.2	3,133.2	10.5	1.2	118.46	-6,948.3	-762.0	7,178.3	7,167.1	11.14	644.400		
3,300.0	3,258.5	3,187.1	3,187.0	10.7	1.2	118.54	-6,948.8	-762.1	7,184.0	7,172.6	11.37	632.103		
3,346.4	3,303.9	3,229.8	3,229.8	10.9	1.2	118.60	-6,949.1	-762.3	7,189.0	7,177.5	11.57	621.558		
3,400.0	3,356.3	3,276.8	3,276.8	11.2	1.2	118.67	-6,949.5	-762.5	7,195.0	7,183.2	11.80	609.883		
3,444.9	3,400.2	3,318.6	3,318.5	11.4	1.2	118.73	-6,949.8	-762.8	7,199.9	7,188.0	11.99	600.411		
3,500.0	3,454.1	3,374.1	3,374.0	11.6	1.3	118.82	-6,950.3	-763.1	7,206.1	7,193.9	12.23	589.155		
3,543.3	3,496.5	3,414.3	3,414.2	11.8	1.3	118.88	-6,950.7	-763.4	7,210.9	7,198.5	12.42	580.639		
3,600.0	3,551.9	3,460.4	3,460.3	12.0	1.3	118.95	-6,951.1	-763.7	7,217.3	7,204.6	12.66	569.940		
3,641.7	3,592.7	3,500.0	3,499.9	12.2	1.3	119.01	-6,951.5	-764.1	7,222.1	7,209.2	12.84	562.272		
3,700.0	3,649.7	3,552.6	3,552.5	12.5	1.3	119.09	-6,952.0	-764.6	7,228.7	7,215.6	13.10	551.977		
3,740.1	3,689.0	3,593.8	3,593.7	12.7	1.3	119.15	-6,952.4	-765.1	7,233.3	7,220.1	13.27	545.069		
3,800.0	3,747.5	3,640.6	3,640.5	12.9	1.3	119.22	-6,952.9	-765.8	7,240.2	7,226.7	13.53	535.234		
3,838.6	3,785.3	3,669.7	3,669.6	13.1	1.3	119.27	-6,953.2	-766.4	7,244.8	7,231.1	13.69	529.100		
3,900.0	3,845.4	3,736.0	3,735.9	13.4	1.3	119.37	-6,953.9	-767.9	7,252.0	7,238.1	13.96	519.554		
3,937.0	3,881.5	3,799.2	3,799.0	13.6	1.3	119.47	-6,954.4	-769.3	7,256.3	7,242.2	14.12	513.864		
4,000.0	3,943.2	3,864.4	3,864.2	13.8	1.3	119.58	-6,954.7	-770.7	7,263.5	7,249.1	14.39	504.733		
4,035.4	3,977.8	3,901.0	3,900.8	14.0	1.3	119.64	-6,954.9	-771.6	7,267.5	7,253.0	14.54	499.745		
4,100.0	4,041.0	3,982.0	3,981.8	14.3	1.4	119.77	-6,955.2	-773.3	7,274.8	7,259.9	14.82	490.869		
4,133.8	4,074.1	4,028.4	4,028.2	14.4	1.4	119.84	-6,955.3	-774.2	7,278.5	7,263.5	14.97	486.349		
4,200.0	4,138.8	4,116.8	4,116.5	14.7	1.4	119.97	-6,955.3	-775.4	7,285.6	7,270.4	15.25	477.789		
4,232.3	4,170.4	4,148.5	4,148.3	14.9	1.4	120.02	-6,955.3	-775.8	7,289.1	7,273.7	15.39	473.758		
4,300.0	4,236.6	4,214.9	4,214.6	15.2	1.4	120.12	-6,955.3	-776.4	7,296.4	7,280.7	15.67	465.532		
4,330.7	4,266.6	4,244.3	4,244.1	15.3	1.4	120.17	-6,955.3	-776.7	7,299.7	7,283.9	15.80	461.894		
4,400.0	4,334.4	4,300.0	4,299.8	15.6	1.4	120.25	-6,955.3	-777.2	7,307.1	7,291.0	16.10	453.948		
4,429.1	4,362.9	4,326.8	4,326.6	15.8	1.4	120.29	-6,955.3	-777.4	7,310.3	7,294.1	16.22	450.684		
4,500.0	4,432.2	4,373.7	4,373.5	16.1	1.4	120.36	-6,955.5	-777.6	7,318.2	7,301.7	16.52	443.016		
4,527.5	4,459.2	4,400.0	4,399.8	16.2	1.4	120.39	-6,955.7	-777.7	7,321.4	7,304.7	16.64	440.083		
4,600.0	4,530.1	4,442.7	4,442.5	16.5	1.4	120.45	-6,956.0	-777.7	7,329.8	7,312.8	16.95	432.530		
4,626.0	4,555.5	4,461.2	4,460.9	16.7	1.4	120.48	-6,956.2	-777.8	7,332.8	7,315.8	17.06	429.874		
4,700.0	4,627.9	4,500.0	4,499.8	17.0	1.4	120.53	-6,956.7	-777.8	7,341.7	7,324.4	17.37	422.573		
4,724.4	4,651.7	4,530.4	4,530.2	17.1	1.5	120.58	-6,957.1	-777.8	7,344.7	7,327.2	17.48	420.138		
4,800.0	4,725.7	4,583.1	4,582.9	17.4	1.5	120.65	-6,958.0	-777.8	7,354.1	7,336.3	17.81	412.994		
4,822.8	4,748.0	4,600.0	4,599.8	17.6	1.5	120.67	-6,958.3	-777.8	7,356.9	7,339.0	17.91	410.885		
4,900.0	4,823.5	4,651.3	4,651.0	17.9	1.5	120.74	-6,959.4	-777.5	7,366.8	7,348.6	18.24	403.972		
4,921.2	4,844.3	4,665.6	4,665.4	18.0	1.5	120.76	-6,959.8	-777.4	7,369.6	7,351.3	18.33	402.112		
5,000.0	4,921.3	4,723.2	4,722.9	18.4	1.5	120.83	-6,961.4	-776.7	7,380.0	7,361.4	18.67	395.368		
5,014.9	4,935.9	4,735.6	4,735.3	18.4	1.5	120.85	-6,961.7	-776.5	7,382.1	7,363.3	18.73	394.109		
5,019.7	4,940.6	4,739.5	4,739.2	18.4	1.5	120.86	-6,961.8	-776.5	7,382.7	7,363.9	18.75	393.816		
5,100.0	5,019.4	4,800.0	4,799.7	18.7	1.5	121.11	-6,963.6	-775.7	7,392.9	7,373.9	19.01	388.922		
5,118.1	5,037.2	4,818.0	4,817.6	18.8	1.5	121.16	-6,964.2	-775.4	7,395.1	7,376.0	19.05	388.106		
5,200.0	5,118.1	4,875.5	4,875.1	19.0	1.5	121.38	-6,966.0	-774.9	7,404.3	7,385.0	19.26	384.528		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,216.5	5,134.4	4,900.0	4,899.6	19.1	1.6	121.43	-6,966.9	-774.8	7,406.1	7,386.8	19.29	383.860		
5,300.0	5,217.2	5,003.1	5,002.7	19.3	1.6	121.64	-6,970.1	-774.5	7,414.0	7,394.5	19.48	380.534		
5,314.9	5,232.1	5,022.5	5,022.0	19.3	1.6	121.67	-6,970.6	-774.4	7,415.3	7,395.8	19.51	380.025		
5,400.0	5,316.8	5,130.7	5,130.2	19.5	1.6	121.84	-6,973.4	-774.2	7,421.4	7,401.8	19.68	377.072		
5,413.4	5,330.1	5,146.9	5,146.5	19.5	1.6	121.86	-6,973.8	-774.2	7,422.3	7,402.6	19.70	376.683		
5,500.0	5,416.6	5,248.4	5,247.9	19.7	1.6	121.97	-6,976.1	-774.2	7,426.7	7,406.8	19.85	374.103		
5,511.8	5,428.4	5,261.7	5,261.2	19.7	1.7	121.98	-6,976.4	-774.2	7,427.2	7,407.3	19.87	373.815		
5,600.0	5,516.6	5,372.6	5,372.1	19.8	1.7	122.04	-6,978.5	-774.6	7,429.9	7,409.9	20.00	371.533		
5,610.2	5,526.8	5,386.3	5,385.7	19.8	1.7	122.04	-6,978.7	-774.7	7,430.1	7,410.1	20.01	371.289		
5,615.0	5,531.6	5,392.6	5,392.1	19.8	1.7	-167.88	-6,978.8	-774.8	7,430.1	7,410.1	20.04	370.814		
5,700.0	5,616.6	5,475.7	5,475.1	19.9	1.7	-167.87	-6,980.1	-775.6	7,431.6	7,411.4	20.17	368.437		
5,708.6	5,625.3	5,483.9	5,483.4	20.0	1.7	-167.87	-6,980.2	-775.7	7,431.8	7,411.6	20.19	368.175		
5,800.0	5,716.6	5,646.8	5,646.2	20.1	1.8	-167.87	-6,981.8	-777.1	7,432.7	7,412.4	20.36	365.073		
5,807.1	5,723.7	5,653.3	5,652.7	20.1	1.8	-167.87	-6,981.9	-777.1	7,432.8	7,412.4	20.37	364.861		
5,900.0	5,816.6	5,750.1	5,749.5	20.2	1.8	-167.86	-6,982.5	-777.9	7,433.5	7,413.0	20.53	362.059		
5,905.5	5,822.1	5,756.6	5,756.0	20.2	1.8	-167.86	-6,982.5	-777.9	7,433.6	7,413.0	20.54	361.890		
6,000.0	5,916.6	5,861.7	5,861.1	20.4	1.8	-167.86	-6,983.1	-778.7	7,434.2	7,413.5	20.71	359.038		
6,003.9	5,920.5	5,865.9	5,865.3	20.4	1.8	-167.85	-6,983.1	-778.7	7,434.2	7,413.5	20.71	358.920		
6,100.0	6,016.6	5,955.8	5,955.2	20.5	1.8	-167.85	-6,983.5	-779.2	7,434.7	7,413.9	20.88	356.094		
6,102.3	6,019.0	5,957.8	5,957.2	20.5	1.8	-167.85	-6,983.5	-779.2	7,434.8	7,413.9	20.88	356.025		
6,200.0	6,116.6	6,064.0	6,063.4	20.6	1.8	-167.85	-6,984.1	-779.9	7,435.4	7,414.4	21.06	353.141		
6,200.8	6,117.4	6,065.0	6,064.4	20.6	1.8	-167.85	-6,984.1	-779.9	7,435.4	7,414.4	21.06	353.117		
6,299.2	6,215.8	6,174.0	6,173.4	20.8	1.9	-167.84	-6,984.4	-780.7	7,435.9	7,414.6	21.23	350.244		
6,300.0	6,216.6	6,174.8	6,174.2	20.8	1.9	-167.84	-6,984.4	-780.7	7,435.9	7,414.6	21.23	350.221		
6,340.0	6,256.6	6,242.6	6,242.0	20.8	1.9	-167.84	-6,984.6	-780.8	7,436.0	7,414.7	21.30	349.108		
6,350.0	6,266.6	6,269.8	6,269.2	20.8	1.9	11.95	-6,984.6	-780.7	7,435.9	7,414.6	21.28	349.373		
6,397.6	6,314.2	6,395.5	6,394.9	20.9	1.9	11.99	-6,984.0	-779.2	7,433.4	7,412.1	21.30	349.054		
6,400.0	6,316.5	6,401.2	6,400.6	20.9	1.9	11.99	-6,983.9	-779.1	7,433.1	7,411.8	21.30	349.027		
6,450.0	6,366.2	6,492.3	6,491.7	20.9	1.9	12.11	-6,983.0	-776.8	7,426.6	7,405.2	21.33	348.249		
6,496.0	6,411.4	6,574.5	6,573.8	21.0	1.9	12.27	-6,981.7	-774.2	7,417.3	7,395.9	21.36	347.300		
6,500.0	6,415.3	6,581.5	6,580.8	21.0	1.9	12.29	-6,981.6	-773.9	7,416.4	7,395.0	21.36	347.220		
6,550.0	6,463.6	6,653.1	6,652.4	21.0	1.9	12.55	-6,980.3	-771.4	7,402.6	7,381.2	21.37	346.345		
6,594.5	6,505.8	6,708.9	6,708.1	21.0	1.9	12.85	-6,979.1	-769.3	7,387.6	7,366.2	21.36	345.932		
6,600.0	6,510.9	6,714.4	6,713.6	21.0	1.9	12.89	-6,979.0	-769.1	7,385.5	7,364.2	21.35	345.929		
6,650.0	6,557.0	6,763.1	6,762.2	21.0	1.9	13.32	-6,978.0	-767.2	7,365.2	7,344.0	21.27	346.243		
6,692.9	6,595.4	6,921.8	6,920.7	21.0	1.9	13.85	-6,973.3	-760.6	7,345.1	7,323.9	21.25	345.603		
6,700.0	6,601.6	6,926.8	6,925.7	21.0	1.9	13.93	-6,973.1	-760.4	7,341.5	7,320.3	21.23	345.795		
6,750.0	6,644.6	6,961.1	6,960.0	20.9	1.9	14.59	-6,971.8	-759.1	7,314.6	7,293.5	21.04	347.648		
6,791.3	6,678.6	6,988.3	6,987.2	20.9	1.9	15.24	-6,970.8	-758.1	7,290.2	7,269.4	20.84	349.871		
6,800.0	6,685.6	7,000.0	6,998.8	20.9	1.9	15.40	-6,970.4	-757.7	7,284.9	7,264.1	20.79	350.333		
6,850.0	6,724.6	7,000.0	6,998.8	20.9	1.9	16.33	-6,970.4	-757.7	7,252.6	7,232.2	20.45	354.610		
6,889.7	6,753.9	7,000.0	6,998.8	20.9	1.9	17.19	-6,970.4	-757.7	7,225.3	7,205.2	20.14	358.687		
6,900.0	6,761.3	7,000.0	6,998.8	20.9	1.9	17.44	-6,970.4	-757.7	7,218.1	7,198.0	20.06	359.878		
6,950.0	6,795.5	7,000.0	6,998.8	20.9	1.9	18.78	-6,970.4	-757.7	7,181.4	7,161.7	19.62	366.017		
6,988.2	6,819.9	7,000.0	6,998.8	20.9	1.9	20.01	-6,970.4	-757.7	7,152.0	7,132.7	19.27	371.052		
7,000.0	6,827.1	7,000.0	6,998.8	20.9	1.9	20.43	-6,970.4	-757.7	7,142.6	7,123.5	19.16	372.794		
7,050.0	6,855.9	7,000.0	6,998.8	20.9	1.9	22.46	-6,970.4	-757.7	7,102.0	7,083.3	18.70	379.788		
7,086.6	6,875.1	7,000.0	6,998.8	20.9	1.9	24.27	-6,970.4	-757.7	7,071.2	7,052.9	18.37	384.967		
7,100.0	6,881.8	7,000.0	6,998.8	20.9	1.9	25.01	-6,970.4	-757.7	7,059.8	7,041.5	18.28	386.282		
7,150.0	6,904.6	7,000.0	6,998.8	21.0	1.9	28.27	-6,970.4	-757.7	7,016.0	6,998.0	17.94	391.139		
7,185.0	6,918.8	7,000.0	6,998.8	21.1	1.9	31.12	-6,970.4	-757.7	6,984.5	6,966.7	17.78	392.726		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,200.0	6,924.3	7,000.0	6,998.8	21.1	1.9	32.51	32.51	-6,970.4	-757.7	6,970.8	6,953.1	17.75	392.751	
7,250.0	6,940.8	7,000.0	6,998.8	21.2	1.9	38.15	38.15	-6,970.4	-757.7	6,924.6	6,906.8	17.79	389.311	
7,283.4	6,949.9	7,000.0	6,998.8	21.3	1.9	42.99	42.99	-6,970.4	-757.7	6,893.1	6,875.1	17.97	383.536	
7,300.0	6,953.9	7,000.0	6,998.8	21.4	1.9	45.78	45.78	-6,970.4	-757.7	6,877.4	6,859.3	18.11	379.780	
7,350.0	6,963.6	7,000.0	6,998.8	21.6	1.9	56.14	56.14	-6,970.4	-757.7	6,829.5	6,810.8	18.68	365.674	
7,381.9	6,968.0	7,000.0	6,998.8	21.7	1.9	64.47	64.47	-6,970.4	-757.7	6,798.7	6,779.6	19.07	356.523	
7,400.0	6,969.9	7,000.0	6,998.8	21.8	1.9	69.81	69.81	-6,970.4	-757.7	6,781.1	6,761.9	19.25	352.209	
7,450.0	6,972.6	7,000.0	6,998.8	22.1	1.9	86.28	86.28	-6,970.4	-757.7	6,732.5	6,712.7	19.73	341.159	
7,471.5	6,972.8	7,000.0	6,998.8	22.2	1.9	93.69	93.69	-6,970.4	-757.7	6,711.5	6,691.3	20.26	331.292	
7,480.3	6,972.7	7,000.0	6,998.8	22.3	1.9	93.69	93.69	-6,970.4	-757.7	6,702.9	6,682.6	20.35	329.463	
7,500.0	6,972.5	7,000.0	6,998.8	22.4	1.9	93.69	93.69	-6,970.4	-757.7	6,683.8	6,663.2	20.54	325.428	
7,578.7	6,971.8	7,000.0	6,998.8	23.1	1.9	93.69	93.69	-6,970.4	-757.7	6,607.1	6,585.8	21.33	309.694	
7,600.0	6,971.6	7,000.0	6,998.8	23.3	1.9	93.69	93.69	-6,970.4	-757.7	6,586.4	6,564.9	21.55	305.642	
7,677.1	6,970.9	7,000.0	6,998.8	24.0	1.9	93.69	93.69	-6,970.4	-757.7	6,511.4	6,489.0	22.39	290.823	
7,700.0	6,970.7	7,000.0	6,998.8	24.2	1.9	93.69	93.69	-6,970.4	-757.7	6,489.2	6,466.5	22.64	286.645	
7,775.6	6,970.0	7,000.0	6,998.8	25.0	1.9	93.69	93.69	-6,970.4	-757.7	6,415.7	6,392.2	23.55	272.408	
7,800.0	6,969.8	7,000.0	6,998.8	25.3	1.9	93.69	93.69	-6,970.4	-757.7	6,392.0	6,368.1	23.85	268.039	
7,874.0	6,969.1	7,000.0	6,998.8	26.2	1.9	93.69	93.69	-6,970.4	-757.7	6,320.1	6,295.3	24.82	254.671	
7,900.0	6,968.9	7,000.0	6,998.8	26.5	1.9	93.69	93.69	-6,970.4	-757.7	6,294.9	6,269.7	25.16	250.219	
7,972.4	6,968.2	7,000.0	6,998.8	27.4	1.9	93.69	93.69	-6,970.4	-757.7	6,224.6	6,198.5	26.17	237.869	
8,000.0	6,968.0	7,000.0	6,998.8	27.8	1.9	93.69	93.69	-6,970.4	-757.7	6,197.9	6,171.3	26.55	233.414	
8,070.8	6,967.3	7,000.0	6,998.8	28.7	1.9	93.69	93.69	-6,970.4	-757.7	6,129.2	6,101.6	27.59	222.130	
8,100.0	6,967.1	7,000.0	6,998.8	29.1	1.9	93.69	93.69	-6,970.4	-757.7	6,101.0	6,073.0	28.02	217.731	
8,169.3	6,966.4	7,000.0	6,998.8	30.1	1.9	93.69	93.69	-6,970.4	-757.7	6,033.9	6,004.9	29.08	207.500	
8,200.0	6,966.2	7,000.0	6,998.8	30.5	1.9	93.70	93.70	-6,970.4	-757.7	6,004.2	5,974.7	29.55	203.196	
8,267.7	6,965.5	7,000.0	6,998.8	31.5	1.9	93.70	93.70	-6,970.4	-757.7	5,938.7	5,908.1	30.62	193.964	
8,300.0	6,965.2	7,000.0	6,998.8	32.0	1.9	93.70	93.70	-6,970.4	-757.7	5,907.5	5,876.4	31.13	189.783	
8,366.1	6,964.6	7,000.0	6,998.8	33.0	1.9	93.70	93.70	-6,970.4	-757.7	5,843.6	5,811.4	32.20	181.478	
8,400.0	6,964.3	7,000.0	6,998.8	33.5	1.9	93.70	93.70	-6,970.4	-757.7	5,810.9	5,778.2	32.75	177.434	
8,464.5	6,963.8	7,000.0	6,998.8	34.5	1.9	93.70	93.70	-6,970.4	-757.7	5,748.7	5,714.8	33.82	169.975	
8,500.0	6,963.4	7,000.0	6,998.8	35.1	1.9	93.70	93.70	-6,970.4	-757.7	5,714.5	5,680.1	34.41	166.077	
8,563.0	6,962.9	7,000.0	6,998.8	36.1	1.9	93.70	93.70	-6,970.4	-757.7	5,653.8	5,618.3	35.47	159.383	
8,600.0	6,962.5	7,000.0	6,998.8	36.7	1.9	93.70	93.70	-6,970.4	-757.7	5,618.1	5,582.0	36.10	155.631	
8,661.4	6,962.0	7,000.0	6,998.8	37.7	1.9	93.70	93.70	-6,970.4	-757.7	5,559.1	5,521.9	37.15	149.624	
8,700.0	6,961.6	7,000.0	6,998.8	38.3	1.9	93.70	93.70	-6,970.4	-757.7	5,521.9	5,484.1	37.82	146.020	
8,759.8	6,961.1	7,000.0	6,998.8	39.3	1.9	93.70	93.70	-6,970.4	-757.7	5,464.4	5,425.6	38.86	140.627	
8,800.0	6,960.7	7,000.0	6,998.8	40.0	1.9	93.70	93.70	-6,970.4	-757.7	5,425.9	5,386.3	39.56	137.166	
8,858.2	6,960.2	7,000.0	6,998.8	40.9	1.9	93.70	93.70	-6,970.4	-757.7	5,370.0	5,329.4	40.58	132.322	
8,900.0	6,959.8	7,000.0	6,998.8	41.6	1.9	93.70	93.70	-6,970.4	-757.7	5,329.9	5,288.6	41.32	128.998	
8,956.7	6,959.3	7,000.0	6,998.8	42.6	1.9	93.70	93.70	-6,970.4	-757.7	5,275.6	5,233.3	42.33	124.644	
9,000.0	6,958.9	7,000.0	6,998.8	43.3	1.9	93.70	93.70	-6,970.4	-757.7	5,234.2	5,191.1	43.10	121.452	
9,055.1	6,958.4	7,000.0	6,998.8	44.3	1.9	93.70	93.70	-6,970.4	-757.7	5,181.5	5,137.4	44.08	117.534	
9,100.0	6,958.0	7,000.0	6,998.8	45.1	1.9	93.70	93.70	-6,970.4	-757.7	5,138.6	5,093.7	44.89	114.469	
9,153.5	6,957.5	7,000.0	6,998.8	46.0	1.9	93.70	93.70	-6,970.4	-757.7	5,087.5	5,041.6	45.86	110.939	
9,200.0	6,957.1	7,000.0	6,998.8	46.8	1.9	93.70	93.70	-6,970.4	-757.7	5,043.1	4,996.4	46.70	107.994	
9,251.9	6,956.6	7,000.0	6,998.8	47.7	1.9	93.70	93.70	-6,970.4	-757.7	4,993.6	4,946.0	47.64	104.812	
9,300.0	6,956.2	7,000.0	6,998.8	48.6	1.9	93.70	93.70	-6,970.4	-757.7	4,947.9	4,899.3	48.52	101.980	
9,350.4	6,955.7	7,000.0	6,998.8	49.5	1.9	93.70	93.70	-6,970.4	-757.7	4,899.9	4,850.5	49.44	99.109	
9,400.0	6,955.2	7,000.0	6,998.8	50.3	1.9	93.70	93.70	-6,970.4	-757.7	4,852.8	4,802.4	50.35	96.384	
9,448.8	6,954.8	7,000.0	6,998.8	51.2	1.9	93.70	93.70	-6,970.4	-757.7	4,806.5	4,755.2	51.25	93.792	
9,500.0	6,954.3	7,000.0	6,998.8	52.1	1.9	93.70	93.70	-6,970.4	-757.7	4,757.9	4,705.7	52.19	91.169	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,547.2	6,953.9	7,000.0	6,998.8	53.0	1.9	93.70	93.70	-6,970.4	-757.7	4,713.2	4,660.1	53.06	88.826	
9,600.0	6,953.4	7,000.0	6,998.8	53.9	1.9	93.70	93.70	-6,970.4	-757.7	4,663.3	4,609.2	54.04	86.298	
9,645.6	6,953.0	7,000.0	6,998.8	54.7	1.9	93.70	93.70	-6,970.4	-757.7	4,620.1	4,565.3	54.88	84.180	
9,700.0	6,952.5	7,000.0	6,998.8	55.7	1.9	93.70	93.70	-6,970.4	-757.7	4,568.8	4,513.0	55.89	81.743	
9,744.1	6,952.1	7,000.0	6,998.8	56.5	1.9	93.70	93.70	-6,970.4	-757.7	4,527.3	4,470.6	56.71	79.827	
9,800.0	6,951.6	7,000.0	6,998.8	57.5	1.9	93.70	93.70	-6,970.4	-757.7	4,474.7	4,416.9	57.76	77.476	
9,842.5	6,951.2	7,000.0	6,998.8	58.3	1.9	93.70	93.70	-6,970.4	-757.7	4,434.7	4,376.2	58.55	75.742	
9,900.0	6,950.7	7,000.0	6,998.8	59.4	1.9	93.70	93.70	-6,970.4	-757.7	4,380.7	4,321.1	59.63	73.472	
9,940.9	6,950.3	7,000.0	6,998.8	60.1	1.9	93.70	93.70	-6,970.4	-757.7	4,342.4	4,282.0	60.39	71.903	
10,000.0	6,949.8	7,000.0	6,998.8	61.2	1.9	93.70	93.70	-6,970.4	-757.7	4,287.1	4,225.6	61.50	69.709	
10,039.3	6,949.4	7,000.0	6,998.8	61.9	1.9	93.70	93.70	-6,970.4	-757.7	4,250.3	4,188.1	62.24	68.290	
10,100.0	6,948.9	7,000.0	6,998.8	63.0	1.9	93.70	93.70	-6,970.4	-757.7	4,193.7	4,130.4	63.38	66.168	
10,137.8	6,948.5	7,000.0	6,998.8	63.7	1.9	93.70	93.70	-6,970.4	-757.7	4,158.6	4,094.5	64.09	64.884	
10,200.0	6,948.0	7,000.0	6,998.8	64.9	1.9	93.70	93.70	-6,970.4	-757.7	4,100.7	4,035.4	65.26	62.832	
10,236.2	6,947.6	7,000.0	6,998.8	65.6	1.9	93.70	93.70	-6,970.4	-757.7	4,067.1	4,001.1	65.95	61.671	
10,300.0	6,947.1	7,000.0	6,998.8	66.7	1.9	93.70	93.70	-6,970.4	-757.7	4,008.0	3,940.8	67.15	59.684	
10,334.6	6,946.7	7,000.0	6,998.8	67.4	1.9	93.70	93.70	-6,970.4	-757.7	3,976.0	3,908.2	67.81	58.635	
10,400.0	6,946.2	7,000.0	6,998.8	68.6	1.9	93.70	93.70	-6,970.4	-757.7	3,915.6	3,846.6	69.05	56.710	
10,433.0	6,945.8	7,000.0	6,998.8	69.2	1.9	93.70	93.70	-6,970.4	-757.7	3,885.2	3,815.5	69.67	55.763	
10,500.0	6,945.2	7,000.0	6,998.8	70.5	1.9	93.70	93.70	-6,970.4	-757.7	3,823.7	3,752.7	70.94	53.898	
10,531.5	6,945.0	7,000.0	6,998.8	71.1	1.9	93.70	93.70	-6,970.4	-757.7	3,794.8	3,723.3	71.54	53.044	
10,600.0	6,944.3	7,000.0	6,998.8	72.3	1.9	93.70	93.70	-6,970.4	-757.7	3,732.1	3,659.3	72.84	51.236	
10,629.9	6,944.1	7,000.0	6,998.8	72.9	1.9	93.70	93.70	-6,970.4	-757.7	3,704.8	3,631.4	73.41	50.467	
10,700.0	6,943.4	7,000.0	6,998.8	74.2	1.9	93.70	93.70	-6,970.4	-757.7	3,641.0	3,566.3	74.75	48.712	
10,728.3	6,943.2	7,000.0	6,998.8	74.7	1.9	93.70	93.70	-6,970.4	-757.7	3,615.3	3,540.0	75.28	48.022	
10,800.0	6,942.5	7,000.0	6,998.8	76.1	1.9	93.70	93.70	-6,970.4	-757.7	3,550.4	3,473.7	76.65	46.319	
10,826.7	6,942.3	7,000.0	6,998.8	76.6	1.9	93.70	93.70	-6,970.4	-757.7	3,526.2	3,449.1	77.16	45.700	
10,900.0	6,941.6	7,000.0	6,998.8	78.0	1.9	93.70	93.70	-6,970.4	-757.7	3,460.3	3,381.7	78.56	44.047	
10,925.2	6,941.4	7,000.0	6,998.8	78.4	1.9	93.70	93.70	-6,970.4	-757.7	3,437.7	3,358.7	79.04	43.493	
11,000.0	6,940.7	7,000.0	6,998.8	79.9	1.9	93.70	93.70	-6,970.4	-757.7	3,370.7	3,290.3	80.47	41.888	
11,023.6	6,940.5	7,000.0	6,998.8	80.3	1.9	93.70	93.70	-6,970.4	-757.7	3,349.7	3,268.8	80.92	41.395	
11,100.0	6,939.8	7,000.0	6,998.8	81.7	1.9	93.70	93.70	-6,970.4	-757.7	3,281.8	3,199.4	82.38	39.836	
11,122.0	6,939.6	7,000.0	6,998.8	82.2	1.9	93.70	93.70	-6,970.4	-757.7	3,262.3	3,179.5	82.80	39.398	
11,200.0	6,938.9	7,000.0	6,998.8	83.6	1.9	93.70	93.70	-6,970.4	-757.7	3,193.5	3,109.2	84.30	37.884	
11,220.4	6,938.7	7,000.0	6,998.8	84.0	1.9	93.70	93.70	-6,970.4	-757.7	3,175.5	3,090.8	84.69	37.496	
11,300.0	6,938.0	7,000.0	6,998.8	85.5	1.9	93.70	93.70	-6,970.4	-757.7	3,105.9	3,019.7	86.21	36.026	
11,318.9	6,937.8	7,000.0	6,998.8	85.9	1.9	93.70	93.70	-6,970.4	-757.7	3,089.5	3,002.9	86.58	35.685	
11,400.0	6,937.0	7,000.0	6,998.8	87.4	1.9	93.70	93.70	-6,970.4	-757.7	3,019.1	2,931.0	88.13	34.256	
11,417.3	6,936.9	7,000.0	6,998.8	87.8	1.9	93.70	93.70	-6,970.4	-757.7	3,004.2	2,915.7	88.46	33.959	
11,500.0	6,936.1	7,000.0	6,998.8	89.3	1.9	93.70	93.70	-6,970.4	-757.7	2,933.1	2,843.1	90.05	32.571	
11,515.7	6,936.0	7,000.0	6,998.8	89.6	1.9	93.70	93.70	-6,970.4	-757.7	2,919.7	2,829.3	90.36	32.313	
11,600.0	6,935.2	7,000.0	6,998.8	91.2	1.9	93.70	93.70	-6,970.4	-757.7	2,848.1	2,756.1	91.98	30.966	
11,614.1	6,935.1	7,000.0	6,998.8	91.5	1.9	93.70	93.70	-6,970.4	-757.7	2,836.1	2,743.9	92.25	30.745	
11,700.0	6,934.3	7,000.0	6,998.8	93.1	1.9	93.70	93.70	-6,970.4	-757.7	2,764.0	2,670.1	93.90	29.436	
11,712.6	6,934.2	7,000.0	6,998.8	93.4	1.9	93.70	93.70	-6,970.4	-757.7	2,753.5	2,659.4	94.14	29.249	
11,800.0	6,933.4	7,000.0	6,998.8	95.1	1.9	93.70	93.70	-6,970.4	-757.7	2,681.1	2,585.2	95.82	27.979	
11,811.0	6,933.3	7,000.0	6,998.8	95.3	1.9	93.70	93.70	-6,970.4	-757.7	2,672.0	2,576.0	96.04	27.823	
11,900.0	6,932.5	7,000.0	6,998.8	97.0	1.9	93.70	93.70	-6,970.4	-757.7	2,599.3	2,501.6	97.75	26.591	
11,909.4	6,932.4	7,000.0	6,998.8	97.1	1.9	93.70	93.70	-6,970.4	-757.7	2,591.7	2,493.7	97.93	26.464	
12,000.0	6,931.6	7,000.0	6,998.8	98.9	1.9	93.70	93.70	-6,970.4	-757.7	2,518.9	2,419.2	99.68	25.270	
12,007.8	6,931.5	7,000.0	6,998.8	99.0	1.9	93.70	93.70	-6,970.4	-757.7	2,512.6	2,412.8	99.83	25.169	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - ABDN VERT FARR #1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,100.0	6,930.7	7,000.0	6,998.8	100.8	1.9	93.70	93.70	-6,970.4	-757.7	2,439.9	2,338.3	101.61	24.013	
12,106.3	6,930.6	7,000.0	6,998.8	100.9	1.9	93.70	93.70	-6,970.4	-757.7	2,435.0	2,333.2	101.73	23.936	
12,200.0	6,929.8	7,000.0	6,998.8	102.7	1.9	93.70	93.70	-6,970.4	-757.7	2,362.5	2,258.9	103.53	22.818	
12,204.7	6,929.7	7,000.0	6,998.8	102.8	1.9	93.70	93.70	-6,970.4	-757.7	2,358.9	2,255.2	103.63	22.763	
12,300.0	6,928.8	7,000.0	6,998.8	104.6	1.9	93.70	93.70	-6,970.4	-757.7	2,286.8	2,181.3	105.47	21.683	
12,303.1	6,928.8	7,000.0	6,998.8	104.7	1.9	93.70	93.70	-6,970.4	-757.7	2,284.5	2,178.9	105.53	21.648	
12,400.0	6,927.9	7,000.0	6,998.8	106.5	1.9	93.70	93.70	-6,970.4	-757.7	2,213.1	2,105.7	107.40	20.607	
12,401.5	6,927.9	7,000.0	6,998.8	106.6	1.9	93.70	93.70	-6,970.4	-757.7	2,212.0	2,104.5	107.43	20.590	
12,500.0	6,927.0	7,000.0	6,998.8	108.5	1.9	93.70	93.70	-6,970.4	-757.7	2,141.5	2,032.2	109.33	19.588	
12,598.4	6,926.1	7,000.0	6,998.8	110.4	1.9	93.70	93.70	-6,970.4	-757.7	2,073.4	1,962.1	111.23	18.640	
12,600.0	6,926.1	7,000.0	6,998.8	110.4	1.9	93.70	93.70	-6,970.4	-757.7	2,072.3	1,961.0	111.26	18.625	
12,696.8	6,925.2	7,000.0	6,998.8	112.3	1.9	93.70	93.70	-6,970.4	-757.7	2,007.7	1,894.6	113.14	17.746	
12,700.0	6,925.2	7,000.0	6,998.8	112.3	1.9	93.70	93.70	-6,970.4	-757.7	2,005.6	1,892.4	113.20	17.718	
12,795.2	6,924.3	7,000.0	6,998.8	114.1	1.9	93.70	93.70	-6,970.4	-757.7	1,944.8	1,829.8	115.04	16.906	
12,800.0	6,924.3	7,000.0	6,998.8	114.2	1.9	93.70	93.70	-6,970.4	-757.7	1,941.9	1,826.7	115.13	16.866	
12,893.7	6,923.4	7,000.0	6,998.8	116.0	1.9	93.70	93.70	-6,970.4	-757.7	1,885.0	1,768.1	116.95	16.119	
12,900.0	6,923.4	7,000.0	6,998.8	116.2	1.9	93.70	93.70	-6,970.4	-757.7	1,881.3	1,764.2	117.07	16.070	
12,992.1	6,922.5	7,000.0	6,998.8	117.9	1.9	93.70	93.70	-6,970.4	-757.7	1,828.5	1,709.7	118.85	15.385	
13,000.0	6,922.5	7,000.0	6,998.8	118.1	1.9	93.70	93.70	-6,970.4	-757.7	1,824.1	1,705.1	119.01	15.328	
13,090.5	6,921.6	7,000.0	6,998.8	119.8	1.9	93.70	93.70	-6,970.4	-757.7	1,775.7	1,654.9	120.76	14.704	
13,100.0	6,921.5	7,000.0	6,998.8	120.0	1.9	93.70	93.70	-6,970.4	-757.7	1,770.8	1,649.9	120.94	14.642	
13,188.9	6,920.7	6,991.7	6,990.5	121.7	1.9	93.39	93.39	-6,970.7	-758.0	1,726.8	1,604.2	122.67	14.076	
13,200.0	6,920.6	6,991.3	6,990.1	121.9	1.9	93.37	93.37	-6,970.7	-758.0	1,721.6	1,598.7	122.89	14.009	
13,287.4	6,919.8	6,987.8	6,986.7	123.6	1.9	93.24	93.24	-6,970.8	-758.1	1,682.3	1,557.7	124.59	13.503	
13,300.0	6,919.7	6,987.3	6,986.2	123.9	1.9	93.22	93.22	-6,970.8	-758.1	1,676.9	1,552.1	124.83	13.434	
13,385.8	6,918.9	6,984.0	6,982.8	125.5	1.9	93.10	93.10	-6,971.0	-758.2	1,642.5	1,516.0	126.50	12.984	
13,400.0	6,918.8	6,983.4	6,982.3	125.8	1.9	93.08	93.08	-6,971.0	-758.2	1,637.2	1,510.4	126.78	12.914	
13,484.2	6,918.0	6,980.1	6,979.0	127.4	1.9	92.95	92.95	-6,971.1	-758.4	1,607.7	1,479.3	128.41	12.520	
13,500.0	6,917.9	6,979.5	6,978.4	127.7	1.9	92.93	92.93	-6,971.1	-758.4	1,602.6	1,473.9	128.72	12.450	
13,582.6	6,917.1	6,976.3	6,975.1	129.3	1.9	92.81	92.81	-6,971.3	-758.5	1,578.3	1,448.0	130.33	12.110	
13,600.0	6,917.0	6,975.6	6,974.5	129.7	1.9	92.78	92.78	-6,971.3	-758.5	1,573.7	1,443.0	130.66	12.044	
13,681.1	6,916.2	6,972.4	6,971.3	131.2	1.9	92.66	92.66	-6,971.4	-758.6	1,554.5	1,422.3	132.24	11.755	
13,700.0	6,916.1	6,971.7	6,970.5	131.6	1.9	92.63	92.63	-6,971.4	-758.7	1,550.7	1,418.0	132.61	11.693	
13,779.5	6,915.3	6,968.6	6,967.4	133.1	1.9	92.52	92.52	-6,971.5	-758.8	1,536.7	1,402.6	134.16	11.455	
13,800.0	6,915.2	6,967.8	6,966.6	133.5	1.9	92.49	92.49	-6,971.6	-758.8	1,533.8	1,399.2	134.55	11.399	
13,877.9	6,914.4	6,964.7	6,963.6	135.1	1.9	92.37	92.37	-6,971.7	-758.9	1,525.1	1,389.0	136.07	11.208	
13,900.0	6,914.2	6,963.8	6,962.7	135.5	1.9	92.34	92.34	-6,971.7	-758.9	1,523.3	1,386.8	136.50	11.160	
13,976.3	6,913.5	6,960.8	6,959.7	137.0	1.9	92.22	92.22	-6,971.8	-759.1	1,519.7	1,381.7	137.99	11.013	
14,000.0	6,913.3	6,959.9	6,958.8	137.4	1.9	92.19	92.19	-6,971.9	-759.1	1,519.4	1,380.9	138.45	10.974	
14,010.4	6,913.2	6,959.5	6,958.4	137.6	1.9	92.17	92.17	-6,971.9	-759.1	1,519.3	1,380.7	138.65	10.958 CC, ES	
14,074.8	6,912.6	6,957.0	6,955.9	138.9	1.9	92.08	92.08	-6,972.0	-759.2	1,520.7	1,380.8	139.90	10.870	
14,100.0	6,912.4	6,956.0	6,954.9	139.4	1.9	92.04	92.04	-6,972.0	-759.2	1,521.9	1,381.6	140.39	10.841	
14,145.0	6,912.0	6,954.2	6,953.1	140.2	1.9	91.98	91.98	-6,972.1	-759.3	1,525.2	1,384.0	141.23	10.800 SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 289-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	173.07	-5,118.5	621.9	5,156.2					
98.4	98.4	101.4	101.4	0.1	0.1	173.07	-5,118.3	621.9	5,156.0	5,155.8	0.19	N/A		
100.0	100.0	103.4	103.4	0.1	0.1	173.07	-5,118.3	621.9	5,156.0	5,155.8	0.19	N/A		
196.8	196.8	226.3	226.3	0.3	0.2	173.07	-5,117.4	622.0	5,155.3	5,154.8	0.53	9,760.414		
200.0	200.0	230.3	230.3	0.3	0.2	173.07	-5,117.4	622.0	5,155.3	5,154.7	0.54	9,563.951		
295.3	295.3	1,018.9	1,015.6	0.5	2.1	173.17	-5,061.6	606.3	5,151.1	5,148.4	2.63	1,957.996		
300.0	300.0	1,022.3	1,018.9	0.5	2.2	173.17	-5,061.2	606.0	5,150.4	5,147.7	2.65	1,942.772		
393.7	393.7	1,089.5	1,085.2	0.8	2.4	173.25	-5,052.6	598.3	5,137.2	5,134.2	3.05	1,683.653		
400.0	400.0	1,094.0	1,089.6	0.8	2.4	173.25	-5,052.1	597.7	5,136.3	5,133.3	3.08	1,668.715		
492.1	492.1	1,116.0	1,111.2	1.0	2.5	173.28	-5,049.4	594.8	5,124.1	5,120.8	3.35	1,531.251		
500.0	500.0	1,116.0	1,111.2	1.0	2.5	173.28	-5,049.4	594.8	5,123.2	5,119.8	3.36	1,522.905		
590.5	590.5	1,191.7	1,185.6	1.2	2.7	173.39	-5,041.0	583.8	5,111.7	5,107.9	3.76	1,359.224		
600.0	600.0	1,196.2	1,190.0	1.2	2.7	173.40	-5,040.6	583.1	5,110.5	5,106.7	3.79	1,347.271		
689.0	689.0	1,244.0	1,237.0	1.4	2.9	173.48	-5,036.0	575.1	5,100.3	5,096.2	4.11	1,239.941		
700.0	700.0	1,244.0	1,237.0	1.4	2.9	173.48	-5,036.0	575.1	5,099.1	5,095.0	4.14	1,232.223		
787.4	787.4	1,281.9	1,274.2	1.6	3.0	173.56	-5,032.9	568.5	5,090.0	5,085.6	4.42	1,151.934		
800.0	800.0	1,287.5	1,279.6	1.7	3.0	173.57	-5,032.5	567.5	5,088.8	5,084.3	4.46	1,141.174		
885.8	885.8	1,325.2	1,316.7	1.9	3.2	173.64	-5,029.7	560.7	5,080.8	5,076.1	4.74	1,072.962		
900.0	900.0	1,331.5	1,322.8	1.9	3.2	173.65	-5,029.3	559.5	5,079.6	5,074.8	4.78	1,062.483		
984.2	984.2	1,373.0	1,363.5	2.1	3.3	173.74	-5,026.8	551.8	5,072.6	5,067.6	5.06	1,002.355		
1,000.0	1,000.0	1,373.0	1,363.5	2.1	3.3	173.74	-5,026.8	551.8	5,071.4	5,066.3	5.10	995.154		
1,082.7	1,082.7	1,416.0	1,405.7	2.3	3.5	103.86	-5,024.6	543.6	5,065.8	5,060.4	5.38	941.710		
1,100.0	1,100.0	1,424.4	1,413.9	2.3	3.5	103.90	-5,024.3	542.0	5,064.8	5,059.3	5.45	929.915		
1,181.1	1,181.0	1,463.5	1,452.2	2.5	3.7	104.09	-5,022.7	534.2	5,060.7	5,055.0	5.76	878.913		
1,200.0	1,199.8	1,501.0	1,488.9	2.6	3.8	104.21	-5,021.6	526.6	5,060.1	5,054.2	5.93	853.231		
1,279.5	1,279.1	1,501.0	1,488.9	2.7	3.8	104.26	-5,021.6	526.6	5,057.5	5,051.4	6.11	827.656		
1,300.0	1,299.5	1,501.0	1,488.9	2.8	3.8	104.27	-5,021.6	526.6	5,057.2	5,051.0	6.16	821.383		
1,377.9	1,376.9	1,555.4	1,542.1	3.0	4.0	104.48	-5,020.4	515.3	5,056.2	5,049.7	6.56	770.913		
1,395.4	1,394.1	1,563.4	1,549.9	3.0	4.0	104.51	-5,020.3	513.6	5,056.2	5,049.6	6.63	762.364		
1,400.0	1,398.7	1,565.5	1,552.0	3.0	4.0	104.52	-5,020.3	513.2	5,056.2	5,049.5	6.65	760.116		
1,476.4	1,474.2	1,629.0	1,614.0	3.2	4.3	104.76	-5,019.9	499.8	5,057.0	5,049.9	7.11	711.565		
1,500.0	1,497.5	1,629.0	1,614.0	3.3	4.3	104.76	-5,019.9	499.8	5,057.4	5,050.2	7.17	705.249		
1,574.8	1,571.0	1,629.0	1,614.0	3.5	4.3	104.72	-5,019.9	499.8	5,059.5	5,052.1	7.40	683.616		
1,600.1	1,595.7	1,629.0	1,614.0	3.6	4.3	104.69	-5,019.9	499.8	5,060.6	5,053.1	7.48	676.665		
1,673.2	1,667.2	1,681.9	1,665.7	3.9	4.4	104.93	-5,020.2	488.8	5,063.9	5,055.9	7.93	638.490		
1,700.0	1,693.4	1,692.6	1,676.2	4.0	4.5	104.98	-5,020.4	486.6	5,065.3	5,057.2	8.06	628.151		
1,771.6	1,763.5	1,721.4	1,704.4	4.2	4.6	105.11	-5,021.0	480.9	5,069.5	5,061.1	8.43	601.145		
1,800.0	1,791.3	1,758.0	1,740.4	4.3	4.7	105.27	-5,022.0	473.8	5,071.5	5,062.8	8.68	584.606		
1,870.1	1,859.8	1,771.5	1,753.6	4.6	4.7	105.33	-5,022.4	471.2	5,076.4	5,067.4	8.99	564.639		
1,900.0	1,889.1	1,825.1	1,806.2	4.7	4.9	105.57	-5,023.9	460.8	5,078.5	5,069.2	9.31	545.691		
1,968.5	1,956.1	1,908.7	1,888.0	5.0	5.2	105.94	-5,025.8	443.9	5,083.1	5,073.2	9.89	514.001		
2,000.0	1,986.9	1,929.5	1,908.4	5.1	5.3	106.03	-5,026.3	439.7	5,085.3	5,075.2	10.09	503.950		
2,066.9	2,052.3	1,973.8	1,951.8	5.4	5.4	106.23	-5,027.4	430.9	5,090.2	5,079.7	10.53	483.615		
2,100.0	2,084.7	1,995.8	1,973.4	5.5	5.5	106.32	-5,028.0	426.7	5,092.7	5,082.0	10.74	474.177		
2,165.3	2,148.6	2,043.9	2,020.5	5.8	5.7	106.53	-5,029.4	417.5	5,098.0	5,086.8	11.18	455.936		
2,200.0	2,182.5	2,071.3	2,047.4	5.9	5.8	106.65	-5,030.2	412.4	5,100.9	5,089.5	11.42	446.647		
2,263.8	2,244.9	2,121.8	2,097.1	6.2	5.9	106.86	-5,031.8	403.1	5,106.3	5,094.5	11.86	430.412		
2,300.0	2,280.3	2,171.4	2,145.8	6.3	6.1	107.07	-5,033.4	394.1	5,109.5	5,097.3	12.19	418.996		
2,362.2	2,341.2	2,296.4	2,268.5	6.6	6.6	107.61	-5,036.1	370.2	5,114.3	5,101.4	12.92	395.770		
2,400.0	2,378.1	2,330.0	2,301.5	6.8	6.7	107.76	-5,036.7	363.7	5,117.2	5,104.0	13.21	387.420		
2,460.6	2,437.4	2,383.8	2,354.3	7.0	6.9	107.99	-5,037.6	353.2	5,121.9	5,108.2	13.67	374.709		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 289-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) +E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,476.0	2,400.0	2,370.1	7.2	7.0	108.06	-5,037.9	350.1	5,125.0	5,111.1	13.90	368.834		
2,559.0	2,533.7	2,453.2	2,422.3	7.4	7.2	108.29	-5,038.9	339.8	5,129.9	5,115.5	14.35	357.374		
2,600.0	2,573.8	2,480.4	2,449.0	7.6	7.3	108.40	-5,039.5	334.5	5,133.4	5,118.8	14.63	350.794		
2,657.5	2,630.0	2,528.0	2,495.7	7.9	7.4	108.61	-5,040.7	325.3	5,138.6	5,123.6	15.06	341.107		
2,700.0	2,671.6	2,564.9	2,531.8	8.1	7.6	108.77	-5,041.7	318.1	5,142.6	5,127.2	15.39	334.165		
2,755.9	2,726.3	2,638.1	2,603.6	8.3	7.9	109.08	-5,043.3	303.9	5,147.6	5,131.7	15.91	323.460		
2,800.0	2,769.4	2,679.8	2,644.5	8.5	8.0	109.26	-5,044.2	295.7	5,151.6	5,135.3	16.27	316.639		
2,854.3	2,822.5	2,721.2	2,685.0	8.7	8.2	109.44	-5,045.0	287.2	5,156.6	5,140.0	16.67	309.296		
2,900.0	2,867.2	2,755.7	2,718.7	8.9	8.4	109.60	-5,045.8	279.9	5,161.0	5,144.0	17.01	303.425		
2,952.7	2,918.8	2,804.0	2,765.8	9.2	8.6	109.82	-5,047.0	269.1	5,166.2	5,148.7	17.44	296.173		
3,000.0	2,965.0	2,869.1	2,829.1	9.4	8.9	110.12	-5,048.3	254.0	5,170.8	5,152.8	17.94	288.145		
3,051.2	3,015.1	2,913.0	2,871.7	9.6	9.1	110.33	-5,049.1	243.4	5,175.7	5,157.3	18.37	281.805		
3,100.0	3,062.8	2,913.0	2,871.7	9.8	9.1	110.33	-5,049.1	243.4	5,180.7	5,162.1	18.57	278.918		
3,149.6	3,111.4	2,962.8	2,919.9	10.0	9.3	110.57	-5,050.1	231.2	5,185.7	5,166.7	19.03	272.533		
3,200.0	3,160.7	2,984.1	2,940.6	10.3	9.4	110.67	-5,050.7	225.9	5,191.3	5,172.0	19.35	268.336		
3,248.0	3,207.6	3,004.3	2,960.2	10.5	9.5	110.77	-5,051.4	220.8	5,197.0	5,177.3	19.65	264.477		
3,300.0	3,258.5	3,042.0	2,996.6	10.7	9.7	110.95	-5,052.8	211.4	5,203.4	5,183.3	20.05	259.467		
3,346.4	3,303.9	3,110.3	3,062.7	10.9	10.0	111.27	-5,055.4	194.5	5,209.3	5,188.7	20.57	253.271		
3,400.0	3,356.3	3,199.7	3,149.5	11.2	10.4	111.69	-5,057.7	173.0	5,215.4	5,194.2	21.20	245.981		
3,444.9	3,400.2	3,228.8	3,177.8	11.4	10.5	111.82	-5,058.4	166.2	5,220.6	5,199.1	21.52	242.571		
3,500.0	3,454.1	3,264.6	3,212.5	11.6	10.7	111.99	-5,059.4	157.8	5,227.2	5,205.3	21.91	238.531		
3,543.3	3,496.5	3,299.0	3,246.0	11.8	10.9	112.14	-5,060.5	149.8	5,232.6	5,210.4	22.25	235.173		
3,600.0	3,551.9	3,299.0	3,246.0	12.0	10.9	112.14	-5,060.5	149.8	5,240.0	5,217.5	22.49	232.963		
3,641.7	3,592.7	3,346.4	3,292.0	12.2	11.1	112.36	-5,062.2	138.9	5,245.5	5,222.6	22.88	229.239		
3,700.0	3,649.7	3,377.5	3,322.3	12.5	11.2	112.50	-5,063.4	131.8	5,253.5	5,230.2	23.27	225.767		
3,740.1	3,689.0	3,398.9	3,343.1	12.7	11.3	112.60	-5,064.4	126.9	5,259.2	5,235.7	23.54	223.450		
3,800.0	3,747.5	3,439.9	3,383.1	12.9	11.5	112.78	-5,066.3	117.6	5,268.0	5,244.0	23.97	219.736		
3,838.6	3,785.3	3,509.0	3,450.2	13.1	11.8	113.09	-5,069.4	101.7	5,273.7	5,249.2	24.44	215.737		
3,900.0	3,845.4	3,606.4	3,544.8	13.4	12.3	113.53	-5,073.0	78.7	5,282.3	5,257.2	25.13	210.188		
3,937.0	3,881.5	3,659.9	3,596.8	13.6	12.5	113.77	-5,074.6	66.3	5,287.4	5,261.9	25.52	207.193		
4,000.0	3,943.2	3,728.5	3,663.4	13.8	12.8	114.08	-5,076.5	50.3	5,296.0	5,269.9	26.09	202.999		
4,035.4	3,977.8	3,762.2	3,696.2	14.0	13.0	114.23	-5,077.4	42.3	5,300.8	5,274.4	26.39	200.870		
4,100.0	4,041.0	3,812.0	3,744.5	14.3	13.2	114.46	-5,078.7	30.1	5,309.7	5,282.8	26.88	197.503		
4,133.8	4,074.1	3,812.0	3,744.5	14.4	13.2	114.46	-5,078.7	30.1	5,314.6	5,287.6	27.03	196.627		
4,200.0	4,138.8	3,857.0	3,788.1	14.7	13.4	114.67	-5,080.0	18.9	5,324.3	5,296.8	27.53	193.434		
4,232.3	4,170.4	3,870.0	3,800.6	14.9	13.5	114.73	-5,080.5	15.7	5,329.2	5,301.5	27.72	192.224		
4,300.0	4,236.6	3,897.0	3,826.7	15.2	13.6	114.85	-5,081.6	8.8	5,340.0	5,311.9	28.14	189.759		
4,330.7	4,266.6	3,941.0	3,869.2	15.3	13.9	115.06	-5,083.7	-2.4	5,345.3	5,316.8	28.48	187.689		
4,400.0	4,334.4	3,941.0	3,869.2	15.6	13.9	115.06	-5,083.7	-2.4	5,356.9	5,328.1	28.78	186.164		
4,429.1	4,362.9	3,956.6	3,884.2	15.8	13.9	115.13	-5,084.6	-6.4	5,362.0	5,333.1	28.97	185.093		
4,500.0	4,432.2	4,016.7	3,942.3	16.1	14.2	115.40	-5,087.9	-21.4	5,374.6	5,345.1	29.54	181.939		
4,527.5	4,459.2	4,040.2	3,965.1	16.2	14.4	115.51	-5,089.2	-27.1	5,379.6	5,349.8	29.76	180.744		
4,600.0	4,530.1	4,173.9	4,095.4	16.5	14.9	116.07	-5,096.6	-56.0	5,392.5	5,361.9	30.59	176.303		
4,626.0	4,555.5	4,253.9	4,174.2	16.7	15.2	116.36	-5,100.6	-69.3	5,396.9	5,365.9	30.95	174.394		
4,700.0	4,627.9	4,786.7	4,704.0	17.0	16.5	117.94	-5,106.1	-121.0	5,405.3	5,372.9	32.44	166.613		
4,724.4	4,651.7	4,801.4	4,718.6	17.1	16.6	117.97	-5,105.8	-121.1	5,407.3	5,374.8	32.56	166.051		
4,800.0	4,725.7	4,839.0	4,756.2	17.4	16.6	118.05	-5,105.3	-121.1	5,413.8	5,380.9	32.93	164.393		
4,822.8	4,748.0	4,864.4	4,781.6	17.6	16.7	118.09	-5,105.1	-120.9	5,415.9	5,382.8	33.05	163.862		
4,900.0	4,823.5	4,918.9	4,836.2	17.9	16.7	118.19	-5,104.7	-120.3	5,423.0	5,389.5	33.43	162.240		
4,921.2	4,844.3	4,933.9	4,851.2	18.0	16.7	118.22	-5,104.7	-120.2	5,425.0	5,391.5	33.53	161.802		
5,000.0	4,921.3	4,998.5	4,915.7	18.4	16.8	118.34	-5,104.6	-119.5	5,432.6	5,398.7	33.92	160.162		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 289-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,014.9	4,935.9	5,013.4	4,930.6	18.4	16.8	118.37	-5,104.6	-119.4	5,434.1	5,400.1	34.00	159.843		
5,019.7	4,940.6	5,018.1	4,935.3	18.4	16.8	118.39	-5,104.6	-119.3	5,434.6	5,400.5	34.02	159.755		
5,100.0	5,019.4	5,098.9	5,016.1	18.7	16.9	118.65	-5,104.5	-118.7	5,441.8	5,407.5	34.38	158.267		
5,118.1	5,037.2	5,120.4	5,037.7	18.8	16.9	118.71	-5,104.4	-118.5	5,443.3	5,408.9	34.45	157.988		
5,200.0	5,118.1	5,218.4	5,135.6	19.0	17.0	118.95	-5,104.1	-117.2	5,449.2	5,414.5	34.77	156.705		
5,216.5	5,134.4	5,236.1	5,153.3	19.1	17.1	118.98	-5,104.1	-116.9	5,450.3	5,415.4	34.83	156.475		
5,300.0	5,217.2	5,320.1	5,237.3	19.3	17.2	119.15	-5,103.7	-115.7	5,454.7	5,419.6	35.12	155.327		
5,314.9	5,232.1	5,335.2	5,252.4	19.3	17.2	119.17	-5,103.6	-115.6	5,455.4	5,420.3	35.16	155.142		
5,400.0	5,316.8	5,406.6	5,323.7	19.5	17.3	119.28	-5,103.2	-115.3	5,458.6	5,423.2	35.42	154.108		
5,413.4	5,330.1	5,417.2	5,334.4	19.5	17.3	119.30	-5,103.1	-115.2	5,459.1	5,423.6	35.46	153.965		
5,500.0	5,416.6	5,486.9	5,404.1	19.7	17.4	119.37	-5,103.0	-115.3	5,461.2	5,425.5	35.69	153.026		
5,511.8	5,428.4	5,497.7	5,414.9	19.7	17.4	119.38	-5,102.9	-115.3	5,461.4	5,425.7	35.72	152.903		
5,600.0	5,516.6	5,578.1	5,495.3	19.8	17.5	119.41	-5,102.9	-115.7	5,462.3	5,426.3	35.94	151.975		
5,610.2	5,526.8	5,587.4	5,504.6	19.8	17.5	119.42	-5,102.9	-115.7	5,462.3	5,426.3	35.97	151.873		
5,615.0	5,531.6	5,591.8	5,508.9	19.8	17.5	-170.51	-5,102.9	-115.7	5,462.3	5,426.3	36.00	151.729		
5,700.0	5,616.6	5,650.8	5,568.0	19.9	17.6	-170.50	-5,103.0	-116.1	5,462.5	5,426.3	36.20	150.914		
5,708.6	5,625.3	5,656.2	5,573.4	20.0	17.6	-170.50	-5,103.0	-116.1	5,462.6	5,426.4	36.22	150.831		
5,800.0	5,716.6	5,713.5	5,630.7	20.1	17.7	-170.50	-5,103.4	-116.7	5,463.4	5,427.0	36.43	149.963		
5,807.1	5,723.7	5,901.8	5,818.9	20.1	18.0	-170.49	-5,102.5	-117.4	5,463.4	5,426.7	36.71	148.827		
5,900.0	5,816.6	5,995.0	5,912.1	20.2	18.1	-170.49	-5,100.6	-117.0	5,461.5	5,424.5	36.97	147.717		
5,905.5	5,822.1	5,995.0	5,912.1	20.2	18.1	-170.49	-5,100.6	-117.0	5,461.4	5,424.4	36.98	147.682		
6,000.0	5,916.6	6,074.2	5,991.4	20.4	18.2	-170.49	-5,099.2	-116.4	5,459.6	5,422.4	37.22	146.668		
6,003.9	5,920.5	6,077.3	5,994.5	20.4	18.2	-170.49	-5,099.1	-116.4	5,459.5	5,422.3	37.23	146.627		
6,100.0	6,016.6	6,172.2	6,089.3	20.5	18.3	-170.50	-5,097.8	-115.1	5,458.0	5,420.5	37.50	145.540		
6,102.3	6,019.0	6,175.2	6,092.3	20.5	18.3	-170.50	-5,097.8	-115.1	5,458.0	5,420.5	37.51	145.510		
6,200.0	6,116.6	6,281.6	6,198.7	20.6	18.5	-170.51	-5,096.0	-114.0	5,456.1	5,418.3	37.80	144.361		
6,200.8	6,117.4	6,282.2	6,199.3	20.6	18.5	-170.51	-5,096.0	-114.0	5,456.1	5,418.3	37.80	144.353		
6,299.2	6,215.8	6,359.0	6,276.1	20.8	18.6	-170.52	-5,094.8	-113.1	5,454.5	5,416.5	38.05	143.357		
6,300.0	6,216.6	6,359.7	6,276.7	20.8	18.6	-170.52	-5,094.8	-113.1	5,454.5	5,416.4	38.05	143.349		
6,340.0	6,256.6	6,393.7	6,310.8	20.8	18.6	-170.52	-5,094.4	-112.6	5,453.9	5,415.8	38.16	142.937		
6,350.0	6,266.6	6,403.6	6,320.7	20.8	18.6	9.27	-5,094.3	-112.5	5,453.7	5,415.6	38.15	142.956		
6,397.6	6,314.2	6,450.5	6,367.6	20.9	18.7	9.30	-5,093.8	-111.8	5,450.9	5,412.8	38.12	142.981		
6,400.0	6,316.5	6,452.8	6,369.9	20.9	18.7	9.31	-5,093.8	-111.8	5,450.7	5,412.6	38.12	142.995		
6,450.0	6,366.2	6,501.7	6,418.8	20.9	18.7	9.39	-5,093.3	-111.0	5,444.2	5,406.3	37.92	143.566		
6,496.0	6,411.4	6,578.8	6,495.8	21.0	18.8	9.53	-5,092.3	-109.7	5,435.1	5,397.5	37.64	144.412		
6,500.0	6,415.3	6,585.9	6,502.9	21.0	18.8	9.54	-5,092.1	-109.5	5,434.2	5,396.6	37.61	144.504		
6,550.0	6,463.6	6,653.4	6,570.4	21.0	18.9	9.75	-5,090.9	-108.2	5,420.5	5,383.4	37.11	146.059		
6,594.5	6,505.8	6,687.0	6,604.0	21.0	19.0	9.98	-5,090.2	-107.5	5,405.6	5,369.0	36.51	148.047		
6,600.0	6,510.9	6,691.1	6,608.1	21.0	19.0	10.02	-5,090.1	-107.4	5,403.5	5,367.1	36.43	148.328		
6,650.0	6,557.0	6,727.9	6,644.8	21.0	19.0	10.35	-5,089.5	-106.8	5,383.5	5,347.9	35.60	151.211		
6,692.9	6,595.4	6,765.0	6,682.0	21.0	19.1	10.70	-5,088.8	-106.3	5,363.8	5,329.1	34.79	154.165		
6,700.0	6,601.6	6,765.0	6,682.0	21.0	19.1	10.76	-5,088.8	-106.3	5,360.4	5,325.7	34.64	154.738		
6,750.0	6,644.6	6,796.4	6,713.4	20.9	19.1	11.26	-5,088.4	-105.8	5,334.4	5,300.8	33.55	158.986		
6,791.3	6,678.6	6,822.6	6,739.6	20.9	19.1	11.76	-5,088.0	-105.4	5,310.8	5,278.2	32.57	163.046		
6,800.0	6,685.6	6,828.0	6,744.9	20.9	19.1	11.87	-5,088.0	-105.3	5,305.6	5,273.3	32.36	163.969		
6,850.0	6,724.6	6,858.0	6,774.9	20.9	19.2	12.60	-5,087.6	-104.8	5,274.2	5,243.1	31.07	169.733		
6,889.7	6,753.9	6,880.5	6,797.5	20.9	19.2	13.30	-5,087.4	-104.3	5,247.4	5,217.4	30.01	174.876		
6,900.0	6,761.3	6,886.1	6,803.1	20.9	19.2	13.50	-5,087.4	-104.2	5,240.2	5,210.5	29.72	176.296		
6,950.0	6,795.5	6,917.8	6,834.8	20.9	19.3	14.60	-5,087.1	-103.5	5,203.9	5,175.6	28.35	183.571		
6,988.2	6,819.9	6,942.1	6,859.0	20.9	19.3	15.63	-5,086.9	-103.0	5,174.7	5,147.4	27.31	189.500		
7,000.0	6,827.1	6,949.3	6,866.2	20.9	19.3	15.98	-5,086.9	-102.9	5,165.4	5,138.4	26.98	191.429		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 289-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)	
7,050.0	6,855.9	6,977.9	6,894.8	20.9	19.3	17.71	-5,086.7	-102.3	5,124.8	5,099.1	25.68	199.547		
7,086.6	6,875.1	6,997.0	6,913.9	20.9	19.4	19.28	-5,086.5	-102.0	5,093.9	5,069.1	24.80	205.382		
7,100.0	6,881.8	7,003.6	6,920.5	20.9	19.4	19.93	-5,086.4	-101.9	5,082.4	5,057.8	24.52	207.235		
7,150.0	6,904.6	7,022.0	6,938.9	21.0	19.4	22.78	-5,086.3	-101.6	5,038.3	5,014.7	23.62	213.342		
7,185.0	6,918.8	7,038.7	6,955.6	21.1	19.4	25.38	-5,086.2	-101.3	5,006.6	4,983.4	23.24	215.461		
7,200.0	6,924.3	7,043.7	6,960.6	21.1	19.4	26.65	-5,086.1	-101.2	4,992.8	4,969.7	23.15	215.638		
7,250.0	6,940.8	7,058.6	6,975.5	21.2	19.5	31.96	-5,086.0	-100.9	4,946.2	4,922.8	23.36	211.743		
7,283.4	6,949.9	7,066.9	6,983.8	21.3	19.5	36.70	-5,085.9	-100.8	4,914.4	4,890.4	24.04	204.436		
7,300.0	6,953.9	7,070.5	6,987.4	21.4	19.5	39.52	-5,085.9	-100.7	4,898.6	4,874.0	24.57	199.366		
7,350.0	6,963.6	7,079.2	6,996.1	21.6	19.5	50.56	-5,085.8	-100.6	4,850.2	4,823.1	27.07	179.175		
7,381.9	6,968.0	7,083.0	6,999.9	21.7	19.5	60.06	-5,085.8	-100.5	4,819.1	4,789.8	29.25	164.743		
7,400.0	6,969.9	7,084.6	7,001.5	21.8	19.5	66.42	-5,085.8	-100.5	4,801.3	4,770.8	30.54	157.196		
7,450.0	6,972.6	7,086.9	7,003.8	22.1	19.5	86.82	-5,085.8	-100.4	4,752.2	4,719.0	33.19	143.176		
7,471.5	6,972.8	7,086.9	7,003.8	22.2	19.5	96.04	-5,085.8	-100.4	4,731.1	4,697.6	33.49	141.279		
7,480.3	6,972.7	7,086.7	7,003.6	22.3	19.5	96.04	-5,085.8	-100.4	4,722.4	4,688.9	33.57	140.657		
7,500.0	6,972.5	7,086.4	7,003.3	22.4	19.5	96.02	-5,085.8	-100.4	4,703.1	4,669.3	33.77	139.279		
7,578.7	6,971.8	7,085.2	7,002.1	23.1	19.5	95.94	-5,085.8	-100.5	4,625.7	4,591.2	34.56	133.833		
7,600.0	6,971.6	7,084.9	7,001.8	23.3	19.5	95.92	-5,085.8	-100.5	4,604.9	4,570.1	34.78	132.405		
7,677.1	6,970.9	7,083.7	7,000.6	24.0	19.5	95.84	-5,085.8	-100.5	4,529.1	4,493.5	35.62	127.158		
7,700.0	6,970.7	7,083.4	7,000.3	24.2	19.5	95.81	-5,085.8	-100.5	4,506.7	4,470.8	35.87	125.652		
7,775.6	6,970.0	7,082.2	6,999.1	25.0	19.5	95.74	-5,085.8	-100.5	4,432.6	4,395.8	36.78	120.520		
7,800.0	6,969.8	7,081.8	6,998.7	25.3	19.5	95.71	-5,085.8	-100.5	4,408.6	4,371.5	37.07	118.915		
7,874.0	6,969.1	7,080.7	6,997.6	26.2	19.5	95.64	-5,085.8	-100.5	4,336.1	4,298.1	38.04	113.984		
7,900.0	6,968.9	7,080.3	6,997.2	26.5	19.5	95.61	-5,085.8	-100.5	4,310.6	4,272.3	38.38	112.311		
7,972.4	6,968.2	7,079.1	6,996.0	27.4	19.5	95.54	-5,085.8	-100.6	4,239.7	4,200.3	39.39	107.635		
8,000.0	6,968.0	7,078.7	6,995.6	27.8	19.5	95.51	-5,085.8	-100.6	4,212.7	4,173.0	39.77	105.918		
8,070.8	6,967.3	7,077.6	6,994.5	28.7	19.5	95.44	-5,085.9	-100.6	4,143.4	4,102.6	40.81	101.528		
8,100.0	6,967.1	7,077.1	6,994.1	29.1	19.5	95.41	-5,085.9	-100.6	4,115.0	4,073.7	41.24	99.786		
8,169.3	6,966.4	7,076.1	6,993.0	30.1	19.5	95.34	-5,085.9	-100.6	4,047.3	4,005.0	42.29	95.694		
8,200.0	6,966.2	7,075.6	6,992.5	30.5	19.5	95.31	-5,085.9	-100.6	4,017.3	3,974.5	42.76	93.944		
8,267.7	6,965.5	7,074.5	6,991.4	31.5	19.5	95.24	-5,085.9	-100.6	3,951.2	3,907.4	43.83	90.150		
8,300.0	6,965.2	7,074.0	6,990.9	32.0	19.5	95.20	-5,085.9	-100.6	3,919.7	3,875.4	44.34	88.405		
8,366.1	6,964.6	7,073.0	6,989.9	33.0	19.5	95.13	-5,085.9	-100.7	3,855.3	3,809.8	45.41	84.902		
8,400.0	6,964.3	7,072.4	6,989.3	33.5	19.5	95.10	-5,085.9	-100.7	3,822.3	3,776.3	45.96	83.170		
8,464.5	6,963.8	7,071.4	6,988.3	34.5	19.5	95.03	-5,085.9	-100.7	3,759.4	3,712.4	47.03	79.944		
8,500.0	6,963.4	7,070.9	6,987.8	35.1	19.5	95.00	-5,085.9	-100.7	3,725.0	3,677.3	47.61	78.234		
8,563.0	6,962.9	7,069.9	6,986.8	36.1	19.5	94.93	-5,085.9	-100.7	3,663.7	3,615.1	48.68	75.268		
8,600.0	6,962.5	7,069.3	6,986.2	36.7	19.5	94.89	-5,085.9	-100.7	3,627.8	3,578.5	49.30	73.585		
8,661.4	6,962.0	7,068.3	6,985.2	37.7	19.5	94.83	-5,085.9	-100.7	3,568.2	3,517.9	50.35	70.863		
8,700.0	6,961.6	7,067.7	6,984.6	38.3	19.5	94.79	-5,085.9	-100.8	3,530.8	3,479.8	51.02	69.210		
8,759.8	6,961.1	7,066.7	6,983.6	39.3	19.5	94.73	-5,085.9	-100.8	3,472.8	3,420.8	52.06	66.713		
8,800.0	6,960.7	7,066.1	6,983.0	40.0	19.5	94.68	-5,085.9	-100.8	3,434.0	3,381.2	52.75	65.093		
8,858.2	6,960.2	7,065.2	6,982.1	40.9	19.5	94.62	-5,085.9	-100.8	3,377.6	3,323.9	53.78	62.805		
8,900.0	6,959.8	7,064.5	6,981.4	41.6	19.5	94.58	-5,086.0	-100.8	3,337.3	3,282.8	54.51	61.219		
8,956.7	6,959.3	7,063.6	6,980.5	42.6	19.5	94.52	-5,086.0	-100.8	3,282.6	3,227.1	55.52	59.124		
9,000.0	6,958.9	7,062.9	6,979.8	43.3	19.5	94.47	-5,086.0	-100.8	3,240.9	3,184.6	56.29	57.573		
9,055.1	6,958.4	7,062.0	6,978.9	44.3	19.5	94.41	-5,086.0	-100.9	3,187.8	3,130.5	57.28	55.654		
9,100.0	6,958.0	7,061.3	6,978.2	45.1	19.5	94.37	-5,086.0	-100.9	3,144.6	3,086.6	58.08	54.139		
9,153.5	6,957.5	7,060.4	6,977.3	46.0	19.5	94.31	-5,086.0	-100.9	3,093.2	3,034.2	59.05	52.382		
9,200.0	6,957.1	7,059.7	6,976.6	46.8	19.5	94.26	-5,086.0	-100.9	3,048.7	2,988.8	59.89	50.903		
9,251.9	6,956.6	7,058.8	6,975.7	47.7	19.5	94.21	-5,086.0	-100.9	2,998.9	2,938.1	60.84	49.294		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error:		0.0 usft
Survey Program: 289-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
9,300.0	6,956.2	7,058.0	6,974.9	48.6	19.5	94.15	-5,086.0	-100.9	2,952.9	2,891.2	61.71	47.851			
9,350.4	6,955.7	7,057.2	6,974.1	49.5	19.4	94.10	-5,086.0	-100.9	2,904.8	2,842.2	62.63	46.379			
9,400.0	6,955.2	7,056.4	6,973.3	50.3	19.4	94.05	-5,086.0	-101.0	2,857.5	2,794.0	63.54	44.971			
9,448.8	6,954.8	7,055.6	6,972.5	51.2	19.4	93.99	-5,086.0	-101.0	2,811.1	2,746.6	64.44	43.623			
9,500.0	6,954.3	7,054.8	6,971.7	52.1	19.4	93.94	-5,086.0	-101.0	2,762.4	2,697.0	65.38	42.251			
9,547.2	6,953.9	7,054.0	6,970.9	53.0	19.4	93.89	-5,086.0	-101.0	2,717.6	2,651.4	66.26	41.018			
9,600.0	6,953.4	7,053.1	6,970.0	53.9	19.4	93.83	-5,086.0	-101.0	2,667.7	2,600.5	67.23	39.679			
9,645.6	6,953.0	7,052.4	6,969.3	54.7	19.4	93.78	-5,086.0	-101.0	2,624.6	2,556.5	68.08	38.552			
9,700.0	6,952.5	7,051.5	6,968.4	55.7	19.4	93.72	-5,086.1	-101.0	2,573.3	2,504.3	69.09	37.247			
9,744.1	6,952.1	7,050.8	6,967.7	56.5	19.4	93.68	-5,086.1	-101.1	2,531.9	2,462.0	69.91	36.217			
9,800.0	6,951.6	7,049.8	6,966.8	57.5	19.4	93.62	-5,086.1	-101.1	2,479.4	2,408.5	70.95	34.945			
9,842.5	6,951.2	7,049.1	6,966.1	58.3	19.4	93.57	-5,086.1	-101.1	2,439.7	2,367.9	71.75	34.004			
9,900.0	6,950.7	7,048.2	6,965.1	59.4	19.4	93.51	-5,086.1	-101.1	2,386.0	2,313.2	72.82	32.765			
9,940.9	6,950.3	7,047.5	6,964.4	60.1	19.4	93.46	-5,086.1	-101.1	2,348.0	2,274.4	73.59	31.906			
10,000.0	6,949.8	7,046.5	6,963.4	61.2	19.4	93.40	-5,086.1	-101.1	2,293.2	2,218.5	74.70	30.699			
10,039.3	6,949.4	7,045.9	6,962.8	61.9	19.4	93.35	-5,086.1	-101.1	2,256.8	2,181.4	75.44	29.915			
10,100.0	6,948.9	7,044.9	6,961.8	63.0	19.4	93.29	-5,086.1	-101.2	2,201.0	2,124.4	76.58	28.740			
10,137.8	6,948.5	7,044.2	6,961.1	63.7	19.4	93.25	-5,086.1	-101.2	2,166.3	2,089.0	77.29	28.027			
10,200.0	6,948.0	7,043.2	6,960.1	64.9	19.4	93.18	-5,086.1	-101.2	2,109.4	2,031.0	78.47	26.883			
10,236.2	6,947.6	7,042.6	6,959.5	65.6	19.4	93.14	-5,086.1	-101.2	2,076.5	1,997.3	79.15	26.234			
10,300.0	6,947.1	7,041.5	6,958.4	66.7	19.4	93.07	-5,086.1	-101.2	2,018.7	1,938.4	80.36	25.121			
10,334.6	6,946.7	7,040.9	6,957.8	67.4	19.4	93.03	-5,086.1	-101.2	1,987.5	1,906.5	81.02	24.533			
10,400.0	6,946.2	7,039.8	6,956.7	68.6	19.4	92.96	-5,086.1	-101.2	1,928.9	1,846.7	82.25	23.451			
10,433.0	6,945.8	7,039.3	6,956.2	69.2	19.4	92.92	-5,086.2	-101.3	1,899.5	1,816.6	82.88	22.918			
10,500.0	6,945.2	7,038.1	6,955.1	70.5	19.4	92.84	-5,086.2	-101.3	1,840.2	1,756.0	84.15	21.867			
10,531.5	6,945.0	7,037.6	6,954.5	71.1	19.4	92.81	-5,086.2	-101.3	1,812.5	1,727.7	84.75	21.386			
10,600.0	6,944.3	7,036.5	6,953.4	72.3	19.4	92.73	-5,086.2	-101.3	1,752.6	1,666.6	86.05	20.366			
10,629.9	6,944.1	7,035.9	6,952.9	72.9	19.4	92.70	-5,086.2	-101.3	1,726.7	1,640.1	86.62	19.933			
10,700.0	6,943.4	7,034.8	6,951.7	74.2	19.4	92.62	-5,086.2	-101.3	1,666.5	1,578.5	87.96	18.946			
10,728.3	6,943.2	7,034.3	6,951.2	74.7	19.4	92.59	-5,086.2	-101.3	1,642.4	1,553.9	88.50	18.558			
10,800.0	6,942.5	7,033.0	6,950.0	76.1	19.4	92.51	-5,086.2	-101.4	1,582.0	1,492.1	89.87	17.603			
10,826.7	6,942.3	7,032.6	6,949.5	76.6	19.4	92.48	-5,086.2	-101.4	1,559.7	1,469.3	90.38	17.257			
10,900.0	6,941.6	7,031.3	6,948.2	78.0	19.4	92.40	-5,086.2	-101.4	1,499.4	1,407.6	91.78	16.337			
10,925.2	6,941.4	7,030.9	6,947.8	78.4	19.4	92.37	-5,086.2	-101.4	1,478.9	1,386.7	92.26	16.030			
11,000.0	6,940.7	7,029.6	6,946.5	79.9	19.4	92.28	-5,086.2	-101.4	1,419.0	1,325.3	93.69	15.146			
11,023.6	6,940.5	7,029.2	6,946.1	80.3	19.4	92.26	-5,086.2	-101.4	1,400.4	1,306.3	94.14	14.875			
11,100.0	6,939.8	7,027.9	6,944.8	81.7	19.4	92.17	-5,086.2	-101.5	1,341.3	1,245.7	95.61	14.029			
11,122.0	6,939.6	7,027.5	6,944.4	82.2	19.4	92.14	-5,086.2	-101.5	1,324.6	1,228.6	96.03	13.794			
11,200.0	6,938.9	7,026.2	6,943.1	83.6	19.4	92.05	-5,086.3	-101.5	1,266.7	1,169.2	97.53	12.989			
11,220.4	6,938.7	7,025.8	6,942.7	84.0	19.4	92.03	-5,086.3	-101.5	1,251.9	1,154.0	97.92	12.785			
11,300.0	6,938.0	7,024.4	6,941.3	85.5	19.4	91.94	-5,086.3	-101.5	1,195.8	1,096.4	99.44	12.025			
11,318.9	6,937.8	7,024.1	6,941.0	85.9	19.4	91.92	-5,086.3	-101.5	1,182.9	1,083.1	99.81	11.852			
11,400.0	6,937.0	7,022.7	6,939.6	87.4	19.4	91.83	-5,086.3	-101.5	1,129.4	1,028.0	101.37	11.142			
11,417.3	6,936.9	7,022.4	6,939.3	87.8	19.4	91.81	-5,086.3	-101.5	1,118.4	1,016.7	101.70	10.997			
11,500.0	6,936.1	7,022.0	6,938.9	89.3	19.4	91.78	-5,086.3	-101.6	1,068.1	964.9	103.29	10.341			
11,515.7	6,936.0	7,022.0	6,938.9	89.6	19.4	91.78	-5,086.3	-101.6	1,059.0	955.5	103.59	10.223			
11,600.0	6,935.2	7,019.3	6,936.2	91.2	19.4	91.60	-5,086.3	-101.6	1,013.1	907.9	105.21	9.629			
11,614.1	6,935.1	7,019.0	6,935.9	91.5	19.4	91.58	-5,086.3	-101.6	1,005.9	900.4	105.48	9.536			
11,700.0	6,934.3	7,017.5	6,934.5	93.1	19.4	91.49	-5,086.3	-101.6	965.3	858.2	107.14	9.010			
11,712.6	6,934.2	7,017.3	6,934.2	93.4	19.4	91.47	-5,086.3	-101.6	959.8	852.5	107.38	8.939			
11,800.0	6,933.4	7,015.8	6,932.7	95.1	19.4	91.37	-5,086.3	-101.7	925.9	816.8	109.06	8.489			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-20D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 289-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	7,015.6	6,932.6	95.3	19.4	91.36	-5,086.3	-101.7	922.1	812.8	109.28	8.438		
11,900.0	6,932.5	7,014.1	6,931.0	97.0	19.4	91.26	-5,086.4	-101.7	895.9	784.9	110.99	8.072		
11,909.4	6,932.4	7,014.0	6,930.9	97.1	19.4	91.25	-5,086.4	-101.7	893.6	782.4	111.17	8.038		
12,000.0	6,931.6	7,012.4	6,929.3	98.9	19.4	91.15	-5,086.4	-101.7	876.4	763.5	112.92	7.761		
12,007.8	6,931.5	7,012.3	6,929.2	99.0	19.4	91.14	-5,086.4	-101.7	875.3	762.2	113.07	7.741		
12,100.0	6,930.7	7,010.7	6,927.6	100.8	19.4	91.04	-5,086.4	-101.8	868.0	753.2	114.85	7.558		
12,106.3	6,930.6	7,010.6	6,927.5	100.9	19.4	91.03	-5,086.4	-101.8	867.9	752.9	114.97	7.549		
12,123.0	6,930.5	7,010.3	6,927.2	101.2	19.4	91.01	-5,086.4	-101.8	867.7	752.4	115.29	7.526 CC, ES		
12,200.0	6,929.8	7,009.0	6,925.9	102.7	19.4	90.92	-5,086.4	-101.8	871.1	754.3	116.78	7.459		
12,204.7	6,929.7	7,008.9	6,925.9	102.8	19.4	90.92	-5,086.4	-101.8	871.6	754.7	116.87	7.457 SF		
12,300.0	6,928.8	7,007.3	6,924.2	104.6	19.4	90.81	-5,086.4	-101.8	885.6	766.9	118.71	7.460		
12,303.1	6,928.8	7,007.3	6,924.2	104.7	19.4	90.81	-5,086.4	-101.8	886.2	767.4	118.77	7.461		
12,400.0	6,927.9	7,005.6	6,922.5	106.5	19.4	90.70	-5,086.4	-101.8	910.8	790.2	120.65	7.550		
12,401.5	6,927.9	7,005.6	6,922.5	106.6	19.4	90.70	-5,086.4	-101.8	911.3	790.6	120.68	7.552		
12,500.0	6,927.0	7,003.9	6,920.8	108.5	19.4	90.59	-5,086.4	-101.9	946.1	823.5	122.58	7.718		
12,598.4	6,926.1	7,002.3	6,919.2	110.4	19.4	90.48	-5,086.5	-101.9	989.4	864.9	124.48	7.948		
12,600.0	6,926.1	7,002.2	6,919.2	110.4	19.4	90.48	-5,086.5	-101.9	990.2	865.6	124.51	7.952		
12,696.8	6,925.2	7,000.6	6,917.5	112.3	19.4	90.37	-5,086.5	-101.9	1,040.3	913.9	126.38	8.231		
12,700.0	6,925.2	7,000.5	6,917.5	112.3	19.4	90.36	-5,086.5	-101.9	1,042.0	915.6	126.45	8.241		
12,795.2	6,924.3	6,998.9	6,915.9	114.1	19.4	90.26	-5,086.5	-102.0	1,097.6	969.3	128.29	8.556		
12,800.0	6,924.3	6,998.9	6,915.8	114.2	19.4	90.25	-5,086.5	-102.0	1,100.5	972.1	128.38	8.572		
12,893.7	6,923.4	6,997.3	6,914.2	116.0	19.4	90.15	-5,086.5	-102.0	1,160.5	1,030.3	130.19	8.914		
12,900.0	6,923.4	6,997.2	6,914.1	116.2	19.4	90.14	-5,086.5	-102.0	1,164.7	1,034.4	130.31	8.938		
12,992.1	6,922.5	6,995.6	6,912.5	117.9	19.4	90.04	-5,086.5	-102.0	1,228.0	1,095.9	132.10	9.297		
13,000.0	6,922.5	6,995.5	6,912.4	118.1	19.4	90.03	-5,086.5	-102.0	1,233.6	1,101.4	132.25	9.328		
13,090.5	6,921.6	6,994.0	6,910.9	119.8	19.4	89.93	-5,086.5	-102.1	1,299.5	1,165.5	134.00	9.698		
13,100.0	6,921.5	6,993.8	6,910.7	120.0	19.4	89.92	-5,086.5	-102.1	1,306.6	1,172.4	134.19	9.737		
13,188.9	6,920.7	6,992.3	6,909.2	121.7	19.4	89.82	-5,086.5	-102.1	1,374.4	1,238.5	135.91	10.113		
13,200.0	6,920.6	6,992.1	6,909.0	121.9	19.4	89.81	-5,086.5	-102.1	1,383.0	1,246.8	136.12	10.160		
13,287.4	6,919.8	6,990.7	6,907.6	123.6	19.4	89.71	-5,086.6	-102.1	1,452.0	1,314.2	137.81	10.536		
13,300.0	6,919.7	6,990.4	6,907.4	123.9	19.4	89.70	-5,086.6	-102.1	1,462.2	1,324.1	138.06	10.591		
13,385.8	6,918.9	6,989.0	6,905.9	125.5	19.4	89.60	-5,086.6	-102.1	1,532.1	1,392.3	139.72	10.965		
13,400.0	6,918.8	6,988.8	6,905.7	125.8	19.4	89.59	-5,086.6	-102.1	1,543.8	1,403.8	139.99	11.028		
13,484.2	6,918.0	6,987.4	6,904.3	127.4	19.4	89.49	-5,086.6	-102.2	1,614.1	1,472.5	141.62	11.397		
13,500.0	6,917.9	6,987.1	6,904.0	127.7	19.4	89.48	-5,086.6	-102.2	1,627.4	1,485.5	141.93	11.467		
13,582.6	6,917.1	6,985.7	6,902.6	129.3	19.4	89.38	-5,086.6	-102.2	1,697.9	1,554.4	143.53	11.830		
13,600.0	6,917.0	6,985.4	6,902.3	129.7	19.4	89.37	-5,086.6	-102.2	1,712.9	1,569.0	143.86	11.906		
13,681.1	6,916.2	6,984.1	6,901.0	131.2	19.4	89.28	-5,086.6	-102.2	1,783.2	1,637.8	145.43	12.261		
13,700.0	6,916.1	6,983.8	6,900.7	131.6	19.4	89.26	-5,086.6	-102.2	1,799.8	1,654.0	145.80	12.344		
13,779.5	6,915.3	6,982.4	6,899.4	133.1	19.4	89.17	-5,086.6	-102.3	1,869.8	1,722.5	147.34	12.691		
13,800.0	6,915.2	6,982.1	6,899.0	133.5	19.3	89.15	-5,086.6	-102.3	1,888.0	1,740.3	147.74	12.779		
13,877.9	6,914.4	6,980.8	6,897.7	135.1	19.3	89.06	-5,086.6	-102.3	1,957.5	1,808.3	149.25	13.116		
13,900.0	6,914.2	6,980.4	6,897.3	135.5	19.3	89.04	-5,086.6	-102.3	1,977.3	1,827.7	149.67	13.211		
13,976.3	6,913.5	6,979.2	6,896.1	137.0	19.3	88.95	-5,086.6	-102.3	2,046.2	1,895.1	151.15	13.538		
14,000.0	6,913.3	6,978.8	6,895.7	137.4	19.3	88.93	-5,086.7	-102.3	2,067.6	1,916.0	151.61	13.638		
14,074.8	6,912.6	6,977.5	6,894.4	138.9	19.3	88.84	-5,086.7	-102.4	2,135.7	1,982.7	153.06	13.954		
14,100.0	6,912.4	6,977.1	6,894.0	139.4	19.3	88.82	-5,086.7	-102.4	2,158.8	2,005.3	153.54	14.060		
14,145.0	6,912.0	6,976.4	6,893.3	140.2	19.3	88.77	-5,086.7	-102.4	2,200.0	2,045.7	154.37	14.252		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 289-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.0	0.0	0.0	0.0	0.0	0.0	173.35	-5,118.5	596.8	5,153.2				
98.4	98.4	81.7	81.7	0.1	0.1	173.35	-5,118.5	596.8	5,153.2	5,153.0	0.17	N/A	
100.0	100.0	83.3	83.3	0.1	0.1	173.35	-5,118.5	596.8	5,153.2	5,153.0	0.18	N/A	
196.8	196.8	181.0	181.0	0.3	0.2	173.35	-5,118.5	596.7	5,153.2	5,152.7	0.48	N/A	
200.0	200.0	184.2	184.2	0.3	0.2	173.35	-5,118.5	596.7	5,153.1	5,152.7	0.49	N/A	
295.3	295.3	280.4	280.4	0.5	0.3	173.35	-5,118.5	596.6	5,153.1	5,152.3	0.80	6,450.064	
300.0	300.0	285.1	285.1	0.5	0.3	173.35	-5,118.5	596.6	5,153.1	5,152.3	0.81	6,330.488	
393.7	393.7	379.8	379.8	0.8	0.5	173.35	-5,118.4	596.6	5,153.0	5,151.8	1.21	4,251.843	
400.0	400.0	386.1	386.1	0.8	0.5	173.35	-5,118.4	596.6	5,153.0	5,151.8	1.24	4,158.799	
492.1	492.1	478.0	478.0	1.0	0.7	173.36	-5,118.5	595.4	5,153.0	5,151.3	1.64	3,150.660	
500.0	500.0	499.3	499.2	1.0	0.7	173.37	-5,118.5	594.9	5,153.0	5,151.3	1.70	3,029.192	
590.5	590.5	624.8	624.7	1.2	1.0	173.43	-5,117.8	589.4	5,151.9	5,149.7	2.19	2,353.076	
600.0	600.0	635.0	634.8	1.2	1.0	173.44	-5,117.8	588.9	5,151.8	5,149.6	2.23	2,305.831	
689.0	689.0	787.5	786.9	1.4	1.4	173.56	-5,116.3	577.2	5,150.1	5,147.3	2.78	1,854.078	
700.0	700.0	801.2	800.5	1.4	1.4	173.58	-5,116.2	575.9	5,149.8	5,147.0	2.83	1,817.378	
787.4	787.4	878.3	877.1	1.6	1.6	173.67	-5,115.4	567.6	5,147.9	5,144.7	3.21	1,601.484	
800.0	800.0	889.0	887.7	1.7	1.7	173.68	-5,115.3	566.3	5,147.6	5,144.4	3.27	1,574.935	
885.8	885.8	1,003.4	1,000.9	1.9	2.0	173.87	-5,114.7	549.6	5,145.9	5,142.1	3.74	1,375.470	
900.0	900.0	1,036.6	1,033.8	1.9	2.1	173.93	-5,114.4	544.3	5,145.5	5,141.6	3.86	1,334.582	
984.2	984.2	1,107.3	1,103.4	2.1	2.4	174.06	-5,113.6	532.0	5,143.0	5,138.8	4.22	1,217.453	
1,000.0	1,000.0	1,116.2	1,112.1	2.1	2.4	174.08	-5,113.5	530.4	5,142.6	5,138.3	4.28	1,200.769	
1,082.7	1,082.7	1,162.5	1,157.5	2.3	2.6	104.14	-5,113.5	521.1	5,141.1	5,136.2	4.90	1,048.938	
1,100.0	1,100.0	1,195.0	1,189.2	2.3	2.7	104.23	-5,113.7	514.2	5,141.0	5,135.9	5.06	1,015.224	
1,159.3	1,159.2	1,218.7	1,212.3	2.5	2.8	104.31	-5,113.9	508.8	5,140.7	5,135.4	5.30	969.901	
1,181.1	1,181.0	1,247.6	1,240.4	2.5	3.0	104.40	-5,114.2	502.1	5,140.7	5,135.3	5.48	938.034	
1,200.0	1,199.8	1,272.5	1,264.6	2.6	3.1	104.48	-5,114.4	496.2	5,140.8	5,135.1	5.64	912.212	
1,279.5	1,279.1	1,374.8	1,363.5	2.7	3.6	104.86	-5,115.0	469.8	5,141.0	5,134.7	6.33	812.779	
1,300.0	1,299.5	1,400.5	1,388.1	2.8	3.7	104.96	-5,115.1	462.7	5,141.1	5,134.6	6.51	789.829	
1,377.9	1,376.9	1,475.5	1,459.8	3.0	4.2	105.28	-5,115.5	440.8	5,141.9	5,134.8	7.12	722.066	
1,400.0	1,398.7	1,489.6	1,473.3	3.0	4.2	105.34	-5,115.6	436.4	5,142.3	5,135.0	7.26	708.086	
1,476.4	1,474.2	1,537.9	1,519.1	3.2	4.5	105.54	-5,116.0	421.3	5,144.3	5,136.5	7.77	662.386	
1,500.0	1,497.5	1,552.5	1,532.9	3.3	4.6	105.61	-5,116.2	416.6	5,145.1	5,137.2	7.92	649.595	
1,574.8	1,571.0	1,602.2	1,579.9	3.5	5.0	105.82	-5,117.0	400.2	5,148.3	5,139.9	8.47	607.971	
1,600.1	1,595.7	1,620.9	1,597.4	3.6	5.1	105.90	-5,117.4	393.9	5,149.7	5,141.0	8.67	593.935	
1,673.2	1,667.2	1,674.7	1,648.1	3.9	5.4	106.21	-5,118.4	375.9	5,153.8	5,144.5	9.28	555.321	
1,700.0	1,693.4	1,694.3	1,666.5	4.0	5.6	106.32	-5,118.8	369.2	5,155.4	5,145.9	9.50	542.465	
1,771.6	1,763.5	1,837.0	1,799.9	4.2	6.6	107.17	-5,120.5	318.5	5,159.2	5,148.5	10.77	479.089	
1,800.0	1,791.3	1,868.5	1,829.1	4.3	6.8	107.36	-5,120.6	306.6	5,160.6	5,149.5	11.12	464.192	
1,870.1	1,859.8	1,899.7	1,857.8	4.6	7.1	107.56	-5,120.8	294.6	5,164.6	5,152.9	11.62	444.309	
1,900.0	1,889.1	1,912.9	1,870.0	4.7	7.2	107.64	-5,121.0	289.4	5,166.4	5,154.6	11.84	436.380	
1,968.5	1,956.1	1,966.0	1,918.7	5.0	7.6	107.98	-5,122.0	268.2	5,171.3	5,158.7	12.52	413.096	
2,000.0	1,986.9	1,966.0	1,918.7	5.1	7.6	107.98	-5,122.0	268.2	5,173.5	5,160.9	12.64	409.303	
2,066.9	2,052.3	2,222.0	2,149.9	5.4	9.8	109.68	-5,121.7	158.5	5,177.4	5,162.3	15.09	343.077	
2,100.0	2,084.7	2,251.4	2,176.0	5.5	10.1	109.88	-5,121.1	145.0	5,179.0	5,163.5	15.50	334.077	
2,165.3	2,148.6	2,285.0	2,205.8	5.8	10.4	110.12	-5,120.5	129.3	5,182.5	5,166.5	16.09	322.192	
2,200.0	2,182.5	2,302.8	2,221.5	5.9	10.6	110.24	-5,120.2	121.0	5,184.6	5,168.2	16.39	316.262	
2,263.8	2,244.9	2,351.0	2,264.1	6.2	11.1	110.58	-5,119.6	98.4	5,188.9	5,171.8	17.11	303.230	
2,300.0	2,280.3	2,362.4	2,274.1	6.3	11.2	110.66	-5,119.5	93.1	5,191.4	5,174.1	17.36	299.005	
2,362.2	2,341.2	2,479.0	2,377.1	6.6	12.2	111.47	-5,117.4	38.5	5,195.7	5,177.0	18.68	278.128	
2,400.0	2,378.1	2,479.0	2,377.1	6.8	12.2	111.47	-5,117.4	38.5	5,198.4	5,179.6	18.83	275.998	
2,460.6	2,437.4	2,519.8	2,413.2	7.0	12.6	111.75	-5,116.5	19.6	5,202.9	5,183.5	19.43	267.763	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 289-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,476.0	2,535.2	2,427.0	7.2	12.7	111.86	-5,116.2	12.5	5,206.2	5,186.5	19.72	263.951		
2,559.0	2,533.7	2,558.5	2,447.6	7.4	12.9	112.02	-5,116.0	1.9	5,211.4	5,191.3	20.17	258.431		
2,600.0	2,573.8	2,574.7	2,462.1	7.6	13.1	112.13	-5,115.8	-5.5	5,215.3	5,194.9	20.47	254.752		
2,657.5	2,630.0	2,608.0	2,491.8	7.9	13.4	112.35	-5,115.7	-20.5	5,221.2	5,200.2	20.99	248.704		
2,700.0	2,671.6	2,736.0	2,605.4	8.1	14.6	113.23	-5,114.0	-79.5	5,225.4	5,203.1	22.32	234.089		
2,755.9	2,726.3	2,778.5	2,642.8	8.3	15.0	113.53	-5,112.9	-99.7	5,230.7	5,207.7	22.98	227.612		
2,800.0	2,769.4	2,801.9	2,663.4	8.5	15.2	113.69	-5,112.4	-110.9	5,235.1	5,211.7	23.40	223.737		
2,854.3	2,822.5	2,830.6	2,688.5	8.7	15.5	113.90	-5,111.7	-124.8	5,240.8	5,216.9	23.91	219.179		
2,900.0	2,867.2	2,864.0	2,717.6	8.9	15.9	114.13	-5,111.1	-141.1	5,245.9	5,221.5	24.43	214.700		
2,952.7	2,918.8	2,864.0	2,717.6	9.2	15.9	114.13	-5,111.1	-141.1	5,252.1	5,227.4	24.65	213.031		
3,000.0	2,965.0	2,864.0	2,717.6	9.4	15.9	114.13	-5,111.1	-141.1	5,258.0	5,233.2	24.85	211.579		
3,051.2	3,015.1	2,908.7	2,756.4	9.6	16.4	114.45	-5,110.5	-163.2	5,264.6	5,239.0	25.53	206.172		
3,100.0	3,062.8	2,924.9	2,770.5	9.8	16.5	114.57	-5,110.4	-171.4	5,271.3	5,245.4	25.91	203.456		
3,149.6	3,111.4	2,941.3	2,784.6	10.0	16.7	114.69	-5,110.4	-179.6	5,278.4	5,252.1	26.29	200.795		
3,200.0	3,160.7	2,993.0	2,829.1	10.3	17.3	115.06	-5,110.6	-206.0	5,286.3	5,259.3	27.04	195.521		
3,248.0	3,207.6	2,993.0	2,829.1	10.5	17.3	115.06	-5,110.6	-206.0	5,293.7	5,266.5	27.24	194.345		
3,300.0	3,258.5	2,993.0	2,829.1	10.7	17.3	115.06	-5,110.6	-206.0	5,302.2	5,274.7	27.46	193.109		
3,346.4	3,303.9	2,993.0	2,829.1	10.9	17.3	115.06	-5,110.6	-206.0	5,310.2	5,282.6	27.65	192.034		
3,400.0	3,356.3	3,032.3	2,862.7	11.2	17.7	115.35	-5,111.1	-226.3	5,319.7	5,291.4	28.30	187.970		
3,444.9	3,400.2	3,051.5	2,879.1	11.4	17.9	115.49	-5,111.4	-236.3	5,327.9	5,299.2	28.70	185.672		
3,500.0	3,454.1	3,075.0	2,899.1	11.6	18.2	115.66	-5,111.8	-248.5	5,338.4	5,309.2	29.18	182.959		
3,543.3	3,496.5	3,093.3	2,914.7	11.8	18.4	115.79	-5,112.2	-258.1	5,346.9	5,317.3	29.56	180.908		
3,600.0	3,551.9	3,121.0	2,938.3	12.0	18.7	116.00	-5,112.8	-272.7	5,358.3	5,328.3	30.09	178.082		
3,641.7	3,592.7	3,378.0	3,159.3	12.2	21.4	117.83	-5,114.5	-403.8	5,366.5	5,333.7	32.75	163.843		
3,700.0	3,649.7	3,405.9	3,183.5	12.5	21.7	118.03	-5,114.1	-417.7	5,376.9	5,343.7	33.24	161.738		
3,740.1	3,689.0	3,423.5	3,198.8	12.7	21.8	118.15	-5,114.0	-426.3	5,384.4	5,350.8	33.57	160.402		
3,800.0	3,747.5	3,450.1	3,222.1	12.9	22.1	118.33	-5,114.0	-439.1	5,395.9	5,361.8	34.05	158.455		
3,838.6	3,785.3	3,467.4	3,237.4	13.1	22.3	118.44	-5,114.0	-447.3	5,403.5	5,369.1	34.37	157.227		
3,900.0	3,845.4	3,506.0	3,271.6	13.4	22.6	118.70	-5,114.3	-465.2	5,416.0	5,381.0	34.96	154.900		
3,937.0	3,881.5	3,516.3	3,280.7	13.6	22.7	118.77	-5,114.5	-469.9	5,423.7	5,388.5	35.20	154.075		
4,000.0	3,943.2	3,562.2	3,321.6	13.8	23.1	119.06	-5,115.1	-490.8	5,437.0	5,401.2	35.83	151.733		
4,035.4	3,977.8	3,588.1	3,344.7	14.0	23.4	119.23	-5,115.5	-502.5	5,444.7	5,408.5	36.19	150.456		
4,100.0	4,041.0	3,636.3	3,387.7	14.3	23.8	119.54	-5,116.2	-524.2	5,458.8	5,422.0	36.84	148.170		
4,133.8	4,074.1	3,713.9	3,457.1	14.4	24.5	120.03	-5,117.2	-558.8	5,466.2	5,428.6	37.59	145.404		
4,200.0	4,138.8	3,792.2	3,527.4	14.7	25.2	120.53	-5,117.6	-593.3	5,480.4	5,441.9	38.48	142.433		
4,232.3	4,170.4	3,813.2	3,546.3	14.9	25.4	120.66	-5,117.7	-602.5	5,487.4	5,448.7	38.77	141.530		
4,300.0	4,236.6	3,857.4	3,586.1	15.2	25.7	120.93	-5,118.0	-621.8	5,502.4	5,463.0	39.39	139.688		
4,330.7	4,266.6	3,877.5	3,604.2	15.3	25.9	121.05	-5,118.2	-630.5	5,509.4	5,469.7	39.67	138.874		
4,400.0	4,334.4	3,932.1	3,653.4	15.6	26.4	121.39	-5,118.7	-654.2	5,525.2	5,484.8	40.39	136.792		
4,429.1	4,362.9	3,956.6	3,675.3	15.8	26.6	121.54	-5,118.9	-665.1	5,531.9	5,491.2	40.71	135.894		
4,500.0	4,432.2	4,015.4	3,727.8	16.1	27.2	121.91	-5,119.1	-691.6	5,548.5	5,507.0	41.47	133.801		
4,527.5	4,459.2	4,040.6	3,750.2	16.2	27.4	122.07	-5,119.1	-703.2	5,555.0	5,513.2	41.80	132.883		
4,600.0	4,530.1	4,107.2	3,808.9	16.5	28.1	122.50	-5,118.8	-734.7	5,572.3	5,529.6	42.70	130.511		
4,626.0	4,555.5	4,130.6	3,829.3	16.7	28.4	122.66	-5,118.5	-746.0	5,578.5	5,535.5	43.01	129.706		
4,700.0	4,627.9	4,148.0	3,844.5	17.0	28.6	122.77	-5,118.3	-754.6	5,596.7	5,553.2	43.47	128.760		
4,724.4	4,651.7	4,179.1	3,871.5	17.1	28.9	122.98	-5,117.9	-770.0	5,602.7	5,558.9	43.85	127.767		
4,800.0	4,725.7	4,208.9	3,897.3	17.4	29.2	123.18	-5,117.7	-784.8	5,622.0	5,577.6	44.43	126.532		
4,822.8	4,748.0	4,217.8	3,905.1	17.6	29.3	123.24	-5,117.7	-789.3	5,628.0	5,583.4	44.61	126.169		
4,900.0	4,823.5	4,277.0	3,956.4	17.9	29.9	123.63	-5,117.7	-818.7	5,648.7	5,603.3	45.46	124.261		
4,921.2	4,844.3	4,277.0	3,956.4	18.0	29.9	123.63	-5,117.7	-818.7	5,654.4	5,608.9	45.55	124.150		
5,000.0	4,921.3	4,301.5	3,977.6	18.4	30.2	123.79	-5,117.9	-830.9	5,676.2	5,630.1	46.09	123.161		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 289-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,014.9	4,935.9	4,315.3	3,989.7	18.4	30.3	123.88	-5,117.9	-837.9	5,680.4	5,634.1	46.27	122.756		
5,019.7	4,940.6	4,319.7	3,993.5	18.4	30.4	123.93	-5,118.0	-840.1	5,681.7	5,635.4	46.33	122.643		
5,100.0	5,019.4	4,395.0	4,058.6	18.7	31.2	124.79	-5,118.1	-877.9	5,703.8	5,656.5	47.24	120.746		
5,118.1	5,037.2	4,420.9	4,081.0	18.8	31.5	125.04	-5,118.1	-890.9	5,708.6	5,661.1	47.50	120.183		
5,200.0	5,118.1	4,553.0	4,196.7	19.0	32.8	126.17	-5,118.0	-954.4	5,729.2	5,680.4	48.76	117.486		
5,216.5	5,134.4	4,563.3	4,205.9	19.1	32.9	126.29	-5,118.0	-959.2	5,733.2	5,684.3	48.87	117.310		
5,300.0	5,217.2	4,929.7	4,533.5	19.3	36.2	128.51	-5,112.9	-1,123.0	5,752.7	5,700.9	51.77	111.130		
5,314.9	5,232.1	4,940.5	4,543.1	19.3	36.3	128.61	-5,112.4	-1,127.7	5,755.4	5,703.5	51.87	110.961		
5,400.0	5,316.8	5,002.6	4,599.0	19.5	36.9	129.15	-5,110.0	-1,154.7	5,770.3	5,717.8	52.45	110.012		
5,413.4	5,330.1	5,012.5	4,608.0	19.5	37.0	129.23	-5,109.6	-1,159.0	5,772.5	5,720.0	52.54	109.873		
5,500.0	5,416.6	5,274.5	4,847.7	19.7	39.1	130.56	-5,097.9	-1,264.0	5,784.2	5,729.9	54.38	106.361		
5,511.8	5,428.4	5,286.3	4,858.6	19.7	39.2	130.62	-5,097.4	-1,268.3	5,785.7	5,731.2	54.47	106.220		
5,600.0	5,516.6	5,360.5	4,928.0	19.8	39.7	131.03	-5,094.6	-1,294.3	5,795.4	5,740.4	54.96	105.440		
5,610.2	5,526.8	5,368.8	4,935.8	19.8	39.7	131.08	-5,094.4	-1,297.1	5,796.4	5,741.4	55.02	105.358		
5,615.0	5,531.6	5,372.7	4,939.5	19.8	39.8	-158.82	-5,094.2	-1,298.4	5,796.9	5,741.8	55.11	105.194		
5,700.0	5,616.6	5,442.6	5,005.8	19.9	40.2	-158.61	-5,092.8	-1,320.6	5,805.4	5,749.8	55.60	104.416		
5,708.6	5,625.3	5,449.7	5,012.6	20.0	40.3	-158.59	-5,092.7	-1,322.8	5,806.3	5,750.7	55.65	104.342		
5,800.0	5,716.6	5,524.7	5,084.0	20.1	40.7	-158.38	-5,091.6	-1,345.8	5,815.8	5,759.7	56.15	103.571		
5,807.1	5,723.7	5,530.5	5,089.5	20.1	40.8	-158.36	-5,091.6	-1,347.6	5,816.6	5,760.4	56.19	103.512		
5,900.0	5,816.6	5,709.5	5,260.8	20.2	41.8	-157.88	-5,089.5	-1,399.4	5,826.1	5,769.0	57.15	101.948		
5,905.5	5,822.1	5,721.7	5,272.6	20.2	41.8	-157.85	-5,089.4	-1,402.6	5,826.6	5,769.4	57.20	101.858		
6,000.0	5,916.6	5,882.0	5,428.5	20.4	42.6	-157.50	-5,088.4	-1,439.8	5,834.6	5,776.6	57.93	100.725		
6,003.9	5,920.5	5,887.0	5,433.3	20.4	42.6	-157.50	-5,088.4	-1,440.8	5,834.9	5,776.9	57.95	100.693		
6,100.0	6,016.6	6,353.0	5,895.5	20.5	43.7	-157.00	-5,090.6	-1,496.8	5,840.5	5,781.4	59.04	98.918		
6,102.3	6,019.0	6,354.7	5,897.2	20.5	43.7	-157.00	-5,090.6	-1,496.8	5,840.5	5,781.4	59.05	98.910		
6,200.0	6,116.6	6,423.6	5,966.0	20.6	43.8	-156.97	-5,090.9	-1,499.6	5,842.5	5,783.2	59.27	98.569		
6,200.8	6,117.4	6,424.1	5,966.5	20.6	43.8	-156.97	-5,090.9	-1,499.6	5,842.5	5,783.2	59.27	98.566		
6,299.2	6,215.8	6,539.4	6,081.7	20.8	43.9	-156.95	-5,092.6	-1,502.4	5,844.8	5,785.3	59.53	98.188		
6,300.0	6,216.6	6,540.7	6,083.1	20.8	43.9	-156.95	-5,092.6	-1,502.4	5,844.8	5,785.3	59.53	98.184		
6,340.0	6,256.6	6,720.3	6,262.6	20.8	44.1	-156.96	-5,094.5	-1,502.4	5,845.4	5,785.7	59.71	97.902		
6,350.0	6,266.6	6,736.2	6,278.5	20.8	44.1	22.83	-5,094.4	-1,502.3	5,845.3	5,785.6	59.66	97.983		
6,397.6	6,314.2	6,811.5	6,353.9	20.9	44.1	22.93	-5,093.7	-1,502.6	5,842.8	5,783.2	59.59	98.058		
6,400.0	6,316.5	6,815.3	6,357.6	20.9	44.1	22.94	-5,093.6	-1,502.6	5,842.6	5,783.1	59.57	98.073		
6,450.0	6,366.2	6,877.1	6,419.4	20.9	44.2	23.17	-5,092.5	-1,503.6	5,836.6	5,777.4	59.19	98.605		
6,496.0	6,411.4	6,924.2	6,466.5	21.0	44.2	23.48	-5,091.6	-1,504.1	5,828.2	5,769.6	58.59	99.482		
6,500.0	6,415.3	6,928.2	6,470.5	21.0	44.2	23.51	-5,091.5	-1,504.2	5,827.4	5,768.8	58.52	99.575		
6,550.0	6,463.6	6,983.2	6,525.5	21.0	44.2	23.99	-5,090.6	-1,504.6	5,815.0	5,757.4	57.58	100.986		
6,594.5	6,505.8	7,065.8	6,608.1	21.0	44.3	24.59	-5,088.7	-1,505.4	5,801.2	5,744.7	56.54	102.604		
6,600.0	6,510.9	7,075.9	6,618.2	21.0	44.3	24.68	-5,088.4	-1,505.5	5,799.3	5,742.9	56.40	102.833		
6,650.0	6,557.0	7,102.0	6,644.3	21.0	44.3	25.42	-5,087.6	-1,505.9	5,780.5	5,725.6	54.93	105.225		
6,692.9	6,595.4	7,141.2	6,683.4	21.0	44.4	26.22	-5,086.4	-1,506.6	5,762.1	5,708.6	53.51	107.674		
6,700.0	6,601.6	7,144.7	6,686.9	21.0	44.4	26.35	-5,086.3	-1,506.7	5,758.9	5,705.6	53.26	108.122		
6,750.0	6,644.6	7,168.4	6,710.6	20.9	44.4	27.43	-5,085.7	-1,507.2	5,734.7	5,683.3	51.39	111.590		
6,791.3	6,678.6	7,187.2	6,729.4	20.9	44.4	28.46	-5,085.2	-1,507.6	5,712.8	5,663.1	49.72	114.890		
6,800.0	6,685.6	7,191.1	6,733.3	20.9	44.4	28.69	-5,085.1	-1,507.6	5,708.0	5,658.6	49.36	115.638		
6,850.0	6,724.6	7,230.0	6,772.2	20.9	44.5	30.27	-5,084.4	-1,508.5	5,678.9	5,631.7	47.22	120.266		
6,889.7	6,753.9	7,230.0	6,772.2	20.9	44.5	31.58	-5,084.4	-1,508.5	5,654.1	5,608.7	45.47	124.348		
6,900.0	6,761.3	7,235.0	6,777.2	20.9	44.5	31.97	-5,084.3	-1,508.6	5,647.5	5,602.5	45.01	125.461		
6,950.0	6,795.5	7,266.4	6,808.6	20.9	44.5	34.12	-5,083.7	-1,509.4	5,614.0	5,571.2	42.83	131.081		
6,988.2	6,819.9	7,288.7	6,830.9	20.9	44.5	36.03	-5,083.4	-1,510.0	5,587.0	5,545.8	41.23	135.499		
7,000.0	6,827.1	7,295.3	6,837.5	20.9	44.5	36.67	-5,083.3	-1,510.1	5,578.4	5,537.7	40.75	136.900		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 289-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,050.0	6,855.9	7,321.6	6,863.8	20.9	44.6	39.67	-5,082.8	-1,510.8	5,541.0	5,502.1	38.88	142.503		
7,086.6	6,875.1	7,339.1	6,881.2	20.9	44.6	42.21	-5,082.5	-1,511.3	5,512.6	5,474.9	37.71	146.188		
7,100.0	6,881.8	7,345.1	6,887.3	20.9	44.6	43.22	-5,082.4	-1,511.4	5,502.0	5,464.6	37.36	147.273		
7,150.0	6,904.6	7,366.2	6,908.3	21.0	44.6	47.40	-5,082.1	-1,512.0	5,461.4	5,425.1	36.30	150.466		
7,185.0	6,918.8	7,379.4	6,921.6	21.1	44.6	50.76	-5,081.8	-1,512.4	5,432.3	5,396.4	35.88	151.401		
7,200.0	6,924.3	7,384.6	6,926.7	21.1	44.6	52.32	-5,081.7	-1,512.5	5,419.6	5,383.8	35.79	151.446		
7,250.0	6,940.8	7,399.8	6,942.0	21.2	44.6	58.03	-5,081.5	-1,513.0	5,376.8	5,340.9	35.83	150.054		
7,283.4	6,949.9	7,408.2	6,950.3	21.3	44.7	62.31	-5,081.3	-1,513.2	5,347.6	5,311.5	36.13	148.018		
7,300.0	6,953.9	7,411.7	6,953.8	21.4	44.7	64.56	-5,081.3	-1,513.3	5,333.1	5,296.7	36.32	146.819		
7,350.0	6,963.6	7,420.3	6,962.4	21.6	44.7	71.86	-5,081.1	-1,513.6	5,288.7	5,251.7	37.03	142.840		
7,381.9	6,968.0	7,424.0	6,966.1	21.7	44.7	76.83	-5,081.0	-1,513.7	5,260.3	5,222.8	37.45	140.472		
7,400.0	6,969.9	7,425.5	6,967.5	21.8	44.7	79.73	-5,081.0	-1,513.8	5,244.0	5,206.4	37.63	139.345		
7,450.0	6,972.6	7,427.2	6,969.3	22.1	44.7	87.90	-5,081.0	-1,513.8	5,199.1	5,161.2	37.89	137.212		
7,471.5	6,972.8	7,427.0	6,969.1	22.2	44.7	91.41	-5,081.0	-1,513.8	5,179.8	5,141.9	37.86	136.798		
7,480.3	6,972.7	7,426.7	6,968.8	22.3	44.7	91.40	-5,081.0	-1,513.8	5,171.9	5,133.9	37.95	136.278		
7,500.0	6,972.5	7,426.2	6,968.3	22.4	44.7	91.39	-5,081.0	-1,513.8	5,154.2	5,116.1	38.14	135.125		
7,578.7	6,971.8	7,424.1	6,966.2	23.1	44.7	91.33	-5,081.0	-1,513.7	5,083.7	5,044.8	38.94	130.556		
7,600.0	6,971.6	7,423.5	6,965.6	23.3	44.7	91.32	-5,081.0	-1,513.7	5,064.7	5,025.6	39.15	129.354		
7,677.1	6,970.9	7,421.4	6,963.5	24.0	44.7	91.27	-5,081.1	-1,513.6	4,996.0	4,956.0	39.99	124.919		
7,700.0	6,970.7	7,420.8	6,962.9	24.2	44.7	91.25	-5,081.1	-1,513.6	4,975.6	4,935.4	40.24	123.642		
7,775.6	6,970.0	7,418.8	6,960.9	25.0	44.7	91.20	-5,081.1	-1,513.6	4,908.6	4,867.4	41.16	119.267		
7,800.0	6,969.8	7,418.1	6,960.2	25.3	44.7	91.19	-5,081.1	-1,513.5	4,887.0	4,845.5	41.45	117.896		
7,874.0	6,969.1	7,416.2	6,958.3	26.2	44.7	91.14	-5,081.2	-1,513.5	4,821.6	4,779.2	42.42	113.658		
7,900.0	6,968.9	7,415.5	6,957.6	26.5	44.7	91.12	-5,081.2	-1,513.5	4,798.7	4,756.0	42.76	112.216		
7,972.4	6,968.2	7,413.6	6,955.7	27.4	44.7	91.07	-5,081.2	-1,513.4	4,735.1	4,691.4	43.78	108.168		
8,000.0	6,968.0	7,412.9	6,955.0	27.8	44.7	91.05	-5,081.2	-1,513.4	4,711.0	4,666.8	44.16	106.677		
8,070.8	6,967.3	7,411.0	6,953.1	28.7	44.7	91.01	-5,081.3	-1,513.3	4,649.1	4,603.9	45.20	102.850		
8,100.0	6,967.1	7,410.2	6,952.3	29.1	44.7	90.99	-5,081.3	-1,513.3	4,623.7	4,578.1	45.63	101.328		
8,169.3	6,966.4	7,408.4	6,950.5	30.1	44.7	90.94	-5,081.3	-1,513.2	4,563.6	4,516.9	46.69	97.738		
8,200.0	6,966.2	7,407.7	6,949.7	30.5	44.7	90.92	-5,081.3	-1,513.2	4,537.0	4,489.8	47.16	96.199		
8,267.7	6,965.5	7,405.9	6,948.0	31.5	44.7	90.88	-5,081.4	-1,513.2	4,478.6	4,430.3	48.23	92.852		
8,300.0	6,965.2	7,405.1	6,947.2	32.0	44.7	90.86	-5,081.4	-1,513.1	4,450.8	4,402.0	48.74	91.308		
8,366.1	6,964.6	7,403.4	6,945.5	33.0	44.7	90.82	-5,081.4	-1,513.1	4,394.1	4,344.3	49.82	88.201		
8,400.0	6,964.3	7,402.5	6,944.6	33.5	44.7	90.79	-5,081.4	-1,513.0	4,365.2	4,314.8	50.37	86.662		
8,464.5	6,963.8	7,400.9	6,943.0	34.5	44.6	90.75	-5,081.5	-1,513.0	4,310.3	4,258.8	51.44	83.786		
8,500.0	6,963.4	7,400.0	6,942.1	35.1	44.6	90.73	-5,081.5	-1,513.0	4,280.2	4,228.2	52.03	82.259		
8,563.0	6,962.9	7,398.4	6,940.5	36.1	44.6	90.69	-5,081.5	-1,512.9	4,227.0	4,173.9	53.10	79.605		
8,600.0	6,962.5	7,397.4	6,939.5	36.7	44.6	90.67	-5,081.5	-1,512.9	4,195.9	4,142.2	53.73	78.096		
8,661.4	6,962.0	7,395.9	6,938.0	37.7	44.6	90.63	-5,081.5	-1,512.8	4,144.5	4,089.7	54.78	75.651		
8,700.0	6,961.6	7,394.9	6,937.0	38.3	44.6	90.60	-5,081.6	-1,512.8	4,112.3	4,056.9	55.45	74.164		
8,759.8	6,961.1	7,393.4	6,935.5	39.3	44.6	90.57	-5,081.6	-1,512.8	4,062.6	4,006.1	56.49	71.914		
8,800.0	6,960.7	7,392.4	6,934.5	40.0	44.6	90.54	-5,081.6	-1,512.7	4,029.4	3,972.2	57.19	70.452		
8,858.2	6,960.2	7,391.0	6,933.1	40.9	44.6	90.51	-5,081.6	-1,512.7	3,981.5	3,923.3	58.22	68.385		
8,900.0	6,959.8	7,390.0	6,932.1	41.6	44.6	90.48	-5,081.7	-1,512.7	3,947.4	3,888.4	58.96	66.951		
8,956.7	6,959.3	7,388.6	6,930.7	42.6	44.6	90.44	-5,081.7	-1,512.6	3,901.2	3,841.3	59.97	65.053		
9,000.0	6,958.9	7,387.5	6,929.6	43.3	44.6	90.42	-5,081.7	-1,512.6	3,866.1	3,805.4	60.74	63.648		
9,055.1	6,958.4	7,386.2	6,928.3	44.3	44.6	90.38	-5,081.7	-1,512.6	3,821.8	3,760.0	61.73	61.908		
9,100.0	6,958.0	7,385.1	6,927.2	45.1	44.6	90.36	-5,081.7	-1,512.5	3,785.8	3,723.3	62.54	60.534		
9,153.5	6,957.5	7,383.8	6,925.9	46.0	44.6	90.32	-5,081.8	-1,512.5	3,743.2	3,679.7	63.51	58.938		
9,200.0	6,957.1	7,382.6	6,924.7	46.8	44.6	90.30	-5,081.8	-1,512.5	3,706.4	3,642.1	64.35	57.596		
9,251.9	6,956.6	7,381.4	6,923.5	47.7	44.6	90.26	-5,081.8	-1,512.4	3,665.6	3,600.3	65.30	56.135		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 289-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,300.0	6,956.2	7,380.2	6,922.3	48.6	44.6	90.24	-5,081.8	-1,512.4	3,628.1	3,561.9	66.18	54.824		
9,350.4	6,955.7	7,379.0	6,921.1	49.5	44.6	90.20	-5,081.8	-1,512.4	3,589.0	3,521.9	67.10	53.487		
9,400.0	6,955.2	7,377.8	6,919.9	50.3	44.6	90.18	-5,081.9	-1,512.3	3,550.8	3,482.8	68.01	52.209		
9,448.8	6,954.8	7,376.7	6,918.8	51.2	44.6	90.15	-5,081.9	-1,512.3	3,513.5	3,444.6	68.91	50.986		
9,500.0	6,954.3	7,375.4	6,917.6	52.1	44.6	90.12	-5,081.9	-1,512.3	3,474.7	3,404.8	69.86	49.741		
9,547.2	6,953.9	7,374.3	6,916.4	53.0	44.6	90.09	-5,081.9	-1,512.2	3,439.2	3,368.4	70.73	48.624		
9,600.0	6,953.4	7,373.1	6,915.2	53.9	44.6	90.06	-5,081.9	-1,512.2	3,399.8	3,328.1	71.71	47.412		
9,645.6	6,953.0	7,372.0	6,914.1	54.7	44.6	90.03	-5,082.0	-1,512.2	3,366.1	3,293.5	72.56	46.392		
9,700.0	6,952.5	7,370.7	6,912.8	55.7	44.6	90.00	-5,082.0	-1,512.1	3,326.2	3,252.7	73.57	45.213		
9,744.1	6,952.1	7,369.7	6,911.8	56.5	44.6	89.97	-5,082.0	-1,512.1	3,294.3	3,219.9	74.39	44.283		
9,800.0	6,951.6	7,368.4	6,910.5	57.5	44.6	89.94	-5,082.0	-1,512.1	3,254.1	3,178.7	75.44	43.138		
9,842.5	6,951.2	7,367.4	6,909.5	58.3	44.6	89.91	-5,082.0	-1,512.0	3,223.9	3,147.6	76.23	42.291		
9,900.0	6,950.7	7,366.1	6,908.2	59.4	44.6	89.88	-5,082.1	-1,512.0	3,183.4	3,106.1	77.31	41.178		
9,940.9	6,950.3	7,365.1	6,907.3	60.1	44.6	89.86	-5,082.1	-1,512.0	3,155.0	3,076.9	78.08	40.408		
10,000.0	6,949.8	7,358.0	6,900.1	61.2	44.6	89.68	-5,082.2	-1,511.8	3,114.4	3,035.2	79.19	39.330		
10,039.3	6,949.4	7,358.0	6,900.1	61.9	44.6	89.68	-5,082.2	-1,511.8	3,087.7	3,007.8	79.93	38.631		
10,100.0	6,948.9	7,358.0	6,900.1	63.0	44.6	89.68	-5,082.2	-1,511.8	3,047.1	2,966.0	81.07	37.585		
10,137.8	6,948.5	7,358.0	6,900.1	63.7	44.6	89.68	-5,082.2	-1,511.8	3,022.1	2,940.3	81.78	36.952		
10,200.0	6,948.0	7,358.0	6,900.1	64.9	44.6	89.68	-5,082.2	-1,511.8	2,981.6	2,898.6	82.96	35.940		
10,236.2	6,947.6	7,358.0	6,900.1	65.6	44.6	89.68	-5,082.2	-1,511.8	2,958.4	2,874.7	83.64	35.368		
10,300.0	6,947.1	7,358.0	6,900.1	66.7	44.6	89.68	-5,082.2	-1,511.8	2,918.1	2,833.2	84.85	34.390		
10,334.6	6,946.7	7,358.0	6,900.1	67.4	44.6	89.68	-5,082.2	-1,511.8	2,896.5	2,811.0	85.51	33.874		
10,400.0	6,946.2	7,354.4	6,896.6	68.6	44.6	89.59	-5,082.3	-1,511.7	2,856.6	2,769.9	86.75	32.930		
10,433.0	6,945.8	7,353.6	6,895.7	69.2	44.6	89.57	-5,082.3	-1,511.7	2,836.8	2,749.4	87.38	32.466		
10,500.0	6,945.2	7,352.0	6,894.1	70.5	44.6	89.53	-5,082.3	-1,511.6	2,797.4	2,708.7	88.65	31.556		
10,531.5	6,945.0	7,351.2	6,893.3	71.1	44.6	89.51	-5,082.3	-1,511.6	2,779.2	2,690.0	89.25	31.140		
10,600.0	6,944.3	7,349.5	6,891.7	72.3	44.6	89.46	-5,082.3	-1,511.6	2,740.5	2,650.0	90.55	30.265		
10,629.9	6,944.1	7,348.8	6,890.9	72.9	44.6	89.45	-5,082.4	-1,511.5	2,724.0	2,632.9	91.12	29.894		
10,700.0	6,943.4	7,347.1	6,889.2	74.2	44.6	89.40	-5,082.4	-1,511.5	2,686.2	2,593.7	92.46	29.053		
10,728.3	6,943.2	7,346.4	6,888.5	74.7	44.6	89.39	-5,082.4	-1,511.5	2,671.3	2,578.3	93.00	28.724		
10,800.0	6,942.5	7,344.7	6,886.8	76.1	44.6	89.34	-5,082.4	-1,511.4	2,634.5	2,540.2	94.37	27.918		
10,826.7	6,942.3	7,344.0	6,886.1	76.6	44.6	89.33	-5,082.4	-1,511.4	2,621.2	2,526.3	94.88	27.627		
10,900.0	6,941.6	7,342.2	6,884.3	78.0	44.6	89.28	-5,082.5	-1,511.4	2,585.7	2,489.4	96.28	26.856		
10,925.2	6,941.4	7,341.6	6,883.7	78.4	44.6	89.26	-5,082.5	-1,511.3	2,573.9	2,477.1	96.76	26.600		
11,000.0	6,940.7	7,339.8	6,881.9	79.9	44.6	89.22	-5,082.5	-1,511.3	2,539.9	2,441.7	98.19	25.866		
11,023.6	6,940.5	7,339.2	6,881.3	80.3	44.6	89.20	-5,082.5	-1,511.3	2,529.5	2,430.9	98.64	25.643		
11,100.0	6,939.8	7,337.3	6,879.4	81.7	44.6	89.16	-5,082.5	-1,511.2	2,497.2	2,397.1	100.11	24.945		
11,122.0	6,939.6	7,336.8	6,878.9	82.2	44.6	89.14	-5,082.6	-1,511.2	2,488.2	2,387.7	100.53	24.751		
11,200.0	6,938.9	7,334.9	6,877.0	83.6	44.6	89.10	-5,082.6	-1,511.2	2,457.9	2,355.8	102.03	24.091		
11,220.4	6,938.7	7,334.4	6,876.5	84.0	44.6	89.08	-5,082.6	-1,511.2	2,450.2	2,347.8	102.42	23.924		
11,300.0	6,938.0	7,332.4	6,874.5	85.5	44.6	89.03	-5,082.6	-1,511.1	2,422.0	2,318.1	103.94	23.301		
11,318.9	6,937.8	7,331.9	6,874.1	85.9	44.6	89.02	-5,082.6	-1,511.1	2,415.6	2,311.3	104.31	23.159		
11,400.0	6,937.0	7,329.9	6,872.1	87.4	44.6	88.97	-5,082.7	-1,511.0	2,389.8	2,283.9	105.87	22.574		
11,417.3	6,936.9	7,329.5	6,871.7	87.8	44.6	88.96	-5,082.7	-1,511.0	2,384.6	2,278.4	106.20	22.454		
11,500.0	6,936.1	7,327.5	6,869.6	89.3	44.6	88.91	-5,082.7	-1,511.0	2,361.4	2,253.6	107.79	21.908		
11,515.7	6,936.0	7,327.1	6,869.2	89.6	44.6	88.90	-5,082.7	-1,511.0	2,357.3	2,249.2	108.09	21.808		
11,600.0	6,935.2	7,325.0	6,867.2	91.2	44.6	88.85	-5,082.8	-1,510.9	2,336.9	2,227.2	109.71	21.300		
11,614.1	6,935.1	7,324.7	6,866.8	91.5	44.6	88.84	-5,082.8	-1,510.9	2,333.8	2,223.8	109.98	21.219		
11,700.0	6,934.3	7,322.5	6,864.7	93.1	44.6	88.79	-5,082.8	-1,510.8	2,316.5	2,204.9	111.64	20.750		
11,712.6	6,934.2	7,322.2	6,864.4	93.4	44.6	88.78	-5,082.8	-1,510.8	2,314.2	2,202.3	111.88	20.685		
11,800.0	6,933.4	7,320.1	6,862.2	95.1	44.6	88.72	-5,082.8	-1,510.8	2,300.3	2,186.7	113.56	20.255		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-32D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 289-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	7,319.8	6,861.9	95.3	44.6	88.72	-5,082.8	-1,510.8	2,298.7	2,184.9	113.78	20.204		
11,900.0	6,932.5	7,317.6	6,859.8	97.0	44.6	88.66	-5,082.9	-1,510.7	2,288.3	2,172.8	115.49	19.813		
11,909.4	6,932.4	7,317.4	6,859.5	97.1	44.6	88.66	-5,082.9	-1,510.7	2,287.4	2,171.7	115.67	19.774		
12,000.0	6,931.6	7,315.1	6,857.3	98.9	44.6	88.60	-5,082.9	-1,510.7	2,280.6	2,163.2	117.42	19.423		
12,007.8	6,931.5	7,314.9	6,857.1	99.0	44.6	88.59	-5,082.9	-1,510.6	2,280.2	2,162.6	117.57	19.394		
12,100.0	6,930.7	7,312.7	6,854.8	100.8	44.6	88.54	-5,083.0	-1,510.6	2,277.3	2,157.9	119.35	19.081		
12,106.3	6,930.6	7,312.5	6,854.6	100.9	44.6	88.53	-5,083.0	-1,510.6	2,277.2	2,157.8	119.47	19.061		
12,125.3	6,930.4	7,312.0	6,854.2	101.3	44.6	88.52	-5,083.0	-1,510.6	2,277.2	2,157.3	119.84	19.002 CC		
12,200.0	6,929.8	7,310.2	6,852.3	102.7	44.5	88.47	-5,083.0	-1,510.5	2,278.4	2,157.1	121.28	18.786 ES		
12,204.7	6,929.7	7,310.1	6,852.2	102.8	44.5	88.47	-5,083.0	-1,510.5	2,278.5	2,157.2	121.37	18.773		
12,300.0	6,928.8	7,307.7	6,849.8	104.6	44.5	88.41	-5,083.0	-1,510.5	2,283.8	2,160.6	123.21	18.536		
12,303.1	6,928.8	7,307.6	6,849.8	104.7	44.5	88.41	-5,083.0	-1,510.5	2,284.1	2,160.8	123.27	18.529		
12,400.0	6,927.9	7,305.2	6,847.4	106.5	44.5	88.35	-5,083.1	-1,510.4	2,293.7	2,168.5	125.14	18.328		
12,401.5	6,927.9	7,305.2	6,847.3	106.6	44.5	88.35	-5,083.1	-1,510.4	2,293.8	2,168.7	125.17	18.325		
12,500.0	6,927.0	7,302.7	6,844.9	108.5	44.5	88.29	-5,083.1	-1,510.3	2,307.8	2,180.7	127.08	18.161		
12,598.4	6,926.1	7,300.3	6,842.4	110.4	44.5	88.23	-5,083.2	-1,510.3	2,325.8	2,196.8	128.98	18.032		
12,600.0	6,926.1	7,300.2	6,842.4	110.4	44.5	88.22	-5,083.2	-1,510.3	2,326.1	2,197.1	129.01	18.030		
12,696.8	6,925.2	7,297.8	6,840.0	112.3	44.5	88.16	-5,083.2	-1,510.2	2,347.7	2,216.9	130.88	17.938		
12,700.0	6,925.2	7,297.7	6,839.9	112.3	44.5	88.16	-5,083.2	-1,510.2	2,348.5	2,217.6	130.94	17.935		
12,795.2	6,924.3	7,295.4	6,837.5	114.1	44.5	88.10	-5,083.3	-1,510.1	2,373.6	2,240.8	132.79	17.876		
12,800.0	6,924.3	7,295.3	6,837.4	114.2	44.5	88.10	-5,083.3	-1,510.1	2,375.0	2,242.1	132.88	17.873		
12,893.7	6,923.4	7,292.9	6,835.1	116.0	44.5	88.04	-5,083.3	-1,510.1	2,403.2	2,268.5	134.69	17.843		
12,900.0	6,923.4	7,292.8	6,834.9	116.2	44.5	88.04	-5,083.3	-1,510.1	2,405.3	2,270.4	134.81	17.842		
12,992.1	6,922.5	7,290.5	6,832.6	117.9	44.5	87.98	-5,083.3	-1,510.0	2,436.5	2,299.9	136.59	17.837 SF		
13,000.0	6,922.5	7,290.3	6,832.4	118.1	44.5	87.97	-5,083.3	-1,510.0	2,439.3	2,302.5	136.75	17.838		
13,090.5	6,921.6	7,288.0	6,830.2	119.8	44.5	87.92	-5,083.4	-1,510.0	2,473.2	2,334.7	138.50	17.857		
13,100.0	6,921.5	7,287.8	6,829.9	120.0	44.5	87.91	-5,083.4	-1,510.0	2,476.9	2,338.2	138.68	17.860		
13,188.9	6,920.7	7,285.5	6,827.7	121.7	44.5	87.85	-5,083.4	-1,509.9	2,513.2	2,372.8	140.41	17.900		
13,200.0	6,920.6	7,285.3	6,827.4	121.9	44.5	87.85	-5,083.4	-1,509.9	2,517.9	2,377.3	140.62	17.906		
13,287.4	6,919.8	7,283.1	6,825.2	123.6	44.5	87.79	-5,083.5	-1,509.8	2,556.4	2,414.1	142.31	17.963		
13,300.0	6,919.7	7,282.8	6,824.9	123.9	44.5	87.78	-5,083.5	-1,509.8	2,562.1	2,419.6	142.56	17.973		
13,385.8	6,918.9	7,280.6	6,822.8	125.5	44.5	87.73	-5,083.5	-1,509.8	2,602.6	2,458.4	144.22	18.046		
13,400.0	6,918.8	7,280.2	6,822.4	125.8	44.5	87.72	-5,083.5	-1,509.8	2,609.5	2,465.0	144.49	18.060		
13,484.2	6,918.0	7,278.1	6,820.3	127.4	44.5	87.67	-5,083.5	-1,509.7	2,651.6	2,505.5	146.12	18.146		
13,500.0	6,917.9	7,277.7	6,819.9	127.7	44.5	87.66	-5,083.6	-1,509.7	2,659.7	2,513.3	146.43	18.164		
13,582.6	6,917.1	7,275.7	6,817.8	129.3	44.5	87.61	-5,083.6	-1,509.6	2,703.4	2,555.3	148.03	18.262		
13,600.0	6,917.0	7,275.2	6,817.4	129.7	44.5	87.60	-5,083.6	-1,509.6	2,712.7	2,564.4	148.37	18.284		
13,681.1	6,916.2	7,273.2	6,815.3	131.2	44.5	87.54	-5,083.6	-1,509.6	2,757.6	2,607.7	149.94	18.392		
13,700.0	6,916.1	7,272.7	6,814.9	131.6	44.5	87.53	-5,083.6	-1,509.6	2,768.3	2,618.0	150.30	18.418		
13,779.5	6,915.3	7,270.7	6,812.9	133.1	44.5	87.48	-5,083.7	-1,509.5	2,814.3	2,662.4	151.85	18.534		
13,800.0	6,915.2	7,270.2	6,812.4	133.5	44.5	87.47	-5,083.7	-1,509.5	2,826.4	2,674.1	152.24	18.565		
13,877.9	6,914.4	7,268.2	6,810.4	135.1	44.5	87.42	-5,083.7	-1,509.5	2,873.2	2,719.5	153.75	18.687		
13,900.0	6,914.2	7,267.7	6,809.8	135.5	44.5	87.41	-5,083.7	-1,509.5	2,886.7	2,732.5	154.18	18.723		
13,976.3	6,913.5	7,265.7	6,807.9	137.0	44.5	87.36	-5,083.8	-1,509.4	2,934.3	2,778.6	155.66	18.850		
14,000.0	6,913.3	7,265.1	6,807.3	137.4	44.5	87.34	-5,083.8	-1,509.4	2,949.2	2,793.1	156.12	18.891		
14,074.8	6,912.6	7,263.3	6,805.4	138.9	44.5	87.29	-5,083.8	-1,509.3	2,997.3	2,839.7	157.57	19.022		
14,100.0	6,912.4	7,262.6	6,804.8	139.4	44.5	87.28	-5,083.8	-1,509.3	3,013.7	2,855.7	158.06	19.068		
14,145.0	6,912.0	7,261.5	6,803.6	140.2	44.5	87.25	-5,083.8	-1,509.3	3,043.4	2,884.5	158.89	19.155		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 351-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	172.83	172.83	-5,118.5	644.2	5,158.9				
98.4	98.4	82.1	82.1	0.1	0.1	172.83	172.83	-5,118.5	644.1	5,158.9	5,158.7	0.18	N/A	
100.0	100.0	83.7	83.7	0.1	0.1	172.83	172.83	-5,118.5	644.1	5,158.9	5,158.7	0.18	N/A	
196.8	196.8	183.1	183.1	0.3	0.2	172.83	172.83	-5,118.5	643.8	5,158.8	5,158.3	0.49	N/A	
200.0	200.0	186.3	186.3	0.3	0.2	172.83	172.83	-5,118.5	643.8	5,158.8	5,158.3	0.50	N/A	
295.3	295.3	284.1	284.1	0.5	0.3	172.84	172.84	-5,118.4	643.2	5,158.7	5,157.9	0.81	6,342.314	
300.0	300.0	289.0	289.0	0.5	0.3	172.84	172.84	-5,118.4	643.2	5,158.7	5,157.9	0.83	6,224.807	
369.3	369.3	351.0	351.0	0.7	0.3	172.84	172.84	-5,118.4	642.7	5,158.6	5,157.5	1.04	4,936.912	
393.7	393.7	351.0	351.0	0.8	0.3	172.84	172.84	-5,118.4	642.7	5,158.6	5,157.5	1.10	4,690.359	
400.0	400.0	351.0	351.0	0.8	0.3	172.84	172.84	-5,118.4	642.7	5,158.7	5,157.6	1.11	4,630.768	
492.1	492.1	427.2	427.2	1.0	0.5	172.86	172.86	-5,118.8	641.6	5,159.1	5,157.6	1.49	3,460.365	
500.0	500.0	431.8	431.7	1.0	0.5	172.86	172.86	-5,118.9	641.5	5,159.1	5,157.6	1.52	3,396.957	
590.5	590.5	479.0	479.0	1.2	0.6	172.87	172.87	-5,119.6	640.3	5,160.3	5,158.5	1.83	2,823.644	
600.0	600.0	479.0	479.0	1.2	0.6	172.87	172.87	-5,119.6	640.3	5,160.5	5,158.7	1.85	2,791.301	
689.0	689.0	533.1	533.1	1.4	0.8	172.89	172.89	-5,121.0	638.3	5,162.5	5,160.3	2.18	2,371.737	
700.0	700.0	538.7	538.6	1.4	0.8	172.90	172.90	-5,121.2	638.1	5,162.8	5,160.6	2.21	2,331.260	
787.4	787.4	607.0	606.7	1.6	0.9	172.94	172.94	-5,124.1	634.2	5,165.7	5,163.1	2.57	2,007.944	
800.0	800.0	607.0	606.7	1.7	0.9	172.94	172.94	-5,124.1	634.2	5,166.1	5,163.5	2.60	1,986.238	
885.8	885.8	624.9	624.5	1.9	1.0	172.96	172.96	-5,125.0	632.9	5,169.6	5,166.8	2.84	1,821.075	
900.0	900.0	629.9	629.5	1.9	1.0	172.96	172.96	-5,125.3	632.6	5,170.3	5,167.4	2.88	1,793.164	
984.2	984.2	649.0	648.6	2.1	1.0	172.98	172.98	-5,126.4	631.2	5,174.9	5,171.8	3.12	1,658.229	
1,000.0	1,000.0	649.0	648.6	2.1	1.0	172.98	172.98	-5,126.4	631.2	5,175.9	5,172.7	3.16	1,639.943	
1,082.7	1,082.7	703.0	702.3	2.3	1.2	102.85	102.85	-5,130.3	627.2	5,181.5	5,178.0	3.49	1,486.749	
1,100.0	1,100.0	731.0	730.1	2.3	1.3	102.86	102.86	-5,132.7	625.0	5,182.9	5,179.3	3.60	1,441.153	
1,181.1	1,181.0	731.0	730.1	2.5	1.3	102.72	102.72	-5,132.7	625.0	5,189.9	5,186.1	3.77	1,376.136	
1,200.0	1,199.8	731.0	730.1	2.6	1.3	102.68	102.68	-5,132.7	625.0	5,191.8	5,188.0	3.81	1,361.918	
1,279.5	1,279.1	791.2	789.8	2.7	1.5	102.64	102.64	-5,138.4	619.7	5,200.1	5,195.9	4.17	1,248.103	
1,300.0	1,299.5	800.6	799.1	2.8	1.5	102.61	102.61	-5,139.3	618.8	5,202.4	5,198.1	4.24	1,226.930	
1,377.9	1,376.9	859.0	856.8	3.0	1.7	102.57	102.57	-5,145.8	612.9	5,212.1	5,207.5	4.60	1,132.703	
1,400.0	1,398.7	859.0	856.8	3.0	1.7	102.52	102.52	-5,145.8	612.9	5,214.9	5,210.3	4.66	1,119.983	
1,476.4	1,474.2	859.0	856.8	3.2	1.7	102.30	102.30	-5,145.8	612.9	5,225.7	5,220.9	4.87	1,073.755	
1,500.0	1,497.5	859.0	856.8	3.3	1.7	102.23	102.23	-5,145.8	612.9	5,229.4	5,224.4	4.93	1,060.276	
1,574.8	1,571.0	917.0	913.9	3.5	1.9	102.19	102.19	-5,153.1	606.3	5,241.1	5,235.8	5.36	978.199	
1,600.1	1,595.7	926.7	923.6	3.6	1.9	102.14	102.14	-5,154.4	605.2	5,245.4	5,239.9	5.47	958.978	
1,673.2	1,667.2	987.0	982.6	3.9	2.2	102.37	102.37	-5,163.2	597.2	5,258.5	5,252.6	5.92	888.036	
1,700.0	1,693.4	987.0	982.6	4.0	2.2	102.37	102.37	-5,163.2	597.2	5,263.2	5,257.2	6.01	875.155	
1,771.6	1,763.5	987.0	982.6	4.2	2.2	102.37	102.37	-5,163.2	597.2	5,276.5	5,270.3	6.28	840.821	
1,800.0	1,791.3	987.0	982.6	4.3	2.2	102.37	102.37	-5,163.2	597.2	5,282.1	5,275.7	6.38	828.054	
1,870.1	1,859.8	1,039.5	1,033.9	4.6	2.4	102.58	102.58	-5,171.6	589.6	5,295.8	5,289.0	6.84	774.038	
1,900.0	1,889.1	1,053.4	1,047.4	4.7	2.5	102.63	102.63	-5,173.9	587.5	5,301.9	5,294.9	7.01	756.592	
1,968.5	1,956.1	1,116.0	1,108.3	5.0	2.7	102.89	102.89	-5,184.8	577.5	5,316.3	5,308.8	7.51	707.873	
2,000.0	1,986.9	1,116.0	1,108.3	5.1	2.7	102.89	102.89	-5,184.8	577.5	5,322.9	5,315.3	7.63	697.300	
2,066.9	2,052.3	1,116.0	1,108.3	5.4	2.7	102.89	102.89	-5,184.8	577.5	5,337.5	5,329.6	7.90	675.498	
2,100.0	2,084.7	1,116.0	1,108.3	5.5	2.7	102.89	102.89	-5,184.8	577.5	5,344.9	5,336.9	8.03	665.290	
2,165.3	2,148.6	1,168.9	1,159.4	5.8	3.0	103.11	103.11	-5,194.6	568.4	5,359.7	5,351.2	8.52	629.057	
2,200.0	2,182.5	1,183.0	1,173.1	5.9	3.1	103.17	103.17	-5,197.3	565.9	5,367.8	5,359.1	8.72	615.564	
2,263.8	2,244.9	1,208.9	1,198.0	6.2	3.2	103.29	103.29	-5,202.4	561.3	5,383.1	5,374.0	9.09	592.132	
2,300.0	2,280.3	1,244.0	1,231.8	6.3	3.4	103.44	103.44	-5,209.6	554.8	5,392.1	5,382.7	9.39	574.472	
2,362.2	2,341.2	1,244.0	1,231.8	6.6	3.4	103.44	103.44	-5,209.6	554.8	5,407.5	5,397.9	9.65	560.596	
2,400.0	2,378.1	1,277.7	1,264.1	6.8	3.6	103.59	103.59	-5,216.7	548.4	5,417.1	5,407.2	9.95	544.232	
2,460.6	2,437.4	1,319.3	1,303.9	7.0	3.8	103.77	103.77	-5,225.5	540.3	5,432.7	5,422.3	10.39	522.705	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 351-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,476.0	1,346.2	1,329.6	7.2	4.0	103.89	-5,231.2	535.0	5,442.9	5,432.2	10.68	509.728		
2,559.0	2,533.7	1,373.0	1,355.3	7.4	4.1	104.01	-5,237.0	529.6	5,458.5	5,447.4	11.05	494.107		
2,600.0	2,573.8	1,373.0	1,355.3	7.6	4.1	104.01	-5,237.0	529.6	5,469.5	5,458.3	11.22	487.437		
2,657.5	2,630.0	1,417.7	1,397.9	7.9	4.4	104.21	-5,246.9	520.2	5,485.1	5,473.4	11.68	469.416		
2,700.0	2,671.6	1,433.6	1,412.9	8.1	4.5	104.29	-5,250.5	516.7	5,497.0	5,485.0	11.94	460.218		
2,755.9	2,726.3	1,454.3	1,432.5	8.3	4.7	104.38	-5,255.3	512.1	5,512.8	5,500.6	12.29	448.730		
2,800.0	2,769.4	1,501.0	1,476.5	8.5	5.0	104.61	-5,266.5	501.0	5,525.8	5,513.1	12.70	435.010		
2,854.3	2,822.5	1,501.0	1,476.5	8.7	5.0	104.61	-5,266.5	501.0	5,541.7	5,528.7	12.94	428.361		
2,900.0	2,867.2	1,501.0	1,476.5	8.9	5.0	104.61	-5,266.5	501.0	5,555.4	5,542.2	13.13	422.983		
2,952.7	2,918.8	1,501.0	1,476.5	9.2	5.0	104.61	-5,266.5	501.0	5,571.6	5,558.2	13.36	416.973		
3,000.0	2,965.0	1,501.0	1,476.5	9.4	5.0	104.61	-5,266.5	501.0	5,586.5	5,573.0	13.57	411.789		
3,051.2	3,015.1	1,550.7	1,523.0	9.6	5.3	104.85	-5,279.1	488.7	5,602.5	5,588.4	14.05	398.723		
3,100.0	3,062.8	1,565.2	1,536.5	9.8	5.4	104.92	-5,282.9	485.1	5,618.3	5,603.9	14.34	391.827		
3,149.6	3,111.4	1,579.8	1,550.1	10.0	5.5	104.99	-5,286.8	481.5	5,634.6	5,619.9	14.63	385.117		
3,200.0	3,160.7	1,629.0	1,595.7	10.3	5.8	105.23	-5,300.5	469.3	5,651.7	5,636.6	15.11	374.133		
3,248.0	3,207.6	1,629.0	1,595.7	10.5	5.8	105.23	-5,300.5	469.3	5,667.9	5,652.6	15.32	370.073		
3,300.0	3,258.5	1,629.0	1,595.7	10.7	5.8	105.23	-5,300.5	469.3	5,685.8	5,670.2	15.54	365.828		
3,346.4	3,303.9	1,653.3	1,618.2	10.9	6.0	105.35	-5,307.4	463.2	5,702.0	5,686.2	15.86	359.420		
3,400.0	3,356.3	1,699.8	1,661.2	11.2	6.3	105.57	-5,320.7	451.6	5,720.9	5,704.6	16.33	350.412		
3,444.9	3,400.2	1,738.7	1,697.2	11.4	6.6	105.76	-5,331.8	441.9	5,736.8	5,720.1	16.71	343.270		
3,500.0	3,454.1	1,758.0	1,715.1	11.6	6.7	105.85	-5,337.3	437.0	5,756.4	5,739.4	17.05	337.688		
3,543.3	3,496.5	1,758.0	1,715.1	11.8	6.7	105.85	-5,337.3	437.0	5,772.1	5,754.9	17.24	334.886		
3,600.0	3,551.9	1,801.6	1,755.3	12.0	7.0	106.06	-5,350.0	425.8	5,792.7	5,775.0	17.72	326.932		
3,641.7	3,592.7	1,815.1	1,767.7	12.2	7.2	106.13	-5,354.0	422.2	5,808.2	5,790.2	17.97	323.159		
3,700.0	3,649.7	1,833.8	1,784.7	12.5	7.3	106.22	-5,359.6	417.1	5,830.1	5,811.7	18.33	318.105		
3,740.1	3,689.0	1,846.5	1,796.3	12.7	7.4	106.28	-5,363.4	413.6	5,845.4	5,826.8	18.57	314.758		
3,800.0	3,747.5	1,886.0	1,832.1	12.9	7.7	106.48	-5,375.7	402.3	5,868.6	5,849.5	19.04	308.200		
3,838.6	3,785.3	1,886.0	1,832.1	13.1	7.7	106.48	-5,375.7	402.3	5,883.6	5,864.3	19.21	306.265		
3,900.0	3,845.4	1,886.0	1,832.1	13.4	7.7	106.48	-5,375.7	402.3	5,907.9	5,888.4	19.48	303.275		
3,937.0	3,881.5	1,886.0	1,832.1	13.6	7.7	106.48	-5,375.7	402.3	5,922.8	5,903.2	19.64	301.524		
4,000.0	3,943.2	1,937.3	1,878.4	13.8	8.1	106.74	-5,392.0	387.2	5,948.2	5,927.9	20.23	294.057		
4,035.4	3,977.8	1,950.9	1,890.6	14.0	8.2	106.81	-5,396.4	383.2	5,962.7	5,942.2	20.46	291.365		
4,100.0	4,041.0	1,975.5	1,912.7	14.3	8.5	106.94	-5,404.4	375.9	5,989.4	5,968.5	20.89	286.646		
4,133.8	4,074.1	2,015.0	1,948.0	14.4	8.8	107.14	-5,417.5	364.1	6,003.6	5,982.4	21.28	282.160		
4,200.0	4,138.8	2,015.0	1,948.0	14.7	8.8	107.14	-5,417.5	364.1	6,031.5	6,009.9	21.57	279.647		
4,232.3	4,170.4	2,015.0	1,948.0	14.9	8.8	107.14	-5,417.5	364.1	6,045.2	6,023.5	21.71	278.453		
4,300.0	4,236.6	2,058.9	1,987.2	15.2	9.2	107.36	-5,432.3	350.7	6,074.3	6,052.1	22.28	272.617		
4,330.7	4,266.6	2,072.9	1,999.6	15.3	9.3	107.44	-5,437.0	346.3	6,087.7	6,065.2	22.50	270.525		
4,400.0	4,334.4	2,104.1	2,027.2	15.6	9.6	107.60	-5,447.6	336.4	6,118.0	6,095.0	23.00	265.999		
4,429.1	4,362.9	2,143.0	2,061.4	15.8	10.0	107.81	-5,461.0	323.6	6,130.9	6,107.6	23.37	262.387		
4,500.0	4,432.2	2,151.3	2,068.7	16.1	10.0	107.85	-5,463.8	320.9	6,162.4	6,138.7	23.73	259.673		
4,527.5	4,459.2	2,169.9	2,085.1	16.2	10.2	107.95	-5,470.2	314.6	6,174.7	6,150.7	23.97	257.562		
4,600.0	4,530.1	2,219.0	2,128.1	16.5	10.7	108.21	-5,487.1	298.2	6,207.3	6,182.7	24.61	252.243		
4,626.0	4,555.5	2,236.6	2,143.5	16.7	10.9	108.30	-5,493.2	292.4	6,219.1	6,194.3	24.84	250.413		
4,700.0	4,627.9	2,291.1	2,191.3	17.0	11.4	108.59	-5,512.0	274.0	6,252.7	6,227.2	25.51	245.103		
4,724.4	4,651.7	2,312.3	2,209.8	17.1	11.6	108.70	-5,519.3	266.8	6,263.9	6,238.1	25.75	243.212		
4,800.0	4,725.7	3,057.4	2,855.4	17.4	18.6	112.93	-5,724.6	-39.8	6,294.9	6,263.7	31.15	202.103		
4,822.8	4,748.0	3,941.0	3,624.2	17.6	26.6	118.10	-5,848.5	-454.3	6,302.1	6,264.4	37.67	167.286		
4,900.0	4,823.5	4,002.8	3,680.3	17.9	27.1	118.43	-5,853.5	-479.7	6,323.1	6,284.7	38.39	164.701		
4,921.2	4,844.3	4,010.0	3,686.8	18.0	27.2	118.47	-5,854.1	-482.7	6,329.0	6,290.5	38.53	164.279		
5,000.0	4,921.3	4,069.0	3,739.9	18.4	27.7	118.78	-5,859.5	-507.9	6,351.7	6,312.5	39.23	161.919		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 351-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,014.9	4,935.9	4,069.0	3,739.9	18.4	27.7	118.78	-5,859.5	-507.9	6,356.0	6,316.7	39.29	161.769		
5,019.7	4,940.6	4,069.0	3,739.9	18.4	27.7	118.80	-5,859.5	-507.9	6,357.3	6,318.0	39.30	161.766		
5,100.0	5,019.4	4,069.0	3,739.9	18.7	27.7	119.22	-5,859.5	-507.9	6,380.4	6,340.9	39.46	161.703		
5,118.1	5,037.2	4,069.0	3,739.9	18.8	27.7	119.32	-5,859.5	-507.9	6,385.5	6,346.1	39.48	161.749		
5,200.0	5,118.1	4,109.4	3,776.0	19.0	28.0	119.94	-5,863.4	-525.6	6,408.6	6,368.7	39.87	160.756		
5,216.5	5,134.4	4,116.0	3,781.8	19.1	28.1	120.05	-5,864.1	-528.5	6,413.2	6,373.2	39.93	160.625		
5,300.0	5,217.2	4,149.1	3,811.2	19.3	28.4	120.62	-5,867.4	-543.4	6,436.1	6,395.8	40.24	159.954		
5,314.9	5,232.1	4,155.0	3,816.4	19.3	28.5	120.72	-5,868.0	-546.2	6,440.1	6,399.8	40.29	159.852		
5,400.0	5,316.8	4,197.0	3,853.4	19.5	28.8	121.32	-5,872.4	-565.6	6,462.8	6,422.1	40.64	159.031		
5,413.4	5,330.1	4,197.0	3,853.4	19.5	28.8	121.38	-5,872.4	-565.6	6,466.3	6,425.6	40.64	159.104		
5,500.0	5,416.6	4,274.7	3,921.3	19.7	29.6	122.11	-5,880.5	-602.4	6,488.4	6,447.1	41.27	157.204		
5,511.8	5,428.4	4,286.3	3,931.4	19.7	29.7	122.21	-5,881.7	-608.0	6,491.3	6,450.0	41.36	156.932		
5,600.0	5,516.6	4,354.6	3,990.9	19.8	30.4	122.87	-5,888.5	-640.8	6,512.5	6,470.6	41.89	155.472		
5,610.2	5,526.8	4,360.8	3,996.3	19.8	30.5	122.93	-5,889.2	-643.8	6,514.9	6,472.9	41.93	155.362		
5,615.0	5,531.6	4,363.7	3,998.9	19.8	30.5	-166.96	-5,889.5	-645.1	6,516.0	6,474.0	42.03	155.019		
5,700.0	5,616.6	4,415.5	4,044.2	19.9	31.0	-166.75	-5,895.0	-669.6	6,536.0	6,493.4	42.53	153.676		
5,708.6	5,625.3	4,420.8	4,048.8	20.0	31.0	-166.73	-5,895.6	-672.1	6,538.0	6,495.4	42.58	153.537		
5,800.0	5,716.6	4,454.0	4,078.0	20.1	31.3	-166.60	-5,899.3	-687.6	6,560.1	6,517.1	42.96	152.692		
5,807.1	5,723.7	4,454.0	4,078.0	20.1	31.3	-166.60	-5,899.3	-687.6	6,561.9	6,518.9	42.97	152.695		
5,900.0	5,816.6	4,526.7	4,142.0	20.2	32.0	-166.33	-5,908.0	-721.0	6,584.9	6,541.2	43.60	151.012		
5,905.5	5,822.1	4,529.6	4,144.5	20.2	32.0	-166.32	-5,908.4	-722.3	6,586.2	6,542.6	43.63	150.947		
6,000.0	5,916.6	4,583.0	4,191.6	20.4	32.5	-166.12	-5,915.3	-746.5	6,610.4	6,566.2	44.14	149.772		
6,003.9	5,920.5	4,583.0	4,191.6	20.4	32.5	-166.12	-5,915.3	-746.5	6,611.4	6,567.2	44.14	149.775		
6,100.0	6,016.6	4,663.2	4,262.2	20.5	33.3	-165.83	-5,925.7	-783.1	6,636.4	6,591.5	44.86	147.936		
6,102.3	6,019.0	4,665.2	4,264.0	20.5	33.3	-165.82	-5,926.0	-784.1	6,637.0	6,592.1	44.88	147.891		
6,200.0	6,116.6	4,711.0	4,304.0	20.6	33.7	-165.65	-5,931.8	-805.4	6,662.8	6,617.4	45.35	146.920		
6,200.8	6,117.4	4,711.0	4,304.0	20.6	33.7	-165.65	-5,931.8	-805.4	6,663.0	6,617.6	45.35	146.921		
6,299.2	6,215.8	4,782.5	4,366.3	20.8	34.4	-165.37	-5,941.0	-839.3	6,689.5	6,643.5	46.05	145.270		
6,300.0	6,216.6	4,782.9	4,366.7	20.8	34.5	-165.37	-5,941.0	-839.5	6,689.7	6,643.7	46.05	145.261		
6,340.0	6,256.6	4,802.8	4,383.9	20.8	34.7	-165.30	-5,943.6	-849.0	6,700.7	6,654.5	46.27	144.829		
6,350.0	6,266.6	4,807.8	4,388.2	20.8	34.7	14.46	-5,944.3	-851.4	6,703.4	6,657.2	46.27	144.884		
6,397.6	6,314.2	4,839.0	4,415.3	20.9	35.0	14.35	-5,948.5	-866.5	6,714.6	6,668.0	46.60	144.078		
6,400.0	6,316.5	4,839.0	4,415.3	20.9	35.0	14.34	-5,948.5	-866.5	6,715.1	6,668.5	46.60	144.092		
6,450.0	6,366.2	4,867.0	4,439.5	20.9	35.3	14.28	-5,952.2	-880.1	6,723.7	6,677.0	46.68	144.049		
6,496.0	6,411.4	4,901.5	4,469.2	21.0	35.7	14.32	-5,956.8	-896.9	6,728.7	6,682.1	46.59	144.418		
6,500.0	6,415.3	4,904.4	4,471.7	21.0	35.7	14.33	-5,957.2	-898.4	6,729.0	6,682.4	46.57	144.478		
6,550.0	6,463.6	4,941.5	4,503.6	21.0	36.1	14.45	-5,962.2	-916.6	6,731.0	6,684.8	46.22	145.624		
6,594.5	6,505.8	4,992.1	4,547.1	21.0	36.7	14.69	-5,968.9	-941.7	6,730.1	6,684.3	45.83	146.864		
6,600.0	6,510.9	5,008.2	4,561.0	21.0	36.8	14.76	-5,971.0	-949.6	6,729.8	6,684.0	45.83	146.843		
6,650.0	6,557.0	5,120.9	4,658.4	21.0	38.0	15.37	-5,985.3	-1,004.3	6,724.9	6,679.5	45.47	147.894		
6,692.9	6,595.4	5,174.4	4,705.2	21.0	38.5	15.77	-5,992.2	-1,029.5	6,718.0	6,673.3	44.65	150.465		
6,700.0	6,601.6	5,183.3	4,712.9	21.0	38.5	15.84	-5,993.3	-1,033.6	6,716.6	6,672.1	44.49	150.954		
6,750.0	6,644.6	5,243.2	4,765.6	20.9	39.1	16.38	-6,001.1	-1,060.9	6,704.9	6,661.7	43.27	154.973		
6,791.3	6,678.6	7,300.3	6,738.0	20.9	48.5	24.24	-6,137.9	-1,506.7	6,690.1	6,644.1	46.04	145.311		
6,800.0	6,685.6	7,304.5	6,742.2	20.9	48.5	24.45	-6,137.9	-1,506.7	6,685.2	6,639.5	45.67	146.394		
6,850.0	6,724.6	7,328.0	6,765.7	20.9	48.5	25.78	-6,137.7	-1,506.6	6,655.3	6,611.9	43.45	153.158		
6,889.7	6,753.9	7,345.8	6,783.5	20.9	48.5	27.01	-6,137.5	-1,506.5	6,629.9	6,588.3	41.66	159.148		
6,900.0	6,761.3	7,350.2	6,787.9	20.9	48.5	27.36	-6,137.5	-1,506.4	6,623.1	6,581.9	41.19	160.784		
6,950.0	6,795.5	7,369.3	6,807.0	20.9	48.5	29.24	-6,137.4	-1,506.3	6,588.7	6,549.7	38.98	169.021		
6,988.2	6,819.9	7,385.9	6,823.6	20.9	48.5	30.93	-6,137.4	-1,506.2	6,561.0	6,523.6	37.42	175.345		
7,000.0	6,827.1	7,390.3	6,828.0	20.9	48.5	31.50	-6,137.4	-1,506.1	6,552.2	6,515.3	36.96	177.288		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 351-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,050.0	6,855.9	7,407.0	6,844.7	20.9	48.5	34.20	-6,137.4	-1,506.0	6,513.8	6,478.5	35.31	184.490		
7,086.6	6,875.1	7,407.0	6,844.7	20.9	48.5	36.43	-6,137.4	-1,506.0	6,484.7	6,450.3	34.43	188.328		
7,100.0	6,881.8	7,407.0	6,844.7	20.9	48.5	37.32	-6,137.4	-1,506.0	6,473.8	6,439.6	34.23	189.108		
7,150.0	6,904.6	7,440.5	6,878.2	21.0	48.5	41.42	-6,137.6	-1,505.6	6,432.2	6,398.1	34.06	188.859		
7,185.0	6,918.8	7,450.0	6,887.7	21.1	48.5	44.68	-6,137.6	-1,505.5	6,402.2	6,367.7	34.52	185.481		
7,200.0	6,924.3	7,453.8	6,891.5	21.1	48.5	46.21	-6,137.7	-1,505.5	6,389.2	6,354.3	34.87	183.223		
7,250.0	6,940.8	7,464.9	6,902.6	21.2	48.5	52.00	-6,137.7	-1,505.4	6,345.1	6,308.4	36.71	172.838		
7,283.4	6,949.9	7,471.2	6,908.9	21.3	48.5	56.51	-6,137.8	-1,505.3	6,315.1	6,276.7	38.41	164.394		
7,300.0	6,953.9	7,473.9	6,911.6	21.4	48.5	58.94	-6,137.8	-1,505.3	6,300.2	6,260.8	39.35	160.126		
7,350.0	6,963.6	7,480.7	6,918.4	21.6	48.5	67.09	-6,137.9	-1,505.2	6,254.5	6,212.2	42.27	147.961		
7,381.9	6,968.0	7,483.8	6,921.5	21.7	48.5	72.86	-6,137.9	-1,505.2	6,225.1	6,181.1	43.97	141.570		
7,400.0	6,969.9	7,485.2	6,922.9	21.8	48.5	76.31	-6,137.9	-1,505.2	6,208.3	6,163.5	44.78	138.640		
7,450.0	6,972.6	7,487.4	6,925.1	22.1	48.5	86.24	-6,137.9	-1,505.1	6,161.9	6,115.7	46.15	133.531		
7,471.5	6,972.8	7,487.6	6,925.3	22.2	48.5	90.58	-6,137.9	-1,505.1	6,141.9	6,095.6	46.26	132.780		
7,480.3	6,972.7	7,487.6	6,925.3	22.3	48.5	90.58	-6,137.9	-1,505.1	6,133.7	6,087.4	46.34	132.356		
7,500.0	6,972.5	7,487.6	6,925.3	22.4	48.5	90.58	-6,137.9	-1,505.1	6,115.4	6,068.9	46.54	131.415		
7,578.7	6,971.8	7,487.6	6,925.3	23.1	48.5	90.58	-6,137.9	-1,505.1	6,042.4	5,995.0	47.33	127.668		
7,600.0	6,971.6	7,487.6	6,925.3	23.3	48.5	90.58	-6,137.9	-1,505.1	6,022.6	5,975.1	47.54	126.678		
7,677.1	6,970.9	7,487.6	6,925.3	24.0	48.5	90.58	-6,137.9	-1,505.1	5,951.2	5,902.9	48.38	123.006		
7,700.0	6,970.7	7,487.6	6,925.3	24.2	48.5	90.58	-6,137.9	-1,505.1	5,930.1	5,881.5	48.63	121.944		
7,775.6	6,970.0	7,487.6	6,925.3	25.0	48.5	90.58	-6,137.9	-1,505.1	5,860.4	5,810.8	49.54	118.288		
7,800.0	6,969.8	7,487.7	6,925.3	25.3	48.5	90.58	-6,137.9	-1,505.1	5,837.8	5,788.0	49.84	117.136		
7,874.0	6,969.1	7,487.7	6,925.4	26.2	48.5	90.58	-6,137.9	-1,505.1	5,769.7	5,718.9	50.81	113.559		
7,900.0	6,968.9	7,487.7	6,925.4	26.5	48.5	90.58	-6,137.9	-1,505.1	5,745.8	5,694.7	51.15	112.335		
7,972.4	6,968.2	7,487.7	6,925.4	27.4	48.5	90.58	-6,137.9	-1,505.1	5,679.3	5,627.2	52.16	108.881		
8,000.0	6,968.0	7,487.7	6,925.4	27.8	48.5	90.58	-6,137.9	-1,505.1	5,654.1	5,601.5	52.55	107.602		
8,070.8	6,967.3	7,487.7	6,925.4	28.7	48.5	90.58	-6,137.9	-1,505.1	5,589.2	5,535.6	53.59	104.301		
8,100.0	6,967.1	7,487.7	6,925.4	29.1	48.5	90.58	-6,137.9	-1,505.1	5,562.6	5,508.6	54.02	102.981		
8,169.3	6,966.4	7,487.7	6,925.4	30.1	48.5	90.58	-6,137.9	-1,505.1	5,499.4	5,444.3	55.08	99.851		
8,200.0	6,966.2	7,487.7	6,925.4	30.5	48.5	90.58	-6,137.9	-1,505.1	5,471.4	5,415.9	55.55	98.502		
8,267.7	6,965.5	7,487.7	6,925.4	31.5	48.5	90.58	-6,137.9	-1,505.1	5,409.9	5,353.3	56.62	95.551		
8,300.0	6,965.2	7,487.7	6,925.4	32.0	48.5	90.58	-6,137.9	-1,505.1	5,380.6	5,323.5	57.13	94.184		
8,366.1	6,964.6	7,487.8	6,925.4	33.0	48.5	90.58	-6,137.9	-1,505.1	5,320.7	5,262.5	58.20	91.415		
8,400.0	6,964.3	7,487.8	6,925.5	33.5	48.5	90.58	-6,137.9	-1,505.1	5,290.1	5,231.3	58.75	90.037		
8,464.5	6,963.8	7,487.8	6,925.5	34.5	48.5	90.58	-6,137.9	-1,505.1	5,231.8	5,172.0	59.83	87.449		
8,500.0	6,963.4	7,487.8	6,925.5	35.1	48.5	90.58	-6,137.9	-1,505.1	5,199.9	5,139.5	60.42	86.068		
8,563.0	6,962.9	7,487.8	6,925.5	36.1	48.5	90.58	-6,137.9	-1,505.1	5,143.3	5,081.8	61.48	83.654		
8,600.0	6,962.5	7,487.8	6,925.5	36.7	48.5	90.58	-6,137.9	-1,505.1	5,110.1	5,048.0	62.11	82.274		
8,661.4	6,962.0	7,487.8	6,925.5	37.7	48.5	90.58	-6,137.9	-1,505.1	5,055.1	4,992.0	63.17	80.028		
8,700.0	6,961.6	7,487.8	6,925.5	38.3	48.5	90.58	-6,137.9	-1,505.1	5,020.7	4,956.8	63.83	78.655		
8,759.8	6,961.1	7,487.8	6,925.5	39.3	48.5	90.58	-6,137.9	-1,505.1	4,967.3	4,902.5	64.88	76.568		
8,800.0	6,960.7	7,487.8	6,925.5	40.0	48.5	90.58	-6,137.9	-1,505.1	4,931.6	4,866.1	65.58	75.205		
8,858.2	6,960.2	7,487.8	6,925.5	40.9	48.5	90.58	-6,137.9	-1,505.1	4,880.0	4,813.4	66.60	73.269		
8,900.0	6,959.8	7,487.9	6,925.5	41.6	48.5	90.59	-6,137.9	-1,505.1	4,843.0	4,775.7	67.34	71.919		
8,956.7	6,959.3	7,487.9	6,925.6	42.6	48.5	90.59	-6,137.9	-1,505.1	4,793.0	4,724.7	68.35	70.124		
9,000.0	6,958.9	7,487.9	6,925.6	43.3	48.5	90.59	-6,137.9	-1,505.1	4,754.9	4,685.8	69.12	68.789		
9,055.1	6,958.4	7,487.9	6,925.6	44.3	48.5	90.59	-6,137.9	-1,505.1	4,706.6	4,636.4	70.11	67.127		
9,100.0	6,958.0	7,487.9	6,925.6	45.1	48.5	90.59	-6,137.9	-1,505.1	4,667.3	4,596.3	70.92	65.809		
9,153.5	6,957.5	7,487.9	6,925.6	46.0	48.5	90.59	-6,137.9	-1,505.1	4,620.5	4,548.7	71.89	64.272		
9,200.0	6,957.1	7,487.9	6,925.6	46.8	48.5	90.59	-6,137.9	-1,505.1	4,580.1	4,507.4	72.73	62.972		
9,251.9	6,956.6	7,487.9	6,925.6	47.7	48.5	90.59	-6,137.9	-1,505.1	4,535.0	4,461.4	73.68	61.551		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 351-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,300.0	6,956.2	7,487.9	6,925.6	48.6	48.5	90.59	-6,137.9	-1,505.1	4,493.5	4,418.9	74.56	60.270		
9,350.4	6,955.7	7,487.9	6,925.6	49.5	48.5	90.59	-6,137.9	-1,505.1	4,450.1	4,374.6	75.48	58.957		
9,400.0	6,955.2	7,488.0	6,925.6	50.3	48.5	90.59	-6,137.9	-1,505.1	4,407.4	4,331.0	76.39	57.696		
9,448.8	6,954.8	7,488.0	6,925.7	51.2	48.5	90.59	-6,137.9	-1,505.1	4,365.7	4,288.4	77.29	56.484		
9,500.0	6,954.3	7,488.0	6,925.7	52.1	48.5	90.59	-6,137.9	-1,505.1	4,322.0	4,243.8	78.23	55.244		
9,547.2	6,953.9	7,488.0	6,925.7	53.0	48.5	90.59	-6,137.9	-1,505.1	4,281.9	4,202.7	79.11	54.126		
9,600.0	6,953.4	7,488.0	6,925.7	53.9	48.5	90.59	-6,137.9	-1,505.1	4,237.2	4,157.1	80.09	52.907		
9,645.6	6,953.0	7,488.0	6,925.7	54.7	48.5	90.59	-6,137.9	-1,505.1	4,198.7	4,117.7	80.94	51.877		
9,700.0	6,952.5	7,488.0	6,925.7	55.7	48.5	90.59	-6,137.9	-1,505.1	4,153.0	4,071.1	81.95	50.680		
9,744.1	6,952.1	7,488.0	6,925.7	56.5	48.5	90.59	-6,137.9	-1,505.1	4,116.2	4,033.4	82.77	49.731		
9,800.0	6,951.6	7,488.0	6,925.7	57.5	48.5	90.59	-6,137.9	-1,505.1	4,069.6	3,985.8	83.81	48.556		
9,842.5	6,951.2	7,488.1	6,925.7	58.3	48.5	90.59	-6,137.9	-1,505.1	4,034.4	3,949.8	84.61	47.683		
9,900.0	6,950.7	7,488.1	6,925.8	59.4	48.5	90.59	-6,137.9	-1,505.1	3,987.0	3,901.3	85.69	46.530		
9,940.9	6,950.3	7,488.1	6,925.8	60.1	48.5	90.59	-6,137.9	-1,505.1	3,953.4	3,866.9	86.46	45.727		
10,000.0	6,949.8	7,488.1	6,925.8	61.2	48.5	90.59	-6,137.9	-1,505.1	3,905.1	3,817.6	87.56	44.597		
10,039.3	6,949.4	7,488.1	6,925.8	61.9	48.5	90.59	-6,137.9	-1,505.1	3,873.1	3,784.8	88.31	43.860		
10,100.0	6,948.9	7,488.1	6,925.8	63.0	48.5	90.59	-6,137.9	-1,505.1	3,824.1	3,734.7	89.45	42.752		
10,137.8	6,948.5	7,488.1	6,925.8	63.7	48.5	90.59	-6,137.9	-1,505.1	3,793.8	3,703.6	90.16	42.077		
10,200.0	6,948.0	7,488.1	6,925.8	64.9	48.5	90.59	-6,137.9	-1,505.1	3,744.1	3,652.7	91.34	40.992		
10,236.2	6,947.6	7,488.1	6,925.8	65.6	48.5	90.59	-6,137.9	-1,505.1	3,715.3	3,623.3	92.02	40.374		
10,300.0	6,947.1	7,488.2	6,925.8	66.7	48.5	90.59	-6,137.9	-1,505.1	3,665.0	3,571.8	93.23	39.312		
10,334.6	6,946.7	7,488.2	6,925.8	67.4	48.5	90.59	-6,137.9	-1,505.1	3,637.9	3,544.0	93.89	38.747		
10,400.0	6,946.2	7,488.2	6,925.9	68.6	48.5	90.59	-6,137.9	-1,505.1	3,587.0	3,491.8	95.13	37.707		
10,433.0	6,945.8	7,488.2	6,925.9	69.2	48.5	90.59	-6,137.9	-1,505.1	3,561.4	3,465.7	95.75	37.193		
10,500.0	6,945.2	7,488.2	6,925.9	70.5	48.5	90.59	-6,137.9	-1,505.1	3,510.0	3,413.0	97.03	36.176		
10,531.5	6,945.0	7,488.2	6,925.9	71.1	48.5	90.60	-6,137.9	-1,505.1	3,486.1	3,388.4	97.63	35.709		
10,600.0	6,944.3	7,488.2	6,925.9	72.3	48.5	90.60	-6,137.9	-1,505.1	3,434.3	3,335.4	98.93	34.715		
10,629.9	6,944.1	7,488.2	6,925.9	72.9	48.5	90.60	-6,137.9	-1,505.1	3,411.9	3,312.4	99.50	34.291		
10,700.0	6,943.4	7,488.2	6,925.9	74.2	48.5	90.60	-6,137.9	-1,505.1	3,359.8	3,259.0	100.84	33.320		
10,728.3	6,943.2	7,488.3	6,925.9	74.7	48.5	90.60	-6,137.9	-1,505.1	3,339.0	3,237.6	101.38	32.936		
10,800.0	6,942.5	7,488.3	6,926.0	76.1	48.5	90.60	-6,137.9	-1,505.1	3,286.7	3,184.0	102.75	31.989		
10,826.7	6,942.3	7,488.3	6,926.0	76.6	48.5	90.60	-6,137.9	-1,505.1	3,267.4	3,164.2	103.26	31.644		
10,900.0	6,941.6	7,488.3	6,926.0	78.0	48.5	90.60	-6,137.9	-1,505.1	3,215.1	3,110.4	104.66	30.720		
10,925.2	6,941.4	7,488.3	6,926.0	78.4	48.5	90.60	-6,137.9	-1,505.1	3,197.3	3,092.1	105.14	30.410		
11,000.0	6,940.7	7,488.3	6,926.0	79.9	48.5	90.60	-6,137.9	-1,505.1	3,145.0	3,038.4	106.57	29.510		
11,023.6	6,940.5	7,488.3	6,926.0	80.3	48.5	90.60	-6,137.9	-1,505.1	3,128.7	3,021.6	107.02	29.233		
11,100.0	6,939.8	7,488.3	6,926.0	81.7	48.5	90.60	-6,137.9	-1,505.1	3,076.5	2,968.0	108.49	28.358		
11,122.0	6,939.6	7,488.3	6,926.0	82.2	48.5	90.60	-6,137.9	-1,505.1	3,061.7	2,952.8	108.91	28.112		
11,200.0	6,938.9	7,488.4	6,926.1	83.6	48.5	90.60	-6,137.9	-1,505.1	3,009.8	2,899.4	110.41	27.261		
11,220.4	6,938.7	7,488.4	6,926.1	84.0	48.5	90.60	-6,137.9	-1,505.1	2,996.4	2,885.6	110.80	27.044		
11,300.0	6,938.0	7,488.4	6,926.1	85.5	48.5	90.60	-6,137.9	-1,505.1	2,945.0	2,832.7	112.33	26.218		
11,318.9	6,937.8	7,488.4	6,926.1	85.9	48.5	90.60	-6,137.9	-1,505.1	2,933.0	2,820.3	112.69	26.027		
11,400.0	6,937.0	7,488.4	6,926.1	87.4	48.5	90.60	-6,137.9	-1,505.1	2,882.2	2,768.0	114.25	25.228		
11,417.3	6,936.9	7,488.4	6,926.1	87.8	48.5	90.60	-6,137.9	-1,505.1	2,871.6	2,757.0	114.58	25.061		
11,500.0	6,936.1	7,488.4	6,926.1	89.3	48.5	90.60	-6,137.9	-1,505.1	2,821.6	2,705.4	116.17	24.288		
11,515.7	6,936.0	7,488.4	6,926.1	89.6	48.5	90.60	-6,137.9	-1,505.1	2,812.3	2,695.8	116.48	24.145		
11,600.0	6,935.2	7,488.5	6,926.2	91.2	48.5	90.60	-6,137.9	-1,505.1	2,763.2	2,645.1	118.10	23.398		
11,614.1	6,935.1	7,488.5	6,926.2	91.5	48.5	90.60	-6,137.9	-1,505.1	2,755.2	2,636.8	118.37	23.276		
11,700.0	6,934.3	7,488.5	6,926.2	93.1	48.5	90.60	-6,137.9	-1,505.1	2,707.3	2,587.3	120.03	22.556		
11,712.6	6,934.2	7,488.5	6,926.2	93.4	48.5	90.60	-6,137.9	-1,505.1	2,700.5	2,580.2	120.27	22.454		
11,800.0	6,933.4	7,488.5	6,926.2	95.1	48.5	90.60	-6,137.9	-1,505.1	2,654.0	2,532.0	121.95	21.762		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST DD NEI C18-33D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 351-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,811.0	6,933.3	7,488.5	6,926.2	95.3	48.5	90.60	-6,137.9	-1,505.1	2,648.3	2,526.1	122.17	21.678		
11,900.0	6,932.5	7,488.5	6,926.2	97.0	48.5	90.60	-6,137.9	-1,505.1	2,603.4	2,479.5	123.88	21.015		
11,909.4	6,932.4	7,488.5	6,926.2	97.1	48.5	90.60	-6,137.9	-1,505.1	2,598.8	2,474.7	124.07	20.947		
12,000.0	6,931.6	7,488.6	6,926.3	98.9	48.5	90.61	-6,137.9	-1,505.1	2,555.7	2,429.9	125.81	20.314		
12,007.8	6,931.5	7,488.6	6,926.3	99.0	48.5	90.61	-6,137.9	-1,505.1	2,552.1	2,426.2	125.97	20.260		
12,100.0	6,930.7	7,488.6	6,926.3	100.8	48.5	90.61	-6,137.9	-1,505.1	2,511.2	2,383.4	127.75	19.657		
12,106.3	6,930.6	7,488.6	6,926.3	100.9	48.5	90.61	-6,137.9	-1,505.1	2,508.5	2,380.6	127.87	19.618		
12,200.0	6,929.8	7,488.6	6,926.3	102.7	48.5	90.61	-6,137.9	-1,505.1	2,469.8	2,340.1	129.68	19.046		
12,204.7	6,929.7	7,488.6	6,926.3	102.8	48.5	90.61	-6,137.9	-1,505.1	2,468.0	2,338.2	129.77	19.018		
12,300.0	6,928.8	7,488.7	6,926.3	104.6	48.5	90.61	-6,137.9	-1,505.1	2,431.9	2,300.3	131.61	18.478		
12,303.1	6,928.8	7,488.7	6,926.3	104.7	48.5	90.61	-6,137.9	-1,505.1	2,430.8	2,299.1	131.67	18.460		
12,400.0	6,927.9	7,488.7	6,926.4	106.5	48.5	90.61	-6,137.9	-1,505.1	2,397.5	2,264.0	133.55	17.953		
12,401.5	6,927.9	7,488.7	6,926.4	106.6	48.5	90.61	-6,137.9	-1,505.1	2,397.0	2,263.5	133.58	17.945		
12,500.0	6,927.0	7,488.7	6,926.4	108.5	48.5	90.61	-6,137.9	-1,505.1	2,366.9	2,231.4	135.48	17.470		
12,598.4	6,926.1	7,488.7	6,926.4	110.4	48.5	90.61	-6,137.9	-1,505.1	2,340.6	2,203.2	137.39	17.036		
12,600.0	6,926.1	7,488.7	6,926.4	110.4	48.5	90.61	-6,137.9	-1,505.1	2,340.2	2,202.8	137.42	17.029		
12,696.8	6,925.2	7,488.8	6,926.5	112.3	48.5	90.61	-6,137.9	-1,505.1	2,318.1	2,178.8	139.30	16.641		
12,700.0	6,925.2	7,488.8	6,926.5	112.3	48.5	90.61	-6,137.9	-1,505.1	2,317.4	2,178.1	139.36	16.629		
12,795.2	6,924.3	7,488.8	6,926.5	114.1	48.5	90.61	-6,137.9	-1,505.1	2,299.6	2,158.4	141.21	16.286		
12,800.0	6,924.3	7,488.8	6,926.5	114.2	48.5	90.61	-6,137.9	-1,505.1	2,298.8	2,157.5	141.30	16.269		
12,893.7	6,923.4	7,488.8	6,926.5	116.0	48.5	90.61	-6,137.9	-1,505.1	2,285.2	2,142.1	143.11	15.968		
12,900.0	6,923.4	7,488.8	6,926.5	116.2	48.5	90.61	-6,137.9	-1,505.1	2,284.5	2,141.2	143.24	15.949		
12,992.1	6,922.5	7,488.9	6,926.6	117.9	48.5	90.61	-6,137.9	-1,505.1	2,275.0	2,130.0	145.02	15.687		
13,000.0	6,922.5	7,488.9	6,926.6	118.1	48.5	90.61	-6,137.9	-1,505.1	2,274.4	2,129.2	145.18	15.666		
13,090.5	6,921.6	7,488.9	6,926.6	119.8	48.5	90.61	-6,137.9	-1,505.1	2,269.0	2,122.1	146.93	15.443		
13,100.0	6,921.5	7,488.9	6,926.6	120.0	48.5	90.61	-6,137.9	-1,505.1	2,268.7	2,121.6	147.12	15.421		
13,179.4	6,920.8	7,488.9	6,926.6	121.6	48.5	90.61	-6,137.9	-1,505.1	2,267.3	2,118.6	148.66	15.252 CC		
13,188.9	6,920.7	7,488.9	6,926.6	121.7	48.5	90.61	-6,137.9	-1,505.1	2,267.3	2,118.5	148.84	15.233		
13,200.0	6,920.6	7,488.9	6,926.6	121.9	48.5	90.61	-6,137.9	-1,505.1	2,267.4	2,118.3	149.06	15.211 ES		
13,287.4	6,919.8	7,489.0	6,926.7	123.6	48.5	90.61	-6,137.9	-1,505.1	2,269.9	2,119.1	150.76	15.057		
13,300.0	6,919.7	7,489.0	6,926.7	123.9	48.5	90.62	-6,137.9	-1,505.1	2,270.5	2,119.5	151.00	15.036		
13,385.8	6,918.9	7,489.0	6,926.7	125.5	48.5	90.62	-6,137.9	-1,505.1	2,276.7	2,124.0	152.67	14.913		
13,400.0	6,918.8	7,489.0	6,926.7	125.8	48.5	90.62	-6,137.9	-1,505.1	2,278.0	2,125.1	152.94	14.894		
13,484.2	6,918.0	7,489.0	6,926.7	127.4	48.5	90.62	-6,137.9	-1,505.1	2,287.7	2,133.1	154.58	14.799		
13,500.0	6,917.9	7,489.0	6,926.7	127.7	48.5	90.62	-6,137.9	-1,505.1	2,289.9	2,135.0	154.89	14.784		
13,582.6	6,917.1	7,489.1	6,926.8	129.3	48.5	90.62	-6,137.9	-1,505.1	2,302.9	2,146.4	156.49	14.716		
13,600.0	6,917.0	7,489.1	6,926.8	129.7	48.5	90.62	-6,137.9	-1,505.1	2,306.0	2,149.2	156.83	14.704		
13,681.1	6,916.2	7,489.1	6,926.8	131.2	48.5	90.62	-6,137.9	-1,505.1	2,322.1	2,163.7	158.41	14.659		
13,700.0	6,916.1	7,489.1	6,926.8	131.6	48.5	90.62	-6,137.9	-1,505.1	2,326.3	2,167.5	158.77	14.652		
13,779.5	6,915.3	7,489.1	6,926.8	133.1	48.5	90.62	-6,137.9	-1,505.1	2,345.4	2,185.1	160.32	14.629		
13,800.0	6,915.2	7,489.1	6,926.8	133.5	48.5	90.62	-6,137.9	-1,505.1	2,350.7	2,190.0	160.72	14.626		
13,877.9	6,914.4	7,489.2	6,926.9	135.1	48.5	90.62	-6,137.9	-1,505.1	2,372.5	2,210.2	162.23	14.624 SF		
13,900.0	6,914.2	7,489.2	6,926.9	135.5	48.5	90.62	-6,137.9	-1,505.1	2,379.1	2,216.4	162.66	14.626		
13,976.3	6,913.5	7,489.2	6,926.9	137.0	48.5	90.62	-6,137.9	-1,505.1	2,403.3	2,239.1	164.15	14.641		
14,000.0	6,913.3	7,489.2	6,926.9	137.4	48.5	90.62	-6,137.9	-1,505.1	2,411.2	2,246.6	164.61	14.648		
14,074.8	6,912.6	7,489.2	6,926.9	138.9	48.5	90.62	-6,137.9	-1,505.1	2,437.7	2,271.6	166.06	14.679		
14,100.0	6,912.4	7,489.2	6,926.9	139.4	48.5	90.62	-6,137.9	-1,505.1	2,447.1	2,280.5	166.56	14.692		
14,145.0	6,912.0	7,489.3	6,927.0	140.2	48.5	90.62	-6,137.9	-1,505.1	2,464.3	2,296.9	167.39	14.722		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-171.90	-5,661.3	-806.0	5,718.6					
98.4	98.4	54.9	54.9	0.1	0.6	-171.90	-5,661.3	-806.0	5,718.4	5,717.7	0.67	8,588.568		
100.0	100.0	56.5	56.5	0.1	0.6	-171.90	-5,661.3	-806.0	5,718.4	5,717.7	0.68	8,360.954		
196.8	196.8	153.3	153.3	0.3	2.3	-171.90	-5,661.3	-806.0	5,718.4	5,715.8	2.59	2,204.029		
200.0	200.0	156.5	156.5	0.3	2.4	-171.90	-5,661.3	-806.0	5,718.4	5,715.7	2.67	2,137.811		
295.3	295.3	251.8	251.8	0.5	4.4	-171.90	-5,661.3	-806.0	5,718.4	5,713.4	4.98	1,148.661		
300.0	300.0	256.5	256.5	0.5	4.5	-171.90	-5,661.3	-806.0	5,718.4	5,713.3	5.09	1,124.065		
393.7	393.7	350.2	350.2	0.8	6.5	-171.90	-5,661.3	-806.0	5,718.4	5,711.2	7.23	791.104		
400.0	400.0	356.5	356.5	0.8	6.6	-171.90	-5,661.3	-806.0	5,718.4	5,711.0	7.37	775.773		
492.1	492.1	448.6	448.6	1.0	8.5	-171.90	-5,661.3	-806.0	5,718.4	5,708.9	9.45	604.895		
500.0	500.0	456.5	456.5	1.0	8.6	-171.90	-5,661.3	-806.0	5,718.4	5,708.8	9.63	593.747		
590.5	590.5	547.0	547.0	1.2	10.5	-171.90	-5,661.3	-806.0	5,718.4	5,706.7	11.67	490.052		
600.0	600.0	556.5	556.5	1.2	10.7	-171.90	-5,661.3	-806.0	5,718.4	5,706.5	11.88	481.291		
689.0	689.0	645.5	645.5	1.4	12.5	-171.90	-5,661.3	-806.0	5,718.4	5,704.5	13.88	412.003		
700.0	700.0	656.5	656.5	1.4	12.7	-171.90	-5,661.3	-806.0	5,718.4	5,704.3	14.13	404.787		
787.4	787.4	743.9	743.9	1.6	14.4	-171.90	-5,661.3	-806.0	5,718.4	5,702.3	16.09	355.461		
800.0	800.0	756.5	756.5	1.7	14.7	-171.90	-5,661.3	-806.0	5,718.4	5,702.0	16.37	349.328		
885.8	885.8	842.3	842.3	1.9	16.4	-171.90	-5,661.3	-806.0	5,718.4	5,700.1	18.29	312.597		
900.0	900.0	856.5	856.5	1.9	16.7	-171.90	-5,661.3	-806.0	5,718.4	5,699.8	18.61	307.262		
984.2	984.2	940.7	940.7	2.1	18.4	-171.90	-5,661.3	-806.0	5,718.4	5,697.9	20.50	278.974		
1,000.0	1,000.0	956.5	956.5	2.1	18.7	-171.90	-5,661.3	-806.0	5,718.4	5,697.5	20.85	274.254		
1,082.7	1,082.7	1,039.2	1,039.2	2.3	20.4	118.02	-5,661.3	-806.0	5,719.0	5,696.3	22.69	252.014		
1,100.0	1,100.0	1,056.5	1,056.5	2.3	20.7	118.02	-5,661.3	-806.0	5,719.2	5,696.1	23.08	247.818		
1,181.1	1,181.0	1,137.5	1,137.5	2.5	22.4	118.03	-5,661.3	-806.0	5,721.1	5,696.2	24.88	229.992		
1,200.0	1,199.8	1,156.3	1,156.3	2.6	22.8	118.03	-5,661.3	-806.0	5,721.7	5,696.4	25.29	226.220		
1,279.5	1,279.1	1,235.6	1,235.6	2.7	24.4	118.03	-5,661.3	-806.0	5,724.8	5,697.8	27.05	211.620		
1,300.0	1,299.5	1,256.0	1,256.0	2.8	24.8	118.03	-5,661.3	-806.0	5,725.8	5,698.3	27.50	208.183		
1,377.9	1,376.9	1,333.4	1,333.4	3.0	26.3	118.04	-5,661.3	-806.0	5,730.1	5,700.9	29.23	196.046		
1,400.0	1,398.7	1,355.2	1,355.2	3.0	26.8	118.04	-5,661.3	-806.0	5,731.6	5,701.8	29.71	192.891		
1,476.4	1,474.2	1,430.7	1,430.7	3.2	28.3	118.04	-5,661.3	-806.0	5,737.1	5,705.7	31.41	182.672		
1,500.0	1,497.5	1,454.0	1,454.0	3.3	28.7	118.04	-5,661.3	-806.0	5,739.0	5,707.0	31.93	179.754		
1,574.8	1,571.0	1,527.5	1,527.5	3.5	30.2	118.05	-5,661.3	-806.0	5,745.6	5,712.0	33.59	171.050		
1,600.1	1,595.7	1,552.2	1,552.2	3.6	30.7	118.05	-5,661.3	-806.0	5,748.1	5,713.9	34.15	168.328		
1,673.2	1,667.2	1,623.7	1,623.7	3.9	32.2	118.18	-5,661.3	-806.0	5,755.4	5,719.6	35.82	160.674		
1,700.0	1,693.4	1,649.9	1,649.9	4.0	32.7	118.23	-5,661.3	-806.0	5,758.1	5,721.6	36.43	158.052		
1,771.6	1,763.5	1,720.0	1,720.0	4.2	34.1	118.35	-5,661.3	-806.0	5,765.2	5,727.2	38.08	151.395		
1,800.0	1,791.3	1,747.8	1,747.8	4.3	34.7	118.40	-5,661.3	-806.0	5,768.1	5,729.4	38.73	148.921		
1,870.1	1,859.8	1,816.3	1,816.3	4.6	36.0	118.53	-5,661.3	-806.0	5,775.1	5,734.8	40.35	143.114		
1,900.0	1,889.1	1,845.6	1,845.6	4.7	36.6	118.58	-5,661.3	-806.0	5,778.2	5,737.1	41.05	140.774		
1,968.5	1,956.1	1,912.6	1,912.6	5.0	38.0	118.70	-5,661.3	-806.0	5,785.1	5,742.5	42.64	135.683		
2,000.0	1,986.9	1,943.4	1,943.4	5.1	38.6	118.76	-5,661.3	-806.0	5,788.3	5,745.0	43.37	133.468		
2,066.9	2,052.3	2,008.8	2,008.8	5.4	39.9	118.88	-5,661.3	-806.0	5,795.1	5,750.2	44.93	128.987		
2,100.0	2,084.7	2,041.2	2,041.2	5.5	40.6	118.94	-5,661.3	-806.0	5,798.5	5,752.8	45.70	126.886		
2,165.3	2,148.6	2,105.1	2,105.1	5.8	41.8	119.05	-5,661.3	-806.0	5,805.2	5,758.0	47.23	122.926		
2,200.0	2,182.5	2,139.0	2,139.0	5.9	42.5	119.11	-5,661.3	-806.0	5,808.8	5,760.7	48.03	120.930		
2,263.8	2,244.9	2,201.4	2,201.4	6.2	43.8	119.23	-5,661.3	-806.0	5,815.4	5,765.8	49.53	117.418		
2,300.0	2,280.3	2,236.8	2,236.8	6.3	44.5	119.29	-5,661.3	-806.0	5,819.1	5,768.7	50.37	115.517		
2,362.2	2,341.2	2,297.7	2,297.7	6.6	45.7	119.40	-5,661.3	-806.0	5,825.5	5,773.7	51.83	112.392		
2,400.0	2,378.1	2,334.6	2,334.6	6.8	46.5	119.47	-5,661.3	-806.0	5,829.5	5,776.8	52.72	110.579		
2,460.6	2,437.4	2,393.9	2,393.9	7.0	47.7	119.57	-5,661.3	-806.0	5,835.8	5,781.6	54.14	107.790		
2,500.0	2,476.0	2,432.5	2,432.5	7.2	48.4	119.64	-5,661.3	-806.0	5,839.9	5,784.8	55.06	106.057		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,490.2	2,490.2	7.4	49.6	119.74		-5,661.3	-806.0	5,846.1	5,789.6	56.45	103.561	
2,600.0	2,573.8	2,530.3	2,530.3	7.6	50.4	119.81		-5,661.3	-806.0	5,850.4	5,793.0	57.41	101.902	
2,657.5	2,630.0	2,586.5	2,586.5	7.9	51.5	119.91		-5,661.3	-806.0	5,856.4	5,797.7	58.76	99.663	
2,700.0	2,671.6	2,628.1	2,628.1	8.1	52.4	119.99		-5,661.3	-806.0	5,860.9	5,801.2	59.76	98.072	
2,755.9	2,726.3	2,682.8	2,682.8	8.3	53.5	120.08		-5,661.3	-806.0	5,866.8	5,805.8	61.08	96.058	
2,800.0	2,769.4	2,725.9	2,725.9	8.5	54.3	120.16		-5,661.3	-806.0	5,871.5	5,809.4	62.11	94.531	
2,854.3	2,822.5	2,779.0	2,779.0	8.7	55.4	120.25		-5,661.3	-806.0	5,877.3	5,813.9	63.39	92.716	
2,900.0	2,867.2	2,823.7	2,823.7	8.9	56.3	120.33		-5,661.3	-806.0	5,882.2	5,817.7	64.46	91.247	
2,952.7	2,918.8	2,875.3	2,875.3	9.2	57.3	120.42		-5,661.3	-806.0	5,887.8	5,822.1	65.70	89.610	
3,000.0	2,965.0	2,921.5	2,921.5	9.4	58.3	120.50		-5,661.3	-806.0	5,892.9	5,826.0	66.82	88.195	
3,051.2	3,015.1	2,971.6	2,971.6	9.6	59.3	120.59		-5,661.3	-806.0	5,898.4	5,830.3	68.02	86.715	
3,100.0	3,062.8	3,019.3	3,019.3	9.8	60.2	120.68		-5,661.3	-806.0	5,903.6	5,834.4	69.17	85.351	
3,149.6	3,111.4	3,067.9	3,067.9	10.0	61.2	120.76		-5,661.3	-806.0	5,909.0	5,838.6	70.34	84.011	
3,200.0	3,160.7	3,117.2	3,117.2	10.3	62.2	120.85		-5,661.3	-806.0	5,914.4	5,842.9	71.52	82.695	
3,248.0	3,207.6	3,164.1	3,164.1	10.5	63.1	120.93		-5,661.3	-806.0	5,919.6	5,847.0	72.65	81.480	
3,300.0	3,258.5	3,215.0	3,215.0	10.7	64.2	121.02		-5,661.3	-806.0	5,925.3	5,851.4	73.87	80.208	
3,346.4	3,303.9	3,260.4	3,260.4	10.9	65.1	121.09		-5,661.3	-806.0	5,930.3	5,855.4	74.97	79.107	
3,400.0	3,356.3	3,312.8	3,312.8	11.2	66.1	121.18		-5,661.3	-806.0	5,936.2	5,860.0	76.23	77.876	
3,444.9	3,400.2	3,356.7	3,356.7	11.4	67.0	121.26		-5,661.3	-806.0	5,941.1	5,863.8	77.28	76.876	
3,500.0	3,454.1	3,410.6	3,410.6	11.6	68.1	121.35		-5,661.3	-806.0	5,947.2	5,868.6	78.58	75.684	
3,543.3	3,496.5	3,453.0	3,453.0	11.8	69.0	121.43		-5,661.3	-806.0	5,951.9	5,872.3	79.60	74.776	
3,600.0	3,551.9	3,508.4	3,508.4	12.0	70.1	121.52		-5,661.3	-806.0	5,958.2	5,877.3	80.93	73.621	
3,641.7	3,592.7	3,549.2	3,549.2	12.2	70.9	121.59		-5,661.3	-806.0	5,962.8	5,880.9	81.91	72.795	
3,700.0	3,649.7	3,606.2	3,606.2	12.5	72.0	121.69		-5,661.3	-806.0	5,969.3	5,886.0	83.28	71.675	
3,740.1	3,689.0	3,645.5	3,645.5	12.7	72.8	121.76		-5,661.3	-806.0	5,973.7	5,889.5	84.23	70.925	
3,800.0	3,747.5	3,704.0	3,704.0	12.9	74.0	121.86		-5,661.3	-806.0	5,980.4	5,894.7	85.63	69.837	
3,838.6	3,785.3	3,741.8	3,741.8	13.1	74.8	121.92		-5,661.3	-806.0	5,984.7	5,898.1	86.54	69.155	
3,900.0	3,845.4	3,801.9	3,801.9	13.4	76.0	122.02		-5,661.3	-806.0	5,991.6	5,903.6	87.98	68.098	
3,937.0	3,881.5	3,838.0	3,838.0	13.6	76.7	122.08		-5,661.3	-806.0	5,995.7	5,906.9	88.85	67.478	
4,000.0	3,943.2	3,899.7	3,899.7	13.8	77.9	122.19		-5,661.3	-806.0	6,002.8	5,912.4	90.33	66.451	
4,035.4	3,977.8	3,934.3	3,934.3	14.0	78.6	122.25		-5,661.3	-806.0	6,006.8	5,915.6	91.17	65.888	
4,100.0	4,041.0	3,997.5	3,997.5	14.3	79.9	122.35		-5,661.3	-806.0	6,014.1	5,921.4	92.68	64.888	
4,133.8	4,074.1	4,030.6	4,030.6	14.4	80.6	122.41		-5,661.3	-806.0	6,017.9	5,924.4	93.48	64.377	
4,200.0	4,138.8	4,095.3	4,095.3	14.7	81.9	122.52		-5,661.3	-806.0	6,025.4	5,930.4	95.03	63.404	
4,232.3	4,170.4	4,126.9	4,126.9	14.9	82.5	122.57		-5,661.3	-806.0	6,029.1	5,933.3	95.79	62.940	
4,300.0	4,236.6	4,193.1	4,193.1	15.2	83.8	122.68		-5,661.3	-806.0	6,036.8	5,939.4	97.38	61.992	
4,330.7	4,266.6	4,223.1	4,223.1	15.3	84.4	122.73		-5,661.3	-806.0	6,040.3	5,942.2	98.10	61.572	
4,400.0	4,334.4	4,290.9	4,290.9	15.6	85.8	122.84		-5,661.3	-806.0	6,048.2	5,948.5	99.73	60.647	
4,429.1	4,362.9	4,319.4	4,319.4	15.8	86.4	122.89		-5,661.3	-806.0	6,051.5	5,951.1	100.41	60.267	
4,500.0	4,432.2	4,388.7	4,388.7	16.1	87.8	123.01		-5,661.3	-806.0	6,059.7	5,957.6	102.07	59.365	
4,527.5	4,459.2	4,415.7	4,415.7	16.2	88.3	123.05		-5,661.3	-806.0	6,062.8	5,960.1	102.72	59.022	
4,600.0	4,530.1	4,486.6	4,486.6	16.5	89.7	123.17		-5,661.3	-806.0	6,071.2	5,966.8	104.42	58.142	
4,626.0	4,555.5	4,512.0	4,512.0	16.7	90.3	123.21		-5,661.3	-806.0	6,074.2	5,969.2	105.03	57.833	
4,700.0	4,627.9	4,584.4	4,584.4	17.0	91.7	123.33		-5,661.3	-806.0	6,082.8	5,976.0	106.77	56.973	
4,724.4	4,651.7	4,608.2	4,608.2	17.1	92.2	123.37		-5,661.3	-806.0	6,085.6	5,978.3	107.34	56.696	
4,800.0	4,725.7	4,682.2	4,682.2	17.4	93.7	123.49		-5,661.3	-806.0	6,094.4	5,985.3	109.11	55.856	
4,822.8	4,748.0	4,704.5	4,704.5	17.6	94.1	123.53		-5,661.3	-806.0	6,097.1	5,987.4	109.64	55.607	
4,900.0	4,823.5	4,780.0	4,780.0	17.9	95.6	123.65		-5,661.3	-806.0	6,106.1	5,994.6	111.45	54.786	
4,921.2	4,844.3	4,800.8	4,800.8	18.0	96.1	123.69		-5,661.3	-806.0	6,108.6	5,996.6	111.95	54.564	
5,000.0	4,921.3	4,877.8	4,877.8	18.4	97.6	123.81		-5,661.3	-806.0	6,117.8	6,004.0	113.80	53.761	
5,014.9	4,935.9	4,892.4	4,892.4	18.4	97.9	123.84		-5,661.3	-806.0	6,119.6	6,005.4	114.15	53.612	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,897.1	4,897.1	18.4	98.0	123.85		-5,661.3	-806.0	6,120.1	6,005.8	114.26	53.562	
5,100.0	5,019.4	4,975.9	4,975.9	18.7	99.6	124.12		-5,661.3	-806.0	6,128.9	6,012.6	116.25	52.722	
5,118.1	5,037.2	4,993.7	4,993.7	18.8	99.9	124.17		-5,661.3	-806.0	6,130.7	6,014.0	116.68	52.542	
5,200.0	5,118.1	5,074.6	5,074.6	19.0	101.6	124.39		-5,661.3	-806.0	6,138.0	6,019.4	118.63	51.739	
5,216.5	5,134.4	5,090.9	5,090.9	19.1	101.9	124.43		-5,661.3	-806.0	6,139.4	6,020.4	119.02	51.582	
5,300.0	5,217.2	5,173.7	5,173.7	19.3	103.6	124.61		-5,661.3	-806.0	6,145.3	6,024.3	120.97	50.799	
5,314.9	5,232.1	5,188.6	5,188.6	19.3	103.9	124.64		-5,661.3	-806.0	6,146.2	6,024.9	121.32	50.663	
5,400.0	5,316.8	5,273.3	5,273.3	19.5	105.6	124.77		-5,661.3	-806.0	6,150.6	6,027.3	123.26	49.900	
5,413.4	5,330.1	5,286.6	5,286.6	19.5	105.8	124.78		-5,661.3	-806.0	6,151.1	6,027.6	123.56	49.784	
5,500.0	5,416.6	5,373.1	5,373.1	19.7	107.6	124.86		-5,661.3	-806.0	6,153.8	6,028.4	125.48	49.042	
5,511.8	5,428.4	5,384.9	5,384.9	19.7	107.8	124.87		-5,661.3	-806.0	6,154.1	6,028.4	125.74	48.944	
5,600.0	5,516.6	5,473.1	5,473.1	19.8	109.6	124.90		-5,661.3	-806.0	6,155.1	6,027.5	127.64	48.223	
5,610.2	5,526.8	5,483.3	5,483.3	19.8	109.8	124.90		-5,661.3	-806.0	6,155.2	6,027.3	127.86	48.142	
5,615.0	5,531.6	5,488.1	5,488.1	19.8	109.9	-165.02		-5,661.3	-806.0	6,155.2	6,027.2	127.98	48.096	
5,700.0	5,616.6	5,573.1	5,573.1	19.9	111.6	-165.02		-5,661.3	-806.0	6,155.2	6,025.4	129.80	47.421	
5,708.6	5,625.3	5,581.8	5,581.8	20.0	111.8	-165.02		-5,661.3	-806.0	6,155.2	6,025.2	129.99	47.353	
5,800.0	5,716.6	5,673.1	5,673.1	20.1	113.6	-165.02		-5,661.3	-806.0	6,155.2	6,023.2	131.96	46.645	
5,807.1	5,723.7	5,680.2	5,680.2	20.1	113.7	-165.02		-5,661.3	-806.0	6,155.2	6,023.1	132.11	46.591	
5,900.0	5,816.6	5,773.1	5,773.1	20.2	115.6	-165.02		-5,661.3	-806.0	6,155.2	6,021.1	134.12	45.894	
5,905.5	5,822.1	5,778.6	5,778.6	20.2	115.7	-165.02		-5,661.3	-806.0	6,155.2	6,020.9	134.24	45.854	
6,000.0	5,916.6	5,873.1	5,873.1	20.4	117.6	-165.02		-5,661.3	-806.0	6,155.2	6,018.9	136.28	45.167	
6,003.9	5,920.5	5,877.0	5,877.0	20.4	117.7	-165.02		-5,661.3	-806.0	6,155.2	6,018.8	136.36	45.138	
6,100.0	6,016.6	5,973.1	5,973.1	20.5	119.6	-165.02		-5,661.3	-806.0	6,155.2	6,016.7	138.44	44.461	
6,102.3	6,019.0	5,975.5	5,975.5	20.5	119.7	-165.02		-5,661.3	-806.0	6,155.2	6,016.7	138.49	44.445	
6,200.0	6,116.6	6,073.1	6,073.1	20.6	121.7	-165.02		-5,661.3	-806.0	6,155.2	6,014.6	140.60	43.777	
6,200.8	6,117.4	6,073.9	6,073.9	20.6	121.7	-165.02		-5,661.3	-806.0	6,155.2	6,014.5	140.62	43.772	
6,299.2	6,215.8	6,172.3	6,172.3	20.8	123.6	-165.02		-5,661.3	-806.0	6,155.2	6,012.4	142.75	43.118	
6,300.0	6,216.6	6,173.1	6,173.1	20.8	123.7	-165.02		-5,661.3	-806.0	6,155.2	6,012.4	142.77	43.113	
6,340.0	6,256.6	6,213.1	6,213.1	20.8	124.5	-165.02		-5,661.3	-806.0	6,155.2	6,011.5	143.63	42.853	
6,350.0	6,266.6	6,223.1	6,223.1	20.8	124.7	14.77		-5,661.3	-806.0	6,155.1	6,011.3	143.81	42.801	
6,397.6	6,314.2	6,270.7	6,270.7	20.9	125.6	14.82		-5,661.3	-806.0	6,152.9	6,008.6	144.35	42.626	
6,400.0	6,316.5	6,273.0	6,273.0	20.9	125.7	14.83		-5,661.3	-806.0	6,152.7	6,008.4	144.36	42.622	
6,450.0	6,366.2	6,322.7	6,322.7	20.9	126.7	14.96		-5,661.3	-806.0	6,147.0	6,002.8	144.24	42.617	
6,496.0	6,411.4	6,367.9	6,367.9	21.0	127.6	15.16		-5,661.3	-806.0	6,138.8	5,995.3	143.54	42.768	
6,500.0	6,415.3	6,371.8	6,371.8	21.0	127.7	15.18		-5,661.3	-806.0	6,138.0	5,994.5	143.45	42.789	
6,550.0	6,463.6	6,420.1	6,420.1	21.0	128.6	15.48		-5,661.3	-806.0	6,125.6	5,983.6	141.98	43.143	
6,594.5	6,505.8	6,462.3	6,462.3	21.0	129.5	15.82		-5,661.3	-806.0	6,111.9	5,971.8	140.13	43.617	
6,600.0	6,510.9	6,467.4	6,467.4	21.0	129.6	15.87		-5,661.3	-806.0	6,110.0	5,970.2	139.86	43.687	
6,650.0	6,557.0	6,513.5	6,513.5	21.0	130.5	16.37		-5,661.3	-806.0	6,091.3	5,954.2	137.10	44.429	
6,692.9	6,595.4	6,551.9	6,551.9	21.0	131.3	16.89		-5,661.3	-806.0	6,072.8	5,938.6	134.26	45.231	
6,700.0	6,601.6	6,558.1	6,558.1	21.0	131.4	16.99		-5,661.3	-806.0	6,069.5	5,935.8	133.75	45.380	
6,750.0	6,644.6	6,601.1	6,601.1	20.9	132.3	17.74		-5,661.3	-806.0	6,044.8	5,915.0	129.86	46.548	
6,791.3	6,678.6	6,635.1	6,635.1	20.9	133.0	18.48		-5,661.3	-806.0	6,022.3	5,895.9	126.31	47.678	
6,800.0	6,685.6	6,642.1	6,642.1	20.9	133.1	18.65		-5,661.3	-806.0	6,017.3	5,891.7	125.53	47.935	
6,850.0	6,724.6	6,681.1	6,681.1	20.9	133.9	19.74		-5,661.3	-806.0	5,987.0	5,866.2	120.87	49.531	
6,889.7	6,753.9	6,710.4	6,710.4	20.9	134.5	20.77		-5,661.3	-806.0	5,961.2	5,844.1	117.06	50.924	
6,900.0	6,761.3	6,717.8	6,717.8	20.9	134.6	21.06		-5,661.3	-806.0	5,954.3	5,838.2	116.07	51.298	
6,950.0	6,795.5	6,752.0	6,752.0	20.9	135.3	22.66		-5,661.3	-806.0	5,919.1	5,807.8	111.37	53.147	
6,988.2	6,819.9	6,776.4	6,776.4	20.9	135.8	24.11		-5,661.3	-806.0	5,890.8	5,782.7	108.07	54.508	
7,000.0	6,827.1	6,783.6	6,783.6	20.9	135.9	24.61		-5,661.3	-806.0	5,881.8	5,774.7	107.13	54.905	
7,050.0	6,855.9	6,812.4	6,812.4	20.9	136.5	26.99		-5,661.3	-806.0	5,842.4	5,738.6	103.81	56.279	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,086.6	6,875.1	6,831.6	6,831.6	20.9	136.9	29.09	29.09	-5,661.3	-806.0	5,812.4	5,710.1	102.32	56.807	
7,100.0	6,881.8	6,838.3	6,838.3	20.9	137.0	29.94	29.94	-5,661.3	-806.0	5,801.2	5,699.2	102.06	56.841	
7,150.0	6,904.6	6,861.1	6,861.1	21.0	137.5	33.64	33.64	-5,661.3	-806.0	5,758.5	5,655.8	102.63	56.110	
7,185.0	6,918.8	6,875.3	6,875.3	21.1	137.8	36.79	36.79	-5,661.3	-806.0	5,727.6	5,622.8	104.82	54.644	
7,200.0	6,924.3	6,880.8	6,880.8	21.1	137.9	38.31	38.31	-5,661.3	-806.0	5,714.3	5,608.0	106.27	53.771	
7,250.0	6,940.8	6,897.3	6,897.3	21.2	138.2	44.26	44.26	-5,661.3	-806.0	5,668.9	5,555.4	113.51	49.940	
7,283.4	6,949.9	6,906.4	6,906.4	21.3	138.4	49.13	49.13	-5,661.3	-806.0	5,638.0	5,517.6	120.36	46.844	
7,300.0	6,953.9	6,910.4	6,910.4	21.4	138.5	51.85	51.85	-5,661.3	-806.0	5,622.5	5,498.3	124.24	45.255	
7,350.0	6,963.6	6,920.1	6,920.1	21.6	138.7	61.41	61.41	-5,661.3	-806.0	5,575.5	5,438.3	137.15	40.651	
7,381.9	6,968.0	6,924.5	6,924.5	21.7	138.8	68.58	68.58	-5,661.3	-806.0	5,545.2	5,400.0	145.23	38.182	
7,400.0	6,969.9	6,926.4	6,926.4	21.8	138.8	72.98	72.98	-5,661.3	-806.0	5,527.9	5,378.6	149.27	37.033	
7,450.0	6,972.6	6,929.1	6,929.1	22.1	138.9	85.99	85.99	-5,661.3	-806.0	5,480.1	5,323.6	156.46	35.025	
7,471.5	6,972.8	6,929.3	6,929.3	22.2	138.9	91.73	91.73	-5,661.3	-806.0	5,459.5	5,302.2	157.24	34.721	
7,480.3	6,972.7	6,929.2	6,929.2	22.3	138.9	91.73	91.73	-5,661.3	-806.0	5,451.0	5,293.7	157.32	34.649	
7,500.0	6,972.5	6,929.0	6,929.0	22.4	138.9	91.72	91.72	-5,661.3	-806.0	5,432.2	5,274.7	157.51	34.487	
7,578.7	6,971.8	6,928.3	6,928.3	23.1	138.8	91.70	91.70	-5,661.3	-806.0	5,356.9	5,198.6	158.29	33.841	
7,600.0	6,971.6	6,928.1	6,928.1	23.3	138.8	91.69	91.69	-5,661.3	-806.0	5,336.5	5,178.0	158.50	33.668	
7,677.1	6,970.9	6,927.4	6,927.4	24.0	138.8	91.66	91.66	-5,661.3	-806.0	5,262.8	5,103.5	159.33	33.031	
7,700.0	6,970.7	6,927.2	6,927.2	24.2	138.8	91.66	91.66	-5,661.3	-806.0	5,241.0	5,081.5	159.57	32.844	
7,775.6	6,970.0	6,926.5	6,926.5	25.0	138.8	91.63	91.63	-5,661.3	-806.0	5,169.0	5,008.5	160.47	32.210	
7,800.0	6,969.8	6,926.3	6,926.3	25.3	138.8	91.62	91.62	-5,661.3	-806.0	5,145.7	4,984.9	160.77	32.007	
7,874.0	6,969.1	6,925.6	6,925.6	26.2	138.8	91.60	91.60	-5,661.3	-806.0	5,075.3	4,913.6	161.72	31.383	
7,900.0	6,968.9	6,925.4	6,925.4	26.5	138.8	91.59	91.59	-5,661.3	-806.0	5,050.6	4,888.5	162.06	31.165	
7,972.4	6,968.2	6,924.7	6,924.7	27.4	138.8	91.57	91.57	-5,661.3	-806.0	4,981.8	4,818.7	163.06	30.552	
8,000.0	6,968.0	6,924.5	6,924.5	27.8	138.8	91.56	91.56	-5,661.3	-806.0	4,955.6	4,792.2	163.44	30.321	
8,070.8	6,967.3	6,923.8	6,923.8	28.7	138.8	91.53	91.53	-5,661.3	-806.0	4,888.5	4,724.0	164.47	29.723	
8,100.0	6,967.1	6,923.6	6,923.6	29.1	138.8	91.52	91.52	-5,661.3	-806.0	4,860.9	4,696.0	164.89	29.479	
8,169.3	6,966.4	6,922.9	6,922.9	30.1	138.7	91.50	91.50	-5,661.3	-806.0	4,795.4	4,629.4	165.94	28.898	
8,200.0	6,966.2	6,922.7	6,922.7	30.5	138.7	91.49	91.49	-5,661.3	-806.0	4,766.3	4,599.9	166.40	28.643	
8,267.7	6,965.5	6,922.0	6,922.0	31.5	138.7	91.47	91.47	-5,661.3	-806.0	4,702.5	4,535.0	167.46	28.081	
8,300.0	6,965.2	6,921.7	6,921.7	32.0	138.7	91.46	91.46	-5,661.3	-806.0	4,672.0	4,504.1	167.97	27.815	
8,366.1	6,964.6	6,921.1	6,921.1	33.0	138.7	91.44	91.44	-5,661.3	-806.0	4,609.8	4,440.8	169.03	27.272	
8,400.0	6,964.3	6,920.8	6,920.8	33.5	138.7	91.43	91.43	-5,661.3	-806.0	4,578.0	4,408.4	169.57	26.997	
8,464.5	6,963.8	6,920.3	6,920.3	34.5	138.7	91.40	91.40	-5,661.3	-806.0	4,517.4	4,346.8	170.64	26.474	
8,500.0	6,963.4	6,919.9	6,919.9	35.1	138.7	91.39	91.39	-5,661.3	-806.0	4,484.2	4,313.0	171.22	26.190	
8,563.0	6,962.9	6,919.4	6,919.4	36.1	138.7	91.37	91.37	-5,661.3	-806.0	4,425.2	4,253.0	172.27	25.687	
8,600.0	6,962.5	6,919.0	6,919.0	36.7	138.7	91.36	91.36	-5,661.3	-806.0	4,390.7	4,217.8	172.89	25.395	
8,661.4	6,962.0	6,918.5	6,918.5	37.7	138.7	91.34	91.34	-5,661.3	-806.0	4,333.4	4,159.4	173.94	24.913	
8,700.0	6,961.6	6,918.1	6,918.1	38.3	138.6	91.33	91.33	-5,661.3	-806.0	4,297.4	4,122.8	174.60	24.613	
8,759.8	6,961.1	6,917.6	6,917.6	39.3	138.6	91.31	91.31	-5,661.3	-806.0	4,241.8	4,066.1	175.63	24.152	
8,800.0	6,960.7	6,917.2	6,917.2	40.0	138.6	91.29	91.29	-5,661.3	-806.0	4,204.5	4,028.2	176.32	23.845	
8,858.2	6,960.2	6,916.7	6,916.7	40.9	138.6	91.27	91.27	-5,661.3	-806.0	4,150.5	3,973.2	177.34	23.404	
8,900.0	6,959.8	6,916.3	6,916.3	41.6	138.6	91.26	91.26	-5,661.3	-806.0	4,111.9	3,933.8	178.07	23.091	
8,956.7	6,959.3	6,915.8	6,915.8	42.6	138.6	91.24	91.24	-5,661.3	-806.0	4,059.6	3,880.5	179.07	22.670	
9,000.0	6,958.9	6,915.4	6,915.4	43.3	138.6	91.23	91.23	-5,661.3	-806.0	4,019.6	3,839.8	179.83	22.352	
9,055.1	6,958.4	6,914.9	6,914.9	44.3	138.6	91.21	91.21	-5,661.3	-806.0	3,969.0	3,788.2	180.82	21.950	
9,100.0	6,958.0	6,914.5	6,914.5	45.1	138.6	91.19	91.19	-5,661.3	-806.0	3,927.8	3,746.2	181.61	21.627	
9,153.5	6,957.5	6,914.0	6,914.0	46.0	138.6	91.18	91.18	-5,661.3	-806.0	3,878.8	3,696.2	182.57	21.245	
9,200.0	6,957.1	6,913.6	6,913.6	46.8	138.6	91.16	91.16	-5,661.3	-806.0	3,836.3	3,652.9	183.41	20.917	
9,251.9	6,956.6	6,913.1	6,913.1	47.7	138.5	91.14	91.14	-5,661.3	-806.0	3,789.0	3,604.6	184.35	20.554	
9,300.0	6,956.2	6,912.7	6,912.7	48.6	138.5	91.13	91.13	-5,661.3	-806.0	3,745.3	3,560.1	185.21	20.222	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	6,912.2	6,912.2	49.5	138.5	91.11		-5,661.3	-806.0	3,699.6	3,513.5	186.13	19.877	
9,400.0	6,955.2	6,911.7	6,911.7	50.3	138.5	91.10		-5,661.3	-806.0	3,654.8	3,467.7	187.03	19.541	
9,448.8	6,954.8	6,911.3	6,911.3	51.2	138.5	91.08		-5,661.3	-806.0	3,610.7	3,422.8	187.92	19.214	
9,500.0	6,954.3	6,910.8	6,910.8	52.1	138.5	91.06		-5,661.3	-806.0	3,564.7	3,375.9	188.85	18.875	
9,547.2	6,953.9	6,910.4	6,910.4	53.0	138.5	91.05		-5,661.3	-806.0	3,522.4	3,332.7	189.72	18.566	
9,600.0	6,953.4	6,909.9	6,909.9	53.9	138.5	91.03		-5,661.3	-806.0	3,475.2	3,284.5	190.69	18.225	
9,645.6	6,953.0	6,909.5	6,909.5	54.7	138.5	91.01		-5,661.3	-806.0	3,434.5	3,243.0	191.53	17.932	
9,700.0	6,952.5	6,909.0	6,909.0	55.7	138.5	91.00		-5,661.3	-806.0	3,386.3	3,193.8	192.53	17.588	
9,744.1	6,952.1	6,908.6	6,908.6	56.5	138.5	90.98		-5,661.3	-806.0	3,347.3	3,154.0	193.35	17.313	
9,800.0	6,951.6	6,908.1	6,908.1	57.5	138.4	90.96		-5,661.3	-806.0	3,298.0	3,103.6	194.38	16.967	
9,842.5	6,951.2	6,907.7	6,907.7	58.3	138.4	90.95		-5,661.3	-806.0	3,260.7	3,065.5	195.17	16.707	
9,900.0	6,950.7	6,907.2	6,907.2	59.4	138.4	90.93		-5,661.3	-806.0	3,210.4	3,014.2	196.23	16.360	
9,940.9	6,950.3	6,906.8	6,906.8	60.1	138.4	90.92		-5,661.3	-806.0	3,174.8	2,977.8	196.99	16.116	
10,000.0	6,949.8	6,906.3	6,906.3	61.2	138.4	90.90		-5,661.3	-806.0	3,123.6	2,925.5	198.09	15.768	
10,039.3	6,949.4	6,905.9	6,905.9	61.9	138.4	90.88		-5,661.3	-806.0	3,089.6	2,890.8	198.83	15.539	
10,100.0	6,948.9	6,905.4	6,905.4	63.0	138.4	90.86		-5,661.3	-806.0	3,037.5	2,837.6	199.96	15.191	
10,137.8	6,948.5	6,905.0	6,905.0	63.7	138.4	90.85		-5,661.3	-806.0	3,005.3	2,804.6	200.67	14.976	
10,200.0	6,948.0	6,904.5	6,904.5	64.9	138.4	90.83		-5,661.3	-806.0	2,952.4	2,750.6	201.83	14.628	
10,236.2	6,947.6	6,904.1	6,904.1	65.6	138.4	90.82		-5,661.3	-806.0	2,921.8	2,719.3	202.51	14.428	
10,300.0	6,947.1	6,903.6	6,903.6	66.7	138.4	90.80		-5,661.3	-806.0	2,868.2	2,664.5	203.70	14.080	
10,334.6	6,946.7	6,903.2	6,903.2	67.4	138.3	90.79		-5,661.3	-806.0	2,839.3	2,634.9	204.35	13.894	
10,400.0	6,946.2	6,902.7	6,902.7	68.6	138.3	90.76		-5,661.3	-806.0	2,785.0	2,579.5	205.58	13.547	
10,433.0	6,945.8	6,902.3	6,902.3	69.2	138.3	90.75		-5,661.3	-806.0	2,757.8	2,551.6	206.20	13.374	
10,500.0	6,945.2	6,901.7	6,901.7	70.5	138.3	90.73		-5,661.3	-806.0	2,703.0	2,495.6	207.46	13.029	
10,531.5	6,945.0	6,901.5	6,901.5	71.1	138.3	90.72		-5,661.3	-806.0	2,677.5	2,469.4	208.06	12.869	
10,600.0	6,944.3	6,900.8	6,900.8	72.3	138.3	90.70		-5,661.3	-806.0	2,622.3	2,412.9	209.35	12.526	
10,629.9	6,944.1	6,900.6	6,900.6	72.9	138.3	90.69		-5,661.3	-806.0	2,598.4	2,388.5	209.91	12.378	
10,700.0	6,943.4	6,899.9	6,899.9	74.2	138.3	90.66		-5,661.3	-806.0	2,542.9	2,331.6	211.24	12.038	
10,728.3	6,943.2	6,899.7	6,899.7	74.7	138.3	90.66		-5,661.3	-806.0	2,520.6	2,308.9	211.77	11.903	
10,800.0	6,942.5	6,899.0	6,899.0	76.1	138.3	90.63		-5,661.3	-806.0	2,465.0	2,251.8	213.13	11.566	
10,826.7	6,942.3	6,898.8	6,898.8	76.6	138.3	90.62		-5,661.3	-806.0	2,444.4	2,230.8	213.63	11.442	
10,900.0	6,941.6	6,898.1	6,898.1	78.0	138.2	90.60		-5,661.3	-806.0	2,388.7	2,173.7	215.02	11.109	
10,925.2	6,941.4	6,897.9	6,897.9	78.4	138.2	90.59		-5,661.3	-806.0	2,369.8	2,154.3	215.50	10.997	
11,000.0	6,940.7	6,897.2	6,897.2	79.9	138.2	90.57		-5,661.3	-806.0	2,314.3	2,097.4	216.92	10.669	
11,023.6	6,940.5	6,897.0	6,897.0	80.3	138.2	90.56		-5,661.3	-806.0	2,297.0	2,079.6	217.36	10.568	
11,100.0	6,939.8	6,896.3	6,896.3	81.7	138.2	90.53		-5,661.3	-806.0	2,241.8	2,023.0	218.81	10.245	
11,122.0	6,939.6	6,896.1	6,896.1	82.2	138.2	90.52		-5,661.3	-806.0	2,226.2	2,006.9	219.23	10.154	
11,200.0	6,938.9	6,895.4	6,895.4	83.6	138.2	90.50		-5,661.3	-806.0	2,171.6	1,950.8	220.71	9.839	
11,220.4	6,938.7	6,895.2	6,895.2	84.0	138.2	90.49		-5,661.3	-806.0	2,157.5	1,936.4	221.10	9.758	
11,300.0	6,938.0	6,894.5	6,894.5	85.5	138.2	90.47		-5,661.3	-806.0	2,103.7	1,881.1	222.61	9.450	
11,318.9	6,937.8	6,894.3	6,894.3	85.9	138.2	90.46		-5,661.3	-806.0	2,091.2	1,868.2	222.97	9.379	
11,400.0	6,937.0	6,893.5	6,893.5	87.4	138.2	90.43		-5,661.3	-806.0	2,038.5	1,814.0	224.52	9.079	
11,417.3	6,936.9	6,893.4	6,893.4	87.8	138.1	90.43		-5,661.3	-806.0	2,027.5	1,802.7	224.85	9.017	
11,500.0	6,936.1	6,892.6	6,892.6	89.3	138.1	90.40		-5,661.3	-806.0	1,976.2	1,749.8	226.42	8.728	
11,515.7	6,936.0	6,892.5	6,892.5	89.6	138.1	90.39		-5,661.3	-806.0	1,966.7	1,740.0	226.72	8.674	
11,600.0	6,935.2	6,891.7	6,891.7	91.2	138.1	90.37		-5,661.3	-806.0	1,917.1	1,688.8	228.33	8.396	
11,614.1	6,935.1	6,891.6	6,891.6	91.5	138.1	90.36		-5,661.3	-806.0	1,909.0	1,680.4	228.60	8.351	
11,700.0	6,934.3	6,890.8	6,890.8	93.1	138.1	90.33		-5,661.3	-806.0	1,861.5	1,631.3	230.24	8.085	
11,712.6	6,934.2	6,890.7	6,890.7	93.4	138.1	90.33		-5,661.3	-806.0	1,854.8	1,624.3	230.48	8.048	
11,800.0	6,933.4	6,889.9	6,889.9	95.1	138.1	90.30		-5,661.3	-806.0	1,809.7	1,577.6	232.15	7.796	
11,811.0	6,933.3	6,889.8	6,889.8	95.3	138.1	90.30		-5,661.3	-806.0	1,804.3	1,571.9	232.36	7.765	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-12 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.0	6,932.5	6,889.0	6,889.0	97.0	138.1	90.27		-5,661.3	-806.0	1,762.1	1,528.0	234.06	7.528	
11,909.4	6,932.4	6,888.9	6,888.9	97.1	138.1	90.26		-5,661.3	-806.0	1,757.8	1,523.6	234.24	7.504	
12,000.0	6,931.6	6,888.1	6,888.1	98.9	138.0	90.23		-5,661.3	-806.0	1,719.0	1,483.0	235.97	7.285	
12,007.8	6,931.5	6,888.0	6,888.0	99.0	138.0	90.23		-5,661.3	-806.0	1,715.8	1,479.7	236.12	7.267	
12,100.0	6,930.7	6,887.2	6,887.2	100.8	138.0	90.20		-5,661.3	-806.0	1,680.7	1,442.8	237.88	7.065	
12,106.3	6,930.6	6,887.1	6,887.1	100.9	138.0	90.20		-5,661.3	-806.0	1,678.5	1,440.5	238.00	7.052	
12,200.0	6,929.8	6,886.3	6,886.3	102.7	138.0	90.17		-5,661.3	-806.0	1,647.6	1,407.8	239.80	6.871	
12,204.7	6,929.7	6,886.2	6,886.2	102.8	138.0	90.17		-5,661.3	-806.0	1,646.2	1,406.3	239.89	6.862	
12,300.0	6,928.8	6,885.3	6,885.3	104.6	138.0	90.13		-5,661.3	-806.0	1,620.1	1,378.3	241.71	6.702	
12,303.1	6,928.8	6,885.3	6,885.3	104.7	138.0	90.13		-5,661.3	-806.0	1,619.3	1,377.5	241.77	6.698	
12,400.0	6,927.9	6,884.4	6,884.4	106.5	138.0	90.10		-5,661.3	-806.0	1,598.3	1,354.6	243.63	6.560	
12,401.5	6,927.9	6,884.4	6,884.4	106.6	138.0	90.10		-5,661.3	-806.0	1,598.0	1,354.3	243.66	6.558	
12,500.0	6,927.0	6,883.5	6,883.5	108.5	137.9	90.07		-5,661.3	-806.0	1,582.5	1,337.0	245.54	6.445	
12,598.4	6,926.1	6,882.6	6,882.6	110.4	137.9	90.03		-5,661.3	-806.0	1,573.1	1,325.6	247.43	6.358	
12,600.0	6,926.1	6,882.6	6,882.6	110.4	137.9	90.03		-5,661.3	-806.0	1,573.0	1,325.5	247.46	6.356	
12,696.8	6,925.2	6,881.7	6,881.7	112.3	137.9	90.00		-5,661.3	-806.0	1,569.8	1,320.4	249.32	6.296	
12,700.0	6,925.2	6,881.7	6,881.7	112.3	137.9	90.00		-5,661.3	-806.0	1,569.8	1,320.4	249.38	6.295	
12,700.6	6,925.2	6,881.7	6,881.7	112.3	137.9	90.00		-5,661.3	-806.0	1,569.8	1,320.4	249.39	6.294 CC, ES	
12,795.2	6,924.3	6,880.8	6,880.8	114.1	137.9	89.97		-5,661.3	-806.0	1,572.6	1,321.4	251.21	6.260	
12,800.0	6,924.3	6,880.8	6,880.8	114.2	137.9	89.97		-5,661.3	-806.0	1,572.9	1,321.6	251.30	6.259	
12,893.7	6,923.4	6,879.9	6,879.9	116.0	137.9	89.94		-5,661.3	-806.0	1,581.6	1,328.5	253.10	6.249 SF	
12,900.0	6,923.4	6,879.9	6,879.9	116.2	137.9	89.93		-5,661.3	-806.0	1,582.4	1,329.2	253.22	6.249	
12,992.1	6,922.5	6,879.0	6,879.0	117.9	137.9	89.90		-5,661.3	-806.0	1,596.6	1,341.6	254.99	6.262	
13,000.0	6,922.5	6,879.0	6,879.0	118.1	137.9	89.90		-5,661.3	-806.0	1,598.1	1,342.9	255.14	6.264	
13,090.5	6,921.6	6,878.1	6,878.1	119.8	137.8	89.87		-5,661.3	-806.0	1,617.5	1,360.6	256.88	6.297	
13,100.0	6,921.5	6,878.0	6,878.0	120.0	137.8	89.87		-5,661.3	-806.0	1,619.8	1,362.7	257.06	6.301	
13,188.9	6,920.7	6,877.2	6,877.2	121.7	137.8	89.84		-5,661.3	-806.0	1,644.0	1,385.2	258.77	6.353	
13,200.0	6,920.6	6,877.1	6,877.1	121.9	137.8	89.83		-5,661.3	-806.0	1,647.3	1,388.3	258.98	6.361	
13,287.4	6,919.8	6,876.3	6,876.3	123.6	137.8	89.80		-5,661.3	-806.0	1,675.8	1,415.2	260.66	6.429	
13,300.0	6,919.7	6,876.2	6,876.2	123.9	137.8	89.80		-5,661.3	-806.0	1,680.3	1,419.4	260.90	6.440	
13,385.8	6,918.9	6,875.4	6,875.4	125.5	137.8	89.77		-5,661.3	-806.0	1,712.8	1,450.2	262.55	6.524	
13,400.0	6,918.8	6,875.3	6,875.3	125.8	137.8	89.77		-5,661.3	-806.0	1,718.5	1,455.7	262.82	6.539	
13,484.2	6,918.0	6,874.5	6,874.5	127.4	137.8	89.74		-5,661.3	-806.0	1,754.5	1,490.0	264.44	6.635	
13,500.0	6,917.9	6,874.4	6,874.4	127.7	137.8	89.73		-5,661.3	-806.0	1,761.6	1,496.8	264.75	6.654	
13,582.6	6,917.1	6,873.6	6,873.6	129.3	137.8	89.71		-5,661.3	-806.0	1,800.6	1,534.3	266.34	6.761	
13,600.0	6,917.0	6,873.5	6,873.5	129.7	137.7	89.70		-5,661.3	-806.0	1,809.2	1,542.5	266.67	6.784	
13,681.1	6,916.2	6,872.7	6,872.7	131.2	137.7	89.67		-5,661.3	-806.0	1,850.8	1,582.6	268.23	6.900	
13,700.0	6,916.1	6,872.6	6,872.6	131.6	137.7	89.67		-5,661.3	-806.0	1,860.9	1,592.3	268.59	6.928	
13,779.5	6,915.3	6,871.8	6,871.8	133.1	137.7	89.64		-5,661.3	-806.0	1,904.8	1,634.7	270.12	7.052	
13,800.0	6,915.2	6,871.7	6,871.7	133.5	137.7	89.63		-5,661.3	-806.0	1,916.5	1,646.0	270.52	7.084	
13,877.9	6,914.4	6,870.9	6,870.9	135.1	137.7	89.61		-5,661.3	-806.0	1,962.2	1,690.2	272.02	7.214	
13,900.0	6,914.2	6,870.7	6,870.7	135.5	137.7	89.60		-5,661.3	-806.0	1,975.5	1,703.1	272.44	7.251	
13,976.3	6,913.5	6,870.0	6,870.0	137.0	137.7	89.57		-5,661.3	-806.0	2,022.8	1,748.9	273.91	7.385	
14,000.0	6,913.3	6,869.8	6,869.8	137.4	137.7	89.57		-5,661.3	-806.0	2,037.8	1,763.4	274.37	7.427	
14,074.8	6,912.6	6,869.1	6,869.1	138.9	137.7	89.54		-5,661.3	-806.0	2,086.3	1,810.5	275.80	7.564	
14,100.0	6,912.4	6,868.9	6,868.9	139.4	137.7	89.53		-5,661.3	-806.0	2,103.0	1,826.7	276.29	7.611	
14,145.0	6,912.0	6,868.5	6,868.5	140.2	137.6	89.52		-5,661.3	-806.0	2,133.1	1,856.0	277.11	7.698	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	176.41	176.41	-7,165.9	449.0	7,180.0				
98.4	98.4	79.9	79.9	0.1	0.6	176.41	176.41	-7,165.9	449.0	7,180.0	7,179.3	0.66	N/A	
100.0	100.0	81.5	81.5	0.1	0.6	176.41	176.41	-7,165.9	449.0	7,180.0	7,179.3	0.67	N/A	
196.8	196.8	178.3	178.3	0.3	2.6	176.41	176.41	-7,165.9	449.0	7,180.0	7,177.0	2.91	2,465.830	
200.0	200.0	181.5	181.5	0.3	2.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,177.0	2.99	2,397.397	
295.3	295.3	276.8	276.8	0.5	4.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,174.7	5.25	1,366.615	
300.0	300.0	281.5	281.5	0.5	4.8	176.41	176.41	-7,165.9	449.0	7,180.0	7,174.6	5.36	1,338.844	
393.7	393.7	375.2	375.2	0.8	6.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,172.5	7.49	958.098	
400.0	400.0	381.5	381.5	0.8	6.9	176.41	176.41	-7,165.9	449.0	7,180.0	7,172.3	7.64	940.183	
492.1	492.1	473.6	473.6	1.0	8.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,170.2	9.71	739.065	
500.0	500.0	481.5	481.5	1.0	8.9	176.41	176.41	-7,165.9	449.0	7,180.0	7,170.1	9.89	725.809	
590.5	590.5	572.0	572.0	1.2	10.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,168.0	11.93	601.939	
600.0	600.0	581.5	581.5	1.2	10.9	176.41	176.41	-7,165.9	449.0	7,180.0	7,167.8	12.14	591.411	
689.0	689.0	670.5	670.5	1.4	12.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,165.8	14.14	507.878	
700.0	700.0	681.5	681.5	1.4	12.9	176.41	176.41	-7,165.9	449.0	7,180.0	7,165.6	14.38	499.145	
787.4	787.4	768.9	768.9	1.6	14.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,163.6	16.34	439.305	
800.0	800.0	781.5	781.5	1.7	15.0	176.41	176.41	-7,165.9	449.0	7,180.0	7,163.3	16.63	431.843	
885.8	885.8	867.3	867.3	1.9	16.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,161.4	18.55	387.078	
900.0	900.0	881.5	881.5	1.9	17.0	176.41	176.41	-7,165.9	449.0	7,180.0	7,161.1	18.87	380.563	
984.2	984.2	965.7	965.7	2.1	18.7	176.41	176.41	-7,165.9	449.0	7,180.0	7,159.2	20.75	345.966	
1,000.0	1,000.0	981.5	981.5	2.1	19.0	176.41	176.41	-7,165.9	449.0	7,180.0	7,158.9	21.11	340.185	
1,082.7	1,082.7	1,064.2	1,064.2	2.3	20.7	106.34	106.34	-7,165.9	449.0	7,180.3	7,157.3	22.95	312.878	
1,100.0	1,100.0	1,081.5	1,081.5	2.3	21.0	106.34	106.34	-7,165.9	449.0	7,180.4	7,157.1	23.34	307.711	
1,181.1	1,181.0	1,162.5	1,162.5	2.5	22.6	106.35	106.35	-7,165.9	449.0	7,181.6	7,156.4	25.14	285.703	
1,200.0	1,199.8	1,181.3	1,181.3	2.6	23.0	106.35	106.35	-7,165.9	449.0	7,181.9	7,156.4	25.56	281.032	
1,279.5	1,279.1	1,260.6	1,260.6	2.7	24.6	106.37	106.37	-7,165.9	449.0	7,183.8	7,156.5	27.32	262.902	
1,300.0	1,299.5	1,281.0	1,281.0	2.8	25.0	106.37	106.37	-7,165.9	449.0	7,184.4	7,156.6	27.78	258.622	
1,377.9	1,376.9	1,358.4	1,358.4	3.0	26.6	106.39	106.39	-7,165.9	449.0	7,187.0	7,157.5	29.52	243.462	
1,400.0	1,398.7	1,380.2	1,380.2	3.0	27.0	106.40	106.40	-7,165.9	449.0	7,187.8	7,157.8	30.01	239.507	
1,476.4	1,474.2	1,455.7	1,455.7	3.2	28.5	106.42	106.42	-7,165.9	449.0	7,191.2	7,159.4	31.73	226.658	
1,500.0	1,497.5	1,479.0	1,479.0	3.3	29.0	106.43	106.43	-7,165.9	449.0	7,192.3	7,160.1	32.26	222.977	
1,574.8	1,571.0	1,552.5	1,552.5	3.5	30.5	106.46	106.46	-7,165.9	449.0	7,196.3	7,162.4	33.95	211.960	
1,600.1	1,595.7	1,577.2	1,577.2	3.6	31.0	106.47	106.47	-7,165.9	449.0	7,197.8	7,163.3	34.52	208.503	
1,673.2	1,667.2	1,648.7	1,648.7	3.9	32.4	106.58	106.58	-7,165.9	449.0	7,202.2	7,166.0	36.21	198.911	
1,700.0	1,693.4	1,674.9	1,674.9	4.0	32.9	106.62	106.62	-7,165.9	449.0	7,203.9	7,167.0	36.83	195.621	
1,771.6	1,763.5	1,745.0	1,745.0	4.2	34.4	106.73	106.73	-7,165.9	449.0	7,208.2	7,169.7	38.49	187.271	
1,800.0	1,791.3	1,772.8	1,772.8	4.3	34.9	106.78	106.78	-7,165.9	449.0	7,210.0	7,170.8	39.15	184.164	
1,870.1	1,859.8	1,841.3	1,841.3	4.6	36.3	106.89	106.89	-7,165.9	449.0	7,214.3	7,173.5	40.79	176.872	
1,900.0	1,889.1	1,870.6	1,870.6	4.7	36.9	106.93	106.93	-7,165.9	449.0	7,216.1	7,174.6	41.49	173.933	
1,968.5	1,956.1	1,937.6	1,937.6	5.0	38.2	107.04	107.04	-7,165.9	449.0	7,220.4	7,177.3	43.10	167.538	
2,000.0	1,986.9	1,968.4	1,968.4	5.1	38.8	107.09	107.09	-7,165.9	449.0	7,222.3	7,178.5	43.84	164.754	
2,066.9	2,052.3	2,033.8	2,033.8	5.4	40.2	107.19	107.19	-7,165.9	449.0	7,226.5	7,181.1	45.41	159.123	
2,100.0	2,084.7	2,066.2	2,066.2	5.5	40.8	107.24	107.24	-7,165.9	449.0	7,228.6	7,182.4	46.19	156.482	
2,165.3	2,148.6	2,130.1	2,130.1	5.8	42.1	107.34	107.34	-7,165.9	449.0	7,232.7	7,185.0	47.74	151.504	
2,200.0	2,182.5	2,164.0	2,164.0	5.9	42.8	107.39	107.39	-7,165.9	449.0	7,234.9	7,186.3	48.56	148.994	
2,263.8	2,244.9	2,226.4	2,226.4	6.2	44.0	107.49	107.49	-7,165.9	449.0	7,238.9	7,188.9	50.07	144.578	
2,300.0	2,280.3	2,261.8	2,261.8	6.3	44.8	107.55	107.55	-7,165.9	449.0	7,241.3	7,190.3	50.93	142.187	
2,362.2	2,341.2	2,322.7	2,322.7	6.6	46.0	107.64	107.64	-7,165.9	449.0	7,245.2	7,192.8	52.40	138.258	
2,400.0	2,378.1	2,359.6	2,359.6	6.8	46.7	107.70	107.70	-7,165.9	449.0	7,247.7	7,194.4	53.30	135.976	
2,460.6	2,437.4	2,418.9	2,418.9	7.0	47.9	107.80	107.80	-7,165.9	449.0	7,251.6	7,196.9	54.74	132.469	
2,500.0	2,476.0	2,457.5	2,457.5	7.2	48.7	107.86	107.86	-7,165.9	449.0	7,254.2	7,198.5	55.68	130.288	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,515.2	2,515.2	7.4	49.8	107.95		-7,165.9	449.0	7,258.0	7,200.9	57.08	127.149	
2,600.0	2,573.8	2,555.3	2,555.3	7.6	50.7	108.01		-7,165.9	449.0	7,260.7	7,202.6	58.06	125.061	
2,657.5	2,630.0	2,611.5	2,611.5	7.9	51.8	108.10		-7,165.9	449.0	7,264.5	7,205.0	59.43	122.244	
2,700.0	2,671.6	2,653.1	2,653.1	8.1	52.6	108.16		-7,165.9	449.0	7,267.3	7,206.8	60.44	120.243	
2,755.9	2,726.3	2,707.8	2,707.8	8.3	53.7	108.25		-7,165.9	449.0	7,271.0	7,209.2	61.77	117.709	
2,800.0	2,769.4	2,750.9	2,750.9	8.5	54.6	108.31		-7,165.9	449.0	7,273.9	7,211.1	62.82	115.787	
2,854.3	2,822.5	2,804.0	2,804.0	8.7	55.7	108.40		-7,165.9	449.0	7,277.5	7,213.4	64.12	113.504	
2,900.0	2,867.2	2,848.7	2,848.7	8.9	56.6	108.47		-7,165.9	449.0	7,280.6	7,215.4	65.21	111.656	
2,952.7	2,918.8	2,900.3	2,900.3	9.2	57.6	108.55		-7,165.9	449.0	7,284.2	7,217.7	66.46	109.595	
3,000.0	2,965.0	2,946.5	2,946.5	9.4	58.5	108.62		-7,165.9	449.0	7,287.3	7,219.8	67.59	107.815	
3,051.2	3,015.1	2,996.6	2,996.6	9.6	59.5	108.70		-7,165.9	449.0	7,290.8	7,222.0	68.81	105.952	
3,100.0	3,062.8	3,044.3	3,044.3	9.8	60.5	108.77		-7,165.9	449.0	7,294.1	7,224.2	69.98	104.235	
3,149.6	3,111.4	3,092.9	3,092.9	10.0	61.5	108.85		-7,165.9	449.0	7,297.5	7,226.4	71.16	102.549	
3,200.0	3,160.7	3,142.2	3,142.2	10.3	62.5	108.92		-7,165.9	449.0	7,301.0	7,228.6	72.36	100.892	
3,248.0	3,207.6	3,189.1	3,189.1	10.5	63.4	108.99		-7,165.9	449.0	7,304.3	7,230.8	73.51	99.363	
3,300.0	3,258.5	3,240.0	3,240.0	10.7	64.4	109.07		-7,165.9	449.0	7,307.9	7,233.1	74.75	97.762	
3,346.4	3,303.9	3,285.4	3,285.4	10.9	65.3	109.14		-7,165.9	449.0	7,311.1	7,235.3	75.86	96.375	
3,400.0	3,356.3	3,337.8	3,337.8	11.2	66.4	109.22		-7,165.9	449.0	7,314.9	7,237.7	77.14	94.826	
3,444.9	3,400.2	3,381.7	3,381.7	11.4	67.3	109.29		-7,165.9	449.0	7,318.0	7,239.8	78.21	93.567	
3,500.0	3,454.1	3,435.6	3,435.6	11.6	68.4	109.37		-7,165.9	449.0	7,321.9	7,242.3	79.53	92.067	
3,543.3	3,496.5	3,478.0	3,478.0	11.8	69.2	109.44		-7,165.9	449.0	7,324.9	7,244.4	80.56	90.923	
3,600.0	3,551.9	3,533.4	3,533.4	12.0	70.3	109.52		-7,165.9	449.0	7,328.9	7,247.0	81.92	89.469	
3,641.7	3,592.7	3,574.2	3,574.2	12.2	71.1	109.59		-7,165.9	449.0	7,331.9	7,249.0	82.91	88.429	
3,700.0	3,649.7	3,631.2	3,631.2	12.5	72.3	109.67		-7,165.9	449.0	7,336.0	7,251.7	84.30	87.019	
3,740.1	3,689.0	3,670.5	3,670.5	12.7	73.1	109.74		-7,165.9	449.0	7,338.9	7,253.6	85.26	86.074	
3,800.0	3,747.5	3,729.0	3,729.0	12.9	74.3	109.82		-7,165.9	449.0	7,343.2	7,256.5	86.69	84.704	
3,838.6	3,785.3	3,766.8	3,766.8	13.1	75.0	109.88		-7,165.9	449.0	7,346.0	7,258.4	87.61	83.845	
3,900.0	3,845.4	3,826.9	3,826.9	13.4	76.2	109.97		-7,165.9	449.0	7,350.4	7,261.3	89.08	82.515	
3,937.0	3,881.5	3,863.0	3,863.0	13.6	77.0	110.03		-7,165.9	449.0	7,353.1	7,263.1	89.96	81.734	
4,000.0	3,943.2	3,924.7	3,924.7	13.8	78.2	110.12		-7,165.9	449.0	7,357.7	7,266.2	91.47	80.440	
4,035.4	3,977.8	3,959.3	3,959.3	14.0	78.9	110.18		-7,165.9	449.0	7,360.3	7,268.0	92.31	79.731	
4,100.0	4,041.0	4,022.5	4,022.5	14.3	80.2	110.27		-7,165.9	449.0	7,365.0	7,271.2	93.86	78.472	
4,133.8	4,074.1	4,055.6	4,055.6	14.4	80.8	110.32		-7,165.9	449.0	7,367.5	7,272.8	94.66	77.828	
4,200.0	4,138.8	4,120.3	4,120.3	14.7	82.1	110.42		-7,165.9	449.0	7,372.4	7,276.1	96.24	76.602	
4,232.3	4,170.4	4,151.9	4,151.9	14.9	82.8	110.47		-7,165.9	449.0	7,374.8	7,277.8	97.01	76.018	
4,300.0	4,236.6	4,218.1	4,218.1	15.2	84.1	110.57		-7,165.9	449.0	7,379.8	7,281.2	98.63	74.823	
4,330.7	4,266.6	4,248.1	4,248.1	15.3	84.7	110.62		-7,165.9	449.0	7,382.1	7,282.7	99.36	74.295	
4,400.0	4,334.4	4,315.9	4,315.9	15.6	86.1	110.72		-7,165.9	449.0	7,387.3	7,286.3	101.02	73.129	
4,429.1	4,362.9	4,344.4	4,344.4	15.8	86.6	110.76		-7,165.9	449.0	7,389.5	7,287.8	101.71	72.651	
4,500.0	4,432.2	4,413.7	4,413.7	16.1	88.0	110.87		-7,165.9	449.0	7,394.8	7,291.4	103.40	71.515	
4,527.5	4,459.2	4,440.7	4,440.7	16.2	88.6	110.91		-7,165.9	449.0	7,396.9	7,292.8	104.06	71.083	
4,600.0	4,530.1	4,511.6	4,511.6	16.5	90.0	111.01		-7,165.9	449.0	7,402.4	7,296.6	105.79	69.973	
4,626.0	4,555.5	4,537.0	4,537.0	16.7	90.5	111.05		-7,165.9	449.0	7,404.4	7,297.9	106.41	69.584	
4,700.0	4,627.9	4,609.4	4,609.4	17.0	92.0	111.16		-7,165.9	449.0	7,410.0	7,301.8	108.17	68.501	
4,724.4	4,651.7	4,633.2	4,633.2	17.1	92.4	111.20		-7,165.9	449.0	7,411.9	7,303.1	108.76	68.151	
4,800.0	4,725.7	4,707.2	4,707.2	17.4	93.9	111.31		-7,165.9	449.0	7,417.7	7,307.1	110.56	67.093	
4,822.8	4,748.0	4,729.5	4,729.5	17.6	94.4	111.34		-7,165.9	449.0	7,419.4	7,308.3	111.10	66.780	
4,900.0	4,823.5	4,805.0	4,805.0	17.9	95.9	111.45		-7,165.9	449.0	7,425.4	7,312.5	112.94	65.744	
4,921.2	4,844.3	4,825.8	4,825.8	18.0	96.3	111.49		-7,165.9	449.0	7,427.1	7,313.6	113.45	65.465	
5,000.0	4,921.3	4,902.8	4,902.8	18.4	97.9	111.60		-7,165.9	449.0	7,433.2	7,317.9	115.33	64.453	
5,014.9	4,935.9	4,917.4	4,917.4	18.4	98.2	111.62		-7,165.9	449.0	7,434.3	7,318.7	115.68	64.265	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,922.1	4,922.1	18.4	98.3	111.64		-7,165.9	449.0	7,434.7	7,318.9	115.80	64.205	
5,100.0	5,019.4	5,000.9	5,000.9	18.7	99.8	111.85		-7,165.9	449.0	7,440.5	7,322.8	117.73	63.202	
5,118.1	5,037.2	5,018.7	5,018.7	18.8	100.2	111.90		-7,165.9	449.0	7,441.7	7,323.6	118.15	62.987	
5,200.0	5,118.1	5,099.6	5,099.6	19.0	101.8	112.08		-7,165.9	449.0	7,446.7	7,326.6	120.05	62.031	
5,216.5	5,134.4	5,115.9	5,115.9	19.1	102.2	112.11		-7,165.9	449.0	7,447.5	7,327.1	120.42	61.844	
5,300.0	5,217.2	5,198.7	5,198.7	19.3	103.8	112.26		-7,165.9	449.0	7,451.5	7,329.2	122.33	60.912	
5,314.9	5,232.1	5,213.6	5,213.6	19.3	104.1	112.28		-7,165.9	449.0	7,452.1	7,329.4	122.67	60.750	
5,400.0	5,316.8	5,298.3	5,298.3	19.5	105.8	112.39		-7,165.9	449.0	7,455.0	7,330.4	124.58	59.843	
5,413.4	5,330.1	5,311.6	5,311.6	19.5	106.1	112.40		-7,165.9	449.0	7,455.4	7,330.5	124.87	59.705	
5,500.0	5,416.6	5,398.1	5,398.1	19.7	107.8	112.47		-7,165.9	449.0	7,457.2	7,330.4	126.77	58.822	
5,511.8	5,428.4	5,409.9	5,409.9	19.7	108.1	112.48		-7,165.9	449.0	7,457.4	7,330.3	127.03	58.706	
5,600.0	5,516.6	5,498.1	5,498.1	19.8	109.8	112.50		-7,165.9	449.0	7,458.1	7,329.1	128.92	57.848	
5,610.2	5,526.8	5,508.3	5,508.3	19.8	110.0	112.51		-7,165.9	449.0	7,458.1	7,328.9	129.14	57.751	
5,615.0	5,531.6	5,513.1	5,513.1	19.8	110.1	-177.42		-7,165.9	449.0	7,458.1	7,328.8	129.26	57.700	
5,700.0	5,616.6	5,598.1	5,598.1	19.9	111.8	-177.42		-7,165.9	449.0	7,458.1	7,327.0	131.07	56.900	
5,708.6	5,625.3	5,606.8	5,606.8	20.0	112.0	-177.42		-7,165.9	449.0	7,458.1	7,326.8	131.26	56.819	
5,800.0	5,716.6	5,698.1	5,698.1	20.1	113.9	-177.42		-7,165.9	449.0	7,458.1	7,324.9	133.22	55.981	
5,807.1	5,723.7	5,705.2	5,705.2	20.1	114.0	-177.42		-7,165.9	449.0	7,458.1	7,324.7	133.38	55.918	
5,900.0	5,816.6	5,798.1	5,798.1	20.2	115.9	-177.42		-7,165.9	449.0	7,458.1	7,322.7	135.38	55.092	
5,905.5	5,822.1	5,803.6	5,803.6	20.2	116.0	-177.42		-7,165.9	449.0	7,458.1	7,322.6	135.49	55.043	
6,000.0	5,916.6	5,898.1	5,898.1	20.4	117.9	-177.42		-7,165.9	449.0	7,458.1	7,320.6	137.53	54.229	
6,003.9	5,920.5	5,902.0	5,902.0	20.4	118.0	-177.42		-7,165.9	449.0	7,458.1	7,320.5	137.61	54.195	
6,100.0	6,016.6	5,998.1	5,998.1	20.5	119.9	-177.42		-7,165.9	449.0	7,458.1	7,318.4	139.69	53.392	
6,102.3	6,019.0	6,000.5	6,000.5	20.5	119.9	-177.42		-7,165.9	449.0	7,458.1	7,318.4	139.74	53.373	
6,200.0	6,116.6	6,098.1	6,098.1	20.6	121.9	-177.42		-7,165.9	449.0	7,458.1	7,316.2	141.84	52.580	
6,200.8	6,117.4	6,098.9	6,098.9	20.6	121.9	-177.42		-7,165.9	449.0	7,458.1	7,316.2	141.86	52.574	
6,299.2	6,215.8	6,197.3	6,197.3	20.8	123.9	-177.42		-7,165.9	449.0	7,458.1	7,314.1	143.98	51.798	
6,300.0	6,216.6	6,198.1	6,198.1	20.8	123.9	-177.42		-7,165.9	449.0	7,458.1	7,314.1	144.00	51.792	
6,340.0	6,256.6	6,238.1	6,238.1	20.8	124.7	-177.42		-7,165.9	449.0	7,458.1	7,313.2	144.86	51.484	
6,350.0	6,266.6	6,248.1	6,248.1	20.8	124.9	2.37		-7,165.9	449.0	7,458.0	7,313.0	145.04	51.419	
6,397.6	6,314.2	6,295.7	6,295.7	20.9	125.9	2.38		-7,165.9	449.0	7,455.8	7,310.2	145.57	51.219	
6,400.0	6,316.5	6,298.0	6,298.0	20.9	125.9	2.38		-7,165.9	449.0	7,455.6	7,310.0	145.58	51.214	
6,450.0	6,366.2	6,347.7	6,347.7	20.9	126.9	2.41		-7,165.9	449.0	7,449.7	7,304.3	145.40	51.237	
6,496.0	6,411.4	6,392.9	6,392.9	21.0	127.8	2.44		-7,165.9	449.0	7,441.2	7,296.6	144.58	51.466	
6,500.0	6,415.3	6,396.8	6,396.8	21.0	127.9	2.44		-7,165.9	449.0	7,440.3	7,295.8	144.49	51.495	
6,550.0	6,463.6	6,445.1	6,445.1	21.0	128.9	2.49		-7,165.9	449.0	7,427.5	7,284.7	142.84	51.999	
6,594.5	6,505.8	6,487.3	6,487.3	21.0	129.7	2.55		-7,165.9	449.0	7,413.4	7,272.6	140.76	52.668	
6,600.0	6,510.9	6,492.4	6,492.4	21.0	129.8	2.56		-7,165.9	449.0	7,411.4	7,271.0	140.46	52.767	
6,650.0	6,557.0	6,538.5	6,538.5	21.0	130.8	2.64		-7,165.9	449.0	7,392.1	7,254.8	137.34	53.824	
6,692.9	6,595.4	6,576.9	6,576.9	21.0	131.5	2.73		-7,165.9	449.0	7,373.0	7,238.9	134.08	54.988	
6,700.0	6,601.6	6,583.1	6,583.1	21.0	131.7	2.74		-7,165.9	449.0	7,369.6	7,236.1	133.49	55.206	
6,750.0	6,644.6	6,626.1	6,626.1	20.9	132.5	2.87		-7,165.9	449.0	7,344.0	7,215.1	128.93	56.959	
6,791.3	6,678.6	6,660.1	6,660.1	20.9	133.2	2.99		-7,165.9	449.0	7,320.6	7,196.0	124.64	58.732	
6,800.0	6,685.6	6,667.1	6,667.1	20.9	133.3	3.02		-7,165.9	449.0	7,315.5	7,191.8	123.69	59.146	
6,850.0	6,724.6	6,706.1	6,706.1	20.9	134.1	3.21		-7,165.9	449.0	7,284.2	7,166.4	117.77	61.848	
6,889.7	6,753.9	6,735.4	6,735.4	20.9	134.7	3.39		-7,165.9	449.0	7,257.4	7,144.8	112.63	64.436	
6,900.0	6,761.3	6,742.8	6,742.8	20.9	134.9	3.44		-7,165.9	449.0	7,250.3	7,139.0	111.24	65.176	
6,950.0	6,795.5	6,777.0	6,777.0	20.9	135.6	3.72		-7,165.9	449.0	7,213.9	7,109.7	104.13	69.277	
6,988.2	6,819.9	6,801.4	6,801.4	20.9	136.0	3.99		-7,165.9	449.0	7,184.5	7,086.1	98.35	73.049	
7,000.0	6,827.1	6,808.6	6,808.6	20.9	136.2	4.08		-7,165.9	449.0	7,175.1	7,078.6	96.51	74.350	
7,050.0	6,855.9	6,837.4	6,837.4	20.9	136.8	4.53		-7,165.9	449.0	7,134.3	7,045.9	88.45	80.663	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,086.6	6,875.1	6,856.6	6,856.6	20.9	137.2	4.94	-7,165.9	449.0	7,103.2	7,020.9	82.33	86.275		
7,100.0	6,881.8	6,863.3	6,863.3	20.9	137.3	5.11	-7,165.9	449.0	7,091.6	7,011.6	80.07	88.571		
7,150.0	6,904.6	6,886.1	6,886.1	21.0	137.8	5.88	-7,165.9	449.0	7,047.2	6,975.6	71.55	98.495		
7,185.0	6,918.8	6,900.3	6,900.3	21.1	138.0	6.60	-7,165.9	449.0	7,015.2	6,949.5	65.66	106.838		
7,200.0	6,924.3	6,905.8	6,905.8	21.1	138.1	6.96	-7,165.9	449.0	7,001.3	6,938.1	63.21	110.754		
7,250.0	6,940.8	6,922.3	6,922.3	21.2	138.5	8.55	-7,165.9	449.0	6,954.1	6,898.4	55.76	124.713		
7,283.4	6,949.9	6,931.4	6,931.4	21.3	138.7	10.10	-7,165.9	449.0	6,922.0	6,870.0	52.03	133.030		
7,300.0	6,953.9	6,935.4	6,935.4	21.4	138.7	11.10	-7,165.9	449.0	6,905.9	6,855.0	50.90	135.688		
7,350.0	6,963.6	6,945.1	6,945.1	21.6	138.9	15.75	-7,165.9	449.0	6,857.0	6,803.9	53.02	129.336		
7,381.9	6,968.0	6,949.5	6,949.5	21.7	139.0	21.37	-7,165.9	449.0	6,825.4	6,762.8	62.60	109.029		
7,400.0	6,969.9	6,951.4	6,951.4	21.8	139.1	26.63	-7,165.9	449.0	6,807.4	6,733.9	73.50	92.620		
7,450.0	6,972.6	6,954.1	6,954.1	22.1	139.1	65.42	-7,165.9	449.0	6,757.5	6,615.1	142.40	47.455		
7,471.5	6,972.8	6,954.3	6,954.3	22.2	139.1	101.18	-7,165.9	449.0	6,736.1	6,581.0	155.11	43.427		
7,480.3	6,972.7	6,954.2	6,954.2	22.3	139.1	101.17	-7,165.9	449.0	6,727.3	6,572.1	155.20	43.345		
7,500.0	6,972.5	6,954.0	6,954.0	22.4	139.1	101.14	-7,165.9	449.0	6,707.6	6,552.2	155.41	43.161		
7,578.7	6,971.8	6,953.3	6,953.3	23.1	139.1	101.01	-7,165.9	449.0	6,629.0	6,472.7	156.25	42.426		
7,600.0	6,971.6	6,953.1	6,953.1	23.3	139.1	100.97	-7,165.9	449.0	6,607.7	6,451.2	156.47	42.229		
7,677.1	6,970.9	6,952.4	6,952.4	24.0	139.1	100.85	-7,165.9	449.0	6,530.7	6,373.3	157.35	41.503		
7,700.0	6,970.7	6,952.2	6,952.2	24.2	139.1	100.81	-7,165.9	449.0	6,507.8	6,350.2	157.61	41.290		
7,775.6	6,970.0	6,951.5	6,951.5	25.0	139.1	100.69	-7,165.9	449.0	6,432.3	6,273.8	158.56	40.567		
7,800.0	6,969.8	6,951.3	6,951.3	25.3	139.1	100.65	-7,165.9	449.0	6,407.9	6,249.1	158.87	40.335		
7,874.0	6,969.1	6,950.6	6,950.6	26.2	139.0	100.53	-7,165.9	449.0	6,334.0	6,174.2	159.87	39.620		
7,900.0	6,968.9	6,950.4	6,950.4	26.5	139.0	100.49	-7,165.9	449.0	6,308.1	6,147.8	160.22	39.371		
7,972.4	6,968.2	6,949.7	6,949.7	27.4	139.0	100.37	-7,165.9	449.0	6,235.7	6,074.5	161.26	38.669		
8,000.0	6,968.0	6,949.5	6,949.5	27.8	139.0	100.33	-7,165.9	449.0	6,208.2	6,046.5	161.66	38.404		
8,070.8	6,967.3	6,948.8	6,948.8	28.7	139.0	100.21	-7,165.9	449.0	6,137.4	5,974.7	162.72	37.717		
8,100.0	6,967.1	6,948.6	6,948.6	29.1	139.0	100.16	-7,165.9	449.0	6,108.3	5,945.2	163.16	37.438		
8,169.3	6,966.4	6,947.9	6,947.9	30.1	139.0	100.05	-7,165.9	449.0	6,039.1	5,874.9	164.24	36.769		
8,200.0	6,966.2	6,947.7	6,947.7	30.5	139.0	100.00	-7,165.9	449.0	6,008.5	5,843.7	164.72	36.476		
8,267.7	6,965.5	6,947.0	6,947.0	31.5	139.0	99.89	-7,165.9	449.0	5,940.9	5,775.0	165.82	35.828		
8,300.0	6,965.2	6,946.7	6,946.7	32.0	139.0	99.84	-7,165.9	449.0	5,908.6	5,742.3	166.34	35.522		
8,366.1	6,964.6	6,946.1	6,946.1	33.0	139.0	99.73	-7,165.9	449.0	5,842.6	5,675.1	167.43	34.895		
8,400.0	6,964.3	6,945.8	6,945.8	33.5	139.0	99.68	-7,165.9	449.0	5,808.7	5,640.7	167.99	34.577		
8,464.5	6,963.8	6,945.3	6,945.3	34.5	138.9	99.57	-7,165.9	449.0	5,744.3	5,575.2	169.08	33.973		
8,500.0	6,963.4	6,944.9	6,944.9	35.1	138.9	99.51	-7,165.9	449.0	5,708.9	5,539.2	169.68	33.644		
8,563.0	6,962.9	6,944.4	6,944.4	36.1	138.9	99.41	-7,165.9	449.0	5,646.0	5,475.2	170.77	33.062		
8,600.0	6,962.5	6,944.0	6,944.0	36.7	138.9	99.35	-7,165.9	449.0	5,609.0	5,437.6	171.41	32.723		
8,661.4	6,962.0	6,943.5	6,943.5	37.7	138.9	99.25	-7,165.9	449.0	5,547.7	5,375.3	172.48	32.164		
8,700.0	6,961.6	6,943.1	6,943.1	38.3	138.9	99.19	-7,165.9	449.0	5,509.2	5,336.0	173.16	31.816		
8,759.8	6,961.1	6,942.6	6,942.6	39.3	138.9	99.09	-7,165.9	449.0	5,449.5	5,275.3	174.22	31.280		
8,800.0	6,960.7	6,942.2	6,942.2	40.0	138.9	99.02	-7,165.9	449.0	5,409.4	5,234.4	174.93	30.923		
8,858.2	6,960.2	6,941.7	6,941.7	40.9	138.9	98.93	-7,165.9	449.0	5,351.2	5,175.2	175.97	30.409		
8,900.0	6,959.8	6,941.3	6,941.3	41.6	138.9	98.86	-7,165.9	449.0	5,309.5	5,132.8	176.72	30.044		
8,956.7	6,959.3	6,940.8	6,940.8	42.6	138.8	98.76	-7,165.9	449.0	5,253.0	5,075.2	177.75	29.553		
9,000.0	6,958.9	6,940.4	6,940.4	43.3	138.8	98.69	-7,165.9	449.0	5,209.7	5,031.2	178.53	29.180		
9,055.1	6,958.4	6,939.9	6,939.9	44.3	138.8	98.60	-7,165.9	449.0	5,154.7	4,975.2	179.54	28.711		
9,100.0	6,958.0	6,939.5	6,939.5	45.1	138.8	98.53	-7,165.9	449.0	5,109.9	4,929.5	180.36	28.332		
9,153.5	6,957.5	6,939.0	6,939.0	46.0	138.8	98.44	-7,165.9	449.0	5,056.5	4,875.1	181.35	27.883		
9,200.0	6,957.1	6,938.6	6,938.6	46.8	138.8	98.37	-7,165.9	449.0	5,010.1	4,827.9	182.20	27.498		
9,251.9	6,956.6	6,938.1	6,938.1	47.7	138.8	98.28	-7,165.9	449.0	4,958.2	4,775.1	183.16	27.070		
9,300.0	6,956.2	6,937.7	6,937.7	48.6	138.8	98.20	-7,165.9	449.0	4,910.3	4,726.2	184.05	26.679		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	6,937.2	6,937.2	49.5	138.8	98.12		-7,165.9	449.0	4,860.0	4,675.0	184.99	26.272	
9,400.0	6,955.2	6,936.7	6,936.7	50.3	138.8	98.04		-7,165.9	449.0	4,810.5	4,624.6	185.91	25.875	
9,448.8	6,954.8	6,936.3	6,936.3	51.2	138.8	97.96		-7,165.9	449.0	4,761.8	4,575.0	186.83	25.488	
9,500.0	6,954.3	6,935.8	6,935.8	52.1	138.8	97.87		-7,165.9	449.0	4,710.7	4,522.9	187.79	25.085	
9,547.2	6,953.9	6,935.4	6,935.4	53.0	138.7	97.79		-7,165.9	449.0	4,663.6	4,474.9	188.67	24.718	
9,600.0	6,953.4	6,934.9	6,934.9	53.9	138.7	97.71		-7,165.9	449.0	4,610.9	4,421.3	189.67	24.311	
9,645.6	6,953.0	6,934.5	6,934.5	54.7	138.7	97.63		-7,165.9	449.0	4,565.4	4,374.9	190.53	23.962	
9,700.0	6,952.5	6,934.0	6,934.0	55.7	138.7	97.54		-7,165.9	449.0	4,511.2	4,319.6	191.55	23.550	
9,744.1	6,952.1	6,933.6	6,933.6	56.5	138.7	97.47		-7,165.9	449.0	4,467.2	4,274.8	192.39	23.220	
9,800.0	6,951.6	6,933.1	6,933.1	57.5	138.7	97.38		-7,165.9	449.0	4,411.4	4,218.0	193.45	22.804	
9,842.5	6,951.2	6,932.7	6,932.7	58.3	138.7	97.31		-7,165.9	449.0	4,369.0	4,174.8	194.26	22.491	
9,900.0	6,950.7	6,932.2	6,932.2	59.4	138.7	97.21		-7,165.9	449.0	4,311.7	4,116.3	195.35	22.072	
9,940.9	6,950.3	6,931.8	6,931.8	60.1	138.7	97.14		-7,165.9	449.0	4,270.9	4,074.7	196.13	21.776	
10,000.0	6,949.8	6,931.3	6,931.3	61.2	138.7	97.05		-7,165.9	449.0	4,211.9	4,014.7	197.25	21.353	
10,039.3	6,949.4	6,930.9	6,930.9	61.9	138.7	96.98		-7,165.9	449.0	4,172.7	3,974.7	198.01	21.074	
10,100.0	6,948.9	6,930.4	6,930.4	63.0	138.6	96.88		-7,165.9	449.0	4,112.2	3,913.1	199.17	20.647	
10,137.8	6,948.5	6,930.0	6,930.0	63.7	138.6	96.82		-7,165.9	449.0	4,074.6	3,874.7	199.89	20.384	
10,200.0	6,948.0	6,929.5	6,929.5	64.9	138.6	96.71		-7,165.9	449.0	4,012.5	3,811.4	201.08	19.955	
10,236.2	6,947.6	6,929.1	6,929.1	65.6	138.6	96.65		-7,165.9	449.0	3,976.4	3,774.6	201.77	19.707	
10,300.0	6,947.1	6,928.6	6,928.6	66.7	138.6	96.55		-7,165.9	449.0	3,912.8	3,709.8	203.00	19.275	
10,334.6	6,946.7	6,928.2	6,928.2	67.4	138.6	96.49		-7,165.9	449.0	3,878.3	3,674.6	203.66	19.043	
10,400.0	6,946.2	6,927.7	6,927.7	68.6	138.6	96.38		-7,165.9	449.0	3,813.1	3,608.2	204.92	18.608	
10,433.0	6,945.8	6,927.3	6,927.3	69.2	138.6	96.33		-7,165.9	449.0	3,780.2	3,574.6	205.56	18.390	
10,500.0	6,945.2	6,926.7	6,926.7	70.5	138.6	96.22		-7,165.9	449.0	3,713.5	3,506.6	206.85	17.953	
10,531.5	6,945.0	6,926.5	6,926.5	71.1	138.6	96.16		-7,165.9	449.0	3,682.1	3,474.7	207.45	17.749	
10,600.0	6,944.3	6,925.8	6,925.8	72.3	138.5	96.05		-7,165.9	449.0	3,613.8	3,405.1	208.77	17.310	
10,629.9	6,944.1	6,925.6	6,925.6	72.9	138.5	96.00		-7,165.9	449.0	3,584.1	3,374.7	209.35	17.120	
10,700.0	6,943.4	6,924.9	6,924.9	74.2	138.5	95.88		-7,165.9	449.0	3,514.2	3,303.5	210.71	16.678	
10,728.3	6,943.2	6,924.7	6,924.7	74.7	138.5	95.84		-7,165.9	449.0	3,486.0	3,274.8	211.25	16.502	
10,800.0	6,942.5	6,924.0	6,924.0	76.1	138.5	95.72		-7,165.9	449.0	3,414.6	3,202.0	212.64	16.058	
10,826.7	6,942.3	6,923.8	6,923.8	76.6	138.5	95.67		-7,165.9	449.0	3,388.0	3,174.8	213.16	15.894	
10,900.0	6,941.6	6,923.1	6,923.1	78.0	138.5	95.55		-7,165.9	449.0	3,315.1	3,100.5	214.57	15.450	
10,925.2	6,941.4	6,922.9	6,922.9	78.4	138.5	95.51		-7,165.9	449.0	3,290.0	3,074.9	215.06	15.298	
11,000.0	6,940.7	6,922.2	6,922.2	79.9	138.5	95.38		-7,165.9	449.0	3,215.5	2,999.0	216.51	14.852	
11,023.6	6,940.5	6,922.0	6,922.0	80.3	138.5	95.34		-7,165.9	449.0	3,192.0	2,975.1	216.97	14.712	
11,100.0	6,939.8	6,921.3	6,921.3	81.7	138.5	95.22		-7,165.9	449.0	3,116.0	2,897.6	218.45	14.264	
11,122.0	6,939.6	6,921.1	6,921.1	82.2	138.5	95.18		-7,165.9	449.0	3,094.1	2,875.2	218.87	14.136	
11,200.0	6,938.9	6,920.4	6,920.4	83.6	138.4	95.05		-7,165.9	449.0	3,016.5	2,796.1	220.39	13.687	
11,220.4	6,938.7	6,920.2	6,920.2	84.0	138.4	95.02		-7,165.9	449.0	2,996.2	2,775.4	220.78	13.571	
11,300.0	6,938.0	6,919.5	6,919.5	85.5	138.4	94.88		-7,165.9	449.0	2,917.1	2,694.7	222.33	13.121	
11,318.9	6,937.8	6,919.3	6,919.3	85.9	138.4	94.85		-7,165.9	449.0	2,898.3	2,675.6	222.69	13.015	
11,400.0	6,937.0	6,918.5	6,918.5	87.4	138.4	94.72		-7,165.9	449.0	2,817.6	2,593.4	224.27	12.564	
11,417.3	6,936.9	6,918.4	6,918.4	87.8	138.4	94.69		-7,165.9	449.0	2,800.5	2,575.9	224.60	12.468	
11,500.0	6,936.1	6,917.6	6,917.6	89.3	138.4	94.55		-7,165.9	449.0	2,718.3	2,492.1	226.21	12.017	
11,515.7	6,936.0	6,917.5	6,917.5	89.6	138.4	94.52		-7,165.9	449.0	2,702.7	2,476.1	226.51	11.931	
11,600.0	6,935.2	6,916.7	6,916.7	91.2	138.4	94.38		-7,165.9	449.0	2,619.0	2,390.8	228.15	11.479	
11,614.1	6,935.1	6,916.6	6,916.6	91.5	138.4	94.36		-7,165.9	449.0	2,604.9	2,376.5	228.43	11.404	
11,700.0	6,934.3	6,915.8	6,915.8	93.1	138.3	94.21		-7,165.9	449.0	2,519.7	2,289.6	230.09	10.951	
11,712.6	6,934.2	6,915.7	6,915.7	93.4	138.3	94.19		-7,165.9	449.0	2,507.2	2,276.9	230.34	10.885	
11,800.0	6,933.4	6,914.9	6,914.9	95.1	138.3	94.05		-7,165.9	449.0	2,420.5	2,188.4	232.04	10.431	
11,811.0	6,933.3	6,914.8	6,914.8	95.3	138.3	94.03		-7,165.9	449.0	2,409.6	2,177.3	232.25	10.375	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #18-14 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.0	6,932.5	6,914.0	6,914.0	97.0	138.3	93.88	93.88	-7,165.9	449.0	2,321.3	2,087.4	233.98	9.921	
11,909.4	6,932.4	6,913.9	6,913.9	97.1	138.3	93.86	93.86	-7,165.9	449.0	2,312.0	2,077.8	234.16	9.873	
12,000.0	6,931.6	6,913.1	6,913.1	98.9	138.3	93.71	93.71	-7,165.9	449.0	2,222.3	1,986.4	235.92	9.419	
12,007.8	6,931.5	6,913.0	6,913.0	99.0	138.3	93.70	93.70	-7,165.9	449.0	2,214.5	1,978.4	236.08	9.380	
12,100.0	6,930.7	6,912.2	6,912.2	100.8	138.3	93.54	93.54	-7,165.9	449.0	2,123.3	1,885.4	237.87	8.926	
12,106.3	6,930.6	6,912.1	6,912.1	100.9	138.3	93.53	93.53	-7,165.9	449.0	2,117.1	1,879.1	237.99	8.896	
12,200.0	6,929.8	6,911.3	6,911.3	102.7	138.3	93.37	93.37	-7,165.9	449.0	2,024.4	1,784.6	239.81	8.442	
12,204.7	6,929.7	6,911.2	6,911.2	102.8	138.3	93.37	93.37	-7,165.9	449.0	2,019.8	1,779.9	239.90	8.419	
12,300.0	6,928.8	6,910.3	6,910.3	104.6	138.2	93.21	93.21	-7,165.9	449.0	1,925.7	1,683.9	241.75	7.965	
12,303.1	6,928.8	6,910.3	6,910.3	104.7	138.2	93.20	93.20	-7,165.9	449.0	1,922.6	1,680.8	241.82	7.951	
12,400.0	6,927.9	6,909.4	6,909.4	106.5	138.2	93.04	93.04	-7,165.9	449.0	1,827.0	1,583.3	243.70	7.497	
12,401.5	6,927.9	6,909.4	6,909.4	106.6	138.2	93.04	93.04	-7,165.9	449.0	1,825.5	1,581.8	243.73	7.490	
12,500.0	6,927.0	6,908.5	6,908.5	108.5	138.2	92.87	92.87	-7,165.9	449.0	1,728.6	1,482.9	245.64	7.037	
12,598.4	6,926.1	6,907.6	6,907.6	110.4	138.2	92.70	92.70	-7,165.9	449.0	1,631.9	1,384.3	247.55	6.592	
12,600.0	6,926.1	6,907.6	6,907.6	110.4	138.2	92.70	92.70	-7,165.9	449.0	1,630.3	1,382.7	247.58	6.585	
12,696.8	6,925.2	6,906.7	6,906.7	112.3	138.2	92.54	92.54	-7,165.9	449.0	1,535.3	1,285.9	249.46	6.155	
12,700.0	6,925.2	6,906.7	6,906.7	112.3	138.2	92.53	92.53	-7,165.9	449.0	1,532.2	1,282.7	249.52	6.141	
12,795.2	6,924.3	6,905.8	6,905.8	114.1	138.1	92.37	92.37	-7,165.9	449.0	1,439.1	1,187.7	251.37	5.725	
12,800.0	6,924.3	6,905.8	6,905.8	114.2	138.1	92.37	92.37	-7,165.9	449.0	1,434.4	1,183.0	251.46	5.704	
12,893.7	6,923.4	6,904.9	6,904.9	116.0	138.1	92.21	92.21	-7,165.9	449.0	1,343.1	1,089.8	253.28	5.303	
12,900.0	6,923.4	6,904.9	6,904.9	116.2	138.1	92.20	92.20	-7,165.9	449.0	1,337.0	1,083.6	253.40	5.276	
12,992.1	6,922.5	6,904.0	6,904.0	117.9	138.1	92.04	92.04	-7,165.9	449.0	1,247.5	992.4	255.19	4.889	
13,000.0	6,922.5	6,904.0	6,904.0	118.1	138.1	92.03	92.03	-7,165.9	449.0	1,239.9	984.6	255.34	4.856	
13,090.5	6,921.6	6,903.1	6,903.1	119.8	138.1	91.88	91.88	-7,165.9	449.0	1,152.5	895.4	257.09	4.483	
13,100.0	6,921.5	6,903.0	6,903.0	120.0	138.1	91.86	91.86	-7,165.9	449.0	1,143.3	886.1	257.28	4.444	
13,188.9	6,920.7	6,902.2	6,902.2	121.7	138.1	91.71	91.71	-7,165.9	449.0	1,058.0	799.0	259.00	4.085	
13,200.0	6,920.6	6,902.1	6,902.1	121.9	138.1	91.69	91.69	-7,165.9	449.0	1,047.4	788.2	259.21	4.041	
13,287.4	6,919.8	6,901.3	6,901.3	123.6	138.1	91.54	91.54	-7,165.9	449.0	964.3	703.4	260.90	3.696	
13,300.0	6,919.7	6,901.2	6,901.2	123.9	138.1	91.52	91.52	-7,165.9	449.0	952.3	691.2	261.15	3.647	
13,385.8	6,918.9	6,900.4	6,900.4	125.5	138.0	91.38	91.38	-7,165.9	449.0	871.6	608.8	262.81	3.317	
13,400.0	6,918.8	6,900.3	6,900.3	125.8	138.0	91.35	91.35	-7,165.9	449.0	858.4	595.3	263.08	3.263	
13,484.2	6,918.0	6,899.5	6,899.5	127.4	138.0	91.21	91.21	-7,165.9	449.0	780.4	515.7	264.71	2.948	
13,500.0	6,917.9	6,899.4	6,899.4	127.7	138.0	91.18	91.18	-7,165.9	449.0	766.0	500.9	265.01	2.890	
13,582.6	6,917.1	6,898.6	6,898.6	129.3	138.0	91.04	91.04	-7,165.9	449.0	691.2	424.5	266.61	2.592	
13,600.0	6,917.0	6,898.5	6,898.5	129.7	138.0	91.02	91.02	-7,165.9	449.0	675.7	408.7	266.95	2.531	
13,681.1	6,916.2	6,897.7	6,897.7	131.2	138.0	90.88	90.88	-7,165.9	449.0	604.8	336.2	268.51	2.252	
13,700.0	6,916.1	6,897.6	6,897.6	131.6	138.0	90.85	90.85	-7,165.9	449.0	588.6	319.7	268.88	2.189	
13,779.5	6,915.3	6,896.8	6,896.8	133.1	138.0	90.71	90.71	-7,165.9	449.0	522.6	252.2	270.41	1.933	
13,800.0	6,915.2	6,896.7	6,896.7	133.5	138.0	90.68	90.68	-7,165.9	449.0	506.2	235.4	270.80	1.869	
13,877.9	6,914.4	6,895.9	6,895.9	135.1	137.9	90.55	90.55	-7,165.9	449.0	447.1	174.8	272.31	1.642	
13,900.0	6,914.2	6,895.7	6,895.7	135.5	137.9	90.51	90.51	-7,165.9	449.0	431.4	158.7	272.73	1.582	
13,976.3	6,913.5	6,895.0	6,895.0	137.0	137.9	90.38	90.38	-7,165.9	449.0	382.2	108.0	274.20	1.394 Level 3	
14,000.0	6,913.3	6,894.8	6,894.8	137.4	137.9	90.34	90.34	-7,165.9	449.0	368.8	94.1	274.66	1.343 Level 3	
14,074.8	6,912.6	6,894.1	6,894.1	138.9	137.9	90.21	90.21	-7,165.9	449.0	334.0	57.9	276.09	1.210 Level 2	
14,100.0	6,912.4	6,893.9	6,893.9	139.4	137.9	90.17	90.17	-7,165.9	449.0	325.4	48.8	276.58	1.176 Level 2	
14,145.0	6,912.0	6,893.5	6,893.5	140.2	137.9	90.09	90.09	-7,165.9	449.0	314.4	37.0	277.40	1.133 Level 2, CC, ES, SF	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	175.71	175.71	-5,573.9	418.3	5,589.6				
98.4	98.4	69.9	69.9	0.1	0.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,588.9	0.68	8,196.547	
100.0	100.0	71.5	71.5	0.1	0.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,588.9	0.70	8,020.361	
196.8	196.8	168.3	168.3	0.3	2.5	175.71	175.71	-5,573.9	418.3	5,589.6	5,586.8	2.78	2,011.834	
200.0	200.0	171.5	171.5	0.3	2.5	175.71	175.71	-5,573.9	418.3	5,589.6	5,586.7	2.86	1,954.188	
295.3	295.3	266.8	266.8	0.5	4.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,584.4	5.14	1,087.006	
300.0	300.0	271.5	271.5	0.5	4.7	175.71	175.71	-5,573.9	418.3	5,589.6	5,584.3	5.25	1,064.444	
393.7	393.7	365.2	365.2	0.8	6.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,582.2	7.39	756.692	
400.0	400.0	371.5	371.5	0.8	6.8	175.71	175.71	-5,573.9	418.3	5,589.6	5,582.0	7.53	742.338	
492.1	492.1	463.6	463.6	1.0	8.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,580.0	9.61	581.658	
500.0	500.0	471.5	471.5	1.0	8.8	175.71	175.71	-5,573.9	418.3	5,589.6	5,579.8	9.79	571.111	
590.5	590.5	562.0	562.0	1.2	10.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,577.7	11.82	472.735	
600.0	600.0	571.5	571.5	1.2	10.8	175.71	175.71	-5,573.9	418.3	5,589.6	5,577.5	12.04	464.394	
689.0	689.0	660.5	660.5	1.4	12.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,575.5	14.03	398.297	
700.0	700.0	671.5	671.5	1.4	12.8	175.71	175.71	-5,573.9	418.3	5,589.6	5,575.3	14.28	391.398	
787.4	787.4	758.9	758.9	1.6	14.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,573.3	16.24	344.167	
800.0	800.0	771.5	771.5	1.7	14.9	175.71	175.71	-5,573.9	418.3	5,589.6	5,573.0	16.52	338.284	
885.8	885.8	857.3	857.3	1.9	16.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,571.1	18.45	303.016	
900.0	900.0	871.5	871.5	1.9	16.9	175.71	175.71	-5,573.9	418.3	5,589.6	5,570.8	18.76	297.888	
984.2	984.2	955.7	955.7	2.1	18.6	175.71	175.71	-5,573.9	418.3	5,589.6	5,568.9	20.65	270.669	
1,000.0	1,000.0	971.5	971.5	2.1	18.9	175.71	175.71	-5,573.9	418.3	5,589.6	5,568.6	21.00	266.124	
1,082.7	1,082.7	1,054.2	1,054.2	2.3	20.5	105.63	105.63	-5,573.9	418.3	5,589.9	5,567.0	22.85	244.666	
1,100.0	1,100.0	1,071.5	1,071.5	2.3	20.9	105.64	105.64	-5,573.9	418.3	5,590.0	5,566.8	23.23	240.609	
1,181.1	1,181.0	1,152.5	1,152.5	2.5	22.5	105.66	105.66	-5,573.9	418.3	5,591.1	5,566.1	25.03	223.335	
1,200.0	1,199.8	1,171.3	1,171.3	2.6	22.9	105.66	105.66	-5,573.9	418.3	5,591.4	5,566.0	25.45	219.670	
1,279.5	1,279.1	1,250.6	1,250.6	2.7	24.5	105.69	105.69	-5,573.9	418.3	5,593.3	5,566.0	27.22	205.454	
1,300.0	1,299.5	1,271.0	1,271.0	2.8	24.9	105.70	105.70	-5,573.9	418.3	5,593.8	5,566.1	27.68	202.100	
1,377.9	1,376.9	1,348.4	1,348.4	3.0	26.5	105.74	105.74	-5,573.9	418.3	5,596.3	5,566.9	29.42	190.223	
1,400.0	1,398.7	1,370.2	1,370.2	3.0	26.9	105.76	105.76	-5,573.9	418.3	5,597.1	5,567.2	29.91	187.126	
1,476.4	1,474.2	1,445.7	1,445.7	3.2	28.4	105.81	105.81	-5,573.9	418.3	5,600.3	5,568.7	31.63	177.070	
1,500.0	1,497.5	1,469.0	1,469.0	3.3	28.9	105.83	105.83	-5,573.9	418.3	5,601.4	5,569.3	32.16	174.190	
1,574.8	1,571.0	1,542.5	1,542.5	3.5	30.4	105.89	105.89	-5,573.9	418.3	5,605.3	5,571.5	33.85	165.574	
1,600.1	1,595.7	1,567.2	1,567.2	3.6	30.9	105.91	105.91	-5,573.9	418.3	5,606.8	5,572.3	34.42	162.872	
1,673.2	1,667.2	1,638.7	1,638.7	3.9	32.3	106.05	106.05	-5,573.9	418.3	5,611.0	5,574.9	36.11	155.381	
1,700.0	1,693.4	1,664.9	1,664.9	4.0	32.8	106.11	106.11	-5,573.9	418.3	5,612.6	5,575.9	36.73	152.812	
1,771.6	1,763.5	1,735.0	1,735.0	4.2	34.3	106.25	106.25	-5,573.9	418.3	5,616.8	5,578.4	38.39	146.293	
1,800.0	1,791.3	1,762.8	1,762.8	4.3	34.8	106.31	106.31	-5,573.9	418.3	5,618.5	5,579.5	39.05	143.869	
1,870.1	1,859.8	1,831.3	1,831.3	4.6	36.2	106.45	106.45	-5,573.9	418.3	5,622.7	5,582.0	40.69	138.178	
1,900.0	1,889.1	1,860.6	1,860.6	4.7	36.8	106.51	106.51	-5,573.9	418.3	5,624.5	5,583.1	41.39	135.885	
1,968.5	1,956.1	1,927.6	1,927.6	5.0	38.1	106.64	106.64	-5,573.9	418.3	5,628.7	5,585.7	43.00	130.896	
2,000.0	1,986.9	1,958.4	1,958.4	5.1	38.7	106.71	106.71	-5,573.9	418.3	5,630.6	5,586.8	43.74	128.726	
2,066.9	2,052.3	2,023.8	2,023.8	5.4	40.1	106.84	106.84	-5,573.9	418.3	5,634.7	5,589.4	45.32	124.334	
2,100.0	2,084.7	2,056.2	2,056.2	5.5	40.7	106.90	106.90	-5,573.9	418.3	5,636.7	5,590.6	46.10	122.276	
2,165.3	2,148.6	2,120.1	2,120.1	5.8	42.0	107.03	107.03	-5,573.9	418.3	5,640.8	5,593.1	47.64	118.396	
2,200.0	2,182.5	2,154.0	2,154.0	5.9	42.7	107.10	107.10	-5,573.9	418.3	5,642.9	5,594.5	48.46	116.439	
2,263.8	2,244.9	2,216.4	2,216.4	6.2	43.9	107.23	107.23	-5,573.9	418.3	5,646.9	5,596.9	49.97	112.999	
2,300.0	2,280.3	2,251.8	2,251.8	6.3	44.6	107.30	107.30	-5,573.9	418.3	5,649.2	5,598.4	50.83	111.136	
2,362.2	2,341.2	2,312.7	2,312.7	6.6	45.9	107.42	107.42	-5,573.9	418.3	5,653.1	5,600.8	52.31	108.075	
2,400.0	2,378.1	2,349.6	2,349.6	6.8	46.6	107.50	107.50	-5,573.9	418.3	5,655.5	5,602.3	53.20	106.298	
2,460.6	2,437.4	2,408.9	2,408.9	7.0	47.8	107.62	107.62	-5,573.9	418.3	5,659.4	5,604.8	54.65	103.567	
2,500.0	2,476.0	2,447.5	2,447.5	7.2	48.6	107.69	107.69	-5,573.9	418.3	5,662.0	5,606.4	55.58	101.869	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,505.2	2,505.2	7.4	49.7	107.81		-5,573.9	418.3	5,665.8	5,608.8	56.99	99.425	
2,600.0	2,573.8	2,545.3	2,545.3	7.6	50.6	107.89		-5,573.9	418.3	5,668.4	5,610.5	57.96	97.801	
2,657.5	2,630.0	2,601.5	2,601.5	7.9	51.7	108.00		-5,573.9	418.3	5,672.2	5,612.9	59.33	95.608	
2,700.0	2,671.6	2,643.1	2,643.1	8.1	52.5	108.09		-5,573.9	418.3	5,675.0	5,614.6	60.34	94.051	
2,755.9	2,726.3	2,697.8	2,697.8	8.3	53.6	108.19		-5,573.9	418.3	5,678.7	5,617.0	61.67	92.080	
2,800.0	2,769.4	2,740.9	2,740.9	8.5	54.5	108.28		-5,573.9	418.3	5,681.6	5,618.9	62.72	90.585	
2,854.3	2,822.5	2,794.0	2,794.0	8.7	55.6	108.39		-5,573.9	418.3	5,685.2	5,621.2	64.02	88.809	
2,900.0	2,867.2	2,838.7	2,838.7	8.9	56.5	108.48		-5,573.9	418.3	5,688.3	5,623.2	65.10	87.372	
2,952.7	2,918.8	2,890.3	2,890.3	9.2	57.5	108.58		-5,573.9	418.3	5,691.8	5,625.5	66.36	85.769	
3,000.0	2,965.0	2,936.5	2,936.5	9.4	58.4	108.67		-5,573.9	418.3	5,695.1	5,627.6	67.49	84.385	
3,051.2	3,015.1	2,986.6	2,986.6	9.6	59.4	108.77		-5,573.9	418.3	5,698.5	5,629.8	68.71	82.937	
3,100.0	3,062.8	3,034.3	3,034.3	9.8	60.4	108.86		-5,573.9	418.3	5,701.9	5,632.0	69.87	81.603	
3,149.6	3,111.4	3,082.9	3,082.9	10.0	61.4	108.96		-5,573.9	418.3	5,705.3	5,634.2	71.06	80.292	
3,200.0	3,160.7	3,132.2	3,132.2	10.3	62.4	109.06		-5,573.9	418.3	5,708.8	5,636.5	72.26	79.005	
3,248.0	3,207.6	3,179.1	3,179.1	10.5	63.3	109.15		-5,573.9	418.3	5,712.1	5,638.7	73.40	77.817	
3,300.0	3,258.5	3,230.0	3,230.0	10.7	64.3	109.25		-5,573.9	418.3	5,715.7	5,641.1	74.64	76.573	
3,346.4	3,303.9	3,275.4	3,275.4	10.9	65.2	109.34		-5,573.9	418.3	5,719.0	5,643.2	75.75	75.496	
3,400.0	3,356.3	3,327.8	3,327.8	11.2	66.3	109.44		-5,573.9	418.3	5,722.7	5,645.7	77.03	74.293	
3,444.9	3,400.2	3,371.7	3,371.7	11.4	67.2	109.53		-5,573.9	418.3	5,725.9	5,647.8	78.10	73.315	
3,500.0	3,454.1	3,425.6	3,425.6	11.6	68.3	109.64		-5,573.9	418.3	5,729.8	5,650.4	79.41	72.151	
3,543.3	3,496.5	3,468.0	3,468.0	11.8	69.1	109.72		-5,573.9	418.3	5,732.9	5,652.5	80.45	71.263	
3,600.0	3,551.9	3,523.4	3,523.4	12.0	70.2	109.83		-5,573.9	418.3	5,737.0	5,655.2	81.80	70.134	
3,641.7	3,592.7	3,564.2	3,564.2	12.2	71.0	109.91		-5,573.9	418.3	5,740.0	5,657.2	82.80	69.327	
3,700.0	3,649.7	3,621.2	3,621.2	12.5	72.2	110.02		-5,573.9	418.3	5,744.2	5,660.0	84.19	68.233	
3,740.1	3,689.0	3,660.5	3,660.5	12.7	73.0	110.10		-5,573.9	418.3	5,747.1	5,662.0	85.14	67.500	
3,800.0	3,747.5	3,719.0	3,719.0	12.9	74.2	110.21		-5,573.9	418.3	5,751.5	5,664.9	86.57	66.437	
3,838.6	3,785.3	3,756.8	3,756.8	13.1	74.9	110.28		-5,573.9	418.3	5,754.3	5,666.9	87.49	65.771	
3,900.0	3,845.4	3,816.9	3,816.9	13.4	76.1	110.40		-5,573.9	418.3	5,758.9	5,669.9	88.96	64.739	
3,937.0	3,881.5	3,853.0	3,853.0	13.6	76.9	110.47		-5,573.9	418.3	5,761.6	5,671.8	89.84	64.134	
4,000.0	3,943.2	3,914.7	3,914.7	13.8	78.1	110.59		-5,573.9	418.3	5,766.3	5,675.0	91.34	63.130	
4,035.4	3,977.8	3,949.3	3,949.3	14.0	78.8	110.66		-5,573.9	418.3	5,768.9	5,676.8	92.18	62.581	
4,100.0	4,041.0	4,012.5	4,012.5	14.3	80.1	110.78		-5,573.9	418.3	5,773.8	5,680.1	93.72	61.604	
4,133.8	4,074.1	4,045.6	4,045.6	14.4	80.7	110.84		-5,573.9	418.3	5,776.3	5,681.8	94.53	61.106	
4,200.0	4,138.8	4,110.3	4,110.3	14.7	82.0	110.97		-5,573.9	418.3	5,781.3	5,685.2	96.11	60.155	
4,232.3	4,170.4	4,141.9	4,141.9	14.9	82.7	111.03		-5,573.9	418.3	5,783.8	5,686.9	96.88	59.703	
4,300.0	4,236.6	4,208.1	4,208.1	15.2	84.0	111.16		-5,573.9	418.3	5,789.0	5,690.5	98.49	58.777	
4,330.7	4,266.6	4,238.1	4,238.1	15.3	84.6	111.22		-5,573.9	418.3	5,791.3	5,692.1	99.22	58.368	
4,400.0	4,334.4	4,305.9	4,305.9	15.6	86.0	111.35		-5,573.9	418.3	5,796.6	5,695.8	100.87	57.465	
4,429.1	4,362.9	4,334.4	4,334.4	15.8	86.5	111.40		-5,573.9	418.3	5,798.9	5,697.3	101.57	57.095	
4,500.0	4,432.2	4,403.7	4,403.7	16.1	87.9	111.53		-5,573.9	418.3	5,804.4	5,701.1	103.25	56.215	
4,527.5	4,459.2	4,430.7	4,430.7	16.2	88.5	111.58		-5,573.9	418.3	5,806.5	5,702.6	103.91	55.880	
4,600.0	4,530.1	4,501.6	4,501.6	16.5	89.9	111.72		-5,573.9	418.3	5,812.2	5,706.6	105.63	55.022	
4,626.0	4,555.5	4,527.0	4,527.0	16.7	90.4	111.77		-5,573.9	418.3	5,814.2	5,708.0	106.25	54.720	
4,700.0	4,627.9	4,599.4	4,599.4	17.0	91.9	111.91		-5,573.9	418.3	5,820.1	5,712.1	108.02	53.882	
4,724.4	4,651.7	4,623.2	4,623.2	17.1	92.3	111.95		-5,573.9	418.3	5,822.0	5,713.4	108.60	53.612	
4,800.0	4,725.7	4,697.2	4,697.2	17.4	93.8	112.09		-5,573.9	418.3	5,828.0	5,717.6	110.39	52.792	
4,822.8	4,748.0	4,719.5	4,719.5	17.6	94.3	112.14		-5,573.9	418.3	5,829.8	5,718.9	110.94	52.550	
4,900.0	4,823.5	4,795.0	4,795.0	17.9	95.8	112.28		-5,573.9	418.3	5,836.0	5,723.2	112.77	51.750	
4,921.2	4,844.3	4,815.8	4,815.8	18.0	96.2	112.32		-5,573.9	418.3	5,837.7	5,724.4	113.28	51.534	
5,000.0	4,921.3	4,892.8	4,892.8	18.4	97.8	112.46		-5,573.9	418.3	5,844.1	5,728.9	115.15	50.751	
5,014.9	4,935.9	4,907.4	4,907.4	18.4	98.1	112.49		-5,573.9	418.3	5,845.3	5,729.8	115.51	50.605	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,912.1	4,912.1	18.4	98.2	112.51		-5,573.9	418.3	5,845.7	5,730.0	115.62	50.559	
5,100.0	5,019.4	4,990.9	4,990.9	18.7	99.7	112.76		-5,573.9	418.3	5,851.7	5,734.2	117.55	49.780	
5,118.1	5,037.2	5,008.7	5,008.7	18.8	100.1	112.81		-5,573.9	418.3	5,853.0	5,735.0	117.97	49.613	
5,200.0	5,118.1	5,089.6	5,089.6	19.0	101.7	113.02		-5,573.9	418.3	5,858.1	5,738.2	119.87	48.869	
5,216.5	5,134.4	5,105.9	5,105.9	19.1	102.1	113.06		-5,573.9	418.3	5,859.0	5,738.7	120.25	48.723	
5,300.0	5,217.2	5,188.7	5,188.7	19.3	103.7	113.22		-5,573.9	418.3	5,863.1	5,740.9	122.16	47.995	
5,314.9	5,232.1	5,203.6	5,203.6	19.3	104.0	113.25		-5,573.9	418.3	5,863.7	5,741.2	122.50	47.869	
5,400.0	5,316.8	5,288.3	5,288.3	19.5	105.7	113.37		-5,573.9	418.3	5,866.8	5,742.4	124.41	47.158	
5,413.4	5,330.1	5,301.6	5,301.6	19.5	106.0	113.39		-5,573.9	418.3	5,867.1	5,742.4	124.70	47.050	
5,500.0	5,416.6	5,388.1	5,388.1	19.7	107.7	113.47		-5,573.9	418.3	5,869.1	5,742.4	126.60	46.357	
5,511.8	5,428.4	5,399.9	5,399.9	19.7	108.0	113.47		-5,573.9	418.3	5,869.2	5,742.4	126.86	46.266	
5,600.0	5,516.6	5,488.1	5,488.1	19.8	109.7	113.50		-5,573.9	418.3	5,870.0	5,741.2	128.76	45.590	
5,610.2	5,526.8	5,498.3	5,498.3	19.8	109.9	113.51		-5,573.9	418.3	5,870.0	5,741.0	128.97	45.513	
5,615.0	5,531.6	5,503.1	5,503.1	19.8	110.0	-176.42		-5,573.9	418.3	5,870.0	5,740.9	129.09	45.473	
5,700.0	5,616.6	5,588.1	5,588.1	19.9	111.7	-176.42		-5,573.9	418.3	5,870.0	5,739.1	130.90	44.842	
5,708.6	5,625.3	5,596.8	5,596.8	20.0	111.9	-176.42		-5,573.9	418.3	5,870.0	5,738.9	131.09	44.778	
5,800.0	5,716.6	5,688.1	5,688.1	20.1	113.8	-176.42		-5,573.9	418.3	5,870.0	5,736.9	133.06	44.117	
5,807.1	5,723.7	5,695.2	5,695.2	20.1	113.9	-176.42		-5,573.9	418.3	5,870.0	5,736.8	133.21	44.066	
5,900.0	5,816.6	5,788.1	5,788.1	20.2	115.8	-176.42		-5,573.9	418.3	5,870.0	5,734.8	135.21	43.414	
5,905.5	5,822.1	5,793.6	5,793.6	20.2	115.9	-176.42		-5,573.9	418.3	5,870.0	5,734.6	135.33	43.376	
6,000.0	5,916.6	5,888.1	5,888.1	20.4	117.8	-176.42		-5,573.9	418.3	5,870.0	5,732.6	137.36	42.733	
6,003.9	5,920.5	5,892.0	5,892.0	20.4	117.9	-176.42		-5,573.9	418.3	5,870.0	5,732.5	137.45	42.707	
6,100.0	6,016.6	5,988.1	5,988.1	20.5	119.8	-176.42		-5,573.9	418.3	5,870.0	5,730.5	139.52	42.073	
6,102.3	6,019.0	5,990.5	5,990.5	20.5	119.8	-176.42		-5,573.9	418.3	5,870.0	5,730.4	139.57	42.058	
6,200.0	6,116.6	6,088.1	6,088.1	20.6	121.8	-176.42		-5,573.9	418.3	5,870.0	5,728.3	141.68	41.433	
6,200.8	6,117.4	6,088.9	6,088.9	20.6	121.8	-176.42		-5,573.9	418.3	5,870.0	5,728.3	141.69	41.428	
6,299.2	6,215.8	6,187.3	6,187.3	20.8	123.8	-176.42		-5,573.9	418.3	5,870.0	5,726.2	143.82	40.816	
6,300.0	6,216.6	6,188.1	6,188.1	20.8	123.8	-176.42		-5,573.9	418.3	5,870.0	5,726.1	143.83	40.811	
6,340.0	6,256.6	6,228.1	6,228.1	20.8	124.6	-176.42		-5,573.9	418.3	5,870.0	5,725.3	144.70	40.567	
6,350.0	6,266.6	6,238.1	6,238.1	20.8	124.8	3.37		-5,573.9	418.3	5,869.9	5,725.0	144.88	40.517	
6,397.6	6,314.2	6,285.7	6,285.7	20.9	125.8	3.39		-5,573.9	418.3	5,867.7	5,722.3	145.40	40.355	
6,400.0	6,316.5	6,288.0	6,288.0	20.9	125.8	3.39		-5,573.9	418.3	5,867.5	5,722.1	145.41	40.351	
6,450.0	6,366.2	6,337.7	6,337.7	20.9	126.8	3.42		-5,573.9	418.3	5,861.6	5,716.3	145.23	40.360	
6,496.0	6,411.4	6,382.9	6,382.9	21.0	127.7	3.47		-5,573.9	418.3	5,853.1	5,708.6	144.42	40.527	
6,500.0	6,415.3	6,386.8	6,386.8	21.0	127.8	3.47		-5,573.9	418.3	5,852.2	5,707.9	144.32	40.549	
6,550.0	6,463.6	6,435.1	6,435.1	21.0	128.8	3.54		-5,573.9	418.3	5,839.5	5,696.8	142.69	40.925	
6,594.5	6,505.8	6,477.3	6,477.3	21.0	129.6	3.63		-5,573.9	418.3	5,825.3	5,684.7	140.61	41.429	
6,600.0	6,510.9	6,482.4	6,482.4	21.0	129.7	3.64		-5,573.9	418.3	5,823.4	5,683.1	140.31	41.503	
6,650.0	6,557.0	6,528.5	6,528.5	21.0	130.7	3.76		-5,573.9	418.3	5,804.0	5,666.8	137.20	42.302	
6,692.9	6,595.4	6,566.9	6,566.9	21.0	131.4	3.88		-5,573.9	418.3	5,784.9	5,651.0	133.96	43.183	
6,700.0	6,601.6	6,573.1	6,573.1	21.0	131.6	3.91		-5,573.9	418.3	5,781.5	5,648.2	133.38	43.348	
6,750.0	6,644.6	6,616.1	6,616.1	20.9	132.4	4.09		-5,573.9	418.3	5,756.0	5,627.1	128.84	44.675	
6,791.3	6,678.6	6,650.1	6,650.1	20.9	133.1	4.27		-5,573.9	418.3	5,732.6	5,608.1	124.58	46.018	
6,800.0	6,685.6	6,657.1	6,657.1	20.9	133.2	4.32		-5,573.9	418.3	5,727.5	5,603.9	123.62	46.331	
6,850.0	6,724.6	6,696.1	6,696.1	20.9	134.0	4.59		-5,573.9	418.3	5,696.2	5,578.5	117.75	48.374	
6,889.7	6,753.9	6,725.4	6,725.4	20.9	134.6	4.85		-5,573.9	418.3	5,669.5	5,556.8	112.66	50.326	
6,900.0	6,761.3	6,732.8	6,732.8	20.9	134.8	4.92		-5,573.9	418.3	5,662.3	5,551.1	111.28	50.884	
6,950.0	6,795.5	6,767.0	6,767.0	20.9	135.5	5.34		-5,573.9	418.3	5,626.0	5,521.7	104.26	53.963	
6,988.2	6,819.9	6,791.4	6,791.4	20.9	135.9	5.72		-5,573.9	418.3	5,596.6	5,498.1	98.57	56.777	
7,000.0	6,827.1	6,798.6	6,798.6	20.9	136.1	5.85		-5,573.9	418.3	5,587.3	5,490.5	96.76	57.744	
7,050.0	6,855.9	6,827.4	6,827.4	20.9	136.7	6.50		-5,573.9	418.3	5,546.5	5,457.6	88.90	62.390	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,086.6	6,875.1	6,846.6	6,846.6	20.9	137.1	7.10	-5,573.9	418.3	5,515.5	5,432.5	83.01	66.445		
7,100.0	6,881.8	6,853.3	6,853.3	20.9	137.2	7.35	-5,573.9	418.3	5,503.8	5,423.0	80.85	68.077		
7,150.0	6,904.6	6,876.1	6,876.1	21.0	137.7	8.47	-5,573.9	418.3	5,459.5	5,386.6	72.89	74.905		
7,185.0	6,918.8	6,890.3	6,890.3	21.1	137.9	9.50	-5,573.9	418.3	5,427.5	5,359.9	67.63	80.249		
7,200.0	6,924.3	6,895.8	6,895.8	21.1	138.0	10.03	-5,573.9	418.3	5,413.6	5,348.1	65.55	82.582		
7,250.0	6,940.8	6,912.3	6,912.3	21.2	138.4	12.31	-5,573.9	418.3	5,366.5	5,306.5	59.99	89.457		
7,283.4	6,949.9	6,921.4	6,921.4	21.3	138.6	14.51	-5,573.9	418.3	5,334.4	5,276.0	58.39	91.365		
7,300.0	6,953.9	6,925.4	6,925.4	21.4	138.6	15.91	-5,573.9	418.3	5,318.4	5,259.7	58.65	90.681		
7,350.0	6,963.6	6,935.1	6,935.1	21.6	138.8	22.34	-5,573.9	418.3	5,269.4	5,202.8	66.59	79.131		
7,381.9	6,968.0	6,939.5	6,939.5	21.7	138.9	29.72	-5,573.9	418.3	5,237.9	5,157.1	80.83	64.799		
7,400.0	6,969.9	6,941.4	6,941.4	21.8	139.0	36.20	-5,573.9	418.3	5,219.9	5,125.9	94.08	55.487		
7,450.0	6,972.6	6,944.1	6,944.1	22.1	139.0	72.64	-5,573.9	418.3	5,170.1	5,020.7	149.46	34.593		
7,471.5	6,972.8	6,944.3	6,944.3	22.2	139.0	97.69	-5,573.9	418.3	5,148.7	4,992.3	156.37	32.926		
7,480.3	6,972.7	6,944.2	6,944.2	22.3	139.0	97.67	-5,573.9	418.3	5,139.9	4,983.5	156.46	32.851		
7,500.0	6,972.5	6,944.0	6,944.0	22.4	139.0	97.64	-5,573.9	418.3	5,120.3	4,963.6	156.66	32.683		
7,578.7	6,971.8	6,943.3	6,943.3	23.1	139.0	97.53	-5,573.9	418.3	5,041.7	4,884.2	157.48	32.015		
7,600.0	6,971.6	6,943.1	6,943.1	23.3	139.0	97.50	-5,573.9	418.3	5,020.5	4,862.8	157.70	31.836		
7,677.1	6,970.9	6,942.4	6,942.4	24.0	139.0	97.38	-5,573.9	418.3	4,943.5	4,785.0	158.56	31.178		
7,700.0	6,970.7	6,942.2	6,942.2	24.2	139.0	97.35	-5,573.9	418.3	4,920.7	4,761.9	158.81	30.984		
7,775.6	6,970.0	6,941.5	6,941.5	25.0	139.0	97.24	-5,573.9	418.3	4,845.4	4,685.6	159.74	30.332		
7,800.0	6,969.8	6,941.3	6,941.3	25.3	139.0	97.20	-5,573.9	418.3	4,821.0	4,661.0	160.04	30.123		
7,874.0	6,969.1	6,940.6	6,940.6	26.2	138.9	97.09	-5,573.9	418.3	4,747.2	4,586.2	161.03	29.480		
7,900.0	6,968.9	6,940.4	6,940.4	26.5	138.9	97.05	-5,573.9	418.3	4,721.3	4,559.9	161.37	29.257		
7,972.4	6,968.2	6,939.7	6,939.7	27.4	138.9	96.95	-5,573.9	418.3	4,649.0	4,486.6	162.40	28.627		
8,000.0	6,968.0	6,939.5	6,939.5	27.8	138.9	96.91	-5,573.9	418.3	4,621.5	4,458.8	162.79	28.390		
8,070.8	6,967.3	6,938.8	6,938.8	28.7	138.9	96.80	-5,573.9	418.3	4,550.9	4,387.1	163.84	27.777		
8,100.0	6,967.1	6,938.6	6,938.6	29.1	138.9	96.76	-5,573.9	418.3	4,521.8	4,357.6	164.27	27.526		
8,169.3	6,966.4	6,937.9	6,937.9	30.1	138.9	96.65	-5,573.9	418.3	4,452.8	4,287.4	165.34	26.931		
8,200.0	6,966.2	6,937.7	6,937.7	30.5	138.9	96.61	-5,573.9	418.3	4,422.1	4,256.3	165.82	26.669		
8,267.7	6,965.5	6,937.0	6,937.0	31.5	138.9	96.51	-5,573.9	418.3	4,354.6	4,187.8	166.90	26.092		
8,300.0	6,965.2	6,936.7	6,936.7	32.0	138.9	96.46	-5,573.9	418.3	4,322.5	4,155.0	167.41	25.820		
8,366.1	6,964.6	6,936.1	6,936.1	33.0	138.9	96.36	-5,573.9	418.3	4,256.5	4,088.1	168.49	25.263		
8,400.0	6,964.3	6,935.8	6,935.8	33.5	138.9	96.31	-5,573.9	418.3	4,222.8	4,053.7	169.05	24.980		
8,464.5	6,963.8	6,935.3	6,935.3	34.5	138.8	96.22	-5,573.9	418.3	4,158.5	3,988.3	170.13	24.443		
8,500.0	6,963.4	6,934.9	6,934.9	35.1	138.8	96.16	-5,573.9	418.3	4,123.1	3,952.4	170.72	24.151		
8,563.0	6,962.9	6,934.4	6,934.4	36.1	138.8	96.07	-5,573.9	418.3	4,060.4	3,888.6	171.79	23.635		
8,600.0	6,962.5	6,934.0	6,934.0	36.7	138.8	96.02	-5,573.9	418.3	4,023.5	3,851.1	172.42	23.335		
8,661.4	6,962.0	6,933.5	6,933.5	37.7	138.8	95.92	-5,573.9	418.3	3,962.3	3,788.8	173.49	22.839		
8,700.0	6,961.6	6,933.1	6,933.1	38.3	138.8	95.87	-5,573.9	418.3	3,923.9	3,749.7	174.15	22.531		
8,759.8	6,961.1	6,932.6	6,932.6	39.3	138.8	95.78	-5,573.9	418.3	3,864.3	3,689.1	175.20	22.056		
8,800.0	6,960.7	6,932.2	6,932.2	40.0	138.8	95.72	-5,573.9	418.3	3,824.3	3,648.4	175.91	21.740		
8,858.2	6,960.2	6,931.7	6,931.7	40.9	138.8	95.63	-5,573.9	418.3	3,766.3	3,589.3	176.94	21.285		
8,900.0	6,959.8	6,931.3	6,931.3	41.6	138.8	95.57	-5,573.9	418.3	3,724.7	3,547.0	177.68	20.963		
8,956.7	6,959.3	6,930.8	6,930.8	42.6	138.7	95.49	-5,573.9	418.3	3,668.3	3,489.6	178.70	20.528		
9,000.0	6,958.9	6,930.4	6,930.4	43.3	138.7	95.42	-5,573.9	418.3	3,625.2	3,445.7	179.47	20.199		
9,055.1	6,958.4	6,929.9	6,929.9	44.3	138.7	95.34	-5,573.9	418.3	3,570.3	3,389.8	180.47	19.784		
9,100.0	6,958.0	6,929.5	6,929.5	45.1	138.7	95.27	-5,573.9	418.3	3,525.6	3,344.3	181.28	19.449		
9,153.5	6,957.5	6,929.0	6,929.0	46.0	138.7	95.19	-5,573.9	418.3	3,472.4	3,290.1	182.25	19.053		
9,200.0	6,957.1	6,928.6	6,928.6	46.8	138.7	95.12	-5,573.9	418.3	3,426.1	3,243.0	183.10	18.712		
9,251.9	6,956.6	6,928.1	6,928.1	47.7	138.7	95.05	-5,573.9	418.3	3,374.4	3,190.4	184.05	18.334		
9,300.0	6,956.2	6,927.7	6,927.7	48.6	138.7	94.97	-5,573.9	418.3	3,326.7	3,141.7	184.93	17.989		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	6,927.2	6,927.2	49.5	138.7	94.90		-5,573.9	418.3	3,276.6	3,090.7	185.86	17.630	
9,400.0	6,955.2	6,926.7	6,926.7	50.3	138.7	94.82		-5,573.9	418.3	3,227.2	3,040.4	186.77	17.279	
9,448.8	6,954.8	6,926.3	6,926.3	51.2	138.7	94.75		-5,573.9	418.3	3,178.7	2,991.0	187.67	16.937	
9,500.0	6,954.3	6,925.8	6,925.8	52.1	138.6	94.68		-5,573.9	418.3	3,127.8	2,939.2	188.62	16.583	
9,547.2	6,953.9	6,925.4	6,925.4	53.0	138.6	94.60		-5,573.9	418.3	3,080.9	2,891.4	189.50	16.258	
9,600.0	6,953.4	6,924.9	6,924.9	53.9	138.6	94.53		-5,573.9	418.3	3,028.5	2,838.0	190.48	15.899	
9,645.6	6,953.0	6,924.5	6,924.5	54.7	138.6	94.46		-5,573.9	418.3	2,983.1	2,791.8	191.33	15.591	
9,700.0	6,952.5	6,924.0	6,924.0	55.7	138.6	94.38		-5,573.9	418.3	2,929.1	2,736.8	192.34	15.229	
9,744.1	6,952.1	6,923.6	6,923.6	56.5	138.6	94.31		-5,573.9	418.3	2,885.4	2,692.2	193.17	14.937	
9,800.0	6,951.6	6,923.1	6,923.1	57.5	138.6	94.23		-5,573.9	418.3	2,829.9	2,635.6	194.22	14.571	
9,842.5	6,951.2	6,922.7	6,922.7	58.3	138.6	94.16		-5,573.9	418.3	2,787.7	2,592.7	195.01	14.295	
9,900.0	6,950.7	6,922.2	6,922.2	59.4	138.6	94.08		-5,573.9	418.3	2,730.6	2,534.5	196.09	13.925	
9,940.9	6,950.3	6,921.8	6,921.8	60.1	138.6	94.02		-5,573.9	418.3	2,690.1	2,493.2	196.86	13.664	
10,000.0	6,949.8	6,921.3	6,921.3	61.2	138.6	93.93		-5,573.9	418.3	2,631.5	2,433.5	197.98	13.292	
10,039.3	6,949.4	6,920.9	6,920.9	61.9	138.6	93.87		-5,573.9	418.3	2,592.5	2,393.8	198.72	13.046	
10,100.0	6,948.9	6,920.4	6,920.4	63.0	138.5	93.78		-5,573.9	418.3	2,532.4	2,332.5	199.86	12.671	
10,137.8	6,948.5	6,920.0	6,920.0	63.7	138.5	93.72		-5,573.9	418.3	2,495.0	2,294.4	200.58	12.439	
10,200.0	6,948.0	6,919.5	6,919.5	64.9	138.5	93.63		-5,573.9	418.3	2,433.4	2,231.6	201.76	12.061	
10,236.2	6,947.6	6,919.1	6,919.1	65.6	138.5	93.57		-5,573.9	418.3	2,397.5	2,195.1	202.44	11.843	
10,300.0	6,947.1	6,918.6	6,918.6	66.7	138.5	93.48		-5,573.9	418.3	2,334.4	2,130.8	203.65	11.463	
10,334.6	6,946.7	6,918.2	6,918.2	67.4	138.5	93.43		-5,573.9	418.3	2,300.2	2,095.9	204.31	11.258	
10,400.0	6,946.2	6,917.7	6,917.7	68.6	138.5	93.33		-5,573.9	418.3	2,235.6	2,030.0	205.55	10.876	
10,433.0	6,945.8	6,917.3	6,917.3	69.2	138.5	93.28		-5,573.9	418.3	2,202.9	1,996.8	206.18	10.685	
10,500.0	6,945.2	6,916.7	6,916.7	70.5	138.5	93.18		-5,573.9	418.3	2,136.8	1,929.4	207.45	10.301	
10,531.5	6,945.0	6,916.5	6,916.5	71.1	138.5	93.13		-5,573.9	418.3	2,105.8	1,897.7	208.05	10.122	
10,600.0	6,944.3	6,915.8	6,915.8	72.3	138.4	93.03		-5,573.9	418.3	2,038.2	1,828.9	209.35	9.736	
10,629.9	6,944.1	6,915.6	6,915.6	72.9	138.4	92.98		-5,573.9	418.3	2,008.8	1,798.8	209.92	9.569	
10,700.0	6,943.4	6,914.9	6,914.9	74.2	138.4	92.88		-5,573.9	418.3	1,939.8	1,728.5	211.26	9.182	
10,728.3	6,943.2	6,914.7	6,914.7	74.7	138.4	92.84		-5,573.9	418.3	1,911.9	1,700.1	211.80	9.027	
10,800.0	6,942.5	6,914.0	6,914.0	76.1	138.4	92.73		-5,573.9	418.3	1,841.4	1,628.3	213.16	8.639	
10,826.7	6,942.3	6,913.8	6,913.8	76.6	138.4	92.69		-5,573.9	418.3	1,815.2	1,601.5	213.67	8.495	
10,900.0	6,941.6	6,913.1	6,913.1	78.0	138.4	92.58		-5,573.9	418.3	1,743.3	1,528.3	215.07	8.106	
10,925.2	6,941.4	6,912.9	6,912.9	78.4	138.4	92.54		-5,573.9	418.3	1,718.7	1,503.1	215.55	7.973	
11,000.0	6,940.7	6,912.2	6,912.2	79.9	138.4	92.43		-5,573.9	418.3	1,645.4	1,428.5	216.98	7.583	
11,023.6	6,940.5	6,912.0	6,912.0	80.3	138.4	92.39		-5,573.9	418.3	1,622.4	1,404.9	217.43	7.461	
11,100.0	6,939.8	6,911.3	6,911.3	81.7	138.4	92.28		-5,573.9	418.3	1,547.8	1,328.9	218.89	7.071	
11,122.0	6,939.6	6,911.1	6,911.1	82.2	138.4	92.24		-5,573.9	418.3	1,526.4	1,307.0	219.32	6.960	
11,200.0	6,938.9	6,910.4	6,910.4	83.6	138.3	92.13		-5,573.9	418.3	1,450.5	1,229.7	220.81	6.569	
11,220.4	6,938.7	6,910.2	6,910.2	84.0	138.3	92.09		-5,573.9	418.3	1,430.7	1,209.5	221.20	6.468	
11,300.0	6,938.0	6,909.5	6,909.5	85.5	138.3	91.98		-5,573.9	418.3	1,353.6	1,130.9	222.72	6.078	
11,318.9	6,937.8	6,909.3	6,909.3	85.9	138.3	91.95		-5,573.9	418.3	1,335.4	1,112.3	223.08	5.986	
11,400.0	6,937.0	6,908.5	6,908.5	87.4	138.3	91.82		-5,573.9	418.3	1,257.2	1,032.6	224.63	5.597	
11,417.3	6,936.9	6,908.4	6,908.4	87.8	138.3	91.80		-5,573.9	418.3	1,240.6	1,015.6	224.97	5.514	
11,500.0	6,936.1	6,907.6	6,907.6	89.3	138.3	91.67		-5,573.9	418.3	1,161.4	934.8	226.55	5.126	
11,515.7	6,936.0	6,907.5	6,907.5	89.6	138.3	91.65		-5,573.9	418.3	1,146.4	919.5	226.85	5.053	
11,600.0	6,935.2	6,906.7	6,906.7	91.2	138.3	91.52		-5,573.9	418.3	1,066.3	837.9	228.46	4.667	
11,614.1	6,935.1	6,906.6	6,906.6	91.5	138.3	91.50		-5,573.9	418.3	1,053.0	824.2	228.74	4.603	
11,700.0	6,934.3	6,905.8	6,905.8	93.1	138.2	91.37		-5,573.9	418.3	972.3	741.9	230.38	4.220	
11,712.6	6,934.2	6,905.7	6,905.7	93.4	138.2	91.35		-5,573.9	418.3	960.5	729.9	230.62	4.165	
11,800.0	6,933.4	6,904.9	6,904.9	95.1	138.2	91.22		-5,573.9	418.3	879.5	647.2	232.30	3.786	
11,811.0	6,933.3	6,904.8	6,904.8	95.3	138.2	91.20		-5,573.9	418.3	869.4	636.9	232.51	3.739	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR #2 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,900.0	6,932.5	6,904.0	6,904.0	97.0	138.2	91.07	91.07	-5,573.9	418.3	788.6	554.4	234.21	3.367	
11,909.4	6,932.4	6,903.9	6,903.9	97.1	138.2	91.06	91.06	-5,573.9	418.3	780.1	545.7	234.39	3.328	
12,000.0	6,931.6	6,903.1	6,903.1	98.9	138.2	90.92	90.92	-5,573.9	418.3	700.1	464.0	236.13	2.965	
12,007.8	6,931.5	6,903.0	6,903.0	99.0	138.2	90.91	90.91	-5,573.9	418.3	693.3	457.0	236.28	2.934	
12,100.0	6,930.7	6,902.2	6,902.2	100.8	138.2	90.77	90.77	-5,573.9	418.3	615.1	377.1	238.04	2.584	
12,106.3	6,930.6	6,902.1	6,902.1	100.9	138.2	90.76	90.76	-5,573.9	418.3	609.9	371.8	238.16	2.561	
12,200.0	6,929.8	6,901.3	6,901.3	102.7	138.2	90.62	90.62	-5,573.9	418.3	535.4	295.4	239.96	2.231	
12,204.7	6,929.7	6,901.2	6,901.2	102.8	138.2	90.61	90.61	-5,573.9	418.3	531.8	291.7	240.05	2.215	
12,300.0	6,928.8	6,900.3	6,900.3	104.6	138.1	90.47	90.47	-5,573.9	418.3	463.5	221.7	241.87	1.916	
12,303.1	6,928.8	6,900.3	6,900.3	104.7	138.1	90.46	90.46	-5,573.9	418.3	461.5	219.5	241.93	1.907	
12,400.0	6,927.9	6,899.4	6,899.4	106.5	138.1	90.32	90.32	-5,573.9	418.3	403.9	160.1	243.78	1.657	
12,401.5	6,927.9	6,899.4	6,899.4	106.6	138.1	90.31	90.31	-5,573.9	418.3	403.1	159.3	243.81	1.653	
12,500.0	6,927.0	6,898.5	6,898.5	108.5	138.1	90.16	90.16	-5,573.9	418.3	362.5	116.8	245.70	1.475 Level 3	
12,598.4	6,926.1	6,897.6	6,897.6	110.4	138.1	90.02	90.02	-5,573.9	418.3	345.9	98.3	247.58	1.397 Level 3	
12,600.0	6,926.1	6,897.6	6,897.6	110.4	138.1	90.01	90.01	-5,573.9	418.3	345.9	98.2	247.61	1.397 Level 3	
12,608.8	6,926.0	6,897.5	6,897.5	110.6	138.1	90.00	90.00	-5,573.9	418.3	345.7	98.0	247.78	1.395 Level 3, CC, ES, SF	
12,696.8	6,925.2	6,896.7	6,896.7	112.3	138.1	89.87	89.87	-5,573.9	418.3	356.8	107.3	249.46	1.430 Level 3	
12,700.0	6,925.2	6,896.7	6,896.7	112.3	138.1	89.86	89.86	-5,573.9	418.3	357.6	108.1	249.52	1.433 Level 3	
12,795.2	6,924.3	6,895.8	6,895.8	114.1	138.0	89.72	89.72	-5,573.9	418.3	392.8	141.5	251.34	1.563	
12,800.0	6,924.3	6,895.8	6,895.8	114.2	138.0	89.71	89.71	-5,573.9	418.3	395.1	143.7	251.43	1.571	
12,893.7	6,923.4	6,894.9	6,894.9	116.0	138.0	89.57	89.57	-5,573.9	418.3	448.0	194.8	253.22	1.769	
12,900.0	6,923.4	6,894.9	6,894.9	116.2	138.0	89.56	89.56	-5,573.9	418.3	452.1	198.7	253.34	1.784	
12,992.1	6,922.5	6,894.0	6,894.0	117.9	138.0	89.42	89.42	-5,573.9	418.3	516.2	261.1	255.10	2.024	
13,000.0	6,922.5	6,894.0	6,894.0	118.1	138.0	89.41	89.41	-5,573.9	418.3	522.1	266.9	255.25	2.045	
13,090.5	6,921.6	6,893.1	6,893.1	119.8	138.0	89.27	89.27	-5,573.9	418.3	593.0	336.0	256.98	2.307	
13,100.0	6,921.5	6,893.0	6,893.0	120.0	138.0	89.26	89.26	-5,573.9	418.3	600.7	343.5	257.16	2.336	
13,188.9	6,920.7	6,892.2	6,892.2	121.7	138.0	89.12	89.12	-5,573.9	418.3	675.4	416.5	258.86	2.609	
13,200.0	6,920.6	6,892.1	6,892.1	121.9	138.0	89.11	89.11	-5,573.9	418.3	684.9	425.8	259.07	2.644	
13,287.4	6,919.8	6,891.3	6,891.3	123.6	138.0	88.97	88.97	-5,573.9	418.3	761.6	500.9	260.73	2.921	
13,300.0	6,919.7	6,891.2	6,891.2	123.9	138.0	88.95	88.95	-5,573.9	418.3	772.9	511.9	260.97	2.961	
13,385.8	6,918.9	6,890.4	6,890.4	125.5	137.9	88.82	88.82	-5,573.9	418.3	850.5	587.8	262.61	3.238	
13,400.0	6,918.8	6,890.3	6,890.3	125.8	137.9	88.80	88.80	-5,573.9	418.3	863.4	600.6	262.88	3.285	
13,484.2	6,918.0	6,889.5	6,889.5	127.4	137.9	88.68	88.68	-5,573.9	418.3	941.2	676.7	264.48	3.559	
13,500.0	6,917.9	6,889.4	6,889.4	127.7	137.9	88.65	88.65	-5,573.9	418.3	955.9	691.1	264.78	3.610	
13,582.6	6,917.1	6,888.6	6,888.6	129.3	137.9	88.53	88.53	-5,573.9	418.3	1,033.4	767.0	266.35	3.880	
13,600.0	6,917.0	6,888.5	6,888.5	129.7	137.9	88.50	88.50	-5,573.9	418.3	1,049.8	783.1	266.68	3.936	
13,681.1	6,916.2	6,887.7	6,887.7	131.2	137.9	88.38	88.38	-5,573.9	418.3	1,126.6	858.4	268.22	4.200	
13,700.0	6,916.1	6,887.6	6,887.6	131.6	137.9	88.35	88.35	-5,573.9	418.3	1,144.7	876.1	268.58	4.262	
13,779.5	6,915.3	6,886.8	6,886.8	133.1	137.9	88.23	88.23	-5,573.9	418.3	1,220.7	950.6	270.09	4.519	
13,800.0	6,915.2	6,886.7	6,886.7	133.5	137.9	88.20	88.20	-5,573.9	418.3	1,240.3	969.9	270.48	4.586	
13,877.9	6,914.4	6,885.9	6,885.9	135.1	137.8	88.08	88.08	-5,573.9	418.3	1,315.4	1,043.4	271.96	4.837	
13,900.0	6,914.2	6,885.7	6,885.7	135.5	137.8	88.05	88.05	-5,573.9	418.3	1,336.7	1,064.3	272.38	4.907	
13,976.3	6,913.5	6,885.0	6,885.0	137.0	137.8	87.93	87.93	-5,573.9	418.3	1,410.6	1,136.7	273.83	5.151	
14,000.0	6,913.3	6,884.8	6,884.8	137.4	137.8	87.89	87.89	-5,573.9	418.3	1,433.5	1,159.2	274.28	5.226	
14,074.8	6,912.6	6,884.1	6,884.1	138.9	137.8	87.78	87.78	-5,573.9	418.3	1,506.2	1,230.5	275.69	5.463	
14,100.0	6,912.4	6,883.9	6,883.9	139.4	137.8	87.74	87.74	-5,573.9	418.3	1,530.7	1,254.6	276.17	5.543	
14,145.0	6,912.0	6,883.5	6,883.5	140.2	137.8	87.68	87.68	-5,573.9	418.3	1,574.6	1,297.6	276.98	5.685	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1												Offset Site Error: 0.0 usft	
Survey Program: 0-INC												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-179.08	-6,284.3	-100.4	6,285.2				
98.4	98.4	66.9	66.9	0.1	0.6	-179.08	-6,284.3	-100.4	6,285.1	6,284.4	0.68	9,195.328	
100.0	100.0	68.5	68.5	0.1	0.6	-179.08	-6,284.3	-100.4	6,285.1	6,284.4	0.70	8,990.020	
196.8	196.8	165.3	165.3	0.3	2.4	-179.08	-6,284.3	-100.4	6,285.1	6,282.3	2.74	2,293.760	
200.0	200.0	168.5	168.5	0.3	2.5	-179.08	-6,284.3	-100.4	6,285.1	6,282.3	2.82	2,227.408	
295.3	295.3	263.8	263.8	0.5	4.6	-179.08	-6,284.3	-100.4	6,285.1	6,280.0	5.11	1,230.192	
300.0	300.0	268.5	268.5	0.5	4.7	-179.08	-6,284.3	-100.4	6,285.1	6,279.9	5.22	1,204.496	
393.7	393.7	362.2	362.2	0.8	6.6	-179.08	-6,284.3	-100.4	6,285.1	6,277.7	7.35	854.541	
400.0	400.0	368.5	368.5	0.8	6.7	-179.08	-6,284.3	-100.4	6,285.1	6,277.6	7.50	838.261	
492.1	492.1	460.6	460.6	1.0	8.6	-179.08	-6,284.3	-100.4	6,285.1	6,275.5	9.58	656.179	
500.0	500.0	468.5	468.5	1.0	8.8	-179.08	-6,284.3	-100.4	6,285.1	6,275.3	9.76	644.242	
590.5	590.5	559.0	559.0	1.2	10.6	-179.08	-6,284.3	-100.4	6,285.1	6,273.3	11.79	532.961	
600.0	600.0	568.5	568.5	1.2	10.8	-179.08	-6,284.3	-100.4	6,285.1	6,273.1	12.01	523.533	
689.0	689.0	657.5	657.5	1.4	12.6	-179.08	-6,284.3	-100.4	6,285.1	6,271.1	14.00	448.848	
700.0	700.0	668.5	668.5	1.4	12.8	-179.08	-6,284.3	-100.4	6,285.1	6,270.8	14.25	441.056	
787.4	787.4	755.9	755.9	1.6	14.6	-179.08	-6,284.3	-100.4	6,285.1	6,268.9	16.21	387.728	
800.0	800.0	768.5	768.5	1.7	14.8	-179.08	-6,284.3	-100.4	6,285.1	6,268.6	16.49	381.088	
885.8	885.8	854.3	854.3	1.9	16.6	-179.08	-6,284.3	-100.4	6,285.1	6,266.7	18.42	341.289	
900.0	900.0	868.5	868.5	1.9	16.8	-179.08	-6,284.3	-100.4	6,285.1	6,266.4	18.73	335.504	
984.2	984.2	952.7	952.7	2.1	18.5	-179.08	-6,284.3	-100.4	6,285.1	6,264.5	20.62	304.802	
1,000.0	1,000.0	968.5	968.5	2.1	18.9	-179.08	-6,284.3	-100.4	6,285.1	6,264.1	20.97	299.676	
1,082.7	1,082.7	1,051.2	1,051.2	2.3	20.5	110.84	-6,284.3	-100.4	6,285.5	6,262.7	22.82	275.488	
1,100.0	1,100.0	1,068.5	1,068.5	2.3	20.9	110.84	-6,284.3	-100.4	6,285.7	6,262.5	23.20	270.917	
1,181.1	1,181.0	1,149.5	1,149.5	2.5	22.5	110.85	-6,284.3	-100.4	6,287.1	6,262.1	25.00	251.469	
1,200.0	1,199.8	1,168.3	1,168.3	2.6	22.9	110.85	-6,284.3	-100.4	6,287.6	6,262.2	25.42	247.346	
1,279.5	1,279.1	1,247.6	1,247.6	2.7	24.5	110.86	-6,284.3	-100.4	6,289.9	6,262.8	27.19	231.363	
1,300.0	1,299.5	1,268.0	1,268.0	2.8	24.9	110.86	-6,284.3	-100.4	6,290.7	6,263.0	27.64	227.594	
1,377.9	1,376.9	1,345.4	1,345.4	3.0	26.4	110.88	-6,284.3	-100.4	6,294.0	6,264.6	29.38	214.261	
1,400.0	1,398.7	1,367.2	1,367.2	3.0	26.9	110.89	-6,284.3	-100.4	6,295.1	6,265.2	29.86	210.788	
1,476.4	1,474.2	1,442.7	1,442.7	3.2	28.4	110.91	-6,284.3	-100.4	6,299.3	6,267.7	31.57	199.516	
1,500.0	1,497.5	1,466.0	1,466.0	3.3	28.9	110.91	-6,284.3	-100.4	6,300.7	6,268.6	32.10	196.291	
1,574.8	1,571.0	1,539.5	1,539.5	3.5	30.3	110.93	-6,284.3	-100.4	6,305.8	6,272.0	33.78	186.652	
1,600.1	1,595.7	1,564.2	1,564.2	3.6	30.8	110.94	-6,284.3	-100.4	6,307.6	6,273.3	34.35	183.631	
1,673.2	1,667.2	1,635.7	1,635.7	3.9	32.3	111.07	-6,284.3	-100.4	6,313.2	6,277.2	36.03	175.213	
1,700.0	1,693.4	1,661.9	1,661.9	4.0	32.8	111.11	-6,284.3	-100.4	6,315.2	6,278.6	36.65	172.328	
1,771.6	1,763.5	1,732.0	1,732.0	4.2	34.2	111.24	-6,284.3	-100.4	6,320.7	6,282.4	38.31	165.003	
1,800.0	1,791.3	1,759.8	1,759.8	4.3	34.8	111.29	-6,284.3	-100.4	6,322.9	6,283.9	38.96	162.280	
1,870.1	1,859.8	1,828.3	1,828.3	4.6	36.2	111.41	-6,284.3	-100.4	6,328.3	6,287.7	40.60	155.887	
1,900.0	1,889.1	1,857.6	1,857.6	4.7	36.7	111.46	-6,284.3	-100.4	6,330.6	6,289.3	41.29	153.311	
1,968.5	1,956.1	1,924.6	1,924.6	5.0	38.1	111.58	-6,284.3	-100.4	6,335.9	6,293.1	42.90	147.706	
2,000.0	1,986.9	1,955.4	1,955.4	5.1	38.7	111.63	-6,284.3	-100.4	6,338.4	6,294.8	43.63	145.267	
2,066.9	2,052.3	2,020.8	2,020.8	5.4	40.0	111.75	-6,284.3	-100.4	6,343.6	6,298.4	45.20	140.333	
2,100.0	2,084.7	2,053.2	2,053.2	5.5	40.7	111.80	-6,284.3	-100.4	6,346.2	6,300.3	45.98	138.019	
2,165.3	2,148.6	2,117.1	2,117.1	5.8	42.0	111.91	-6,284.3	-100.4	6,351.4	6,303.9	47.52	133.659	
2,200.0	2,182.5	2,151.0	2,151.0	5.9	42.7	111.97	-6,284.3	-100.4	6,354.1	6,305.8	48.34	131.460	
2,263.8	2,244.9	2,213.4	2,213.4	6.2	43.9	112.08	-6,284.3	-100.4	6,359.2	6,309.4	49.84	127.593	
2,300.0	2,280.3	2,248.8	2,248.8	6.3	44.6	112.14	-6,284.3	-100.4	6,362.1	6,311.4	50.69	125.499	
2,362.2	2,341.2	2,309.7	2,309.7	6.6	45.8	112.25	-6,284.3	-100.4	6,367.1	6,314.9	52.16	122.058	
2,400.0	2,378.1	2,346.6	2,346.6	6.8	46.6	112.31	-6,284.3	-100.4	6,370.1	6,317.1	53.06	120.061	
2,460.6	2,437.4	2,405.9	2,405.9	7.0	47.8	112.42	-6,284.3	-100.4	6,375.0	6,320.5	54.49	116.990	
2,500.0	2,476.0	2,444.5	2,444.5	7.2	48.6	112.48	-6,284.3	-100.4	6,378.2	6,322.8	55.42	115.082	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,502.2	2,502.2	7.4	49.7	112.58		-6,284.3	-100.4	6,383.0	6,326.2	56.82	112.333	
2,600.0	2,573.8	2,542.3	2,542.3	7.6	50.5	112.65		-6,284.3	-100.4	6,386.3	6,328.5	57.79	110.506	
2,657.5	2,630.0	2,598.5	2,598.5	7.9	51.7	112.75		-6,284.3	-100.4	6,391.0	6,331.9	59.15	108.041	
2,700.0	2,671.6	2,640.1	2,640.1	8.1	52.5	112.82		-6,284.3	-100.4	6,394.5	6,334.4	60.16	106.289	
2,755.9	2,726.3	2,694.8	2,694.8	8.3	53.6	112.91		-6,284.3	-100.4	6,399.1	6,337.6	61.49	104.072	
2,800.0	2,769.4	2,737.9	2,737.9	8.5	54.5	112.99		-6,284.3	-100.4	6,402.8	6,340.2	62.53	102.390	
2,854.3	2,822.5	2,791.0	2,791.0	8.7	55.5	113.08		-6,284.3	-100.4	6,407.3	6,343.4	63.82	100.392	
2,900.0	2,867.2	2,835.7	2,835.7	8.9	56.4	113.16		-6,284.3	-100.4	6,411.1	6,346.2	64.91	98.775	
2,952.7	2,918.8	2,887.3	2,887.3	9.2	57.5	113.25		-6,284.3	-100.4	6,415.5	6,349.3	66.16	96.972	
3,000.0	2,965.0	2,933.5	2,933.5	9.4	58.4	113.32		-6,284.3	-100.4	6,419.4	6,352.1	67.28	95.414	
3,051.2	3,015.1	2,983.6	2,983.6	9.6	59.4	113.41		-6,284.3	-100.4	6,423.7	6,355.2	68.49	93.785	
3,100.0	3,062.8	3,031.3	3,031.3	9.8	60.4	113.49		-6,284.3	-100.4	6,427.8	6,358.2	69.65	92.283	
3,149.6	3,111.4	3,079.9	3,079.9	10.0	61.3	113.57		-6,284.3	-100.4	6,432.0	6,361.2	70.83	90.808	
3,200.0	3,160.7	3,129.2	3,129.2	10.3	62.3	113.66		-6,284.3	-100.4	6,436.3	6,364.3	72.03	89.358	
3,248.0	3,207.6	3,176.1	3,176.1	10.5	63.3	113.74		-6,284.3	-100.4	6,440.4	6,367.2	73.17	88.021	
3,300.0	3,258.5	3,227.0	3,227.0	10.7	64.3	113.82		-6,284.3	-100.4	6,444.8	6,370.4	74.40	86.621	
3,346.4	3,303.9	3,272.4	3,272.4	10.9	65.2	113.90		-6,284.3	-100.4	6,448.8	6,373.3	75.51	85.408	
3,400.0	3,356.3	3,324.8	3,324.8	11.2	66.3	113.99		-6,284.3	-100.4	6,453.4	6,376.6	76.78	84.053	
3,444.9	3,400.2	3,368.7	3,368.7	11.4	67.1	114.06		-6,284.3	-100.4	6,457.3	6,379.4	77.84	82.952	
3,500.0	3,454.1	3,422.6	3,422.6	11.6	68.2	114.16		-6,284.3	-100.4	6,462.1	6,382.9	79.15	81.641	
3,543.3	3,496.5	3,465.0	3,465.0	11.8	69.1	114.23		-6,284.3	-100.4	6,465.8	6,385.6	80.18	80.640	
3,600.0	3,551.9	3,520.4	3,520.4	12.0	70.2	114.32		-6,284.3	-100.4	6,470.7	6,389.2	81.53	79.369	
3,641.7	3,592.7	3,561.2	3,561.2	12.2	71.0	114.39		-6,284.3	-100.4	6,474.4	6,391.9	82.52	78.460	
3,700.0	3,649.7	3,618.2	3,618.2	12.5	72.2	114.48		-6,284.3	-100.4	6,479.5	6,395.6	83.90	77.227	
3,740.1	3,689.0	3,657.5	3,657.5	12.7	73.0	114.55		-6,284.3	-100.4	6,483.0	6,398.2	84.86	76.401	
3,800.0	3,747.5	3,716.0	3,716.0	12.9	74.1	114.65		-6,284.3	-100.4	6,488.3	6,402.0	86.28	75.204	
3,838.6	3,785.3	3,753.8	3,753.8	13.1	74.9	114.71		-6,284.3	-100.4	6,491.7	6,404.5	87.19	74.453	
3,900.0	3,845.4	3,813.9	3,813.9	13.4	76.1	114.81		-6,284.3	-100.4	6,497.2	6,408.5	88.65	73.290	
3,937.0	3,881.5	3,850.0	3,850.0	13.6	76.8	114.87		-6,284.3	-100.4	6,500.4	6,410.9	89.53	72.608	
4,000.0	3,943.2	3,911.7	3,911.7	13.8	78.1	114.98		-6,284.3	-100.4	6,506.1	6,415.0	91.02	71.477	
4,035.4	3,977.8	3,946.3	3,946.3	14.0	78.8	115.03		-6,284.3	-100.4	6,509.2	6,417.4	91.86	70.857	
4,100.0	4,041.0	4,009.5	4,009.5	14.3	80.0	115.14		-6,284.3	-100.4	6,515.0	6,421.6	93.40	69.756	
4,133.8	4,074.1	4,042.6	4,042.6	14.4	80.7	115.19		-6,284.3	-100.4	6,518.1	6,423.9	94.20	69.194	
4,200.0	4,138.8	4,107.3	4,107.3	14.7	82.0	115.30		-6,284.3	-100.4	6,524.1	6,428.3	95.77	68.122	
4,232.3	4,170.4	4,138.9	4,138.9	14.9	82.6	115.35		-6,284.3	-100.4	6,527.0	6,430.4	96.54	67.612	
4,300.0	4,236.6	4,205.1	4,205.1	15.2	84.0	115.46		-6,284.3	-100.4	6,533.1	6,435.0	98.14	66.568	
4,330.7	4,266.6	4,235.1	4,235.1	15.3	84.6	115.51		-6,284.3	-100.4	6,535.9	6,437.1	98.87	66.106	
4,400.0	4,334.4	4,302.9	4,302.9	15.6	85.9	115.62		-6,284.3	-100.4	6,542.3	6,441.7	100.51	65.088	
4,429.1	4,362.9	4,331.4	4,331.4	15.8	86.5	115.67		-6,284.3	-100.4	6,544.9	6,443.7	101.20	64.671	
4,500.0	4,432.2	4,400.7	4,400.7	16.1	87.9	115.79		-6,284.3	-100.4	6,551.4	6,448.6	102.88	63.678	
4,527.5	4,459.2	4,427.7	4,427.7	16.2	88.4	115.83		-6,284.3	-100.4	6,554.0	6,450.4	103.54	63.300	
4,600.0	4,530.1	4,498.6	4,498.6	16.5	89.9	115.95		-6,284.3	-100.4	6,560.7	6,455.4	105.26	62.331	
4,626.0	4,555.5	4,524.0	4,524.0	16.7	90.4	115.99		-6,284.3	-100.4	6,563.1	6,457.2	105.87	61.991	
4,700.0	4,627.9	4,596.4	4,596.4	17.0	91.8	116.11		-6,284.3	-100.4	6,570.0	6,462.3	107.62	61.045	
4,724.4	4,651.7	4,620.2	4,620.2	17.1	92.3	116.15		-6,284.3	-100.4	6,572.2	6,464.0	108.20	60.740	
4,800.0	4,725.7	4,694.2	4,694.2	17.4	93.8	116.27		-6,284.3	-100.4	6,579.3	6,469.3	109.99	59.815	
4,822.8	4,748.0	4,716.5	4,716.5	17.6	94.2	116.30		-6,284.3	-100.4	6,581.4	6,470.9	110.53	59.542	
4,900.0	4,823.5	4,792.0	4,792.0	17.9	95.8	116.43		-6,284.3	-100.4	6,588.7	6,476.3	112.36	58.638	
4,921.2	4,844.3	4,812.8	4,812.8	18.0	96.2	116.46		-6,284.3	-100.4	6,590.7	6,477.8	112.87	58.394	
5,000.0	4,921.3	4,889.8	4,889.8	18.4	97.7	116.58		-6,284.3	-100.4	6,598.1	6,483.4	114.73	57.510	
5,014.9	4,935.9	4,904.4	4,904.4	18.4	98.0	116.61		-6,284.3	-100.4	6,599.6	6,484.5	115.08	57.345	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,909.1	4,909.1	18.4	98.1	116.62		-6,284.3	-100.4	6,600.0	6,484.8	115.20	57.292	
5,100.0	5,019.4	4,987.9	4,987.9	18.7	99.7	116.87		-6,284.3	-100.4	6,607.1	6,489.9	117.15	56.399	
5,118.1	5,037.2	5,005.7	5,005.7	18.8	100.1	116.92		-6,284.3	-100.4	6,608.5	6,491.0	117.57	56.208	
5,200.0	5,118.1	5,086.6	5,086.6	19.0	101.7	117.12		-6,284.3	-100.4	6,614.5	6,495.0	119.49	55.355	
5,216.5	5,134.4	5,102.9	5,102.9	19.1	102.0	117.16		-6,284.3	-100.4	6,615.6	6,495.7	119.87	55.188	
5,300.0	5,217.2	5,185.7	5,185.7	19.3	103.7	117.33		-6,284.3	-100.4	6,620.3	6,498.5	121.80	54.356	
5,314.9	5,232.1	5,200.6	5,200.6	19.3	104.0	117.35		-6,284.3	-100.4	6,621.1	6,498.9	122.13	54.212	
5,400.0	5,316.8	5,285.3	5,285.3	19.5	105.7	117.47		-6,284.3	-100.4	6,624.6	6,500.5	124.05	53.401	
5,413.4	5,330.1	5,298.6	5,298.6	19.5	106.0	117.49		-6,284.3	-100.4	6,625.0	6,500.7	124.35	53.277	
5,500.0	5,416.6	5,385.1	5,385.1	19.7	107.7	117.56		-6,284.3	-100.4	6,627.3	6,501.0	126.26	52.488	
5,511.8	5,428.4	5,396.9	5,396.9	19.7	107.9	117.57		-6,284.3	-100.4	6,627.5	6,501.0	126.52	52.384	
5,600.0	5,516.6	5,485.1	5,485.1	19.8	109.7	117.60		-6,284.3	-100.4	6,628.3	6,499.9	128.41	51.617	
5,610.2	5,526.8	5,495.3	5,495.3	19.8	109.9	117.60		-6,284.3	-100.4	6,628.3	6,499.7	128.63	51.530	
5,615.0	5,531.6	5,500.1	5,500.1	19.8	110.0	-172.32		-6,284.3	-100.4	6,628.3	6,499.6	128.75	51.482	
5,700.0	5,616.6	5,585.1	5,585.1	19.9	111.7	-172.32		-6,284.3	-100.4	6,628.3	6,497.8	130.57	50.765	
5,708.6	5,625.3	5,593.8	5,593.8	20.0	111.9	-172.32		-6,284.3	-100.4	6,628.3	6,497.6	130.75	50.693	
5,800.0	5,716.6	5,685.1	5,685.1	20.1	113.7	-172.32		-6,284.3	-100.4	6,628.3	6,495.6	132.72	49.942	
5,807.1	5,723.7	5,692.2	5,692.2	20.1	113.9	-172.32		-6,284.3	-100.4	6,628.3	6,495.5	132.87	49.884	
5,900.0	5,816.6	5,785.1	5,785.1	20.2	115.7	-172.32		-6,284.3	-100.4	6,628.3	6,493.5	134.88	49.144	
5,905.5	5,822.1	5,790.6	5,790.6	20.2	115.9	-172.32		-6,284.3	-100.4	6,628.3	6,493.3	134.99	49.101	
6,000.0	5,916.6	5,885.1	5,885.1	20.4	117.8	-172.32		-6,284.3	-100.4	6,628.3	6,491.3	137.03	48.371	
6,003.9	5,920.5	5,889.0	5,889.0	20.4	117.8	-172.32		-6,284.3	-100.4	6,628.3	6,491.2	137.12	48.341	
6,100.0	6,016.6	5,985.1	5,985.1	20.5	119.8	-172.32		-6,284.3	-100.4	6,628.3	6,489.1	139.19	47.621	
6,102.3	6,019.0	5,987.5	5,987.5	20.5	119.8	-172.32		-6,284.3	-100.4	6,628.3	6,489.1	139.24	47.603	
6,200.0	6,116.6	6,085.1	6,085.1	20.6	121.8	-172.32		-6,284.3	-100.4	6,628.3	6,487.0	141.35	46.893	
6,200.8	6,117.4	6,085.9	6,085.9	20.6	121.8	-172.32		-6,284.3	-100.4	6,628.3	6,487.0	141.37	46.888	
6,299.2	6,215.8	6,184.3	6,184.3	20.8	123.8	-172.32		-6,284.3	-100.4	6,628.3	6,484.8	143.49	46.193	
6,300.0	6,216.6	6,185.1	6,185.1	20.8	123.8	-172.32		-6,284.3	-100.4	6,628.3	6,484.8	143.51	46.187	
6,340.0	6,256.6	6,225.1	6,225.1	20.8	124.6	-172.32		-6,284.3	-100.4	6,628.3	6,484.0	144.37	45.911	
6,350.0	6,266.6	6,235.1	6,235.1	20.8	124.8	7.47		-6,284.3	-100.4	6,628.3	6,483.7	144.55	45.854	
6,397.6	6,314.2	6,282.7	6,282.7	20.9	125.7	7.50		-6,284.3	-100.4	6,626.0	6,481.0	145.08	45.673	
6,400.0	6,316.5	6,285.0	6,285.0	20.9	125.8	7.50		-6,284.3	-100.4	6,625.8	6,480.8	145.09	45.669	
6,450.0	6,366.2	6,334.7	6,334.7	20.9	126.8	7.57		-6,284.3	-100.4	6,620.0	6,475.1	144.92	45.681	
6,496.0	6,411.4	6,379.9	6,379.9	21.0	127.7	7.67		-6,284.3	-100.4	6,611.5	6,467.4	144.13	45.872	
6,500.0	6,415.3	6,383.8	6,383.8	21.0	127.8	7.68		-6,284.3	-100.4	6,610.7	6,466.6	144.04	45.896	
6,550.0	6,463.6	6,432.1	6,432.1	21.0	128.8	7.83		-6,284.3	-100.4	6,598.0	6,455.6	142.43	46.323	
6,594.5	6,505.8	6,474.3	6,474.3	21.0	129.6	8.01		-6,284.3	-100.4	6,584.0	6,443.6	140.41	46.893	
6,600.0	6,510.9	6,479.4	6,479.4	21.0	129.7	8.04		-6,284.3	-100.4	6,582.0	6,441.9	140.11	46.976	
6,650.0	6,557.0	6,525.5	6,525.5	21.0	130.6	8.30		-6,284.3	-100.4	6,562.8	6,425.8	137.08	47.875	
6,692.9	6,595.4	6,563.9	6,563.9	21.0	131.4	8.57		-6,284.3	-100.4	6,543.9	6,409.9	133.93	48.860	
6,700.0	6,601.6	6,570.1	6,570.1	21.0	131.5	8.62		-6,284.3	-100.4	6,540.5	6,407.1	133.36	49.044	
6,750.0	6,644.6	6,613.1	6,613.1	20.9	132.4	9.02		-6,284.3	-100.4	6,515.1	6,386.2	128.97	50.516	
6,791.3	6,678.6	6,647.1	6,647.1	20.9	133.1	9.41		-6,284.3	-100.4	6,492.0	6,367.1	124.87	51.990	
6,800.0	6,685.6	6,654.1	6,654.1	20.9	133.2	9.50		-6,284.3	-100.4	6,486.8	6,362.9	123.96	52.332	
6,850.0	6,724.6	6,693.1	6,693.1	20.9	134.0	10.09		-6,284.3	-100.4	6,455.8	6,337.4	118.37	54.539	
6,889.7	6,753.9	6,722.4	6,722.4	20.9	134.6	10.64		-6,284.3	-100.4	6,429.2	6,315.7	113.58	56.606	
6,900.0	6,761.3	6,729.8	6,729.8	20.9	134.7	10.80		-6,284.3	-100.4	6,422.1	6,309.8	112.30	57.188	
6,950.0	6,795.5	6,764.0	6,764.0	20.9	135.4	11.68		-6,284.3	-100.4	6,386.0	6,280.2	105.86	60.327	
6,988.2	6,819.9	6,788.4	6,788.4	20.9	135.9	12.49		-6,284.3	-100.4	6,356.9	6,256.1	100.80	63.066	
7,000.0	6,827.1	6,795.6	6,795.6	20.9	136.1	12.77		-6,284.3	-100.4	6,347.6	6,248.4	99.22	63.975	
7,050.0	6,855.9	6,824.4	6,824.4	20.9	136.6	14.14		-6,284.3	-100.4	6,307.2	6,214.5	92.66	68.067	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,086.6	6,875.1	6,843.6	6,843.6	20.9	137.0	15.37	-6,284.3	-100.4	6,276.3	6,188.2	88.14	71.207		
7,100.0	6,881.8	6,850.3	6,850.3	20.9	137.2	15.89	-6,284.3	-100.4	6,264.8	6,178.2	86.62	72.327		
7,150.0	6,904.6	6,873.1	6,873.1	21.0	137.6	18.18	-6,284.3	-100.4	6,220.8	6,139.0	81.81	76.039		
7,185.0	6,918.8	6,887.3	6,887.3	21.1	137.9	20.25	-6,284.3	-100.4	6,189.1	6,109.3	79.78	77.576		
7,200.0	6,924.3	6,892.8	6,892.8	21.1	138.0	21.29	-6,284.3	-100.4	6,175.3	6,095.9	79.41	77.768		
7,250.0	6,940.8	6,909.3	6,909.3	21.2	138.3	25.65	-6,284.3	-100.4	6,128.5	6,047.4	81.18	75.492		
7,283.4	6,949.9	6,918.4	6,918.4	21.3	138.5	29.65	-6,284.3	-100.4	6,096.7	6,010.8	85.85	71.012		
7,300.0	6,953.9	6,922.4	6,922.4	21.4	138.6	32.08	-6,284.3	-100.4	6,080.8	5,991.3	89.48	67.956		
7,350.0	6,963.6	6,932.1	6,932.1	21.6	138.8	42.07	-6,284.3	-100.4	6,032.2	5,925.5	106.72	56.525		
7,381.9	6,968.0	6,936.5	6,936.5	21.7	138.9	51.41	-6,284.3	-100.4	6,001.0	5,878.3	122.66	48.925		
7,400.0	6,969.9	6,938.4	6,938.4	21.8	138.9	58.09	-6,284.3	-100.4	5,983.2	5,850.4	132.77	45.064		
7,450.0	6,972.6	6,941.1	6,941.1	22.1	139.0	81.88	-6,284.3	-100.4	5,933.8	5,778.5	155.24	38.223		
7,471.5	6,972.8	6,941.3	6,941.3	22.2	139.0	93.53	-6,284.3	-100.4	5,912.5	5,755.3	157.23	37.605		
7,480.3	6,972.7	6,941.2	6,941.2	22.3	139.0	93.52	-6,284.3	-100.4	5,903.8	5,746.5	157.31	37.529		
7,500.0	6,972.5	6,941.0	6,941.0	22.4	139.0	93.51	-6,284.3	-100.4	5,884.3	5,726.8	157.50	37.360		
7,578.7	6,971.8	6,940.3	6,940.3	23.1	139.0	93.46	-6,284.3	-100.4	5,806.4	5,648.2	158.29	36.682		
7,600.0	6,971.6	6,940.1	6,940.1	23.3	139.0	93.45	-6,284.3	-100.4	5,785.4	5,626.9	158.50	36.501		
7,677.1	6,970.9	6,939.4	6,939.4	24.0	139.0	93.40	-6,284.3	-100.4	5,709.1	5,549.8	159.33	35.831		
7,700.0	6,970.7	6,939.2	6,939.2	24.2	138.9	93.39	-6,284.3	-100.4	5,686.5	5,527.0	159.58	35.635		
7,775.6	6,970.0	6,938.5	6,938.5	25.0	138.9	93.34	-6,284.3	-100.4	5,611.9	5,451.4	160.48	34.968		
7,800.0	6,969.8	6,938.3	6,938.3	25.3	138.9	93.33	-6,284.3	-100.4	5,587.7	5,427.0	160.78	34.755		
7,874.0	6,969.1	6,937.6	6,937.6	26.2	138.9	93.28	-6,284.3	-100.4	5,514.6	5,352.9	161.74	34.096		
7,900.0	6,968.9	6,937.4	6,937.4	26.5	138.9	93.27	-6,284.3	-100.4	5,489.0	5,326.9	162.07	33.867		
7,972.4	6,968.2	6,936.7	6,936.7	27.4	138.9	93.23	-6,284.3	-100.4	5,417.4	5,254.4	163.08	33.220		
8,000.0	6,968.0	6,936.5	6,936.5	27.8	138.9	93.21	-6,284.3	-100.4	5,390.2	5,226.8	163.46	32.976		
8,070.8	6,967.3	6,935.8	6,935.8	28.7	138.9	93.17	-6,284.3	-100.4	5,320.3	5,155.8	164.49	32.344		
8,100.0	6,967.1	6,935.6	6,935.6	29.1	138.9	93.15	-6,284.3	-100.4	5,291.5	5,126.6	164.91	32.086		
8,169.3	6,966.4	6,934.9	6,934.9	30.1	138.9	93.11	-6,284.3	-100.4	5,223.2	5,057.2	165.97	31.472		
8,200.0	6,966.2	6,934.7	6,934.7	30.5	138.9	93.09	-6,284.3	-100.4	5,192.9	5,026.5	166.43	31.201		
8,267.7	6,965.5	6,934.0	6,934.0	31.5	138.8	93.05	-6,284.3	-100.4	5,126.1	4,958.7	167.49	30.605		
8,300.0	6,965.2	6,933.7	6,933.7	32.0	138.8	93.03	-6,284.3	-100.4	5,094.3	4,926.3	168.00	30.324		
8,366.1	6,964.6	6,933.1	6,933.1	33.0	138.8	92.99	-6,284.3	-100.4	5,029.2	4,860.1	169.06	29.747		
8,400.0	6,964.3	6,932.8	6,932.8	33.5	138.8	92.97	-6,284.3	-100.4	4,995.8	4,826.2	169.61	29.455		
8,464.5	6,963.8	6,932.3	6,932.3	34.5	138.8	92.93	-6,284.3	-100.4	4,932.2	4,761.5	170.67	28.899		
8,500.0	6,963.4	6,931.9	6,931.9	35.1	138.8	92.91	-6,284.3	-100.4	4,897.3	4,726.1	171.26	28.596		
8,563.0	6,962.9	6,931.4	6,931.4	36.1	138.8	92.87	-6,284.3	-100.4	4,835.3	4,663.0	172.31	28.061		
8,600.0	6,962.5	6,931.0	6,931.0	36.7	138.8	92.85	-6,284.3	-100.4	4,798.9	4,626.0	172.94	27.750		
8,661.4	6,962.0	6,930.5	6,930.5	37.7	138.8	92.81	-6,284.3	-100.4	4,738.5	4,564.5	173.98	27.236		
8,700.0	6,961.6	6,930.1	6,930.1	38.3	138.8	92.79	-6,284.3	-100.4	4,700.6	4,525.9	174.64	26.916		
8,759.8	6,961.1	6,929.6	6,929.6	39.3	138.8	92.75	-6,284.3	-100.4	4,641.8	4,466.1	175.68	26.422		
8,800.0	6,960.7	6,929.2	6,929.2	40.0	138.7	92.73	-6,284.3	-100.4	4,602.3	4,425.9	176.37	26.095		
8,858.2	6,960.2	6,928.7	6,928.7	40.9	138.7	92.69	-6,284.3	-100.4	4,545.1	4,367.7	177.39	25.622		
8,900.0	6,959.8	6,928.3	6,928.3	41.6	138.7	92.67	-6,284.3	-100.4	4,504.1	4,326.0	178.12	25.287		
8,956.7	6,959.3	6,927.8	6,927.8	42.6	138.7	92.64	-6,284.3	-100.4	4,448.5	4,269.4	179.12	24.835		
9,000.0	6,958.9	6,927.4	6,927.4	43.3	138.7	92.61	-6,284.3	-100.4	4,406.0	4,226.1	179.89	24.493		
9,055.1	6,958.4	6,926.9	6,926.9	44.3	138.7	92.58	-6,284.3	-100.4	4,352.0	4,171.1	180.87	24.061		
9,100.0	6,958.0	6,926.5	6,926.5	45.1	138.7	92.55	-6,284.3	-100.4	4,308.0	4,126.3	181.67	23.713		
9,153.5	6,957.5	6,926.0	6,926.0	46.0	138.7	92.52	-6,284.3	-100.4	4,255.6	4,072.9	182.63	23.301		
9,200.0	6,957.1	6,925.6	6,925.6	46.8	138.7	92.49	-6,284.3	-100.4	4,210.1	4,026.6	183.47	22.947		
9,251.9	6,956.6	6,925.1	6,925.1	47.7	138.7	92.46	-6,284.3	-100.4	4,159.2	3,974.8	184.41	22.555		
9,300.0	6,956.2	6,924.7	6,924.7	48.6	138.7	92.43	-6,284.3	-100.4	4,112.2	3,927.0	185.28	22.195		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	6,924.2	6,924.2	49.5	138.6	92.40		-6,284.3	-100.4	4,063.0	3,876.8	186.19	21.822	
9,400.0	6,955.2	6,923.7	6,923.7	50.3	138.6	92.37		-6,284.3	-100.4	4,014.5	3,827.4	187.09	21.457	
9,448.8	6,954.8	6,923.3	6,923.3	51.2	138.6	92.34		-6,284.3	-100.4	3,966.9	3,778.9	187.99	21.102	
9,500.0	6,954.3	6,922.8	6,922.8	52.1	138.6	92.31		-6,284.3	-100.4	3,916.9	3,728.0	188.92	20.733	
9,547.2	6,953.9	6,922.4	6,922.4	53.0	138.6	92.28		-6,284.3	-100.4	3,870.9	3,681.1	189.79	20.395	
9,600.0	6,953.4	6,921.9	6,921.9	53.9	138.6	92.25		-6,284.3	-100.4	3,819.4	3,628.7	190.76	20.022	
9,645.6	6,953.0	6,921.5	6,921.5	54.7	138.6	92.22		-6,284.3	-100.4	3,775.0	3,583.4	191.60	19.702	
9,700.0	6,952.5	6,921.0	6,921.0	55.7	138.6	92.19		-6,284.3	-100.4	3,722.1	3,529.5	192.61	19.325	
9,744.1	6,952.1	6,920.6	6,920.6	56.5	138.6	92.16		-6,284.3	-100.4	3,679.2	3,485.8	193.42	19.022	
9,800.0	6,951.6	6,920.1	6,920.1	57.5	138.6	92.13		-6,284.3	-100.4	3,624.9	3,430.4	194.46	18.641	
9,842.5	6,951.2	6,919.7	6,919.7	58.3	138.6	92.10		-6,284.3	-100.4	3,583.6	3,388.4	195.25	18.354	
9,900.0	6,950.7	6,919.2	6,919.2	59.4	138.5	92.07		-6,284.3	-100.4	3,527.8	3,331.5	196.31	17.970	
9,940.9	6,950.3	6,918.8	6,918.8	60.1	138.5	92.04		-6,284.3	-100.4	3,488.2	3,291.1	197.08	17.700	
10,000.0	6,949.8	6,918.3	6,918.3	61.2	138.5	92.01		-6,284.3	-100.4	3,431.0	3,232.8	198.18	17.313	
10,039.3	6,949.4	6,917.9	6,917.9	61.9	138.5	91.98		-6,284.3	-100.4	3,392.9	3,194.0	198.91	17.057	
10,100.0	6,948.9	6,917.4	6,917.4	63.0	138.5	91.95		-6,284.3	-100.4	3,334.3	3,134.2	200.05	16.668	
10,137.8	6,948.5	6,917.0	6,917.0	63.7	138.5	91.92		-6,284.3	-100.4	3,297.8	3,097.0	200.75	16.427	
10,200.0	6,948.0	6,916.5	6,916.5	64.9	138.5	91.89		-6,284.3	-100.4	3,237.8	3,035.8	201.92	16.035	
10,236.2	6,947.6	6,916.1	6,916.1	65.6	138.5	91.87		-6,284.3	-100.4	3,202.9	3,000.3	202.60	15.809	
10,300.0	6,947.1	6,915.6	6,915.6	66.7	138.5	91.83		-6,284.3	-100.4	3,141.5	2,937.7	203.80	15.415	
10,334.6	6,946.7	6,915.2	6,915.2	67.4	138.5	91.81		-6,284.3	-100.4	3,108.2	2,903.8	204.45	15.203	
10,400.0	6,946.2	6,914.7	6,914.7	68.6	138.5	91.77		-6,284.3	-100.4	3,045.5	2,839.8	205.68	14.807	
10,433.0	6,945.8	6,914.3	6,914.3	69.2	138.4	91.75		-6,284.3	-100.4	3,013.8	2,807.5	206.30	14.609	
10,500.0	6,945.2	6,913.7	6,913.7	70.5	138.4	91.71		-6,284.3	-100.4	2,949.7	2,742.1	207.56	14.211	
10,531.5	6,945.0	6,913.5	6,913.5	71.1	138.4	91.69		-6,284.3	-100.4	2,919.6	2,711.4	208.15	14.026	
10,600.0	6,944.3	6,912.8	6,912.8	72.3	138.4	91.65		-6,284.3	-100.4	2,854.2	2,644.8	209.45	13.627	
10,629.9	6,944.1	6,912.6	6,912.6	72.9	138.4	91.63		-6,284.3	-100.4	2,825.7	2,615.7	210.01	13.455	
10,700.0	6,943.4	6,911.9	6,911.9	74.2	138.4	91.59		-6,284.3	-100.4	2,759.0	2,547.7	211.34	13.055	
10,728.3	6,943.2	6,911.7	6,911.7	74.7	138.4	91.57		-6,284.3	-100.4	2,732.1	2,520.3	211.87	12.895	
10,800.0	6,942.5	6,911.0	6,911.0	76.1	138.4	91.53		-6,284.3	-100.4	2,664.2	2,451.0	213.23	12.495	
10,826.7	6,942.3	6,910.8	6,910.8	76.6	138.4	91.51		-6,284.3	-100.4	2,638.9	2,425.2	213.74	12.347	
10,900.0	6,941.6	6,910.1	6,910.1	78.0	138.4	91.47		-6,284.3	-100.4	2,569.8	2,354.7	215.13	11.946	
10,925.2	6,941.4	6,909.9	6,909.9	78.4	138.4	91.45		-6,284.3	-100.4	2,546.1	2,330.5	215.61	11.809	
11,000.0	6,940.7	6,909.2	6,909.2	79.9	138.3	91.40		-6,284.3	-100.4	2,475.8	2,258.8	217.03	11.408	
11,023.6	6,940.5	6,909.0	6,909.0	80.3	138.3	91.39		-6,284.3	-100.4	2,453.7	2,236.3	217.47	11.283	
11,100.0	6,939.8	6,908.3	6,908.3	81.7	138.3	91.34		-6,284.3	-100.4	2,382.4	2,163.4	218.93	10.882	
11,122.0	6,939.6	6,908.1	6,908.1	82.2	138.3	91.33		-6,284.3	-100.4	2,361.8	2,142.5	219.34	10.768	
11,200.0	6,938.9	6,907.4	6,907.4	83.6	138.3	91.28		-6,284.3	-100.4	2,289.4	2,068.6	220.83	10.367	
11,220.4	6,938.7	6,907.2	6,907.2	84.0	138.3	91.27		-6,284.3	-100.4	2,270.5	2,049.3	221.22	10.264	
11,300.0	6,938.0	6,906.5	6,906.5	85.5	138.3	91.22		-6,284.3	-100.4	2,197.1	1,974.4	222.73	9.864	
11,318.9	6,937.8	6,906.3	6,906.3	85.9	138.3	91.21		-6,284.3	-100.4	2,179.8	1,956.7	223.09	9.771	
11,400.0	6,937.0	6,905.5	6,905.5	87.4	138.3	91.16		-6,284.3	-100.4	2,105.5	1,880.8	224.64	9.373	
11,417.3	6,936.9	6,905.4	6,905.4	87.8	138.3	91.15		-6,284.3	-100.4	2,089.7	1,864.7	224.97	9.289	
11,500.0	6,936.1	6,904.6	6,904.6	89.3	138.3	91.10		-6,284.3	-100.4	2,014.7	1,788.1	226.54	8.893	
11,515.7	6,936.0	6,904.5	6,904.5	89.6	138.3	91.09		-6,284.3	-100.4	2,000.5	1,773.6	226.84	8.819	
11,600.0	6,935.2	6,903.7	6,903.7	91.2	138.2	91.04		-6,284.3	-100.4	1,924.8	1,696.3	228.45	8.425	
11,614.1	6,935.1	6,903.6	6,903.6	91.5	138.2	91.03		-6,284.3	-100.4	1,912.1	1,683.4	228.72	8.360	
11,700.0	6,934.3	6,902.8	6,902.8	93.1	138.2	90.98		-6,284.3	-100.4	1,835.9	1,605.5	230.36	7.970	
11,712.6	6,934.2	6,902.7	6,902.7	93.4	138.2	90.97		-6,284.3	-100.4	1,824.8	1,594.2	230.60	7.913	
11,800.0	6,933.4	6,901.9	6,901.9	95.1	138.2	90.92		-6,284.3	-100.4	1,748.2	1,516.0	232.27	7.527	
11,811.0	6,933.3	6,901.8	6,901.8	95.3	138.2	90.91		-6,284.3	-100.4	1,738.7	1,506.2	232.48	7.479	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - EXIST VERT FARR C #18-25 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,900.0	6,932.5	6,901.0	6,901.0	97.0	138.2	90.86	-6,284.3	-100.4	1,662.0	1,427.8	234.18	7.097		
11,909.4	6,932.4	6,900.9	6,900.9	97.1	138.2	90.86	-6,284.3	-100.4	1,653.9	1,419.6	234.36	7.057		
12,000.0	6,931.6	6,900.1	6,900.1	98.9	138.2	90.80	-6,284.3	-100.4	1,577.3	1,341.2	236.10	6.681		
12,007.8	6,931.5	6,900.0	6,900.0	99.0	138.2	90.80	-6,284.3	-100.4	1,570.8	1,334.5	236.25	6.649		
12,100.0	6,930.7	6,899.2	6,899.2	100.8	138.1	90.74	-6,284.3	-100.4	1,494.6	1,256.6	238.01	6.279		
12,106.3	6,930.6	6,899.1	6,899.1	100.9	138.1	90.74	-6,284.3	-100.4	1,489.5	1,251.3	238.13	6.255		
12,200.0	6,929.8	6,898.3	6,898.3	102.7	138.1	90.68	-6,284.3	-100.4	1,414.1	1,174.1	239.93	5.894		
12,204.7	6,929.7	6,898.2	6,898.2	102.8	138.1	90.68	-6,284.3	-100.4	1,410.3	1,170.3	240.02	5.876		
12,300.0	6,928.8	6,897.3	6,897.3	104.6	138.1	90.62	-6,284.3	-100.4	1,336.2	1,094.3	241.84	5.525		
12,303.1	6,928.8	6,897.3	6,897.3	104.7	138.1	90.62	-6,284.3	-100.4	1,333.8	1,091.9	241.90	5.514		
12,400.0	6,927.9	6,896.4	6,896.4	106.5	138.1	90.56	-6,284.3	-100.4	1,261.4	1,017.7	243.76	5.175		
12,401.5	6,927.9	6,896.4	6,896.4	106.6	138.1	90.56	-6,284.3	-100.4	1,260.3	1,016.5	243.79	5.170		
12,500.0	6,927.0	6,895.5	6,895.5	108.5	138.1	90.50	-6,284.3	-100.4	1,190.4	944.7	245.68	4.845		
12,598.4	6,926.1	6,894.6	6,894.6	110.4	138.1	90.44	-6,284.3	-100.4	1,124.8	877.2	247.56	4.543		
12,600.0	6,926.1	6,894.6	6,894.6	110.4	138.1	90.44	-6,284.3	-100.4	1,123.7	876.2	247.59	4.539		
12,696.8	6,925.2	6,893.7	6,893.7	112.3	138.0	90.38	-6,284.3	-100.4	1,064.2	814.8	249.45	4.266		
12,700.0	6,925.2	6,893.7	6,893.7	112.3	138.0	90.38	-6,284.3	-100.4	1,062.4	812.9	249.51	4.258		
12,795.2	6,924.3	6,892.8	6,892.8	114.1	138.0	90.32	-6,284.3	-100.4	1,009.6	758.3	251.34	4.017		
12,800.0	6,924.3	6,892.8	6,892.8	114.2	138.0	90.32	-6,284.3	-100.4	1,007.2	755.8	251.43	4.006		
12,893.7	6,923.4	6,891.9	6,891.9	116.0	138.0	90.26	-6,284.3	-100.4	962.1	708.8	253.23	3.799		
12,900.0	6,923.4	6,891.9	6,891.9	116.2	138.0	90.26	-6,284.3	-100.4	959.3	705.9	253.35	3.786		
12,992.1	6,922.5	6,891.0	6,891.0	117.9	138.0	90.20	-6,284.3	-100.4	922.6	667.5	255.12	3.616		
13,000.0	6,922.5	6,891.0	6,891.0	118.1	138.0	90.19	-6,284.3	-100.4	919.8	664.5	255.27	3.603		
13,090.5	6,921.6	6,890.1	6,890.1	119.8	138.0	90.14	-6,284.3	-100.4	892.2	635.2	257.01	3.472		
13,100.0	6,921.5	6,890.0	6,890.0	120.0	138.0	90.13	-6,284.3	-100.4	889.8	632.6	257.19	3.460		
13,188.9	6,920.7	6,889.2	6,889.2	121.7	137.9	90.08	-6,284.3	-100.4	872.0	613.1	258.90	3.368		
13,200.0	6,920.6	6,889.1	6,889.1	121.9	137.9	90.07	-6,284.3	-100.4	870.4	611.3	259.11	3.359		
13,287.4	6,919.8	6,888.3	6,888.3	123.6	137.9	90.02	-6,284.3	-100.4	862.6	601.8	260.79	3.308		
13,300.0	6,919.7	6,888.2	6,888.2	123.9	137.9	90.01	-6,284.3	-100.4	862.2	601.2	261.03	3.303		
13,321.0	6,919.5	6,888.0	6,888.0	124.3	137.9	90.00	-6,284.3	-100.4	862.0	600.5	261.44	3.297 CC, ES		
13,385.8	6,918.9	6,887.4	6,887.4	125.5	137.9	89.96	-6,284.3	-100.4	864.4	601.7	262.68	3.291 SF		
13,400.0	6,918.8	6,887.3	6,887.3	125.8	137.9	89.95	-6,284.3	-100.4	865.6	602.6	262.95	3.292		
13,484.2	6,918.0	6,886.5	6,886.5	127.4	137.9	89.90	-6,284.3	-100.4	877.3	612.7	264.57	3.316		
13,500.0	6,917.9	6,886.4	6,886.4	127.7	137.9	89.89	-6,284.3	-100.4	880.3	615.5	264.88	3.324		
13,582.6	6,917.1	6,885.6	6,885.6	129.3	137.9	89.84	-6,284.3	-100.4	900.8	634.3	266.46	3.380		
13,600.0	6,917.0	6,885.5	6,885.5	129.7	137.9	89.83	-6,284.3	-100.4	906.0	639.2	266.80	3.396		
13,681.1	6,916.2	6,884.7	6,884.7	131.2	137.9	89.78	-6,284.3	-100.4	934.1	665.8	268.36	3.481		
13,700.0	6,916.1	6,884.6	6,884.6	131.6	137.8	89.77	-6,284.3	-100.4	941.6	672.9	268.72	3.504		
13,779.5	6,915.3	6,883.8	6,883.8	133.1	137.8	89.72	-6,284.3	-100.4	976.3	706.0	270.25	3.613		
13,800.0	6,915.2	6,883.7	6,883.7	133.5	137.8	89.71	-6,284.3	-100.4	986.1	715.4	270.64	3.643		
13,877.9	6,914.4	6,882.9	6,882.9	135.1	137.8	89.66	-6,284.3	-100.4	1,026.2	754.1	272.14	3.771		
13,900.0	6,914.2	6,882.7	6,882.7	135.5	137.8	89.65	-6,284.3	-100.4	1,038.3	765.8	272.57	3.810		
13,976.3	6,913.5	6,882.0	6,882.0	137.0	137.8	89.60	-6,284.3	-100.4	1,082.8	808.7	274.03	3.951		
14,000.0	6,913.3	6,881.8	6,881.8	137.4	137.8	89.59	-6,284.3	-100.4	1,097.2	822.8	274.49	3.997		
14,074.8	6,912.6	6,881.1	6,881.1	138.9	137.8	89.54	-6,284.3	-100.4	1,145.0	869.1	275.93	4.150		
14,100.0	6,912.4	6,880.9	6,880.9	139.4	137.8	89.53	-6,284.3	-100.4	1,161.8	885.4	276.41	4.203		
14,145.0	6,912.0	6,880.5	6,880.5	140.2	137.8	89.50	-6,284.3	-100.4	1,192.4	915.2	277.23	4.301		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	0.0	0.0	0.0	0.0	-169.19	-4,222.3	-805.9	4,299.0					
98.4	98.4	46.7	46.7	0.1	0.0	-169.19	-4,222.3	-805.9	4,298.5	4,298.4	0.14	N/A		
100.0	100.0	48.7	48.7	0.1	0.0	-169.19	-4,222.3	-805.9	4,298.5	4,298.3	0.15	N/A		
196.8	196.8	151.7	151.7	0.3	0.1	-169.20	-4,222.0	-805.4	4,298.1	4,297.7	0.45	9,525.035		
200.0	200.0	154.7	154.7	0.3	0.1	-169.20	-4,222.0	-805.3	4,298.1	4,297.7	0.46	9,336.125		
295.3	295.3	242.9	242.9	0.5	0.2	-169.20	-4,221.7	-805.4	4,297.9	4,297.1	0.75	5,734.853		
300.0	300.0	247.2	247.2	0.5	0.2	-169.20	-4,221.7	-805.4	4,297.9	4,297.1	0.76	5,622.725		
393.7	393.7	337.9	337.9	0.8	0.3	-169.20	-4,221.6	-805.5	4,297.8	4,296.7	1.06	4,071.618		
400.0	400.0	344.6	344.6	0.8	0.3	-169.20	-4,221.6	-805.5	4,297.7	4,296.7	1.07	3,998.984		
492.1	492.1	441.0	441.0	1.0	0.4	-169.19	-4,221.4	-805.7	4,297.6	4,296.2	1.34	3,214.702		
500.0	500.0	449.2	449.2	1.0	0.4	-169.19	-4,221.4	-805.7	4,297.6	4,296.2	1.36	3,166.800		
590.5	590.5	543.6	543.6	1.2	0.4	-169.20	-4,221.1	-805.6	4,297.3	4,295.7	1.60	2,692.443		
600.0	600.0	553.4	553.4	1.2	0.4	-169.20	-4,221.1	-805.6	4,297.3	4,295.7	1.62	2,649.677		
689.0	689.0	643.2	643.2	1.4	0.5	-169.19	-4,220.8	-805.6	4,297.0	4,295.1	1.86	2,304.792		
700.0	700.0	654.0	654.0	1.4	0.5	-169.19	-4,220.7	-805.6	4,296.9	4,295.1	1.89	2,268.199		
787.4	787.4	735.1	735.1	1.6	0.5	-169.19	-4,220.5	-805.5	4,296.7	4,294.6	2.12	2,026.115		
800.0	800.0	746.1	746.1	1.7	0.5	-169.20	-4,220.5	-805.5	4,296.7	4,294.5	2.15	1,997.007		
852.3	852.3	791.8	791.8	1.8	0.5	-169.20	-4,220.5	-805.4	4,296.6	4,294.4	2.28	1,885.283		
885.8	885.8	823.0	823.0	1.9	0.5	-169.20	-4,220.5	-805.4	4,296.6	4,294.3	2.36	1,823.300		
900.0	900.0	836.5	836.5	1.9	0.5	-169.20	-4,220.5	-805.4	4,296.6	4,294.3	2.39	1,798.709		
984.2	984.2	917.6	917.6	2.1	0.5	-169.19	-4,220.6	-805.5	4,296.7	4,294.2	2.58	1,663.564		
1,000.0	1,000.0	933.4	933.4	2.1	0.5	-169.19	-4,220.6	-805.5	4,296.8	4,294.1	2.62	1,639.392		
1,082.7	1,082.7	1,015.9	1,015.9	2.3	0.5	120.73	-4,220.7	-805.6	4,297.5	4,294.7	2.83	1,519.657		
1,100.0	1,100.0	1,033.0	1,033.0	2.3	0.5	120.73	-4,220.7	-805.6	4,297.8	4,294.9	2.87	1,498.499		
1,181.1	1,181.0	1,115.5	1,115.5	2.5	0.5	120.74	-4,220.8	-805.8	4,300.0	4,296.9	3.05	1,408.323		
1,200.0	1,199.8	1,138.1	1,138.1	2.6	0.5	120.75	-4,220.8	-805.8	4,300.6	4,297.5	3.10	1,389.445		
1,279.5	1,279.1	1,219.7	1,219.7	2.7	0.5	120.77	-4,220.7	-805.8	4,304.0	4,300.7	3.28	1,311.318		
1,300.0	1,299.5	1,234.3	1,234.3	2.8	0.5	120.76	-4,220.8	-805.8	4,305.0	4,301.7	3.33	1,292.575		
1,377.9	1,376.9	1,300.0	1,300.0	3.0	0.6	120.77	-4,221.0	-805.7	4,310.1	4,306.5	3.53	1,220.599		
1,400.0	1,398.7	1,307.0	1,307.0	3.0	0.6	120.75	-4,221.1	-805.7	4,311.7	4,308.1	3.59	1,201.633		
1,476.4	1,474.2	1,379.0	1,379.0	3.2	0.6	120.76	-4,221.7	-805.6	4,318.3	4,314.5	3.82	1,129.469		
1,500.0	1,497.5	1,401.3	1,401.3	3.3	0.6	120.76	-4,221.9	-805.6	4,320.6	4,316.7	3.90	1,108.980		
1,574.8	1,571.0	1,476.7	1,476.6	3.5	0.6	120.79	-4,222.5	-805.7	4,328.4	4,324.3	4.15	1,043.925		
1,600.1	1,595.7	1,500.0	1,500.0	3.6	0.6	120.79	-4,222.6	-805.8	4,331.3	4,327.1	4.23	1,023.925		
1,673.2	1,667.2	1,570.4	1,570.3	3.9	0.6	120.96	-4,223.1	-806.1	4,339.8	4,335.3	4.49	967.119		
1,700.0	1,693.4	1,595.4	1,595.4	4.0	0.6	121.02	-4,223.4	-806.1	4,343.0	4,338.4	4.58	948.077		
1,771.6	1,763.5	1,663.9	1,663.9	4.2	0.7	121.18	-4,223.9	-806.3	4,351.4	4,346.6	4.85	898.109		
1,800.0	1,791.3	1,691.1	1,691.0	4.3	0.7	121.25	-4,224.2	-806.4	4,354.8	4,349.8	4.95	879.990		
1,870.1	1,859.8	1,764.4	1,764.4	4.6	0.7	121.43	-4,224.7	-806.9	4,363.1	4,357.9	5.22	836.380		
1,900.0	1,889.1	1,796.2	1,796.1	4.7	0.7	121.50	-4,224.9	-807.1	4,366.6	4,361.3	5.33	819.093		
1,968.5	1,956.1	1,860.1	1,860.1	5.0	0.7	121.66	-4,225.3	-807.6	4,374.7	4,369.1	5.60	781.543		
2,000.0	1,986.9	1,889.3	1,889.3	5.1	0.7	121.73	-4,225.5	-807.9	4,378.5	4,372.8	5.72	765.465		
2,066.9	2,052.3	1,971.5	1,971.5	5.4	0.8	121.93	-4,225.9	-808.6	4,386.4	4,380.4	5.99	732.654		
2,100.0	2,084.7	2,015.0	2,014.9	5.5	0.8	122.03	-4,225.9	-809.1	4,390.2	4,384.1	6.12	717.583		
2,165.3	2,148.6	2,102.5	2,102.4	5.8	0.8	122.25	-4,225.6	-810.4	4,397.5	4,391.2	6.38	689.132		
2,200.0	2,182.5	2,136.2	2,136.1	5.9	0.8	122.34	-4,225.4	-810.9	4,401.3	4,394.8	6.52	675.206		
2,263.8	2,244.9	2,198.4	2,198.3	6.2	0.8	122.49	-4,225.0	-811.7	4,408.4	4,401.6	6.77	650.773		
2,300.0	2,280.3	2,232.2	2,232.1	6.3	0.8	122.57	-4,224.8	-812.1	4,412.4	4,405.4	6.92	637.694		
2,362.2	2,341.2	2,290.0	2,289.9	6.6	0.9	122.72	-4,224.4	-812.9	4,419.3	4,412.1	7.17	616.273		
2,400.0	2,378.1	2,321.9	2,321.8	6.8	0.9	122.80	-4,224.3	-813.5	4,423.5	4,416.2	7.32	604.041		
2,460.6	2,437.4	2,370.8	2,370.7	7.0	0.9	122.92	-4,224.0	-814.5	4,430.5	4,422.9	7.57	585.343		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,500.0	2,476.0	2,400.0	2,399.9	7.2	0.9	123.00	-4,223.9	-815.3	4,435.1	4,427.4	7.73	573.907		
2,559.0	2,533.7	2,452.0	2,451.8	7.4	0.9	123.14	-4,223.8	-816.6	4,442.2	4,434.2	7.97	557.355		
2,600.0	2,573.8	2,486.2	2,486.1	7.6	0.9	123.22	-4,223.7	-817.6	4,447.1	4,439.0	8.14	546.520		
2,657.5	2,630.0	2,540.6	2,540.5	7.9	0.9	123.37	-4,223.7	-819.1	4,454.2	4,445.8	8.37	531.935		
2,700.0	2,671.6	2,582.8	2,582.6	8.1	1.0	123.48	-4,223.7	-820.4	4,459.4	4,450.8	8.55	521.672		
2,755.9	2,726.3	2,636.1	2,635.9	8.3	1.0	123.62	-4,223.6	-822.1	4,466.3	4,457.5	8.78	508.808		
2,800.0	2,769.4	2,677.3	2,677.1	8.5	1.0	123.73	-4,223.6	-823.4	4,471.7	4,462.8	8.96	499.162		
2,854.3	2,822.5	2,731.9	2,731.7	8.7	1.0	123.87	-4,223.5	-825.0	4,478.5	4,469.3	9.18	487.745		
2,900.0	2,867.2	2,780.5	2,780.2	8.9	1.0	123.99	-4,223.5	-826.4	4,484.2	4,474.8	9.37	478.567		
2,952.7	2,918.8	2,833.1	2,832.8	9.2	1.0	124.13	-4,223.4	-827.7	4,490.7	4,481.1	9.59	468.423		
3,000.0	2,965.0	2,878.5	2,878.2	9.4	1.1	124.24	-4,223.4	-828.9	4,496.6	4,486.8	9.78	459.753		
3,051.2	3,015.1	2,935.5	2,935.2	9.6	1.1	124.38	-4,223.3	-830.3	4,503.0	4,493.0	9.99	450.694		
3,100.0	3,062.8	2,995.7	2,995.3	9.8	1.1	124.54	-4,223.1	-831.9	4,508.9	4,498.7	10.19	442.395		
3,149.6	3,111.4	3,044.4	3,044.1	10.0	1.1	124.66	-4,222.8	-833.1	4,514.9	4,504.5	10.39	434.340		
3,200.0	3,160.7	3,093.1	3,092.7	10.3	1.1	124.78	-4,222.6	-834.2	4,521.1	4,510.5	10.60	426.498		
3,248.0	3,207.6	3,156.7	3,156.3	10.5	1.1	124.93	-4,222.3	-835.5	4,526.9	4,516.1	10.80	419.242		
3,300.0	3,258.5	3,219.0	3,218.6	10.7	1.2	125.09	-4,221.7	-836.8	4,533.0	4,522.0	11.01	411.714		
3,346.4	3,303.9	3,261.5	3,261.1	10.9	1.2	125.19	-4,221.2	-837.7	4,538.4	4,527.2	11.20	405.266		
3,400.0	3,356.3	3,310.6	3,310.2	11.2	1.2	125.31	-4,220.7	-838.8	4,544.7	4,533.3	11.42	398.110		
3,444.9	3,400.2	3,352.1	3,351.7	11.4	1.2	125.41	-4,220.3	-839.8	4,550.1	4,538.5	11.60	392.291		
3,500.0	3,454.1	3,403.2	3,402.8	11.6	1.2	125.54	-4,219.8	-841.0	4,556.7	4,544.9	11.82	385.408		
3,543.3	3,496.5	3,444.7	3,444.2	11.8	1.2	125.64	-4,219.4	-842.0	4,561.9	4,549.9	12.00	380.181		
3,600.0	3,551.9	3,498.9	3,498.4	12.0	1.3	125.78	-4,219.0	-843.4	4,568.8	4,556.6	12.23	373.579		
3,641.7	3,592.7	3,538.5	3,538.0	12.2	1.3	125.87	-4,218.6	-844.3	4,573.9	4,561.5	12.40	368.882		
3,700.0	3,649.7	3,593.8	3,593.2	12.5	1.3	126.01	-4,218.1	-845.7	4,581.1	4,568.4	12.64	362.548		
3,740.1	3,689.0	3,634.0	3,633.4	12.7	1.3	126.11	-4,217.8	-846.7	4,586.0	4,573.2	12.80	358.320		
3,800.0	3,747.5	3,694.5	3,693.9	12.9	1.3	126.25	-4,217.2	-848.3	4,593.4	4,580.4	13.04	352.227		
3,838.6	3,785.3	3,730.4	3,729.8	13.1	1.3	126.34	-4,216.9	-849.2	4,598.2	4,585.0	13.20	348.424		
3,900.0	3,845.4	3,786.9	3,786.4	13.4	1.4	126.47	-4,216.6	-850.1	4,605.8	4,592.4	13.45	342.558		
3,937.0	3,881.5	3,821.4	3,820.8	13.6	1.4	126.55	-4,216.5	-850.5	4,610.4	4,596.8	13.60	339.123		
4,000.0	3,943.2	3,880.2	3,879.6	13.8	1.4	126.68	-4,216.3	-851.1	4,618.4	4,604.5	13.85	333.455		
4,035.4	3,977.8	3,900.0	3,899.4	14.0	1.4	126.73	-4,216.2	-851.4	4,622.9	4,608.9	13.99	330.388		
4,100.0	4,041.0	3,957.8	3,957.2	14.3	1.4	126.85	-4,216.2	-852.1	4,631.3	4,617.0	14.25	324.912		
4,133.8	4,074.1	3,982.5	3,982.0	14.4	1.4	126.91	-4,216.2	-852.4	4,635.7	4,621.4	14.39	322.142		
4,200.0	4,138.8	4,065.5	4,064.9	14.7	1.4	127.09	-4,216.4	-853.5	4,644.5	4,629.9	14.66	316.864		
4,232.3	4,170.4	4,108.9	4,108.3	14.9	1.5	127.19	-4,216.3	-854.0	4,648.7	4,633.9	14.79	314.352		
4,300.0	4,236.6	4,169.1	4,168.5	15.2	1.5	127.32	-4,216.2	-854.4	4,657.4	4,642.3	15.06	309.274		
4,330.7	4,266.6	4,200.0	4,199.4	15.3	1.5	127.38	-4,216.2	-854.6	4,661.4	4,646.2	15.18	307.031		
4,400.0	4,334.4	4,265.6	4,265.0	15.6	1.5	127.52	-4,216.3	-854.8	4,670.4	4,655.0	15.46	302.056		
4,429.1	4,362.9	4,294.9	4,294.3	15.8	1.5	127.58	-4,216.3	-854.9	4,674.2	4,658.6	15.58	300.018		
4,500.0	4,432.2	4,370.8	4,370.2	16.1	1.5	127.74	-4,216.3	-855.2	4,683.4	4,667.6	15.86	295.230		
4,527.5	4,459.2	4,400.0	4,399.4	16.2	1.5	127.80	-4,216.3	-855.3	4,687.0	4,671.0	15.97	293.418		
4,600.0	4,530.1	4,469.5	4,468.9	16.5	1.6	127.94	-4,216.2	-855.6	4,696.4	4,680.1	16.26	288.769		
4,626.0	4,555.5	4,494.3	4,493.7	16.7	1.6	127.99	-4,216.2	-855.6	4,699.7	4,683.4	16.37	287.143		
4,700.0	4,627.9	4,588.4	4,587.8	17.0	1.6	128.18	-4,216.0	-855.7	4,709.2	4,692.6	16.66	282.743		
4,724.4	4,651.7	4,617.4	4,616.8	17.1	1.6	128.24	-4,215.8	-855.7	4,712.3	4,695.5	16.75	281.311		
4,800.0	4,725.7	4,700.0	4,699.4	17.4	1.6	128.41	-4,215.2	-856.0	4,721.6	4,704.6	17.05	276.965		
4,822.8	4,748.0	4,722.5	4,721.9	17.6	1.6	128.46	-4,214.9	-856.1	4,724.5	4,707.3	17.14	275.670		
4,900.0	4,823.5	4,791.6	4,791.0	17.9	1.6	128.60	-4,214.3	-856.5	4,734.1	4,716.6	17.44	271.407		
4,921.2	4,844.3	4,811.1	4,810.5	18.0	1.6	128.64	-4,214.2	-856.6	4,736.8	4,719.2	17.53	270.261		
5,000.0	4,921.3	4,884.8	4,884.2	18.4	1.7	128.79	-4,213.7	-856.8	4,746.7	4,728.9	17.84	266.116		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,014.9	4,935.9	4,900.0	4,899.4	18.4	1.7	128.82		-4,213.6	-856.8	4,748.6	4,730.7	17.90	265.346	
5,019.7	4,940.6	4,904.2	4,903.6	18.4	1.7	128.84		-4,213.6	-856.8	4,749.2	4,731.3	17.91	265.183	
5,100.0	5,019.4	5,001.2	5,000.6	18.7	1.7	129.16		-4,212.9	-856.6	4,758.5	4,740.4	18.14	262.391	
5,118.1	5,037.2	5,019.0	5,018.4	18.8	1.7	129.22		-4,212.8	-856.5	4,760.4	4,742.2	18.17	261.946	
5,200.0	5,118.1	5,099.7	5,099.1	19.0	1.7	129.46		-4,212.2	-856.2	4,768.0	4,749.6	18.35	259.887	
5,216.5	5,134.4	5,112.9	5,112.3	19.1	1.7	129.50		-4,212.1	-856.1	4,769.3	4,750.9	18.38	259.527	
5,300.0	5,217.2	5,179.5	5,178.9	19.3	1.7	129.67		-4,211.7	-855.9	4,775.4	4,756.9	18.53	257.660	
5,314.9	5,232.1	5,200.0	5,199.4	19.3	1.7	129.70		-4,211.6	-855.9	4,776.4	4,757.8	18.56	257.369	
5,400.0	5,316.8	5,275.7	5,275.1	19.5	1.7	129.83		-4,211.5	-855.4	4,781.0	4,762.3	18.70	255.706	
5,413.4	5,330.1	5,289.3	5,288.7	19.5	1.7	129.84		-4,211.5	-855.2	4,781.5	4,762.8	18.72	255.483	
5,500.0	5,416.6	5,374.3	5,373.7	19.7	1.7	129.91		-4,211.7	-853.8	4,784.3	4,765.4	18.84	253.901	
5,511.8	5,428.4	5,385.8	5,385.2	19.7	1.7	129.92		-4,211.7	-853.6	4,784.5	4,765.7	18.86	253.717	
5,600.0	5,516.6	5,400.0	5,399.4	19.8	1.7	129.94		-4,211.7	-853.4	4,785.9	4,767.0	18.96	252.432	
5,610.2	5,526.8	5,400.0	5,399.4	19.8	1.7	129.94		-4,211.7	-853.4	4,786.1	4,767.1	18.97	252.304	
5,615.0	5,531.6	5,400.0	5,399.4	19.8	1.7	-159.98		-4,211.7	-853.4	4,786.2	4,767.2	19.00	251.949	
5,700.0	5,616.6	5,400.0	5,399.4	19.9	1.7	-159.98		-4,211.7	-853.4	4,788.2	4,769.1	19.11	250.526	
5,708.6	5,625.3	5,400.0	5,399.4	20.0	1.7	-159.98		-4,211.7	-853.4	4,788.5	4,769.4	19.13	250.371	
5,800.0	5,716.6	5,400.0	5,399.4	20.1	1.7	-159.98		-4,211.7	-853.4	4,792.5	4,773.2	19.26	248.794	
5,807.1	5,723.7	5,400.0	5,399.4	20.1	1.7	-159.98		-4,211.7	-853.4	4,792.9	4,773.6	19.27	248.675	
5,900.0	5,816.6	5,400.0	5,399.4	20.2	1.7	-159.98		-4,211.7	-853.4	4,798.9	4,779.5	19.41	247.175	
5,905.5	5,822.1	5,400.0	5,399.4	20.2	1.7	-159.98		-4,211.7	-853.4	4,799.3	4,779.9	19.42	247.089	
6,000.0	5,916.6	5,400.0	5,399.4	20.4	1.7	-159.98		-4,211.7	-853.4	4,807.4	4,787.8	19.57	245.669	
6,003.9	5,920.5	5,400.0	5,399.4	20.4	1.7	-159.98		-4,211.7	-853.4	4,807.7	4,788.2	19.57	245.612	
6,100.0	6,016.6	5,400.0	5,399.4	20.5	1.7	-159.98		-4,211.7	-853.4	4,817.9	4,798.2	19.72	244.272	
6,102.3	6,019.0	5,400.0	5,399.4	20.5	1.7	-159.98		-4,211.7	-853.4	4,818.2	4,798.4	19.73	244.241	
6,200.0	6,116.6	5,400.0	5,399.4	20.6	1.7	-159.98		-4,211.7	-853.4	4,830.5	4,810.6	19.88	242.983	
6,200.8	6,117.4	5,400.0	5,399.4	20.6	1.7	-159.98		-4,211.7	-853.4	4,830.6	4,810.7	19.88	242.973	
6,299.2	6,215.8	5,400.0	5,399.4	20.8	1.7	-159.98		-4,211.7	-853.4	4,845.0	4,824.9	20.04	241.807	
6,300.0	6,216.6	5,400.0	5,399.4	20.8	1.7	-159.98		-4,211.7	-853.4	4,845.1	4,825.0	20.04	241.798	
6,340.0	6,256.6	5,400.0	5,399.4	20.8	1.7	-159.98		-4,211.7	-853.4	4,851.5	4,831.4	20.10	241.353	
6,350.0	6,266.6	5,400.0	5,399.4	20.8	1.7	19.77		-4,211.7	-853.4	4,853.1	4,833.0	20.09	241.609	
6,397.6	6,314.2	5,400.0	5,399.4	20.9	1.7	19.61		-4,211.7	-853.4	4,859.1	4,839.0	20.11	241.661	
6,400.0	6,316.5	5,400.0	5,399.4	20.9	1.7	19.60		-4,211.7	-853.4	4,859.4	4,839.3	20.11	241.665	
6,450.0	6,366.2	5,400.0	5,399.4	20.9	1.7	19.51		-4,211.7	-853.4	4,862.9	4,842.8	20.12	241.735	
6,496.0	6,411.4	5,400.0	5,399.4	21.0	1.7	19.48		-4,211.7	-853.4	4,863.7	4,843.6	20.10	241.961	
6,500.0	6,415.3	5,400.0	5,399.4	21.0	1.7	19.49		-4,211.7	-853.4	4,863.6	4,843.5	20.10	241.996	
6,550.0	6,463.6	5,400.0	5,399.4	21.0	1.7	19.54		-4,211.7	-853.4	4,861.6	4,841.6	20.04	242.623	
6,594.5	6,505.8	5,400.0	5,399.4	21.0	1.7	19.65		-4,211.7	-853.4	4,857.5	4,837.5	19.94	243.590	
6,600.0	6,510.9	5,400.0	5,399.4	21.0	1.7	19.67		-4,211.7	-853.4	4,856.8	4,836.9	19.93	243.748	
6,650.0	6,557.0	5,400.0	5,399.4	21.0	1.7	19.88		-4,211.7	-853.4	4,849.3	4,829.5	19.76	245.463	
6,692.9	6,595.4	5,400.0	5,399.4	21.0	1.7	20.12		-4,211.7	-853.4	4,840.6	4,821.1	19.56	247.437	
6,700.0	6,601.6	5,400.0	5,399.4	21.0	1.7	20.16		-4,211.7	-853.4	4,839.0	4,819.5	19.53	247.823	
6,750.0	6,644.6	5,400.0	5,399.4	20.9	1.7	20.54		-4,211.7	-853.4	4,826.0	4,806.8	19.24	250.860	
6,791.3	6,678.6	5,400.0	5,399.4	20.9	1.7	20.92		-4,211.7	-853.4	4,813.3	4,794.3	18.96	253.868	
6,800.0	6,685.6	5,400.0	5,399.4	20.9	1.7	21.00		-4,211.7	-853.4	4,810.4	4,791.5	18.90	254.580	
6,850.0	6,724.6	5,400.0	5,399.4	20.9	1.7	21.57		-4,211.7	-853.4	4,792.2	4,773.7	18.51	258.960	
6,889.7	6,753.9	5,400.0	5,399.4	20.9	1.7	22.11		-4,211.7	-853.4	4,775.8	4,757.7	18.17	262.844	
6,900.0	6,761.3	5,400.0	5,399.4	20.9	1.7	22.26		-4,211.7	-853.4	4,771.4	4,753.3	18.08	263.946	
6,950.0	6,795.5	5,400.0	5,399.4	20.9	1.7	23.07		-4,211.7	-853.4	4,748.1	4,730.5	17.62	269.429	
6,988.2	6,819.9	5,400.0	5,399.4	20.9	1.7	23.78		-4,211.7	-853.4	4,728.7	4,711.5	17.27	273.747	
7,000.0	6,827.1	5,400.0	5,399.4	20.9	1.7	24.02		-4,211.7	-853.4	4,722.5	4,705.3	17.16	275.230	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
7,050.0	6,855.9	5,400.0	5,399.4	20.9	1.7	25.14	-4,211.7	-853.4	4,694.5	4,677.8	16.70	281.066	
7,086.6	6,875.1	5,400.0	5,399.4	20.9	1.7	26.09	-4,211.7	-853.4	4,672.6	4,656.2	16.37	285.411	
7,100.0	6,881.8	5,400.0	5,399.4	20.9	1.7	26.46	-4,211.7	-853.4	4,664.3	4,648.0	16.28	286.532	
7,150.0	6,904.6	5,400.0	5,399.4	21.0	1.7	28.01	-4,211.7	-853.4	4,632.0	4,616.1	15.91	291.079	
7,185.0	6,918.8	5,400.0	5,399.4	21.1	1.7	29.26	-4,211.7	-853.4	4,608.2	4,592.5	15.71	293.365	
7,200.0	6,924.3	5,400.0	5,399.4	21.1	1.7	29.84	-4,211.7	-853.4	4,597.7	4,582.1	15.64	294.033	
7,250.0	6,940.8	5,400.0	5,399.4	21.2	1.7	31.99	-4,211.7	-853.4	4,561.5	4,546.1	15.48	294.677	
7,283.4	6,949.9	5,400.0	5,399.4	21.3	1.7	33.65	-4,211.7	-853.4	4,536.4	4,520.9	15.46	293.463	
7,300.0	6,953.9	5,400.0	5,399.4	21.4	1.7	34.54	-4,211.7	-853.4	4,523.6	4,508.2	15.47	292.386	
7,350.0	6,963.6	5,400.0	5,399.4	21.6	1.7	37.58	-4,211.7	-853.4	4,484.1	4,468.5	15.63	286.805	
7,381.9	6,968.0	5,400.0	5,399.4	21.7	1.7	39.81	-4,211.7	-853.4	4,458.2	4,442.3	15.84	281.472	
7,400.0	6,969.9	5,400.0	5,399.4	21.8	1.7	41.20	-4,211.7	-853.4	4,443.2	4,427.2	15.98	277.967	
7,450.0	6,972.6	5,400.0	5,399.4	22.1	1.7	45.54	-4,211.7	-853.4	4,400.9	4,384.4	16.53	266.305	
7,471.5	6,972.8	5,400.0	5,399.4	22.2	1.7	47.65	-4,211.7	-853.4	4,382.4	4,365.6	16.82	260.595	
7,480.3	6,972.7	5,400.0	5,399.4	22.3	1.7	47.65	-4,211.7	-853.4	4,374.8	4,357.9	16.88	259.163	
7,500.0	6,972.5	5,400.0	5,399.4	22.4	1.7	47.65	-4,211.7	-853.4	4,357.8	4,340.8	17.02	256.001	
7,578.7	6,971.8	5,400.0	5,399.4	23.1	1.7	47.65	-4,211.7	-853.4	4,290.0	4,272.3	17.61	243.553	
7,600.0	6,971.6	5,400.0	5,399.4	23.3	1.7	47.65	-4,211.7	-853.4	4,271.7	4,253.9	17.77	240.336	
7,677.1	6,970.9	5,400.0	5,399.4	24.0	1.7	47.65	-4,211.7	-853.4	4,205.7	4,187.3	18.41	228.458	
7,700.0	6,970.7	5,400.0	5,399.4	24.2	1.7	47.65	-4,211.7	-853.4	4,186.2	4,167.6	18.60	225.101	
7,775.6	6,970.0	5,400.0	5,399.4	25.0	1.7	47.65	-4,211.7	-853.4	4,122.1	4,102.8	19.30	213.587	
7,800.0	6,969.8	5,400.0	5,399.4	25.3	1.7	47.65	-4,211.7	-853.4	4,101.4	4,081.9	19.53	210.049	
7,874.0	6,969.1	5,400.0	5,399.4	26.2	1.7	47.65	-4,211.7	-853.4	4,039.1	4,018.8	20.28	199.178	
7,900.0	6,968.9	5,400.0	5,399.4	26.5	1.7	47.65	-4,211.7	-853.4	4,017.3	3,996.7	20.54	195.556	
7,972.4	6,968.2	5,400.0	5,399.4	27.4	1.7	47.65	-4,211.7	-853.4	3,956.8	3,935.5	21.33	185.482	
8,000.0	6,968.0	5,400.0	5,399.4	27.8	1.7	47.65	-4,211.7	-853.4	3,933.9	3,912.3	21.63	181.847	
8,070.8	6,967.3	5,400.0	5,399.4	28.7	1.7	47.65	-4,211.7	-853.4	3,875.3	3,852.9	22.45	172.631	
8,100.0	6,967.1	5,400.0	5,399.4	29.1	1.7	47.65	-4,211.7	-853.4	3,851.3	3,828.5	22.78	169.039	
8,169.3	6,966.4	5,400.0	5,399.4	30.1	1.7	47.65	-4,211.7	-853.4	3,794.6	3,771.0	23.62	160.679	
8,200.0	6,966.2	5,400.0	5,399.4	30.5	1.7	47.65	-4,211.7	-853.4	3,769.6	3,745.6	23.98	157.166	
8,267.7	6,965.5	5,400.0	5,399.4	31.5	1.7	47.65	-4,211.7	-853.4	3,714.8	3,689.9	24.83	149.629	
8,300.0	6,965.2	5,400.0	5,399.4	32.0	1.7	47.65	-4,211.7	-853.4	3,688.7	3,663.5	25.23	146.219	
8,366.1	6,964.6	5,400.0	5,399.4	33.0	1.7	47.65	-4,211.7	-853.4	3,635.8	3,609.7	26.07	139.448	
8,400.0	6,964.3	5,400.0	5,399.4	33.5	1.7	47.65	-4,211.7	-853.4	3,608.9	3,582.4	26.51	136.156	
8,464.5	6,963.8	5,400.0	5,399.4	34.5	1.7	47.65	-4,211.7	-853.4	3,557.8	3,530.5	27.35	130.088	
8,500.0	6,963.4	5,400.0	5,399.4	35.1	1.7	47.65	-4,211.7	-853.4	3,530.0	3,502.2	27.81	126.921	
8,563.0	6,962.9	5,400.0	5,399.4	36.1	1.7	47.65	-4,211.7	-853.4	3,480.9	3,452.3	28.65	121.490	
8,600.0	6,962.5	5,400.0	5,399.4	36.7	1.7	47.65	-4,211.7	-853.4	3,452.3	3,423.1	29.14	118.452	
8,661.4	6,962.0	5,400.0	5,399.4	37.7	1.7	47.65	-4,211.7	-853.4	3,405.1	3,375.1	29.98	113.593	
8,700.0	6,961.6	5,400.0	5,399.4	38.3	1.7	47.65	-4,211.7	-853.4	3,375.7	3,345.2	30.50	110.684	
8,759.8	6,961.1	5,400.0	5,399.4	39.3	1.7	47.65	-4,211.7	-853.4	3,330.4	3,299.1	31.32	106.339	
8,800.0	6,960.7	5,400.0	5,399.4	40.0	1.7	47.65	-4,211.7	-853.4	3,300.3	3,268.5	31.87	103.557	
8,858.2	6,960.2	5,400.0	5,399.4	40.9	1.7	47.65	-4,211.7	-853.4	3,257.1	3,224.4	32.68	99.672	
8,900.0	6,959.8	5,400.0	5,399.4	41.6	1.7	47.65	-4,211.7	-853.4	3,226.3	3,193.1	33.26	97.013	
8,956.7	6,959.3	5,400.0	5,399.4	42.6	1.7	47.65	-4,211.7	-853.4	3,185.0	3,151.0	34.05	93.538	
9,000.0	6,958.9	5,400.0	5,399.4	43.3	1.7	47.65	-4,211.7	-853.4	3,153.8	3,119.1	34.66	90.999	
9,055.1	6,958.4	5,400.0	5,399.4	44.3	1.7	47.65	-4,211.7	-853.4	3,114.5	3,079.0	35.44	87.890	
9,100.0	6,958.0	5,400.0	5,399.4	45.1	1.7	47.65	-4,211.7	-853.4	3,082.8	3,046.7	36.07	85.466	
9,153.5	6,957.5	5,400.0	5,399.4	46.0	1.7	47.65	-4,211.7	-853.4	3,045.4	3,008.6	36.83	82.685	
9,200.0	6,957.1	5,400.0	5,399.4	46.8	1.7	47.66	-4,211.7	-853.4	3,013.4	2,975.9	37.49	80.373	
9,251.9	6,956.6	5,400.0	5,399.4	47.7	1.7	47.66	-4,211.7	-853.4	2,978.0	2,939.8	38.24	77.885	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,300.0	6,956.2	5,400.0	5,399.4	48.6	1.7	47.66	-4,211.7	-853.4	2,945.8	2,906.8	38.92	75.680	
9,350.4	6,955.7	5,400.0	5,399.4	49.5	1.7	47.66	-4,211.7	-853.4	2,912.4	2,872.8	39.65	73.454	
9,400.0	6,955.2	5,400.0	5,399.4	50.3	1.7	47.66	-4,211.7	-853.4	2,880.0	2,839.7	40.36	71.352	
9,448.8	6,954.8	5,400.0	5,399.4	51.2	1.7	47.66	-4,211.7	-853.4	2,848.7	2,807.6	41.07	69.362	
9,500.0	6,954.3	5,400.0	5,399.4	52.1	1.7	47.66	-4,211.7	-853.4	2,816.3	2,774.5	41.81	67.359	
9,547.2	6,953.9	5,400.0	5,399.4	53.0	1.7	47.66	-4,211.7	-853.4	2,787.0	2,744.5	42.50	65.581	
9,600.0	6,953.4	5,400.0	5,399.4	53.9	1.7	47.66	-4,211.7	-853.4	2,754.8	2,711.5	43.26	63.674	
9,645.6	6,953.0	5,400.0	5,399.4	54.7	1.7	47.66	-4,211.7	-853.4	2,727.4	2,683.5	43.93	62.086	
9,700.0	6,952.5	5,400.0	5,399.4	55.7	1.7	47.66	-4,211.7	-853.4	2,695.5	2,650.8	44.72	60.272	
9,744.1	6,952.1	5,400.0	5,399.4	56.5	1.7	47.66	-4,211.7	-853.4	2,670.2	2,624.8	45.37	58.857	
9,800.0	6,951.6	5,400.0	5,399.4	57.5	1.7	47.66	-4,211.7	-853.4	2,638.7	2,592.5	46.19	57.133	
9,842.5	6,951.2	5,400.0	5,399.4	58.3	1.7	47.66	-4,211.7	-853.4	2,615.4	2,568.6	46.81	55.872	
9,900.0	6,950.7	5,400.0	5,399.4	59.4	1.7	47.66	-4,211.7	-853.4	2,584.6	2,536.9	47.65	54.236	
9,940.9	6,950.3	5,400.0	5,399.4	60.1	1.7	47.66	-4,211.7	-853.4	2,563.2	2,514.9	48.26	53.116	
10,000.0	6,949.8	5,400.0	5,399.4	61.2	1.7	47.66	-4,211.7	-853.4	2,533.2	2,484.1	49.13	51.565	
10,039.3	6,949.4	5,400.0	5,399.4	61.9	1.7	47.66	-4,211.7	-853.4	2,513.8	2,464.1	49.71	50.571	
10,100.0	6,948.9	5,400.0	5,399.4	63.0	1.7	47.66	-4,211.7	-853.4	2,484.8	2,434.2	50.60	49.104	
10,137.8	6,948.5	5,400.0	5,399.4	63.7	1.7	47.66	-4,211.7	-853.4	2,467.3	2,416.1	51.16	48.226	
10,200.0	6,948.0	5,400.0	5,399.4	64.9	1.7	47.66	-4,211.7	-853.4	2,439.5	2,387.4	52.08	46.840	
10,236.2	6,947.6	5,400.0	5,399.4	65.6	1.7	47.66	-4,211.7	-853.4	2,423.9	2,371.3	52.62	46.066	
10,300.0	6,947.1	5,400.0	5,399.4	66.7	1.7	47.66	-4,211.7	-853.4	2,397.6	2,344.0	53.56	44.760	
10,334.6	6,946.7	5,400.0	5,399.4	67.4	1.7	47.66	-4,211.7	-853.4	2,383.8	2,329.8	54.08	44.081	
10,400.0	6,946.2	5,400.0	5,399.4	68.6	1.7	47.66	-4,211.7	-853.4	2,359.1	2,304.1	55.05	42.854	
10,433.0	6,945.8	5,400.0	5,399.4	69.2	1.7	47.66	-4,211.7	-853.4	2,347.2	2,291.7	55.54	42.260	
10,500.0	6,945.2	5,400.0	5,399.4	70.5	1.7	47.66	-4,211.7	-853.4	2,324.3	2,267.8	56.54	41.111	
10,531.5	6,945.0	5,400.0	5,399.4	71.1	1.7	47.66	-4,211.7	-853.4	2,314.2	2,257.2	57.01	40.594	
10,600.0	6,944.3	5,400.0	5,399.4	72.3	1.7	47.66	-4,211.7	-853.4	2,293.4	2,235.3	58.03	39.522	
10,629.9	6,944.1	5,400.0	5,399.4	72.9	1.7	47.66	-4,211.7	-853.4	2,284.9	2,226.4	58.47	39.075	
10,700.0	6,943.4	5,400.0	5,399.4	74.2	1.7	47.66	-4,211.7	-853.4	2,266.4	2,206.9	59.52	38.078	
10,728.3	6,943.2	5,400.0	5,399.4	74.7	1.7	47.66	-4,211.7	-853.4	2,259.5	2,199.6	59.94	37.694	
10,800.0	6,942.5	5,400.0	5,399.4	76.1	1.7	47.66	-4,211.7	-853.4	2,243.6	2,182.6	61.01	36.771	
10,826.7	6,942.3	5,400.0	5,399.4	76.6	1.7	47.66	-4,211.7	-853.4	2,238.2	2,176.8	61.42	36.444	
10,900.0	6,941.6	5,400.0	5,399.4	78.0	1.7	47.66	-4,211.7	-853.4	2,225.0	2,162.5	62.51	35.594	
10,925.2	6,941.4	5,400.0	5,399.4	78.4	1.7	47.66	-4,211.7	-853.4	2,221.0	2,158.2	62.89	35.317	
11,000.0	6,940.7	5,400.0	5,399.4	79.9	1.7	47.66	-4,211.7	-853.4	2,210.9	2,146.8	64.01	34.540	
11,023.6	6,940.5	5,400.0	5,399.4	80.3	1.7	47.66	-4,211.7	-853.4	2,208.2	2,143.8	64.36	34.308	
11,100.0	6,939.8	5,400.0	5,399.4	81.7	1.7	47.66	-4,211.7	-853.4	2,201.1	2,135.6	65.51	33.600	
11,122.0	6,939.6	5,400.0	5,399.4	82.2	1.7	47.66	-4,211.7	-853.4	2,199.6	2,133.7	65.84	33.408	
11,200.0	6,938.9	5,400.0	5,399.4	83.6	1.7	47.66	-4,211.7	-853.4	2,195.9	2,128.9	67.01	32.770	
11,220.4	6,938.7	5,400.0	5,399.4	84.0	1.7	47.66	-4,211.7	-853.4	2,195.4	2,128.1	67.32	32.613	
11,264.6	6,938.3	5,400.0	5,399.4	84.9	1.7	47.66	-4,211.7	-853.4	2,195.0	2,127.0	67.98	32.288 CC	
11,300.0	6,938.0	5,400.0	5,399.4	85.5	1.7	47.66	-4,211.7	-853.4	2,195.2	2,126.7	68.51	32.042 ES	
11,318.9	6,937.8	5,400.0	5,399.4	85.9	1.7	47.66	-4,211.7	-853.4	2,195.6	2,126.8	68.80	31.915	
11,400.0	6,937.0	5,400.0	5,399.4	87.4	1.7	47.66	-4,211.7	-853.4	2,199.1	2,129.1	70.02	31.409	
11,417.3	6,936.9	5,400.0	5,399.4	87.8	1.7	47.66	-4,211.7	-853.4	2,200.3	2,130.0	70.28	31.309	
11,500.0	6,936.1	5,400.0	5,399.4	89.3	1.7	47.66	-4,211.7	-853.4	2,207.5	2,136.0	71.52	30.866	
11,515.7	6,936.0	5,400.0	5,399.4	89.6	1.7	47.66	-4,211.7	-853.4	2,209.3	2,137.5	71.76	30.788	
11,600.0	6,935.2	5,400.0	5,399.4	91.2	1.7	47.66	-4,211.7	-853.4	2,220.4	2,147.4	73.03	30.406	
11,614.1	6,935.1	5,400.0	5,399.4	91.5	1.7	47.66	-4,211.7	-853.4	2,222.6	2,149.4	73.24	30.347	
11,700.0	6,934.3	5,400.0	5,399.4	93.1	1.7	47.66	-4,211.7	-853.4	2,237.7	2,163.2	74.53	30.023	
11,712.6	6,934.2	5,400.0	5,399.4	93.4	1.7	47.66	-4,211.7	-853.4	2,240.2	2,165.5	74.72	29.980	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 18-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,800.0	6,933.4	5,400.0	5,399.4	95.1	1.7	47.66	-4,211.7	-853.4	2,259.3	2,183.3	76.04	29.712		
11,811.0	6,933.3	5,400.0	5,399.4	95.3	1.7	47.66	-4,211.7	-853.4	2,261.9	2,185.7	76.21	29.681		
11,900.0	6,932.5	5,400.0	5,399.4	97.0	1.7	47.66	-4,211.7	-853.4	2,285.1	2,207.5	77.55	29.466		
11,909.4	6,932.4	5,400.0	5,399.4	97.1	1.7	47.66	-4,211.7	-853.4	2,287.7	2,210.0	77.69	29.446		
12,000.0	6,931.6	5,400.0	5,399.4	98.9	1.7	47.66	-4,211.7	-853.4	2,314.9	2,235.8	79.06	29.280		
12,007.8	6,931.5	5,400.0	5,399.4	99.0	1.7	47.66	-4,211.7	-853.4	2,317.4	2,238.2	79.18	29.268		
12,100.0	6,930.7	5,400.0	5,399.4	100.8	1.7	47.66	-4,211.7	-853.4	2,348.6	2,268.0	80.57	29.149		
12,106.3	6,930.6	5,400.0	5,399.4	100.9	1.7	47.66	-4,211.7	-853.4	2,350.8	2,270.1	80.67	29.143		
12,200.0	6,929.8	5,400.0	5,399.4	102.7	1.7	47.66	-4,211.7	-853.4	2,386.0	2,303.9	82.08	29.068		
12,204.7	6,929.7	5,400.0	5,399.4	102.8	1.7	47.66	-4,211.7	-853.4	2,387.8	2,305.7	82.15	29.065		
12,300.0	6,928.8	5,400.0	5,399.4	104.6	1.7	47.66	-4,211.7	-853.4	2,426.9	2,343.3	83.59	29.032		
12,303.1	6,928.8	5,400.0	5,399.4	104.7	1.7	47.66	-4,211.7	-853.4	2,428.3	2,344.6	83.64	29.032 SF		
12,400.0	6,927.9	5,400.0	5,399.4	106.5	1.7	47.66	-4,211.7	-853.4	2,471.2	2,386.1	85.11	29.037		
12,401.5	6,927.9	5,400.0	5,399.4	106.6	1.7	47.66	-4,211.7	-853.4	2,472.0	2,386.8	85.13	29.037		
12,500.0	6,927.0	5,400.0	5,399.4	108.5	1.7	47.66	-4,211.7	-853.4	2,518.8	2,432.1	86.62	29.078		
12,598.4	6,926.1	5,400.0	5,399.4	110.4	1.7	47.66	-4,211.7	-853.4	2,568.4	2,480.3	88.11	29.150		
12,600.0	6,926.1	5,400.0	5,399.4	110.4	1.7	47.66	-4,211.7	-853.4	2,569.3	2,481.1	88.13	29.152		
12,696.8	6,925.2	5,400.0	5,399.4	112.3	1.7	47.66	-4,211.7	-853.4	2,620.9	2,531.3	89.60	29.251		
12,700.0	6,925.2	5,400.0	5,399.4	112.3	1.7	47.66	-4,211.7	-853.4	2,622.6	2,533.0	89.65	29.255		
12,795.2	6,924.3	5,400.0	5,399.4	114.1	1.7	47.66	-4,211.7	-853.4	2,676.0	2,584.9	91.09	29.377		
12,800.0	6,924.3	5,400.0	5,399.4	114.2	1.7	47.66	-4,211.7	-853.4	2,678.7	2,587.5	91.16	29.383		
12,893.7	6,923.4	5,400.0	5,399.4	116.0	1.7	47.66	-4,211.7	-853.4	2,733.5	2,640.9	92.58	29.524		
12,900.0	6,923.4	5,400.0	5,399.4	116.2	1.7	47.66	-4,211.7	-853.4	2,737.2	2,644.6	92.68	29.534		
12,992.1	6,922.5	5,400.0	5,399.4	117.9	1.7	47.66	-4,211.7	-853.4	2,793.2	2,699.2	94.08	29.691		
13,000.0	6,922.5	5,400.0	5,399.4	118.1	1.7	47.66	-4,211.7	-853.4	2,798.1	2,703.9	94.20	29.706		
13,090.5	6,921.6	5,400.0	5,399.4	119.8	1.7	47.66	-4,211.7	-853.4	2,855.2	2,759.6	95.57	29.876		
13,100.0	6,921.5	5,400.0	5,399.4	120.0	1.7	47.66	-4,211.7	-853.4	2,861.2	2,765.5	95.71	29.894		
13,188.9	6,920.7	5,400.0	5,399.4	121.7	1.7	47.66	-4,211.7	-853.4	2,919.1	2,822.0	97.06	30.075		
13,200.0	6,920.6	5,400.0	5,399.4	121.9	1.7	47.66	-4,211.7	-853.4	2,926.4	2,829.2	97.23	30.098		
13,287.4	6,919.8	5,400.0	5,399.4	123.6	1.7	47.66	-4,211.7	-853.4	2,984.9	2,886.3	98.55	30.287		
13,300.0	6,919.7	5,400.0	5,399.4	123.9	1.7	47.66	-4,211.7	-853.4	2,993.5	2,894.7	98.75	30.315		
13,385.8	6,918.9	5,400.0	5,399.4	125.5	1.7	47.66	-4,211.7	-853.4	3,052.4	2,952.4	100.05	30.510		
13,400.0	6,918.8	5,400.0	5,399.4	125.8	1.7	47.65	-4,211.7	-853.4	3,062.3	2,962.1	100.26	30.543		
13,484.2	6,918.0	5,400.0	5,399.4	127.4	1.7	47.65	-4,211.7	-853.4	3,121.6	3,020.1	101.54	30.742		
13,500.0	6,917.9	5,400.0	5,399.4	127.7	1.7	47.65	-4,211.7	-853.4	3,132.9	3,031.1	101.78	30.780		
13,582.6	6,917.1	5,400.0	5,399.4	129.3	1.7	47.65	-4,211.7	-853.4	3,192.4	3,089.3	103.04	30.983		
13,600.0	6,917.0	5,400.0	5,399.4	129.7	1.7	47.65	-4,211.7	-853.4	3,205.0	3,101.7	103.30	31.026		
13,681.1	6,916.2	5,400.0	5,399.4	131.2	1.7	47.65	-4,211.7	-853.4	3,264.6	3,160.0	104.53	31.230		
13,700.0	6,916.1	5,400.0	5,399.4	131.6	1.7	47.65	-4,211.7	-853.4	3,278.6	3,173.8	104.82	31.278		
13,779.5	6,915.3	5,400.0	5,399.4	133.1	1.7	47.65	-4,211.7	-853.4	3,338.1	3,232.0	106.03	31.483		
13,800.0	6,915.2	5,400.0	5,399.4	133.5	1.7	47.65	-4,211.7	-853.4	3,353.5	3,247.2	106.34	31.536		
13,877.9	6,914.4	5,400.0	5,399.4	135.1	1.7	47.65	-4,211.7	-853.4	3,412.8	3,305.3	107.52	31.741		
13,900.0	6,914.2	5,400.0	5,399.4	135.5	1.7	47.65	-4,211.7	-853.4	3,429.8	3,321.9	107.86	31.799		
13,976.3	6,913.5	5,400.0	5,399.4	137.0	1.7	47.65	-4,211.7	-853.4	3,488.8	3,379.8	109.02	32.002		
14,000.0	6,913.3	5,400.0	5,399.4	137.4	1.7	47.65	-4,211.7	-853.4	3,507.2	3,397.8	109.38	32.065		
14,074.8	6,912.6	5,400.0	5,399.4	138.9	1.7	47.65	-4,211.7	-853.4	3,565.8	3,455.3	110.51	32.266		
14,100.0	6,912.4	5,400.0	5,399.4	139.4	1.7	47.65	-4,211.7	-853.4	3,585.7	3,474.8	110.90	32.334		
14,145.0	6,912.0	5,400.0	5,399.4	140.2	1.7	47.65	-4,211.7	-853.4	3,621.4	3,509.8	111.55	32.464		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	172.85	172.85	-2,910.8	365.3	2,933.7				
98.4	98.4	122.3	122.3	0.1	0.1	172.85	172.85	-2,909.6	364.8	2,932.7	2,932.5	0.18	N/A	
100.0	100.0	123.4	123.4	0.1	0.1	172.85	172.85	-2,909.6	364.8	2,932.7	2,932.5	0.19	N/A	
196.8	196.8	200.0	200.0	0.3	0.2	172.85	172.85	-2,908.9	364.7	2,931.8	2,931.3	0.50	5,849.732	
200.0	200.0	200.0	200.0	0.3	0.2	172.85	172.85	-2,908.9	364.7	2,931.8	2,931.3	0.51	5,768.203	
295.3	295.3	291.3	291.3	0.5	0.2	172.85	172.85	-2,908.5	364.7	2,931.3	2,930.6	0.77	3,815.544	
300.0	300.0	296.2	296.2	0.5	0.2	172.85	172.85	-2,908.5	364.6	2,931.3	2,930.5	0.78	3,751.713	
393.7	393.7	392.1	392.1	0.8	0.3	172.86	172.86	-2,908.0	364.5	2,930.8	2,929.8	1.04	2,822.031	
400.0	400.0	398.6	398.6	0.8	0.3	172.86	172.86	-2,908.0	364.5	2,930.8	2,929.7	1.06	2,775.782	
492.1	492.1	478.4	478.4	1.0	0.3	172.85	172.85	-2,907.7	364.6	2,930.4	2,929.1	1.28	2,291.859	
500.0	500.0	485.2	485.2	1.0	0.3	172.85	172.85	-2,907.6	364.6	2,930.4	2,929.1	1.30	2,258.275	
590.5	590.5	593.6	593.6	1.2	0.4	172.86	172.86	-2,907.3	364.3	2,930.1	2,928.6	1.54	1,903.389	
600.0	600.0	600.0	600.0	1.2	0.4	172.86	172.86	-2,907.2	364.3	2,930.0	2,928.5	1.56	1,874.531	
689.0	689.0	672.9	672.9	1.4	0.4	172.85	172.85	-2,906.9	364.4	2,929.7	2,927.9	1.78	1,645.552	
699.8	699.8	681.3	681.3	1.4	0.4	172.85	172.85	-2,906.9	364.5	2,929.7	2,927.9	1.81	1,621.575	
700.0	700.0	681.5	681.5	1.4	0.4	172.85	172.85	-2,906.9	364.5	2,929.7	2,927.9	1.81	1,621.114	
787.4	787.4	778.7	778.7	1.6	0.4	172.85	172.85	-2,906.8	364.9	2,929.6	2,927.6	2.02	1,451.075	
800.0	800.0	794.3	794.2	1.7	0.4	172.85	172.85	-2,906.8	364.8	2,929.6	2,927.5	2.05	1,429.461	
885.8	885.8	886.7	886.7	1.9	0.5	172.84	172.84	-2,906.2	364.9	2,929.1	2,926.8	2.28	1,282.118	
900.0	900.0	901.7	901.7	1.9	0.5	172.84	172.84	-2,906.1	364.9	2,929.0	2,926.7	2.32	1,260.548	
984.2	984.2	984.8	984.8	2.1	0.5	172.84	172.84	-2,905.5	365.1	2,928.4	2,925.9	2.55	1,147.227	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.5	172.84	172.84	-2,905.4	365.1	2,928.3	2,925.7	2.60	1,128.302	
1,043.9	1,043.9	1,035.3	1,035.3	2.2	0.5	102.77	102.77	-2,905.3	365.1	2,928.2	2,925.5	2.73	1,071.991	
1,082.7	1,082.7	1,066.3	1,066.2	2.3	0.5	102.78	102.78	-2,905.2	365.1	2,928.3	2,925.5	2.82	1,039.420	
1,100.0	1,100.0	1,080.1	1,080.1	2.3	0.5	102.78	102.78	-2,905.2	365.2	2,928.4	2,925.6	2.86	1,025.538	
1,181.1	1,181.0	1,157.9	1,157.9	2.5	0.5	102.83	102.83	-2,905.3	365.3	2,929.5	2,926.4	3.05	961.795	
1,200.0	1,199.8	1,177.4	1,177.3	2.6	0.5	102.85	102.85	-2,905.3	365.4	2,929.8	2,926.7	3.09	947.678	
1,279.5	1,279.1	1,262.4	1,262.4	2.7	0.6	102.95	102.95	-2,905.3	365.9	2,931.3	2,928.0	3.30	887.965	
1,300.0	1,299.5	1,284.6	1,284.5	2.8	0.6	102.98	102.98	-2,905.3	366.1	2,931.7	2,928.4	3.36	873.643	
1,377.9	1,376.9	1,366.3	1,366.3	3.0	0.6	103.12	103.12	-2,905.1	366.4	2,933.7	2,930.1	3.56	823.138	
1,400.0	1,398.7	1,389.2	1,389.2	3.0	0.6	103.16	103.16	-2,905.0	366.4	2,934.3	2,930.7	3.62	810.070	
1,476.4	1,474.2	1,457.0	1,457.0	3.2	0.6	103.31	103.31	-2,904.9	366.3	2,936.8	2,933.0	3.83	765.856	
1,500.0	1,497.5	1,477.4	1,477.3	3.3	0.6	103.36	103.36	-2,904.9	366.3	2,937.8	2,933.9	3.90	753.246	
1,574.8	1,571.0	1,547.9	1,547.8	3.5	0.6	103.54	103.54	-2,905.0	366.4	2,941.2	2,937.0	4.15	708.985	
1,600.1	1,595.7	1,572.7	1,572.7	3.6	0.6	103.61	103.61	-2,905.0	366.5	2,942.4	2,938.2	4.23	694.808	
1,673.2	1,667.2	1,657.5	1,657.5	3.9	0.7	103.94	103.94	-2,905.0	366.7	2,946.2	2,941.6	4.51	653.785	
1,700.0	1,693.4	1,691.5	1,691.5	4.0	0.7	104.07	104.07	-2,904.8	366.9	2,947.4	2,942.8	4.60	640.063	
1,771.6	1,763.5	1,750.0	1,750.0	4.2	0.7	104.29	104.29	-2,904.5	367.1	2,950.8	2,946.0	4.87	605.966	
1,800.0	1,791.3	1,771.9	1,771.8	4.3	0.7	104.38	104.38	-2,904.5	367.2	2,952.3	2,947.3	4.97	593.576	
1,870.1	1,859.8	1,845.1	1,845.1	4.6	0.7	104.66	104.66	-2,904.6	367.2	2,956.1	2,950.9	5.24	564.063	
1,900.0	1,889.1	1,885.4	1,885.4	4.7	0.7	104.82	104.82	-2,904.4	367.3	2,957.6	2,952.3	5.35	552.347	
1,968.5	1,956.1	1,946.4	1,946.4	5.0	0.7	105.06	105.06	-2,904.1	367.3	2,961.0	2,955.4	5.63	526.171	
2,000.0	1,986.9	1,971.7	1,971.7	5.1	0.7	105.16	105.16	-2,904.1	367.2	2,962.7	2,957.0	5.75	514.952	
2,066.9	2,052.3	2,032.9	2,032.9	5.4	0.7	105.40	105.40	-2,904.2	366.8	2,966.5	2,960.5	6.03	492.221	
2,100.0	2,084.7	2,067.3	2,067.3	5.5	0.7	105.54	105.54	-2,904.2	366.6	2,968.4	2,962.2	6.16	481.749	
2,165.3	2,148.6	2,139.4	2,139.3	5.8	0.7	105.82	105.82	-2,904.1	366.6	2,972.0	2,965.6	6.44	461.497	
2,200.0	2,182.5	2,179.4	2,179.4	5.9	0.7	105.97	105.97	-2,903.9	366.5	2,973.9	2,967.3	6.59	451.221	
2,263.8	2,244.9	2,235.2	2,235.2	6.2	0.7	106.19	106.19	-2,903.6	366.2	2,977.3	2,970.4	6.86	433.875	
2,300.0	2,280.3	2,262.9	2,262.9	6.3	0.7	106.30	106.30	-2,903.6	366.1	2,979.4	2,972.4	7.01	424.763	
2,362.2	2,341.2	2,314.8	2,314.8	6.6	0.7	106.51	106.51	-2,903.7	365.9	2,983.2	2,976.0	7.28	409.789	
2,400.0	2,378.1	2,355.4	2,355.4	6.8	0.7	106.67	106.67	-2,903.8	365.7	2,985.6	2,978.2	7.44	401.045	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)						
2,460.6	2,437.4	2,417.3	2,417.2	7.0	0.8	106.91	-2,903.9	365.0	2,989.4	2,981.6	7.71	387.751		
2,500.0	2,476.0	2,452.9	2,452.8	7.2	0.8	107.06	-2,903.9	364.7	2,991.8	2,984.0	7.88	379.704		
2,559.0	2,533.7	2,507.1	2,507.1	7.4	0.8	107.27	-2,904.1	364.5	2,995.7	2,987.5	8.14	368.198		
2,600.0	2,573.8	2,548.7	2,548.7	7.6	0.8	107.43	-2,904.2	364.3	2,998.4	2,990.0	8.31	360.605		
2,657.5	2,630.0	2,606.7	2,606.6	7.9	0.8	107.66	-2,904.3	363.9	3,002.1	2,993.6	8.57	350.491		
2,700.0	2,671.6	2,647.7	2,647.7	8.1	0.8	107.81	-2,904.4	363.7	3,005.0	2,996.2	8.74	343.664		
2,755.9	2,726.3	2,702.1	2,702.0	8.3	0.8	108.02	-2,904.5	363.7	3,008.7	2,999.7	8.98	335.062		
2,800.0	2,769.4	2,752.7	2,752.7	8.5	0.8	108.21	-2,904.5	363.8	3,011.7	3,002.5	9.17	328.406		
2,854.3	2,822.5	2,811.8	2,811.8	8.7	0.8	108.43	-2,904.4	364.0	3,015.2	3,005.8	9.41	320.564		
2,900.0	2,867.2	2,852.6	2,852.6	8.9	0.8	108.58	-2,904.3	363.9	3,018.2	3,008.6	9.60	314.339		
2,952.7	2,918.8	2,900.0	2,900.0	9.2	0.8	108.76	-2,904.3	363.7	3,021.7	3,011.9	9.83	307.452		
3,000.0	2,965.0	2,955.8	2,955.7	9.4	0.8	108.98	-2,904.2	363.4	3,024.9	3,014.9	10.04	301.333		
3,051.2	3,015.1	3,011.4	3,011.3	9.6	0.8	109.19	-2,904.0	363.2	3,028.2	3,017.9	10.27	295.001		
3,100.0	3,062.8	3,050.9	3,050.9	9.8	0.8	109.34	-2,903.8	363.1	3,031.4	3,021.0	10.48	289.322		
3,149.6	3,111.4	3,091.0	3,091.0	10.0	0.9	109.49	-2,903.8	363.0	3,034.9	3,024.2	10.69	283.789		
3,200.0	3,160.7	3,144.8	3,144.8	10.3	0.9	109.69	-2,903.8	362.9	3,038.5	3,027.6	10.91	278.546		
3,248.0	3,207.6	3,199.6	3,199.6	10.5	0.9	109.89	-2,903.7	363.0	3,041.8	3,030.7	11.11	273.759		
3,300.0	3,258.5	3,252.0	3,251.9	10.7	0.9	110.08	-2,903.5	363.2	3,045.4	3,034.1	11.34	268.591		
3,346.4	3,303.9	3,298.6	3,298.6	10.9	0.9	110.25	-2,903.3	363.1	3,048.6	3,037.1	11.54	264.146		
3,400.0	3,356.3	3,340.2	3,340.2	11.2	0.9	110.41	-2,903.2	363.0	3,052.4	3,040.6	11.77	259.364		
3,444.9	3,400.2	3,374.8	3,374.8	11.4	0.9	110.53	-2,903.2	363.0	3,055.8	3,043.8	11.96	255.513		
3,500.0	3,454.1	3,421.8	3,421.8	11.6	0.9	110.70	-2,903.4	363.2	3,060.1	3,047.9	12.19	250.935		
3,543.3	3,496.5	3,463.8	3,463.7	11.8	0.9	110.86	-2,903.6	363.2	3,063.6	3,051.2	12.38	247.433		
3,600.0	3,551.9	3,524.1	3,524.1	12.0	0.9	111.08	-2,903.9	363.1	3,068.1	3,055.5	12.63	243.014		
3,641.7	3,592.7	3,576.3	3,576.3	12.2	0.9	111.27	-2,903.9	363.0	3,071.4	3,058.6	12.80	239.893		
3,700.0	3,649.7	3,631.3	3,631.2	12.5	0.9	111.47	-2,903.8	362.8	3,075.8	3,062.7	13.05	235.605		
3,740.1	3,689.0	3,663.1	3,663.1	12.7	0.9	111.59	-2,903.9	362.6	3,079.0	3,065.7	13.23	232.735		
3,800.0	3,747.5	3,711.6	3,711.5	12.9	0.9	111.77	-2,904.1	362.2	3,083.9	3,070.4	13.49	228.618		
3,838.6	3,785.3	3,745.3	3,745.3	13.1	0.9	111.90	-2,904.3	361.9	3,087.2	3,073.5	13.66	226.054		
3,900.0	3,845.4	3,800.0	3,799.9	13.4	0.9	112.10	-2,904.7	361.6	3,092.6	3,078.6	13.92	222.099		
3,937.0	3,881.5	3,844.0	3,844.0	13.6	0.9	112.26	-2,905.0	361.4	3,095.8	3,081.7	14.08	219.817		
4,000.0	3,943.2	3,914.8	3,914.8	13.8	0.9	112.52	-2,905.3	360.9	3,101.1	3,086.8	14.35	216.048		
4,035.4	3,977.8	3,945.2	3,945.2	14.0	0.9	112.64	-2,905.4	360.7	3,104.2	3,089.7	14.51	213.998		
4,100.0	4,041.0	4,000.9	4,000.9	14.3	1.0	112.84	-2,905.7	360.5	3,109.8	3,095.1	14.78	210.382		
4,133.8	4,074.1	4,035.1	4,035.1	14.4	1.0	112.96	-2,905.9	360.4	3,112.9	3,097.9	14.93	208.531		
4,200.0	4,138.8	4,102.2	4,102.1	14.7	1.0	113.21	-2,906.3	359.8	3,118.8	3,103.6	15.21	205.026		
4,232.3	4,170.4	4,141.3	4,141.2	14.9	1.0	113.35	-2,906.4	359.5	3,121.6	3,106.3	15.35	203.346		
4,300.0	4,236.6	4,216.2	4,216.2	15.2	1.0	113.62	-2,906.5	359.2	3,127.4	3,111.8	15.64	199.911		
4,330.7	4,266.6	4,242.0	4,242.0	15.3	1.0	113.71	-2,906.6	359.1	3,130.1	3,114.3	15.78	198.400		
4,400.0	4,334.4	4,300.3	4,300.2	15.6	1.0	113.92	-2,906.7	358.7	3,136.3	3,120.2	16.08	195.100		
4,429.1	4,362.9	4,332.0	4,331.9	15.8	1.0	114.03	-2,906.9	358.5	3,138.9	3,122.7	16.20	193.764		
4,500.0	4,432.2	4,410.2	4,410.1	16.1	1.0	114.31	-2,907.1	358.3	3,145.2	3,128.7	16.50	190.614		
4,527.5	4,459.2	4,443.2	4,443.1	16.2	1.0	114.42	-2,907.1	358.3	3,147.6	3,131.0	16.61	189.466		
4,600.0	4,530.1	4,519.2	4,519.1	16.5	1.0	114.69	-2,906.8	358.1	3,153.8	3,136.9	16.91	186.458		
4,626.0	4,555.5	4,539.1	4,539.0	16.7	1.0	114.76	-2,906.8	358.0	3,156.1	3,139.1	17.02	185.381		
4,700.0	4,627.9	4,600.0	4,599.9	17.0	1.1	114.98	-2,906.9	357.6	3,162.8	3,145.5	17.34	182.412		
4,724.4	4,651.7	4,622.7	4,622.6	17.1	1.1	115.06	-2,907.0	357.4	3,165.1	3,147.7	17.44	181.480		
4,800.0	4,725.7	4,710.7	4,710.6	17.4	1.1	115.36	-2,907.0	357.2	3,172.0	3,154.2	17.75	178.671		
4,822.8	4,748.0	4,731.2	4,731.1	17.6	1.1	115.43	-2,907.0	357.2	3,174.0	3,156.2	17.85	177.833		
4,900.0	4,823.5	4,800.0	4,799.9	17.9	1.1	115.67	-2,907.0	357.0	3,181.1	3,162.9	18.17	175.077		
4,921.2	4,844.3	4,817.7	4,817.6	18.0	1.1	115.73	-2,907.0	356.9	3,183.1	3,164.8	18.26	174.341		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,000.0	4,921.3	4,882.1	4,882.0	18.4	1.1	115.94	-2,907.3	357.1	3,190.7	3,172.1	18.59	171.679		
5,014.9	4,935.9	4,900.0	4,899.9	18.4	1.1	116.00	-2,907.5	357.3	3,192.2	3,173.6	18.65	171.191		
5,019.7	4,940.6	4,900.0	4,899.9	18.4	1.1	116.01	-2,907.5	357.3	3,192.7	3,174.0	18.66	171.075		
5,100.0	5,019.4	5,011.9	5,011.8	18.7	1.1	116.46	-2,907.8	358.7	3,199.7	3,180.8	18.92	169.100		
5,118.1	5,037.2	5,028.3	5,028.2	18.8	1.1	116.52	-2,907.8	358.9	3,201.1	3,182.1	18.97	168.779		
5,200.0	5,118.1	5,102.8	5,102.7	19.0	1.1	116.80	-2,907.8	360.0	3,206.8	3,187.7	19.17	167.297		
5,216.5	5,134.4	5,119.1	5,119.0	19.1	1.1	116.85	-2,907.8	360.2	3,207.9	3,188.7	19.20	167.040		
5,300.0	5,217.2	5,201.8	5,201.7	19.3	1.1	117.07	-2,907.9	361.9	3,212.5	3,193.1	19.39	165.694		
5,314.9	5,232.1	5,217.6	5,217.5	19.3	1.1	117.10	-2,907.9	362.3	3,213.2	3,193.8	19.42	165.489		
5,400.0	5,316.8	5,300.0	5,299.8	19.5	1.1	117.24	-2,908.0	364.3	3,216.6	3,197.0	19.58	164.275		
5,413.4	5,330.1	5,316.7	5,316.5	19.5	1.1	117.26	-2,908.1	364.7	3,217.0	3,197.4	19.60	164.111		
5,500.0	5,416.6	5,385.7	5,385.6	19.7	1.1	117.33	-2,908.3	366.3	3,219.3	3,199.5	19.74	163.055		
5,511.8	5,428.4	5,400.0	5,399.8	19.7	1.1	117.34	-2,908.5	366.6	3,219.5	3,199.8	19.76	162.932		
5,600.0	5,516.6	5,491.1	5,490.9	19.8	1.2	117.35	-2,909.1	368.9	3,220.7	3,200.8	19.89	161.962		
5,610.2	5,526.8	5,502.5	5,502.2	19.8	1.2	117.34	-2,909.2	369.3	3,220.7	3,200.8	19.90	161.855		
5,615.0	5,531.6	5,507.9	5,507.7	19.8	1.2	-172.58	-2,909.2	369.4	3,220.8	3,200.8	19.92	161.667		
5,700.0	5,616.6	5,604.0	5,603.8	19.9	1.2	-172.63	-2,909.5	372.2	3,220.7	3,200.7	20.05	160.609		
5,708.6	5,625.3	5,613.0	5,612.8	20.0	1.2	-172.64	-2,909.6	372.5	3,220.7	3,200.7	20.07	160.494		
5,800.0	5,716.6	5,700.0	5,699.7	20.1	1.2	-172.67	-2,909.6	374.7	3,220.5	3,200.3	20.22	159.299		
5,801.6	5,718.2	5,700.0	5,699.7	20.1	1.2	-172.67	-2,909.6	374.7	3,220.5	3,200.3	20.22	159.281		
5,807.1	5,723.7	5,700.0	5,699.7	20.1	1.2	-172.67	-2,909.6	374.7	3,220.5	3,200.3	20.23	159.219		
5,900.0	5,816.6	5,777.8	5,777.4	20.2	1.2	-172.71	-2,910.0	376.6	3,220.7	3,200.3	20.38	158.061		
5,905.5	5,822.1	5,781.7	5,781.4	20.2	1.2	-172.71	-2,910.1	376.7	3,220.8	3,200.4	20.39	157.994		
6,000.0	5,916.6	5,878.3	5,877.9	20.4	1.2	-172.76	-2,911.2	379.4	3,221.5	3,201.0	20.54	156.815		
6,003.9	5,920.5	5,882.7	5,882.4	20.4	1.2	-172.76	-2,911.2	379.5	3,221.5	3,201.0	20.55	156.765		
6,100.0	6,016.6	5,989.4	5,988.9	20.5	1.2	-172.83	-2,912.1	383.0	3,221.9	3,201.2	20.71	155.541		
6,102.3	6,019.0	5,992.0	5,991.5	20.5	1.2	-172.83	-2,912.1	383.1	3,222.0	3,201.2	20.72	155.510		
6,200.0	6,116.6	6,068.1	6,067.7	20.6	1.3	-172.87	-2,912.9	385.6	3,222.5	3,201.6	20.88	154.338		
6,200.8	6,117.4	6,068.7	6,068.2	20.6	1.3	-172.87	-2,912.9	385.6	3,222.5	3,201.6	20.88	154.329		
6,299.2	6,215.8	6,167.4	6,166.9	20.8	1.3	-172.93	-2,914.4	388.7	3,223.6	3,202.6	21.05	153.147		
6,300.0	6,216.6	6,168.4	6,167.8	20.8	1.3	-172.93	-2,914.4	388.7	3,223.6	3,202.6	21.05	153.138		
6,340.0	6,256.6	6,211.7	6,211.2	20.8	1.3	-172.96	-2,914.9	390.0	3,224.0	3,202.8	21.12	152.652		
6,350.0	6,266.6	6,220.5	6,220.0	20.8	1.3	6.83	-2,915.0	390.3	3,224.0	3,202.9	21.11	152.721		
6,397.6	6,314.2	6,262.5	6,261.9	20.9	1.3	6.83	-2,915.6	391.3	3,222.2	3,201.0	21.16	152.253		
6,400.0	6,316.5	6,264.5	6,264.0	20.9	1.3	6.83	-2,915.6	391.4	3,222.0	3,200.9	21.17	152.218		
6,450.0	6,366.2	6,311.0	6,310.4	20.9	1.3	6.88	-2,916.2	392.2	3,216.7	3,195.5	21.26	151.314		
6,496.0	6,411.4	6,363.7	6,363.1	21.0	1.3	6.95	-2,916.9	393.4	3,208.7	3,187.4	21.34	150.336		
6,500.0	6,415.3	6,368.2	6,367.6	21.0	1.3	6.96	-2,917.0	393.6	3,207.9	3,186.6	21.35	150.253		
6,550.0	6,463.6	6,421.0	6,420.3	21.0	1.3	7.08	-2,917.6	395.2	3,195.6	3,174.2	21.41	149.266		
6,594.5	6,505.8	6,463.1	6,462.4	21.0	1.3	7.24	-2,918.1	396.3	3,181.9	3,160.5	21.42	148.570		
6,600.0	6,510.9	6,468.2	6,467.6	21.0	1.3	7.26	-2,918.1	396.5	3,180.0	3,158.6	21.41	148.500		
6,650.0	6,557.0	6,513.1	6,512.5	21.0	1.4	7.49	-2,918.6	397.5	3,161.1	3,139.8	21.36	148.022		
6,692.9	6,595.4	6,548.5	6,547.8	21.0	1.4	7.73	-2,919.1	398.4	3,142.5	3,121.2	21.25	147.876		
6,700.0	6,601.6	6,554.2	6,553.5	21.0	1.4	7.78	-2,919.1	398.5	3,139.2	3,117.9	21.23	147.878		
6,750.0	6,644.6	6,593.8	6,593.1	20.9	1.4	8.14	-2,919.6	399.5	3,114.2	3,093.1	21.03	148.072		
6,791.3	6,678.6	6,631.6	6,630.8	20.9	1.4	8.50	-2,920.2	400.5	3,091.3	3,070.5	20.82	148.443		
6,800.0	6,685.6	6,639.6	6,638.9	20.9	1.4	8.58	-2,920.3	400.7	3,086.3	3,065.5	20.78	148.553		
6,850.0	6,724.6	6,684.4	6,683.7	20.9	1.4	9.14	-2,920.8	402.0	3,055.5	3,035.0	20.46	149.356		
6,889.7	6,753.9	6,719.3	6,718.5	20.9	1.4	9.67	-2,921.1	403.0	3,029.1	3,008.9	20.17	150.204		
6,900.0	6,761.3	6,728.2	6,727.5	20.9	1.4	9.82	-2,921.2	403.2	3,022.0	3,001.9	20.08	150.463		
6,950.0	6,795.5	6,769.9	6,769.1	20.9	1.4	10.68	-2,921.5	404.2	2,986.0	2,966.3	19.66	151.863		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
6,988.2	6,819.9	6,799.4	6,798.6	20.9	1.4	11.49	-2,921.7	404.9	2,956.9	2,937.6	19.32	153.087		
7,000.0	6,827.1	6,800.0	6,799.2	20.9	1.4	11.73	-2,921.7	404.9	2,947.6	2,928.4	19.19	153.604		
7,050.0	6,855.9	6,827.7	6,826.9	20.9	1.4	13.05	-2,921.8	405.6	2,907.1	2,888.4	18.69	155.530		
7,086.6	6,875.1	6,842.9	6,842.1	20.9	1.4	14.22	-2,921.9	405.9	2,876.4	2,858.0	18.31	157.097		
7,100.0	6,881.8	6,848.1	6,847.3	20.9	1.4	14.71	-2,922.0	406.0	2,864.8	2,846.7	18.18	157.544		
7,150.0	6,904.6	6,866.2	6,865.4	21.0	1.4	16.89	-2,922.1	406.4	2,820.9	2,803.2	17.70	159.330		
7,185.0	6,918.8	6,877.6	6,876.7	21.1	1.4	18.84	-2,922.3	406.6	2,789.3	2,771.8	17.41	160.214		
7,200.0	6,924.3	6,882.0	6,881.2	21.1	1.4	19.82	-2,922.3	406.7	2,775.5	2,758.2	17.30	160.427		
7,250.0	6,940.8	6,900.0	6,899.2	21.2	1.4	24.04	-2,922.5	407.1	2,728.9	2,711.8	17.06	159.947		
7,283.4	6,949.9	6,903.8	6,903.0	21.3	1.4	27.71	-2,922.6	407.2	2,697.1	2,680.1	17.04	158.322		
7,300.0	6,953.9	6,908.1	6,907.3	21.4	1.4	30.02	-2,922.6	407.3	2,681.2	2,664.1	17.09	156.874		
7,350.0	6,963.6	6,918.8	6,918.0	21.6	1.4	39.53	-2,922.8	407.5	2,632.8	2,615.1	17.61	149.466		
7,381.9	6,968.0	6,923.8	6,922.9	21.7	1.4	48.42	-2,922.9	407.6	2,601.6	2,583.3	18.25	142.540		
7,400.0	6,969.9	6,925.9	6,925.1	21.8	1.4	54.82	-2,922.9	407.7	2,583.7	2,565.1	18.67	138.385		
7,450.0	6,972.6	6,929.5	6,928.7	22.1	1.4	77.97	-2,922.9	407.8	2,534.4	2,514.9	19.49	130.064		
7,471.5	6,972.8	6,929.9	6,929.1	22.2	1.4	89.59	-2,922.9	407.8	2,513.1	2,493.3	19.78	127.023		
7,480.3	6,972.7	6,930.0	6,929.1	22.3	1.4	89.60	-2,922.9	407.8	2,504.4	2,484.5	19.87	126.033		
7,500.0	6,972.5	6,930.1	6,929.2	22.4	1.4	89.61	-2,922.9	407.8	2,484.9	2,464.8	20.06	123.850		
7,578.7	6,971.8	6,930.4	6,929.6	23.1	1.4	89.67	-2,922.9	407.8	2,407.1	2,386.2	20.86	115.398		
7,600.0	6,971.6	6,930.5	6,929.7	23.3	1.4	89.69	-2,923.0	407.8	2,386.0	2,365.0	21.07	113.224		
7,677.1	6,970.9	6,930.9	6,930.1	24.0	1.4	89.74	-2,923.0	407.8	2,309.8	2,287.9	21.91	105.406		
7,700.0	6,970.7	6,931.0	6,930.2	24.2	1.4	89.76	-2,923.0	407.8	2,287.3	2,265.1	22.16	103.204		
7,775.6	6,970.0	6,931.3	6,930.5	25.0	1.4	89.81	-2,923.0	407.8	2,212.7	2,189.6	23.08	95.880		
7,800.0	6,969.8	6,931.4	6,930.6	25.3	1.4	89.83	-2,923.0	407.8	2,188.6	2,165.2	23.37	93.636		
7,874.0	6,969.1	6,931.8	6,931.0	26.2	1.4	89.88	-2,923.0	407.8	2,115.7	2,091.3	24.35	86.901		
7,900.0	6,968.9	6,931.9	6,931.1	26.5	1.4	89.90	-2,923.0	407.8	2,090.1	2,065.4	24.69	84.661		
7,972.4	6,968.2	6,932.2	6,931.4	27.4	1.4	89.96	-2,923.0	407.8	2,018.8	1,993.1	25.70	78.547		
8,000.0	6,968.0	6,932.4	6,931.5	27.8	1.4	89.98	-2,923.0	407.8	1,991.7	1,965.6	26.09	76.345		
8,070.8	6,967.3	6,932.7	6,931.9	28.7	1.4	90.03	-2,923.0	407.8	1,922.1	1,895.0	27.13	70.843		
8,100.0	6,967.1	6,932.8	6,932.0	29.1	1.4	90.05	-2,923.0	407.8	1,893.5	1,865.9	27.56	68.701		
8,169.3	6,966.4	6,933.1	6,932.3	30.1	1.4	90.10	-2,923.0	407.8	1,825.6	1,796.9	28.62	63.777		
8,200.0	6,966.2	6,933.3	6,932.5	30.5	1.4	90.12	-2,923.0	407.9	1,795.5	1,766.4	29.10	61.710		
8,267.7	6,965.5	6,933.6	6,932.8	31.5	1.4	90.17	-2,923.0	407.9	1,729.3	1,699.1	30.17	57.319		
8,300.0	6,965.2	6,933.7	6,932.9	32.0	1.4	90.19	-2,923.0	407.9	1,697.7	1,667.0	30.68	55.334		
8,366.1	6,964.6	6,934.0	6,933.2	33.0	1.4	90.24	-2,923.0	407.9	1,633.2	1,601.4	31.76	51.425		
8,400.0	6,964.3	6,934.2	6,933.4	33.5	1.4	90.26	-2,923.0	407.9	1,600.2	1,567.9	32.31	49.526		
8,464.5	6,963.8	6,934.5	6,933.7	34.5	1.4	90.31	-2,923.0	407.9	1,537.4	1,504.0	33.39	46.050		
8,500.0	6,963.4	6,934.7	6,933.8	35.1	1.4	90.34	-2,923.0	407.9	1,503.0	1,469.0	33.98	44.237		
8,563.0	6,962.9	6,934.9	6,934.1	36.1	1.4	90.38	-2,923.0	407.9	1,442.0	1,407.0	35.05	41.147		
8,600.0	6,962.5	6,935.1	6,934.3	36.7	1.4	90.41	-2,923.0	407.9	1,406.2	1,370.6	35.67	39.419		
8,661.4	6,962.0	6,935.4	6,934.6	37.7	1.4	90.45	-2,923.0	407.9	1,347.0	1,310.3	36.73	36.671		
8,700.0	6,961.6	6,935.6	6,934.7	38.3	1.4	90.48	-2,923.0	407.9	1,309.9	1,272.5	37.40	35.026		
8,759.8	6,961.1	6,935.9	6,935.0	39.3	1.4	90.52	-2,923.0	407.9	1,252.6	1,214.1	38.44	32.582		
8,800.0	6,960.7	6,936.0	6,935.2	40.0	1.4	90.55	-2,923.0	407.9	1,214.2	1,175.1	39.15	31.017		
8,858.2	6,960.2	6,936.3	6,935.5	40.9	1.4	90.59	-2,923.0	407.9	1,158.8	1,118.6	40.18	28.843		
8,900.0	6,959.8	6,936.5	6,935.7	41.6	1.4	90.62	-2,923.0	407.9	1,119.3	1,078.4	40.91	27.356		
8,956.7	6,959.3	6,936.8	6,935.9	42.6	1.4	90.66	-2,923.0	407.9	1,065.9	1,023.9	41.93	25.422		
9,000.0	6,958.9	6,937.0	6,936.1	43.3	1.4	90.70	-2,923.0	407.9	1,025.3	982.6	42.70	24.011		
9,055.1	6,958.4	6,937.2	6,936.4	44.3	1.4	90.74	-2,923.0	407.9	974.0	930.3	43.69	22.292		
9,100.0	6,958.0	6,937.4	6,936.6	45.1	1.5	90.77	-2,923.0	407.9	932.5	888.0	44.50	20.955		
9,153.5	6,957.5	6,937.7	6,936.8	46.0	1.5	90.81	-2,923.0	408.0	883.5	838.1	45.47	19.430		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,200.0	6,957.1	6,937.9	6,937.0	46.8	1.5	90.84	-2,923.1	408.0	841.5	795.1	46.32	18.168		
9,251.9	6,956.6	6,938.1	6,937.3	47.7	1.5	90.88	-2,923.1	408.0	795.0	747.7	47.27	16.820		
9,300.0	6,956.2	6,938.3	6,937.5	48.6	1.5	90.91	-2,923.1	408.0	752.7	704.5	48.14	15.634		
9,350.4	6,955.7	6,938.6	6,937.7	49.5	1.5	90.95	-2,923.1	408.0	709.0	660.0	49.07	14.450		
9,400.0	6,955.2	6,938.8	6,938.0	50.3	1.5	90.98	-2,923.1	408.0	667.0	617.0	49.98	13.346		
9,448.8	6,954.8	6,939.0	6,938.2	51.2	1.5	91.02	-2,923.1	408.0	626.8	575.9	50.88	12.318		
9,500.0	6,954.3	6,939.2	6,938.4	52.1	1.5	91.05	-2,923.1	408.0	586.0	534.1	51.83	11.306		
9,547.2	6,953.9	6,939.5	6,938.6	53.0	1.5	91.09	-2,923.1	408.0	549.8	497.1	52.70	10.433		
9,600.0	6,953.4	6,939.7	6,938.9	53.9	1.5	91.13	-2,923.1	408.0	511.6	458.0	53.68	9.531		
9,645.6	6,953.0	6,939.9	6,939.1	54.7	1.5	91.16	-2,923.1	408.0	480.8	426.3	54.53	8.817		
9,700.0	6,952.5	6,940.2	6,939.3	55.7	1.5	91.20	-2,923.1	408.0	447.4	391.9	55.54	8.055		
9,744.1	6,952.1	6,940.4	6,939.5	56.5	1.5	91.23	-2,923.1	408.0	423.6	367.2	56.37	7.514		
9,800.0	6,951.6	6,940.6	6,939.8	57.5	1.5	91.27	-2,923.1	408.0	398.3	340.9	57.41	6.937		
9,842.5	6,951.2	6,940.8	6,940.0	58.3	1.5	91.30	-2,923.1	408.0	383.4	325.2	58.21	6.587		
9,900.0	6,950.7	6,941.1	6,940.2	59.4	1.5	91.34	-2,923.1	408.0	370.2	310.9	59.29	6.244		
9,940.9	6,950.3	6,941.3	6,940.4	60.1	1.5	91.37	-2,923.1	408.0	366.1	306.0	60.06	6.095		
9,957.9	6,950.2	6,941.3	6,940.5	60.4	1.5	91.38	-2,923.1	408.0	365.7	305.3	60.38	6.056 CC, ES		
10,000.0	6,949.8	6,941.5	6,940.7	61.2	1.5	91.41	-2,923.1	408.0	368.1	306.9	61.17	6.017 SF		
10,039.3	6,949.4	6,941.7	6,940.9	61.9	1.5	91.44	-2,923.1	408.1	374.6	312.7	61.91	6.051		
10,100.0	6,948.9	6,942.0	6,941.1	63.0	1.5	91.48	-2,923.1	408.1	392.3	329.3	63.06	6.222		
10,137.8	6,948.5	6,942.2	6,941.3	63.7	1.5	91.51	-2,923.1	408.1	407.5	343.8	63.77	6.391		
10,200.0	6,948.0	6,942.4	6,941.6	64.9	1.5	91.56	-2,923.1	408.1	438.6	373.6	64.95	6.753		
10,236.2	6,947.6	6,942.6	6,941.8	65.6	1.5	91.58	-2,923.1	408.1	459.5	393.9	65.63	7.002		
10,300.0	6,947.1	6,942.9	6,942.1	66.7	1.5	91.63	-2,923.1	408.1	500.8	433.9	66.84	7.492		
10,334.6	6,946.7	6,943.0	6,942.2	67.4	1.5	91.65	-2,923.1	408.1	525.0	457.5	67.50	7.778		
10,400.0	6,946.2	6,943.3	6,942.5	68.6	1.5	91.70	-2,923.1	408.1	573.8	505.0	68.74	8.347		
10,433.0	6,945.8	6,943.5	6,942.7	69.2	1.5	91.72	-2,923.1	408.1	599.6	530.2	69.37	8.644		
10,500.0	6,945.2	6,943.8	6,943.0	70.5	1.5	91.77	-2,923.1	408.1	653.9	583.3	70.64	9.257		
10,531.5	6,945.0	6,943.9	6,943.1	71.1	1.5	91.79	-2,923.1	408.1	680.3	609.0	71.24	9.549		
10,600.0	6,944.3	6,944.3	6,943.4	72.3	1.5	91.84	-2,923.1	408.1	739.0	666.4	72.55	10.186		
10,629.9	6,944.1	6,944.4	6,943.6	72.9	1.5	91.86	-2,923.1	408.1	765.1	692.0	73.12	10.464		
10,700.0	6,943.4	6,944.7	6,943.9	74.2	1.5	91.91	-2,923.1	408.1	827.3	752.9	74.45	11.112		
10,728.3	6,943.2	6,944.8	6,944.0	74.7	1.5	91.93	-2,923.1	408.1	852.8	777.8	75.00	11.372		
10,800.0	6,942.5	6,945.2	6,944.3	76.1	1.5	91.98	-2,923.2	408.1	918.1	841.7	76.36	12.023		
10,826.7	6,942.3	6,945.3	6,944.5	76.6	1.5	92.00	-2,923.2	408.1	942.7	865.8	76.88	12.263		
10,900.0	6,941.6	6,945.6	6,944.8	78.0	1.5	92.06	-2,923.2	408.1	1,010.6	932.3	78.28	12.911		
10,925.2	6,941.4	6,945.7	6,944.9	78.4	1.5	92.07	-2,923.2	408.1	1,034.1	955.4	78.76	13.130		
11,000.0	6,940.7	6,946.1	6,945.2	79.9	1.5	92.13	-2,923.2	408.2	1,104.4	1,024.2	80.19	13.772		
11,023.6	6,940.5	6,946.2	6,945.4	80.3	1.5	92.14	-2,923.2	408.2	1,126.7	1,046.1	80.64	13.971		
11,100.0	6,939.8	6,946.5	6,945.7	81.7	1.5	92.20	-2,923.2	408.2	1,199.2	1,117.1	82.11	14.605		
11,122.0	6,939.6	6,946.6	6,945.8	82.2	1.5	92.21	-2,923.2	408.2	1,220.2	1,137.7	82.53	14.785		
11,200.0	6,938.9	6,947.0	6,946.2	83.6	1.5	92.27	-2,923.2	408.2	1,294.8	1,210.8	84.03	15.410		
11,220.4	6,938.7	6,947.1	6,946.2	84.0	1.5	92.28	-2,923.2	408.2	1,314.5	1,230.0	84.42	15.571		
11,300.0	6,938.0	6,947.4	6,946.6	85.5	1.5	92.34	-2,923.2	408.2	1,391.1	1,305.1	85.95	16.185		
11,318.9	6,937.8	6,947.5	6,946.7	85.9	1.5	92.35	-2,923.2	408.2	1,409.3	1,323.0	86.31	16.328		
11,400.0	6,937.0	6,947.9	6,947.1	87.4	1.5	92.41	-2,923.2	408.2	1,487.8	1,399.9	87.87	16.931		
11,417.3	6,936.9	6,948.0	6,947.1	87.8	1.5	92.42	-2,923.2	408.2	1,504.5	1,416.3	88.20	17.058		
11,500.0	6,936.1	6,948.4	6,947.5	89.3	1.5	92.48	-2,923.2	408.2	1,584.9	1,495.1	89.79	17.650		
11,515.7	6,936.0	6,948.4	6,947.6	89.6	1.5	92.49	-2,923.2	408.2	1,600.2	1,510.1	90.10	17.761		
11,600.0	6,935.2	6,948.8	6,948.0	91.2	1.5	92.55	-2,923.2	408.2	1,682.4	1,590.6	91.72	18.343		
11,614.1	6,935.1	6,948.9	6,948.0	91.5	1.5	92.56	-2,923.2	408.2	1,696.2	1,604.2	91.99	18.438		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-18 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)						
11,700.0	6,934.3	6,949.3	6,948.4	93.1	1.5	92.62	-2,923.2	408.2	1,780.1	1,686.4	93.64	19.009		
11,712.6	6,934.2	6,949.3	6,948.5	93.4	1.5	92.63	-2,923.2	408.2	1,792.4	1,698.5	93.89	19.091		
11,800.0	6,933.4	6,949.7	6,948.9	95.1	1.5	92.69	-2,923.2	408.2	1,878.1	1,782.5	95.57	19.651		
11,811.0	6,933.3	6,949.8	6,948.9	95.3	1.5	92.70	-2,923.2	408.2	1,888.9	1,793.1	95.78	19.720		
11,900.0	6,932.5	6,950.2	6,949.3	97.0	1.5	92.77	-2,923.2	408.3	1,976.3	1,878.8	97.50	20.269		
11,909.4	6,932.4	6,950.2	6,949.4	97.1	1.5	92.77	-2,923.2	408.3	1,985.5	1,887.8	97.68	20.326		
12,000.0	6,931.6	6,950.6	6,949.8	98.9	1.5	92.84	-2,923.2	408.3	2,074.6	1,975.2	99.43	20.865		
12,007.8	6,931.5	6,950.7	6,949.8	99.0	1.5	92.84	-2,923.2	408.3	2,082.3	1,982.8	99.58	20.911		
12,100.0	6,930.7	6,951.1	6,950.2	100.8	1.5	92.91	-2,923.2	408.3	2,173.1	2,071.8	101.36	21.440		
12,106.3	6,930.6	6,951.1	6,950.3	100.9	1.5	92.91	-2,923.2	408.3	2,179.3	2,077.8	101.48	21.475		
12,200.0	6,929.8	6,951.5	6,950.7	102.7	1.5	92.98	-2,923.2	408.3	2,271.7	2,168.5	103.29	21.994		
12,204.7	6,929.7	6,951.6	6,950.7	102.8	1.5	92.98	-2,923.2	408.3	2,276.4	2,173.0	103.38	22.019		
12,300.0	6,928.8	6,952.0	6,951.1	104.6	1.5	93.05	-2,923.2	408.3	2,370.5	2,265.3	105.22	22.529		
12,303.1	6,928.8	6,952.0	6,951.2	104.7	1.5	93.05	-2,923.2	408.3	2,373.6	2,268.3	105.28	22.545		
12,400.0	6,927.9	6,952.4	6,951.6	106.5	1.5	93.12	-2,923.2	408.3	2,469.3	2,362.2	107.15	23.045		
12,401.5	6,927.9	6,952.4	6,951.6	106.6	1.5	93.12	-2,923.2	408.3	2,470.9	2,363.7	107.18	23.053		
12,500.0	6,927.0	6,952.9	6,952.1	108.5	1.5	93.19	-2,923.3	408.3	2,568.3	2,459.2	109.09	23.544		
12,598.4	6,926.1	6,953.3	6,952.5	110.4	1.5	93.26	-2,923.3	408.3	2,665.7	2,554.7	110.99	24.018		
12,600.0	6,926.1	6,953.3	6,952.5	110.4	1.5	93.26	-2,923.3	408.3	2,667.3	2,556.3	111.02	24.025		
12,696.8	6,925.2	6,953.8	6,952.9	112.3	1.5	93.33	-2,923.3	408.3	2,763.2	2,650.4	112.89	24.477		
12,700.0	6,925.2	6,953.8	6,953.0	112.3	1.5	93.33	-2,923.3	408.3	2,766.4	2,653.4	112.95	24.491		
12,795.2	6,924.3	6,954.2	6,953.4	114.1	1.5	93.40	-2,923.3	408.4	2,860.8	2,746.0	114.80	24.921		
12,800.0	6,924.3	6,954.2	6,953.4	114.2	1.5	93.40	-2,923.3	408.4	2,865.5	2,750.7	114.89	24.942		
12,893.7	6,923.4	6,954.7	6,953.8	116.0	1.5	93.47	-2,923.3	408.4	2,958.5	2,841.8	116.70	25.351		
12,900.0	6,923.4	6,954.7	6,953.9	116.2	1.5	93.47	-2,923.3	408.4	2,964.8	2,847.9	116.82	25.378		
12,992.1	6,922.5	6,955.1	6,954.3	117.9	1.5	93.54	-2,923.3	408.4	3,056.2	2,937.6	118.61	25.767		
13,000.0	6,922.5	6,955.2	6,954.3	118.1	1.5	93.54	-2,923.3	408.4	3,064.0	2,945.3	118.76	25.800		
13,090.5	6,921.6	6,955.6	6,954.7	119.8	1.5	93.61	-2,923.3	408.4	3,153.9	3,033.4	120.51	26.171		
13,100.0	6,921.5	6,955.6	6,954.8	120.0	1.5	93.61	-2,923.3	408.4	3,163.3	3,042.6	120.69	26.209		
13,188.9	6,920.7	6,956.0	6,955.2	121.7	1.5	93.68	-2,923.3	408.4	3,251.7	3,129.3	122.42	26.563		
13,200.0	6,920.6	6,956.1	6,955.2	121.9	1.5	93.68	-2,923.3	408.4	3,262.7	3,140.0	122.63	26.606		
13,287.4	6,919.8	6,956.5	6,955.6	123.6	1.5	93.74	-2,923.3	408.4	3,349.5	3,225.2	124.32	26.942		
13,300.0	6,919.7	6,956.5	6,955.7	123.9	1.5	93.75	-2,923.3	408.4	3,362.1	3,237.5	124.57	26.990		
13,385.8	6,918.9	6,956.9	6,956.1	125.5	1.5	93.81	-2,923.3	408.4	3,447.4	3,321.1	126.23	27.311		
13,400.0	6,918.8	6,957.0	6,956.1	125.8	1.5	93.82	-2,923.3	408.4	3,461.5	3,335.0	126.50	27.363		
13,484.2	6,918.0	6,957.3	6,956.5	127.4	1.5	93.88	-2,923.3	408.4	3,545.3	3,417.1	128.13	27.668		
13,500.0	6,917.9	6,957.4	6,956.6	127.7	1.5	93.89	-2,923.3	408.4	3,560.9	3,432.5	128.44	27.725		
13,582.6	6,917.1	6,957.8	6,956.9	129.3	1.5	93.95	-2,923.3	408.4	3,643.2	3,513.1	130.04	28.016		
13,600.0	6,917.0	6,957.9	6,957.0	129.7	1.5	93.96	-2,923.3	408.5	3,660.4	3,530.1	130.38	28.076		
13,681.1	6,916.2	6,958.2	6,957.4	131.2	1.5	94.02	-2,923.3	408.5	3,741.1	3,609.2	131.95	28.353		
13,700.0	6,916.1	6,958.3	6,957.5	131.6	1.5	94.03	-2,923.3	408.5	3,759.9	3,627.6	132.31	28.417		
13,779.5	6,915.3	6,958.7	6,957.8	133.1	1.5	94.09	-2,923.3	408.5	3,839.1	3,705.2	133.85	28.681		
13,800.0	6,915.2	6,958.8	6,957.9	133.5	1.5	94.10	-2,923.3	408.5	3,859.5	3,725.2	134.25	28.749		
13,877.9	6,914.4	6,959.1	6,958.3	135.1	1.5	94.16	-2,923.3	408.5	3,937.1	3,801.3	135.76	29.001		
13,900.0	6,914.2	6,959.2	6,958.4	135.5	1.5	94.17	-2,923.3	408.5	3,959.0	3,822.9	136.19	29.071		
13,976.3	6,913.5	6,959.6	6,958.7	137.0	1.5	94.23	-2,923.3	408.5	4,035.1	3,897.4	137.66	29.311		
14,000.0	6,913.3	6,959.7	6,958.8	137.4	1.5	94.24	-2,923.3	408.5	4,058.6	3,920.5	138.12	29.384		
14,074.8	6,912.6	6,960.0	6,959.2	138.9	1.5	94.30	-2,923.4	408.5	4,133.1	3,993.5	139.57	29.613		
14,100.0	6,912.4	6,960.1	6,959.3	139.4	1.5	94.31	-2,923.4	408.5	4,158.2	4,018.2	140.06	29.689		
14,145.0	6,912.0	6,960.3	6,959.5	140.2	1.5	94.35	-2,923.4	408.5	4,203.0	4,062.1	140.89	29.832		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 644-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	172.15	-2,910.8	401.6	2,938.4					
98.4	98.4	83.5	83.5	0.1	0.1	172.15	-2,910.7	401.6	2,938.3	2,938.1	0.18	N/A		
100.0	100.0	85.1	85.1	0.1	0.1	172.15	-2,910.7	401.6	2,938.3	2,938.1	0.19	N/A		
196.8	196.8	187.6	187.6	0.3	0.2	172.14	-2,910.5	401.6	2,938.1	2,937.6	0.51	5,750.499		
200.0	200.0	190.9	190.9	0.3	0.2	172.14	-2,910.5	401.6	2,938.1	2,937.5	0.52	5,634.011		
295.3	295.3	291.7	291.7	0.5	0.3	172.14	-2,910.0	401.6	2,937.6	2,936.8	0.84	3,493.278		
300.0	300.0	296.7	296.7	0.5	0.3	172.14	-2,910.0	401.6	2,937.6	2,936.8	0.86	3,428.654		
393.7	393.7	395.8	395.8	0.8	0.4	172.14	-2,909.3	401.7	2,937.0	2,935.8	1.17	2,508.222		
400.0	400.0	402.4	402.4	0.8	0.4	172.14	-2,909.3	401.7	2,937.0	2,935.8	1.19	2,463.738		
492.1	492.1	499.9	499.9	1.0	0.5	172.14	-2,908.4	401.7	2,936.2	2,934.7	1.50	1,956.207		
500.0	500.0	508.2	508.2	1.0	0.5	172.14	-2,908.4	401.7	2,936.1	2,934.6	1.53	1,922.341		
590.5	590.5	603.9	603.9	1.2	0.6	172.13	-2,907.4	401.8	2,935.2	2,933.4	1.83	1,603.078		
600.0	600.0	613.9	613.9	1.2	0.6	172.13	-2,907.2	401.8	2,935.1	2,933.2	1.86	1,575.752		
689.0	689.0	676.2	676.2	1.4	0.7	172.13	-2,906.6	401.9	2,934.3	2,932.2	2.16	1,359.498		
700.0	700.0	682.1	682.1	1.4	0.7	172.13	-2,906.6	402.0	2,934.3	2,932.1	2.19	1,336.890		
703.4	703.4	683.9	683.9	1.5	0.8	172.13	-2,906.6	402.0	2,934.3	2,932.1	2.21	1,330.117		
787.4	787.4	738.0	738.0	1.6	0.9	172.12	-2,907.0	402.5	2,934.9	2,932.4	2.50	1,172.607		
800.0	800.0	738.0	738.0	1.7	0.9	172.12	-2,907.0	402.5	2,935.0	2,932.5	2.53	1,159.549		
885.8	885.8	779.7	779.7	1.9	0.9	172.11	-2,907.9	403.0	2,937.0	2,934.2	2.80	1,048.012		
900.0	900.0	787.1	787.0	1.9	1.0	172.11	-2,908.1	403.2	2,937.4	2,934.5	2.85	1,031.390		
984.2	984.2	830.0	829.9	2.1	1.0	172.10	-2,909.7	403.9	2,940.7	2,937.5	3.12	943.128		
1,000.0	1,000.0	830.0	829.9	2.1	1.0	172.10	-2,909.7	403.9	2,941.4	2,938.3	3.15	932.783		
1,082.7	1,082.7	884.7	884.5	2.3	1.2	101.92	-2,912.4	405.2	2,946.1	2,942.7	3.45	853.293		
1,100.0	1,100.0	894.2	894.1	2.3	1.2	101.90	-2,913.0	405.5	2,947.3	2,943.8	3.51	839.606		
1,181.1	1,181.0	941.6	941.3	2.5	1.3	101.79	-2,916.1	407.1	2,953.8	2,950.0	3.79	780.087		
1,200.0	1,199.8	954.1	953.7	2.6	1.3	101.77	-2,917.0	407.7	2,955.5	2,951.6	3.85	766.676		
1,279.5	1,279.1	1,021.0	1,020.4	2.7	1.5	101.68	-2,922.1	410.9	2,963.3	2,959.1	4.18	708.383		
1,300.0	1,299.5	1,021.0	1,020.4	2.8	1.5	101.63	-2,922.1	410.9	2,965.5	2,961.2	4.23	701.098		
1,377.9	1,376.9	1,061.5	1,060.7	3.0	1.6	101.51	-2,925.6	413.2	2,974.7	2,970.2	4.52	658.688		
1,400.0	1,398.7	1,073.2	1,072.2	3.0	1.6	101.47	-2,926.7	413.9	2,977.5	2,972.9	4.60	647.610		
1,476.4	1,474.2	1,116.0	1,114.8	3.2	1.7	101.34	-2,931.0	416.8	2,988.3	2,983.4	4.91	609.013		
1,500.0	1,497.5	1,116.0	1,114.8	3.3	1.7	101.27	-2,931.0	416.8	2,991.9	2,986.9	4.97	601.758		
1,574.8	1,571.0	1,172.9	1,171.2	3.5	1.9	101.16	-2,937.4	421.2	3,003.9	2,998.5	5.34	562.014		
1,600.1	1,595.7	1,188.3	1,186.3	3.6	1.9	101.12	-2,939.2	422.5	3,008.2	3,002.7	5.46	550.818		
1,673.2	1,667.2	1,232.9	1,230.4	3.9	2.1	101.23	-2,944.7	426.5	3,021.1	3,015.3	5.83	518.646		
1,700.0	1,693.4	1,249.3	1,246.7	4.0	2.1	101.27	-2,946.9	428.0	3,026.1	3,020.1	5.96	507.765		
1,771.6	1,763.5	1,306.0	1,302.5	4.2	2.3	101.41	-2,954.5	433.6	3,039.7	3,033.3	6.36	477.572		
1,800.0	1,791.3	1,312.9	1,309.3	4.3	2.3	101.42	-2,955.5	434.3	3,045.2	3,038.7	6.49	469.544		
1,870.1	1,859.8	1,376.9	1,372.3	4.6	2.5	101.58	-2,964.6	440.6	3,059.0	3,052.1	6.91	442.781		
1,900.0	1,889.1	1,399.0	1,394.1	4.7	2.6	101.63	-2,967.8	442.7	3,065.0	3,057.9	7.08	433.092		
1,968.5	1,956.1	1,443.8	1,438.2	5.0	2.8	101.74	-2,974.4	447.1	3,078.9	3,071.4	7.46	412.780		
2,000.0	1,986.9	1,462.8	1,456.9	5.1	2.8	101.78	-2,977.3	449.1	3,085.5	3,077.9	7.63	404.358		
2,066.9	2,052.3	1,506.4	1,499.7	5.4	3.0	101.88	-2,984.2	453.8	3,099.9	3,091.9	8.01	386.886		
2,100.0	2,084.7	1,533.5	1,526.3	5.5	3.1	101.93	-2,988.6	456.9	3,107.2	3,099.0	8.22	377.972		
2,165.3	2,148.6	1,590.0	1,581.6	5.8	3.3	102.04	-2,997.8	463.8	3,121.7	3,113.0	8.64	361.128		
2,200.0	2,182.5	1,624.7	1,615.5	5.9	3.5	102.10	-3,003.4	468.3	3,129.4	3,120.5	8.88	352.451		
2,263.8	2,244.9	1,692.3	1,681.7	6.2	3.7	102.23	-3,014.3	476.9	3,143.5	3,134.2	9.33	337.070		
2,300.0	2,280.3	1,722.3	1,711.0	6.3	3.8	102.28	-3,019.2	480.8	3,151.5	3,142.0	9.56	329.673		
2,362.2	2,341.2	1,777.0	1,764.5	6.6	4.0	102.37	-3,028.1	488.0	3,165.5	3,155.5	9.97	317.402		
2,400.0	2,378.1	1,805.1	1,792.0	6.8	4.2	102.41	-3,032.7	491.8	3,174.0	3,163.8	10.22	310.713		
2,460.6	2,437.4	1,855.2	1,840.9	7.0	4.4	102.50	-3,041.1	498.6	3,187.9	3,177.2	10.62	300.167		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 644-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
2,500.0	2,476.0	1,987.9	1,970.9	7.2	4.9	102.73	-3,061.6	515.4	3,196.3	3,185.1	11.15	286.590	
2,559.0	2,533.7	2,035.9	2,018.1	7.4	5.1	102.82	-3,068.4	520.9	3,208.2	3,196.7	11.53	278.235	
2,600.0	2,573.8	2,072.0	2,053.6	7.6	5.2	102.89	-3,073.7	524.8	3,216.6	3,204.8	11.80	272.582	
2,657.5	2,630.0	2,135.7	2,116.3	7.9	5.4	103.02	-3,083.0	531.6	3,228.4	3,216.2	12.22	264.274	
2,700.0	2,671.6	2,154.0	2,134.3	8.1	5.5	103.06	-3,085.6	533.5	3,237.1	3,224.7	12.45	260.075	
2,755.9	2,726.3	2,205.3	2,184.7	8.3	5.7	103.16	-3,093.2	538.9	3,248.7	3,235.9	12.83	253.231	
2,800.0	2,769.4	2,249.0	2,227.6	8.5	5.8	103.25	-3,100.0	543.5	3,258.2	3,245.1	13.14	247.971	
2,854.3	2,822.5	2,268.0	2,246.2	8.7	5.9	103.29	-3,103.0	545.6	3,270.0	3,256.6	13.43	243.476	
2,900.0	2,867.2	2,298.4	2,276.0	8.9	6.1	103.35	-3,108.0	549.1	3,280.3	3,266.6	13.72	239.114	
2,952.7	2,918.8	2,344.0	2,320.7	9.2	6.2	103.43	-3,115.7	554.4	3,292.3	3,278.3	14.08	233.787	
3,000.0	2,965.0	2,384.0	2,359.8	9.4	6.4	103.50	-3,122.5	559.3	3,303.2	3,288.8	14.41	229.288	
3,051.2	3,015.1	2,437.0	2,411.6	9.6	6.6	103.59	-3,131.3	566.0	3,314.9	3,300.1	14.79	224.178	
3,100.0	3,062.8	2,474.3	2,448.1	9.8	6.8	103.65	-3,137.5	570.7	3,326.1	3,311.0	15.11	220.141	
3,149.6	3,111.4	2,505.9	2,479.0	10.0	6.9	103.70	-3,142.9	574.6	3,337.7	3,322.3	15.42	216.477	
3,200.0	3,160.7	2,540.5	2,512.8	10.3	7.1	103.76	-3,149.1	578.7	3,349.7	3,334.0	15.74	212.811	
3,248.0	3,207.6	2,584.2	2,555.5	10.5	7.3	103.84	-3,156.9	584.0	3,361.3	3,345.3	16.08	209.015	
3,300.0	3,258.5	2,631.5	2,601.6	10.7	7.5	103.92	-3,165.5	589.7	3,373.9	3,357.5	16.45	205.089	
3,346.4	3,303.9	2,673.6	2,642.7	10.9	7.6	103.99	-3,173.1	594.8	3,385.2	3,368.4	16.78	201.751	
3,400.0	3,356.3	2,721.0	2,689.0	11.2	7.9	104.07	-3,181.7	600.3	3,398.3	3,381.1	17.15	198.104	
3,444.9	3,400.2	2,752.8	2,720.0	11.4	8.0	104.12	-3,187.6	604.1	3,409.4	3,391.9	17.45	195.392	
3,500.0	3,454.1	2,790.7	2,756.9	11.6	8.2	104.18	-3,194.7	609.1	3,423.2	3,405.4	17.81	192.232	
3,543.3	3,496.5	2,823.6	2,788.9	11.8	8.3	104.22	-3,201.0	613.7	3,434.2	3,416.1	18.10	189.737	
3,600.0	3,551.9	2,884.7	2,848.2	12.0	8.6	104.31	-3,212.7	622.1	3,448.6	3,430.1	18.54	186.002	
3,641.7	3,592.7	2,925.7	2,888.1	12.2	8.8	104.37	-3,220.4	627.6	3,459.2	3,440.3	18.85	183.489	
3,700.0	3,649.7	2,976.3	2,937.3	12.5	9.0	104.44	-3,230.1	634.3	3,474.0	3,454.7	19.27	180.326	
3,740.1	3,689.0	3,098.0	3,056.1	12.7	9.5	104.63	-3,252.4	649.0	3,484.1	3,464.3	19.80	175.930	
3,800.0	3,747.5	3,142.8	3,099.9	12.9	9.7	104.71	-3,260.0	654.0	3,498.0	3,477.8	20.20	173.169	
3,838.6	3,785.3	3,168.4	3,124.9	13.1	9.8	104.75	-3,264.5	657.1	3,507.2	3,486.7	20.45	171.535	
3,900.0	3,845.4	3,316.9	3,270.3	13.4	10.4	104.99	-3,289.2	674.2	3,521.5	3,500.3	21.15	166.521	
3,937.0	3,881.5	3,379.0	3,331.5	13.6	10.7	105.12	-3,298.4	679.9	3,529.3	3,507.8	21.48	164.331	
4,000.0	3,943.2	3,421.2	3,373.1	13.8	10.8	105.20	-3,304.6	683.9	3,542.5	3,520.6	21.88	161.939	
4,035.4	3,977.8	3,443.3	3,394.7	14.0	10.9	105.24	-3,308.0	686.2	3,550.1	3,528.0	22.09	160.677	
4,100.0	4,041.0	3,494.6	3,445.1	14.3	11.1	105.32	-3,316.0	692.2	3,564.3	3,541.8	22.53	158.214	
4,133.8	4,074.1	3,543.7	3,493.3	14.4	11.3	105.39	-3,323.5	697.8	3,571.7	3,548.9	22.82	156.495	
4,200.0	4,138.8	3,618.9	3,567.2	14.7	11.6	105.52	-3,334.8	705.7	3,585.8	3,562.5	23.33	153.693	
4,232.3	4,170.4	3,652.0	3,599.7	14.9	11.7	105.58	-3,339.8	709.2	3,592.7	3,569.1	23.57	152.444	
4,300.0	4,236.6	3,783.1	3,728.8	15.2	12.2	105.79	-3,357.8	723.5	3,606.2	3,582.0	24.24	148.753	
4,330.7	4,266.6	3,804.7	3,750.1	15.3	12.3	105.83	-3,360.6	725.9	3,612.3	3,587.8	24.44	147.787	
4,400.0	4,334.4	3,853.0	3,797.6	15.6	12.5	105.90	-3,367.2	731.4	3,626.1	3,601.2	24.89	145.682	
4,429.1	4,362.9	3,853.0	3,797.6	15.8	12.5	105.90	-3,367.2	731.4	3,632.2	3,607.1	25.02	145.173	
4,500.0	4,432.2	3,893.1	3,836.9	16.1	12.6	105.95	-3,373.0	736.6	3,647.2	3,621.7	25.47	143.198	
4,527.5	4,459.2	3,904.0	3,847.7	16.2	12.7	105.96	-3,374.7	738.2	3,653.3	3,627.6	25.63	142.545	
4,600.0	4,530.1	3,949.0	3,891.4	16.5	12.9	105.99	-3,382.0	745.6	3,669.9	3,643.8	26.10	140.598	
4,626.0	4,555.5	3,949.0	3,891.4	16.7	12.9	105.99	-3,382.0	745.6	3,675.9	3,649.7	26.22	140.212	
4,700.0	4,627.9	3,993.7	3,934.7	17.0	13.1	106.01	-3,389.8	753.7	3,693.8	3,667.1	26.71	138.289	
4,724.4	4,651.7	4,012.2	3,952.5	17.1	13.2	106.02	-3,393.0	757.0	3,699.7	3,672.8	26.89	137.602	
4,800.0	4,725.7	4,070.2	4,008.7	17.4	13.5	106.05	-3,403.4	767.1	3,718.4	3,691.0	27.43	135.540	
4,822.8	4,748.0	4,088.0	4,026.0	17.6	13.6	106.06	-3,406.7	770.2	3,724.1	3,696.5	27.60	134.935	
4,900.0	4,823.5	4,171.5	4,106.9	17.9	14.0	106.12	-3,422.0	784.0	3,743.5	3,715.2	28.23	132.584	
4,921.2	4,844.3	4,225.7	4,159.5	18.0	14.2	106.16	-3,431.5	792.4	3,748.6	3,720.1	28.51	131.465	
5,000.0	4,921.3	4,326.0	4,257.5	18.4	14.6	106.27	-3,448.0	806.3	3,766.7	3,737.5	29.18	129.066	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 644-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,014.9	4,935.9	4,354.8	4,285.7	18.4	14.8	106.31		-3,452.7	810.0	3,770.0	3,740.6	29.34	128.476	
5,019.7	4,940.6	4,357.3	4,288.1	18.4	14.8	106.33		-3,453.1	810.3	3,771.1	3,741.7	29.37	128.391	
5,100.0	5,019.4	4,420.0	4,349.3	18.7	15.0	106.75		-3,463.7	818.8	3,789.7	3,759.7	29.91	126.708	
5,118.1	5,037.2	4,420.0	4,349.3	18.8	15.0	106.83		-3,463.7	818.8	3,793.8	3,763.8	29.97	126.595	
5,200.0	5,118.1	4,515.0	4,442.0	19.0	15.5	107.22		-3,480.0	831.6	3,812.1	3,781.5	30.54	124.807	
5,216.5	5,134.4	4,535.4	4,462.0	19.1	15.5	107.29		-3,483.4	834.2	3,815.6	3,784.9	30.66	124.458	
5,300.0	5,217.2	4,593.1	4,518.3	19.3	15.8	107.63		-3,493.2	842.0	3,833.3	3,802.2	31.08	123.321	
5,314.9	5,232.1	4,609.0	4,533.8	19.3	15.9	107.68		-3,495.9	844.3	3,836.4	3,805.3	31.17	123.072	
5,400.0	5,316.8	4,746.9	4,668.5	19.5	16.5	107.90		-3,518.7	863.5	3,853.2	3,821.4	31.83	121.047	
5,413.4	5,330.1	4,763.2	4,684.4	19.5	16.5	107.93		-3,521.3	865.8	3,855.7	3,823.8	31.91	120.820	
5,500.0	5,416.6	4,914.5	4,832.5	19.7	17.2	108.02		-3,543.7	887.4	3,870.3	3,837.7	32.58	118.797	
5,511.8	5,428.4	4,922.7	4,840.5	19.7	17.2	108.05		-3,544.8	888.6	3,872.2	3,839.6	32.63	118.687	
5,600.0	5,516.6	4,984.0	4,900.5	19.8	17.5	108.20		-3,553.7	897.3	3,886.0	3,853.0	32.97	117.878	
5,610.2	5,526.8	5,078.0	4,992.7	19.8	17.8	108.05		-3,566.6	910.1	3,887.5	3,854.2	33.28	116.820	
5,615.0	5,531.6	5,078.0	4,992.7	19.8	17.8	178.14		-3,566.6	910.1	3,888.1	3,854.8	33.27	116.859	
5,700.0	5,616.6	5,129.0	5,042.8	19.9	18.0	178.05		-3,573.3	916.6	3,899.8	3,866.2	33.53	116.299	
5,708.6	5,625.3	5,133.7	5,047.5	20.0	18.1	178.04		-3,574.0	917.2	3,901.0	3,867.4	33.56	116.244	
5,800.0	5,716.6	5,215.2	5,127.4	20.1	18.4	177.90		-3,585.6	927.4	3,914.5	3,880.5	33.93	115.372	
5,807.1	5,723.7	5,229.8	5,141.8	20.1	18.4	177.87		-3,587.6	929.2	3,915.5	3,881.5	33.98	115.221	
5,900.0	5,816.6	5,322.9	5,233.4	20.2	18.8	177.72		-3,600.3	939.8	3,928.6	3,894.2	34.38	114.267	
5,905.5	5,822.1	5,326.9	5,237.4	20.2	18.8	177.72		-3,600.8	940.3	3,929.4	3,895.0	34.40	114.226	
6,000.0	5,916.6	5,468.1	5,376.5	20.4	19.3	177.52		-3,620.0	954.4	3,942.8	3,907.9	34.92	112.914	
6,003.9	5,920.5	5,473.3	5,381.7	20.4	19.3	177.51		-3,620.7	954.9	3,943.3	3,908.4	34.94	112.867	
6,100.0	6,016.6	5,820.9	5,726.8	20.5	20.3	177.21		-3,654.1	977.0	3,952.6	3,916.8	35.87	110.207	
6,102.3	6,019.0	5,824.6	5,730.4	20.5	20.3	177.21		-3,654.4	977.1	3,952.8	3,916.9	35.88	110.180	
6,200.0	6,116.6	5,969.6	5,875.1	20.6	20.6	177.20		-3,663.4	978.7	3,958.9	3,922.7	36.27	109.162	
6,200.8	6,117.4	5,970.9	5,876.5	20.6	20.6	177.20		-3,663.4	978.7	3,959.0	3,922.7	36.27	109.153	
6,299.2	6,215.8	6,306.0	6,211.4	20.8	21.1	177.17		-3,669.4	980.8	3,958.9	3,921.9	36.96	107.126	
6,300.0	6,216.6	6,306.0	6,211.4	20.8	21.1	177.17		-3,669.4	980.8	3,958.8	3,921.9	36.96	107.123	
6,340.0	6,256.6	6,341.0	6,246.4	20.8	21.1	177.17		-3,669.3	980.8	3,958.7	3,921.6	37.07	106.793	
6,350.0	6,266.6	6,348.6	6,254.0	20.8	21.1	-3.04		-3,669.2	980.8	3,958.6	3,921.5	37.12	106.647	
6,397.6	6,314.2	6,384.6	6,290.0	20.9	21.2	-3.05		-3,669.2	980.9	3,956.4	3,919.2	37.19	106.390	
6,400.0	6,316.5	6,386.4	6,291.8	20.9	21.2	-3.05		-3,669.2	980.9	3,956.2	3,919.0	37.19	106.386	
6,450.0	6,366.2	6,427.9	6,333.3	20.9	21.2	-3.09		-3,669.3	981.1	3,950.4	3,913.3	37.10	106.485	
6,496.0	6,411.4	6,467.8	6,373.2	21.0	21.3	-3.13		-3,669.5	981.1	3,942.1	3,905.2	36.88	106.901	
6,500.0	6,415.3	6,471.2	6,376.6	21.0	21.3	-3.13		-3,669.5	981.1	3,941.2	3,904.4	36.85	106.952	
6,550.0	6,463.6	6,515.7	6,421.1	21.0	21.4	-3.20		-3,669.8	981.0	3,928.7	3,892.3	36.45	107.796	
6,594.5	6,505.8	6,556.8	6,462.2	21.0	21.4	-3.27		-3,670.0	980.8	3,914.8	3,878.9	35.96	108.873	
6,600.0	6,510.9	6,561.9	6,467.3	21.0	21.4	-3.28		-3,670.0	980.8	3,912.9	3,877.0	35.89	109.029	
6,650.0	6,557.0	6,603.8	6,509.2	21.0	21.5	-3.39		-3,670.3	980.5	3,893.9	3,858.7	35.18	110.694	
6,692.9	6,595.4	6,634.0	6,539.5	21.0	21.5	-3.50		-3,670.6	980.3	3,875.1	3,840.6	34.44	112.502	
6,700.0	6,601.6	6,639.0	6,544.4	21.0	21.5	-3.52		-3,670.6	980.3	3,871.8	3,837.4	34.31	112.834	
6,750.0	6,644.6	6,672.9	6,578.4	20.9	21.6	-3.68		-3,671.0	980.1	3,846.7	3,813.4	33.32	115.456	
6,791.3	6,678.6	6,705.1	6,610.5	20.9	21.6	-3.84		-3,671.4	979.8	3,823.8	3,791.4	32.41	117.990	
6,800.0	6,685.6	6,712.6	6,618.1	20.9	21.6	-3.88		-3,671.5	979.7	3,818.7	3,786.5	32.21	118.563	
6,850.0	6,724.6	6,754.9	6,660.3	20.9	21.7	-4.13		-3,672.1	979.4	3,787.9	3,756.9	31.00	122.206	
6,889.7	6,753.9	6,779.0	6,684.4	20.9	21.7	-4.35		-3,672.4	979.2	3,761.5	3,731.6	29.95	125.578	
6,900.0	6,761.3	6,791.0	6,696.4	20.9	21.7	-4.43		-3,672.5	979.1	3,754.4	3,724.7	29.69	126.474	
6,950.0	6,795.5	6,819.5	6,724.9	20.9	21.8	-4.79		-3,672.9	978.9	3,718.5	3,690.2	28.30	131.417	
6,988.2	6,819.9	6,839.9	6,745.4	20.9	21.8	-5.13		-3,673.2	978.8	3,689.5	3,662.3	27.20	135.637	
7,000.0	6,827.1	6,846.0	6,751.4	20.9	21.8	-5.24		-3,673.3	978.7	3,680.3	3,653.4	26.86	137.016	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 644-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
7,050.0	6,855.9	6,873.0	6,778.4	20.9	21.8	-5.82	-3,673.7	978.5	3,640.0	3,614.5	25.42	143.205	
7,086.6	6,875.1	6,886.3	6,791.7	20.9	21.9	-6.33	-3,674.0	978.4	3,609.2	3,584.8	24.38	148.048	
7,100.0	6,881.8	6,891.8	6,797.2	20.9	21.9	-6.55	-3,674.1	978.3	3,597.7	3,573.7	24.00	149.896	
7,150.0	6,904.6	6,910.8	6,816.2	21.0	21.9	-7.51	-3,674.4	978.1	3,553.8	3,531.1	22.69	156.641	
7,185.0	6,918.8	6,922.7	6,828.1	21.1	21.9	-8.39	-3,674.7	978.0	3,522.1	3,500.2	21.88	160.998	
7,200.0	6,924.3	6,927.4	6,832.8	21.1	21.9	-8.83	-3,674.8	977.9	3,508.3	3,486.7	21.57	162.676	
7,250.0	6,940.8	6,941.5	6,846.9	21.2	21.9	-10.73	-3,675.1	977.8	3,461.5	3,440.7	20.79	166.514	
7,283.4	6,949.9	6,949.4	6,854.8	21.3	21.9	-12.52	-3,675.3	977.7	3,429.6	3,409.0	20.59	166.598	
7,300.0	6,953.9	6,953.0	6,858.3	21.4	22.0	-13.65	-3,675.3	977.6	3,413.7	3,393.1	20.62	165.535	
7,350.0	6,963.6	6,967.0	6,872.4	21.6	22.0	-18.78	-3,675.7	977.4	3,365.0	3,343.3	21.68	155.202	
7,381.9	6,968.0	6,967.0	6,872.4	21.7	22.0	-24.16	-3,675.7	977.4	3,333.6	3,310.1	23.48	141.951	
7,400.0	6,969.9	6,968.1	6,873.5	21.8	22.0	-28.77	-3,675.7	977.4	3,315.6	3,290.4	25.24	131.380	
7,450.0	6,972.6	6,972.5	6,877.9	22.1	22.0	-55.23	-3,675.8	977.4	3,265.9	3,231.4	34.45	94.793	
7,471.5	6,972.8	6,973.3	6,878.6	22.2	22.0	-77.64	-3,675.8	977.3	3,244.4	3,206.2	38.24	84.849	
7,480.3	6,972.7	6,973.4	6,878.8	22.3	22.0	-77.68	-3,675.8	977.3	3,235.7	3,197.3	38.33	84.424	
7,500.0	6,972.5	6,973.7	6,879.1	22.4	22.0	-77.77	-3,675.8	977.3	3,216.0	3,177.5	38.52	83.481	
7,578.7	6,971.8	6,975.0	6,880.4	23.1	22.0	-78.11	-3,675.9	977.3	3,137.4	3,098.1	39.34	79.761	
7,600.0	6,971.6	6,975.4	6,880.7	23.3	22.0	-78.20	-3,675.9	977.3	3,116.2	3,076.7	39.56	78.782	
7,677.1	6,970.9	6,976.6	6,882.0	24.0	22.0	-78.53	-3,675.9	977.3	3,039.3	2,998.8	40.41	75.214	
7,700.0	6,970.7	6,977.0	6,882.4	24.2	22.0	-78.63	-3,675.9	977.3	3,016.5	2,975.8	40.66	74.186	
7,775.6	6,970.0	6,978.2	6,883.6	25.0	22.0	-78.95	-3,675.9	977.3	2,941.1	2,899.5	41.58	70.728	
7,800.0	6,969.8	6,978.6	6,884.0	25.3	22.0	-79.06	-3,676.0	977.3	2,916.7	2,874.8	41.88	69.643	
7,874.0	6,969.1	6,979.8	6,885.1	26.2	22.0	-79.37	-3,676.0	977.3	2,842.9	2,800.1	42.86	66.335	
7,900.0	6,968.9	6,980.2	6,885.6	26.5	22.0	-79.49	-3,676.0	977.3	2,817.0	2,773.8	43.20	65.209	
7,972.4	6,968.2	6,981.3	6,886.7	27.4	22.0	-79.79	-3,676.0	977.2	2,744.8	2,700.5	44.21	62.078	
8,000.0	6,968.0	6,981.8	6,887.1	27.8	22.0	-79.91	-3,676.0	977.2	2,717.3	2,672.7	44.60	60.924	
8,070.8	6,967.3	6,982.9	6,888.3	28.7	22.0	-80.21	-3,676.1	977.2	2,646.6	2,601.0	45.64	57.984	
8,100.0	6,967.1	6,983.3	6,888.7	29.1	22.0	-80.33	-3,676.1	977.2	2,617.6	2,571.5	46.07	56.813	
8,169.3	6,966.4	6,984.4	6,889.8	30.1	22.0	-80.62	-3,676.1	977.2	2,548.5	2,501.4	47.13	54.069	
8,200.0	6,966.2	6,984.9	6,890.3	30.5	22.0	-80.75	-3,676.1	977.2	2,517.9	2,470.3	47.61	52.891	
8,267.7	6,965.5	6,985.9	6,891.3	31.5	22.0	-81.03	-3,676.1	977.2	2,450.4	2,401.8	48.68	50.341	
8,300.0	6,965.2	6,986.4	6,891.8	32.0	22.0	-81.17	-3,676.1	977.2	2,418.3	2,369.1	49.19	49.163	
8,366.1	6,964.6	6,987.5	6,892.8	33.0	22.0	-81.44	-3,676.2	977.2	2,352.4	2,302.1	50.26	46.801	
8,400.0	6,964.3	6,988.0	6,893.3	33.5	22.0	-81.58	-3,676.2	977.2	2,318.7	2,267.8	50.82	45.629	
8,464.5	6,963.8	6,989.0	6,894.3	34.5	22.0	-81.85	-3,676.2	977.1	2,254.4	2,202.5	51.89	43.446	
8,500.0	6,963.4	6,989.5	6,894.9	35.1	22.0	-82.00	-3,676.2	977.1	2,219.1	2,166.6	52.48	42.285	
8,563.0	6,962.9	6,990.4	6,895.8	36.1	22.0	-82.26	-3,676.2	977.1	2,156.4	2,102.8	53.55	40.271	
8,600.0	6,962.5	6,991.0	6,896.4	36.7	22.0	-82.41	-3,676.2	977.1	2,119.5	2,065.4	54.17	39.124	
8,661.4	6,962.0	6,991.9	6,897.3	37.7	22.0	-82.66	-3,676.3	977.1	2,058.4	2,003.2	55.23	37.269	
8,700.0	6,961.6	6,992.5	6,897.9	38.3	22.0	-82.82	-3,676.3	977.1	2,020.0	1,964.2	55.90	36.139	
8,759.8	6,961.1	6,993.4	6,898.7	39.3	22.0	-83.06	-3,676.3	977.1	1,960.6	1,903.6	56.94	34.431	
8,800.0	6,960.7	6,994.0	6,899.3	40.0	22.0	-83.22	-3,676.3	977.1	1,920.6	1,863.0	57.64	33.319	
8,858.2	6,960.2	6,994.8	6,900.2	40.9	22.0	-83.46	-3,676.3	977.1	1,862.7	1,804.0	58.67	31.747	
8,900.0	6,959.8	6,995.4	6,900.8	41.6	22.0	-83.62	-3,676.4	977.1	1,821.2	1,761.8	59.41	30.655	
8,956.7	6,959.3	6,996.3	6,901.6	42.6	22.0	-83.85	-3,676.4	977.1	1,764.9	1,704.5	60.42	29.210	
9,000.0	6,958.9	6,996.9	6,902.3	43.3	22.0	-84.02	-3,676.4	977.1	1,721.9	1,660.7	61.20	28.138	
9,055.1	6,958.4	6,997.7	6,903.1	44.3	22.0	-84.24	-3,676.4	977.0	1,667.2	1,605.0	62.19	26.810	
9,100.0	6,958.0	6,998.4	6,903.7	45.1	22.0	-84.42	-3,676.4	977.0	1,622.7	1,559.7	63.00	25.759	
9,153.5	6,957.5	6,999.1	6,904.5	46.0	22.0	-84.63	-3,676.4	977.0	1,569.6	1,505.6	63.97	24.538	
9,200.0	6,957.1	6,999.8	6,905.2	46.8	22.0	-84.82	-3,676.5	977.0	1,523.6	1,458.7	64.81	23.509	
9,251.9	6,956.6	7,000.5	6,905.9	47.7	22.0	-85.02	-3,676.5	977.0	1,472.1	1,406.3	65.76	22.387	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 644-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.0	6,956.2	7,001.2	6,906.6	48.6	22.0	-85.21	-3,676.5	977.0	1,424.5	1,357.9	66.63	21.379		
9,350.4	6,955.7	7,001.9	6,907.3	49.5	22.0	-85.41	-3,676.5	977.0	1,374.7	1,307.2	67.56	20.349		
9,400.0	6,955.2	7,002.6	6,908.0	50.3	22.0	-85.60	-3,676.5	977.0	1,325.7	1,257.2	68.47	19.362		
9,448.8	6,954.8	7,003.3	6,908.7	51.2	22.0	-85.79	-3,676.5	977.0	1,277.5	1,208.1	69.37	18.416		
9,500.0	6,954.3	7,004.0	6,909.4	52.1	22.0	-85.99	-3,676.5	977.0	1,227.0	1,156.7	70.31	17.451		
9,547.2	6,953.9	7,004.7	6,910.1	53.0	22.0	-86.17	-3,676.6	977.0	1,180.5	1,109.3	71.19	16.583		
9,600.0	6,953.4	7,005.4	6,910.8	53.9	22.0	-86.38	-3,676.6	977.0	1,128.6	1,056.4	72.16	15.639		
9,645.6	6,953.0	7,006.1	6,911.4	54.7	22.0	-86.55	-3,676.6	977.0	1,083.7	1,010.7	73.01	14.843		
9,700.0	6,952.5	7,006.8	6,912.2	55.7	22.0	-86.76	-3,676.6	977.0	1,030.4	956.4	74.02	13.921		
9,744.1	6,952.1	7,007.4	6,912.8	56.5	22.0	-86.93	-3,676.6	976.9	987.3	912.4	74.84	13.191		
9,800.0	6,951.6	7,008.2	6,913.5	57.5	22.0	-87.14	-3,676.6	976.9	932.7	856.8	75.88	12.290		
9,842.5	6,951.2	7,008.8	6,914.1	58.3	22.0	-87.30	-3,676.7	976.9	891.3	814.6	76.68	11.623		
9,900.0	6,950.7	7,009.5	6,914.9	59.4	22.0	-87.52	-3,676.7	976.9	835.4	757.7	77.75	10.745		
9,940.9	6,950.3	7,010.1	6,915.5	60.1	22.0	-87.67	-3,676.7	976.9	795.8	717.3	78.52	10.136		
10,000.0	6,949.8	7,010.9	6,916.2	61.2	22.0	-87.89	-3,676.7	976.9	738.9	659.3	79.62	9.280		
10,039.3	6,949.4	7,011.4	6,916.8	61.9	22.0	-88.04	-3,676.7	976.9	701.2	620.9	80.36	8.726		
10,100.0	6,948.9	7,012.2	6,917.6	63.0	22.0	-88.26	-3,676.7	976.9	643.5	562.0	81.50	7.896		
10,137.8	6,948.5	7,012.7	6,918.1	63.7	22.0	-88.40	-3,676.7	976.9	607.8	525.6	82.21	7.394		
10,200.0	6,948.0	7,013.6	6,918.9	64.9	22.0	-88.63	-3,676.8	976.9	549.7	466.3	83.38	6.593		
10,236.2	6,947.6	7,014.0	6,919.4	65.6	22.0	-88.77	-3,676.8	976.9	516.3	432.3	84.06	6.142		
10,300.0	6,947.1	7,014.9	6,920.2	66.7	22.0	-89.00	-3,676.8	976.9	458.5	373.3	85.26	5.378		
10,334.6	6,946.7	7,015.3	6,920.7	67.4	22.0	-89.13	-3,676.8	976.9	427.9	342.0	85.91	4.981		
10,400.0	6,946.2	7,016.2	6,921.6	68.6	22.0	-89.37	-3,676.8	976.9	371.9	284.8	87.14	4.268		
10,433.0	6,945.8	7,016.6	6,922.0	69.2	22.0	-89.49	-3,676.8	976.9	344.9	257.1	87.76	3.930		
10,500.0	6,945.2	7,017.5	6,922.9	70.5	22.0	-89.73	-3,676.8	976.9	293.9	204.9	89.02	3.302		
10,531.5	6,945.0	7,017.9	6,923.3	71.1	22.0	-89.84	-3,676.9	976.8	272.4	182.7	89.61	3.039		
10,600.0	6,944.3	7,018.8	6,924.1	72.3	22.1	-90.09	-3,676.9	976.8	233.3	142.4	90.90	2.567		
10,629.9	6,944.1	7,019.2	6,924.5	72.9	22.1	-90.19	-3,676.9	976.8	220.9	129.4	91.47	2.415		
10,700.0	6,943.4	7,020.1	6,925.4	74.2	22.1	-90.44	-3,676.9	976.8	206.2	113.4	92.79	2.222		
10,709.7	6,943.3	7,020.2	6,925.5	74.4	22.1	-90.48	-3,676.9	976.8	206.0	113.0	92.97	2.215 CC, ES, SF		
10,728.3	6,943.2	7,020.4	6,925.8	74.7	22.1	-90.54	-3,676.9	976.8	206.8	113.5	93.32	2.216		
10,800.0	6,942.5	7,021.3	6,926.7	76.1	22.1	-90.80	-3,676.9	976.8	224.9	130.2	94.67	2.375		
10,826.7	6,942.3	7,021.7	6,927.0	76.6	22.1	-90.89	-3,676.9	976.8	236.9	141.7	95.17	2.489		
10,900.0	6,941.6	7,022.6	6,928.0	78.0	22.1	-91.15	-3,677.0	976.8	280.4	183.8	96.55	2.904		
10,925.2	6,941.4	7,022.9	6,928.3	78.4	22.1	-91.24	-3,677.0	976.8	298.1	201.0	97.03	3.072		
11,000.0	6,940.7	7,023.9	6,929.2	79.9	22.1	-91.50	-3,677.0	976.8	355.9	257.5	98.44	3.616		
11,023.6	6,940.5	7,024.2	6,929.5	80.3	22.1	-91.58	-3,677.0	976.8	375.4	276.5	98.88	3.797		
11,100.0	6,939.8	7,025.1	6,930.5	81.7	22.1	-91.84	-3,677.0	976.8	441.3	341.0	100.32	4.399		
11,122.0	6,939.6	7,025.4	6,930.7	82.2	22.1	-91.92	-3,677.0	976.8	460.9	360.1	100.73	4.575		
11,200.0	6,938.9	7,026.3	6,931.7	83.6	22.1	-92.19	-3,677.0	976.8	531.8	429.6	102.20	5.203		
11,220.4	6,938.7	7,026.6	6,931.9	84.0	22.1	-92.26	-3,677.1	976.8	550.7	448.1	102.58	5.368		
11,300.0	6,938.0	7,027.6	6,932.9	85.5	22.1	-92.53	-3,677.1	976.8	625.1	521.1	104.08	6.007		
11,318.9	6,937.8	7,027.8	6,933.1	85.9	22.1	-92.59	-3,677.1	976.8	643.0	538.6	104.43	6.157		
11,400.0	6,937.0	7,028.8	6,934.1	87.4	22.1	-92.87	-3,677.1	976.8	720.3	614.4	105.95	6.798		
11,417.3	6,936.9	7,029.0	6,934.3	87.8	22.1	-92.92	-3,677.1	976.8	736.9	630.6	106.28	6.934		
11,500.0	6,936.1	7,030.0	6,935.3	89.3	22.1	-93.20	-3,677.1	976.8	816.6	708.8	107.83	7.573		
11,515.7	6,936.0	7,030.2	6,935.5	89.6	22.1	-93.25	-3,677.1	976.7	831.8	723.7	108.12	7.694		
11,600.0	6,935.2	7,031.2	6,936.5	91.2	22.1	-93.53	-3,677.2	976.7	913.7	804.0	109.70	8.329		
11,614.1	6,935.1	7,031.4	6,936.7	91.5	22.1	-93.58	-3,677.2	976.7	927.5	817.6	109.97	8.435		
11,700.0	6,934.3	7,032.4	6,937.7	93.1	22.1	-93.86	-3,677.2	976.7	1,011.4	899.8	111.57	9.065		
11,712.6	6,934.2	7,032.5	6,937.9	93.4	22.1	-93.91	-3,677.2	976.7	1,023.7	911.9	111.81	9.156		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 21-6I - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 644-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,800.0	6,933.4	7,033.6	6,938.9	95.1	22.1	-94.19	-3,677.2	976.7	1,109.5	996.0	113.44	9.781	
11,811.0	6,933.3	7,033.7	6,939.1	95.3	22.1	-94.23	-3,677.2	976.7	1,120.3	1,006.7	113.64	9.858	
11,900.0	6,932.5	7,034.7	6,940.1	97.0	22.1	-94.52	-3,677.2	976.7	1,207.9	1,092.6	115.30	10.476	
11,909.4	6,932.4	7,034.9	6,940.2	97.1	22.1	-94.55	-3,677.2	976.7	1,217.2	1,101.7	115.48	10.540	
12,000.0	6,931.6	7,035.9	6,941.3	98.9	22.1	-94.84	-3,677.3	976.7	1,306.5	1,189.4	117.17	11.151	
12,007.8	6,931.5	7,036.0	6,941.4	99.0	22.1	-94.86	-3,677.3	976.7	1,314.3	1,197.0	117.31	11.203	
12,100.0	6,930.7	7,037.1	6,942.4	100.8	22.1	-95.16	-3,677.3	976.7	1,405.4	1,286.3	119.03	11.807	
12,106.3	6,930.6	7,037.1	6,942.5	100.9	22.1	-95.18	-3,677.3	976.7	1,411.6	1,292.4	119.14	11.848	
12,200.0	6,929.8	7,038.2	6,943.6	102.7	22.1	-95.48	-3,677.3	976.7	1,504.3	1,383.5	120.88	12.445	
12,204.7	6,929.7	7,038.3	6,943.6	102.8	22.1	-95.49	-3,677.3	976.7	1,509.0	1,388.0	120.97	12.474	
12,300.0	6,928.8	7,039.4	6,944.7	104.6	22.1	-95.79	-3,677.3	976.7	1,603.4	1,480.7	122.74	13.064	
12,303.1	6,928.8	7,039.4	6,944.7	104.7	22.1	-95.80	-3,677.3	976.7	1,606.5	1,483.8	122.79	13.083	
12,400.0	6,927.9	7,040.5	6,945.8	106.5	22.1	-96.10	-3,677.4	976.7	1,702.7	1,578.1	124.59	13.667	
12,401.5	6,927.9	7,040.5	6,945.9	106.6	22.1	-96.11	-3,677.4	976.7	1,704.2	1,579.6	124.61	13.676	
12,500.0	6,927.0	7,041.6	6,947.0	108.5	22.1	-96.41	-3,677.4	976.7	1,802.0	1,675.5	126.43	14.252	
12,598.4	6,926.1	7,042.7	6,948.1	110.4	22.1	-96.71	-3,677.4	976.7	1,899.7	1,771.5	128.25	14.813	
12,600.0	6,926.1	7,042.7	6,948.1	110.4	22.1	-96.72	-3,677.4	976.7	1,901.3	1,773.1	128.27	14.822	
12,696.8	6,925.2	7,043.8	6,949.2	112.3	22.1	-97.01	-3,677.4	976.7	1,997.6	1,867.5	130.06	15.360	
12,700.0	6,925.2	7,043.9	6,949.2	112.3	22.1	-97.02	-3,677.4	976.7	2,000.8	1,870.6	130.11	15.377	
12,795.2	6,924.3	7,044.9	6,950.3	114.1	22.1	-97.31	-3,677.4	976.7	2,095.5	1,963.7	131.86	15.892	
12,800.0	6,924.3	7,045.0	6,950.3	114.2	22.1	-97.33	-3,677.4	976.7	2,100.2	1,968.3	131.95	15.917	
12,893.7	6,923.4	7,046.0	6,951.3	116.0	22.1	-97.61	-3,677.5	976.6	2,193.5	2,059.8	133.67	16.410	
12,900.0	6,923.4	7,046.1	6,951.4	116.2	22.1	-97.63	-3,677.5	976.6	2,199.8	2,066.0	133.78	16.443	
12,992.1	6,922.5	7,047.1	6,952.4	117.9	22.1	-97.90	-3,677.5	976.6	2,291.5	2,156.0	135.47	16.916	
13,000.0	6,922.5	7,047.1	6,952.5	118.1	22.1	-97.92	-3,677.5	976.6	2,299.4	2,163.7	135.61	16.956	
13,090.5	6,921.6	7,048.1	6,953.5	119.8	22.1	-98.19	-3,677.5	976.6	2,389.5	2,252.3	137.26	17.408	
13,100.0	6,921.5	7,048.2	6,953.6	120.0	22.1	-98.22	-3,677.5	976.6	2,399.0	2,261.5	137.43	17.455	
13,188.9	6,920.7	7,049.2	6,954.5	121.7	22.1	-98.48	-3,677.5	976.6	2,487.6	2,348.5	139.05	17.889	
13,200.0	6,920.6	7,049.3	6,954.6	121.9	22.1	-98.51	-3,677.5	976.6	2,498.6	2,359.3	139.26	17.943	
13,287.4	6,919.8	7,050.2	6,955.6	123.6	22.1	-98.76	-3,677.6	976.6	2,585.7	2,444.8	140.84	18.359	
13,300.0	6,919.7	7,050.4	6,955.7	123.9	22.1	-98.80	-3,677.6	976.6	2,598.3	2,457.2	141.07	18.418	
13,385.8	6,918.9	7,051.3	6,956.6	125.5	22.1	-99.05	-3,677.6	976.6	2,683.8	2,541.2	142.63	18.817	
13,400.0	6,918.8	7,051.4	6,956.8	125.8	22.1	-99.09	-3,677.6	976.6	2,698.0	2,555.1	142.88	18.882	
13,484.2	6,918.0	7,052.3	6,957.7	127.4	22.1	-99.33	-3,677.6	976.6	2,781.9	2,637.5	144.41	19.265	
13,500.0	6,917.9	7,052.5	6,957.8	127.7	22.1	-99.37	-3,677.6	976.6	2,797.7	2,653.0	144.69	19.335	
13,582.6	6,917.1	7,053.3	6,958.7	129.3	22.1	-99.60	-3,677.6	976.6	2,880.1	2,733.9	146.18	19.702	
13,600.0	6,917.0	7,053.5	6,958.9	129.7	22.1	-99.65	-3,677.6	976.6	2,897.4	2,750.9	146.50	19.778	
13,681.1	6,916.2	7,054.4	6,959.7	131.2	22.1	-99.88	-3,677.6	976.6	2,978.3	2,830.3	147.96	20.129	
13,700.0	6,916.1	7,054.6	6,959.9	131.6	22.1	-99.93	-3,677.6	976.6	2,997.1	2,848.9	148.30	20.211	
13,779.5	6,915.3	7,055.4	6,960.7	133.1	22.1	-100.15	-3,677.7	976.6	3,076.5	2,926.7	149.72	20.548	
13,800.0	6,915.2	7,055.6	6,960.9	133.5	22.1	-100.21	-3,677.7	976.6	3,096.9	2,946.8	150.09	20.633	
13,877.9	6,914.4	7,062.0	6,967.3	135.1	22.1	-101.93	-3,677.8	976.6	3,174.7	3,023.9	150.74	21.060	
13,900.0	6,914.2	7,062.0	6,967.3	135.5	22.1	-101.93	-3,677.8	976.6	3,196.7	3,045.5	151.17	21.147	
13,976.3	6,913.5	7,062.0	6,967.3	137.0	22.1	-101.93	-3,677.8	976.6	3,272.9	3,120.3	152.62	21.444	
14,000.0	6,913.3	7,062.0	6,967.3	137.4	22.1	-101.93	-3,677.8	976.6	3,296.5	3,143.4	153.08	21.535	
14,074.8	6,912.6	7,062.0	6,967.3	138.9	22.1	-101.93	-3,677.8	976.6	3,371.1	3,216.6	154.51	21.819	
14,100.0	6,912.4	7,062.0	6,967.3	139.4	22.1	-101.93	-3,677.8	976.6	3,396.3	3,241.3	154.99	21.913	
14,145.0	6,912.0	7,062.0	6,967.3	140.2	22.1	-101.93	-3,677.8	976.6	3,441.2	3,285.4	155.81	22.086	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	175.11	175.11	-4,240.5	362.5	4,256.1				
98.4	98.4	73.8	73.8	0.1	0.0	175.12	175.12	-4,240.5	362.4	4,256.0	4,255.9	0.14	N/A	
100.0	100.0	75.4	75.4	0.1	0.0	175.12	175.12	-4,240.5	362.4	4,256.0	4,255.8	0.15	N/A	
196.8	196.8	192.4	192.4	0.3	0.2	175.12	175.12	-4,240.3	361.7	4,255.8	4,255.3	0.51	8,408.380	
200.0	200.0	196.4	196.4	0.3	0.2	175.12	175.12	-4,240.3	361.7	4,255.8	4,255.3	0.52	8,204.497	
288.9	288.9	263.4	263.4	0.5	0.2	175.13	175.13	-4,240.2	361.4	4,255.5	4,254.8	0.76	5,594.043	
295.3	295.3	268.1	268.1	0.5	0.2	175.13	175.13	-4,240.2	361.4	4,255.5	4,254.8	0.78	5,470.901	
300.0	300.0	271.6	271.6	0.5	0.2	175.13	175.13	-4,240.2	361.4	4,255.5	4,254.8	0.79	5,383.216	
393.7	393.7	351.8	351.8	0.8	0.3	175.13	175.13	-4,240.4	361.0	4,255.8	4,254.8	1.04	4,082.193	
400.0	400.0	357.7	357.7	0.8	0.3	175.13	175.13	-4,240.5	361.0	4,255.8	4,254.8	1.06	4,016.415	
492.1	492.1	472.1	472.1	1.0	0.3	175.13	175.13	-4,240.8	361.1	4,256.1	4,254.8	1.29	3,294.733	
500.0	500.0	484.2	484.2	1.0	0.3	175.13	175.13	-4,240.7	361.1	4,256.1	4,254.8	1.31	3,248.234	
590.5	590.5	585.4	585.4	1.2	0.4	175.13	175.13	-4,240.3	361.0	4,255.7	4,254.2	1.55	2,740.156	
600.0	600.0	595.4	595.4	1.2	0.4	175.13	175.13	-4,240.3	361.0	4,255.7	4,254.1	1.58	2,695.229	
689.0	689.0	672.9	672.9	1.4	0.4	175.14	175.14	-4,240.0	360.5	4,255.4	4,253.5	1.82	2,334.240	
700.0	700.0	682.4	682.4	1.4	0.4	175.14	175.14	-4,240.0	360.4	4,255.3	4,253.5	1.85	2,296.130	
749.1	749.1	723.7	723.7	1.6	0.4	175.15	175.15	-4,240.0	360.0	4,255.3	4,253.3	1.98	2,144.047	
787.4	787.4	755.2	755.2	1.6	0.4	175.15	175.15	-4,240.1	359.8	4,255.3	4,253.2	2.09	2,040.770	
800.0	800.0	765.6	765.6	1.7	0.4	175.15	175.15	-4,240.1	359.8	4,255.3	4,253.2	2.12	2,008.903	
885.8	885.8	856.8	856.8	1.9	0.5	175.15	175.15	-4,240.3	359.5	4,255.6	4,253.2	2.33	1,828.977	
900.0	900.0	875.0	875.0	1.9	0.5	175.15	175.15	-4,240.4	359.5	4,255.6	4,253.2	2.36	1,804.318	
984.2	984.2	983.3	983.3	2.1	0.5	175.15	175.15	-4,240.0	359.5	4,255.3	4,252.7	2.57	1,653.927	
1,000.0	1,000.0	1,000.0	1,000.0	2.1	0.5	175.15	175.15	-4,239.9	359.5	4,255.2	4,252.6	2.61	1,628.287	
1,057.1	1,057.1	1,053.6	1,053.6	2.2	0.5	105.09	105.09	-4,239.6	359.3	4,255.0	4,252.3	2.75	1,549.271	
1,082.7	1,082.7	1,076.6	1,076.6	2.3	0.5	105.10	105.10	-4,239.5	359.1	4,255.1	4,252.3	2.81	1,513.615	
1,100.0	1,100.0	1,092.1	1,092.1	2.3	0.5	105.10	105.10	-4,239.5	359.0	4,255.1	4,252.3	2.85	1,490.424	
1,181.1	1,181.0	1,157.2	1,157.2	2.5	0.6	105.13	105.13	-4,239.4	358.6	4,256.0	4,252.9	3.05	1,394.770	
1,200.0	1,199.8	1,172.2	1,172.2	2.6	0.6	105.14	105.14	-4,239.4	358.5	4,256.3	4,253.2	3.10	1,374.334	
1,279.5	1,279.1	1,256.4	1,256.4	2.7	0.6	105.20	105.20	-4,239.5	358.2	4,258.1	4,254.9	3.29	1,294.862	
1,300.0	1,299.5	1,282.5	1,282.5	2.8	0.6	105.23	105.23	-4,239.4	358.2	4,258.7	4,255.3	3.34	1,276.678	
1,377.9	1,376.9	1,371.6	1,371.5	3.0	0.6	105.32	105.32	-4,239.1	358.1	4,260.8	4,257.3	3.54	1,202.892	
1,400.0	1,398.7	1,396.1	1,396.0	3.0	0.6	105.35	105.35	-4,239.0	357.9	4,261.5	4,257.9	3.60	1,183.351	
1,476.4	1,474.2	1,459.4	1,459.4	3.2	0.6	105.43	105.43	-4,238.8	357.5	4,264.3	4,260.5	3.83	1,112.058	
1,500.0	1,497.5	1,478.6	1,478.6	3.3	0.6	105.45	105.45	-4,238.8	357.4	4,265.3	4,261.4	3.91	1,091.703	
1,574.8	1,571.0	1,585.0	1,585.0	3.5	0.7	105.65	105.65	-4,238.3	357.2	4,268.9	4,264.7	4.17	1,023.618	
1,600.1	1,595.7	1,614.9	1,614.8	3.6	0.7	105.70	105.70	-4,238.0	357.1	4,270.0	4,265.8	4.26	1,002.825	
1,673.2	1,667.2	1,680.0	1,679.9	3.9	0.7	105.88	105.88	-4,237.4	356.8	4,273.5	4,269.0	4.53	943.419	
1,700.0	1,693.4	1,700.0	1,700.0	4.0	0.7	105.94	105.94	-4,237.3	356.6	4,274.9	4,270.2	4.63	923.679	
1,771.6	1,763.5	1,759.5	1,759.5	4.2	0.7	106.10	106.10	-4,236.9	356.1	4,278.6	4,273.7	4.91	871.546	
1,800.0	1,791.3	1,781.8	1,781.7	4.3	0.7	106.17	106.17	-4,236.8	356.1	4,280.1	4,275.1	5.02	852.675	
1,870.1	1,859.8	1,874.7	1,874.7	4.6	0.8	106.41	106.41	-4,236.3	356.1	4,283.9	4,278.6	5.31	806.084	
1,900.0	1,889.1	1,900.0	1,900.0	4.7	0.8	106.48	106.48	-4,236.0	356.2	4,285.4	4,280.0	5.44	788.400	
1,968.5	1,956.1	1,959.9	1,959.9	5.0	0.8	106.63	106.63	-4,235.4	356.5	4,288.9	4,283.2	5.72	749.691	
2,000.0	1,986.9	1,982.8	1,982.8	5.1	0.8	106.69	106.69	-4,235.3	356.6	4,290.6	4,284.8	5.85	733.374	
2,066.9	2,052.3	2,038.0	2,038.0	5.4	0.8	106.84	106.84	-4,235.1	356.9	4,294.5	4,288.4	6.13	700.273	
2,100.0	2,084.7	2,067.2	2,067.1	5.5	0.8	106.91	106.91	-4,235.0	357.1	4,296.5	4,290.2	6.27	685.010	
2,165.3	2,148.6	2,146.9	2,146.9	5.8	0.8	107.11	107.11	-4,234.8	357.9	4,300.4	4,293.8	6.56	655.888	
2,200.0	2,182.5	2,200.0	2,199.9	5.9	0.9	107.25	107.25	-4,234.3	358.5	4,302.2	4,295.5	6.71	641.250	
2,263.8	2,244.9	2,243.9	2,243.8	6.2	0.9	107.36	107.36	-4,233.9	358.9	4,305.7	4,298.8	6.98	616.907	
2,300.0	2,280.3	2,267.7	2,267.7	6.3	0.9	107.42	107.42	-4,233.8	359.1	4,307.9	4,300.7	7.13	603.948	
2,362.2	2,341.2	2,320.7	2,320.6	6.6	0.9	107.55	107.55	-4,233.8	359.5	4,311.8	4,304.4	7.40	582.549	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
2,400.0	2,378.1	2,380.2	2,380.1	6.8	0.9	107.70	-4,233.5	360.1	4,314.1	4,306.5	7.57	569.814		
2,460.6	2,437.4	2,439.9	2,439.9	7.0	0.9	107.85	-4,233.1	360.7	4,317.5	4,309.7	7.84	550.851		
2,500.0	2,476.0	2,472.6	2,472.5	7.2	0.9	107.93	-4,232.9	360.9	4,319.9	4,311.9	8.01	539.311		
2,559.0	2,533.7	2,532.9	2,532.8	7.4	0.9	108.09	-4,232.6	361.0	4,323.5	4,315.2	8.27	522.540		
2,600.0	2,573.8	2,584.7	2,584.6	7.6	0.9	108.22	-4,232.2	361.2	4,325.9	4,317.4	8.46	511.292		
2,657.5	2,630.0	2,642.5	2,642.4	7.9	1.0	108.37	-4,231.7	361.4	4,329.2	4,320.5	8.72	496.659		
2,700.0	2,671.6	2,682.1	2,682.0	8.1	1.0	108.48	-4,231.4	361.4	4,331.7	4,322.8	8.90	486.470		
2,755.9	2,726.3	2,729.2	2,729.2	8.3	1.0	108.60	-4,231.0	361.2	4,335.0	4,325.8	9.15	473.709		
2,800.0	2,769.4	2,764.4	2,764.3	8.5	1.0	108.69	-4,230.8	361.1	4,337.7	4,328.4	9.35	464.153		
2,854.3	2,822.5	2,814.8	2,814.7	8.7	1.0	108.82	-4,230.6	361.2	4,341.2	4,331.6	9.59	452.776		
2,900.0	2,867.2	2,884.3	2,884.2	8.9	1.0	109.00	-4,230.1	361.3	4,344.0	4,334.2	9.80	443.240		
2,952.7	2,918.8	2,928.5	2,928.4	9.2	1.0	109.12	-4,229.7	361.3	4,347.2	4,337.1	10.03	433.233		
3,000.0	2,965.0	2,960.3	2,960.2	9.4	1.0	109.20	-4,229.5	361.3	4,350.2	4,339.9	10.24	424.795		
3,051.2	3,015.1	3,000.0	2,999.9	9.6	1.1	109.30	-4,229.4	361.2	4,353.6	4,343.1	10.47	415.996		
3,100.0	3,062.8	3,050.1	3,050.0	9.8	1.1	109.43	-4,229.3	361.2	4,356.9	4,346.3	10.68	407.978		
3,149.6	3,111.4	3,109.1	3,109.0	10.0	1.1	109.58	-4,229.1	361.3	4,360.2	4,349.3	10.90	400.074		
3,200.0	3,160.7	3,160.7	3,160.6	10.3	1.1	109.72	-4,228.8	361.3	4,363.5	4,352.4	11.12	392.277		
3,248.0	3,207.6	3,200.0	3,199.9	10.5	1.1	109.82	-4,228.5	361.1	4,366.7	4,355.4	11.34	385.185		
3,300.0	3,258.5	3,243.0	3,242.9	10.7	1.1	109.93	-4,228.3	360.9	4,370.2	4,358.7	11.56	377.964		
3,346.4	3,303.9	3,275.4	3,275.3	10.9	1.1	110.02	-4,228.3	360.8	4,373.6	4,361.8	11.76	371.764		
3,400.0	3,356.3	3,324.9	3,324.8	11.2	1.1	110.15	-4,228.4	360.6	4,377.6	4,365.6	12.00	364.910		
3,444.9	3,400.2	3,386.0	3,385.9	11.4	1.1	110.31	-4,228.4	360.5	4,380.8	4,368.6	12.19	359.378		
3,500.0	3,454.1	3,434.9	3,434.8	11.6	1.1	110.43	-4,228.3	360.4	4,384.8	4,372.3	12.43	352.758		
3,543.3	3,496.5	3,468.6	3,468.5	11.8	1.1	110.52	-4,228.2	360.2	4,387.9	4,375.3	12.62	347.727		
3,600.0	3,551.9	3,521.4	3,521.3	12.0	1.1	110.66	-4,228.3	359.8	4,392.3	4,379.4	12.87	341.343		
3,641.7	3,592.7	3,576.1	3,576.0	12.2	1.1	110.81	-4,228.3	359.4	4,395.4	4,382.3	13.05	336.725		
3,700.0	3,649.7	3,643.7	3,643.6	12.5	1.2	110.98	-4,228.0	359.0	4,399.6	4,386.3	13.31	330.448		
3,740.1	3,689.0	3,687.4	3,687.3	12.7	1.2	111.10	-4,227.8	358.4	4,402.4	4,388.9	13.49	326.255		
3,800.0	3,747.5	3,748.6	3,748.5	12.9	1.2	111.27	-4,227.4	357.5	4,406.7	4,392.9	13.76	320.223		
3,838.6	3,785.3	3,787.6	3,787.4	13.1	1.2	111.37	-4,227.2	357.1	4,409.4	4,395.5	13.93	316.456		
3,900.0	3,845.4	3,840.5	3,840.4	13.4	1.2	111.51	-4,226.9	356.6	4,413.8	4,399.6	14.21	310.699		
3,937.0	3,881.5	3,871.0	3,870.9	13.6	1.2	111.59	-4,226.7	356.3	4,416.5	4,402.2	14.37	307.348		
4,000.0	3,943.2	3,932.2	3,932.1	13.8	1.3	111.76	-4,226.5	355.3	4,421.3	4,406.6	14.65	301.811		
4,035.4	3,977.8	3,973.4	3,973.3	14.0	1.3	111.87	-4,226.3	354.9	4,423.9	4,409.1	14.81	298.772		
4,100.0	4,041.0	4,045.8	4,045.7	14.3	1.3	112.05	-4,225.9	354.3	4,428.7	4,413.6	15.10	293.379		
4,133.8	4,074.1	4,082.9	4,082.7	14.4	1.3	112.15	-4,225.6	353.8	4,431.1	4,415.9	15.25	290.631		
4,200.0	4,138.8	4,127.9	4,127.8	14.7	1.3	112.28	-4,225.3	353.1	4,436.0	4,420.5	15.54	285.541		
4,232.3	4,170.4	4,145.7	4,145.6	14.9	1.3	112.32	-4,225.2	352.8	4,438.5	4,422.9	15.68	283.152		
4,300.0	4,236.6	4,200.0	4,199.8	15.2	1.3	112.47	-4,225.4	351.9	4,444.3	4,428.3	15.97	278.296		
4,330.7	4,266.6	4,200.2	4,200.1	15.3	1.3	112.47	-4,225.4	351.9	4,446.9	4,430.8	16.10	276.172		
4,400.0	4,334.4	4,302.2	4,302.1	15.6	1.3	112.74	-4,225.9	350.7	4,452.9	4,436.5	16.40	271.478		
4,429.1	4,362.9	4,339.4	4,339.2	15.8	1.4	112.84	-4,225.9	350.3	4,455.4	4,438.8	16.53	269.536		
4,500.0	4,432.2	4,422.7	4,422.5	16.1	1.4	113.06	-4,225.6	349.1	4,461.0	4,444.2	16.84	264.951		
4,527.5	4,459.2	4,449.4	4,449.2	16.2	1.4	113.13	-4,225.5	348.7	4,463.2	4,446.3	16.96	263.201		
4,600.0	4,530.1	4,519.4	4,519.3	16.5	1.4	113.31	-4,225.2	347.5	4,469.0	4,451.7	17.27	258.722		
4,626.0	4,555.5	4,544.3	4,544.1	16.7	1.4	113.38	-4,225.1	347.1	4,471.1	4,453.7	17.39	257.158		
4,700.0	4,627.9	4,612.5	4,612.3	17.0	1.4	113.56	-4,224.8	345.8	4,477.1	4,459.4	17.71	252.823		
4,724.4	4,651.7	4,631.8	4,631.6	17.1	1.4	113.62	-4,224.7	345.4	4,479.2	4,461.4	17.81	251.437		
4,800.0	4,725.7	4,700.0	4,699.8	17.4	1.5	113.80	-4,224.7	344.1	4,485.6	4,467.5	18.14	247.259		
4,822.8	4,748.0	4,712.7	4,712.5	17.6	1.5	113.83	-4,224.7	343.9	4,487.6	4,469.4	18.24	246.035		
4,900.0	4,823.5	4,794.8	4,794.5	17.9	1.5	114.05	-4,224.7	342.9	4,494.4	4,475.8	18.57	241.991		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,921.2	4,844.3	4,878.8	4,878.6	18.0	1.5	114.25	-4,224.2	342.8	4,496.1	4,477.5	18.66	240.973		
5,000.0	4,921.3	4,951.5	4,951.2	18.4	1.5	114.42	-4,223.2	343.3	4,501.8	4,482.8	19.00	236.954		
5,014.9	4,935.9	4,961.8	4,961.6	18.4	1.5	114.45	-4,223.1	343.3	4,503.0	4,483.9	19.06	236.207		
5,019.7	4,940.6	4,965.1	4,964.8	18.4	1.5	114.46	-4,223.0	343.3	4,503.3	4,484.2	19.08	236.026		
5,100.0	5,019.4	5,047.1	5,046.9	18.7	1.5	114.75	-4,222.2	343.0	4,509.1	4,489.7	19.36	232.916		
5,118.1	5,037.2	5,075.9	5,075.6	18.8	1.5	114.83	-4,221.8	342.9	4,510.2	4,490.8	19.41	232.376		
5,200.0	5,118.1	5,170.7	5,170.5	19.0	1.6	115.09	-4,220.2	342.4	4,514.4	4,494.7	19.63	229.962		
5,216.5	5,134.4	5,188.3	5,188.0	19.1	1.6	115.13	-4,219.9	342.3	4,515.1	4,495.4	19.67	229.541		
5,300.0	5,217.2	5,263.7	5,263.4	19.3	1.6	115.31	-4,218.6	341.5	4,518.1	4,498.2	19.87	227.409		
5,314.9	5,232.1	5,276.9	5,276.6	19.3	1.6	115.33	-4,218.3	341.4	4,518.6	4,498.7	19.90	227.084		
5,400.0	5,316.8	5,347.2	5,346.9	19.5	1.6	115.45	-4,217.3	341.0	4,520.6	4,500.6	20.07	225.214		
5,413.4	5,330.1	5,358.0	5,357.7	19.5	1.6	115.46	-4,217.2	341.0	4,520.9	4,500.8	20.10	224.968		
5,500.0	5,416.6	5,437.6	5,437.3	19.7	1.6	115.53	-4,216.4	341.2	4,522.1	4,501.8	20.25	223.302		
5,511.8	5,428.4	5,450.5	5,450.2	19.7	1.7	115.54	-4,216.2	341.2	4,522.1	4,501.9	20.27	223.106		
5,600.0	5,516.6	5,532.7	5,532.4	19.8	1.7	115.55	-4,215.4	341.6	4,522.0	4,501.6	20.40	221.629		
5,610.2	5,526.8	5,540.5	5,540.2	19.8	1.7	115.55	-4,215.3	341.6	4,521.9	4,501.5	20.42	221.481		
5,615.0	5,531.6	5,544.1	5,543.8	19.8	1.7	-174.37	-4,215.3	341.6	4,521.9	4,501.4	20.44	221.226		
5,700.0	5,616.6	5,600.0	5,599.7	19.9	1.7	-174.37	-4,214.9	341.6	4,521.4	4,500.8	20.56	219.873		
5,708.6	5,625.3	5,600.0	5,599.7	20.0	1.7	-174.37	-4,214.9	341.6	4,521.4	4,500.8	20.58	219.742		
5,713.6	5,630.2	5,616.9	5,616.6	20.0	1.7	-174.37	-4,214.9	341.6	4,521.3	4,500.7	20.58	219.656		
5,763.6	5,680.2	5,650.3	5,650.0	20.0	1.7	-174.37	-4,214.9	341.7	4,521.3	4,500.6	20.66	218.884		
5,800.0	5,716.6	5,674.6	5,674.3	20.1	1.7	-174.37	-4,214.9	341.9	4,521.4	4,500.7	20.71	218.331		
5,807.1	5,723.7	5,679.3	5,679.0	20.1	1.7	-174.37	-4,215.0	341.9	4,521.4	4,500.7	20.72	218.222		
5,900.0	5,816.6	5,800.0	5,799.7	20.2	1.7	-174.40	-4,215.5	343.7	4,521.7	4,500.8	20.86	216.717		
5,905.5	5,822.1	5,800.0	5,799.7	20.2	1.7	-174.40	-4,215.5	343.7	4,521.7	4,500.8	20.87	216.634		
5,952.6	5,869.2	5,843.3	5,843.0	20.3	1.7	-174.40	-4,215.5	344.4	4,521.7	4,500.7	20.95	215.866		
6,000.0	5,916.6	5,882.0	5,881.7	20.4	1.7	-174.41	-4,215.6	345.0	4,521.7	4,500.7	21.02	215.111		
6,003.9	5,920.5	5,885.2	5,884.9	20.4	1.7	-174.41	-4,215.6	345.1	4,521.7	4,500.7	21.03	215.048		
6,100.0	6,016.6	5,962.5	5,962.1	20.5	1.7	-174.42	-4,216.0	345.9	4,522.1	4,501.0	21.17	213.585		
6,102.3	6,019.0	5,964.4	5,964.0	20.5	1.7	-174.42	-4,216.1	346.0	4,522.1	4,501.0	21.18	213.549		
6,200.0	6,116.6	6,093.1	6,092.7	20.6	1.7	-174.43	-4,216.7	346.3	4,522.7	4,501.4	21.32	212.141		
6,200.8	6,117.4	6,094.5	6,094.1	20.6	1.7	-174.43	-4,216.7	346.3	4,522.7	4,501.4	21.32	212.130		
6,299.2	6,215.8	6,200.0	6,199.7	20.8	1.7	-174.43	-4,216.5	346.0	4,522.5	4,501.1	21.48	210.578		
6,300.0	6,216.6	6,200.0	6,199.7	20.8	1.7	-174.43	-4,216.5	346.0	4,522.5	4,501.1	21.48	210.566		
6,340.0	6,256.6	6,233.3	6,232.9	20.8	1.7	-174.43	-4,216.5	346.1	4,522.5	4,500.9	21.54	209.947		
6,350.0	6,266.6	6,241.3	6,241.0	20.8	1.7	5.36	-4,216.5	346.1	4,522.4	4,500.9	21.53	210.031		
6,397.6	6,314.2	6,279.7	6,279.3	20.9	1.7	5.38	-4,216.6	346.3	4,520.2	4,498.6	21.57	209.522		
6,400.0	6,316.5	6,281.6	6,281.2	20.9	1.7	5.38	-4,216.6	346.3	4,520.0	4,498.5	21.58	209.488		
6,450.0	6,366.2	6,339.4	6,339.1	20.9	1.7	5.43	-4,216.7	346.6	4,514.2	4,492.6	21.64	208.609		
6,496.0	6,411.4	6,400.0	6,399.6	21.0	1.7	5.50	-4,216.7	347.2	4,505.7	4,484.0	21.70	207.673		
6,500.0	6,415.3	6,400.0	6,399.6	21.0	1.7	5.51	-4,216.7	347.2	4,504.8	4,483.1	21.70	207.610		
6,550.0	6,463.6	6,440.7	6,440.3	21.0	1.7	5.62	-4,216.6	347.6	4,492.0	4,470.3	21.72	206.799		
6,594.5	6,505.8	6,471.2	6,470.9	21.0	1.7	5.75	-4,216.7	348.0	4,477.9	4,456.2	21.70	206.366		
6,600.0	6,510.9	6,475.0	6,474.6	21.0	1.7	5.76	-4,216.7	348.0	4,476.0	4,454.3	21.69	206.335		
6,650.0	6,557.0	6,500.0	6,499.6	21.0	1.7	5.94	-4,216.8	348.2	4,456.9	4,435.3	21.60	206.352		
6,692.9	6,595.4	6,530.4	6,530.1	21.0	1.7	6.13	-4,217.0	348.6	4,438.1	4,416.7	21.47	206.731		
6,700.0	6,601.6	6,534.2	6,533.9	21.0	1.7	6.17	-4,217.1	348.6	4,434.8	4,413.4	21.44	206.839		
6,750.0	6,644.6	6,560.5	6,560.1	20.9	1.7	6.44	-4,217.4	348.9	4,409.8	4,388.6	21.21	207.893		
6,791.3	6,678.6	6,600.0	6,599.6	20.9	1.7	6.72	-4,218.1	349.4	4,387.1	4,366.1	20.99	209.028		
6,800.0	6,685.6	6,600.0	6,599.6	20.9	1.7	6.78	-4,218.1	349.4	4,382.1	4,361.2	20.93	209.384		
6,850.0	6,724.6	6,615.4	6,615.0	20.9	1.7	7.17	-4,218.4	349.6	4,351.6	4,331.0	20.56	211.638		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
6,889.7	6,753.9	6,643.7	6,643.3	20.9	1.7	7.56	-4,219.0	350.1	4,325.5	4,305.3	20.25	213.656	
6,900.0	6,761.3	6,650.8	6,650.4	20.9	1.7	7.67	-4,219.2	350.2	4,318.5	4,298.4	20.16	214.240	
6,950.0	6,795.5	6,683.9	6,683.5	20.9	1.7	8.28	-4,219.9	350.9	4,282.9	4,263.2	19.71	217.352	
6,988.2	6,819.9	6,800.0	6,799.6	20.9	1.7	9.05	-4,221.2	352.8	4,253.9	4,234.4	19.45	218.677	
7,000.0	6,827.1	6,818.1	6,817.6	20.9	1.7	9.29	-4,221.1	353.1	4,244.5	4,225.2	19.35	219.394	
7,050.0	6,855.9	6,839.1	6,838.7	20.9	1.7	10.31	-4,221.1	353.3	4,203.8	4,185.0	18.82	223.330	
7,086.6	6,875.1	6,853.2	6,852.8	20.9	1.7	11.24	-4,221.1	353.4	4,172.8	4,154.4	18.42	226.490	
7,100.0	6,881.8	6,858.1	6,857.7	20.9	1.7	11.63	-4,221.1	353.4	4,161.2	4,142.9	18.29	227.534	
7,150.0	6,904.6	6,875.0	6,874.6	21.0	1.7	13.36	-4,221.1	353.6	4,117.0	4,099.2	17.77	231.730	
7,185.0	6,918.8	6,885.5	6,885.1	21.1	1.7	14.94	-4,221.1	353.7	4,085.1	4,067.7	17.43	234.414	
7,200.0	6,924.3	6,900.0	6,899.6	21.1	1.7	15.83	-4,221.2	353.8	4,071.3	4,054.0	17.31	235.198	
7,250.0	6,940.8	6,903.0	6,902.6	21.2	1.7	19.14	-4,221.2	353.8	4,024.4	4,007.5	16.93	237.662	
7,283.4	6,949.9	6,913.7	6,913.3	21.3	1.7	22.40	-4,221.2	353.9	3,992.4	3,975.6	16.82	237.426	
7,300.0	6,953.9	6,918.4	6,917.9	21.4	1.7	24.43	-4,221.3	353.9	3,976.5	3,959.6	16.81	236.550	
7,350.0	6,963.6	6,929.7	6,929.3	21.6	1.7	33.23	-4,221.3	354.0	3,927.7	3,910.6	17.16	228.903	
7,381.9	6,968.0	6,934.9	6,934.5	21.7	1.7	42.25	-4,221.3	354.0	3,896.3	3,878.5	17.80	218.897	
7,400.0	6,969.9	6,937.1	6,936.7	21.8	1.7	49.27	-4,221.3	354.1	3,878.4	3,860.1	18.31	211.773	
7,450.0	6,972.6	6,940.5	6,940.0	22.1	1.7	78.18	-4,221.3	354.1	3,828.8	3,809.3	19.49	196.469	
7,471.5	6,972.8	6,940.7	6,940.3	22.2	1.7	93.77	-4,221.3	354.1	3,807.4	3,787.3	20.11	189.334	
7,480.3	6,972.7	6,940.6	6,940.2	22.3	1.7	93.76	-4,221.3	354.1	3,798.7	3,778.5	20.20	188.096	
7,500.0	6,972.5	6,940.5	6,940.0	22.4	1.7	93.74	-4,221.3	354.1	3,779.1	3,758.7	20.39	185.365	
7,578.7	6,971.8	6,939.9	6,939.5	23.1	1.7	93.66	-4,221.3	354.1	3,700.9	3,679.7	21.18	174.753	
7,600.0	6,971.6	6,939.8	6,939.3	23.3	1.7	93.64	-4,221.3	354.1	3,679.7	3,658.3	21.39	172.020	
7,677.1	6,970.9	6,939.2	6,938.8	24.0	1.7	93.57	-4,221.3	354.1	3,603.1	3,580.8	22.23	162.113	
7,700.0	6,970.7	6,939.0	6,938.6	24.2	1.7	93.54	-4,221.3	354.1	3,580.4	3,557.9	22.47	159.320	
7,775.6	6,970.0	6,938.5	6,938.1	25.0	1.7	93.47	-4,221.3	354.1	3,505.3	3,481.9	23.38	149.921	
7,800.0	6,969.8	6,938.3	6,937.9	25.3	1.7	93.45	-4,221.3	354.1	3,481.1	3,457.4	23.67	147.037	
7,874.0	6,969.1	6,937.8	6,937.4	26.2	1.7	93.37	-4,221.3	354.1	3,407.6	3,383.0	24.64	138.299	
7,900.0	6,968.9	6,937.6	6,937.2	26.5	1.7	93.35	-4,221.3	354.1	3,381.8	3,356.8	24.98	135.389	
7,972.4	6,968.2	6,937.1	6,936.7	27.4	1.7	93.28	-4,221.3	354.1	3,309.9	3,284.0	25.98	127.381	
8,000.0	6,968.0	6,936.9	6,936.5	27.8	1.7	93.25	-4,221.3	354.1	3,282.6	3,256.2	26.37	124.492	
8,070.8	6,967.3	6,936.4	6,936.0	28.7	1.7	93.19	-4,221.3	354.1	3,212.3	3,184.9	27.40	117.224	
8,100.0	6,967.1	6,936.2	6,935.8	29.1	1.7	93.16	-4,221.3	354.1	3,183.4	3,155.6	27.83	114.390	
8,169.3	6,966.4	6,935.7	6,935.3	30.1	1.7	93.09	-4,221.3	354.1	3,114.7	3,085.9	28.88	107.837	
8,200.0	6,966.2	6,935.5	6,935.1	30.5	1.7	93.06	-4,221.3	354.1	3,084.3	3,054.9	29.35	105.081	
8,267.7	6,965.5	6,935.1	6,934.6	31.5	1.7	93.00	-4,221.3	354.1	3,017.2	2,986.8	30.42	99.195	
8,300.0	6,965.2	6,934.8	6,934.4	32.0	1.7	92.97	-4,221.3	354.0	2,985.2	2,954.3	30.93	96.530	
8,366.1	6,964.6	6,934.4	6,933.9	33.0	1.7	92.91	-4,221.3	354.0	2,919.8	2,887.8	31.99	91.257	
8,400.0	6,964.3	6,934.2	6,933.7	33.5	1.7	92.87	-4,221.3	354.0	2,886.2	2,853.7	32.54	88.690	
8,464.5	6,963.8	6,933.7	6,933.3	34.5	1.7	92.81	-4,221.3	354.0	2,822.4	2,788.8	33.61	83.972	
8,500.0	6,963.4	6,933.5	6,933.0	35.1	1.7	92.78	-4,221.3	354.0	2,787.3	2,753.1	34.20	81.507	
8,563.0	6,962.9	6,933.0	6,932.6	36.1	1.7	92.72	-4,221.3	354.0	2,725.1	2,689.8	35.26	77.286	
8,600.0	6,962.5	6,932.8	6,932.4	36.7	1.7	92.69	-4,221.3	354.0	2,688.5	2,652.6	35.88	74.922	
8,661.4	6,962.0	6,932.4	6,931.9	37.7	1.7	92.63	-4,221.3	354.0	2,627.8	2,590.9	36.94	71.146	
8,700.0	6,961.6	6,932.1	6,931.7	38.3	1.7	92.60	-4,221.3	354.0	2,589.7	2,552.1	37.60	68.880	
8,759.8	6,961.1	6,931.7	6,931.3	39.3	1.7	92.54	-4,221.3	354.0	2,530.7	2,492.1	38.64	65.500	
8,800.0	6,960.7	6,931.5	6,931.0	40.0	1.7	92.50	-4,221.3	354.0	2,491.1	2,451.7	39.33	63.330	
8,858.2	6,960.2	6,931.1	6,930.6	40.9	1.7	92.45	-4,221.3	354.0	2,433.7	2,393.3	40.36	60.301	
8,900.0	6,959.8	6,930.8	6,930.4	41.6	1.7	92.41	-4,221.3	354.0	2,392.5	2,351.4	41.09	58.223	
8,956.7	6,959.3	6,930.4	6,930.0	42.6	1.7	92.36	-4,221.3	354.0	2,336.7	2,294.6	42.10	55.505	
9,000.0	6,958.9	6,930.1	6,929.7	43.3	1.7	92.32	-4,221.3	354.0	2,294.1	2,251.2	42.87	53.515	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,055.1	6,958.4	6,929.8	6,929.3	44.3	1.7	92.27	92.27	-4,221.3	354.0	2,239.9	2,196.1	43.86	51.075	
9,100.0	6,958.0	6,929.5	6,929.1	45.1	1.7	92.23	92.23	-4,221.3	354.0	2,195.8	2,151.2	44.66	49.167	
9,153.5	6,957.5	6,929.1	6,928.7	46.0	1.7	92.18	92.18	-4,221.3	354.0	2,143.3	2,097.7	45.63	46.975	
9,200.0	6,957.1	6,928.8	6,928.4	46.8	1.7	92.14	92.14	-4,221.3	354.0	2,097.7	2,051.3	46.47	45.145	
9,251.9	6,956.6	6,928.5	6,928.1	47.7	1.7	92.10	92.10	-4,221.3	354.0	2,046.8	1,999.4	47.41	43.173	
9,300.0	6,956.2	6,928.2	6,927.8	48.6	1.7	92.06	92.06	-4,221.3	354.0	1,999.8	1,951.5	48.28	41.418	
9,350.4	6,955.7	6,927.9	6,927.4	49.5	1.7	92.01	92.01	-4,221.3	354.0	1,950.6	1,901.4	49.21	39.641	
9,400.0	6,955.2	6,927.6	6,927.1	50.3	1.7	91.97	91.97	-4,221.3	354.0	1,902.1	1,852.0	50.11	37.956	
9,448.8	6,954.8	6,927.2	6,926.8	51.2	1.7	91.92	91.92	-4,221.3	354.0	1,854.5	1,803.5	51.01	36.356	
9,500.0	6,954.3	6,926.9	6,926.5	52.1	1.7	91.88	91.88	-4,221.3	354.0	1,804.6	1,752.7	51.95	34.737	
9,547.2	6,953.9	6,926.6	6,926.2	53.0	1.7	91.84	91.84	-4,221.3	354.0	1,758.7	1,705.9	52.82	33.294	
9,600.0	6,953.4	6,926.3	6,925.9	53.9	1.7	91.79	91.79	-4,221.3	354.0	1,707.5	1,653.7	53.80	31.738	
9,645.6	6,953.0	6,926.0	6,925.6	54.7	1.7	91.75	91.75	-4,221.3	354.0	1,663.2	1,608.6	54.65	30.437	
9,700.0	6,952.5	6,925.7	6,925.2	55.7	1.7	91.71	91.71	-4,221.3	354.0	1,610.7	1,555.0	55.65	28.941	
9,744.1	6,952.1	6,925.4	6,924.9	56.5	1.7	91.67	91.67	-4,221.3	354.0	1,568.1	1,511.6	56.47	27.767	
9,800.0	6,951.6	6,925.0	6,924.6	57.5	1.7	91.62	91.62	-4,221.3	354.0	1,514.3	1,456.7	57.52	26.328	
9,842.5	6,951.2	6,924.8	6,924.3	58.3	1.7	91.58	91.58	-4,221.3	354.0	1,473.4	1,415.1	58.31	25.269	
9,900.0	6,950.7	6,924.4	6,924.0	59.4	1.7	91.54	91.54	-4,221.3	354.0	1,418.4	1,359.0	59.38	23.884	
9,940.9	6,950.3	6,924.2	6,923.7	60.1	1.7	91.50	91.50	-4,221.3	354.0	1,379.3	1,319.1	60.15	22.930	
10,000.0	6,949.8	6,923.8	6,923.4	61.2	1.7	91.45	91.45	-4,221.3	354.0	1,323.1	1,261.8	61.26	21.598	
10,039.3	6,949.4	6,923.6	6,923.1	61.9	1.7	91.42	91.42	-4,221.3	354.0	1,285.8	1,223.8	62.00	20.738	
10,100.0	6,948.9	6,923.2	6,922.8	63.0	1.7	91.37	91.37	-4,221.3	354.0	1,228.5	1,165.4	63.14	19.457	
10,137.8	6,948.5	6,923.0	6,922.5	63.7	1.7	91.33	91.33	-4,221.3	354.0	1,193.0	1,129.2	63.85	18.685	
10,200.0	6,948.0	6,922.6	6,922.1	64.9	1.7	91.28	91.28	-4,221.3	354.0	1,134.9	1,069.9	65.02	17.454	
10,236.2	6,947.6	6,922.4	6,921.9	65.6	1.7	91.25	91.25	-4,221.3	354.0	1,101.3	1,035.6	65.71	16.760	
10,300.0	6,947.1	6,922.0	6,921.5	66.7	1.7	91.20	91.20	-4,221.3	353.9	1,042.5	975.5	66.91	15.580	
10,334.6	6,946.7	6,921.8	6,921.3	67.4	1.7	91.17	91.17	-4,221.3	353.9	1,010.8	943.2	67.57	14.960	
10,400.0	6,946.2	6,921.4	6,920.9	68.6	1.7	91.12	91.12	-4,221.3	353.9	951.6	882.8	68.80	13.830	
10,433.0	6,945.8	6,921.2	6,920.7	69.2	1.7	91.09	91.09	-4,221.3	353.9	921.9	852.5	69.43	13.278	
10,500.0	6,945.2	6,920.8	6,920.3	70.5	1.7	91.03	91.03	-4,221.3	353.9	862.7	792.0	70.70	12.202	
10,531.5	6,945.0	6,920.6	6,920.2	71.1	1.7	91.01	91.01	-4,221.3	353.9	835.2	763.9	71.30	11.714	
10,600.0	6,944.3	6,920.2	6,919.8	72.3	1.7	90.95	90.95	-4,221.3	353.9	776.5	703.9	72.60	10.695	
10,629.9	6,944.1	6,920.0	6,919.6	72.9	1.7	90.93	90.93	-4,221.3	353.9	751.4	678.2	73.17	10.269	
10,700.0	6,943.4	6,919.6	6,919.2	74.2	1.7	90.87	90.87	-4,221.3	353.9	694.0	619.5	74.50	9.316	
10,728.3	6,943.2	6,919.4	6,919.0	74.7	1.7	90.85	90.85	-4,221.3	353.9	671.6	596.5	75.04	8.949	
10,800.0	6,942.5	6,919.0	6,918.6	76.1	1.7	90.79	90.79	-4,221.3	353.9	616.8	540.4	76.41	8.072	
10,826.7	6,942.3	6,918.9	6,918.4	76.6	1.7	90.77	90.77	-4,221.3	353.9	597.3	520.4	76.92	7.765	
10,900.0	6,941.6	6,918.4	6,918.0	78.0	1.7	90.71	90.71	-4,221.3	353.9	547.0	468.7	78.32	6.984	
10,925.2	6,941.4	6,918.3	6,917.9	78.4	1.7	90.69	90.69	-4,221.3	353.9	530.9	452.1	78.80	6.738	
11,000.0	6,940.7	6,917.9	6,917.4	79.9	1.7	90.63	90.63	-4,221.3	353.9	487.8	407.6	80.23	6.080	
11,023.6	6,940.5	6,917.7	6,917.3	80.3	1.7	90.61	90.61	-4,221.3	353.9	475.8	395.1	80.68	5.897	
11,100.0	6,939.8	6,917.3	6,916.9	81.7	1.7	90.55	90.55	-4,221.3	353.9	443.5	361.3	82.14	5.399	
11,122.0	6,939.6	6,917.2	6,916.7	82.2	1.7	90.53	90.53	-4,221.3	353.9	436.2	353.6	82.56	5.283	
11,200.0	6,938.9	6,916.7	6,916.3	83.6	1.7	90.47	90.47	-4,221.2	353.9	418.8	334.8	84.06	4.983	
11,220.4	6,938.7	6,916.6	6,916.2	84.0	1.7	90.46	90.46	-4,221.2	353.9	416.6	332.1	84.45	4.933	
11,256.3	6,938.4	6,916.4	6,916.0	84.7	1.7	90.43	90.43	-4,221.2	353.9	415.0	329.9	85.14	4.875 CC, ES	
11,300.0	6,938.0	6,916.2	6,915.7	85.5	1.7	90.40	90.40	-4,221.2	353.9	417.3	331.3	85.97	4.854 SF	
11,318.9	6,937.8	6,916.0	6,915.6	85.9	1.7	90.38	90.38	-4,221.2	353.9	419.7	333.4	86.34	4.861	
11,400.0	6,937.0	6,915.6	6,915.2	87.4	1.7	90.32	90.32	-4,221.2	353.9	439.2	351.3	87.89	4.997	
11,417.3	6,936.9	6,915.5	6,915.1	87.8	1.7	90.30	90.30	-4,221.2	353.9	445.2	356.9	88.23	5.046	
11,500.0	6,936.1	6,915.0	6,914.6	89.3	1.7	90.24	90.24	-4,221.2	353.9	481.3	391.5	89.81	5.359	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,515.7	6,936.0	6,914.9	6,914.5	89.6	1.7	90.23	-4,221.2	353.9	489.4	399.3	90.12	5.431		
11,600.0	6,935.2	6,914.5	6,914.0	91.2	1.7	90.16	-4,221.2	353.9	538.9	447.1	91.74	5.874		
11,614.1	6,935.1	6,914.4	6,914.0	91.5	1.7	90.15	-4,221.2	353.9	548.0	456.0	92.01	5.956		
11,700.0	6,934.3	6,913.9	6,913.5	93.1	1.7	90.09	-4,221.2	353.9	607.6	513.9	93.66	6.487		
11,712.6	6,934.2	6,913.9	6,913.4	93.4	1.7	90.08	-4,221.2	353.9	616.8	522.9	93.90	6.568		
11,800.0	6,933.4	6,913.4	6,912.9	95.1	1.7	90.01	-4,221.2	353.9	684.0	588.4	95.59	7.156		
11,811.0	6,933.3	6,913.3	6,912.9	95.3	1.7	90.00	-4,221.2	353.9	692.8	597.0	95.80	7.232		
11,900.0	6,932.5	6,912.8	6,912.4	97.0	1.7	89.94	-4,221.2	353.9	765.9	668.4	97.51	7.854		
11,909.4	6,932.4	6,912.8	6,912.3	97.1	1.7	89.93	-4,221.2	353.9	773.8	676.1	97.69	7.921		
12,000.0	6,931.6	6,912.3	6,911.8	98.9	1.7	89.86	-4,221.2	353.9	851.7	752.2	99.44	8.565		
12,007.8	6,931.5	6,912.2	6,911.8	99.0	1.7	89.85	-4,221.2	353.9	858.5	758.9	99.59	8.621		
12,100.0	6,930.7	6,911.7	6,911.3	100.8	1.7	89.79	-4,221.2	353.9	940.3	838.9	101.37	9.276		
12,106.3	6,930.6	6,911.7	6,911.3	100.9	1.7	89.78	-4,221.2	353.9	945.9	844.4	101.49	9.320		
12,200.0	6,929.8	6,911.2	6,910.8	102.7	1.7	89.71	-4,221.2	353.9	1,030.9	927.6	103.30	9.980		
12,204.7	6,929.7	6,911.2	6,910.7	102.8	1.7	89.71	-4,221.2	353.9	1,035.2	931.8	103.39	10.013		
12,300.0	6,928.8	6,910.7	6,910.2	104.6	1.7	89.64	-4,221.2	353.9	1,123.2	1,018.0	105.23	10.674		
12,303.1	6,928.8	6,910.7	6,910.2	104.7	1.7	89.64	-4,221.2	353.9	1,126.1	1,020.8	105.29	10.695		
12,400.0	6,927.9	6,910.1	6,909.7	106.5	1.7	89.56	-4,221.2	353.9	1,216.7	1,109.5	107.16	11.354		
12,401.5	6,927.9	6,910.1	6,909.7	106.6	1.7	89.56	-4,221.2	353.9	1,218.1	1,110.9	107.19	11.364		
12,500.0	6,927.0	6,909.6	6,909.2	108.5	1.7	89.49	-4,221.2	353.9	1,311.1	1,202.0	109.09	12.018		
12,598.4	6,926.1	6,909.1	6,908.7	110.4	1.7	89.42	-4,221.2	353.9	1,404.8	1,293.8	110.99	12.657		
12,600.0	6,926.1	6,909.1	6,908.7	110.4	1.7	89.42	-4,221.2	353.9	1,406.3	1,295.3	111.02	12.667		
12,696.8	6,925.2	6,908.6	6,908.2	112.3	1.7	89.35	-4,221.2	353.8	1,499.1	1,386.2	112.90	13.279		
12,700.0	6,925.2	6,908.6	6,908.1	112.3	1.7	89.35	-4,221.2	353.8	1,502.2	1,389.2	112.96	13.298		
12,795.2	6,924.3	6,908.1	6,907.6	114.1	1.7	89.28	-4,221.2	353.8	1,593.9	1,479.1	114.80	13.884		
12,800.0	6,924.3	6,908.1	6,907.6	114.2	1.7	89.28	-4,221.2	353.8	1,598.5	1,483.6	114.89	13.913		
12,893.7	6,923.4	6,907.6	6,907.1	116.0	1.7	89.21	-4,221.2	353.8	1,689.1	1,572.4	116.71	14.474		
12,900.0	6,923.4	6,907.5	6,907.1	116.2	1.7	89.20	-4,221.2	353.8	1,695.3	1,578.4	116.83	14.511		
12,992.1	6,922.5	6,907.1	6,906.6	117.9	1.7	89.14	-4,221.2	353.8	1,784.7	1,666.1	118.61	15.047		
13,000.0	6,922.5	6,907.0	6,906.6	118.1	1.7	89.13	-4,221.2	353.8	1,792.4	1,673.6	118.76	15.092		
13,090.5	6,921.6	6,906.6	6,906.1	119.8	1.7	89.07	-4,221.2	353.8	1,880.6	1,760.1	120.52	15.604		
13,100.0	6,921.5	6,906.5	6,906.1	120.0	1.7	89.06	-4,221.2	353.8	1,889.8	1,769.1	120.70	15.657		
13,188.9	6,920.7	6,906.1	6,905.6	121.7	1.7	89.00	-4,221.2	353.8	1,976.7	1,854.3	122.42	16.147		
13,200.0	6,920.6	6,906.0	6,905.6	121.9	1.7	88.99	-4,221.2	353.8	1,987.5	1,864.9	122.64	16.206		
13,287.4	6,919.8	6,905.6	6,905.1	123.6	1.7	88.93	-4,221.2	353.8	2,073.0	1,948.7	124.33	16.674		
13,300.0	6,919.7	6,905.5	6,905.1	123.9	1.7	88.92	-4,221.2	353.8	2,085.4	1,960.8	124.57	16.740		
13,385.8	6,918.9	6,905.1	6,904.6	125.5	1.7	88.86	-4,221.2	353.8	2,169.6	2,043.3	126.24	17.186		
13,400.0	6,918.8	6,905.0	6,904.6	125.8	1.7	88.85	-4,221.2	353.8	2,183.5	2,057.0	126.51	17.259		
13,484.2	6,918.0	6,904.6	6,904.2	127.4	1.7	88.80	-4,221.2	353.8	2,266.2	2,138.1	128.14	17.685		
13,500.0	6,917.9	6,904.5	6,904.1	127.7	1.7	88.79	-4,221.2	353.8	2,281.7	2,153.3	128.45	17.764		
13,582.6	6,917.1	6,904.1	6,903.7	129.3	1.7	88.73	-4,221.2	353.8	2,363.1	2,233.0	130.05	18.170		
13,600.0	6,917.0	6,904.0	6,903.6	129.7	1.7	88.72	-4,221.2	353.8	2,380.1	2,249.8	130.39	18.254		
13,681.1	6,916.2	6,903.6	6,903.2	131.2	1.7	88.66	-4,221.2	353.8	2,460.0	2,328.1	131.96	18.642		
13,700.0	6,916.1	6,903.5	6,903.1	131.6	1.7	88.65	-4,221.2	353.8	2,478.7	2,346.3	132.33	18.732		
13,779.5	6,915.3	6,900.0	6,899.6	133.1	1.7	88.16	-4,221.2	353.8	2,557.1	2,423.3	133.83	19.107		
13,800.0	6,915.2	6,900.0	6,899.6	133.5	1.7	88.16	-4,221.2	353.8	2,577.3	2,443.1	134.23	19.201		
13,877.9	6,914.4	6,900.0	6,899.6	135.1	1.7	88.16	-4,221.2	353.8	2,654.3	2,518.5	135.75	19.553		
13,900.0	6,914.2	6,900.0	6,899.6	135.5	1.7	88.16	-4,221.2	353.8	2,676.1	2,539.9	136.17	19.652		
13,976.3	6,913.5	6,900.0	6,899.6	137.0	1.7	88.16	-4,221.2	353.8	2,751.5	2,613.9	137.66	19.988		
14,000.0	6,913.3	6,900.0	6,899.6	137.4	1.7	88.16	-4,221.2	353.8	2,774.9	2,636.8	138.12	20.091		
14,074.8	6,912.6	6,900.0	6,899.6	138.9	1.7	88.16	-4,221.2	353.8	2,848.8	2,709.3	139.57	20.411		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 7O-243 - Slot HONEBEIN 7O-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 7O-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 22-18 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.0	6,912.4	6,900.0	6,899.6	139.4	1.7	88.16	-4,221.2	353.8	2,873.8	2,733.7	140.06	20.518	
14,145.0	6,912.0	6,900.0	6,899.6	140.2	1.7	88.16	-4,221.2	353.8	2,918.3	2,777.4	140.90	20.712	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-176.64	-3,657.6	-214.7	3,664.2					
98.4	98.4	60.2	60.2	0.1	0.0	-176.64	-3,657.6	-214.8	3,663.9	3,663.8	0.14	N/A		
100.0	100.0	61.8	61.8	0.1	0.0	-176.64	-3,657.6	-214.8	3,663.9	3,663.8	0.15	N/A		
161.8	161.8	122.3	122.3	0.2	0.1	-176.64	-3,657.6	-215.0	3,663.9	3,663.6	0.35	N/A		
196.8	196.8	154.3	154.3	0.3	0.2	-176.63	-3,657.6	-215.2	3,663.9	3,663.4	0.47	7,754.759		
200.0	200.0	157.2	157.2	0.3	0.2	-176.63	-3,657.6	-215.2	3,663.9	3,663.4	0.48	7,574.447		
295.3	295.3	282.1	282.1	0.5	0.3	-176.62	-3,657.4	-216.2	3,663.9	3,663.0	0.82	4,472.524		
300.0	300.0	290.1	290.1	0.5	0.3	-176.62	-3,657.3	-216.3	3,663.8	3,663.0	0.84	4,384.515		
393.7	393.7	384.2	384.1	0.8	0.4	-176.60	-3,656.5	-217.1	3,663.0	3,661.9	1.12	3,282.808		
400.0	400.0	390.2	390.2	0.8	0.4	-176.60	-3,656.4	-217.2	3,663.0	3,661.8	1.13	3,228.782		
492.1	492.1	520.5	520.5	1.0	0.4	-176.59	-3,654.6	-217.7	3,661.7	3,660.3	1.41	2,593.363		
500.0	500.0	529.5	529.5	1.0	0.4	-176.59	-3,654.5	-217.7	3,661.6	3,660.2	1.43	2,552.772		
590.5	590.5	626.9	626.8	1.2	0.5	-176.59	-3,652.5	-217.4	3,659.7	3,658.1	1.69	2,169.573		
600.0	600.0	635.5	635.5	1.2	0.5	-176.59	-3,652.3	-217.4	3,659.5	3,657.8	1.71	2,137.451		
689.0	689.0	722.0	722.0	1.4	0.5	-176.60	-3,650.6	-217.1	3,657.8	3,655.8	1.95	1,874.749		
700.0	700.0	735.1	735.0	1.4	0.5	-176.60	-3,650.4	-217.0	3,657.6	3,655.6	1.98	1,846.105		
787.4	787.4	833.5	833.4	1.6	0.6	-176.61	-3,648.2	-216.2	3,655.6	3,653.4	2.22	1,648.734		
800.0	800.0	846.5	846.4	1.7	0.6	-176.61	-3,647.9	-216.1	3,655.3	3,653.1	2.25	1,624.217		
885.8	885.8	930.4	930.3	1.9	0.6	-176.62	-3,646.0	-215.6	3,653.3	3,650.8	2.47	1,476.136		
900.0	900.0	943.3	943.1	1.9	0.6	-176.62	-3,645.7	-215.5	3,653.0	3,650.5	2.51	1,454.577		
984.2	984.2	1,023.9	1,023.8	2.1	0.7	-176.63	-3,644.0	-214.8	3,651.2	3,648.4	2.73	1,337.855		
1,000.0	1,000.0	1,041.4	1,041.3	2.1	0.7	-176.63	-3,643.6	-214.6	3,650.8	3,648.0	2.77	1,317.798		
1,082.7	1,082.7	1,134.0	1,133.8	2.3	0.7	113.32	-3,641.5	-213.6	3,649.3	3,646.3	3.01	1,211.437		
1,100.0	1,100.0	1,153.6	1,153.4	2.3	0.7	113.33	-3,641.0	-213.4	3,649.1	3,646.1	3.06	1,193.311		
1,181.1	1,181.0	1,244.3	1,244.1	2.5	0.8	113.40	-3,638.6	-212.5	3,648.5	3,645.3	3.27	1,116.298		
1,200.0	1,199.8	1,265.2	1,265.0	2.6	0.8	113.42	-3,638.0	-212.3	3,648.5	3,645.2	3.32	1,099.858		
1,208.7	1,208.5	1,274.9	1,274.6	2.6	0.8	113.43	-3,637.8	-212.3	3,648.5	3,645.1	3.34	1,092.099		
1,279.5	1,279.1	1,344.8	1,344.6	2.7	0.8	113.50	-3,635.7	-211.9	3,648.8	3,645.3	3.53	1,034.084		
1,300.0	1,299.5	1,363.9	1,363.7	2.8	0.8	113.52	-3,635.2	-211.8	3,649.1	3,645.5	3.58	1,018.610		
1,377.9	1,376.9	1,436.2	1,435.9	3.0	0.8	113.62	-3,633.2	-211.7	3,650.6	3,646.8	3.80	960.272		
1,400.0	1,398.7	1,456.5	1,456.2	3.0	0.8	113.65	-3,632.7	-211.7	3,651.2	3,647.3	3.86	945.061		
1,476.4	1,474.2	1,531.2	1,530.9	3.2	0.9	113.76	-3,630.7	-211.6	3,653.9	3,649.8	4.10	891.260		
1,500.0	1,497.5	1,556.5	1,556.2	3.3	0.9	113.81	-3,630.0	-211.7	3,654.9	3,650.7	4.17	875.760		
1,574.8	1,571.0	1,638.2	1,637.8	3.5	0.9	113.97	-3,627.7	-211.9	3,658.5	3,654.1	4.43	825.311		
1,600.1	1,595.7	1,666.3	1,665.9	3.6	0.9	114.03	-3,626.9	-212.1	3,659.9	3,655.4	4.52	809.662		
1,673.2	1,667.2	1,736.2	1,735.8	3.9	1.0	114.25	-3,624.7	-212.6	3,664.0	3,659.2	4.79	764.812		
1,700.0	1,693.4	1,758.8	1,758.4	4.0	1.0	114.32	-3,624.0	-212.8	3,665.5	3,660.6	4.89	749.859		
1,771.6	1,763.5	1,800.0	1,799.5	4.2	1.0	114.44	-3,622.9	-213.1	3,669.9	3,664.7	5.16	711.802		
1,800.0	1,791.3	1,834.5	1,834.1	4.3	1.0	114.55	-3,622.0	-213.3	3,671.7	3,666.4	5.27	697.002		
1,870.1	1,859.8	1,881.7	1,881.2	4.6	1.0	114.70	-3,621.0	-213.8	3,676.4	3,670.9	5.54	663.535		
1,900.0	1,889.1	1,900.0	1,899.5	4.7	1.0	114.76	-3,620.7	-214.0	3,678.6	3,673.0	5.66	650.334		
1,968.5	1,956.1	1,964.1	1,963.6	5.0	1.0	114.96	-3,619.8	-214.7	3,683.8	3,677.9	5.93	620.698		
2,000.0	1,986.9	1,992.5	1,992.0	5.1	1.1	115.05	-3,619.4	-215.1	3,686.2	3,680.1	6.06	608.053		
2,066.9	2,052.3	2,060.7	2,060.2	5.4	1.1	115.26	-3,618.5	-216.1	3,691.4	3,685.1	6.34	582.360		
2,100.0	2,084.7	2,095.0	2,094.5	5.5	1.1	115.37	-3,618.0	-216.6	3,694.0	3,687.5	6.48	570.489		
2,165.3	2,148.6	2,150.6	2,150.1	5.8	1.1	115.55	-3,617.2	-217.4	3,699.1	3,692.3	6.75	548.407		
2,200.0	2,182.5	2,179.6	2,179.0	5.9	1.1	115.64	-3,616.9	-217.8	3,701.9	3,695.0	6.89	537.440		
2,263.8	2,244.9	2,230.0	2,229.4	6.2	1.1	115.80	-3,616.4	-218.4	3,707.2	3,700.1	7.15	518.348		
2,300.0	2,280.3	2,257.5	2,256.9	6.3	1.1	115.88	-3,616.2	-218.8	3,710.4	3,703.1	7.30	508.207		
2,362.2	2,341.2	2,300.0	2,299.4	6.6	1.2	116.02	-3,616.0	-219.6	3,716.0	3,708.4	7.56	491.665		
2,400.0	2,378.1	2,337.8	2,337.3	6.8	1.2	116.14	-3,615.9	-220.3	3,719.5	3,711.8	7.71	482.128		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,460.6	2,437.4	2,390.0	2,389.4	7.0	1.2	116.30	-3,615.8	-221.3	3,725.2	3,717.2	7.97	467.617		
2,500.0	2,476.0	2,420.8	2,420.2	7.2	1.2	116.40	-3,615.9	-221.8	3,729.0	3,720.9	8.13	458.759		
2,559.0	2,533.7	2,465.1	2,464.5	7.4	1.2	116.54	-3,616.0	-222.7	3,735.0	3,726.6	8.37	446.149		
2,600.0	2,573.8	2,500.0	2,499.4	7.6	1.2	116.65	-3,616.3	-223.4	3,739.2	3,730.7	8.54	437.801		
2,657.5	2,630.0	2,541.8	2,541.2	7.9	1.2	116.78	-3,616.6	-224.3	3,745.4	3,736.6	8.78	426.723		
2,700.0	2,671.6	2,576.1	2,575.5	8.1	1.2	116.89	-3,617.0	-225.0	3,750.1	3,741.1	8.95	418.908		
2,755.9	2,726.3	2,630.6	2,629.9	8.3	1.2	117.06	-3,617.8	-226.0	3,756.3	3,747.1	9.18	409.070		
2,800.0	2,769.4	2,681.7	2,681.1	8.5	1.2	117.22	-3,618.4	-227.0	3,761.2	3,751.8	9.36	401.680		
2,854.3	2,822.5	2,730.1	2,729.4	8.7	1.2	117.37	-3,618.8	-228.1	3,767.2	3,757.6	9.59	392.937		
2,900.0	2,867.2	2,765.7	2,765.1	8.9	1.2	117.48	-3,619.3	-228.8	3,772.4	3,762.6	9.77	385.920		
2,952.7	2,918.8	2,810.5	2,809.8	9.2	1.2	117.62	-3,620.0	-229.7	3,778.5	3,768.5	9.99	378.134		
3,000.0	2,965.0	2,866.5	2,865.8	9.4	1.3	117.79	-3,620.8	-230.9	3,783.9	3,773.7	10.19	371.443		
3,051.2	3,015.1	2,921.2	2,920.4	9.6	1.3	117.96	-3,621.4	-232.1	3,789.8	3,779.4	10.40	364.467		
3,100.0	3,062.8	2,966.2	2,965.5	9.8	1.3	118.10	-3,621.9	-233.1	3,795.3	3,784.8	10.60	358.090		
3,149.6	3,111.4	3,010.3	3,009.5	10.0	1.3	118.23	-3,622.5	-233.9	3,801.1	3,790.3	10.80	351.841		
3,200.0	3,160.7	3,050.1	3,049.4	10.3	1.3	118.35	-3,623.1	-234.6	3,807.0	3,796.0	11.01	345.732		
3,248.0	3,207.6	3,088.1	3,087.3	10.5	1.3	118.47	-3,623.7	-235.3	3,812.8	3,801.6	11.21	340.124		
3,300.0	3,258.5	3,146.3	3,145.5	10.7	1.3	118.64	-3,624.8	-236.4	3,819.2	3,807.8	11.42	334.313		
3,346.4	3,303.9	3,203.8	3,203.0	10.9	1.3	118.81	-3,625.7	-237.3	3,824.7	3,813.1	11.62	329.292		
3,400.0	3,356.3	3,258.7	3,257.9	11.2	1.3	118.97	-3,626.4	-238.0	3,831.1	3,819.2	11.83	323.720		
3,444.9	3,400.2	3,304.1	3,303.3	11.4	1.3	119.10	-3,627.0	-238.6	3,836.3	3,824.3	12.02	319.201		
3,500.0	3,454.1	3,353.9	3,353.1	11.6	1.3	119.24	-3,627.7	-239.2	3,842.9	3,830.6	12.25	313.819		
3,543.3	3,496.5	3,393.1	3,392.2	11.8	1.3	119.36	-3,628.3	-239.7	3,848.1	3,835.7	12.42	309.730		
3,600.0	3,551.9	3,463.6	3,462.8	12.0	1.4	119.55	-3,629.2	-240.4	3,854.9	3,842.2	12.66	304.572		
3,641.7	3,592.7	3,511.7	3,510.9	12.2	1.4	119.69	-3,629.7	-240.8	3,859.7	3,846.9	12.83	300.880		
3,700.0	3,649.7	3,561.6	3,560.8	12.5	1.4	119.83	-3,630.2	-241.3	3,866.5	3,853.4	13.07	295.879		
3,740.1	3,689.0	3,600.0	3,599.1	12.7	1.4	119.94	-3,630.7	-241.6	3,871.3	3,858.1	13.23	292.546		
3,800.0	3,747.5	3,657.4	3,656.6	12.9	1.4	120.09	-3,631.4	-242.0	3,878.4	3,865.0	13.48	287.754		
3,838.6	3,785.3	3,697.7	3,696.8	13.1	1.4	120.20	-3,631.9	-242.0	3,883.0	3,869.4	13.64	284.754		
3,900.0	3,845.4	3,769.5	3,768.6	13.4	1.4	120.39	-3,632.8	-241.8	3,890.3	3,876.4	13.89	280.097		
3,937.0	3,881.5	3,800.0	3,799.1	13.6	1.4	120.47	-3,633.1	-241.7	3,894.6	3,880.5	14.04	277.364		
4,000.0	3,943.2	3,858.1	3,857.3	13.8	1.4	120.62	-3,633.7	-241.7	3,902.0	3,887.7	14.30	272.839		
4,035.4	3,977.8	3,885.9	3,885.1	14.0	1.4	120.69	-3,634.1	-241.7	3,906.3	3,891.8	14.45	270.374		
4,100.0	4,041.0	3,959.0	3,958.1	14.3	1.4	120.88	-3,635.0	-241.6	3,914.1	3,899.4	14.71	266.018		
4,133.8	4,074.1	4,001.5	4,000.6	14.4	1.4	120.99	-3,635.5	-241.4	3,918.1	3,903.3	14.85	263.791		
4,200.0	4,138.8	4,067.5	4,066.6	14.7	1.4	121.15	-3,636.1	-241.2	3,925.9	3,910.8	15.12	259.564		
4,232.3	4,170.4	4,099.6	4,098.8	14.9	1.4	121.24	-3,636.4	-241.2	3,929.7	3,914.5	15.26	257.560		
4,300.0	4,236.6	4,176.9	4,176.0	15.2	1.4	121.43	-3,636.9	-241.1	3,937.6	3,922.1	15.54	253.452		
4,330.7	4,266.6	4,212.3	4,211.4	15.3	1.4	121.53	-3,637.1	-241.0	3,941.1	3,925.5	15.66	251.640		
4,400.0	4,334.4	4,293.9	4,293.0	15.6	1.4	121.73	-3,637.4	-240.8	3,949.0	3,933.0	15.94	247.671		
4,429.1	4,362.9	4,325.8	4,324.9	15.8	1.4	121.81	-3,637.4	-240.6	3,952.2	3,936.2	16.06	246.060		
4,500.0	4,432.2	4,400.0	4,399.1	16.1	1.4	122.00	-3,637.3	-240.5	3,960.0	3,943.7	16.35	242.241		
4,527.5	4,459.2	4,424.0	4,423.1	16.2	1.4	122.06	-3,637.3	-240.5	3,963.1	3,946.6	16.46	240.806		
4,600.0	4,530.1	4,483.1	4,482.2	16.5	1.4	122.21	-3,637.3	-240.5	3,971.3	3,954.5	16.75	237.129		
4,626.0	4,555.5	4,505.9	4,505.0	16.7	1.4	122.27	-3,637.4	-240.5	3,974.3	3,957.4	16.85	235.844		
4,700.0	4,627.9	4,590.0	4,589.1	17.0	1.4	122.48	-3,637.5	-240.4	3,982.7	3,965.6	17.15	232.258		
4,724.4	4,651.7	4,619.9	4,619.0	17.1	1.4	122.56	-3,637.5	-240.3	3,985.5	3,968.2	17.24	231.123		
4,800.0	4,725.7	4,714.6	4,713.7	17.4	1.4	122.81	-3,637.0	-240.9	3,993.8	3,976.2	17.54	227.682		
4,822.8	4,748.0	4,741.0	4,740.1	17.6	1.4	122.88	-3,636.7	-241.3	3,996.2	3,978.6	17.63	226.623		
4,900.0	4,823.5	4,842.1	4,841.2	17.9	1.5	123.17	-3,635.0	-243.6	4,004.3	3,986.4	17.94	223.150		
4,921.2	4,844.3	4,876.4	4,875.4	18.0	1.5	123.27	-3,634.3	-244.5	4,006.4	3,988.4	18.03	222.218		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
5,000.0	4,921.3	4,966.1	4,965.1	18.4	1.5	123.54	-3,631.9	-246.8	4,014.0	3,995.6	18.35	218.797	
5,014.9	4,935.9	4,981.5	4,980.5	18.4	1.5	123.58	-3,631.4	-247.1	4,015.4	3,997.0	18.41	218.161	
5,019.7	4,940.6	4,986.4	4,985.4	18.4	1.5	123.60	-3,631.3	-247.2	4,015.9	3,997.4	18.42	218.017	
5,100.0	5,019.4	5,086.9	5,085.8	18.7	1.5	123.98	-3,628.4	-249.3	4,022.7	4,004.0	18.66	215.558	
5,118.1	5,037.2	5,100.0	5,098.9	18.8	1.5	124.04	-3,628.0	-249.5	4,024.0	4,005.3	18.70	215.157	
5,200.0	5,118.1	5,173.0	5,171.8	19.0	1.6	124.28	-3,625.8	-250.5	4,029.3	4,010.4	18.89	213.299	
5,216.5	5,134.4	5,186.4	5,185.3	19.1	1.6	124.33	-3,625.4	-250.7	4,030.3	4,011.3	18.92	212.976	
5,300.0	5,217.2	5,242.1	5,241.0	19.3	1.6	124.49	-3,624.1	-251.4	4,034.5	4,015.4	19.09	211.311	
5,314.9	5,232.1	5,251.6	5,250.4	19.3	1.6	124.52	-3,623.9	-251.5	4,035.2	4,016.1	19.12	211.060	
5,400.0	5,316.8	5,309.1	5,307.9	19.5	1.6	124.65	-3,623.1	-252.3	4,038.7	4,019.4	19.27	209.601	
5,413.4	5,330.1	5,323.4	5,322.2	19.5	1.6	124.67	-3,623.0	-252.4	4,039.1	4,019.8	19.29	209.407	
5,500.0	5,416.6	5,420.6	5,419.4	19.7	1.6	124.78	-3,622.0	-253.0	4,041.1	4,021.7	19.42	208.063	
5,511.8	5,428.4	5,436.6	5,435.4	19.7	1.6	124.78	-3,621.8	-252.9	4,041.2	4,021.8	19.44	207.905	
5,600.0	5,516.6	5,564.0	5,562.8	19.8	1.6	124.79	-3,620.2	-251.0	4,040.8	4,021.3	19.56	206.537	
5,610.2	5,526.8	5,579.7	5,578.5	19.8	1.6	124.78	-3,619.9	-250.6	4,040.6	4,021.1	19.58	206.374	
5,615.0	5,531.6	5,587.0	5,585.8	19.8	1.6	-165.14	-3,619.8	-250.4	4,040.5	4,020.9	19.61	206.078	
5,700.0	5,616.6	5,674.4	5,673.1	19.9	1.6	-165.18	-3,618.4	-247.7	4,038.5	4,018.8	19.74	204.595	
5,708.6	5,625.3	5,682.8	5,681.5	20.0	1.6	-165.18	-3,618.2	-247.4	4,038.3	4,018.5	19.75	204.433	
5,800.0	5,716.6	5,781.8	5,780.4	20.1	1.6	-165.22	-3,616.7	-243.7	4,036.1	4,016.2	19.91	202.716	
5,807.1	5,723.7	5,789.6	5,788.2	20.1	1.6	-165.23	-3,616.6	-243.4	4,035.9	4,016.0	19.92	202.582	
5,900.0	5,816.6	5,902.2	5,900.7	20.2	1.7	-165.28	-3,614.5	-238.8	4,033.3	4,013.2	20.09	200.797	
5,905.5	5,822.1	5,908.1	5,906.6	20.2	1.7	-165.29	-3,614.4	-238.5	4,033.1	4,013.0	20.10	200.693	
6,000.0	5,916.6	6,008.5	6,006.9	20.4	1.7	-165.32	-3,612.0	-235.2	4,030.1	4,009.9	20.26	198.915	
6,003.9	5,920.5	6,012.3	6,010.7	20.4	1.7	-165.33	-3,611.9	-235.0	4,030.0	4,009.7	20.27	198.841	
6,100.0	6,016.6	6,105.3	6,103.7	20.5	1.7	-165.35	-3,609.5	-232.5	4,026.9	4,006.5	20.43	197.073	
6,102.3	6,019.0	6,107.4	6,105.8	20.5	1.7	-165.35	-3,609.5	-232.4	4,026.9	4,006.4	20.44	197.030	
6,200.0	6,116.6	6,200.0	6,198.3	20.6	1.7	-165.38	-3,607.3	-229.8	4,023.9	4,003.3	20.61	195.262	
6,200.8	6,117.4	6,200.0	6,198.3	20.6	1.7	-165.38	-3,607.3	-229.8	4,023.9	4,003.3	20.61	195.250	
6,299.2	6,215.8	6,328.4	6,326.6	20.8	1.7	-165.42	-3,603.8	-226.1	4,020.6	3,999.8	20.79	193.380	
6,300.0	6,216.6	6,329.3	6,327.5	20.8	1.7	-165.42	-3,603.7	-226.0	4,020.5	3,999.7	20.79	193.365	
6,340.0	6,256.6	6,372.3	6,370.4	20.8	1.7	-165.43	-3,602.4	-224.9	4,019.0	3,998.2	20.86	192.623	
6,350.0	6,266.6	6,383.1	6,381.2	20.8	1.7	14.37	-3,602.0	-224.7	4,018.6	3,997.7	20.85	192.698	
6,397.6	6,314.2	6,427.8	6,425.9	20.9	1.7	14.44	-3,600.5	-223.7	4,014.6	3,993.7	20.90	192.044	
6,400.0	6,316.5	6,429.9	6,428.0	20.9	1.7	14.45	-3,600.4	-223.7	4,014.3	3,993.4	20.91	192.005	
6,450.0	6,366.2	6,473.2	6,471.3	20.9	1.7	14.62	-3,599.0	-222.8	4,006.7	3,985.8	20.97	191.044	
6,496.0	6,411.4	6,516.2	6,514.3	21.0	1.7	14.84	-3,597.6	-221.9	3,996.9	3,975.9	21.03	190.095	
6,500.0	6,415.3	6,520.5	6,518.6	21.0	1.7	14.87	-3,597.5	-221.8	3,995.9	3,974.9	21.03	190.017	
6,550.0	6,463.6	6,574.4	6,572.3	21.0	1.8	15.22	-3,595.7	-220.8	3,981.8	3,960.7	21.06	189.095	
6,594.5	6,505.8	6,625.8	6,623.7	21.0	1.8	15.62	-3,594.0	-219.8	3,966.5	3,945.4	21.05	188.460	
6,600.0	6,510.9	6,632.8	6,630.7	21.0	1.8	15.68	-3,593.7	-219.7	3,964.4	3,943.4	21.04	188.398	
6,650.0	6,557.0	6,694.8	6,692.6	21.0	1.8	16.28	-3,591.3	-218.4	3,943.7	3,922.7	20.98	188.002	
6,692.9	6,595.4	6,746.8	6,744.7	21.0	1.8	16.91	-3,589.1	-217.5	3,923.4	3,902.5	20.88	187.947	
6,700.0	6,601.6	6,755.3	6,753.1	21.0	1.8	17.03	-3,588.7	-217.3	3,919.8	3,899.0	20.85	187.974	
6,750.0	6,644.6	6,809.1	6,806.8	20.9	1.8	17.93	-3,586.1	-216.4	3,892.9	3,872.3	20.66	188.391	
6,791.3	6,678.6	6,840.7	6,838.4	20.9	1.8	18.80	-3,584.6	-216.0	3,868.6	3,848.1	20.45	189.132	
6,800.0	6,685.6	6,847.2	6,844.9	20.9	1.8	18.99	-3,584.2	-215.9	3,863.3	3,842.9	20.40	189.339	
6,850.0	6,724.6	6,883.1	6,880.8	20.9	1.8	20.28	-3,582.4	-215.5	3,831.0	3,810.9	20.09	190.707	
6,889.7	6,753.9	6,917.8	6,915.4	20.9	1.8	21.53	-3,580.7	-215.3	3,803.7	3,783.9	19.81	191.966	
6,900.0	6,761.3	6,929.6	6,927.2	20.9	1.8	21.91	-3,580.0	-215.2	3,796.4	3,776.6	19.74	192.321	
6,950.0	6,795.5	6,984.0	6,981.5	20.9	1.9	23.99	-3,576.9	-214.9	3,759.3	3,739.9	19.37	194.058	
6,988.2	6,819.9	6,988.2	6,990.3	20.9	1.9	25.66	-3,576.3	-214.8	3,729.5	3,710.5	19.06	195.692	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
7,000.0	6,827.1	7,000.0	6,996.9	20.9	1.9	26.26	-3,575.9	-214.8	3,720.1	3,701.2	18.97	196.141		
7,050.0	6,855.9	7,000.0	6,997.5	20.9	1.9	28.89	-3,575.9	-214.8	3,679.3	3,660.7	18.57	198.108		
7,086.6	6,875.1	7,000.0	6,997.5	20.9	1.9	31.18	-3,575.9	-214.8	3,648.4	3,630.1	18.31	199.304		
7,100.0	6,881.8	7,000.0	6,997.5	20.9	1.9	32.12	-3,575.9	-214.8	3,637.0	3,618.7	18.25	199.338		
7,150.0	6,904.6	7,000.0	6,997.5	21.0	1.9	36.13	-3,575.9	-214.8	3,593.3	3,575.3	18.04	199.221		
7,185.0	6,918.8	7,000.0	6,997.5	21.1	1.9	39.54	-3,575.9	-214.8	3,562.0	3,544.1	17.99	198.002		
7,200.0	6,924.3	7,000.0	6,997.5	21.1	1.9	41.18	-3,575.9	-214.8	3,548.5	3,530.5	18.00	197.152		
7,250.0	6,940.8	7,000.0	6,997.5	21.2	1.9	47.56	-3,575.9	-214.8	3,502.7	3,484.6	18.16	192.850		
7,283.4	6,949.9	7,000.0	6,997.5	21.3	1.9	52.73	-3,575.9	-214.8	3,471.6	3,453.2	18.38	188.875		
7,300.0	6,953.9	7,000.0	6,997.5	21.4	1.9	55.59	-3,575.9	-214.8	3,456.1	3,437.6	18.51	186.759		
7,350.0	6,963.6	7,000.0	6,997.5	21.6	1.9	65.51	-3,575.9	-214.8	3,409.0	3,390.0	18.92	180.185		
7,381.9	6,968.0	7,000.0	6,997.5	21.7	1.9	72.78	-3,575.9	-214.8	3,378.7	3,359.5	19.16	176.366		
7,400.0	6,969.9	7,000.0	6,997.5	21.8	1.9	77.18	-3,575.9	-214.8	3,361.4	3,342.1	19.27	174.400		
7,450.0	6,972.6	7,000.0	6,997.5	22.1	1.9	89.89	-3,575.9	-214.8	3,313.7	3,293.8	19.85	166.926		
7,471.5	6,972.8	7,000.0	6,997.5	22.2	1.9	95.37	-3,575.9	-214.8	3,293.2	3,272.8	20.39	161.544		
7,480.3	6,972.7	7,000.0	6,997.5	22.3	1.9	95.37	-3,575.9	-214.8	3,284.8	3,264.3	20.47	160.451		
7,500.0	6,972.5	7,000.0	6,997.5	22.4	1.9	95.37	-3,575.9	-214.8	3,266.0	3,245.3	20.67	158.041		
7,578.7	6,971.8	7,000.0	6,997.5	23.1	1.9	95.37	-3,575.9	-214.8	3,191.0	3,169.6	21.46	148.685		
7,600.0	6,971.6	7,000.0	6,997.5	23.3	1.9	95.37	-3,575.9	-214.8	3,170.8	3,149.2	21.68	146.276		
7,677.1	6,970.9	7,000.0	6,997.5	24.0	1.9	95.37	-3,575.9	-214.8	3,097.6	3,075.1	22.52	137.568		
7,700.0	6,970.7	7,000.0	6,997.5	24.2	1.9	95.37	-3,575.9	-214.8	3,076.0	3,053.2	22.77	135.114		
7,775.6	6,970.0	7,000.0	6,997.5	25.0	1.9	95.37	-3,575.9	-214.8	3,004.5	2,980.9	23.68	126.887		
7,800.0	6,969.8	7,000.0	6,997.5	25.3	1.9	95.37	-3,575.9	-214.8	2,981.5	2,957.5	23.97	124.364		
7,874.0	6,969.1	7,000.0	6,997.5	26.2	1.9	95.37	-3,575.9	-214.8	2,911.8	2,886.8	24.94	116.741		
7,900.0	6,968.9	7,000.0	6,997.5	26.5	1.9	95.37	-3,575.9	-214.8	2,887.4	2,862.1	25.28	114.203		
7,972.4	6,968.2	7,000.0	6,997.5	27.4	1.9	95.37	-3,575.9	-214.8	2,819.4	2,793.1	26.29	107.236		
8,000.0	6,968.0	7,000.0	6,997.5	27.8	1.9	95.37	-3,575.9	-214.8	2,793.6	2,767.0	26.68	104.724		
8,070.8	6,967.3	7,000.0	6,997.5	28.7	1.9	95.37	-3,575.9	-214.8	2,727.5	2,699.8	27.71	98.416		
8,100.0	6,967.1	7,000.0	6,997.5	29.1	1.9	95.37	-3,575.9	-214.8	2,700.4	2,672.2	28.14	95.959		
8,169.3	6,966.4	7,000.0	6,997.5	30.1	1.9	95.37	-3,575.9	-214.8	2,636.0	2,606.8	29.20	90.284		
8,200.0	6,966.2	7,000.0	6,997.5	30.5	1.9	95.37	-3,575.9	-214.8	2,607.6	2,577.9	29.67	87.899		
8,267.7	6,965.5	7,000.0	6,997.5	31.5	1.9	95.37	-3,575.9	-214.8	2,545.1	2,514.4	30.73	82.814		
8,300.0	6,965.2	7,000.0	6,997.5	32.0	1.9	95.37	-3,575.9	-214.8	2,515.4	2,484.1	31.24	80.514		
8,366.1	6,964.6	7,000.0	6,997.5	33.0	1.9	95.37	-3,575.9	-214.8	2,454.7	2,422.4	32.31	75.970		
8,400.0	6,964.3	7,000.0	6,997.5	33.5	1.9	95.37	-3,575.9	-214.8	2,423.8	2,390.9	32.86	73.760		
8,464.5	6,963.8	7,000.0	6,997.5	34.5	1.9	95.37	-3,575.9	-214.8	2,365.0	2,331.1	33.93	69.705		
8,500.0	6,963.4	7,000.0	6,997.5	35.1	1.9	95.37	-3,575.9	-214.8	2,332.8	2,298.3	34.52	67.589		
8,563.0	6,962.9	7,000.0	6,997.5	36.1	1.9	95.37	-3,575.9	-214.8	2,276.0	2,240.4	35.58	63.973		
8,600.0	6,962.5	7,000.0	6,997.5	36.7	1.9	95.37	-3,575.9	-214.8	2,242.7	2,206.5	36.20	61.950		
8,661.4	6,962.0	7,000.0	6,997.5	37.7	1.9	95.37	-3,575.9	-214.8	2,187.8	2,150.5	37.25	58.727		
8,700.0	6,961.6	7,000.0	6,997.5	38.3	1.9	95.37	-3,575.9	-214.8	2,153.4	2,115.5	37.92	56.796		
8,759.8	6,961.1	7,000.0	6,997.5	39.3	1.9	95.37	-3,575.9	-214.8	2,100.5	2,061.5	38.95	53.922		
8,800.0	6,960.7	7,000.0	6,997.5	40.0	1.9	95.37	-3,575.9	-214.8	2,065.2	2,025.5	39.65	52.082		
8,858.2	6,960.2	7,000.0	6,997.5	40.9	1.9	95.37	-3,575.9	-214.8	2,014.2	1,973.6	40.68	49.520		
8,900.0	6,959.8	7,000.0	6,997.5	41.6	1.9	95.37	-3,575.9	-214.8	1,978.0	1,936.6	41.41	47.767		
8,956.7	6,959.3	7,000.0	6,997.5	42.6	1.9	95.37	-3,575.9	-214.8	1,929.1	1,886.7	42.41	45.483		
9,000.0	6,958.9	7,000.0	6,997.5	43.3	1.9	95.37	-3,575.9	-214.8	1,892.1	1,848.9	43.18	43.815		
9,055.1	6,958.4	7,000.0	6,997.5	44.3	1.9	95.37	-3,575.9	-214.8	1,845.4	1,801.2	44.17	41.779		
9,100.0	6,958.0	7,000.0	6,997.5	45.1	1.9	95.37	-3,575.9	-214.8	1,807.6	1,762.7	44.97	40.193		
9,153.5	6,957.5	7,000.0	6,997.5	46.0	1.9	95.37	-3,575.9	-214.8	1,763.1	1,717.2	45.94	38.379		
9,200.0	6,957.1	7,000.0	6,997.5	46.8	1.9	95.37	-3,575.9	-214.8	1,724.8	1,678.1	46.78	36.874		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
9,251.9	6,956.6	7,000.0	6,997.5	47.7	1.9	95.37	-3,575.9	-214.8	1,682.6	1,634.9	47.72	35.259		
9,300.0	6,956.2	7,006.9	7,004.3	48.6	1.9	95.77	-3,575.5	-214.8	1,644.0	1,595.4	48.61	33.821		
9,350.4	6,955.7	7,002.7	7,000.2	49.5	1.9	95.53	-3,575.7	-214.8	1,604.1	1,554.5	49.52	32.393		
9,400.0	6,955.2	6,998.7	6,996.1	50.3	1.9	95.30	-3,576.0	-214.8	1,565.3	1,514.9	50.42	31.048		
9,448.8	6,954.8	6,994.7	6,992.2	51.2	1.9	95.07	-3,576.2	-214.8	1,527.8	1,476.5	51.30	29.780		
9,500.0	6,954.3	6,990.6	6,988.1	52.1	1.9	94.83	-3,576.5	-214.8	1,489.2	1,437.0	52.24	28.509		
9,547.2	6,953.9	6,986.9	6,984.4	53.0	1.9	94.62	-3,576.7	-214.9	1,454.2	1,401.1	53.10	27.387		
9,600.0	6,953.4	6,982.8	6,980.3	53.9	1.9	94.38	-3,577.0	-214.9	1,416.0	1,361.9	54.07	26.190		
9,645.6	6,953.0	6,979.3	6,976.8	54.7	1.8	94.18	-3,577.2	-214.9	1,383.7	1,328.8	54.91	25.201		
9,700.0	6,952.5	6,975.2	6,972.7	55.7	1.8	93.94	-3,577.4	-214.9	1,346.2	1,290.3	55.91	24.080		
9,744.1	6,952.1	6,971.9	6,969.4	56.5	1.8	93.76	-3,577.6	-214.9	1,316.7	1,260.0	56.72	23.214		
9,800.0	6,951.6	6,967.8	6,965.3	57.5	1.8	93.52	-3,577.9	-215.0	1,280.4	1,222.7	57.75	22.171		
9,842.5	6,951.2	6,964.7	6,962.2	58.3	1.8	93.34	-3,578.0	-215.0	1,253.8	1,195.3	58.54	21.418		
9,900.0	6,950.7	6,960.6	6,958.1	59.4	1.8	93.10	-3,578.3	-215.0	1,219.3	1,159.7	59.61	20.454		
9,940.9	6,950.3	6,957.7	6,955.2	60.1	1.8	92.93	-3,578.4	-215.0	1,195.7	1,135.3	60.37	19.806		
10,000.0	6,949.8	6,953.5	6,951.1	61.2	1.8	92.69	-3,578.7	-215.0	1,163.4	1,102.0	61.47	18.926		
10,039.3	6,949.4	6,950.8	6,948.4	61.9	1.8	92.54	-3,578.8	-215.1	1,143.1	1,080.9	62.21	18.376		
10,100.0	6,948.9	6,946.7	6,944.2	63.0	1.8	92.30	-3,579.1	-215.1	1,113.8	1,050.4	63.34	17.584		
10,137.8	6,948.5	6,944.1	6,941.7	63.7	1.8	92.15	-3,579.2	-215.1	1,096.8	1,032.7	64.05	17.124		
10,200.0	6,948.0	6,940.0	6,937.5	64.9	1.8	91.91	-3,579.4	-215.1	1,071.1	1,005.9	65.21	16.425		
10,236.2	6,947.6	6,937.6	6,935.2	65.6	1.8	91.77	-3,579.6	-215.1	1,057.5	991.7	65.89	16.050		
10,300.0	6,947.1	6,933.4	6,931.0	66.7	1.8	91.53	-3,579.8	-215.2	1,036.3	969.2	67.09	15.447		
10,334.6	6,946.7	6,931.2	6,928.8	67.4	1.8	91.40	-3,579.9	-215.2	1,026.3	958.5	67.74	15.150		
10,400.0	6,946.2	6,927.1	6,924.7	68.6	1.8	91.16	-3,580.2	-215.2	1,010.2	941.3	68.97	14.647		
10,433.0	6,945.8	6,925.0	6,922.6	69.2	1.8	91.04	-3,580.3	-215.2	1,003.6	934.0	69.59	14.421		
10,500.0	6,945.2	6,920.8	6,918.4	70.5	1.8	90.80	-3,580.5	-215.2	993.5	922.7	70.86	14.022		
10,531.5	6,945.0	6,918.9	6,916.5	71.1	1.8	90.69	-3,580.6	-215.3	990.3	918.9	71.45	13.860		
10,600.0	6,944.3	6,914.8	6,912.4	72.3	1.8	90.45	-3,580.8	-215.3	986.7	914.0	72.74	13.564		
10,617.9	6,944.2	6,913.7	6,911.3	72.7	1.8	90.38	-3,580.9	-215.3	986.5	913.5	73.08	13.499 CC		
10,629.9	6,944.1	6,913.0	6,910.6	72.9	1.8	90.34	-3,580.9	-215.3	986.6	913.3	73.31	13.458 ES		
10,700.0	6,943.4	6,908.8	6,906.4	74.2	1.8	90.10	-3,581.1	-215.3	989.9	915.3	74.64	13.264		
10,728.3	6,943.2	6,907.2	6,904.8	74.7	1.8	90.01	-3,581.2	-215.3	992.7	917.5	75.17	13.205		
10,800.0	6,942.5	6,903.0	6,900.6	76.1	1.8	89.77	-3,581.4	-215.4	1,003.1	926.6	76.53	13.108		
10,826.7	6,942.3	6,900.0	6,897.6	76.6	1.8	89.59	-3,581.6	-215.4	1,008.3	931.3	77.03	13.090		
10,900.0	6,941.6	6,900.0	6,897.6	78.0	1.8	89.59	-3,581.6	-215.4	1,025.9	947.5	78.43	13.081 SF		
10,925.2	6,941.4	6,900.0	6,897.6	78.4	1.8	89.59	-3,581.6	-215.4	1,033.1	954.2	78.91	13.092		
11,000.0	6,940.7	6,891.9	6,889.6	79.9	1.8	89.12	-3,582.0	-215.5	1,057.7	977.4	80.32	13.168		
11,023.6	6,940.5	6,890.7	6,888.3	80.3	1.8	89.05	-3,582.0	-215.5	1,066.4	985.7	80.77	13.203		
11,100.0	6,939.8	6,886.5	6,884.1	81.7	1.8	88.81	-3,582.3	-215.5	1,097.7	1,015.4	82.22	13.350		
11,122.0	6,939.6	6,885.3	6,882.9	82.2	1.8	88.74	-3,582.3	-215.5	1,107.5	1,024.8	82.64	13.402		
11,200.0	6,938.9	6,881.0	6,878.7	83.6	1.8	88.49	-3,582.5	-215.5	1,145.0	1,060.8	84.12	13.611		
11,220.4	6,938.7	6,879.9	6,877.6	84.0	1.8	88.43	-3,582.6	-215.6	1,155.4	1,070.9	84.51	13.673		
11,300.0	6,938.0	6,875.6	6,873.2	85.5	1.8	88.18	-3,582.8	-215.6	1,198.7	1,112.7	86.02	13.936		
11,318.9	6,937.8	6,874.6	6,872.2	85.9	1.8	88.12	-3,582.9	-215.6	1,209.5	1,123.1	86.38	14.003		
11,400.0	6,937.0	6,870.2	6,867.8	87.4	1.8	87.86	-3,583.1	-215.6	1,258.1	1,170.2	87.92	14.310		
11,417.3	6,936.9	6,869.2	6,866.9	87.8	1.8	87.81	-3,583.1	-215.7	1,268.9	1,180.7	88.24	14.379		
11,500.0	6,936.1	6,864.7	6,862.4	89.3	1.8	87.55	-3,583.4	-215.7	1,322.4	1,232.6	89.82	14.723		
11,515.7	6,936.0	6,863.9	6,861.6	89.6	1.8	87.50	-3,583.4	-215.7	1,332.9	1,242.8	90.11	14.791		
11,600.0	6,935.2	6,859.3	6,857.0	91.2	1.8	87.24	-3,583.6	-215.8	1,390.9	1,299.2	91.71	15.165		
11,614.1	6,935.1	6,858.6	6,856.3	91.5	1.8	87.19	-3,583.7	-215.8	1,400.9	1,308.9	91.98	15.230		
11,700.0	6,934.3	6,854.0	6,851.6	93.1	1.8	86.93	-3,583.9	-215.8	1,463.0	1,369.3	93.61	15.628		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY 5 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
11,712.6	6,934.2	6,853.3	6,851.0	93.4	1.8	86.89	-3,583.9	-215.8	1,472.3	1,378.4	93.85	15.687		
11,800.0	6,933.4	6,848.6	6,846.3	95.1	1.8	86.62	-3,584.2	-215.9	1,538.2	1,442.6	95.51	16.105		
11,811.0	6,933.3	6,848.0	6,845.7	95.3	1.8	86.58	-3,584.2	-215.9	1,546.6	1,450.9	95.72	16.158		
11,900.0	6,932.5	6,843.2	6,840.9	97.0	1.8	86.31	-3,584.4	-215.9	1,616.0	1,518.6	97.40	16.591		
11,909.4	6,932.4	6,842.7	6,840.4	97.1	1.8	86.28	-3,584.5	-216.0	1,623.5	1,525.9	97.58	16.637		
12,000.0	6,931.6	6,837.9	6,835.6	98.9	1.8	86.00	-3,584.7	-216.0	1,696.2	1,596.9	99.30	17.082		
12,007.8	6,931.5	6,837.5	6,835.2	99.0	1.8	85.97	-3,584.7	-216.0	1,702.6	1,603.1	99.45	17.120		
12,100.0	6,930.7	6,832.5	6,830.2	100.8	1.8	85.69	-3,585.0	-216.1	1,778.4	1,677.2	101.19	17.574		
12,106.3	6,930.6	6,832.2	6,829.9	100.9	1.8	85.67	-3,585.0	-216.1	1,783.6	1,682.3	101.31	17.605		
12,200.0	6,929.8	6,827.2	6,824.9	102.7	1.8	85.38	-3,585.2	-216.2	1,862.3	1,759.2	103.08	18.066		
12,204.7	6,929.7	6,827.0	6,824.7	102.8	1.8	85.37	-3,585.2	-216.2	1,866.2	1,763.1	103.17	18.089		
12,300.0	6,928.8	6,821.9	6,819.6	104.6	1.8	85.08	-3,585.5	-216.2	1,947.7	1,842.7	104.97	18.554		
12,303.1	6,928.8	6,821.7	6,819.5	104.7	1.8	85.07	-3,585.5	-216.2	1,950.3	1,845.3	105.03	18.569		
12,400.0	6,927.9	6,816.6	6,814.3	106.5	1.8	84.77	-3,585.8	-216.3	2,034.4	1,927.5	106.86	19.038		
12,401.5	6,927.9	6,816.5	6,814.2	106.6	1.8	84.77	-3,585.8	-216.3	2,035.7	1,928.8	106.89	19.045		
12,500.0	6,927.0	6,811.3	6,809.1	108.5	1.8	84.47	-3,586.0	-216.4	2,122.2	2,013.5	108.74	19.516		
12,598.4	6,926.1	6,806.1	6,803.9	110.4	1.8	84.17	-3,586.3	-216.5	2,209.7	2,099.1	110.60	19.980		
12,600.0	6,926.1	6,806.0	6,803.8	110.4	1.8	84.17	-3,586.3	-216.5	2,211.1	2,100.5	110.63	19.987		
12,696.8	6,925.2	6,800.0	6,797.8	112.3	1.8	83.82	-3,586.6	-216.6	2,298.0	2,185.6	112.44	20.439		
12,700.0	6,925.2	6,800.0	6,797.8	112.3	1.8	83.82	-3,586.6	-216.6	2,300.9	2,188.4	112.50	20.453		
12,795.2	6,924.3	6,800.0	6,797.8	114.1	1.8	83.82	-3,586.6	-216.6	2,387.2	2,272.8	114.34	20.879		
12,800.0	6,924.3	6,800.0	6,797.8	114.2	1.8	83.82	-3,586.6	-216.6	2,391.5	2,277.1	114.43	20.900		
12,893.7	6,923.4	6,800.0	6,797.8	116.0	1.8	83.82	-3,586.6	-216.6	2,477.0	2,360.8	116.24	21.310		
12,900.0	6,923.4	6,800.0	6,797.8	116.2	1.8	83.82	-3,586.6	-216.6	2,482.8	2,366.4	116.36	21.338		
12,992.1	6,922.5	6,786.8	6,784.6	117.9	1.8	83.07	-3,587.2	-216.8	2,567.4	2,449.4	117.99	21.759		
13,000.0	6,922.5	6,786.4	6,784.2	118.1	1.8	83.05	-3,587.2	-216.8	2,574.7	2,456.6	118.14	21.794		
13,090.5	6,921.6	6,782.2	6,780.0	119.8	1.8	82.81	-3,587.5	-216.9	2,658.4	2,538.6	119.84	22.184		
13,100.0	6,921.5	6,781.8	6,779.6	120.0	1.8	82.78	-3,587.5	-216.9	2,667.2	2,547.2	120.02	22.224		
13,188.9	6,920.7	6,777.7	6,775.5	121.7	1.8	82.55	-3,587.7	-216.9	2,749.9	2,628.3	121.68	22.600		
13,200.0	6,920.6	6,777.2	6,775.0	121.9	1.8	82.52	-3,587.7	-216.9	2,760.2	2,638.3	121.89	22.646		
13,287.4	6,919.8	6,773.2	6,771.0	123.6	1.8	82.30	-3,587.9	-217.0	2,841.9	2,718.4	123.52	23.007		
13,300.0	6,919.7	6,772.7	6,770.5	123.9	1.8	82.27	-3,587.9	-217.0	2,853.7	2,730.0	123.76	23.059		
13,385.8	6,918.9	6,768.8	6,766.6	125.5	1.8	82.05	-3,588.1	-217.1	2,934.3	2,808.9	125.36	23.407		
13,400.0	6,918.8	6,768.2	6,766.0	125.8	1.8	82.01	-3,588.1	-217.1	2,947.6	2,822.0	125.62	23.464		
13,484.2	6,918.0	6,764.5	6,762.3	127.4	1.8	81.80	-3,588.3	-217.2	3,027.0	2,899.8	127.20	23.798		
13,500.0	6,917.9	6,763.8	6,761.6	127.7	1.8	81.77	-3,588.3	-217.2	3,041.9	2,914.4	127.49	23.860		
13,582.6	6,917.1	6,760.2	6,758.0	129.3	1.8	81.56	-3,588.5	-217.2	3,120.1	2,991.0	129.03	24.181		
13,600.0	6,917.0	6,759.5	6,757.3	129.7	1.8	81.52	-3,588.5	-217.2	3,136.5	3,007.2	129.35	24.248		
13,681.1	6,916.2	6,756.0	6,753.8	131.2	1.8	81.32	-3,588.7	-217.3	3,213.5	3,082.6	130.86	24.556		
13,700.0	6,916.1	6,755.2	6,753.0	131.6	1.8	81.28	-3,588.7	-217.3	3,231.5	3,100.2	131.21	24.627		
13,779.5	6,915.3	6,751.8	6,749.6	133.1	1.8	81.09	-3,588.9	-217.4	3,307.1	3,174.5	132.69	24.924		
13,800.0	6,915.2	6,750.9	6,748.8	133.5	1.8	81.04	-3,588.9	-217.4	3,326.7	3,193.6	133.07	24.999		
13,877.9	6,914.4	6,747.7	6,745.5	135.1	1.8	80.86	-3,589.1	-217.5	3,401.1	3,266.6	134.52	25.283		
13,900.0	6,914.2	6,746.8	6,744.6	135.5	1.8	80.80	-3,589.1	-217.5	3,422.2	3,287.3	134.93	25.363		
13,976.3	6,913.5	6,743.6	6,741.4	137.0	1.8	80.63	-3,589.2	-217.5	3,495.3	3,358.9	136.34	25.636		
14,000.0	6,913.3	6,742.6	6,740.5	137.4	1.8	80.57	-3,589.3	-217.5	3,517.9	3,381.1	136.78	25.719		
14,074.8	6,912.6	6,739.6	6,737.4	138.9	1.8	80.40	-3,589.4	-217.6	3,589.7	3,451.5	138.17	25.981		
14,100.0	6,912.4	6,738.6	6,736.4	139.4	1.8	80.34	-3,589.5	-217.6	3,613.9	3,475.3	138.63	26.068		
14,145.0	6,912.0	6,736.7	6,734.6	140.2	1.8	80.24	-3,589.5	-217.6	3,657.1	3,517.7	139.42	26.230		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	0.0	0.0	0.0	0.0	-165.46	-2,859.8	-741.8	2,954.8					
98.4	98.4	50.4	50.4	0.1	0.0	-165.46	-2,859.8	-741.8	2,954.4	2,954.3	0.14	N/A		
100.0	100.0	51.9	51.9	0.1	0.0	-165.46	-2,859.8	-741.8	2,954.4	2,954.3	0.14	N/A		
196.8	196.8	151.8	151.8	0.3	0.2	-165.45	-2,859.7	-742.3	2,954.5	2,954.0	0.47	6,244.001		
200.0	200.0	155.2	155.2	0.3	0.2	-165.45	-2,859.7	-742.3	2,954.5	2,954.0	0.49	6,090.805		
295.3	295.3	256.1	256.1	0.5	0.3	-165.43	-2,859.3	-743.1	2,954.3	2,953.5	0.81	3,640.321		
300.0	300.0	260.9	260.9	0.5	0.3	-165.43	-2,859.3	-743.1	2,954.3	2,953.5	0.83	3,574.444		
393.7	393.7	354.0	354.0	0.8	0.4	-165.41	-2,858.8	-744.1	2,954.1	2,953.0	1.11	2,660.404		
400.0	400.0	360.1	360.1	0.8	0.4	-165.41	-2,858.8	-744.1	2,954.1	2,952.9	1.13	2,616.777		
492.1	492.1	450.9	450.9	1.0	0.4	-165.39	-2,858.4	-745.0	2,953.9	2,952.5	1.40	2,115.918		
500.0	500.0	458.7	458.7	1.0	0.4	-165.39	-2,858.3	-745.1	2,953.9	2,952.4	1.42	2,082.207		
590.5	590.5	554.0	554.0	1.2	0.5	-165.37	-2,857.9	-746.0	2,953.7	2,952.0	1.68	1,760.423		
600.0	600.0	564.4	564.3	1.2	0.5	-165.37	-2,857.8	-746.1	2,953.6	2,951.9	1.70	1,732.520		
689.0	689.0	654.1	654.1	1.4	0.5	-165.35	-2,857.3	-746.7	2,953.3	2,951.3	1.95	1,511.977		
700.0	700.0	664.6	664.6	1.4	0.5	-165.35	-2,857.2	-746.8	2,953.2	2,951.2	1.98	1,488.805		
787.4	787.4	754.3	754.3	1.6	0.6	-165.34	-2,856.7	-747.4	2,952.9	2,950.7	2.22	1,327.505		
800.0	800.0	767.9	767.9	1.7	0.6	-165.34	-2,856.6	-747.4	2,952.8	2,950.6	2.26	1,307.077		
885.8	885.8	855.5	855.5	1.9	0.6	-165.33	-2,856.1	-747.7	2,952.4	2,949.9	2.49	1,184.337		
900.0	900.0	869.5	869.5	1.9	0.6	-165.33	-2,856.0	-747.8	2,952.3	2,949.8	2.53	1,166.355		
984.2	984.2	950.0	950.0	2.1	0.7	-165.32	-2,855.5	-748.0	2,951.9	2,949.1	2.76	1,070.960		
1,000.0	1,000.0	964.8	964.7	2.1	0.7	-165.32	-2,855.4	-748.1	2,951.8	2,949.0	2.80	1,054.954		
1,017.3	1,017.3	980.9	980.9	2.2	0.7	124.61	-2,855.3	-748.2	2,951.8	2,949.0	2.79	1,059.385		
1,082.7	1,082.7	1,047.1	1,047.0	2.3	0.7	124.63	-2,855.0	-748.6	2,952.2	2,949.3	2.95	1,000.123		
1,100.0	1,100.0	1,065.2	1,065.2	2.3	0.7	124.63	-2,854.9	-748.7	2,952.5	2,949.5	3.00	985.470		
1,181.1	1,181.0	1,147.0	1,146.9	2.5	0.8	124.67	-2,854.4	-749.0	2,954.4	2,951.2	3.20	923.173		
1,200.0	1,199.8	1,165.5	1,165.5	2.6	0.8	124.69	-2,854.3	-749.1	2,955.0	2,951.8	3.25	909.864		
1,279.5	1,279.1	1,246.1	1,246.1	2.7	0.8	124.74	-2,853.9	-749.4	2,958.5	2,955.0	3.46	855.796		
1,300.0	1,299.5	1,267.4	1,267.3	2.8	0.8	124.76	-2,853.8	-749.5	2,959.6	2,956.0	3.51	842.940		
1,377.9	1,376.9	1,343.0	1,343.0	3.0	0.8	124.83	-2,853.3	-749.8	2,964.4	2,960.7	3.73	795.206		
1,400.0	1,398.7	1,363.4	1,363.4	3.0	0.8	124.85	-2,853.2	-749.9	2,966.1	2,962.3	3.79	782.951		
1,476.4	1,474.2	1,435.5	1,435.5	3.2	0.9	124.92	-2,852.9	-750.0	2,972.6	2,968.5	4.02	739.904		
1,500.0	1,497.5	1,458.4	1,458.3	3.3	0.9	124.95	-2,852.9	-750.1	2,974.8	2,970.7	4.09	727.662		
1,574.8	1,571.0	1,531.0	1,531.0	3.5	0.9	125.03	-2,852.7	-750.1	2,982.7	2,978.4	4.33	688.072		
1,600.1	1,595.7	1,555.8	1,555.7	3.6	0.9	125.06	-2,852.7	-750.0	2,985.7	2,981.3	4.42	675.876		
1,673.2	1,667.2	1,626.7	1,626.6	3.9	0.9	125.30	-2,852.5	-749.9	2,994.4	2,989.7	4.67	641.295		
1,700.0	1,693.4	1,652.1	1,652.1	4.0	0.9	125.38	-2,852.5	-749.9	2,997.6	2,992.9	4.76	629.722		
1,771.6	1,763.5	1,723.1	1,723.0	4.2	1.0	125.61	-2,852.4	-749.9	3,006.3	3,001.3	5.02	599.163		
1,800.0	1,791.3	1,753.8	1,753.7	4.3	1.0	125.71	-2,852.3	-749.8	3,009.7	3,004.6	5.12	587.933		
1,870.1	1,859.8	1,825.8	1,825.7	4.6	1.0	125.94	-2,852.1	-749.7	3,018.1	3,012.7	5.38	561.009		
1,900.0	1,889.1	1,854.0	1,853.9	4.7	1.0	126.03	-2,852.0	-749.6	3,021.7	3,016.2	5.49	550.392		
1,968.5	1,956.1	1,920.5	1,920.5	5.0	1.0	126.24	-2,851.8	-749.3	3,030.0	3,024.2	5.75	526.985		
2,000.0	1,986.9	1,953.4	1,953.3	5.1	1.0	126.34	-2,851.7	-749.2	3,033.8	3,027.9	5.87	516.858		
2,066.9	2,052.3	2,019.2	2,019.1	5.4	1.0	126.55	-2,851.5	-748.9	3,041.8	3,035.7	6.13	496.491		
2,100.0	2,084.7	2,047.6	2,047.5	5.5	1.0	126.64	-2,851.4	-748.8	3,045.9	3,039.6	6.25	487.260		
2,165.3	2,148.6	2,104.2	2,104.2	5.8	1.0	126.81	-2,851.4	-748.5	3,054.0	3,047.5	6.50	469.810		
2,200.0	2,182.5	2,138.2	2,138.1	5.9	1.0	126.91	-2,851.5	-748.3	3,058.3	3,051.7	6.63	461.049		
2,263.8	2,244.9	2,200.0	2,199.9	6.2	1.0	127.10	-2,851.6	-747.8	3,066.4	3,059.5	6.88	445.661		
2,300.0	2,280.3	2,234.4	2,234.4	6.3	1.1	127.20	-2,851.6	-747.5	3,071.0	3,064.0	7.02	437.479		
2,362.2	2,341.2	2,292.5	2,292.4	6.6	1.1	127.37	-2,851.8	-747.0	3,078.9	3,071.7	7.26	424.056		
2,400.0	2,378.1	2,324.8	2,324.7	6.8	1.1	127.46	-2,852.0	-746.7	3,083.8	3,076.4	7.41	416.393		
2,460.6	2,437.4	2,375.4	2,375.3	7.0	1.1	127.61	-2,852.3	-746.1	3,091.8	3,084.2	7.64	404.644		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,476.0	2,400.0	2,399.9	7.2	1.1	127.67	-2,852.6	-745.8	3,097.2	3,089.4	7.79	397.475		
2,559.0	2,533.7	2,448.1	2,448.0	7.4	1.1	127.81	-2,853.3	-745.2	3,105.4	3,097.3	8.02	387.118		
2,600.0	2,573.8	2,476.7	2,476.6	7.6	1.1	127.88	-2,853.9	-744.8	3,111.3	3,103.1	8.18	380.332		
2,657.5	2,630.0	2,522.6	2,522.5	7.9	1.1	128.01	-2,855.0	-744.2	3,119.8	3,111.4	8.40	371.198		
2,700.0	2,671.6	2,562.8	2,562.7	8.1	1.1	128.12	-2,856.0	-743.7	3,126.1	3,117.6	8.57	364.756		
2,755.9	2,726.3	2,615.8	2,615.6	8.3	1.1	128.26	-2,857.3	-743.0	3,134.6	3,125.8	8.79	356.650		
2,800.0	2,769.4	2,657.7	2,657.6	8.5	1.1	128.37	-2,858.4	-742.5	3,141.2	3,132.3	8.96	350.596		
2,854.3	2,822.5	2,712.1	2,711.9	8.7	1.1	128.51	-2,859.8	-741.9	3,149.5	3,140.3	9.17	343.431		
2,900.0	2,867.2	2,768.2	2,768.0	8.9	1.1	128.66	-2,861.2	-741.3	3,156.3	3,147.0	9.35	337.666		
2,952.7	2,918.8	2,825.7	2,825.5	9.2	1.1	128.81	-2,862.4	-740.6	3,164.1	3,154.6	9.55	331.248		
3,000.0	2,965.0	2,870.9	2,870.7	9.4	1.1	128.93	-2,863.3	-740.1	3,171.1	3,161.3	9.73	325.744		
3,051.2	3,015.1	2,921.6	2,921.3	9.6	1.1	129.07	-2,864.3	-739.5	3,178.6	3,168.7	9.93	319.990		
3,100.0	3,062.8	2,972.3	2,972.0	9.8	1.1	129.20	-2,865.2	-739.0	3,185.8	3,175.7	10.12	314.705		
3,149.6	3,111.4	3,024.1	3,023.9	10.0	1.1	129.34	-2,866.1	-738.6	3,193.1	3,182.8	10.32	309.530		
3,200.0	3,160.7	3,077.2	3,076.9	10.3	1.1	129.48	-2,866.9	-738.2	3,200.5	3,190.0	10.51	304.478		
3,248.0	3,207.6	3,124.2	3,123.9	10.5	1.1	129.61	-2,867.6	-737.9	3,207.5	3,196.8	10.70	299.823		
3,300.0	3,258.5	3,171.8	3,171.5	10.7	1.2	129.74	-2,868.4	-737.6	3,215.1	3,204.2	10.90	294.979		
3,346.4	3,303.9	3,214.6	3,214.3	10.9	1.2	129.85	-2,869.0	-737.4	3,221.9	3,210.9	11.08	290.800		
3,400.0	3,356.3	3,264.7	3,264.4	11.2	1.2	129.99	-2,869.8	-737.3	3,229.9	3,218.6	11.29	286.150		
3,444.9	3,400.2	3,307.0	3,306.7	11.4	1.2	130.11	-2,870.5	-737.3	3,236.6	3,225.2	11.46	282.385		
3,500.0	3,454.1	3,361.1	3,360.8	11.6	1.2	130.25	-2,871.3	-737.3	3,244.9	3,233.3	11.68	277.927		
3,543.3	3,496.5	3,400.0	3,399.7	11.8	1.2	130.36	-2,871.9	-737.4	3,251.5	3,239.6	11.84	274.544		
3,600.0	3,551.9	3,449.8	3,449.5	12.0	1.2	130.50	-2,872.6	-737.6	3,260.1	3,248.0	12.06	270.261		
3,641.7	3,592.7	3,484.3	3,483.9	12.2	1.2	130.60	-2,873.2	-737.8	3,266.6	3,254.3	12.22	267.218		
3,700.0	3,649.7	3,539.0	3,538.7	12.5	1.2	130.75	-2,874.1	-738.4	3,275.7	3,263.3	12.45	263.106		
3,740.1	3,689.0	3,579.0	3,578.7	12.7	1.2	130.87	-2,874.8	-738.9	3,282.0	3,269.4	12.61	260.359		
3,800.0	3,747.5	3,633.3	3,633.0	12.9	1.2	131.03	-2,875.6	-739.7	3,291.5	3,278.6	12.84	256.402		
3,838.6	3,785.3	3,666.5	3,666.1	13.1	1.2	131.13	-2,876.1	-740.3	3,297.6	3,284.6	12.99	253.932		
3,900.0	3,845.4	3,723.6	3,723.2	13.4	1.2	131.29	-2,877.2	-741.3	3,307.6	3,294.3	13.22	250.130		
3,937.0	3,881.5	3,762.6	3,762.3	13.6	1.3	131.41	-2,877.8	-742.0	3,313.5	3,300.2	13.37	247.905		
4,000.0	3,943.2	3,823.6	3,823.2	13.8	1.3	131.58	-2,878.8	-743.1	3,323.7	3,310.1	13.61	244.232		
4,035.4	3,977.8	3,854.0	3,853.5	14.0	1.3	131.67	-2,879.3	-743.7	3,329.4	3,315.7	13.75	242.227		
4,100.0	4,041.0	3,916.2	3,915.7	14.3	1.3	131.85	-2,880.4	-744.9	3,340.1	3,326.1	13.99	238.693		
4,133.8	4,074.1	3,966.9	3,966.4	14.4	1.3	131.99	-2,881.2	-745.7	3,345.5	3,331.4	14.12	236.891		
4,200.0	4,138.8	4,067.3	4,066.9	14.7	1.3	132.26	-2,882.5	-746.1	3,355.7	3,341.4	14.37	233.538		
4,232.3	4,170.4	4,114.3	4,113.8	14.9	1.3	132.38	-2,882.9	-745.7	3,360.5	3,346.0	14.49	231.914		
4,300.0	4,236.6	4,200.0	4,199.5	15.2	1.3	132.58	-2,883.3	-744.6	3,370.1	3,355.3	14.75	228.553		
4,330.7	4,266.6	4,229.7	4,229.2	15.3	1.3	132.65	-2,883.4	-744.2	3,374.3	3,359.5	14.86	227.039		
4,400.0	4,334.4	4,292.2	4,291.7	15.6	1.3	132.80	-2,883.7	-743.2	3,384.1	3,369.0	15.13	223.722		
4,429.1	4,362.9	4,322.5	4,322.0	15.8	1.3	132.87	-2,883.9	-742.8	3,388.2	3,373.0	15.24	222.362		
4,500.0	4,432.2	4,400.3	4,399.8	16.1	1.4	133.05	-2,884.2	-741.6	3,398.2	3,382.7	15.51	219.130		
4,527.5	4,459.2	4,428.2	4,427.7	16.2	1.4	133.12	-2,884.2	-741.1	3,402.0	3,386.4	15.61	217.910		
4,600.0	4,530.1	4,500.0	4,499.5	16.5	1.4	133.29	-2,884.3	-740.1	3,412.1	3,396.2	15.89	214.780		
4,626.0	4,555.5	4,520.8	4,520.3	16.7	1.4	133.33	-2,884.3	-739.8	3,415.8	3,399.8	15.99	213.679		
4,700.0	4,627.9	4,576.5	4,576.0	17.0	1.4	133.46	-2,884.6	-739.1	3,426.4	3,410.1	16.27	210.637		
4,724.4	4,651.7	4,600.0	4,599.5	17.1	1.4	133.52	-2,884.8	-738.8	3,430.0	3,413.6	16.36	209.666		
4,800.0	4,725.7	4,681.8	4,681.3	17.4	1.4	133.70	-2,885.4	-737.7	3,441.1	3,424.4	16.65	206.714		
4,822.8	4,748.0	4,706.8	4,706.2	17.6	1.4	133.76	-2,885.6	-737.3	3,444.4	3,427.6	16.73	205.842		
4,900.0	4,823.5	4,776.0	4,775.5	17.9	1.4	133.92	-2,886.0	-736.2	3,455.6	3,438.6	17.02	202.973		
4,921.2	4,844.3	4,795.1	4,794.6	18.0	1.4	133.96	-2,886.2	-735.9	3,458.7	3,441.6	17.11	202.203		
5,000.0	4,921.3	4,861.4	4,860.8	18.4	1.4	134.10	-2,886.9	-734.8	3,470.4	3,453.0	17.40	199.400		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,014.9	4,935.9	4,873.9	4,873.4	18.4	1.4	134.13		-2,887.1	-734.5	3,472.6	3,455.2	17.46	198.880	
5,019.7	4,940.6	4,877.9	4,877.3	18.4	1.4	134.15		-2,887.1	-734.5	3,473.4	3,455.9	17.47	198.779	
5,100.0	5,019.4	4,935.9	4,935.3	18.7	1.4	134.42		-2,888.2	-733.2	3,484.9	3,467.2	17.69	197.041	
5,118.1	5,037.2	4,947.9	4,947.3	18.8	1.5	134.47		-2,888.4	-733.0	3,487.3	3,469.6	17.72	196.787	
5,200.0	5,118.1	5,003.9	5,003.2	19.0	1.5	134.70		-2,890.0	-731.7	3,497.8	3,479.9	17.88	195.602	
5,216.5	5,134.4	5,020.5	5,019.9	19.1	1.5	134.75		-2,890.6	-731.3	3,499.8	3,481.9	17.91	195.396	
5,300.0	5,217.2	5,104.4	5,103.7	19.3	1.5	134.95		-2,893.3	-729.3	3,508.7	3,490.7	18.06	194.284	
5,314.9	5,232.1	5,118.5	5,117.8	19.3	1.5	134.98		-2,893.7	-729.0	3,510.1	3,492.1	18.08	194.119	
5,400.0	5,316.8	5,200.0	5,199.2	19.5	1.5	135.12		-2,896.2	-727.5	3,517.3	3,499.0	18.21	193.109	
5,413.4	5,330.1	5,213.5	5,212.8	19.5	1.5	135.14		-2,896.6	-727.3	3,518.2	3,500.0	18.23	192.974	
5,500.0	5,416.6	5,312.4	5,311.6	19.7	1.5	135.24		-2,899.2	-726.3	3,523.2	3,504.9	18.35	191.989	
5,511.8	5,428.4	5,330.0	5,329.2	19.7	1.5	135.25		-2,899.5	-726.2	3,523.7	3,505.4	18.37	191.866	
5,600.0	5,516.6	5,446.1	5,445.2	19.8	1.6	135.29		-2,901.1	-725.7	3,525.9	3,507.4	18.48	190.831	
5,610.2	5,526.8	5,457.5	5,456.6	19.8	1.6	135.30		-2,901.2	-725.7	3,526.0	3,507.5	18.49	190.719	
5,615.0	5,531.6	5,462.8	5,461.9	19.8	1.6	-154.63		-2,901.2	-725.7	3,526.0	3,507.5	18.52	190.413	
5,700.0	5,616.6	5,606.5	5,605.7	19.9	1.6	-154.64		-2,901.5	-724.9	3,526.1	3,507.5	18.65	189.051	
5,708.6	5,625.3	5,624.3	5,623.5	20.0	1.6	-154.64		-2,901.4	-724.7	3,526.0	3,507.3	18.67	188.887	
5,800.0	5,716.6	5,757.1	5,756.3	20.1	1.6	-154.67		-2,899.7	-721.9	3,524.0	3,505.2	18.83	187.178	
5,807.1	5,723.7	5,764.6	5,763.7	20.1	1.6	-154.67		-2,899.6	-721.8	3,523.9	3,505.0	18.84	187.048	
5,900.0	5,816.6	5,865.2	5,864.3	20.2	1.6	-154.70		-2,898.0	-719.0	3,521.5	3,502.5	19.00	185.345	
5,905.5	5,822.1	5,871.3	5,870.4	20.2	1.6	-154.70		-2,897.9	-718.8	3,521.3	3,502.3	19.01	185.243	
6,000.0	5,916.6	5,955.8	5,954.8	20.4	1.6	-154.73		-2,896.7	-716.2	3,518.9	3,499.7	19.17	183.546	
6,003.9	5,920.5	5,959.0	5,958.0	20.4	1.6	-154.73		-2,896.6	-716.1	3,518.8	3,499.6	19.18	183.477	
6,100.0	6,016.6	6,033.4	6,032.4	20.5	1.6	-154.76		-2,896.0	-713.9	3,516.7	3,497.4	19.34	181.809	
6,102.3	6,019.0	6,035.1	6,034.1	20.5	1.6	-154.76		-2,896.0	-713.8	3,516.7	3,497.4	19.35	181.768	
6,200.0	6,116.6	6,108.8	6,107.7	20.6	1.7	-154.80		-2,896.0	-711.5	3,515.4	3,495.8	19.52	180.121	
6,200.8	6,117.4	6,109.6	6,108.5	20.6	1.7	-154.80		-2,896.0	-711.5	3,515.3	3,495.8	19.52	180.108	
6,299.2	6,215.8	6,211.4	6,210.3	20.8	1.7	-154.86		-2,896.5	-707.7	3,514.3	3,494.6	19.70	178.414	
6,300.0	6,216.6	6,212.4	6,211.2	20.8	1.7	-154.86		-2,896.5	-707.7	3,514.3	3,494.6	19.70	178.400	
6,340.0	6,256.6	6,258.1	6,256.9	20.8	1.7	-154.89		-2,896.7	-705.8	3,513.8	3,494.0	19.77	177.703	
6,350.0	6,266.6	6,269.5	6,268.3	20.8	1.7	24.90		-2,896.8	-705.3	3,513.6	3,493.8	19.75	177.865	
6,397.6	6,314.2	6,300.0	6,298.8	20.9	1.7	24.98		-2,897.0	-703.9	3,510.9	3,491.1	19.77	177.601	
6,400.0	6,316.5	6,316.3	6,315.1	20.9	1.7	24.98		-2,897.1	-703.2	3,510.6	3,490.9	19.77	177.558	
6,450.0	6,366.2	6,351.1	6,349.8	20.9	1.7	25.19		-2,897.4	-701.6	3,504.7	3,484.9	19.80	177.022	
6,496.0	6,411.4	6,382.9	6,381.6	21.0	1.7	25.48		-2,897.9	-700.1	3,496.7	3,476.9	19.82	176.448	
6,500.0	6,415.3	6,400.0	6,398.7	21.0	1.7	25.52		-2,898.2	-699.3	3,496.0	3,476.1	19.82	176.379	
6,550.0	6,463.6	6,419.4	6,418.0	21.0	1.7	25.96		-2,898.6	-698.3	3,484.2	3,464.4	19.81	175.874	
6,594.5	6,505.8	6,448.8	6,447.4	21.0	1.7	26.48		-2,899.3	-696.9	3,471.5	3,451.7	19.77	175.570	
6,600.0	6,510.9	6,452.4	6,451.0	21.0	1.7	26.55		-2,899.4	-696.7	3,469.7	3,449.9	19.76	175.553	
6,650.0	6,557.0	6,484.7	6,483.2	21.0	1.8	27.28		-2,900.4	-695.1	3,452.4	3,432.8	19.67	175.502	
6,692.9	6,595.4	6,521.6	6,520.1	21.0	1.8	28.07		-2,901.6	-693.3	3,435.5	3,415.9	19.56	175.642	
6,700.0	6,601.6	6,529.7	6,528.1	21.0	1.8	28.22		-2,901.9	-692.9	3,432.5	3,412.9	19.54	175.687	
6,750.0	6,644.6	6,585.5	6,583.9	20.9	1.8	29.41		-2,903.8	-689.7	3,409.6	3,390.2	19.36	176.073	
6,791.3	6,678.6	6,637.3	6,635.5	20.9	1.8	30.60		-2,905.5	-686.4	3,388.5	3,369.3	19.20	176.468	
6,800.0	6,685.6	6,648.6	6,646.8	20.9	1.8	30.88		-2,905.8	-685.6	3,383.9	3,364.7	19.16	176.578	
6,850.0	6,724.6	6,709.8	6,707.8	20.9	1.8	32.66		-2,907.6	-681.2	3,355.4	3,336.5	18.94	177.167	
6,889.7	6,753.9	6,749.3	6,747.1	20.9	1.8	34.28		-2,908.7	-678.0	3,331.0	3,312.2	18.75	177.623	
6,900.0	6,761.3	6,759.2	6,757.0	20.9	1.8	34.74		-2,908.9	-677.2	3,324.4	3,305.7	18.70	177.767	
6,950.0	6,795.5	6,800.0	6,797.6	20.9	1.8	37.15		-2,910.0	-673.7	3,291.2	3,272.7	18.47	178.183	
6,988.2	6,819.9	6,826.9	6,824.4	20.9	1.8	39.26		-2,910.8	-671.2	3,264.4	3,246.1	18.32	178.142	
7,000.0	6,827.1	6,833.8	6,831.3	20.9	1.9	39.96		-2,911.0	-670.6	3,255.9	3,237.7	18.27	178.168	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,855.9	6,861.5	6,858.8	20.9	1.9	43.22		-2,911.7	-668.1	3,218.9	3,200.8	18.14	177.437	
7,086.6	6,875.1	6,880.1	6,877.4	20.9	1.9	45.95		-2,912.3	-666.4	3,190.8	3,172.7	18.08	176.457	
7,100.0	6,881.8	6,886.6	6,883.8	20.9	1.9	47.03		-2,912.5	-665.8	3,180.4	3,162.3	18.10	175.719	
7,150.0	6,904.6	6,912.0	6,909.1	21.0	1.9	51.51		-2,913.3	-663.4	3,140.4	3,122.2	18.17	172.869	
7,185.0	6,918.8	6,930.5	6,927.5	21.1	1.9	55.11		-2,913.8	-661.7	3,111.7	3,093.4	18.28	170.226	
7,200.0	6,924.3	6,937.8	6,934.7	21.1	1.9	56.76		-2,914.0	-661.0	3,099.3	3,080.9	18.34	168.995	
7,250.0	6,940.8	6,959.4	6,956.3	21.2	1.9	62.71		-2,914.6	-659.0	3,057.2	3,038.6	18.58	164.499	
7,283.4	6,949.9	6,971.6	6,968.4	21.3	1.9	67.05		-2,915.0	-657.8	3,028.6	3,009.9	18.77	161.332	
7,300.0	6,953.9	6,976.9	6,973.7	21.4	1.9	69.29		-2,915.1	-657.3	3,014.4	2,995.5	18.86	159.821	
7,350.0	6,963.6	6,990.1	6,986.8	21.6	1.9	76.34		-2,915.4	-656.1	2,971.1	2,952.0	19.15	155.189	
7,381.9	6,968.0	6,996.3	6,993.0	21.7	1.9	80.98		-2,915.6	-655.5	2,943.4	2,924.0	19.35	152.097	
7,400.0	6,969.9	6,999.1	6,995.8	21.8	1.9	83.64		-2,915.7	-655.3	2,927.6	2,908.1	19.49	150.248	
7,450.0	6,972.6	7,003.9	7,000.5	22.1	1.9	90.88		-2,915.8	-654.8	2,884.1	2,864.0	20.04	143.908	
7,471.5	6,972.8	7,004.6	7,001.3	22.2	1.9	93.91		-2,915.8	-654.7	2,865.4	2,845.1	20.39	140.565	
7,480.3	6,972.7	7,004.8	7,001.4	22.3	1.9	93.91		-2,915.8	-654.7	2,857.8	2,837.3	20.47	139.597	
7,500.0	6,972.5	7,005.1	7,001.8	22.4	1.9	93.93		-2,915.8	-654.7	2,840.8	2,820.1	20.67	137.462	
7,578.7	6,971.8	7,006.4	7,003.1	23.1	1.9	93.98		-2,915.8	-654.6	2,773.1	2,751.6	21.47	129.189	
7,600.0	6,971.6	7,006.8	7,003.5	23.3	1.9	93.99		-2,915.8	-654.5	2,754.9	2,733.2	21.68	127.062	
7,677.1	6,970.9	7,008.1	7,004.7	24.0	1.9	94.05		-2,915.9	-654.4	2,689.3	2,666.7	22.52	119.393	
7,700.0	6,970.7	7,008.5	7,005.1	24.2	1.9	94.06		-2,915.9	-654.4	2,669.9	2,647.2	22.77	117.235	
7,775.6	6,970.0	7,009.0	6,996.7	25.0	1.9	93.72		-2,915.7	-655.2	2,606.5	2,582.8	23.67	110.129	
7,800.0	6,969.8	7,009.0	6,996.7	25.3	1.9	93.72		-2,915.7	-655.2	2,586.1	2,562.1	23.96	107.921	
7,874.0	6,969.1	7,009.0	6,996.7	26.2	1.9	93.72		-2,915.7	-655.2	2,524.8	2,499.9	24.93	101.266	
7,900.0	6,968.9	7,009.0	6,996.7	26.5	1.9	93.72		-2,915.7	-655.2	2,503.4	2,478.2	25.27	99.055	
7,972.4	6,968.2	7,009.0	6,996.7	27.4	1.9	93.72		-2,915.7	-655.2	2,444.4	2,418.1	26.28	92.999	
8,000.0	6,968.0	7,009.0	6,996.7	27.8	1.9	93.72		-2,915.7	-655.2	2,422.1	2,395.4	26.67	90.821	
8,070.8	6,967.3	7,009.0	6,996.7	28.7	1.9	93.72		-2,915.7	-655.2	2,365.3	2,337.6	27.71	85.364	
8,100.0	6,967.1	7,009.0	6,996.7	29.1	1.9	93.72		-2,915.7	-655.2	2,342.2	2,314.0	28.14	83.244	
8,169.3	6,966.4	7,009.0	6,996.7	30.1	1.9	93.72		-2,915.7	-655.2	2,287.7	2,258.5	29.19	78.361	
8,200.0	6,966.2	7,009.0	6,996.7	30.5	1.9	93.72		-2,915.7	-655.2	2,263.9	2,234.2	29.66	76.316	
8,267.7	6,965.5	7,009.0	6,996.7	31.5	1.9	93.72		-2,915.7	-655.2	2,211.8	2,181.1	30.73	71.969	
8,300.0	6,965.2	7,009.0	6,996.7	32.0	1.9	93.72		-2,915.7	-655.2	2,187.3	2,156.1	31.24	70.009	
8,366.1	6,964.6	7,009.0	6,996.7	33.0	1.9	93.72		-2,915.7	-655.2	2,137.8	2,105.4	32.32	66.153	
8,400.0	6,964.3	7,009.0	6,996.7	33.5	1.9	93.72		-2,915.7	-655.2	2,112.7	2,079.9	32.87	64.285	
8,464.5	6,963.8	7,009.0	6,996.7	34.5	1.9	93.72		-2,915.7	-655.2	2,065.7	2,031.8	33.94	60.871	
8,500.0	6,963.4	7,009.0	6,996.7	35.1	1.9	93.72		-2,915.7	-655.2	2,040.3	2,005.8	34.52	59.099	
8,563.0	6,962.9	7,009.0	6,996.7	36.1	1.9	93.72		-2,915.7	-655.2	1,995.9	1,960.4	35.59	56.084	
8,600.0	6,962.5	7,009.0	6,996.7	36.7	1.9	93.72		-2,915.7	-655.2	1,970.3	1,934.1	36.21	54.408	
8,661.4	6,962.0	7,009.0	6,996.7	37.7	1.9	93.72		-2,915.7	-655.2	1,928.7	1,891.4	37.27	51.750	
8,700.0	6,961.6	7,009.0	6,996.7	38.3	1.9	93.72		-2,915.7	-655.2	1,903.0	1,865.1	37.93	50.170	
8,759.8	6,961.1	7,009.0	6,996.7	39.3	1.9	93.72		-2,915.7	-655.2	1,864.2	1,825.2	38.97	47.832	
8,800.0	6,960.7	7,009.0	6,996.7	40.0	1.9	93.72		-2,915.7	-655.2	1,838.7	1,799.0	39.67	46.347	
8,858.2	6,960.2	7,009.0	6,996.7	40.9	1.9	93.72		-2,915.7	-655.2	1,802.7	1,762.0	40.70	44.295	
8,900.0	6,959.8	7,009.0	6,996.7	41.6	1.9	93.72		-2,915.7	-655.2	1,777.7	1,736.2	41.43	42.904	
8,956.7	6,959.3	7,009.0	6,996.7	42.6	1.9	93.72		-2,915.7	-655.2	1,744.7	1,702.2	42.44	41.108	
9,000.0	6,958.9	7,009.0	6,996.7	43.3	1.9	93.72		-2,915.7	-655.2	1,720.3	1,677.1	43.21	39.811	
9,055.1	6,958.4	7,009.0	6,996.7	44.3	1.9	93.72		-2,915.7	-655.2	1,690.4	1,646.2	44.20	38.243	
9,100.0	6,958.0	7,009.0	6,996.7	45.1	1.9	93.72		-2,915.7	-655.2	1,666.9	1,621.9	45.01	37.038	
9,153.5	6,957.5	7,009.0	6,996.7	46.0	1.9	93.72		-2,915.7	-655.2	1,640.2	1,594.2	45.97	35.677	
9,200.0	6,957.1	7,009.0	6,996.7	46.8	1.9	93.72		-2,915.7	-655.2	1,618.0	1,571.2	46.81	34.563	
9,251.9	6,956.6	7,009.0	6,996.7	47.7	1.9	93.72		-2,915.7	-655.2	1,594.5	1,546.7	47.76	33.386	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error:		0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)							
9,300.0	6,956.2	7,000.0	6,996.7	48.6	1.9	93.72	-2,915.7	-655.2	1,573.9	1,525.3	48.63	32.363			
9,350.4	6,955.7	7,000.0	6,996.7	49.5	1.9	93.72	-2,915.7	-655.2	1,553.7	1,504.1	49.55	31.353			
9,400.0	6,955.2	7,000.0	6,996.7	50.3	1.9	93.72	-2,915.7	-655.2	1,535.1	1,484.6	50.46	30.420			
9,448.8	6,954.8	7,000.0	6,996.7	51.2	1.9	93.72	-2,915.7	-655.2	1,518.2	1,466.8	51.36	29.559			
9,500.0	6,954.3	7,000.0	6,996.7	52.1	1.9	93.72	-2,915.7	-655.2	1,501.9	1,449.6	52.30	28.716			
9,547.2	6,953.9	7,000.0	6,996.7	53.0	1.9	93.72	-2,915.7	-655.2	1,488.4	1,435.2	53.18	27.989			
9,600.0	6,953.4	7,000.0	6,996.7	53.9	1.9	93.72	-2,915.7	-655.2	1,474.8	1,420.7	54.15	27.235			
9,645.6	6,953.0	7,000.0	6,996.7	54.7	1.9	93.72	-2,915.7	-655.2	1,464.5	1,409.5	55.00	26.629			
9,700.0	6,952.5	7,000.0	6,996.7	55.7	1.9	93.72	-2,915.7	-655.2	1,454.1	1,398.1	56.01	25.962			
9,744.1	6,952.1	7,000.0	6,996.7	56.5	1.9	93.72	-2,915.7	-655.2	1,447.1	1,390.2	56.83	25.464			
9,800.0	6,951.6	7,000.0	6,996.7	57.5	1.9	93.72	-2,915.7	-655.2	1,440.0	1,382.2	57.87	24.884			
9,842.5	6,951.2	7,000.0	6,996.7	58.3	1.9	93.72	-2,915.7	-655.2	1,436.1	1,377.5	58.66	24.480			
9,900.0	6,950.7	7,000.0	6,996.7	59.4	1.9	93.72	-2,915.7	-655.2	1,432.8	1,373.1	59.74	23.984			
9,940.9	6,950.3	7,000.0	6,996.7	60.1	1.9	93.72	-2,915.7	-655.2	1,431.9	1,371.4	60.51	23.665			
9,953.5	6,950.2	7,000.0	6,996.7	60.3	1.9	93.72	-2,915.7	-655.2	1,431.8	1,371.1	60.74	23.572 CC			
10,000.0	6,949.8	7,000.0	6,996.7	61.2	1.9	93.72	-2,915.7	-655.2	1,432.6	1,371.0	61.61	23.251 ES			
10,039.3	6,949.4	7,000.0	6,996.7	61.9	1.9	93.72	-2,915.7	-655.2	1,434.4	1,372.0	62.35	23.004			
10,100.0	6,948.9	7,000.0	6,996.7	63.0	1.9	93.72	-2,915.7	-655.2	1,439.3	1,375.8	63.49	22.668			
10,137.8	6,948.5	7,000.0	6,996.7	63.7	1.9	93.72	-2,915.7	-655.2	1,443.6	1,379.4	64.21	22.484			
10,200.0	6,948.0	7,000.0	6,996.7	64.9	1.9	93.72	-2,915.7	-655.2	1,452.9	1,387.5	65.38	22.222			
10,236.2	6,947.6	7,000.0	6,996.7	65.6	1.9	93.72	-2,915.7	-655.2	1,459.5	1,393.4	66.06	22.092			
10,300.0	6,947.1	7,000.0	6,996.7	66.7	1.9	93.72	-2,915.7	-655.2	1,473.1	1,405.9	67.27	21.900			
10,334.6	6,946.7	7,000.0	6,996.7	67.4	1.9	93.72	-2,915.7	-655.2	1,481.7	1,413.7	67.92	21.814			
10,400.0	6,946.2	7,000.0	6,996.7	68.6	1.9	93.72	-2,915.7	-655.2	1,499.8	1,430.7	69.16	21.686			
10,433.0	6,945.8	7,000.0	6,996.7	69.2	1.9	93.72	-2,915.7	-655.2	1,510.0	1,440.2	69.79	21.637			
10,500.0	6,945.2	7,000.0	6,996.7	70.5	1.9	93.72	-2,915.7	-655.2	1,532.6	1,461.5	71.06	21.568			
10,531.5	6,945.0	7,000.0	6,996.7	71.1	1.9	93.72	-2,915.7	-655.2	1,544.1	1,472.4	71.65	21.549			
10,600.0	6,944.3	7,000.0	6,996.7	72.3	1.9	93.72	-2,915.7	-655.2	1,571.0	1,498.0	72.96	21.533 SF			
10,629.9	6,944.1	7,000.0	6,996.7	72.9	1.9	93.72	-2,915.7	-655.2	1,583.5	1,510.0	73.53	21.537			
10,700.0	6,943.4	7,000.0	6,996.7	74.2	1.9	93.72	-2,915.7	-655.2	1,614.7	1,539.9	74.86	21.570			
10,728.3	6,943.2	7,000.0	6,996.7	74.7	1.9	93.72	-2,915.7	-655.2	1,628.0	1,552.6	75.40	21.592			
10,800.0	6,942.5	7,000.0	6,996.7	76.1	1.9	93.72	-2,915.7	-655.2	1,663.3	1,586.6	76.76	21.668			
10,826.7	6,942.3	7,000.0	6,996.7	76.6	1.9	93.72	-2,915.7	-655.2	1,677.1	1,599.8	77.28	21.703			
10,900.0	6,941.6	7,000.0	6,996.7	78.0	1.9	93.72	-2,915.7	-655.2	1,716.4	1,637.7	78.67	21.817			
10,925.2	6,941.4	7,000.0	6,996.7	78.4	1.9	93.72	-2,915.7	-655.2	1,730.4	1,651.2	79.15	21.861			
11,000.0	6,940.7	7,000.0	6,996.7	79.9	1.9	93.72	-2,915.7	-655.2	1,773.5	1,692.9	80.58	22.008			
11,023.6	6,940.5	7,000.0	6,996.7	80.3	1.9	93.72	-2,915.7	-655.2	1,787.5	1,706.5	81.03	22.059			
11,100.0	6,939.8	7,000.0	6,996.7	81.7	1.9	93.72	-2,915.7	-655.2	1,834.3	1,751.8	82.50	22.235			
11,122.0	6,939.6	7,000.0	6,996.7	82.2	1.9	93.72	-2,915.7	-655.2	1,848.1	1,765.2	82.92	22.289			
11,200.0	6,938.9	7,000.0	6,996.7	83.6	1.9	93.72	-2,915.7	-655.2	1,898.4	1,814.0	84.41	22.490			
11,220.4	6,938.7	7,000.0	6,996.7	84.0	1.9	93.72	-2,915.7	-655.2	1,911.9	1,827.1	84.80	22.545			
11,300.0	6,938.0	7,000.0	6,996.7	85.5	1.9	93.72	-2,915.7	-655.2	1,965.5	1,879.2	86.33	22.768			
11,318.9	6,937.8	7,000.0	6,996.7	85.9	1.9	93.72	-2,915.7	-655.2	1,978.5	1,891.8	86.69	22.822			
11,400.0	6,937.0	7,000.0	6,996.7	87.4	1.9	93.72	-2,915.7	-655.2	2,035.3	1,947.1	88.25	23.064			
11,417.3	6,936.9	7,000.0	6,996.7	87.8	1.9	93.72	-2,915.7	-655.2	2,047.6	1,959.1	88.58	23.117			
11,500.0	6,936.1	7,000.0	6,996.7	89.3	1.9	93.72	-2,915.7	-655.2	2,107.5	2,017.4	90.17	23.374			
11,515.7	6,936.0	7,000.0	6,996.7	89.6	1.9	93.72	-2,915.7	-655.2	2,119.1	2,028.6	90.47	23.424			
11,600.0	6,935.2	7,000.0	6,996.7	91.2	1.9	93.72	-2,915.7	-655.2	2,182.0	2,089.9	92.09	23.694			
11,614.1	6,935.1	7,000.0	6,996.7	91.5	1.9	93.72	-2,915.7	-655.2	2,192.7	2,100.3	92.36	23.740			
11,700.0	6,934.3	7,000.0	6,996.7	93.1	1.9	93.72	-2,915.7	-655.2	2,258.4	2,164.4	94.01	24.022			
11,712.6	6,934.2	7,000.0	6,996.7	93.4	1.9	93.72	-2,915.7	-655.2	2,268.1	2,173.9	94.25	24.064			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - FRY PM C 18-4 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,800.0	6,933.4	7,000.0	6,996.7	95.1	1.9	93.72	-2,915.7	-655.2	2,336.6	2,240.7	95.94	24.356		
11,811.0	6,933.3	7,000.0	6,996.7	95.3	1.9	93.72	-2,915.7	-655.2	2,345.3	2,249.1	96.15	24.392		
11,900.0	6,932.5	7,000.0	6,996.7	97.0	1.9	93.72	-2,915.7	-655.2	2,416.4	2,318.5	97.86	24.692		
11,909.4	6,932.4	7,000.0	6,996.7	97.1	1.9	93.72	-2,915.7	-655.2	2,424.0	2,326.0	98.04	24.723		
12,000.0	6,931.6	7,000.0	6,996.7	98.9	1.9	93.72	-2,915.7	-655.2	2,497.7	2,397.9	99.79	25.029		
12,007.8	6,931.5	7,000.0	6,996.7	99.0	1.9	93.72	-2,915.7	-655.2	2,504.1	2,404.2	99.94	25.056		
12,100.0	6,930.7	7,000.0	6,996.7	100.8	1.9	93.72	-2,915.7	-655.2	2,580.2	2,478.5	101.72	25.366		
12,106.3	6,930.6	7,000.0	6,996.7	100.9	1.9	93.72	-2,915.7	-655.2	2,585.5	2,483.6	101.84	25.387		
12,200.0	6,929.8	7,000.0	6,996.7	102.7	1.9	93.72	-2,915.7	-655.2	2,664.0	2,560.4	103.65	25.702		
12,204.7	6,929.7	7,000.0	6,996.7	102.8	1.9	93.72	-2,915.7	-655.2	2,668.0	2,564.2	103.74	25.718		
12,300.0	6,928.8	7,000.0	6,996.7	104.6	1.9	93.72	-2,915.7	-655.2	2,748.9	2,643.3	105.58	26.036		
12,303.1	6,928.8	7,000.0	6,996.7	104.7	1.9	93.72	-2,915.7	-655.2	2,751.5	2,645.9	105.64	26.046		
12,400.0	6,927.9	7,000.0	6,996.7	106.5	1.9	93.72	-2,915.7	-655.2	2,834.7	2,727.2	107.51	26.367		
12,401.5	6,927.9	7,000.0	6,996.7	106.6	1.9	93.72	-2,915.7	-655.2	2,836.0	2,728.5	107.54	26.372		
12,500.0	6,927.0	7,000.0	6,996.7	108.5	1.9	93.72	-2,915.7	-655.2	2,921.4	2,812.0	109.44	26.694		
12,598.4	6,926.1	7,000.0	6,996.7	110.4	1.9	93.72	-2,915.7	-655.2	3,007.6	2,896.3	111.35	27.011		
12,600.0	6,926.1	7,000.0	6,996.7	110.4	1.9	93.72	-2,915.7	-655.2	3,009.0	2,897.6	111.38	27.017		
12,696.8	6,925.2	7,000.0	6,996.7	112.3	1.9	93.72	-2,915.7	-655.2	3,094.5	2,981.3	113.25	27.325		
12,700.0	6,925.2	7,000.0	6,996.7	112.3	1.9	93.72	-2,915.7	-655.2	3,097.3	2,984.0	113.31	27.335		
12,795.2	6,924.3	7,000.0	6,996.7	114.1	1.9	93.72	-2,915.7	-655.2	3,182.1	3,066.9	115.15	27.633		
12,800.0	6,924.3	7,000.0	6,996.7	114.2	1.9	93.72	-2,915.7	-655.2	3,186.3	3,071.1	115.25	27.648		
12,893.7	6,923.4	7,000.0	6,996.7	116.0	1.9	93.72	-2,915.7	-655.2	3,270.3	3,153.2	117.06	27.937		
12,900.0	6,923.4	7,000.0	6,996.7	116.2	1.9	93.72	-2,915.7	-655.2	3,276.0	3,158.8	117.18	27.956		
12,992.1	6,922.5	7,000.0	6,996.7	117.9	1.9	93.72	-2,915.7	-655.2	3,359.1	3,240.1	118.97	28.236		
13,000.0	6,922.5	7,000.0	6,996.7	118.1	1.9	93.72	-2,915.7	-655.2	3,366.2	3,247.1	119.12	28.259		
13,090.5	6,921.6	7,000.0	6,996.7	119.8	1.9	93.72	-2,915.7	-655.2	3,448.4	3,327.5	120.87	28.529		
13,100.0	6,921.5	7,000.0	6,996.7	120.0	1.9	93.72	-2,915.7	-655.2	3,457.0	3,335.9	121.06	28.557		
13,188.9	6,920.7	7,000.0	6,996.7	121.7	1.9	93.72	-2,915.7	-655.2	3,538.1	3,415.4	122.78	28.817		
13,200.0	6,920.6	7,000.0	6,996.7	121.9	1.9	93.72	-2,915.7	-655.2	3,548.2	3,425.2	122.99	28.849		
13,287.4	6,919.8	7,000.0	6,996.7	123.6	1.9	93.72	-2,915.7	-655.2	3,628.4	3,503.7	124.69	29.100		
13,300.0	6,919.7	7,000.0	6,996.7	123.9	1.9	93.72	-2,915.7	-655.2	3,640.0	3,515.0	124.93	29.136		
13,385.8	6,918.9	7,000.0	6,996.7	125.5	1.9	93.72	-2,915.7	-655.2	3,719.0	3,592.4	126.60	29.377		
13,400.0	6,918.8	7,000.0	6,996.7	125.8	1.9	93.72	-2,915.7	-655.2	3,732.1	3,605.2	126.87	29.417		
13,484.2	6,918.0	7,000.0	6,996.7	127.4	1.9	93.72	-2,915.7	-655.2	3,810.0	3,681.5	128.50	29.649		
13,500.0	6,917.9	7,000.0	6,996.7	127.7	1.9	93.72	-2,915.7	-655.2	3,824.7	3,695.8	128.81	29.692		
13,582.6	6,917.1	7,000.0	6,996.7	129.3	1.9	93.72	-2,915.7	-655.2	3,901.4	3,771.0	130.41	29.916		
13,600.0	6,917.0	7,000.0	6,996.7	129.7	1.9	93.72	-2,915.7	-655.2	3,917.6	3,786.8	130.75	29.962		
13,681.1	6,916.2	7,000.0	6,996.7	131.2	1.9	93.72	-2,915.7	-655.2	3,993.1	3,860.8	132.32	30.177		
13,700.0	6,916.1	7,000.0	6,996.7	131.6	1.9	93.72	-2,915.7	-655.2	4,010.8	3,878.1	132.69	30.227		
13,779.5	6,915.3	7,000.0	6,996.7	133.1	1.9	93.72	-2,915.7	-655.2	4,085.2	3,950.9	134.23	30.433		
13,800.0	6,915.2	7,000.0	6,996.7	133.5	1.9	93.72	-2,915.7	-655.2	4,104.4	3,969.7	134.63	30.486		
13,877.9	6,914.4	7,000.0	6,996.7	135.1	1.9	93.72	-2,915.7	-655.2	4,177.5	4,041.3	136.14	30.684		
13,900.0	6,914.2	7,000.0	6,996.7	135.5	1.9	93.72	-2,915.7	-655.2	4,198.2	4,061.7	136.57	30.740		
13,976.3	6,913.5	7,000.0	6,996.7	137.0	1.9	93.72	-2,915.7	-655.2	4,270.1	4,132.0	138.06	30.930		
14,000.0	6,913.3	7,000.0	6,996.7	137.4	1.9	93.72	-2,915.7	-655.2	4,292.4	4,153.9	138.52	30.988		
14,074.8	6,912.6	7,000.0	6,996.7	138.9	1.9	93.72	-2,915.7	-655.2	4,362.9	4,223.0	139.97	31.171		
14,100.0	6,912.4	7,000.0	6,996.7	139.4	1.9	93.72	-2,915.7	-655.2	4,386.8	4,246.3	140.46	31.232		
14,145.0	6,912.0	7,000.0	6,996.7	140.2	1.9	93.72	-2,915.7	-655.2	4,429.3	4,288.0	141.29	31.349		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 600-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-101.58	-193.1	-942.4	962.4					
98.4	98.4	72.6	72.6	0.1	0.1	-101.58	-193.0	-942.5	962.0	961.9	0.17	5,603.292 CC		
100.0	100.0	74.2	74.2	0.1	0.1	-101.58	-193.0	-942.5	962.0	961.9	0.18	5,493.959		
196.8	196.8	170.6	170.6	0.3	0.2	-101.57	-192.9	-942.5	962.1	961.6	0.49	1,947.308		
200.0	200.0	173.8	173.8	0.3	0.2	-101.57	-192.9	-942.5	962.1	961.6	0.50	1,907.266		
295.3	295.3	268.7	268.7	0.5	0.3	-101.56	-192.8	-942.7	962.2	961.4	0.82	1,175.974		
300.0	300.0	273.4	273.4	0.5	0.3	-101.56	-192.7	-942.7	962.2	961.3	0.83	1,154.033		
393.7	393.7	366.7	366.7	0.8	0.4	-101.54	-192.5	-942.9	962.3	961.2	1.14	842.410		
400.0	400.0	373.0	372.9	0.8	0.4	-101.54	-192.5	-942.9	962.3	961.2	1.16	827.391		
492.1	492.1	464.7	464.7	1.0	0.5	-101.51	-192.1	-943.1	962.5	961.0	1.47	656.331		
500.0	500.0	472.5	472.5	1.0	0.5	-101.51	-192.1	-943.1	962.5	961.0	1.49	644.936		
590.5	590.5	562.7	562.7	1.2	0.6	-101.48	-191.7	-943.4	962.7	960.9	1.79	537.644		
600.0	600.0	572.1	572.1	1.2	0.6	-101.48	-191.6	-943.5	962.7	960.9	1.82	528.472		
689.0	689.0	658.2	658.2	1.4	0.8	-101.45	-191.2	-943.9	963.0	960.9	2.18	442.201 ES		
700.0	700.0	668.7	668.7	1.4	0.8	-101.45	-191.1	-943.9	963.1	960.9	2.23	432.748		
787.4	787.4	753.7	753.7	1.6	1.0	-101.42	-190.8	-944.7	963.8	961.2	2.60	370.903		
800.0	800.0	766.1	766.1	1.7	1.0	-101.42	-190.8	-944.8	963.9	961.2	2.65	363.491		
885.8	885.8	850.3	850.3	1.9	1.2	-101.41	-190.8	-945.6	964.7	961.7	3.02	319.660		
900.0	900.0	864.1	864.1	1.9	1.2	-101.40	-190.8	-945.7	964.8	961.8	3.08	313.393		
984.2	984.2	945.7	945.7	2.1	1.4	-101.39	-190.8	-946.7	965.8	962.4	3.44	280.535		
1,000.0	1,000.0	960.8	960.8	2.1	1.4	-101.39	-190.8	-946.9	966.1	962.6	3.51	275.127		
1,082.7	1,082.7	1,042.3	1,042.2	2.3	1.6	-171.48	-191.1	-948.2	968.5	964.7	3.86	250.928		
1,100.0	1,100.0	1,059.8	1,059.7	2.3	1.6	-171.48	-191.2	-948.4	969.3	965.4	3.93	246.473		
1,181.1	1,181.0	1,140.5	1,140.5	2.5	1.8	-171.53	-191.9	-949.5	974.5	970.2	4.27	228.390		
1,200.0	1,199.8	1,159.0	1,159.0	2.6	1.8	-171.55	-192.1	-949.8	976.0	971.7	4.34	224.722		
1,279.5	1,279.1	1,237.8	1,237.7	2.7	2.0	-171.62	-193.1	-950.8	983.9	979.2	4.67	210.716		
1,300.0	1,299.5	1,258.3	1,258.2	2.8	2.0	-171.65	-193.4	-951.1	986.2	981.5	4.75	207.505		
1,377.9	1,376.9	1,335.6	1,335.6	3.0	2.2	-171.73	-194.3	-952.2	996.6	991.5	5.07	196.414		
1,400.0	1,398.7	1,357.4	1,357.3	3.0	2.2	-171.76	-194.6	-952.5	999.9	994.7	5.16	193.653		
1,476.4	1,474.2	1,434.1	1,434.1	3.2	2.4	-171.86	-195.4	-953.5	1,012.6	1,007.1	5.48	184.803		
1,500.0	1,497.5	1,458.6	1,458.5	3.3	2.4	-171.89	-195.7	-953.8	1,016.9	1,011.3	5.58	182.342		
1,574.8	1,571.0	1,533.4	1,533.3	3.5	2.6	-171.99	-196.4	-954.6	1,031.6	1,025.7	5.89	175.275		
1,600.1	1,595.7	1,557.6	1,557.5	3.6	2.6	-172.02	-196.6	-954.8	1,036.9	1,031.0	5.99	173.218		
1,673.2	1,667.2	1,627.8	1,627.7	3.9	2.8	-172.15	-197.1	-955.7	1,052.9	1,046.6	6.30	167.142		
1,700.0	1,693.4	1,653.5	1,653.3	4.0	2.8	-172.19	-197.2	-956.0	1,058.8	1,052.4	6.41	165.086		
1,771.6	1,763.5	1,722.1	1,722.0	4.2	3.0	-172.30	-197.4	-956.9	1,074.6	1,067.9	6.72	159.797		
1,800.0	1,791.3	1,749.3	1,749.2	4.3	3.0	-172.34	-197.5	-957.3	1,080.8	1,074.0	6.85	157.873		
1,870.1	1,859.8	1,816.4	1,816.3	4.6	3.2	-172.43	-197.5	-958.4	1,096.4	1,089.2	7.15	153.254		
1,900.0	1,889.1	1,845.1	1,844.9	4.7	3.2	-172.46	-197.5	-958.9	1,103.0	1,095.8	7.28	151.457		
1,968.5	1,956.1	1,910.6	1,910.5	5.0	3.4	-172.53	-197.3	-960.1	1,118.3	1,110.7	7.58	147.476		
2,000.0	1,986.9	1,940.8	1,940.6	5.1	3.4	-172.56	-197.2	-960.7	1,125.4	1,117.7	7.72	145.727		
2,066.9	2,052.3	2,004.9	2,004.7	5.4	3.6	-172.62	-196.8	-962.1	1,140.4	1,132.4	8.02	142.223		
2,100.0	2,084.7	2,037.1	2,036.9	5.5	3.6	-172.65	-196.6	-962.7	1,147.9	1,139.7	8.17	140.555		
2,165.3	2,148.6	2,100.7	2,100.5	5.8	3.8	-172.70	-196.2	-964.1	1,162.6	1,154.1	8.46	137.412		
2,200.0	2,182.5	2,134.5	2,134.3	5.9	3.8	-172.72	-196.0	-964.8	1,170.4	1,161.8	8.62	135.832		
2,263.8	2,244.9	2,196.5	2,196.3	6.2	4.0	-172.77	-195.6	-966.1	1,184.8	1,175.9	8.90	133.051		
2,300.0	2,280.3	2,231.8	2,231.6	6.3	4.1	-172.80	-195.4	-966.9	1,192.9	1,183.9	9.07	131.549		
2,362.2	2,341.2	2,292.4	2,292.1	6.6	4.2	-172.84	-195.1	-968.2	1,207.0	1,197.6	9.35	129.080		
2,400.0	2,378.1	2,329.2	2,328.9	6.8	4.3	-172.87	-194.8	-969.0	1,215.5	1,206.0	9.52	127.650		
2,460.6	2,437.4	2,388.2	2,387.9	7.0	4.4	-172.91	-194.5	-970.2	1,229.2	1,219.4	9.80	125.451		
2,500.0	2,476.0	2,426.5	2,426.2	7.2	4.5	-172.94	-194.3	-971.1	1,238.0	1,228.1	9.98	124.089		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 600-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,559.0	2,533.7	2,484.0	2,483.7	7.4	4.6	-172.98	-194.0	-972.3	1,251.4	1,241.1	10.25	122.125		
2,600.0	2,573.8	2,524.0	2,523.7	7.6	4.7	-173.01	-193.8	-973.1	1,260.6	1,250.2	10.43	120.823		
2,657.5	2,630.0	2,580.2	2,579.9	7.9	4.8	-173.05	-193.5	-974.3	1,273.5	1,262.8	10.70	119.064		
2,700.0	2,671.6	2,621.9	2,621.5	8.1	4.9	-173.08	-193.2	-975.2	1,283.1	1,272.2	10.89	117.818		
2,755.9	2,726.3	2,676.6	2,676.2	8.3	5.0	-173.11	-192.9	-976.4	1,295.7	1,284.6	11.15	116.239		
2,800.0	2,769.4	2,719.8	2,719.4	8.5	5.1	-173.14	-192.6	-977.3	1,305.6	1,294.3	11.35	115.043		
2,854.3	2,822.5	2,773.0	2,772.6	8.7	5.2	-173.17	-192.2	-978.4	1,317.8	1,306.2	11.60	113.622		
2,900.0	2,867.2	2,817.7	2,817.3	8.9	5.3	-173.20	-191.9	-979.3	1,328.1	1,316.3	11.81	112.472		
2,952.7	2,918.8	2,869.3	2,869.0	9.2	5.4	-173.23	-191.5	-980.4	1,339.9	1,327.9	12.05	111.189		
3,000.0	2,965.0	2,915.6	2,915.2	9.4	5.5	-173.25	-191.1	-981.3	1,350.5	1,338.2	12.27	110.082		
3,051.2	3,015.1	2,965.7	2,965.3	9.6	5.6	-173.27	-190.7	-982.3	1,362.0	1,349.5	12.50	108.922		
3,100.0	3,062.8	3,014.7	3,014.3	9.8	5.7	-173.30	-190.2	-983.3	1,372.9	1,360.2	12.73	107.832		
3,149.6	3,111.4	3,067.6	3,067.2	10.0	5.8	-173.32	-189.8	-984.3	1,383.9	1,370.9	12.97	106.697		
3,200.0	3,160.7	3,121.4	3,121.0	10.3	5.9	-173.35	-189.3	-985.0	1,394.9	1,381.7	13.21	105.572		
3,248.0	3,207.6	3,172.8	3,172.3	10.5	6.0	-173.38	-188.9	-985.6	1,405.2	1,391.8	13.44	104.524		
3,300.0	3,258.5	3,228.4	3,228.0	10.7	6.2	-173.41	-188.4	-986.0	1,416.2	1,402.5	13.69	103.417		
3,346.4	3,303.9	3,278.2	3,277.8	10.9	6.3	-173.44	-188.0	-986.2	1,425.9	1,412.0	13.92	102.447		
3,400.0	3,356.3	3,335.7	3,335.3	11.2	6.4	-173.48	-187.5	-986.2	1,436.9	1,422.7	14.18	101.355		
3,444.9	3,400.2	3,384.0	3,383.5	11.4	6.5	-173.51	-187.2	-986.1	1,446.0	1,431.6	14.39	100.457		
3,500.0	3,454.1	3,443.3	3,442.8	11.6	6.6	-173.56	-186.7	-985.7	1,456.9	1,442.3	14.66	99.377		
3,543.3	3,496.5	3,490.0	3,489.5	11.8	6.7	-173.59	-186.4	-985.2	1,465.4	1,450.5	14.87	98.545		
3,600.0	3,551.9	3,544.9	3,544.4	12.0	6.8	-173.63	-186.0	-984.6	1,476.4	1,461.3	15.13	97.564		
3,641.7	3,592.7	3,584.3	3,583.9	12.2	6.9	-173.66	-185.7	-984.2	1,484.6	1,469.2	15.32	96.877		
3,700.0	3,649.7	3,639.4	3,639.0	12.5	7.0	-173.70	-185.2	-983.7	1,496.0	1,480.4	15.59	95.950		
3,740.1	3,689.0	3,677.4	3,676.9	12.7	7.1	-173.72	-184.9	-983.5	1,503.9	1,488.2	15.78	95.331		
3,800.0	3,747.5	3,733.9	3,733.5	12.9	7.2	-173.75	-184.4	-983.1	1,515.8	1,499.8	16.05	94.441		
3,838.6	3,785.3	3,770.4	3,769.9	13.1	7.3	-173.77	-184.0	-982.9	1,523.5	1,507.3	16.23	93.885		
3,900.0	3,845.4	3,828.3	3,827.9	13.4	7.4	-173.81	-183.5	-982.7	1,535.9	1,519.4	16.51	93.029		
3,937.0	3,881.5	3,863.3	3,862.8	13.6	7.5	-173.82	-183.1	-982.6	1,543.4	1,526.7	16.68	92.529		
4,000.0	3,943.2	3,922.7	3,922.2	13.8	7.6	-173.85	-182.5	-982.5	1,556.2	1,539.2	16.97	91.706		
4,035.4	3,977.8	3,956.1	3,955.6	14.0	7.7	-173.87	-182.2	-982.5	1,563.4	1,546.3	17.13	91.257		
4,100.0	4,041.0	4,018.1	4,017.6	14.3	7.8	-173.89	-181.5	-982.6	1,576.7	1,559.2	17.43	90.448		
4,133.8	4,074.1	4,052.3	4,051.8	14.4	7.9	-173.91	-181.1	-982.7	1,583.6	1,566.0	17.59	90.010		
4,200.0	4,138.8	4,119.1	4,118.6	14.7	8.0	-173.93	-180.2	-982.7	1,597.1	1,579.2	17.91	89.174		
4,232.3	4,170.4	4,151.7	4,151.2	14.9	8.1	-173.93	-179.7	-982.7	1,603.7	1,585.6	18.06	88.774		
4,300.0	4,236.6	4,220.2	4,219.6	15.2	8.2	-173.95	-178.5	-982.7	1,617.4	1,599.0	18.39	87.954		
4,330.7	4,266.6	4,251.2	4,250.7	15.3	8.3	-173.95	-177.9	-982.6	1,623.6	1,605.0	18.54	87.589		
4,400.0	4,334.4	4,321.3	4,320.8	15.6	8.4	-173.96	-176.5	-982.5	1,637.4	1,618.6	18.87	86.783		
4,429.1	4,362.9	4,350.8	4,350.2	15.8	8.5	-173.96	-175.9	-982.4	1,643.2	1,624.2	19.01	86.450		
4,500.0	4,432.2	4,422.5	4,422.0	16.1	8.7	-173.96	-174.2	-982.2	1,657.3	1,638.0	19.35	85.657		
4,527.5	4,459.2	4,450.4	4,449.9	16.2	8.7	-173.96	-173.5	-982.1	1,662.8	1,643.3	19.48	85.355		
4,600.0	4,530.1	4,525.1	4,524.6	16.5	8.9	-173.95	-171.5	-981.8	1,677.0	1,657.2	19.83	84.566		
4,626.0	4,555.5	4,552.9	4,552.3	16.7	8.9	-173.95	-170.8	-981.6	1,682.0	1,662.1	19.96	84.280		
4,700.0	4,627.9	4,632.2	4,631.5	17.0	9.1	-173.95	-168.9	-980.9	1,696.2	1,675.9	20.32	83.476		
4,724.4	4,651.7	4,658.3	4,657.7	17.1	9.2	-173.96	-168.3	-980.5	1,700.9	1,680.4	20.44	83.215		
4,800.0	4,725.7	4,739.4	4,738.7	17.4	9.3	-173.97	-166.6	-979.2	1,715.0	1,694.2	20.81	82.413		
4,822.8	4,748.0	4,763.9	4,763.2	17.6	9.4	-173.98	-166.1	-978.8	1,719.2	1,698.3	20.92	82.173		
4,900.0	4,823.5	4,846.8	4,846.1	17.9	9.5	-174.01	-164.7	-976.9	1,733.2	1,711.9	21.30	81.373		
4,921.2	4,844.3	4,869.7	4,869.0	18.0	9.6	-174.02	-164.3	-976.4	1,737.0	1,715.6	21.40	81.154		
5,000.0	4,921.3	4,954.5	4,953.7	18.4	9.8	-174.06	-163.1	-974.0	1,750.9	1,729.1	21.79	80.355		
5,014.9	4,935.9	4,970.6	4,969.8	18.4	9.8	-174.07	-162.9	-973.5	1,753.5	1,731.6	21.86	80.205		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 600-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,019.7	4,940.6	4,975.7	4,974.9	18.4	9.8	-174.07	-162.8	-973.3	1,754.3	1,732.4	21.89	80.149		
5,100.0	5,019.4	5,054.5	5,053.7	18.7	10.0	-174.14	-161.9	-970.7	1,767.0	1,744.7	22.29	79.260		
5,118.1	5,037.2	5,071.7	5,070.8	18.8	10.0	-174.15	-161.8	-970.2	1,769.5	1,747.2	22.38	79.082		
5,200.0	5,118.1	5,149.3	5,148.4	19.0	10.2	-174.21	-160.9	-967.8	1,779.8	1,757.1	22.74	78.266		
5,216.5	5,134.4	5,165.0	5,164.1	19.1	10.2	-174.22	-160.8	-967.3	1,781.6	1,758.8	22.81	78.105		
5,300.0	5,217.2	5,244.3	5,243.4	19.3	10.4	-174.26	-160.0	-965.0	1,789.5	1,766.3	23.16	77.277		
5,314.9	5,232.1	5,258.5	5,257.6	19.3	10.4	-174.27	-159.9	-964.7	1,790.6	1,767.4	23.22	77.131		
5,400.0	5,316.8	5,339.6	5,338.6	19.5	10.6	-174.30	-159.2	-962.5	1,795.9	1,772.4	23.54	76.290		
5,413.4	5,330.1	5,352.4	5,351.4	19.5	10.6	-174.30	-159.1	-962.2	1,796.5	1,772.9	23.59	76.160		
5,500.0	5,416.6	5,435.0	5,434.0	19.7	10.8	-174.32	-158.5	-960.3	1,799.1	1,775.2	23.89	75.304		
5,511.8	5,428.4	5,446.3	5,445.3	19.7	10.8	-174.32	-158.4	-960.0	1,799.3	1,775.4	23.93	75.190		
5,600.0	5,516.6	5,531.2	5,530.2	19.8	11.0	-174.32	-157.8	-958.2	1,799.1	1,774.9	24.21	74.312		
5,610.2	5,526.8	5,541.2	5,540.2	19.8	11.0	-174.32	-157.8	-958.0	1,798.9	1,774.7	24.24	74.208		
5,615.0	5,531.6	5,545.9	5,544.9	19.8	11.0	-104.24	-157.7	-957.9	1,798.8	1,774.6	24.25	74.173		
5,700.0	5,616.6	5,629.0	5,628.0	19.9	11.2	-104.24	-157.4	-956.2	1,797.0	1,772.5	24.57	73.125		
5,708.6	5,625.3	5,637.5	5,636.5	20.0	11.2	-104.24	-157.3	-956.0	1,796.9	1,772.3	24.61	73.017		
5,800.0	5,716.6	5,726.8	5,725.8	20.1	11.4	-104.25	-157.1	-954.2	1,795.1	1,770.1	24.97	71.900		
5,807.1	5,723.7	5,733.8	5,732.7	20.1	11.4	-104.25	-157.1	-954.1	1,794.9	1,769.9	24.99	71.815		
5,900.0	5,816.6	5,824.6	5,823.6	20.2	11.6	-104.26	-157.1	-952.3	1,793.2	1,767.8	25.36	70.714		
5,905.5	5,822.1	5,830.0	5,829.0	20.2	11.6	-104.26	-157.1	-952.2	1,793.1	1,767.7	25.38	70.650		
6,000.0	5,916.6	5,922.5	5,921.4	20.4	11.8	-104.28	-157.3	-950.5	1,791.4	1,765.7	25.75	69.567		
6,003.9	5,920.5	5,926.3	5,925.2	20.4	11.8	-104.28	-157.3	-950.4	1,791.4	1,765.6	25.77	69.523		
6,100.0	6,016.6	6,020.7	6,019.6	20.5	12.0	-104.31	-157.8	-948.7	1,789.8	1,763.7	26.15	68.453		
6,102.3	6,019.0	6,023.1	6,022.0	20.5	12.0	-104.31	-157.8	-948.7	1,789.8	1,763.6	26.16	68.427		
6,200.0	6,116.6	6,120.8	6,119.7	20.6	12.2	-104.34	-158.3	-947.0	1,788.2	1,761.7	26.55	67.358		
6,200.8	6,117.4	6,121.6	6,120.5	20.6	12.2	-104.34	-158.3	-946.9	1,788.2	1,761.6	26.55	67.349		
6,299.2	6,215.8	6,220.1	6,219.0	20.8	12.4	-104.37	-158.7	-945.2	1,786.6	1,759.7	26.95	66.300		
6,300.0	6,216.6	6,220.9	6,219.8	20.8	12.4	-104.37	-158.7	-945.2	1,786.6	1,759.7	26.95	66.292		
6,340.0	6,256.6	6,260.9	6,259.8	20.8	12.5	-104.38	-158.9	-944.5	1,786.0	1,758.8	27.11	65.874		
6,350.0	6,266.6	6,270.9	6,269.8	20.8	12.5	75.42	-159.0	-944.3	1,785.8	1,758.6	27.15	65.777		
6,397.6	6,314.2	6,318.6	6,317.4	20.9	12.6	75.58	-159.2	-943.5	1,784.5	1,757.2	27.29	65.377		
6,400.0	6,316.5	6,320.9	6,319.8	20.9	12.6	75.59	-159.2	-943.4	1,784.4	1,757.1	27.30	65.356		
6,450.0	6,366.2	6,370.6	6,369.5	20.9	12.7	75.94	-159.4	-942.5	1,782.1	1,754.6	27.45	64.928		
6,496.0	6,411.4	6,415.9	6,414.8	21.0	12.8	76.41	-159.6	-941.7	1,779.3	1,751.7	27.58	64.524		
6,500.0	6,415.3	6,419.8	6,418.6	21.0	12.8	76.46	-159.6	-941.7	1,779.0	1,751.4	27.59	64.488		
6,550.0	6,463.6	6,468.2	6,467.1	21.0	12.9	77.13	-159.8	-940.8	1,775.1	1,747.4	27.72	64.031		
6,594.5	6,505.8	6,511.1	6,509.9	21.0	13.0	77.87	-160.0	-940.0	1,771.2	1,743.3	27.85	63.602		
6,600.0	6,510.9	6,516.6	6,515.4	21.0	13.0	77.97	-160.0	-939.9	1,770.6	1,742.8	27.86	63.546		
6,650.0	6,557.0	6,565.4	6,564.2	21.0	13.1	78.97	-160.1	-939.0	1,765.5	1,737.5	28.01	63.021		
6,692.9	6,595.4	6,606.0	6,604.8	21.0	13.2	79.93	-160.2	-938.2	1,760.7	1,732.5	28.15	62.548		
6,700.0	6,601.6	6,612.7	6,611.4	21.0	13.2	80.09	-160.2	-938.1	1,759.8	1,731.7	28.17	62.469		
6,750.0	6,644.6	6,658.1	6,656.9	20.9	13.3	81.32	-160.3	-937.1	1,753.8	1,725.5	28.34	61.892		
6,791.3	6,678.6	6,694.1	6,692.9	20.9	13.4	82.38	-160.3	-936.3	1,748.8	1,720.3	28.48	61.399		
6,800.0	6,685.6	6,701.5	6,700.2	20.9	13.4	82.61	-160.3	-936.1	1,747.7	1,719.2	28.51	61.297		
6,850.0	6,724.6	6,742.6	6,741.3	20.9	13.5	83.95	-160.3	-935.1	1,741.5	1,712.8	28.69	60.691		
6,889.7	6,753.9	6,773.5	6,772.3	20.9	13.5	85.02	-160.2	-934.4	1,736.7	1,707.9	28.85	60.204		
6,900.0	6,761.3	6,781.2	6,780.0	20.9	13.6	85.30	-160.2	-934.2	1,735.5	1,706.6	28.88	60.084		
6,950.0	6,795.5	6,817.2	6,815.9	20.9	13.6	86.62	-160.1	-933.2	1,729.9	1,700.8	29.08	59.481		
6,988.2	6,819.9	6,842.8	6,841.5	20.9	13.7	87.59	-160.1	-932.5	1,726.0	1,696.7	29.24	59.020		
7,000.0	6,827.1	6,850.4	6,849.1	20.9	13.7	87.88	-160.0	-932.3	1,724.8	1,695.5	29.29	58.887		
7,050.0	6,855.9	6,880.5	6,879.2	20.9	13.8	89.05	-159.9	-931.5	1,720.5	1,691.0	29.51	58.303		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 600-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
7,086.6	6,875.1	6,900.6	6,899.3	20.9	13.8	89.82	-159.8	-930.9	1,718.0	1,688.3	29.69	57.873		
7,100.0	6,881.8	6,907.5	6,906.3	20.9	13.8	90.09	-159.8	-930.7	1,717.2	1,687.4	29.75	57.727		
7,150.0	6,904.6	6,931.3	6,930.0	21.0	13.9	90.98	-159.7	-930.0	1,714.9	1,684.9	30.01	57.153		
7,185.0	6,918.8	6,946.0	6,944.7	21.1	13.9	91.50	-159.6	-929.6	1,714.0	1,683.8	30.21	56.741		
7,200.0	6,924.3	6,951.7	6,950.4	21.1	13.9	91.69	-159.6	-929.4	1,713.9	1,683.6	30.29	56.577		
7,213.1	6,928.9	6,956.5	6,955.2	21.1	13.9	91.84	-159.6	-929.3	1,713.8	1,683.5	30.38	56.417		
7,250.0	6,940.8	6,968.7	6,967.4	21.2	14.0	92.20	-159.5	-928.9	1,714.2	1,683.6	30.61	55.994		
7,283.4	6,949.9	6,978.0	6,976.7	21.3	14.0	92.42	-159.5	-928.6	1,715.3	1,684.4	30.85	55.591		
7,300.0	6,953.9	6,982.1	6,980.8	21.4	14.0	92.49	-159.4	-928.5	1,716.0	1,685.0	30.97	55.404		
7,350.0	6,963.6	6,991.9	6,990.6	21.6	14.0	92.54	-159.4	-928.2	1,719.3	1,688.0	31.37	54.813		
7,381.9	6,968.0	6,996.3	6,995.0	21.7	14.0	92.45	-159.3	-928.1	1,722.3	1,690.6	31.64	54.432		
7,400.0	6,969.9	6,998.1	6,996.8	21.8	14.0	92.36	-159.3	-928.0	1,724.2	1,692.4	31.79	54.231		
7,450.0	6,972.6	7,000.0	6,998.7	22.1	14.0	91.90	-159.3	-927.9	1,730.7	1,698.4	32.24	53.677		
7,471.5	6,972.8	7,000.0	6,998.7	22.2	14.0	91.64	-159.3	-927.9	1,733.9	1,701.5	32.44	53.450		
7,480.3	6,972.7	7,000.0	6,998.7	22.3	14.0	91.64	-159.3	-927.9	1,735.3	1,702.8	32.53	53.351		
7,500.0	6,972.5	7,000.0	6,998.7	22.4	14.0	91.64	-159.3	-927.9	1,738.6	1,705.9	32.72	53.138		
7,578.7	6,971.8	6,999.0	6,997.6	23.1	14.0	91.60	-159.3	-928.0	1,754.0	1,720.5	33.51	52.342		
7,600.0	6,971.6	6,998.6	6,997.3	23.3	14.0	91.59	-159.3	-928.0	1,758.7	1,725.0	33.72	52.151		
7,677.1	6,970.9	6,997.4	6,996.0	24.0	14.0	91.55	-159.3	-928.0	1,777.9	1,743.4	34.56	51.446		
7,700.0	6,970.7	6,997.0	6,995.7	24.2	14.0	91.54	-159.3	-928.0	1,784.2	1,749.4	34.81	51.261		
7,775.6	6,970.0	6,995.8	6,994.4	25.0	14.0	91.50	-159.3	-928.1	1,806.9	1,771.2	35.72	50.592		
7,800.0	6,969.8	6,995.4	6,994.0	25.3	14.0	91.48	-159.3	-928.1	1,814.9	1,778.9	36.01	50.399		
7,874.0	6,969.1	6,994.2	6,992.9	26.2	14.0	91.44	-159.4	-928.1	1,840.7	1,803.7	36.98	49.781		
7,900.0	6,968.9	6,993.8	6,992.4	26.5	14.0	91.43	-159.4	-928.1	1,850.4	1,813.1	37.32	49.589		
7,972.4	6,968.2	6,992.6	6,991.3	27.4	14.0	91.39	-159.4	-928.2	1,879.1	1,840.7	38.32	49.032		
8,000.0	6,968.0	6,992.2	6,990.9	27.8	14.0	91.38	-159.4	-928.2	1,890.6	1,851.9	38.71	48.843		
8,070.8	6,967.3	6,991.1	6,989.7	28.7	14.0	91.34	-159.4	-928.2	1,921.7	1,881.9	39.74	48.351		
8,100.0	6,967.1	6,990.6	6,989.3	29.1	14.0	91.32	-159.4	-928.2	1,935.1	1,894.9	40.17	48.171		
8,169.3	6,966.4	6,989.5	6,988.2	30.1	14.0	91.29	-159.4	-928.3	1,968.3	1,927.1	41.23	47.743		
8,200.0	6,966.2	6,989.0	6,987.7	30.5	14.0	91.27	-159.4	-928.3	1,983.6	1,941.9	41.70	47.574		
8,267.7	6,965.5	6,988.0	6,986.6	31.5	14.0	91.23	-159.4	-928.3	2,018.7	1,975.9	42.76	47.206		
8,300.0	6,965.2	6,987.4	6,986.1	32.0	14.0	91.22	-159.4	-928.3	2,035.9	1,992.7	43.27	47.050		
8,366.1	6,964.6	6,986.4	6,985.1	33.0	14.0	91.18	-159.4	-928.4	2,072.5	2,028.1	44.34	46.737		
8,400.0	6,964.3	6,985.9	6,984.5	33.5	14.0	91.16	-159.4	-928.4	2,091.7	2,046.8	44.89	46.595		
8,464.5	6,963.8	6,984.9	6,983.5	34.5	14.0	91.13	-159.4	-928.4	2,129.5	2,083.5	45.96	46.332		
8,500.0	6,963.4	6,984.3	6,983.0	35.1	14.0	91.11	-159.4	-928.4	2,150.7	2,104.2	46.55	46.204		
8,563.0	6,962.9	6,983.3	6,982.0	36.1	14.0	91.08	-159.4	-928.5	2,189.4	2,141.8	47.61	45.985		
8,600.0	6,962.5	6,982.8	6,981.4	36.7	14.0	91.06	-159.4	-928.5	2,212.7	2,164.4	48.24	45.871		
8,661.4	6,962.0	6,981.8	6,980.5	37.7	14.0	91.03	-159.4	-928.5	2,252.0	2,202.7	49.29	45.690		
8,700.0	6,961.6	6,981.2	6,979.9	38.3	14.0	91.01	-159.4	-928.5	2,277.3	2,227.3	49.95	45.590		
8,759.8	6,961.1	6,980.3	6,979.0	39.3	14.0	90.98	-159.4	-928.6	2,317.2	2,266.2	50.99	45.441		
8,800.0	6,960.7	6,979.7	6,978.3	40.0	14.0	90.96	-159.4	-928.6	2,344.4	2,292.7	51.69	45.355		
8,858.2	6,960.2	6,978.8	6,977.4	40.9	14.0	90.93	-159.4	-928.6	2,384.6	2,331.9	52.72	45.235		
8,900.0	6,959.8	6,978.1	6,976.8	41.6	14.0	90.91	-159.5	-928.6	2,413.8	2,360.4	53.45	45.160		
8,956.7	6,959.3	6,977.3	6,975.9	42.6	14.0	90.88	-159.5	-928.6	2,454.1	2,399.6	54.46	45.064		
9,000.0	6,958.9	6,976.6	6,975.3	43.3	14.0	90.85	-159.5	-928.7	2,485.3	2,430.1	55.23	45.001		
9,055.1	6,958.4	6,975.8	6,974.4	44.3	14.0	90.83	-159.5	-928.7	2,525.5	2,469.3	56.22	44.926		
9,100.0	6,958.0	6,975.1	6,973.8	45.1	14.0	90.80	-159.5	-928.7	2,558.7	2,501.7	57.02	44.874		
9,153.5	6,957.5	6,974.3	6,972.9	46.0	14.0	90.78	-159.5	-928.7	2,598.7	2,540.7	57.99	44.816		
9,200.0	6,957.1	6,973.6	6,972.2	46.8	14.0	90.75	-159.5	-928.8	2,633.9	2,575.0	58.83	44.774		
9,251.9	6,956.6	6,972.8	6,971.5	47.7	14.0	90.73	-159.5	-928.8	2,673.5	2,613.8	59.77	44.730		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 600-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.0	6,956.2	6,972.1	6,970.7	48.6	14.0	90.70	-159.5	-928.8	2,710.6	2,650.0	60.64	44.697		
9,350.4	6,955.7	6,971.3	6,970.0	49.5	14.0	90.68	-159.5	-928.8	2,749.9	2,688.3	61.57	44.665		
9,400.0	6,955.2	6,970.5	6,969.2	50.3	14.0	90.65	-159.5	-928.9	2,788.9	2,726.4	62.47	44.640		
9,448.8	6,954.8	6,969.8	6,968.5	51.2	14.0	90.63	-159.5	-928.9	2,827.5	2,764.2	63.37	44.619		
9,500.0	6,954.3	6,969.0	6,967.7	52.1	14.0	90.60	-159.5	-928.9	2,868.4	2,804.1	64.31	44.602		
9,547.2	6,953.9	6,968.3	6,967.0	53.0	14.0	90.58	-159.5	-928.9	2,906.5	2,841.3	65.18	44.588		
9,600.0	6,953.4	6,967.6	6,966.2	53.9	14.0	90.55	-159.5	-928.9	2,949.3	2,883.1	66.16	44.578		
9,645.6	6,953.0	6,966.9	6,965.6	54.7	14.0	90.53	-159.5	-929.0	2,986.5	2,919.5	67.01	44.571		
9,700.0	6,952.5	6,966.1	6,964.7	55.7	13.9	90.50	-159.5	-929.0	3,031.2	2,963.2	68.01	44.567		
9,744.1	6,952.1	6,965.4	6,964.1	56.5	13.9	90.48	-159.5	-929.0	3,067.7	2,998.9	68.83	44.566 SF		
9,800.0	6,951.6	6,964.6	6,963.3	57.5	13.9	90.45	-159.5	-929.0	3,114.2	3,044.4	69.88	44.568		
9,842.5	6,951.2	6,964.0	6,962.6	58.3	13.9	90.43	-159.5	-929.1	3,149.8	3,079.2	70.67	44.571		
9,900.0	6,950.7	6,963.1	6,961.8	59.4	13.9	90.40	-159.5	-929.1	3,198.2	3,126.5	71.74	44.578		
9,940.9	6,950.3	6,962.5	6,961.2	60.1	13.9	90.38	-159.5	-929.1	3,232.9	3,160.4	72.51	44.585		
10,000.0	6,949.8	6,961.6	6,960.3	61.2	13.9	90.35	-159.5	-929.1	3,283.1	3,209.5	73.62	44.597		
10,039.3	6,949.4	6,961.1	6,959.7	61.9	13.9	90.33	-159.5	-929.1	3,316.8	3,242.4	74.36	44.606		
10,100.0	6,948.9	6,960.2	6,958.9	63.0	13.9	90.30	-159.6	-929.2	3,368.8	3,293.3	75.50	44.623		
10,137.8	6,948.5	6,959.6	6,958.3	63.7	13.9	90.29	-159.6	-929.2	3,401.4	3,325.2	76.21	44.634		
10,200.0	6,948.0	6,958.7	6,957.4	64.9	13.9	90.26	-159.6	-929.2	3,455.3	3,378.0	77.38	44.654		
10,236.2	6,947.6	6,958.2	6,956.9	65.6	13.9	90.24	-159.6	-929.2	3,486.8	3,408.8	78.06	44.667		
10,300.0	6,947.1	6,957.3	6,956.0	66.7	13.9	90.21	-159.6	-929.3	3,542.5	3,463.3	79.27	44.691		
10,334.6	6,946.7	6,956.8	6,955.5	67.4	13.9	90.19	-159.6	-929.3	3,572.9	3,493.0	79.92	44.704		
10,400.0	6,946.2	6,955.8	6,954.5	68.6	13.9	90.16	-159.6	-929.3	3,630.4	3,549.2	81.16	44.732		
10,433.0	6,945.8	6,955.4	6,954.0	69.2	13.9	90.14	-159.6	-929.3	3,659.6	3,577.8	81.79	44.746		
10,500.0	6,945.2	6,954.4	6,953.1	70.5	13.9	90.11	-159.6	-929.3	3,718.9	3,635.8	83.05	44.776		
10,531.5	6,945.0	6,953.9	6,952.6	71.1	13.9	90.09	-159.6	-929.4	3,746.8	3,663.2	83.65	44.791		
10,600.0	6,944.3	6,953.0	6,951.6	72.3	13.9	90.06	-159.6	-929.4	3,807.9	3,722.9	84.95	44.824		
10,629.9	6,944.1	6,952.5	6,951.2	72.9	13.9	90.05	-159.6	-929.4	3,834.6	3,749.1	85.52	44.838		
10,700.0	6,943.4	6,951.5	6,950.2	74.2	13.9	90.01	-159.6	-929.4	3,897.5	3,810.6	86.85	44.874		
10,728.3	6,943.2	6,951.1	6,949.8	74.7	13.9	90.00	-159.6	-929.4	3,922.9	3,835.5	87.39	44.888		
10,800.0	6,942.5	6,950.1	6,948.8	76.1	13.9	89.97	-159.6	-929.5	3,987.5	3,898.8	88.76	44.926		
10,826.7	6,942.3	6,949.7	6,948.4	76.6	13.9	89.95	-159.6	-929.5	4,011.7	3,922.4	89.27	44.940		
10,900.0	6,941.6	6,948.7	6,947.4	78.0	13.9	89.92	-159.6	-929.5	4,078.1	3,987.4	90.66	44.980		
10,925.2	6,941.4	6,948.3	6,947.0	78.4	13.9	89.91	-159.6	-929.5	4,100.9	4,009.8	91.15	44.993		
11,000.0	6,940.7	6,947.3	6,946.0	79.9	13.9	89.87	-159.6	-929.6	4,169.0	4,076.4	92.57	45.035		
11,023.6	6,940.5	6,947.0	6,945.6	80.3	13.9	89.86	-159.6	-929.6	4,190.5	4,097.5	93.02	45.048		
11,100.0	6,939.8	6,945.9	6,944.6	81.7	13.9	89.82	-159.6	-929.6	4,260.4	4,165.9	94.49	45.091		
11,122.0	6,939.6	6,945.6	6,944.3	82.2	13.9	89.81	-159.6	-929.6	4,280.6	4,185.6	94.91	45.103		
11,200.0	6,938.9	6,944.5	6,943.2	83.6	13.9	89.78	-159.6	-929.6	4,352.1	4,255.7	96.40	45.147		
11,220.4	6,938.7	6,944.2	6,942.9	84.0	13.9	89.77	-159.6	-929.7	4,370.9	4,274.1	96.79	45.159		
11,300.0	6,938.0	6,943.1	6,941.8	85.5	13.9	89.73	-159.6	-929.7	4,444.2	4,345.9	98.31	45.205		
11,318.9	6,937.8	6,942.8	6,941.5	85.9	13.9	89.72	-159.6	-929.7	4,461.6	4,363.0	98.68	45.215		
11,400.0	6,937.0	6,941.7	6,940.4	87.4	13.9	89.68	-159.7	-929.7	4,536.7	4,436.4	100.23	45.262		
11,417.3	6,936.9	6,941.5	6,940.1	87.8	13.9	89.68	-159.7	-929.7	4,552.7	4,452.1	100.56	45.272		
11,500.0	6,936.1	6,940.3	6,939.0	89.3	13.9	89.64	-159.7	-929.8	4,629.4	4,527.3	102.15	45.320		
11,515.7	6,936.0	6,940.1	6,938.8	89.6	13.9	89.63	-159.7	-929.8	4,644.0	4,541.6	102.45	45.329		
11,600.0	6,935.2	6,938.9	6,937.6	91.2	13.9	89.59	-159.7	-929.8	4,722.5	4,618.4	104.07	45.378		
11,614.1	6,935.1	6,938.7	6,937.4	91.5	13.9	89.59	-159.7	-929.8	4,735.6	4,631.3	104.34	45.386		
11,700.0	6,934.3	6,937.6	6,936.3	93.1	13.9	89.55	-159.7	-929.9	4,815.8	4,709.8	105.99	45.436		
11,712.6	6,934.2	6,937.4	6,936.1	93.4	13.9	89.54	-159.7	-929.9	4,827.5	4,721.3	106.23	45.443		
11,800.0	6,933.4	6,936.2	6,934.9	95.1	13.9	89.50	-159.7	-929.9	4,909.4	4,801.4	107.91	45.493		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 13-7U - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 600-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	6,936.0	6,934.7	95.3	13.9	89.50	-159.7	-929.9	4,919.7	4,811.5	108.13	45.500		
11,900.0	6,932.5	6,934.8	6,933.5	97.0	13.9	89.45	-159.7	-929.9	5,003.2	4,893.4	109.84	45.551		
11,909.4	6,932.4	6,934.7	6,933.4	97.1	13.9	89.45	-159.7	-929.9	5,012.1	4,902.0	110.02	45.556		
12,000.0	6,931.6	6,933.5	6,932.2	98.9	13.9	89.41	-159.7	-930.0	5,097.3	4,985.5	111.76	45.608		
12,007.8	6,931.5	6,933.4	6,932.1	99.0	13.9	89.41	-159.7	-930.0	5,104.7	4,992.7	111.91	45.612		
12,100.0	6,930.7	6,932.1	6,930.8	100.8	13.9	89.36	-159.7	-930.0	5,191.6	5,077.9	113.69	45.664		
12,106.3	6,930.6	6,932.0	6,930.7	100.9	13.9	89.36	-159.7	-930.0	5,197.5	5,083.7	113.81	45.668		
12,200.0	6,929.8	6,930.8	6,929.5	102.7	13.9	89.32	-159.7	-930.1	5,286.1	5,170.4	115.62	45.720		
12,204.7	6,929.7	6,930.7	6,929.4	102.8	13.9	89.32	-159.7	-930.1	5,290.5	5,174.8	115.71	45.723		
12,300.0	6,928.8	6,929.4	6,928.1	104.6	13.9	89.27	-159.7	-930.1	5,380.8	5,263.2	117.55	45.776		
12,303.1	6,928.8	6,929.4	6,928.1	104.7	13.9	89.27	-159.7	-930.1	5,383.7	5,266.1	117.61	45.777		
12,400.0	6,927.9	6,928.1	6,926.8	106.5	13.9	89.23	-159.7	-930.1	5,475.6	5,356.2	119.48	45.831		
12,401.5	6,927.9	6,928.1	6,926.8	106.6	13.9	89.23	-159.7	-930.1	5,477.1	5,357.6	119.51	45.832		
12,500.0	6,927.0	6,926.8	6,925.5	108.5	13.9	89.18	-159.7	-930.2	5,570.7	5,449.3	121.41	45.885		
12,598.4	6,926.1	6,925.5	6,924.2	110.4	13.9	89.14	-159.7	-930.2	5,664.4	5,541.1	123.31	45.938		
12,600.0	6,926.1	6,925.4	6,924.1	110.4	13.9	89.14	-159.7	-930.2	5,665.9	5,542.6	123.34	45.939		
12,696.8	6,925.2	6,924.2	6,922.9	112.3	13.9	89.10	-159.7	-930.2	5,758.3	5,633.1	125.21	45.990		
12,700.0	6,925.2	6,924.1	6,922.8	112.3	13.9	89.10	-159.7	-930.2	5,761.3	5,636.1	125.27	45.992		
12,795.2	6,924.3	6,922.9	6,921.6	114.1	13.9	89.05	-159.7	-930.3	5,852.3	5,725.2	127.11	46.042		
12,800.0	6,924.3	6,922.8	6,921.5	114.2	13.9	89.05	-159.7	-930.3	5,856.9	5,729.7	127.20	46.044		
12,893.7	6,923.4	6,921.6	6,920.3	116.0	13.9	89.01	-159.8	-930.3	5,946.5	5,817.5	129.01	46.093		
12,900.0	6,923.4	6,921.5	6,920.2	116.2	13.9	89.01	-159.8	-930.3	5,952.6	5,823.4	129.13	46.096		
12,992.1	6,922.5	6,920.3	6,919.0	117.9	13.9	88.97	-159.8	-930.4	6,040.8	5,909.9	130.91	46.143		
13,000.0	6,922.5	6,920.2	6,918.9	118.1	13.9	88.96	-159.8	-930.4	6,048.4	5,917.3	131.07	46.147		
13,090.5	6,921.6	6,919.0	6,917.7	119.8	13.8	88.92	-159.8	-930.4	6,135.3	6,002.5	132.82	46.193		
13,100.0	6,921.5	6,918.9	6,917.6	120.0	13.8	88.92	-159.8	-930.4	6,144.4	6,011.4	133.00	46.198		
13,188.9	6,920.7	6,917.7	6,916.4	121.7	13.8	88.88	-159.8	-930.4	6,229.8	6,095.1	134.72	46.242		
13,200.0	6,920.6	6,917.6	6,916.3	121.9	13.8	88.88	-159.8	-930.4	6,240.5	6,105.5	134.94	46.247		
13,287.4	6,919.8	6,916.5	6,915.2	123.6	13.8	88.84	-159.8	-930.5	6,324.5	6,187.9	136.63	46.290		
13,300.0	6,919.7	6,916.3	6,915.0	123.9	13.8	88.83	-159.8	-930.5	6,336.7	6,199.8	136.87	46.296		
13,385.8	6,918.9	6,915.2	6,913.9	125.5	13.8	88.80	-159.8	-930.5	6,419.3	6,280.8	138.53	46.338		
13,400.0	6,918.8	6,915.0	6,913.7	125.8	13.8	88.79	-159.8	-930.5	6,433.0	6,294.2	138.81	46.345		
13,484.2	6,918.0	6,913.9	6,912.6	127.4	13.8	88.75	-159.8	-930.5	6,514.2	6,373.8	140.44	46.385		
13,500.0	6,917.9	6,913.7	6,912.4	127.7	13.8	88.75	-159.8	-930.6	6,529.4	6,388.7	140.74	46.392		
13,582.6	6,917.1	6,912.7	6,911.4	129.3	13.8	88.71	-159.8	-930.6	6,609.2	6,466.9	142.35	46.431		
13,600.0	6,917.0	6,912.5	6,911.2	129.7	13.8	88.70	-159.8	-930.6	6,626.0	6,483.3	142.68	46.439		
13,681.1	6,916.2	6,911.4	6,910.1	131.2	13.8	88.67	-159.8	-930.6	6,704.3	6,560.1	144.25	46.477		
13,700.0	6,916.1	6,911.2	6,909.9	131.6	13.8	88.66	-159.8	-930.6	6,722.6	6,578.0	144.62	46.485		
13,779.5	6,915.3	6,910.2	6,908.9	133.1	13.8	88.63	-159.8	-930.7	6,799.5	6,653.4	146.16	46.522		
13,800.0	6,915.2	6,909.9	6,908.6	133.5	13.8	88.62	-159.8	-930.7	6,819.4	6,672.8	146.56	46.531		
13,877.9	6,914.4	6,908.9	6,907.6	135.1	13.8	88.59	-159.8	-930.7	6,894.8	6,746.8	148.07	46.566		
13,900.0	6,914.2	6,908.7	6,907.4	135.5	13.8	88.58	-159.8	-930.7	6,916.2	6,767.7	148.49	46.576		
13,976.3	6,913.5	6,907.7	6,906.4	137.0	13.8	88.55	-159.8	-930.7	6,990.2	6,840.2	149.97	46.609		
14,000.0	6,913.3	6,907.4	6,906.1	137.4	13.8	88.54	-159.8	-930.7	7,013.1	6,862.7	150.43	46.620		
14,074.8	6,912.6	6,906.5	6,905.2	138.9	13.8	88.50	-159.8	-930.8	7,085.7	6,933.8	151.88	46.652		
14,100.0	6,912.4	6,906.2	6,904.9	139.4	13.8	88.49	-159.8	-930.8	7,110.1	6,957.8	152.37	46.663		
14,145.0	6,912.0	6,905.6	6,904.3	140.2	13.8	88.47	-159.8	-930.8	7,153.8	7,000.6	153.20	46.695		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	-90.00	0.0	-178.4	178.5				
98.4	98.4	92.4	92.4	0.1	0.1	-90.00	-90.00	0.0	-178.4	178.4	178.3	0.19	963.084	
100.0	100.0	94.0	94.0	0.1	0.1	-90.00	-90.00	0.0	-178.4	178.4	178.3	0.19	946.226	
196.8	196.8	190.8	190.8	0.3	0.3	-90.00	-90.00	0.0	-178.4	178.4	177.8	0.62	289.545	
200.0	200.0	194.0	194.0	0.3	0.3	-90.00	-90.00	0.0	-178.4	178.4	177.8	0.63	283.042	
295.3	295.3	289.3	289.3	0.5	0.5	-90.00	-90.00	0.0	-178.4	178.4	177.4	1.06	168.545	
300.0	300.0	294.0	294.0	0.5	0.5	-90.00	-90.00	0.0	-178.4	178.4	177.4	1.08	165.230	
393.7	393.7	387.7	387.7	0.8	0.7	-90.00	-90.00	0.0	-178.4	178.4	176.9	1.50	118.870	
400.0	400.0	394.0	394.0	0.8	0.8	-90.00	-90.00	0.0	-178.4	178.4	176.9	1.53	116.669	
492.1	492.1	486.1	486.1	1.0	1.0	-90.00	-90.00	0.0	-178.4	178.4	176.5	1.94	91.811	
500.0	500.0	494.0	494.0	1.0	1.0	-90.00	-90.00	0.0	-178.4	178.4	176.5	1.98	90.168	
590.5	590.5	584.5	584.5	1.2	1.2	-90.00	-90.00	0.0	-178.4	178.4	176.1	2.39	74.786	
600.0	600.0	594.0	594.0	1.2	1.2	-90.00	-90.00	0.0	-178.4	178.4	176.0	2.43	73.478	
689.0	689.0	683.0	683.0	1.4	1.4	-90.00	-90.00	0.0	-178.4	178.4	175.6	2.83	63.088	
700.0	700.0	694.0	694.0	1.4	1.4	-90.00	-90.00	0.0	-178.4	178.4	175.6	2.88	62.002	
787.4	787.4	781.4	781.4	1.6	1.6	-90.00	-90.00	0.0	-178.4	178.4	175.2	3.27	54.555	
800.0	800.0	794.0	794.0	1.7	1.7	-90.00	-90.00	0.0	-178.4	178.4	175.1	3.33	53.626	
885.8	885.8	879.8	879.8	1.9	1.8	-90.00	-90.00	0.0	-178.4	178.4	174.7	3.71	48.054	
900.0	900.0	894.0	894.0	1.9	1.9	-90.00	-90.00	0.0	-178.4	178.4	174.7	3.78	47.244	
984.2	984.2	978.2	978.2	2.1	2.1	-90.00	-90.00	0.0	-178.4	178.4	174.3	4.16	42.938	
1,000.0	1,000.0	994.0	994.0	2.1	2.1	-90.00	-90.00	0.0	-178.4	178.4	174.2	4.23	42.219 CC, ES	
1,082.7	1,082.7	1,072.2	1,072.2	2.3	2.3	-160.13	-160.13	0.2	-179.3	180.5	175.9	4.57	39.470	
1,100.0	1,100.0	1,088.5	1,088.5	2.3	2.3	-160.14	-160.14	0.3	-179.8	181.5	176.9	4.65	39.071	
1,181.1	1,181.0	1,164.5	1,164.4	2.5	2.5	-160.25	-160.25	1.0	-183.1	188.7	183.8	4.98	37.935	
1,200.0	1,199.8	1,182.1	1,182.0	2.6	2.5	-160.29	-160.29	1.3	-184.1	191.0	186.0	5.05	37.817	
1,279.5	1,279.1	1,255.8	1,255.4	2.7	2.7	-160.44	-160.44	2.5	-189.6	203.2	197.8	5.38	37.789	
1,300.0	1,299.5	1,274.6	1,274.2	2.8	2.7	-160.48	-160.48	2.9	-191.3	206.9	201.5	5.46	37.906	
1,377.9	1,376.9	1,345.5	1,344.7	3.0	2.9	-160.64	-160.64	4.6	-198.8	223.7	217.9	5.78	38.712	
1,400.0	1,398.7	1,365.4	1,364.4	3.0	2.9	-160.69	-160.69	5.1	-201.1	229.2	223.3	5.87	39.048	
1,476.4	1,474.2	1,433.2	1,431.6	3.2	3.1	-160.83	-160.83	7.2	-210.3	250.3	244.1	6.18	40.485	
1,500.0	1,497.5	1,453.9	1,452.1	3.3	3.2	-160.87	-160.87	7.9	-213.5	257.5	251.2	6.28	41.022	
1,574.8	1,571.0	1,518.5	1,515.7	3.5	3.4	-160.98	-160.98	10.3	-224.1	282.6	276.0	6.58	42.929	
1,600.1	1,595.7	1,539.9	1,536.7	3.6	3.4	-161.02	-161.02	11.1	-227.9	291.8	285.1	6.69	43.653	
1,673.2	1,667.2	1,600.0	1,595.6	3.9	3.6	-161.23	-161.23	13.7	-239.5	319.8	312.8	7.00	45.695	
1,700.0	1,693.4	1,623.4	1,618.5	4.0	3.7	-161.29	-161.29	14.8	-244.4	330.3	323.2	7.12	46.420	
1,771.6	1,763.5	1,682.0	1,675.6	4.2	3.9	-161.39	-161.39	17.7	-257.3	359.5	352.1	7.43	48.385	
1,800.0	1,791.3	1,704.9	1,697.8	4.3	4.0	-161.41	-161.41	18.9	-262.6	371.4	363.9	7.55	49.167	
1,870.1	1,859.8	1,764.2	1,755.2	4.6	4.2	-161.43	-161.43	22.2	-277.2	401.5	393.7	7.88	50.988	
1,900.0	1,889.1	1,791.2	1,781.3	4.7	4.4	-161.43	-161.43	23.7	-283.9	414.5	406.5	8.01	51.742	
1,968.5	1,956.1	1,853.0	1,841.1	5.0	4.6	-161.44	-161.44	27.1	-299.2	444.1	435.8	8.32	53.351	
2,000.0	1,986.9	1,881.4	1,868.5	5.1	4.8	-161.44	-161.44	28.7	-306.2	457.8	449.3	8.47	54.031	
2,066.9	2,052.3	1,941.7	1,926.9	5.4	5.0	-161.45	-161.45	32.1	-321.2	486.7	477.9	8.79	55.365	
2,100.0	2,084.7	1,971.5	1,955.7	5.5	5.2	-161.45	-161.45	33.7	-328.5	501.0	492.1	8.95	55.994	
2,165.3	2,148.6	2,030.4	2,012.7	5.8	5.5	-161.46	-161.46	37.0	-343.1	529.3	520.0	9.26	57.182	
2,200.0	2,182.5	2,061.7	2,042.9	5.9	5.6	-161.46	-161.46	38.8	-350.9	544.3	534.9	9.42	57.763	
2,263.8	2,244.9	2,119.2	2,098.5	6.2	5.9	-161.47	-161.47	42.0	-365.1	571.9	562.1	9.73	58.769	
2,300.0	2,280.3	2,151.8	2,130.1	6.3	6.0	-161.47	-161.47	43.8	-373.2	587.5	577.6	9.91	59.304	
2,362.2	2,341.2	2,207.9	2,184.4	6.6	6.3	-161.47	-161.47	46.9	-387.1	614.5	604.2	10.21	60.174	
2,400.0	2,378.1	2,242.0	2,217.3	6.8	6.5	-161.48	-161.48	48.8	-395.6	630.8	620.4	10.40	60.668	
2,460.6	2,437.4	2,296.6	2,270.2	7.0	6.8	-161.48	-161.48	51.9	-409.1	657.0	646.3	10.70	61.421	
2,500.0	2,476.0	2,332.1	2,304.5	7.2	6.9	-161.48	-161.48	53.8	-417.9	674.1	663.2	10.89	61.881	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,385.4	2,356.0	7.4	7.2	-161.48		56.8	-431.1	699.6	688.4	11.19	62.535	
2,600.0	2,573.8	2,422.3	2,391.7	7.6	7.4	-161.49		58.9	-440.3	717.3	705.9	11.39	62.964	
2,657.5	2,630.0	2,474.1	2,441.8	7.9	7.7	-161.49		61.8	-453.1	742.2	730.5	11.68	63.534	
2,700.0	2,671.6	2,512.5	2,478.9	8.1	7.9	-161.49		63.9	-462.6	760.6	748.7	11.90	63.935	
2,755.9	2,726.3	2,562.9	2,527.7	8.3	8.1	-161.49		66.7	-475.1	784.8	772.6	12.18	64.434	
2,800.0	2,769.4	2,602.6	2,566.1	8.5	8.3	-161.49		68.9	-484.9	803.9	791.5	12.40	64.810	
2,854.3	2,822.5	2,651.6	2,613.5	8.7	8.6	-161.50		71.6	-497.1	827.4	814.7	12.68	65.248	
2,900.0	2,867.2	2,692.8	2,653.3	8.9	8.8	-161.50		73.9	-507.3	847.1	834.2	12.91	65.601	
2,952.7	2,918.8	2,740.3	2,699.3	9.2	9.0	-161.50		76.6	-519.1	869.9	856.8	13.18	65.986	
3,000.0	2,965.0	2,782.9	2,740.5	9.4	9.3	-161.50		79.0	-529.6	890.4	877.0	13.43	66.318	
3,051.2	3,015.1	2,829.1	2,785.2	9.6	9.5	-161.50		81.5	-541.0	912.5	898.8	13.69	66.659	
3,100.0	3,062.8	2,873.1	2,827.7	9.8	9.7	-161.50		84.0	-552.0	933.6	919.7	13.94	66.971	
3,149.6	3,111.4	2,917.8	2,871.0	10.0	10.0	-161.51		86.5	-563.0	955.1	940.9	14.20	67.273	
3,200.0	3,160.7	2,963.2	2,914.9	10.3	10.2	-161.51		89.0	-574.3	976.9	962.4	14.46	67.567	
3,248.0	3,207.6	3,006.5	2,956.8	10.5	10.4	-161.51		91.4	-585.0	997.7	983.0	14.71	67.836	
3,300.0	3,258.5	3,053.4	3,002.1	10.7	10.7	-161.51		94.0	-596.6	1,020.2	1,005.2	14.98	68.114	
3,346.4	3,303.9	3,095.3	3,042.6	10.9	10.9	-161.51		96.4	-607.0	1,040.3	1,025.0	15.22	68.353	
3,400.0	3,356.3	3,143.6	3,089.3	11.2	11.2	-161.51		99.1	-619.0	1,063.4	1,047.9	15.50	68.616	
3,444.9	3,400.2	3,184.0	3,128.5	11.4	11.4	-161.51		101.3	-629.0	1,082.8	1,067.1	15.73	68.829	
3,500.0	3,454.1	3,233.7	3,176.5	11.6	11.7	-161.51		104.1	-641.3	1,106.7	1,090.7	16.02	69.079	
3,543.3	3,496.5	3,272.8	3,214.3	11.8	11.9	-161.51		106.3	-651.0	1,125.4	1,109.2	16.25	69.268	
3,600.0	3,551.9	3,323.9	3,263.7	12.0	12.1	-161.52		109.1	-663.7	1,150.0	1,133.4	16.54	69.507	
3,641.7	3,592.7	3,361.5	3,300.1	12.2	12.3	-161.52		111.2	-673.0	1,168.0	1,151.2	16.76	69.676	
3,700.0	3,649.7	3,414.0	3,350.9	12.5	12.6	-161.52		114.1	-686.0	1,193.2	1,176.1	17.07	69.903	
3,740.1	3,689.0	3,450.2	3,385.9	12.7	12.8	-161.52		116.2	-695.0	1,210.6	1,193.3	17.28	70.053	
3,800.0	3,747.5	3,504.2	3,438.1	12.9	13.1	-161.52		119.2	-708.3	1,236.5	1,218.9	17.60	70.270	
3,838.6	3,785.3	3,539.0	3,471.8	13.1	13.3	-161.52		121.1	-717.0	1,253.2	1,235.4	17.80	70.405	
3,900.0	3,845.4	3,594.3	3,525.3	13.4	13.6	-161.52		124.2	-730.7	1,279.7	1,261.6	18.12	70.612	
3,937.0	3,881.5	3,627.7	3,557.6	13.6	13.8	-161.52		126.0	-739.0	1,295.8	1,277.4	18.32	70.732	
4,000.0	3,943.2	3,684.5	3,612.5	13.8	14.1	-161.52		129.2	-753.0	1,323.0	1,304.4	18.65	70.930	
4,035.4	3,977.8	3,716.4	3,643.4	14.0	14.2	-161.52		131.0	-760.9	1,338.3	1,319.5	18.84	71.038	
4,100.0	4,041.0	3,774.7	3,699.7	14.3	14.6	-161.52		134.2	-775.4	1,366.3	1,347.1	19.18	71.227	
4,133.8	4,074.1	3,805.2	3,729.3	14.4	14.7	-161.52		135.9	-782.9	1,380.9	1,361.6	19.36	71.323	
4,200.0	4,138.8	3,864.8	3,786.9	14.7	15.0	-161.52		139.3	-797.7	1,409.5	1,389.8	19.71	71.505	
4,232.3	4,170.4	3,893.9	3,815.1	14.9	15.2	-161.52		140.9	-804.9	1,423.5	1,403.6	19.88	71.591	
4,300.0	4,236.6	3,955.0	3,874.1	15.2	15.5	-161.53		144.3	-820.1	1,452.8	1,432.6	20.24	71.765	
4,330.7	4,266.6	3,982.7	3,900.9	15.3	15.7	-161.53		145.8	-826.9	1,466.1	1,445.7	20.41	71.842	
4,400.0	4,334.4	4,045.1	3,961.3	15.6	16.0	-161.53		149.3	-842.4	1,496.1	1,475.3	20.78	72.010	
4,429.1	4,362.9	4,071.4	3,986.7	15.8	16.2	-161.53		150.8	-848.9	1,508.7	1,487.7	20.93	72.078	
4,500.0	4,432.2	4,135.3	4,048.5	16.1	16.5	-161.53		154.3	-864.7	1,539.3	1,518.0	21.31	72.239	
4,527.5	4,459.2	4,160.1	4,072.6	16.2	16.6	-161.53		155.7	-870.9	1,551.2	1,529.8	21.46	72.300	
4,600.0	4,530.1	4,225.4	4,135.7	16.5	17.0	-161.53		159.4	-887.1	1,582.6	1,560.7	21.84	72.455	
4,626.0	4,555.5	4,248.9	4,158.4	16.7	17.1	-161.53		160.7	-892.9	1,593.8	1,571.8	21.98	72.509	
4,700.0	4,627.9	4,315.6	4,222.9	17.0	17.5	-161.53		164.4	-909.4	1,625.8	1,603.5	22.38	72.659	
4,724.4	4,651.7	4,337.6	4,244.2	17.1	17.6	-161.53		165.6	-914.9	1,636.4	1,613.9	22.51	72.707	
4,800.0	4,725.7	4,405.8	4,310.1	17.4	18.0	-161.53		169.4	-931.8	1,669.1	1,646.2	22.91	72.851	
4,822.8	4,748.0	4,426.3	4,330.0	17.6	18.1	-161.53		170.6	-936.9	1,679.0	1,655.9	23.03	72.893	
4,900.0	4,823.5	4,495.9	4,397.3	17.9	18.5	-161.53		174.4	-954.1	1,712.4	1,688.9	23.45	73.033	
4,921.2	4,844.3	4,515.1	4,415.9	18.0	18.6	-161.53		175.5	-958.8	1,721.6	1,698.0	23.56	73.070	
5,000.0	4,921.3	4,586.1	4,484.5	18.4	19.0	-161.53		179.5	-976.4	1,755.6	1,731.7	23.98	73.204	
5,014.9	4,935.9	4,599.5	4,497.6	18.4	19.0	-161.53		180.2	-979.8	1,762.1	1,738.0	24.06	73.229	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,019.7	4,940.6	4,603.8	4,501.7	18.4	19.1	-161.55	180.4	-980.8	1,764.1	1,740.0	24.09	73.220		
5,100.0	5,019.4	4,676.7	4,572.2	18.7	19.4	-161.77	184.5	-998.9	1,797.8	1,773.2	24.62	73.031		
5,118.1	5,037.2	4,693.3	4,588.2	18.8	19.5	-161.81	185.4	-1,003.0	1,805.1	1,780.4	24.73	73.000		
5,200.0	5,118.1	4,768.7	4,661.2	19.0	19.9	-161.98	189.6	-1,021.7	1,837.0	1,811.8	25.22	72.829		
5,216.5	5,134.4	4,784.1	4,676.0	19.1	20.0	-162.01	190.5	-1,025.5	1,843.2	1,817.9	25.32	72.795		
5,300.0	5,217.2	4,861.9	4,751.4	19.3	20.5	-162.14	194.8	-1,044.8	1,873.1	1,847.3	25.80	72.598		
5,314.9	5,232.1	4,876.0	4,764.9	19.3	20.5	-162.16	195.6	-1,048.3	1,878.2	1,852.4	25.88	72.564		
5,400.0	5,316.8	4,956.3	4,842.6	19.5	21.0	-162.24	200.1	-1,068.2	1,906.1	1,879.8	26.35	72.343		
5,413.4	5,330.1	4,969.0	4,854.9	19.5	21.0	-162.25	200.8	-1,071.3	1,910.3	1,883.9	26.42	72.310		
5,500.0	5,416.6	5,051.6	4,934.8	19.7	21.5	-162.28	205.4	-1,091.8	1,936.0	1,909.1	26.86	72.070		
5,511.8	5,428.4	5,062.9	4,945.7	19.7	21.5	-162.29	206.0	-1,094.6	1,939.3	1,912.4	26.92	72.038		
5,600.0	5,516.6	5,147.8	5,027.8	19.8	22.0	-162.28	210.8	-1,115.6	1,962.6	1,935.3	27.34	71.780		
5,610.2	5,526.8	5,157.7	5,037.4	19.8	22.1	-162.28	211.3	-1,118.1	1,965.2	1,937.8	27.39	71.749		
5,615.0	5,531.6	5,162.3	5,041.9	19.8	22.1	-92.20	211.6	-1,119.2	1,966.4	1,938.9	27.42	71.723		
5,700.0	5,616.6	5,244.5	5,121.4	19.9	22.5	-92.04	216.1	-1,139.6	1,987.3	1,959.5	27.80	71.476		
5,708.6	5,625.3	5,252.9	5,129.5	20.0	22.6	-92.02	216.6	-1,141.7	1,989.4	1,961.6	27.84	71.450		
5,800.0	5,716.6	5,341.2	5,214.9	20.1	23.1	-91.85	221.5	-1,163.6	2,011.9	1,983.6	28.27	71.172		
5,807.1	5,723.7	5,348.1	5,221.6	20.1	23.1	-91.84	221.9	-1,165.3	2,013.6	1,985.3	28.30	71.151		
5,900.0	5,816.6	5,438.0	5,308.5	20.2	23.6	-91.67	226.9	-1,187.5	2,036.6	2,007.8	28.73	70.878		
5,905.5	5,822.1	5,443.3	5,313.6	20.2	23.6	-91.66	227.2	-1,188.9	2,037.9	2,009.1	28.76	70.862		
6,000.0	5,916.6	5,534.7	5,402.0	20.4	24.1	-91.50	232.3	-1,211.5	2,061.2	2,032.0	29.20	70.591		
6,003.9	5,920.5	5,538.5	5,405.7	20.4	24.1	-91.49	232.5	-1,212.4	2,062.2	2,033.0	29.22	70.580		
6,100.0	6,016.6	5,631.4	5,495.6	20.5	24.6	-91.33	237.7	-1,235.5	2,085.9	2,056.2	29.67	70.314		
6,102.3	6,019.0	5,633.7	5,497.8	20.5	24.7	-91.33	237.8	-1,236.0	2,086.5	2,056.8	29.68	70.307		
6,200.0	6,116.6	5,931.9	5,789.3	20.6	25.8	-90.91	251.4	-1,296.5	2,106.7	2,076.1	30.57	68.921		
6,200.8	6,117.4	5,934.5	5,792.0	20.6	25.8	-90.91	251.5	-1,296.9	2,106.8	2,076.2	30.57	68.908		
6,299.2	6,215.8	6,280.9	6,136.5	20.8	26.5	-90.70	258.8	-1,329.3	2,116.0	2,084.6	31.41	67.368		
6,300.0	6,216.6	6,283.7	6,139.4	20.8	26.5	-90.70	258.8	-1,329.4	2,116.0	2,084.6	31.42	67.356		
6,340.0	6,256.6	6,395.0	6,250.6	20.8	26.6	-90.69	259.2	-1,331.0	2,116.5	2,084.8	31.67	66.834		
6,350.0	6,266.6	6,405.0	6,260.6	20.8	26.6	89.10	259.2	-1,331.0	2,116.5	2,084.8	31.70	66.776		
6,397.6	6,314.2	6,450.0	6,305.6	20.9	26.7	89.14	258.2	-1,331.1	2,116.5	2,084.7	31.83	66.493		
6,400.0	6,316.5	6,453.2	6,308.7	20.9	26.7	89.14	258.1	-1,331.1	2,116.5	2,084.6	31.84	66.479		
6,402.4	6,319.0	6,455.5	6,311.1	20.9	26.7	89.14	257.9	-1,331.1	2,116.5	2,084.6	31.84	66.468		
6,450.0	6,366.2	6,501.1	6,356.4	20.9	26.7	89.18	253.8	-1,331.1	2,116.5	2,084.5	31.94	66.263		
6,496.0	6,411.4	6,545.3	6,400.1	21.0	26.7	89.22	247.0	-1,331.1	2,116.4	2,084.4	32.01	66.128		
6,500.0	6,415.3	6,550.0	6,404.8	21.0	26.7	89.22	246.1	-1,331.1	2,116.4	2,084.4	32.01	66.114		
6,550.0	6,463.6	6,597.1	6,450.7	21.0	26.8	89.27	235.6	-1,331.1	2,116.4	2,084.4	32.05	66.029		
6,594.5	6,505.8	6,640.0	6,491.8	21.0	26.8	89.31	223.5	-1,331.2	2,116.4	2,084.3	32.07	65.994		
6,600.0	6,510.9	6,645.3	6,496.9	21.0	26.8	89.32	221.8	-1,331.2	2,116.4	2,084.3	32.07	65.990		
6,650.0	6,557.0	6,693.7	6,542.1	21.0	26.8	89.37	204.9	-1,331.2	2,116.4	2,084.3	32.07	65.985		
6,692.9	6,595.4	6,735.2	6,580.1	21.0	26.8	89.42	187.9	-1,331.3	2,116.3	2,084.3	32.07	65.997		
6,700.0	6,601.6	6,742.1	6,586.3	21.0	26.8	89.43	184.8	-1,331.3	2,116.3	2,084.3	32.07	65.999		
6,750.0	6,644.6	6,790.7	6,629.0	20.9	26.8	89.49	161.8	-1,331.4	2,116.3	2,084.3	32.06	66.014		
6,791.3	6,678.6	6,831.0	6,663.3	20.9	26.8	89.54	140.6	-1,331.5	2,116.3	2,084.2	32.06	66.010		
6,800.0	6,685.6	6,839.5	6,670.3	20.9	26.8	89.55	135.9	-1,331.5	2,116.3	2,084.2	32.06	66.009		
6,850.0	6,724.6	6,888.3	6,709.8	20.9	26.8	89.61	107.1	-1,331.6	2,116.3	2,084.2	32.08	65.962		
6,889.7	6,753.9	6,927.3	6,739.8	20.9	26.8	89.67	82.3	-1,331.7	2,116.3	2,084.2	32.13	65.876		
6,900.0	6,761.3	6,937.4	6,747.4	20.9	26.8	89.68	75.6	-1,331.7	2,116.3	2,084.1	32.14	65.852		
6,950.0	6,795.5	6,986.6	6,782.8	20.9	26.8	89.75	41.4	-1,331.8	2,116.3	2,084.0	32.23	65.656		
6,988.2	6,819.9	7,024.3	6,808.3	20.9	26.8	89.80	13.7	-1,331.9	2,116.3	2,083.9	32.34	65.428		
7,000.0	6,827.1	7,036.0	6,815.9	20.9	26.8	89.82	4.8	-1,332.0	2,116.3	2,083.9	32.38	65.353		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,855.9	7,085.5	6,846.5	20.9	26.8	89.89		-34.1	-1,332.1	2,116.2	2,083.7	32.59	64.928	
7,086.6	6,875.1	7,121.9	6,867.3	20.9	26.8	89.94		-64.0	-1,332.2	2,116.2	2,083.4	32.80	64.522	
7,100.0	6,881.8	7,135.3	6,874.5	20.9	26.8	89.96		-75.3	-1,332.3	2,116.2	2,083.4	32.88	64.368	
7,124.5	6,893.4	7,159.7	6,887.2	21.0	26.8	89.99		-96.2	-1,332.4	2,116.2	2,083.2	33.05	64.030	
7,150.0	6,904.6	7,185.2	6,899.6	21.0	26.8	90.03		-118.4	-1,332.4	2,116.2	2,083.0	33.24	63.662	
7,185.0	6,918.8	7,220.3	6,915.4	21.1	26.9	90.08		-149.7	-1,332.5	2,116.2	2,082.7	33.55	63.073	
7,200.0	6,924.3	7,235.3	6,921.7	21.1	26.9	90.10		-163.3	-1,332.6	2,116.2	2,082.6	33.69	62.814	
7,250.0	6,940.8	7,285.6	6,940.7	21.2	27.0	90.17		-209.9	-1,332.8	2,116.3	2,082.0	34.23	61.829	
7,283.4	6,949.9	7,319.3	6,951.6	21.3	27.0	90.22		-241.8	-1,332.9	2,116.3	2,081.6	34.64	61.089	
7,300.0	6,953.9	7,336.0	6,956.4	21.4	27.1	90.24		-257.8	-1,332.9	2,116.3	2,081.4	34.85	60.718	
7,350.0	6,963.6	7,386.7	6,968.8	21.6	27.2	90.31		-306.9	-1,333.1	2,116.3	2,080.7	35.57	59.499	
7,381.9	6,968.0	7,419.1	6,974.9	21.7	27.3	90.35		-338.7	-1,333.2	2,116.3	2,080.2	36.07	58.667	
7,400.0	6,969.9	7,437.5	6,977.7	21.8	27.3	90.38		-357.0	-1,333.3	2,116.3	2,079.9	36.37	58.194	
7,450.0	6,972.6	7,488.6	6,983.0	22.1	27.5	90.44		-407.7	-1,333.5	2,116.3	2,079.1	37.24	56.825	
7,471.5	6,972.8	7,510.5	6,984.2	22.2	27.6	90.47		-429.7	-1,333.6	2,116.3	2,078.7	37.64	56.224	
7,480.3	6,972.7	7,519.6	6,984.5	22.3	27.6	90.48		-438.7	-1,333.6	2,116.3	2,078.5	37.81	55.971	
7,500.0	6,972.5	7,539.8	6,984.7	22.4	27.7	90.49		-458.9	-1,333.7	2,116.3	2,078.1	38.19	55.414	
7,578.7	6,971.8	7,618.5	6,984.3	23.1	28.1	90.50		-537.6	-1,334.0	2,116.3	2,076.5	39.78	53.201	
7,600.0	6,971.6	7,639.8	6,984.2	23.3	28.2	90.50		-558.9	-1,334.1	2,116.3	2,076.1	40.22	52.619	
7,677.1	6,970.9	7,717.0	6,983.8	24.0	28.7	90.51		-636.1	-1,334.3	2,116.3	2,074.4	41.89	50.521	
7,700.0	6,970.7	7,739.8	6,983.7	24.2	28.9	90.52		-658.9	-1,334.4	2,116.3	2,073.9	42.40	49.912	
7,775.6	6,970.0	7,815.4	6,983.3	25.0	29.5	90.52		-734.5	-1,334.7	2,116.3	2,072.1	44.20	47.881	
7,800.0	6,969.8	7,839.8	6,983.2	25.3	29.7	90.53		-758.9	-1,334.8	2,116.3	2,071.5	44.80	47.237	
7,874.0	6,969.1	7,913.8	6,982.9	26.2	30.4	90.53		-832.9	-1,335.1	2,116.3	2,069.6	46.72	45.299	
7,900.0	6,968.9	7,939.8	6,982.7	26.5	30.7	90.54		-858.9	-1,335.2	2,116.3	2,068.9	47.41	44.637	
7,972.4	6,968.2	8,012.2	6,982.4	27.4	31.4	90.55		-931.3	-1,335.4	2,116.3	2,066.9	49.42	42.827	
8,000.0	6,968.0	8,039.8	6,982.3	27.8	31.7	90.55		-958.9	-1,335.5	2,116.3	2,066.2	50.20	42.160	
8,070.8	6,967.3	8,110.6	6,981.9	28.7	32.5	90.56		-1,029.7	-1,335.8	2,116.4	2,064.1	52.26	40.493	
8,100.0	6,967.1	8,139.8	6,981.8	29.1	32.9	90.56		-1,058.9	-1,335.9	2,116.4	2,063.2	53.13	39.832	
8,169.3	6,966.4	8,209.1	6,981.4	30.1	33.7	90.57		-1,128.2	-1,336.1	2,116.4	2,061.1	55.24	38.312	
8,200.0	6,966.2	8,239.8	6,981.3	30.5	34.1	90.57		-1,158.9	-1,336.3	2,116.4	2,060.2	56.19	37.664	
8,267.7	6,965.5	8,307.5	6,980.9	31.5	35.0	90.58		-1,226.6	-1,336.5	2,116.4	2,058.0	58.32	36.287	
8,300.0	6,965.2	8,339.8	6,980.8	32.0	35.4	90.58		-1,258.9	-1,336.6	2,116.4	2,057.0	59.35	35.656	
8,366.1	6,964.6	8,405.9	6,980.5	33.0	36.3	90.59		-1,325.0	-1,336.9	2,116.4	2,054.9	61.50	34.414	
8,400.0	6,964.3	8,439.8	6,980.3	33.5	36.8	90.59		-1,358.9	-1,337.0	2,116.4	2,053.8	62.61	33.803	
8,464.5	6,963.8	8,504.3	6,980.0	34.5	37.7	90.60		-1,423.4	-1,337.2	2,116.4	2,051.6	64.75	32.685	
8,500.0	6,963.4	8,539.8	6,979.8	35.1	38.2	90.61		-1,458.9	-1,337.4	2,116.4	2,050.4	65.94	32.096	
8,563.0	6,962.9	8,602.8	6,979.5	36.1	39.2	90.61		-1,521.8	-1,337.6	2,116.4	2,048.3	68.07	31.091	
8,600.0	6,962.5	8,639.8	6,979.3	36.7	39.7	90.62		-1,558.9	-1,337.7	2,116.4	2,047.1	69.33	30.524	
8,661.4	6,962.0	8,701.2	6,979.0	37.7	40.7	90.62		-1,620.3	-1,338.0	2,116.4	2,045.0	71.45	29.622	
8,700.0	6,961.6	8,739.8	6,978.8	38.3	41.3	90.63		-1,658.9	-1,338.1	2,116.4	2,043.6	72.79	29.077	
8,759.8	6,961.1	8,799.6	6,978.5	39.3	42.2	90.64		-1,718.7	-1,338.3	2,116.4	2,041.5	74.88	28.266	
8,800.0	6,960.7	8,839.8	6,978.3	40.0	42.8	90.64		-1,758.9	-1,338.5	2,116.4	2,040.1	76.29	27.743	
8,858.2	6,960.2	8,898.0	6,978.0	40.9	43.8	90.65		-1,817.1	-1,338.7	2,116.4	2,038.1	78.35	27.014	
8,900.0	6,959.8	8,939.8	6,977.8	41.6	44.5	90.65		-1,858.8	-1,338.8	2,116.4	2,036.6	79.83	26.512	
8,956.7	6,959.3	8,996.4	6,977.6	42.6	45.4	90.66		-1,915.5	-1,339.0	2,116.4	2,034.6	81.85	25.856	
9,000.0	6,958.9	9,039.8	6,977.4	43.3	46.1	90.66		-1,958.8	-1,339.2	2,116.4	2,033.0	83.41	25.374	
9,055.1	6,958.4	9,094.9	6,977.1	44.3	47.0	90.67		-2,013.9	-1,339.4	2,116.4	2,031.0	85.40	24.784	
9,100.0	6,958.0	9,139.8	6,976.9	45.1	47.8	90.67		-2,058.8	-1,339.6	2,116.4	2,029.4	87.02	24.321	
9,153.5	6,957.5	9,193.3	6,976.6	46.0	48.7	90.68		-2,112.4	-1,339.8	2,116.4	2,027.5	88.97	23.790	
9,200.0	6,957.1	9,239.8	6,976.4	46.8	49.5	90.68		-2,158.8	-1,339.9	2,116.5	2,025.8	90.66	23.345	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,251.9	6,956.6	9,291.7	6,976.1	47.7	50.3	90.69		-2,210.8	-1,340.1	2,116.5	2,023.9	92.56	22.865	
9,300.0	6,956.2	9,339.8	6,975.9	48.6	51.2	90.70		-2,258.8	-1,340.3	2,116.5	2,022.1	94.33	22.438	
9,350.4	6,955.7	9,390.1	6,975.6	49.5	52.0	90.70		-2,309.2	-1,340.5	2,116.5	2,020.3	96.18	22.005	
9,400.0	6,955.2	9,439.8	6,975.4	50.3	52.9	90.71		-2,358.8	-1,340.7	2,116.5	2,018.5	98.01	21.594	
9,448.8	6,954.8	9,488.6	6,975.1	51.2	53.8	90.71		-2,407.6	-1,340.9	2,116.5	2,016.7	99.82	21.203	
9,500.0	6,954.3	9,539.8	6,974.9	52.1	54.7	90.72		-2,458.8	-1,341.1	2,116.5	2,014.8	101.72	20.807	
9,547.2	6,953.9	9,587.0	6,974.7	53.0	55.5	90.72		-2,506.0	-1,341.2	2,116.5	2,013.0	103.48	20.454	
9,600.0	6,953.4	9,639.8	6,974.4	53.9	56.4	90.73		-2,558.8	-1,341.4	2,116.5	2,011.1	105.44	20.072	
9,645.6	6,953.0	9,685.4	6,974.2	54.7	57.2	90.74		-2,604.5	-1,341.6	2,116.5	2,009.4	107.15	19.753	
9,700.0	6,952.5	9,739.7	6,973.9	55.7	58.2	90.74		-2,658.8	-1,341.8	2,116.5	2,007.3	109.19	19.385	
9,744.1	6,952.1	9,783.8	6,973.7	56.5	59.0	90.75		-2,702.9	-1,342.0	2,116.5	2,005.7	110.84	19.095	
9,800.0	6,951.6	9,839.7	6,973.4	57.5	60.0	90.75		-2,758.8	-1,342.2	2,116.5	2,003.6	112.94	18.740	
9,842.5	6,951.2	9,882.2	6,973.2	58.3	60.8	90.76		-2,801.3	-1,342.3	2,116.5	2,002.0	114.54	18.478	
9,900.0	6,950.7	9,939.7	6,972.9	59.4	61.8	90.76		-2,858.8	-1,342.5	2,116.5	1,999.8	116.71	18.135	
9,940.9	6,950.3	9,980.7	6,972.7	60.1	62.5	90.77		-2,899.7	-1,342.7	2,116.5	1,998.3	118.25	17.898	
10,000.0	6,949.8	10,039.7	6,972.4	61.2	63.6	90.78		-2,958.8	-1,342.9	2,116.6	1,996.1	120.49	17.566	
10,039.3	6,949.4	10,079.1	6,972.2	61.9	64.3	90.78		-2,998.1	-1,343.0	2,116.6	1,994.6	121.98	17.352	
10,100.0	6,948.9	10,139.7	6,971.9	63.0	65.4	90.79		-3,058.8	-1,343.3	2,116.6	1,992.3	124.28	17.031	
10,137.8	6,948.5	10,177.5	6,971.8	63.7	66.1	90.79		-3,096.6	-1,343.4	2,116.6	1,990.9	125.71	16.836	
10,200.0	6,948.0	10,239.7	6,971.5	64.9	67.3	90.80		-3,158.8	-1,343.6	2,116.6	1,988.5	128.08	16.526	
10,236.2	6,947.6	10,275.9	6,971.3	65.6	68.0	90.80		-3,195.0	-1,343.8	2,116.6	1,987.1	129.46	16.350	
10,300.0	6,947.1	10,339.7	6,971.0	66.7	69.1	90.81		-3,258.8	-1,344.0	2,116.6	1,984.7	131.89	16.048	
10,334.6	6,946.7	10,374.4	6,970.8	67.4	69.8	90.81		-3,293.4	-1,344.1	2,116.6	1,983.4	133.21	15.889	
10,400.0	6,946.2	10,439.7	6,970.5	68.6	71.0	90.82		-3,358.8	-1,344.4	2,116.6	1,980.9	135.71	15.597	
10,433.0	6,945.8	10,472.8	6,970.3	69.2	71.6	90.82		-3,391.8	-1,344.5	2,116.6	1,979.6	136.97	15.453	
10,500.0	6,945.2	10,539.7	6,970.0	70.5	72.8	90.83		-3,458.8	-1,344.8	2,116.6	1,977.1	139.53	15.170	
10,531.5	6,945.0	10,571.2	6,969.8	71.1	73.4	90.84		-3,490.2	-1,344.9	2,116.6	1,975.9	140.74	15.040	
10,600.0	6,944.3	10,639.7	6,969.5	72.3	74.7	90.84		-3,558.8	-1,345.1	2,116.6	1,973.3	143.36	14.764	
10,629.9	6,944.1	10,669.6	6,969.3	72.9	75.3	90.85		-3,588.7	-1,345.2	2,116.6	1,972.1	144.51	14.647	
10,700.0	6,943.4	10,739.7	6,969.0	74.2	76.6	90.85		-3,658.8	-1,345.5	2,116.7	1,969.5	147.20	14.380	
10,728.3	6,943.2	10,768.0	6,968.9	74.7	77.1	90.86		-3,687.1	-1,345.6	2,116.7	1,968.4	148.29	14.274	
10,800.0	6,942.5	10,839.7	6,968.5	76.1	78.5	90.87		-3,758.7	-1,345.9	2,116.7	1,965.6	151.04	14.014	
10,826.7	6,942.3	10,866.5	6,968.4	76.6	79.0	90.87		-3,785.5	-1,346.0	2,116.7	1,964.6	152.07	13.919	
10,900.0	6,941.6	10,939.7	6,968.0	78.0	80.4	90.88		-3,858.7	-1,346.2	2,116.7	1,961.8	154.89	13.666	
10,925.2	6,941.4	10,964.9	6,967.9	78.4	80.8	90.88		-3,883.9	-1,346.3	2,116.7	1,960.8	155.86	13.581	
11,000.0	6,940.7	11,039.7	6,967.5	79.9	82.2	90.89		-3,958.7	-1,346.6	2,116.7	1,958.0	158.75	13.334	
11,023.6	6,940.5	11,063.3	6,967.4	80.3	82.7	90.89		-3,982.3	-1,346.7	2,116.7	1,957.1	159.66	13.258	
11,100.0	6,939.8	11,139.7	6,967.0	81.7	84.1	90.90		-4,058.7	-1,347.0	2,116.7	1,954.1	162.60	13.018	
11,122.0	6,939.6	11,161.7	6,966.9	82.2	84.6	90.90		-4,080.8	-1,347.1	2,116.7	1,953.3	163.46	12.950	
11,200.0	6,938.9	11,239.7	6,966.5	83.6	86.0	90.91		-4,158.7	-1,347.3	2,116.7	1,950.3	166.47	12.716	
11,220.4	6,938.7	11,260.1	6,966.4	84.0	86.4	90.91		-4,179.2	-1,347.4	2,116.8	1,949.5	167.26	12.656	
11,300.0	6,938.0	11,339.7	6,966.0	85.5	87.9	90.92		-4,258.7	-1,347.7	2,116.8	1,946.4	170.33	12.427	
11,318.9	6,937.8	11,358.6	6,965.9	85.9	88.3	90.92		-4,277.6	-1,347.8	2,116.8	1,945.7	171.07	12.374	
11,400.0	6,937.0	11,439.7	6,965.5	87.4	89.8	90.93		-4,358.7	-1,348.1	2,116.8	1,942.6	174.21	12.151	
11,417.3	6,936.9	11,457.0	6,965.5	87.8	90.2	90.94		-4,376.0	-1,348.2	2,116.8	1,941.9	174.88	12.105	
11,500.0	6,936.1	11,539.7	6,965.0	89.3	91.8	90.94		-4,458.7	-1,348.5	2,116.8	1,938.7	178.08	11.887	
11,515.7	6,936.0	11,555.4	6,965.0	89.6	92.1	90.95		-4,474.4	-1,348.5	2,116.8	1,938.1	178.69	11.846	
11,600.0	6,935.2	11,639.7	6,964.5	91.2	93.7	90.96		-4,558.7	-1,348.8	2,116.8	1,934.9	181.96	11.634	
11,614.1	6,935.1	11,653.8	6,964.5	91.5	93.9	90.96		-4,572.9	-1,348.9	2,116.8	1,934.3	182.51	11.599	
11,700.0	6,934.3	11,739.7	6,964.1	93.1	95.6	90.97		-4,658.7	-1,349.2	2,116.8	1,931.0	185.84	11.391	
11,712.6	6,934.2	11,752.3	6,964.0	93.4	95.8	90.97		-4,671.3	-1,349.3	2,116.8	1,930.5	186.33	11.361	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-203 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,800.0	6,933.4	11,839.7	6,963.6	95.1	97.5	90.98	-4,758.7	-1,349.6	2,116.9	1,927.1	189.72	11.158		
11,811.0	6,933.3	11,850.7	6,963.5	95.3	97.7	90.98	-4,769.7	-1,349.6	2,116.9	1,926.7	190.15	11.133		
11,900.0	6,932.5	11,939.7	6,963.1	97.0	99.4	90.99	-4,858.7	-1,349.9	2,116.9	1,923.3	193.61	10.934		
11,909.4	6,932.4	11,949.1	6,963.0	97.1	99.6	90.99	-4,868.1	-1,350.0	2,116.9	1,922.9	193.97	10.913		
12,000.0	6,931.6	12,039.7	6,962.6	98.9	101.4	91.00	-4,958.7	-1,350.3	2,116.9	1,919.4	197.50	10.719		
12,007.8	6,931.5	12,047.5	6,962.5	99.0	101.5	91.00	-4,966.5	-1,350.3	2,116.9	1,919.1	197.80	10.702		
12,100.0	6,930.7	12,139.7	6,962.1	100.8	103.3	91.01	-5,058.7	-1,350.7	2,116.9	1,915.5	201.39	10.512		
12,106.3	6,930.6	12,145.9	6,962.0	100.9	103.4	91.01	-5,065.0	-1,350.7	2,116.9	1,915.3	201.63	10.499		
12,200.0	6,929.8	12,239.7	6,961.6	102.7	105.2	91.02	-5,158.7	-1,351.1	2,117.0	1,911.7	205.28	10.318		
12,204.7	6,929.7	12,244.4	6,961.6	102.8	105.3	91.02	-5,163.4	-1,351.1	2,117.0	1,911.5	205.46	10.303		
12,300.0	6,928.8	12,339.7	6,961.1	104.6	107.2	91.04	-5,258.7	-1,351.4	2,117.0	1,907.8	209.18	10.121		
12,303.1	6,928.8	12,342.8	6,961.1	104.7	107.2	91.04	-5,261.8	-1,351.4	2,117.0	1,907.7	209.30	10.115		
12,400.0	6,927.9	12,439.7	6,960.6	106.5	109.1	91.05	-5,358.7	-1,351.8	2,117.0	1,903.9	213.07	9.935		
12,401.5	6,927.9	12,441.2	6,960.6	106.6	109.1	91.05	-5,360.2	-1,351.8	2,117.0	1,903.9	213.13	9.933		
12,500.0	6,927.0	12,539.7	6,960.1	108.5	111.0	91.06	-5,458.7	-1,352.2	2,117.0	1,900.1	216.97	9.757		
12,598.4	6,926.1	12,638.1	6,959.6	110.4	112.9	91.07	-5,557.1	-1,352.5	2,117.0	1,896.2	220.81	9.588		
12,600.0	6,926.1	12,639.7	6,959.6	110.4	113.0	91.07	-5,558.7	-1,352.6	2,117.0	1,896.2	220.88	9.585		
12,696.8	6,925.2	12,736.5	6,959.1	112.3	114.8	91.08	-5,655.5	-1,352.9	2,117.1	1,892.4	224.65	9.424		
12,700.0	6,925.2	12,739.7	6,959.1	112.3	114.9	91.08	-5,658.7	-1,352.9	2,117.1	1,892.3	224.78	9.418		
12,795.2	6,924.3	12,834.9	6,958.6	114.1	116.7	91.09	-5,753.9	-1,353.3	2,117.1	1,888.6	228.50	9.265		
12,800.0	6,924.3	12,839.6	6,958.6	114.2	116.8	91.09	-5,758.6	-1,353.3	2,117.1	1,888.4	228.68	9.258		
12,893.7	6,923.4	12,933.3	6,958.1	116.0	118.7	91.10	-5,852.3	-1,353.6	2,117.1	1,884.8	232.34	9.112		
12,900.0	6,923.4	12,939.6	6,958.1	116.2	118.8	91.10	-5,858.6	-1,353.7	2,117.1	1,884.5	232.59	9.102		
12,992.1	6,922.5	13,031.7	6,957.7	117.9	120.6	91.11	-5,950.7	-1,354.0	2,117.1	1,881.0	236.19	8.964		
13,000.0	6,922.5	13,039.6	6,957.6	118.1	120.7	91.11	-5,958.6	-1,354.0	2,117.1	1,880.7	236.50	8.952		
13,090.5	6,921.6	13,130.2	6,957.2	119.8	122.5	91.12	-6,049.2	-1,354.4	2,117.2	1,877.1	240.04	8.820		
13,100.0	6,921.5	13,139.6	6,957.1	120.0	122.7	91.13	-6,058.6	-1,354.4	2,117.2	1,876.8	240.41	8.807		
13,188.9	6,920.7	13,228.6	6,956.7	121.7	124.4	91.14	-6,147.6	-1,354.8	2,117.2	1,873.3	243.88	8.681		
13,200.0	6,920.6	13,239.6	6,956.6	121.9	124.6	91.14	-6,158.6	-1,354.8	2,117.2	1,872.9	244.32	8.666		
13,287.4	6,919.8	13,327.0	6,956.2	123.6	126.3	91.15	-6,246.0	-1,355.1	2,117.2	1,869.5	247.73	8.546		
13,300.0	6,919.7	13,339.6	6,956.1	123.9	126.6	91.15	-6,258.6	-1,355.2	2,117.2	1,869.0	248.23	8.529		
13,385.8	6,918.9	13,425.4	6,955.7	125.5	128.2	91.16	-6,344.4	-1,355.5	2,117.2	1,865.7	251.58	8.416		
13,400.0	6,918.8	13,439.6	6,955.6	125.8	128.5	91.16	-6,358.6	-1,355.5	2,117.3	1,865.1	252.14	8.397		
13,484.2	6,918.0	13,523.9	6,955.2	127.4	130.2	91.17	-6,442.8	-1,355.9	2,117.3	1,861.8	255.44	8.289		
13,500.0	6,917.9	13,539.6	6,955.1	127.7	130.5	91.17	-6,458.6	-1,355.9	2,117.3	1,861.2	256.05	8.269		
13,582.6	6,917.1	13,622.3	6,954.7	129.3	132.1	91.18	-6,541.3	-1,356.2	2,117.3	1,858.0	259.29	8.166		
13,600.0	6,917.0	13,639.6	6,954.6	129.7	132.4	91.18	-6,558.6	-1,356.3	2,117.3	1,857.3	259.97	8.144		
13,681.1	6,916.2	13,720.7	6,954.2	131.2	134.0	91.19	-6,639.7	-1,356.6	2,117.3	1,854.2	263.14	8.046		
13,700.0	6,916.1	13,739.6	6,954.1	131.6	134.4	91.19	-6,658.6	-1,356.7	2,117.3	1,853.5	263.88	8.024		
13,779.5	6,915.3	13,819.1	6,953.7	133.1	135.9	91.20	-6,738.1	-1,357.0	2,117.4	1,850.4	267.00	7.930		
13,800.0	6,915.2	13,839.6	6,953.6	133.5	136.3	91.20	-6,758.6	-1,357.0	2,117.4	1,849.6	267.80	7.906		
13,877.9	6,914.4	13,917.5	6,953.3	135.1	137.9	91.21	-6,836.5	-1,357.3	2,117.4	1,846.5	270.85	7.817		
13,900.0	6,914.2	13,939.6	6,953.1	135.5	138.3	91.22	-6,858.6	-1,357.4	2,117.4	1,845.7	271.72	7.793		
13,976.3	6,913.5	14,016.0	6,952.8	137.0	139.8	91.22	-6,934.9	-1,357.7	2,117.4	1,842.7	274.71	7.708		
14,000.0	6,913.3	14,039.6	6,952.7	137.4	140.3	91.23	-6,958.6	-1,357.8	2,117.4	1,841.8	275.64	7.682		
14,074.8	6,912.6	14,114.4	6,952.3	138.9	141.7	91.23	-7,033.4	-1,358.1	2,117.4	1,838.9	278.56	7.601		
14,100.0	6,912.4	14,139.6	6,952.2	139.4	142.2	91.24	-7,058.6	-1,358.2	2,117.5	1,837.9	279.52	7.575		
14,115.4	6,912.3	14,155.0	6,952.1	139.6	142.5	91.24	-7,074.0	-1,358.2	2,117.5	1,837.4	280.10	7.560		
14,145.0	6,912.0	14,170.4	6,952.0	140.2	142.8	91.24	-7,089.4	-1,358.3	2,117.5	1,836.6	280.94	7.537 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-147.8	147.9					
98.4	98.4	93.4	93.4	0.1	0.1	-90.00	0.0	-147.8	147.8	147.6	0.19	793.391		
100.0	100.0	95.0	95.0	0.1	0.1	-90.00	0.0	-147.8	147.8	147.6	0.19	779.575		
196.8	196.8	191.8	191.8	0.3	0.3	-90.00	0.0	-147.8	147.8	147.2	0.62	238.908		
200.0	200.0	195.0	195.0	0.3	0.3	-90.00	0.0	-147.8	147.8	147.1	0.63	233.561		
295.3	295.3	290.3	290.3	0.5	0.5	-90.00	0.0	-147.8	147.8	146.7	1.06	139.281		
300.0	300.0	295.0	295.0	0.5	0.5	-90.00	0.0	-147.8	147.8	146.7	1.08	136.547		
393.7	393.7	388.7	388.7	0.8	0.7	-90.00	0.0	-147.8	147.8	146.3	1.50	98.292		
400.0	400.0	395.0	395.0	0.8	0.8	-90.00	0.0	-147.8	147.8	146.2	1.53	96.475		
492.1	492.1	487.1	487.1	1.0	1.0	-90.00	0.0	-147.8	147.8	145.8	1.95	75.943		
500.0	500.0	495.0	495.0	1.0	1.0	-90.00	0.0	-147.8	147.8	145.8	1.98	74.586		
590.5	590.5	585.5	585.5	1.2	1.2	-90.00	0.0	-147.8	147.8	145.4	2.39	61.874		
600.0	600.0	595.0	595.0	1.2	1.2	-90.00	0.0	-147.8	147.8	145.3	2.43	60.793		
689.0	689.0	684.0	684.0	1.4	1.4	-90.00	0.0	-147.8	147.8	144.9	2.83	52.203		
700.0	700.0	695.0	695.0	1.4	1.4	-90.00	0.0	-147.8	147.8	144.9	2.88	51.305		
787.4	787.4	782.4	782.4	1.6	1.6	-90.00	0.0	-147.8	147.8	144.5	3.27	45.147		
800.0	800.0	795.0	795.0	1.7	1.7	-90.00	0.0	-147.8	147.8	144.4	3.33	44.379		
885.8	885.8	880.8	880.8	1.9	1.9	-90.00	0.0	-147.8	147.8	144.1	3.72	39.771		
900.0	900.0	895.0	895.0	1.9	1.9	-90.00	0.0	-147.8	147.8	144.0	3.78	39.100		
984.2	984.2	979.2	979.2	2.1	2.1	-90.00	0.0	-147.8	147.8	143.6	4.16	35.539		
1,000.0	1,000.0	995.0	995.0	2.1	2.1	-90.00	0.0	-147.8	147.8	143.5	4.23	34.944 CC, ES		
1,082.7	1,082.7	1,077.7	1,077.7	2.3	2.3	-160.23	0.0	-147.8	148.9	144.3	4.59	32.421		
1,100.0	1,100.0	1,095.0	1,095.0	2.3	2.3	-160.30	0.0	-147.8	149.4	144.8	4.67	32.006		
1,181.1	1,181.0	1,172.3	1,172.3	2.5	2.5	-160.65	0.2	-148.7	154.1	149.1	5.00	30.800		
1,200.0	1,199.8	1,190.2	1,190.1	2.6	2.5	-160.73	0.4	-149.1	155.8	150.7	5.08	30.665		
1,279.5	1,279.1	1,265.1	1,265.0	2.7	2.7	-161.06	1.3	-152.4	165.4	160.0	5.40	30.611		
1,300.0	1,299.5	1,284.2	1,284.1	2.8	2.7	-161.14	1.6	-153.5	168.6	163.1	5.49	30.722		
1,377.9	1,376.9	1,356.6	1,356.2	3.0	2.9	-161.41	3.1	-158.8	183.0	177.2	5.81	31.511		
1,400.0	1,398.7	1,376.9	1,376.4	3.0	2.9	-161.47	3.6	-160.6	187.7	181.8	5.90	31.842		
1,476.4	1,474.2	1,446.3	1,445.5	3.2	3.1	-161.67	5.7	-167.9	206.6	200.3	6.21	33.267		
1,500.0	1,497.5	1,467.5	1,466.5	3.3	3.2	-161.72	6.4	-170.4	213.1	206.8	6.30	33.801		
1,574.8	1,571.0	1,533.8	1,532.1	3.5	3.3	-161.83	8.9	-179.3	236.0	229.4	6.61	35.701		
1,600.1	1,595.7	1,555.8	1,553.9	3.6	3.4	-161.86	9.9	-182.6	244.5	237.8	6.71	36.424		
1,673.2	1,667.2	1,618.9	1,616.1	3.9	3.6	-162.03	12.8	-192.9	270.4	263.3	7.03	38.460		
1,700.0	1,693.4	1,641.7	1,638.5	4.0	3.6	-162.06	13.9	-196.9	280.2	273.0	7.15	39.209		
1,771.6	1,763.5	1,702.3	1,697.9	4.2	3.8	-162.07	17.2	-208.5	307.4	299.9	7.46	41.195		
1,800.0	1,791.3	1,728.5	1,723.5	4.3	3.9	-162.06	18.7	-213.7	318.4	310.8	7.59	41.950		
1,870.1	1,859.8	1,793.1	1,786.6	4.6	4.1	-162.03	22.4	-226.6	345.5	337.6	7.91	43.669		
1,900.0	1,889.1	1,820.6	1,813.6	4.7	4.2	-162.03	23.9	-232.1	357.2	349.1	8.05	44.379		
1,968.5	1,956.1	1,883.8	1,875.4	5.0	4.5	-162.01	27.5	-244.8	383.7	375.4	8.36	45.883		
2,000.0	1,986.9	1,912.8	1,903.8	5.1	4.6	-162.00	29.1	-250.6	396.0	387.5	8.51	46.531		
2,066.9	2,052.3	1,974.5	1,964.1	5.4	4.8	-161.98	32.6	-262.9	421.9	413.1	8.83	47.804		
2,100.0	2,084.7	2,005.0	1,993.9	5.5	4.9	-161.98	34.4	-269.0	434.8	425.8	8.98	48.402		
2,165.3	2,148.6	2,065.2	2,052.8	5.8	5.2	-161.96	37.8	-281.1	460.1	450.8	9.30	49.500		
2,200.0	2,182.5	2,097.1	2,084.1	5.9	5.3	-161.96	39.6	-287.5	473.6	464.1	9.46	50.057		
2,263.8	2,244.9	2,155.9	2,141.6	6.2	5.5	-161.95	42.9	-299.2	498.3	488.5	9.77	51.008		
2,300.0	2,280.3	2,189.3	2,174.2	6.3	5.7	-161.94	44.8	-305.9	512.4	502.4	9.94	51.521		
2,362.2	2,341.2	2,246.6	2,230.3	6.6	5.9	-161.93	48.1	-317.4	536.5	526.2	10.25	52.347		
2,400.0	2,378.1	2,281.5	2,264.4	6.8	6.1	-161.93	50.1	-324.4	551.2	540.7	10.43	52.823		
2,460.6	2,437.4	2,337.3	2,319.0	7.0	6.3	-161.92	53.2	-335.5	574.7	563.9	10.73	53.543		
2,500.0	2,476.0	2,373.6	2,354.5	7.2	6.4	-161.92	55.3	-342.8	590.0	579.0	10.93	53.987		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,428.1	2,407.8	7.4	6.7	-161.91		58.4	-353.7	612.9	601.6	11.22	54.616	
2,600.0	2,573.8	2,465.8	2,444.7	7.6	6.8	-161.91		60.5	-361.2	628.8	617.3	11.43	55.030	
2,657.5	2,630.0	2,518.8	2,496.5	7.9	7.1	-161.90		63.5	-371.8	651.1	639.3	11.71	55.583	
2,700.0	2,671.6	2,558.0	2,534.8	8.1	7.2	-161.90		65.8	-379.7	667.6	655.6	11.93	55.971	
2,755.9	2,726.3	2,609.5	2,585.2	8.3	7.4	-161.89		68.7	-390.0	689.2	677.0	12.21	56.457	
2,800.0	2,769.4	2,650.1	2,625.0	8.5	7.6	-161.89		71.0	-398.1	706.4	693.9	12.43	56.821	
2,854.3	2,822.5	2,700.2	2,674.0	8.7	7.8	-161.88		73.8	-408.1	727.4	714.7	12.71	57.251	
2,900.0	2,867.2	2,742.3	2,715.1	8.9	8.0	-161.88		76.2	-416.6	745.2	732.2	12.94	57.594	
2,952.7	2,918.8	2,790.9	2,762.7	9.2	8.2	-161.88		79.0	-426.3	765.6	752.4	13.21	57.973	
3,000.0	2,965.0	2,834.5	2,805.3	9.4	8.4	-161.87		81.4	-435.0	784.0	770.5	13.45	58.297	
3,051.2	3,015.1	2,881.6	2,851.4	9.6	8.6	-161.87		84.1	-444.4	803.8	790.1	13.71	58.633	
3,100.0	3,062.8	2,926.6	2,895.4	9.8	8.8	-161.87		86.7	-453.4	822.8	808.8	13.96	58.940	
3,149.6	3,111.4	2,972.3	2,940.1	10.0	9.0	-161.87		89.3	-462.6	842.0	827.8	14.21	59.238	
3,200.0	3,160.7	3,018.8	2,985.6	10.3	9.2	-161.86		91.9	-471.9	861.6	847.1	14.47	59.529	
3,248.0	3,207.6	3,063.1	3,028.9	10.5	9.4	-161.86		94.4	-480.7	880.2	865.5	14.72	59.795	
3,300.0	3,258.5	3,111.0	3,075.7	10.7	9.6	-161.86		97.1	-490.3	900.4	885.4	14.99	60.071	
3,346.4	3,303.9	3,153.8	3,117.6	10.9	9.8	-161.86		99.6	-498.9	918.4	903.2	15.23	60.308	
3,400.0	3,356.3	3,203.1	3,165.9	11.2	10.1	-161.85		102.4	-508.8	939.2	923.7	15.51	60.571	
3,444.9	3,400.2	3,244.5	3,206.3	11.4	10.2	-161.85		104.7	-517.0	956.6	940.8	15.74	60.782	
3,500.0	3,454.1	3,295.3	3,256.0	11.6	10.5	-161.85		107.6	-527.2	978.0	961.9	16.02	61.033	
3,543.3	3,496.5	3,335.2	3,295.1	11.8	10.6	-161.85		109.9	-535.2	994.8	978.5	16.25	61.221	
3,600.0	3,551.9	3,387.5	3,346.2	12.0	10.9	-161.84		112.8	-545.7	1,016.8	1,000.2	16.54	61.460	
3,641.7	3,592.7	3,425.9	3,383.8	12.2	11.0	-161.84		115.0	-553.3	1,032.9	1,016.2	16.76	61.629	
3,700.0	3,649.7	3,479.6	3,436.3	12.5	11.3	-161.84		118.1	-564.1	1,055.6	1,038.5	17.06	61.858	
3,740.1	3,689.0	3,516.6	3,472.5	12.7	11.5	-161.84		120.2	-571.5	1,071.1	1,053.9	17.27	62.009	
3,800.0	3,747.5	3,571.8	3,526.5	12.9	11.7	-161.84		123.3	-582.5	1,094.4	1,076.8	17.59	62.228	
3,838.6	3,785.3	3,607.3	3,561.3	13.1	11.9	-161.84		125.3	-589.6	1,109.3	1,091.5	17.79	62.364	
3,900.0	3,845.4	3,664.0	3,616.6	13.4	12.1	-161.83		128.5	-601.0	1,133.2	1,115.0	18.11	62.573	
3,937.0	3,881.5	3,698.1	3,650.0	13.6	12.3	-161.83		130.5	-607.8	1,147.5	1,129.2	18.30	62.694	
4,000.0	3,943.2	3,756.1	3,706.8	13.8	12.5	-161.83		133.7	-619.4	1,172.0	1,153.3	18.63	62.895	
4,035.4	3,977.8	3,788.8	3,738.7	14.0	12.7	-161.83		135.6	-626.0	1,185.7	1,166.9	18.82	63.004	
4,100.0	4,041.0	3,848.3	3,796.9	14.3	12.9	-161.83		139.0	-637.9	1,210.8	1,191.6	19.16	63.197	
4,133.8	4,074.1	3,879.5	3,827.5	14.4	13.1	-161.83		140.7	-644.1	1,223.9	1,204.6	19.34	63.294	
4,200.0	4,138.8	3,940.5	3,887.1	14.7	13.4	-161.83		144.2	-656.3	1,249.6	1,229.9	19.68	63.480	
4,232.3	4,170.4	3,970.2	3,916.2	14.9	13.5	-161.83		145.9	-662.3	1,262.1	1,242.2	19.85	63.567	
4,300.0	4,236.6	4,032.6	3,977.2	15.2	13.8	-161.82		149.4	-674.7	1,288.4	1,268.1	20.21	63.746	
4,330.7	4,266.6	4,060.9	4,004.9	15.3	13.9	-161.82		151.0	-680.4	1,300.3	1,279.9	20.37	63.824	
4,400.0	4,334.4	4,124.8	4,067.4	15.6	14.2	-161.82		154.7	-693.2	1,327.2	1,306.4	20.74	63.996	
4,429.1	4,362.9	4,151.6	4,093.6	15.8	14.3	-161.82		156.2	-698.6	1,338.5	1,317.6	20.89	64.066	
4,500.0	4,432.2	4,217.0	4,157.5	16.1	14.6	-161.82		159.9	-711.6	1,366.0	1,344.7	21.27	64.231	
4,527.5	4,459.2	4,242.3	4,182.4	16.2	14.7	-161.82		161.3	-716.7	1,376.6	1,355.2	21.41	64.294	
4,600.0	4,530.1	4,309.1	4,247.7	16.5	15.0	-161.82		165.1	-730.1	1,404.8	1,383.0	21.79	64.454	
4,626.0	4,555.5	4,333.1	4,271.1	16.7	15.1	-161.82		166.5	-734.9	1,414.8	1,392.9	21.93	64.509	
4,700.0	4,627.9	4,401.3	4,337.8	17.0	15.5	-161.82		170.4	-748.5	1,443.6	1,421.2	22.32	64.664	
4,724.4	4,651.7	4,423.8	4,359.8	17.1	15.6	-161.82		171.6	-753.0	1,453.0	1,430.6	22.45	64.713	
4,800.0	4,725.7	4,493.5	4,428.0	17.4	15.9	-161.81		175.6	-767.0	1,482.4	1,459.5	22.85	64.862	
4,822.8	4,748.0	4,514.5	4,448.6	17.6	16.0	-161.81		176.8	-771.2	1,491.2	1,468.2	22.97	64.906	
4,900.0	4,823.5	4,585.6	4,518.1	17.9	16.3	-161.81		180.8	-785.4	1,521.2	1,497.8	23.38	65.050	
4,921.2	4,844.3	4,605.2	4,537.3	18.0	16.4	-161.81		181.9	-789.3	1,529.4	1,505.9	23.50	65.089	
5,000.0	4,921.3	4,677.8	4,608.3	18.4	16.7	-161.81		186.0	-803.8	1,560.0	1,536.0	23.92	65.229	
5,014.9	4,935.9	4,691.6	4,621.8	18.4	16.8	-161.81		186.8	-806.6	1,565.8	1,541.8	23.99	65.255	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,019.7	4,940.6	4,695.9	4,626.0	18.4	16.8	-161.82	187.1	-807.5	1,567.6	1,543.6	24.02	65.250		
5,100.0	5,019.4	4,770.4	4,698.9	18.7	17.1	-162.01	191.3	-822.4	1,597.6	1,573.1	24.53	65.138		
5,118.1	5,037.2	4,787.3	4,715.4	18.8	17.2	-162.04	192.3	-825.7	1,604.1	1,579.5	24.63	65.122		
5,200.0	5,118.1	4,864.2	4,790.6	19.0	17.6	-162.18	196.6	-841.1	1,632.3	1,607.2	25.11	65.014		
5,216.5	5,134.4	4,879.8	4,805.9	19.1	17.6	-162.20	197.5	-844.3	1,637.7	1,612.5	25.20	64.992		
5,300.0	5,217.2	4,959.1	4,883.4	19.3	18.0	-162.29	202.0	-860.1	1,663.8	1,638.1	25.66	64.848		
5,314.9	5,232.1	4,973.3	4,897.4	19.3	18.1	-162.30	202.8	-863.0	1,668.2	1,642.5	25.74	64.822		
5,400.0	5,316.8	5,054.9	4,977.2	19.5	18.4	-162.34	207.4	-879.3	1,692.1	1,665.9	26.18	64.646		
5,413.4	5,330.1	5,067.8	4,989.8	19.5	18.5	-162.34	208.2	-881.9	1,695.7	1,669.4	26.24	64.618		
5,500.0	5,416.6	5,151.6	5,071.7	19.7	18.9	-162.34	212.9	-898.6	1,717.2	1,690.6	26.66	64.412		
5,511.8	5,428.4	5,163.0	5,082.9	19.7	18.9	-162.33	213.6	-900.9	1,720.0	1,693.3	26.71	64.384		
5,600.0	5,516.6	5,249.0	5,167.0	19.8	19.3	-162.28	218.5	-918.1	1,739.2	1,712.0	27.11	64.149		
5,610.2	5,526.8	5,259.0	5,176.8	19.8	19.4	-162.28	219.0	-920.1	1,741.2	1,714.1	27.16	64.120		
5,615.0	5,531.6	5,263.6	5,181.3	19.8	19.4	-92.19	219.3	-921.1	1,742.2	1,715.0	27.18	64.105		
5,700.0	5,616.6	5,346.8	5,262.7	19.9	19.8	-92.01	224.0	-937.7	1,759.0	1,731.5	27.56	63.834		
5,708.6	5,625.3	5,355.2	5,270.9	20.0	19.8	-92.00	224.5	-939.4	1,760.7	1,733.1	27.60	63.805		
5,800.0	5,716.6	5,444.6	5,358.3	20.1	20.2	-91.81	229.6	-957.3	1,778.9	1,750.9	28.01	63.504		
5,807.1	5,723.7	5,451.5	5,365.1	20.1	20.2	-91.79	230.0	-958.7	1,780.3	1,752.2	28.04	63.481		
5,900.0	5,816.6	5,542.4	5,454.0	20.2	20.7	-91.61	235.1	-976.8	1,798.7	1,770.3	28.47	63.184		
5,905.5	5,822.1	5,547.8	5,459.3	20.2	20.7	-91.60	235.4	-977.9	1,799.8	1,771.3	28.49	63.167		
6,000.0	5,916.6	5,640.2	5,549.7	20.4	21.1	-91.41	240.7	-996.4	1,818.6	1,789.7	28.92	62.875		
6,003.9	5,920.5	5,644.1	5,553.4	20.4	21.1	-91.41	240.9	-997.2	1,819.4	1,790.5	28.94	62.863		
6,100.0	6,016.6	5,752.2	5,659.2	20.5	21.6	-91.19	247.0	-1,018.7	1,838.5	1,809.1	29.41	62.503		
6,102.3	6,019.0	5,758.2	5,665.1	20.5	21.6	-91.18	247.3	-1,019.9	1,839.0	1,809.5	29.43	62.477		
6,200.0	6,116.6	6,010.5	5,914.3	20.6	22.4	-90.83	258.0	-1,057.4	1,853.4	1,823.3	30.17	61.440		
6,200.8	6,117.4	6,012.5	5,916.3	20.6	22.4	-90.83	258.0	-1,057.6	1,853.5	1,823.4	30.17	61.431		
6,299.2	6,215.8	6,271.9	6,175.1	20.8	22.8	-90.68	262.6	-1,073.9	1,859.7	1,828.9	30.82	60.335		
6,300.0	6,216.6	6,274.0	6,177.2	20.8	22.8	-90.68	262.7	-1,074.0	1,859.7	1,828.9	30.83	60.326		
6,340.0	6,256.6	6,348.5	6,251.6	20.8	22.9	-90.67	262.8	-1,074.5	1,859.9	1,828.9	31.02	59.949		
6,350.0	6,266.6	6,358.5	6,261.6	20.8	22.9	89.12	262.8	-1,074.5	1,859.9	1,828.8	31.06	59.888		
6,397.6	6,314.2	6,406.0	6,309.2	20.9	23.0	89.19	262.8	-1,074.5	1,859.9	1,828.7	31.20	59.605		
6,400.0	6,316.5	6,408.4	6,311.5	20.9	23.0	89.20	262.8	-1,074.5	1,859.9	1,828.7	31.21	59.590		
6,450.0	6,366.2	6,457.8	6,360.9	20.9	23.1	89.38	262.7	-1,074.5	1,859.8	1,828.4	31.35	59.331		
6,496.0	6,411.4	6,502.3	6,405.4	21.0	23.1	89.58	260.8	-1,074.5	1,859.7	1,828.3	31.44	59.150		
6,500.0	6,415.3	6,506.2	6,409.2	21.0	23.1	89.60	260.5	-1,074.5	1,859.7	1,828.3	31.45	59.138		
6,550.0	6,463.6	6,555.0	6,457.7	21.0	23.2	89.82	255.0	-1,074.5	1,859.7	1,828.2	31.51	59.012		
6,590.3	6,501.9	6,594.7	6,496.9	21.0	23.2	90.00	248.1	-1,074.5	1,859.7	1,828.1	31.55	58.952		
6,594.5	6,505.8	6,598.8	6,500.9	21.0	23.2	90.02	247.3	-1,074.5	1,859.7	1,828.1	31.55	58.946		
6,600.0	6,510.9	6,604.3	6,506.2	21.0	23.2	90.04	246.1	-1,074.5	1,859.7	1,828.1	31.55	58.940		
6,650.0	6,557.0	6,654.1	6,554.5	21.0	23.2	90.27	233.7	-1,074.6	1,859.7	1,828.1	31.57	58.911		
6,692.9	6,595.4	6,697.3	6,595.5	21.0	23.2	90.46	220.3	-1,074.6	1,859.7	1,828.2	31.57	58.910		
6,700.0	6,601.6	6,704.4	6,602.2	21.0	23.2	90.49	217.9	-1,074.6	1,859.8	1,828.2	31.57	58.912		
6,750.0	6,644.6	6,755.3	6,649.2	20.9	23.2	90.71	198.4	-1,074.7	1,859.8	1,828.3	31.56	58.927		
6,791.3	6,678.6	6,797.8	6,687.3	20.9	23.2	90.89	179.7	-1,074.8	1,859.9	1,828.4	31.56	58.937		
6,800.0	6,685.6	6,806.7	6,695.2	20.9	23.2	90.93	175.5	-1,074.8	1,859.9	1,828.4	31.56	58.938		
6,850.0	6,724.6	6,858.7	6,739.9	20.9	23.2	91.15	149.0	-1,074.9	1,860.1	1,828.5	31.57	58.926		
6,889.7	6,753.9	6,900.4	6,774.3	20.9	23.2	91.31	125.4	-1,075.0	1,860.2	1,828.6	31.59	58.883		
6,900.0	6,761.3	6,911.2	6,783.0	20.9	23.2	91.36	119.0	-1,075.0	1,860.2	1,828.6	31.60	58.867		
6,950.0	6,795.5	6,964.3	6,824.2	20.9	23.2	91.56	85.5	-1,075.1	1,860.4	1,828.7	31.67	58.738		
6,988.2	6,819.9	7,005.2	6,854.2	20.9	23.2	91.72	57.7	-1,075.2	1,860.5	1,828.8	31.76	58.578		
7,000.0	6,827.1	7,018.0	6,863.2	20.9	23.2	91.76	48.7	-1,075.3	1,860.6	1,828.8	31.80	58.517		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,855.9	7,072.2	6,899.7	20.9	23.2	91.95	91.95	8.6	-1,075.4	1,860.8	1,828.8	31.98	58.183	
7,086.6	6,875.1	7,112.2	6,924.7	20.9	23.2	92.09	92.09	-22.7	-1,075.5	1,860.9	1,828.8	32.17	57.845	
7,100.0	6,881.8	7,127.0	6,933.4	20.9	23.2	92.14	92.14	-34.5	-1,075.6	1,861.0	1,828.8	32.25	57.714	
7,150.0	6,904.6	7,182.3	6,964.0	21.0	23.3	92.31	92.31	-80.6	-1,075.7	1,861.2	1,828.6	32.59	57.118	
7,185.0	6,918.8	7,221.3	6,983.4	21.1	23.3	92.42	92.42	-114.5	-1,075.9	1,861.4	1,828.5	32.89	56.595	
7,200.0	6,924.3	7,238.1	6,991.2	21.1	23.3	92.47	92.47	-129.3	-1,075.9	1,861.4	1,828.4	33.02	56.365	
7,250.0	6,940.8	7,294.4	7,014.7	21.2	23.4	92.62	92.62	-180.5	-1,076.1	1,861.6	1,828.1	33.56	55.468	
7,283.4	6,949.9	7,332.3	7,028.2	21.3	23.5	92.71	92.71	-215.9	-1,076.2	1,861.8	1,827.8	33.99	54.778	
7,300.0	6,953.9	7,351.1	7,034.2	21.4	23.5	92.75	92.75	-233.7	-1,076.3	1,861.8	1,827.6	34.20	54.437	
7,350.0	6,963.6	7,408.3	7,049.5	21.6	23.7	92.87	92.87	-288.8	-1,076.5	1,862.0	1,827.1	34.95	53.281	
7,381.9	6,968.0	7,444.9	7,057.0	21.7	23.8	92.94	92.94	-324.6	-1,076.6	1,862.1	1,826.7	35.48	52.489	
7,400.0	6,969.9	7,465.8	7,060.5	21.8	23.9	92.97	92.97	-345.3	-1,076.7	1,862.2	1,826.4	35.79	52.030	
7,450.0	6,972.6	7,523.7	7,066.9	22.1	24.1	93.06	93.06	-402.7	-1,076.9	1,862.3	1,825.6	36.72	50.711	
7,471.5	6,972.8	7,548.6	7,068.2	22.2	24.2	93.09	93.09	-427.7	-1,077.0	1,862.4	1,825.3	37.15	50.134	
7,480.3	6,972.7	7,558.9	7,068.5	22.3	24.3	93.10	93.10	-437.9	-1,077.0	1,862.4	1,825.1	37.33	49.890	
7,500.0	6,972.5	7,581.4	7,068.7	22.4	24.4	93.11	93.11	-460.4	-1,077.1	1,862.4	1,824.7	37.74	49.353	
7,578.7	6,971.8	7,660.1	7,068.2	23.1	24.9	93.12	93.12	-539.1	-1,077.4	1,862.5	1,823.2	39.29	47.405	
7,600.0	6,971.6	7,681.4	7,068.0	23.3	25.1	93.12	93.12	-560.4	-1,077.5	1,862.5	1,822.7	39.71	46.906	
7,677.1	6,970.9	7,758.5	7,067.6	24.0	25.7	93.13	93.13	-637.5	-1,077.8	1,862.5	1,821.1	41.35	45.040	
7,700.0	6,970.7	7,781.4	7,067.4	24.2	25.9	93.13	93.13	-660.4	-1,077.9	1,862.5	1,820.6	41.85	44.508	
7,775.6	6,970.0	7,856.9	7,066.9	25.0	26.6	93.14	93.14	-736.0	-1,078.1	1,862.5	1,818.8	43.68	42.635	
7,800.0	6,969.8	7,881.4	7,066.8	25.3	26.8	93.14	93.14	-760.4	-1,078.2	1,862.5	1,818.2	44.29	42.052	
7,874.0	6,969.1	7,955.4	7,066.3	26.2	27.6	93.15	93.15	-834.4	-1,078.5	1,862.5	1,816.2	46.25	40.270	
7,900.0	6,968.9	7,981.4	7,066.2	26.5	27.9	93.15	93.15	-860.4	-1,078.6	1,862.5	1,815.6	46.94	39.675	
7,972.4	6,968.2	8,053.8	7,065.7	27.4	28.7	93.15	93.15	-932.8	-1,078.9	1,862.5	1,813.5	48.98	38.027	
8,000.0	6,968.0	8,081.4	7,065.5	27.8	29.1	93.16	93.16	-960.4	-1,079.0	1,862.5	1,812.8	49.76	37.431	
8,070.8	6,967.3	8,152.2	7,065.1	28.7	29.9	93.16	93.16	-1,031.2	-1,079.2	1,862.5	1,810.7	51.84	35.925	
8,100.0	6,967.1	8,181.4	7,064.9	29.1	30.3	93.17	93.17	-1,060.4	-1,079.3	1,862.5	1,809.8	52.71	35.337	
8,169.3	6,966.4	8,250.6	7,064.5	30.1	31.2	93.17	93.17	-1,129.6	-1,079.6	1,862.6	1,807.7	54.83	33.972	
8,200.0	6,966.2	8,281.4	7,064.3	30.5	31.6	93.17	93.17	-1,160.4	-1,079.7	1,862.6	1,806.8	55.77	33.397	
8,267.7	6,965.5	8,349.1	7,063.8	31.5	32.6	93.18	93.18	-1,228.1	-1,080.0	1,862.6	1,804.7	57.91	32.165	
8,300.0	6,965.2	8,381.4	7,063.6	32.0	33.0	93.18	93.18	-1,260.4	-1,080.1	1,862.6	1,803.6	58.93	31.607	
8,366.1	6,964.6	8,447.5	7,063.2	33.0	34.0	93.19	93.19	-1,326.5	-1,080.3	1,862.6	1,801.5	61.07	30.500	
8,400.0	6,964.3	8,481.4	7,063.0	33.5	34.5	93.19	93.19	-1,360.4	-1,080.4	1,862.6	1,800.4	62.17	29.960	
8,464.5	6,963.8	8,545.9	7,062.6	34.5	35.4	93.20	93.20	-1,424.9	-1,080.7	1,862.6	1,798.3	64.30	28.966	
8,500.0	6,963.4	8,581.4	7,062.4	35.1	36.0	93.20	93.20	-1,460.4	-1,080.8	1,862.6	1,797.1	65.48	28.447	
8,563.0	6,962.9	8,644.3	7,062.0	36.1	36.9	93.20	93.20	-1,523.3	-1,081.0	1,862.6	1,795.0	67.60	27.555	
8,600.0	6,962.5	8,681.4	7,061.8	36.7	37.5	93.21	93.21	-1,560.4	-1,081.2	1,862.6	1,793.8	68.85	27.055	
8,661.4	6,962.0	8,742.8	7,061.4	37.7	38.5	93.21	93.21	-1,621.8	-1,081.4	1,862.6	1,791.7	70.94	26.256	
8,700.0	6,961.6	8,781.4	7,061.1	38.3	39.1	93.22	93.22	-1,660.3	-1,081.5	1,862.7	1,790.4	72.26	25.776	
8,759.8	6,961.1	8,841.2	7,060.8	39.3	40.1	93.22	93.22	-1,720.2	-1,081.8	1,862.7	1,788.3	74.33	25.058	
8,800.0	6,960.7	8,881.4	7,060.5	40.0	40.7	93.23	93.23	-1,760.3	-1,081.9	1,862.7	1,786.9	75.73	24.597	
8,858.2	6,960.2	8,939.6	7,060.1	40.9	41.7	93.23	93.23	-1,818.6	-1,082.1	1,862.7	1,784.9	77.76	23.953	
8,900.0	6,959.8	8,981.3	7,059.9	41.6	42.3	93.23	93.23	-1,860.3	-1,082.3	1,862.7	1,783.5	79.23	23.511	
8,956.7	6,959.3	9,038.0	7,059.5	42.6	43.3	93.24	93.24	-1,917.0	-1,082.5	1,862.7	1,781.5	81.23	22.932	
9,000.0	6,958.9	9,081.3	7,059.2	43.3	44.0	93.24	93.24	-1,960.3	-1,082.6	1,862.7	1,780.0	82.76	22.507	
9,055.1	6,958.4	9,136.4	7,058.9	44.3	44.9	93.25	93.25	-2,015.4	-1,082.9	1,862.7	1,778.0	84.72	21.986	
9,100.0	6,958.0	9,181.3	7,058.6	45.1	45.7	93.25	93.25	-2,060.3	-1,083.0	1,862.7	1,776.4	86.32	21.578	
9,153.5	6,957.5	9,234.9	7,058.3	46.0	46.6	93.26	93.26	-2,113.9	-1,083.2	1,862.7	1,774.5	88.24	21.109	
9,200.0	6,957.1	9,281.3	7,058.0	46.8	47.4	93.26	93.26	-2,160.3	-1,083.4	1,862.8	1,772.8	89.91	20.717	
9,251.9	6,956.6	9,333.3	7,057.7	47.7	48.3	93.26	93.26	-2,212.3	-1,083.6	1,862.8	1,771.0	91.79	20.294	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,300.0	6,956.2	9,381.3	7,057.4	48.6	49.1	93.27	93.27	-2,260.3	-1,083.8	1,862.8	1,769.3	93.53	19.917	
9,350.4	6,955.7	9,431.7	7,057.0	49.5	50.0	93.27	93.27	-2,310.7	-1,083.9	1,862.8	1,767.4	95.35	19.536	
9,400.0	6,955.2	9,481.3	7,056.7	50.3	50.8	93.28	93.28	-2,360.3	-1,084.1	1,862.8	1,765.6	97.16	19.173	
9,448.8	6,954.8	9,530.1	7,056.4	51.2	51.7	93.28	93.28	-2,409.1	-1,084.3	1,862.8	1,763.9	98.94	18.828	
9,500.0	6,954.3	9,581.3	7,056.1	52.1	52.6	93.29	93.29	-2,460.3	-1,084.5	1,862.8	1,762.0	100.81	18.479	
9,547.2	6,953.9	9,628.6	7,055.8	53.0	53.4	93.29	93.29	-2,507.5	-1,084.7	1,862.8	1,760.3	102.54	18.167	
9,600.0	6,953.4	9,681.3	7,055.5	53.9	54.3	93.29	93.29	-2,560.3	-1,084.9	1,862.8	1,758.4	104.47	17.831	
9,645.6	6,953.0	9,727.0	7,055.2	54.7	55.1	93.30	93.30	-2,606.0	-1,085.0	1,862.9	1,756.7	106.15	17.549	
9,700.0	6,952.5	9,781.3	7,054.8	55.7	56.1	93.30	93.30	-2,660.3	-1,085.2	1,862.9	1,754.7	108.15	17.224	
9,744.1	6,952.1	9,825.4	7,054.6	56.5	56.9	93.31	93.31	-2,704.4	-1,085.4	1,862.9	1,753.1	109.78	16.969	
9,800.0	6,951.6	9,881.3	7,054.2	57.5	57.9	93.31	93.31	-2,760.3	-1,085.6	1,862.9	1,751.0	111.85	16.656	
9,842.5	6,951.2	9,923.8	7,053.9	58.3	58.6	93.32	93.32	-2,802.8	-1,085.8	1,862.9	1,749.5	113.42	16.425	
9,900.0	6,950.7	9,981.3	7,053.6	59.4	59.6	93.32	93.32	-2,860.3	-1,086.0	1,862.9	1,747.4	115.55	16.122	
9,940.9	6,950.3	10,022.2	7,053.3	60.1	60.4	93.32	93.32	-2,901.2	-1,086.1	1,862.9	1,745.9	117.07	15.913	
10,000.0	6,949.8	10,081.3	7,053.0	61.2	61.4	93.33	93.33	-2,960.3	-1,086.3	1,862.9	1,743.7	119.27	15.620	
10,039.3	6,949.4	10,120.7	7,052.7	61.9	62.1	93.33	93.33	-2,999.6	-1,086.5	1,862.9	1,742.2	120.73	15.430	
10,100.0	6,948.9	10,181.3	7,052.3	63.0	63.2	93.34	93.34	-3,060.3	-1,086.7	1,863.0	1,740.0	122.99	15.147	
10,137.8	6,948.5	10,219.1	7,052.1	63.7	63.9	93.34	93.34	-3,098.1	-1,086.8	1,863.0	1,738.6	124.40	14.975	
10,200.0	6,948.0	10,281.3	7,051.7	64.9	65.0	93.35	93.35	-3,160.3	-1,087.1	1,863.0	1,736.3	126.73	14.701	
10,236.2	6,947.6	10,317.5	7,051.5	65.6	65.7	93.35	93.35	-3,196.5	-1,087.2	1,863.0	1,734.9	128.08	14.545	
10,300.0	6,947.1	10,381.3	7,051.1	66.7	66.9	93.35	93.35	-3,260.3	-1,087.4	1,863.0	1,732.5	130.47	14.279	
10,334.6	6,946.7	10,415.9	7,050.9	67.4	67.5	93.36	93.36	-3,294.9	-1,087.6	1,863.0	1,731.3	131.77	14.139	
10,400.0	6,946.2	10,481.3	7,050.4	68.6	68.7	93.36	93.36	-3,360.3	-1,087.8	1,863.0	1,728.8	134.22	13.880	
10,433.0	6,945.8	10,514.4	7,050.2	69.2	69.3	93.37	93.37	-3,393.3	-1,087.9	1,863.0	1,727.6	135.46	13.753	
10,500.0	6,945.2	10,581.3	7,049.8	70.5	70.5	93.37	93.37	-3,460.3	-1,088.2	1,863.1	1,725.1	137.98	13.503	
10,531.5	6,945.0	10,612.8	7,049.6	71.1	71.1	93.37	93.37	-3,491.7	-1,088.3	1,863.1	1,723.9	139.16	13.388	
10,600.0	6,944.3	10,681.3	7,049.2	72.3	72.3	93.38	93.38	-3,560.3	-1,088.6	1,863.1	1,721.3	141.74	13.144	
10,629.9	6,944.1	10,711.2	7,049.0	72.9	72.9	93.38	93.38	-3,590.2	-1,088.7	1,863.1	1,720.2	142.87	13.041	
10,700.0	6,943.4	10,781.3	7,048.6	74.2	74.2	93.39	93.39	-3,660.3	-1,088.9	1,863.1	1,717.6	145.51	12.804	
10,728.3	6,943.2	10,809.6	7,048.4	74.7	74.7	93.39	93.39	-3,688.6	-1,089.0	1,863.1	1,716.5	146.58	12.711	
10,800.0	6,942.5	10,881.3	7,047.9	76.1	76.0	93.40	93.40	-3,760.2	-1,089.3	1,863.1	1,713.9	149.28	12.481	
10,826.7	6,942.3	10,908.1	7,047.8	76.6	76.5	93.40	93.40	-3,787.0	-1,089.4	1,863.2	1,712.9	150.29	12.397	
10,900.0	6,941.6	10,981.3	7,047.3	78.0	77.8	93.41	93.41	-3,860.2	-1,089.7	1,863.2	1,710.1	153.06	12.173	
10,925.2	6,941.4	11,006.5	7,047.1	78.4	78.3	93.41	93.41	-3,885.4	-1,089.8	1,863.2	1,709.2	154.01	12.097	
11,000.0	6,940.7	11,081.3	7,046.7	79.9	79.7	93.41	93.41	-3,960.2	-1,090.0	1,863.2	1,706.4	156.85	11.879	
11,023.6	6,940.5	11,104.9	7,046.5	80.3	80.1	93.42	93.42	-3,983.8	-1,090.1	1,863.2	1,705.5	157.74	11.812	
11,100.0	6,939.8	11,181.3	7,046.0	81.7	81.5	93.42	93.42	-4,060.2	-1,090.4	1,863.2	1,702.6	160.63	11.599	
11,122.0	6,939.6	11,203.3	7,045.9	82.2	81.9	93.43	93.43	-4,082.3	-1,090.5	1,863.2	1,701.8	161.47	11.539	
11,200.0	6,938.9	11,281.3	7,045.4	83.6	83.4	93.43	93.43	-4,160.2	-1,090.8	1,863.3	1,698.8	164.43	11.332	
11,220.4	6,938.7	11,301.7	7,045.3	84.0	83.8	93.43	93.43	-4,180.7	-1,090.9	1,863.3	1,698.1	165.20	11.279	
11,300.0	6,938.0	11,381.3	7,044.8	85.5	85.2	93.44	93.44	-4,260.2	-1,091.2	1,863.3	1,695.1	168.22	11.076	
11,318.9	6,937.8	11,400.2	7,044.7	85.9	85.6	93.44	93.44	-4,279.1	-1,091.2	1,863.3	1,694.4	168.94	11.029	
11,400.0	6,937.0	11,481.3	7,044.2	87.4	87.1	93.45	93.45	-4,360.2	-1,091.5	1,863.3	1,691.3	172.02	10.832	
11,417.3	6,936.9	11,498.6	7,044.0	87.8	87.4	93.45	93.45	-4,377.5	-1,091.6	1,863.3	1,690.6	172.68	10.791	
11,500.0	6,936.1	11,581.3	7,043.5	89.3	89.0	93.46	93.46	-4,460.2	-1,091.9	1,863.3	1,687.5	175.82	10.598	
11,515.7	6,936.0	11,597.0	7,043.4	89.6	89.3	93.46	93.46	-4,475.9	-1,092.0	1,863.3	1,686.9	176.42	10.562	
11,600.0	6,935.2	11,681.3	7,042.9	91.2	90.8	93.47	93.47	-4,560.2	-1,092.3	1,863.4	1,683.7	179.63	10.374	
11,614.1	6,935.1	11,695.4	7,042.8	91.5	91.1	93.47	93.47	-4,574.4	-1,092.3	1,863.4	1,683.2	180.16	10.343	
11,700.0	6,934.3	11,781.3	7,042.3	93.1	92.7	93.48	93.48	-4,660.2	-1,092.6	1,863.4	1,680.0	183.43	10.158	
11,712.6	6,934.2	11,793.9	7,042.2	93.4	92.9	93.48	93.48	-4,672.8	-1,092.7	1,863.4	1,679.5	183.91	10.132	
11,800.0	6,933.4	11,881.3	7,041.6	95.1	94.6	93.48	93.48	-4,760.2	-1,093.0	1,863.4	1,676.2	187.24	9.952	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7G-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	11,892.3	7,041.6	95.3	94.8	93.49	-4,771.2	-1,093.0	1,863.4	1,675.8	187.66	9.930		
11,900.0	6,932.5	11,981.3	7,041.0	97.0	96.4	93.49	-4,860.2	-1,093.4	1,863.5	1,672.4	191.06	9.753		
11,909.4	6,932.4	11,990.7	7,041.0	97.1	96.6	93.49	-4,869.6	-1,093.4	1,863.5	1,672.0	191.42	9.735		
12,000.0	6,931.6	12,081.3	7,040.4	98.9	98.3	93.50	-4,960.2	-1,093.7	1,863.5	1,668.6	194.87	9.563		
12,007.8	6,931.5	12,089.1	7,040.3	99.0	98.4	93.50	-4,968.0	-1,093.8	1,863.5	1,668.3	195.17	9.548		
12,100.0	6,930.7	12,181.3	7,039.8	100.8	100.2	93.51	-5,060.2	-1,094.1	1,863.5	1,664.8	198.69	9.379		
12,106.3	6,930.6	12,187.6	7,039.7	100.9	100.3	93.51	-5,066.5	-1,094.1	1,863.5	1,664.6	198.93	9.368		
12,200.0	6,929.8	12,281.3	7,039.1	102.7	102.1	93.52	-5,160.2	-1,094.5	1,863.6	1,661.0	202.51	9.202		
12,204.7	6,929.7	12,286.0	7,039.1	102.8	102.1	93.52	-5,164.9	-1,094.5	1,863.6	1,660.9	202.69	9.194		
12,300.0	6,928.8	12,381.3	7,038.5	104.6	103.9	93.53	-5,260.2	-1,094.9	1,863.6	1,657.3	206.33	9.032		
12,303.1	6,928.8	12,384.4	7,038.5	104.7	104.0	93.53	-5,263.3	-1,094.9	1,863.6	1,657.1	206.45	9.027		
12,400.0	6,927.9	12,481.3	7,037.9	106.5	105.8	93.54	-5,360.2	-1,095.2	1,863.6	1,653.5	210.15	8.868		
12,401.5	6,927.9	12,482.8	7,037.9	106.6	105.8	93.54	-5,361.7	-1,095.2	1,863.6	1,653.4	210.21	8.865		
12,500.0	6,927.0	12,581.3	7,037.2	108.5	107.7	93.54	-5,460.2	-1,095.6	1,863.7	1,649.7	213.98	8.710		
12,598.4	6,926.1	12,679.7	7,036.6	110.4	109.5	93.55	-5,558.6	-1,096.0	1,863.7	1,645.9	217.74	8.559		
12,600.0	6,926.1	12,681.3	7,036.6	110.4	109.6	93.55	-5,560.2	-1,096.0	1,863.7	1,645.9	217.80	8.557		
12,696.8	6,925.2	12,778.1	7,036.0	112.3	111.4	93.56	-5,657.0	-1,096.3	1,863.7	1,642.2	221.51	8.414		
12,700.0	6,925.2	12,781.3	7,036.0	112.3	111.4	93.56	-5,660.2	-1,096.4	1,863.7	1,642.1	221.63	8.409		
12,795.2	6,924.3	12,876.5	7,035.4	114.1	113.2	93.57	-5,755.4	-1,096.7	1,863.7	1,638.5	225.28	8.273		
12,800.0	6,924.3	12,881.3	7,035.4	114.2	113.3	93.57	-5,760.2	-1,096.7	1,863.8	1,638.3	225.46	8.266		
12,893.7	6,923.4	12,974.9	7,034.8	116.0	115.1	93.58	-5,853.8	-1,097.1	1,863.8	1,634.7	229.05	8.137		
12,900.0	6,923.4	12,981.3	7,034.7	116.2	115.2	93.58	-5,860.1	-1,097.1	1,863.8	1,634.5	229.29	8.128		
12,992.1	6,922.5	13,073.4	7,034.1	117.9	117.0	93.59	-5,952.2	-1,097.4	1,863.8	1,631.0	232.82	8.005		
13,000.0	6,922.5	13,081.3	7,034.1	118.1	117.1	93.59	-5,960.1	-1,097.5	1,863.8	1,630.7	233.12	7.995		
13,090.5	6,921.6	13,171.8	7,033.5	119.8	118.8	93.60	-6,050.7	-1,097.8	1,863.8	1,627.3	236.59	7.878		
13,100.0	6,921.5	13,181.3	7,033.5	120.0	119.0	93.60	-6,060.1	-1,097.8	1,863.9	1,626.9	236.96	7.866		
13,188.9	6,920.7	13,270.2	7,032.9	121.7	120.7	93.60	-6,149.1	-1,098.2	1,863.9	1,623.5	240.37	7.754		
13,200.0	6,920.6	13,281.3	7,032.8	121.9	120.9	93.61	-6,160.1	-1,098.2	1,863.9	1,623.1	240.79	7.741		
13,287.4	6,919.8	13,368.6	7,032.3	123.6	122.5	93.61	-6,247.5	-1,098.5	1,863.9	1,619.8	244.14	7.635		
13,300.0	6,919.7	13,381.3	7,032.2	123.9	122.8	93.61	-6,260.1	-1,098.6	1,863.9	1,619.3	244.63	7.619		
13,385.8	6,918.9	13,467.0	7,031.7	125.5	124.4	93.62	-6,345.9	-1,098.9	1,864.0	1,616.0	247.92	7.518		
13,400.0	6,918.8	13,481.2	7,031.6	125.8	124.7	93.62	-6,360.1	-1,099.0	1,864.0	1,615.5	248.46	7.502		
13,484.2	6,918.0	13,565.5	7,031.1	127.4	126.3	93.63	-6,444.3	-1,099.3	1,864.0	1,612.3	251.69	7.406		
13,500.0	6,917.9	13,581.2	7,031.0	127.7	126.5	93.63	-6,460.1	-1,099.3	1,864.0	1,611.7	252.30	7.388		
13,582.6	6,917.1	13,663.9	7,030.4	129.3	128.1	93.64	-6,542.8	-1,099.6	1,864.0	1,608.6	255.47	7.296		
13,600.0	6,917.0	13,681.2	7,030.3	129.7	128.4	93.64	-6,560.1	-1,099.7	1,864.0	1,607.9	256.14	7.277		
13,681.1	6,916.2	13,762.3	7,029.8	131.2	130.0	93.65	-6,641.2	-1,100.0	1,864.1	1,604.8	259.25	7.190		
13,700.0	6,916.1	13,781.2	7,029.7	131.6	130.3	93.65	-6,660.1	-1,100.1	1,864.1	1,604.1	259.98	7.170		
13,779.5	6,915.3	13,860.7	7,029.2	133.1	131.8	93.66	-6,739.6	-1,100.4	1,864.1	1,601.1	263.03	7.087		
13,800.0	6,915.2	13,881.2	7,029.1	133.5	132.2	93.66	-6,760.1	-1,100.5	1,864.1	1,600.3	263.82	7.066		
13,877.9	6,914.4	13,959.2	7,028.6	135.1	133.7	93.66	-6,838.0	-1,100.7	1,864.1	1,597.3	266.81	6.987		
13,900.0	6,914.2	13,981.2	7,028.4	135.5	134.1	93.67	-6,860.1	-1,100.8	1,864.1	1,596.5	267.66	6.965		
13,976.3	6,913.5	14,057.6	7,028.0	137.0	135.6	93.67	-6,936.4	-1,101.1	1,864.2	1,593.6	270.59	6.889		
14,000.0	6,913.3	14,081.2	7,027.8	137.4	136.0	93.67	-6,960.1	-1,101.2	1,864.2	1,592.7	271.50	6.866		
14,074.8	6,912.6	14,156.0	7,027.3	138.9	137.4	93.68	-7,034.9	-1,101.5	1,864.2	1,589.8	274.38	6.794		
14,100.0	6,912.4	14,181.2	7,027.2	139.4	137.9	93.68	-7,060.1	-1,101.6	1,864.2	1,588.9	275.34	6.770		
14,114.0	6,912.3	14,195.2	7,027.1	139.6	138.2	93.68	-7,074.1	-1,101.6	1,864.2	1,588.4	275.87	6.758		
14,145.0	6,912.0	14,210.5	7,027.0	140.2	138.5	93.69	-7,089.4	-1,101.7	1,864.3	1,587.6	276.73	6.737 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error:	0.0 usft	
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
				(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	0.0	-58.6	58.6					
98.4	98.4	96.4	96.4	0.1	0.1	-90.01	0.0	-58.6	58.6	58.4	0.19	309.516		
100.0	100.0	98.0	98.0	0.1	0.1	-90.01	0.0	-58.6	58.6	58.4	0.19	304.208		
196.8	196.8	194.8	194.8	0.3	0.3	-90.01	0.0	-58.6	58.6	57.9	0.63	93.641		
200.0	200.0	198.0	198.0	0.3	0.3	-90.01	0.0	-58.6	58.6	57.9	0.64	91.567		
295.3	295.3	293.3	293.3	0.5	0.5	-90.01	0.0	-58.6	58.6	57.5	1.07	54.838		
300.0	300.0	298.0	298.0	0.5	0.5	-90.01	0.0	-58.6	58.6	57.5	1.09	53.769		
393.7	393.7	391.7	391.7	0.8	0.8	-90.01	0.0	-58.6	58.6	57.0	1.51	38.772		
400.0	400.0	398.0	398.0	0.8	0.8	-90.01	0.0	-58.6	58.6	57.0	1.54	38.058		
492.1	492.1	490.1	490.1	1.0	1.0	-90.01	0.0	-58.6	58.6	56.6	1.95	29.987		
500.0	500.0	498.0	498.0	1.0	1.0	-90.01	0.0	-58.6	58.6	56.6	1.99	29.453		
590.5	590.5	588.5	588.5	1.2	1.2	-90.01	0.0	-58.6	58.6	56.2	2.40	24.447		
600.0	600.0	598.0	598.0	1.2	1.2	-90.01	0.0	-58.6	58.6	56.1	2.44	24.021		
689.0	689.0	687.0	687.0	1.4	1.4	-90.01	0.0	-58.6	58.6	55.7	2.84	20.635		
700.0	700.0	698.0	698.0	1.4	1.4	-90.01	0.0	-58.6	58.6	55.7	2.89	20.281		
787.4	787.4	785.4	785.4	1.6	1.6	-90.01	0.0	-58.6	58.6	55.3	3.28	17.852		
800.0	800.0	798.0	798.0	1.7	1.7	-90.01	0.0	-58.6	58.6	55.2	3.34	17.549		
885.8	885.8	883.8	883.8	1.9	1.9	-90.01	0.0	-58.6	58.6	54.8	3.72	15.730		
900.0	900.0	898.0	898.0	1.9	1.9	-90.01	0.0	-58.6	58.6	54.8	3.79	15.465		
984.2	984.2	982.2	982.2	2.1	2.1	-90.01	0.0	-58.6	58.6	54.4	4.16	14.059		
1,000.0	1,000.0	998.0	998.0	2.1	2.1	-90.01	0.0	-58.6	58.6	54.3	4.24	13.824 CC, ES		
1,082.7	1,082.7	1,080.7	1,080.7	2.3	2.3	-160.47	0.0	-58.6	59.7	55.1	4.60	12.975		
1,100.0	1,100.0	1,098.0	1,098.0	2.3	2.3	-160.64	0.0	-58.6	60.2	55.5	4.68	12.876		
1,181.1	1,181.0	1,179.0	1,179.0	2.5	2.5	-161.80	0.0	-58.6	64.0	58.9	5.02	12.731		
1,200.0	1,199.8	1,197.8	1,197.8	2.6	2.6	-162.14	0.0	-58.6	65.2	60.1	5.10	12.765		
1,279.5	1,279.1	1,278.3	1,278.3	2.7	2.7	-163.10	0.9	-57.9	70.8	65.4	5.44	13.012		
1,300.0	1,299.5	1,299.1	1,299.1	2.8	2.8	-163.18	1.4	-57.5	72.4	66.9	5.53	13.094		
1,377.9	1,376.9	1,378.1	1,378.0	3.0	3.0	-162.97	4.4	-55.3	78.8	73.0	5.86	13.454		
1,400.0	1,398.7	1,400.4	1,400.3	3.0	3.0	-162.78	5.6	-54.4	80.8	74.8	5.95	13.572		
1,476.4	1,474.2	1,477.9	1,477.5	3.2	3.2	-161.75	10.8	-50.5	87.9	81.6	6.28	14.001		
1,500.0	1,497.5	1,501.9	1,501.3	3.3	3.2	-161.34	12.8	-49.1	90.2	83.9	6.38	14.148		
1,574.8	1,571.0	1,577.7	1,576.6	3.5	3.4	-159.78	20.0	-43.8	98.1	91.4	6.71	14.621		
1,600.1	1,595.7	1,603.3	1,602.0	3.6	3.5	-159.19	22.8	-41.7	100.9	94.1	6.82	14.794		
1,673.2	1,667.2	1,677.5	1,675.3	3.9	3.7	-157.21	31.9	-34.9	108.7	101.5	7.19	15.118		
1,700.0	1,693.4	1,704.7	1,702.1	4.0	3.8	-156.34	35.6	-32.2	111.3	104.0	7.33	15.189		
1,771.6	1,763.5	1,777.4	1,773.5	4.2	4.0	-153.70	46.6	-24.1	117.8	110.1	7.73	15.239		
1,800.0	1,791.3	1,806.0	1,801.5	4.3	4.1	-152.53	51.3	-20.6	120.2	112.3	7.90	15.224		
1,870.1	1,859.8	1,875.6	1,869.6	4.6	4.3	-149.79	63.0	-12.0	126.2	117.9	8.33	15.152		
1,900.0	1,889.1	1,905.3	1,898.6	4.7	4.4	-148.69	67.9	-8.3	128.8	120.3	8.52	15.128		
1,968.5	1,956.1	1,973.3	1,965.2	5.0	4.6	-146.36	79.3	0.1	135.0	126.1	8.97	15.058		
2,000.0	1,986.9	2,004.6	1,995.8	5.1	4.7	-145.35	84.5	4.0	138.0	128.8	9.18	15.025		
2,066.9	2,052.3	2,071.0	2,060.7	5.4	5.0	-143.36	95.6	12.2	144.3	134.7	9.65	14.954		
2,100.0	2,084.7	2,103.9	2,092.9	5.5	5.1	-142.43	101.1	16.3	147.5	137.6	9.89	14.921		
2,165.3	2,148.6	2,168.8	2,156.3	5.8	5.3	-140.72	112.0	24.3	153.9	143.6	10.36	14.853		
2,200.0	2,182.5	2,203.2	2,190.0	5.9	5.5	-139.87	117.7	28.6	157.4	146.8	10.62	14.819		
2,263.8	2,244.9	2,266.5	2,251.9	6.2	5.7	-138.40	128.3	36.4	163.8	152.7	11.10	14.755		
2,300.0	2,280.3	2,302.4	2,287.1	6.3	5.9	-137.62	134.3	40.8	167.5	156.2	11.38	14.721		
2,362.2	2,341.2	2,364.2	2,347.5	6.6	6.1	-136.35	144.6	48.5	174.0	162.1	11.87	14.663		
2,400.0	2,378.1	2,401.7	2,384.2	6.8	6.2	-135.62	150.9	53.1	177.9	165.8	12.16	14.631		
2,460.6	2,437.4	2,461.9	2,443.1	7.0	6.5	-134.52	161.0	60.6	184.3	171.7	12.64	14.578		
2,500.0	2,476.0	2,501.0	2,481.3	7.2	6.6	-133.85	167.5	65.4	188.5	175.5	12.96	14.547		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,559.6	2,538.6	7.4	6.9	-132.89		177.3	72.7	194.8	181.4	13.44	14.501	
2,600.0	2,573.8	2,600.3	2,578.4	7.6	7.1	-132.26		184.1	77.7	199.2	185.5	13.77	14.472	
2,657.5	2,630.0	2,657.3	2,634.2	7.9	7.3	-131.42		193.6	84.7	205.5	191.2	14.24	14.431	
2,700.0	2,671.6	2,699.6	2,675.5	8.1	7.5	-130.84		200.7	90.0	210.1	195.5	14.59	14.403	
2,755.9	2,726.3	2,755.1	2,729.8	8.3	7.7	-130.10		210.0	96.8	216.2	201.2	15.05	14.368	
2,800.0	2,769.4	2,798.8	2,772.6	8.5	7.9	-129.55		217.3	102.3	221.1	205.7	15.42	14.342	
2,854.3	2,822.5	2,852.8	2,825.4	8.7	8.1	-128.91		226.3	108.9	227.1	211.2	15.87	14.311	
2,900.0	2,867.2	2,897.8	2,869.5	8.9	8.3	-128.47		233.6	114.3	232.2	216.0	16.23	14.310	
2,952.7	2,918.8	2,949.8	2,920.6	9.2	8.4	-128.19		241.3	120.1	238.2	221.6	16.60	14.351	
3,000.0	2,965.0	2,996.4	2,966.5	9.4	8.6	-128.15		247.6	124.7	243.6	226.7	16.92	14.398	
3,051.2	3,015.1	3,046.8	3,016.4	9.6	8.7	-128.29		253.8	129.3	249.6	232.4	17.25	14.471	
3,100.0	3,062.8	3,094.9	3,064.0	9.8	8.8	-128.61		259.0	133.1	255.4	237.8	17.55	14.552	
3,149.6	3,111.4	3,143.6	3,112.4	10.0	9.0	-129.11		263.6	136.5	261.3	243.5	17.83	14.656	
3,200.0	3,160.7	3,193.0	3,161.5	10.3	9.1	-129.76		267.6	139.5	267.5	249.4	18.10	14.776	
3,248.0	3,207.6	3,240.0	3,208.3	10.5	9.2	-130.53		270.8	141.8	273.5	255.2	18.34	14.913	
3,300.0	3,258.5	3,290.6	3,258.9	10.7	9.3	-131.49		273.5	143.9	280.2	261.6	18.58	15.078	
3,346.4	3,303.9	3,335.7	3,303.9	10.9	9.4	-132.46		275.3	145.2	286.4	267.6	18.78	15.252	
3,400.0	3,356.3	3,387.5	3,355.6	11.2	9.5	-133.69		276.7	146.2	293.8	274.8	18.98	15.474	
3,444.9	3,400.2	3,430.6	3,398.8	11.4	9.5	-134.80		277.3	146.7	300.2	281.1	19.14	15.686	
3,500.0	3,454.1	3,484.0	3,452.1	11.6	9.6	-136.26		277.4	146.7	308.5	289.1	19.31	15.971	
3,543.3	3,496.5	3,526.3	3,494.5	11.8	9.7	-137.38		277.4	146.7	315.1	295.6	19.45	16.198	
3,600.0	3,551.9	3,581.8	3,549.9	12.0	9.8	-138.78		277.4	146.7	323.9	304.3	19.64	16.498	
3,641.7	3,592.7	3,622.6	3,590.7	12.2	9.9	-139.76		277.4	146.7	330.6	310.8	19.77	16.721	
3,700.0	3,649.7	3,679.6	3,647.7	12.5	10.0	-141.07		277.4	146.7	340.0	320.0	19.96	17.034	
3,740.1	3,689.0	3,718.9	3,687.0	12.7	10.0	-141.93		277.4	146.7	346.6	326.5	20.09	17.250	
3,800.0	3,747.5	3,777.4	3,745.5	12.9	10.1	-143.15		277.4	146.7	356.5	336.3	20.29	17.573	
3,838.6	3,785.3	3,815.1	3,783.3	13.1	10.2	-143.91		277.4	146.7	363.0	342.6	20.42	17.781	
3,900.0	3,845.4	3,875.2	3,843.4	13.4	10.3	-145.05		277.4	146.7	373.5	352.9	20.62	18.112	
3,937.0	3,881.5	3,911.4	3,879.5	13.6	10.4	-145.71		277.4	146.7	379.9	359.1	20.75	18.310	
4,000.0	3,943.2	3,973.0	3,941.2	13.8	10.5	-146.79		277.4	146.7	390.9	369.9	20.96	18.645	
4,035.4	3,977.8	4,007.7	3,975.8	14.0	10.5	-147.36		277.4	146.7	397.1	376.0	21.09	18.832	
4,100.0	4,041.0	4,070.9	4,039.0	14.3	10.6	-148.37		277.4	146.7	408.5	387.2	21.31	19.169	
4,133.8	4,074.1	4,104.0	4,072.1	14.4	10.7	-148.88		277.4	146.7	414.6	393.1	21.43	19.345	
4,200.0	4,138.8	4,168.7	4,136.8	14.7	10.8	-149.83		277.4	146.7	426.5	404.8	21.67	19.684	
4,232.3	4,170.4	4,200.2	4,168.4	14.9	10.9	-150.28		277.4	146.7	432.3	410.5	21.78	19.848	
4,300.0	4,236.6	4,266.5	4,234.6	15.2	11.0	-151.17		277.4	146.7	444.7	422.6	22.03	20.187	
4,330.7	4,266.6	4,296.5	4,264.6	15.3	11.1	-151.56		277.4	146.7	450.3	428.2	22.14	20.339	
4,400.0	4,334.4	4,364.3	4,332.4	15.6	11.2	-152.41		277.4	146.7	463.1	440.7	22.40	20.678	
4,429.1	4,362.9	4,392.8	4,360.9	15.8	11.2	-152.75		277.4	146.7	468.5	446.0	22.50	20.818	
4,500.0	4,432.2	4,462.1	4,430.2	16.1	11.4	-153.55		277.4	146.7	481.7	458.9	22.77	21.155	
4,527.5	4,459.2	4,489.1	4,457.2	16.2	11.4	-153.85		277.4	146.7	486.8	464.0	22.87	21.284	
4,600.0	4,530.1	4,559.9	4,528.1	16.5	11.5	-154.60		277.4	146.7	500.5	477.3	23.15	21.618	
4,626.0	4,555.5	4,585.3	4,553.5	16.7	11.6	-154.86		277.4	146.7	505.4	482.1	23.25	21.736	
4,700.0	4,627.9	4,657.7	4,625.9	17.0	11.7	-155.58		277.4	146.7	519.4	495.9	23.54	22.067	
4,724.4	4,651.7	4,681.6	4,649.7	17.1	11.8	-155.81		277.4	146.7	524.0	500.4	23.63	22.174	
4,800.0	4,725.7	4,755.6	4,723.7	17.4	11.9	-156.49		277.4	146.7	538.5	514.5	23.93	22.502	
4,822.8	4,748.0	4,777.9	4,746.0	17.6	11.9	-156.69		277.4	146.7	542.8	518.8	24.02	22.599	
4,900.0	4,823.5	4,853.4	4,821.5	17.9	12.1	-157.34		277.4	146.7	557.7	533.3	24.33	22.923	
4,921.2	4,844.3	4,874.2	4,842.3	18.0	12.1	-157.52		277.4	146.7	561.8	537.3	24.41	23.010	
5,000.0	4,921.3	4,951.2	4,919.3	18.4	12.3	-158.14		277.4	146.7	577.0	552.2	24.73	23.330	
5,014.9	4,935.9	4,965.8	4,933.9	18.4	12.3	-158.25		277.4	146.7	579.9	555.1	24.79	23.390	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,970.4	4,938.6	18.4	12.3	-158.29		277.4	146.7	580.8	556.0	24.81	23.408	
5,100.0	5,019.4	5,049.2	5,017.4	18.7	12.5	-158.95		277.4	146.7	595.2	570.1	25.15	23.665	
5,118.1	5,037.2	5,067.1	5,035.2	18.8	12.5	-159.08		277.4	146.7	598.2	573.0	25.22	23.716	
5,200.0	5,118.1	5,147.9	5,116.1	19.0	12.7	-159.60		277.4	146.7	610.4	584.8	25.54	23.896	
5,216.5	5,134.4	5,164.3	5,132.4	19.1	12.7	-159.69		277.4	146.7	612.5	586.9	25.60	23.924	
5,300.0	5,217.2	5,247.1	5,215.2	19.3	12.8	-160.09		277.4	146.7	622.3	596.4	25.91	24.013	
5,314.9	5,232.1	5,262.0	5,230.1	19.3	12.9	-160.15		277.4	146.7	623.8	597.8	25.97	24.022	
5,400.0	5,316.8	5,346.7	5,314.8	19.5	13.0	-160.43		277.4	146.7	631.0	604.7	26.27	24.022	
5,413.4	5,330.1	5,360.0	5,328.1	19.5	13.1	-160.47		277.4	146.7	631.9	605.6	26.31	24.016	
5,500.0	5,416.6	5,446.5	5,414.6	19.7	13.2	-160.64		277.4	146.7	636.4	609.8	26.60	23.927	
5,511.8	5,428.4	5,458.3	5,426.4	19.7	13.3	-160.66		277.4	146.7	636.8	610.2	26.64	23.910	
5,600.0	5,516.6	5,546.5	5,514.6	19.8	13.4	-160.72		277.4	146.7	638.6	611.7	26.91	23.733	
5,610.2	5,526.8	5,556.7	5,524.8	19.8	13.5	-160.73		277.4	146.7	638.6	611.7	26.94	23.707	
5,615.0	5,531.6	5,561.5	5,529.6	19.8	13.5	-90.65		277.4	146.7	638.6	611.7	26.93	23.714	
5,700.0	5,616.6	5,646.5	5,614.6	19.9	13.6	-90.65		277.4	146.7	638.6	611.3	27.25	23.437	
5,708.6	5,625.3	5,655.1	5,623.3	20.0	13.6	-90.65		277.4	146.7	638.6	611.3	27.28	23.408	
5,800.0	5,716.6	5,746.5	5,714.6	20.1	13.8	-90.65		277.4	146.7	638.6	611.0	27.63	23.111	
5,807.1	5,723.7	5,753.6	5,721.7	20.1	13.8	-90.65		277.4	146.7	638.6	610.9	27.66	23.088	
5,900.0	5,816.6	5,846.5	5,814.6	20.2	14.0	-90.65		277.4	146.7	638.6	610.6	28.02	22.792	
5,905.5	5,822.1	5,852.0	5,820.1	20.2	14.0	-90.65		277.4	146.7	638.6	610.6	28.04	22.774	
6,000.0	5,916.6	5,946.5	5,914.6	20.4	14.2	-90.65		277.4	146.7	638.6	610.2	28.41	22.480	
6,003.9	5,920.5	5,950.4	5,918.5	20.4	14.2	-90.65		277.4	146.7	638.6	610.2	28.42	22.468	
6,100.0	6,016.6	6,046.5	6,014.6	20.5	14.4	-90.65		277.4	146.7	638.6	609.8	28.80	22.175	
6,102.3	6,019.0	6,048.8	6,017.0	20.5	14.4	-90.65		277.4	146.7	638.6	609.8	28.81	22.168	
6,200.0	6,116.6	6,146.5	6,114.6	20.6	14.6	-90.65		277.4	146.7	638.6	609.4	29.19	21.878	
6,200.8	6,117.4	6,147.3	6,115.4	20.6	14.6	-90.65		277.4	146.7	638.6	609.4	29.19	21.876	
6,299.2	6,215.8	6,245.7	6,213.8	20.8	14.8	-90.65		277.4	146.7	638.6	609.0	29.58	21.589	
6,300.0	6,216.6	6,246.5	6,214.6	20.8	14.8	-90.65		277.4	146.7	638.6	609.0	29.58	21.587	
6,340.0	6,256.6	6,286.5	6,254.6	20.8	14.9	-90.65		277.4	146.7	638.6	608.9	29.74	21.472	
6,350.0	6,266.6	6,296.4	6,264.5	20.8	14.9	89.15		277.3	146.7	638.6	608.8	29.80	21.433	
6,397.6	6,314.2	6,343.4	6,311.5	20.9	15.0	89.16		275.3	146.7	638.6	608.7	29.93	21.338	
6,400.0	6,316.5	6,345.7	6,313.8	20.9	15.0	89.16		275.1	146.7	638.6	608.7	29.93	21.333	
6,450.0	6,366.2	6,395.1	6,362.8	20.9	15.1	89.18		269.5	146.7	638.6	608.6	30.04	21.261	
6,496.0	6,411.4	6,440.6	6,407.5	21.0	15.1	89.20		261.3	146.7	638.6	608.5	30.10	21.218	
6,500.0	6,415.3	6,444.5	6,411.4	21.0	15.1	89.20		260.5	146.7	638.6	608.5	30.10	21.214	
6,550.0	6,463.6	6,493.9	6,459.2	21.0	15.1	89.23		248.1	146.6	638.6	608.4	30.14	21.188	
6,594.5	6,505.8	6,537.8	6,500.9	21.0	15.1	89.26		234.4	146.6	638.6	608.4	30.15	21.180	
6,600.0	6,510.9	6,543.3	6,506.1	21.0	15.1	89.26		232.5	146.6	638.6	608.4	30.15	21.179	
6,650.0	6,557.0	6,592.7	6,551.8	21.0	15.1	89.30		213.7	146.5	638.6	608.4	30.15	21.183	
6,692.9	6,595.4	6,635.2	6,589.9	21.0	15.1	89.33		195.1	146.4	638.6	608.4	30.13	21.191	
6,700.0	6,601.6	6,642.2	6,596.1	21.0	15.1	89.33		191.8	146.4	638.6	608.4	30.13	21.192	
6,750.0	6,644.6	6,691.7	6,638.9	20.9	15.1	89.37		166.9	146.3	638.6	608.4	30.12	21.202	
6,791.3	6,678.6	6,732.6	6,672.8	20.9	15.1	89.41		144.0	146.3	638.6	608.4	30.12	21.204	
6,800.0	6,685.6	6,741.2	6,679.8	20.9	15.1	89.42		139.0	146.2	638.6	608.4	30.12	21.204	
6,850.0	6,724.6	6,790.8	6,718.7	20.9	15.1	89.46		108.3	146.1	638.6	608.4	30.13	21.190	
6,889.7	6,753.9	6,830.2	6,748.1	20.9	15.1	89.50		82.1	146.0	638.5	608.4	30.18	21.160	
6,900.0	6,761.3	6,840.4	6,755.5	20.9	15.1	89.51		75.0	146.0	638.5	608.4	30.19	21.152	
6,950.0	6,795.5	6,890.0	6,789.9	20.9	15.1	89.57		39.3	145.9	638.5	608.3	30.29	21.082	
6,988.2	6,819.9	6,928.0	6,814.4	20.9	15.1	89.61		10.4	145.8	638.5	608.1	30.41	21.000	
7,000.0	6,827.1	6,939.7	6,821.7	20.9	15.1	89.62		1.2	145.7	638.5	608.1	30.44	20.974	
7,050.0	6,855.9	6,989.4	6,850.9	20.9	15.1	89.68		-39.1	145.6	638.5	607.9	30.67	20.820	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,086.6	6,875.1	7,025.9	6,870.4	20.9	15.1	89.72	89.72	-69.8	145.5	638.5	607.6	30.89	20.672	
7,100.0	6,881.8	7,039.2	6,877.2	20.9	15.2	89.73	89.73	-81.3	145.4	638.5	607.6	30.97	20.617	
7,150.0	6,904.6	7,089.0	6,900.6	21.0	15.4	89.79	89.79	-125.3	145.3	638.5	607.2	31.36	20.363	
7,185.0	6,918.8	7,123.9	6,915.1	21.1	15.5	89.83	89.83	-157.1	145.2	638.5	606.8	31.69	20.151	
7,200.0	6,924.3	7,138.9	6,920.8	21.1	15.6	89.85	89.85	-170.9	145.1	638.5	606.7	31.83	20.059	
7,250.0	6,940.8	7,188.8	6,937.8	21.2	15.9	89.91	89.91	-217.8	144.9	638.5	606.1	32.40	19.708	
7,283.4	6,949.9	7,222.2	6,947.4	21.3	16.1	89.95	89.95	-249.8	144.8	638.5	605.7	32.84	19.445	
7,300.0	6,953.9	7,238.7	6,951.6	21.4	16.3	89.97	89.97	-265.8	144.8	638.5	605.5	33.06	19.315	
7,314.1	6,957.0	7,252.8	6,954.8	21.4	16.4	89.99	89.99	-279.5	144.7	638.5	605.3	33.26	19.197	
7,350.0	6,963.6	7,288.7	6,962.0	21.6	16.7	90.03	90.03	-314.7	144.6	638.5	604.7	33.81	18.886	
7,381.9	6,968.0	7,320.6	6,966.8	21.7	16.9	90.07	90.07	-346.2	144.5	638.5	604.2	34.34	18.596	
7,400.0	6,969.9	7,338.8	6,968.9	21.8	17.1	90.10	90.10	-364.2	144.4	638.5	603.9	34.64	18.431	
7,450.0	6,972.6	7,388.9	6,972.4	22.1	17.6	90.16	90.16	-414.2	144.2	638.5	603.0	35.56	17.957	
7,471.5	6,972.8	7,410.4	6,972.8	22.2	17.8	90.18	90.18	-435.7	144.1	638.5	602.6	35.97	17.751	
7,480.3	6,972.7	7,419.2	6,972.8	22.3	17.9	90.19	90.19	-444.6	144.1	638.5	602.4	36.15	17.665	
7,500.0	6,972.5	7,438.9	6,972.6	22.4	18.1	90.19	90.19	-464.3	144.0	638.5	602.0	36.55	17.471	
7,578.7	6,971.8	7,517.7	6,971.9	23.1	18.9	90.19	90.19	-543.0	143.7	638.5	600.3	38.20	16.715	
7,600.0	6,971.6	7,538.9	6,971.7	23.3	19.2	90.19	90.19	-564.3	143.7	638.5	599.9	38.67	16.514	
7,677.1	6,970.9	7,616.1	6,971.0	24.0	20.1	90.19	90.19	-641.4	143.4	638.5	598.1	40.43	15.794	
7,700.0	6,970.7	7,638.9	6,970.8	24.2	20.4	90.19	90.19	-664.3	143.3	638.5	597.6	40.97	15.585	
7,775.6	6,970.0	7,714.5	6,970.1	25.0	21.4	90.19	90.19	-739.8	143.0	638.5	595.7	42.87	14.895	
7,800.0	6,969.8	7,738.9	6,969.9	25.3	21.7	90.19	90.19	-764.3	142.9	638.5	595.0	43.50	14.677	
7,874.0	6,969.1	7,812.9	6,969.2	26.2	22.8	90.19	90.19	-838.3	142.7	638.5	593.0	45.51	14.029	
7,900.0	6,968.9	7,838.9	6,969.0	26.5	23.2	90.19	90.19	-864.3	142.6	638.5	592.3	46.24	13.810	
7,972.4	6,968.2	7,911.4	6,968.3	27.4	24.2	90.19	90.19	-936.7	142.3	638.5	590.2	48.33	13.213	
8,000.0	6,968.0	7,939.0	6,968.1	27.8	24.7	90.19	90.19	-964.3	142.2	638.5	589.4	49.14	12.995	
8,070.8	6,967.3	8,009.8	6,967.4	28.7	25.7	90.19	90.19	-1,035.1	141.9	638.5	587.3	51.28	12.452	
8,100.0	6,967.1	8,039.0	6,967.1	29.1	26.2	90.19	90.19	-1,064.3	141.8	638.5	586.4	52.18	12.238	
8,169.3	6,966.4	8,108.2	6,966.5	30.1	27.3	90.19	90.19	-1,133.5	141.6	638.5	584.2	54.35	11.748	
8,200.0	6,966.2	8,139.0	6,966.2	30.5	27.8	90.19	90.19	-1,164.2	141.5	638.5	583.2	55.33	11.540	
8,267.7	6,965.5	8,206.7	6,965.6	31.5	28.9	90.19	90.19	-1,231.9	141.2	638.5	581.0	57.52	11.101	
8,300.0	6,965.2	8,239.0	6,965.3	32.0	29.5	90.19	90.19	-1,264.2	141.1	638.5	580.0	58.58	10.900	
8,366.1	6,964.6	8,305.1	6,964.7	33.0	30.6	90.19	90.19	-1,330.4	140.9	638.5	577.8	60.78	10.506	
8,400.0	6,964.3	8,339.0	6,964.4	33.5	31.2	90.19	90.19	-1,364.2	140.7	638.5	576.6	61.91	10.313	
8,464.5	6,963.8	8,403.5	6,963.8	34.5	32.3	90.19	90.19	-1,428.8	140.5	638.5	574.4	64.10	9.961	
8,500.0	6,963.4	8,439.0	6,963.5	35.1	32.9	90.19	90.19	-1,464.2	140.4	638.5	573.2	65.32	9.776	
8,563.0	6,962.9	8,501.9	6,962.9	36.1	34.0	90.19	90.19	-1,527.2	140.1	638.5	571.0	67.49	9.461	
8,600.0	6,962.5	8,539.0	6,962.6	36.7	34.7	90.19	90.19	-1,564.2	140.0	638.5	569.8	68.78	9.284	
8,661.4	6,962.0	8,600.4	6,962.0	37.7	35.8	90.19	90.19	-1,625.6	139.8	638.5	567.6	70.93	9.003	
8,700.0	6,961.6	8,639.0	6,961.7	38.3	36.5	90.19	90.19	-1,664.2	139.6	638.5	566.2	72.29	8.833	
8,759.8	6,961.1	8,698.8	6,961.1	39.3	37.6	90.19	90.19	-1,724.0	139.4	638.5	564.1	74.41	8.581	
8,800.0	6,960.7	8,739.0	6,960.8	40.0	38.3	90.19	90.19	-1,764.2	139.3	638.5	562.7	75.84	8.419	
8,858.2	6,960.2	8,797.2	6,960.3	40.9	39.3	90.19	90.19	-1,822.5	139.1	638.5	560.6	77.93	8.193	
8,900.0	6,959.8	8,839.0	6,959.9	41.6	40.1	90.19	90.19	-1,864.2	138.9	638.5	559.1	79.44	8.038	
8,956.7	6,959.3	8,895.6	6,959.4	42.6	41.1	90.19	90.19	-1,920.9	138.7	638.5	557.1	81.49	7.836	
9,000.0	6,958.9	8,939.0	6,959.0	43.3	41.9	90.19	90.19	-1,964.2	138.5	638.5	555.5	83.06	7.688	
9,055.1	6,958.4	8,994.1	6,958.5	44.3	43.0	90.19	90.19	-2,019.3	138.3	638.5	553.5	85.07	7.506	
9,100.0	6,958.0	9,039.0	6,958.1	45.1	43.8	90.19	90.19	-2,064.2	138.2	638.5	551.8	86.72	7.364	
9,153.5	6,957.5	9,092.5	6,957.6	46.0	44.8	90.19	90.19	-2,117.7	138.0	638.5	549.9	88.68	7.200	
9,200.0	6,957.1	9,139.0	6,957.1	46.8	45.7	90.19	90.19	-2,164.2	137.8	638.5	548.1	90.39	7.064	
9,251.9	6,956.6	9,190.9	6,956.7	47.7	46.6	90.19	90.19	-2,216.2	137.6	638.5	546.2	92.32	6.917	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error: 0.0 usft	
Survey Program: 0-MWDD												Offset Well Error: 0.0 usft	
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	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)		
9,300.0	6,956.2	9,239.0	6,956.2	48.6	47.5	90.19	-2,264.2	137.4	638.5	544.4	94.10	6.786	
9,350.4	6,955.7	9,289.3	6,955.8	49.5	48.5	90.19	-2,314.6	137.3	638.5	542.6	95.97	6.654	
9,400.0	6,955.2	9,339.0	6,955.3	50.3	49.4	90.19	-2,364.2	137.1	638.5	540.7	97.82	6.528	
9,448.8	6,954.8	9,387.8	6,954.9	51.2	50.3	90.19	-2,413.0	136.9	638.5	538.9	99.64	6.408	
9,500.0	6,954.3	9,439.0	6,954.4	52.1	51.3	90.19	-2,464.2	136.7	638.5	537.0	101.56	6.288	
9,547.2	6,953.9	9,486.2	6,954.0	53.0	52.2	90.19	-2,511.4	136.5	638.5	535.2	103.33	6.180	
9,600.0	6,953.4	9,539.0	6,953.5	53.9	53.2	90.19	-2,564.2	136.4	638.6	533.2	105.31	6.063	
9,645.6	6,953.0	9,584.6	6,953.1	54.7	54.1	90.19	-2,609.8	136.2	638.6	531.5	107.03	5.966	
9,700.0	6,952.5	9,639.0	6,952.6	55.7	55.1	90.19	-2,664.2	136.0	638.6	529.5	109.08	5.854	
9,744.1	6,952.1	9,683.0	6,952.2	56.5	56.0	90.19	-2,708.3	135.8	638.6	527.8	110.75	5.766	
9,800.0	6,951.6	9,739.0	6,951.7	57.5	57.0	90.19	-2,764.2	135.6	638.6	525.7	112.86	5.658	
9,842.5	6,951.2	9,781.5	6,951.3	58.3	57.8	90.19	-2,806.7	135.5	638.6	524.1	114.47	5.578	
9,900.0	6,950.7	9,839.0	6,950.8	59.4	58.9	90.19	-2,864.2	135.3	638.6	521.9	116.65	5.474	
9,940.9	6,950.3	9,879.9	6,950.4	60.1	59.7	90.19	-2,905.1	135.1	638.6	520.3	118.21	5.402	
10,000.0	6,949.8	9,939.0	6,949.9	61.2	60.9	90.19	-2,964.2	134.9	638.6	518.1	120.46	5.301	
10,039.3	6,949.4	9,978.3	6,949.5	61.9	61.6	90.19	-3,003.5	134.8	638.6	516.6	121.96	5.236	
10,100.0	6,948.9	10,039.0	6,948.9	63.0	62.8	90.19	-3,064.2	134.5	638.6	514.3	124.27	5.139	
10,137.8	6,948.5	10,076.7	6,948.6	63.7	63.5	90.19	-3,101.9	134.4	638.6	512.9	125.71	5.080	
10,200.0	6,948.0	10,139.0	6,948.0	64.9	64.7	90.19	-3,164.2	134.2	638.6	510.5	128.09	4.985	
10,236.2	6,947.6	10,175.2	6,947.7	65.6	65.4	90.19	-3,200.4	134.0	638.6	509.1	129.48	4.932	
10,300.0	6,947.1	10,239.0	6,947.1	66.7	66.7	90.19	-3,264.2	133.8	638.6	506.6	131.92	4.841	
10,334.6	6,946.7	10,273.6	6,946.8	67.4	67.3	90.19	-3,298.8	133.7	638.6	505.3	133.25	4.792	
10,400.0	6,946.2	10,339.0	6,946.2	68.6	68.6	90.18	-3,364.2	133.4	638.6	502.8	135.75	4.704	
10,433.0	6,945.8	10,372.0	6,945.9	69.2	69.2	90.18	-3,397.2	133.3	638.6	501.5	137.02	4.660	
10,500.0	6,945.2	10,439.0	6,945.3	70.5	70.5	90.18	-3,464.2	133.1	638.6	499.0	139.60	4.574	
10,531.5	6,945.0	10,470.4	6,945.0	71.1	71.1	90.18	-3,495.6	133.0	638.6	497.8	140.81	4.535	
10,600.0	6,944.3	10,539.0	6,944.4	72.3	72.5	90.18	-3,564.2	132.7	638.6	495.1	143.45	4.452	
10,629.9	6,944.1	10,568.9	6,944.1	72.9	73.1	90.18	-3,594.0	132.6	638.6	494.0	144.60	4.416	
10,700.0	6,943.4	10,639.0	6,943.5	74.2	74.4	90.18	-3,664.1	132.4	638.6	491.3	147.30	4.335	
10,728.3	6,943.2	10,667.3	6,943.2	74.7	75.0	90.18	-3,692.5	132.2	638.6	490.2	148.39	4.303	
10,800.0	6,942.5	10,739.0	6,942.6	76.1	76.4	90.18	-3,764.1	132.0	638.6	487.4	151.16	4.225	
10,826.7	6,942.3	10,765.7	6,942.3	76.6	76.9	90.18	-3,790.9	131.9	638.6	486.4	152.19	4.196	
10,900.0	6,941.6	10,839.0	6,941.7	78.0	78.3	90.18	-3,864.1	131.6	638.6	483.6	155.02	4.119	
10,925.2	6,941.4	10,864.1	6,941.4	78.4	78.8	90.18	-3,889.3	131.5	638.6	482.6	156.00	4.094	
11,000.0	6,940.7	10,939.0	6,940.7	79.9	80.3	90.18	-3,964.1	131.3	638.6	479.7	158.89	4.019	
11,023.6	6,940.5	10,962.6	6,940.5	80.3	80.7	90.18	-3,987.7	131.2	638.6	478.8	159.80	3.996	
11,100.0	6,939.8	11,039.0	6,939.8	81.7	82.2	90.18	-4,064.1	130.9	638.6	475.8	162.76	3.923	
11,122.0	6,939.6	11,061.0	6,939.6	82.2	82.7	90.18	-4,086.2	130.8	638.6	475.0	163.62	3.903	
11,200.0	6,938.9	11,139.0	6,938.9	83.6	84.2	90.18	-4,164.1	130.5	638.6	472.0	166.64	3.832	
11,220.4	6,938.7	11,159.4	6,938.7	84.0	84.6	90.18	-4,184.6	130.5	638.6	471.2	167.43	3.814	
11,300.0	6,938.0	11,239.0	6,938.0	85.5	86.1	90.18	-4,264.1	130.2	638.6	468.1	170.52	3.745	
11,318.9	6,937.8	11,257.8	6,937.8	85.9	86.5	90.18	-4,283.0	130.1	638.6	467.3	171.25	3.729	
11,400.0	6,937.0	11,339.0	6,937.1	87.4	88.1	90.18	-4,364.1	129.8	638.6	464.2	174.40	3.662	
11,417.3	6,936.9	11,356.3	6,936.9	87.8	88.4	90.18	-4,381.4	129.7	638.6	463.5	175.07	3.648	
11,500.0	6,936.1	11,439.0	6,936.2	89.3	90.1	90.18	-4,464.1	129.4	638.6	460.3	178.29	3.582	
11,515.7	6,936.0	11,454.7	6,936.0	89.6	90.4	90.18	-4,479.8	129.4	638.6	459.7	178.90	3.570	
11,600.0	6,935.2	11,539.0	6,935.3	91.2	92.0	90.18	-4,564.1	129.1	638.6	456.4	182.18	3.505	
11,614.1	6,935.1	11,553.1	6,935.1	91.5	92.3	90.18	-4,578.3	129.0	638.6	455.9	182.73	3.495	
11,700.0	6,934.3	11,639.0	6,934.3	93.1	94.0	90.18	-4,664.1	128.7	638.6	452.5	186.07	3.432	
11,712.6	6,934.2	11,651.6	6,934.2	93.4	94.2	90.18	-4,676.7	128.7	638.6	452.1	186.56	3.423	
11,800.0	6,933.4	11,739.0	6,933.4	95.1	95.9	90.18	-4,764.1	128.4	638.6	448.6	189.96	3.362	

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-223 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,811.0	6,933.3	11,750.0	6,933.3	95.3	96.2	90.18	90.18	-4,775.1	128.3	638.6	448.2	190.39	3.354	
11,900.0	6,932.5	11,839.0	6,932.5	97.0	97.9	90.18	90.18	-4,864.1	128.0	638.6	444.8	193.86	3.294	
11,909.4	6,932.4	11,848.4	6,932.4	97.1	98.1	90.18	90.18	-4,873.5	128.0	638.6	444.4	194.23	3.288	
12,000.0	6,931.6	11,939.0	6,931.6	98.9	99.9	90.18	90.18	-4,964.1	127.6	638.6	440.9	197.76	3.229	
12,007.8	6,931.5	11,946.8	6,931.5	99.0	100.0	90.18	90.18	-4,971.9	127.6	638.6	440.6	198.07	3.224	
12,100.0	6,930.7	12,039.0	6,930.7	100.8	101.8	90.18	90.18	-5,064.1	127.3	638.6	437.0	201.66	3.167	
12,106.3	6,930.6	12,045.3	6,930.6	100.9	102.0	90.18	90.18	-5,070.4	127.3	638.6	436.7	201.91	3.163	
12,200.0	6,929.8	12,139.0	6,929.8	102.7	103.8	90.18	90.18	-5,164.1	126.9	638.6	433.1	205.56	3.107	
12,204.7	6,929.7	12,143.7	6,929.7	102.8	103.9	90.18	90.18	-5,168.8	126.9	638.6	432.9	205.75	3.104	
12,300.0	6,928.8	12,239.0	6,928.8	104.6	105.8	90.18	90.18	-5,264.1	126.6	638.6	429.2	209.47	3.049	
12,303.1	6,928.8	12,242.1	6,928.8	104.7	105.8	90.18	90.18	-5,267.2	126.5	638.6	429.0	209.59	3.047	
12,400.0	6,927.9	12,339.0	6,927.9	106.5	107.8	90.18	90.18	-5,364.1	126.2	638.6	425.3	213.38	2.993	
12,401.5	6,927.9	12,340.5	6,927.9	106.6	107.8	90.18	90.18	-5,365.6	126.2	638.6	425.2	213.44	2.992	
12,500.0	6,927.0	12,439.0	6,927.0	108.5	109.7	90.18	90.18	-5,464.1	125.8	638.6	421.4	217.28	2.939	
12,598.4	6,926.1	12,537.4	6,926.1	110.4	111.7	90.18	90.18	-5,562.5	125.5	638.6	417.5	221.13	2.888	
12,600.0	6,926.1	12,539.0	6,926.1	110.4	111.7	90.18	90.18	-5,564.1	125.5	638.6	417.5	221.19	2.887	
12,696.8	6,925.2	12,635.8	6,925.2	112.3	113.6	90.18	90.18	-5,660.9	125.1	638.6	413.7	224.98	2.839	
12,700.0	6,925.2	12,639.0	6,925.2	112.3	113.7	90.18	90.18	-5,664.1	125.1	638.6	413.5	225.11	2.837	
12,795.2	6,924.3	12,734.2	6,924.3	114.1	115.6	90.18	90.18	-5,759.3	124.8	638.7	409.8	228.83	2.791	
12,800.0	6,924.3	12,739.0	6,924.3	114.2	115.6	90.18	90.18	-5,764.1	124.8	638.7	409.6	229.02	2.789	
12,893.7	6,923.4	12,832.7	6,923.4	116.0	117.5	90.18	90.18	-5,857.7	124.4	638.7	406.0	232.68	2.745	
12,900.0	6,923.4	12,839.0	6,923.4	116.2	117.6	90.18	90.18	-5,864.1	124.4	638.7	405.7	232.93	2.742	
12,992.1	6,922.5	12,931.1	6,922.5	117.9	119.4	90.18	90.18	-5,956.2	124.1	638.7	402.1	236.54	2.700	
13,000.0	6,922.5	12,939.0	6,922.5	118.1	119.6	90.18	90.18	-5,964.1	124.0	638.7	401.8	236.85	2.697	
13,090.5	6,921.6	13,029.5	6,921.6	119.8	121.4	90.18	90.18	-6,054.6	123.7	638.7	398.3	240.39	2.657	
13,100.0	6,921.5	13,039.0	6,921.5	120.0	121.6	90.18	90.18	-6,064.0	123.7	638.7	397.9	240.77	2.653	
13,188.9	6,920.7	13,127.9	6,920.7	121.7	123.3	90.18	90.18	-6,153.0	123.4	638.7	394.4	244.25	2.615	
13,200.0	6,920.6	13,139.0	6,920.6	121.9	123.5	90.18	90.18	-6,164.0	123.3	638.7	394.0	244.68	2.610	
13,287.4	6,919.8	13,226.4	6,919.8	123.6	125.3	90.18	90.18	-6,251.4	123.0	638.7	390.6	248.11	2.574	
13,300.0	6,919.7	13,239.0	6,919.7	123.9	125.5	90.18	90.18	-6,264.0	123.0	638.7	390.1	248.60	2.569	
13,385.8	6,918.9	13,324.8	6,918.9	125.5	127.2	90.18	90.18	-6,349.8	122.6	638.7	386.7	251.97	2.535	
13,400.0	6,918.8	13,339.0	6,918.8	125.8	127.5	90.18	90.18	-6,364.0	122.6	638.7	386.2	252.52	2.529	
13,484.2	6,918.0	13,423.2	6,918.0	127.4	129.2	90.18	90.18	-6,448.3	122.3	638.7	382.9	255.83	2.497	
13,500.0	6,917.9	13,439.0	6,917.9	127.7	129.5	90.18	90.18	-6,464.0	122.2	638.7	382.2	256.44	2.491	
13,582.6	6,917.1	13,521.6	6,917.1	129.3	131.1	90.18	90.18	-6,546.7	121.9	638.7	379.0	259.69	2.459	
13,600.0	6,917.0	13,539.0	6,917.0	129.7	131.5	90.18	90.18	-6,564.0	121.9	638.7	378.3	260.37	2.453	
13,681.1	6,916.2	13,620.1	6,916.2	131.2	133.1	90.18	90.18	-6,645.1	121.6	638.7	375.1	263.55	2.423	
13,700.0	6,916.1	13,639.0	6,916.0	131.6	133.4	90.18	90.18	-6,664.0	121.5	638.7	374.4	264.29	2.417	
13,779.5	6,915.3	13,718.5	6,915.3	133.1	135.0	90.18	90.18	-6,743.5	121.2	638.7	371.3	267.41	2.388	
13,800.0	6,915.2	13,739.0	6,915.1	133.5	135.4	90.18	90.18	-6,764.0	121.2	638.7	370.5	268.21	2.381	
13,877.9	6,914.4	13,816.9	6,914.4	135.1	137.0	90.18	90.18	-6,841.9	120.9	638.7	367.4	271.27	2.354	
13,900.0	6,914.2	13,839.0	6,914.2	135.5	137.4	90.18	90.18	-6,864.0	120.8	638.7	366.6	272.14	2.347	
13,976.3	6,913.5	13,915.3	6,913.5	137.0	138.9	90.18	90.18	-6,940.4	120.5	638.7	363.6	275.14	2.321	
14,000.0	6,913.3	13,939.0	6,913.3	137.4	139.4	90.18	90.18	-6,964.0	120.4	638.7	362.6	276.06	2.314	
14,074.8	6,912.6	14,013.8	6,912.6	138.9	140.8	90.18	90.18	-7,038.8	120.2	638.7	359.7	278.99	2.289	
14,100.0	6,912.4	14,039.0	6,912.4	139.4	141.3	90.18	90.18	-7,064.0	120.1	638.7	358.8	279.96	2.281	
14,122.4	6,912.2	14,061.4	6,912.2	139.8	141.7	90.18	90.18	-7,086.4	120.0	638.7	357.9	280.80	2.275	
14,145.0	6,912.0	14,079.0	6,912.0	140.2	142.1	90.18	90.18	-7,104.0	119.9	638.7	357.2	281.55	2.269 SF	

Anticollision Report



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Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	-90.00	0.0	-119.9	120.0				
98.4	98.4	94.4	94.4	0.1	0.1	-90.00	-90.00	0.0	-119.9	119.9	119.7	0.19	640.353	
100.0	100.0	96.0	96.0	0.1	0.1	-90.00	-90.00	0.0	-119.9	119.9	119.7	0.19	629.258	
196.8	196.8	192.8	192.8	0.3	0.3	-90.00	-90.00	0.0	-119.9	119.9	119.3	0.62	193.129	
200.0	200.0	196.0	196.0	0.3	0.3	-90.00	-90.00	0.0	-119.9	119.9	119.3	0.63	188.822	
295.3	295.3	291.3	291.3	0.5	0.5	-90.00	-90.00	0.0	-119.9	119.9	118.8	1.06	112.762	
300.0	300.0	296.0	296.0	0.5	0.5	-90.00	-90.00	0.0	-119.9	119.9	118.8	1.08	110.554	
393.7	393.7	389.7	389.7	0.8	0.7	-90.00	-90.00	0.0	-119.9	119.9	118.4	1.51	79.627	
400.0	400.0	396.0	396.0	0.8	0.8	-90.00	-90.00	0.0	-119.9	119.9	118.4	1.53	78.157	
492.1	492.1	488.1	488.1	1.0	1.0	-90.00	-90.00	0.0	-119.9	119.9	117.9	1.95	61.543	
500.0	500.0	496.0	496.0	1.0	1.0	-90.00	-90.00	0.0	-119.9	119.9	117.9	1.98	60.445	
590.5	590.5	586.5	586.5	1.2	1.2	-90.00	-90.00	0.0	-119.9	119.9	117.5	2.39	50.153	
600.0	600.0	596.0	596.0	1.2	1.2	-90.00	-90.00	0.0	-119.9	119.9	117.5	2.43	49.277	
689.0	689.0	685.0	685.0	1.4	1.4	-90.00	-90.00	0.0	-119.9	119.9	117.1	2.83	42.320	
700.0	700.0	696.0	696.0	1.4	1.4	-90.00	-90.00	0.0	-119.9	119.9	117.0	2.88	41.592	
787.4	787.4	783.4	783.4	1.6	1.6	-90.00	-90.00	0.0	-119.9	119.9	116.6	3.28	36.604	
800.0	800.0	796.0	796.0	1.7	1.7	-90.00	-90.00	0.0	-119.9	119.9	116.6	3.33	35.981	
885.8	885.8	881.8	881.8	1.9	1.9	-90.00	-90.00	0.0	-119.9	119.9	116.2	3.72	32.248	
900.0	900.0	896.0	896.0	1.9	1.9	-90.00	-90.00	0.0	-119.9	119.9	116.1	3.78	31.704	
984.2	984.2	980.2	980.2	2.1	2.1	-90.00	-90.00	0.0	-119.9	119.9	115.7	4.16	28.818	
1,000.0	1,000.0	996.0	996.0	2.1	2.1	-90.00	-90.00	0.0	-119.9	119.9	115.7	4.23	28.336 CC, ES	
1,082.7	1,082.7	1,078.7	1,078.7	2.3	2.3	-160.27	-160.27	0.0	-119.9	121.0	116.4	4.59	26.337	
1,100.0	1,100.0	1,096.0	1,096.0	2.3	2.3	-160.35	-160.35	0.0	-119.9	121.5	116.9	4.67	26.021	
1,181.1	1,181.0	1,177.0	1,177.0	2.5	2.5	-160.94	-160.94	0.0	-119.9	125.3	120.3	5.02	24.960	
1,200.0	1,199.8	1,195.8	1,195.8	2.6	2.6	-161.12	-161.12	0.0	-119.9	126.5	121.4	5.10	24.799	
1,279.5	1,279.1	1,272.4	1,272.4	2.7	2.7	-161.73	-161.73	0.5	-120.6	133.5	128.1	5.43	24.584	
1,300.0	1,299.5	1,292.0	1,292.0	2.8	2.8	-161.83	-161.83	0.9	-121.1	136.0	130.4	5.52	24.646	
1,377.9	1,376.9	1,366.2	1,366.1	3.0	2.9	-162.03	-162.03	2.8	-123.8	147.5	141.6	5.84	25.252	
1,400.0	1,398.7	1,387.0	1,386.9	3.0	3.0	-162.04	-162.04	3.6	-124.8	151.4	145.4	5.93	25.524	
1,476.4	1,474.2	1,458.7	1,458.3	3.2	3.1	-161.92	-161.92	6.8	-129.4	167.1	160.8	6.25	26.737	
1,500.0	1,497.5	1,480.6	1,480.2	3.3	3.2	-161.85	-161.85	8.0	-131.0	172.6	166.3	6.35	27.200	
1,574.8	1,571.0	1,549.3	1,548.5	3.5	3.4	-161.52	-161.52	12.4	-137.1	192.2	185.5	6.66	28.863	
1,600.1	1,595.7	1,572.2	1,571.2	3.6	3.4	-161.39	-161.39	14.1	-139.5	199.5	192.8	6.76	29.500	
1,673.2	1,667.2	1,638.1	1,636.4	3.9	3.6	-161.03	-161.03	19.5	-147.0	221.9	214.8	7.09	31.289	
1,700.0	1,693.4	1,661.9	1,659.9	4.0	3.6	-160.86	-160.86	21.7	-150.0	230.4	223.2	7.21	31.945	
1,771.6	1,763.5	1,725.3	1,722.3	4.2	3.8	-160.32	-160.32	28.1	-158.8	254.1	246.5	7.54	33.673	
1,800.0	1,791.3	1,750.1	1,746.7	4.3	3.9	-160.08	-160.08	30.8	-162.6	263.7	256.1	7.68	34.356	
1,870.1	1,859.8	1,811.7	1,807.1	4.6	4.1	-159.44	-159.44	38.0	-172.7	288.5	280.4	8.01	36.008	
1,900.0	1,889.1	1,839.6	1,834.4	4.7	4.2	-159.16	-159.16	41.4	-177.4	299.2	291.0	8.16	36.679	
1,968.5	1,956.1	1,903.5	1,896.9	5.0	4.4	-158.58	-158.58	49.2	-188.1	323.8	315.3	8.50	38.103	
2,000.0	1,986.9	1,932.9	1,925.6	5.1	4.5	-158.35	-158.35	52.8	-193.1	335.1	326.4	8.66	38.713	
2,066.9	2,052.3	1,995.3	1,986.6	5.4	4.7	-157.90	-157.90	60.3	-203.6	359.1	350.1	8.99	39.931	
2,100.0	2,084.7	2,026.1	2,016.8	5.5	4.8	-157.69	-157.69	64.1	-208.8	371.0	361.9	9.16	40.496	
2,165.3	2,148.6	2,087.0	2,076.4	5.8	5.1	-157.33	-157.33	71.5	-219.1	394.5	385.0	9.50	41.525	
2,200.0	2,182.5	2,119.4	2,108.0	5.9	5.2	-157.16	-157.16	75.4	-224.5	407.0	397.3	9.68	42.042	
2,263.8	2,244.9	2,178.8	2,166.2	6.2	5.4	-156.86	-156.86	82.7	-234.5	429.9	419.9	10.02	42.930	
2,300.0	2,280.3	2,212.6	2,199.2	6.3	5.6	-156.71	-156.71	86.8	-240.2	443.0	432.8	10.21	43.406	
2,362.2	2,341.2	2,270.6	2,255.9	6.6	5.8	-156.46	-156.46	93.8	-250.0	465.4	454.9	10.54	44.168	
2,400.0	2,378.1	2,305.8	2,290.4	6.8	5.9	-156.32	-156.32	98.1	-256.0	479.0	468.3	10.74	44.607	
2,460.6	2,437.4	2,362.4	2,345.7	7.0	6.2	-156.12	-156.12	105.0	-265.5	500.9	489.8	11.07	45.264	
2,500.0	2,476.0	2,399.1	2,381.6	7.2	6.3	-155.99	-155.99	109.4	-271.7	515.0	503.8	11.28	45.671	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,559.0	2,533.7	2,454.1	2,435.5	7.4	6.5	-155.82	116.1	-281.0	536.3	524.7	11.60	46.240		
2,600.0	2,573.8	2,492.3	2,472.8	7.6	6.7	-155.71	120.8	-287.4	551.1	539.3	11.82	46.617		
2,657.5	2,630.0	2,545.9	2,525.3	7.9	6.9	-155.56	127.3	-296.4	571.8	559.7	12.14	47.113		
2,700.0	2,671.6	2,585.6	2,564.0	8.1	7.1	-155.46	132.1	-303.1	587.2	574.8	12.37	47.463		
2,755.9	2,726.3	2,637.7	2,615.0	8.3	7.3	-155.33	138.4	-311.9	607.3	594.6	12.68	47.896		
2,800.0	2,769.4	2,678.8	2,655.2	8.5	7.5	-155.23	143.4	-318.8	623.2	610.3	12.92	48.222		
2,854.3	2,822.5	2,729.5	2,704.8	8.7	7.7	-155.12	149.6	-327.4	642.8	629.6	13.23	48.603		
2,900.0	2,867.2	2,772.1	2,746.5	8.9	7.9	-155.04	154.8	-334.6	659.3	645.8	13.48	48.908		
2,952.7	2,918.8	2,821.2	2,794.6	9.2	8.1	-154.94	160.8	-342.9	678.3	664.6	13.78	49.242		
3,000.0	2,965.0	2,865.3	2,837.7	9.4	8.3	-154.86	166.1	-350.3	695.4	681.3	14.04	49.528		
3,051.2	3,015.1	2,913.0	2,884.3	9.6	8.5	-154.78	171.9	-358.3	713.8	699.5	14.33	49.823		
3,100.0	3,062.8	2,958.5	2,928.9	9.8	8.7	-154.70	177.5	-366.0	731.5	716.9	14.60	50.091		
3,149.6	3,111.4	3,004.8	2,974.1	10.0	8.9	-154.63	183.1	-373.8	749.4	734.5	14.88	50.352		
3,200.0	3,160.7	3,051.8	3,020.1	10.3	9.1	-154.55	188.8	-381.7	767.6	752.4	15.17	50.605		
3,248.0	3,207.6	3,096.6	3,063.9	10.5	9.3	-154.49	194.2	-389.3	784.9	769.5	15.44	50.836		
3,300.0	3,258.5	3,145.0	3,111.3	10.7	9.5	-154.42	200.1	-397.5	803.7	787.9	15.73	51.075		
3,346.4	3,303.9	3,188.3	3,153.6	10.9	9.7	-154.37	205.4	-404.8	820.4	804.4	16.00	51.280		
3,400.0	3,356.3	3,238.3	3,202.5	11.2	9.9	-154.30	211.5	-413.2	839.7	823.4	16.30	51.506		
3,444.9	3,400.2	3,280.1	3,243.4	11.4	10.1	-154.25	216.5	-420.2	856.0	839.4	16.56	51.688		
3,500.0	3,454.1	3,331.5	3,293.7	11.6	10.3	-154.19	222.8	-428.9	875.9	859.0	16.87	51.902		
3,543.3	3,496.5	3,371.9	3,333.2	11.8	10.5	-154.15	227.7	-435.7	891.5	874.4	17.12	52.064		
3,600.0	3,551.9	3,426.7	3,386.8	12.0	10.7	-154.09	234.4	-444.9	911.9	894.5	17.45	52.258		
3,641.7	3,592.7	3,480.7	3,439.7	12.2	10.9	-154.05	240.6	-453.5	926.6	908.9	17.72	52.301		
3,700.0	3,649.7	3,557.1	3,515.0	12.5	11.1	-154.07	248.3	-464.3	946.0	928.0	18.07	52.354		
3,740.1	3,689.0	3,610.5	3,567.7	12.7	11.3	-154.11	253.1	-470.9	958.7	940.4	18.31	52.362		
3,800.0	3,747.5	3,691.0	3,647.6	12.9	11.5	-154.24	259.1	-479.2	976.4	957.7	18.66	52.334		
3,838.6	3,785.3	3,743.5	3,699.8	13.1	11.6	-154.35	262.3	-483.7	987.0	968.1	18.88	52.291		
3,900.0	3,845.4	3,827.9	3,784.0	13.4	11.8	-154.60	266.4	-489.3	1,002.8	983.6	19.22	52.178		
3,937.0	3,881.5	3,879.3	3,835.2	13.6	11.9	-154.77	268.1	-491.7	1,011.6	992.2	19.42	52.087		
4,000.0	3,943.2	3,967.4	3,923.3	13.8	12.1	-155.13	269.8	-494.1	1,025.3	1,005.5	19.76	51.899		
4,035.4	3,977.8	4,017.3	3,973.2	14.0	12.1	-155.36	270.1	-494.5	1,032.3	1,012.3	19.94	51.773		
4,100.0	4,041.0	4,081.1	4,037.0	14.3	12.2	-155.67	270.1	-494.5	1,044.5	1,024.3	20.24	51.618		
4,133.8	4,074.1	4,114.2	4,070.1	14.4	12.3	-155.83	270.1	-494.5	1,051.0	1,030.6	20.39	51.536		
4,200.0	4,138.8	4,178.9	4,134.8	14.7	12.4	-156.13	270.1	-494.5	1,063.6	1,042.9	20.70	51.369		
4,232.3	4,170.4	4,210.5	4,166.4	14.9	12.4	-156.28	270.1	-494.5	1,069.7	1,048.9	20.86	51.290		
4,300.0	4,236.6	4,276.7	4,232.6	15.2	12.5	-156.58	270.1	-494.5	1,082.7	1,061.5	21.18	51.129		
4,330.7	4,266.6	4,306.8	4,262.6	15.3	12.6	-156.71	270.1	-494.5	1,088.6	1,067.3	21.32	51.059		
4,400.0	4,334.4	4,374.6	4,330.4	15.6	12.7	-157.01	270.1	-494.5	1,101.9	1,080.2	21.65	50.904		
4,429.1	4,362.9	4,403.0	4,358.9	15.8	12.7	-157.13	270.1	-494.5	1,107.5	1,085.7	21.78	50.841		
4,500.0	4,432.2	4,472.4	4,428.2	16.1	12.8	-157.42	270.1	-494.5	1,121.1	1,099.0	22.12	50.692		
4,527.5	4,459.2	4,499.3	4,455.2	16.2	12.9	-157.53	270.1	-494.5	1,126.4	1,104.2	22.25	50.636		
4,600.0	4,530.1	4,570.2	4,526.1	16.5	13.0	-157.82	270.1	-494.5	1,140.4	1,117.8	22.59	50.492		
4,626.0	4,555.5	4,595.6	4,551.5	16.7	13.0	-157.92	270.1	-494.5	1,145.4	1,122.7	22.71	50.442		
4,700.0	4,627.9	4,668.0	4,623.9	17.0	13.2	-158.21	270.1	-494.5	1,159.7	1,136.7	23.05	50.303		
4,724.4	4,651.7	4,691.9	4,647.7	17.1	13.2	-158.30	270.1	-494.5	1,164.5	1,141.3	23.17	50.259		
4,800.0	4,725.7	4,765.8	4,721.7	17.4	13.3	-158.58	270.1	-494.5	1,179.1	1,155.6	23.52	50.125		
4,822.8	4,748.0	4,788.1	4,744.0	17.6	13.4	-158.66	270.1	-494.5	1,183.5	1,159.9	23.63	50.086		
4,900.0	4,823.5	4,863.6	4,819.5	17.9	13.5	-158.94	270.1	-494.5	1,198.6	1,174.6	23.99	49.956		
4,921.2	4,844.3	4,884.4	4,840.3	18.0	13.5	-159.02	270.1	-494.5	1,202.7	1,178.6	24.09	49.921		
5,000.0	4,921.3	4,961.4	4,917.3	18.4	13.7	-159.29	270.1	-494.5	1,218.0	1,193.6	24.46	49.796		
5,014.9	4,935.9	4,976.1	4,931.9	18.4	13.7	-159.34	270.1	-494.5	1,220.9	1,196.4	24.53	49.772		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,980.7	4,936.6	18.4	13.7	-159.37		270.1	-494.5	1,221.9	1,197.3	24.56	49.758	
5,100.0	5,019.4	5,059.5	5,015.4	18.7	13.8	-159.72		270.1	-494.5	1,236.4	1,211.4	24.98	49.485	
5,118.1	5,037.2	5,077.3	5,033.2	18.8	13.9	-159.79		270.1	-494.5	1,239.4	1,214.3	25.07	49.430	
5,200.0	5,118.1	5,158.2	5,114.1	19.0	14.0	-160.08		270.1	-494.5	1,251.6	1,226.1	25.47	49.144	
5,216.5	5,134.4	5,174.5	5,130.4	19.1	14.0	-160.13		270.1	-494.5	1,253.8	1,228.2	25.54	49.084	
5,300.0	5,217.2	5,257.4	5,213.2	19.3	14.2	-160.36		270.1	-494.5	1,263.6	1,237.6	25.92	48.752	
5,314.9	5,232.1	5,272.2	5,228.1	19.3	14.2	-160.39		270.1	-494.5	1,265.1	1,239.1	25.98	48.691	
5,400.0	5,316.8	5,356.9	5,312.8	19.5	14.4	-160.56		270.1	-494.5	1,272.3	1,245.9	26.33	48.313	
5,413.4	5,330.1	5,370.3	5,326.1	19.5	14.4	-160.58		270.1	-494.5	1,273.2	1,246.8	26.39	48.252	
5,500.0	5,416.6	5,456.8	5,412.6	19.7	14.5	-160.68		270.1	-494.5	1,277.7	1,251.0	26.72	47.826	
5,511.8	5,428.4	5,468.6	5,424.4	19.7	14.6	-160.69		270.1	-494.5	1,278.1	1,251.4	26.76	47.767	
5,600.0	5,516.6	5,556.7	5,512.6	19.8	14.7	-160.73		270.1	-494.5	1,279.8	1,252.8	27.06	47.294	
5,610.2	5,526.8	5,567.0	5,522.8	19.8	14.7	-160.73		270.1	-494.5	1,279.9	1,252.8	27.10	47.236	
5,615.0	5,531.6	5,571.7	5,527.6	19.8	14.7	-90.65		270.1	-494.5	1,279.9	1,252.8	27.10	47.223	
5,700.0	5,616.6	5,656.7	5,612.6	19.9	14.9	-90.65		270.1	-494.5	1,279.9	1,252.5	27.42	46.682	
5,708.6	5,625.3	5,665.4	5,621.3	20.0	14.9	-90.65		270.1	-494.5	1,279.9	1,252.4	27.45	46.627	
5,800.0	5,716.6	5,756.7	5,712.6	20.1	15.1	-90.65		270.1	-494.5	1,279.9	1,252.1	27.80	46.044	
5,807.1	5,723.7	5,763.8	5,719.7	20.1	15.1	-90.65		270.1	-494.5	1,279.9	1,252.1	27.82	46.000	
5,900.0	5,816.6	5,856.7	5,812.6	20.2	15.3	-90.65		270.1	-494.5	1,279.9	1,251.7	28.18	45.420	
5,905.5	5,822.1	5,862.2	5,818.1	20.2	15.3	-90.65		270.1	-494.5	1,279.9	1,251.7	28.20	45.386	
6,000.0	5,916.6	5,956.7	5,912.6	20.4	15.4	-90.65		270.1	-494.5	1,279.9	1,251.3	28.56	44.809	
6,003.9	5,920.5	5,960.7	5,916.5	20.4	15.5	-90.65		270.1	-494.5	1,279.9	1,251.3	28.58	44.786	
6,100.0	6,016.6	6,056.7	6,012.6	20.5	15.6	-90.65		270.1	-494.5	1,279.9	1,250.9	28.95	44.212	
6,102.3	6,019.0	6,059.1	6,015.0	20.5	15.6	-90.65		270.1	-494.5	1,279.9	1,250.9	28.96	44.198	
6,200.0	6,116.6	6,156.7	6,112.6	20.6	15.8	-90.65		270.1	-494.5	1,279.9	1,250.5	29.34	43.628	
6,200.8	6,117.4	6,157.5	6,113.4	20.6	15.8	-90.65		270.1	-494.5	1,279.9	1,250.5	29.34	43.624	
6,299.2	6,215.8	6,255.9	6,211.8	20.8	16.0	-90.65		270.1	-494.5	1,279.9	1,250.2	29.72	43.061	
6,300.0	6,216.6	6,256.7	6,212.6	20.8	16.0	-90.65		270.1	-494.5	1,279.9	1,250.2	29.73	43.057	
6,340.0	6,256.6	6,296.7	6,252.6	20.8	16.1	-90.65		270.1	-494.5	1,279.9	1,250.0	29.88	42.832	
6,350.0	6,266.6	6,306.5	6,262.4	20.8	16.1	89.14		270.1	-494.5	1,279.9	1,250.0	29.92	42.772	
6,397.6	6,314.2	6,352.9	6,308.8	20.9	16.2	89.15		268.1	-494.5	1,279.9	1,249.8	30.06	42.572	
6,400.0	6,316.5	6,355.2	6,311.1	20.9	16.2	89.15		267.9	-494.5	1,279.9	1,249.8	30.07	42.564	
6,450.0	6,366.2	6,404.0	6,359.5	20.9	16.2	89.17		262.5	-494.5	1,279.9	1,249.7	30.17	42.422	
6,496.0	6,411.4	6,448.9	6,403.7	21.0	16.3	89.19		254.6	-494.6	1,279.9	1,249.6	30.23	42.334	
6,500.0	6,415.3	6,452.7	6,407.4	21.0	16.3	89.19		253.8	-494.6	1,279.9	1,249.6	30.24	42.328	
6,550.0	6,463.6	6,501.5	6,454.7	21.0	16.3	89.21		241.8	-494.6	1,279.9	1,249.6	30.27	42.276	
6,594.5	6,505.8	6,544.9	6,496.0	21.0	16.3	89.23		228.4	-494.6	1,279.8	1,249.6	30.29	42.260	
6,600.0	6,510.9	6,550.0	6,500.8	21.0	16.3	89.24		226.7	-494.7	1,279.8	1,249.6	30.29	42.258	
6,604.5	6,515.2	6,554.7	6,505.2	21.0	16.3	89.24		225.1	-494.7	1,279.8	1,249.6	30.29	42.259	
6,650.0	6,557.0	6,599.2	6,546.4	21.0	16.3	89.27		208.3	-494.7	1,279.8	1,249.6	30.28	42.264	
6,692.9	6,595.4	6,641.1	6,584.2	21.0	16.3	89.30		190.1	-494.8	1,279.8	1,249.6	30.27	42.280	
6,700.0	6,601.6	6,648.1	6,590.3	21.0	16.3	89.30		186.9	-494.8	1,279.8	1,249.6	30.27	42.283	
6,750.0	6,644.6	6,697.0	6,632.8	20.9	16.3	89.34		162.5	-494.9	1,279.8	1,249.6	30.26	42.299	
6,791.3	6,678.6	6,737.5	6,666.6	20.9	16.3	89.37		140.2	-495.0	1,279.8	1,249.6	30.26	42.300	
6,800.0	6,685.6	6,746.0	6,673.5	20.9	16.3	89.38		135.3	-495.0	1,279.8	1,249.6	30.26	42.300	
6,850.0	6,724.6	6,795.1	6,712.3	20.9	16.3	89.42		105.3	-495.1	1,279.8	1,249.5	30.28	42.270	
6,889.7	6,753.9	6,834.2	6,741.7	20.9	16.3	89.46		79.6	-495.2	1,279.8	1,249.5	30.32	42.208	
6,900.0	6,761.3	6,844.2	6,749.1	20.9	16.3	89.47		72.7	-495.2	1,279.8	1,249.5	30.33	42.192	
6,950.0	6,795.5	6,893.4	6,783.5	20.9	16.2	89.52		37.6	-495.3	1,279.8	1,249.3	30.43	42.050	
6,988.2	6,819.9	6,931.1	6,808.2	20.9	16.2	89.56		9.2	-495.5	1,279.8	1,249.2	30.56	41.884	
7,000.0	6,827.1	6,942.7	6,815.5	20.9	16.2	89.57		0.1	-495.5	1,279.8	1,249.2	30.59	41.831	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,855.9	6,992.1	6,844.9	20.9	16.3	89.62	89.62	-39.5	-495.6	1,279.8	1,248.9	30.82	41.524	
7,086.6	6,875.1	7,028.3	6,864.7	20.9	16.3	89.66	89.66	-69.8	-495.7	1,279.8	1,248.7	31.04	41.230	
7,100.0	6,881.8	7,041.5	6,871.6	20.9	16.3	89.68	89.68	-81.2	-495.8	1,279.8	1,248.6	31.12	41.120	
7,150.0	6,904.6	7,091.1	6,895.3	21.0	16.3	89.73	89.73	-124.6	-495.9	1,279.7	1,248.2	31.51	40.616	
7,185.0	6,918.8	7,125.8	6,910.1	21.1	16.4	89.77	89.77	-156.1	-496.1	1,279.7	1,247.9	31.84	40.194	
7,200.0	6,924.3	7,140.7	6,916.0	21.1	16.5	89.79	89.79	-169.7	-496.1	1,279.7	1,247.8	31.98	40.013	
7,250.0	6,940.8	7,190.4	6,933.6	21.2	16.6	89.85	89.85	-216.2	-496.3	1,279.7	1,247.2	32.55	39.316	
7,283.4	6,949.9	7,223.7	6,943.5	21.3	16.8	89.89	89.89	-248.0	-496.4	1,279.7	1,246.8	32.99	38.795	
7,300.0	6,953.9	7,240.2	6,947.9	21.4	16.9	89.91	89.91	-263.9	-496.5	1,279.7	1,246.5	33.21	38.537	
7,350.0	6,963.6	7,290.1	6,958.9	21.6	17.3	89.97	89.97	-312.5	-496.6	1,279.7	1,245.8	33.96	37.689	
7,366.3	6,966.0	7,306.3	6,961.8	21.6	17.4	89.99	89.99	-328.5	-496.7	1,279.7	1,245.5	34.22	37.397	
7,381.9	6,968.0	7,321.9	6,964.2	21.7	17.5	90.01	90.01	-343.9	-496.7	1,279.7	1,245.3	34.48	37.112	
7,400.0	6,969.9	7,340.0	6,966.5	21.8	17.7	90.03	90.03	-361.9	-496.8	1,279.7	1,244.9	34.79	36.787	
7,450.0	6,972.6	7,390.1	6,970.7	22.1	18.1	90.09	90.09	-411.8	-497.0	1,279.7	1,244.0	35.70	35.848	
7,471.5	6,972.8	7,411.7	6,971.4	22.2	18.3	90.12	90.12	-433.3	-497.1	1,279.7	1,243.6	36.11	35.439	
7,480.3	6,972.7	7,420.5	6,971.5	22.3	18.4	90.13	90.13	-442.2	-497.1	1,279.7	1,243.5	36.29	35.269	
7,500.0	6,972.5	7,440.2	6,971.4	22.4	18.6	90.13	90.13	-461.9	-497.2	1,279.7	1,243.1	36.68	34.886	
7,578.7	6,971.8	7,519.0	6,971.1	23.1	19.5	90.15	90.15	-540.6	-497.5	1,279.7	1,241.4	38.34	33.380	
7,600.0	6,971.6	7,540.2	6,971.0	23.3	19.7	90.15	90.15	-561.9	-497.5	1,279.7	1,240.9	38.80	32.980	
7,677.1	6,970.9	7,617.4	6,970.7	24.0	20.6	90.17	90.17	-639.1	-497.8	1,279.7	1,239.2	40.57	31.544	
7,700.0	6,970.7	7,640.2	6,970.6	24.2	20.9	90.17	90.17	-661.9	-497.9	1,279.7	1,238.6	41.11	31.128	
7,775.6	6,970.0	7,715.8	6,970.2	25.0	21.9	90.19	90.19	-737.5	-498.2	1,279.7	1,236.7	43.01	29.753	
7,800.0	6,969.8	7,740.2	6,970.1	25.3	22.2	90.19	90.19	-761.9	-498.3	1,279.7	1,236.1	43.64	29.322	
7,874.0	6,969.1	7,814.2	6,969.8	26.2	23.3	90.21	90.21	-835.9	-498.6	1,279.7	1,234.1	45.64	28.038	
7,900.0	6,968.9	7,840.2	6,969.7	26.5	23.6	90.22	90.22	-861.9	-498.6	1,279.7	1,233.4	46.36	27.603	
7,972.4	6,968.2	7,912.7	6,969.4	27.4	24.7	90.23	90.23	-934.3	-498.9	1,279.8	1,231.3	48.43	26.422	
8,000.0	6,968.0	7,940.2	6,969.3	27.8	25.1	90.24	90.24	-961.9	-499.0	1,279.8	1,230.5	49.24	25.992	
8,070.8	6,967.3	8,011.1	6,968.9	28.7	26.1	90.25	90.25	-1,032.7	-499.3	1,279.8	1,228.4	51.36	24.919	
8,100.0	6,967.1	8,040.2	6,968.8	29.1	26.6	90.26	90.26	-1,061.9	-499.4	1,279.8	1,227.5	52.24	24.497	
8,169.3	6,966.4	8,109.5	6,968.5	30.1	27.7	90.27	90.27	-1,131.2	-499.6	1,279.8	1,225.4	54.39	23.529	
8,200.0	6,966.2	8,140.2	6,968.4	30.5	28.2	90.28	90.28	-1,161.9	-499.7	1,279.8	1,224.4	55.36	23.119	
8,267.7	6,965.5	8,207.9	6,968.1	31.5	29.2	90.29	90.29	-1,229.6	-500.0	1,279.8	1,222.2	57.52	22.249	
8,300.0	6,965.2	8,240.2	6,967.9	32.0	29.8	90.30	90.30	-1,261.9	-500.1	1,279.8	1,221.2	58.56	21.853	
8,366.1	6,964.6	8,306.4	6,967.6	33.0	30.8	90.31	90.31	-1,328.0	-500.4	1,279.8	1,219.0	60.73	21.074	
8,400.0	6,964.3	8,340.2	6,967.5	33.5	31.4	90.32	90.32	-1,361.9	-500.5	1,279.8	1,217.9	61.84	20.693	
8,464.5	6,963.8	8,404.8	6,967.2	34.5	32.5	90.33	90.33	-1,426.4	-500.7	1,279.8	1,215.8	64.00	19.996	
8,500.0	6,963.4	8,440.2	6,967.1	35.1	33.1	90.34	90.34	-1,461.9	-500.9	1,279.8	1,214.6	65.19	19.630	
8,563.0	6,962.9	8,503.2	6,966.8	36.1	34.1	90.35	90.35	-1,524.9	-501.1	1,279.8	1,212.4	67.33	19.007	
8,600.0	6,962.5	8,540.2	6,966.6	36.7	34.8	90.36	90.36	-1,561.9	-501.2	1,279.8	1,211.2	68.60	18.656	
8,661.4	6,962.0	8,601.6	6,966.4	37.7	35.8	90.38	90.38	-1,623.3	-501.4	1,279.8	1,209.1	70.71	18.098	
8,700.0	6,961.6	8,640.2	6,966.2	38.3	36.5	90.38	90.38	-1,661.9	-501.6	1,279.8	1,207.7	72.05	17.762	
8,759.8	6,961.1	8,700.1	6,965.9	39.3	37.5	90.40	90.40	-1,721.7	-501.8	1,279.8	1,205.7	74.14	17.262	
8,800.0	6,960.7	8,740.2	6,965.7	40.0	38.2	90.40	90.40	-1,761.9	-502.0	1,279.8	1,204.2	75.55	16.940	
8,858.2	6,960.2	8,798.5	6,965.5	40.9	39.2	90.42	90.42	-1,820.1	-502.2	1,279.8	1,202.2	77.60	16.492	
8,900.0	6,959.8	8,840.2	6,965.3	41.6	40.0	90.43	90.43	-1,861.9	-502.3	1,279.8	1,200.7	79.08	16.184	
8,956.7	6,959.3	8,896.9	6,965.1	42.6	41.0	90.44	90.44	-1,918.5	-502.5	1,279.8	1,198.7	81.09	15.782	
9,000.0	6,958.9	8,940.2	6,964.9	43.3	41.7	90.45	90.45	-1,961.9	-502.7	1,279.8	1,197.2	82.64	15.487	
9,055.1	6,958.4	8,995.3	6,964.6	44.3	42.7	90.46	90.46	-2,017.0	-502.9	1,279.8	1,195.2	84.62	15.125	
9,100.0	6,958.0	9,040.2	6,964.4	45.1	43.5	90.47	90.47	-2,061.9	-503.1	1,279.8	1,193.6	86.23	14.842	
9,153.5	6,957.5	9,093.7	6,964.2	46.0	44.5	90.48	90.48	-2,115.4	-503.3	1,279.8	1,191.7	88.16	14.517	
9,200.0	6,957.1	9,140.2	6,964.0	46.8	45.3	90.49	90.49	-2,161.9	-503.4	1,279.8	1,190.0	89.84	14.245	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,251.9	6,956.6	9,192.2	6,963.8	47.7	46.2	90.50	90.50	-2,213.8	-503.6	1,279.8	1,188.1	91.73	13.952	
9,300.0	6,956.2	9,240.2	6,963.5	48.6	47.1	90.51	90.51	-2,261.9	-503.8	1,279.8	1,186.4	93.48	13.691	
9,350.4	6,955.7	9,290.6	6,963.3	49.5	48.0	90.52	90.52	-2,312.2	-504.0	1,279.8	1,184.5	95.32	13.427	
9,400.0	6,955.2	9,340.2	6,963.1	50.3	48.9	90.53	90.53	-2,361.9	-504.2	1,279.8	1,182.7	97.13	13.176	
9,448.8	6,954.8	9,389.0	6,962.9	51.2	49.8	90.54	90.54	-2,410.7	-504.3	1,279.8	1,180.9	98.92	12.938	
9,500.0	6,954.3	9,440.2	6,962.7	52.1	50.7	90.55	90.55	-2,461.9	-504.5	1,279.8	1,179.0	100.80	12.696	
9,547.2	6,953.9	9,487.4	6,962.5	53.0	51.6	90.56	90.56	-2,509.1	-504.7	1,279.9	1,177.3	102.54	12.481	
9,600.0	6,953.4	9,540.2	6,962.2	53.9	52.6	90.57	90.57	-2,561.9	-504.9	1,279.9	1,175.4	104.49	12.249	
9,645.6	6,953.0	9,585.9	6,962.0	54.7	53.4	90.58	90.58	-2,607.5	-505.1	1,279.9	1,173.7	106.18	12.054	
9,700.0	6,952.5	9,640.2	6,961.8	55.7	54.4	90.59	90.59	-2,661.9	-505.3	1,279.9	1,171.7	108.19	11.830	
9,744.1	6,952.1	9,684.3	6,961.6	56.5	55.2	90.60	90.60	-2,705.9	-505.4	1,279.9	1,170.0	109.83	11.654	
9,800.0	6,951.6	9,740.2	6,961.3	57.5	56.2	90.61	90.61	-2,761.8	-505.6	1,279.9	1,168.0	111.90	11.437	
9,842.5	6,951.2	9,782.7	6,961.2	58.3	57.0	90.62	90.62	-2,804.3	-505.8	1,279.9	1,166.4	113.48	11.278	
9,900.0	6,950.7	9,840.2	6,960.9	59.4	58.1	90.64	90.64	-2,861.8	-506.0	1,279.9	1,164.3	115.62	11.069	
9,940.9	6,950.3	9,881.1	6,960.7	60.1	58.8	90.64	90.64	-2,902.8	-506.1	1,279.9	1,162.7	117.15	10.925	
10,000.0	6,949.8	9,940.2	6,960.5	61.2	59.9	90.66	90.66	-2,961.8	-506.4	1,279.9	1,160.5	119.36	10.723	
10,039.3	6,949.4	9,979.6	6,960.3	61.9	60.7	90.66	90.66	-3,001.2	-506.5	1,279.9	1,159.1	120.83	10.593	
10,100.0	6,948.9	10,040.2	6,960.0	63.0	61.8	90.68	90.68	-3,061.8	-506.7	1,279.9	1,156.8	123.10	10.397	
10,137.8	6,948.5	10,078.0	6,959.8	63.7	62.5	90.69	90.69	-3,099.6	-506.9	1,279.9	1,155.4	124.52	10.279	
10,200.0	6,948.0	10,140.2	6,959.6	64.9	63.6	90.70	90.70	-3,161.8	-507.1	1,279.9	1,153.1	126.85	10.090	
10,236.2	6,947.6	10,176.4	6,959.4	65.6	64.3	90.71	90.71	-3,198.0	-507.2	1,279.9	1,151.7	128.21	9.983	
10,300.0	6,947.1	10,240.2	6,959.1	66.7	65.5	90.72	90.72	-3,261.8	-507.5	1,279.9	1,149.3	130.61	9.800	
10,334.6	6,946.7	10,274.8	6,959.0	67.4	66.1	90.73	90.73	-3,296.5	-507.6	1,279.9	1,148.0	131.91	9.703	
10,400.0	6,946.2	10,340.2	6,958.7	68.6	67.4	90.74	90.74	-3,361.8	-507.8	1,279.9	1,145.6	134.37	9.525	
10,433.0	6,945.8	10,373.3	6,958.5	69.2	68.0	90.75	90.75	-3,394.9	-507.9	1,279.9	1,144.3	135.62	9.438	
10,500.0	6,945.2	10,440.2	6,958.2	70.5	69.2	90.76	90.76	-3,461.8	-508.2	1,280.0	1,141.8	138.14	9.265	
10,531.5	6,945.0	10,471.7	6,958.1	71.1	69.8	90.77	90.77	-3,493.3	-508.3	1,280.0	1,140.6	139.33	9.186	
10,600.0	6,944.3	10,540.2	6,957.8	72.3	71.1	90.78	90.78	-3,561.8	-508.6	1,280.0	1,138.0	141.92	9.019	
10,629.9	6,944.1	10,570.1	6,957.7	72.9	71.6	90.79	90.79	-3,591.7	-508.7	1,280.0	1,136.9	143.05	8.948	
10,700.0	6,943.4	10,640.2	6,957.4	74.2	73.0	90.80	90.80	-3,661.8	-508.9	1,280.0	1,134.3	145.70	8.785	
10,728.3	6,943.2	10,668.5	6,957.2	74.7	73.5	90.81	90.81	-3,690.1	-509.0	1,280.0	1,133.2	146.78	8.721	
10,800.0	6,942.5	10,740.2	6,956.9	76.1	74.8	90.82	90.82	-3,761.8	-509.3	1,280.0	1,130.5	149.49	8.562	
10,826.7	6,942.3	10,767.0	6,956.8	76.6	75.3	90.83	90.83	-3,788.6	-509.4	1,280.0	1,129.5	150.51	8.505	
10,900.0	6,941.6	10,840.2	6,956.5	78.0	76.7	90.84	90.84	-3,861.8	-509.7	1,280.0	1,126.7	153.28	8.351	
10,925.2	6,941.4	10,865.4	6,956.4	78.4	77.2	90.85	90.85	-3,887.0	-509.8	1,280.0	1,125.8	154.24	8.299	
11,000.0	6,940.7	10,940.2	6,956.0	79.9	78.6	90.87	90.87	-3,961.8	-510.0	1,280.0	1,122.9	157.08	8.149	
11,023.6	6,940.5	10,963.8	6,955.9	80.3	79.0	90.87	90.87	-3,985.4	-510.1	1,280.0	1,122.1	157.98	8.103	
11,100.0	6,939.8	11,040.2	6,955.6	81.7	80.5	90.89	90.89	-4,061.8	-510.4	1,280.0	1,119.2	160.88	7.957	
11,122.0	6,939.6	11,062.2	6,955.5	82.2	80.9	90.89	90.89	-4,083.8	-510.5	1,280.0	1,118.3	161.72	7.915	
11,200.0	6,938.9	11,140.2	6,955.1	83.6	82.3	90.91	90.91	-4,161.8	-510.8	1,280.1	1,115.4	164.68	7.773	
11,220.4	6,938.7	11,160.6	6,955.0	84.0	82.7	90.91	90.91	-4,182.3	-510.8	1,280.1	1,114.6	165.46	7.736	
11,300.0	6,938.0	11,240.2	6,954.7	85.5	84.2	90.93	90.93	-4,261.8	-511.1	1,280.1	1,111.6	168.49	7.597	
11,318.9	6,937.8	11,259.1	6,954.6	85.9	84.6	90.93	90.93	-4,280.7	-511.2	1,280.1	1,110.9	169.21	7.565	
11,400.0	6,937.0	11,340.2	6,954.3	87.4	86.1	90.95	90.95	-4,361.8	-511.5	1,280.1	1,107.8	172.30	7.429	
11,417.3	6,936.9	11,357.5	6,954.2	87.8	86.4	90.95	90.95	-4,379.1	-511.6	1,280.1	1,107.1	172.96	7.401	
11,500.0	6,936.1	11,440.2	6,953.8	89.3	88.0	90.97	90.97	-4,461.8	-511.9	1,280.1	1,104.0	176.11	7.269	
11,515.7	6,936.0	11,455.9	6,953.7	89.6	88.3	90.97	90.97	-4,477.5	-511.9	1,280.1	1,103.4	176.71	7.244	
11,600.0	6,935.2	11,540.2	6,953.4	91.2	89.9	90.99	90.99	-4,561.8	-512.2	1,280.1	1,100.2	179.93	7.155	
11,614.1	6,935.1	11,554.3	6,953.3	91.5	90.2	90.99	90.99	-4,575.9	-512.3	1,280.1	1,099.7	180.47	7.093	
11,700.0	6,934.3	11,640.2	6,952.9	93.1	91.8	91.01	91.01	-4,661.8	-512.6	1,280.1	1,096.4	183.75	6.967	
11,712.6	6,934.2	11,652.8	6,952.9	93.4	92.0	91.01	91.01	-4,674.4	-512.7	1,280.1	1,095.9	184.23	6.949	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-243 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,800.0	6,933.4	11,740.2	6,952.5	95.1	93.7	91.03	91.03	-4,761.8	-513.0	1,280.2	1,092.6	187.57	6.825	
11,811.0	6,933.3	11,751.2	6,952.4	95.3	93.9	91.03	91.03	-4,772.8	-513.0	1,280.2	1,092.2	187.99	6.810	
11,900.0	6,932.5	11,840.2	6,952.0	97.0	95.6	91.05	91.05	-4,861.8	-513.3	1,280.2	1,088.8	191.39	6.689	
11,909.4	6,932.4	11,849.6	6,952.0	97.1	95.7	91.06	91.06	-4,871.2	-513.4	1,280.2	1,088.4	191.75	6.676	
12,000.0	6,931.6	11,940.2	6,951.6	98.9	97.5	91.07	91.07	-4,961.8	-513.7	1,280.2	1,085.0	195.22	6.558	
12,007.8	6,931.5	11,948.0	6,951.5	99.0	97.6	91.08	91.08	-4,969.6	-513.7	1,280.2	1,084.7	195.52	6.548	
12,100.0	6,930.7	12,040.2	6,951.1	100.8	99.3	91.10	91.10	-5,061.8	-514.1	1,280.2	1,081.2	199.05	6.432	
12,106.3	6,930.6	12,046.5	6,951.1	100.9	99.5	91.10	91.10	-5,068.1	-514.1	1,280.2	1,080.9	199.29	6.424	
12,200.0	6,929.8	12,140.2	6,950.7	102.7	101.2	91.12	91.12	-5,161.8	-514.4	1,280.2	1,077.4	202.88	6.310	
12,204.7	6,929.7	12,144.9	6,950.7	102.8	101.3	91.12	91.12	-5,166.5	-514.5	1,280.2	1,077.2	203.06	6.305	
12,300.0	6,928.8	12,240.2	6,950.2	104.6	103.1	91.14	91.14	-5,261.8	-514.8	1,280.3	1,073.5	206.71	6.194	
12,303.1	6,928.8	12,243.3	6,950.2	104.7	103.2	91.14	91.14	-5,264.9	-514.8	1,280.3	1,073.4	206.83	6.190	
12,400.0	6,927.9	12,340.2	6,949.8	106.5	105.0	91.16	91.16	-5,361.8	-515.2	1,280.3	1,069.7	210.54	6.081	
12,401.5	6,927.9	12,341.7	6,949.8	106.6	105.1	91.16	91.16	-5,363.3	-515.2	1,280.3	1,069.7	210.60	6.079	
12,500.0	6,927.0	12,440.2	6,949.3	108.5	106.9	91.18	91.18	-5,461.8	-515.5	1,280.3	1,065.9	214.38	5.972	
12,598.4	6,926.1	12,538.6	6,948.9	110.4	108.8	91.20	91.20	-5,560.2	-515.9	1,280.3	1,062.2	218.15	5.869	
12,600.0	6,926.1	12,540.2	6,948.9	110.4	108.8	91.20	91.20	-5,561.8	-515.9	1,280.3	1,062.1	218.21	5.867	
12,696.8	6,925.2	12,637.0	6,948.5	112.3	110.7	91.22	91.22	-5,658.6	-516.3	1,280.3	1,058.4	221.93	5.769	
12,700.0	6,925.2	12,640.2	6,948.4	112.3	110.7	91.22	91.22	-5,661.8	-516.3	1,280.3	1,058.3	222.05	5.766	
12,795.2	6,924.3	12,735.4	6,948.0	114.1	112.5	91.24	91.24	-5,757.0	-516.6	1,280.4	1,054.6	225.70	5.673	
12,800.0	6,924.3	12,740.2	6,948.0	114.2	112.6	91.24	91.24	-5,761.8	-516.6	1,280.4	1,054.5	225.89	5.668	
12,893.7	6,923.4	12,833.9	6,947.6	116.0	114.4	91.26	91.26	-5,855.4	-517.0	1,280.4	1,050.9	229.48	5.579	
12,900.0	6,923.4	12,840.2	6,947.6	116.2	114.5	91.26	91.26	-5,861.8	-517.0	1,280.4	1,050.6	229.73	5.573	
12,992.1	6,922.5	12,932.3	6,947.1	117.9	116.3	91.28	91.28	-5,953.9	-517.4	1,280.4	1,047.1	233.27	5.489	
13,000.0	6,922.5	12,940.2	6,947.1	118.1	116.4	91.28	91.28	-5,961.8	-517.4	1,280.4	1,046.8	233.57	5.482	
13,090.5	6,921.6	13,030.7	6,946.7	119.8	118.2	91.30	91.30	-6,052.3	-517.7	1,280.4	1,043.4	237.05	5.402	
13,100.0	6,921.5	13,040.2	6,946.7	120.0	118.3	91.30	91.30	-6,061.8	-517.7	1,280.4	1,043.0	237.41	5.393	
13,188.9	6,920.7	13,129.1	6,946.3	121.7	120.0	91.32	91.32	-6,150.7	-518.1	1,280.4	1,039.6	240.83	5.317	
13,200.0	6,920.6	13,140.2	6,946.2	121.9	120.2	91.32	91.32	-6,161.8	-518.1	1,280.4	1,039.2	241.25	5.307	
13,287.4	6,919.8	13,227.5	6,945.8	123.6	121.9	91.34	91.34	-6,249.1	-518.4	1,280.5	1,035.8	244.61	5.235	
13,300.0	6,919.7	13,240.2	6,945.8	123.9	122.1	91.34	91.34	-6,261.7	-518.5	1,280.5	1,035.4	245.10	5.224	
13,385.8	6,918.9	13,326.0	6,945.4	125.5	123.8	91.36	91.36	-6,347.5	-518.8	1,280.5	1,032.1	248.40	5.155	
13,400.0	6,918.8	13,340.2	6,945.3	125.8	124.0	91.36	91.36	-6,361.7	-518.9	1,280.5	1,031.5	248.94	5.144	
13,484.2	6,918.0	13,424.4	6,944.9	127.4	125.6	91.38	91.38	-6,446.0	-519.2	1,280.5	1,028.3	252.18	5.078	
13,500.0	6,917.9	13,440.2	6,944.9	127.7	125.9	91.39	91.39	-6,461.7	-519.2	1,280.5	1,027.7	252.79	5.066	
13,582.6	6,917.1	13,522.8	6,944.5	129.3	127.5	91.40	91.40	-6,544.4	-519.5	1,280.5	1,024.6	255.97	5.003	
13,600.0	6,917.0	13,540.2	6,944.4	129.7	127.8	91.41	91.41	-6,561.7	-519.6	1,280.5	1,023.9	256.64	4.990	
13,681.1	6,916.2	13,621.2	6,944.0	131.2	129.4	91.42	91.42	-6,642.8	-519.9	1,280.6	1,020.8	259.76	4.930	
13,700.0	6,916.1	13,640.2	6,944.0	131.6	129.8	91.43	91.43	-6,661.7	-520.0	1,280.6	1,020.1	260.49	4.916	
13,779.5	6,915.3	13,719.7	6,943.6	133.1	131.3	91.44	91.44	-6,741.2	-520.2	1,280.6	1,017.0	263.55	4.859	
13,800.0	6,915.2	13,740.2	6,943.5	133.5	131.7	91.45	91.45	-6,761.7	-520.3	1,280.6	1,016.3	264.34	4.845	
13,877.9	6,914.4	13,818.1	6,943.2	135.1	133.1	91.46	91.46	-6,839.7	-520.6	1,280.6	1,013.3	267.33	4.790	
13,900.0	6,914.2	13,840.2	6,943.1	135.5	133.6	91.47	91.47	-6,861.7	-520.7	1,280.6	1,012.4	268.18	4.775	
13,976.3	6,913.5	13,916.5	6,942.7	137.0	135.0	91.48	91.48	-6,938.1	-521.0	1,280.6	1,009.5	271.12	4.723	
14,000.0	6,913.3	13,940.2	6,942.6	137.4	135.5	91.49	91.49	-6,961.7	-521.1	1,280.6	1,008.6	272.04	4.708	
14,074.8	6,912.6	14,014.9	6,942.3	138.9	136.9	91.50	91.50	-7,036.5	-521.3	1,280.7	1,005.7	274.91	4.658	
14,100.0	6,912.4	14,040.2	6,942.2	139.4	137.4	91.51	91.51	-7,061.7	-521.4	1,280.7	1,004.8	275.89	4.642	
14,118.9	6,912.2	14,059.1	6,942.1	139.7	137.7	91.51	91.51	-7,080.7	-521.5	1,280.7	1,004.1	276.60	4.630	
14,145.0	6,912.0	14,075.1	6,942.0	140.2	138.0	91.52	91.52	-7,096.7	-521.6	1,280.7	1,003.3	277.39	4.617 SF	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.02	-90.02	0.0	-27.9	27.9				
98.4	98.4	97.4	97.4	0.1	0.1	-90.02	-90.02	0.0	-27.9	27.9	27.7	0.19	146.635	
100.0	100.0	99.0	99.0	0.1	0.1	-90.02	-90.02	0.0	-27.9	27.9	27.7	0.19	144.133	
196.8	196.8	195.8	195.8	0.3	0.3	-90.02	-90.02	0.0	-27.9	27.9	27.3	0.63	44.431	
200.0	200.0	199.0	199.0	0.3	0.3	-90.02	-90.02	0.0	-27.9	27.9	27.2	0.64	43.451	
295.3	295.3	294.3	294.3	0.5	0.5	-90.02	-90.02	0.0	-27.9	27.9	26.8	1.07	26.059	
300.0	300.0	299.0	299.0	0.5	0.5	-90.02	-90.02	0.0	-27.9	27.9	26.8	1.09	25.551	
393.7	393.7	392.7	392.7	0.8	0.8	-90.02	-90.02	0.0	-27.9	27.9	26.4	1.51	18.435	
400.0	400.0	399.0	399.0	0.8	0.8	-90.02	-90.02	0.0	-27.9	27.9	26.3	1.54	18.097	
492.1	492.1	491.1	491.1	1.0	1.0	-90.02	-90.02	0.0	-27.9	27.9	25.9	1.95	14.263	
500.0	500.0	499.0	499.0	1.0	1.0	-90.02	-90.02	0.0	-27.9	27.9	25.9	1.99	14.009	
590.5	590.5	589.5	589.5	1.2	1.2	-90.02	-90.02	0.0	-27.9	27.9	25.5	2.40	11.631	
600.0	600.0	599.0	599.0	1.2	1.2	-90.02	-90.02	0.0	-27.9	27.9	25.4	2.44	11.428	
689.0	689.0	688.0	688.0	1.4	1.4	-90.02	-90.02	0.0	-27.9	27.9	25.0	2.84	9.819	
700.0	700.0	699.0	699.0	1.4	1.4	-90.02	-90.02	0.0	-27.9	27.9	25.0	2.89	9.650	
787.4	787.4	786.4	786.4	1.6	1.6	-90.02	-90.02	0.0	-27.9	27.9	24.6	3.28	8.495	
800.0	800.0	799.0	799.0	1.7	1.7	-90.02	-90.02	0.0	-27.9	27.9	24.5	3.34	8.351	
885.8	885.8	884.8	884.8	1.9	1.9	-90.02	-90.02	0.0	-27.9	27.9	24.2	3.72	7.486	
900.0	900.0	899.0	899.0	1.9	1.9	-90.02	-90.02	0.0	-27.9	27.9	24.1	3.79	7.360	
984.2	984.2	983.2	983.2	2.1	2.1	-90.02	-90.02	0.0	-27.9	27.9	23.7	4.17	6.691	
1,000.0	1,000.0	999.0	999.0	2.1	2.1	-90.02	-90.02	0.0	-27.9	27.9	23.6	4.24	6.579 CC	
1,082.7	1,082.7	1,081.7	1,081.7	2.3	2.3	-160.89	-160.89	0.0	-27.9	29.0	24.4	4.60	6.304	
1,100.0	1,100.0	1,099.0	1,099.0	2.3	2.3	-161.24	-161.24	0.0	-27.9	29.5	24.9	4.68	6.313	
1,181.1	1,181.0	1,180.8	1,180.8	2.5	2.5	-162.62	-162.62	0.5	-26.9	32.3	27.3	5.02	6.432	
1,200.0	1,199.8	1,199.9	1,199.9	2.6	2.6	-162.83	-162.83	0.8	-26.3	33.0	27.9	5.10	6.462	
1,279.5	1,279.1	1,280.3	1,280.1	2.7	2.7	-163.37	-163.37	2.6	-22.9	35.8	30.3	5.43	6.590	
1,300.0	1,299.5	1,301.0	1,300.8	2.8	2.8	-163.42	-163.42	3.2	-21.6	36.5	31.0	5.51	6.624	
1,377.9	1,376.9	1,379.8	1,379.4	3.0	3.0	-163.35	-163.35	6.3	-15.8	39.4	33.5	5.84	6.747	
1,400.0	1,398.7	1,402.1	1,401.6	3.0	3.0	-163.26	-163.26	7.3	-13.8	40.2	34.3	5.93	6.783	
1,476.4	1,474.2	1,479.5	1,478.4	3.2	3.2	-162.75	-162.75	11.6	-5.6	43.1	36.9	6.25	6.896	
1,500.0	1,497.5	1,503.4	1,502.1	3.3	3.3	-162.54	-162.54	13.1	-2.7	44.0	37.7	6.35	6.932	
1,574.8	1,571.0	1,579.2	1,577.0	3.5	3.5	-161.72	-161.72	18.4	7.6	47.0	40.3	6.68	7.034	
1,600.1	1,595.7	1,604.8	1,602.2	3.6	3.5	-161.40	-161.40	20.4	11.5	48.0	41.2	6.79	7.069	
1,673.2	1,667.2	1,679.1	1,675.2	3.9	3.8	-160.01	-160.01	26.9	23.9	50.1	42.9	7.15	7.007	
1,700.0	1,693.4	1,706.2	1,701.7	4.0	3.8	-159.28	-159.28	29.4	28.8	50.4	43.2	7.28	6.927	
1,771.6	1,763.5	1,777.8	1,771.8	4.2	4.1	-157.30	-157.30	36.3	42.0	51.3	43.6	7.66	6.693	
1,800.0	1,791.3	1,806.2	1,799.5	4.3	4.2	-156.53	-156.53	39.0	47.3	51.6	43.8	7.81	6.607	
1,870.1	1,859.8	1,876.2	1,868.0	4.6	4.4	-154.68	-154.68	45.7	60.2	52.5	44.3	8.21	6.397	
1,900.0	1,889.1	1,906.1	1,897.2	4.7	4.5	-153.91	-153.91	48.6	65.7	52.9	44.5	8.38	6.314	
1,968.5	1,956.1	1,974.6	1,964.2	5.0	4.8	-152.19	-152.19	55.1	78.4	53.9	45.1	8.79	6.129	
2,000.0	1,986.9	2,006.1	1,995.0	5.1	4.9	-151.41	-151.41	58.2	84.2	54.3	45.3	8.99	6.047	
2,066.9	2,052.3	2,073.0	2,060.5	5.4	5.2	-149.82	-149.82	64.6	96.5	55.3	45.9	9.41	5.881	
2,100.0	2,084.7	2,106.1	2,092.8	5.5	5.3	-149.05	-149.05	67.7	102.6	55.8	46.2	9.62	5.802	
2,165.3	2,148.6	2,171.4	2,156.7	5.8	5.6	-147.58	-147.58	74.0	114.7	56.9	46.8	10.06	5.654	
2,200.0	2,182.5	2,206.0	2,190.6	5.9	5.7	-146.82	-146.82	77.3	121.1	57.4	47.1	10.29	5.579	
2,263.8	2,244.9	2,269.8	2,252.9	6.2	6.0	-145.45	-145.45	83.4	132.8	58.5	47.7	10.74	5.447	
2,300.0	2,280.3	2,306.0	2,288.4	6.3	6.1	-144.70	-144.70	86.9	139.5	59.1	48.1	11.00	5.375	
2,362.2	2,341.2	2,368.2	2,349.2	6.6	6.4	-143.45	-143.45	92.8	151.0	60.2	48.7	11.45	5.258	
2,400.0	2,378.1	2,405.9	2,386.1	6.8	6.5	-142.71	-142.71	96.5	158.0	60.9	49.1	11.72	5.190	
2,460.6	2,437.4	2,466.5	2,445.4	7.0	6.8	-141.56	-141.56	102.3	169.1	61.9	49.8	12.18	5.086	
2,500.0	2,476.0	2,505.9	2,483.9	7.2	7.0	-140.83	-140.83	106.0	176.4	62.7	50.2	12.48	5.022	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,564.9	2,541.7	7.4	7.2	-139.77		111.7	187.3	63.8	50.8	12.94	4.930	
2,600.0	2,573.8	2,605.9	2,581.7	7.6	7.4	-139.06		115.6	194.9	64.6	51.3	13.26	4.870	
2,657.5	2,630.0	2,663.3	2,637.9	7.9	7.6	-138.09		121.1	205.5	65.7	52.0	13.71	4.789	
2,700.0	2,671.6	2,705.8	2,679.5	8.1	7.8	-137.39		125.2	213.3	66.5	52.4	14.05	4.732	
2,755.9	2,726.3	2,761.7	2,734.1	8.3	8.0	-136.50		130.5	223.6	67.6	53.1	14.51	4.660	
2,800.0	2,769.4	2,805.8	2,777.3	8.5	8.2	-135.81		134.8	231.8	68.5	53.6	14.87	4.607	
2,854.3	2,822.5	2,860.1	2,830.4	8.7	8.5	-135.00		140.0	241.8	69.6	54.3	15.32	4.544	
2,900.0	2,867.2	2,905.8	2,875.0	8.9	8.7	-134.33		144.3	250.2	70.5	54.8	15.70	4.493	
2,952.7	2,918.8	2,958.5	2,926.6	9.2	8.9	-133.58		149.4	259.9	71.6	55.5	16.14	4.438	
3,000.0	2,965.0	3,005.7	2,972.8	9.4	9.1	-132.93		153.9	268.6	72.6	56.1	16.54	4.390	
3,051.2	3,015.1	3,056.9	3,022.8	9.6	9.3	-132.24		158.8	278.1	73.7	56.7	16.98	4.341	
3,100.0	3,062.8	3,105.7	3,070.6	9.8	9.5	-131.61		163.5	287.1	74.8	57.4	17.40	4.297	
3,149.6	3,111.4	3,155.3	3,119.1	10.0	9.8	-130.98		168.2	296.2	75.8	58.0	17.82	4.254	
3,200.0	3,160.7	3,205.6	3,168.4	10.3	10.0	-130.36		173.1	305.5	76.9	58.7	18.26	4.212	
3,248.0	3,207.6	3,253.7	3,215.3	10.5	10.2	-129.79		177.7	314.4	78.0	59.3	18.68	4.174	
3,300.0	3,258.5	3,305.6	3,266.1	10.7	10.4	-129.18		182.6	324.0	79.1	60.0	19.13	4.135	
3,346.4	3,303.9	3,352.0	3,311.6	10.9	10.6	-128.66		187.1	332.6	80.2	60.6	19.54	4.102	
3,400.0	3,356.3	3,405.6	3,363.9	11.2	10.9	-128.07		192.2	342.4	81.4	61.3	20.02	4.065	
3,444.9	3,400.2	3,450.4	3,407.8	11.4	11.1	-127.59		196.5	350.7	82.4	62.0	20.41	4.035	
3,500.0	3,454.1	3,505.5	3,461.7	11.6	11.3	-127.02		201.8	360.9	83.6	62.7	20.90	4.001	
3,543.3	3,496.5	3,548.8	3,504.0	11.8	11.5	-126.58		205.9	368.9	84.6	63.3	21.29	3.974	
3,600.0	3,551.9	3,605.5	3,559.5	12.0	11.7	-126.02		211.4	379.3	85.9	64.1	21.79	3.942	
3,641.7	3,592.7	3,647.2	3,600.3	12.2	11.9	-125.62		215.4	387.0	86.9	64.7	22.17	3.919	
3,700.0	3,649.7	3,705.5	3,657.3	12.5	12.2	-125.07		220.9	397.8	88.2	65.5	22.69	3.888	
3,740.1	3,689.0	3,745.6	3,696.5	12.7	12.4	-124.71		224.8	405.2	89.2	66.1	23.05	3.867	
3,800.0	3,747.5	3,805.4	3,755.0	12.9	12.6	-124.18		230.5	416.2	90.6	67.0	23.59	3.838	
3,838.6	3,785.3	3,844.0	3,792.8	13.1	12.8	-123.84		234.2	423.3	91.5	67.5	23.94	3.820	
3,900.0	3,845.4	3,905.4	3,852.8	13.4	13.1	-123.32		240.1	434.7	92.9	68.4	24.50	3.793	
3,937.0	3,881.5	3,942.4	3,889.0	13.6	13.2	-123.02		243.6	441.5	93.8	69.0	24.83	3.777	
4,000.0	3,943.2	4,005.4	3,950.6	13.8	13.5	-122.51		249.7	453.1	95.3	69.9	25.40	3.751	
4,035.4	3,977.8	4,040.8	3,985.2	14.0	13.7	-122.24		253.1	459.7	96.1	70.4	25.73	3.737	
4,100.0	4,041.0	4,104.8	4,047.9	14.3	13.9	-121.87		259.1	471.3	97.8	71.5	26.28	3.721	
4,133.8	4,074.1	4,138.2	4,080.7	14.4	14.0	-121.94		262.0	476.9	98.9	72.3	26.51	3.729	
4,200.0	4,138.8	4,203.3	4,144.8	14.7	14.2	-122.66		267.2	486.9	101.4	74.5	26.88	3.773	
4,232.3	4,170.4	4,235.0	4,176.2	14.9	14.3	-123.26		269.5	491.3	102.9	75.9	27.02	3.809	
4,300.0	4,236.6	4,301.5	4,242.0	15.2	14.5	-125.02		273.7	499.5	106.6	79.4	27.24	3.914	
4,330.7	4,266.6	4,331.5	4,271.8	15.3	14.6	-126.01		275.4	502.8	108.6	81.3	27.30	3.978	
4,400.0	4,334.4	4,400.0	4,339.9	15.6	14.8	-128.65		278.8	509.2	113.8	86.4	27.35	4.159	
4,429.1	4,362.9	4,427.4	4,367.2	15.8	14.8	-129.83		279.9	511.4	116.2	88.9	27.34	4.252	
4,500.0	4,432.2	4,496.0	4,435.6	16.1	15.0	-133.02		282.2	515.8	123.2	96.0	27.25	4.523	
4,527.5	4,459.2	4,522.6	4,462.1	16.2	15.0	-134.32		282.9	517.1	126.3	99.1	27.18	4.646	
4,600.0	4,530.1	4,592.0	4,531.4	16.5	15.1	-137.82		284.1	519.5	135.5	108.5	26.98	5.022	
4,626.0	4,555.5	4,616.7	4,556.2	16.7	15.2	-139.09		284.4	520.0	139.2	112.3	26.90	5.175	
4,700.0	4,627.9	4,687.4	4,626.9	17.0	15.3	-142.66		284.6	520.4	150.9	124.3	26.64	5.663	
4,724.4	4,651.7	4,711.3	4,650.7	17.1	15.3	-143.79		284.6	520.4	155.0	128.4	26.57	5.834	
4,800.0	4,725.7	4,785.2	4,724.7	17.4	15.4	-146.94		284.6	520.4	168.0	141.6	26.39	6.366	
4,822.8	4,748.0	4,807.5	4,747.0	17.6	15.4	-147.79		284.6	520.4	172.0	145.7	26.36	6.528	
4,900.0	4,823.5	4,883.0	4,822.5	17.9	15.5	-150.42		284.6	520.4	185.9	159.6	26.28	7.074	
4,921.2	4,844.3	4,903.8	4,843.3	18.0	15.6	-151.07		284.6	520.4	189.8	163.5	26.27	7.224	
5,000.0	4,921.3	4,980.8	4,920.3	18.4	15.7	-153.28		284.6	520.4	204.3	178.0	26.28	7.775	
5,014.9	4,935.9	4,995.5	4,934.9	18.4	15.7	-153.67		284.6	520.4	207.1	180.8	26.29	7.879	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,019.7	4,940.6	5,000.1	4,939.6	18.4	15.7	-153.80	284.6	520.4	208.0	181.7	26.29	7.912		
5,100.0	5,019.4	5,078.9	5,018.4	18.7	15.8	-155.67	284.6	520.4	222.0	195.7	26.37	8.421		
5,118.1	5,037.2	5,096.7	5,036.2	18.8	15.9	-156.03	284.6	520.4	224.9	198.6	26.39	8.525		
5,200.0	5,118.1	5,177.6	5,117.1	19.0	16.0	-157.39	284.6	520.4	236.9	210.4	26.52	8.933		
5,216.5	5,134.4	5,193.9	5,133.4	19.1	16.0	-157.63	284.6	520.4	239.1	212.5	26.55	9.005		
5,300.0	5,217.2	5,276.8	5,216.2	19.3	16.1	-158.61	284.6	520.4	248.7	222.0	26.72	9.307		
5,314.9	5,232.1	5,291.6	5,231.1	19.3	16.1	-158.75	284.6	520.4	250.2	223.4	26.75	9.352		
5,400.0	5,316.8	5,376.3	5,315.8	19.5	16.3	-159.42	284.6	520.4	257.3	230.4	26.95	9.547		
5,413.4	5,330.1	5,389.7	5,329.1	19.5	16.3	-159.50	284.6	520.4	258.2	231.2	26.98	9.570		
5,500.0	5,416.6	5,476.2	5,415.6	19.7	16.4	-159.89	284.6	520.4	262.7	235.5	27.20	9.659		
5,511.8	5,428.4	5,488.0	5,427.4	19.7	16.5	-159.93	284.6	520.4	263.1	235.9	27.23	9.665		
5,600.0	5,516.6	5,576.1	5,515.6	19.8	16.6	-160.08	284.6	520.4	264.8	237.4	27.45	9.648		
5,610.2	5,526.8	5,586.4	5,525.8	19.8	16.6	-160.08	284.6	520.4	264.9	237.4	27.48	9.640		
5,615.0	5,531.6	5,591.1	5,530.6	19.8	16.6	-90.00	284.6	520.4	264.9	237.4	27.46	9.646		
5,700.0	5,616.6	5,676.1	5,615.6	19.9	16.8	-90.00	284.6	520.4	264.9	237.1	27.77	9.540		
5,708.6	5,625.3	5,684.8	5,624.3	20.0	16.8	-90.00	284.6	520.4	264.9	237.1	27.80	9.529		
5,800.0	5,716.6	5,776.1	5,715.6	20.1	16.9	-90.00	284.6	520.4	264.9	236.7	28.14	9.414		
5,807.1	5,723.7	5,783.2	5,722.7	20.1	16.9	-90.00	284.6	520.4	264.9	236.7	28.16	9.405		
5,900.0	5,816.6	5,876.1	5,815.6	20.2	17.1	-90.00	284.6	520.4	264.9	236.4	28.51	9.290		
5,905.5	5,822.1	5,881.6	5,821.1	20.2	17.1	-90.00	284.6	520.4	264.9	236.4	28.53	9.284		
6,000.0	5,916.6	5,976.1	5,915.6	20.4	17.2	-90.00	284.6	520.4	264.9	236.0	28.89	9.170		
6,003.9	5,920.5	5,980.1	5,919.5	20.4	17.2	-90.00	284.6	520.4	264.9	236.0	28.90	9.165		
6,100.0	6,016.6	6,076.1	6,015.6	20.5	17.4	-90.00	284.6	520.4	264.9	235.6	29.26	9.051		
6,102.3	6,019.0	6,078.5	6,018.0	20.5	17.4	-90.00	284.6	520.4	264.9	235.6	29.27	9.048		
6,200.0	6,116.6	6,176.1	6,115.6	20.6	17.6	-90.00	284.6	520.4	264.9	235.2	29.64	8.935		
6,200.8	6,117.4	6,176.9	6,116.4	20.6	17.6	-90.00	284.6	520.4	264.9	235.2	29.65	8.934		
6,299.2	6,215.8	6,275.3	6,214.8	20.8	17.7	-90.00	284.6	520.4	264.9	234.9	30.02	8.823		
6,300.0	6,216.6	6,276.1	6,215.6	20.8	17.7	-90.00	284.6	520.4	264.9	234.9	30.03	8.822		
6,340.0	6,256.6	6,316.1	6,255.6	20.8	17.8	-90.00	284.6	520.4	264.9	234.7	30.18	8.777		
6,350.0	6,266.6	6,326.1	6,265.6	20.8	17.8	89.80	284.6	520.4	264.9	234.6	30.25	8.758		
6,377.5	6,294.0	6,353.6	6,293.0	20.9	17.9	90.00	284.6	520.4	264.9	234.5	30.36	8.724		
6,397.6	6,314.2	6,373.7	6,313.2	20.9	17.9	90.26	284.5	520.4	264.9	234.4	30.46	8.696		
6,400.0	6,316.5	6,376.1	6,315.6	20.9	17.9	90.30	284.4	520.4	264.9	234.4	30.47	8.693		
6,450.0	6,366.2	6,426.2	6,365.6	20.9	18.0	90.97	281.6	520.4	264.9	234.2	30.68	8.634		
6,496.0	6,411.4	6,472.5	6,411.6	21.0	18.0	91.59	275.9	520.4	265.0	234.1	30.84	8.593		
6,500.0	6,415.3	6,476.5	6,415.5	21.0	18.0	91.64	275.3	520.4	265.0	234.1	30.85	8.589		
6,550.0	6,463.6	6,527.1	6,465.1	21.0	18.0	92.31	265.4	520.3	265.1	234.1	30.98	8.557		
6,594.5	6,505.8	6,572.2	6,508.7	21.0	18.0	92.89	253.6	520.3	265.2	234.2	31.06	8.539		
6,600.0	6,510.9	6,577.9	6,514.0	21.0	18.0	92.96	252.0	520.3	265.2	234.2	31.07	8.537		
6,650.0	6,557.0	6,628.9	6,562.1	21.0	18.0	93.60	235.1	520.2	265.4	234.3	31.12	8.528		
6,692.9	6,595.4	6,672.8	6,602.5	21.0	18.0	94.14	217.8	520.2	265.6	234.4	31.14	8.528		
6,700.0	6,601.6	6,680.1	6,609.1	21.0	18.0	94.22	214.7	520.2	265.6	234.5	31.14	8.529		
6,750.0	6,644.6	6,731.5	6,654.7	20.9	18.0	94.83	190.8	520.1	265.8	234.7	31.14	8.536		
6,791.3	6,678.6	6,774.2	6,691.1	20.9	18.0	95.30	168.6	520.0	266.0	234.9	31.13	8.545		
6,800.0	6,685.6	6,783.1	6,698.6	20.9	18.0	95.40	163.7	520.0	266.1	234.9	31.13	8.547		
6,850.0	6,724.6	6,835.0	6,740.6	20.9	18.0	95.95	133.3	519.9	266.3	235.2	31.12	8.559		
6,889.7	6,753.9	6,876.3	6,772.5	20.9	18.0	96.37	107.0	519.8	266.5	235.4	31.12	8.566		
6,900.0	6,761.3	6,887.0	6,780.4	20.9	18.0	96.48	99.9	519.7	266.6	235.5	31.12	8.567		
6,950.0	6,795.5	6,939.2	6,817.9	20.9	18.0	96.97	63.5	519.6	266.9	235.7	31.15	8.567		
6,988.2	6,819.9	6,979.2	6,844.7	20.9	17.9	97.32	33.9	519.5	267.1	235.9	31.21	8.558		
7,000.0	6,827.1	6,991.6	6,852.7	20.9	17.9	97.42	24.4	519.5	267.1	235.9	31.23	8.554		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.0	6,855.9	7,044.2	6,884.7	20.9	18.0	97.84		-17.4	519.3	267.4	236.0	31.37	8.523	
7,086.6	6,875.1	7,082.8	6,906.1	20.9	18.0	98.12		-49.4	519.2	267.6	236.0	31.54	8.482	
7,100.0	6,881.8	7,096.9	6,913.5	20.9	18.0	98.21		-61.5	519.1	267.6	236.0	31.60	8.469	
7,150.0	6,904.6	7,149.8	6,939.2	21.0	18.0	98.55		-107.7	519.0	267.9	235.9	31.92	8.392	
7,185.0	6,918.8	7,186.9	6,955.1	21.1	18.1	98.76		-141.2	518.9	268.0	235.8	32.22	8.318	
7,200.0	6,924.3	7,202.8	6,961.3	21.1	18.1	98.84		-155.8	518.8	268.1	235.7	32.35	8.286	
7,250.0	6,940.8	7,255.9	6,980.0	21.2	18.3	99.08		-205.5	518.6	268.2	235.3	32.90	8.154	
7,283.4	6,949.9	7,291.4	6,990.3	21.3	18.4	99.22		-239.5	518.5	268.4	235.0	33.34	8.050	
7,300.0	6,953.9	7,309.0	6,994.9	21.4	18.5	99.28		-256.5	518.4	268.4	234.8	33.57	7.996	
7,350.0	6,963.6	7,362.3	7,005.9	21.6	18.8	99.43		-308.6	518.2	268.5	234.2	34.35	7.817	
7,381.9	6,968.0	7,396.2	7,011.0	21.7	19.0	99.51		-342.2	518.1	268.6	233.7	34.92	7.692	
7,400.0	6,969.9	7,415.6	7,013.1	21.8	19.1	99.54		-361.4	518.0	268.6	233.3	35.25	7.619	
7,450.0	6,972.6	7,468.9	7,016.4	22.1	19.5	99.59		-414.6	517.9	268.6	232.4	36.26	7.409	
7,471.5	6,972.8	7,491.6	7,016.6	22.2	19.7	99.60		-437.3	517.8	268.6	231.9	36.71	7.317	
7,480.3	6,972.7	7,500.4	7,016.6	22.3	19.8	99.61		-446.1	517.7	268.7	231.8	36.89	7.283	
7,500.0	6,972.5	7,520.1	7,016.5	22.4	19.9	99.64		-465.8	517.7	268.7	231.4	37.29	7.206	
7,578.7	6,971.8	7,598.8	7,016.2	23.1	20.7	99.74		-544.5	517.4	268.8	229.8	38.91	6.908	
7,600.0	6,971.6	7,620.1	7,016.2	23.3	20.9	99.76		-565.8	517.3	268.8	229.4	39.37	6.827	
7,677.1	6,970.9	7,697.2	7,015.9	24.0	21.8	99.86		-642.9	517.0	268.9	227.7	41.11	6.539	
7,700.0	6,970.7	7,720.1	7,015.9	24.2	22.1	99.89		-665.8	516.9	268.9	227.2	41.65	6.455	
7,775.6	6,970.0	7,795.7	7,015.6	25.0	23.0	99.98		-741.3	516.7	269.0	225.4	43.53	6.178	
7,800.0	6,969.8	7,820.1	7,015.5	25.3	23.3	100.01		-765.8	516.6	269.0	224.8	44.16	6.091	
7,874.0	6,969.1	7,894.1	7,015.3	26.2	24.3	100.10		-839.8	516.3	269.1	222.9	46.14	5.831	
7,900.0	6,968.9	7,920.1	7,015.2	26.5	24.7	100.14		-865.8	516.2	269.1	222.2	46.85	5.743	
7,972.4	6,968.2	7,992.5	7,015.0	27.4	25.7	100.23		-938.2	515.9	269.2	220.3	48.91	5.504	
8,000.0	6,968.0	8,020.1	7,014.9	27.8	26.1	100.26		-965.8	515.8	269.2	219.5	49.70	5.416	
8,070.8	6,967.3	8,090.9	7,014.7	28.7	27.1	100.35		-1,036.6	515.6	269.3	217.5	51.80	5.198	
8,100.0	6,967.1	8,120.1	7,014.6	29.1	27.6	100.38		-1,065.8	515.5	269.3	216.6	52.68	5.112	
8,169.3	6,966.4	8,189.4	7,014.4	30.1	28.6	100.47		-1,135.0	515.2	269.4	214.6	54.81	4.914	
8,200.0	6,966.2	8,220.1	7,014.3	30.5	29.1	100.51		-1,165.8	515.1	269.4	213.6	55.77	4.831	
8,267.7	6,965.5	8,287.8	7,014.1	31.5	30.2	100.59		-1,233.5	514.9	269.5	211.6	57.92	4.653	
8,300.0	6,965.2	8,320.1	7,014.0	32.0	30.7	100.63		-1,265.8	514.7	269.5	210.6	58.95	4.572	
8,366.1	6,964.6	8,386.2	7,013.8	33.0	31.8	100.71		-1,331.9	514.5	269.6	208.5	61.10	4.412	
8,400.0	6,964.3	8,420.1	7,013.7	33.5	32.4	100.76		-1,365.7	514.4	269.6	207.4	62.20	4.334	
8,464.5	6,963.8	8,484.6	7,013.4	34.5	33.4	100.84		-1,430.3	514.1	269.7	205.3	64.34	4.191	
8,500.0	6,963.4	8,520.1	7,013.3	35.1	34.0	100.88		-1,465.7	514.0	269.7	204.2	65.53	4.116	
8,563.0	6,962.9	8,583.1	7,013.1	36.1	35.1	100.96		-1,528.7	513.8	269.8	202.2	67.65	3.988	
8,600.0	6,962.5	8,620.1	7,013.0	36.7	35.7	101.00		-1,565.7	513.6	269.8	200.9	68.90	3.916	
8,661.4	6,962.0	8,681.5	7,012.8	37.7	36.8	101.08		-1,627.1	513.4	269.9	198.9	71.00	3.802	
8,700.0	6,961.6	8,720.1	7,012.7	38.3	37.5	101.13		-1,665.7	513.3	270.0	197.6	72.32	3.733	
8,759.8	6,961.1	8,779.9	7,012.5	39.3	38.5	101.20		-1,725.6	513.1	270.0	195.6	74.39	3.630	
8,800.0	6,960.7	8,820.1	7,012.4	40.0	39.2	101.25		-1,765.7	512.9	270.1	194.3	75.78	3.564	
8,858.2	6,960.2	8,878.3	7,012.2	40.9	40.3	101.32		-1,824.0	512.7	270.1	192.3	77.82	3.471	
8,900.0	6,959.8	8,920.1	7,012.1	41.6	41.0	101.37		-1,865.7	512.5	270.2	190.9	79.28	3.408	
8,956.7	6,959.3	8,976.8	7,011.9	42.6	42.0	101.44		-1,922.4	512.3	270.3	189.0	81.28	3.325	
9,000.0	6,958.9	9,020.1	7,011.7	43.3	42.8	101.49		-1,965.7	512.2	270.3	187.5	82.81	3.264	
9,055.1	6,958.4	9,075.2	7,011.6	44.3	43.8	101.56		-2,020.8	512.0	270.4	185.6	84.76	3.190	
9,100.0	6,958.0	9,120.1	7,011.4	45.1	44.6	101.62		-2,065.7	511.8	270.4	184.1	86.36	3.132	
9,153.5	6,957.5	9,173.6	7,011.3	46.0	45.6	101.68		-2,119.3	511.6	270.5	182.2	88.27	3.064	
9,200.0	6,957.1	9,220.1	7,011.1	46.8	46.4	101.74		-2,165.7	511.5	270.5	180.6	89.93	3.008	
9,251.9	6,956.6	9,272.0	7,010.9	47.7	47.4	101.80		-2,217.7	511.3	270.6	178.8	91.79	2.948	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error: 0.0 usft	
Survey Program: 0-MWDD												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
				(usft)	(usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
9,300.0	6,956.2	9,320.1	7,010.8	48.6	48.3	101.86	-2,265.7	511.1	270.7	177.1	93.52	2.894	
9,350.4	6,955.7	9,370.4	7,010.6	49.5	49.2	101.92	-2,316.1	510.9	270.7	175.4	95.34	2.840	
9,400.0	6,955.2	9,420.1	7,010.5	50.3	50.1	101.98	-2,365.7	510.7	270.8	173.7	97.13	2.788	
9,448.8	6,954.8	9,468.9	7,010.3	51.2	51.0	102.04	-2,414.5	510.6	270.9	172.0	98.90	2.739	
9,500.0	6,954.3	9,520.1	7,010.2	52.1	52.0	102.11	-2,465.7	510.4	270.9	170.2	100.75	2.689	
9,547.2	6,953.9	9,567.3	7,010.0	53.0	52.9	102.16	-2,512.9	510.2	271.0	168.5	102.47	2.645	
9,600.0	6,953.4	9,620.1	7,009.8	53.9	53.8	102.23	-2,565.7	510.0	271.0	166.7	104.38	2.597	
9,645.6	6,953.0	9,665.7	7,009.7	54.7	54.7	102.28	-2,611.4	509.8	271.1	165.1	106.05	2.556	
9,700.0	6,952.5	9,720.1	7,009.5	55.7	55.7	102.35	-2,665.7	509.6	271.2	163.1	108.03	2.510	
9,744.1	6,952.1	9,764.1	7,009.4	56.5	56.5	102.40	-2,709.8	509.5	271.2	161.6	109.64	2.474	
9,800.0	6,951.6	9,820.1	7,009.2	57.5	57.6	102.47	-2,765.7	509.3	271.3	159.6	111.68	2.429	
9,842.5	6,951.2	9,862.6	7,009.1	58.3	58.4	102.52	-2,808.2	509.1	271.3	158.1	113.24	2.396	
9,900.0	6,950.7	9,920.1	7,008.9	59.4	59.5	102.59	-2,865.7	508.9	271.4	156.1	115.35	2.353	
9,940.9	6,950.3	9,961.0	7,008.7	60.1	60.2	102.64	-2,906.6	508.8	271.5	154.6	116.85	2.323	
10,000.0	6,949.8	10,020.1	7,008.5	61.2	61.4	102.71	-2,965.7	508.6	271.6	152.5	119.02	2.282	
10,039.3	6,949.4	10,059.4	7,008.4	61.9	62.1	102.76	-3,005.1	508.4	271.6	151.1	120.46	2.255	
10,100.0	6,948.9	10,120.1	7,008.2	63.0	63.3	102.83	-3,065.7	508.2	271.7	149.0	122.69	2.214	
10,137.8	6,948.5	10,157.8	7,008.1	63.7	64.0	102.88	-3,103.5	508.1	271.7	147.7	124.08	2.190	
10,200.0	6,948.0	10,220.1	7,007.9	64.9	65.2	102.95	-3,165.7	507.8	271.8	145.4	126.37	2.151	
10,236.2	6,947.6	10,256.3	7,007.8	65.6	65.8	103.00	-3,201.9	507.7	271.9	144.2	127.70	2.129	
10,300.0	6,947.1	10,320.1	7,007.6	66.7	67.1	103.08	-3,265.7	507.5	272.0	141.9	130.06	2.091	
10,334.6	6,946.7	10,354.7	7,007.5	67.4	67.7	103.12	-3,300.3	507.3	272.0	140.7	131.33	2.071	
10,400.0	6,946.2	10,420.1	7,007.3	68.6	69.0	103.20	-3,365.7	507.1	272.1	138.3	133.74	2.034	
10,433.0	6,945.8	10,453.1	7,007.2	69.2	69.6	103.24	-3,398.8	507.0	272.1	137.2	134.96	2.016	
10,500.0	6,945.2	10,520.1	7,006.9	70.5	70.9	103.32	-3,465.7	506.7	272.2	134.8	137.43	1.981	
10,531.5	6,945.0	10,551.5	7,006.8	71.1	71.5	103.35	-3,497.2	506.6	272.3	133.7	138.60	1.964	
10,600.0	6,944.3	10,620.1	7,006.6	72.3	72.8	103.44	-3,565.7	506.4	272.4	131.2	141.13	1.930	
10,629.9	6,944.1	10,650.0	7,006.5	72.9	73.4	103.47	-3,595.6	506.3	272.4	130.2	142.23	1.915	
10,700.0	6,943.4	10,720.1	7,006.3	74.2	74.7	103.56	-3,665.7	506.0	272.5	127.7	144.82	1.882	
10,728.3	6,943.2	10,748.4	7,006.2	74.7	75.3	103.59	-3,694.0	505.9	272.5	126.7	145.87	1.868	
10,800.0	6,942.5	10,820.1	7,006.0	76.1	76.6	103.68	-3,765.7	505.7	272.6	124.1	148.52	1.836	
10,826.7	6,942.3	10,846.8	7,005.9	76.6	77.2	103.71	-3,792.4	505.6	272.7	123.2	149.51	1.824	
10,900.0	6,941.6	10,920.1	7,005.6	78.0	78.6	103.80	-3,865.7	505.3	272.8	120.6	152.22	1.792	
10,925.2	6,941.4	10,945.2	7,005.6	78.4	79.1	103.83	-3,890.9	505.2	272.8	119.7	153.15	1.781	
11,000.0	6,940.7	11,020.1	7,005.3	79.9	80.5	103.92	-3,965.7	504.9	272.9	117.0	155.92	1.750	
11,023.6	6,940.5	11,043.7	7,005.2	80.3	81.0	103.94	-3,989.3	504.8	273.0	116.2	156.79	1.741	
11,100.0	6,939.8	11,120.1	7,005.0	81.7	82.4	104.03	-4,065.7	504.6	273.1	113.4	159.62	1.711	
11,122.0	6,939.6	11,142.1	7,004.9	82.2	82.9	104.06	-4,087.7	504.5	273.1	112.7	160.43	1.702	
11,200.0	6,938.9	11,220.1	7,004.7	83.6	84.4	104.15	-4,165.7	504.2	273.2	109.9	163.31	1.673	
11,220.4	6,938.7	11,240.5	7,004.6	84.0	84.8	104.18	-4,186.1	504.1	273.2	109.2	164.07	1.665	
11,300.0	6,938.0	11,320.1	7,004.3	85.5	86.3	104.27	-4,265.7	503.9	273.4	106.3	167.01	1.637	
11,318.9	6,937.8	11,338.9	7,004.3	85.9	86.7	104.30	-4,284.6	503.8	273.4	105.7	167.71	1.630	
11,400.0	6,937.0	11,420.0	7,004.0	87.4	88.2	104.39	-4,365.7	503.5	273.5	102.8	170.71	1.602	
11,417.3	6,936.9	11,437.3	7,004.0	87.8	88.6	104.41	-4,383.0	503.4	273.5	102.2	171.35	1.596	
11,500.0	6,936.1	11,520.0	7,003.7	89.3	90.2	104.51	-4,465.7	503.1	273.6	99.2	174.41	1.569	
11,515.7	6,936.0	11,535.8	7,003.6	89.6	90.5	104.53	-4,481.4	503.1	273.7	98.7	174.99	1.564	
11,600.0	6,935.2	11,620.0	7,003.4	91.2	92.1	104.63	-4,565.7	502.8	273.8	95.7	178.10	1.537	
11,614.1	6,935.1	11,634.2	7,003.3	91.5	92.4	104.65	-4,579.8	502.7	273.8	95.2	178.63	1.533	
11,700.0	6,934.3	11,720.0	7,003.0	93.1	94.1	104.75	-4,665.7	502.4	273.9	92.1	181.80	1.507	
11,712.6	6,934.2	11,732.6	7,003.0	93.4	94.3	104.76	-4,678.2	502.4	274.0	91.7	182.26	1.503	
11,800.0	6,933.4	11,820.0	7,002.7	95.1	96.0	104.87	-4,765.7	502.0	274.1	88.6	185.49	1.478 Level 3	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-323 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,811.0	6,933.3	11,831.0	7,002.7	95.3	96.2	104.88		-4,776.7	502.0	274.1	88.2	185.90	1.475	Level 3
11,900.0	6,932.5	11,920.0	7,002.4	97.0	97.9	104.98		-4,865.7	501.7	274.2	85.1	189.18	1.450	Level 3
11,909.4	6,932.4	11,929.5	7,002.4	97.1	98.1	104.99		-4,875.1	501.7	274.3	84.7	189.53	1.447	Level 3
12,000.0	6,931.6	12,020.0	7,002.1	98.9	99.9	105.10		-4,965.7	501.3	274.4	81.5	192.87	1.423	Level 3
12,007.8	6,931.5	12,027.9	7,002.0	99.0	100.0	105.11		-4,973.5	501.3	274.4	81.3	193.16	1.421	Level 3
12,100.0	6,930.7	12,120.0	7,001.7	100.8	101.8	105.22		-5,065.7	501.0	274.6	78.0	196.56	1.397	Level 3
12,106.3	6,930.6	12,126.3	7,001.7	100.9	102.0	105.23		-5,071.9	500.9	274.6	77.8	196.79	1.395	Level 3
12,200.0	6,929.8	12,220.0	7,001.4	102.7	103.8	105.34		-5,165.7	500.6	274.7	74.5	200.25	1.372	Level 3
12,204.7	6,929.7	12,224.7	7,001.4	102.8	103.9	105.34		-5,170.4	500.6	274.7	74.3	200.42	1.371	Level 3
12,300.0	6,928.8	12,320.0	7,001.1	104.6	105.7	105.45		-5,265.7	500.3	274.9	70.9	203.93	1.348	Level 3
12,303.1	6,928.8	12,323.2	7,001.1	104.7	105.8	105.46		-5,268.8	500.2	274.9	70.8	204.05	1.347	Level 3
12,400.0	6,927.9	12,420.0	7,000.8	106.5	107.7	105.57		-5,365.7	499.9	275.0	67.4	207.61	1.325	Level 3
12,401.5	6,927.9	12,421.6	7,000.8	106.6	107.7	105.57		-5,367.2	499.9	275.0	67.4	207.67	1.324	Level 3
12,500.0	6,927.0	12,520.0	7,000.4	108.5	109.6	105.69		-5,465.7	499.5	275.2	63.9	211.29	1.302	Level 3
12,598.4	6,926.1	12,618.4	7,000.1	110.4	111.6	105.80		-5,564.1	499.2	275.3	60.4	214.91	1.281	Level 3
12,600.0	6,926.1	12,620.0	7,000.1	110.4	111.6	105.81		-5,565.7	499.2	275.3	60.4	214.97	1.281	Level 3
12,696.8	6,925.2	12,716.9	6,999.8	112.3	113.5	105.92		-5,662.5	498.8	275.5	57.0	218.52	1.261	Level 3
12,700.0	6,925.2	12,720.0	6,999.8	112.3	113.5	105.92		-5,665.6	498.8	275.5	56.9	218.64	1.260	Level 3
12,795.2	6,924.3	12,815.3	6,999.5	114.1	115.4	106.03		-5,760.9	498.5	275.7	53.5	222.13	1.241	Level 2
12,800.0	6,924.3	12,820.0	6,999.4	114.2	115.5	106.04		-5,765.6	498.5	275.7	53.4	222.31	1.240	Level 2
12,893.7	6,923.4	12,913.7	6,999.1	116.0	117.3	106.15		-5,859.3	498.1	275.8	50.1	225.74	1.222	Level 2
12,900.0	6,923.4	12,920.0	6,999.1	116.2	117.5	106.15		-5,865.6	498.1	275.8	49.9	225.98	1.221	Level 2
12,992.1	6,922.5	13,012.1	6,998.8	117.9	119.3	106.26		-5,957.7	497.8	276.0	46.6	229.35	1.203	Level 2
13,000.0	6,922.5	13,020.0	6,998.8	118.1	119.4	106.27		-5,965.6	497.7	276.0	46.4	229.64	1.202	Level 2
13,090.5	6,921.6	13,110.6	6,998.5	119.8	121.2	106.38		-6,056.2	497.4	276.1	43.2	232.95	1.185	Level 2
13,100.0	6,921.5	13,120.0	6,998.5	120.0	121.4	106.39		-6,065.6	497.4	276.2	42.9	233.30	1.184	Level 2
13,188.9	6,920.7	13,209.0	6,998.2	121.7	123.1	106.49		-6,154.6	497.1	276.3	39.8	236.55	1.168	Level 2
13,200.0	6,920.6	13,220.0	6,998.1	121.9	123.3	106.50		-6,165.6	497.0	276.3	39.4	236.96	1.166	Level 2
13,287.4	6,919.8	13,307.4	6,997.8	123.6	125.0	106.60		-6,253.0	496.7	276.5	36.3	240.15	1.151	Level 2
13,300.0	6,919.7	13,320.0	6,997.8	123.9	125.3	106.62		-6,265.6	496.7	276.5	35.9	240.61	1.149	Level 2
13,385.8	6,918.9	13,405.8	6,997.5	125.5	127.0	106.72		-6,351.4	496.4	276.6	32.9	243.75	1.135	Level 2
13,400.0	6,918.8	13,420.0	6,997.5	125.8	127.2	106.73		-6,365.6	496.3	276.7	32.4	244.26	1.133	Level 2
13,484.2	6,918.0	13,504.3	6,997.2	127.4	128.9	106.83		-6,449.9	496.0	276.8	29.5	247.34	1.119	Level 2
13,500.0	6,917.9	13,520.0	6,997.1	127.7	129.2	106.85		-6,465.6	496.0	276.8	28.9	247.91	1.117	Level 2
13,582.6	6,917.1	13,602.7	6,996.9	129.3	130.8	106.94		-6,548.3	495.7	277.0	26.1	250.92	1.104	Level 2
13,600.0	6,917.0	13,620.0	6,996.8	129.7	131.2	106.96		-6,565.6	495.6	277.0	25.5	251.55	1.101	Level 2
13,681.1	6,916.2	13,701.1	6,996.5	131.2	132.8	107.06		-6,646.7	495.3	277.2	22.6	254.51	1.089	Level 2
13,700.0	6,916.1	13,720.0	6,996.5	131.6	133.1	107.08		-6,665.6	495.2	277.2	22.0	255.19	1.086	Level 2
13,779.5	6,915.3	13,799.5	6,996.2	133.1	134.7	107.17		-6,745.1	495.0	277.3	19.2	258.09	1.075	Level 2
13,800.0	6,915.2	13,820.0	6,996.1	133.5	135.1	107.19		-6,765.6	494.9	277.4	18.5	258.83	1.072	Level 2
13,877.9	6,914.4	13,897.9	6,995.9	135.1	136.6	107.28		-6,843.5	494.6	277.5	15.8	261.66	1.061	Level 2
13,900.0	6,914.2	13,920.0	6,995.8	135.5	137.1	107.31		-6,865.6	494.5	277.5	15.1	262.46	1.057	Level 2
13,976.3	6,913.5	13,996.4	6,995.6	137.0	138.5	107.39		-6,942.0	494.3	277.7	12.4	265.24	1.047	Level 2
14,000.0	6,913.3	14,020.0	6,995.5	137.4	139.0	107.42		-6,965.6	494.2	277.7	11.6	266.09	1.044	Level 2
14,074.8	6,912.6	14,094.8	6,995.2	138.9	140.5	107.51		-7,040.4	493.9	277.8	9.0	268.80	1.034	Level 2
14,100.0	6,912.4	14,120.0	6,995.1	139.4	141.0	107.54		-7,065.6	493.8	277.9	8.2	269.71	1.030	Level 2
14,118.3	6,912.2	14,138.4	6,995.1	139.7	141.3	107.56		-7,084.0	493.7	277.9	7.6	270.34	1.028	Level 2
14,145.0	6,912.0	14,162.0	6,995.0	140.2	141.8	107.58		-7,107.6	493.7	278.0	6.8	271.22	1.025	Level 2, ES, SF

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-90.01	-90.01	0.0	-89.2	89.3				
98.4	98.4	95.4	95.4	0.1	0.1	-90.01	-90.01	0.0	-89.2	89.2	89.0	0.19	474.080	
100.0	100.0	97.0	97.0	0.1	0.1	-90.01	-90.01	0.0	-89.2	89.2	89.0	0.19	465.908	
196.8	196.8	193.8	193.8	0.3	0.3	-90.01	-90.01	0.0	-89.2	89.2	88.6	0.62	143.206	
200.0	200.0	197.0	197.0	0.3	0.3	-90.01	-90.01	0.0	-89.2	89.2	88.6	0.64	140.023	
295.3	295.3	292.3	292.3	0.5	0.5	-90.01	-90.01	0.0	-89.2	89.2	88.2	1.07	83.739	
300.0	300.0	297.0	297.0	0.5	0.5	-90.01	-90.01	0.0	-89.2	89.2	88.1	1.09	82.103	
393.7	393.7	390.7	390.7	0.8	0.8	-90.01	-90.01	0.0	-89.2	89.2	87.7	1.51	59.169	
400.0	400.0	397.0	397.0	0.8	0.8	-90.01	-90.01	0.0	-89.2	89.2	87.7	1.54	58.078	
492.1	492.1	489.1	489.1	1.0	1.0	-90.01	-90.01	0.0	-89.2	89.2	87.3	1.95	45.747	
500.0	500.0	497.0	497.0	1.0	1.0	-90.01	-90.01	0.0	-89.2	89.2	87.2	1.99	44.931	
590.5	590.5	587.5	587.5	1.2	1.2	-90.01	-90.01	0.0	-89.2	89.2	86.8	2.39	37.288	
600.0	600.0	597.0	597.0	1.2	1.2	-90.01	-90.01	0.0	-89.2	89.2	86.8	2.44	36.637	
689.0	689.0	686.0	686.0	1.4	1.4	-90.01	-90.01	0.0	-89.2	89.2	86.4	2.84	31.469	
700.0	700.0	697.0	697.0	1.4	1.4	-90.01	-90.01	0.0	-89.2	89.2	86.3	2.88	30.928	
787.4	787.4	784.4	784.4	1.6	1.6	-90.01	-90.01	0.0	-89.2	89.2	85.9	3.28	27.221	
800.0	800.0	797.0	797.0	1.7	1.7	-90.01	-90.01	0.0	-89.2	89.2	85.9	3.33	26.759	
885.8	885.8	882.8	882.8	1.9	1.9	-90.01	-90.01	0.0	-89.2	89.2	85.5	3.72	23.984	
900.0	900.0	897.0	897.0	1.9	1.9	-90.01	-90.01	0.0	-89.2	89.2	85.4	3.78	23.580	
984.2	984.2	981.2	981.2	2.1	2.1	-90.01	-90.01	0.0	-89.2	89.2	85.1	4.16	21.434	
1,000.0	1,000.0	997.0	997.0	2.1	2.1	-90.01	-90.01	0.0	-89.2	89.2	85.0	4.23	21.076 CC, ES	
1,082.7	1,082.7	1,079.7	1,079.7	2.3	2.3	-160.33	-160.33	0.0	-89.2	90.3	85.7	4.60	19.653	
1,100.0	1,100.0	1,097.0	1,097.0	2.3	2.3	-160.45	-160.45	0.0	-89.2	90.9	86.2	4.67	19.445	
1,181.1	1,181.0	1,178.0	1,178.0	2.5	2.5	-161.23	-161.23	0.0	-89.2	94.6	89.6	5.02	18.843	
1,200.0	1,199.8	1,196.8	1,196.8	2.6	2.6	-161.46	-161.46	0.0	-89.2	95.8	90.7	5.10	18.779	
1,279.5	1,279.1	1,276.1	1,276.1	2.7	2.7	-162.61	-162.61	0.0	-89.2	102.1	96.7	5.44	18.765	
1,300.0	1,299.5	1,296.5	1,296.5	2.8	2.8	-162.94	-162.94	0.0	-89.2	104.1	98.6	5.53	18.828	
1,377.9	1,376.9	1,373.8	1,373.8	3.0	3.0	-163.77	-163.77	0.9	-89.3	113.0	107.1	5.86	19.271	
1,400.0	1,398.7	1,395.7	1,395.7	3.0	3.0	-163.85	-163.85	1.6	-89.3	115.8	109.9	5.95	19.454	
1,476.4	1,474.2	1,471.2	1,471.1	3.2	3.2	-163.64	-163.64	5.1	-89.6	127.0	120.8	6.28	20.236	
1,500.0	1,497.5	1,494.5	1,494.4	3.3	3.2	-163.45	-163.45	6.6	-89.7	130.9	124.5	6.38	20.527	
1,574.8	1,571.0	1,568.0	1,567.6	3.5	3.4	-162.56	-162.56	12.5	-90.2	144.4	137.7	6.70	21.554	
1,600.1	1,595.7	1,592.7	1,592.2	3.6	3.5	-162.17	-162.17	14.9	-90.3	149.3	142.5	6.81	21.944	
1,673.2	1,667.2	1,664.1	1,663.1	3.9	3.6	-160.88	-160.88	23.0	-91.0	164.2	157.0	7.15	22.951	
1,700.0	1,693.4	1,690.2	1,689.0	4.0	3.7	-160.31	-160.31	26.4	-91.2	169.6	162.3	7.28	23.298	
1,771.6	1,763.5	1,759.7	1,757.8	4.2	3.9	-158.59	-158.59	36.7	-92.0	184.4	176.8	7.64	24.128	
1,800.0	1,791.3	1,787.2	1,784.8	4.3	3.9	-157.84	-157.84	41.2	-92.3	190.4	182.6	7.79	24.441	
1,870.1	1,859.8	1,854.7	1,851.3	4.6	4.1	-155.87	-155.87	53.4	-93.2	205.4	197.2	8.17	25.123	
1,900.0	1,889.1	1,883.4	1,879.4	4.7	4.2	-154.98	-154.98	59.0	-93.6	211.9	203.6	8.34	25.408	
1,968.5	1,956.1	1,949.6	1,944.1	5.0	4.4	-152.96	-152.96	72.7	-94.7	227.2	218.4	8.74	25.982	
2,000.0	1,986.9	1,980.1	1,974.0	5.1	4.5	-152.11	-152.11	79.0	-95.1	234.3	225.3	8.93	26.224	
2,066.9	2,052.3	2,044.9	2,037.4	5.4	4.7	-150.47	-150.47	92.5	-96.2	249.5	240.1	9.35	26.693	
2,100.0	2,084.7	2,076.9	2,068.7	5.5	4.8	-149.73	-149.73	99.1	-96.6	257.1	247.5	9.55	26.908	
2,165.3	2,148.6	2,140.2	2,130.6	5.8	5.1	-148.39	-148.39	112.2	-97.6	272.2	262.2	9.97	27.292	
2,200.0	2,182.5	2,173.8	2,163.4	5.9	5.2	-147.73	-147.73	119.2	-98.2	280.3	270.1	10.20	27.481	
2,263.8	2,244.9	2,235.5	2,223.8	6.2	5.4	-146.62	-146.62	132.0	-99.1	295.2	284.6	10.62	27.801	
2,300.0	2,280.3	2,270.6	2,258.1	6.3	5.5	-146.04	-146.04	139.3	-99.7	303.8	292.9	10.86	27.969	
2,362.2	2,341.2	2,330.9	2,317.1	6.6	5.8	-145.11	-145.11	151.8	-100.6	318.5	307.2	11.28	28.234	
2,400.0	2,378.1	2,367.5	2,352.9	6.8	5.9	-144.59	-144.59	159.4	-101.2	327.5	315.9	11.54	28.383	
2,460.6	2,437.4	2,426.2	2,410.3	7.0	6.1	-143.81	-143.81	171.5	-102.1	341.9	330.0	11.95	28.605	
2,500.0	2,476.0	2,464.3	2,447.6	7.2	6.3	-143.33	-143.33	179.4	-102.7	351.3	339.1	12.22	28.738	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,559.0	2,533.7	2,521.5	2,503.5	7.4	6.5	-142.67	191.3	-103.6	365.5	352.8	12.64	28.925		
2,600.0	2,573.8	2,561.1	2,542.3	7.6	6.6	-142.24	199.5	-104.2	375.3	362.4	12.92	29.045		
2,657.5	2,630.0	2,616.8	2,596.8	7.9	6.9	-141.67	211.1	-105.0	389.2	375.8	13.33	29.203		
2,700.0	2,671.6	2,660.2	2,639.3	8.1	7.0	-141.30	219.8	-105.7	399.3	385.7	13.62	29.329		
2,755.9	2,726.3	2,717.7	2,695.8	8.3	7.2	-140.97	230.3	-106.5	412.3	398.3	13.98	29.485		
2,800.0	2,769.4	2,763.2	2,740.6	8.5	7.3	-140.82	237.8	-107.0	422.3	408.0	14.26	29.620		
2,854.3	2,822.5	2,819.4	2,796.3	8.7	7.5	-140.78	246.1	-107.7	434.2	419.6	14.59	29.766		
2,900.0	2,867.2	2,866.9	2,843.3	8.9	7.6	-140.85	252.3	-108.1	443.9	429.1	14.86	29.881		
2,952.7	2,918.8	2,921.8	2,897.9	9.2	7.8	-141.05	258.5	-108.6	454.8	439.6	15.16	30.001		
3,000.0	2,965.0	2,971.0	2,946.9	9.4	7.9	-141.32	263.1	-108.9	464.2	448.8	15.42	30.104		
3,051.2	3,015.1	3,024.5	3,000.2	9.6	8.0	-141.71	267.2	-109.2	474.0	458.3	15.69	30.210		
3,100.0	3,062.8	3,075.4	3,051.1	9.8	8.1	-142.17	270.2	-109.5	483.1	467.2	15.94	30.309		
3,149.6	3,111.4	3,127.2	3,102.8	10.0	8.2	-142.72	272.3	-109.6	492.1	475.9	16.18	30.410		
3,200.0	3,160.7	3,179.8	3,155.3	10.3	8.3	-143.36	273.4	-109.7	500.9	484.5	16.42	30.514		
3,248.0	3,207.6	3,229.1	3,204.6	10.5	8.4	-144.03	273.7	-109.7	509.1	492.5	16.63	30.613		
3,300.0	3,258.5	3,279.9	3,255.5	10.7	8.5	-144.73	273.7	-109.7	518.0	501.1	16.86	30.722		
3,346.4	3,303.9	3,325.3	3,300.9	10.9	8.5	-145.33	273.7	-109.7	526.0	508.9	17.07	30.816		
3,400.0	3,356.3	3,377.7	3,353.3	11.2	8.6	-146.01	273.7	-109.7	535.2	517.9	17.31	30.922		
3,444.9	3,400.2	3,421.6	3,397.2	11.4	8.7	-146.55	273.7	-109.7	543.0	525.5	17.51	31.012		
3,500.0	3,454.1	3,475.5	3,451.1	11.6	8.8	-147.20	273.7	-109.7	552.7	534.9	17.76	31.125		
3,543.3	3,496.5	3,517.9	3,493.5	11.8	8.9	-147.70	273.7	-109.7	560.3	542.4	17.95	31.215		
3,600.0	3,551.9	3,573.4	3,548.9	12.0	9.0	-148.33	273.7	-109.7	570.4	552.2	18.20	31.333		
3,641.7	3,592.7	3,614.2	3,589.7	12.2	9.1	-148.78	273.7	-109.7	577.8	559.4	18.39	31.421		
3,700.0	3,649.7	3,671.2	3,646.7	12.5	9.2	-149.39	273.7	-109.7	588.3	569.6	18.65	31.545		
3,740.1	3,689.0	3,710.4	3,686.0	12.7	9.2	-149.79	273.7	-109.7	595.5	576.7	18.83	31.631		
3,800.0	3,747.5	3,769.0	3,744.5	12.9	9.3	-150.38	273.7	-109.7	606.4	587.3	19.09	31.758		
3,838.6	3,785.3	3,806.7	3,782.3	13.1	9.4	-150.75	273.7	-109.7	613.4	594.1	19.26	31.841		
3,900.0	3,845.4	3,866.8	3,842.4	13.4	9.5	-151.32	273.7	-109.7	624.6	605.1	19.54	31.971		
3,937.0	3,881.5	3,903.0	3,878.5	13.6	9.6	-151.65	273.7	-109.7	631.4	611.7	19.70	32.050		
4,000.0	3,943.2	3,964.6	3,940.2	13.8	9.7	-152.20	273.7	-109.7	643.0	623.1	19.98	32.183		
4,035.4	3,977.8	3,999.3	3,974.8	14.0	9.8	-152.51	273.7	-109.7	649.6	629.5	20.14	32.258		
4,100.0	4,041.0	4,062.4	4,038.0	14.3	9.9	-153.04	273.7	-109.7	661.6	641.2	20.42	32.393		
4,133.8	4,074.1	4,095.5	4,071.1	14.4	10.0	-153.31	273.7	-109.7	667.9	647.3	20.57	32.463		
4,200.0	4,138.8	4,160.2	4,135.8	14.7	10.1	-153.83	273.7	-109.7	680.3	659.4	20.87	32.600		
4,232.3	4,170.4	4,191.8	4,167.4	14.9	10.2	-154.08	273.7	-109.7	686.3	665.3	21.01	32.666		
4,300.0	4,236.6	4,258.1	4,233.6	15.2	10.3	-154.58	273.7	-109.7	699.1	677.8	21.31	32.803		
4,330.7	4,266.6	4,288.1	4,263.6	15.3	10.3	-154.80	273.7	-109.7	704.9	683.4	21.45	32.865		
4,400.0	4,334.4	4,355.9	4,331.4	15.6	10.5	-155.29	273.7	-109.7	718.0	696.2	21.76	33.003		
4,429.1	4,362.9	4,384.4	4,359.9	15.8	10.5	-155.49	273.7	-109.7	723.5	701.6	21.88	33.060		
4,500.0	4,432.2	4,453.7	4,429.2	16.1	10.7	-155.96	273.7	-109.7	737.0	714.8	22.20	33.198		
4,527.5	4,459.2	4,480.6	4,456.2	16.2	10.7	-156.14	273.7	-109.7	742.2	719.9	22.32	33.251		
4,600.0	4,530.1	4,551.5	4,527.1	16.5	10.9	-156.60	273.7	-109.7	756.1	733.4	22.64	33.389		
4,626.0	4,555.5	4,576.9	4,552.5	16.7	10.9	-156.76	273.7	-109.7	761.1	738.3	22.76	33.438		
4,700.0	4,627.9	4,649.3	4,624.9	17.0	11.1	-157.21	273.7	-109.7	775.3	752.2	23.09	33.576		
4,724.4	4,651.7	4,673.2	4,648.7	17.1	11.1	-157.35	273.7	-109.7	780.0	756.8	23.20	33.620		
4,800.0	4,725.7	4,747.1	4,722.7	17.4	11.3	-157.79	273.7	-109.7	794.6	771.0	23.54	33.757		
4,822.8	4,748.0	4,769.5	4,745.0	17.6	11.3	-157.92	273.7	-109.7	799.0	775.3	23.64	33.798		
4,900.0	4,823.5	4,844.9	4,820.5	17.9	11.4	-158.34	273.7	-109.7	813.9	789.9	23.98	33.934		
4,921.2	4,844.3	4,865.7	4,841.3	18.0	11.5	-158.45	273.7	-109.7	818.0	793.9	24.08	33.971		
5,000.0	4,921.3	4,942.8	4,918.3	18.4	11.6	-158.87	273.7	-109.7	833.3	808.9	24.43	34.106		
5,014.9	4,935.9	4,957.4	4,932.9	18.4	11.7	-158.94	273.7	-109.7	836.2	811.7	24.50	34.132		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,962.0	4,937.6	18.4	11.7	-158.97		273.7	-109.7	837.1	812.6	24.52	34.137	
5,100.0	5,019.4	5,040.8	5,016.4	18.7	11.8	-159.45		273.7	-109.7	851.6	826.7	24.91	34.187	
5,118.1	5,037.2	5,058.6	5,034.2	18.8	11.9	-159.55		273.7	-109.7	854.6	829.6	24.99	34.197	
5,200.0	5,118.1	5,139.5	5,115.1	19.0	12.0	-159.93		273.7	-109.7	866.8	841.5	25.35	34.194	
5,216.5	5,134.4	5,155.9	5,131.4	19.1	12.1	-160.00		273.7	-109.7	869.0	843.6	25.42	34.188	
5,300.0	5,217.2	5,238.7	5,214.2	19.3	12.2	-160.30		273.7	-109.7	878.8	853.0	25.76	34.110	
5,314.9	5,232.1	5,253.6	5,229.1	19.3	12.3	-160.34		273.7	-109.7	880.3	854.5	25.82	34.092	
5,400.0	5,316.8	5,338.3	5,313.8	19.5	12.4	-160.56		273.7	-109.7	887.5	861.3	26.15	33.940	
5,413.4	5,330.1	5,351.6	5,327.1	19.5	12.5	-160.58		273.7	-109.7	888.4	862.2	26.20	33.912	
5,500.0	5,416.6	5,438.1	5,413.6	19.7	12.7	-160.71		273.7	-109.7	892.9	866.4	26.51	33.688	
5,511.8	5,428.4	5,449.9	5,425.4	19.7	12.7	-160.73		273.7	-109.7	893.3	866.8	26.54	33.654	
5,600.0	5,516.6	5,538.1	5,513.6	19.8	12.9	-160.78		273.7	-109.7	895.1	868.2	26.83	33.357	
5,610.2	5,526.8	5,548.3	5,523.8	19.8	12.9	-160.78		273.7	-109.7	895.1	868.2	26.86	33.318	
5,615.0	5,531.6	5,553.0	5,528.6	19.8	12.9	-90.70		273.7	-109.7	895.1	868.2	26.86	33.320	
5,700.0	5,616.6	5,638.1	5,613.6	19.9	13.1	-90.70		273.7	-109.7	895.1	867.9	27.18	32.927	
5,708.6	5,625.3	5,646.7	5,622.3	20.0	13.1	-90.70		273.7	-109.7	895.1	867.9	27.22	32.887	
5,800.0	5,716.6	5,738.1	5,713.6	20.1	13.3	-90.70		273.7	-109.7	895.1	867.5	27.57	32.465	
5,807.1	5,723.7	5,745.1	5,720.7	20.1	13.3	-90.70		273.7	-109.7	895.1	867.5	27.60	32.433	
5,900.0	5,816.6	5,838.1	5,813.6	20.2	13.5	-90.70		273.7	-109.7	895.1	867.1	27.96	32.014	
5,905.5	5,822.1	5,843.6	5,819.1	20.2	13.5	-90.70		273.7	-109.7	895.1	867.1	27.98	31.989	
6,000.0	5,916.6	5,938.1	5,913.6	20.4	13.7	-90.70		273.7	-109.7	895.1	866.7	28.35	31.573	
6,003.9	5,920.5	5,942.0	5,917.5	20.4	13.7	-90.70		273.7	-109.7	895.1	866.7	28.37	31.555	
6,100.0	6,016.6	6,038.1	6,013.6	20.5	13.9	-90.70		273.7	-109.7	895.1	866.3	28.74	31.142	
6,102.3	6,019.0	6,040.4	6,016.0	20.5	13.9	-90.70		273.7	-109.7	895.1	866.3	28.75	31.132	
6,200.0	6,116.6	6,138.1	6,113.6	20.6	14.1	-90.70		273.7	-109.7	895.1	866.0	29.14	30.721	
6,200.8	6,117.4	6,138.8	6,114.4	20.6	14.1	-90.70		273.7	-109.7	895.1	866.0	29.14	30.717	
6,299.2	6,215.8	6,237.3	6,212.8	20.8	14.3	-90.70		273.7	-109.7	895.1	865.6	29.53	30.313	
6,300.0	6,216.6	6,238.1	6,213.6	20.8	14.3	-90.70		273.7	-109.7	895.1	865.6	29.53	30.309	
6,340.0	6,256.6	6,278.0	6,253.6	20.8	14.4	-90.70		273.7	-109.7	895.1	865.4	29.69	30.147	
6,350.0	6,266.6	6,288.1	6,263.6	20.8	14.4	89.10		273.7	-109.7	895.1	865.3	29.74	30.094	
6,397.6	6,314.2	6,335.6	6,311.2	20.9	14.5	89.24		273.7	-109.7	895.1	865.1	29.92	29.917	
6,400.0	6,316.5	6,338.0	6,313.5	20.9	14.5	89.26		273.7	-109.7	895.1	865.1	29.93	29.907	
6,450.0	6,366.2	6,387.6	6,363.2	20.9	14.6	89.64		273.7	-109.7	895.0	864.9	30.11	29.725	
6,482.8	6,398.5	6,419.9	6,395.5	20.9	14.7	90.00		273.7	-109.7	895.0	864.8	30.22	29.611	
6,496.0	6,411.4	6,432.9	6,408.4	21.0	14.7	90.17		273.7	-109.7	895.0	864.7	30.27	29.564	
6,500.0	6,415.3	6,436.7	6,412.3	21.0	14.7	90.23		273.7	-109.7	895.0	864.7	30.29	29.550	
6,550.0	6,463.6	6,486.1	6,461.6	21.0	14.8	90.92		272.0	-109.7	895.1	864.7	30.43	29.418	
6,594.5	6,505.8	6,530.7	6,506.0	21.0	14.9	91.53		267.5	-109.7	895.3	864.8	30.52	29.336	
6,600.0	6,510.9	6,536.3	6,511.5	21.0	14.9	91.61		266.7	-109.7	895.3	864.8	30.53	29.327	
6,650.0	6,557.0	6,587.3	6,561.7	21.0	14.9	92.30		257.8	-109.8	895.7	865.1	30.60	29.271	
6,692.9	6,595.4	6,631.7	6,604.9	21.0	14.9	92.88		247.2	-109.8	896.2	865.5	30.64	29.250	
6,700.0	6,601.6	6,639.1	6,612.0	21.0	14.9	92.98		245.1	-109.8	896.3	865.6	30.64	29.248	
6,750.0	6,644.6	6,691.9	6,662.0	20.9	14.9	93.66		228.6	-109.9	896.9	866.2	30.66	29.252	
6,791.3	6,678.6	6,736.2	6,703.0	20.9	14.9	94.21		211.8	-110.0	897.5	866.8	30.66	29.269	
6,800.0	6,685.6	6,745.5	6,711.6	20.9	14.9	94.32		207.9	-110.0	897.6	867.0	30.66	29.274	
6,850.0	6,724.6	6,800.1	6,760.2	20.9	14.9	94.97		183.2	-110.1	898.5	867.8	30.66	29.304	
6,889.7	6,753.9	6,844.2	6,798.1	20.9	14.9	95.47		160.6	-110.1	899.2	868.6	30.67	29.324	
6,900.0	6,761.3	6,855.7	6,807.7	20.9	14.9	95.59		154.3	-110.2	899.4	868.8	30.67	29.329	
6,950.0	6,795.5	6,912.2	6,853.5	20.9	14.9	96.20		121.3	-110.3	900.4	869.7	30.70	29.333	
6,988.2	6,819.9	6,956.0	6,887.1	20.9	15.0	96.64		93.2	-110.4	901.2	870.5	30.74	29.313	
7,000.0	6,827.1	6,969.7	6,897.3	20.9	15.0	96.77		84.1	-110.4	901.5	870.7	30.77	29.301	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error: 0.0 usft		
Survey Program: 0-MWDD												Offset Well Error: 0.0 usft		
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)						
7,050.0	6,855.9	7,028.1	6,938.5	20.9	15.0	97.31	42.8	-110.6	902.5	871.6	30.89	29.214		
7,086.6	6,875.1	7,071.5	6,966.9	20.9	15.1	97.69	10.0	-110.7	903.3	872.3	31.04	29.098		
7,100.0	6,881.8	7,087.4	6,976.9	20.9	15.1	97.82	-2.5	-110.7	903.6	872.5	31.10	29.057		
7,150.0	6,904.6	7,147.7	7,011.9	21.0	15.3	98.29	-51.6	-110.9	904.6	873.2	31.39	28.815		
7,185.0	6,918.8	7,190.4	7,034.1	21.1	15.4	98.58	-88.0	-111.1	905.3	873.6	31.68	28.579		
7,200.0	6,924.3	7,208.8	7,043.0	21.1	15.5	98.70	-104.1	-111.1	905.6	873.8	31.81	28.471		
7,250.0	6,940.8	7,270.6	7,069.8	21.2	15.7	99.07	-159.8	-111.3	906.4	874.1	32.34	28.026		
7,283.4	6,949.9	7,312.4	7,085.2	21.3	16.0	99.29	-198.6	-111.5	907.0	874.2	32.78	27.671		
7,300.0	6,953.9	7,333.2	7,092.0	21.4	16.1	99.39	-218.3	-111.5	907.2	874.2	33.01	27.484		
7,350.0	6,963.6	7,396.3	7,109.1	21.6	16.5	99.65	-279.0	-111.8	907.9	874.1	33.81	26.855		
7,381.9	6,968.0	7,436.8	7,117.2	21.7	16.8	99.78	-318.7	-111.9	908.2	873.8	34.39	26.407		
7,400.0	6,969.9	7,459.9	7,120.8	21.8	17.0	99.85	-341.5	-112.0	908.4	873.7	34.74	26.148		
7,450.0	6,972.6	7,523.8	7,127.0	22.1	17.6	99.98	-405.1	-112.2	908.7	873.0	35.80	25.387		
7,471.5	6,972.8	7,551.4	7,127.9	22.2	17.9	100.02	-432.6	-112.3	908.9	872.6	36.28	25.051		
7,480.3	6,972.7	7,562.7	7,128.0	22.3	18.0	100.03	-443.9	-112.4	908.9	872.4	36.48	24.917		
7,500.0	6,972.5	7,582.4	7,128.0	22.4	18.2	100.04	-463.7	-112.4	908.9	872.0	36.87	24.652		
7,578.7	6,971.8	7,661.1	7,127.8	23.1	19.1	100.07	-542.4	-112.7	909.0	870.5	38.52	23.601		
7,600.0	6,971.6	7,682.4	7,127.7	23.3	19.3	100.08	-563.7	-112.8	909.0	870.1	38.96	23.329		
7,677.1	6,970.9	7,759.6	7,127.5	24.0	20.1	100.11	-640.8	-113.1	909.1	868.5	40.62	22.383		
7,700.0	6,970.7	7,782.4	7,127.5	24.2	20.4	100.12	-663.7	-113.2	909.1	868.0	41.10	22.119		
7,775.6	6,970.0	7,858.0	7,127.3	25.0	21.2	100.16	-739.2	-113.4	909.2	866.4	42.86	21.216		
7,800.0	6,969.8	7,882.4	7,127.3	25.3	21.5	100.17	-763.7	-113.5	909.3	865.8	43.43	20.937		
7,874.0	6,969.1	7,956.4	7,127.1	26.2	22.5	100.20	-837.7	-113.8	909.3	864.0	45.37	20.044		
7,900.0	6,968.9	7,982.4	7,127.0	26.5	22.9	100.21	-863.7	-113.9	909.4	863.3	46.06	19.741		
7,972.4	6,968.2	8,054.8	7,126.9	27.4	23.9	100.24	-936.1	-114.2	909.5	861.4	48.10	18.907		
8,000.0	6,968.0	8,082.4	7,126.8	27.8	24.3	100.25	-963.7	-114.3	909.5	860.6	48.88	18.606		
8,070.8	6,967.3	8,153.3	7,126.7	28.7	25.4	100.28	-1,034.5	-114.5	909.6	858.6	50.97	17.847		
8,100.0	6,967.1	8,182.4	7,126.6	29.1	25.8	100.29	-1,063.7	-114.6	909.6	857.8	51.83	17.551		
8,169.3	6,966.4	8,251.7	7,126.4	30.1	26.9	100.32	-1,132.9	-114.9	909.7	855.8	53.94	16.865		
8,200.0	6,966.2	8,282.4	7,126.4	30.5	27.4	100.33	-1,163.7	-115.0	909.7	854.9	54.88	16.576		
8,267.7	6,965.5	8,350.1	7,126.2	31.5	28.5	100.36	-1,231.4	-115.2	909.8	852.8	57.01	15.959		
8,300.0	6,965.2	8,382.4	7,126.1	32.0	29.0	100.38	-1,263.7	-115.4	909.9	851.8	58.03	15.680		
8,366.1	6,964.6	8,448.5	7,126.0	33.0	30.1	100.40	-1,329.8	-115.6	910.0	849.8	60.16	15.127		
8,400.0	6,964.3	8,482.4	7,125.9	33.5	30.7	100.42	-1,363.6	-115.7	910.0	848.7	61.25	14.857		
8,464.5	6,963.8	8,547.0	7,125.8	34.5	31.8	100.45	-1,428.2	-116.0	910.1	846.7	63.37	14.362		
8,500.0	6,963.4	8,582.4	7,125.7	35.1	32.3	100.46	-1,463.6	-116.1	910.1	845.6	64.53	14.103		
8,563.0	6,962.9	8,645.4	7,125.5	36.1	33.4	100.49	-1,526.6	-116.3	910.2	843.6	66.64	13.659		
8,600.0	6,962.5	8,682.4	7,125.5	36.7	34.1	100.50	-1,563.6	-116.5	910.2	842.4	67.88	13.411		
8,661.4	6,962.0	8,743.8	7,125.3	37.7	35.1	100.53	-1,625.0	-116.7	910.3	840.4	69.95	13.013		
8,700.0	6,961.6	8,782.4	7,125.2	38.3	35.8	100.55	-1,663.6	-116.8	910.4	839.1	71.26	12.775		
8,759.8	6,961.1	8,842.2	7,125.1	39.3	36.8	100.57	-1,723.5	-117.0	910.4	837.1	73.31	12.418		
8,800.0	6,960.7	8,882.4	7,125.0	40.0	37.5	100.59	-1,763.6	-117.2	910.5	835.8	74.69	12.190		
8,858.2	6,960.2	8,940.6	7,124.9	40.9	38.5	100.61	-1,821.9	-117.4	910.6	833.9	76.71	11.870		
8,900.0	6,959.8	8,982.4	7,124.8	41.6	39.3	100.63	-1,863.6	-117.6	910.6	832.5	78.16	11.651		
8,956.7	6,959.3	9,039.1	7,124.7	42.6	40.3	100.65	-1,920.3	-117.8	910.7	830.6	80.14	11.364		
9,000.0	6,958.9	9,082.4	7,124.6	43.3	41.1	100.67	-1,963.6	-117.9	910.8	829.1	81.65	11.154		
9,055.1	6,958.4	9,137.5	7,124.4	44.3	42.0	100.70	-2,018.7	-118.1	910.8	827.2	83.59	10.896		
9,100.0	6,958.0	9,182.4	7,124.3	45.1	42.8	100.71	-2,063.6	-118.3	910.9	825.7	85.18	10.694		
9,153.5	6,957.5	9,235.9	7,124.2	46.0	43.8	100.74	-2,117.2	-118.5	911.0	823.9	87.07	10.462		
9,200.0	6,957.1	9,282.4	7,124.1	46.8	44.6	100.76	-2,163.6	-118.7	911.0	822.3	88.72	10.268		
9,251.9	6,956.6	9,334.3	7,124.0	47.7	45.6	100.78	-2,215.6	-118.8	911.1	820.5	90.57	10.059		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,300.0	6,956.2	9,382.4	7,123.9	48.6	46.4	100.80		-2,263.6	-119.0	911.1	818.9	92.29	9.873	
9,350.4	6,955.7	9,432.8	7,123.8	49.5	47.4	100.82		-2,314.0	-119.2	911.2	817.1	94.09	9.684	
9,400.0	6,955.2	9,482.4	7,123.6	50.3	48.3	100.84		-2,363.6	-119.4	911.3	815.4	95.87	9.505	
9,448.8	6,954.8	9,531.2	7,123.5	51.2	49.2	100.86		-2,412.4	-119.6	911.3	813.7	97.63	9.335	
9,500.0	6,954.3	9,582.4	7,123.4	52.1	50.1	100.88		-2,463.6	-119.8	911.4	811.9	99.47	9.162	
9,547.2	6,953.9	9,629.6	7,123.3	53.0	51.0	100.90		-2,510.8	-119.9	911.5	810.3	101.18	9.009	
9,600.0	6,953.4	9,682.4	7,123.2	53.9	51.9	100.93		-2,563.6	-120.1	911.5	808.5	103.09	8.842	
9,645.6	6,953.0	9,728.0	7,123.1	54.7	52.8	100.94		-2,609.3	-120.3	911.6	806.9	104.74	8.703	
9,700.0	6,952.5	9,782.4	7,123.0	55.7	53.8	100.97		-2,663.6	-120.5	911.7	805.0	106.71	8.543	
9,744.1	6,952.1	9,826.5	7,122.9	56.5	54.6	100.99		-2,707.7	-120.6	911.7	803.4	108.32	8.417	
9,800.0	6,951.6	9,882.4	7,122.7	57.5	55.6	101.01		-2,763.6	-120.9	911.8	801.5	110.35	8.263	
9,842.5	6,951.2	9,924.9	7,122.6	58.3	56.4	101.03		-2,806.1	-121.0	911.9	800.0	111.90	8.149	
9,900.0	6,950.7	9,982.4	7,122.5	59.4	57.5	101.05		-2,863.6	-121.2	911.9	797.9	114.00	7.999	
9,940.9	6,950.3	10,023.3	7,122.4	60.1	58.2	101.07		-2,904.5	-121.4	912.0	796.5	115.50	7.896	
10,000.0	6,949.8	10,082.4	7,122.3	61.2	59.3	101.09		-2,963.6	-121.6	912.1	794.4	117.66	7.752	
10,039.3	6,949.4	10,121.7	7,122.2	61.9	60.0	101.11		-3,003.0	-121.7	912.1	793.0	119.10	7.658	
10,100.0	6,948.9	10,182.4	7,122.1	63.0	61.2	101.14		-3,063.6	-121.9	912.2	790.9	121.33	7.519	
10,137.8	6,948.5	10,220.1	7,122.0	63.7	61.9	101.15		-3,101.4	-122.1	912.3	789.6	122.71	7.434	
10,200.0	6,948.0	10,282.4	7,121.8	64.9	63.0	101.18		-3,163.6	-122.3	912.4	787.4	125.00	7.299	
10,236.2	6,947.6	10,318.6	7,121.8	65.6	63.7	101.19		-3,199.8	-122.4	912.4	786.1	126.33	7.222	
10,300.0	6,947.1	10,382.4	7,121.6	66.7	64.9	101.22		-3,263.6	-122.7	912.5	783.8	128.68	7.091	
10,334.6	6,946.7	10,417.0	7,121.5	67.4	65.5	101.23		-3,298.2	-122.8	912.5	782.6	129.96	7.022	
10,400.0	6,946.2	10,482.4	7,121.4	68.6	66.8	101.26		-3,363.6	-123.0	912.6	780.3	132.37	6.895	
10,433.0	6,945.8	10,515.4	7,121.3	69.2	67.4	101.28		-3,396.6	-123.2	912.7	779.1	133.59	6.832	
10,500.0	6,945.2	10,582.4	7,121.2	70.5	68.6	101.30		-3,463.6	-123.4	912.8	776.7	136.06	6.709	
10,531.5	6,945.0	10,613.8	7,121.1	71.1	69.2	101.32		-3,495.1	-123.5	912.8	775.6	137.22	6.652	
10,600.0	6,944.3	10,682.4	7,120.9	72.3	70.5	101.35		-3,563.6	-123.8	912.9	773.1	139.76	6.532	
10,629.9	6,944.1	10,712.3	7,120.9	72.9	71.1	101.36		-3,593.5	-123.9	912.9	772.1	140.86	6.481	
10,700.0	6,943.4	10,782.4	7,120.7	74.2	72.4	101.39		-3,663.6	-124.1	913.0	769.6	143.46	6.364	
10,728.3	6,943.2	10,810.7	7,120.7	74.7	72.9	101.40		-3,691.9	-124.2	913.1	768.6	144.51	6.319	
10,800.0	6,942.5	10,882.4	7,120.5	76.1	74.2	101.43		-3,763.6	-124.5	913.2	766.0	147.16	6.205	
10,826.7	6,942.3	10,909.1	7,120.4	76.6	74.7	101.44		-3,790.3	-124.6	913.2	765.1	148.16	6.164	
10,900.0	6,941.6	10,982.4	7,120.3	78.0	76.1	101.47		-3,863.6	-124.9	913.3	762.5	150.87	6.054	
10,925.2	6,941.4	11,007.5	7,120.2	78.4	76.6	101.48		-3,888.8	-125.0	913.4	761.6	151.81	6.017	
11,000.0	6,940.7	11,082.4	7,120.0	79.9	78.0	101.51		-3,963.6	-125.2	913.5	758.9	154.59	5.909	
11,023.6	6,940.5	11,106.0	7,120.0	80.3	78.5	101.52		-3,987.2	-125.3	913.5	758.0	155.46	5.876	
11,100.0	6,939.8	11,182.3	7,119.8	81.7	79.9	101.56		-4,063.6	-125.6	913.6	755.3	158.30	5.771	
11,122.0	6,939.6	11,204.4	7,119.8	82.2	80.3	101.57		-4,085.6	-125.7	913.6	754.5	159.12	5.742	
11,200.0	6,938.9	11,282.3	7,119.6	83.6	81.8	101.60		-4,163.6	-126.0	913.8	751.7	162.02	5.640	
11,220.4	6,938.7	11,302.8	7,119.5	84.0	82.2	101.61		-4,184.0	-126.0	913.8	751.0	162.78	5.614	
11,300.0	6,938.0	11,382.3	7,119.4	85.5	83.7	101.64		-4,263.6	-126.3	913.9	748.2	165.74	5.514	
11,318.9	6,937.8	11,401.2	7,119.3	85.9	84.0	101.65		-4,282.4	-126.4	913.9	747.5	166.44	5.491	
11,400.0	6,937.0	11,482.3	7,119.1	87.4	85.5	101.68		-4,363.6	-126.7	914.0	744.6	169.46	5.394	
11,417.3	6,936.9	11,499.6	7,119.1	87.8	85.9	101.69		-4,380.9	-126.8	914.1	744.0	170.11	5.373	
11,500.0	6,936.1	11,582.3	7,118.9	89.3	87.4	101.73		-4,463.6	-127.1	914.2	741.0	173.19	5.279	
11,515.7	6,936.0	11,598.1	7,118.9	89.6	87.7	101.73		-4,479.3	-127.1	914.2	740.4	173.78	5.261	
11,600.0	6,935.2	11,682.3	7,118.7	91.2	89.3	101.77		-4,563.6	-127.4	914.3	737.4	176.92	5.168	
11,614.1	6,935.1	11,696.5	7,118.7	91.5	89.6	101.77		-4,577.7	-127.5	914.4	736.9	177.44	5.153	
11,700.0	6,934.3	11,782.3	7,118.5	93.1	91.2	101.81		-4,663.6	-127.8	914.5	733.8	180.64	5.062	
11,712.6	6,934.2	11,794.9	7,118.4	93.4	91.5	101.81		-4,676.1	-127.8	914.5	733.4	181.11	5.049	
11,800.0	6,933.4	11,882.3	7,118.2	95.1	93.1	101.85		-4,763.6	-128.2	914.6	730.3	184.37	4.961	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HONEBEIN 7K-403 - ORIGINAL WELLBORE - PROPOSAL #2												Offset Site Error: 0.0 usft		
Survey Program: 0-MWDD												Offset Well Error: 0.0 usft		
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
11,811.0	6,933.3	11,893.3	7,118.2	95.3	93.3	101.86	-4,774.6	-128.2	914.6	729.9	184.78	4.950		
11,900.0	6,932.5	11,982.3	7,118.0	97.0	95.0	101.89	-4,863.5	-128.5	914.8	726.7	188.11	4.863		
11,909.4	6,932.4	11,991.8	7,118.0	97.1	95.2	101.90	-4,873.0	-128.6	914.8	726.3	188.46	4.854		
12,000.0	6,931.6	12,082.3	7,117.8	98.9	96.9	101.94	-4,963.5	-128.9	914.9	723.1	191.84	4.769		
12,007.8	6,931.5	12,090.2	7,117.8	99.0	97.1	101.94	-4,971.4	-128.9	914.9	722.8	192.13	4.762		
12,100.0	6,930.7	12,182.3	7,117.6	100.8	98.8	101.98	-5,063.5	-129.3	915.1	719.5	195.57	4.679		
12,106.3	6,930.6	12,188.6	7,117.6	100.9	98.9	101.98	-5,069.8	-129.3	915.1	719.3	195.81	4.673		
12,200.0	6,929.8	12,282.3	7,117.3	102.7	100.7	102.02	-5,163.5	-129.6	915.2	715.9	199.31	4.592		
12,204.7	6,929.7	12,287.0	7,117.3	102.8	100.8	102.02	-5,168.2	-129.6	915.2	715.7	199.48	4.588		
12,300.0	6,928.8	12,382.3	7,117.1	104.6	102.6	102.06	-5,263.5	-130.0	915.4	712.3	203.04	4.508		
12,303.1	6,928.8	12,385.5	7,117.1	104.7	102.7	102.06	-5,266.7	-130.0	915.4	712.2	203.16	4.506		
12,400.0	6,927.9	12,482.3	7,116.9	106.5	104.5	102.10	-5,363.5	-130.3	915.5	708.7	206.78	4.428		
12,401.5	6,927.9	12,483.9	7,116.9	106.6	104.5	102.10	-5,365.1	-130.3	915.5	708.7	206.83	4.426		
12,500.0	6,927.0	12,582.3	7,116.7	108.5	106.4	102.15	-5,463.5	-130.7	915.7	705.2	210.51	4.350		
12,598.4	6,926.1	12,680.7	7,116.4	110.4	108.3	102.19	-5,561.9	-131.1	915.8	701.6	214.19	4.276		
12,600.0	6,926.1	12,682.3	7,116.4	110.4	108.3	102.19	-5,563.5	-131.1	915.8	701.6	214.25	4.275		
12,696.8	6,925.2	12,779.1	7,116.2	112.3	110.1	102.23	-5,660.3	-131.4	916.0	698.1	217.87	4.204		
12,700.0	6,925.2	12,782.3	7,116.2	112.3	110.2	102.23	-5,663.5	-131.4	916.0	698.0	217.99	4.202		
12,795.2	6,924.3	12,877.6	7,116.0	114.1	112.0	102.27	-5,758.8	-131.8	916.1	694.6	221.55	4.135		
12,800.0	6,924.3	12,882.3	7,116.0	114.2	112.1	102.27	-5,763.5	-131.8	916.1	694.4	221.72	4.132		
12,893.7	6,923.4	12,976.0	7,115.8	116.0	113.9	102.31	-5,857.2	-132.1	916.3	691.1	225.23	4.068		
12,900.0	6,923.4	12,982.3	7,115.8	116.2	114.0	102.31	-5,863.5	-132.2	916.3	690.8	225.46	4.064		
12,992.1	6,922.5	13,074.4	7,115.6	117.9	115.7	102.35	-5,955.6	-132.5	916.4	687.5	228.90	4.004		
13,000.0	6,922.5	13,082.3	7,115.5	118.1	115.9	102.35	-5,963.5	-132.5	916.4	687.2	229.20	3.998		
13,090.5	6,921.6	13,172.8	7,115.3	119.8	117.6	102.39	-6,054.0	-132.9	916.6	684.0	232.58	3.941		
13,100.0	6,921.5	13,182.3	7,115.3	120.0	117.8	102.40	-6,063.5	-132.9	916.6	683.7	232.94	3.935		
13,188.9	6,920.7	13,271.3	7,115.1	121.7	119.5	102.43	-6,152.5	-133.2	916.7	680.5	236.26	3.880		
13,200.0	6,920.6	13,282.3	7,115.1	121.9	119.7	102.44	-6,163.5	-133.3	916.8	680.1	236.68	3.873		
13,287.4	6,919.8	13,369.7	7,114.9	123.6	121.4	102.48	-6,250.9	-133.6	916.9	677.0	239.94	3.821		
13,300.0	6,919.7	13,382.3	7,114.9	123.9	121.6	102.48	-6,263.5	-133.6	916.9	676.5	240.41	3.814		
13,385.8	6,918.9	13,468.1	7,114.7	125.5	123.2	102.52	-6,349.3	-133.9	917.0	673.4	243.62	3.764		
13,400.0	6,918.8	13,482.3	7,114.6	125.8	123.5	102.52	-6,363.5	-134.0	917.1	672.9	244.15	3.756		
13,484.2	6,918.0	13,566.5	7,114.5	127.4	125.1	102.56	-6,447.7	-134.3	917.2	669.9	247.30	3.709		
13,500.0	6,917.9	13,582.3	7,114.4	127.7	125.4	102.56	-6,463.5	-134.3	917.2	669.3	247.89	3.700		
13,582.6	6,917.1	13,664.9	7,114.2	129.3	127.0	102.60	-6,546.1	-134.6	917.4	666.4	250.98	3.655		
13,600.0	6,917.0	13,682.3	7,114.2	129.7	127.3	102.61	-6,563.5	-134.7	917.4	665.8	251.63	3.646		
13,681.1	6,916.2	13,763.4	7,114.0	131.2	128.9	102.64	-6,644.6	-135.0	917.5	662.9	254.66	3.603		
13,700.0	6,916.1	13,782.3	7,114.0	131.6	129.2	102.65	-6,663.5	-135.1	917.5	662.2	255.37	3.593		
13,779.5	6,915.3	13,861.8	7,113.8	133.1	130.7	102.68	-6,743.0	-135.4	917.7	659.3	258.34	3.552		
13,800.0	6,915.2	13,882.3	7,113.8	133.5	131.1	102.69	-6,763.5	-135.4	917.7	658.6	259.10	3.542		
13,877.9	6,914.4	13,960.2	7,113.6	135.1	132.6	102.72	-6,841.4	-135.7	917.8	655.8	262.01	3.503		
13,900.0	6,914.2	13,982.3	7,113.5	135.5	133.0	102.73	-6,863.5	-135.8	917.9	655.0	262.84	3.492		
13,976.3	6,913.5	14,058.6	7,113.4	137.0	134.5	102.76	-6,939.8	-136.1	918.0	652.3	265.69	3.455		
14,000.0	6,913.3	14,082.3	7,113.3	137.4	135.0	102.77	-6,963.5	-136.2	918.0	651.5	266.58	3.444		
14,074.8	6,912.6	14,157.1	7,113.1	138.9	136.4	102.80	-7,038.3	-136.4	918.2	648.8	269.37	3.409		
14,100.0	6,912.4	14,182.3	7,113.1	139.4	136.9	102.82	-7,063.5	-136.5	918.2	647.9	270.31	3.397		
14,145.0	6,912.0	14,219.1	7,113.0	140.2	137.6	102.83	-7,100.3	-136.7	918.3	646.5	271.80	3.379 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error: 0.0 usft	
Survey Program: 0-INC													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) +E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-155.01	-3,511.9	-1,636.9	3,875.2					
98.4	98.4	34.9	34.9	0.1	0.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,874.1	0.55	7,030.493		
100.0	100.0	36.5	36.5	0.1	0.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,874.1	0.57	6,756.850		
196.8	196.8	133.3	133.3	0.3	2.1	-155.01	-3,511.9	-1,636.9	3,874.6	3,872.3	2.38	1,631.025		
200.0	200.0	136.5	136.5	0.3	2.1	-155.01	-3,511.9	-1,636.9	3,874.6	3,872.2	2.45	1,578.864		
295.3	295.3	231.8	231.8	0.5	4.2	-155.01	-3,511.9	-1,636.9	3,874.6	3,869.9	4.77	812.753		
300.0	300.0	236.5	236.5	0.5	4.3	-155.01	-3,511.9	-1,636.9	3,874.6	3,869.8	4.88	794.631		
393.7	393.7	330.2	330.2	0.8	6.3	-155.01	-3,511.9	-1,636.9	3,874.6	3,867.6	7.02	551.819		
400.0	400.0	336.5	336.5	0.8	6.4	-155.01	-3,511.9	-1,636.9	3,874.6	3,867.5	7.16	540.821		
492.1	492.1	428.6	428.6	1.0	8.3	-155.01	-3,511.9	-1,636.9	3,874.6	3,865.4	9.25	418.944		
500.0	500.0	436.5	436.5	1.0	8.4	-155.01	-3,511.9	-1,636.9	3,874.6	3,865.2	9.43	411.056		
590.5	590.5	527.0	527.0	1.2	10.3	-155.01	-3,511.9	-1,636.9	3,874.6	3,863.2	11.46	337.953		
600.0	600.0	536.5	536.5	1.2	10.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,863.0	11.68	331.807		
689.0	689.0	625.5	625.5	1.4	12.3	-155.01	-3,511.9	-1,636.9	3,874.6	3,861.0	13.68	283.313		
700.0	700.0	636.5	636.5	1.4	12.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,860.7	13.92	278.279		
787.4	787.4	723.9	723.9	1.6	14.2	-155.01	-3,511.9	-1,636.9	3,874.6	3,858.8	15.88	243.929		
800.0	800.0	736.5	736.5	1.7	14.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,858.5	16.17	239.667		
885.8	885.8	822.3	822.3	1.9	16.2	-155.01	-3,511.9	-1,636.9	3,874.6	3,856.5	18.09	214.180		
900.0	900.0	836.5	836.5	1.9	16.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,856.2	18.41	210.485		
984.2	984.2	920.7	920.7	2.1	18.2	-155.01	-3,511.9	-1,636.9	3,874.6	3,854.3	20.30	190.911		
1,000.0	1,000.0	936.5	936.5	2.1	18.5	-155.01	-3,511.9	-1,636.9	3,874.6	3,854.0	20.65	187.649		
1,082.7	1,082.7	1,019.2	1,019.2	2.3	20.2	134.91	-3,511.9	-1,636.9	3,875.5	3,853.0	22.49	172.334		
1,100.0	1,100.0	1,036.5	1,036.5	2.3	20.5	134.91	-3,511.9	-1,636.9	3,875.9	3,853.0	22.87	169.457		
1,181.1	1,181.0	1,117.5	1,117.5	2.5	22.2	134.91	-3,511.9	-1,636.9	3,878.7	3,854.0	24.66	157.291		
1,200.0	1,199.8	1,136.3	1,136.3	2.6	22.6	134.92	-3,511.9	-1,636.9	3,879.6	3,854.5	25.07	154.729		
1,279.5	1,279.1	1,215.6	1,215.6	2.7	24.1	134.92	-3,511.9	-1,636.9	3,884.3	3,857.5	26.81	144.865		
1,300.0	1,299.5	1,236.0	1,236.0	2.8	24.6	134.92	-3,511.9	-1,636.9	3,885.7	3,858.5	27.26	142.554		
1,377.9	1,376.9	1,313.4	1,313.4	3.0	26.1	134.92	-3,511.9	-1,636.9	3,892.3	3,863.3	28.95	134.445		
1,400.0	1,398.7	1,335.2	1,335.2	3.0	26.6	134.92	-3,511.9	-1,636.9	3,894.4	3,864.9	29.42	132.351		
1,476.4	1,474.2	1,410.7	1,410.7	3.2	28.1	134.93	-3,511.9	-1,636.9	3,902.6	3,871.6	31.07	125.612		
1,500.0	1,497.5	1,434.0	1,434.0	3.3	28.5	134.93	-3,511.9	-1,636.9	3,905.5	3,873.9	31.57	123.700		
1,574.8	1,571.0	1,507.5	1,507.5	3.5	30.0	134.93	-3,511.9	-1,636.9	3,915.4	3,882.3	33.17	118.040		
1,600.1	1,595.7	1,532.2	1,532.2	3.6	30.5	134.93	-3,511.9	-1,636.9	3,919.1	3,885.4	33.70	116.283		
1,673.2	1,667.2	1,603.7	1,603.7	3.9	32.0	135.08	-3,511.9	-1,636.9	3,930.0	3,894.6	35.34	111.192		
1,700.0	1,693.4	1,629.9	1,629.9	4.0	32.5	135.14	-3,511.9	-1,636.9	3,934.0	3,898.0	35.94	109.449		
1,771.6	1,763.5	1,700.0	1,700.0	4.2	33.9	135.29	-3,511.9	-1,636.9	3,944.6	3,907.1	37.56	105.025		
1,800.0	1,791.3	1,727.8	1,727.8	4.3	34.5	135.35	-3,511.9	-1,636.9	3,948.9	3,910.7	38.20	103.383		
1,870.1	1,859.8	1,796.3	1,796.3	4.6	35.8	135.50	-3,511.9	-1,636.9	3,959.4	3,919.6	39.78	99.525		
1,900.0	1,889.1	1,825.6	1,825.6	4.7	36.4	135.56	-3,511.9	-1,636.9	3,963.9	3,923.4	40.46	97.972		
1,968.5	1,956.1	1,892.6	1,892.6	5.0	37.8	135.70	-3,511.9	-1,636.9	3,974.2	3,932.1	42.01	94.591		
2,000.0	1,986.9	1,923.4	1,923.4	5.1	38.4	135.77	-3,511.9	-1,636.9	3,978.9	3,936.2	42.73	93.120		
2,066.9	2,052.3	1,988.8	1,988.8	5.4	39.7	135.90	-3,511.9	-1,636.9	3,989.0	3,944.7	44.25	90.144		
2,100.0	2,084.7	2,021.2	2,021.2	5.5	40.4	135.97	-3,511.9	-1,636.9	3,994.0	3,949.0	45.00	88.748		
2,165.3	2,148.6	2,085.1	2,085.1	5.8	41.6	136.11	-3,511.9	-1,636.9	4,003.9	3,957.4	46.49	86.118		
2,200.0	2,182.5	2,119.0	2,119.0	5.9	42.3	136.18	-3,511.9	-1,636.9	4,009.1	3,961.8	47.28	84.791		
2,263.8	2,244.9	2,181.4	2,181.4	6.2	43.6	136.31	-3,511.9	-1,636.9	4,018.8	3,970.1	48.74	82.458		
2,300.0	2,280.3	2,216.8	2,216.8	6.3	44.3	136.38	-3,511.9	-1,636.9	4,024.3	3,974.7	49.56	81.195		
2,362.2	2,341.2	2,277.7	2,277.7	6.6	45.5	136.50	-3,511.9	-1,636.9	4,033.8	3,982.8	50.98	79.118		
2,400.0	2,378.1	2,314.6	2,314.6	6.8	46.3	136.58	-3,511.9	-1,636.9	4,039.5	3,987.7	51.85	77.912		
2,460.6	2,437.4	2,373.9	2,373.9	7.0	47.5	136.70	-3,511.9	-1,636.9	4,048.8	3,995.6	53.23	76.058		
2,500.0	2,476.0	2,412.5	2,412.5	7.2	48.2	136.78	-3,511.9	-1,636.9	4,054.8	4,000.7	54.13	74.905		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	2,470.2	2,470.2	7.4	49.4	136.90		-3,511.9	-1,636.9	4,063.9	4,008.4	55.48	73.245	
2,600.0	2,573.8	2,510.3	2,510.3	7.6	50.2	136.98		-3,511.9	-1,636.9	4,070.1	4,013.7	56.42	72.141	
2,657.5	2,630.0	2,566.5	2,566.5	7.9	51.3	137.09		-3,511.9	-1,636.9	4,079.0	4,021.2	57.73	70.651	
2,700.0	2,671.6	2,608.1	2,608.1	8.1	52.2	137.18		-3,511.9	-1,636.9	4,085.5	4,026.8	58.71	69.592	
2,755.9	2,726.3	2,662.8	2,662.8	8.3	53.3	137.29		-3,511.9	-1,636.9	4,094.1	4,034.2	59.99	68.252	
2,800.0	2,769.4	2,705.9	2,705.9	8.5	54.1	137.37		-3,511.9	-1,636.9	4,101.0	4,040.0	60.99	67.235	
2,854.3	2,822.5	2,759.0	2,759.0	8.7	55.2	137.48		-3,511.9	-1,636.9	4,109.4	4,047.1	62.24	66.027	
2,900.0	2,867.2	2,803.7	2,803.7	8.9	56.1	137.57		-3,511.9	-1,636.9	4,116.4	4,053.2	63.28	65.048	
2,952.7	2,918.8	2,855.3	2,855.3	9.2	57.1	137.67		-3,511.9	-1,636.9	4,124.6	4,060.1	64.49	63.958	
3,000.0	2,965.0	2,901.5	2,901.5	9.4	58.1	137.76		-3,511.9	-1,636.9	4,132.0	4,066.4	65.57	63.015	
3,051.2	3,015.1	2,951.6	2,951.6	9.6	59.1	137.86		-3,511.9	-1,636.9	4,139.9	4,073.2	66.74	62.029	
3,100.0	3,062.8	2,999.3	2,999.3	9.8	60.0	137.95		-3,511.9	-1,636.9	4,147.5	4,079.7	67.86	61.120	
3,149.6	3,111.4	3,047.9	3,047.9	10.0	61.0	138.04		-3,511.9	-1,636.9	4,155.3	4,086.3	68.99	60.227	
3,200.0	3,160.7	3,097.2	3,097.2	10.3	62.0	138.14		-3,511.9	-1,636.9	4,163.1	4,093.0	70.15	59.350	
3,248.0	3,207.6	3,144.1	3,144.1	10.5	62.9	138.23		-3,511.9	-1,636.9	4,170.7	4,099.4	71.24	58.540	
3,300.0	3,258.5	3,195.0	3,195.0	10.7	64.0	138.33		-3,511.9	-1,636.9	4,178.8	4,106.4	72.43	57.692	
3,346.4	3,303.9	3,240.4	3,240.4	10.9	64.9	138.41		-3,511.9	-1,636.9	4,186.1	4,112.6	73.50	56.957	
3,400.0	3,356.3	3,292.8	3,292.8	11.2	65.9	138.51		-3,511.9	-1,636.9	4,194.5	4,119.8	74.72	56.137	
3,444.9	3,400.2	3,336.7	3,336.7	11.4	66.8	138.60		-3,511.9	-1,636.9	4,201.6	4,125.8	75.75	55.470	
3,500.0	3,454.1	3,390.6	3,390.6	11.6	67.9	138.70		-3,511.9	-1,636.9	4,210.3	4,133.2	77.01	54.675	
3,543.3	3,496.5	3,433.0	3,433.0	11.8	68.8	138.78		-3,511.9	-1,636.9	4,217.1	4,139.1	78.00	54.069	
3,600.0	3,551.9	3,488.4	3,488.4	12.0	69.9	138.88		-3,511.9	-1,636.9	4,226.0	4,146.8	79.29	53.298	
3,641.7	3,592.7	3,529.2	3,529.2	12.2	70.7	138.96		-3,511.9	-1,636.9	4,232.6	4,152.4	80.24	52.747	
3,700.0	3,649.7	3,586.2	3,586.2	12.5	71.8	139.07		-3,511.9	-1,636.9	4,241.9	4,160.3	81.58	52.000	
3,740.1	3,689.0	3,625.5	3,625.5	12.7	72.6	139.14		-3,511.9	-1,636.9	4,248.2	4,165.8	82.49	51.499	
3,800.0	3,747.5	3,684.0	3,684.0	12.9	73.8	139.25		-3,511.9	-1,636.9	4,257.8	4,173.9	83.86	50.773	
3,838.6	3,785.3	3,721.8	3,721.8	13.1	74.6	139.32		-3,511.9	-1,636.9	4,263.9	4,179.2	84.74	50.317	
3,900.0	3,845.4	3,781.9	3,781.9	13.4	75.8	139.43		-3,511.9	-1,636.9	4,273.7	4,187.5	86.14	49.612	
3,937.0	3,881.5	3,818.0	3,818.0	13.6	76.5	139.50		-3,511.9	-1,636.9	4,279.6	4,192.6	86.99	49.198	
4,000.0	3,943.2	3,879.7	3,879.7	13.8	77.7	139.61		-3,511.9	-1,636.9	4,289.6	4,201.2	88.42	48.512	
4,035.4	3,977.8	3,914.3	3,914.3	14.0	78.4	139.67		-3,511.9	-1,636.9	4,295.3	4,206.1	89.23	48.136	
4,100.0	4,041.0	3,977.5	3,977.5	14.3	79.7	139.79		-3,511.9	-1,636.9	4,305.6	4,214.9	90.71	47.468	
4,133.8	4,074.1	4,010.6	4,010.6	14.4	80.4	139.85		-3,511.9	-1,636.9	4,311.1	4,219.6	91.48	47.127	
4,200.0	4,138.8	4,075.3	4,075.3	14.7	81.7	139.96		-3,511.9	-1,636.9	4,321.7	4,228.7	92.99	46.477	
4,232.3	4,170.4	4,106.9	4,106.9	14.9	82.3	140.02		-3,511.9	-1,636.9	4,326.9	4,233.1	93.72	46.167	
4,300.0	4,236.6	4,173.1	4,173.1	15.2	83.6	140.14		-3,511.9	-1,636.9	4,337.8	4,242.5	95.27	45.534	
4,330.7	4,266.6	4,203.1	4,203.1	15.3	84.2	140.19		-3,511.9	-1,636.9	4,342.7	4,246.7	95.96	45.253	
4,400.0	4,334.4	4,270.9	4,270.9	15.6	85.6	140.31		-3,511.9	-1,636.9	4,353.9	4,256.3	97.54	44.635	
4,429.1	4,362.9	4,299.4	4,299.4	15.8	86.2	140.36		-3,511.9	-1,636.9	4,358.6	4,260.4	98.21	44.382	
4,500.0	4,432.2	4,368.7	4,368.7	16.1	87.6	140.48		-3,511.9	-1,636.9	4,370.1	4,270.2	99.82	43.779	
4,527.5	4,459.2	4,395.7	4,395.7	16.2	88.1	140.53		-3,511.9	-1,636.9	4,374.5	4,274.1	100.45	43.550	
4,600.0	4,530.1	4,466.6	4,466.6	16.5	89.5	140.66		-3,511.9	-1,636.9	4,386.3	4,284.2	102.10	42.961	
4,626.0	4,555.5	4,492.0	4,492.0	16.7	90.1	140.70		-3,511.9	-1,636.9	4,390.5	4,287.8	102.69	42.755	
4,700.0	4,627.9	4,564.4	4,564.4	17.0	91.5	140.83		-3,511.9	-1,636.9	4,402.5	4,298.1	104.37	42.180	
4,724.4	4,651.7	4,588.2	4,588.2	17.1	92.0	140.87		-3,511.9	-1,636.9	4,406.5	4,301.5	104.93	41.995	
4,800.0	4,725.7	4,662.2	4,662.2	17.4	93.5	140.99		-3,511.9	-1,636.9	4,418.8	4,312.1	106.65	41.433	
4,822.8	4,748.0	4,684.5	4,684.5	17.6	93.9	141.03		-3,511.9	-1,636.9	4,422.5	4,315.3	107.17	41.267	
4,900.0	4,823.5	4,760.0	4,760.0	17.9	95.4	141.16		-3,511.9	-1,636.9	4,435.1	4,326.2	108.92	40.718	
4,921.2	4,844.3	4,780.8	4,780.8	18.0	95.9	141.20		-3,511.9	-1,636.9	4,438.6	4,329.2	109.40	40.570	
5,000.0	4,921.3	4,857.8	4,857.8	18.4	97.4	141.33		-3,511.9	-1,636.9	4,451.4	4,340.3	111.19	40.033	
5,014.9	4,935.9	4,872.4	4,872.4	18.4	97.7	141.35		-3,511.9	-1,636.9	4,453.9	4,342.4	111.53	39.933	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,019.7	4,940.6	4,877.1	4,877.1	18.4	97.8	141.37		-3,511.9	-1,636.9	4,454.7	4,343.0	111.66	39.896	
5,100.0	5,019.4	4,955.9	4,955.9	18.7	99.4	141.65		-3,511.9	-1,636.9	4,466.9	4,353.1	113.75	39.267	
5,118.1	5,037.2	4,973.7	4,973.7	18.8	99.7	141.70		-3,511.9	-1,636.9	4,469.4	4,355.2	114.21	39.132	
5,200.0	5,118.1	5,054.6	5,054.6	19.0	101.4	141.93		-3,511.9	-1,636.9	4,479.6	4,363.4	116.27	38.529	
5,216.5	5,134.4	5,070.9	5,070.9	19.1	101.7	141.97		-3,511.9	-1,636.9	4,481.5	4,364.8	116.67	38.410	
5,300.0	5,217.2	5,153.7	5,153.7	19.3	103.4	142.16		-3,511.9	-1,636.9	4,489.7	4,371.0	118.71	37.821	
5,314.9	5,232.1	5,168.6	5,168.6	19.3	103.7	142.19		-3,511.9	-1,636.9	4,490.9	4,371.9	119.07	37.718	
5,400.0	5,316.8	5,253.3	5,253.3	19.5	105.4	142.32		-3,511.9	-1,636.9	4,497.0	4,375.9	121.07	37.143	
5,413.4	5,330.1	5,266.6	5,266.6	19.5	105.6	142.34		-3,511.9	-1,636.9	4,497.8	4,376.4	121.38	37.056	
5,500.0	5,416.6	5,353.1	5,353.1	19.7	107.4	142.42		-3,511.9	-1,636.9	4,501.6	4,378.2	123.34	36.496	
5,511.8	5,428.4	5,364.9	5,364.9	19.7	107.6	142.43		-3,511.9	-1,636.9	4,501.9	4,378.3	123.60	36.422	
5,600.0	5,516.6	5,453.1	5,453.1	19.8	109.4	142.46		-3,511.9	-1,636.9	4,503.3	4,377.8	125.52	35.878	
5,610.2	5,526.8	5,463.3	5,463.3	19.8	109.6	142.46		-3,511.9	-1,636.9	4,503.4	4,377.6	125.73	35.817	
5,615.0	5,531.6	5,468.1	5,468.1	19.8	109.7	-147.46		-3,511.9	-1,636.9	4,503.4	4,377.5	125.86	35.781	
5,700.0	5,616.6	5,553.1	5,553.1	19.9	111.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,375.7	127.69	35.267	
5,708.6	5,625.3	5,561.8	5,561.8	20.0	111.6	-147.46		-3,511.9	-1,636.9	4,503.4	4,375.5	127.88	35.215	
5,800.0	5,716.6	5,653.1	5,653.1	20.1	113.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,373.5	129.87	34.677	
5,807.1	5,723.7	5,660.2	5,660.2	20.1	113.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,373.4	130.02	34.636	
5,900.0	5,816.6	5,753.1	5,753.1	20.2	115.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,371.3	132.04	34.106	
5,905.5	5,822.1	5,758.6	5,758.6	20.2	115.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,371.2	132.16	34.075	
6,000.0	5,916.6	5,853.1	5,853.1	20.4	117.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,369.2	134.22	33.553	
6,003.9	5,920.5	5,857.0	5,857.0	20.4	117.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,369.1	134.30	33.532	
6,100.0	6,016.6	5,953.1	5,953.1	20.5	119.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,367.0	136.39	33.018	
6,102.3	6,019.0	5,955.5	5,955.5	20.5	119.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,366.9	136.44	33.005	
6,200.0	6,116.6	6,053.1	6,053.1	20.6	121.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,364.8	138.57	32.499	
6,200.8	6,117.4	6,053.9	6,053.9	20.6	121.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,364.8	138.59	32.495	
6,299.2	6,215.8	6,152.3	6,152.3	20.8	123.4	-147.46		-3,511.9	-1,636.9	4,503.4	4,362.6	140.73	31.999	
6,300.0	6,216.6	6,153.1	6,153.1	20.8	123.5	-147.46		-3,511.9	-1,636.9	4,503.4	4,362.6	140.75	31.995	
6,340.0	6,256.6	6,193.1	6,193.1	20.8	124.3	-147.46		-3,511.9	-1,636.9	4,503.4	4,361.8	141.62	31.798	
6,350.0	6,266.6	6,203.1	6,203.1	20.8	124.5	32.33		-3,511.9	-1,636.9	4,503.3	4,361.5	141.79	31.760	
6,397.6	6,314.2	6,250.7	6,250.7	20.9	125.4	32.43		-3,511.9	-1,636.9	4,501.4	4,359.0	142.42	31.607	
6,400.0	6,316.5	6,253.0	6,253.0	20.9	125.5	32.44		-3,511.9	-1,636.9	4,501.3	4,358.8	142.44	31.601	
6,450.0	6,366.2	6,302.7	6,302.7	20.9	126.5	32.69		-3,511.9	-1,636.9	4,496.3	4,353.7	142.58	31.536	
6,496.0	6,411.4	6,347.9	6,347.9	21.0	127.4	33.07		-3,511.9	-1,636.9	4,489.1	4,346.8	142.26	31.555	
6,500.0	6,415.3	6,351.8	6,351.8	21.0	127.5	33.11		-3,511.9	-1,636.9	4,488.3	4,346.1	142.22	31.560	
6,550.0	6,463.6	6,400.1	6,400.1	21.0	128.4	33.68		-3,511.9	-1,636.9	4,477.6	4,336.2	141.38	31.670	
6,594.5	6,505.8	6,442.3	6,442.3	21.0	129.3	34.34		-3,511.9	-1,636.9	4,465.6	4,325.4	140.29	31.832	
6,600.0	6,510.9	6,447.4	6,447.4	21.0	129.4	34.43		-3,511.9	-1,636.9	4,464.0	4,323.9	140.13	31.857	
6,650.0	6,557.0	6,493.5	6,493.5	21.0	130.3	35.36		-3,511.9	-1,636.9	4,447.7	4,309.2	138.52	32.109	
6,692.9	6,595.4	6,531.9	6,531.9	21.0	131.1	36.31		-3,511.9	-1,636.9	4,431.6	4,294.7	136.94	32.363	
6,700.0	6,601.6	6,538.1	6,538.1	21.0	131.2	36.48		-3,511.9	-1,636.9	4,428.8	4,292.1	136.66	32.408	
6,750.0	6,644.6	6,581.1	6,581.1	20.9	132.1	37.82		-3,511.9	-1,636.9	4,407.3	4,272.6	134.67	32.728	
6,791.3	6,678.6	6,615.1	6,615.1	20.9	132.8	39.10		-3,511.9	-1,636.9	4,387.8	4,254.7	133.04	32.982	
6,800.0	6,685.6	6,622.1	6,622.1	20.9	132.9	39.39		-3,511.9	-1,636.9	4,383.4	4,250.7	132.70	33.032	
6,850.0	6,724.6	6,661.1	6,661.1	20.9	133.7	41.22		-3,511.9	-1,636.9	4,357.3	4,226.4	130.96	33.273	
6,889.7	6,753.9	6,690.4	6,690.4	20.9	134.3	42.88		-3,511.9	-1,636.9	4,335.0	4,205.1	129.87	33.381	
6,900.0	6,761.3	6,697.8	6,697.8	20.9	134.4	43.33		-3,511.9	-1,636.9	4,329.0	4,199.4	129.64	33.394	
6,950.0	6,795.5	6,732.0	6,732.0	20.9	135.1	45.76		-3,511.9	-1,636.9	4,298.8	4,169.8	128.96	33.333	
6,988.2	6,819.9	6,756.4	6,756.4	20.9	135.6	47.83		-3,511.9	-1,636.9	4,274.5	4,145.5	129.02	33.130	
7,000.0	6,827.1	6,763.6	6,763.6	20.9	135.7	48.52		-3,511.9	-1,636.9	4,266.8	4,137.6	129.14	33.039	
7,050.0	6,855.9	6,792.4	6,792.4	20.9	136.3	51.64		-3,511.9	-1,636.9	4,233.1	4,102.8	130.32	32.482	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
7,086.6	6,875.1	6,811.6	6,811.6	20.9	136.7	54.16	-3,511.9	-1,636.9	4,207.6	4,075.7	131.84	31.913		
7,100.0	6,881.8	6,818.3	6,818.3	20.9	136.8	55.14	-3,511.9	-1,636.9	4,198.0	4,065.5	132.56	31.669		
7,150.0	6,904.6	6,841.1	6,841.1	21.0	137.3	59.03	-3,511.9	-1,636.9	4,161.7	4,025.9	135.77	30.652		
7,185.0	6,918.8	6,855.3	6,855.3	21.1	137.6	61.99	-3,511.9	-1,636.9	4,135.6	3,997.1	138.49	29.861		
7,200.0	6,924.3	6,860.8	6,860.8	21.1	137.7	63.31	-3,511.9	-1,636.9	4,124.3	3,984.6	139.74	29.514		
7,250.0	6,940.8	6,877.3	6,877.3	21.2	138.0	67.94	-3,511.9	-1,636.9	4,086.1	3,942.0	144.09	28.357		
7,283.4	6,949.9	6,886.4	6,886.4	21.3	138.2	71.20	-3,511.9	-1,636.9	4,060.1	3,913.1	147.01	27.619		
7,300.0	6,953.9	6,890.4	6,890.4	21.4	138.3	72.86	-3,511.9	-1,636.9	4,047.2	3,898.8	148.39	27.275		
7,350.0	6,963.6	6,900.1	6,900.1	21.6	138.5	77.99	-3,511.9	-1,636.9	4,007.9	3,855.7	152.15	26.341		
7,381.9	6,968.0	6,904.5	6,904.5	21.7	138.6	81.33	-3,511.9	-1,636.9	3,982.7	3,828.6	154.10	25.845		
7,400.0	6,969.9	6,906.4	6,906.4	21.8	138.6	83.23	-3,511.9	-1,636.9	3,968.4	3,813.4	155.00	25.602		
7,450.0	6,972.6	6,909.1	6,909.1	22.1	138.7	88.45	-3,511.9	-1,636.9	3,928.8	3,772.1	156.69	25.074		
7,471.5	6,972.8	6,909.3	6,909.3	22.2	138.7	90.67	-3,511.9	-1,636.9	3,911.8	3,754.8	157.04	24.909		
7,480.3	6,972.7	6,909.2	6,909.2	22.3	138.7	90.66	-3,511.9	-1,636.9	3,904.9	3,747.8	157.13	24.852		
7,500.0	6,972.5	6,909.0	6,909.0	22.4	138.7	90.66	-3,511.9	-1,636.9	3,889.4	3,732.1	157.32	24.723		
7,578.7	6,971.8	6,908.3	6,908.3	23.1	138.6	90.64	-3,511.9	-1,636.9	3,827.9	3,669.8	158.10	24.213		
7,600.0	6,971.6	6,908.1	6,908.1	23.3	138.6	90.64	-3,511.9	-1,636.9	3,811.4	3,653.1	158.31	24.076		
7,677.1	6,970.9	6,907.4	6,907.4	24.0	138.6	90.62	-3,511.9	-1,636.9	3,751.9	3,592.8	159.13	23.578		
7,700.0	6,970.7	6,907.2	6,907.2	24.2	138.6	90.62	-3,511.9	-1,636.9	3,734.4	3,575.1	159.37	23.432		
7,775.6	6,970.0	6,906.5	6,906.5	25.0	138.6	90.60	-3,511.9	-1,636.9	3,677.0	3,516.7	160.27	22.942		
7,800.0	6,969.8	6,906.3	6,906.3	25.3	138.6	90.59	-3,511.9	-1,636.9	3,658.6	3,498.0	160.56	22.786		
7,874.0	6,969.1	6,905.6	6,905.6	26.2	138.6	90.58	-3,511.9	-1,636.9	3,603.2	3,441.7	161.52	22.308		
7,900.0	6,968.9	6,905.4	6,905.4	26.5	138.6	90.57	-3,511.9	-1,636.9	3,583.9	3,422.1	161.86	22.142		
7,972.4	6,968.2	6,904.7	6,904.7	27.4	138.6	90.56	-3,511.9	-1,636.9	3,530.6	3,367.8	162.86	21.679		
8,000.0	6,968.0	6,904.5	6,904.5	27.8	138.6	90.55	-3,511.9	-1,636.9	3,510.5	3,347.3	163.24	21.506		
8,070.8	6,967.3	6,903.8	6,903.8	28.7	138.6	90.54	-3,511.9	-1,636.9	3,459.3	3,295.0	164.26	21.059		
8,100.0	6,967.1	6,903.6	6,903.6	29.1	138.6	90.53	-3,511.9	-1,636.9	3,438.4	3,273.7	164.69	20.879		
8,169.3	6,966.4	6,902.9	6,902.9	30.1	138.5	90.52	-3,511.9	-1,636.9	3,389.3	3,223.6	165.73	20.451		
8,200.0	6,966.2	6,902.7	6,902.7	30.5	138.5	90.51	-3,511.9	-1,636.9	3,367.8	3,201.6	166.20	20.264		
8,267.7	6,965.5	6,902.0	6,902.0	31.5	138.5	90.49	-3,511.9	-1,636.9	3,320.8	3,153.6	167.26	19.855		
8,300.0	6,965.2	6,901.7	6,901.7	32.0	138.5	90.49	-3,511.9	-1,636.9	3,298.7	3,130.9	167.76	19.663		
8,366.1	6,964.6	6,901.1	6,901.1	33.0	138.5	90.47	-3,511.9	-1,636.9	3,253.8	3,085.0	168.82	19.274		
8,400.0	6,964.3	6,900.8	6,900.8	33.5	138.5	90.47	-3,511.9	-1,636.9	3,231.2	3,061.8	169.37	19.078		
8,464.5	6,963.8	6,900.3	6,900.3	34.5	138.5	90.45	-3,511.9	-1,636.9	3,188.5	3,018.1	170.43	18.709		
8,500.0	6,963.4	6,899.9	6,899.9	35.1	138.5	90.44	-3,511.9	-1,636.9	3,165.4	2,994.4	171.01	18.510		
8,563.0	6,962.9	6,899.4	6,899.4	36.1	138.5	90.43	-3,511.9	-1,636.9	3,124.9	2,952.8	172.07	18.161		
8,600.0	6,962.5	6,899.0	6,899.0	36.7	138.5	90.42	-3,511.9	-1,636.9	3,101.4	2,928.7	172.69	17.960		
8,661.4	6,962.0	6,898.5	6,898.5	37.7	138.5	90.41	-3,511.9	-1,636.9	3,063.1	2,889.4	173.73	17.631		
8,700.0	6,961.6	6,898.1	6,898.1	38.3	138.4	90.40	-3,511.9	-1,636.9	3,039.4	2,865.0	174.39	17.429		
8,759.8	6,961.1	6,897.6	6,897.6	39.3	138.4	90.39	-3,511.9	-1,636.9	3,003.3	2,827.9	175.42	17.120		
8,800.0	6,960.7	6,897.2	6,897.2	40.0	138.4	90.38	-3,511.9	-1,636.9	2,979.5	2,803.3	176.11	16.918		
8,858.2	6,960.2	6,896.7	6,896.7	40.9	138.4	90.37	-3,511.9	-1,636.9	2,945.5	2,768.4	177.13	16.629		
8,900.0	6,959.8	6,896.3	6,896.3	41.6	138.4	90.36	-3,511.9	-1,636.9	2,921.7	2,743.8	177.86	16.427		
8,956.7	6,959.3	6,895.8	6,895.8	42.6	138.4	90.35	-3,511.9	-1,636.9	2,890.0	2,711.1	178.86	16.158		
9,000.0	6,958.9	6,895.4	6,895.4	43.3	138.4	90.34	-3,511.9	-1,636.9	2,866.3	2,686.7	179.62	15.957		
9,055.1	6,958.4	6,894.9	6,894.9	44.3	138.4	90.32	-3,511.9	-1,636.9	2,836.8	2,656.2	180.60	15.707		
9,100.0	6,958.0	6,894.5	6,894.5	45.1	138.4	90.31	-3,511.9	-1,636.9	2,813.3	2,631.9	181.40	15.509		
9,153.5	6,957.5	6,894.0	6,894.0	46.0	138.4	90.30	-3,511.9	-1,636.9	2,786.0	2,603.7	182.36	15.277		
9,200.0	6,957.1	6,893.6	6,893.6	46.8	138.4	90.29	-3,511.9	-1,636.9	2,763.0	2,579.8	183.20	15.082		
9,251.9	6,956.6	6,893.1	6,893.1	47.7	138.3	90.28	-3,511.9	-1,636.9	2,737.9	2,553.7	184.13	14.869		
9,300.0	6,956.2	6,892.7	6,892.7	48.6	138.3	90.27	-3,511.9	-1,636.9	2,715.3	2,530.3	185.00	14.678		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	6,892.2	6,892.2	49.5	138.3	90.26		-3,511.9	-1,636.9	2,692.5	2,506.5	185.92	14.482	
9,400.0	6,955.2	6,891.7	6,891.7	50.3	138.3	90.25		-3,511.9	-1,636.9	2,670.6	2,483.8	186.82	14.296	
9,448.8	6,954.8	6,891.3	6,891.3	51.2	138.3	90.24		-3,511.9	-1,636.9	2,649.9	2,462.2	187.71	14.117	
9,500.0	6,954.3	6,890.8	6,890.8	52.1	138.3	90.23		-3,511.9	-1,636.9	2,629.0	2,440.3	188.64	13.936	
9,547.2	6,953.9	6,890.4	6,890.4	53.0	138.3	90.22		-3,511.9	-1,636.9	2,610.4	2,420.9	189.51	13.775	
9,600.0	6,953.4	6,889.9	6,889.9	53.9	138.3	90.21		-3,511.9	-1,636.9	2,590.5	2,400.0	190.47	13.600	
9,645.6	6,953.0	6,889.5	6,889.5	54.7	138.3	90.20		-3,511.9	-1,636.9	2,574.0	2,382.7	191.31	13.454	
9,700.0	6,952.5	6,889.0	6,889.0	55.7	138.3	90.18		-3,511.9	-1,636.9	2,555.4	2,363.0	192.32	13.287	
9,744.1	6,952.1	6,888.6	6,888.6	56.5	138.3	90.18		-3,511.9	-1,636.9	2,541.0	2,347.8	193.13	13.157	
9,800.0	6,951.6	6,888.1	6,888.1	57.5	138.2	90.16		-3,511.9	-1,636.9	2,523.7	2,329.5	194.16	12.998	
9,842.5	6,951.2	6,887.7	6,887.7	58.3	138.2	90.15		-3,511.9	-1,636.9	2,511.3	2,316.4	194.95	12.882	
9,900.0	6,950.7	6,887.2	6,887.2	59.4	138.2	90.14		-3,511.9	-1,636.9	2,495.6	2,299.6	196.02	12.732	
9,940.9	6,950.3	6,886.8	6,886.8	60.1	138.2	90.13		-3,511.9	-1,636.9	2,485.2	2,288.5	196.78	12.630	
10,000.0	6,949.8	6,886.3	6,886.3	61.2	138.2	90.12		-3,511.9	-1,636.9	2,471.3	2,273.4	197.88	12.489	
10,039.3	6,949.4	6,885.9	6,885.9	61.9	138.2	90.11		-3,511.9	-1,636.9	2,462.8	2,264.2	198.61	12.400	
10,100.0	6,948.9	6,885.4	6,885.4	63.0	138.2	90.10		-3,511.9	-1,636.9	2,450.8	2,251.1	199.74	12.270	
10,137.8	6,948.5	6,885.0	6,885.0	63.7	138.2	90.09		-3,511.9	-1,636.9	2,444.1	2,243.7	200.45	12.193	
10,200.0	6,948.0	6,884.5	6,884.5	64.9	138.2	90.08		-3,511.9	-1,636.9	2,434.3	2,232.7	201.61	12.074	
10,236.2	6,947.6	6,884.1	6,884.1	65.6	138.2	90.07		-3,511.9	-1,636.9	2,429.3	2,227.0	202.29	12.009	
10,300.0	6,947.1	6,883.6	6,883.6	66.7	138.2	90.06		-3,511.9	-1,636.9	2,421.8	2,218.3	203.48	11.901	
10,334.6	6,946.7	6,883.2	6,883.2	67.4	138.1	90.05		-3,511.9	-1,636.9	2,418.4	2,214.2	204.13	11.847	
10,400.0	6,946.2	6,882.7	6,882.7	68.6	138.1	90.03		-3,511.9	-1,636.9	2,413.3	2,208.0	205.36	11.752	
10,433.0	6,945.8	6,882.3	6,882.3	69.2	138.1	90.03		-3,511.9	-1,636.9	2,411.4	2,205.5	205.98	11.707	
10,500.0	6,945.2	6,881.7	6,881.7	70.5	138.1	90.01		-3,511.9	-1,636.9	2,409.0	2,201.8	207.24	11.624	
10,531.5	6,945.0	6,881.5	6,881.5	71.1	138.1	90.00		-3,511.9	-1,636.9	2,408.5	2,200.7	207.84	11.589	
10,554.1	6,944.7	6,881.2	6,881.2	71.5	138.1	90.00		-3,511.9	-1,636.9	2,408.4	2,200.1	208.26	11.564 CC	
10,600.0	6,944.3	6,880.8	6,880.8	72.3	138.1	89.99		-3,511.9	-1,636.9	2,408.8	2,199.7	209.13	11.519 ES	
10,629.9	6,944.1	6,880.6	6,880.6	72.9	138.1	89.98		-3,511.9	-1,636.9	2,409.6	2,199.9	209.69	11.491	
10,700.0	6,943.4	6,879.9	6,879.9	74.2	138.1	89.97		-3,511.9	-1,636.9	2,412.8	2,201.8	211.01	11.434	
10,728.3	6,943.2	6,879.7	6,879.7	74.7	138.1	89.96		-3,511.9	-1,636.9	2,414.7	2,203.1	211.55	11.414	
10,800.0	6,942.5	6,879.0	6,879.0	76.1	138.1	89.95		-3,511.9	-1,636.9	2,420.9	2,208.0	212.90	11.371	
10,826.7	6,942.3	6,878.8	6,878.8	76.6	138.1	89.94		-3,511.9	-1,636.9	2,423.8	2,210.4	213.41	11.357	
10,900.0	6,941.6	6,878.1	6,878.1	78.0	138.0	89.93		-3,511.9	-1,636.9	2,433.1	2,218.3	214.80	11.327	
10,925.2	6,941.4	6,877.9	6,877.9	78.4	138.0	89.92		-3,511.9	-1,636.9	2,436.8	2,221.5	215.27	11.320	
11,000.0	6,940.7	6,877.2	6,877.2	79.9	138.0	89.90		-3,511.9	-1,636.9	2,449.3	2,232.6	216.69	11.303	
11,023.6	6,940.5	6,877.0	6,877.0	80.3	138.0	89.90		-3,511.9	-1,636.9	2,453.7	2,236.6	217.14	11.300	
11,100.0	6,939.8	6,876.3	6,876.3	81.7	138.0	89.88		-3,511.9	-1,636.9	2,469.5	2,250.9	218.59	11.297 SF	
11,122.0	6,939.6	6,876.1	6,876.1	82.2	138.0	89.88		-3,511.9	-1,636.9	2,474.5	2,255.5	219.01	11.298	
11,200.0	6,938.9	6,875.4	6,875.4	83.6	138.0	89.86		-3,511.9	-1,636.9	2,493.5	2,273.0	220.49	11.309	
11,220.4	6,938.7	6,875.2	6,875.2	84.0	138.0	89.86		-3,511.9	-1,636.9	2,498.9	2,278.0	220.88	11.313	
11,300.0	6,938.0	6,874.5	6,874.5	85.5	138.0	89.84		-3,511.9	-1,636.9	2,521.3	2,298.9	222.39	11.337	
11,318.9	6,937.8	6,874.3	6,874.3	85.9	138.0	89.83		-3,511.9	-1,636.9	2,526.9	2,304.2	222.75	11.344	
11,400.0	6,937.0	6,873.5	6,873.5	87.4	137.9	89.82		-3,511.9	-1,636.9	2,552.6	2,328.3	224.29	11.381	
11,417.3	6,936.9	6,873.4	6,873.4	87.8	137.9	89.81		-3,511.9	-1,636.9	2,558.4	2,333.8	224.62	11.390	
11,500.0	6,936.1	6,872.6	6,872.6	89.3	137.9	89.79		-3,511.9	-1,636.9	2,587.5	2,361.3	226.20	11.439	
11,515.7	6,936.0	6,872.5	6,872.5	89.6	137.9	89.79		-3,511.9	-1,636.9	2,593.3	2,366.8	226.50	11.450	
11,600.0	6,935.2	6,871.7	6,871.7	91.2	137.9	89.77		-3,511.9	-1,636.9	2,625.7	2,397.6	228.10	11.511	
11,614.1	6,935.1	6,871.6	6,871.6	91.5	137.9	89.77		-3,511.9	-1,636.9	2,631.4	2,403.0	228.37	11.522	
11,700.0	6,934.3	6,870.8	6,870.8	93.1	137.9	89.75		-3,511.9	-1,636.9	2,667.1	2,437.1	230.01	11.596	
11,712.6	6,934.2	6,870.7	6,870.7	93.4	137.9	89.75		-3,511.9	-1,636.9	2,672.5	2,442.3	230.25	11.607	
11,800.0	6,933.4	6,869.9	6,869.9	95.1	137.9	89.73		-3,511.9	-1,636.9	2,711.6	2,479.7	231.92	11.692	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - HOW SAD C 18-31 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-INC													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,811.0	6,933.3	6,869.8	6,869.8	95.3	137.9	89.73	89.73	-3,511.9	-1,636.9	2,716.6	2,484.5	232.13	11.703	
11,900.0	6,932.5	6,869.0	6,869.0	97.0	137.9	89.71	89.71	-3,511.9	-1,636.9	2,758.9	2,525.1	233.83	11.799	
11,909.4	6,932.4	6,868.9	6,868.9	97.1	137.9	89.71	89.71	-3,511.9	-1,636.9	2,763.6	2,529.5	234.01	11.810	
12,000.0	6,931.6	6,868.1	6,868.1	98.9	137.8	89.69	89.69	-3,511.9	-1,636.9	2,809.1	2,573.3	235.74	11.916	
12,007.8	6,931.5	6,868.0	6,868.0	99.0	137.8	89.68	89.68	-3,511.9	-1,636.9	2,813.1	2,577.2	235.89	11.926	
12,100.0	6,930.7	6,867.2	6,867.2	100.8	137.8	89.66	89.66	-3,511.9	-1,636.9	2,861.8	2,624.2	237.65	12.042	
12,106.3	6,930.6	6,867.1	6,867.1	100.9	137.8	89.66	89.66	-3,511.9	-1,636.9	2,865.2	2,627.5	237.77	12.050	
12,200.0	6,929.8	6,866.3	6,866.3	102.7	137.8	89.64	89.64	-3,511.9	-1,636.9	2,917.1	2,677.5	239.57	12.176	
12,204.7	6,929.7	6,866.2	6,866.2	102.8	137.8	89.64	89.64	-3,511.9	-1,636.9	2,919.7	2,680.1	239.66	12.183	
12,300.0	6,928.8	6,865.3	6,865.3	104.6	137.8	89.62	89.62	-3,511.9	-1,636.9	2,974.6	2,733.2	241.48	12.318	
12,303.1	6,928.8	6,865.3	6,865.3	104.7	137.8	89.62	89.62	-3,511.9	-1,636.9	2,976.5	2,734.9	241.54	12.323	
12,400.0	6,927.9	6,864.4	6,864.4	106.5	137.8	89.60	89.60	-3,511.9	-1,636.9	3,034.4	2,791.0	243.40	12.467	
12,401.5	6,927.9	6,864.4	6,864.4	106.6	137.8	89.60	89.60	-3,511.9	-1,636.9	3,035.4	2,791.9	243.43	12.469	
12,500.0	6,927.0	6,863.5	6,863.5	108.5	137.7	89.58	89.58	-3,511.9	-1,636.9	3,096.3	2,850.9	245.31	12.622	
12,598.4	6,926.1	6,862.6	6,862.6	110.4	137.7	89.56	89.56	-3,511.9	-1,636.9	3,159.0	2,911.8	247.20	12.779	
12,600.0	6,926.1	6,862.6	6,862.6	110.4	137.7	89.56	89.56	-3,511.9	-1,636.9	3,160.1	2,912.8	247.23	12.782	
12,696.8	6,925.2	6,861.7	6,861.7	112.3	137.7	89.53	89.53	-3,511.9	-1,636.9	3,223.6	2,974.5	249.09	12.942	
12,700.0	6,925.2	6,861.7	6,861.7	112.3	137.7	89.53	89.53	-3,511.9	-1,636.9	3,225.7	2,976.6	249.15	12.947	
12,795.2	6,924.3	6,860.8	6,860.8	114.1	137.7	89.51	89.51	-3,511.9	-1,636.9	3,289.8	3,038.9	250.98	13.108	
12,800.0	6,924.3	6,860.8	6,860.8	114.2	137.7	89.51	89.51	-3,511.9	-1,636.9	3,293.1	3,042.0	251.07	13.116	
12,893.7	6,923.4	6,859.9	6,859.9	116.0	137.7	89.49	89.49	-3,511.9	-1,636.9	3,357.7	3,104.8	252.86	13.278	
12,900.0	6,923.4	6,859.9	6,859.9	116.2	137.7	89.49	89.49	-3,511.9	-1,636.9	3,362.1	3,109.1	252.99	13.290	
12,992.1	6,922.5	6,859.0	6,859.0	117.9	137.7	89.47	89.47	-3,511.9	-1,636.9	3,427.0	3,172.2	254.75	13.452	
13,000.0	6,922.5	6,859.0	6,859.0	118.1	137.7	89.47	89.47	-3,511.9	-1,636.9	3,432.6	3,177.7	254.91	13.466	
13,090.5	6,921.6	6,858.1	6,858.1	119.8	137.6	89.45	89.45	-3,511.9	-1,636.9	3,497.7	3,241.0	256.64	13.628	
13,100.0	6,921.5	6,858.0	6,858.0	120.0	137.6	89.45	89.45	-3,511.9	-1,636.9	3,504.5	3,247.7	256.83	13.646	
13,188.9	6,920.7	6,857.2	6,857.2	121.7	137.6	89.43	89.43	-3,511.9	-1,636.9	3,569.7	3,311.1	258.54	13.807	
13,200.0	6,920.6	6,857.1	6,857.1	121.9	137.6	89.43	89.43	-3,511.9	-1,636.9	3,577.8	3,319.1	258.75	13.828	
13,287.4	6,919.8	6,856.3	6,856.3	123.6	137.6	89.41	89.41	-3,511.9	-1,636.9	3,642.9	3,382.5	260.43	13.988	
13,300.0	6,919.7	6,856.2	6,856.2	123.9	137.6	89.40	89.40	-3,511.9	-1,636.9	3,652.4	3,391.7	260.67	14.012	
13,385.8	6,918.9	6,855.4	6,855.4	125.5	137.6	89.39	89.39	-3,511.9	-1,636.9	3,717.3	3,455.0	262.32	14.171	
13,400.0	6,918.8	6,855.3	6,855.3	125.8	137.6	89.38	89.38	-3,511.9	-1,636.9	3,728.2	3,465.6	262.59	14.198	
13,484.2	6,918.0	6,854.5	6,854.5	127.4	137.6	89.36	89.36	-3,511.9	-1,636.9	3,792.9	3,528.6	264.21	14.355	
13,500.0	6,917.9	6,854.4	6,854.4	127.7	137.6	89.36	89.36	-3,511.9	-1,636.9	3,805.1	3,540.5	264.51	14.385	
13,582.6	6,917.1	6,853.6	6,853.6	129.3	137.5	89.34	89.34	-3,511.9	-1,636.9	3,869.4	3,603.3	266.10	14.541	
13,600.0	6,917.0	6,853.5	6,853.5	129.7	137.5	89.34	89.34	-3,511.9	-1,636.9	3,883.0	3,616.6	266.44	14.574	
13,681.1	6,916.2	6,852.7	6,852.7	131.2	137.5	89.32	89.32	-3,511.9	-1,636.9	3,946.9	3,678.9	268.00	14.727	
13,700.0	6,916.1	6,852.6	6,852.6	131.6	137.5	89.32	89.32	-3,511.9	-1,636.9	3,961.9	3,693.6	268.36	14.763	
13,779.5	6,915.3	6,851.8	6,851.8	133.1	137.5	89.30	89.30	-3,511.9	-1,636.9	4,025.3	3,755.4	269.89	14.915	
13,800.0	6,915.2	6,851.7	6,851.7	133.5	137.5	89.29	89.29	-3,511.9	-1,636.9	4,041.8	3,771.5	270.29	14.954	
13,877.9	6,914.4	6,850.9	6,850.9	135.1	137.5	89.28	89.28	-3,511.9	-1,636.9	4,104.6	3,832.8	271.79	15.102	
13,900.0	6,914.2	6,850.7	6,850.7	135.5	137.5	89.27	89.27	-3,511.9	-1,636.9	4,122.5	3,850.3	272.21	15.145	
13,976.3	6,913.5	6,850.0	6,850.0	137.0	137.5	89.26	89.26	-3,511.9	-1,636.9	4,184.7	3,911.0	273.68	15.291	
14,000.0	6,913.3	6,849.8	6,849.8	137.4	137.5	89.25	89.25	-3,511.9	-1,636.9	4,204.1	3,929.9	274.14	15.336	
14,074.8	6,912.6	6,849.1	6,849.1	138.9	137.5	89.23	89.23	-3,511.9	-1,636.9	4,265.6	3,990.0	275.58	15.479	
14,100.0	6,912.4	6,848.9	6,848.9	139.4	137.5	89.23	89.23	-3,511.9	-1,636.9	4,286.4	4,010.4	276.06	15.527	
14,145.0	6,912.0	6,848.5	6,848.5	140.2	137.4	89.22	89.22	-3,511.9	-1,636.9	4,323.7	4,046.8	276.88	15.615	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	0.0	0.0	0.0	0.0	-156.55	-655.8	-284.4	715.4					
98.4	98.4	67.4	67.4	0.1	0.0	-156.53	-655.7	-284.6	714.8	714.7	0.14	4,962.578		
100.0	100.0	69.0	69.0	0.1	0.0	-156.53	-655.7	-284.6	714.8	714.7	0.15	4,864.750		
196.8	196.8	169.1	169.1	0.3	0.2	-156.46	-655.3	-285.4	714.7	714.3	0.48	1,489.127		
200.0	200.0	172.4	172.4	0.3	0.2	-156.46	-655.2	-285.5	714.7	714.2	0.49	1,454.107		
295.3	295.3	265.0	265.0	0.5	0.3	-156.41	-654.7	-285.9	714.4	713.6	0.79	907.711		
299.6	299.6	269.1	269.1	0.5	0.3	-156.41	-654.7	-285.9	714.4	713.6	0.80	893.680		
300.0	300.0	269.5	269.5	0.5	0.3	-156.41	-654.7	-285.9	714.4	713.6	0.80	892.243		
393.7	393.7	365.6	365.6	0.8	0.3	-156.35	-654.4	-286.5	714.4	713.3	1.07	664.642		
400.0	400.0	372.3	372.3	0.8	0.3	-156.35	-654.4	-286.6	714.4	713.3	1.09	653.333		
492.1	492.1	469.1	469.0	1.0	0.4	-156.27	-653.3	-287.2	713.7	712.3	1.36	524.632		
500.0	500.0	477.3	477.2	1.0	0.4	-156.26	-653.2	-287.2	713.6	712.2	1.38	515.973		
590.5	590.5	572.7	572.6	1.2	0.4	-156.21	-651.7	-287.3	712.3	710.7	1.64	433.559		
600.0	600.0	582.7	582.6	1.2	0.4	-156.20	-651.5	-287.4	712.2	710.5	1.67	426.420		
689.0	689.0	669.2	669.1	1.4	0.5	-156.10	-649.6	-287.8	710.6	708.7	1.92	370.422		
700.0	700.0	679.7	679.6	1.4	0.5	-156.09	-649.4	-287.9	710.4	708.5	1.95	364.529		
787.4	787.4	769.1	769.1	1.6	0.6	-155.98	-647.7	-288.6	709.1	707.0	2.19	323.615		
800.0	800.0	782.3	782.2	1.7	0.6	-155.97	-647.4	-288.7	708.9	706.7	2.23	318.433		
885.8	885.8	867.7	867.6	1.9	0.6	-155.88	-645.5	-289.0	707.4	704.9	2.46	287.543		
900.0	900.0	881.7	881.6	1.9	0.6	-155.87	-645.2	-289.0	707.1	704.6	2.50	283.024		
984.2	984.2	961.3	961.2	2.1	0.6	-155.81	-643.9	-289.2	705.9	703.2	2.72	259.168		
1,000.0	1,000.0	976.0	975.9	2.1	0.7	-155.80	-643.7	-289.3	705.8	703.0	2.77	255.180		
1,027.7	1,027.7	1,002.0	1,001.9	2.2	0.7	134.14	-643.5	-289.3	705.6	702.8	2.81	251.410 CC, ES		
1,082.7	1,082.7	1,057.1	1,057.0	2.3	0.7	134.23	-643.0	-289.5	706.0	703.0	2.95	239.491		
1,100.0	1,100.0	1,074.4	1,074.3	2.3	0.7	134.27	-642.8	-289.6	706.3	703.3	2.99	236.002		
1,181.1	1,181.0	1,156.8	1,156.7	2.5	0.7	134.52	-642.0	-289.9	708.4	705.2	3.20	221.481		
1,200.0	1,199.8	1,176.2	1,176.1	2.6	0.7	134.60	-641.8	-290.0	709.1	705.9	3.25	218.437		
1,279.5	1,279.1	1,255.4	1,255.3	2.7	0.8	134.94	-640.9	-289.9	713.1	709.6	3.46	206.262		
1,300.0	1,299.5	1,275.6	1,275.4	2.8	0.8	135.05	-640.7	-289.9	714.3	710.8	3.51	203.423		
1,377.9	1,376.9	1,350.7	1,350.5	3.0	0.8	135.48	-640.1	-289.9	720.3	716.6	3.73	193.308		
1,400.0	1,398.7	1,371.7	1,371.5	3.0	0.8	135.61	-640.0	-289.8	722.3	718.5	3.79	190.821		
1,476.4	1,474.2	1,446.8	1,446.6	3.2	0.8	136.13	-639.8	-289.6	730.4	726.4	4.01	182.363		
1,500.0	1,497.5	1,470.4	1,470.3	3.3	0.8	136.31	-639.7	-289.7	733.2	729.2	4.07	180.055		
1,574.8	1,571.0	1,542.6	1,542.5	3.5	0.9	136.93	-639.2	-289.8	743.1	738.8	4.30	172.658		
1,600.1	1,595.7	1,566.4	1,566.3	3.6	0.9	137.14	-639.1	-289.9	746.9	742.5	4.38	170.456		
1,673.2	1,667.2	1,636.9	1,636.8	3.9	0.9	137.93	-638.9	-290.3	758.2	753.6	4.61	164.350		
1,700.0	1,693.4	1,663.3	1,663.2	4.0	0.9	138.22	-638.9	-290.4	762.4	757.7	4.70	162.328		
1,771.6	1,763.5	1,734.2	1,734.0	4.2	0.9	138.98	-638.7	-290.6	773.6	768.7	4.93	156.977		
1,800.0	1,791.3	1,762.3	1,762.1	4.3	0.9	139.28	-638.6	-290.7	778.1	773.1	5.02	155.083		
1,870.1	1,859.8	1,829.6	1,829.4	4.6	0.9	139.95	-638.4	-290.7	789.2	783.9	5.24	150.592		
1,900.0	1,889.1	1,857.2	1,857.0	4.7	0.9	140.22	-638.5	-290.7	794.0	788.7	5.33	148.951		
1,968.5	1,956.1	1,923.0	1,922.8	5.0	0.9	140.83	-638.8	-290.6	805.4	799.8	5.55	145.207		
2,000.0	1,986.9	1,955.9	1,955.7	5.1	0.9	141.13	-639.0	-290.4	810.6	804.9	5.65	143.532		
2,066.9	2,052.3	2,022.6	2,022.5	5.4	1.0	141.70	-639.2	-289.9	821.4	815.6	5.86	140.070		
2,100.0	2,084.7	2,052.8	2,052.6	5.5	1.0	141.95	-639.4	-289.7	826.9	820.9	5.97	138.466		
2,165.3	2,148.6	2,113.1	2,112.9	5.8	1.0	142.45	-640.0	-289.3	838.0	831.8	6.19	135.457		
2,200.0	2,182.5	2,146.4	2,146.3	5.9	1.0	142.72	-640.3	-289.2	844.0	837.7	6.30	133.964		
2,263.8	2,244.9	2,207.8	2,207.6	6.2	1.0	143.22	-640.9	-289.1	855.1	848.6	6.51	131.349		
2,300.0	2,280.3	2,242.6	2,242.5	6.3	1.0	143.50	-641.2	-289.1	861.5	854.9	6.63	129.973		
2,362.2	2,341.2	2,302.5	2,302.3	6.6	1.0	143.97	-641.9	-289.1	872.6	865.8	6.83	127.723		
2,400.0	2,378.1	2,338.8	2,338.7	6.8	1.0	144.25	-642.3	-289.1	879.4	872.4	6.96	126.434		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,460.6	2,437.4	2,397.2	2,397.0	7.0	1.0	144.68	-643.1	-289.1	890.4	883.2	7.15	124.460		
2,500.0	2,476.0	2,436.7	2,436.5	7.2	1.0	144.98	-643.6	-289.1	897.5	890.2	7.28	123.272		
2,559.0	2,533.7	2,496.0	2,495.9	7.4	1.0	145.42	-644.1	-289.3	908.2	900.7	7.47	121.551		
2,600.0	2,573.8	2,536.9	2,536.7	7.6	1.0	145.72	-644.4	-289.4	915.6	908.0	7.60	120.428		
2,657.5	2,630.0	2,594.2	2,594.0	7.9	1.0	146.14	-644.8	-289.6	925.9	918.1	7.79	118.907		
2,700.0	2,671.6	2,636.0	2,635.8	8.1	1.0	146.44	-644.9	-289.8	933.6	925.6	7.92	117.832		
2,755.9	2,726.3	2,690.7	2,690.6	8.3	1.0	146.84	-645.1	-290.0	943.6	935.5	8.10	116.474		
2,800.0	2,769.4	2,732.3	2,732.1	8.5	1.0	147.14	-645.2	-290.3	951.7	943.4	8.24	115.440		
2,854.3	2,822.5	2,782.8	2,782.6	8.7	1.1	147.49	-645.4	-290.7	961.7	953.3	8.42	114.224		
2,900.0	2,867.2	2,826.7	2,826.5	8.9	1.1	147.80	-645.7	-291.1	970.2	961.7	8.57	113.262		
2,952.7	2,918.8	2,878.5	2,878.3	9.2	1.1	148.15	-646.0	-291.6	980.1	971.4	8.74	112.192		
3,000.0	2,965.0	2,928.0	2,927.8	9.4	1.1	148.48	-646.3	-292.0	989.0	980.1	8.88	111.355		
3,051.2	3,015.1	2,984.5	2,984.3	9.6	1.1	148.83	-646.5	-292.1	998.3	989.2	9.03	110.518		
3,100.0	3,062.8	3,034.6	3,034.4	9.8	1.1	149.14	-646.4	-292.0	1,007.0	997.8	9.18	109.699		
3,149.6	3,111.4	3,084.0	3,083.8	10.0	1.1	149.45	-646.3	-291.9	1,015.8	1,006.4	9.33	108.849		
3,200.0	3,160.7	3,131.1	3,131.0	10.3	1.1	149.73	-646.2	-291.9	1,024.7	1,015.2	9.49	108.031		
3,248.0	3,207.6	3,174.7	3,174.5	10.5	1.1	150.00	-646.2	-292.0	1,033.5	1,023.8	9.63	107.289		
3,300.0	3,258.5	3,224.0	3,223.8	10.7	1.1	150.29	-646.2	-292.2	1,043.1	1,033.3	9.79	106.520		
3,346.4	3,303.9	3,270.3	3,270.1	10.9	1.1	150.55	-646.4	-292.3	1,051.7	1,041.7	9.94	105.849		
3,400.0	3,356.3	3,326.1	3,325.9	11.2	1.1	150.85	-646.6	-292.2	1,061.6	1,051.5	10.10	105.107		
3,444.9	3,400.2	3,375.2	3,375.0	11.4	1.1	151.11	-646.7	-291.9	1,069.6	1,059.4	10.24	104.506		
3,500.0	3,454.1	3,430.1	3,429.9	11.6	1.1	151.40	-646.6	-291.5	1,079.4	1,069.0	10.40	103.749		
3,543.3	3,496.5	3,470.2	3,470.0	11.8	1.1	151.60	-646.5	-291.3	1,087.1	1,076.6	10.54	103.150		
3,600.0	3,551.9	3,524.6	3,524.4	12.0	1.1	151.88	-646.5	-291.2	1,097.4	1,086.7	10.72	102.413		
3,641.7	3,592.7	3,566.8	3,566.6	12.2	1.1	152.09	-646.5	-290.9	1,105.0	1,094.1	10.85	101.886		
3,700.0	3,649.7	3,624.6	3,624.4	12.5	1.1	152.35	-646.8	-290.2	1,115.5	1,104.5	11.03	101.152		
3,740.1	3,689.0	3,663.4	3,663.2	12.7	1.1	152.51	-647.0	-289.7	1,122.7	1,111.6	11.15	100.660		
3,800.0	3,747.5	3,721.6	3,721.4	12.9	1.2	152.75	-647.5	-288.9	1,133.6	1,122.3	11.34	99.952		
3,838.6	3,785.3	3,759.5	3,759.3	13.1	1.2	152.91	-647.8	-288.3	1,140.6	1,129.2	11.46	99.506		
3,900.0	3,845.4	3,821.8	3,821.6	13.4	1.2	153.15	-648.4	-287.3	1,151.8	1,140.2	11.66	98.825		
3,937.0	3,881.5	3,861.9	3,861.6	13.6	1.2	153.31	-648.6	-286.7	1,158.4	1,146.7	11.77	98.429		
4,000.0	3,943.2	3,925.1	3,924.8	13.8	1.2	153.56	-648.7	-285.6	1,169.5	1,157.6	11.96	97.753		
4,035.4	3,977.8	3,957.1	3,956.8	14.0	1.2	153.69	-648.8	-285.1	1,175.8	1,163.8	12.07	97.383		
4,100.0	4,041.0	4,016.3	4,016.0	14.3	1.2	153.92	-649.0	-284.3	1,187.5	1,175.3	12.28	96.743		
4,133.8	4,074.1	4,048.8	4,048.5	14.4	1.2	154.05	-649.2	-284.0	1,193.7	1,181.4	12.38	96.415		
4,200.0	4,138.8	4,112.1	4,111.9	14.7	1.2	154.28	-649.6	-283.2	1,205.9	1,193.3	12.59	95.801		
4,232.3	4,170.4	4,142.8	4,142.5	14.9	1.2	154.39	-649.9	-282.8	1,211.9	1,199.2	12.69	95.516		
4,300.0	4,236.6	4,207.6	4,207.3	15.2	1.2	154.64	-650.3	-282.2	1,224.6	1,211.7	12.90	94.946		
4,330.7	4,266.6	4,239.3	4,239.1	15.3	1.2	154.76	-650.5	-282.0	1,230.3	1,217.4	12.99	94.702		
4,400.0	4,334.4	4,310.3	4,310.0	15.6	1.2	155.03	-650.7	-281.4	1,243.2	1,230.0	13.20	94.159		
4,429.1	4,362.9	4,338.3	4,338.1	15.8	1.3	155.13	-650.8	-281.1	1,248.6	1,235.3	13.29	93.933		
4,500.0	4,432.2	4,406.8	4,406.5	16.1	1.3	155.36	-651.2	-280.3	1,261.7	1,248.2	13.51	93.393		
4,527.5	4,459.2	4,433.9	4,433.6	16.2	1.3	155.45	-651.5	-279.9	1,266.8	1,253.2	13.59	93.185		
4,600.0	4,530.1	4,500.0	4,499.7	16.5	1.3	155.67	-652.0	-279.1	1,280.3	1,266.5	13.82	92.656		
4,626.0	4,555.5	4,527.2	4,526.9	16.7	1.3	155.76	-652.1	-278.8	1,285.2	1,271.3	13.90	92.478		
4,700.0	4,627.9	4,591.7	4,591.4	17.0	1.3	155.99	-652.6	-278.5	1,299.4	1,285.3	14.12	92.012		
4,724.4	4,651.7	4,615.2	4,614.9	17.1	1.3	156.07	-652.8	-278.5	1,304.2	1,290.0	14.20	91.869		
4,800.0	4,725.7	4,692.2	4,691.9	17.4	1.3	156.35	-653.1	-278.6	1,318.9	1,304.5	14.42	91.434		
4,822.8	4,748.0	4,714.3	4,714.0	17.6	1.3	156.43	-653.2	-278.6	1,323.3	1,308.8	14.49	91.307		
4,900.0	4,823.5	4,786.8	4,786.5	17.9	1.3	156.68	-653.6	-278.6	1,338.4	1,323.6	14.73	90.888		
4,921.2	4,844.3	4,806.8	4,806.5	18.0	1.3	156.74	-653.8	-278.5	1,342.5	1,327.7	14.79	90.775		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,921.3	4,880.6	4,880.3	18.4	1.3	156.98		-654.5	-278.5	1,358.2	1,343.1	15.03	90.367	
5,014.9	4,935.9	4,894.6	4,894.3	18.4	1.3	157.02		-654.6	-278.6	1,361.1	1,346.1	15.07	90.293	
5,019.7	4,940.6	4,900.0	4,899.7	18.4	1.3	157.05		-654.7	-278.6	1,362.1	1,347.0	15.08	90.303	
5,100.0	5,019.4	4,978.0	4,977.7	18.7	1.4	157.40		-655.3	-278.9	1,377.0	1,361.8	15.23	90.419	
5,118.1	5,037.2	4,995.9	4,995.5	18.8	1.4	157.48		-655.4	-279.0	1,380.1	1,364.9	15.25	90.480	
5,200.0	5,118.1	5,078.8	5,078.5	19.0	1.4	157.79		-655.8	-279.5	1,392.7	1,377.4	15.36	90.655	
5,216.5	5,134.4	5,095.6	5,095.3	19.1	1.4	157.84		-655.9	-279.5	1,395.0	1,379.6	15.38	90.685	
5,300.0	5,217.2	5,177.3	5,177.0	19.3	1.4	158.07		-656.4	-279.8	1,405.2	1,389.7	15.49	90.726	
5,314.9	5,232.1	5,192.0	5,191.7	19.3	1.4	158.10		-656.4	-279.9	1,406.8	1,391.3	15.50	90.730	
5,400.0	5,316.8	5,281.3	5,281.0	19.5	1.4	158.28		-656.8	-280.3	1,414.3	1,398.7	15.61	90.633	
5,413.4	5,330.1	5,295.5	5,295.2	19.5	1.4	158.30		-656.8	-280.3	1,415.3	1,399.7	15.62	90.610	
5,500.0	5,416.6	5,379.8	5,379.5	19.7	1.4	158.40		-657.1	-280.5	1,420.1	1,404.3	15.72	90.355	
5,511.8	5,428.4	5,391.2	5,390.9	19.7	1.4	158.41		-657.1	-280.5	1,420.5	1,404.8	15.73	90.316	
5,600.0	5,516.6	5,474.1	5,473.8	19.8	1.4	158.45		-657.6	-280.9	1,422.8	1,407.0	15.82	89.914	
5,610.2	5,526.8	5,483.7	5,483.4	19.8	1.4	158.45		-657.6	-280.9	1,422.9	1,407.1	15.84	89.859	
5,615.0	5,531.6	5,488.1	5,487.8	19.8	1.4	-131.47		-657.6	-281.0	1,423.0	1,407.1	15.86	89.720	
5,700.0	5,616.6	5,566.9	5,566.6	19.9	1.4	-131.46		-658.0	-281.8	1,424.0	1,408.0	16.01	88.921	
5,708.6	5,625.3	5,574.9	5,574.5	20.0	1.4	-131.46		-658.1	-281.9	1,424.1	1,408.1	16.03	88.835	
5,800.0	5,716.6	5,671.8	5,671.4	20.1	1.5	-131.44		-658.8	-283.1	1,425.3	1,409.1	16.21	87.925	
5,807.1	5,723.7	5,679.7	5,679.3	20.1	1.5	-131.44		-658.8	-283.1	1,425.4	1,409.2	16.22	87.852	
5,900.0	5,816.6	5,764.9	5,764.6	20.2	1.5	-131.44		-659.4	-283.9	1,426.4	1,410.0	16.41	86.936	
5,905.5	5,822.1	5,769.7	5,769.4	20.2	1.5	-131.44		-659.4	-284.0	1,426.5	1,410.1	16.42	86.884	
6,000.0	5,916.6	5,870.7	5,870.3	20.4	1.5	-131.43		-660.2	-285.4	1,428.0	1,411.4	16.61	85.984	
6,003.9	5,920.5	5,875.3	5,875.0	20.4	1.5	-131.43		-660.2	-285.4	1,428.0	1,411.4	16.62	85.945	
6,100.0	6,016.6	5,973.2	5,972.9	20.5	1.5	-131.41		-660.5	-286.3	1,428.9	1,412.1	16.81	85.008	
6,102.3	6,019.0	5,975.5	5,975.2	20.5	1.5	-131.41		-660.5	-286.3	1,428.9	1,412.1	16.81	84.986	
6,200.0	6,116.6	6,085.9	6,085.6	20.6	1.5	-131.38		-660.4	-287.3	1,429.5	1,412.5	17.00	84.066	
6,200.8	6,117.4	6,086.9	6,086.5	20.6	1.5	-131.38		-660.4	-287.3	1,429.5	1,412.5	17.01	84.059	
6,299.2	6,215.8	6,189.7	6,189.3	20.8	1.6	-131.32		-659.2	-288.1	1,429.3	1,412.1	17.20	83.121	
6,300.0	6,216.6	6,190.5	6,190.1	20.8	1.6	-131.32		-659.2	-288.1	1,429.3	1,412.1	17.20	83.114	
6,340.0	6,256.6	6,227.4	6,227.0	20.8	1.6	-131.29		-658.6	-288.5	1,429.2	1,412.0	17.27	82.742	
6,350.0	6,266.6	6,236.3	6,235.9	20.8	1.6	48.51		-658.4	-288.7	1,429.2	1,411.9	17.26	82.815	
6,397.6	6,314.2	6,278.7	6,278.3	20.9	1.6	48.69		-657.8	-289.3	1,427.8	1,410.5	17.27	82.696	
6,400.0	6,316.5	6,280.8	6,280.4	20.9	1.6	48.70		-657.8	-289.4	1,427.7	1,410.4	17.27	82.688	
6,450.0	6,366.2	6,327.6	6,327.2	20.9	1.6	49.14		-657.1	-290.3	1,424.0	1,406.8	17.28	82.429	
6,496.0	6,411.4	6,372.1	6,371.7	21.0	1.6	49.75		-656.5	-291.1	1,418.7	1,401.5	17.28	82.092	
6,500.0	6,415.3	6,375.9	6,375.5	21.0	1.6	49.82		-656.5	-291.2	1,418.2	1,400.9	17.28	82.061	
6,550.0	6,463.6	6,420.1	6,419.7	21.0	1.6	50.71		-656.0	-292.1	1,410.3	1,393.0	17.28	81.603	
6,594.5	6,505.8	6,455.8	6,455.4	21.0	1.6	51.65		-655.8	-292.8	1,401.6	1,384.3	17.28	81.131	
6,600.0	6,510.9	6,460.2	6,459.8	21.0	1.6	51.77		-655.8	-292.8	1,400.4	1,383.2	17.27	81.073	
6,650.0	6,557.0	6,500.0	6,499.5	21.0	1.6	53.05		-656.1	-293.5	1,388.9	1,371.6	17.26	80.493	
6,692.9	6,595.4	6,538.3	6,537.9	21.0	1.6	54.40		-656.5	-294.2	1,377.6	1,360.4	17.23	79.932	
6,700.0	6,601.6	6,544.6	6,544.2	21.0	1.6	54.64		-656.5	-294.3	1,375.6	1,358.4	17.23	79.840	
6,750.0	6,644.6	6,588.1	6,587.7	20.9	1.6	56.48		-657.0	-295.0	1,360.7	1,343.5	17.20	79.088	
6,791.3	6,678.6	6,621.4	6,620.9	20.9	1.6	58.15		-657.4	-295.5	1,347.2	1,330.0	17.19	78.355	
6,800.0	6,685.6	6,628.1	6,627.6	20.9	1.6	58.52		-657.5	-295.6	1,344.3	1,327.1	17.19	78.200	
6,850.0	6,724.6	6,665.4	6,664.9	20.9	1.6	60.75		-657.9	-296.3	1,326.6	1,309.4	17.19	77.164	
6,889.7	6,753.9	6,693.6	6,693.1	20.9	1.6	62.65		-658.3	-296.8	1,311.8	1,294.6	17.21	76.213	
6,900.0	6,761.3	6,700.7	6,700.2	20.9	1.6	63.16		-658.4	-296.9	1,307.9	1,290.7	17.22	75.972	
6,950.0	6,795.5	6,735.6	6,735.1	20.9	1.6	65.79		-658.8	-297.7	1,288.5	1,271.2	17.27	74.630	
6,988.2	6,819.9	6,760.3	6,759.8	20.9	1.7	67.86		-659.0	-298.2	1,273.3	1,256.0	17.33	73.480	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
7,000.0	6,827.1	6,767.7	6,767.2	20.9	1.7	68.52	-659.0	-298.4	1,268.5	1,251.2	17.34	73.148		
7,050.0	6,855.9	6,796.7	6,796.2	20.9	1.7	71.30	-659.2	-299.1	1,248.3	1,230.8	17.45	71.554		
7,086.6	6,875.1	6,818.1	6,817.6	20.9	1.7	73.41	-659.3	-299.6	1,233.5	1,215.9	17.53	70.352		
7,100.0	6,881.8	6,825.7	6,825.2	20.9	1.7	74.19	-659.3	-299.7	1,228.1	1,210.5	17.58	69.869		
7,150.0	6,904.6	6,851.9	6,851.3	21.0	1.7	77.03	-659.5	-300.2	1,208.1	1,190.4	17.74	68.107		
7,185.0	6,918.8	6,868.2	6,867.7	21.1	1.7	78.95	-659.6	-300.5	1,194.5	1,176.6	17.88	66.813		
7,200.0	6,924.3	6,874.7	6,874.2	21.1	1.7	79.74	-659.7	-300.6	1,188.8	1,170.8	17.94	66.269		
7,250.0	6,940.8	6,894.0	6,893.5	21.2	1.7	82.25	-659.9	-300.8	1,170.3	1,152.1	18.19	64.348		
7,283.4	6,949.9	6,905.2	6,904.7	21.3	1.7	83.80	-660.0	-300.9	1,158.6	1,140.2	18.39	63.002		
7,300.0	6,953.9	6,910.2	6,909.7	21.4	1.7	84.53	-660.1	-301.0	1,153.0	1,134.5	18.49	62.348		
7,350.0	6,963.6	6,922.5	6,922.0	21.6	1.7	86.49	-660.2	-301.1	1,137.2	1,118.4	18.86	60.287		
7,381.9	6,968.0	6,928.1	6,927.6	21.7	1.7	87.55	-660.3	-301.1	1,128.0	1,108.9	19.14	58.946		
7,400.0	6,969.9	6,930.5	6,930.0	21.8	1.7	88.08	-660.3	-301.1	1,123.1	1,103.9	19.30	58.208		
7,450.0	6,972.6	6,934.2	6,933.7	22.1	1.7	89.28	-660.3	-301.2	1,111.0	1,091.2	19.78	56.176		
7,471.5	6,972.8	6,934.6	6,934.0	22.2	1.7	89.67	-660.3	-301.2	1,106.4	1,086.4	20.00	55.332		
7,480.3	6,972.7	6,934.6	6,934.0	22.3	1.7	89.67	-660.3	-301.2	1,104.6	1,084.5	20.08	55.007		
7,500.0	6,972.5	6,934.5	6,934.0	22.4	1.7	89.67	-660.3	-301.2	1,100.9	1,080.6	20.27	54.302		
7,578.7	6,971.8	6,934.3	6,933.8	23.1	1.7	89.66	-660.3	-301.2	1,089.5	1,068.5	21.07	51.720		
7,600.0	6,971.6	6,934.3	6,933.7	23.3	1.7	89.66	-660.3	-301.2	1,087.4	1,066.1	21.28	51.100		
7,677.1	6,970.9	6,934.1	6,933.5	24.0	1.7	89.65	-660.3	-301.2	1,083.2	1,061.1	22.12	48.976		
7,697.7	6,970.7	6,934.0	6,933.5	24.2	1.7	89.64	-660.3	-301.2	1,083.0	1,060.7	22.34	48.478		
7,700.0	6,970.7	6,934.0	6,933.5	24.2	1.7	89.64	-660.3	-301.2	1,083.0	1,060.7	22.37	48.424		
7,775.6	6,970.0	6,933.9	6,933.3	25.0	1.7	89.64	-660.3	-301.2	1,085.8	1,062.5	23.28	46.647		
7,800.0	6,969.8	6,933.8	6,933.3	25.3	1.7	89.63	-660.3	-301.2	1,087.8	1,064.3	23.57	46.149		
7,874.0	6,969.1	6,933.6	6,933.1	26.2	1.7	89.62	-660.3	-301.2	1,097.3	1,072.7	24.54	44.711		
7,900.0	6,968.9	6,933.6	6,933.0	26.5	1.7	89.62	-660.3	-301.2	1,101.7	1,076.9	24.88	44.279		
7,972.4	6,968.2	6,933.4	6,932.9	27.4	1.7	89.61	-660.3	-301.2	1,117.3	1,091.4	25.89	43.150		
8,000.0	6,968.0	6,933.4	6,932.8	27.8	1.7	89.61	-660.3	-301.2	1,124.4	1,098.1	26.28	42.788		
8,070.8	6,967.3	6,933.2	6,932.7	28.7	1.7	89.60	-660.3	-301.2	1,145.5	1,118.2	27.32	41.929		
8,100.0	6,967.1	6,933.2	6,932.6	29.1	1.7	89.60	-660.3	-301.2	1,155.3	1,127.6	27.75	41.636		
8,169.3	6,966.4	6,933.0	6,932.5	30.1	1.7	89.59	-660.3	-301.2	1,181.2	1,152.4	28.81	41.004		
8,200.0	6,966.2	6,933.0	6,932.4	30.5	1.7	89.59	-660.3	-301.2	1,193.8	1,164.5	29.28	40.775		
8,267.7	6,965.5	6,932.8	6,932.3	31.5	1.7	89.58	-660.3	-301.2	1,223.8	1,193.5	30.35	40.326		
8,300.0	6,965.2	6,932.8	6,932.2	32.0	1.7	89.58	-660.3	-301.2	1,239.2	1,208.4	30.86	40.157		
8,366.1	6,964.6	6,932.7	6,932.1	33.0	1.7	89.57	-660.3	-301.2	1,272.7	1,240.7	31.93	39.853		
8,400.0	6,964.3	6,932.6	6,932.1	33.5	1.7	89.57	-660.3	-301.2	1,290.8	1,258.3	32.48	39.735		
8,464.5	6,963.8	6,932.5	6,931.9	34.5	1.7	89.56	-660.3	-301.2	1,327.0	1,293.4	33.56	39.544		
8,500.0	6,963.4	6,932.4	6,931.9	35.1	1.7	89.56	-660.3	-301.2	1,347.8	1,313.7	34.15	39.471		
8,563.0	6,962.9	6,932.3	6,931.8	36.1	1.7	89.55	-660.3	-301.2	1,386.2	1,351.0	35.21	39.366		
8,600.0	6,962.5	6,932.2	6,931.7	36.7	1.7	89.55	-660.3	-301.2	1,409.6	1,373.8	35.84	39.330		
8,661.4	6,962.0	6,932.1	6,931.6	37.7	1.7	89.54	-660.3	-301.2	1,449.7	1,412.8	36.90	39.290		
8,700.0	6,961.6	6,932.1	6,931.5	38.3	1.7	89.54	-660.3	-301.2	1,475.6	1,438.1	37.56	39.286 SF		
8,759.8	6,961.1	6,932.0	6,931.4	39.3	1.7	89.53	-660.3	-301.2	1,516.9	1,478.3	38.61	39.293		
8,800.0	6,960.7	6,931.9	6,931.4	40.0	1.7	89.53	-660.3	-301.2	1,545.3	1,506.0	39.31	39.315		
8,858.2	6,960.2	6,931.8	6,931.3	40.9	1.7	89.53	-660.3	-301.2	1,587.4	1,547.0	40.33	39.356		
8,900.0	6,959.8	6,931.7	6,931.2	41.6	1.7	89.52	-660.3	-301.2	1,618.1	1,577.1	41.07	39.399		
8,956.7	6,959.3	6,931.6	6,931.1	42.6	1.7	89.52	-660.3	-301.2	1,660.7	1,618.6	42.08	39.464		
9,000.0	6,958.9	6,931.6	6,931.0	43.3	1.7	89.51	-660.3	-301.2	1,693.8	1,650.9	42.85	39.525		
9,055.1	6,958.4	6,931.5	6,931.0	44.3	1.7	89.51	-660.3	-301.2	1,736.5	1,692.6	43.84	39.607		
9,100.0	6,958.0	6,931.4	6,930.9	45.1	1.7	89.51	-660.3	-301.2	1,771.8	1,727.2	44.65	39.682		
9,153.5	6,957.5	6,931.3	6,930.8	46.0	1.7	89.50	-660.3	-301.1	1,814.5	1,768.8	45.62	39.773		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,200.0	6,957.1	6,931.3	6,930.7	46.8	1.7	89.50	-660.3	-301.1	1,852.0	1,805.5	46.46	39.860		
9,251.9	6,956.6	6,931.2	6,930.7	47.7	1.7	89.49	-660.3	-301.1	1,894.4	1,846.9	47.41	39.957		
9,300.0	6,956.2	6,931.1	6,930.6	48.6	1.7	89.49	-660.3	-301.1	1,934.0	1,885.7	48.29	40.053		
9,350.4	6,955.7	6,931.1	6,930.5	49.5	1.7	89.49	-660.3	-301.1	1,975.9	1,926.7	49.21	40.153		
9,400.0	6,955.2	6,931.0	6,930.4	50.3	1.7	89.48	-660.3	-301.1	2,017.6	1,967.5	50.12	40.255		
9,448.8	6,954.8	6,930.9	6,930.4	51.2	1.7	89.48	-660.3	-301.1	2,058.9	2,007.9	51.02	40.356		
9,500.0	6,954.3	6,930.8	6,930.3	52.1	1.7	89.47	-660.3	-301.1	2,102.7	2,050.7	51.96	40.464		
9,547.2	6,953.9	6,930.8	6,930.2	53.0	1.7	89.47	-660.3	-301.1	2,143.3	2,090.4	52.84	40.563		
9,600.0	6,953.4	6,930.7	6,930.2	53.9	1.7	89.47	-660.3	-301.1	2,189.0	2,135.2	53.82	40.675		
9,645.6	6,953.0	6,930.6	6,930.1	54.7	1.7	89.46	-660.3	-301.1	2,228.8	2,174.1	54.66	40.771		
9,700.0	6,952.5	6,930.6	6,930.0	55.7	1.7	89.46	-660.3	-301.1	2,276.4	2,220.7	55.68	40.887		
9,744.1	6,952.1	6,930.5	6,930.0	56.5	1.7	89.46	-660.3	-301.1	2,315.3	2,258.8	56.50	40.979		
9,800.0	6,951.6	6,930.4	6,929.9	57.5	1.7	89.45	-660.3	-301.1	2,364.9	2,307.3	57.54	41.097		
9,842.5	6,951.2	6,930.4	6,929.9	58.3	1.7	89.45	-660.3	-301.1	2,402.7	2,344.4	58.34	41.186		
9,900.0	6,950.7	6,930.3	6,929.8	59.4	1.7	89.45	-660.3	-301.1	2,454.2	2,394.8	59.42	41.305		
9,940.9	6,950.3	6,930.3	6,929.7	60.1	1.7	89.44	-660.3	-301.1	2,491.0	2,430.8	60.18	41.389		
10,000.0	6,949.8	6,930.2	6,929.7	61.2	1.7	89.44	-660.3	-301.1	2,544.3	2,483.0	61.29	41.510		
10,039.3	6,949.4	6,930.2	6,929.6	61.9	1.7	89.44	-660.3	-301.1	2,580.0	2,517.9	62.04	41.589		
10,100.0	6,948.9	6,930.1	6,929.5	63.0	1.7	89.43	-660.3	-301.1	2,635.1	2,572.0	63.18	41.710		
10,137.8	6,948.5	6,930.0	6,929.5	63.7	1.7	89.43	-660.3	-301.1	2,669.6	2,605.7	63.89	41.784		
10,200.0	6,948.0	6,930.0	6,929.4	64.9	1.7	89.43	-660.3	-301.1	2,726.6	2,661.5	65.07	41.905		
10,236.2	6,947.6	6,929.9	6,929.4	65.6	1.7	89.42	-660.3	-301.1	2,759.9	2,694.1	65.75	41.974		
10,300.0	6,947.1	6,929.8	6,929.3	66.7	1.7	89.42	-660.3	-301.1	2,818.7	2,751.7	66.96	42.096		
10,334.6	6,946.7	6,929.8	6,929.3	67.4	1.7	89.42	-660.3	-301.1	2,850.7	2,783.0	67.62	42.160		
10,400.0	6,946.2	6,929.7	6,929.2	68.6	1.7	89.41	-660.3	-301.1	2,911.2	2,842.4	68.86	42.281		
10,433.0	6,945.8	6,929.7	6,929.2	69.2	1.7	89.41	-660.3	-301.1	2,941.9	2,872.5	69.48	42.340		
10,500.0	6,945.2	6,929.6	6,929.1	70.5	1.7	89.41	-660.3	-301.1	3,004.3	2,933.5	70.76	42.460		
10,531.5	6,945.0	6,929.6	6,929.0	71.1	1.7	89.41	-660.3	-301.1	3,033.7	2,962.3	71.35	42.516		
10,600.0	6,944.3	6,929.5	6,929.0	72.3	1.7	89.40	-660.3	-301.1	3,097.8	3,025.1	72.66	42.635		
10,629.9	6,944.1	6,929.5	6,928.9	72.9	1.7	89.40	-660.3	-301.1	3,125.8	3,052.6	73.23	42.686		
10,700.0	6,943.4	6,929.4	6,928.9	74.2	1.7	89.40	-660.3	-301.1	3,191.7	3,117.1	74.56	42.804		
10,728.3	6,943.2	6,929.4	6,928.8	74.7	1.7	89.40	-660.3	-301.1	3,218.3	3,143.2	75.11	42.851		
10,800.0	6,942.5	6,929.3	6,928.8	76.1	1.7	89.39	-660.3	-301.1	3,285.9	3,209.4	76.47	42.968		
10,826.7	6,942.3	6,929.3	6,928.7	76.6	1.7	89.39	-660.3	-301.1	3,311.2	3,234.2	76.99	43.010		
10,900.0	6,941.6	6,929.2	6,928.7	78.0	1.7	89.39	-660.3	-301.1	3,380.5	3,302.1	78.39	43.126		
10,925.2	6,941.4	6,929.2	6,928.6	78.4	1.7	89.38	-660.3	-301.1	3,404.3	3,325.5	78.87	43.165		
11,000.0	6,940.7	6,929.1	6,928.6	79.9	1.7	89.38	-660.3	-301.1	3,475.4	3,395.1	80.30	43.280		
11,023.6	6,940.5	6,929.1	6,928.5	80.3	1.7	89.38	-660.3	-301.1	3,497.8	3,417.0	80.75	43.315		
11,100.0	6,939.8	6,929.0	6,928.5	81.7	1.7	89.38	-660.3	-301.1	3,570.5	3,488.3	82.22	43.428		
11,122.0	6,939.6	6,929.0	6,928.4	82.2	1.7	89.37	-660.3	-301.1	3,591.5	3,508.9	82.64	43.460		
11,200.0	6,938.9	6,928.9	6,928.4	83.6	1.7	89.37	-660.3	-301.1	3,665.9	3,581.8	84.13	43.572		
11,220.4	6,938.7	6,928.9	6,928.3	84.0	1.7	89.37	-660.3	-301.1	3,685.5	3,600.9	84.53	43.601		
11,300.0	6,938.0	6,928.8	6,928.3	85.5	1.7	89.37	-660.3	-301.1	3,761.6	3,675.5	86.05	43.712		
11,318.9	6,937.8	6,928.8	6,928.3	85.9	1.7	89.36	-660.3	-301.1	3,779.7	3,693.2	86.42	43.737		
11,400.0	6,937.0	6,928.7	6,928.2	87.4	1.7	89.36	-660.3	-301.1	3,857.5	3,769.5	87.98	43.846		
11,417.3	6,936.9	6,928.7	6,928.2	87.8	1.7	89.36	-660.3	-301.1	3,874.1	3,785.8	88.31	43.869		
11,500.0	6,936.1	6,928.6	6,928.1	89.3	1.7	89.36	-660.3	-301.1	3,953.5	3,863.6	89.90	43.977		
11,515.7	6,936.0	6,928.6	6,928.1	89.6	1.7	89.35	-660.3	-301.1	3,968.7	3,878.5	90.20	43.997		
11,600.0	6,935.2	6,928.5	6,928.0	91.2	1.7	89.35	-660.3	-301.1	4,049.8	3,958.0	91.83	44.103		
11,614.1	6,935.1	6,928.5	6,928.0	91.5	1.7	89.35	-660.3	-301.1	4,063.4	3,971.3	92.10	44.120		
11,700.0	6,934.3	6,928.5	6,927.9	93.1	1.7	89.35	-660.3	-301.1	4,146.2	4,052.5	93.75	44.225		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-1 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,712.6	6,934.2	6,928.5	6,927.9	93.4	1.7	89.34		-660.3	-301.1	4,158.4	4,064.4	94.00	44.240	
11,800.0	6,933.4	6,928.4	6,927.8	95.1	1.7	89.34		-660.3	-301.1	4,242.9	4,147.2	95.68	44.344	
11,811.0	6,933.3	6,928.4	6,927.8	95.3	1.7	89.34		-660.3	-301.1	4,253.5	4,157.6	95.89	44.356	
11,900.0	6,932.5	6,928.3	6,927.8	97.0	1.7	89.34		-660.3	-301.1	4,339.6	4,242.0	97.61	44.458	
11,909.4	6,932.4	6,928.3	6,927.7	97.1	1.7	89.34		-660.3	-301.1	4,348.7	4,251.0	97.79	44.469	
12,000.0	6,931.6	6,928.2	6,927.7	98.9	1.7	89.33		-660.3	-301.1	4,436.5	4,337.0	99.54	44.570	
12,007.8	6,931.5	6,928.2	6,927.7	99.0	1.7	89.33		-660.3	-301.1	4,444.1	4,344.4	99.69	44.578	
12,100.0	6,930.7	6,928.1	6,927.6	100.8	1.7	89.33		-660.3	-301.1	4,533.6	4,432.1	101.47	44.677	
12,106.3	6,930.6	6,928.1	6,927.6	100.9	1.7	89.33		-660.3	-301.1	4,539.7	4,438.1	101.59	44.684	
12,200.0	6,929.8	6,928.1	6,927.5	102.7	1.7	89.32		-660.3	-301.1	4,630.7	4,527.3	103.41	44.782	
12,204.7	6,929.7	6,928.1	6,927.5	102.8	1.7	89.32		-660.3	-301.1	4,635.3	4,531.8	103.50	44.787	
12,300.0	6,928.8	6,928.0	6,927.4	104.6	1.7	89.32		-660.3	-301.1	4,728.0	4,622.7	105.34	44.883	
12,303.1	6,928.8	6,928.0	6,927.4	104.7	1.7	89.32		-660.3	-301.1	4,731.1	4,625.7	105.40	44.886	
12,400.0	6,927.9	6,927.9	6,927.4	106.5	1.7	89.31		-660.2	-301.1	4,825.4	4,718.1	107.28	44.982	
12,401.5	6,927.9	6,927.9	6,927.4	106.6	1.7	89.31		-660.2	-301.1	4,826.9	4,719.6	107.31	44.983	
12,500.0	6,927.0	6,927.8	6,927.3	108.5	1.7	89.31		-660.2	-301.1	4,922.9	4,813.7	109.21	45.077	
12,598.4	6,926.1	6,927.8	6,927.2	110.4	1.7	89.31		-660.2	-301.1	5,019.0	4,907.8	111.12	45.168	
12,600.0	6,926.1	6,927.8	6,927.2	110.4	1.7	89.31		-660.2	-301.1	5,020.5	4,909.4	111.15	45.170	
12,696.8	6,925.2	6,927.7	6,927.1	112.3	1.7	89.30		-660.2	-301.1	5,115.1	5,002.1	113.02	45.257	
12,700.0	6,925.2	6,927.7	6,927.1	112.3	1.7	89.30		-660.2	-301.1	5,118.2	5,005.1	113.09	45.260	
12,795.2	6,924.3	6,927.6	6,927.1	114.1	1.7	89.30		-660.2	-301.1	5,211.3	5,096.4	114.93	45.343	
12,800.0	6,924.3	6,927.6	6,927.1	114.2	1.7	89.30		-660.2	-301.1	5,216.0	5,101.0	115.02	45.347	
12,893.7	6,923.4	6,927.5	6,927.0	116.0	1.7	89.29		-660.2	-301.1	5,307.7	5,190.8	116.84	45.426	
12,900.0	6,923.4	6,927.5	6,927.0	116.2	1.7	89.29		-660.2	-301.1	5,313.9	5,196.9	116.96	45.432	
12,992.1	6,922.5	6,927.5	6,926.9	117.9	1.7	89.29		-660.2	-301.1	5,404.1	5,285.3	118.75	45.508	
13,000.0	6,922.5	6,927.5	6,926.9	118.1	1.7	89.29		-660.2	-301.1	5,411.8	5,292.9	118.90	45.514	
13,090.5	6,921.6	6,927.4	6,926.9	119.8	1.7	89.29		-660.2	-301.1	5,500.5	5,379.9	120.66	45.587	
13,100.0	6,921.5	6,927.4	6,926.9	120.0	1.7	89.29		-660.2	-301.1	5,509.8	5,389.0	120.84	45.594	
13,188.9	6,920.7	6,927.3	6,926.8	121.7	1.7	89.28		-660.2	-301.1	5,597.0	5,474.5	122.57	45.664	
13,200.0	6,920.6	6,927.3	6,926.8	121.9	1.7	89.28		-660.2	-301.1	5,607.9	5,485.1	122.78	45.672	
13,287.4	6,919.8	6,927.3	6,926.7	123.6	1.7	89.28		-660.2	-301.1	5,693.6	5,569.2	124.48	45.739	
13,300.0	6,919.7	6,927.3	6,926.7	123.9	1.7	89.28		-660.2	-301.1	5,706.0	5,581.3	124.73	45.748	
13,385.8	6,918.9	6,927.2	6,926.7	125.5	1.7	89.28		-660.2	-301.1	5,790.3	5,663.9	126.39	45.812	
13,400.0	6,918.8	6,927.2	6,926.7	125.8	1.7	89.28		-660.2	-301.1	5,804.3	5,677.6	126.67	45.822	
13,484.2	6,918.0	6,927.2	6,926.6	127.4	1.7	89.27		-660.2	-301.1	5,887.0	5,758.7	128.31	45.883	
13,500.0	6,917.9	6,927.1	6,926.6	127.7	1.7	89.27		-660.2	-301.1	5,902.5	5,773.9	128.61	45.894	
13,582.6	6,917.1	6,927.1	6,926.6	129.3	1.7	89.27		-660.2	-301.1	5,983.8	5,853.6	130.22	45.952	
13,600.0	6,917.0	6,927.1	6,926.5	129.7	1.7	89.27		-660.2	-301.1	6,000.9	5,870.3	130.56	45.964	
13,681.1	6,916.2	6,927.0	6,926.5	131.2	1.7	89.27		-660.2	-301.1	6,080.6	5,948.5	132.13	46.020	
13,700.0	6,916.1	6,927.0	6,926.5	131.6	1.7	89.26		-660.2	-301.1	6,099.2	5,966.7	132.50	46.032	
13,779.5	6,915.3	6,927.0	6,926.4	133.1	1.7	89.26		-660.2	-301.1	6,177.5	6,043.5	134.05	46.085	
13,800.0	6,915.2	6,927.0	6,926.4	133.5	1.7	89.26		-660.2	-301.1	6,197.7	6,063.2	134.44	46.099	
13,877.9	6,914.4	6,926.9	6,926.4	135.1	1.7	89.26		-660.2	-301.1	6,274.4	6,138.5	135.96	46.149	
13,900.0	6,914.2	6,926.9	6,926.4	135.5	1.7	89.26		-660.2	-301.1	6,296.2	6,159.8	136.39	46.163	
13,976.3	6,913.5	6,926.9	6,926.3	137.0	1.7	89.26		-660.2	-301.1	6,371.4	6,233.5	137.87	46.212	
14,000.0	6,913.3	6,926.8	6,926.3	137.4	1.7	89.25		-660.2	-301.1	6,394.7	6,256.4	138.33	46.227	
14,074.8	6,912.6	6,926.8	6,926.3	138.9	1.7	89.25		-660.2	-301.1	6,468.4	6,328.6	139.79	46.273	
14,100.0	6,912.4	6,926.8	6,926.2	139.4	1.7	89.25		-660.2	-301.1	6,493.3	6,353.0	140.28	46.288	
14,145.0	6,912.0	6,926.8	6,926.2	140.2	1.7	89.25		-660.2	-301.1	6,537.6	6,396.5	141.11	46.329	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.0	0.0	0.0	0.0	0.0	0.0	139.49	-564.7	482.4	742.7				
98.4	98.4	96.2	96.2	0.1	0.0	139.50	-564.9	482.4	742.9	742.7	0.13	5,727.529	
100.0	100.0	97.7	97.7	0.1	0.0	139.50	-564.9	482.4	742.9	742.7	0.13	5,627.116	
196.8	196.8	197.7	197.7	0.3	0.2	139.52	-565.1	482.4	743.0	742.5	0.48	1,550.361	
200.0	200.0	200.9	200.9	0.3	0.2	139.52	-565.1	482.4	743.0	742.5	0.49	1,515.519	
237.8	237.8	238.3	238.3	0.4	0.2	139.53	-565.2	482.3	743.0	742.4	0.61	1,213.352	
295.3	295.3	295.1	295.1	0.5	0.3	139.54	-565.3	482.2	743.0	742.2	0.80	931.159	
300.0	300.0	300.0	300.0	0.5	0.3	139.54	-565.4	482.2	743.0	742.2	0.81	913.461	
393.7	393.7	394.4	394.4	0.8	0.3	139.56	-565.5	482.0	743.1	742.0	1.09	679.674	
400.0	400.0	400.7	400.7	0.8	0.3	139.56	-565.5	482.0	743.1	742.0	1.11	668.204	
492.1	492.1	494.5	494.5	1.0	0.4	139.57	-565.5	481.8	742.9	741.6	1.38	538.847	
500.0	500.0	502.4	502.4	1.0	0.4	139.57	-565.5	481.8	742.9	741.5	1.40	530.335	
549.3	549.3	549.8	549.8	1.1	0.4	139.58	-565.6	481.6	742.9	741.3	1.53	485.692	
590.5	590.5	589.5	589.5	1.2	0.4	139.59	-565.7	481.5	742.9	741.3	1.64	453.805	
600.0	600.0	600.0	600.0	1.2	0.4	139.60	-565.7	481.5	742.9	741.3	1.66	446.941	
689.0	689.0	686.5	686.5	1.4	0.5	139.62	-566.2	481.5	743.2	741.3	1.91	389.678	
700.0	700.0	697.4	697.4	1.4	0.5	139.63	-566.3	481.4	743.3	741.3	1.94	383.577	
787.4	787.4	781.7	781.7	1.6	0.5	139.65	-566.9	481.5	743.8	741.6	2.17	342.905	
800.0	800.0	793.8	793.8	1.7	0.5	139.66	-567.0	481.6	743.9	741.7	2.20	337.767	
885.8	885.8	881.3	881.3	1.9	0.6	139.68	-567.7	481.8	744.6	742.2	2.43	306.450	
900.0	900.0	895.9	895.8	1.9	0.6	139.68	-567.8	481.8	744.7	742.2	2.47	301.823	
984.2	984.2	981.7	981.7	2.1	0.6	139.73	-568.6	481.6	745.1	742.5	2.69	276.983	
1,000.0	1,000.0	997.8	997.8	2.1	0.6	139.75	-568.7	481.5	745.2	742.5	2.73	272.782	
1,082.7	1,082.7	1,081.7	1,081.6	2.3	0.7	69.84	-569.6	480.9	745.0	742.1	2.92	254.939	
1,100.0	1,100.0	1,099.2	1,099.2	2.3	0.7	69.90	-569.8	480.7	744.9	741.9	2.97	251.105	
1,181.1	1,181.0	1,178.3	1,178.3	2.5	0.7	70.28	-570.6	480.1	743.8	740.6	3.17	234.859	
1,200.0	1,199.8	1,196.8	1,196.7	2.6	0.7	70.39	-570.8	480.0	743.4	740.2	3.21	231.343	
1,279.5	1,279.1	1,274.4	1,274.3	2.7	0.8	70.95	-571.6	479.7	741.7	738.3	3.42	217.045	
1,300.0	1,299.5	1,294.3	1,294.3	2.8	0.8	71.12	-571.8	479.7	741.2	737.7	3.47	213.617	
1,377.9	1,376.9	1,371.2	1,371.1	3.0	0.8	71.86	-572.6	479.8	738.9	735.2	3.69	200.476	
1,400.0	1,398.7	1,392.9	1,392.8	3.0	0.8	72.10	-572.8	479.8	738.1	734.4	3.75	196.936	
1,476.4	1,474.2	1,470.4	1,470.4	3.2	0.8	73.04	-573.3	480.1	735.2	731.2	3.97	185.193	
1,500.0	1,497.5	1,494.5	1,494.4	3.3	0.8	73.35	-573.3	480.3	734.1	730.1	4.04	181.772	
1,574.8	1,571.0	1,570.7	1,570.7	3.5	0.8	74.45	-573.2	480.9	730.4	726.1	4.29	170.361	
1,600.1	1,595.7	1,596.4	1,596.3	3.6	0.8	74.87	-573.1	480.9	729.0	724.7	4.37	166.732	
1,673.2	1,667.2	1,672.5	1,672.5	3.9	0.8	76.08	-572.9	480.8	724.9	720.3	4.64	156.289	
1,700.0	1,693.4	1,700.0	1,699.9	4.0	0.8	76.51	-572.7	480.8	723.3	718.6	4.74	152.724	
1,771.6	1,763.5	1,766.9	1,766.8	4.2	0.8	77.59	-572.3	480.5	719.5	714.5	5.00	143.753	
1,800.0	1,791.3	1,793.2	1,793.1	4.3	0.9	78.02	-572.3	480.4	718.1	713.0	5.11	140.467	
1,870.1	1,859.8	1,864.7	1,864.6	4.6	0.9	79.22	-572.3	479.9	714.9	709.5	5.40	132.469	
1,900.0	1,889.1	1,895.5	1,895.4	4.7	0.9	79.76	-572.3	479.5	713.5	708.0	5.52	129.268	
1,968.5	1,956.1	1,968.3	1,968.2	5.0	0.9	81.05	-572.1	478.1	710.3	704.5	5.81	122.248	
2,000.0	1,986.9	2,000.0	1,999.9	5.1	0.9	81.61	-571.8	477.4	708.7	702.7	5.94	119.225	
2,066.9	2,052.3	2,063.1	2,063.0	5.4	0.9	82.75	-571.3	476.0	705.6	699.3	6.23	113.228	
2,100.0	2,084.7	2,093.5	2,093.4	5.5	0.9	83.30	-571.2	475.3	704.3	697.9	6.37	110.496	
2,165.3	2,148.6	2,156.6	2,156.5	5.8	1.0	84.46	-571.1	474.0	702.1	695.4	6.66	105.405	
2,200.0	2,182.5	2,190.2	2,190.1	5.9	1.0	85.08	-571.1	473.2	701.0	694.2	6.81	102.891	
2,263.8	2,244.9	2,250.1	2,250.0	6.2	1.0	86.22	-571.3	471.6	699.4	692.3	7.10	98.540	
2,300.0	2,280.3	2,284.0	2,283.8	6.3	1.0	86.87	-571.5	470.7	698.8	691.5	7.26	96.252	
2,362.2	2,341.2	2,342.8	2,342.7	6.6	1.0	88.01	-572.0	469.0	698.0	690.5	7.54	92.559	
2,400.0	2,378.1	2,378.7	2,378.5	6.8	1.0	88.72	-572.4	467.9	697.8	690.1	7.71	90.470	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,460.6	2,437.4	2,440.6	2,440.3	7.0	1.1	89.96	-573.2	465.7	697.6	689.6	7.99	87.306	
2,500.0	2,476.0	2,482.4	2,482.2	7.2	1.1	90.80	-573.5	464.2	697.4	689.2	8.17	85.359	
2,559.0	2,533.7	2,544.5	2,544.2	7.4	1.1	92.02	-573.5	462.0	697.0	688.6	8.44	82.589	
2,600.0	2,573.8	2,587.4	2,587.1	7.6	1.1	92.85	-573.1	460.7	696.7	688.1	8.63	80.774	
2,657.5	2,630.0	2,644.6	2,644.2	7.9	1.1	93.92	-572.4	459.3	696.3	687.4	8.89	78.361	
2,700.0	2,671.6	2,686.2	2,685.9	8.1	1.1	94.70	-571.9	458.2	696.1	687.0	9.08	76.689	
2,733.8	2,704.6	2,718.9	2,718.5	8.2	1.1	95.30	-571.4	457.5	696.1	686.8	9.23	75.419	
2,755.9	2,726.3	2,740.0	2,739.6	8.3	1.1	95.70	-571.1	457.0	696.1	686.8	9.33	74.618	
2,800.0	2,769.4	2,782.1	2,781.7	8.5	1.2	96.49	-570.6	455.9	696.3	686.8	9.53	73.092	
2,854.3	2,822.5	2,835.1	2,834.7	8.7	1.2	97.49	-570.0	454.5	696.8	687.0	9.77	71.322	
2,900.0	2,867.2	2,880.1	2,879.6	8.9	1.2	98.33	-569.5	453.3	697.3	687.3	9.97	69.923	
2,952.7	2,918.8	2,931.5	2,931.0	9.2	1.2	99.30	-568.9	451.9	698.1	687.9	10.21	68.398	
3,000.0	2,965.0	2,977.2	2,976.7	9.4	1.2	100.15	-568.3	450.8	699.0	688.6	10.41	67.119	
3,051.2	3,015.1	3,028.9	3,028.4	9.6	1.2	101.09	-567.7	449.7	700.2	689.5	10.64	65.815	
3,100.0	3,062.8	3,080.0	3,079.5	9.8	1.2	102.00	-566.7	448.9	701.2	690.4	10.85	64.632	
3,149.6	3,111.4	3,129.0	3,128.5	10.0	1.2	102.85	-565.6	448.3	702.2	691.2	11.06	63.477	
3,200.0	3,160.7	3,176.7	3,176.2	10.3	1.2	103.67	-564.6	447.7	703.5	692.3	11.28	62.376	
3,248.0	3,207.6	3,221.7	3,221.1	10.5	1.3	104.46	-563.7	447.0	705.0	693.6	11.48	61.393	
3,300.0	3,258.5	3,269.8	3,269.2	10.7	1.3	105.29	-563.0	446.4	707.0	695.3	11.70	60.402	
3,346.4	3,303.9	3,313.3	3,312.7	10.9	1.3	106.03	-562.5	445.9	709.1	697.2	11.90	59.579	
3,400.0	3,356.3	3,364.7	3,364.1	11.2	1.3	106.90	-561.9	445.3	711.7	699.5	12.13	58.694	
3,444.9	3,400.2	3,408.0	3,407.4	11.4	1.3	107.64	-561.5	444.7	714.1	701.7	12.31	58.000	
3,500.0	3,454.1	3,462.1	3,461.5	11.6	1.3	108.58	-561.1	443.6	717.2	704.6	12.54	57.203	
3,543.3	3,496.5	3,504.3	3,503.7	11.8	1.3	109.32	-560.7	442.6	719.7	707.0	12.71	56.614	
3,600.0	3,551.9	3,557.0	3,556.4	12.0	1.4	110.27	-560.3	440.9	723.3	710.4	12.94	55.898	
3,641.7	3,592.7	3,595.7	3,595.0	12.2	1.4	110.98	-560.1	439.4	726.3	713.2	13.11	55.416	
3,700.0	3,649.7	3,655.5	3,654.7	12.5	1.4	112.08	-559.8	437.1	730.6	717.3	13.33	54.801	
3,740.1	3,689.0	3,697.2	3,696.4	12.7	1.4	112.82	-559.4	435.6	733.5	720.0	13.49	54.393	
3,800.0	3,747.5	3,757.7	3,756.9	12.9	1.4	113.86	-558.6	433.9	737.9	724.2	13.71	53.814	
3,838.6	3,785.3	3,796.8	3,796.0	13.1	1.4	114.50	-558.0	433.1	740.7	726.9	13.86	53.457	
3,900.0	3,845.4	3,854.5	3,853.7	13.4	1.4	115.43	-557.2	432.0	745.5	731.4	14.09	52.912	
3,937.0	3,881.5	3,889.1	3,888.3	13.6	1.4	115.98	-556.8	431.3	748.5	734.3	14.23	52.612	
4,000.0	3,943.2	3,949.5	3,948.7	13.8	1.5	116.94	-556.2	430.1	754.0	739.5	14.46	52.143	
4,035.4	3,977.8	3,983.7	3,982.8	14.0	1.5	117.48	-555.9	429.4	757.2	742.6	14.59	51.898	
4,100.0	4,041.0	4,046.7	4,045.8	14.3	1.5	118.44	-555.4	428.3	763.2	748.4	14.82	51.486	
4,133.8	4,074.1	4,079.9	4,079.0	14.4	1.5	118.93	-555.1	427.8	766.4	751.5	14.94	51.285	
4,200.0	4,138.8	4,140.7	4,139.8	14.7	1.5	119.82	-554.7	427.0	773.0	757.9	15.18	50.916	
4,232.3	4,170.4	4,169.5	4,168.6	14.9	1.5	120.23	-554.7	426.6	776.5	761.2	15.30	50.755	
4,300.0	4,236.6	4,234.8	4,233.9	15.2	1.5	121.14	-554.9	426.0	784.1	768.6	15.54	50.468	
4,330.7	4,266.6	4,266.7	4,265.8	15.3	1.6	121.57	-554.9	425.8	787.6	772.0	15.64	50.347	
4,400.0	4,334.4	4,337.0	4,336.2	15.6	1.6	122.50	-554.8	425.5	795.3	779.5	15.88	50.079	
4,429.1	4,362.9	4,365.9	4,365.1	15.8	1.6	122.88	-554.7	425.2	798.6	782.6	15.98	49.974	
4,500.0	4,432.2	4,434.2	4,433.3	16.1	1.6	123.79	-554.4	424.4	806.7	790.5	16.22	49.736	
4,527.5	4,459.2	4,460.0	4,459.1	16.2	1.6	124.13	-554.3	424.2	809.9	793.6	16.31	49.650	
4,600.0	4,530.1	4,530.1	4,529.2	16.5	1.6	125.00	-554.4	423.8	818.8	802.2	16.56	49.451	
4,626.0	4,555.5	4,556.3	4,555.4	16.7	1.6	125.32	-554.4	423.7	821.9	805.3	16.64	49.387	
4,700.0	4,627.9	4,631.0	4,630.1	17.0	1.7	126.23	-554.2	423.4	831.0	814.1	16.88	49.223	
4,724.4	4,651.7	4,655.8	4,654.9	17.1	1.7	126.52	-554.1	423.4	834.0	817.1	16.96	49.174	
4,800.0	4,725.7	4,731.3	4,730.4	17.4	1.7	127.39	-553.8	423.3	843.3	826.1	17.20	49.020	
4,822.8	4,748.0	4,753.7	4,752.8	17.6	1.7	127.65	-553.6	423.3	846.1	828.8	17.28	48.975	
4,900.0	4,823.5	4,827.7	4,826.8	17.9	1.7	128.49	-553.2	423.2	855.7	838.2	17.52	48.847	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
4,921.2	4,844.3	4,847.4	4,846.5	18.0	1.7	128.71	-553.2	423.1	858.5	840.9	17.59	48.814		
5,000.0	4,921.3	4,920.7	4,919.8	18.4	1.7	129.53	-553.1	422.7	869.0	851.1	17.84	48.718		
5,014.9	4,935.9	4,934.8	4,933.9	18.4	1.7	129.68	-553.1	422.7	871.0	853.1	17.88	48.702		
5,019.7	4,940.6	4,939.3	4,938.4	18.4	1.7	129.74	-553.1	422.6	871.7	853.8	17.89	48.711		
5,100.0	5,019.4	5,017.8	5,016.9	18.7	1.7	130.68	-553.3	422.3	882.1	864.0	18.06	48.838		
5,118.1	5,037.2	5,037.5	5,036.6	18.8	1.7	130.88	-553.3	422.2	884.2	866.2	18.08	48.897		
5,200.0	5,118.1	5,123.9	5,123.0	19.0	1.8	131.70	-552.9	422.0	892.6	874.4	18.19	49.067		
5,216.5	5,134.4	5,139.9	5,139.0	19.1	1.8	131.84	-552.8	421.9	894.1	875.9	18.21	49.096		
5,300.0	5,217.2	5,218.8	5,217.9	19.3	1.8	132.44	-552.4	421.6	900.8	882.5	18.32	49.172		
5,314.9	5,232.1	5,231.8	5,230.9	19.3	1.8	132.52	-552.4	421.5	901.9	883.6	18.34	49.186		
5,400.0	5,316.8	5,306.4	5,305.5	19.5	1.8	132.96	-552.7	420.6	907.8	889.3	18.44	49.230		
5,413.4	5,330.1	5,320.0	5,319.1	19.5	1.8	133.03	-552.8	420.4	908.6	890.2	18.45	49.238		
5,500.0	5,416.6	5,408.2	5,407.3	19.7	1.8	133.41	-553.2	418.7	912.9	894.4	18.55	49.213		
5,511.8	5,428.4	5,420.5	5,419.6	19.7	1.8	133.45	-553.2	418.4	913.4	894.8	18.56	49.208		
5,600.0	5,516.6	5,512.0	5,511.0	19.8	1.9	133.70	-553.0	416.2	915.3	896.7	18.65	49.080		
5,610.2	5,526.8	5,522.2	5,521.2	19.8	1.9	133.71	-553.0	416.0	915.4	896.8	18.66	49.058		
5,615.0	5,531.6	5,527.0	5,526.0	19.8	1.9	-156.20	-553.0	415.9	915.5	896.8	18.69	48.989		
5,700.0	5,616.6	5,612.9	5,612.0	19.9	1.9	-156.09	-552.8	414.1	916.0	897.2	18.81	48.701		
5,708.6	5,625.3	5,622.1	5,621.2	20.0	1.9	-156.08	-552.8	413.9	916.1	897.2	18.82	48.668		
5,800.0	5,716.6	5,719.5	5,718.5	20.1	1.9	-156.01	-552.4	412.7	916.2	897.2	18.97	48.303		
5,807.1	5,723.7	5,727.0	5,726.1	20.1	1.9	-156.00	-552.4	412.7	916.2	897.2	18.98	48.275		
5,900.0	5,816.6	5,823.9	5,822.9	20.2	1.9	-155.97	-551.7	412.4	915.7	896.6	19.13	47.879		
5,905.5	5,822.1	5,829.3	5,828.3	20.2	1.9	-155.97	-551.7	412.4	915.7	896.6	19.13	47.855		
6,000.0	5,916.6	5,922.9	5,921.9	20.4	2.0	-155.96	-551.2	412.5	915.2	895.9	19.29	47.451		
6,003.9	5,920.5	5,927.0	5,926.0	20.4	2.0	-155.96	-551.2	412.5	915.2	895.9	19.29	47.434		
6,100.0	6,016.6	6,027.4	6,026.4	20.5	2.0	-155.97	-550.6	412.9	914.5	895.0	19.45	47.009		
6,102.3	6,019.0	6,029.9	6,028.9	20.5	2.0	-155.97	-550.5	412.9	914.4	895.0	19.46	46.998		
6,200.0	6,116.6	6,131.3	6,130.3	20.6	2.0	-155.99	-549.4	413.8	913.1	893.5	19.62	46.533		
6,200.8	6,117.4	6,132.1	6,131.1	20.6	2.0	-155.99	-549.4	413.8	913.1	893.5	19.62	46.530		
6,299.2	6,215.8	6,228.9	6,227.9	20.8	2.0	-156.03	-548.5	414.9	911.8	892.0	19.79	46.064		
6,300.0	6,216.6	6,229.7	6,228.7	20.8	2.0	-156.03	-548.5	414.9	911.8	892.0	19.80	46.060		
6,340.0	6,256.6	6,270.3	6,269.3	20.8	2.0	-156.05	-548.2	415.4	911.3	891.4	19.87	45.870		
6,350.0	6,266.6	6,280.5	6,279.5	20.8	2.0	23.74	-548.1	415.5	911.1	891.2	19.85	45.902		
6,397.6	6,314.2	6,328.0	6,327.0	20.9	2.0	23.86	-547.6	416.2	908.4	888.5	19.87	45.727		
6,400.0	6,316.5	6,330.4	6,329.3	20.9	2.0	23.87	-547.6	416.2	908.2	888.3	19.87	45.714		
6,450.0	6,366.2	6,379.5	6,378.4	20.9	2.0	24.19	-547.2	416.9	902.1	882.2	19.89	45.353		
6,496.0	6,411.4	6,425.3	6,424.2	21.0	1.9	24.68	-546.8	417.5	893.7	873.8	19.90	44.908		
6,500.0	6,415.3	6,429.2	6,428.2	21.0	1.9	24.72	-546.8	417.6	892.9	873.0	19.90	44.866		
6,550.0	6,463.6	6,479.1	6,478.1	21.0	1.9	25.47	-546.4	418.6	880.5	860.7	19.88	44.293		
6,594.5	6,505.8	6,521.3	6,520.2	21.0	1.9	26.31	-546.2	419.6	867.0	847.1	19.82	43.735		
6,600.0	6,510.9	6,526.3	6,525.2	21.0	1.9	26.43	-546.1	419.8	865.1	845.3	19.81	43.666		
6,650.0	6,557.0	6,571.1	6,570.0	21.0	1.9	27.65	-545.9	420.9	846.9	827.2	19.69	43.010		
6,692.9	6,595.4	6,609.1	6,608.0	21.0	1.9	28.94	-545.7	421.8	829.0	809.5	19.54	42.428		
6,700.0	6,601.6	6,615.7	6,614.6	21.0	1.9	29.18	-545.7	422.0	825.9	806.4	19.51	42.333		
6,750.0	6,644.6	6,661.1	6,660.0	20.9	1.9	31.12	-545.5	423.2	802.2	782.9	19.28	41.618		
6,791.3	6,678.6	6,697.0	6,695.9	20.9	1.9	33.02	-545.3	424.4	780.7	761.6	19.05	40.975		
6,800.0	6,685.6	6,700.0	6,698.9	20.9	1.9	33.35	-545.3	424.5	776.0	757.0	19.01	40.826		
6,850.0	6,724.6	6,738.9	6,737.8	20.9	1.9	36.08	-545.1	425.9	747.5	728.8	18.71	39.946		
6,889.7	6,753.9	6,765.6	6,764.4	20.9	1.9	38.52	-545.2	426.7	723.7	705.2	18.49	39.133		
6,900.0	6,761.3	6,772.3	6,771.1	20.9	1.9	39.21	-545.2	427.0	717.3	698.9	18.43	38.915		
6,950.0	6,795.5	6,804.5	6,803.3	20.9	1.9	42.92	-545.4	428.0	685.5	667.3	18.19	37.686		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
6,988.2	6,819.9	6,831.4	6,830.2	20.9	1.9	46.39	-545.5	428.9	660.2	642.1	18.06	36.558		
7,000.0	6,827.1	6,839.4	6,838.1	20.9	1.9	47.54	-545.6	429.2	652.2	634.2	18.02	36.197		
7,050.0	6,855.9	6,871.0	6,869.8	20.9	1.9	52.84	-545.7	430.4	617.7	599.8	17.95	34.416		
7,086.6	6,875.1	6,892.1	6,890.8	20.9	1.9	57.09	-545.7	431.4	591.9	574.0	17.95	32.979		
7,100.0	6,881.8	6,899.4	6,898.1	20.9	1.9	58.72	-545.8	431.7	582.4	564.4	17.98	32.392		
7,150.0	6,904.6	6,921.2	6,919.9	21.0	1.9	64.64	-545.8	432.7	547.0	528.9	18.09	30.233		
7,185.0	6,918.8	6,934.7	6,933.4	21.1	1.9	68.86	-545.9	433.4	522.3	504.1	18.20	28.695		
7,200.0	6,924.3	6,940.1	6,938.8	21.1	1.9	70.65	-545.9	433.6	511.9	493.7	18.25	28.048		
7,250.0	6,940.8	6,956.2	6,954.8	21.2	1.9	76.44	-546.0	434.4	478.0	459.5	18.45	25.902		
7,283.4	6,949.9	6,965.2	6,963.9	21.3	1.9	80.03	-546.1	434.8	456.3	437.6	18.63	24.492		
7,300.0	6,953.9	6,969.2	6,967.8	21.4	1.9	81.69	-546.2	435.0	445.9	427.2	18.72	23.814		
7,350.0	6,963.6	6,979.0	6,977.7	21.6	1.9	86.14	-546.3	435.4	416.6	397.5	19.10	21.808		
7,381.9	6,968.0	6,983.7	6,982.3	21.7	1.9	88.46	-546.3	435.7	399.9	380.5	19.41	20.601		
7,400.0	6,969.9	6,985.7	6,984.3	21.8	1.9	89.59	-546.3	435.7	391.1	371.6	19.59	19.963		
7,450.0	6,972.6	6,989.0	6,987.6	22.1	1.9	91.94	-546.4	435.9	370.6	350.5	20.15	18.392		
7,471.5	6,972.8	6,989.4	6,988.0	22.2	1.9	92.60	-546.4	435.9	363.6	343.2	20.40	17.825		
7,480.3	6,972.7	6,989.4	6,988.0	22.3	1.9	92.60	-546.4	435.9	361.0	340.5	20.48	17.625		
7,500.0	6,972.5	6,989.5	6,988.1	22.4	1.9	92.61	-546.4	435.9	356.0	335.3	20.68	17.219		
7,578.7	6,971.8	6,989.7	6,988.3	23.1	1.9	92.66	-546.4	435.9	346.7	325.2	21.47	16.145		
7,580.9	6,971.8	6,989.7	6,988.3	23.1	1.9	92.66	-546.4	435.9	346.7	325.2	21.50	16.128 CC, ES		
7,600.0	6,971.6	6,989.8	6,988.4	23.3	1.9	92.67	-546.4	435.9	347.2	325.5	21.69	16.008		
7,677.1	6,970.9	6,990.0	6,988.7	24.0	1.9	92.71	-546.4	435.9	359.8	337.3	22.53	15.969 SF		
7,700.0	6,970.7	6,990.1	6,988.7	24.2	1.9	92.72	-546.4	436.0	366.6	343.8	22.78	16.091		
7,775.6	6,970.0	6,990.4	6,989.0	25.0	1.9	92.76	-546.4	436.0	397.6	373.9	23.70	16.778		
7,800.0	6,969.8	6,990.4	6,989.1	25.3	1.9	92.78	-546.4	436.0	410.1	386.1	23.99	17.092		
7,874.0	6,969.1	6,990.7	6,989.3	26.2	1.9	92.82	-546.4	436.0	454.0	429.0	24.97	18.183		
7,900.0	6,968.9	6,990.8	6,989.4	26.5	1.9	92.83	-546.4	436.0	471.2	445.9	25.31	18.618		
7,972.4	6,968.2	6,991.0	6,989.7	27.4	1.9	92.87	-546.4	436.0	522.9	496.6	26.32	19.867		
8,000.0	6,968.0	6,991.1	6,989.8	27.8	1.9	92.89	-546.4	436.0	543.9	517.2	26.71	20.365		
8,070.8	6,967.3	6,991.4	6,990.0	28.7	1.9	92.93	-546.4	436.0	600.2	572.4	27.75	21.628		
8,100.0	6,967.1	6,991.5	6,990.1	29.1	1.9	92.95	-546.4	436.0	624.2	596.0	28.18	22.151		
8,169.3	6,966.4	6,991.7	6,990.4	30.1	1.9	92.99	-546.4	436.0	682.9	653.7	29.24	23.354		
8,200.0	6,966.2	6,991.9	6,990.5	30.5	1.9	93.01	-546.4	436.0	709.5	679.8	29.71	23.880		
8,267.7	6,965.5	6,992.1	6,990.7	31.5	1.9	93.05	-546.4	436.0	769.3	738.5	30.78	24.991		
8,300.0	6,965.2	6,992.2	6,990.9	32.0	1.9	93.07	-546.4	436.0	798.3	767.0	31.30	25.508		
8,366.1	6,964.6	6,992.5	6,991.1	33.0	1.9	93.12	-546.4	436.1	858.3	826.0	32.37	26.515		
8,400.0	6,964.3	6,992.6	6,991.2	33.5	1.9	93.14	-546.4	436.1	889.4	856.5	32.92	27.016		
8,464.5	6,963.8	6,992.9	6,991.5	34.5	1.9	93.18	-546.4	436.1	949.2	915.2	34.00	27.921		
8,500.0	6,963.4	6,993.0	6,991.6	35.1	1.9	93.20	-546.4	436.1	982.3	947.7	34.59	28.401		
8,563.0	6,962.9	6,993.3	6,991.9	36.1	1.9	93.25	-546.4	436.1	1,041.5	1,005.8	35.65	29.211		
8,600.0	6,962.5	6,993.4	6,992.1	36.7	1.9	93.27	-546.4	436.1	1,076.4	1,040.2	36.28	29.670		
8,661.4	6,962.0	6,993.7	6,992.3	37.7	1.9	93.31	-546.4	436.1	1,134.7	1,097.4	37.34	30.391		
8,700.0	6,961.6	6,993.9	6,992.5	38.3	1.9	93.34	-546.4	436.1	1,171.5	1,133.5	38.00	30.828		
8,759.8	6,961.1	6,994.1	6,992.7	39.3	1.9	93.38	-546.4	436.1	1,228.8	1,189.8	39.05	31.471		
8,800.0	6,960.7	6,994.3	6,992.9	40.0	1.9	93.41	-546.5	436.1	1,267.4	1,227.7	39.75	31.887		
8,858.2	6,960.2	6,994.5	6,993.2	40.9	1.9	93.45	-546.5	436.2	1,323.5	1,282.8	40.78	32.459		
8,900.0	6,959.8	6,994.7	6,993.4	41.6	1.9	93.48	-546.5	436.2	1,363.9	1,322.4	41.51	32.855		
8,956.7	6,959.3	6,995.0	6,993.6	42.6	1.9	93.53	-546.5	436.2	1,418.8	1,376.2	42.52	33.365		
9,000.0	6,958.9	6,995.2	6,993.8	43.3	1.9	93.56	-546.5	436.2	1,460.8	1,417.5	43.29	33.741		
9,055.1	6,958.4	6,995.5	6,994.1	44.3	1.9	93.60	-546.5	436.2	1,514.4	1,470.1	44.28	34.197		
9,100.0	6,958.0	6,995.7	6,994.3	45.1	1.9	93.64	-546.5	436.2	1,558.1	1,513.0	45.09	34.555		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,153.5	6,957.5	6,995.9	6,994.5	46.0	1.9	93.68	-546.5	436.2	1,610.4	1,564.3	46.06	34.961	
9,200.0	6,957.1	6,996.1	6,994.8	46.8	1.9	93.72	-546.5	436.2	1,655.8	1,608.9	46.90	35.302	
9,251.9	6,956.6	6,996.4	6,995.0	47.7	1.9	93.76	-546.5	436.2	1,706.6	1,658.8	47.85	35.666	
9,300.0	6,956.2	6,996.6	6,995.3	48.6	1.9	93.80	-546.5	436.3	1,753.7	1,705.0	48.73	35.991	
9,350.4	6,955.7	6,996.9	6,995.5	49.5	1.9	93.84	-546.5	436.3	1,803.1	1,753.4	49.65	36.316	
9,400.0	6,955.2	6,997.2	6,995.8	50.3	1.9	93.88	-546.5	436.3	1,851.8	1,801.3	50.56	36.627	
9,448.8	6,954.8	6,997.4	6,996.0	51.2	1.9	93.93	-546.5	436.3	1,899.8	1,848.3	51.46	36.919	
9,500.0	6,954.3	6,997.7	6,996.3	52.1	1.9	93.97	-546.5	436.3	1,950.1	1,897.7	52.40	37.215	
9,547.2	6,953.9	6,997.9	6,996.6	53.0	1.9	94.01	-546.5	436.3	1,996.6	1,943.4	53.28	37.477	
9,600.0	6,953.4	6,998.2	6,996.9	53.9	1.9	94.06	-546.5	436.3	2,048.6	1,994.4	54.25	37.761	
9,645.6	6,953.0	6,998.5	6,997.1	54.7	1.9	94.10	-546.5	436.3	2,093.6	2,038.5	55.10	37.996	
9,700.0	6,952.5	6,998.8	6,997.4	55.7	1.9	94.16	-546.5	436.4	2,147.2	2,091.1	56.11	38.268	
9,744.1	6,952.1	6,999.1	6,997.7	56.5	1.9	94.20	-546.5	436.4	2,190.8	2,133.8	56.93	38.480	
9,800.0	6,951.6	6,999.4	6,998.0	57.5	1.9	94.25	-546.5	436.4	2,246.0	2,188.0	57.97	38.741	
9,842.5	6,951.2	6,999.6	6,998.3	58.3	1.9	94.29	-546.5	436.4	2,288.0	2,229.2	58.77	38.931	
9,900.0	6,950.7	7,000.0	6,998.6	59.4	1.9	94.35	-546.5	436.4	2,344.8	2,285.0	59.85	39.182	
9,940.9	6,950.3	7,000.2	6,998.9	60.1	1.9	94.39	-546.5	436.4	2,385.3	2,324.7	60.61	39.354	
10,000.0	6,949.8	7,000.6	6,999.2	61.2	1.9	94.45	-546.5	436.4	2,443.8	2,382.1	61.72	39.594	
10,039.3	6,949.4	7,000.9	6,999.5	61.9	1.9	94.49	-546.5	436.4	2,482.7	2,420.3	62.46	39.749	
10,100.0	6,948.9	7,001.3	6,999.9	63.0	1.9	94.56	-546.5	436.5	2,542.8	2,479.2	63.60	39.981	
10,137.8	6,948.5	7,001.5	7,000.1	63.7	1.9	94.60	-546.5	436.5	2,580.2	2,515.9	64.31	40.120	
10,200.0	6,948.0	7,001.9	7,000.5	64.9	1.9	94.67	-546.6	436.5	2,641.9	2,576.4	65.48	40.344	
10,236.2	6,947.6	7,002.2	7,000.8	65.6	1.9	94.71	-546.6	436.5	2,677.8	2,611.6	66.17	40.470	
10,300.0	6,947.1	7,002.6	7,001.2	66.7	1.9	94.78	-546.6	436.5	2,741.1	2,673.7	67.37	40.685	
10,334.6	6,946.7	7,002.9	7,001.5	67.4	1.9	94.82	-546.6	436.5	2,775.4	2,707.4	68.03	40.799	
10,400.0	6,946.2	7,003.3	7,001.9	68.6	1.9	94.90	-546.6	436.6	2,840.3	2,771.0	69.26	41.007	
10,433.0	6,945.8	7,003.6	7,002.2	69.2	1.9	94.94	-546.6	436.6	2,873.1	2,803.2	69.89	41.109	
10,500.0	6,945.2	7,004.1	7,002.7	70.5	1.9	95.02	-546.6	436.6	2,939.6	2,868.4	71.16	41.311	
10,531.5	6,945.0	7,004.3	7,002.9	71.1	1.9	95.06	-546.6	436.6	2,970.8	2,899.1	71.75	41.403	
10,600.0	6,944.3	7,004.8	7,003.5	72.3	1.9	95.15	-546.6	436.6	3,038.9	2,965.9	73.05	41.598	
10,629.9	6,944.1	7,005.1	7,003.7	72.9	1.9	95.19	-546.6	436.6	3,068.6	2,995.0	73.62	41.681	
10,700.0	6,943.4	7,005.6	7,004.3	74.2	1.9	95.28	-546.6	436.7	3,138.3	3,063.3	74.95	41.870	
10,728.3	6,943.2	7,005.9	7,004.5	74.7	1.9	95.32	-546.6	436.7	3,166.4	3,090.9	75.49	41.944	
10,800.0	6,942.5	7,006.5	7,005.1	76.1	1.9	95.42	-546.6	436.7	3,237.7	3,160.8	76.85	42.128	
10,826.7	6,942.3	7,006.7	7,005.3	76.6	1.9	95.46	-546.6	436.7	3,264.3	3,186.9	77.36	42.195	
10,900.0	6,941.6	7,007.3	7,005.9	78.0	1.9	95.56	-546.6	436.7	3,337.1	3,258.4	78.76	42.373	
10,925.2	6,941.4	7,007.6	7,006.2	78.4	1.9	95.60	-546.6	436.8	3,362.2	3,282.9	79.23	42.433	
11,000.0	6,940.7	7,008.2	7,006.8	79.9	1.9	95.71	-546.6	436.8	3,436.6	3,355.9	80.66	42.607	
11,023.6	6,940.5	7,008.5	7,007.1	80.3	1.9	95.74	-546.6	436.8	3,460.1	3,379.0	81.11	42.660	
11,100.0	6,939.8	7,009.2	7,007.8	81.7	1.9	95.86	-546.7	436.8	3,536.1	3,453.5	82.56	42.829	
11,122.0	6,939.6	7,009.4	7,008.0	82.2	1.9	95.90	-546.7	436.8	3,558.0	3,475.0	82.98	42.877	
11,200.0	6,938.9	7,010.2	7,008.8	83.6	1.9	96.02	-546.7	436.9	3,635.6	3,551.2	84.47	43.042	
11,220.4	6,938.7	7,010.4	7,009.0	84.0	1.9	96.06	-546.7	436.9	3,656.0	3,571.1	84.86	43.084	
11,300.0	6,938.0	7,011.2	7,009.8	85.5	1.9	96.19	-546.7	436.9	3,735.2	3,648.8	86.37	43.245	
11,318.9	6,937.8	7,011.4	7,010.0	85.9	1.9	96.22	-546.7	436.9	3,754.0	3,667.2	86.73	43.282	
11,400.0	6,937.0	7,012.2	7,010.8	87.4	1.9	96.36	-546.7	437.0	3,834.8	3,746.5	88.28	43.440	
11,417.3	6,936.9	7,012.4	7,011.0	87.8	1.9	96.40	-546.7	437.0	3,852.0	3,763.4	88.61	43.472	
11,500.0	6,936.1	7,013.3	7,011.9	89.3	1.9	96.55	-546.7	437.0	3,934.4	3,844.2	90.18	43.627	
11,515.7	6,936.0	7,013.5	7,012.1	89.6	1.9	96.58	-546.7	437.0	3,950.0	3,859.5	90.48	43.655	
11,600.0	6,935.2	7,014.5	7,013.1	91.2	1.9	96.74	-546.7	437.1	4,034.0	3,941.9	92.09	43.806	
11,614.1	6,935.1	7,014.7	7,013.3	91.5	1.9	96.77	-546.7	437.1	4,048.1	3,955.7	92.36	43.831	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,700.0	6,934.3	7,015.7	7,014.3	93.1	1.9	96.94	-546.8	437.1	4,133.6	4,039.6	93.99	43.979	
11,712.6	6,934.2	7,015.9	7,014.5	93.4	1.9	96.96	-546.8	437.1	4,146.1	4,051.9	94.23	44.000	
11,800.0	6,933.4	7,017.0	7,015.6	95.1	1.9	97.15	-546.8	437.2	4,233.3	4,137.4	95.89	44.146	
11,811.0	6,933.3	7,017.2	7,015.7	95.3	1.9	97.17	-546.8	437.2	4,244.2	4,148.1	96.10	44.164	
11,900.0	6,932.5	7,018.3	7,016.9	97.0	1.9	97.37	-546.8	437.3	4,332.9	4,235.1	97.79	44.308	
11,909.4	6,932.4	7,018.5	7,017.1	97.1	1.9	97.39	-546.8	437.3	4,342.3	4,244.4	97.97	44.322	
12,000.0	6,931.6	7,019.8	7,018.3	98.9	1.9	97.60	-546.8	437.3	4,432.6	4,332.9	99.69	44.464	
12,007.8	6,931.5	7,019.9	7,018.5	99.0	1.9	97.62	-546.8	437.3	4,440.5	4,340.6	99.84	44.476	
12,100.0	6,930.7	12,100.0	6,981.3	100.8	2.3	91.47	-546.4	435.6	4,532.3	4,429.4	102.89	44.051	
12,106.3	6,930.6	12,106.3	6,981.2	100.9	2.3	91.47	-546.4	435.6	4,538.6	4,435.6	103.01	44.059	
12,200.0	6,929.8	12,200.0	6,981.1	102.7	2.3	91.44	-546.4	435.6	4,632.0	4,527.2	104.86	44.173	
12,204.7	6,929.7	12,204.7	6,981.1	102.8	2.3	91.44	-546.4	435.6	4,636.7	4,531.8	104.95	44.178	
12,300.0	6,928.8	12,300.0	6,980.9	104.6	2.3	91.42	-546.4	435.6	4,731.8	4,624.9	106.83	44.290	
12,303.1	6,928.8	12,303.1	6,980.9	104.7	2.3	91.41	-546.4	435.6	4,734.9	4,628.0	106.90	44.294	
12,400.0	6,927.9	12,400.0	6,980.8	106.5	2.4	91.39	-546.4	435.6	4,831.5	4,722.7	108.81	44.404	
12,401.5	6,927.9	12,401.5	6,980.8	106.6	2.4	91.39	-546.4	435.6	4,833.0	4,724.2	108.84	44.406	
12,500.0	6,927.0	12,500.0	6,980.6	108.5	2.4	91.36	-546.4	435.6	4,931.2	4,820.5	110.78	44.515	
12,598.4	6,926.1	12,598.4	6,980.5	110.4	2.4	91.33	-546.4	435.6	5,029.4	4,916.7	112.72	44.620	
12,600.0	6,926.1	12,600.0	6,980.4	110.4	2.4	91.33	-546.4	435.6	5,031.0	4,918.2	112.75	44.622	
12,696.8	6,925.2	12,696.8	6,980.3	112.3	2.4	91.31	-546.4	435.6	5,127.6	5,012.9	114.65	44.722	
12,700.0	6,925.2	12,700.0	6,980.3	112.3	2.4	91.31	-546.4	435.6	5,130.8	5,016.0	114.72	44.726	
12,795.2	6,924.3	12,795.2	6,980.1	114.1	2.4	91.28	-546.4	435.5	5,225.8	5,109.2	116.59	44.822	
12,800.0	6,924.3	12,800.0	6,980.1	114.2	2.4	91.28	-546.4	435.5	5,230.5	5,113.9	116.68	44.827	
12,893.7	6,923.4	12,893.7	6,980.0	116.0	2.4	91.25	-546.4	435.5	5,324.0	5,205.5	118.53	44.918	
12,900.0	6,923.4	12,900.0	6,980.0	116.2	2.4	91.25	-546.4	435.5	5,330.3	5,211.7	118.65	44.925	
12,992.1	6,922.5	12,992.1	6,979.8	117.9	2.4	91.23	-546.4	435.5	5,422.2	5,301.8	120.46	45.013	
13,000.0	6,922.5	13,000.0	6,979.8	118.1	2.4	91.22	-546.4	435.5	5,430.1	5,309.5	120.61	45.021	
13,090.5	6,921.6	13,090.5	6,979.7	119.8	2.4	91.20	-546.4	435.5	5,520.5	5,398.1	122.39	45.105	
13,100.0	6,921.5	13,100.0	6,979.6	120.0	2.5	91.20	-546.4	435.5	5,529.9	5,407.3	122.58	45.114	
13,188.9	6,920.7	13,188.9	6,979.5	121.7	2.5	91.17	-546.4	435.5	5,618.7	5,494.4	124.32	45.194	
13,200.0	6,920.6	13,200.0	6,979.5	121.9	2.5	91.17	-546.4	435.5	5,629.7	5,505.2	124.54	45.205	
13,287.4	6,919.8	13,287.4	6,979.3	123.6	2.5	91.14	-546.4	435.5	5,716.9	5,590.7	126.25	45.282	
13,300.0	6,919.7	13,300.0	6,979.3	123.9	2.5	91.14	-546.4	435.5	5,729.5	5,603.0	126.50	45.293	
13,385.8	6,918.9	13,385.8	6,979.2	125.5	2.5	91.12	-546.4	435.5	5,815.2	5,687.0	128.18	45.367	
13,400.0	6,918.8	13,400.0	6,979.2	125.8	2.5	91.11	-546.4	435.5	5,829.4	5,700.9	128.46	45.380	
13,484.2	6,918.0	13,484.2	6,979.0	127.4	2.5	91.09	-546.4	435.5	5,913.4	5,783.3	130.11	45.451	
13,500.0	6,917.9	13,500.0	6,979.0	127.7	2.5	91.08	-546.4	435.5	5,929.2	5,798.8	130.41	45.465	
13,582.6	6,917.1	13,582.6	6,978.9	129.3	2.5	91.06	-546.4	435.5	6,011.7	5,879.7	132.03	45.533	
13,600.0	6,917.0	13,600.0	6,978.8	129.7	2.5	91.06	-546.4	435.5	6,029.0	5,896.6	132.37	45.548	
13,681.1	6,916.2	13,681.1	6,978.7	131.2	2.5	91.03	-546.4	435.5	6,110.0	5,976.0	133.95	45.613	
13,700.0	6,916.1	13,700.0	6,978.7	131.6	2.5	91.03	-546.4	435.5	6,128.9	5,994.5	134.32	45.629	
13,779.5	6,915.3	13,779.5	6,978.5	133.1	2.5	91.01	-546.4	435.5	6,208.2	6,072.4	135.87	45.692	
13,800.0	6,915.2	13,800.0	6,978.5	133.5	2.5	91.00	-546.4	435.5	6,228.7	6,092.4	136.27	45.708	
13,877.9	6,914.4	13,877.9	6,978.4	135.1	2.5	90.98	-546.4	435.5	6,306.5	6,168.7	137.79	45.769	
13,900.0	6,914.2	13,900.0	6,978.3	135.5	2.6	90.97	-546.4	435.5	6,328.5	6,190.3	138.22	45.786	
13,976.3	6,913.5	13,976.3	6,978.2	137.0	2.6	90.95	-546.4	435.5	6,404.8	6,265.1	139.71	45.845	
14,000.0	6,913.3	14,000.0	6,978.2	137.4	2.6	90.95	-546.4	435.5	6,428.4	6,288.2	140.17	45.863	
14,074.8	6,912.6	14,074.8	6,978.1	138.9	2.6	90.93	-546.4	435.4	6,503.1	6,361.4	141.62	45.919	
14,100.0	6,912.4	14,100.0	6,978.0	139.4	2.6	90.92	-546.4	435.4	6,528.3	6,386.1	142.11	45.938	
14,145.0	6,912.0	14,145.0	6,977.9	140.2	2.6	90.91	-546.4	435.4	6,573.1	6,430.2	142.94	45.985	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-156.15	-1,595.7	-705.5	1,744.8				
98.4	98.4	73.6	73.6	0.1	0.0	-156.14	-1,595.6	-705.6	1,744.7	1,744.5	0.14	N/A	
100.0	100.0	75.1	75.1	0.1	0.0	-156.14	-1,595.6	-705.6	1,744.7	1,744.5	0.14	N/A	
196.8	196.8	160.6	160.6	0.3	0.1	-156.13	-1,595.7	-706.1	1,745.0	1,744.6	0.44	3,949.171	
200.0	200.0	163.2	163.2	0.3	0.1	-156.13	-1,595.7	-706.1	1,745.0	1,744.6	0.45	3,862.575	
295.3	295.3	262.3	262.3	0.5	0.2	-156.13	-1,596.5	-706.4	1,745.9	1,745.1	0.77	2,275.826	
300.0	300.0	268.0	268.0	0.5	0.2	-156.13	-1,596.6	-706.5	1,745.9	1,745.1	0.78	2,228.521	
393.7	393.7	369.6	369.6	0.8	0.3	-156.12	-1,596.6	-706.8	1,746.1	1,745.0	1.05	1,661.632	
400.0	400.0	376.2	376.2	0.8	0.3	-156.12	-1,596.6	-706.8	1,746.1	1,745.0	1.07	1,635.966	
492.1	492.1	464.7	464.7	1.0	0.4	-156.09	-1,596.3	-707.6	1,746.1	1,744.8	1.32	1,320.966	
500.0	500.0	472.1	472.1	1.0	0.4	-156.09	-1,596.3	-707.6	1,746.2	1,744.8	1.34	1,299.216	
590.5	590.5	564.8	564.8	1.2	0.4	-156.08	-1,596.3	-708.2	1,746.4	1,744.8	1.60	1,092.228	
600.0	600.0	574.9	574.9	1.2	0.4	-156.07	-1,596.3	-708.3	1,746.4	1,744.8	1.63	1,074.348	
689.0	689.0	660.8	660.8	1.4	0.5	-156.05	-1,596.1	-709.0	1,746.5	1,744.6	1.87	934.372	
700.0	700.0	671.1	671.0	1.4	0.5	-156.05	-1,596.1	-709.0	1,746.5	1,744.6	1.90	919.690	
787.4	787.4	765.8	765.7	1.6	0.5	-156.02	-1,596.0	-709.8	1,746.7	1,744.6	2.14	817.367	
800.0	800.0	780.5	780.5	1.7	0.5	-156.02	-1,596.0	-709.9	1,746.7	1,744.6	2.17	804.412	
858.1	858.1	834.4	834.4	1.8	0.5	-156.00	-1,595.6	-710.4	1,746.6	1,744.3	2.32	751.929	
885.8	885.8	857.4	857.4	1.9	0.6	-155.99	-1,595.6	-710.6	1,746.6	1,744.2	2.39	729.709	
900.0	900.0	869.2	869.2	1.9	0.6	-155.99	-1,595.6	-710.7	1,746.7	1,744.3	2.43	718.855	
984.2	984.2	947.5	947.5	2.1	0.6	-155.97	-1,595.8	-711.6	1,747.3	1,744.6	2.65	659.159	
1,000.0	1,000.0	963.4	963.3	2.1	0.6	-155.96	-1,595.8	-711.7	1,747.4	1,744.7	2.69	648.892	
1,082.7	1,082.7	1,047.9	1,047.9	2.3	0.6	133.99	-1,596.1	-712.5	1,748.8	1,745.9	2.90	602.102	
1,100.0	1,100.0	1,065.8	1,065.8	2.3	0.6	133.99	-1,596.2	-712.6	1,749.3	1,746.4	2.95	592.940	
1,181.1	1,181.0	1,147.0	1,147.0	2.5	0.7	134.05	-1,596.6	-713.0	1,752.5	1,749.4	3.16	554.748	
1,200.0	1,199.8	1,165.5	1,165.4	2.6	0.7	134.06	-1,596.7	-713.0	1,753.5	1,750.3	3.21	546.711	
1,279.5	1,279.1	1,243.5	1,243.4	2.7	0.7	134.14	-1,597.2	-713.1	1,758.7	1,755.3	3.42	514.163	
1,300.0	1,299.5	1,263.6	1,263.6	2.8	0.7	134.16	-1,597.3	-713.1	1,760.3	1,756.8	3.48	506.436	
1,377.9	1,376.9	1,345.1	1,345.1	3.0	0.8	134.29	-1,597.8	-713.4	1,767.2	1,763.5	3.70	478.184	
1,400.0	1,398.7	1,369.4	1,369.4	3.0	0.8	134.33	-1,597.9	-713.5	1,769.4	1,765.6	3.76	471.041	
1,476.4	1,474.2	1,449.4	1,449.3	3.2	0.8	134.50	-1,597.9	-713.8	1,777.7	1,773.7	3.98	446.608	
1,500.0	1,497.5	1,473.3	1,473.3	3.3	0.8	134.56	-1,597.9	-713.8	1,780.6	1,776.5	4.05	439.714	
1,574.8	1,571.0	1,551.7	1,551.7	3.5	0.8	134.77	-1,597.6	-714.2	1,790.4	1,786.1	4.29	417.830	
1,600.1	1,595.7	1,578.6	1,578.6	3.6	0.8	134.85	-1,597.4	-714.4	1,794.0	1,789.6	4.36	411.162	
1,673.2	1,667.2	1,646.0	1,645.9	3.9	0.9	135.20	-1,596.9	-715.0	1,804.6	1,800.0	4.60	392.551	
1,700.0	1,693.4	1,669.2	1,669.1	4.0	0.9	135.31	-1,596.8	-715.2	1,808.6	1,803.9	4.68	386.316	
1,771.6	1,763.5	1,732.1	1,732.1	4.2	0.9	135.62	-1,596.7	-715.8	1,819.5	1,814.6	4.92	369.584	
1,800.0	1,791.3	1,757.3	1,757.3	4.3	0.9	135.75	-1,596.6	-716.2	1,824.0	1,818.9	5.02	363.468	
1,870.1	1,859.8	1,821.2	1,821.1	4.6	0.9	136.07	-1,596.6	-717.2	1,835.0	1,829.8	5.26	348.747	
1,900.0	1,889.1	1,849.9	1,849.8	4.7	0.9	136.22	-1,596.6	-717.8	1,839.8	1,834.5	5.36	342.945	
1,968.5	1,956.1	1,916.6	1,916.5	5.0	1.0	136.57	-1,596.4	-719.4	1,850.8	1,845.2	5.61	330.162	
2,000.0	1,986.9	1,949.1	1,949.0	5.1	1.0	136.74	-1,596.3	-720.2	1,855.9	1,850.2	5.72	324.689	
2,066.9	2,052.3	2,024.3	2,024.1	5.4	1.0	137.11	-1,596.1	-721.7	1,866.6	1,860.7	5.95	313.650	
2,100.0	2,084.7	2,069.6	2,069.4	5.5	1.0	137.34	-1,595.7	-722.4	1,871.7	1,865.6	6.06	308.651	
2,165.3	2,148.6	2,134.9	2,134.8	5.8	1.0	137.66	-1,594.7	-723.3	1,881.3	1,875.1	6.29	299.119	
2,200.0	2,182.5	2,162.9	2,162.8	5.9	1.0	137.79	-1,594.4	-723.6	1,886.6	1,880.2	6.41	294.366	
2,263.8	2,244.9	2,221.0	2,220.8	6.2	1.1	138.07	-1,593.9	-724.5	1,896.6	1,889.9	6.63	285.952	
2,300.0	2,280.3	2,263.5	2,263.3	6.3	1.1	138.27	-1,593.5	-725.1	1,902.2	1,895.4	6.76	281.356	
2,362.2	2,341.2	2,328.6	2,328.4	6.6	1.1	138.58	-1,592.6	-726.0	1,911.6	1,904.6	6.98	273.895	
2,400.0	2,378.1	2,363.3	2,363.1	6.8	1.1	138.75	-1,592.1	-726.5	1,917.4	1,910.3	7.11	269.637	
2,460.6	2,437.4	2,421.3	2,421.1	7.0	1.1	139.02	-1,591.4	-727.3	1,926.7	1,919.4	7.33	262.991	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,500.0	2,476.0	2,461.8	2,461.6	7.2	1.1	139.20	-1,590.9	-727.8	1,932.8	1,925.3	7.47	258.907	
2,559.0	2,533.7	2,521.2	2,521.0	7.4	1.2	139.48	-1,590.1	-728.7	1,941.9	1,934.2	7.67	253.085	
2,600.0	2,573.8	2,560.9	2,560.7	7.6	1.2	139.66	-1,589.5	-729.2	1,948.2	1,940.4	7.82	249.247	
2,657.5	2,630.0	2,616.1	2,615.9	7.9	1.2	139.91	-1,588.7	-730.0	1,957.1	1,949.1	8.02	244.078	
2,700.0	2,671.6	2,656.1	2,655.9	8.1	1.2	140.09	-1,588.2	-730.6	1,963.8	1,955.6	8.17	240.421	
2,755.9	2,726.3	2,709.9	2,709.6	8.3	1.2	140.33	-1,587.5	-731.2	1,972.6	1,964.2	8.37	235.816	
2,800.0	2,769.4	2,756.7	2,756.4	8.5	1.2	140.54	-1,586.9	-731.9	1,979.5	1,971.0	8.52	232.357	
2,854.3	2,822.5	2,811.6	2,811.4	8.7	1.3	140.79	-1,586.0	-732.8	1,988.0	1,979.3	8.71	228.258	
2,900.0	2,867.2	2,851.0	2,850.7	8.9	1.3	140.96	-1,585.3	-733.5	1,995.2	1,986.4	8.87	224.960	
2,952.7	2,918.8	2,900.0	2,899.7	9.2	1.3	141.18	-1,584.7	-734.3	2,003.7	1,994.7	9.05	221.305	
3,000.0	2,965.0	2,949.9	2,949.6	9.4	1.3	141.39	-1,584.2	-734.9	2,011.4	2,002.1	9.22	218.189	
3,051.2	3,015.1	3,007.0	3,006.7	9.6	1.3	141.63	-1,583.4	-735.6	2,019.4	2,010.1	9.40	214.917	
3,100.0	3,062.8	3,050.3	3,050.0	9.8	1.3	141.81	-1,582.8	-736.0	2,027.2	2,017.6	9.57	211.933	
3,149.6	3,111.4	3,094.3	3,094.0	10.0	1.3	141.99	-1,582.2	-736.6	2,035.2	2,025.4	9.74	209.022	
3,200.0	3,160.7	3,147.8	3,147.5	10.3	1.4	142.21	-1,581.7	-737.0	2,043.3	2,033.4	9.91	206.247	
3,248.0	3,207.6	3,200.0	3,199.7	10.5	1.4	142.40	-1,581.2	-737.1	2,051.0	2,040.9	10.07	203.680	
3,300.0	3,258.5	3,244.5	3,244.2	10.7	1.4	142.56	-1,581.1	-736.8	2,059.3	2,049.1	10.25	201.003	
3,346.4	3,303.9	3,284.2	3,283.9	10.9	1.4	142.69	-1,581.2	-736.5	2,066.9	2,056.5	10.40	198.670	
3,400.0	3,356.3	3,340.1	3,339.7	11.2	1.4	142.87	-1,581.5	-735.8	2,075.7	2,065.1	10.59	196.036	
3,444.9	3,400.2	3,391.3	3,391.0	11.4	1.4	143.03	-1,581.6	-735.1	2,083.0	2,072.3	10.74	193.882	
3,500.0	3,454.1	3,449.6	3,449.2	11.6	1.4	143.22	-1,581.5	-734.4	2,091.8	2,080.9	10.93	191.383	
3,543.3	3,496.5	3,494.7	3,494.3	11.8	1.4	143.37	-1,581.2	-734.2	2,098.7	2,087.6	11.07	189.544	
3,600.0	3,551.9	3,552.7	3,552.3	12.0	1.4	143.58	-1,580.4	-734.2	2,107.6	2,096.4	11.26	187.142	
3,641.7	3,592.7	3,595.2	3,594.8	12.2	1.4	143.74	-1,579.6	-734.5	2,114.2	2,102.8	11.40	185.416	
3,700.0	3,649.7	3,655.7	3,655.4	12.5	1.4	143.98	-1,578.3	-735.0	2,123.3	2,111.7	11.60	183.067	
3,740.1	3,689.0	3,697.6	3,697.2	12.7	1.4	144.14	-1,577.4	-735.3	2,129.5	2,117.8	11.73	181.494	
3,800.0	3,747.5	3,749.2	3,748.8	12.9	1.4	144.33	-1,576.3	-735.7	2,138.9	2,127.0	11.94	179.197	
3,838.6	3,785.3	3,782.1	3,781.7	13.1	1.4	144.46	-1,575.6	-736.0	2,145.1	2,133.0	12.07	177.771	
3,900.0	3,845.4	3,836.7	3,836.3	13.4	1.4	144.67	-1,574.7	-736.6	2,155.1	2,142.8	12.27	175.568	
3,937.0	3,881.5	3,870.2	3,869.8	13.6	1.5	144.79	-1,574.1	-737.1	2,161.2	2,148.8	12.40	174.282	
4,000.0	3,943.2	3,925.1	3,924.6	13.8	1.5	145.00	-1,573.2	-737.9	2,171.7	2,159.1	12.61	172.166	
4,035.4	3,977.8	3,954.6	3,954.1	14.0	1.5	145.11	-1,572.8	-738.5	2,177.8	2,165.0	12.73	171.016	
4,100.0	4,041.0	4,000.0	3,999.5	14.3	1.5	145.29	-1,572.2	-739.5	2,189.0	2,176.1	12.95	169.001	
4,133.8	4,074.1	4,035.4	4,034.9	14.4	1.5	145.42	-1,571.8	-740.3	2,195.0	2,182.0	13.07	167.967	
4,200.0	4,138.8	4,088.8	4,088.3	14.7	1.5	145.62	-1,571.6	-741.4	2,207.1	2,193.8	13.29	166.028	
4,232.3	4,170.4	4,114.7	4,114.2	14.9	1.5	145.71	-1,571.6	-742.0	2,213.1	2,199.7	13.40	165.105	
4,300.0	4,236.6	4,169.0	4,168.5	15.2	1.6	145.89	-1,572.0	-743.0	2,226.0	2,212.4	13.64	163.235	
4,330.7	4,266.6	4,200.0	4,199.5	15.3	1.6	145.99	-1,572.4	-743.6	2,232.0	2,218.2	13.74	162.423	
4,400.0	4,334.4	4,258.6	4,258.1	15.6	1.6	146.18	-1,573.3	-744.8	2,245.6	2,231.6	13.98	160.645	
4,429.1	4,362.9	4,286.4	4,285.9	15.8	1.6	146.27	-1,573.7	-745.3	2,251.3	2,237.3	14.08	159.911	
4,500.0	4,432.2	4,347.3	4,346.7	16.1	1.6	146.46	-1,574.6	-746.6	2,265.5	2,251.1	14.32	158.192	
4,527.5	4,459.2	4,370.3	4,369.7	16.2	1.6	146.53	-1,575.1	-747.1	2,271.0	2,256.6	14.42	157.546	
4,600.0	4,530.1	4,437.3	4,436.7	16.5	1.6	146.72	-1,576.8	-748.1	2,285.9	2,271.2	14.66	155.889	
4,626.0	4,555.5	4,463.6	4,463.0	16.7	1.6	146.79	-1,577.6	-748.4	2,291.2	2,276.5	14.75	155.304	
4,700.0	4,627.9	4,533.5	4,532.9	17.0	1.6	146.97	-1,579.9	-749.0	2,306.4	2,291.4	15.01	153.675	
4,724.4	4,651.7	4,555.0	4,554.3	17.1	1.6	147.03	-1,580.5	-749.2	2,311.4	2,296.3	15.09	153.156	
4,800.0	4,725.7	4,624.4	4,623.7	17.4	1.6	147.21	-1,582.8	-750.1	2,327.2	2,311.9	15.35	151.599	
4,822.8	4,748.0	4,647.3	4,646.6	17.6	1.6	147.27	-1,583.5	-750.4	2,332.0	2,316.5	15.43	151.137	
4,900.0	4,823.5	4,723.3	4,722.6	17.9	1.7	147.46	-1,586.0	-751.3	2,348.1	2,332.4	15.69	149.610	
4,921.2	4,844.3	4,743.4	4,742.7	18.0	1.7	147.51	-1,586.7	-751.5	2,352.5	2,336.8	15.77	149.200	
5,000.0	4,921.3	4,822.5	4,821.7	18.4	1.7	147.70	-1,589.5	-752.2	2,369.0	2,353.0	16.04	147.720	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
							+N/-S (usft)	+E/-W (usft)						
5,014.9	4,935.9	4,840.3	4,839.5	18.4	1.7	147.74	-1,590.1	-752.4	2,372.2	2,356.1	16.09	147.444		
5,019.7	4,940.6	4,845.9	4,845.1	18.4	1.7	147.77	-1,590.3	-752.4	2,373.1	2,357.0	16.10	147.409		
5,100.0	5,019.4	4,932.8	4,931.9	18.7	1.7	148.12	-1,593.0	-752.8	2,388.5	2,372.2	16.28	146.741		
5,118.1	5,037.2	4,949.8	4,948.9	18.8	1.7	148.18	-1,593.6	-752.9	2,391.7	2,375.4	16.31	146.669		
5,200.0	5,118.1	5,040.9	5,039.9	19.0	1.7	148.48	-1,596.2	-753.5	2,405.0	2,388.5	16.44	146.263		
5,216.5	5,134.4	5,064.7	5,063.7	19.1	1.7	148.53	-1,596.8	-753.5	2,407.3	2,390.8	16.47	146.184		
5,300.0	5,217.2	5,161.4	5,160.5	19.3	1.7	148.75	-1,599.0	-753.1	2,417.4	2,400.8	16.59	145.678		
5,314.9	5,232.1	5,177.0	5,176.0	19.3	1.7	148.78	-1,599.4	-753.1	2,419.0	2,402.4	16.61	145.598		
5,400.0	5,316.8	5,270.1	5,269.1	19.5	1.7	148.93	-1,601.1	-752.6	2,426.6	2,409.8	16.73	145.020		
5,413.4	5,330.1	5,285.0	5,284.0	19.5	1.7	148.95	-1,601.4	-752.5	2,427.5	2,410.8	16.75	144.936		
5,500.0	5,416.6	5,400.0	5,399.0	19.7	1.7	149.02	-1,602.9	-751.3	2,431.9	2,415.1	16.86	144.269		
5,511.8	5,428.4	5,413.5	5,412.5	19.7	1.7	149.03	-1,603.0	-751.1	2,432.3	2,415.4	16.87	144.182		
5,600.0	5,516.6	5,496.9	5,495.8	19.8	1.7	149.03	-1,603.7	-750.0	2,433.6	2,416.7	16.97	143.424		
5,610.2	5,526.8	5,507.3	5,506.2	19.8	1.7	149.03	-1,603.8	-749.8	2,433.7	2,416.7	16.98	143.330		
5,615.0	5,531.6	5,512.3	5,511.2	19.8	1.7	-140.89	-1,603.9	-749.7	2,433.7	2,416.7	17.01	143.094		
5,700.0	5,616.6	5,602.1	5,601.0	19.9	1.7	-140.92	-1,604.5	-748.7	2,433.5	2,416.3	17.15	141.874		
5,708.6	5,625.3	5,613.7	5,612.6	20.0	1.7	-140.93	-1,604.6	-748.5	2,433.4	2,416.3	17.17	141.747		
5,800.0	5,716.6	5,724.3	5,723.3	20.1	1.7	-140.94	-1,604.0	-747.5	2,432.5	2,415.2	17.32	140.407		
5,807.1	5,723.7	5,730.7	5,729.7	20.1	1.7	-140.94	-1,604.0	-747.4	2,432.4	2,415.1	17.34	140.304		
5,900.0	5,816.6	5,816.1	5,815.1	20.2	1.7	-140.94	-1,603.2	-746.9	2,431.5	2,414.0	17.50	138.973		
5,905.5	5,822.1	5,821.5	5,820.5	20.2	1.7	-140.94	-1,603.2	-746.9	2,431.4	2,413.9	17.51	138.896		
6,000.0	5,916.6	5,915.2	5,914.2	20.4	1.7	-140.94	-1,602.7	-746.2	2,430.6	2,412.9	17.67	137.543		
6,003.9	5,920.5	5,919.4	5,918.4	20.4	1.7	-140.94	-1,602.7	-746.2	2,430.6	2,412.9	17.68	137.487		
6,100.0	6,016.6	6,019.9	6,018.9	20.5	1.7	-140.96	-1,602.4	-744.9	2,429.6	2,411.8	17.85	136.101		
6,102.3	6,019.0	6,022.3	6,021.2	20.5	1.7	-140.96	-1,602.4	-744.9	2,429.6	2,411.7	17.86	136.067		
6,200.0	6,116.6	6,128.3	6,127.2	20.6	1.7	-140.98	-1,602.1	-743.4	2,428.5	2,410.5	18.03	134.657		
6,200.8	6,117.4	6,129.4	6,128.3	20.6	1.7	-140.98	-1,602.1	-743.4	2,428.5	2,410.5	18.04	134.646		
6,299.2	6,215.8	6,266.8	6,265.7	20.8	1.7	-141.03	-1,600.8	-740.1	2,426.3	2,408.1	18.22	133.151		
6,300.0	6,216.6	6,267.9	6,266.8	20.8	1.7	-141.03	-1,600.8	-740.0	2,426.3	2,408.1	18.22	133.138		
6,340.0	6,256.6	6,321.0	6,319.8	20.8	1.7	-141.05	-1,600.0	-738.3	2,424.9	2,406.6	18.30	132.510		
6,350.0	6,266.6	6,333.6	6,332.4	20.8	1.7	38.76	-1,599.8	-737.8	2,424.5	2,406.3	18.28	132.635		
6,397.6	6,314.2	6,393.5	6,392.3	20.9	1.7	38.96	-1,598.6	-735.5	2,420.9	2,402.6	18.28	132.400		
6,400.0	6,316.5	6,396.5	6,395.3	20.9	1.7	38.97	-1,598.6	-735.3	2,420.7	2,402.4	18.29	132.384		
6,450.0	6,366.2	6,453.2	6,451.9	20.9	1.7	39.40	-1,597.2	-733.1	2,413.9	2,395.6	18.30	131.928		
6,496.0	6,411.4	6,500.0	6,498.7	21.0	1.7	39.98	-1,595.7	-731.5	2,405.2	2,386.8	18.31	131.393		
6,500.0	6,415.3	6,500.0	6,498.7	21.0	1.7	40.02	-1,595.7	-731.5	2,404.3	2,386.0	18.31	131.347		
6,550.0	6,463.6	6,541.1	6,539.7	21.0	1.7	40.83	-1,594.3	-730.2	2,392.3	2,374.0	18.30	130.758		
6,594.5	6,505.8	6,572.0	6,570.6	21.0	1.7	41.69	-1,593.4	-729.5	2,379.6	2,361.4	18.27	130.255		
6,600.0	6,510.9	6,575.8	6,574.4	21.0	1.7	41.81	-1,593.2	-729.4	2,377.9	2,359.7	18.26	130.202		
6,650.0	6,557.0	6,600.0	6,598.6	21.0	1.7	42.91	-1,592.5	-729.0	2,361.5	2,343.3	18.21	129.690		
6,692.9	6,595.4	6,636.7	6,635.3	21.0	1.7	44.14	-1,591.5	-728.4	2,345.6	2,327.5	18.14	129.322		
6,700.0	6,601.6	6,641.2	6,639.7	21.0	1.7	44.35	-1,591.4	-728.4	2,342.9	2,324.7	18.12	129.271		
6,750.0	6,644.6	6,671.9	6,670.4	20.9	1.7	45.93	-1,590.7	-728.1	2,322.3	2,304.3	18.03	128.833		
6,791.3	6,678.6	6,700.0	6,698.5	20.9	1.7	47.46	-1,590.2	-727.9	2,303.9	2,286.0	17.94	128.415		
6,800.0	6,685.6	6,700.0	6,698.5	20.9	1.7	47.72	-1,590.2	-727.9	2,299.9	2,282.0	17.92	128.325		
6,850.0	6,724.6	6,729.8	6,728.4	20.9	1.7	49.79	-1,589.7	-727.8	2,275.8	2,257.9	17.83	127.672		
6,889.7	6,753.9	6,751.4	6,750.0	20.9	1.7	51.59	-1,589.4	-727.8	2,255.5	2,237.7	17.77	126.953		
6,900.0	6,761.3	6,756.8	6,755.4	20.9	1.7	52.07	-1,589.4	-727.8	2,250.1	2,232.3	17.75	126.773		
6,950.0	6,795.5	6,782.2	6,780.7	20.9	1.8	54.60	-1,589.1	-727.8	2,222.9	2,205.2	17.70	125.554		
6,988.2	6,819.9	6,800.0	6,798.5	20.9	1.8	56.69	-1,589.1	-727.8	2,201.3	2,183.6	17.71	124.315		
7,000.0	6,827.1	6,807.2	6,805.7	20.9	1.8	57.40	-1,589.0	-727.8	2,194.5	2,176.8	17.70	123.960		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
7,050.0	6,855.9	6,834.4	6,832.9	20.9	1.8	60.54	-1,589.0	-727.9	2,165.0	2,147.2	17.75	121.974	
7,086.6	6,875.1	6,852.7	6,851.2	20.9	1.8	62.97	-1,588.9	-727.9	2,142.7	2,124.9	17.80	120.368	
7,100.0	6,881.8	6,859.0	6,857.5	20.9	1.8	63.89	-1,588.9	-727.9	2,134.5	2,116.6	17.84	119.631	
7,150.0	6,904.6	6,880.8	6,879.4	21.0	1.8	67.41	-1,589.0	-727.9	2,103.2	2,085.2	17.98	117.000	
7,185.0	6,918.8	6,894.4	6,892.9	21.1	1.8	69.97	-1,589.0	-727.9	2,081.0	2,062.9	18.10	115.002	
7,200.0	6,924.3	6,900.0	6,898.5	21.1	1.8	71.08	-1,589.0	-727.9	2,071.4	2,053.3	18.15	114.146	
7,250.0	6,940.8	6,913.8	6,912.3	21.2	1.8	74.73	-1,589.1	-727.9	2,039.3	2,021.0	18.36	111.103	
7,283.4	6,949.9	6,921.7	6,920.2	21.3	1.8	77.18	-1,589.1	-727.9	2,017.8	1,999.3	18.52	108.932	
7,300.0	6,953.9	6,925.2	6,923.7	21.4	1.8	78.39	-1,589.1	-727.8	2,007.2	1,988.6	18.61	107.862	
7,350.0	6,963.6	6,933.7	6,932.3	21.6	1.8	81.99	-1,589.2	-727.8	1,975.1	1,956.2	18.93	104.364	
7,381.9	6,968.0	6,937.7	6,936.3	21.7	1.8	84.22	-1,589.2	-727.8	1,954.9	1,935.7	19.18	101.939	
7,400.0	6,969.9	6,939.5	6,938.0	21.8	1.8	85.46	-1,589.2	-727.8	1,943.5	1,924.1	19.33	100.532	
7,450.0	6,972.6	6,942.3	6,940.8	22.1	1.8	88.74	-1,589.3	-727.8	1,912.3	1,892.5	19.85	96.340	
7,471.5	6,972.8	6,942.5	6,941.1	22.2	1.8	90.09	-1,589.3	-727.8	1,899.2	1,879.0	20.11	94.443	
7,480.3	6,972.7	6,942.5	6,941.1	22.3	1.8	90.09	-1,589.3	-727.8	1,893.8	1,873.6	20.20	93.776	
7,500.0	6,972.5	6,942.5	6,941.1	22.4	1.8	90.09	-1,589.3	-727.8	1,881.9	1,861.5	20.39	92.308	
7,578.7	6,971.8	6,942.5	6,941.1	23.1	1.8	90.09	-1,589.3	-727.8	1,835.8	1,814.6	21.18	86.674	
7,600.0	6,971.6	6,942.5	6,941.1	23.3	1.8	90.09	-1,589.3	-727.8	1,823.7	1,802.3	21.40	85.241	
7,677.1	6,970.9	6,942.5	6,941.1	24.0	1.8	90.09	-1,589.3	-727.8	1,781.4	1,759.1	22.23	80.123	
7,700.0	6,970.7	6,942.5	6,941.1	24.2	1.8	90.09	-1,589.3	-727.8	1,769.3	1,746.8	22.48	78.701	
7,775.6	6,970.0	6,942.5	6,941.1	25.0	1.8	90.09	-1,589.3	-727.8	1,730.8	1,707.4	23.39	73.986	
7,800.0	6,969.8	6,942.5	6,941.1	25.3	1.8	90.09	-1,589.3	-727.8	1,718.9	1,695.2	23.69	72.562	
7,874.0	6,969.1	6,942.5	6,941.1	26.2	1.8	90.09	-1,589.3	-727.8	1,684.5	1,659.9	24.66	68.312	
7,900.0	6,968.9	6,942.5	6,941.1	26.5	1.8	90.09	-1,589.3	-727.8	1,673.0	1,648.0	25.00	66.922	
7,972.4	6,968.2	6,942.6	6,941.1	27.4	1.8	90.09	-1,589.3	-727.8	1,642.8	1,616.8	26.01	63.156	
8,000.0	6,968.0	6,942.6	6,941.1	27.8	1.8	90.09	-1,589.3	-727.8	1,632.0	1,605.6	26.40	61.825	
8,070.8	6,967.3	6,942.6	6,941.1	28.7	1.8	90.09	-1,589.3	-727.8	1,606.1	1,578.6	27.44	58.533	
8,100.0	6,967.1	6,942.6	6,941.1	29.1	1.8	90.09	-1,589.3	-727.8	1,596.2	1,568.3	27.87	57.279	
8,169.3	6,966.4	6,942.6	6,941.1	30.1	1.8	90.09	-1,589.3	-727.8	1,574.6	1,545.7	28.93	54.433	
8,200.0	6,966.2	6,942.6	6,941.1	30.5	1.8	90.09	-1,589.3	-727.8	1,565.9	1,536.5	29.40	53.267	
8,267.7	6,965.5	6,942.6	6,941.1	31.5	1.8	90.09	-1,589.3	-727.8	1,548.8	1,518.3	30.47	50.832	
8,300.0	6,965.2	6,942.6	6,941.1	32.0	1.8	90.09	-1,589.3	-727.8	1,541.6	1,510.6	30.98	49.761	
8,366.1	6,964.6	6,942.6	6,941.1	33.0	1.8	90.09	-1,589.3	-727.8	1,528.9	1,496.8	32.05	47.696	
8,400.0	6,964.3	6,942.6	6,941.1	33.5	1.8	90.09	-1,589.3	-727.8	1,523.4	1,490.8	32.61	46.723	
8,464.5	6,963.8	6,942.6	6,941.1	34.5	1.8	90.09	-1,589.3	-727.8	1,515.1	1,481.4	33.68	44.987	
8,500.0	6,963.4	6,942.6	6,941.1	35.1	1.8	90.09	-1,589.3	-727.8	1,511.7	1,477.4	34.27	44.114	
8,563.0	6,962.9	6,942.6	6,941.1	36.1	1.8	90.09	-1,589.3	-727.8	1,507.7	1,472.3	35.34	42.668	
8,600.0	6,962.5	6,942.6	6,941.1	36.7	1.8	90.09	-1,589.3	-727.8	1,506.5	1,470.6	35.96	41.891	
8,628.2	6,962.3	6,942.6	6,941.1	37.1	1.8	90.09	-1,589.3	-727.8	1,506.3	1,469.8	36.45	41.327 CC	
8,661.4	6,962.0	6,942.6	6,941.1	37.7	1.8	90.09	-1,589.3	-727.8	1,506.6	1,469.6	37.02	40.698 ES	
8,700.0	6,961.6	6,942.6	6,941.1	38.3	1.8	90.09	-1,589.3	-727.8	1,508.0	1,470.3	37.68	40.016	
8,759.8	6,961.1	6,942.6	6,941.1	39.3	1.8	90.09	-1,589.3	-727.8	1,512.0	1,473.3	38.73	39.042	
8,800.0	6,960.7	6,942.6	6,941.1	40.0	1.8	90.09	-1,589.3	-727.8	1,516.0	1,476.6	39.43	38.450	
8,858.2	6,960.2	6,942.6	6,941.1	40.9	1.8	90.09	-1,589.3	-727.8	1,523.7	1,483.3	40.46	37.663	
8,900.0	6,959.8	6,942.6	6,941.1	41.6	1.8	90.09	-1,589.3	-727.8	1,530.6	1,489.4	41.19	37.156	
8,956.7	6,959.3	6,942.6	6,941.1	42.6	1.8	90.09	-1,589.3	-727.8	1,541.7	1,499.5	42.20	36.529	
9,000.0	6,958.9	6,942.6	6,941.1	43.3	1.8	90.09	-1,589.3	-727.8	1,551.5	1,508.5	42.98	36.101	
9,055.1	6,958.4	6,942.6	6,941.1	44.3	1.8	90.09	-1,589.3	-727.8	1,566.6	1,521.6	43.97	35.608	
9,100.0	6,958.0	6,942.6	6,941.1	45.1	1.8	90.09	-1,589.3	-727.8	1,578.4	1,533.7	44.77	35.253	
9,153.5	6,957.5	6,942.6	6,941.1	46.0	1.8	90.09	-1,589.3	-727.8	1,595.2	1,549.5	45.74	34.873	
9,200.0	6,957.1	6,942.6	6,941.1	46.8	1.8	90.09	-1,589.3	-727.8	1,611.2	1,564.6	46.59	34.584	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,251.9	6,956.6	6,942.6	6,941.1	47.7	1.8	90.09	-1,589.3	-727.8	1,630.3	1,582.8	47.53	34.298		
9,300.0	6,956.2	6,942.6	6,941.1	48.6	1.8	90.09	-1,589.3	-727.8	1,649.3	1,600.9	48.41	34.069		
9,350.4	6,955.7	6,942.6	6,941.1	49.5	1.8	90.09	-1,589.3	-727.8	1,670.4	1,621.1	49.33	33.860		
9,400.0	6,955.2	6,942.6	6,941.1	50.3	1.8	90.09	-1,589.3	-727.8	1,692.5	1,642.3	50.24	33.685		
9,448.8	6,954.8	6,942.6	6,941.1	51.2	1.8	90.09	-1,589.3	-727.8	1,715.3	1,664.2	51.14	33.538		
9,500.0	6,954.3	6,942.6	6,941.1	52.1	1.8	90.09	-1,589.3	-727.8	1,740.4	1,688.3	52.09	33.412		
9,547.2	6,953.9	6,942.6	6,941.1	53.0	1.8	90.09	-1,589.3	-727.8	1,764.5	1,711.5	52.96	33.315		
9,600.0	6,953.4	6,942.6	6,941.1	53.9	1.8	90.09	-1,589.3	-727.8	1,792.6	1,738.6	53.94	33.232		
9,645.6	6,953.0	6,942.6	6,941.1	54.7	1.8	90.09	-1,589.3	-727.8	1,817.7	1,762.9	54.79	33.176		
9,700.0	6,952.5	6,942.6	6,941.1	55.7	1.8	90.09	-1,589.3	-727.8	1,848.7	1,792.9	55.80	33.130		
9,744.1	6,952.1	6,942.6	6,941.1	56.5	1.8	90.09	-1,589.3	-727.8	1,874.6	1,818.0	56.62	33.106		
9,800.0	6,951.6	6,942.6	6,941.1	57.5	1.8	90.09	-1,589.3	-727.8	1,908.4	1,850.7	57.67	33.093 SF		
9,842.5	6,951.2	6,942.6	6,941.1	58.3	1.8	90.09	-1,589.3	-727.8	1,934.8	1,876.3	58.46	33.093		
9,900.0	6,950.7	6,942.6	6,941.1	59.4	1.8	90.09	-1,589.3	-727.8	1,971.4	1,911.8	59.54	33.109		
9,940.9	6,950.3	6,942.6	6,941.1	60.1	1.8	90.09	-1,589.3	-727.8	1,998.0	1,937.7	60.31	33.129		
10,000.0	6,949.8	6,942.6	6,941.1	61.2	1.8	90.09	-1,589.3	-727.8	2,037.3	1,975.9	61.42	33.170		
10,039.3	6,949.4	6,942.6	6,941.1	61.9	1.8	90.09	-1,589.3	-727.8	2,064.0	2,001.9	62.16	33.204		
10,100.0	6,948.9	6,942.6	6,941.1	63.0	1.8	90.09	-1,589.3	-727.8	2,106.0	2,042.7	63.30	33.267		
10,137.8	6,948.5	6,942.6	6,941.1	63.7	1.8	90.09	-1,589.3	-727.8	2,132.5	2,068.5	64.02	33.312		
10,200.0	6,948.0	6,942.6	6,941.1	64.9	1.8	90.09	-1,589.3	-727.8	2,177.0	2,111.8	65.19	33.394		
10,236.2	6,947.6	6,942.6	6,941.1	65.6	1.8	90.09	-1,589.3	-727.8	2,203.3	2,137.4	65.88	33.445		
10,300.0	6,947.1	6,942.6	6,941.1	66.7	1.8	90.09	-1,589.3	-727.8	2,250.3	2,183.2	67.09	33.543		
10,334.6	6,946.7	6,942.6	6,941.1	67.4	1.8	90.09	-1,589.3	-727.8	2,276.1	2,208.4	67.74	33.600		
10,400.0	6,946.2	6,942.6	6,941.1	68.6	1.8	90.09	-1,589.3	-727.8	2,325.6	2,256.6	68.98	33.712		
10,433.0	6,945.8	6,942.6	6,941.1	69.2	1.8	90.09	-1,589.3	-727.8	2,350.8	2,281.2	69.61	33.771		
10,500.0	6,945.2	6,942.6	6,941.1	70.5	1.8	90.09	-1,589.3	-727.8	2,402.6	2,331.7	70.88	33.895		
10,531.5	6,945.0	6,942.6	6,941.1	71.1	1.8	90.09	-1,589.3	-727.8	2,427.2	2,355.7	71.48	33.956		
10,600.0	6,944.3	6,942.6	6,941.1	72.3	1.8	90.09	-1,589.3	-727.8	2,481.3	2,408.5	72.79	34.090		
10,629.9	6,944.1	6,942.6	6,941.1	72.9	1.8	90.09	-1,589.3	-727.8	2,505.2	2,431.8	73.36	34.150		
10,700.0	6,943.4	6,942.6	6,941.1	74.2	1.8	90.09	-1,589.3	-727.8	2,561.5	2,486.8	74.69	34.294		
10,728.3	6,943.2	6,942.6	6,941.1	74.7	1.8	90.09	-1,589.3	-727.8	2,584.5	2,509.2	75.23	34.352		
10,800.0	6,942.5	6,942.6	6,941.1	76.1	1.8	90.09	-1,589.3	-727.8	2,643.1	2,566.5	76.60	34.503		
10,826.7	6,942.3	6,942.6	6,941.1	76.6	1.8	90.09	-1,589.3	-727.8	2,665.1	2,588.0	77.11	34.560		
10,900.0	6,941.6	6,942.6	6,941.1	78.0	1.8	90.09	-1,589.3	-727.8	2,725.8	2,647.3	78.52	34.717		
10,925.2	6,941.4	6,942.6	6,941.1	78.4	1.8	90.09	-1,589.3	-727.8	2,746.8	2,667.8	79.00	34.771		
11,000.0	6,940.7	6,942.6	6,941.1	79.9	1.8	90.09	-1,589.3	-727.8	2,809.7	2,729.3	80.43	34.934		
11,023.6	6,940.5	6,942.6	6,941.1	80.3	1.8	90.09	-1,589.3	-727.8	2,829.7	2,748.8	80.88	34.985		
11,100.0	6,939.8	6,942.6	6,941.1	81.7	1.8	90.09	-1,589.3	-727.8	2,894.6	2,812.3	82.35	35.152		
11,122.0	6,939.6	6,942.6	6,941.1	82.2	1.8	90.09	-1,589.3	-727.8	2,913.5	2,830.7	82.77	35.200		
11,200.0	6,938.9	6,942.6	6,941.1	83.6	1.8	90.09	-1,589.3	-727.8	2,980.5	2,896.2	84.26	35.370		
11,220.4	6,938.7	6,942.6	6,941.1	84.0	1.8	90.09	-1,589.3	-727.8	2,998.1	2,913.5	84.66	35.415		
11,300.0	6,938.0	6,942.6	6,941.1	85.5	1.8	90.09	-1,589.3	-727.8	3,067.2	2,981.0	86.19	35.588		
11,318.9	6,937.8	6,942.6	6,941.1	85.9	1.8	90.09	-1,589.3	-727.8	3,083.6	2,997.1	86.55	35.629		
11,400.0	6,937.0	6,942.5	6,941.1	87.4	1.8	90.09	-1,589.3	-727.8	3,154.7	3,066.6	88.11	35.805		
11,417.3	6,936.9	6,942.5	6,941.1	87.8	1.8	90.09	-1,589.3	-727.8	3,169.9	3,081.5	88.44	35.842		
11,500.0	6,936.1	6,942.5	6,941.1	89.3	1.8	90.09	-1,589.3	-727.8	3,242.9	3,152.9	90.03	36.019		
11,515.7	6,936.0	6,942.5	6,941.1	89.6	1.8	90.09	-1,589.3	-727.8	3,256.8	3,166.5	90.33	36.053		
11,600.0	6,935.2	6,942.5	6,941.1	91.2	1.8	90.09	-1,589.3	-727.8	3,331.8	3,239.8	91.96	36.232		
11,614.1	6,935.1	6,942.5	6,941.1	91.5	1.8	90.09	-1,589.3	-727.8	3,344.4	3,252.2	92.23	36.261		
11,700.0	6,934.3	6,942.5	6,941.1	93.1	1.8	90.09	-1,589.3	-727.8	3,421.3	3,327.4	93.88	36.441		
11,712.6	6,934.2	6,942.5	6,941.1	93.4	1.8	90.09	-1,589.3	-727.8	3,432.6	3,338.4	94.13	36.467		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-3 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,800.0	6,933.4	6,942.5	6,941.1	95.1	1.8	90.09	-1,589.3	-727.8	3,511.3	3,415.5	95.81	36.648	
11,811.0	6,933.3	6,942.5	6,941.1	95.3	1.8	90.09	-1,589.3	-727.8	3,521.3	3,425.3	96.03	36.670	
11,900.0	6,932.5	6,942.5	6,941.1	97.0	1.8	90.09	-1,589.3	-727.8	3,601.9	3,504.2	97.74	36.851	
11,909.4	6,932.4	6,942.5	6,941.1	97.1	1.8	90.09	-1,589.3	-727.8	3,610.5	3,512.6	97.93	36.870	
12,000.0	6,931.6	6,942.5	6,941.1	98.9	1.8	90.09	-1,589.3	-727.8	3,693.0	3,593.3	99.67	37.051	
12,007.8	6,931.5	6,942.5	6,941.1	99.0	1.8	90.09	-1,589.3	-727.8	3,700.2	3,600.3	99.83	37.066	
12,100.0	6,930.7	6,942.5	6,941.1	100.8	1.8	90.09	-1,589.3	-727.8	3,784.5	3,682.9	101.61	37.247	
12,106.3	6,930.6	6,942.5	6,941.1	100.9	1.8	90.09	-1,589.3	-727.8	3,790.3	3,688.6	101.73	37.259	
12,200.0	6,929.8	6,942.5	6,941.1	102.7	1.8	90.08	-1,589.3	-727.8	3,876.5	3,772.9	103.54	37.439	
12,204.7	6,929.7	6,942.5	6,941.1	102.8	1.8	90.08	-1,589.3	-727.8	3,880.8	3,777.2	103.63	37.448	
12,300.0	6,928.8	6,942.5	6,941.0	104.6	1.8	90.08	-1,589.3	-727.8	3,968.8	3,863.3	105.47	37.628	
12,303.1	6,928.8	6,942.5	6,941.0	104.7	1.8	90.08	-1,589.3	-727.8	3,971.7	3,866.2	105.53	37.634	
12,400.0	6,927.9	6,942.5	6,941.0	106.5	1.8	90.08	-1,589.3	-727.8	4,061.5	3,954.1	107.41	37.813	
12,401.5	6,927.9	6,942.5	6,941.0	106.6	1.8	90.08	-1,589.3	-727.8	4,062.9	3,955.5	107.44	37.816	
12,500.0	6,927.0	6,942.5	6,941.0	108.5	1.8	90.08	-1,589.3	-727.8	4,154.5	4,045.2	109.35	37.994	
12,598.4	6,926.1	6,942.5	6,941.0	110.4	1.8	90.08	-1,589.3	-727.8	4,246.4	4,135.1	111.25	38.169	
12,600.0	6,926.1	6,942.5	6,941.0	110.4	1.8	90.08	-1,589.3	-727.8	4,247.9	4,136.6	111.28	38.172	
12,696.8	6,925.2	6,942.5	6,941.0	112.3	1.8	90.08	-1,589.3	-727.8	4,338.6	4,225.4	113.16	38.340	
12,700.0	6,925.2	6,942.5	6,941.0	112.3	1.8	90.08	-1,589.3	-727.8	4,341.5	4,228.3	113.22	38.346	
12,795.2	6,924.3	6,942.5	6,941.0	114.1	1.8	90.08	-1,589.3	-727.8	4,431.0	4,315.9	115.07	38.508	
12,800.0	6,924.3	6,942.5	6,941.0	114.2	1.8	90.08	-1,589.3	-727.8	4,435.5	4,320.3	115.16	38.516	
12,893.7	6,923.4	6,942.5	6,941.0	116.0	1.8	90.08	-1,589.3	-727.8	4,523.7	4,406.7	116.98	38.672	
12,900.0	6,923.4	6,942.5	6,941.0	116.2	1.8	90.08	-1,589.3	-727.8	4,529.7	4,412.6	117.10	38.682	
12,992.1	6,922.5	6,942.5	6,941.0	117.9	1.8	90.08	-1,589.3	-727.8	4,616.6	4,497.7	118.89	38.832	
13,000.0	6,922.5	6,942.5	6,941.0	118.1	1.8	90.08	-1,589.3	-727.8	4,624.1	4,505.0	119.04	38.845	
13,090.5	6,921.6	6,942.4	6,941.0	119.8	1.8	90.08	-1,589.3	-727.8	4,709.8	4,589.0	120.80	38.989	
13,100.0	6,921.5	6,942.4	6,941.0	120.0	1.8	90.08	-1,589.3	-727.8	4,718.7	4,597.8	120.98	39.004	
13,188.9	6,920.7	6,942.4	6,941.0	121.7	1.8	90.08	-1,589.3	-727.8	4,803.1	4,680.4	122.71	39.143	
13,200.0	6,920.6	6,942.4	6,941.0	121.9	1.8	90.08	-1,589.3	-727.8	4,813.6	4,690.7	122.92	39.160	
13,287.4	6,919.8	6,942.4	6,940.9	123.6	1.8	90.08	-1,589.3	-727.8	4,896.7	4,772.1	124.62	39.293	
13,300.0	6,919.7	6,942.4	6,940.9	123.9	1.8	90.08	-1,589.3	-727.8	4,908.7	4,783.8	124.86	39.312	
13,385.8	6,918.9	6,942.4	6,940.9	125.5	1.8	90.08	-1,589.3	-727.8	4,990.4	4,863.9	126.53	39.441	
13,400.0	6,918.8	6,942.4	6,940.9	125.8	1.8	90.08	-1,589.3	-727.8	5,004.0	4,877.2	126.81	39.462	
13,484.2	6,918.0	6,942.4	6,940.9	127.4	1.8	90.08	-1,589.3	-727.8	5,084.4	4,955.9	128.44	39.585	
13,500.0	6,917.9	6,942.4	6,940.9	127.7	1.8	90.08	-1,589.3	-727.8	5,099.4	4,970.7	128.75	39.607	
13,582.6	6,917.1	6,942.4	6,940.9	129.3	1.8	90.08	-1,589.3	-727.8	5,178.4	5,048.1	130.36	39.725	
13,600.0	6,917.0	6,942.4	6,940.9	129.7	1.8	90.08	-1,589.3	-727.8	5,195.0	5,064.4	130.69	39.750	
13,681.1	6,916.2	6,942.3	6,940.9	131.2	1.8	90.08	-1,589.3	-727.8	5,272.7	5,140.4	132.27	39.863	
13,700.0	6,916.1	6,942.3	6,940.9	131.6	1.8	90.08	-1,589.3	-727.8	5,290.8	5,158.2	132.64	39.889	
13,779.5	6,915.3	6,942.3	6,940.8	133.1	1.8	90.07	-1,589.3	-727.8	5,367.1	5,232.9	134.18	39.998	
13,800.0	6,915.2	6,942.3	6,940.8	133.5	1.8	90.07	-1,589.3	-727.8	5,386.8	5,252.2	134.58	40.026	
13,877.9	6,914.4	6,942.3	6,940.8	135.1	1.8	90.07	-1,589.3	-727.8	5,461.6	5,325.5	136.10	40.130	
13,900.0	6,914.2	6,942.3	6,940.8	135.5	1.8	90.07	-1,589.3	-727.8	5,482.9	5,346.3	136.53	40.159	
13,976.3	6,913.5	6,942.2	6,940.8	137.0	1.8	90.07	-1,589.3	-727.8	5,556.3	5,418.3	138.01	40.259	
14,000.0	6,913.3	6,942.2	6,940.8	137.4	1.8	90.07	-1,589.3	-727.8	5,579.1	5,440.6	138.47	40.290	
14,074.8	6,912.6	6,942.2	6,940.7	138.9	1.8	90.07	-1,589.3	-727.8	5,651.1	5,511.2	139.93	40.386	
14,100.0	6,912.4	6,942.2	6,940.7	139.4	1.8	90.07	-1,589.3	-727.8	5,675.4	5,535.0	140.42	40.418	
14,145.0	6,912.0	6,942.2	6,940.7	140.2	1.8	90.07	-1,589.3	-727.8	5,718.8	5,577.5	141.25	40.486	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.0	0.0	0.0	0.0	0.0	0.0	168.85	-1,683.1	331.8	1,715.5				
98.4	98.4	87.0	87.0	0.1	0.0	168.85	-1,683.2	331.6	1,715.6	1,715.4	0.14	N/A	
100.0	100.0	88.5	88.5	0.1	0.0	168.85	-1,683.2	331.6	1,715.6	1,715.4	0.14	N/A	
196.8	196.8	179.9	179.9	0.3	0.2	168.87	-1,683.6	331.2	1,715.9	1,715.4	0.48	3,538.767	
200.0	200.0	182.9	182.9	0.3	0.2	168.87	-1,683.6	331.2	1,715.9	1,715.4	0.50	3,455.783	
295.3	295.3	286.9	286.9	0.5	0.3	168.88	-1,684.0	331.0	1,716.2	1,715.4	0.79	2,184.066	
300.0	300.0	292.2	292.2	0.5	0.3	168.88	-1,684.0	331.0	1,716.2	1,715.4	0.80	2,146.897	
331.2	331.2	322.7	322.7	0.6	0.3	168.88	-1,684.0	330.9	1,716.2	1,715.3	0.88	1,945.711	
393.7	393.7	381.1	381.1	0.8	0.3	168.89	-1,684.1	330.9	1,716.3	1,715.2	1.04	1,644.773	
400.0	400.0	387.0	387.0	0.8	0.3	168.89	-1,684.1	330.8	1,716.3	1,715.2	1.06	1,619.534	
492.1	492.1	486.8	486.8	1.0	0.3	168.89	-1,684.2	330.9	1,716.4	1,715.1	1.27	1,349.983	
500.0	500.0	495.5	495.5	1.0	0.3	168.89	-1,684.2	330.9	1,716.4	1,715.1	1.29	1,331.441	
542.6	542.6	534.1	534.1	1.1	0.3	168.89	-1,684.1	330.9	1,716.3	1,714.9	1.38	1,239.299	
590.5	590.5	576.5	576.5	1.2	0.3	168.89	-1,684.2	330.9	1,716.4	1,714.9	1.49	1,149.896	
600.0	600.0	584.9	584.9	1.2	0.3	168.89	-1,684.2	330.9	1,716.4	1,714.9	1.51	1,133.783	
689.0	689.0	679.5	679.4	1.4	0.3	168.89	-1,684.6	330.7	1,716.7	1,715.0	1.75	981.036	
700.0	700.0	691.6	691.6	1.4	0.3	168.90	-1,684.6	330.6	1,716.7	1,714.9	1.78	964.341	
713.9	713.9	706.0	706.0	1.5	0.4	168.90	-1,684.6	330.6	1,716.7	1,714.9	1.82	944.197	
787.4	787.4	774.6	774.6	1.6	0.4	168.91	-1,684.7	330.3	1,716.8	1,714.8	2.02	851.601	
800.0	800.0	786.3	786.3	1.7	0.4	168.91	-1,684.7	330.3	1,716.8	1,714.8	2.05	837.524	
885.8	885.8	872.5	872.5	1.9	0.4	168.92	-1,685.1	330.1	1,717.1	1,714.8	2.29	750.326	
900.0	900.0	886.9	886.9	1.9	0.5	168.92	-1,685.1	330.1	1,717.1	1,714.8	2.33	737.562	
984.2	984.2	973.4	973.3	2.1	0.5	168.93	-1,685.3	329.9	1,717.3	1,714.7	2.56	670.134	
1,000.0	1,000.0	989.5	989.5	2.1	0.5	168.93	-1,685.4	329.8	1,717.3	1,714.7	2.61	658.881	
1,082.7	1,082.7	1,066.8	1,066.8	2.3	0.5	98.88	-1,685.6	329.8	1,717.7	1,714.9	2.81	610.663	
1,100.0	1,100.0	1,082.8	1,082.8	2.3	0.6	98.89	-1,685.6	329.8	1,717.9	1,715.0	2.86	601.407	
1,181.1	1,181.0	1,158.4	1,158.4	2.5	0.6	98.99	-1,686.1	329.8	1,719.0	1,716.0	3.07	560.837	
1,200.0	1,199.8	1,176.1	1,176.1	2.6	0.6	99.03	-1,686.3	329.8	1,719.4	1,716.3	3.11	552.100	
1,279.5	1,279.1	1,259.1	1,259.1	2.7	0.6	99.23	-1,687.0	329.8	1,721.1	1,717.8	3.33	516.410	
1,300.0	1,299.5	1,281.5	1,281.5	2.8	0.6	99.30	-1,687.2	329.7	1,721.6	1,718.2	3.39	507.942	
1,377.9	1,376.9	1,358.2	1,358.2	3.0	0.7	99.56	-1,687.6	329.6	1,723.5	1,719.9	3.61	476.789	
1,400.0	1,398.7	1,379.1	1,379.1	3.0	0.7	99.64	-1,687.7	329.6	1,724.2	1,720.5	3.68	468.687	
1,476.4	1,474.2	1,451.8	1,451.8	3.2	0.7	99.96	-1,688.3	329.5	1,726.7	1,722.8	3.92	440.450	
1,500.0	1,497.5	1,474.3	1,474.2	3.3	0.7	100.07	-1,688.5	329.5	1,727.6	1,723.6	4.00	432.410	
1,574.8	1,571.0	1,546.3	1,546.3	3.5	0.8	100.44	-1,689.1	329.6	1,730.9	1,726.6	4.26	406.202	
1,600.1	1,595.7	1,570.8	1,570.8	3.6	0.8	100.58	-1,689.3	329.6	1,732.1	1,727.7	4.35	398.072	
1,673.2	1,667.2	1,642.6	1,642.6	3.9	0.8	101.07	-1,690.0	329.6	1,735.7	1,731.0	4.63	374.593	
1,700.0	1,693.4	1,669.1	1,669.1	4.0	0.8	101.25	-1,690.3	329.5	1,737.0	1,732.3	4.74	366.725	
1,771.6	1,763.5	1,740.7	1,740.7	4.2	0.8	101.75	-1,691.0	329.1	1,740.7	1,735.7	5.02	346.412	
1,800.0	1,791.3	1,769.2	1,769.1	4.3	0.8	101.95	-1,691.2	328.9	1,742.2	1,737.0	5.14	339.030	
1,870.1	1,859.8	1,845.7	1,845.6	4.6	0.9	102.49	-1,691.8	328.2	1,745.8	1,740.3	5.43	321.707	
1,900.0	1,889.1	1,880.3	1,880.3	4.7	0.9	102.73	-1,691.9	327.8	1,747.2	1,741.7	5.55	314.888	
1,968.5	1,956.1	1,952.8	1,952.8	5.0	0.9	103.24	-1,691.9	327.0	1,750.3	1,744.5	5.83	300.170	
2,000.0	1,986.9	1,985.1	1,985.1	5.1	0.9	103.46	-1,691.8	326.6	1,751.8	1,745.8	5.96	293.880	
2,066.9	2,052.3	2,059.2	2,059.2	5.4	0.9	103.98	-1,691.5	325.7	1,754.7	1,748.5	6.24	281.197	
2,100.0	2,084.7	2,096.6	2,096.5	5.5	1.0	104.25	-1,691.1	325.1	1,756.1	1,749.7	6.38	275.346	
2,165.3	2,148.6	2,172.7	2,172.7	5.8	1.0	104.79	-1,690.1	323.7	1,758.6	1,751.9	6.65	264.350	
2,200.0	2,182.5	2,214.3	2,214.2	5.9	1.0	105.09	-1,689.3	322.8	1,759.8	1,753.0	6.80	258.888	
2,263.8	2,244.9	2,295.5	2,295.3	6.2	1.0	105.66	-1,687.2	321.4	1,761.5	1,754.5	7.07	249.298	
2,300.0	2,280.3	2,332.0	2,331.8	6.3	1.0	105.91	-1,686.0	320.9	1,762.4	1,755.1	7.22	244.166	
2,362.2	2,341.2	2,392.9	2,392.7	6.6	1.0	106.33	-1,683.9	320.0	1,763.9	1,756.4	7.48	235.783	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,400.0	2,378.1	2,428.9	2,428.6	6.8	1.0	106.57	-1,682.8	319.5	1,764.8	1,757.2	7.64	230.975	
2,460.6	2,437.4	2,486.0	2,485.7	7.0	1.0	106.98	-1,680.9	318.4	1,766.5	1,758.6	7.90	223.635	
2,500.0	2,476.0	2,524.0	2,523.7	7.2	1.0	107.25	-1,679.8	317.4	1,767.7	1,759.6	8.07	219.130	
2,559.0	2,533.7	2,582.1	2,581.8	7.4	1.0	107.66	-1,678.0	316.1	1,769.5	1,761.2	8.32	212.681	
2,600.0	2,573.8	2,619.8	2,619.4	7.6	1.1	107.93	-1,676.8	315.3	1,770.9	1,762.4	8.50	208.452	
2,657.5	2,630.0	2,669.6	2,669.2	7.9	1.1	108.28	-1,675.4	314.2	1,773.0	1,764.2	8.74	202.807	
2,700.0	2,671.6	2,707.6	2,707.2	8.1	1.1	108.55	-1,674.5	313.3	1,774.7	1,765.8	8.92	198.859	
2,755.9	2,726.3	2,764.1	2,763.6	8.3	1.1	108.95	-1,673.1	312.0	1,777.1	1,767.9	9.17	193.885	
2,800.0	2,769.4	2,800.0	2,799.5	8.5	1.1	109.20	-1,672.1	311.1	1,779.0	1,769.6	9.35	190.171	
2,854.3	2,822.5	2,851.4	2,850.9	8.7	1.1	109.57	-1,670.9	309.7	1,781.5	1,771.9	9.59	185.788	
2,900.0	2,867.2	2,888.6	2,888.1	8.9	1.1	109.84	-1,670.2	308.6	1,783.9	1,774.1	9.79	182.311	
2,952.7	2,918.8	2,939.9	2,939.3	9.2	1.1	110.21	-1,669.4	307.1	1,786.9	1,776.9	10.01	178.467	
3,000.0	2,965.0	2,988.4	2,987.8	9.4	1.2	110.56	-1,668.6	305.7	1,789.6	1,779.4	10.22	175.175	
3,051.2	3,015.1	3,039.5	3,038.8	9.6	1.2	110.92	-1,667.7	304.4	1,792.5	1,782.1	10.44	171.767	
3,100.0	3,062.8	3,087.7	3,087.1	9.8	1.2	111.26	-1,666.8	303.1	1,795.3	1,784.7	10.64	168.667	
3,149.6	3,111.4	3,135.9	3,135.2	10.0	1.2	111.60	-1,665.8	301.9	1,798.2	1,787.4	10.86	165.642	
3,200.0	3,160.7	3,184.6	3,183.9	10.3	1.2	111.94	-1,664.9	300.7	1,801.3	1,790.2	11.07	162.704	
3,248.0	3,207.6	3,230.9	3,230.2	10.5	1.2	112.26	-1,664.1	299.5	1,804.3	1,793.0	11.28	160.016	
3,300.0	3,258.5	3,281.1	3,280.3	10.7	1.2	112.60	-1,663.2	298.3	1,807.6	1,796.1	11.50	157.231	
3,346.4	3,303.9	3,328.7	3,328.0	10.9	1.2	112.92	-1,662.3	297.4	1,810.6	1,798.9	11.69	154.845	
3,400.0	3,356.3	3,386.1	3,385.4	11.2	1.3	113.30	-1,661.1	296.6	1,814.0	1,802.1	11.92	152.201	
3,444.9	3,400.2	3,430.2	3,429.4	11.4	1.3	113.58	-1,660.2	296.2	1,816.8	1,804.7	12.11	150.056	
3,500.0	3,454.1	3,482.3	3,481.5	11.6	1.3	113.90	-1,659.1	295.9	1,820.4	1,808.0	12.34	147.523	
3,543.3	3,496.5	3,522.6	3,521.8	11.8	1.3	114.15	-1,658.3	295.8	1,823.2	1,810.7	12.52	145.609	
3,600.0	3,551.9	3,574.9	3,574.1	12.0	1.3	114.46	-1,657.4	296.0	1,827.2	1,814.4	12.76	143.201	
3,641.7	3,592.7	3,615.0	3,614.2	12.2	1.3	114.69	-1,656.8	296.3	1,830.2	1,817.2	12.93	141.490	
3,700.0	3,649.7	3,674.9	3,674.1	12.5	1.3	115.03	-1,655.8	296.8	1,834.3	1,821.1	13.18	139.179	
3,740.1	3,689.0	3,712.5	3,711.7	12.7	1.3	115.25	-1,655.1	297.0	1,837.2	1,823.9	13.35	137.642	
3,800.0	3,747.5	3,760.1	3,759.3	12.9	1.3	115.52	-1,654.5	297.1	1,841.8	1,828.2	13.60	135.450	
3,838.6	3,785.3	3,800.0	3,799.2	13.1	1.3	115.76	-1,654.1	297.0	1,845.0	1,831.2	13.76	134.110	
3,900.0	3,845.4	3,853.2	3,852.4	13.4	1.3	116.08	-1,653.7	296.7	1,850.2	1,836.2	14.01	132.029	
3,937.0	3,881.5	3,892.8	3,892.0	13.6	1.3	116.32	-1,653.3	296.6	1,853.3	1,839.1	14.17	130.818	
4,000.0	3,943.2	3,954.4	3,953.5	13.8	1.4	116.68	-1,652.6	296.3	1,858.6	1,844.2	14.43	128.823	
4,035.4	3,977.8	3,988.6	3,987.8	14.0	1.4	116.88	-1,652.3	296.2	1,861.6	1,847.0	14.57	127.739	
4,100.0	4,041.0	4,046.5	4,045.6	14.3	1.4	117.22	-1,651.7	295.9	1,867.3	1,852.4	14.84	125.832	
4,133.8	4,074.1	4,076.3	4,075.4	14.4	1.4	117.40	-1,651.5	295.7	1,870.3	1,855.4	14.98	124.869	
4,200.0	4,138.8	4,142.6	4,141.7	14.7	1.4	117.79	-1,651.1	295.2	1,876.5	1,861.2	15.25	123.066	
4,232.3	4,170.4	4,177.7	4,176.8	14.9	1.4	118.00	-1,650.8	295.0	1,879.5	1,864.1	15.38	122.212	
4,300.0	4,236.6	4,241.3	4,240.5	15.2	1.4	118.37	-1,650.3	294.6	1,885.7	1,870.0	15.65	120.464	
4,330.7	4,266.6	4,268.2	4,267.3	15.3	1.4	118.52	-1,650.1	294.4	1,888.6	1,872.8	15.78	119.698	
4,400.0	4,334.4	4,339.3	4,338.5	15.6	1.5	118.94	-1,649.7	293.9	1,895.3	1,879.3	16.06	118.049	
4,429.1	4,362.9	4,374.2	4,373.3	15.8	1.5	119.14	-1,649.4	293.7	1,898.1	1,881.9	16.17	117.378	
4,500.0	4,432.2	4,451.9	4,451.0	16.1	1.5	119.58	-1,648.3	293.4	1,904.5	1,888.1	16.45	115.762	
4,527.5	4,459.2	4,480.8	4,480.0	16.2	1.5	119.75	-1,647.8	293.1	1,907.0	1,890.4	16.56	115.148	
4,600.0	4,530.1	4,550.7	4,549.8	16.5	1.5	120.16	-1,646.5	292.1	1,913.5	1,896.6	16.85	113.572	
4,626.0	4,555.5	4,575.0	4,574.1	16.7	1.5	120.31	-1,646.1	291.6	1,915.9	1,898.9	16.95	113.024	
4,700.0	4,627.9	4,643.1	4,642.1	17.0	1.5	120.72	-1,644.9	290.2	1,922.8	1,905.6	17.24	111.511	
4,724.4	4,651.7	4,665.3	4,664.4	17.1	1.5	120.86	-1,644.5	289.7	1,925.2	1,907.9	17.34	111.028	
4,800.0	4,725.7	4,741.6	4,740.7	17.4	1.6	121.31	-1,643.4	288.4	1,932.6	1,915.0	17.64	109.588	
4,822.8	4,748.0	4,766.9	4,765.9	17.6	1.6	121.45	-1,643.0	288.0	1,934.8	1,917.1	17.72	109.167	
4,900.0	4,823.5	4,838.1	4,837.1	17.9	1.6	121.86	-1,641.8	287.0	1,942.3	1,924.3	18.02	107.758	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)					
				(usft)	(usft)		+N/-S (usft)	+E/-W (usft)						
4,921.2	4,844.3	4,855.2	4,854.2	18.0	1.6	121.96	-1,641.5	286.7	1,944.5	1,926.4	18.11	107.381		
5,000.0	4,921.3	4,918.6	4,917.6	18.4	1.6	122.33	-1,640.9	285.6	1,952.8	1,934.4	18.42	106.039		
5,014.9	4,935.9	4,930.7	4,929.7	18.4	1.6	122.40	-1,640.8	285.3	1,954.5	1,936.0	18.47	105.793		
5,019.7	4,940.6	4,934.5	4,933.5	18.4	1.6	122.43	-1,640.8	285.3	1,955.0	1,936.5	18.49	105.744		
5,100.0	5,019.4	5,000.0	4,999.0	18.7	1.6	122.93	-1,640.7	284.0	1,963.7	1,945.0	18.72	104.901		
5,118.1	5,037.2	5,018.3	5,017.3	18.8	1.6	123.05	-1,640.7	283.6	1,965.6	1,946.8	18.76	104.794		
5,200.0	5,118.1	5,100.0	5,099.0	19.0	1.7	123.54	-1,640.7	281.9	1,973.1	1,954.2	18.93	104.257		
5,216.5	5,134.4	5,117.7	5,116.6	19.1	1.7	123.63	-1,640.7	281.6	1,974.5	1,955.6	18.95	104.170		
5,300.0	5,217.2	5,188.3	5,187.2	19.3	1.7	123.98	-1,640.9	280.5	1,981.0	1,961.9	19.11	103.672		
5,314.9	5,232.1	5,200.0	5,198.9	19.3	1.7	124.03	-1,641.0	280.3	1,982.0	1,962.9	19.13	103.601		
5,400.0	5,316.8	5,273.3	5,272.2	19.5	1.7	124.30	-1,641.9	279.4	1,987.6	1,968.3	19.27	103.149		
5,413.4	5,330.1	5,284.7	5,283.6	19.5	1.7	124.34	-1,642.1	279.2	1,988.4	1,969.1	19.29	103.094		
5,500.0	5,416.6	5,360.7	5,359.6	19.7	1.7	124.53	-1,643.6	278.4	1,993.0	1,973.6	19.41	102.683		
5,511.8	5,428.4	5,371.2	5,370.1	19.7	1.7	124.55	-1,643.9	278.3	1,993.6	1,974.1	19.42	102.639		
5,600.0	5,516.6	5,457.9	5,456.8	19.8	1.7	124.64	-1,646.1	278.0	1,996.9	1,977.4	19.53	102.237		
5,610.2	5,526.8	5,468.6	5,467.5	19.8	1.7	124.64	-1,646.4	278.0	1,997.2	1,977.6	19.54	102.190		
5,615.0	5,531.6	5,473.5	5,472.4	19.8	1.7	-165.28	-1,646.5	278.0	1,997.3	1,977.7	19.57	102.061		
5,700.0	5,616.6	5,562.9	5,561.7	19.9	1.7	-165.32	-1,648.9	278.6	1,999.4	1,979.7	19.70	101.497		
5,708.6	5,625.3	5,572.0	5,570.8	20.0	1.7	-165.32	-1,649.2	278.7	1,999.6	1,979.9	19.71	101.433		
5,800.0	5,716.6	5,673.0	5,671.8	20.1	1.7	-165.37	-1,651.6	279.7	2,001.5	1,981.6	19.87	100.745		
5,807.1	5,723.7	5,680.9	5,679.7	20.1	1.7	-165.37	-1,651.8	279.8	2,001.6	1,981.7	19.88	100.691		
5,900.0	5,816.6	5,778.3	5,777.1	20.2	1.7	-165.40	-1,653.6	280.5	2,003.1	1,983.1	20.03	99.983		
5,905.5	5,822.1	5,784.0	5,782.7	20.2	1.7	-165.40	-1,653.7	280.5	2,003.2	1,983.2	20.04	99.941		
6,000.0	5,916.6	5,890.4	5,889.1	20.4	1.8	-165.44	-1,655.4	281.6	2,004.4	1,984.2	20.20	99.205		
6,003.9	5,920.5	5,894.8	5,893.6	20.4	1.8	-165.45	-1,655.5	281.6	2,004.5	1,984.2	20.21	99.174		
6,100.0	6,016.6	6,000.0	5,998.7	20.5	1.7	-165.50	-1,656.6	283.5	2,005.0	1,984.6	20.38	98.394		
6,102.3	6,019.0	6,000.0	5,998.7	20.5	1.7	-165.50	-1,656.6	283.5	2,005.0	1,984.6	20.38	98.378		
6,200.0	6,116.6	6,082.8	6,081.5	20.6	1.7	-165.55	-1,657.6	285.0	2,005.8	1,985.3	20.55	97.625		
6,200.8	6,117.4	6,083.4	6,082.1	20.6	1.7	-165.55	-1,657.6	285.0	2,005.8	1,985.3	20.55	97.619		
6,299.2	6,215.8	6,191.1	6,189.7	20.8	1.7	-165.63	-1,659.6	287.1	2,007.1	1,986.3	20.72	96.858		
6,300.0	6,216.6	6,192.0	6,190.7	20.8	1.7	-165.63	-1,659.6	287.2	2,007.1	1,986.4	20.72	96.852		
6,340.0	6,256.6	6,246.7	6,245.4	20.8	1.7	-165.67	-1,660.2	288.5	2,007.3	1,986.5	20.80	96.522		
6,350.0	6,266.6	6,260.8	6,259.5	20.8	1.7	14.11	-1,660.3	288.9	2,007.2	1,986.4	20.78	96.578		
6,397.6	6,314.2	6,316.1	6,314.8	20.9	1.7	14.13	-1,660.5	290.3	2,004.8	1,984.0	20.82	96.294		
6,400.0	6,316.5	6,318.1	6,316.7	20.9	1.7	14.14	-1,660.5	290.3	2,004.6	1,983.8	20.82	96.275		
6,450.0	6,366.2	6,358.6	6,357.2	20.9	1.7	14.26	-1,660.7	291.4	1,998.8	1,977.9	20.87	95.754		
6,496.0	6,411.4	6,400.0	6,398.6	21.0	1.7	14.44	-1,661.0	292.5	1,990.7	1,969.7	20.92	95.167		
6,500.0	6,415.3	6,400.0	6,398.6	21.0	1.7	14.46	-1,661.0	292.5	1,989.8	1,968.9	20.92	95.120		
6,550.0	6,463.6	6,453.3	6,451.9	21.0	1.7	14.77	-1,661.6	293.9	1,977.6	1,956.7	20.94	94.459		
6,594.5	6,505.8	6,501.1	6,499.7	21.0	1.7	15.15	-1,661.9	295.2	1,963.9	1,943.0	20.91	93.902		
6,600.0	6,510.9	6,506.7	6,505.3	21.0	1.7	15.20	-1,662.0	295.4	1,962.0	1,941.1	20.91	93.839		
6,650.0	6,557.0	6,556.6	6,555.1	21.0	1.7	15.76	-1,662.2	296.8	1,943.1	1,922.3	20.83	93.306		
6,692.9	6,595.4	6,598.1	6,596.6	21.0	1.7	16.35	-1,662.3	298.0	1,924.4	1,903.7	20.71	92.941		
6,700.0	6,601.6	6,600.0	6,598.5	21.0	1.7	16.44	-1,662.3	298.0	1,921.1	1,900.4	20.68	92.903		
6,750.0	6,644.6	6,639.7	6,638.2	20.9	1.7	17.27	-1,662.5	299.1	1,896.2	1,875.7	20.47	92.650		
6,791.3	6,678.6	6,668.4	6,666.9	20.9	1.7	18.07	-1,662.7	299.9	1,873.6	1,853.3	20.25	92.545		
6,800.0	6,685.6	6,674.3	6,672.8	20.9	1.7	18.26	-1,662.8	300.1	1,868.6	1,848.4	20.19	92.541		
6,850.0	6,724.6	6,708.6	6,707.1	20.9	1.7	19.47	-1,663.2	301.0	1,838.5	1,818.6	19.87	92.549		
6,889.7	6,753.9	6,737.9	6,736.4	20.9	1.7	20.64	-1,663.5	301.8	1,812.8	1,793.2	19.58	92.597		
6,900.0	6,761.3	6,745.2	6,743.7	20.9	1.7	20.97	-1,663.6	302.0	1,805.9	1,786.4	19.50	92.626		
6,950.0	6,795.5	6,779.5	6,778.0	20.9	1.7	22.80	-1,664.1	303.0	1,770.9	1,751.8	19.10	92.714		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 100-GYD_CT													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
6,988.2	6,819.9	6,804.1	6,802.5	20.9	1.7	24.46	-1,664.4	303.8	1,742.8	1,724.0	18.80	92.705		
7,000.0	6,827.1	6,811.5	6,809.9	20.9	1.7	25.03	-1,664.6	304.0	1,733.8	1,715.1	18.70	92.720		
7,050.0	6,855.9	6,840.9	6,839.3	20.9	1.7	27.79	-1,665.0	304.9	1,694.7	1,676.4	18.33	92.477		
7,086.6	6,875.1	6,860.6	6,859.0	20.9	1.7	30.22	-1,665.2	305.5	1,664.9	1,646.8	18.08	92.104		
7,100.0	6,881.8	6,867.4	6,865.8	20.9	1.7	31.21	-1,665.3	305.7	1,653.8	1,635.8	18.02	91.762		
7,150.0	6,904.6	6,890.8	6,889.2	21.0	1.7	35.47	-1,665.6	306.3	1,611.3	1,593.5	17.85	90.295		
7,185.0	6,918.8	6,906.2	6,904.6	21.1	1.7	39.10	-1,665.8	306.6	1,580.8	1,563.0	17.83	88.670		
7,200.0	6,924.3	6,912.8	6,911.2	21.1	1.7	40.86	-1,665.9	306.8	1,567.5	1,549.7	17.85	87.806		
7,250.0	6,940.8	6,932.5	6,930.8	21.2	1.7	47.63	-1,666.1	307.3	1,522.6	1,504.5	18.07	84.254		
7,283.4	6,949.9	6,943.3	6,941.7	21.3	1.7	52.99	-1,666.2	307.6	1,492.1	1,473.7	18.32	81.432		
7,300.0	6,953.9	6,948.0	6,946.4	21.4	1.7	55.89	-1,666.2	307.7	1,476.8	1,458.3	18.46	79.996		
7,350.0	6,963.6	6,959.6	6,958.0	21.6	1.7	65.62	-1,666.3	308.0	1,430.4	1,411.5	18.90	75.675		
7,381.9	6,968.0	6,964.9	6,963.2	21.7	1.7	72.41	-1,666.3	308.1	1,400.6	1,381.5	19.16	73.110		
7,400.0	6,969.9	6,967.1	6,965.5	21.8	1.7	76.39	-1,666.3	308.2	1,383.6	1,364.3	19.29	71.739		
7,450.0	6,972.6	6,970.6	6,969.0	22.1	1.7	87.40	-1,666.3	308.3	1,336.8	1,317.0	19.80	67.507		
7,471.5	6,972.8	6,970.9	6,969.3	22.2	1.7	91.97	-1,666.3	308.3	1,316.7	1,296.5	20.20	65.169		
7,480.3	6,972.7	6,970.9	6,969.3	22.3	1.7	91.97	-1,666.3	308.3	1,308.5	1,288.2	20.29	64.488		
7,500.0	6,972.5	6,970.8	6,969.2	22.4	1.7	91.96	-1,666.3	308.3	1,290.1	1,269.6	20.48	62.985		
7,578.7	6,971.8	6,970.5	6,968.9	23.1	1.7	91.92	-1,666.3	308.3	1,217.1	1,195.9	21.28	57.208		
7,600.0	6,971.6	6,970.5	6,968.8	23.3	1.7	91.91	-1,666.3	308.3	1,197.5	1,176.0	21.49	55.726		
7,677.1	6,970.9	6,970.2	6,968.5	24.0	1.7	91.88	-1,666.3	308.3	1,127.0	1,104.7	22.33	50.476		
7,700.0	6,970.7	6,970.1	6,968.5	24.2	1.7	91.87	-1,666.3	308.3	1,106.3	1,083.7	22.58	49.003		
7,775.6	6,970.0	6,969.8	6,968.2	25.0	1.7	91.84	-1,666.3	308.2	1,038.3	1,014.9	23.49	44.210		
7,800.0	6,969.8	6,969.8	6,968.1	25.3	1.7	91.83	-1,666.3	308.2	1,016.6	992.8	23.78	42.749		
7,874.0	6,969.1	6,969.5	6,967.8	26.2	1.7	91.80	-1,666.3	308.2	951.6	926.9	24.75	38.450		
7,900.0	6,968.9	6,969.4	6,967.8	26.5	1.7	91.79	-1,666.3	308.2	929.1	904.0	25.09	37.031		
7,972.4	6,968.2	6,969.2	6,967.5	27.4	1.7	91.76	-1,666.3	308.2	867.4	841.3	26.10	33.234		
8,000.0	6,968.0	6,969.1	6,967.4	27.8	1.7	91.75	-1,666.3	308.2	844.4	817.9	26.48	31.882		
8,070.8	6,967.3	6,968.8	6,967.2	28.7	1.7	91.72	-1,666.3	308.2	786.5	759.0	27.52	28.576		
8,100.0	6,967.1	6,968.7	6,967.1	29.1	1.7	91.70	-1,666.3	308.2	763.4	735.4	27.95	27.309		
8,169.3	6,966.4	6,968.5	6,966.9	30.1	1.7	91.68	-1,666.3	308.2	710.1	681.0	29.01	24.476		
8,200.0	6,966.2	6,968.4	6,966.8	30.5	1.7	91.67	-1,666.3	308.2	687.3	657.9	29.48	23.315		
8,267.7	6,965.5	6,968.2	6,966.5	31.5	1.7	91.64	-1,666.3	308.2	639.6	609.1	30.55	20.938		
8,300.0	6,965.2	6,968.1	6,966.4	32.0	1.7	91.63	-1,666.3	308.2	618.2	587.1	31.06	19.904		
8,366.1	6,964.6	6,967.9	6,966.2	33.0	1.7	91.60	-1,666.3	308.2	577.4	545.3	32.13	17.971		
8,400.0	6,964.3	6,967.8	6,966.1	33.5	1.7	91.59	-1,666.3	308.2	558.5	525.8	32.68	17.088		
8,464.5	6,963.8	6,967.6	6,965.9	34.5	1.7	91.56	-1,666.3	308.2	526.4	492.7	33.75	15.597		
8,500.0	6,963.4	6,967.5	6,965.8	35.1	1.7	91.55	-1,666.3	308.2	511.5	477.1	34.34	14.894		
8,563.0	6,962.9	6,967.3	6,965.6	36.1	1.7	91.53	-1,666.3	308.2	490.1	454.7	35.41	13.842		
8,600.0	6,962.5	6,967.2	6,965.5	36.7	1.7	91.51	-1,666.3	308.2	481.0	444.9	36.03	13.348		
8,661.4	6,962.0	6,967.0	6,965.3	37.7	1.7	91.49	-1,666.3	308.2	471.8	434.8	37.09	12.722		
8,700.0	6,961.6	6,966.9	6,965.2	38.3	1.7	91.48	-1,666.3	308.2	470.2	432.4	37.75	12.454		
8,701.4	6,961.6	6,966.9	6,965.2	38.3	1.7	91.48	-1,666.3	308.2	470.1	432.4	37.78	12.446 CC, ES		
8,759.8	6,961.1	6,966.7	6,965.0	39.3	1.7	91.46	-1,666.3	308.2	473.8	435.0	38.79	12.213		
8,800.0	6,960.7	6,966.6	6,964.9	40.0	1.7	91.44	-1,666.3	308.2	480.4	440.9	39.49	12.164 SF		
8,858.2	6,960.2	6,966.4	6,964.8	40.9	1.7	91.42	-1,666.3	308.2	495.6	455.1	40.52	12.232		
8,900.0	6,959.8	6,966.3	6,964.6	41.6	1.7	91.41	-1,666.3	308.2	510.4	469.1	41.26	12.371		
8,956.7	6,959.3	6,966.1	6,964.5	42.6	1.7	91.39	-1,666.3	308.1	535.0	492.7	42.26	12.658		
9,000.0	6,958.9	6,966.0	6,964.3	43.3	1.7	91.37	-1,666.3	308.1	557.0	513.9	43.04	12.942		
9,055.1	6,958.4	6,965.8	6,964.2	44.3	1.7	91.35	-1,666.3	308.1	588.3	544.3	44.03	13.364		
9,100.0	6,958.0	6,965.7	6,964.1	45.1	1.7	91.34	-1,666.3	308.1	616.4	571.6	44.83	13.749		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,153.5	6,957.5	6,965.6	6,963.9	46.0	1.7	91.32	-1,666.3	308.1	652.3	606.5	45.80	14.242	
9,200.0	6,957.1	6,965.4	6,963.8	46.8	1.7	91.30	-1,666.3	308.1	685.3	638.7	46.64	14.693	
9,251.9	6,956.6	6,965.3	6,963.7	47.7	1.7	91.29	-1,666.3	308.1	724.0	676.4	47.59	15.214	
9,300.0	6,956.2	6,965.2	6,963.5	48.6	1.7	91.27	-1,666.3	308.1	761.2	712.7	48.46	15.706	
9,350.4	6,955.7	6,965.0	6,963.4	49.5	1.7	91.25	-1,666.3	308.1	801.4	752.0	49.39	16.227	
9,400.0	6,955.2	6,964.9	6,963.3	50.3	1.7	91.24	-1,666.3	308.1	842.1	791.8	50.30	16.743	
9,448.8	6,954.8	6,964.8	6,963.1	51.2	1.7	91.22	-1,666.3	308.1	883.0	831.8	51.19	17.248	
9,500.0	6,954.3	6,964.6	6,963.0	52.1	1.7	91.21	-1,666.3	308.1	926.7	874.6	52.14	17.775	
9,547.2	6,953.9	6,964.5	6,962.9	53.0	1.7	91.19	-1,666.3	308.1	967.7	914.7	53.01	18.255	
9,600.0	6,953.4	6,964.4	6,962.7	53.9	1.7	91.17	-1,666.3	308.1	1,014.2	960.2	53.99	18.785	
9,645.6	6,953.0	6,964.3	6,962.6	54.7	1.7	91.16	-1,666.3	308.1	1,054.8	1,000.0	54.84	19.236	
9,700.0	6,952.5	6,964.1	6,962.5	55.7	1.7	91.14	-1,666.3	308.1	1,103.8	1,047.9	55.85	19.764	
9,744.1	6,952.1	6,964.0	6,962.4	56.5	1.7	91.13	-1,666.3	308.1	1,143.8	1,087.1	56.67	20.184	
9,800.0	6,951.6	6,963.9	6,962.2	57.5	1.7	91.11	-1,666.3	308.1	1,195.0	1,137.3	57.71	20.706	
9,842.5	6,951.2	6,963.8	6,962.1	58.3	1.7	91.10	-1,666.3	308.1	1,234.2	1,175.7	58.51	21.095	
9,900.0	6,950.7	6,963.6	6,962.0	59.4	1.7	91.08	-1,666.3	308.1	1,287.5	1,227.9	59.58	21.609	
9,940.9	6,950.3	6,963.5	6,961.9	60.1	1.7	91.07	-1,666.3	308.1	1,325.7	1,265.4	60.35	21.967	
10,000.0	6,949.8	6,963.4	6,961.8	61.2	1.7	91.05	-1,666.3	308.1	1,381.1	1,319.6	61.46	22.472	
10,039.3	6,949.4	6,963.3	6,961.7	61.9	1.7	91.04	-1,666.3	308.1	1,418.2	1,356.0	62.20	22.800	
10,100.0	6,948.9	6,963.2	6,961.5	63.0	1.7	91.02	-1,666.3	308.1	1,475.5	1,412.2	63.34	23.294	
10,137.8	6,948.5	6,963.1	6,961.4	63.7	1.7	91.01	-1,666.3	308.1	1,511.4	1,447.3	64.06	23.595	
10,200.0	6,948.0	6,962.9	6,961.3	64.9	1.7	91.00	-1,666.3	308.1	1,570.6	1,505.4	65.23	24.079	
10,236.2	6,947.6	6,962.8	6,961.2	65.6	1.7	90.99	-1,666.3	308.1	1,605.2	1,539.3	65.91	24.353	
10,300.0	6,947.1	6,962.7	6,961.0	66.7	1.7	90.97	-1,666.3	308.1	1,666.3	1,599.2	67.12	24.826	
10,334.6	6,946.7	6,962.6	6,961.0	67.4	1.7	90.96	-1,666.3	308.1	1,699.6	1,631.8	67.78	25.076	
10,400.0	6,946.2	6,962.5	6,960.8	68.6	1.7	90.94	-1,666.3	308.1	1,762.5	1,693.5	69.02	25.537	
10,433.0	6,945.8	6,962.4	6,960.7	69.2	1.7	90.93	-1,666.3	308.1	1,794.4	1,724.7	69.64	25.765	
10,500.0	6,945.2	6,962.2	6,960.6	70.5	1.7	90.91	-1,666.3	308.0	1,859.0	1,788.1	70.91	26.215	
10,531.5	6,945.0	6,962.2	6,960.5	71.1	1.7	90.90	-1,666.3	308.0	1,889.5	1,818.0	71.51	26.422	
10,600.0	6,944.3	6,962.0	6,960.4	72.3	1.7	90.89	-1,666.3	308.0	1,956.0	1,883.1	72.82	26.861	
10,629.9	6,944.1	6,962.0	6,960.3	72.9	1.7	90.88	-1,666.3	308.0	1,985.0	1,911.6	73.39	27.048	
10,700.0	6,943.4	6,961.8	6,960.2	74.2	1.7	90.86	-1,666.3	308.0	2,053.2	1,978.4	74.72	27.477	
10,728.3	6,943.2	6,961.7	6,960.1	74.7	1.7	90.85	-1,666.3	308.0	2,080.8	2,005.5	75.26	27.647	
10,800.0	6,942.5	6,961.6	6,959.9	76.1	1.7	90.83	-1,666.3	308.0	2,150.6	2,074.0	76.63	28.065	
10,826.7	6,942.3	6,961.5	6,959.9	76.6	1.7	90.83	-1,666.3	308.0	2,176.7	2,099.6	77.14	28.218	
10,900.0	6,941.6	6,961.4	6,959.7	78.0	1.7	90.81	-1,666.3	308.0	2,248.3	2,169.8	78.54	28.626	
10,925.2	6,941.4	6,961.3	6,959.7	78.4	1.7	90.80	-1,666.3	308.0	2,272.9	2,193.9	79.02	28.763	
11,000.0	6,940.7	6,961.2	6,959.5	79.9	1.7	90.78	-1,666.3	308.0	2,346.2	2,265.8	80.45	29.162	
11,023.6	6,940.5	6,961.1	6,959.5	80.3	1.7	90.77	-1,666.3	308.0	2,369.3	2,288.4	80.91	29.285	
11,100.0	6,939.8	6,961.0	6,959.3	81.7	1.7	90.76	-1,666.3	308.0	2,444.3	2,361.9	82.37	29.674	
11,122.0	6,939.6	6,960.9	6,959.3	82.2	1.7	90.75	-1,666.3	308.0	2,465.9	2,383.1	82.79	29.784	
11,200.0	6,938.9	6,960.8	6,959.1	83.6	1.7	90.73	-1,666.3	308.0	2,542.5	2,458.2	84.29	30.164	
11,220.4	6,938.7	6,960.7	6,959.1	84.0	1.7	90.73	-1,666.3	308.0	2,562.6	2,477.9	84.68	30.262	
11,300.0	6,938.0	6,960.6	6,958.9	85.5	1.7	90.71	-1,666.3	308.0	2,640.8	2,554.6	86.21	30.633	
11,318.9	6,937.8	6,960.5	6,958.9	85.9	1.7	90.70	-1,666.3	308.0	2,659.4	2,572.8	86.57	30.720	
11,400.0	6,937.0	6,960.4	6,958.7	87.4	1.7	90.68	-1,666.3	308.0	2,739.3	2,651.1	88.13	31.083	
11,417.3	6,936.9	6,960.3	6,958.7	87.8	1.7	90.68	-1,666.3	308.0	2,756.3	2,667.9	88.46	31.158	
11,500.0	6,936.1	6,960.2	6,958.5	89.3	1.7	90.66	-1,666.3	308.0	2,837.8	2,747.8	90.05	31.514	
11,515.7	6,936.0	6,960.1	6,958.5	89.6	1.7	90.65	-1,666.3	308.0	2,853.3	2,763.0	90.35	31.580	
11,600.0	6,935.2	6,960.0	6,958.3	91.2	1.7	90.63	-1,666.3	308.0	2,936.5	2,844.5	91.98	31.927	
11,614.1	6,935.1	6,960.0	6,958.3	91.5	1.7	90.63	-1,666.3	308.0	2,950.5	2,858.2	92.25	31.984	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design NE SW SEC. 7 T4N R64W 6th P.M. - LATHAM 7-4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,700.0	6,934.3	6,959.8	6,958.2	93.1	1.7	90.61	-1,666.3	308.0	3,035.3	2,941.3	93.90	32.324	
11,712.6	6,934.2	6,959.8	6,958.1	93.4	1.7	90.61	-1,666.3	308.0	3,047.7	2,953.5	94.14	32.372	
11,800.0	6,933.4	6,959.6	6,958.0	95.1	1.7	90.59	-1,666.3	308.0	3,134.1	3,038.3	95.83	32.705	
11,811.0	6,933.3	6,959.6	6,957.9	95.3	1.7	90.59	-1,666.3	308.0	3,145.0	3,048.9	96.04	32.746	
11,900.0	6,932.5	6,959.4	6,957.8	97.0	1.7	90.56	-1,666.3	308.0	3,233.0	3,135.2	97.76	33.071	
11,909.4	6,932.4	6,959.4	6,957.8	97.1	1.7	90.56	-1,666.3	308.0	3,242.3	3,144.4	97.94	33.105	
12,000.0	6,931.6	6,959.2	6,957.6	98.9	1.7	90.54	-1,666.3	308.0	3,332.0	3,232.3	99.69	33.424	
12,007.8	6,931.5	6,959.2	6,957.6	99.0	1.7	90.54	-1,666.3	308.0	3,339.7	3,239.9	99.84	33.451	
12,100.0	6,930.7	6,959.1	6,957.4	100.8	1.7	90.52	-1,666.3	308.0	3,431.0	3,329.4	101.62	33.763	
12,106.3	6,930.6	6,959.1	6,957.4	100.9	1.7	90.52	-1,666.3	308.0	3,437.2	3,335.5	101.74	33.784	
12,200.0	6,929.8	6,958.9	6,957.2	102.7	1.7	90.50	-1,666.3	308.0	3,530.1	3,426.5	103.55	34.090	
12,204.7	6,929.7	6,958.9	6,957.2	102.8	1.7	90.50	-1,666.3	308.0	3,534.7	3,431.1	103.64	34.105	
12,300.0	6,928.8	6,958.7	6,957.1	104.6	1.7	90.48	-1,666.3	308.0	3,629.2	3,523.7	105.49	34.405	
12,303.1	6,928.8	6,958.7	6,957.1	104.7	1.7	90.48	-1,666.3	308.0	3,632.3	3,526.8	105.55	34.414	
12,400.0	6,927.9	6,958.5	6,956.9	106.5	1.7	90.46	-1,666.3	308.0	3,728.4	3,621.0	107.42	34.708	
12,401.5	6,927.9	6,958.5	6,956.9	106.6	1.7	90.46	-1,666.3	308.0	3,729.9	3,622.5	107.45	34.713	
12,500.0	6,927.0	6,958.4	6,956.7	108.5	1.7	90.43	-1,666.3	307.9	3,827.6	3,718.2	109.36	35.001	
12,598.4	6,926.1	6,958.2	6,956.6	110.4	1.7	90.41	-1,666.3	307.9	3,925.3	3,814.0	111.26	35.280	
12,600.0	6,926.1	6,958.2	6,956.6	110.4	1.7	90.41	-1,666.3	307.9	3,926.9	3,815.6	111.29	35.284	
12,696.8	6,925.2	6,958.0	6,956.4	112.3	1.7	90.39	-1,666.3	307.9	4,023.0	3,909.8	113.17	35.549	
12,700.0	6,925.2	6,958.0	6,956.4	112.3	1.7	90.39	-1,666.3	307.9	4,026.2	3,912.9	113.23	35.558	
12,795.2	6,924.3	6,957.9	6,956.2	114.1	1.7	90.37	-1,666.3	307.9	4,120.8	4,005.7	115.08	35.809	
12,800.0	6,924.3	6,957.9	6,956.2	114.2	1.7	90.37	-1,666.3	307.9	4,125.5	4,010.3	115.17	35.822	
12,893.7	6,923.4	6,957.7	6,956.1	116.0	1.7	90.35	-1,666.3	307.9	4,218.6	4,101.6	116.98	36.061	
12,900.0	6,923.4	6,957.7	6,956.1	116.2	1.7	90.35	-1,666.3	307.9	4,224.9	4,107.8	117.11	36.077	
12,992.1	6,922.5	6,957.6	6,955.9	117.9	1.7	90.33	-1,666.3	307.9	4,316.4	4,197.5	118.89	36.305	
13,000.0	6,922.5	6,957.6	6,955.9	118.1	1.7	90.33	-1,666.3	307.9	4,324.3	4,205.2	119.05	36.324	
13,090.5	6,921.6	6,957.4	6,955.8	119.8	1.7	90.32	-1,666.3	307.9	4,414.3	4,293.5	120.80	36.541	
13,100.0	6,921.5	6,957.4	6,955.8	120.0	1.7	90.31	-1,666.3	307.9	4,423.7	4,302.7	120.99	36.564	
13,188.9	6,920.7	6,957.3	6,955.6	121.7	1.7	90.30	-1,666.3	307.9	4,512.1	4,389.4	122.71	36.770	
13,200.0	6,920.6	6,957.2	6,955.6	121.9	1.7	90.29	-1,666.3	307.9	4,523.1	4,400.2	122.93	36.795	
13,287.4	6,919.8	6,957.1	6,955.5	123.6	1.7	90.28	-1,666.3	307.9	4,610.0	4,485.4	124.62	36.992	
13,300.0	6,919.7	6,957.1	6,955.4	123.9	1.7	90.27	-1,666.3	307.9	4,622.6	4,497.7	124.87	37.020	
13,385.8	6,918.9	6,957.0	6,955.3	125.5	1.7	90.26	-1,666.3	307.9	4,708.0	4,581.4	126.53	37.207	
13,400.0	6,918.8	6,956.9	6,955.3	125.8	1.7	90.26	-1,666.3	307.9	4,722.1	4,595.3	126.81	37.238	
13,484.2	6,918.0	6,956.8	6,955.2	127.4	1.7	90.24	-1,666.3	307.9	4,805.9	4,677.5	128.45	37.416	
13,500.0	6,917.9	6,956.8	6,955.1	127.7	1.7	90.24	-1,666.3	307.9	4,821.6	4,692.8	128.75	37.449	
13,582.6	6,917.1	6,956.7	6,955.0	129.3	1.7	90.22	-1,666.3	307.9	4,903.9	4,773.5	130.36	37.618	
13,600.0	6,917.0	6,956.6	6,955.0	129.7	1.7	90.22	-1,666.3	307.9	4,921.1	4,790.4	130.69	37.654	
13,681.1	6,916.2	6,956.5	6,954.9	131.2	1.7	90.20	-1,666.3	307.9	5,001.8	4,869.6	132.27	37.815	
13,700.0	6,916.1	6,956.5	6,954.8	131.6	1.7	90.20	-1,666.3	307.9	5,020.7	4,888.0	132.64	37.852	
13,779.5	6,915.3	6,956.4	6,954.7	133.1	1.7	90.19	-1,666.3	307.9	5,099.8	4,965.7	134.18	38.006	
13,800.0	6,915.2	6,956.3	6,954.7	133.5	1.7	90.18	-1,666.3	307.9	5,120.3	4,985.7	134.58	38.045	
13,877.9	6,914.4	6,956.2	6,954.6	135.1	1.7	90.17	-1,666.3	307.9	5,197.9	5,061.8	136.10	38.192	
13,900.0	6,914.2	6,956.2	6,954.6	135.5	1.7	90.16	-1,666.3	307.9	5,219.8	5,083.3	136.53	38.233	
13,976.3	6,913.5	6,956.1	6,954.5	137.0	1.7	90.15	-1,666.3	307.9	5,295.9	5,157.9	138.01	38.373	
14,000.0	6,913.3	6,956.1	6,954.4	137.4	1.7	90.15	-1,666.3	307.9	5,319.4	5,181.0	138.47	38.415	
14,074.8	6,912.6	6,956.0	6,954.3	138.9	1.7	90.13	-1,666.3	307.9	5,393.9	5,254.0	139.93	38.548	
14,100.0	6,912.4	6,955.9	6,954.3	139.4	1.7	90.13	-1,666.3	307.9	5,419.1	5,278.6	140.42	38.593	
14,145.0	6,912.0	6,955.9	6,954.2	140.2	1.7	90.12	-1,666.3	307.9	5,463.9	5,322.6	141.25	38.682	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	11,613.7	6,907.5	0.0	92.0	157.69		-2,834.3	1,162.8	7,618.6				
98.4	98.4	11,613.7	6,907.5	0.1	92.0	157.69		-2,834.3	1,162.8	7,528.6	7,438.6	90.02	83.631	
100.0	100.0	11,613.7	6,907.5	0.1	92.0	157.69		-2,834.3	1,162.8	7,527.1	7,437.1	90.02	83.613	
196.8	196.8	11,613.7	6,907.5	0.3	92.0	157.69		-2,834.3	1,162.8	7,438.8	7,348.5	90.24	82.432	
200.0	200.0	11,613.7	6,907.5	0.3	92.0	157.69		-2,834.3	1,162.8	7,435.9	7,345.7	90.25	82.394	
295.3	295.3	11,613.7	6,907.5	0.5	92.0	157.69		-2,834.3	1,162.8	7,349.2	7,258.7	90.46	81.240	
300.0	300.0	11,613.7	6,907.5	0.5	92.0	157.69		-2,834.3	1,162.8	7,344.9	7,254.4	90.47	81.183	
393.7	393.7	11,613.7	6,907.5	0.8	92.0	157.69		-2,834.3	1,162.8	7,259.8	7,169.2	90.68	80.057	
400.0	400.0	11,613.7	6,907.5	0.8	92.0	157.69		-2,834.3	1,162.8	7,254.1	7,163.4	90.70	79.981	
492.1	492.1	11,613.7	6,907.5	1.0	92.0	157.69		-2,834.3	1,162.8	7,170.7	7,079.8	90.90	78.882	
500.0	500.0	11,613.7	6,907.5	1.0	92.0	157.69		-2,834.3	1,162.8	7,163.6	7,072.7	90.92	78.788	
590.5	590.5	11,613.7	6,907.5	1.2	92.0	157.69		-2,834.3	1,162.8	7,081.9	6,990.7	91.13	77.715	
600.0	600.0	11,613.7	6,907.5	1.2	92.0	157.69		-2,834.3	1,162.8	7,073.4	6,982.2	91.15	77.604	
689.0	689.0	11,613.7	6,907.5	1.4	92.0	157.69		-2,834.3	1,162.8	6,993.3	6,901.9	91.35	76.557	
700.0	700.0	11,613.7	6,907.5	1.4	92.0	157.69		-2,834.3	1,162.8	6,983.4	6,892.0	91.37	76.428	
787.4	787.4	11,613.7	6,907.5	1.6	92.0	157.69		-2,834.3	1,162.8	6,904.9	6,813.3	91.57	75.407	
800.0	800.0	11,613.7	6,907.5	1.7	92.0	157.69		-2,834.3	1,162.8	6,893.6	6,802.0	91.60	75.261	
885.8	885.8	11,613.7	6,907.5	1.9	92.0	157.69		-2,834.3	1,162.8	6,816.9	6,725.1	91.79	74.266	
900.0	900.0	11,613.7	6,907.5	1.9	92.0	157.69		-2,834.3	1,162.8	6,804.2	6,712.4	91.82	74.102	
984.2	984.2	11,613.7	6,907.5	2.1	92.0	157.69		-2,834.3	1,162.8	6,729.1	6,637.1	92.01	73.133	
1,000.0	1,000.0	11,613.7	6,907.5	2.1	92.0	157.69		-2,834.3	1,162.8	6,715.1	6,623.0	92.05	72.953	
1,082.7	1,082.7	11,613.7	6,907.5	2.3	92.0	90.82		-2,834.3	1,162.8	6,641.6	6,615.7	25.89	256.531	
1,100.0	1,100.0	11,613.7	6,907.5	2.3	92.0	91.48		-2,834.3	1,162.8	6,626.2	6,600.5	25.68	258.050	
1,181.1	1,181.0	11,613.7	6,907.5	2.5	92.0	94.57		-2,834.3	1,162.8	6,554.4	6,529.1	25.29	259.205	
1,200.0	1,199.8	11,613.7	6,907.5	2.6	92.0	95.28		-2,834.3	1,162.8	6,537.7	6,512.4	25.34	258.014	
1,279.5	1,279.1	11,613.7	6,907.5	2.7	92.0	98.21		-2,834.3	1,162.8	6,467.7	6,441.6	26.12	247.631	
1,300.0	1,299.5	11,613.7	6,907.5	2.8	92.0	98.95		-2,834.3	1,162.8	6,449.7	6,423.3	26.45	243.852	
1,377.9	1,376.9	11,613.7	6,907.5	3.0	92.0	101.72		-2,834.3	1,162.8	6,381.6	6,353.5	28.11	226.984	
1,400.0	1,398.7	11,613.7	6,907.5	3.0	92.0	102.48		-2,834.3	1,162.8	6,362.4	6,333.7	28.68	221.860	
1,476.4	1,474.2	11,613.7	6,907.5	3.2	92.0	105.06		-2,834.3	1,162.8	6,296.1	6,265.3	30.86	204.014	
1,500.0	1,497.5	11,613.7	6,907.5	3.3	92.0	105.84		-2,834.3	1,162.8	6,275.7	6,244.2	31.59	198.693	
1,574.8	1,571.0	11,613.7	6,907.5	3.5	92.0	108.24		-2,834.3	1,162.8	6,211.5	6,177.5	33.98	182.780	
1,600.1	1,595.7	11,613.7	6,907.5	3.6	92.0	109.02		-2,834.3	1,162.8	6,190.0	6,155.2	34.81	177.841	
1,673.2	1,667.2	11,613.7	6,907.5	3.9	92.0	109.02		-2,834.3	1,162.8	6,127.7	6,092.7	35.05	174.804	
1,700.0	1,693.4	11,613.7	6,907.5	4.0	92.0	109.02		-2,834.3	1,162.8	6,105.0	6,069.9	35.15	173.705	
1,771.6	1,763.5	11,613.7	6,907.5	4.2	92.0	109.02		-2,834.3	1,162.8	6,044.4	6,009.0	35.40	170.731	
1,800.0	1,791.3	11,613.7	6,907.5	4.3	92.0	109.02		-2,834.3	1,162.8	6,020.5	5,985.0	35.50	169.569	
1,870.1	1,859.8	11,613.7	6,907.5	4.6	92.0	109.02		-2,834.3	1,162.8	5,961.5	5,925.7	35.77	166.682	
1,900.0	1,889.1	11,613.7	6,907.5	4.7	92.0	109.02		-2,834.3	1,162.8	5,936.4	5,900.5	35.88	165.463	
1,968.5	1,956.1	11,613.7	6,907.5	5.0	92.0	109.02		-2,834.3	1,162.8	5,879.1	5,843.0	36.14	162.672	
2,000.0	1,986.9	11,613.7	6,907.5	5.1	92.0	109.02		-2,834.3	1,162.8	5,852.8	5,816.6	36.26	161.404	
2,066.9	2,052.3	11,613.7	6,907.5	5.4	92.0	109.02		-2,834.3	1,162.8	5,797.2	5,760.7	36.53	158.717	
2,100.0	2,084.7	11,613.7	6,907.5	5.5	92.0	109.02		-2,834.3	1,162.8	5,769.8	5,733.1	36.66	157.406	
2,165.3	2,148.6	11,613.7	6,907.5	5.8	92.0	109.02		-2,834.3	1,162.8	5,715.8	5,678.9	36.92	154.828	
2,200.0	2,182.5	11,613.7	6,907.5	5.9	92.0	109.02		-2,834.3	1,162.8	5,687.3	5,650.2	37.06	153.479	
2,263.8	2,244.9	11,613.7	6,907.5	6.2	92.0	109.02		-2,834.3	1,162.8	5,635.0	5,597.7	37.32	151.011	
2,300.0	2,280.3	11,613.7	6,907.5	6.3	92.0	109.02		-2,834.3	1,162.8	5,605.4	5,567.9	37.46	149.627	
2,362.2	2,341.2	11,613.7	6,907.5	6.6	92.0	109.02		-2,834.3	1,162.8	5,554.7	5,517.0	37.72	147.270	
2,400.0	2,378.1	11,613.7	6,907.5	6.8	92.0	109.02		-2,834.3	1,162.8	5,524.0	5,486.2	37.87	145.856	
2,460.6	2,437.4	11,613.7	6,907.5	7.0	92.0	109.02		-2,834.3	1,162.8	5,475.0	5,436.9	38.12	143.609	
2,500.0	2,476.0	11,613.7	6,907.5	7.2	92.0	109.02		-2,834.3	1,162.8	5,443.3	5,405.0	38.29	142.168	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,533.7	11,613.7	6,907.5	7.4	92.0	109.02	-2,834.3	1,162.8	5,396.0	5,357.4	38.53	140.028		
2,600.0	2,573.8	11,613.7	6,907.5	7.6	92.0	109.02	-2,834.3	1,162.8	5,363.3	5,324.6	38.71	138.564		
2,657.5	2,630.0	11,613.7	6,907.5	7.9	92.0	109.02	-2,834.3	1,162.8	5,317.6	5,278.6	38.95	136.530		
2,700.0	2,671.6	11,613.7	6,907.5	8.1	92.0	109.02	-2,834.3	1,162.8	5,283.9	5,244.8	39.13	135.045		
2,755.9	2,726.3	11,613.7	6,907.5	8.3	92.0	109.02	-2,834.3	1,162.8	5,239.8	5,200.5	39.36	133.114		
2,800.0	2,769.4	11,613.7	6,907.5	8.5	92.0	109.02	-2,834.3	1,162.8	5,205.2	5,165.7	39.55	131.611		
2,854.3	2,822.5	11,613.7	6,907.5	8.7	92.0	109.02	-2,834.3	1,162.8	5,162.8	5,123.0	39.78	129.781		
2,900.0	2,867.2	11,613.7	6,907.5	8.9	92.0	109.02	-2,834.3	1,162.8	5,127.3	5,087.3	39.98	128.262		
2,952.7	2,918.8	11,613.7	6,907.5	9.2	92.0	109.02	-2,834.3	1,162.8	5,086.5	5,046.3	40.20	126.529		
3,000.0	2,965.0	11,613.7	6,907.5	9.4	92.0	109.02	-2,834.3	1,162.8	5,050.2	5,009.8	40.40	124.998		
3,051.2	3,015.1	11,613.7	6,907.5	9.6	92.0	109.02	-2,834.3	1,162.8	5,011.0	4,970.4	40.62	123.359		
3,100.0	3,062.8	11,613.7	6,907.5	9.8	92.0	109.02	-2,834.3	1,162.8	4,973.8	4,933.0	40.83	121.817		
3,149.6	3,111.4	11,613.7	6,907.5	10.0	92.0	109.02	-2,834.3	1,162.8	4,936.3	4,895.2	41.04	120.270		
3,200.0	3,160.7	11,613.7	6,907.5	10.3	92.0	109.02	-2,834.3	1,162.8	4,898.3	4,857.1	41.26	118.720		
3,248.0	3,207.6	11,613.7	6,907.5	10.5	92.0	109.02	-2,834.3	1,162.8	4,862.4	4,820.9	41.47	117.261		
3,300.0	3,258.5	11,613.7	6,907.5	10.7	92.0	109.02	-2,834.3	1,162.8	4,823.8	4,782.1	41.69	115.704		
3,346.4	3,303.9	11,613.7	6,907.5	10.9	92.0	109.02	-2,834.3	1,162.8	4,789.4	4,747.5	41.89	114.331		
3,400.0	3,356.3	11,613.7	6,907.5	11.2	92.0	109.02	-2,834.3	1,162.8	4,750.1	4,708.0	42.12	112.770		
3,444.9	3,400.2	11,613.7	6,907.5	11.4	92.0	109.02	-2,834.3	1,162.8	4,717.4	4,675.0	42.32	111.479		
3,500.0	3,454.1	11,613.7	6,907.5	11.6	92.0	109.02	-2,834.3	1,162.8	4,677.4	4,634.9	42.55	109.916		
3,543.3	3,496.5	11,613.7	6,907.5	11.8	92.0	109.02	-2,834.3	1,162.8	4,646.3	4,603.5	42.74	108.704		
3,600.0	3,551.9	11,613.7	6,907.5	12.0	92.0	109.02	-2,834.3	1,162.8	4,605.8	4,562.8	42.99	107.141		
3,641.7	3,592.7	11,613.7	6,907.5	12.2	92.0	109.02	-2,834.3	1,162.8	4,576.2	4,533.0	43.17	106.006		
3,700.0	3,649.7	11,613.7	6,907.5	12.5	92.0	109.02	-2,834.3	1,162.8	4,535.2	4,491.8	43.42	104.444		
3,740.1	3,689.0	11,613.7	6,907.5	12.7	92.0	109.02	-2,834.3	1,162.8	4,507.2	4,463.6	43.60	103.384		
3,800.0	3,747.5	11,613.7	6,907.5	12.9	92.0	109.02	-2,834.3	1,162.8	4,465.7	4,421.9	43.86	101.826		
3,838.6	3,785.3	11,613.7	6,907.5	13.1	92.0	109.02	-2,834.3	1,162.8	4,439.3	4,395.2	44.02	100.836		
3,900.0	3,845.4	11,613.7	6,907.5	13.4	92.0	109.02	-2,834.3	1,162.8	4,397.5	4,353.2	44.29	99.283		
3,937.0	3,881.5	11,613.7	6,907.5	13.6	92.0	109.02	-2,834.3	1,162.8	4,372.5	4,328.1	44.45	98.362		
4,000.0	3,943.2	11,613.7	6,907.5	13.8	92.0	109.02	-2,834.3	1,162.8	4,330.4	4,285.7	44.73	96.817		
4,035.4	3,977.8	11,613.7	6,907.5	14.0	92.0	109.02	-2,834.3	1,162.8	4,307.0	4,262.1	44.88	95.962		
4,100.0	4,041.0	11,613.7	6,907.5	14.3	92.0	109.02	-2,834.3	1,162.8	4,264.7	4,219.5	45.16	94.426		
4,133.8	4,074.1	11,613.7	6,907.5	14.4	92.0	109.02	-2,834.3	1,162.8	4,242.7	4,197.4	45.31	93.634		
4,200.0	4,138.8	11,613.7	6,907.5	14.7	92.0	109.02	-2,834.3	1,162.8	4,200.3	4,154.7	45.60	92.110		
4,232.3	4,170.4	11,613.7	6,907.5	14.9	92.0	109.02	-2,834.3	1,162.8	4,179.8	4,134.0	45.74	91.378		
4,300.0	4,236.6	11,613.7	6,907.5	15.2	92.0	109.02	-2,834.3	1,162.8	4,137.3	4,091.2	46.04	89.867		
4,330.7	4,266.6	11,613.7	6,907.5	15.3	92.0	109.02	-2,834.3	1,162.8	4,118.2	4,072.1	46.17	89.193		
4,400.0	4,334.4	11,613.7	6,907.5	15.6	92.0	109.02	-2,834.3	1,162.8	4,075.8	4,029.3	46.47	87.698		
4,429.1	4,362.9	11,613.7	6,907.5	15.8	92.0	109.02	-2,834.3	1,162.8	4,058.1	4,011.5	46.60	87.080		
4,500.0	4,432.2	11,613.7	6,907.5	16.1	92.0	109.02	-2,834.3	1,162.8	4,015.8	3,968.9	46.91	85.602		
4,527.5	4,459.2	11,613.7	6,907.5	16.2	92.0	109.02	-2,834.3	1,162.8	3,999.6	3,952.5	47.03	85.037		
4,600.0	4,530.1	11,613.7	6,907.5	16.5	92.0	109.02	-2,834.3	1,162.8	3,957.5	3,910.1	47.35	83.578		
4,626.0	4,555.5	11,613.7	6,907.5	16.7	92.0	109.02	-2,834.3	1,162.8	3,942.6	3,895.1	47.46	83.064		
4,700.0	4,627.9	11,613.7	6,907.5	17.0	92.0	109.02	-2,834.3	1,162.8	3,900.8	3,853.0	47.79	81.626		
4,724.4	4,651.7	11,613.7	6,907.5	17.1	92.0	109.02	-2,834.3	1,162.8	3,887.3	3,839.4	47.90	81.161		
4,800.0	4,725.7	11,613.7	6,907.5	17.4	92.0	109.02	-2,834.3	1,162.8	3,845.9	3,797.7	48.23	79.746		
4,822.8	4,748.0	11,613.7	6,907.5	17.6	92.0	109.02	-2,834.3	1,162.8	3,833.7	3,785.3	48.33	79.327		
4,900.0	4,823.5	11,613.7	6,907.5	17.9	92.0	109.02	-2,834.3	1,162.8	3,792.9	3,744.2	48.67	77.937		
4,921.2	4,844.3	11,613.7	6,907.5	18.0	92.0	109.02	-2,834.3	1,162.8	3,781.9	3,733.1	48.76	77.562		
5,000.0	4,921.3	11,613.7	6,907.5	18.4	92.0	109.02	-2,834.3	1,162.8	3,741.8	3,692.7	49.11	76.199		
5,014.9	4,935.9	11,613.7	6,907.5	18.4	92.0	109.02	-2,834.3	1,162.8	3,734.3	3,685.1	49.17	75.946		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWDD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,019.7	4,940.6	11,613.7	6,907.5	18.4	92.0	108.97	-2,834.3	1,162.8	3,732.0	3,682.8	49.14	75.938		
5,100.0	5,019.4	11,613.7	6,907.5	18.7	92.0	108.10	-2,834.3	1,162.8	3,692.3	3,643.6	48.71	75.795		
5,118.1	5,037.2	11,613.7	6,907.5	18.8	92.0	107.91	-2,834.3	1,162.8	3,683.5	3,634.9	48.60	75.787		
5,200.0	5,118.1	11,613.7	6,907.5	19.0	92.0	107.05	-2,834.3	1,162.8	3,644.0	3,595.8	48.11	75.741		
5,216.5	5,134.4	11,613.7	6,907.5	19.1	92.0	106.88	-2,834.3	1,162.8	3,636.1	3,588.1	48.01	75.740		
5,300.0	5,217.2	11,613.7	6,907.5	19.3	92.0	106.03	-2,834.3	1,162.8	3,596.8	3,549.3	47.50	75.719		
5,314.9	5,232.1	11,613.7	6,907.5	19.3	92.0	105.88	-2,834.3	1,162.8	3,589.9	3,542.5	47.41	75.721		
5,400.0	5,316.8	11,613.7	6,907.5	19.5	92.0	105.03	-2,834.3	1,162.8	3,551.0	3,504.1	46.90	75.716		
5,413.4	5,330.1	11,613.7	6,907.5	19.5	92.0	104.90	-2,834.3	1,162.8	3,545.0	3,498.2	46.82	75.719		
5,500.0	5,416.6	11,613.7	6,907.5	19.7	92.0	104.07	-2,834.3	1,162.8	3,506.7	3,460.4	46.31	75.718		
5,511.8	5,428.4	11,613.7	6,907.5	19.7	92.0	103.96	-2,834.3	1,162.8	3,501.5	3,455.3	46.24	75.722		
5,600.0	5,516.6	11,613.7	6,907.5	19.8	92.0	103.15	-2,834.3	1,162.8	3,463.8	3,418.1	45.75	75.716		
5,610.2	5,526.8	11,613.7	6,907.5	19.8	92.0	103.06	-2,834.3	1,162.8	3,459.6	3,413.9	45.69	75.716		
5,615.0	5,531.6	11,613.7	6,907.5	19.8	92.0	173.10	-2,834.3	1,162.8	3,457.6	3,412.0	45.52	75.962		
5,700.0	5,616.6	11,613.7	6,907.5	19.9	92.0	173.10	-2,834.3	1,162.8	3,422.9	3,377.3	45.62	75.029		
5,708.6	5,625.3	11,613.7	6,907.5	20.0	92.0	173.10	-2,834.3	1,162.8	3,419.5	3,373.9	45.63	74.934		
5,800.0	5,716.6	11,613.7	6,907.5	20.1	92.0	173.10	-2,834.3	1,162.8	3,384.5	3,338.7	45.76	73.965		
5,807.1	5,723.7	11,613.7	6,907.5	20.1	92.0	173.10	-2,834.3	1,162.8	3,381.9	3,336.1	45.77	73.892		
5,900.0	5,816.6	11,613.7	6,907.5	20.2	92.0	173.10	-2,834.3	1,162.8	3,348.6	3,302.7	45.90	72.961		
5,905.5	5,822.1	11,613.7	6,907.5	20.2	92.0	173.10	-2,834.3	1,162.8	3,346.7	3,300.8	45.90	72.907		
6,000.0	5,916.6	11,613.7	6,907.5	20.4	92.0	173.10	-2,834.3	1,162.8	3,315.3	3,269.3	46.03	72.018		
6,003.9	5,920.5	11,613.7	6,907.5	20.4	92.0	173.10	-2,834.3	1,162.8	3,314.0	3,268.0	46.04	71.982		
6,100.0	6,016.6	11,613.7	6,907.5	20.5	92.0	173.10	-2,834.3	1,162.8	3,284.7	3,238.5	46.18	71.136		
6,102.3	6,019.0	11,613.7	6,907.5	20.5	92.0	173.10	-2,834.3	1,162.8	3,284.0	3,237.9	46.18	71.116		
6,200.0	6,116.6	11,613.7	6,907.5	20.6	92.0	173.10	-2,834.3	1,162.8	3,256.9	3,210.6	46.32	70.318		
6,200.8	6,117.4	11,613.7	6,907.5	20.6	92.0	173.10	-2,834.3	1,162.8	3,256.7	3,210.4	46.32	70.312		
6,299.2	6,215.8	11,613.7	6,907.5	20.8	92.0	173.10	-2,834.3	1,162.8	3,232.2	3,185.7	46.46	69.569		
6,300.0	6,216.6	11,613.7	6,907.5	20.8	92.0	173.10	-2,834.3	1,162.8	3,232.0	3,185.5	46.46	69.564		
6,340.0	6,256.6	11,613.7	6,907.5	20.8	92.0	173.10	-2,834.3	1,162.8	3,222.8	3,176.3	46.52	69.280		
6,350.0	6,266.6	11,613.7	6,907.5	20.8	92.0	-7.14	-2,834.3	1,162.8	3,220.6	3,173.9	46.63	69.065		
6,397.6	6,314.2	11,613.7	6,907.5	20.9	92.0	-7.26	-2,834.3	1,162.8	3,208.2	3,161.8	46.45	69.075		
6,400.0	6,316.5	11,613.7	6,907.5	20.9	92.0	-7.27	-2,834.3	1,162.8	3,207.6	3,161.1	46.44	69.074		
6,450.0	6,366.2	11,613.7	6,907.5	20.9	92.0	-7.44	-2,834.3	1,162.8	3,192.0	3,145.7	46.24	69.032		
6,496.0	6,411.4	11,613.7	6,907.5	21.0	92.0	-7.63	-2,834.3	1,162.8	3,175.3	3,129.3	46.05	68.948		
6,500.0	6,415.3	11,613.7	6,907.5	21.0	92.0	-7.64	-2,834.3	1,162.8	3,173.8	3,127.8	46.04	68.938		
6,550.0	6,463.6	11,613.7	6,907.5	21.0	92.0	-7.89	-2,834.3	1,162.8	3,153.1	3,107.3	45.84	68.788		
6,594.5	6,505.8	11,613.7	6,907.5	21.0	92.0	-8.15	-2,834.3	1,162.8	3,132.7	3,087.0	45.66	68.607		
6,600.0	6,510.9	11,613.7	6,907.5	21.0	92.0	-8.18	-2,834.3	1,162.8	3,130.0	3,084.4	45.64	68.580		
6,650.0	6,557.0	11,613.7	6,907.5	21.0	92.0	-8.53	-2,834.3	1,162.8	3,104.4	3,059.0	45.45	68.311		
6,692.9	6,595.4	11,613.7	6,907.5	21.0	92.0	-8.87	-2,834.3	1,162.8	3,080.7	3,035.4	45.29	68.027		
6,700.0	6,601.6	11,613.7	6,907.5	21.0	92.0	-8.93	-2,834.3	1,162.8	3,076.6	3,031.3	45.26	67.974		
6,750.0	6,644.6	11,613.7	6,907.5	20.9	92.0	-9.42	-2,834.3	1,162.8	3,046.4	3,001.3	45.09	67.559		
6,791.3	6,678.6	11,613.7	6,907.5	20.9	92.0	-9.88	-2,834.3	1,162.8	3,019.8	2,974.8	44.97	67.145		
6,800.0	6,685.6	11,613.7	6,907.5	20.9	92.0	-9.99	-2,834.3	1,162.8	3,014.0	2,969.1	44.95	67.048		
6,850.0	6,724.6	11,613.7	6,907.5	20.9	92.0	-10.67	-2,834.3	1,162.8	2,979.6	2,934.7	44.87	66.412		
6,889.7	6,753.9	11,613.7	6,907.5	20.9	92.0	-11.31	-2,834.3	1,162.8	2,950.8	2,905.9	44.85	65.792		
6,900.0	6,761.3	11,613.7	6,907.5	20.9	92.0	-11.49	-2,834.3	1,162.8	2,943.2	2,898.3	44.86	65.610		
6,950.0	6,795.5	11,613.7	6,907.5	20.9	92.0	-12.48	-2,834.3	1,162.8	2,904.8	2,859.8	44.98	64.577		
6,988.2	6,819.9	11,613.7	6,907.5	20.9	92.0	-13.39	-2,834.3	1,162.8	2,874.3	2,829.1	45.21	63.579		
7,000.0	6,827.1	11,613.7	6,907.5	20.9	92.0	-13.70	-2,834.3	1,162.8	2,864.7	2,819.4	45.31	63.220		
7,050.0	6,855.9	11,613.7	6,907.5	20.9	92.0	-15.22	-2,834.3	1,162.8	2,822.9	2,776.9	45.97	61.410		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWDD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,086.6	6,875.1	11,613.7	6,907.5	20.9	92.0	-16.59	-2,834.3	1,162.8	2,791.4	2,744.6	46.77	59.688		
7,100.0	6,881.8	11,613.7	6,907.5	20.9	92.0	-17.15	-2,834.3	1,162.8	2,779.6	2,732.5	47.13	58.980		
7,150.0	6,904.6	11,613.7	6,907.5	21.0	92.0	-19.67	-2,834.3	1,162.8	2,734.9	2,685.9	49.08	55.724		
7,185.0	6,918.8	11,613.7	6,907.5	21.1	92.0	-21.92	-2,834.3	1,162.8	2,702.9	2,651.7	51.15	52.838		
7,200.0	6,924.3	11,613.7	6,907.5	21.1	92.0	-23.05	-2,834.3	1,162.8	2,689.0	2,636.8	52.27	51.442		
7,250.0	6,940.8	11,613.7	6,907.5	21.2	92.0	-27.74	-2,834.3	1,162.8	2,642.1	2,584.7	57.41	46.019		
7,283.4	6,949.9	11,613.7	6,907.5	21.3	92.0	-32.00	-2,834.3	1,162.8	2,610.1	2,547.7	62.44	41.802		
7,300.0	6,953.9	11,613.7	6,907.5	21.4	92.0	-34.56	-2,834.3	1,162.8	2,594.2	2,528.7	65.53	39.588		
7,350.0	6,963.6	11,613.7	6,907.5	21.6	92.0	-44.89	-2,834.3	1,162.8	2,545.7	2,467.9	77.79	32.727		
7,381.9	6,968.0	11,613.7	6,907.5	21.7	92.0	-54.23	-2,834.3	1,162.8	2,514.5	2,426.7	87.76	28.651		
7,400.0	6,969.9	11,613.7	6,907.5	21.8	92.0	-60.75	-2,834.3	1,162.8	2,496.7	2,402.9	93.73	26.637		
7,450.0	6,972.6	11,613.7	6,907.5	22.1	92.0	-83.01	-2,834.3	1,162.8	2,447.4	2,341.2	106.20	23.045		
7,471.5	6,972.8	11,613.7	6,907.5	22.2	92.0	-93.60	-2,834.3	1,162.8	2,426.2	2,318.9	107.26	22.620		
7,480.3	6,972.7	11,613.7	6,907.5	22.3	92.0	-93.60	-2,834.3	1,162.8	2,417.5	2,310.1	107.34	22.521		
7,500.0	6,972.5	11,613.7	6,907.5	22.4	92.0	-93.60	-2,834.3	1,162.8	2,398.0	2,290.5	107.53	22.300		
7,578.7	6,971.8	11,613.7	6,907.5	23.1	92.0	-93.60	-2,834.3	1,162.8	2,320.4	2,212.1	108.32	21.421		
7,600.0	6,971.6	11,613.7	6,907.5	23.3	92.0	-93.60	-2,834.3	1,162.8	2,299.4	2,190.9	108.53	21.186		
7,677.1	6,970.9	11,613.7	6,907.5	24.0	92.0	-93.60	-2,834.3	1,162.8	2,223.4	2,114.0	109.37	20.330		
7,700.0	6,970.7	11,613.7	6,907.5	24.2	92.0	-93.60	-2,834.3	1,162.8	2,200.9	2,091.3	109.61	20.079		
7,775.6	6,970.0	11,613.7	6,907.5	25.0	92.0	-93.60	-2,834.3	1,162.8	2,126.6	2,016.1	110.52	19.241		
7,800.0	6,969.8	11,613.7	6,907.5	25.3	92.0	-93.60	-2,834.3	1,162.8	2,102.6	1,991.8	110.82	18.973		
7,874.0	6,969.1	11,613.7	6,907.5	26.2	92.0	-93.60	-2,834.3	1,162.8	2,029.9	1,918.1	111.78	18.159		
7,900.0	6,968.9	11,613.7	6,907.5	26.5	92.0	-93.60	-2,834.3	1,162.8	2,004.4	1,892.3	112.12	17.877		
7,972.4	6,968.2	11,613.7	6,907.5	27.4	92.0	-93.60	-2,834.3	1,162.8	1,933.4	1,820.3	113.13	17.089		
8,000.0	6,968.0	11,613.7	6,907.5	27.8	92.0	-93.60	-2,834.3	1,162.8	1,906.4	1,792.9	113.52	16.794		
8,070.8	6,967.3	11,613.7	6,907.5	28.7	92.0	-93.60	-2,834.3	1,162.8	1,837.1	1,722.5	114.56	16.036		
8,100.0	6,967.1	11,613.7	6,907.5	29.1	92.0	-93.60	-2,834.3	1,162.8	1,808.6	1,693.6	114.99	15.729		
8,169.3	6,966.4	11,613.7	6,907.5	30.1	92.0	-93.60	-2,834.3	1,162.8	1,741.0	1,625.0	116.04	15.003		
8,200.0	6,966.2	11,613.7	6,907.5	30.5	92.0	-93.60	-2,834.3	1,162.8	1,711.1	1,594.6	116.51	14.686		
8,267.7	6,965.5	11,613.7	6,907.5	31.5	92.0	-93.60	-2,834.3	1,162.8	1,645.3	1,527.7	117.58	13.992		
8,300.0	6,965.2	11,613.7	6,907.5	32.0	92.0	-93.60	-2,834.3	1,162.8	1,613.9	1,495.8	118.09	13.666		
8,366.1	6,964.6	11,613.7	6,907.5	33.0	92.0	-93.60	-2,834.3	1,162.8	1,549.8	1,430.7	119.17	13.005		
8,400.0	6,964.3	11,613.7	6,907.5	33.5	92.0	-93.60	-2,834.3	1,162.8	1,517.1	1,397.3	119.72	12.672		
8,464.5	6,963.8	11,613.7	6,907.5	34.5	92.0	-93.60	-2,834.3	1,162.8	1,454.8	1,334.0	120.79	12.044		
8,500.0	6,963.4	11,613.7	6,907.5	35.1	92.0	-93.60	-2,834.3	1,162.8	1,420.6	1,299.3	121.38	11.704		
8,563.0	6,962.9	11,613.7	6,907.5	36.1	92.0	-93.60	-2,834.3	1,162.8	1,360.2	1,237.8	122.44	11.109		
8,600.0	6,962.5	11,613.7	6,907.5	36.7	92.0	-93.60	-2,834.3	1,162.8	1,324.8	1,201.7	123.07	10.764		
8,661.4	6,962.0	11,613.7	6,907.5	37.7	92.0	-93.60	-2,834.3	1,162.8	1,266.2	1,142.1	124.13	10.201		
8,700.0	6,961.6	11,613.7	6,907.5	38.3	92.0	-93.60	-2,834.3	1,162.8	1,229.5	1,104.8	124.79	9.853		
8,759.8	6,961.1	11,613.7	6,907.5	39.3	92.0	-93.60	-2,834.3	1,162.8	1,173.0	1,047.1	125.83	9.322		
8,800.0	6,960.7	11,613.7	6,907.5	40.0	92.0	-93.60	-2,834.3	1,162.8	1,135.1	1,008.6	126.53	8.971		
8,858.2	6,960.2	11,613.7	6,907.5	40.9	92.0	-93.60	-2,834.3	1,162.8	1,080.6	953.1	127.56	8.471		
8,900.0	6,959.8	11,613.7	6,907.5	41.6	92.0	-93.60	-2,834.3	1,162.8	1,041.8	913.5	128.30	8.120		
8,956.7	6,959.3	11,613.7	6,907.5	42.6	92.0	-93.60	-2,834.3	1,162.8	989.4	860.1	129.31	7.652		
9,000.0	6,958.9	11,613.7	6,907.5	43.3	92.0	-93.60	-2,834.3	1,162.8	949.8	819.7	130.08	7.302		
9,055.1	6,958.4	11,613.7	6,907.5	44.3	92.0	-93.60	-2,834.3	1,162.8	899.8	768.7	131.07	6.865		
9,100.0	6,958.0	11,613.7	6,907.5	45.1	92.0	-93.60	-2,834.3	1,162.8	859.6	727.7	131.87	6.518		
9,153.5	6,957.5	11,613.7	6,907.5	46.0	92.0	-93.60	-2,834.3	1,162.8	812.2	679.4	132.84	6.114		
9,200.0	6,957.1	11,613.7	6,907.5	46.8	92.0	-93.60	-2,834.3	1,162.8	771.8	638.1	133.68	5.773		
9,251.9	6,956.6	11,613.7	6,907.5	47.7	92.0	-93.60	-2,834.3	1,162.8	727.4	592.8	134.63	5.403		
9,300.0	6,956.2	11,613.7	6,907.5	48.6	92.0	-93.60	-2,834.3	1,162.8	687.3	551.8	135.50	5.072		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	11,613.7	6,907.5	49.5	92.0	-93.60	-2,834.3	1,162.8	646.4	510.0	136.43	4.738	
9,400.0	6,955.2	11,613.7	6,907.5	50.3	92.0	-93.60	-2,834.3	1,162.8	607.6	470.2	137.34	4.424	
9,448.8	6,954.8	11,613.7	6,907.5	51.2	92.0	-93.60	-2,834.3	1,162.8	571.0	432.8	138.24	4.131	
9,500.0	6,954.3	11,613.7	6,907.5	52.1	92.0	-93.60	-2,834.3	1,162.8	534.7	395.5	139.18	3.842	
9,547.2	6,953.9	11,613.7	6,907.5	53.0	92.0	-93.60	-2,834.3	1,162.8	503.6	363.5	140.05	3.596	
9,600.0	6,953.4	11,613.7	6,907.5	53.9	92.0	-93.60	-2,834.3	1,162.8	471.9	330.9	141.03	3.346	
9,645.6	6,953.0	11,613.7	6,907.5	54.7	92.0	-93.60	-2,834.3	1,162.8	447.7	305.9	141.88	3.156	
9,700.0	6,952.5	11,613.7	6,907.5	55.7	92.0	-93.60	-2,834.3	1,162.8	423.6	280.7	142.89	2.965	
9,744.1	6,952.1	11,613.7	6,907.5	56.5	92.0	-93.60	-2,834.3	1,162.8	408.4	264.7	143.71	2.842	
9,800.0	6,951.6	11,613.7	6,907.5	57.5	92.0	-93.60	-2,834.3	1,162.8	395.3	250.5	144.75	2.731	
9,842.5	6,951.2	11,613.7	6,907.5	58.3	92.0	-93.60	-2,834.3	1,162.8	390.4	244.9	145.55	2.682	
9,866.3	6,951.0	11,613.7	6,907.5	58.7	92.0	-93.60	-2,834.3	1,162.8	389.7	243.7	145.99	2.669	CC, ES
9,900.0	6,950.7	11,581.7	6,907.7	59.4	91.5	-93.68	-2,866.3	1,162.8	389.8	243.8	146.01	2.670	
9,940.9	6,950.3	11,540.8	6,908.0	60.1	90.7	-93.77	-2,907.2	1,162.8	390.0	244.0	146.00	2.671	
10,000.0	6,949.8	11,481.7	6,908.4	61.2	89.6	-93.90	-2,966.3	1,162.9	390.3	244.3	145.99	2.674	
10,039.3	6,949.4	11,442.4	6,908.6	61.9	88.9	-93.99	-3,005.6	1,162.9	390.5	244.5	145.98	2.675	
10,100.0	6,948.9	11,381.7	6,909.0	63.0	87.8	-94.13	-3,066.2	1,162.9	390.8	244.8	145.97	2.677	
10,137.8	6,948.5	11,344.0	6,909.3	63.7	87.1	-94.22	-3,104.0	1,162.9	391.0	245.0	145.96	2.679	
10,200.0	6,948.0	11,281.8	6,909.7	64.9	86.0	-94.36	-3,166.2	1,162.9	391.3	245.3	145.95	2.681	
10,236.2	6,947.6	11,245.6	6,910.0	65.6	85.4	-94.44	-3,202.4	1,162.9	391.5	245.5	145.95	2.682	
10,300.0	6,947.1	11,181.8	6,910.4	66.7	84.2	-94.58	-3,266.2	1,162.9	391.8	245.8	145.94	2.684	
10,334.6	6,946.7	11,147.1	6,910.6	67.4	83.6	-94.66	-3,300.8	1,162.9	392.0	246.0	145.94	2.686	
10,400.0	6,946.2	11,081.8	6,911.1	68.6	82.4	-94.81	-3,366.2	1,162.9	392.3	246.3	145.94	2.688	
10,433.0	6,945.8	11,048.7	6,911.3	69.2	81.8	-94.88	-3,399.2	1,162.9	392.4	246.5	145.94	2.689	
10,500.0	6,945.2	10,981.8	6,911.7	70.5	80.6	-95.03	-3,466.2	1,162.9	392.8	246.8	145.94	2.691	
10,531.5	6,945.0	10,950.3	6,911.9	71.1	80.1	-95.10	-3,497.7	1,162.9	392.9	247.0	145.94	2.693	
10,600.0	6,944.3	10,881.8	6,912.4	72.3	78.8	-95.26	-3,566.2	1,162.9	393.3	247.4	145.94	2.695	
10,629.9	6,944.1	10,851.9	6,912.6	72.9	78.3	-95.32	-3,596.1	1,162.9	393.4	247.5	145.94	2.696	
10,700.0	6,943.4	10,781.8	6,913.1	74.2	77.1	-95.48	-3,666.2	1,162.9	393.8	247.9	145.95	2.698	
10,728.3	6,943.2	10,753.5	6,913.2	74.7	76.6	-95.54	-3,694.5	1,162.9	394.0	248.0	145.95	2.699	
10,800.0	6,942.5	10,681.8	6,913.7	76.1	75.3	-95.70	-3,766.1	1,162.9	394.3	248.4	145.96	2.702	
10,826.7	6,942.3	10,655.1	6,913.9	76.6	74.8	-95.76	-3,792.9	1,162.9	394.5	248.5	145.96	2.703	
10,900.0	6,941.6	10,581.8	6,914.4	78.0	73.5	-95.93	-3,866.1	1,163.0	394.9	248.9	145.97	2.705	
10,925.2	6,941.4	10,556.7	6,914.6	78.4	73.1	-95.98	-3,891.3	1,163.0	395.0	249.0	145.98	2.706	
11,000.0	6,940.7	10,481.9	6,915.1	79.9	71.8	-96.15	-3,966.1	1,163.0	395.4	249.4	145.99	2.708	
11,023.6	6,940.5	10,458.3	6,915.2	80.3	71.3	-96.20	-3,989.7	1,163.0	395.5	249.5	146.00	2.709	
11,100.0	6,939.8	10,381.9	6,915.7	81.7	70.0	-96.37	-4,066.1	1,163.0	395.9	249.9	146.02	2.712	
11,122.0	6,939.6	10,359.8	6,915.9	82.2	69.6	-96.42	-4,088.1	1,163.0	396.1	250.0	146.02	2.712	
11,200.0	6,938.9	10,281.9	6,916.4	83.6	68.3	-96.59	-4,166.1	1,163.0	396.5	250.4	146.05	2.715	
11,220.4	6,938.7	10,261.4	6,916.5	84.0	67.9	-96.63	-4,186.5	1,163.0	396.6	250.5	146.05	2.715	
11,300.0	6,938.0	10,181.9	6,917.1	85.5	66.5	-96.81	-4,266.1	1,163.0	397.0	251.0	146.08	2.718	
11,318.9	6,937.8	10,163.0	6,917.2	85.9	66.2	-96.85	-4,284.9	1,163.0	397.1	251.1	146.09	2.719	
11,400.0	6,937.0	10,081.9	6,917.7	87.4	64.8	-97.03	-4,366.0	1,163.0	397.6	251.5	146.12	2.721	
11,417.3	6,936.9	10,064.6	6,917.8	87.8	64.5	-97.07	-4,383.3	1,163.0	397.7	251.6	146.13	2.722	
11,500.0	6,936.1	9,981.9	6,918.4	89.3	63.1	-97.25	-4,466.0	1,163.0	398.2	252.0	146.16	2.724	
11,515.7	6,936.0	9,966.2	6,918.5	89.6	62.9	-97.28	-4,481.8	1,163.0	398.2	252.1	146.17	2.725	
11,600.0	6,935.2	9,881.9	6,919.0	91.2	61.4	-97.47	-4,566.0	1,163.0	398.7	252.5	146.21	2.727	
11,614.1	6,935.1	9,867.8	6,919.1	91.5	61.2	-97.50	-4,580.2	1,163.0	398.8	252.6	146.22	2.727	
11,700.0	6,934.3	9,781.9	6,919.7	93.1	59.8	-97.68	-4,666.0	1,163.0	399.3	253.0	146.27	2.730	
11,712.6	6,934.2	9,769.4	6,919.8	93.4	59.5	-97.71	-4,678.6	1,163.0	399.4	253.1	146.28	2.730	
11,800.0	6,933.4	9,682.0	6,920.4	95.1	58.1	-97.90	-4,766.0	1,163.0	399.9	253.5	146.34	2.733	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - COLLINS 18Q-301 - ORIGINAL WELLBORE - PROPOSAL #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,811.0	6,933.3	9,671.0	6,920.5	95.3	57.9	-97.92	-4,777.0	1,163.1	399.9	253.6	146.34	2.733		
11,900.0	6,932.5	9,582.0	6,921.0	97.0	56.5	-98.12	-4,866.0	1,163.1	400.5	254.1	146.41	2.735		
11,909.4	6,932.4	9,572.5	6,921.1	97.1	56.3	-98.14	-4,875.4	1,163.1	400.5	254.1	146.42	2.735		
12,000.0	6,931.6	9,482.0	6,921.7	98.9	54.8	-98.33	-4,966.0	1,163.1	401.1	254.6	146.49	2.738		
12,007.8	6,931.5	9,474.1	6,921.8	99.0	54.7	-98.35	-4,973.8	1,163.1	401.1	254.6	146.50	2.738		
12,100.0	6,930.7	9,382.0	6,922.4	100.8	53.2	-98.55	-5,065.9	1,163.1	401.6	255.1	146.58	2.740		
12,106.3	6,930.6	9,375.7	6,922.4	100.9	53.1	-98.56	-5,072.2	1,163.1	401.7	255.1	146.58	2.740		
12,200.0	6,929.8	9,282.0	6,923.0	102.7	51.7	-98.76	-5,165.9	1,163.1	402.3	255.6	146.68	2.742		
12,204.7	6,929.7	9,277.3	6,923.1	102.8	51.6	-98.77	-5,170.6	1,163.1	402.3	255.6	146.68	2.742		
12,300.0	6,928.8	9,182.0	6,923.7	104.6	50.1	-98.98	-5,265.9	1,163.1	402.9	256.1	146.79	2.744		
12,303.1	6,928.8	9,178.9	6,923.7	104.7	50.1	-98.98	-5,269.0	1,163.1	402.9	256.1	146.80	2.744		
12,400.0	6,927.9	9,082.0	6,924.4	106.5	48.6	-99.19	-5,365.9	1,163.1	403.5	256.6	146.92	2.746		
12,401.5	6,927.9	9,080.5	6,924.4	106.6	48.6	-99.19	-5,367.4	1,163.1	403.5	256.6	146.92	2.746		
12,500.0	6,927.0	8,982.1	6,925.0	108.5	47.1	-99.40	-5,465.9	1,163.1	404.1	257.0	147.06	2.748		
12,598.4	6,926.1	8,883.7	6,925.7	110.4	45.7	-99.61	-5,564.3	1,163.1	404.7	257.5	147.21	2.749		
12,600.0	6,926.1	8,882.1	6,925.7	110.4	45.6	-99.61	-5,565.9	1,163.1	404.7	257.5	147.21	2.749		
12,696.8	6,925.2	8,785.3	6,926.3	112.3	44.3	-99.82	-5,662.7	1,163.1	405.3	257.9	147.38	2.750		
12,700.0	6,925.2	8,782.1	6,926.4	112.3	44.2	-99.82	-5,665.8	1,163.1	405.3	257.9	147.39	2.750		
12,795.2	6,924.3	8,686.8	6,927.0	114.1	42.9	-100.02	-5,761.1	1,163.2	405.9	258.4	147.58	2.751		
12,800.0	6,924.3	8,682.1	6,927.0	114.2	42.9	-100.03	-5,765.8	1,163.2	406.0	258.4	147.59	2.751		
12,893.7	6,923.4	8,588.4	6,927.7	116.0	41.7	-100.23	-5,859.5	1,163.2	406.6	258.8	147.80	2.751		
12,900.0	6,923.4	8,582.1	6,927.7	116.2	41.6	-100.24	-5,865.8	1,163.2	406.6	258.8	147.81	2.751		
12,992.1	6,922.5	8,490.0	6,928.3	117.9	40.4	-100.44	-5,957.9	1,163.2	407.2	259.2	148.04	2.751		
13,000.0	6,922.5	8,482.1	6,928.4	118.1	40.3	-100.45	-5,965.8	1,163.2	407.3	259.2	148.06	2.751		
13,090.5	6,921.6	8,391.6	6,929.0	119.8	39.2	-100.64	-6,056.3	1,163.2	407.8	259.5	148.32	2.750		
13,100.0	6,921.5	8,382.1	6,929.0	120.0	39.1	-100.66	-6,065.8	1,163.2	407.9	259.6	148.35	2.750		
13,188.9	6,920.7	8,293.2	6,929.6	121.7	38.1	-100.85	-6,154.7	1,163.2	408.5	259.9	148.63	2.748		
13,200.0	6,920.6	8,282.1	6,929.7	121.9	38.0	-100.87	-6,165.8	1,163.2	408.6	259.9	148.67	2.748		
13,287.4	6,919.8	8,194.8	6,930.3	123.6	37.1	-101.05	-6,253.1	1,163.2	409.1	260.2	148.98	2.746		
13,300.0	6,919.7	8,182.2	6,930.4	123.9	37.0	-101.08	-6,265.8	1,163.2	409.2	260.2	149.03	2.746		
13,385.8	6,918.9	8,096.4	6,930.9	125.5	36.2	-101.25	-6,351.5	1,163.2	409.8	260.4	149.38	2.743		
13,400.0	6,918.8	8,082.2	6,931.0	125.8	36.1	-101.28	-6,365.7	1,163.2	409.9	260.4	149.45	2.743		
13,484.2	6,918.0	7,998.0	6,931.6	127.4	35.3	-101.46	-6,450.0	1,163.2	410.4	260.6	149.84	2.739		
13,500.0	6,917.9	7,982.2	6,931.7	127.7	35.2	-101.49	-6,465.7	1,163.2	410.6	260.6	149.93	2.738		
13,582.6	6,917.1	7,899.5	6,932.2	129.3	34.6	-101.66	-6,548.4	1,163.2	411.1	260.7	150.37	2.734		
13,600.0	6,917.0	7,882.2	6,932.3	129.7	34.5	-101.69	-6,565.7	1,163.2	411.2	260.8	150.47	2.733		
13,681.1	6,916.2	7,801.1	6,932.9	131.2	33.9	-101.86	-6,646.8	1,163.3	411.8	260.8	150.97	2.728		
13,700.0	6,916.1	7,782.2	6,933.0	131.6	33.8	-101.90	-6,665.7	1,163.3	411.9	260.8	151.10	2.726		
13,779.5	6,915.3	7,702.7	6,933.5	133.1	33.4	-102.06	-6,745.2	1,163.3	412.4	260.8	151.67	2.719		
13,800.0	6,915.2	7,682.2	6,933.7	133.5	33.3	-102.10	-6,765.7	1,163.3	412.6	260.8	151.83	2.717		
13,877.9	6,914.4	7,604.3	6,934.2	135.1	32.9	-102.26	-6,843.6	1,163.3	413.1	260.7	152.46	2.710		
13,900.0	6,914.2	7,582.2	6,934.3	135.5	32.8	-102.30	-6,865.7	1,163.3	413.3	260.6	152.66	2.707		
13,976.3	6,913.5	7,496.4	6,930.6	137.0	32.6	-101.90	-6,951.4	1,163.3	413.0	259.5	153.54	2.690		
14,000.0	6,913.3	7,469.8	6,927.4	137.4	32.5	-101.49	-6,977.8	1,163.3	412.6	258.6	153.95	2.680		
14,074.8	6,912.6	7,387.6	6,911.3	138.9	32.3	-99.37	-7,058.4	1,163.3	410.2	254.7	155.57	2.637		
14,100.0	6,912.4	7,360.8	6,904.0	139.4	32.2	-98.40	-7,084.2	1,163.3	409.3	253.1	156.19	2.620		
14,145.0	6,912.0	7,314.4	6,889.3	140.2	32.2	-96.40	-7,128.1	1,163.3	407.5	250.3	157.27	2.591 SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	171.84	-5,114.9	733.5	5,167.2					
98.4	98.4	129.5	129.5	0.1	0.1	171.83	-5,114.0	734.3	5,166.7	5,166.5	0.20	N/A		
100.0	100.0	131.3	131.3	0.1	0.1	171.83	-5,114.0	734.4	5,166.7	5,166.5	0.20	N/A		
196.8	196.8	222.6	222.6	0.3	0.3	171.82	-5,113.0	735.1	5,165.7	5,165.1	0.61	8,485.189		
200.0	200.0	224.7	224.7	0.3	0.3	171.82	-5,113.0	735.1	5,165.7	5,165.1	0.62	8,329.951		
295.3	295.3	285.0	285.0	0.5	0.4	171.81	-5,112.6	735.6	5,165.2	5,164.3	0.96	5,389.346		
300.0	300.0	285.0	285.0	0.5	0.4	171.81	-5,112.6	735.6	5,165.2	5,164.3	0.97	5,330.277		
304.3	304.3	285.0	285.0	0.6	0.4	171.81	-5,112.6	735.6	5,165.2	5,164.3	0.98	5,277.285		
393.7	393.7	341.6	341.6	0.8	0.5	171.81	-5,112.6	736.3	5,165.5	5,164.2	1.30	3,976.083		
400.0	400.0	345.1	345.1	0.8	0.6	171.80	-5,112.6	736.3	5,165.5	5,164.2	1.32	3,911.279		
492.1	492.1	390.0	390.0	1.0	0.6	171.80	-5,113.0	737.2	5,166.6	5,164.9	1.62	3,184.331		
500.0	500.0	390.0	390.0	1.0	0.6	171.80	-5,113.0	737.2	5,166.7	5,165.1	1.64	3,150.049		
590.5	590.5	454.2	454.1	1.2	0.8	171.78	-5,113.9	739.1	5,168.4	5,166.4	1.99	2,603.096		
600.0	600.0	459.7	459.6	1.2	0.8	171.77	-5,114.0	739.3	5,168.7	5,166.6	2.02	2,560.061		
689.0	689.0	517.0	516.9	1.4	0.9	171.75	-5,115.3	741.7	5,171.1	5,168.7	2.35	2,204.620		
700.0	700.0	517.0	516.9	1.4	0.9	171.75	-5,115.3	741.7	5,171.4	5,169.1	2.37	2,181.716		
787.4	787.4	563.3	563.1	1.6	1.0	171.73	-5,116.6	743.9	5,174.6	5,171.9	2.67	1,935.848		
800.0	800.0	569.8	569.6	1.7	1.1	171.72	-5,116.9	744.2	5,175.1	5,172.4	2.72	1,905.222		
885.8	885.8	614.2	613.9	1.9	1.2	171.70	-5,118.5	746.6	5,179.0	5,175.9	3.01	1,720.520		
900.0	900.0	653.0	652.6	1.9	1.3	171.68	-5,120.3	748.9	5,179.8	5,176.7	3.13	1,655.183		
984.2	984.2	672.6	672.1	2.1	1.3	171.67	-5,121.2	750.0	5,184.2	5,180.9	3.36	1,540.912		
1,000.0	1,000.0	685.8	685.2	2.1	1.3	171.66	-5,121.8	750.9	5,185.1	5,181.7	3.43	1,511.491		
1,082.7	1,082.7	728.0	727.3	2.3	1.4	101.46	-5,123.9	753.5	5,190.3	5,186.6	3.73	1,391.463		
1,100.0	1,100.0	758.1	757.3	2.3	1.5	101.42	-5,125.5	755.6	5,191.4	5,187.6	3.84	1,350.916		
1,181.1	1,181.0	807.3	806.3	2.5	1.7	101.29	-5,128.2	759.3	5,197.5	5,193.4	4.14	1,255.645		
1,200.0	1,199.8	818.8	817.7	2.6	1.7	101.26	-5,128.8	760.3	5,199.1	5,194.9	4.21	1,235.441		
1,279.5	1,279.1	856.0	854.7	2.7	1.8	101.12	-5,131.1	763.5	5,206.2	5,201.7	4.48	1,161.954		
1,300.0	1,299.5	880.3	878.9	2.8	1.9	101.09	-5,132.6	765.8	5,208.2	5,203.6	4.59	1,134.060		
1,377.9	1,376.9	929.4	927.6	3.0	2.0	100.94	-5,135.8	770.7	5,216.2	5,211.3	4.92	1,061.113		
1,400.0	1,398.7	943.2	941.3	3.0	2.0	100.90	-5,136.8	772.2	5,218.7	5,213.7	5.01	1,042.174		
1,476.4	1,474.2	985.0	982.7	3.2	2.2	100.74	-5,139.7	777.0	5,227.6	5,222.2	5.33	981.054		
1,500.0	1,497.5	985.0	982.7	3.3	2.2	100.69	-5,139.7	777.0	5,230.6	5,225.2	5.39	969.820		
1,574.8	1,571.0	1,027.0	1,024.3	3.5	2.3	100.52	-5,143.0	782.2	5,240.5	5,234.7	5.75	911.067		
1,600.1	1,595.7	1,036.8	1,034.0	3.6	2.4	100.46	-5,143.8	783.5	5,244.1	5,238.2	5.86	894.888		
1,673.2	1,667.2	1,065.1	1,061.9	3.9	2.5	100.48	-5,146.3	787.4	5,254.9	5,248.7	6.20	847.906		
1,700.0	1,693.4	1,113.0	1,109.0	4.0	2.6	100.52	-5,151.1	794.3	5,259.4	5,253.0	6.43	817.536		
1,771.6	1,763.5	1,113.0	1,109.0	4.2	2.6	100.52	-5,151.1	794.3	5,270.5	5,263.8	6.70	787.180		
1,800.0	1,791.3	1,113.0	1,109.0	4.3	2.6	100.52	-5,151.1	794.3	5,275.2	5,268.4	6.80	775.847		
1,870.1	1,859.8	1,113.0	1,109.0	4.6	2.6	100.52	-5,151.1	794.3	5,287.3	5,280.3	7.07	748.260		
1,900.0	1,889.1	1,159.0	1,154.2	4.7	2.8	100.56	-5,156.1	801.4	5,292.4	5,285.0	7.33	721.658		
1,968.5	1,956.1	1,189.7	1,184.3	5.0	2.9	100.58	-5,159.7	806.4	5,304.7	5,297.0	7.70	688.508		
2,000.0	1,986.9	1,203.8	1,198.1	5.1	3.0	100.59	-5,161.5	808.8	5,310.6	5,302.7	7.88	674.333		
2,066.9	2,052.3	1,242.0	1,235.4	5.4	3.1	100.61	-5,166.3	815.3	5,323.3	5,315.0	8.27	643.618		
2,100.0	2,084.7	1,242.0	1,235.4	5.5	3.1	100.61	-5,166.3	815.3	5,329.7	5,321.3	8.40	634.189		
2,165.3	2,148.6	1,302.9	1,294.7	5.8	3.4	100.64	-5,174.3	826.5	5,342.6	5,333.7	8.89	600.815		
2,200.0	2,182.5	1,329.3	1,320.4	5.9	3.5	100.65	-5,177.7	831.7	5,349.5	5,340.4	9.13	585.938		
2,263.8	2,244.9	1,370.0	1,359.8	6.2	3.7	100.66	-5,183.1	840.1	5,362.4	5,352.8	9.54	561.993		
2,300.0	2,280.3	1,370.0	1,359.8	6.3	3.7	100.66	-5,183.1	840.1	5,369.9	5,360.2	9.69	554.036		
2,362.2	2,341.2	1,417.1	1,405.4	6.6	4.0	100.66	-5,189.5	850.5	5,382.8	5,372.7	10.15	530.300		
2,400.0	2,378.1	1,433.5	1,421.1	6.8	4.1	100.66	-5,191.8	854.3	5,390.9	5,380.6	10.38	519.482		
2,460.6	2,437.4	1,459.6	1,446.1	7.0	4.2	100.65	-5,195.6	860.5	5,404.2	5,393.5	10.74	503.018		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,500.0	2,476.0	1,498.0	1,482.9	7.2	4.4	100.65	-5,201.4	870.0	5,413.2	5,402.1	11.07	488.952		
2,559.0	2,533.7	1,498.0	1,482.9	7.4	4.4	100.65	-5,201.4	870.0	5,426.6	5,415.3	11.32	479.233		
2,600.0	2,573.8	1,498.0	1,482.9	7.6	4.4	100.65	-5,201.4	870.0	5,436.3	5,424.8	11.50	472.774		
2,657.5	2,630.0	1,547.2	1,529.7	7.9	4.7	100.63	-5,209.2	882.8	5,449.9	5,437.9	11.99	454.704		
2,700.0	2,671.6	1,566.6	1,548.1	8.1	4.8	100.62	-5,212.4	888.1	5,460.2	5,448.0	12.26	445.247		
2,755.9	2,726.3	1,592.0	1,572.2	8.3	5.0	100.60	-5,216.7	895.2	5,474.1	5,461.5	12.63	433.451		
2,800.0	2,769.4	1,627.0	1,605.2	8.5	5.2	100.58	-5,222.7	905.2	5,485.3	5,472.3	12.99	422.286		
2,854.3	2,822.5	1,644.0	1,621.2	8.7	5.3	100.57	-5,225.7	910.2	5,499.1	5,485.8	13.32	412.984		
2,900.0	2,867.2	1,680.7	1,655.6	8.9	5.6	100.55	-5,232.1	920.9	5,510.9	5,497.2	13.71	402.045		
2,952.7	2,918.8	1,722.9	1,695.3	9.2	5.8	100.52	-5,239.6	933.3	5,524.6	5,510.5	14.16	390.163		
3,000.0	2,965.0	1,755.0	1,725.4	9.4	6.1	100.49	-5,245.3	942.8	5,537.0	5,522.5	14.53	380.953		
3,051.2	3,015.1	1,755.0	1,725.4	9.6	6.1	100.49	-5,245.3	942.8	5,550.7	5,535.9	14.76	376.091		
3,100.0	3,062.8	1,798.0	1,765.7	9.8	6.4	100.46	-5,253.2	955.7	5,563.7	5,548.5	15.21	365.718		
3,149.6	3,111.4	1,817.9	1,784.2	10.0	6.5	100.45	-5,257.0	961.7	5,577.4	5,561.8	15.54	358.865		
3,200.0	3,160.7	1,837.9	1,802.9	10.3	6.7	100.43	-5,260.9	967.9	5,591.4	5,575.6	15.88	352.216		
3,248.0	3,207.6	1,884.0	1,845.7	10.5	7.0	100.39	-5,270.2	982.4	5,605.3	5,588.9	16.34	342.977		
3,300.0	3,258.5	1,884.0	1,845.7	10.7	7.0	100.39	-5,270.2	982.4	5,620.1	5,603.6	16.57	339.132		
3,346.4	3,303.9	1,932.8	1,890.8	10.9	7.4	100.34	-5,280.2	998.0	5,633.7	5,616.6	17.05	330.404		
3,400.0	3,356.3	2,012.0	1,964.0	11.2	7.9	100.27	-5,295.9	1,023.8	5,649.0	5,631.3	17.73	318.614		
3,444.9	3,400.2	2,040.6	1,990.4	11.4	8.1	100.24	-5,301.6	1,033.3	5,661.9	5,643.8	18.10	312.850		
3,500.0	3,454.1	2,072.3	2,019.6	11.6	8.4	100.20	-5,307.9	1,043.8	5,677.8	5,659.3	18.53	306.439		
3,543.3	3,496.5	2,097.1	2,042.4	11.8	8.6	100.17	-5,312.9	1,052.2	5,690.5	5,671.6	18.87	301.620		
3,600.0	3,551.9	2,140.0	2,081.8	12.0	8.9	100.13	-5,321.7	1,066.8	5,707.3	5,687.9	19.37	294.638		
3,641.7	3,592.7	2,140.0	2,081.8	12.2	8.9	100.13	-5,321.7	1,066.8	5,719.8	5,700.2	19.56	292.483		
3,700.0	3,649.7	2,140.0	2,081.8	12.5	8.9	100.13	-5,321.7	1,066.8	5,737.7	5,717.9	19.81	289.563		
3,740.1	3,689.0	2,183.4	2,121.5	12.7	9.3	100.08	-5,331.0	1,081.6	5,749.9	5,729.6	20.26	283.795		
3,800.0	3,747.5	2,204.6	2,140.9	12.9	9.4	100.05	-5,335.7	1,088.9	5,768.7	5,748.0	20.66	279.252		
3,838.6	3,785.3	2,218.3	2,153.3	13.1	9.5	100.04	-5,338.8	1,093.5	5,781.0	5,760.1	20.91	276.424		
3,900.0	3,845.4	2,269.0	2,199.5	13.4	10.0	99.98	-5,350.9	1,110.8	5,801.0	5,779.5	21.50	269.834		
3,937.0	3,881.5	2,269.0	2,199.5	13.6	10.0	99.98	-5,350.9	1,110.8	5,813.1	5,791.4	21.66	268.332		
4,000.0	3,943.2	2,283.4	2,212.6	13.8	10.1	99.97	-5,354.4	1,115.7	5,834.0	5,811.9	22.04	264.728		
4,035.4	3,977.8	2,313.0	2,239.4	14.0	10.3	99.93	-5,361.6	1,126.0	5,845.8	5,823.5	22.39	261.130		
4,100.0	4,041.0	2,366.9	2,287.8	14.3	10.8	99.86	-5,374.5	1,145.7	5,867.5	5,844.5	23.02	254.882		
4,133.8	4,074.1	2,397.0	2,314.7	14.4	11.1	99.82	-5,381.7	1,157.1	5,879.0	5,855.6	23.36	251.615		
4,200.0	4,138.8	2,397.0	2,314.7	14.7	11.1	99.82	-5,381.7	1,157.1	5,901.6	5,877.9	23.66	249.424		
4,232.3	4,170.4	2,435.0	2,348.6	14.9	11.4	99.76	-5,390.8	1,171.9	5,912.6	5,888.5	24.08	245.564		
4,300.0	4,236.6	2,461.7	2,372.2	15.2	11.7	99.72	-5,397.4	1,182.3	5,936.2	5,911.6	24.57	241.590		
4,330.7	4,266.6	2,473.7	2,382.8	15.3	11.8	99.70	-5,400.4	1,187.1	5,947.0	5,922.2	24.79	239.849		
4,400.0	4,334.4	2,526.0	2,428.8	15.6	12.3	99.61	-5,413.8	1,208.0	5,971.9	5,946.4	25.48	234.395		
4,429.1	4,362.9	2,526.0	2,428.8	15.8	12.3	99.61	-5,413.8	1,208.0	5,982.4	5,956.7	25.61	233.607		
4,500.0	4,432.2	2,526.0	2,428.8	16.1	12.3	99.61	-5,413.8	1,208.0	6,008.3	5,982.4	25.93	231.743		
4,527.5	4,459.2	2,526.0	2,428.8	16.2	12.3	99.61	-5,413.8	1,208.0	6,018.5	5,992.5	26.05	231.037		
4,600.0	4,530.1	2,570.2	2,467.4	16.5	12.8	99.54	-5,425.6	1,225.9	6,045.6	6,018.9	26.71	226.326		
4,626.0	4,555.5	2,578.6	2,474.7	16.7	12.9	99.52	-5,427.9	1,229.4	6,055.5	6,028.6	26.89	225.171		
4,700.0	4,627.9	2,602.5	2,495.4	17.0	13.1	99.48	-5,434.6	1,239.3	6,083.9	6,056.5	27.41	221.985		
4,724.4	4,651.7	2,610.3	2,502.2	17.1	13.2	99.46	-5,436.8	1,242.5	6,093.4	6,065.8	27.58	220.967		
4,800.0	4,725.7	2,654.0	2,539.8	17.4	13.7	99.38	-5,449.3	1,261.0	6,123.2	6,095.0	28.25	216.772		
4,822.8	4,748.0	2,654.0	2,539.8	17.6	13.7	99.38	-5,449.3	1,261.0	6,132.3	6,103.9	28.35	216.306		
4,900.0	4,823.5	2,654.0	2,539.8	17.9	13.7	99.38	-5,449.3	1,261.0	6,163.3	6,134.6	28.70	214.771		
4,921.2	4,844.3	2,687.1	2,568.1	18.0	14.0	99.32	-5,459.0	1,275.2	6,171.9	6,142.8	29.06	212.377		
5,000.0	4,921.3	2,730.5	2,604.9	18.4	14.5	99.23	-5,471.8	1,294.3	6,204.0	6,174.2	29.77	208.426		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,014.9	4,935.9	2,738.7	2,611.8	18.4	14.6	99.22	99.22	-5,474.2	1,298.0	6,210.1	6,180.2	29.90	207.702	
5,019.7	4,940.6	2,741.3	2,614.0	18.4	14.6	99.25	99.25	-5,474.9	1,299.1	6,212.1	6,182.1	29.94	207.465	
5,100.0	5,019.4	2,786.7	2,652.1	18.7	15.2	99.86	99.86	-5,488.3	1,319.8	6,245.1	6,214.4	30.70	203.449	
5,118.1	5,037.2	2,802.3	2,665.2	18.8	15.3	99.98	99.98	-5,493.0	1,327.0	6,252.5	6,221.6	30.90	202.333	
5,200.0	5,118.1	2,872.4	2,723.6	19.0	16.2	100.51	100.51	-5,513.5	1,360.0	6,285.9	6,254.1	31.83	197.475	
5,216.5	5,134.4	2,886.4	2,735.2	19.1	16.3	100.61	100.61	-5,517.6	1,366.7	6,292.6	6,260.6	32.01	196.573	
5,300.0	5,217.2	2,976.5	2,809.5	19.3	17.4	101.03	101.03	-5,543.4	1,410.5	6,326.3	6,293.2	33.11	191.097	
5,314.9	5,232.1	2,994.5	2,824.3	19.3	17.6	101.10	101.10	-5,548.5	1,419.3	6,332.2	6,298.9	33.31	190.087	
5,400.0	5,316.8	3,039.0	2,861.0	19.5	18.1	101.66	101.66	-5,561.1	1,441.3	6,366.0	6,332.0	33.98	187.328	
5,413.4	5,330.1	3,068.0	2,884.8	19.5	18.5	101.66	101.66	-5,569.2	1,455.6	6,371.2	6,336.9	34.29	185.805	
5,500.0	5,416.6	3,108.3	2,917.8	19.7	19.0	102.23	102.23	-5,580.7	1,475.6	6,405.4	6,370.5	34.91	183.469	
5,511.8	5,428.4	3,113.7	2,922.3	19.7	19.1	102.31	102.31	-5,582.3	1,478.3	6,410.1	6,375.1	34.99	183.183	
5,600.0	5,516.6	4,269.3	3,928.9	19.8	30.3	98.86	98.86	-5,845.3	1,974.8	6,438.6	6,394.9	43.71	147.295	
5,610.2	5,526.8	4,274.4	3,933.4	19.8	30.3	98.90	98.90	-5,846.0	1,977.0	6,441.1	6,397.3	43.77	147.141	
5,615.0	5,531.6	4,276.7	3,935.5	19.8	30.4	168.99	168.99	-5,846.3	1,978.1	6,442.3	6,398.5	43.75	147.248	
5,700.0	5,616.6	4,323.0	3,976.1	19.9	30.8	168.81	168.81	-5,852.8	1,999.3	6,463.4	6,419.2	44.20	146.242	
5,708.6	5,625.3	4,323.0	3,976.1	20.0	30.8	168.81	168.81	-5,852.8	1,999.3	6,465.6	6,421.3	44.21	146.253	
5,800.0	5,716.6	4,323.0	3,976.1	20.1	30.8	168.81	168.81	-5,852.8	1,999.3	6,489.2	6,444.9	44.33	146.380	
5,807.1	5,723.7	4,323.0	3,976.1	20.1	30.8	168.81	168.81	-5,852.8	1,999.3	6,491.1	6,446.7	44.34	146.390	
5,900.0	5,816.6	4,385.9	4,030.6	20.2	31.5	168.56	168.56	-5,861.9	2,029.3	6,515.7	6,470.7	45.01	144.769	
5,905.5	5,822.1	4,387.7	4,032.1	20.2	31.5	168.55	168.55	-5,862.1	2,030.1	6,517.2	6,472.1	45.03	144.728	
6,000.0	5,916.6	4,452.0	4,087.5	20.4	32.2	168.29	168.29	-5,872.3	2,061.4	6,543.5	6,497.8	45.71	143.157	
6,003.9	5,920.5	4,452.0	4,087.5	20.4	32.2	168.29	168.29	-5,872.3	2,061.4	6,544.6	6,498.9	45.71	143.163	
6,100.0	6,016.6	4,452.0	4,087.5	20.5	32.2	168.29	168.29	-5,872.3	2,061.4	6,571.9	6,526.1	45.85	143.340	
6,102.3	6,019.0	4,452.0	4,087.5	20.5	32.2	168.29	168.29	-5,872.3	2,061.4	6,572.6	6,526.8	45.85	143.345	
6,200.0	6,116.6	4,658.6	4,265.1	20.6	34.4	167.46	167.46	-5,904.0	2,162.1	6,599.8	6,552.1	47.71	138.329	
6,200.8	6,117.4	4,659.4	4,265.7	20.6	34.4	167.45	167.45	-5,904.1	2,162.5	6,600.1	6,552.3	47.72	138.312	
6,299.2	6,215.8	4,708.0	4,307.4	20.8	34.9	167.26	167.26	-5,911.1	2,186.5	6,627.6	6,579.4	48.26	137.331	
6,300.0	6,216.6	4,708.0	4,307.4	20.8	34.9	167.26	167.26	-5,911.1	2,186.5	6,627.8	6,579.6	48.26	137.333	
6,340.0	6,256.6	4,747.1	4,341.0	20.8	35.3	167.10	167.10	-5,916.8	2,205.7	6,639.1	6,590.5	48.63	136.511	
6,350.0	6,266.6	4,751.5	4,344.7	20.8	35.4	-13.08	-13.08	-5,917.5	2,207.8	6,641.9	6,593.2	48.78	136.156	
6,397.6	6,314.2	4,772.3	4,362.6	20.9	35.6	-12.94	-12.94	-5,920.7	2,217.9	6,653.6	6,604.5	49.03	135.712	
6,400.0	6,316.5	4,773.3	4,363.5	20.9	35.6	-12.94	-12.94	-5,920.9	2,218.4	6,654.1	6,605.0	49.03	135.705	
6,450.0	6,366.2	4,795.4	4,382.6	20.9	35.8	-12.86	-12.86	-5,924.4	2,229.1	6,663.1	6,614.1	49.03	135.899	
6,496.0	6,411.4	4,837.0	4,418.5	21.0	36.3	-12.93	-12.93	-5,931.3	2,248.9	6,668.7	6,619.8	48.97	136.178	
6,500.0	6,415.3	4,837.0	4,418.5	21.0	36.3	-12.92	-12.92	-5,931.3	2,248.9	6,669.1	6,620.1	48.93	136.306	
6,550.0	6,463.6	5,089.5	4,636.0	21.0	38.9	-13.97	-13.97	-5,966.8	2,372.1	6,670.4	6,620.1	50.21	132.858	
6,594.5	6,505.8	5,124.9	4,666.5	21.0	39.3	-14.15	-14.15	-5,971.3	2,389.3	6,668.6	6,619.0	49.61	134.417	
6,600.0	6,510.9	5,129.0	4,670.1	21.0	39.3	-14.18	-14.18	-5,971.8	2,391.3	6,668.2	6,618.7	49.52	134.654	
6,650.0	6,557.0	5,165.8	4,702.0	21.0	39.7	-14.45	-14.45	-5,976.6	2,409.0	6,662.9	6,614.3	48.56	137.215	
6,692.9	6,595.4	5,197.1	4,729.2	21.0	40.0	-14.74	-14.74	-5,980.8	2,423.9	6,655.7	6,608.2	47.53	140.031	
6,700.0	6,601.6	5,202.2	4,733.6	21.0	40.0	-14.80	-14.80	-5,981.5	2,426.4	6,654.3	6,607.0	47.34	140.553	
6,750.0	6,644.6	5,222.0	4,750.9	20.9	40.2	-15.14	-15.14	-5,984.2	2,435.7	6,642.6	6,596.8	45.79	145.070	
6,791.3	6,678.6	5,252.6	4,777.5	20.9	40.5	-15.56	-15.56	-5,988.4	2,450.2	6,630.6	6,586.2	44.43	149.229	
6,800.0	6,685.6	5,256.7	4,781.1	20.9	40.6	-15.64	-15.64	-5,989.0	2,452.1	6,627.8	6,583.7	44.12	150.233	
6,850.0	6,724.6	5,279.7	4,801.1	20.9	40.8	-16.18	-16.18	-5,992.2	2,462.9	6,610.1	6,567.9	42.19	156.679	
6,889.7	6,753.9	5,297.3	4,816.5	20.9	41.0	-16.68	-16.68	-5,994.7	2,471.3	6,593.9	6,553.3	40.54	162.640	
6,900.0	6,761.3	5,301.8	4,820.3	20.9	41.0	-16.82	-16.82	-5,995.3	2,473.4	6,589.4	6,549.3	40.11	164.297	
6,950.0	6,795.5	5,322.9	4,838.7	20.9	41.3	-17.58	-17.58	-5,998.4	2,483.3	6,565.9	6,528.0	37.92	173.173	
6,988.2	6,819.9	5,350.0	4,862.2	20.9	41.5	-18.32	-18.32	-6,002.4	2,496.1	6,546.2	6,510.0	36.26	180.545	
7,000.0	6,827.1	5,350.0	4,862.2	20.9	41.5	-18.52	-18.52	-6,002.4	2,496.1	6,539.8	6,504.1	35.71	183.142	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,050.0	6,855.9	5,373.3	4,882.5	20.9	41.8	-19.60	-6,005.9	2,507.2	6,511.0	6,477.5	33.52	194.232		
7,086.6	6,875.1	5,399.0	4,904.8	20.9	42.0	-20.59	-6,009.7	2,519.3	6,488.3	6,456.2	32.06	202.375		
7,100.0	6,881.8	5,408.0	4,912.6	20.9	42.1	-20.98	-6,011.0	2,523.6	6,479.7	6,448.1	31.54	205.474		
7,150.0	6,904.6	5,439.8	4,940.2	21.0	42.5	-22.61	-6,015.7	2,538.6	6,445.9	6,416.1	29.84	216.001		
7,185.0	6,918.8	5,460.2	4,957.9	21.1	42.7	-23.92	-6,018.6	2,548.3	6,421.0	6,392.1	28.94	221.852		
7,200.0	6,924.3	5,468.4	4,965.1	21.1	42.8	-24.53	-6,019.8	2,552.2	6,410.0	6,381.4	28.65	223.764		
7,250.0	6,940.8	5,479.0	4,974.3	21.2	42.9	-26.66	-6,021.4	2,557.2	6,372.0	6,343.9	28.09	226.866		
7,283.4	6,949.9	5,479.0	4,974.3	21.3	42.9	-28.25	-6,021.4	2,557.2	6,345.6	6,317.4	28.17	225.253		
7,300.0	6,953.9	5,479.0	4,974.3	21.4	42.9	-29.12	-6,021.4	2,557.2	6,332.2	6,303.9	28.37	223.206		
7,350.0	6,963.6	5,479.0	4,974.3	21.6	42.9	-32.14	-6,021.4	2,557.2	6,290.8	6,261.1	29.66	212.129		
7,381.9	6,968.0	5,479.0	4,974.3	21.7	42.9	-34.43	-6,021.4	2,557.2	6,263.6	6,232.6	31.00	202.057		
7,400.0	6,969.9	5,479.0	4,974.3	21.8	42.9	-35.88	-6,021.4	2,557.2	6,247.9	6,216.0	31.93	195.691		
7,450.0	6,972.6	5,479.0	4,974.3	22.1	42.9	-40.55	-6,021.4	2,557.2	6,203.7	6,168.7	35.04	177.059		
7,471.5	6,972.8	5,479.0	4,974.3	22.2	42.9	-42.92	-6,021.4	2,557.2	6,184.4	6,147.8	36.57	169.118		
7,480.3	6,972.7	5,479.0	4,974.3	22.3	42.9	-42.92	-6,021.4	2,557.2	6,176.4	6,139.8	36.64	168.577		
7,500.0	6,972.5	5,479.0	4,974.3	22.4	42.9	-42.92	-6,021.4	2,557.2	6,158.6	6,121.8	36.79	167.377		
7,578.7	6,971.8	5,479.0	4,974.3	23.1	42.9	-42.92	-6,021.4	2,557.2	6,087.5	6,050.1	37.44	162.602		
7,600.0	6,971.6	5,479.0	4,974.3	23.3	42.9	-42.92	-6,021.4	2,557.2	6,068.4	6,030.7	37.61	161.340		
7,677.1	6,970.9	5,479.0	4,974.3	24.0	42.9	-42.92	-6,021.4	2,557.2	5,999.0	5,960.7	38.28	156.705		
7,700.0	6,970.7	5,479.0	4,974.3	24.2	42.9	-42.92	-6,021.4	2,557.2	5,978.4	5,940.0	38.48	155.364		
7,775.6	6,970.0	5,520.5	5,010.2	25.0	43.3	-43.77	-6,027.6	2,577.0	5,910.3	5,870.6	39.71	148.850		
7,800.0	6,969.8	5,521.8	5,011.3	25.3	43.3	-43.80	-6,027.8	2,577.6	5,888.4	5,848.5	39.95	147.378		
7,874.0	6,969.1	5,525.8	5,014.8	26.2	43.4	-43.88	-6,028.4	2,579.5	5,822.3	5,781.5	40.75	142.870		
7,900.0	6,968.9	5,527.2	5,016.0	26.5	43.4	-43.91	-6,028.6	2,580.2	5,799.1	5,758.0	41.03	141.326		
7,972.4	6,968.2	5,531.1	5,019.4	27.4	43.4	-43.99	-6,029.2	2,582.1	5,734.5	5,692.7	41.85	137.011		
8,000.0	6,968.0	5,532.6	5,020.7	27.8	43.5	-44.02	-6,029.4	2,582.9	5,710.0	5,667.9	42.17	135.410		
8,070.8	6,967.3	5,536.6	5,024.1	28.7	43.5	-44.10	-6,030.1	2,584.8	5,647.2	5,604.2	43.01	131.307		
8,100.0	6,967.1	5,538.2	5,025.5	29.1	43.5	-44.14	-6,030.3	2,585.6	5,621.4	5,578.0	43.35	129.663		
8,169.3	6,966.4	5,542.1	5,028.8	30.1	43.6	-44.22	-6,030.9	2,587.4	5,560.1	5,515.9	44.20	125.785		
8,200.0	6,966.2	5,543.9	5,030.3	30.5	43.6	-44.26	-6,031.2	2,588.3	5,533.1	5,488.5	44.58	124.110		
8,267.7	6,965.5	5,547.7	5,033.7	31.5	43.6	-44.34	-6,031.8	2,590.2	5,473.5	5,428.1	45.44	120.459		
8,300.0	6,965.2	5,549.6	5,035.3	32.0	43.6	-44.37	-6,032.1	2,591.1	5,445.1	5,399.3	45.85	118.763		
8,366.1	6,964.6	5,553.4	5,038.6	33.0	43.7	-44.46	-6,032.7	2,593.0	5,387.2	5,340.5	46.71	115.339		
8,400.0	6,964.3	5,555.4	5,040.3	33.5	43.7	-44.50	-6,033.1	2,593.9	5,357.6	5,310.5	47.15	113.631		
8,464.5	6,963.8	5,559.2	5,043.5	34.5	43.8	-44.58	-6,033.7	2,595.8	5,301.4	5,253.4	48.01	110.427		
8,500.0	6,963.4	5,561.4	5,045.4	35.1	43.8	-44.62	-6,034.0	2,596.8	5,270.6	5,222.1	48.48	108.715		
8,563.0	6,962.9	6,017.3	5,446.2	36.1	48.2	-54.48	-6,096.4	2,804.2	5,216.0	5,160.4	55.58	93.853		
8,600.0	6,962.5	6,019.9	5,448.5	36.7	48.3	-54.54	-6,096.7	2,805.3	5,183.6	5,127.5	56.14	92.340		
8,661.4	6,962.0	6,024.2	5,452.4	37.7	48.3	-54.64	-6,097.2	2,807.1	5,129.9	5,072.9	57.08	89.876		
8,700.0	6,961.6	6,026.9	5,454.8	38.3	48.3	-54.70	-6,097.5	2,808.3	5,096.3	5,038.6	57.67	88.367		
8,759.8	6,961.1	6,031.1	5,458.6	39.3	48.4	-54.79	-6,097.9	2,810.0	5,044.3	4,985.7	58.60	86.075		
8,800.0	6,960.7	6,033.9	5,461.1	40.0	48.4	-54.85	-6,098.2	2,811.2	5,009.5	4,950.3	59.23	84.575		
8,858.2	6,960.2	6,038.0	5,464.8	40.9	48.4	-54.94	-6,098.7	2,813.0	4,959.1	4,899.0	60.15	82.444		
8,900.0	6,959.8	6,041.0	5,467.4	41.6	48.5	-55.01	-6,099.0	2,814.2	4,923.1	4,862.3	60.81	80.956		
8,956.7	6,959.3	6,044.9	5,471.0	42.6	48.5	-55.10	-6,099.4	2,815.9	4,874.4	4,812.7	61.72	78.979		
9,000.0	6,958.9	6,048.0	5,473.8	43.3	48.5	-55.17	-6,099.8	2,817.2	4,837.3	4,774.9	62.41	77.505		
9,055.1	6,958.4	6,051.9	5,477.3	44.3	48.5	-55.26	-6,100.2	2,818.8	4,790.3	4,726.9	63.30	75.671		
9,100.0	6,958.0	6,055.1	5,480.1	45.1	48.6	-55.33	-6,100.5	2,820.2	4,752.0	4,688.0	64.03	74.215		
9,153.5	6,957.5	6,058.8	5,483.5	46.0	48.6	-55.41	-6,101.0	2,821.8	4,706.6	4,641.7	64.91	72.515		
9,200.0	6,957.1	6,062.1	5,486.5	46.8	48.6	-55.49	-6,101.3	2,823.2	4,667.3	4,601.6	65.67	71.077		
9,251.9	6,956.6	6,065.8	5,489.8	47.7	48.7	-55.57	-6,101.7	2,824.8	4,623.5	4,557.0	66.52	69.504		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,300.0	6,956.2	6,069.2	5,492.9	48.6	48.7	-55.65	-6,102.1	2,826.2	4,583.2	4,515.9	67.32	68.085		
9,350.4	6,955.7	6,072.8	5,496.1	49.5	48.7	-55.73	-6,102.5	2,827.8	4,541.0	4,472.9	68.15	66.630		
9,400.0	6,955.2	6,076.4	5,499.2	50.3	48.8	-55.81	-6,102.9	2,829.3	4,499.7	4,430.7	68.98	65.233		
9,448.8	6,954.8	6,079.8	5,502.4	51.2	48.8	-55.88	-6,103.3	2,830.8	4,459.2	4,389.4	69.80	63.888		
9,500.0	6,954.3	6,083.5	5,505.6	52.1	48.8	-55.97	-6,103.7	2,832.4	4,416.9	4,346.2	70.66	62.512		
9,547.2	6,953.9	6,086.9	5,508.7	53.0	48.9	-56.04	-6,104.0	2,833.8	4,378.0	4,306.6	71.45	61.271		
9,600.0	6,953.4	6,090.7	5,512.1	53.9	48.9	-56.13	-6,104.4	2,835.4	4,334.8	4,262.4	72.35	59.918		
9,645.6	6,953.0	6,093.9	5,515.0	54.7	48.9	-56.20	-6,104.8	2,836.8	4,297.5	4,224.4	73.12	58.773		
9,700.0	6,952.5	6,097.8	5,518.5	55.7	49.0	-56.29	-6,105.2	2,838.5	4,253.4	4,179.4	74.05	57.442		
9,744.1	6,952.1	6,101.0	5,521.3	56.5	49.0	-56.36	-6,105.6	2,839.9	4,217.8	4,143.0	74.80	56.387		
9,800.0	6,951.6	6,121.0	5,539.2	57.5	49.2	-56.82	-6,107.8	2,848.5	4,172.9	4,096.9	76.02	54.894		
9,842.5	6,951.2	6,121.0	5,539.2	58.3	49.2	-56.82	-6,107.8	2,848.5	4,138.9	4,062.2	76.70	53.961		
9,900.0	6,950.7	6,121.0	5,539.2	59.4	49.2	-56.82	-6,107.8	2,848.5	4,093.1	4,015.5	77.63	52.729		
9,940.9	6,950.3	6,121.0	5,539.2	60.1	49.2	-56.82	-6,107.8	2,848.5	4,060.8	3,982.5	78.29	51.871		
10,000.0	6,949.8	6,121.0	5,539.2	61.2	49.2	-56.82	-6,107.8	2,848.5	4,014.3	3,935.1	79.24	50.660		
10,039.3	6,949.4	6,121.0	5,539.2	61.9	49.2	-56.82	-6,107.8	2,848.5	3,983.5	3,903.6	79.88	49.871		
10,100.0	6,948.9	6,121.0	5,539.2	63.0	49.2	-56.82	-6,107.8	2,848.5	3,936.4	3,855.5	80.86	48.683		
10,137.8	6,948.5	6,121.0	5,539.2	63.7	49.2	-56.82	-6,107.8	2,848.5	3,907.2	3,825.8	81.47	47.959		
10,200.0	6,948.0	6,135.9	5,552.6	64.9	49.3	-57.15	-6,109.4	2,855.0	3,859.5	3,776.8	82.74	46.644		
10,236.2	6,947.6	6,139.0	5,555.3	65.6	49.3	-57.22	-6,109.8	2,856.3	3,831.9	3,748.5	83.39	45.953		
10,300.0	6,947.1	6,144.3	5,560.0	66.7	49.4	-57.35	-6,110.4	2,858.7	3,783.7	3,699.1	84.52	44.764		
10,334.6	6,946.7	6,147.2	5,562.6	67.4	49.4	-57.41	-6,110.7	2,859.9	3,757.7	3,672.5	85.14	44.133		
10,400.0	6,946.2	6,152.7	5,567.5	68.6	49.5	-57.54	-6,111.3	2,862.3	3,708.9	3,622.6	86.31	42.970		
10,433.0	6,945.8	6,155.5	5,570.0	69.2	49.5	-57.60	-6,111.6	2,863.5	3,684.5	3,597.6	86.91	42.396		
10,500.0	6,945.2	6,161.1	5,575.1	70.5	49.6	-57.73	-6,112.2	2,866.0	3,635.4	3,547.3	88.11	41.259		
10,531.5	6,945.0	6,163.8	5,577.4	71.1	49.6	-57.79	-6,112.5	2,867.2	3,612.5	3,523.8	88.68	40.736		
10,600.0	6,944.3	6,169.5	5,582.6	72.3	49.6	-57.92	-6,113.2	2,869.7	3,563.2	3,473.2	89.92	39.626		
10,629.9	6,944.1	6,172.1	5,584.8	72.9	49.7	-57.98	-6,113.5	2,870.8	3,541.8	3,451.3	90.46	39.152		
10,700.0	6,943.4	6,178.0	5,590.1	74.2	49.7	-58.11	-6,114.1	2,873.4	3,492.2	3,400.5	91.74	38.068		
10,728.3	6,943.2	6,180.4	5,592.3	74.7	49.7	-58.17	-6,114.4	2,874.4	3,472.4	3,380.2	92.25	37.641		
10,800.0	6,942.5	6,186.5	5,597.7	76.1	49.8	-58.31	-6,115.1	2,877.1	3,422.7	3,329.2	93.56	36.584		
10,826.7	6,942.3	6,188.7	5,599.7	76.6	49.8	-58.36	-6,115.3	2,878.1	3,404.4	3,310.4	94.05	36.198		
10,900.0	6,941.6	6,195.0	5,605.3	78.0	49.9	-58.50	-6,116.0	2,880.8	3,354.8	3,259.4	95.39	35.169		
10,925.2	6,941.4	6,197.1	5,607.2	78.4	49.9	-58.55	-6,116.2	2,881.7	3,337.9	3,242.1	95.85	34.823		
11,000.0	6,940.7	6,203.5	5,612.9	79.9	50.0	-58.69	-6,117.0	2,884.5	3,288.4	3,191.2	97.23	33.821		
11,023.6	6,940.5	6,205.5	5,614.7	80.3	50.0	-58.74	-6,117.2	2,885.4	3,273.0	3,175.3	97.67	33.512		
11,100.0	6,939.8	6,212.0	5,620.5	81.7	50.0	-58.89	-6,117.9	2,888.3	3,223.8	3,124.7	99.08	32.538		
11,122.0	6,939.6	6,213.9	5,622.2	82.2	50.1	-58.93	-6,118.1	2,889.1	3,209.8	3,110.3	99.48	32.264		
11,200.0	6,938.9	6,220.6	5,628.1	83.6	50.1	-59.09	-6,118.9	2,892.0	3,160.9	3,060.0	100.93	31.318		
11,220.4	6,938.7	6,222.3	5,629.7	84.0	50.1	-59.13	-6,119.1	2,892.8	3,148.3	3,047.0	101.31	31.076		
11,300.0	6,938.0	6,229.2	5,635.8	85.5	50.2	-59.28	-6,119.8	2,895.8	3,100.0	2,997.2	102.79	30.158		
11,318.9	6,937.8	6,230.8	5,637.2	85.9	50.2	-59.32	-6,120.0	2,896.5	3,088.7	2,985.6	103.14	29.946		
11,400.0	6,937.0	6,237.8	5,643.4	87.4	50.3	-59.48	-6,120.8	2,899.6	3,041.1	2,936.5	104.66	29.057		
11,417.3	6,936.9	6,249.0	5,653.4	87.8	50.4	-59.74	-6,122.1	2,904.6	3,031.2	2,926.0	105.19	28.818		
11,500.0	6,936.1	6,249.0	5,653.4	89.3	50.4	-59.74	-6,122.1	2,904.6	2,984.4	2,877.8	106.59	27.999		
11,515.7	6,936.0	6,249.0	5,653.4	89.6	50.4	-59.74	-6,122.1	2,904.6	2,975.7	2,868.8	106.86	27.847		
11,600.0	6,935.2	6,260.7	5,663.8	91.2	50.5	-60.00	-6,123.4	2,909.7	2,930.0	2,821.4	108.53	26.996		
11,614.1	6,935.1	6,263.0	5,665.8	91.5	50.5	-60.06	-6,123.6	2,910.7	2,922.5	2,813.6	108.82	26.855		
11,700.0	6,934.3	6,276.4	5,677.9	93.1	50.7	-60.37	-6,125.1	2,916.7	2,877.9	2,767.4	110.57	26.028		
11,712.6	6,934.2	6,278.4	5,679.6	93.4	50.7	-60.41	-6,125.3	2,917.5	2,871.6	2,760.7	110.83	25.910		
11,800.0	6,933.4	6,291.3	5,691.1	95.1	50.8	-60.71	-6,126.6	2,923.2	2,828.4	2,715.8	112.60	25.120		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C17-33D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 106-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	6,292.9	5,692.5	95.3	50.8	-60.74	-6,126.8	2,923.9	2,823.1	2,710.3	112.82	25.024		
11,900.0	6,932.5	6,305.2	5,703.5	97.0	50.9	-61.03	-6,128.1	2,929.4	2,781.5	2,666.9	114.61	24.269		
11,909.4	6,932.4	6,306.5	5,704.7	97.1	50.9	-61.06	-6,128.2	2,929.9	2,777.3	2,662.5	114.80	24.192		
12,000.0	6,931.6	6,318.4	5,715.3	98.9	51.0	-61.33	-6,129.4	2,935.2	2,737.5	2,620.9	116.62	23.474		
12,007.8	6,931.5	6,319.4	5,716.2	99.0	51.1	-61.35	-6,129.5	2,935.6	2,734.2	2,617.4	116.77	23.414		
12,100.0	6,930.7	6,330.9	5,726.4	100.8	51.2	-61.62	-6,130.6	2,940.6	2,696.4	2,577.8	118.61	22.732		
12,106.3	6,930.6	6,331.6	5,727.1	100.9	51.2	-61.63	-6,130.7	2,941.0	2,693.9	2,575.2	118.74	22.688		
12,200.0	6,929.8	6,342.6	5,736.9	102.7	51.3	-61.89	-6,131.7	2,945.8	2,658.4	2,537.8	120.60	22.042		
12,204.7	6,929.7	6,343.2	5,737.4	102.8	51.3	-61.90	-6,131.8	2,946.1	2,656.7	2,536.0	120.70	22.011		
12,300.0	6,928.8	6,353.8	5,746.9	104.6	51.4	-62.15	-6,132.8	2,950.7	2,623.6	2,501.0	122.59	21.402		
12,303.1	6,928.8	6,354.1	5,747.2	104.7	51.4	-62.15	-6,132.8	2,950.9	2,622.6	2,499.9	122.65	21.383		
12,400.0	6,927.9	6,364.4	5,756.3	106.5	51.5	-62.39	-6,133.7	2,955.4	2,592.2	2,467.6	124.56	20.810		
12,401.5	6,927.9	6,364.5	5,756.5	106.6	51.5	-62.39	-6,133.7	2,955.4	2,591.7	2,467.1	124.59	20.802		
12,500.0	6,927.0	6,374.4	5,765.3	108.5	51.6	-62.62	-6,134.6	2,959.8	2,564.2	2,437.7	126.53	20.266		
12,598.4	6,926.1	6,410.3	5,797.5	110.4	51.9	-63.45	-6,137.8	2,975.4	2,540.2	2,411.2	129.04	19.686		
12,600.0	6,926.1	6,411.2	5,798.3	110.4	51.9	-63.47	-6,137.9	2,975.8	2,539.9	2,410.8	129.08	19.676		
12,696.8	6,925.2	6,466.4	5,848.1	112.3	52.4	-64.74	-6,142.9	2,998.9	2,519.7	2,387.7	131.97	19.093		
12,700.0	6,925.2	6,468.3	5,849.9	112.3	52.4	-64.79	-6,143.1	2,999.7	2,519.1	2,387.0	132.06	19.075		
12,795.2	6,924.3	6,510.9	5,888.6	114.1	52.7	-65.77	-6,147.1	3,016.8	2,502.6	2,368.0	134.64	18.588		
12,800.0	6,924.3	6,511.5	5,889.2	114.2	52.7	-65.79	-6,147.2	3,017.1	2,501.9	2,367.2	134.74	18.569		
12,893.7	6,923.4	6,524.9	5,901.5	116.0	52.8	-66.10	-6,148.5	3,022.4	2,489.3	2,352.6	136.69	18.211		
12,900.0	6,923.4	6,525.9	5,902.3	116.2	52.8	-66.12	-6,148.6	3,022.7	2,488.6	2,351.8	136.82	18.188		
12,992.1	6,922.5	6,539.3	5,914.6	117.9	53.0	-66.43	-6,149.9	3,028.0	2,479.8	2,341.0	138.75	17.872		
13,000.0	6,922.5	6,540.4	5,915.6	118.1	53.0	-66.45	-6,150.0	3,028.5	2,479.2	2,340.2	138.92	17.846		
13,090.5	6,921.6	6,553.8	5,927.9	119.8	53.1	-66.76	-6,151.3	3,033.7	2,474.0	2,333.2	140.82	17.569		
13,100.0	6,921.5	6,555.2	5,929.2	120.0	53.1	-66.79	-6,151.4	3,034.2	2,473.7	2,332.7	141.02	17.541		
13,187.1	6,920.7	6,568.3	5,941.2	121.7	53.2	-67.10	-6,152.7	3,039.3	2,472.2	2,329.3	142.86	17.305 CC		
13,188.9	6,920.7	6,568.6	5,941.5	121.7	53.2	-67.10	-6,152.8	3,039.4	2,472.2	2,329.3	142.90	17.300		
13,200.0	6,920.6	6,570.3	5,943.0	121.9	53.2	-67.14	-6,152.9	3,040.1	2,472.2	2,329.1	143.13	17.272 ES		
13,287.4	6,919.8	6,583.7	5,955.3	123.6	53.3	-67.45	-6,154.3	3,045.3	2,474.2	2,329.2	144.99	17.065		
13,300.0	6,919.7	6,585.6	5,957.1	123.9	53.3	-67.50	-6,154.4	3,046.0	2,474.7	2,329.5	145.26	17.037		
13,385.8	6,918.9	6,599.0	5,969.3	125.5	53.4	-67.80	-6,155.8	3,051.1	2,480.0	2,333.0	147.09	16.861		
13,400.0	6,918.8	6,601.2	5,971.4	125.8	53.4	-67.86	-6,156.0	3,052.0	2,481.2	2,333.8	147.39	16.834		
13,484.2	6,918.0	6,614.5	5,983.6	127.4	53.5	-68.16	-6,157.4	3,057.1	2,489.7	2,340.5	149.19	16.688		
13,500.0	6,917.9	6,617.1	5,985.9	127.7	53.6	-68.22	-6,157.6	3,058.0	2,491.6	2,342.1	149.53	16.663		
13,582.6	6,917.1	6,630.4	5,998.2	129.3	53.7	-68.53	-6,159.0	3,063.1	2,503.2	2,351.9	151.31	16.544		
13,600.0	6,917.0	6,633.2	6,000.8	129.7	53.7	-68.59	-6,159.3	3,064.1	2,505.9	2,354.3	151.68	16.521		
13,681.1	6,916.2	6,641.1	6,008.1	131.2	53.8	-68.78	-6,160.1	3,067.1	2,520.4	2,367.0	153.32	16.438		
13,700.0	6,916.1	6,642.9	6,009.7	131.6	53.8	-68.82	-6,160.3	3,067.8	2,524.1	2,370.4	153.71	16.422		
13,779.5	6,915.3	6,650.4	6,016.7	133.1	53.8	-68.99	-6,161.0	3,070.6	2,541.2	2,385.9	155.32	16.362		
13,800.0	6,915.2	6,652.4	6,018.4	133.5	53.8	-69.04	-6,161.2	3,071.4	2,546.0	2,390.3	155.73	16.349		
13,877.9	6,914.4	6,659.9	6,025.3	135.1	53.9	-69.21	-6,162.0	3,074.2	2,565.6	2,408.3	157.31	16.309		
13,900.0	6,914.2	6,662.0	6,027.3	135.5	53.9	-69.26	-6,162.2	3,075.0	2,571.6	2,413.8	157.76	16.301		
13,976.3	6,913.5	6,669.4	6,034.1	137.0	54.0	-69.43	-6,163.0	3,077.8	2,593.5	2,434.2	159.31	16.279		
14,000.0	6,913.3	6,671.8	6,036.3	137.4	54.0	-69.48	-6,163.3	3,078.7	2,600.8	2,441.0	159.80	16.275		
14,074.8	6,912.6	6,679.1	6,043.1	138.9	54.1	-69.65	-6,164.0	3,081.5	2,624.8	2,463.5	161.32	16.270 SF		
14,100.0	6,912.4	6,681.7	6,045.4	139.4	54.1	-69.71	-6,164.3	3,082.4	2,633.3	2,471.5	161.84	16.271		
14,145.0	6,912.0	6,686.2	6,049.5	140.2	54.1	-69.82	-6,164.8	3,084.1	2,649.1	2,486.4	162.72	16.280		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 128-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	171.59	-5,114.9	755.8	5,170.4					
98.4	98.4	122.6	122.6	0.1	0.1	171.59	-5,114.3	755.8	5,170.1	5,169.9	0.16	N/A		
100.0	100.0	125.0	125.0	0.1	0.1	171.59	-5,114.3	755.8	5,170.1	5,169.9	0.17	N/A		
196.8	196.8	728.0	725.6	0.3	1.6	171.27	-5,075.5	779.8	5,164.1	5,162.1	1.91	2,701.340		
200.0	200.0	728.0	725.6	0.3	1.6	171.27	-5,075.5	779.8	5,163.7	5,161.8	1.92	2,691.199		
295.3	295.3	787.6	784.5	0.5	1.8	171.19	-5,068.4	785.9	5,153.9	5,151.6	2.32	2,221.483		
300.0	300.0	790.0	786.9	0.5	1.8	171.18	-5,068.1	786.2	5,153.5	5,151.1	2.34	2,203.782		
393.7	393.7	856.0	852.0	0.8	2.0	171.08	-5,060.8	794.2	5,144.7	5,142.0	2.76	1,866.018		
400.0	400.0	856.0	852.0	0.8	2.0	171.08	-5,060.8	794.2	5,144.2	5,141.4	2.77	1,856.274		
492.1	492.1	900.7	896.0	1.0	2.2	171.00	-5,056.0	800.6	5,136.3	5,133.2	3.12	1,644.131		
500.0	500.0	906.0	901.2	1.0	2.2	170.99	-5,055.4	801.4	5,135.7	5,132.5	3.16	1,625.709		
590.5	590.5	985.0	978.6	1.2	2.5	170.83	-5,047.2	814.8	5,128.6	5,125.0	3.62	1,416.579		
600.0	600.0	985.0	978.6	1.2	2.5	170.83	-5,047.2	814.8	5,127.8	5,124.2	3.64	1,408.114		
689.0	689.0	1,030.5	1,023.0	1.4	2.7	170.72	-5,042.5	823.6	5,121.4	5,117.4	4.00	1,281.176		
700.0	700.0	1,037.5	1,029.8	1.4	2.8	170.71	-5,041.8	825.0	5,120.7	5,116.6	4.05	1,265.511		
787.4	787.4	1,113.0	1,103.2	1.6	3.1	170.51	-5,034.4	841.2	5,115.1	5,110.6	4.50	1,136.390		
800.0	800.0	1,113.0	1,103.2	1.7	3.1	170.51	-5,034.4	841.2	5,114.3	5,109.8	4.53	1,129.107		
885.8	885.8	1,159.6	1,148.4	1.9	3.3	170.39	-5,030.0	851.8	5,109.3	5,104.4	4.88	1,046.821		
900.0	900.0	1,169.5	1,157.9	1.9	3.4	170.36	-5,029.1	854.1	5,108.6	5,103.6	4.95	1,032.847		
984.2	984.2	1,242.0	1,228.0	2.1	3.7	170.16	-5,022.5	871.4	5,104.3	5,098.9	5.38	948.528		
1,000.0	1,000.0	1,242.0	1,228.0	2.1	3.7	170.16	-5,022.5	871.4	5,103.5	5,098.1	5.42	942.184		
1,082.7	1,082.7	1,419.0	1,398.7	2.3	4.6	99.68	-5,004.7	914.4	5,098.6	5,091.9	6.70	761.375		
1,100.0	1,100.0	1,436.7	1,415.8	2.3	4.7	99.66	-5,002.7	918.8	5,097.6	5,090.8	6.82	746.964		
1,181.1	1,181.0	1,577.8	1,551.6	2.5	5.4	99.42	-4,986.8	953.4	5,092.8	5,085.1	7.72	659.710		
1,200.0	1,199.8	1,627.0	1,599.0	2.6	5.7	99.33	-4,980.7	965.3	5,091.5	5,083.5	8.01	635.383		
1,279.5	1,279.1	1,669.0	1,639.5	2.7	5.9	99.35	-4,975.5	975.3	5,086.3	5,078.0	8.39	606.499		
1,300.0	1,299.5	1,679.2	1,649.3	2.8	5.9	99.36	-4,974.3	977.7	5,085.2	5,076.7	8.48	599.714		
1,377.9	1,376.9	1,718.0	1,686.8	3.0	6.1	99.37	-4,969.9	986.7	5,081.3	5,072.5	8.85	574.220		
1,400.0	1,398.7	1,755.0	1,722.6	3.0	6.3	99.35	-4,966.1	995.0	5,080.5	5,071.4	9.07	559.858		
1,476.4	1,474.2	1,781.5	1,748.3	3.2	6.4	99.38	-4,963.4	1,001.0	5,077.8	5,068.3	9.41	539.633		
1,500.0	1,497.5	1,807.1	1,773.1	3.3	6.5	99.37	-4,960.9	1,006.8	5,077.0	5,067.4	9.60	529.050		
1,574.8	1,571.0	1,889.7	1,853.0	3.5	6.9	99.35	-4,952.4	1,025.8	5,074.9	5,064.7	10.22	496.362		
1,600.1	1,595.7	1,926.8	1,889.0	3.6	7.1	99.35	-4,948.5	1,034.3	5,074.2	5,063.7	10.49	483.882		
1,673.2	1,667.2	2,012.0	1,971.4	3.9	7.5	99.31	-4,939.3	1,053.8	5,071.9	5,060.8	11.16	454.494		
1,700.0	1,693.4	2,038.9	1,997.4	4.0	7.7	99.30	-4,936.4	1,059.9	5,071.1	5,059.7	11.38	445.713		
1,771.6	1,763.5	2,084.5	2,041.6	4.2	7.9	99.28	-4,931.6	1,070.2	5,069.1	5,057.2	11.85	427.678		
1,800.0	1,791.3	2,102.6	2,059.1	4.3	8.0	99.27	-4,929.8	1,074.3	5,068.4	5,056.4	12.04	420.938		
1,870.1	1,859.8	2,290.0	2,240.6	4.6	8.9	99.19	-4,909.4	1,116.2	5,066.5	5,053.3	13.19	384.091		
1,900.0	1,889.1	2,318.8	2,268.5	4.7	9.0	99.18	-4,905.9	1,122.5	5,065.1	5,051.7	13.44	376.915		
1,968.5	1,956.1	2,384.8	2,332.5	5.0	9.3	99.16	-4,897.9	1,136.5	5,061.9	5,047.9	14.01	361.252		
2,000.0	1,986.9	2,397.0	2,344.4	5.1	9.4	99.16	-4,896.5	1,139.0	5,060.5	5,046.3	14.19	356.560		
2,066.9	2,052.3	2,459.5	2,405.1	5.4	9.7	99.15	-4,889.2	1,151.9	5,057.6	5,042.9	14.74	343.211		
2,100.0	2,084.7	2,483.6	2,428.5	5.5	9.8	99.14	-4,886.4	1,156.9	5,056.3	5,041.3	14.98	337.642		
2,165.3	2,148.6	2,526.0	2,469.7	5.8	10.0	99.13	-4,881.7	1,165.7	5,053.9	5,038.4	15.43	327.546		
2,200.0	2,182.5	2,526.0	2,469.7	5.9	10.0	99.13	-4,881.7	1,165.7	5,052.8	5,037.2	15.57	324.481		
2,263.8	2,244.9	2,588.1	2,530.1	6.2	10.3	99.12	-4,875.2	1,178.4	5,050.7	5,034.6	16.11	313.484		
2,300.0	2,280.3	2,609.4	2,550.9	6.3	10.3	99.12	-4,873.1	1,182.8	5,049.8	5,033.4	16.36	308.730		
2,362.2	2,341.2	2,654.0	2,594.3	6.6	10.5	99.11	-4,868.9	1,192.0	5,048.4	5,031.6	16.82	300.223		
2,400.0	2,378.1	2,679.1	2,618.8	6.8	10.7	99.11	-4,866.6	1,197.1	5,047.7	5,030.6	17.08	295.496		
2,460.6	2,437.4	2,741.8	2,679.9	7.0	10.9	99.10	-4,860.9	1,209.7	5,046.6	5,029.0	17.61	286.605		
2,500.0	2,476.0	2,782.6	2,719.8	7.2	11.1	99.10	-4,857.2	1,217.6	5,045.8	5,027.9	17.95	281.109		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 128-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,559.0	2,533.7	2,849.7	2,785.5	7.4	11.4	99.10	-4,851.2	1,230.1	5,044.6	5,026.2	18.47	273.156		
2,600.0	2,573.8	2,896.3	2,831.1	7.6	11.6	99.11	-4,847.1	1,238.2	5,043.8	5,024.9	18.83	267.900		
2,657.5	2,630.0	2,961.0	2,894.7	7.9	11.8	99.14	-4,841.4	1,248.5	5,042.4	5,023.1	19.30	261.218		
2,700.0	2,671.6	3,008.6	2,941.7	8.1	12.0	99.16	-4,837.4	1,255.2	5,041.4	5,021.8	19.65	256.570		
2,755.9	2,726.3	3,039.0	2,971.8	8.3	12.1	99.19	-4,834.8	1,259.1	5,040.1	5,020.1	20.00	252.067		
2,800.0	2,769.4	3,039.0	2,971.8	8.5	12.1	99.19	-4,834.8	1,259.1	5,039.4	5,019.3	20.19	249.644		
2,854.3	2,822.5	3,098.0	3,030.2	8.7	12.2	99.24	-4,830.5	1,265.5	5,038.4	5,017.8	20.57	244.901		
2,900.0	2,867.2	3,119.1	3,051.2	8.9	12.3	99.27	-4,829.2	1,267.3	5,038.0	5,017.2	20.83	241.912		
2,952.7	2,918.8	3,168.0	3,100.0	9.2	12.4	99.34	-4,826.9	1,270.9	5,037.9	5,016.7	21.18	237.864		
2,982.0	2,947.4	3,168.0	3,100.0	9.3	12.4	99.34	-4,826.9	1,270.9	5,037.8	5,016.5	21.31	236.429		
3,000.0	2,965.0	3,168.0	3,100.0	9.4	12.4	99.34	-4,826.9	1,270.9	5,037.9	5,016.5	21.39	235.561		
3,051.2	3,015.1	3,168.0	3,100.0	9.6	12.4	99.34	-4,826.9	1,270.9	5,038.3	5,016.7	21.61	233.132		
3,100.0	3,062.8	3,209.9	3,141.8	9.8	12.5	99.41	-4,825.4	1,273.1	5,038.8	5,016.9	21.89	230.152		
3,149.6	3,111.4	3,232.1	3,163.9	10.0	12.5	99.45	-4,824.9	1,274.1	5,039.7	5,017.6	22.15	227.553		
3,200.0	3,160.7	3,254.5	3,186.3	10.3	12.6	99.49	-4,824.5	1,274.8	5,040.9	5,018.5	22.41	224.987		
3,248.0	3,207.6	3,296.0	3,227.8	10.5	12.6	99.58	-4,824.1	1,275.8	5,042.4	5,019.7	22.68	222.295		
3,300.0	3,258.5	3,303.8	3,235.6	10.7	12.7	99.60	-4,824.1	1,275.9	5,044.1	5,021.2	22.92	220.051		
3,346.4	3,303.9	3,361.8	3,293.6	10.9	12.7	99.72	-4,824.0	1,276.8	5,045.7	5,022.5	23.20	217.498		
3,400.0	3,356.3	3,424.0	3,355.8	11.2	12.8	99.86	-4,823.6	1,277.6	5,047.5	5,024.0	23.51	214.679		
3,444.9	3,400.2	3,462.6	3,394.4	11.4	12.9	99.94	-4,823.4	1,278.0	5,049.0	5,025.3	23.76	212.539		
3,500.0	3,454.1	3,506.3	3,438.1	11.6	12.9	100.04	-4,823.3	1,278.4	5,051.0	5,026.9	24.05	210.015		
3,543.3	3,496.5	3,540.6	3,472.4	11.8	13.0	100.12	-4,823.3	1,278.5	5,052.6	5,028.3	24.28	208.077		
3,600.0	3,551.9	3,583.2	3,515.0	12.0	13.0	100.21	-4,823.4	1,278.7	5,054.9	5,030.3	24.58	205.641		
3,641.7	3,592.7	3,613.9	3,545.7	12.2	13.0	100.28	-4,823.5	1,278.8	5,056.7	5,031.9	24.80	203.899		
3,700.0	3,649.7	3,656.8	3,588.6	12.5	13.1	100.38	-4,823.8	1,278.9	5,059.3	5,034.2	25.11	201.524		
3,740.1	3,689.0	3,687.5	3,619.3	12.7	13.1	100.45	-4,824.1	1,279.1	5,061.2	5,035.9	25.32	199.919		
3,800.0	3,747.5	3,741.6	3,673.3	12.9	13.2	100.58	-4,824.7	1,279.0	5,064.2	5,038.6	25.64	197.547		
3,838.6	3,785.3	3,776.3	3,708.1	13.1	13.2	100.66	-4,825.1	1,278.8	5,066.2	5,040.3	25.84	196.052		
3,900.0	3,845.4	3,869.7	3,801.4	13.4	13.3	100.90	-4,826.3	1,277.5	5,069.3	5,043.1	26.20	193.466		
3,937.0	3,881.5	3,938.0	3,869.8	13.6	13.4	101.06	-4,826.5	1,276.7	5,070.8	5,044.4	26.43	191.851		
4,000.0	3,943.2	3,985.9	3,917.7	13.8	13.4	101.18	-4,826.5	1,276.1	5,073.4	5,046.6	26.76	189.621		
4,035.4	3,977.8	4,009.2	3,941.0	14.0	13.5	101.24	-4,826.6	1,275.7	5,074.9	5,048.0	26.93	188.418		
4,100.0	4,041.0	4,066.0	3,997.7	14.3	13.5	101.38	-4,827.2	1,274.6	5,078.0	5,050.7	27.27	186.189		
4,133.8	4,074.1	4,076.2	4,008.0	14.4	13.5	101.41	-4,827.3	1,274.4	5,079.7	5,052.3	27.43	185.168		
4,200.0	4,138.8	4,133.5	4,065.2	14.7	13.6	101.55	-4,828.1	1,273.1	5,083.2	5,055.4	27.78	183.011		
4,232.3	4,170.4	4,161.4	4,093.1	14.9	13.6	101.63	-4,828.5	1,272.5	5,085.0	5,057.0	27.94	181.979		
4,300.0	4,236.6	4,256.4	4,188.1	15.2	13.7	101.87	-4,829.8	1,270.7	5,088.6	5,060.3	28.33	179.599		
4,330.7	4,266.6	4,323.0	4,254.7	15.3	13.8	102.03	-4,830.0	1,270.0	5,090.1	5,061.5	28.54	178.372		
4,400.0	4,334.4	4,384.7	4,316.4	15.6	13.8	102.18	-4,830.1	1,269.2	5,093.1	5,064.2	28.91	176.201		
4,429.1	4,362.9	4,410.4	4,342.1	15.8	13.9	102.24	-4,830.2	1,268.6	5,094.4	5,065.4	29.06	175.308		
4,500.0	4,432.2	4,469.7	4,401.3	16.1	13.9	102.40	-4,830.5	1,266.9	5,097.8	5,068.3	29.43	173.214		
4,527.5	4,459.2	4,490.3	4,422.0	16.2	14.0	102.45	-4,830.6	1,266.2	5,099.1	5,069.5	29.57	172.440		
4,600.0	4,530.1	4,544.6	4,476.2	16.5	14.0	102.59	-4,831.1	1,264.5	5,102.8	5,072.9	29.94	170.445		
4,626.0	4,555.5	4,564.1	4,495.7	16.7	14.0	102.65	-4,831.4	1,263.9	5,104.3	5,074.2	30.07	169.744		
4,700.0	4,627.9	4,708.0	4,639.5	17.0	14.2	103.01	-4,831.3	1,260.7	5,107.2	5,076.7	30.54	167.216		
4,724.4	4,651.7	4,751.7	4,683.3	17.1	14.2	103.11	-4,830.7	1,260.2	5,107.9	5,077.2	30.70	166.361		
4,800.0	4,725.7	4,787.7	4,719.3	17.4	14.3	103.20	-4,830.5	1,259.9	5,111.1	5,080.0	31.08	164.430		
4,822.8	4,748.0	4,798.6	4,730.1	17.6	14.3	103.22	-4,830.5	1,259.8	5,112.2	5,081.0	31.20	163.859		
4,900.0	4,823.5	4,965.0	4,896.5	17.9	14.5	103.61	-4,829.9	1,259.2	5,116.1	5,084.3	31.75	161.115		
4,921.2	4,844.3	4,965.0	4,896.5	18.0	14.5	103.61	-4,829.9	1,259.2	5,116.8	5,085.0	31.85	160.658		
5,000.0	4,921.3	5,018.1	4,949.6	18.4	14.6	103.72	-4,829.1	1,259.3	5,119.7	5,087.4	32.27	158.634		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 128-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,014.9	4,935.9	5,024.9	4,956.5	18.4	14.6	103.74		-4,829.1	1,259.3	5,120.3	5,087.9	32.35	158.281	
5,019.7	4,940.6	5,027.1	4,958.6	18.4	14.6	103.75		-4,829.1	1,259.3	5,120.5	5,088.1	32.37	158.187	
5,100.0	5,019.4	5,094.0	5,025.5	18.7	14.7	103.95		-4,829.1	1,259.6	5,124.2	5,091.5	32.76	156.427	
5,118.1	5,037.2	5,094.0	5,025.5	18.8	14.7	103.96		-4,829.1	1,259.6	5,124.9	5,092.1	32.81	156.209	
5,200.0	5,118.1	5,134.5	5,066.0	19.0	14.8	104.10		-4,829.4	1,259.7	5,128.5	5,095.4	33.09	154.968	
5,216.5	5,134.4	5,153.6	5,085.1	19.1	14.8	104.14		-4,829.5	1,259.8	5,129.2	5,096.1	33.16	154.673	
5,300.0	5,217.2	5,241.6	5,173.1	19.3	15.0	104.31		-4,829.9	1,260.3	5,132.2	5,098.7	33.49	153.243	
5,314.9	5,232.1	5,253.5	5,185.0	19.3	15.0	104.34		-4,829.9	1,260.4	5,132.7	5,099.2	33.54	153.039	
5,400.0	5,316.8	5,321.3	5,252.8	19.5	15.1	104.45		-4,830.4	1,260.6	5,135.2	5,101.4	33.81	151.882	
5,413.4	5,330.1	5,332.0	5,263.5	19.5	15.1	104.46		-4,830.5	1,260.6	5,135.6	5,101.8	33.85	151.723	
5,500.0	5,416.6	5,426.6	5,358.1	19.7	15.2	104.56		-4,831.4	1,260.8	5,137.6	5,103.5	34.13	150.509	
5,511.8	5,428.4	5,440.7	5,372.2	19.7	15.3	104.57		-4,831.5	1,260.9	5,137.8	5,103.7	34.17	150.353	
5,600.0	5,516.6	5,530.7	5,462.2	19.8	15.4	104.60		-4,832.1	1,261.3	5,138.9	5,104.5	34.43	149.276	
5,610.2	5,526.8	5,540.1	5,471.6	19.8	15.4	104.60		-4,832.1	1,261.4	5,139.0	5,104.5	34.45	149.167	
5,615.0	5,531.6	5,544.4	5,475.9	19.8	15.4	174.68		-4,832.2	1,261.4	5,139.0	5,104.5	34.48	149.039	
5,700.0	5,616.6	5,621.1	5,552.6	19.9	15.5	174.68		-4,832.8	1,261.4	5,139.7	5,105.0	34.71	148.084	
5,708.6	5,625.3	5,628.3	5,559.8	20.0	15.5	174.68		-4,832.8	1,261.4	5,139.8	5,105.0	34.73	147.988	
5,800.0	5,716.6	5,704.1	5,635.6	20.1	15.7	174.68		-4,833.7	1,261.5	5,140.8	5,105.8	34.98	146.978	
5,807.1	5,723.7	5,710.0	5,641.5	20.1	15.7	174.68		-4,833.7	1,261.5	5,140.9	5,105.9	35.00	146.901	
5,900.0	5,816.6	5,793.5	5,725.0	20.2	15.8	174.68		-4,834.8	1,262.0	5,142.1	5,106.9	35.26	145.828	
5,905.5	5,822.1	5,798.6	5,730.1	20.2	15.8	174.68		-4,834.9	1,262.0	5,142.2	5,106.9	35.28	145.762	
6,000.0	5,916.6	5,901.1	5,832.6	20.4	16.0	174.67		-4,836.3	1,263.1	5,143.6	5,108.0	35.58	144.553	
6,003.9	5,920.5	5,907.1	5,838.5	20.4	16.0	174.67		-4,836.4	1,263.2	5,143.6	5,108.1	35.60	144.492	
6,100.0	6,016.6	6,034.3	5,965.8	20.5	16.2	174.66		-4,837.5	1,263.8	5,144.5	5,108.5	35.95	143.108	
6,102.3	6,019.0	6,036.8	5,968.3	20.5	16.2	174.66		-4,837.5	1,263.8	5,144.5	5,108.5	35.96	143.078	
6,200.0	6,116.6	6,167.7	6,099.2	20.6	16.4	174.65		-4,838.0	1,264.8	5,145.0	5,108.7	36.32	141.653	
6,200.8	6,117.4	6,169.8	6,101.2	20.6	16.4	174.65		-4,838.0	1,264.9	5,145.0	5,108.7	36.33	141.635	
6,299.2	6,215.8	6,381.7	6,313.1	20.8	16.8	174.62		-4,835.2	1,267.1	5,143.7	5,106.9	36.85	139.593	
6,300.0	6,216.6	6,382.5	6,313.9	20.8	16.8	174.62		-4,835.2	1,267.1	5,143.7	5,106.9	36.85	139.583	
6,340.0	6,256.6	6,422.7	6,354.1	20.8	16.9	174.62		-4,834.3	1,267.2	5,142.8	5,105.8	36.98	139.072	
6,350.0	6,266.6	6,432.7	6,364.1	20.8	16.9	-5.59		-4,834.1	1,267.3	5,142.5	5,105.6	36.98	139.063	
6,397.6	6,314.2	6,480.4	6,411.8	20.9	17.0	-5.62		-4,833.0	1,267.5	5,139.2	5,102.3	36.97	139.022	
6,400.0	6,316.5	6,482.8	6,414.2	20.9	17.0	-5.63		-4,832.9	1,267.5	5,139.0	5,102.0	36.96	139.031	
6,450.0	6,366.2	6,506.0	6,437.4	20.9	17.0	-5.69		-4,832.4	1,267.7	5,132.0	5,095.3	36.74	139.671	
6,496.0	6,411.4	6,550.1	6,481.5	21.0	17.1	-5.77		-4,831.5	1,268.0	5,122.7	5,086.3	36.45	140.554	
6,500.0	6,415.3	6,552.5	6,483.9	21.0	17.1	-5.78		-4,831.4	1,268.0	5,121.8	5,085.4	36.41	140.659	
6,550.0	6,463.6	6,582.3	6,513.6	21.0	17.1	-5.91		-4,831.0	1,268.1	5,108.3	5,072.4	35.90	142.276	
6,594.5	6,505.8	6,608.2	6,539.6	21.0	17.2	-6.05		-4,830.7	1,268.1	5,093.7	5,058.4	35.33	144.171	
6,600.0	6,510.9	6,634.0	6,565.4	21.0	17.2	-6.08		-4,830.5	1,268.1	5,091.8	5,056.6	35.29	144.279	
6,650.0	6,557.0	6,634.0	6,565.4	21.0	17.2	-6.26		-4,830.5	1,268.1	5,072.1	5,037.7	34.45	147.211	
6,692.9	6,595.4	6,670.1	6,601.5	21.0	17.3	-6.48		-4,830.2	1,268.1	5,052.8	5,019.2	33.70	149.947	
6,700.0	6,601.6	6,674.8	6,606.2	21.0	17.3	-6.51		-4,830.2	1,268.1	5,049.4	5,015.9	33.56	150.451	
6,750.0	6,644.6	6,707.2	6,638.6	20.9	17.4	-6.82		-4,830.1	1,268.2	5,023.8	4,991.3	32.54	154.386	
6,791.3	6,678.6	6,733.0	6,664.4	20.9	17.4	-7.12		-4,830.1	1,268.3	5,000.5	4,968.9	31.62	158.153	
6,800.0	6,685.6	6,738.3	6,669.6	20.9	17.4	-7.19		-4,830.1	1,268.3	4,995.4	4,964.0	31.42	159.003	
6,850.0	6,724.6	6,763.0	6,694.4	20.9	17.4	-7.63		-4,830.1	1,268.5	4,964.3	4,934.1	30.20	164.382	
6,889.7	6,753.9	6,792.0	6,723.4	20.9	17.5	-8.06		-4,830.1	1,268.7	4,937.7	4,908.5	29.20	169.077	
6,900.0	6,761.3	6,797.9	6,729.3	20.9	17.5	-8.19		-4,830.1	1,268.7	4,930.5	4,901.6	28.94	170.372	
6,950.0	6,795.5	6,825.8	6,757.2	20.9	17.6	-8.86		-4,830.2	1,268.9	4,894.4	4,866.8	27.63	177.116	
6,988.2	6,819.9	6,852.0	6,783.4	20.9	17.6	-9.50		-4,830.3	1,269.0	4,865.3	4,838.7	26.64	182.609	
7,000.0	6,827.1	6,852.0	6,783.4	20.9	17.6	-9.70		-4,830.3	1,269.0	4,856.0	4,829.7	26.33	184.455	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 128-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,050.0	6,855.9	6,877.4	6,808.8	20.9	17.6	-10.75	-4,830.4	1,269.1	4,815.6	4,790.5	25.07	192.115		
7,086.6	6,875.1	6,895.4	6,826.7	20.9	17.7	-11.71	-4,830.5	1,269.2	4,784.7	4,760.5	24.22	197.561		
7,100.0	6,881.8	6,902.5	6,833.9	20.9	17.7	-12.11	-4,830.6	1,269.2	4,773.2	4,749.3	23.92	199.555		
7,150.0	6,904.6	6,927.0	6,858.3	21.0	17.7	-13.92	-4,830.7	1,269.3	4,729.2	4,706.2	22.98	205.806		
7,185.0	6,918.8	6,942.1	6,873.5	21.1	17.8	-15.56	-4,830.8	1,269.4	4,697.4	4,674.9	22.51	208.657		
7,200.0	6,924.3	6,948.1	6,879.5	21.1	17.8	-16.39	-4,830.9	1,269.4	4,683.6	4,661.2	22.37	209.327		
7,250.0	6,940.8	6,965.7	6,897.1	21.2	17.8	-19.92	-4,830.9	1,269.5	4,636.7	4,614.4	22.32	207.770		
7,283.4	6,949.9	6,975.6	6,906.9	21.3	17.8	-23.22	-4,831.0	1,269.6	4,604.8	4,582.1	22.75	202.444		
7,300.0	6,953.9	6,979.8	6,911.2	21.4	17.8	-25.26	-4,831.0	1,269.6	4,588.9	4,565.7	23.14	198.279		
7,350.0	6,963.6	6,990.3	6,921.7	21.6	17.8	-34.02	-4,831.1	1,269.7	4,540.2	4,514.8	25.40	178.778		
7,381.9	6,968.0	6,995.1	6,926.5	21.7	17.8	-42.84	-4,831.1	1,269.7	4,508.8	4,481.0	27.87	161.772		
7,400.0	6,969.9	6,997.2	6,928.6	21.8	17.8	-49.61	-4,831.1	1,269.7	4,490.9	4,461.3	29.63	151.573		
7,450.0	6,972.6	7,000.4	6,931.7	22.1	17.9	-77.04	-4,831.1	1,269.7	4,441.4	4,407.5	33.89	131.035		
7,471.5	6,972.8	7,000.6	6,932.0	22.2	17.9	-91.89	-4,831.1	1,269.7	4,420.0	4,386.2	33.78	130.835		
7,480.3	6,972.7	7,000.6	6,931.9	22.3	17.9	-91.88	-4,831.1	1,269.7	4,411.2	4,377.4	33.87	130.244		
7,500.0	6,972.5	7,000.5	6,931.8	22.4	17.9	-91.87	-4,831.1	1,269.7	4,391.7	4,357.6	34.06	128.933		
7,578.7	6,971.8	7,000.1	6,931.5	23.1	17.9	-91.83	-4,831.1	1,269.7	4,313.5	4,278.6	34.85	123.755		
7,600.0	6,971.6	7,000.0	6,931.4	23.3	17.9	-91.82	-4,831.1	1,269.7	4,292.4	4,257.3	35.07	122.396		
7,677.1	6,970.9	6,999.6	6,931.0	24.0	17.9	-91.77	-4,831.1	1,269.7	4,215.7	4,179.8	35.91	117.404		
7,700.0	6,970.7	6,999.5	6,930.9	24.2	17.8	-91.76	-4,831.1	1,269.7	4,193.1	4,156.9	36.16	115.970		
7,775.6	6,970.0	6,999.2	6,930.5	25.0	17.8	-91.72	-4,831.1	1,269.7	4,118.0	4,081.0	37.07	111.086		
7,800.0	6,969.8	6,999.0	6,930.4	25.3	17.8	-91.71	-4,831.1	1,269.7	4,093.8	4,056.4	37.37	109.559		
7,874.0	6,969.1	6,998.7	6,930.1	26.2	17.8	-91.67	-4,831.1	1,269.7	4,020.4	3,982.0	38.34	104.867		
7,900.0	6,968.9	6,998.6	6,929.9	26.5	17.8	-91.65	-4,831.1	1,269.7	3,994.6	3,955.9	38.68	103.274		
7,972.4	6,968.2	6,998.2	6,929.6	27.4	17.8	-91.62	-4,831.1	1,269.7	3,922.7	3,883.0	39.69	98.826		
8,000.0	6,968.0	6,998.1	6,929.5	27.8	17.8	-91.60	-4,831.1	1,269.7	3,895.4	3,855.3	40.08	97.192		
8,070.8	6,967.3	6,997.8	6,929.1	28.7	17.8	-91.56	-4,831.1	1,269.7	3,825.1	3,784.0	41.12	93.017		
8,100.0	6,967.1	6,997.6	6,929.0	29.1	17.8	-91.55	-4,831.1	1,269.7	3,796.3	3,754.7	41.55	91.361		
8,169.3	6,966.4	6,997.3	6,928.7	30.1	17.8	-91.51	-4,831.1	1,269.7	3,727.6	3,685.0	42.62	87.472		
8,200.0	6,966.2	6,997.1	6,928.5	30.5	17.8	-91.49	-4,831.1	1,269.7	3,697.2	3,654.1	43.09	85.808		
8,267.7	6,965.5	6,996.8	6,928.2	31.5	17.8	-91.46	-4,831.1	1,269.7	3,630.1	3,585.9	44.16	82.204		
8,300.0	6,965.2	6,996.7	6,928.0	32.0	17.8	-91.44	-4,831.1	1,269.7	3,598.1	3,553.4	44.67	80.545		
8,366.1	6,964.6	6,996.4	6,927.7	33.0	17.8	-91.41	-4,831.1	1,269.7	3,532.7	3,486.9	45.75	77.218		
8,400.0	6,964.3	6,996.2	6,927.6	33.5	17.8	-91.39	-4,831.1	1,269.7	3,499.1	3,452.8	46.30	75.573		
8,464.5	6,963.8	6,995.9	6,927.3	34.5	17.8	-91.35	-4,831.1	1,269.7	3,435.3	3,387.9	47.38	72.510		
8,500.0	6,963.4	6,995.7	6,927.1	35.1	17.8	-91.33	-4,831.1	1,269.7	3,400.2	3,352.2	47.97	70.886		
8,563.0	6,962.9	6,995.4	6,926.8	36.1	17.8	-91.30	-4,831.1	1,269.7	3,337.9	3,288.9	49.04	68.070		
8,600.0	6,962.5	6,995.3	6,926.6	36.7	17.8	-91.28	-4,831.1	1,269.7	3,301.3	3,251.7	49.67	66.472		
8,661.4	6,962.0	6,995.0	6,926.3	37.7	17.8	-91.25	-4,831.1	1,269.7	3,240.7	3,189.9	50.72	63.888		
8,700.0	6,961.6	6,994.8	6,926.2	38.3	17.8	-91.23	-4,831.1	1,269.7	3,202.5	3,151.1	51.39	62.318		
8,759.8	6,961.1	6,994.5	6,925.9	39.3	17.8	-91.20	-4,831.1	1,269.7	3,143.5	3,091.0	52.44	59.949		
8,800.0	6,960.7	6,994.3	6,925.7	40.0	17.8	-91.18	-4,831.1	1,269.7	3,103.8	3,050.7	53.14	58.410		
8,858.2	6,960.2	6,994.1	6,925.4	40.9	17.8	-91.15	-4,831.1	1,269.7	3,046.4	2,992.2	54.17	56.238		
8,900.0	6,959.8	6,993.9	6,925.2	41.6	17.8	-91.13	-4,831.1	1,269.7	3,005.2	2,950.3	54.91	54.732		
8,956.7	6,959.3	6,993.6	6,925.0	42.6	17.8	-91.10	-4,831.1	1,269.7	2,949.3	2,893.4	55.92	52.742		
9,000.0	6,958.9	6,993.4	6,924.8	43.3	17.8	-91.07	-4,831.1	1,269.7	2,906.6	2,850.0	56.69	51.270		
9,055.1	6,958.4	6,993.2	6,924.5	44.3	17.8	-91.04	-4,831.1	1,269.7	2,852.4	2,794.7	57.69	49.447		
9,100.0	6,958.0	6,993.0	6,924.3	45.1	17.8	-91.02	-4,831.1	1,269.7	2,808.2	2,749.7	58.49	48.008		
9,153.5	6,957.5	6,992.7	6,924.1	46.0	17.8	-90.99	-4,831.1	1,269.7	2,755.6	2,696.1	59.47	46.338		
9,200.0	6,957.1	6,992.5	6,923.9	46.8	17.8	-90.97	-4,831.1	1,269.7	2,709.9	2,649.6	60.31	44.932		
9,251.9	6,956.6	6,992.3	6,923.6	47.7	17.8	-90.94	-4,831.1	1,269.7	2,658.9	2,597.6	61.26	43.403		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 128-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,300.0	6,956.2	6,992.1	6,923.4	48.6	17.8	-90.92	-4,831.1	1,269.7	2,611.7	2,549.6	62.14	42.031		
9,350.4	6,955.7	6,991.8	6,923.2	49.5	17.8	-90.89	-4,831.1	1,269.7	2,562.3	2,499.2	63.06	40.630		
9,400.0	6,955.2	6,991.6	6,923.0	50.3	17.8	-90.87	-4,831.1	1,269.7	2,513.6	2,449.7	63.98	39.291		
9,448.8	6,954.8	6,991.4	6,922.7	51.2	17.8	-90.84	-4,831.1	1,269.7	2,465.8	2,401.0	64.88	38.008		
9,500.0	6,954.3	6,991.1	6,922.5	52.1	17.8	-90.81	-4,831.1	1,269.7	2,415.7	2,349.9	65.82	36.701		
9,547.2	6,953.9	6,990.9	6,922.3	53.0	17.8	-90.79	-4,831.1	1,269.7	2,369.6	2,302.9	66.70	35.526		
9,600.0	6,953.4	6,990.7	6,922.1	53.9	17.8	-90.76	-4,831.1	1,269.7	2,318.0	2,250.3	67.68	34.250		
9,645.6	6,953.0	6,990.5	6,921.8	54.7	17.8	-90.74	-4,831.1	1,269.7	2,273.5	2,205.0	68.53	33.175		
9,700.0	6,952.5	6,990.2	6,921.6	55.7	17.8	-90.71	-4,831.1	1,269.7	2,220.5	2,151.0	69.54	31.930		
9,744.1	6,952.1	6,990.0	6,921.4	56.5	17.8	-90.69	-4,831.1	1,269.7	2,177.6	2,107.2	70.37	30.947		
9,800.0	6,951.6	6,989.8	6,921.1	57.5	17.8	-90.66	-4,831.1	1,269.7	2,123.2	2,051.8	71.41	29.732		
9,842.5	6,951.2	6,989.6	6,921.0	58.3	17.8	-90.64	-4,831.1	1,269.7	2,082.0	2,009.8	72.21	28.832		
9,900.0	6,950.7	6,989.3	6,920.7	59.4	17.8	-90.61	-4,831.1	1,269.7	2,026.2	1,952.9	73.29	27.647		
9,940.9	6,950.3	6,989.2	6,920.5	60.1	17.8	-90.59	-4,831.1	1,269.7	1,986.6	1,912.5	74.06	26.825		
10,000.0	6,949.8	6,988.9	6,920.3	61.2	17.8	-90.56	-4,831.1	1,269.7	1,929.5	1,854.3	75.17	25.668		
10,039.3	6,949.4	6,988.7	6,920.1	61.9	17.8	-90.54	-4,831.1	1,269.6	1,891.5	1,815.6	75.91	24.917		
10,100.0	6,948.9	6,988.4	6,919.8	63.0	17.8	-90.51	-4,831.1	1,269.6	1,833.2	1,756.1	77.06	23.789		
10,137.8	6,948.5	6,988.3	6,919.6	63.7	17.8	-90.49	-4,831.1	1,269.6	1,796.9	1,719.1	77.77	23.104		
10,200.0	6,948.0	6,988.0	6,919.4	64.9	17.8	-90.46	-4,831.1	1,269.6	1,737.2	1,658.3	78.95	22.004		
10,236.2	6,947.6	6,987.8	6,919.2	65.6	17.8	-90.44	-4,831.1	1,269.6	1,702.6	1,623.0	79.64	21.380		
10,300.0	6,947.1	6,987.6	6,918.9	66.7	17.8	-90.41	-4,831.0	1,269.6	1,641.7	1,560.9	80.85	20.307		
10,334.6	6,946.7	6,987.4	6,918.8	67.4	17.8	-90.39	-4,831.0	1,269.6	1,608.8	1,527.3	81.50	19.739		
10,400.0	6,946.2	6,987.1	6,918.5	68.6	17.8	-90.36	-4,831.0	1,269.6	1,546.9	1,464.1	82.75	18.694		
10,433.0	6,945.8	6,987.0	6,918.3	69.2	17.8	-90.34	-4,831.0	1,269.6	1,515.6	1,432.3	83.37	18.179		
10,500.0	6,945.2	6,986.7	6,918.0	70.5	17.8	-90.31	-4,831.0	1,269.6	1,452.7	1,368.0	84.65	17.161		
10,531.5	6,945.0	6,986.5	6,917.9	71.1	17.8	-90.29	-4,831.0	1,269.6	1,423.2	1,337.9	85.25	16.694		
10,600.0	6,944.3	6,986.2	6,917.6	72.3	17.8	-90.26	-4,831.0	1,269.6	1,359.3	1,272.7	86.55	15.704		
10,629.9	6,944.1	6,986.1	6,917.5	72.9	17.8	-90.24	-4,831.0	1,269.6	1,331.5	1,244.4	87.13	15.283		
10,700.0	6,943.4	6,985.8	6,917.2	74.2	17.8	-90.21	-4,831.0	1,269.6	1,266.9	1,178.5	88.46	14.321		
10,728.3	6,943.2	6,985.7	6,917.0	74.7	17.8	-90.19	-4,831.0	1,269.6	1,241.0	1,152.0	89.01	13.943		
10,800.0	6,942.5	6,985.4	6,916.7	76.1	17.8	-90.16	-4,831.0	1,269.6	1,175.8	1,085.4	90.38	13.010		
10,826.7	6,942.3	6,985.2	6,916.6	76.6	17.8	-90.15	-4,831.0	1,269.6	1,151.7	1,060.8	90.89	12.671		
10,900.0	6,941.6	6,984.9	6,916.3	78.0	17.8	-90.11	-4,831.0	1,269.6	1,086.3	994.0	92.29	11.770		
10,925.2	6,941.4	6,984.8	6,916.2	78.4	17.8	-90.10	-4,831.0	1,269.6	1,064.0	971.2	92.77	11.469		
11,000.0	6,940.7	6,984.5	6,915.9	79.9	17.8	-90.06	-4,831.0	1,269.6	998.7	904.5	94.21	10.601		
11,023.6	6,940.5	6,984.4	6,915.8	80.3	17.8	-90.05	-4,831.0	1,269.6	978.4	883.7	94.66	10.336		
11,100.0	6,939.8	6,984.1	6,915.4	81.7	17.8	-90.01	-4,831.0	1,269.6	913.7	817.6	96.13	9.505		
11,122.0	6,939.6	6,984.0	6,915.3	82.2	17.8	-90.00	-4,831.0	1,269.6	895.4	798.8	96.55	9.274		
11,200.0	6,938.9	6,983.6	6,915.0	83.6	17.8	-89.96	-4,831.0	1,269.6	832.0	734.0	98.05	8.486		
11,220.4	6,938.7	6,983.5	6,914.9	84.0	17.8	-89.95	-4,831.0	1,269.6	815.8	717.4	98.44	8.287		
11,300.0	6,938.0	6,983.2	6,914.6	85.5	17.8	-89.91	-4,831.0	1,269.6	754.8	654.8	99.97	7.550		
11,318.9	6,937.8	6,983.1	6,914.5	85.9	17.8	-89.90	-4,831.0	1,269.6	740.8	640.5	100.33	7.383		
11,400.0	6,937.0	6,982.8	6,914.1	87.4	17.8	-89.86	-4,831.0	1,269.6	683.5	581.6	101.90	6.707		
11,417.3	6,936.9	6,982.7	6,914.1	87.8	17.8	-89.86	-4,831.0	1,269.6	671.9	569.6	102.23	6.572		
11,500.0	6,936.1	6,982.3	6,913.7	89.3	17.8	-89.82	-4,831.0	1,269.6	620.1	516.3	103.82	5.973		
11,515.7	6,936.0	6,982.3	6,913.6	89.6	17.8	-89.81	-4,831.0	1,269.6	611.0	506.9	104.13	5.868		
11,600.0	6,935.2	6,981.9	6,913.3	91.2	17.8	-89.77	-4,831.0	1,269.6	567.4	461.7	105.75	5.366		
11,614.1	6,935.1	6,981.9	6,913.2	91.5	17.8	-89.76	-4,831.0	1,269.6	561.0	455.0	106.02	5.291		
11,700.0	6,934.3	6,981.5	6,912.9	93.1	17.8	-89.72	-4,831.0	1,269.6	528.6	420.9	107.68	4.909		
11,712.6	6,934.2	6,981.4	6,912.8	93.4	17.8	-89.71	-4,831.0	1,269.6	524.8	416.9	107.92	4.863		
11,800.0	6,933.4	6,981.1	6,912.4	95.1	17.8	-89.67	-4,831.0	1,269.6	506.8	397.2	109.61	4.624		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-21D - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 usft	
Survey Program: 128-MWD												Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,811.0	6,933.3	6,981.0	6,912.4	95.3	17.8	-89.66	-4,831.0	1,269.6	505.5	395.7	109.82	4.603	4.538 CC, ES 4.520 SF
11,862.9	6,932.8	6,980.8	6,912.2	96.3	17.8	-89.64	-4,831.0	1,269.6	502.9	392.0	110.82	4.538	
11,900.0	6,932.5	6,980.6	6,912.0	97.0	17.8	-89.62	-4,831.0	1,269.6	504.2	392.7	111.54	4.521	
11,909.4	6,932.4	6,980.6	6,912.0	97.1	17.8	-89.62	-4,831.0	1,269.6	505.0	393.3	111.72	4.520	
12,000.0	6,931.6	6,980.2	6,911.6	98.9	17.8	-89.57	-4,831.0	1,269.6	521.2	407.8	113.47	4.593	
12,007.8	6,931.5	6,980.2	6,911.5	99.0	17.8	-89.57	-4,831.0	1,269.6	523.4	409.7	113.63	4.606	
12,100.0	6,930.7	6,979.8	6,911.2	100.8	17.8	-89.53	-4,831.0	1,269.6	556.0	440.6	115.41	4.818	
12,106.3	6,930.6	6,979.8	6,911.1	100.9	17.8	-89.52	-4,831.0	1,269.6	558.7	443.2	115.53	4.836	
12,200.0	6,929.8	6,979.4	6,910.7	102.7	17.8	-89.48	-4,831.0	1,269.6	605.4	488.1	117.34	5.159	
12,204.7	6,929.7	6,979.4	6,910.7	102.8	17.8	-89.48	-4,831.0	1,269.6	608.1	490.6	117.43	5.178	
12,300.0	6,928.8	6,979.0	6,910.3	104.6	17.8	-89.43	-4,831.0	1,269.6	666.3	547.0	119.28	5.586	
12,303.1	6,928.8	6,978.9	6,910.3	104.7	17.8	-89.43	-4,831.0	1,269.6	668.4	549.0	119.34	5.601	
12,400.0	6,927.9	6,978.5	6,909.9	106.5	17.8	-89.38	-4,831.0	1,269.6	735.8	614.6	121.21	6.070	
12,401.5	6,927.9	6,978.5	6,909.9	106.6	17.8	-89.38	-4,831.0	1,269.6	736.9	615.7	121.24	6.078	
12,500.0	6,927.0	6,978.1	6,909.5	108.5	17.8	-89.33	-4,831.0	1,269.6	811.7	688.5	123.15	6.591	
12,598.4	6,926.1	6,977.7	6,909.1	110.4	17.8	-89.29	-4,831.0	1,269.6	891.0	765.9	125.06	7.125	
12,600.0	6,926.1	6,977.7	6,909.1	110.4	17.8	-89.29	-4,831.0	1,269.6	892.3	767.2	125.09	7.133	
12,696.8	6,925.2	6,977.3	6,908.7	112.3	17.8	-89.24	-4,831.0	1,269.6	973.8	846.9	126.97	7.670	
12,700.0	6,925.2	6,977.3	6,908.7	112.3	17.8	-89.24	-4,831.0	1,269.6	976.6	849.5	127.03	7.688	
12,795.2	6,924.3	6,976.9	6,908.3	114.1	17.8	-89.20	-4,831.0	1,269.6	1,059.3	930.5	128.88	8.220	
12,800.0	6,924.3	6,976.9	6,908.3	114.2	17.8	-89.19	-4,831.0	1,269.6	1,063.5	934.6	128.97	8.246	
12,893.7	6,923.4	6,976.5	6,907.9	116.0	17.8	-89.15	-4,831.0	1,269.6	1,146.9	1,016.1	130.79	8.769	
12,900.0	6,923.4	6,976.5	6,907.8	116.2	17.8	-89.15	-4,831.0	1,269.6	1,152.6	1,021.7	130.91	8.805	
12,992.1	6,922.5	6,976.1	6,907.5	117.9	17.8	-89.10	-4,831.0	1,269.6	1,236.1	1,103.4	132.70	9.315	
13,000.0	6,922.5	6,976.1	6,907.4	118.1	17.8	-89.10	-4,831.0	1,269.6	1,243.4	1,110.5	132.85	9.359	
13,090.5	6,921.6	6,975.7	6,907.1	119.8	17.8	-89.06	-4,831.0	1,269.6	1,326.7	1,192.0	134.61	9.856	
13,100.0	6,921.5	6,975.7	6,907.0	120.0	17.8	-89.05	-4,831.0	1,269.6	1,335.4	1,200.6	134.79	9.907	
13,188.9	6,920.7	6,975.3	6,906.7	121.7	17.8	-89.01	-4,831.0	1,269.6	1,418.2	1,281.7	136.52	10.388	
13,200.0	6,920.6	6,975.3	6,906.6	121.9	17.8	-89.01	-4,831.0	1,269.6	1,428.6	1,291.8	136.73	10.448	
13,287.4	6,919.8	6,974.9	6,906.3	123.6	17.8	-88.97	-4,831.0	1,269.6	1,510.7	1,372.2	138.43	10.913	
13,300.0	6,919.7	6,974.8	6,906.2	123.9	17.8	-88.96	-4,831.0	1,269.6	1,522.6	1,383.9	138.68	10.979	
13,385.8	6,918.9	6,974.5	6,905.9	125.5	17.8	-88.92	-4,831.0	1,269.6	1,603.8	1,463.5	140.34	11.428	
13,400.0	6,918.8	6,974.4	6,905.8	125.8	17.8	-88.91	-4,831.0	1,269.6	1,617.3	1,476.7	140.62	11.501	
13,484.2	6,918.0	6,974.1	6,905.5	127.4	17.8	-88.87	-4,831.0	1,269.6	1,697.5	1,555.3	142.26	11.933	
13,500.0	6,917.9	6,974.0	6,905.4	127.7	17.8	-88.87	-4,831.0	1,269.6	1,712.6	1,570.1	142.56	12.013	
13,582.6	6,917.1	6,973.7	6,905.1	129.3	17.8	-88.83	-4,831.0	1,269.6	1,791.8	1,647.6	144.17	12.428	
13,600.0	6,917.0	6,973.6	6,905.0	129.7	17.8	-88.82	-4,831.0	1,269.6	1,808.4	1,663.9	144.51	12.515	
13,681.1	6,916.2	6,973.3	6,904.7	131.2	17.8	-88.78	-4,831.0	1,269.6	1,886.5	1,740.4	146.08	12.914	
13,700.0	6,916.1	6,973.2	6,904.6	131.6	17.8	-88.78	-4,831.0	1,269.6	1,904.7	1,758.3	146.45	13.006	
13,779.5	6,915.3	6,972.9	6,904.3	133.1	17.8	-88.74	-4,831.0	1,269.6	1,981.5	1,833.5	148.00	13.389	
13,800.0	6,915.2	6,972.8	6,904.2	133.5	17.8	-88.73	-4,831.0	1,269.6	2,001.3	1,852.9	148.39	13.487	
13,877.9	6,914.4	6,972.5	6,903.9	135.1	17.8	-88.69	-4,831.0	1,269.5	2,076.8	1,926.9	149.91	13.854	
13,900.0	6,914.2	6,972.4	6,903.8	135.5	17.8	-88.68	-4,831.0	1,269.5	2,098.3	1,947.9	150.34	13.957	
13,976.3	6,913.5	6,972.1	6,903.5	137.0	17.8	-88.65	-4,831.0	1,269.5	2,172.5	2,020.6	151.82	14.309	
14,000.0	6,913.3	6,972.0	6,903.4	137.4	17.8	-88.64	-4,831.0	1,269.5	2,195.5	2,043.2	152.28	14.417	
14,074.8	6,912.6	6,971.7	6,903.1	138.9	17.8	-88.60	-4,831.0	1,269.5	2,268.3	2,114.6	153.74	14.755	
14,100.0	6,912.4	6,971.6	6,903.0	139.4	17.8	-88.59	-4,831.0	1,269.5	2,292.9	2,138.7	154.23	14.867	
14,145.0	6,912.0	6,971.5	6,902.8	140.2	17.8	-88.57	-4,831.0	1,269.5	2,336.8	2,181.8	155.06	15.070	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 134-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	0.0	0.0	0.0	0.0	171.35	-5,114.9	778.1	5,173.7					
98.4	98.4	134.0	134.0	0.1	0.1	171.36	-5,114.1	777.3	5,173.1	5,173.0	0.18	N/A		
100.0	100.0	134.0	134.0	0.1	0.1	171.36	-5,114.1	777.3	5,173.1	5,172.9	0.18	N/A		
196.8	196.8	186.8	186.8	0.3	0.2	171.36	-5,113.8	776.9	5,172.5	5,172.0	0.50	N/A		
200.0	200.0	188.3	188.3	0.3	0.2	171.36	-5,113.8	776.9	5,172.5	5,172.0	0.51	N/A		
211.2	211.2	193.7	193.7	0.3	0.2	171.36	-5,113.8	776.9	5,172.5	5,172.0	0.55	9,388.880		
295.3	295.3	240.8	240.8	0.5	0.3	171.36	-5,114.0	777.0	5,172.8	5,172.0	0.84	6,188.161		
300.0	300.0	244.7	244.6	0.5	0.3	171.36	-5,114.0	777.0	5,172.9	5,172.0	0.85	6,052.543		
393.7	393.7	316.0	316.0	0.8	0.5	171.36	-5,114.7	777.2	5,173.7	5,172.5	1.22	4,256.201		
400.0	400.0	316.0	316.0	0.8	0.5	171.36	-5,114.7	777.2	5,173.8	5,172.6	1.23	4,207.254		
492.1	492.1	395.4	395.3	1.0	0.6	171.35	-5,115.6	778.0	5,175.0	5,173.4	1.61	3,218.845		
500.0	500.0	401.3	401.3	1.0	0.6	171.35	-5,115.6	778.2	5,175.1	5,173.5	1.64	3,158.867		
590.5	590.5	444.0	444.0	1.2	0.7	171.34	-5,116.2	779.2	5,176.8	5,174.9	1.93	2,677.140		
600.0	600.0	471.7	471.6	1.2	0.8	171.33	-5,116.6	780.1	5,177.0	5,174.9	2.02	2,566.952		
689.0	689.0	527.9	527.8	1.4	0.9	171.31	-5,117.7	782.5	5,179.1	5,176.8	2.34	2,210.951		
700.0	700.0	534.8	534.7	1.4	0.9	171.30	-5,117.8	782.9	5,179.5	5,177.1	2.38	2,173.690		
787.4	787.4	589.6	589.3	1.6	1.1	171.27	-5,119.0	786.2	5,182.2	5,179.5	2.70	1,917.242		
800.0	800.0	597.4	597.1	1.7	1.1	171.26	-5,119.2	786.7	5,182.7	5,179.9	2.75	1,885.018		
885.8	885.8	661.0	660.5	1.9	1.2	171.21	-5,121.1	791.5	5,186.0	5,182.9	3.09	1,678.143		
900.0	900.0	661.0	660.5	1.9	1.2	171.21	-5,121.1	791.5	5,186.6	5,183.5	3.12	1,661.207		
984.2	984.2	725.0	724.2	2.1	1.4	171.15	-5,123.0	797.2	5,190.3	5,186.9	3.46	1,500.070		
1,000.0	1,000.0	744.9	744.0	2.1	1.5	171.13	-5,123.6	799.2	5,191.0	5,187.5	3.54	1,465.099		
1,082.7	1,082.7	802.0	800.7	2.3	1.6	100.91	-5,125.3	806.3	5,195.3	5,191.4	3.90	1,330.755		
1,100.0	1,100.0	814.0	812.5	2.3	1.7	100.87	-5,125.6	807.9	5,196.3	5,192.3	3.98	1,307.219		
1,181.1	1,181.0	1,109.6	1,101.9	2.5	2.8	100.31	-5,125.3	867.6	5,199.6	5,194.4	5.23	994.078		
1,200.0	1,199.8	1,239.0	1,225.9	2.6	3.4	99.99	-5,119.0	903.9	5,199.6	5,193.7	5.95	874.250		
1,279.5	1,279.1	1,279.4	1,264.3	2.7	3.7	99.87	-5,116.6	916.3	5,200.4	5,194.0	6.36	817.808		
1,300.0	1,299.5	1,288.0	1,272.4	2.8	3.7	99.84	-5,116.2	918.9	5,200.7	5,194.3	6.45	805.828		
1,377.9	1,376.9	1,320.6	1,303.4	3.0	3.9	99.73	-5,114.6	929.0	5,202.8	5,196.0	6.83	761.682		
1,400.0	1,398.7	1,329.9	1,312.2	3.0	4.0	99.70	-5,114.2	931.9	5,203.6	5,196.6	6.94	750.048		
1,476.4	1,474.2	1,367.0	1,347.4	3.2	4.2	99.56	-5,112.8	943.5	5,206.9	5,199.5	7.36	707.742		
1,500.0	1,497.5	1,379.7	1,359.4	3.3	4.3	99.52	-5,112.4	947.5	5,208.1	5,200.6	7.50	693.960		
1,574.8	1,571.0	1,459.6	1,434.6	3.5	4.8	99.30	-5,109.3	974.5	5,212.2	5,203.9	8.25	631.498		
1,600.1	1,595.7	1,650.2	1,611.4	3.6	6.1	98.90	-5,097.7	1,044.7	5,213.2	5,203.6	9.66	539.440		
1,673.2	1,667.2	1,706.9	1,664.0	3.9	6.5	98.79	-5,093.5	1,065.4	5,215.3	5,205.0	10.30	506.141		
1,700.0	1,693.4	1,727.7	1,683.3	4.0	6.6	98.75	-5,092.0	1,072.9	5,216.1	5,205.6	10.54	494.935		
1,771.6	1,763.5	1,806.3	1,756.4	4.2	7.2	98.61	-5,086.4	1,101.4	5,218.3	5,207.0	11.36	459.466		
1,800.0	1,791.3	1,844.4	1,791.7	4.3	7.5	98.53	-5,083.5	1,115.4	5,219.2	5,207.4	11.74	444.749		
1,870.1	1,859.8	1,938.5	1,878.8	4.6	8.1	98.35	-5,076.0	1,150.4	5,221.0	5,208.3	12.70	411.211		
1,900.0	1,889.1	1,978.8	1,916.1	4.7	8.4	98.27	-5,072.7	1,165.3	5,221.7	5,208.5	13.11	398.209		
1,968.5	1,956.1	2,009.0	1,944.0	5.0	8.7	98.21	-5,070.1	1,176.5	5,223.3	5,209.7	13.61	383.804		
2,000.0	1,986.9	2,051.2	1,983.0	5.1	9.0	98.12	-5,066.6	1,192.1	5,224.0	5,209.9	14.05	371.940		
2,066.9	2,052.3	2,087.6	2,016.6	5.4	9.3	98.05	-5,063.9	1,205.7	5,226.0	5,211.4	14.58	358.333		
2,100.0	2,084.7	2,105.5	2,033.2	5.5	9.4	98.01	-5,062.6	1,212.4	5,227.2	5,212.3	14.85	351.981		
2,165.3	2,148.6	2,143.5	2,068.3	5.8	9.7	97.94	-5,060.0	1,226.7	5,229.7	5,214.3	15.40	339.601		
2,200.0	2,182.5	2,178.0	2,100.2	5.9	9.9	97.87	-5,057.7	1,239.6	5,231.2	5,215.4	15.79	331.226		
2,263.8	2,244.9	2,241.6	2,159.2	6.2	10.4	97.74	-5,053.5	1,263.3	5,233.8	5,217.3	16.52	316.771		
2,300.0	2,280.3	2,324.2	2,235.8	6.3	11.0	97.59	-5,047.9	1,293.6	5,235.3	5,218.0	17.28	303.035		
2,362.2	2,341.2	2,425.4	2,329.6	6.6	11.7	97.39	-5,039.8	1,330.6	5,236.9	5,218.6	18.27	286.613		
2,400.0	2,378.1	2,450.2	2,352.7	6.8	11.9	97.35	-5,037.8	1,339.5	5,237.9	5,219.3	18.61	281.497		
2,460.6	2,437.4	2,490.0	2,389.8	7.0	12.2	97.28	-5,034.9	1,353.5	5,239.8	5,220.6	19.15	273.633		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 134-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)	
2,500.0	2,476.0	2,523.0	2,420.7	7.2	12.4	97.22	-5,032.6	1,364.8	5,241.1	5,221.6	19.55	268.066		
2,559.0	2,533.7	2,560.4	2,455.8	7.4	12.7	97.16	-5,030.2	1,377.7	5,243.3	5,223.2	20.07	261.278		
2,600.0	2,573.8	2,592.1	2,485.4	7.6	12.9	97.11	-5,028.1	1,388.7	5,244.9	5,224.4	20.47	256.273		
2,657.5	2,630.0	2,636.5	2,526.9	7.9	13.2	97.03	-5,025.3	1,404.3	5,247.3	5,226.3	21.03	249.561		
2,700.0	2,671.6	2,780.0	2,660.1	8.1	14.3	96.76	-5,014.3	1,456.4	5,248.5	5,226.3	22.29	235.488		
2,755.9	2,726.3	2,834.0	2,709.9	8.3	14.7	96.65	-5,009.4	1,476.7	5,249.7	5,226.8	22.95	228.723		
2,800.0	2,769.4	2,861.8	2,735.6	8.5	14.9	96.60	-5,007.0	1,487.2	5,250.9	5,227.5	23.36	224.763		
2,854.3	2,822.5	2,908.0	2,778.2	8.7	15.3	96.50	-5,003.2	1,504.7	5,252.5	5,228.6	23.96	219.221		
2,900.0	2,867.2	2,934.4	2,802.5	8.9	15.5	96.45	-5,001.1	1,514.7	5,254.0	5,229.6	24.36	215.665		
2,952.7	2,918.8	2,986.2	2,850.3	9.2	15.9	96.34	-4,996.9	1,534.4	5,255.7	5,230.7	24.99	210.309		
3,000.0	2,965.0	3,032.7	2,893.1	9.4	16.2	96.24	-4,993.1	1,552.0	5,257.3	5,231.8	25.55	205.735		
3,051.2	3,015.1	3,083.4	2,939.9	9.6	16.6	96.14	-4,989.0	1,571.2	5,259.1	5,232.9	26.16	201.037		
3,100.0	3,062.8	3,131.9	2,984.6	9.8	17.0	96.04	-4,985.2	1,589.4	5,260.7	5,234.0	26.74	196.752		
3,149.6	3,111.4	3,165.0	3,015.3	10.0	17.2	95.98	-4,982.6	1,601.7	5,262.4	5,235.2	27.20	193.437		
3,200.0	3,160.7	3,217.3	3,063.7	10.3	17.6	95.88	-4,978.5	1,621.0	5,264.2	5,236.4	27.81	189.260		
3,248.0	3,207.6	3,255.0	3,098.6	10.5	17.9	95.81	-4,975.7	1,634.9	5,266.1	5,237.8	28.31	186.035		
3,300.0	3,258.5	3,296.4	3,137.1	10.7	18.2	95.73	-4,972.7	1,650.0	5,268.2	5,239.3	28.84	182.639		
3,346.4	3,303.9	3,341.4	3,178.8	10.9	18.6	95.64	-4,969.5	1,666.5	5,270.1	5,240.7	29.39	179.321		
3,400.0	3,356.3	3,393.3	3,226.9	11.2	18.9	95.54	-4,965.8	1,685.6	5,272.4	5,242.3	30.02	175.649		
3,444.9	3,400.2	3,457.9	3,286.8	11.4	19.4	95.42	-4,961.1	1,709.3	5,274.2	5,243.5	30.69	171.859		
3,500.0	3,454.1	3,550.0	3,372.9	11.6	20.1	95.27	-4,954.2	1,741.3	5,276.0	5,244.4	31.60	166.986		
3,543.3	3,496.5	3,550.0	3,372.9	11.8	20.1	95.27	-4,954.2	1,741.3	5,277.6	5,245.8	31.79	166.020		
3,600.0	3,551.9	3,591.9	3,412.3	12.0	20.4	95.21	-4,951.3	1,755.3	5,279.7	5,247.4	32.33	163.319		
3,641.7	3,592.7	3,606.9	3,426.4	12.2	20.5	95.18	-4,950.4	1,760.4	5,281.6	5,249.0	32.62	161.931		
3,700.0	3,649.7	3,627.9	3,446.1	12.5	20.6	95.15	-4,949.2	1,767.5	5,284.6	5,251.6	33.02	160.043		
3,740.1	3,689.0	3,678.0	3,493.1	12.7	21.0	95.07	-4,947.0	1,784.7	5,287.2	5,253.7	33.54	157.637		
3,800.0	3,747.5	3,678.0	3,493.1	12.9	21.0	95.07	-4,947.0	1,784.7	5,290.8	5,257.0	33.81	156.491		
3,838.6	3,785.3	3,678.0	3,493.1	13.1	21.0	95.07	-4,947.0	1,784.7	5,293.4	5,259.4	33.98	155.772		
3,900.0	3,845.4	3,883.0	3,684.9	13.4	22.4	94.74	-4,935.8	1,856.1	5,296.4	5,260.7	35.69	148.392		
3,937.0	3,881.5	3,936.4	3,735.0	13.6	22.8	94.66	-4,932.4	1,874.3	5,298.0	5,261.8	36.23	146.239		
4,000.0	3,943.2	4,064.0	3,855.3	13.8	23.6	94.48	-4,923.5	1,915.9	5,300.3	5,262.9	37.35	141.904		
4,035.4	3,977.8	4,064.0	3,855.3	14.0	23.6	94.48	-4,923.5	1,915.9	5,301.5	5,264.0	37.51	141.333		
4,100.0	4,041.0	4,111.4	3,900.0	14.3	24.0	94.41	-4,920.2	1,931.3	5,303.8	5,265.7	38.12	139.117		
4,133.8	4,074.1	4,127.3	3,914.9	14.4	24.1	94.39	-4,919.1	1,936.6	5,305.2	5,266.8	38.39	138.210		
4,200.0	4,138.8	4,158.2	3,943.9	14.7	24.3	94.34	-4,917.2	1,947.2	5,308.3	5,269.4	38.89	136.483		
4,232.3	4,170.4	4,192.0	3,975.5	14.9	24.5	94.28	-4,915.2	1,959.1	5,310.1	5,270.8	39.27	135.222		
4,300.0	4,236.6	4,218.2	3,999.9	15.2	24.7	94.24	-4,913.7	1,968.5	5,313.8	5,274.1	39.77	133.628		
4,330.7	4,266.6	4,247.5	4,027.2	15.3	24.9	94.19	-4,912.1	1,979.0	5,315.6	5,275.5	40.12	132.500		
4,400.0	4,334.4	4,313.5	4,088.7	15.6	25.4	94.07	-4,908.3	2,002.9	5,319.7	5,278.8	40.91	130.028		
4,429.1	4,362.9	4,320.0	4,094.7	15.8	25.5	94.06	-4,907.9	2,005.2	5,321.4	5,280.3	41.09	129.506		
4,500.0	4,432.2	4,372.8	4,143.8	16.1	25.8	93.97	-4,905.1	2,024.3	5,325.9	5,284.1	41.79	127.436		
4,527.5	4,459.2	4,388.4	4,158.3	16.2	26.0	93.94	-4,904.3	2,030.0	5,327.8	5,285.8	42.03	126.760		
4,600.0	4,530.1	4,449.0	4,214.8	16.5	26.4	93.84	-4,901.7	2,051.9	5,333.1	5,290.3	42.80	124.613		
4,626.0	4,555.5	4,449.0	4,214.8	16.7	26.4	93.84	-4,901.7	2,051.9	5,335.0	5,292.1	42.91	124.316		
4,700.0	4,627.9	4,506.2	4,268.0	17.0	26.8	93.74	-4,899.6	2,072.6	5,340.8	5,297.1	43.67	122.301		
4,724.4	4,651.7	4,527.5	4,287.8	17.1	27.0	93.70	-4,898.7	2,080.5	5,342.7	5,298.8	43.94	121.604		
4,800.0	4,725.7	4,577.0	4,333.7	17.4	27.4	93.61	-4,896.8	2,098.9	5,348.9	5,304.2	44.64	119.822		
4,822.8	4,748.0	4,606.2	4,360.7	17.6	27.6	93.56	-4,895.7	2,109.8	5,350.7	5,305.8	44.96	119.020		
4,900.0	4,823.5	4,660.4	4,411.1	17.9	28.0	93.47	-4,893.9	2,129.9	5,357.4	5,311.7	45.70	117.224		
4,921.2	4,844.3	4,675.3	4,425.0	18.0	28.1	93.44	-4,893.4	2,135.4	5,359.3	5,313.4	45.91	116.740		
5,000.0	4,921.3	4,946.3	4,681.0	18.4	29.9	93.10	-4,883.0	2,223.2	5,363.9	5,315.9	47.99	111.778		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 134-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,014.9	4,935.9	4,962.9	4,697.0	18.4	30.0	93.09	-4,882.4	2,227.3	5,364.7	5,316.6	48.15	111.421		
5,019.7	4,940.6	4,967.7	4,701.7	18.4	30.0	93.09	-4,882.3	2,228.5	5,365.0	5,316.8	48.19	111.332		
5,100.0	5,019.4	5,049.6	4,781.2	18.7	30.4	93.14	-4,880.0	2,248.0	5,369.2	5,320.3	48.88	109.838		
5,118.1	5,037.2	5,068.1	4,799.2	18.8	30.5	93.15	-4,879.6	2,252.2	5,370.1	5,321.1	49.02	109.542		
5,200.0	5,118.1	5,306.9	5,033.1	19.0	31.4	93.10	-4,871.6	2,299.1	5,372.4	5,322.2	50.22	106.973		
5,216.5	5,134.4	5,327.2	5,053.2	19.1	31.5	93.10	-4,870.8	2,302.6	5,372.8	5,322.4	50.34	106.731		
5,300.0	5,217.2	5,392.4	5,117.5	19.3	31.7	93.11	-4,868.5	2,313.0	5,374.4	5,323.7	50.76	105.872		
5,314.9	5,232.1	5,402.4	5,127.3	19.3	31.7	93.11	-4,868.2	2,314.5	5,374.7	5,323.9	50.83	105.748		
5,400.0	5,316.8	5,476.0	5,200.3	19.5	32.0	93.12	-4,866.9	2,323.9	5,376.8	5,325.6	51.23	104.951		
5,413.4	5,330.1	5,476.0	5,200.3	19.5	32.0	93.12	-4,866.9	2,323.9	5,377.1	5,325.9	51.26	104.908		
5,500.0	5,416.6	5,733.0	5,456.6	19.7	32.4	93.10	-4,863.5	2,341.2	5,378.3	5,326.4	51.87	103.688		
5,511.8	5,428.4	5,733.0	5,456.6	19.7	32.4	93.10	-4,863.5	2,341.2	5,378.2	5,326.3	51.89	103.654		
5,600.0	5,516.6	5,792.0	5,515.6	19.8	32.5	93.09	-4,862.7	2,342.6	5,377.7	5,325.7	52.07	103.280		
5,610.2	5,526.8	5,798.0	5,521.6	19.8	32.5	93.09	-4,862.6	2,342.7	5,377.7	5,325.6	52.09	103.244		
5,615.0	5,531.6	5,800.7	5,524.3	19.8	32.5	163.16	-4,862.6	2,342.8	5,377.7	5,325.6	52.08	103.250		
5,635.4	5,552.0	5,812.7	5,536.3	19.9	32.5	163.16	-4,862.5	2,343.0	5,377.7	5,325.6	52.12	103.175		
5,700.0	5,616.6	5,861.0	5,584.6	19.9	32.6	163.15	-4,862.4	2,343.8	5,377.8	5,325.6	52.25	102.921		
5,708.6	5,625.3	5,861.0	5,584.6	20.0	32.6	163.15	-4,862.4	2,343.8	5,377.9	5,325.6	52.26	102.899		
5,800.0	5,716.6	5,927.1	5,650.7	20.1	32.6	163.14	-4,862.6	2,344.8	5,378.5	5,326.1	52.45	102.547		
5,807.1	5,723.7	5,932.8	5,656.4	20.1	32.6	163.14	-4,862.7	2,344.9	5,378.6	5,326.1	52.46	102.518		
5,900.0	5,816.6	6,008.7	5,732.3	20.2	32.7	163.13	-4,863.1	2,346.2	5,379.6	5,326.9	52.66	102.151		
5,905.5	5,822.1	6,013.3	5,736.9	20.2	32.7	163.13	-4,863.2	2,346.3	5,379.7	5,327.0	52.68	102.129		
6,000.0	5,916.6	6,093.1	5,816.7	20.4	32.8	163.12	-4,864.0	2,347.4	5,381.0	5,328.1	52.88	101.760		
6,003.9	5,920.5	6,096.4	5,820.0	20.4	32.8	163.12	-4,864.0	2,347.5	5,381.1	5,328.2	52.89	101.744		
6,100.0	6,016.6	6,202.8	5,926.3	20.5	32.9	163.11	-4,865.3	2,348.8	5,382.5	5,329.4	53.12	101.328		
6,102.3	6,019.0	6,205.5	5,929.1	20.5	32.9	163.11	-4,865.3	2,348.9	5,382.5	5,329.4	53.13	101.318		
6,200.0	6,116.6	6,302.9	6,026.4	20.6	33.0	163.10	-4,866.2	2,350.4	5,383.8	5,330.4	53.35	100.907		
6,200.8	6,117.4	6,303.6	6,027.1	20.6	33.0	163.10	-4,866.2	2,350.4	5,383.8	5,330.4	53.36	100.903		
6,299.2	6,215.8	6,409.3	6,132.9	20.8	33.1	163.09	-4,867.4	2,351.5	5,385.2	5,331.6	53.59	100.482		
6,300.0	6,216.6	6,410.8	6,134.3	20.8	33.1	163.09	-4,867.4	2,351.6	5,385.2	5,331.6	53.60	100.478		
6,340.0	6,256.6	6,483.3	6,206.8	20.8	33.1	163.09	-4,867.9	2,352.2	5,385.6	5,331.8	53.72	100.256		
6,350.0	6,266.6	6,501.5	6,225.0	20.8	33.2	-17.13	-4,867.9	2,352.3	5,385.5	5,331.8	53.76	100.184		
6,397.6	6,314.2	6,539.8	6,263.4	20.9	33.2	-17.18	-4,868.1	2,352.7	5,383.7	5,330.0	53.70	100.253		
6,400.0	6,316.5	6,541.7	6,265.2	20.9	33.2	-17.18	-4,868.1	2,352.7	5,383.5	5,329.8	53.69	100.265		
6,450.0	6,366.2	6,580.9	6,304.4	20.9	33.2	-17.33	-4,868.3	2,353.0	5,378.2	5,324.8	53.39	100.735		
6,496.0	6,411.4	6,616.6	6,340.1	21.0	33.3	-17.54	-4,868.5	2,353.3	5,370.5	5,317.6	52.90	101.517		
6,500.0	6,415.3	6,632.0	6,355.5	21.0	33.3	-17.57	-4,868.6	2,353.5	5,369.7	5,316.8	52.86	101.578		
6,550.0	6,463.6	6,671.4	6,394.9	21.0	33.3	-17.90	-4,869.0	2,353.7	5,358.0	5,305.9	52.10	102.845		
6,594.5	6,505.8	6,722.1	6,445.6	21.0	33.4	-18.30	-4,869.4	2,354.0	5,344.8	5,293.6	51.25	104.295		
6,600.0	6,510.9	6,728.3	6,451.8	21.0	33.4	-18.36	-4,869.4	2,354.0	5,343.0	5,291.9	51.13	104.497		
6,650.0	6,557.0	6,785.0	6,508.5	21.0	33.4	-18.94	-4,869.8	2,354.1	5,324.8	5,274.9	49.96	106.580		
6,692.9	6,595.4	6,833.4	6,556.9	21.0	33.5	-19.55	-4,870.0	2,354.2	5,306.7	5,257.9	48.81	108.728		
6,700.0	6,601.6	6,841.3	6,564.8	21.0	33.5	-19.66	-4,870.0	2,354.3	5,303.5	5,254.9	48.61	109.115		
6,750.0	6,644.6	6,895.1	6,618.6	20.9	33.5	-20.55	-4,870.0	2,354.7	5,279.2	5,232.1	47.08	112.127		
6,791.3	6,678.6	6,936.8	6,660.3	20.9	33.6	-21.42	-4,869.9	2,355.0	5,257.0	5,211.3	45.72	114.985		
6,800.0	6,685.6	6,945.3	6,668.8	20.9	33.6	-21.62	-4,869.9	2,355.1	5,252.1	5,206.6	45.42	115.625		
6,850.0	6,724.6	6,992.9	6,716.4	20.9	33.6	-22.91	-4,869.8	2,355.5	5,222.2	5,178.5	43.66	119.613		
6,889.7	6,753.9	7,024.8	6,748.3	20.9	33.7	-24.11	-4,869.6	2,355.7	5,196.6	5,154.4	42.21	123.124		
6,900.0	6,761.3	7,030.8	6,754.3	20.9	33.7	-24.43	-4,869.6	2,355.7	5,189.7	5,147.9	41.83	124.072		
6,950.0	6,795.5	7,060.0	6,783.5	20.9	33.7	-26.23	-4,869.5	2,356.0	5,155.0	5,115.0	39.99	128.905		
6,988.2	6,819.9	7,081.1	6,804.6	20.9	33.7	-27.85	-4,869.4	2,356.2	5,127.1	5,088.4	38.63	132.724		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,000.0	6,827.1	7,087.3	6,810.8	20.9	33.7	-28.40	-4,869.4	2,356.2	5,118.2	5,079.9	38.23	133.885		
7,050.0	6,855.9	7,112.3	6,835.8	20.9	33.7	-31.03	-4,869.3	2,356.5	5,079.4	5,042.7	36.64	138.647		
7,086.6	6,875.1	7,129.0	6,852.5	20.9	33.8	-33.31	-4,869.2	2,356.7	5,049.8	5,014.2	35.66	141.596		
7,100.0	6,881.8	7,134.7	6,858.2	20.9	33.8	-34.23	-4,869.2	2,356.8	5,038.8	5,003.5	35.33	142.620		
7,150.0	6,904.6	7,156.0	6,879.5	21.0	33.8	-38.17	-4,869.1	2,357.1	4,996.6	4,962.2	34.45	145.046		
7,185.0	6,918.8	7,170.1	6,893.6	21.1	33.8	-41.48	-4,869.1	2,357.3	4,966.3	4,932.1	34.16	145.397		
7,200.0	6,924.3	7,175.7	6,899.1	21.1	33.8	-43.04	-4,869.1	2,357.3	4,953.1	4,919.0	34.11	145.197		
7,250.0	6,940.8	7,192.1	6,915.6	21.2	33.8	-49.06	-4,869.1	2,357.5	4,908.5	4,874.1	34.38	142.781		
7,283.4	6,949.9	7,201.2	6,924.7	21.3	33.8	-53.82	-4,869.0	2,357.6	4,878.1	4,843.2	34.86	139.922		
7,300.0	6,953.9	7,205.2	6,928.6	21.4	33.8	-56.41	-4,869.0	2,357.7	4,862.9	4,827.7	35.16	138.297		
7,350.0	6,963.6	7,214.8	6,938.3	21.6	33.8	-65.23	-4,869.0	2,357.8	4,816.6	4,780.4	36.18	133.133		
7,381.9	6,968.0	7,219.2	6,942.7	21.7	33.9	-71.56	-4,869.0	2,357.8	4,786.8	4,750.1	36.73	130.329		
7,400.0	6,969.9	7,221.0	6,944.5	21.8	33.9	-75.37	-4,869.0	2,357.9	4,769.8	4,732.9	36.93	129.156		
7,450.0	6,972.6	7,223.7	6,947.2	22.1	33.9	-86.37	-4,869.0	2,357.9	4,722.8	4,685.9	36.90	127.983		
7,471.5	6,972.8	7,223.8	6,947.3	22.2	33.9	-91.16	-4,869.0	2,357.9	4,702.6	4,666.0	36.58	128.554		
7,480.3	6,972.7	7,223.7	6,947.2	22.3	33.9	-91.16	-4,869.0	2,357.9	4,694.3	4,657.6	36.67	128.025		
7,500.0	6,972.5	7,223.5	6,947.0	22.4	33.9	-91.15	-4,869.0	2,357.9	4,675.8	4,638.9	36.86	126.853		
7,578.7	6,971.8	7,222.6	6,946.1	23.1	33.9	-91.12	-4,869.0	2,357.9	4,601.8	4,564.2	37.65	122.213		
7,600.0	6,971.6	7,222.4	6,945.9	23.3	33.9	-91.11	-4,869.0	2,357.9	4,581.9	4,544.0	37.87	120.994		
7,677.1	6,970.9	7,221.5	6,945.0	24.0	33.9	-91.08	-4,869.0	2,357.9	4,509.6	4,470.9	38.71	116.503		
7,700.0	6,970.7	7,221.3	6,944.7	24.2	33.9	-91.07	-4,869.0	2,357.9	4,488.2	4,449.3	38.96	115.211		
7,775.6	6,970.0	7,220.4	6,943.9	25.0	33.9	-91.04	-4,869.0	2,357.9	4,417.6	4,377.8	39.87	110.797		
7,800.0	6,969.8	7,220.1	6,943.6	25.3	33.9	-91.03	-4,869.0	2,357.9	4,394.9	4,354.7	40.17	109.415		
7,874.0	6,969.1	7,219.3	6,942.8	26.2	33.9	-91.00	-4,869.0	2,357.8	4,326.0	4,284.8	41.14	105.154		
7,900.0	6,968.9	7,219.0	6,942.5	26.5	33.9	-90.99	-4,869.0	2,357.8	4,301.8	4,260.3	41.48	103.706		
7,972.4	6,968.2	7,218.2	6,941.7	27.4	33.9	-90.96	-4,869.0	2,357.8	4,234.6	4,192.1	42.49	99.650		
8,000.0	6,968.0	7,217.9	6,941.4	27.8	33.9	-90.95	-4,869.0	2,357.8	4,209.1	4,166.2	42.88	98.157		
8,070.8	6,967.3	7,217.1	6,940.6	28.7	33.9	-90.92	-4,869.0	2,357.8	4,143.6	4,099.6	43.92	94.333		
8,100.0	6,967.1	7,216.7	6,940.2	29.1	33.8	-90.91	-4,869.0	2,357.8	4,116.7	4,072.3	44.35	92.813		
8,169.3	6,966.4	7,216.0	6,939.4	30.1	33.8	-90.88	-4,869.0	2,357.8	4,052.9	4,007.4	45.42	89.237		
8,200.0	6,966.2	7,215.6	6,939.1	30.5	33.8	-90.86	-4,869.0	2,357.8	4,024.6	3,978.7	45.89	87.705		
8,267.7	6,965.5	7,214.8	6,938.3	31.5	33.8	-90.84	-4,869.0	2,357.8	3,962.5	3,915.6	46.96	84.377		
8,300.0	6,965.2	7,214.5	6,937.9	32.0	33.8	-90.82	-4,869.0	2,357.8	3,933.0	3,885.5	47.47	82.844		
8,366.1	6,964.6	7,213.7	6,937.2	33.0	33.8	-90.80	-4,869.0	2,357.8	3,872.6	3,824.0	48.55	79.763		
8,400.0	6,964.3	7,213.3	6,936.8	33.5	33.8	-90.78	-4,869.0	2,357.8	3,841.7	3,792.6	49.10	78.238		
8,464.5	6,963.8	7,212.6	6,936.1	34.5	33.8	-90.76	-4,869.0	2,357.8	3,783.1	3,732.9	50.18	75.392		
8,500.0	6,963.4	7,212.2	6,935.7	35.1	33.8	-90.74	-4,869.0	2,357.8	3,751.0	3,700.2	50.77	73.882		
8,563.0	6,962.9	7,211.5	6,934.9	36.1	33.8	-90.72	-4,869.0	2,357.8	3,694.0	3,642.2	51.84	71.260		
8,600.0	6,962.5	7,211.0	6,934.5	36.7	33.8	-90.70	-4,869.0	2,357.8	3,660.6	3,608.2	52.47	69.770		
8,661.4	6,962.0	7,210.3	6,933.8	37.7	33.8	-90.67	-4,869.0	2,357.7	3,605.4	3,551.9	53.53	67.358		
8,700.0	6,961.6	7,209.9	6,933.4	38.3	33.8	-90.66	-4,869.0	2,357.7	3,570.9	3,516.7	54.19	65.892		
8,759.8	6,961.1	7,209.2	6,932.7	39.3	33.8	-90.63	-4,869.0	2,357.7	3,517.4	3,462.2	55.24	63.676		
8,800.0	6,960.7	7,208.7	6,932.2	40.0	33.8	-90.62	-4,869.0	2,357.7	3,481.6	3,425.7	55.94	62.237		
8,858.2	6,960.2	7,208.1	6,931.5	40.9	33.8	-90.59	-4,869.0	2,357.7	3,429.9	3,372.9	56.97	60.204		
8,900.0	6,959.8	7,207.6	6,931.1	41.6	33.8	-90.58	-4,869.0	2,357.7	3,393.0	3,335.3	57.71	58.794		
8,956.7	6,959.3	7,206.9	6,930.4	42.6	33.8	-90.55	-4,869.0	2,357.7	3,343.0	3,284.3	58.72	56.930		
9,000.0	6,958.9	7,206.4	6,929.9	43.3	33.8	-90.53	-4,869.0	2,357.7	3,305.0	3,245.5	59.50	55.550		
9,055.1	6,958.4	7,205.8	6,929.2	44.3	33.8	-90.51	-4,869.0	2,357.7	3,256.8	3,196.3	60.49	53.841		
9,100.0	6,958.0	7,205.2	6,928.7	45.1	33.8	-90.49	-4,869.0	2,357.7	3,217.7	3,156.4	61.30	52.493		
9,153.5	6,957.5	7,204.6	6,928.1	46.0	33.8	-90.47	-4,869.0	2,357.7	3,171.3	3,109.0	62.27	50.929		
9,200.0	6,957.1	7,204.1	6,927.6	46.8	33.8	-90.45	-4,869.0	2,357.7	3,131.2	3,068.1	63.11	49.612		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,251.9	6,956.6	7,203.5	6,927.0	47.7	33.8	-90.43	-4,869.0	2,357.7	3,086.6	3,022.5	64.06	48.180		
9,300.0	6,956.2	7,202.9	6,926.4	48.6	33.8	-90.41	-4,869.0	2,357.7	3,045.5	2,980.5	64.94	46.896		
9,350.4	6,955.7	7,202.3	6,925.8	49.5	33.8	-90.39	-4,869.0	2,357.7	3,002.6	2,936.8	65.87	45.587		
9,400.0	6,955.2	7,201.7	6,925.2	50.3	33.8	-90.37	-4,869.0	2,357.7	2,960.7	2,893.9	66.78	44.336		
9,448.8	6,954.8	7,201.2	6,924.6	51.2	33.8	-90.35	-4,869.0	2,357.6	2,919.6	2,852.0	67.68	43.139		
9,500.0	6,954.3	7,200.6	6,924.0	52.1	33.8	-90.32	-4,869.0	2,357.6	2,876.8	2,808.2	68.63	41.920		
9,547.2	6,953.9	7,200.0	6,923.5	53.0	33.8	-90.30	-4,869.0	2,357.6	2,837.6	2,768.1	69.50	40.827		
9,600.0	6,953.4	7,199.4	6,922.9	53.9	33.8	-90.28	-4,869.0	2,357.6	2,794.1	2,723.6	70.48	39.642		
9,645.6	6,953.0	7,198.8	6,922.3	54.7	33.8	-90.26	-4,869.0	2,357.6	2,756.7	2,685.3	71.33	38.645		
9,700.0	6,952.5	7,198.2	6,921.7	55.7	33.8	-90.24	-4,869.0	2,357.6	2,712.5	2,640.1	72.35	37.493		
9,744.1	6,952.1	7,197.7	6,921.2	56.5	33.8	-90.22	-4,869.0	2,357.6	2,676.9	2,603.7	73.17	36.584		
9,800.0	6,951.6	7,197.0	6,920.5	57.5	33.8	-90.20	-4,869.0	2,357.6	2,632.1	2,557.9	74.22	35.466		
9,842.5	6,951.2	7,196.5	6,920.0	58.3	33.8	-90.18	-4,869.0	2,357.6	2,598.4	2,523.4	75.01	34.639		
9,900.0	6,950.7	7,195.8	6,919.3	59.4	33.8	-90.15	-4,869.0	2,357.6	2,553.2	2,477.1	76.09	33.553		
9,940.9	6,950.3	7,195.3	6,918.8	60.1	33.8	-90.14	-4,869.0	2,357.6	2,521.3	2,444.4	76.86	32.802		
10,000.0	6,949.8	7,194.6	6,918.1	61.2	33.8	-90.11	-4,869.0	2,357.6	2,475.8	2,397.8	77.98	31.751		
10,039.3	6,949.4	7,194.2	6,917.7	61.9	33.8	-90.09	-4,869.0	2,357.6	2,445.7	2,367.0	78.72	31.070		
10,100.0	6,948.9	7,193.5	6,916.9	63.0	33.8	-90.07	-4,869.0	2,357.6	2,400.0	2,320.1	79.86	30.052		
10,137.8	6,948.5	7,193.0	6,916.5	63.7	33.8	-90.05	-4,869.0	2,357.5	2,371.9	2,291.3	80.58	29.436		
10,200.0	6,948.0	7,192.3	6,915.7	64.9	33.8	-90.03	-4,869.0	2,357.5	2,326.1	2,244.3	81.75	28.452		
10,236.2	6,947.6	7,191.8	6,915.3	65.6	33.8	-90.01	-4,869.1	2,357.5	2,299.8	2,217.4	82.44	27.896		
10,300.0	6,947.1	7,191.1	6,914.5	66.7	33.8	-89.98	-4,869.1	2,357.5	2,254.2	2,170.5	83.65	26.947		
10,334.6	6,946.7	7,190.6	6,914.1	67.4	33.8	-89.97	-4,869.1	2,357.5	2,229.8	2,145.5	84.31	26.448		
10,400.0	6,946.2	7,189.9	6,913.3	68.6	33.8	-89.94	-4,869.1	2,357.5	2,184.5	2,098.9	85.55	25.534		
10,433.0	6,945.8	7,189.5	6,912.9	69.2	33.8	-89.92	-4,869.1	2,357.5	2,161.9	2,075.8	86.18	25.087		
10,500.0	6,945.2	7,188.6	6,912.1	70.5	33.8	-89.90	-4,869.1	2,357.5	2,117.2	2,029.7	87.45	24.209		
10,531.5	6,945.0	7,188.3	6,911.7	71.1	33.8	-89.88	-4,869.1	2,357.5	2,096.6	2,008.5	88.05	23.810		
10,600.0	6,944.3	7,187.4	6,910.9	72.3	33.8	-89.85	-4,869.1	2,357.5	2,052.6	1,963.2	89.36	22.970		
10,629.9	6,944.1	7,187.1	6,910.6	72.9	33.8	-89.84	-4,869.1	2,357.5	2,033.8	1,943.9	89.93	22.615		
10,700.0	6,943.4	7,186.2	6,909.7	74.2	33.8	-89.81	-4,869.1	2,357.5	1,990.9	1,899.6	91.27	21.813		
10,728.3	6,943.2	7,185.9	6,909.4	74.7	33.8	-89.80	-4,869.1	2,357.5	1,974.0	1,882.2	91.81	21.500		
10,800.0	6,942.5	7,185.0	6,908.5	76.1	33.8	-89.76	-4,869.1	2,357.5	1,932.4	1,839.2	93.18	20.738		
10,826.7	6,942.3	7,184.7	6,908.2	76.6	33.8	-89.75	-4,869.1	2,357.5	1,917.4	1,823.7	93.70	20.464		
10,900.0	6,941.6	7,183.8	6,907.3	78.0	33.8	-89.72	-4,869.1	2,357.4	1,877.5	1,782.4	95.10	19.743		
10,925.2	6,941.4	7,183.5	6,907.0	78.4	33.8	-89.71	-4,869.1	2,357.4	1,864.2	1,768.6	95.58	19.504		
11,000.0	6,940.7	7,182.6	6,906.1	79.9	33.8	-89.68	-4,869.1	2,357.4	1,826.3	1,729.3	97.01	18.825		
11,023.6	6,940.5	7,182.3	6,905.8	80.3	33.8	-89.67	-4,869.1	2,357.4	1,814.9	1,717.4	97.47	18.620		
11,100.0	6,939.8	7,181.3	6,904.8	81.7	33.8	-89.63	-4,869.1	2,357.4	1,779.3	1,680.4	98.93	17.985		
11,122.0	6,939.6	7,181.1	6,904.6	82.2	33.8	-89.62	-4,869.1	2,357.4	1,769.6	1,670.2	99.36	17.810		
11,200.0	6,938.9	7,180.1	6,903.6	83.6	33.8	-89.59	-4,869.1	2,357.4	1,736.9	1,636.0	100.86	17.221		
11,220.4	6,938.7	7,179.9	6,903.3	84.0	33.8	-89.58	-4,869.1	2,357.4	1,728.7	1,627.5	101.25	17.074		
11,300.0	6,938.0	7,178.9	6,902.4	85.5	33.8	-89.54	-4,869.1	2,357.4	1,699.2	1,596.4	102.78	16.532		
11,318.9	6,937.8	7,178.7	6,902.1	85.9	33.8	-89.54	-4,869.1	2,357.4	1,692.6	1,589.5	103.14	16.411		
11,400.0	6,937.0	7,177.7	6,901.1	87.4	33.8	-89.50	-4,869.1	2,357.4	1,666.7	1,562.0	104.70	15.918		
11,417.3	6,936.9	7,177.4	6,900.9	87.8	33.8	-89.49	-4,869.1	2,357.4	1,661.6	1,556.6	105.04	15.819		
11,500.0	6,936.1	7,176.4	6,899.9	89.3	33.8	-89.46	-4,869.1	2,357.3	1,639.6	1,533.0	106.63	15.377		
11,515.7	6,936.0	7,176.2	6,899.7	89.6	33.8	-89.45	-4,869.1	2,357.3	1,635.9	1,529.0	106.93	15.298		
11,600.0	6,935.2	7,175.2	6,898.7	91.2	33.8	-89.41	-4,869.1	2,357.3	1,618.3	1,509.8	108.56	14.907		
11,614.1	6,935.1	7,175.0	6,898.5	91.5	33.8	-89.40	-4,869.1	2,357.3	1,615.8	1,507.0	108.83	14.847		
11,700.0	6,934.3	7,173.9	6,897.4	93.1	33.8	-89.37	-4,869.1	2,357.3	1,603.0	1,492.5	110.49	14.508		
11,712.6	6,934.2	7,173.8	6,897.3	93.4	33.8	-89.36	-4,869.1	2,357.3	1,601.5	1,490.7	110.73	14.463		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-22D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 134-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,800.0	6,933.4	7,172.7	6,896.2	95.1	33.8	-89.32	-89.32	-4,869.1	2,357.3	1,593.8	1,481.3	112.42	14.177	
11,811.0	6,933.3	7,172.5	6,896.0	95.3	33.8	-89.32	-89.32	-4,869.1	2,357.3	1,593.1	1,480.5	112.63	14.145	
11,897.2	6,932.5	7,171.5	6,894.9	96.9	33.8	-89.28	-89.28	-4,869.1	2,357.3	1,590.8	1,476.5	114.30	13.918 CC	
11,900.0	6,932.5	7,171.4	6,894.9	97.0	33.8	-89.28	-89.28	-4,869.1	2,357.3	1,590.8	1,476.5	114.35	13.912	
11,909.4	6,932.4	7,171.3	6,894.8	97.1	33.8	-89.27	-89.27	-4,869.1	2,357.3	1,590.8	1,476.3	114.53	13.890 ES	
12,000.0	6,931.6	7,170.2	6,893.7	98.9	33.8	-89.23	-89.23	-4,869.1	2,357.3	1,594.1	1,477.8	116.28	13.709	
12,007.8	6,931.5	7,170.1	6,893.6	99.0	33.8	-89.23	-89.23	-4,869.1	2,357.3	1,594.6	1,478.2	116.44	13.695	
12,100.0	6,930.7	7,168.9	6,892.4	100.8	33.8	-89.19	-89.19	-4,869.1	2,357.3	1,603.7	1,485.5	118.22	13.565	
12,106.3	6,930.6	7,168.8	6,892.3	100.9	33.8	-89.18	-89.18	-4,869.1	2,357.3	1,604.5	1,486.1	118.34	13.558	
12,200.0	6,929.8	7,167.7	6,891.1	102.7	33.8	-89.14	-89.14	-4,869.1	2,357.2	1,619.4	1,499.2	120.15	13.477	
12,204.7	6,929.7	7,167.6	6,891.1	102.8	33.8	-89.14	-89.14	-4,869.1	2,357.2	1,620.2	1,500.0	120.25	13.475	
12,300.0	6,928.8	7,166.4	6,889.9	104.6	33.8	-89.09	-89.09	-4,869.1	2,357.2	1,641.0	1,518.9	122.09	13.441	
12,303.1	6,928.8	7,166.4	6,889.8	104.7	33.8	-89.09	-89.09	-4,869.1	2,357.2	1,641.8	1,519.6	122.15	13.440 SF	
12,400.0	6,927.9	7,165.1	6,888.6	106.5	33.8	-89.05	-89.05	-4,869.1	2,357.2	1,668.4	1,544.3	124.03	13.452	
12,401.5	6,927.9	7,165.1	6,888.6	106.6	33.8	-89.05	-89.05	-4,869.1	2,357.2	1,668.8	1,544.8	124.06	13.452	
12,500.0	6,927.0	7,163.9	6,887.3	108.5	33.8	-89.00	-89.00	-4,869.1	2,357.2	1,701.2	1,575.2	125.97	13.505	
12,598.4	6,926.1	7,162.6	6,886.1	110.4	33.8	-88.96	-88.96	-4,869.1	2,357.2	1,738.5	1,610.6	127.87	13.595	
12,600.0	6,926.1	7,162.6	6,886.1	110.4	33.8	-88.96	-88.96	-4,869.1	2,357.2	1,739.1	1,611.2	127.90	13.597	
12,696.8	6,925.2	7,161.3	6,884.8	112.3	33.8	-88.91	-88.91	-4,869.1	2,357.2	1,780.4	1,650.6	129.78	13.719	
12,700.0	6,925.2	7,161.3	6,884.8	112.3	33.8	-88.91	-88.91	-4,869.1	2,357.2	1,781.9	1,652.0	129.84	13.723	
12,795.2	6,924.3	7,160.1	6,883.6	114.1	33.8	-88.87	-88.87	-4,869.1	2,357.1	1,826.7	1,695.1	131.69	13.871	
12,800.0	6,924.3	7,160.0	6,883.5	114.2	33.8	-88.86	-88.86	-4,869.1	2,357.1	1,829.1	1,697.3	131.78	13.880	
12,893.7	6,923.4	7,158.8	6,882.3	116.0	33.8	-88.82	-88.82	-4,869.1	2,357.1	1,877.1	1,743.5	133.60	14.050	
12,900.0	6,923.4	7,158.7	6,882.2	116.2	33.8	-88.82	-88.82	-4,869.1	2,357.1	1,880.4	1,746.7	133.72	14.062	
12,992.1	6,922.5	7,157.5	6,881.0	117.9	33.8	-88.78	-88.78	-4,869.1	2,357.1	1,931.1	1,795.6	135.51	14.251	
13,000.0	6,922.5	7,157.4	6,880.9	118.1	33.8	-88.77	-88.77	-4,869.1	2,357.1	1,935.6	1,799.9	135.66	14.268	
13,090.5	6,921.6	7,156.3	6,879.8	119.8	33.8	-88.73	-88.73	-4,869.1	2,357.1	1,988.6	1,851.1	137.42	14.470	
13,100.0	6,921.5	7,156.2	6,879.6	120.0	33.8	-88.73	-88.73	-4,869.1	2,357.1	1,994.3	1,856.7	137.61	14.493	
13,188.9	6,920.7	7,155.0	6,878.5	121.7	33.8	-88.68	-88.68	-4,869.1	2,357.1	2,049.1	1,909.8	139.33	14.707	
13,200.0	6,920.6	7,154.9	6,878.3	121.9	33.8	-88.68	-88.68	-4,869.1	2,357.1	2,056.1	1,916.6	139.55	14.734	
13,287.4	6,919.8	7,153.7	6,877.2	123.6	33.8	-88.64	-88.64	-4,869.1	2,357.1	2,112.6	1,971.3	141.25	14.957	
13,300.0	6,919.7	7,153.6	6,877.0	123.9	33.8	-88.63	-88.63	-4,869.1	2,357.1	2,120.9	1,979.4	141.49	14.989	
13,385.8	6,918.9	7,152.4	6,875.9	125.5	33.8	-88.59	-88.59	-4,869.2	2,357.0	2,178.6	2,035.4	143.16	15.218	
13,400.0	6,918.8	7,152.3	6,875.7	125.8	33.8	-88.59	-88.59	-4,869.2	2,357.0	2,188.3	2,044.9	143.43	15.256	
13,484.2	6,918.0	7,151.2	6,874.6	127.4	33.8	-88.55	-88.55	-4,869.2	2,357.0	2,247.0	2,101.9	145.07	15.489	
13,500.0	6,917.9	7,151.0	6,874.4	127.7	33.8	-88.54	-88.54	-4,869.2	2,357.0	2,258.1	2,112.7	145.38	15.533	
13,582.6	6,917.1	7,149.9	6,873.4	129.3	33.8	-88.50	-88.50	-4,869.2	2,357.0	2,317.5	2,170.5	146.98	15.767	
13,600.0	6,917.0	7,149.6	6,873.1	129.7	33.8	-88.49	-88.49	-4,869.2	2,357.0	2,330.2	2,182.8	147.32	15.817	
13,681.1	6,916.2	7,148.6	6,872.1	131.2	33.8	-88.45	-88.45	-4,869.2	2,357.0	2,390.0	2,241.1	148.90	16.051	
13,700.0	6,916.1	7,148.3	6,871.8	131.6	33.8	-88.44	-88.44	-4,869.2	2,357.0	2,404.2	2,254.9	149.27	16.107	
13,779.5	6,915.3	7,147.3	6,870.8	133.1	33.8	-88.41	-88.41	-4,869.2	2,357.0	2,464.4	2,313.5	150.81	16.341	
13,800.0	6,915.2	7,147.0	6,870.5	133.5	33.8	-88.40	-88.40	-4,869.2	2,357.0	2,480.0	2,328.8	151.21	16.401	
13,877.9	6,914.4	7,146.0	6,869.5	135.1	33.8	-88.36	-88.36	-4,869.2	2,357.0	2,540.3	2,387.6	152.73	16.633	
13,900.0	6,914.2	7,145.7	6,869.2	135.5	33.8	-88.35	-88.35	-4,869.2	2,356.9	2,557.6	2,404.4	153.16	16.699	
13,976.3	6,913.5	7,145.0	6,868.5	137.0	33.8	-88.32	-88.32	-4,869.2	2,356.9	2,617.8	2,463.1	154.64	16.928	
14,000.0	6,913.3	7,145.0	6,868.5	137.4	33.8	-88.32	-88.32	-4,869.2	2,356.9	2,636.6	2,481.5	155.10	16.999	
14,074.8	6,912.6	7,145.0	6,868.5	138.9	33.8	-88.32	-88.32	-4,869.2	2,356.9	2,696.6	2,540.0	156.56	17.225	
14,100.0	6,912.4	7,145.0	6,868.5	139.4	33.8	-88.32	-88.32	-4,869.2	2,356.9	2,717.0	2,560.0	157.05	17.301	
14,145.0	6,912.0	7,145.0	6,868.5	140.2	33.8	-88.32	-88.32	-4,869.2	2,356.9	2,753.6	2,595.7	157.88	17.441	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 726-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	172.08	-5,114.9	711.2	5,164.1					
98.4	98.4	76.9	76.9	0.1	0.1	172.09	-5,114.9	711.1	5,164.1	5,163.9	0.18	N/A		
100.0	100.0	78.4	78.4	0.1	0.1	172.09	-5,114.9	711.1	5,164.1	5,163.9	0.18	N/A		
196.8	196.8	170.4	170.4	0.3	0.2	172.09	-5,115.0	710.9	5,164.2	5,163.7	0.49	N/A		
200.0	200.0	173.4	173.4	0.3	0.2	172.09	-5,115.1	710.9	5,164.2	5,163.7	0.50	N/A		
295.3	295.3	263.9	263.9	0.5	0.3	172.09	-5,115.3	710.5	5,164.4	5,163.6	0.81	6,380.535		
300.0	300.0	268.4	268.4	0.5	0.3	172.09	-5,115.3	710.4	5,164.4	5,163.6	0.82	6,262.416		
393.7	393.7	357.4	357.4	0.8	0.4	172.10	-5,115.7	709.9	5,164.7	5,163.6	1.13	4,580.870		
400.0	400.0	363.4	363.4	0.8	0.4	172.10	-5,115.7	709.8	5,164.8	5,163.6	1.15	4,499.642		
492.1	492.1	450.9	450.9	1.0	0.5	172.11	-5,116.2	709.1	5,165.1	5,163.7	1.45	3,573.235		
500.0	500.0	458.4	458.3	1.0	0.5	172.11	-5,116.2	709.0	5,165.2	5,163.7	1.47	3,511.443		
590.5	590.5	544.4	544.3	1.2	0.6	172.12	-5,116.8	708.2	5,165.6	5,163.9	1.76	2,929.106		
600.0	600.0	553.3	553.3	1.2	0.6	172.12	-5,116.9	708.1	5,165.7	5,163.9	1.79	2,879.281		
689.0	689.0	637.8	637.8	1.4	0.7	172.13	-5,117.5	707.1	5,166.2	5,164.2	2.08	2,481.861		
700.0	700.0	648.3	648.3	1.4	0.7	172.14	-5,117.6	706.9	5,166.3	5,164.2	2.12	2,440.134		
787.4	787.4	726.0	726.0	1.6	0.8	172.15	-5,118.3	705.8	5,166.9	5,164.5	2.39	2,158.176		
800.0	800.0	726.0	726.0	1.7	0.8	172.15	-5,118.3	705.8	5,167.1	5,164.6	2.42	2,132.996		
885.8	885.8	793.7	793.7	1.9	0.9	172.15	-5,119.1	705.4	5,168.0	5,165.3	2.75	1,876.707		
900.0	900.0	803.0	802.9	1.9	0.9	172.15	-5,119.3	705.4	5,168.2	5,165.4	2.80	1,842.841		
984.2	984.2	854.0	853.9	2.1	1.0	172.15	-5,120.1	705.9	5,169.8	5,166.7	3.10	1,668.668		
1,000.0	1,000.0	854.0	853.9	2.1	1.0	172.15	-5,120.1	705.9	5,170.1	5,167.0	3.13	1,649.934		
1,082.7	1,082.7	904.6	904.5	2.3	1.1	102.02	-5,121.3	707.2	5,172.6	5,169.2	3.41	1,517.219		
1,100.0	1,100.0	913.0	912.9	2.3	1.1	102.00	-5,121.5	707.5	5,173.3	5,169.8	3.46	1,493.773		
1,181.1	1,181.0	983.0	982.8	2.5	1.3	101.93	-5,123.8	711.2	5,177.3	5,173.5	3.77	1,372.015		
1,200.0	1,199.8	983.0	982.8	2.6	1.3	101.91	-5,123.8	711.2	5,178.2	5,174.4	3.81	1,357.680		
1,279.5	1,279.1	983.0	982.8	2.7	1.3	101.82	-5,123.8	711.2	5,183.3	5,179.3	3.99	1,297.648		
1,300.0	1,299.5	983.0	982.8	2.8	1.3	101.78	-5,123.8	711.2	5,184.9	5,180.8	4.04	1,283.140		
1,377.9	1,376.9	1,041.7	1,041.2	3.0	1.4	101.69	-5,126.4	715.5	5,191.1	5,186.7	4.36	1,189.939		
1,400.0	1,398.7	1,051.4	1,050.9	3.0	1.4	101.66	-5,126.9	716.3	5,193.1	5,188.6	4.44	1,169.954		
1,476.4	1,474.2	1,111.0	1,110.2	3.2	1.6	101.56	-5,130.5	721.5	5,200.8	5,196.0	4.78	1,087.926		
1,500.0	1,497.5	1,111.0	1,110.2	3.3	1.6	101.51	-5,130.5	721.5	5,203.3	5,198.4	4.85	1,073.819		
1,574.8	1,571.0	1,111.0	1,110.2	3.5	1.6	101.34	-5,130.5	721.5	5,212.0	5,206.9	5.08	1,026.099		
1,600.1	1,595.7	1,111.0	1,110.2	3.6	1.6	101.27	-5,130.5	721.5	5,215.3	5,210.1	5.16	1,010.978		
1,673.2	1,667.2	1,159.8	1,158.5	3.9	1.7	101.33	-5,134.0	726.4	5,224.9	5,219.3	5.54	943.796		
1,700.0	1,693.4	1,169.3	1,168.0	4.0	1.7	101.34	-5,134.8	727.4	5,228.6	5,223.0	5.65	924.932		
1,771.6	1,763.5	1,194.7	1,193.2	4.2	1.8	101.37	-5,137.1	730.3	5,239.0	5,233.0	5.98	876.188		
1,800.0	1,791.3	1,240.0	1,237.9	4.3	1.9	101.42	-5,141.5	735.9	5,243.6	5,237.4	6.20	846.145		
1,870.1	1,859.8	1,240.0	1,237.9	4.6	1.9	101.42	-5,141.5	735.9	5,254.3	5,247.8	6.46	812.912		
1,900.0	1,889.1	1,240.0	1,237.9	4.7	1.9	101.42	-5,141.5	735.9	5,259.2	5,252.6	6.58	799.540		
1,968.5	1,956.1	1,279.9	1,277.1	5.0	2.1	101.46	-5,145.7	741.4	5,270.6	5,263.7	6.96	757.129		
2,000.0	1,986.9	1,298.0	1,295.0	5.1	2.1	101.47	-5,147.7	744.0	5,276.0	5,268.9	7.14	739.233		
2,066.9	2,052.3	1,336.6	1,332.9	5.4	2.3	101.50	-5,152.1	750.0	5,287.7	5,280.2	7.52	703.504		
2,100.0	2,084.7	1,368.0	1,363.6	5.5	2.4	101.52	-5,155.7	755.3	5,293.6	5,285.9	7.74	684.065		
2,165.3	2,148.6	1,368.0	1,363.6	5.8	2.4	101.52	-5,155.7	755.3	5,305.6	5,297.6	8.01	662.732		
2,200.0	2,182.5	1,368.0	1,363.6	5.9	2.4	101.52	-5,155.7	755.3	5,312.3	5,304.2	8.15	652.021		
2,263.8	2,244.9	1,426.9	1,421.0	6.2	2.6	101.55	-5,162.9	765.9	5,324.4	5,315.8	8.61	618.435		
2,300.0	2,280.3	1,441.8	1,435.6	6.3	2.7	101.55	-5,164.8	768.7	5,331.6	5,322.8	8.81	605.197		
2,362.2	2,341.2	1,496.0	1,488.2	6.6	2.9	101.57	-5,172.4	779.5	5,344.4	5,335.2	9.25	577.690		
2,400.0	2,378.1	1,496.0	1,488.2	6.8	2.9	101.57	-5,172.4	779.5	5,352.2	5,342.8	9.41	568.772		
2,460.6	2,437.4	1,496.0	1,488.2	7.0	2.9	101.57	-5,172.4	779.5	5,365.1	5,355.5	9.67	555.002		
2,500.0	2,476.0	1,496.0	1,488.2	7.2	2.9	101.57	-5,172.4	779.5	5,373.9	5,364.1	9.83	546.477		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 726-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
2,559.0	2,533.7	1,546.0	1,536.5	7.4	3.2	101.57	-5,179.9	790.0	5,387.0	5,376.7	10.28	524.032		
2,600.0	2,573.8	1,562.1	1,551.9	7.6	3.3	101.57	-5,182.5	793.5	5,396.4	5,385.9	10.52	513.117		
2,657.5	2,630.0	1,584.6	1,573.6	7.9	3.4	101.58	-5,186.1	798.4	5,409.9	5,399.0	10.85	498.571		
2,700.0	2,671.6	1,625.0	1,612.4	8.1	3.6	101.58	-5,193.1	807.4	5,420.2	5,409.0	11.19	484.403		
2,755.9	2,726.3	1,625.0	1,612.4	8.3	3.6	101.58	-5,193.1	807.4	5,433.8	5,422.4	11.43	475.355		
2,800.0	2,769.4	1,625.0	1,612.4	8.5	3.6	101.58	-5,193.1	807.4	5,444.9	5,433.3	11.62	468.514		
2,854.3	2,822.5	1,672.6	1,657.9	8.7	3.8	101.58	-5,201.7	818.4	5,458.6	5,446.5	12.06	452.572		
2,900.0	2,867.2	1,696.0	1,680.2	8.9	4.0	101.57	-5,206.0	823.9	5,470.4	5,458.0	12.36	442.618		
2,952.7	2,918.8	1,753.0	1,734.4	9.2	4.3	101.56	-5,216.8	837.8	5,484.4	5,471.5	12.83	427.384		
3,000.0	2,965.0	1,753.0	1,734.4	9.4	4.3	101.56	-5,216.8	837.8	5,496.8	5,483.7	13.04	421.585		
3,051.2	3,015.1	1,753.0	1,734.4	9.6	4.3	101.56	-5,216.8	837.8	5,510.6	5,497.4	13.26	415.516		
3,100.0	3,062.8	1,801.8	1,780.6	9.8	4.6	101.55	-5,226.4	850.3	5,523.9	5,510.2	13.71	403.000		
3,149.6	3,111.4	1,829.3	1,806.6	10.0	4.8	101.54	-5,231.9	857.6	5,537.6	5,523.6	14.06	393.986		
3,200.0	3,160.7	1,882.0	1,856.0	10.3	5.2	101.51	-5,242.7	872.2	5,551.9	5,537.3	14.53	382.205		
3,248.0	3,207.6	1,882.0	1,856.0	10.5	5.2	101.51	-5,242.7	872.2	5,565.4	5,550.6	14.74	377.644		
3,300.0	3,258.5	1,882.0	1,856.0	10.7	5.2	101.51	-5,242.7	872.2	5,580.5	5,565.5	14.97	372.882		
3,346.4	3,303.9	1,928.3	1,899.3	10.9	5.5	101.48	-5,252.4	885.5	5,593.9	5,578.5	15.41	362.895		
3,400.0	3,356.3	1,952.7	1,922.0	11.2	5.7	101.46	-5,257.6	892.6	5,609.8	5,594.0	15.78	355.528		
3,444.9	3,400.2	1,973.0	1,940.9	11.4	5.8	101.45	-5,262.1	898.6	5,623.2	5,607.2	16.08	349.625		
3,500.0	3,454.1	2,010.0	1,975.2	11.6	6.1	101.42	-5,270.4	909.6	5,640.1	5,623.5	16.52	341.387		
3,543.3	3,496.5	2,010.0	1,975.2	11.8	6.1	101.42	-5,270.4	909.6	5,653.4	5,636.7	16.71	338.271		
3,600.0	3,551.9	2,052.9	2,014.9	12.0	6.4	101.39	-5,280.2	922.8	5,671.1	5,653.9	17.21	329.509		
3,641.7	3,592.7	2,077.3	2,037.3	12.2	6.6	101.37	-5,285.8	930.5	5,684.2	5,666.7	17.54	324.149		
3,700.0	3,649.7	2,111.2	2,068.4	12.5	6.9	101.33	-5,293.7	941.5	5,702.8	5,684.8	17.99	317.016		
3,740.1	3,689.0	2,138.0	2,092.9	12.7	7.1	101.30	-5,300.0	950.4	5,715.7	5,697.4	18.32	311.974		
3,800.0	3,747.5	2,138.0	2,092.9	12.9	7.1	101.30	-5,300.0	950.4	5,735.2	5,716.6	18.59	308.564		
3,838.6	3,785.3	2,176.4	2,127.8	13.1	7.4	101.26	-5,309.1	963.5	5,747.8	5,728.8	19.00	302.460		
3,900.0	3,845.4	2,201.7	2,150.7	13.4	7.6	101.23	-5,315.3	972.3	5,768.3	5,748.9	19.44	296.745		
3,937.0	3,881.5	2,216.9	2,164.5	13.6	7.8	101.21	-5,319.1	977.7	5,780.8	5,761.1	19.70	293.438		
4,000.0	3,943.2	2,267.0	2,209.4	13.8	8.2	101.14	-5,331.7	995.8	5,802.5	5,782.2	20.30	285.847		
4,035.4	3,977.8	2,267.0	2,209.4	14.0	8.2	101.14	-5,331.7	995.8	5,814.7	5,794.2	20.46	284.236		
4,100.0	4,041.0	2,267.0	2,209.4	14.3	8.2	101.14	-5,331.7	995.8	5,837.3	5,816.6	20.75	281.385		
4,133.8	4,074.1	2,267.0	2,209.4	14.4	8.2	101.14	-5,331.7	995.8	5,849.5	5,828.6	20.90	279.932		
4,200.0	4,138.8	2,312.6	2,250.0	14.7	8.6	101.07	-5,343.7	1,012.5	5,873.2	5,851.7	21.50	273.176		
4,232.3	4,170.4	2,323.0	2,259.3	14.9	8.7	101.06	-5,346.6	1,016.4	5,885.0	5,863.3	21.71	271.021		
4,300.0	4,236.6	2,344.7	2,278.6	15.2	9.0	101.03	-5,352.6	1,024.5	5,910.0	5,887.9	22.16	266.658		
4,330.7	4,266.6	2,395.0	2,322.9	15.3	9.4	100.95	-5,367.0	1,043.3	5,922.0	5,899.3	22.64	261.577		
4,400.0	4,334.4	2,395.0	2,322.9	15.6	9.4	100.95	-5,367.0	1,043.3	5,947.9	5,925.0	22.95	259.178		
4,429.1	4,362.9	2,395.0	2,322.9	15.8	9.4	100.95	-5,367.0	1,043.3	5,959.1	5,936.0	23.08	258.196		
4,500.0	4,432.2	2,437.3	2,360.0	16.1	9.8	100.89	-5,379.4	1,059.3	5,986.5	5,962.9	23.68	252.800		
4,527.5	4,459.2	2,465.1	2,384.5	16.2	10.1	100.85	-5,387.5	1,069.8	5,997.2	5,973.2	23.99	249.976		
4,600.0	4,530.1	2,543.5	2,453.2	16.5	10.8	100.73	-5,410.3	1,099.9	6,025.3	6,000.4	24.84	242.587		
4,626.0	4,555.5	2,579.3	2,484.6	16.7	11.2	100.67	-5,420.6	1,113.7	6,035.3	6,010.1	25.19	239.608		
4,700.0	4,627.9	2,688.0	2,579.9	17.0	12.2	100.51	-5,451.3	1,155.8	6,063.5	6,037.3	26.23	231.197		
4,724.4	4,651.7	2,729.1	2,616.0	17.1	12.5	100.44	-5,462.8	1,171.8	6,072.7	6,046.1	26.60	228.285		
4,800.0	4,725.7	2,780.0	2,660.8	17.4	13.0	100.36	-5,476.8	1,191.7	6,101.0	6,073.8	27.27	223.735		
4,822.8	4,748.0	2,813.6	2,690.3	17.6	13.3	100.31	-5,486.0	1,204.8	6,109.5	6,081.9	27.60	221.330		
4,900.0	4,823.5	2,851.4	2,723.4	17.9	13.7	100.25	-5,496.6	1,219.6	6,138.8	6,110.6	28.21	217.603		
4,921.2	4,844.3	2,861.8	2,732.5	18.0	13.8	100.23	-5,499.5	1,223.7	6,146.9	6,118.5	28.38	216.609		
5,000.0	4,921.3	2,909.0	2,773.7	18.4	14.2	100.16	-5,513.0	1,242.4	6,177.3	6,148.3	29.06	212.596		
5,014.9	4,935.9	2,909.0	2,773.7	18.4	14.2	100.16	-5,513.0	1,242.4	6,183.1	6,154.0	29.12	212.305		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1													Offset Site Error:		0.0 usft
Survey Program: 726-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
5,019.7	4,940.6	2,910.5	2,775.0	18.4	14.2	100.20	-5,513.4	1,243.0	6,185.0	6,155.8	29.16	212.122			
5,100.0	5,019.4	3,000.3	2,853.1	18.7	15.2	100.69	-5,539.1	1,279.3	6,216.0	6,185.8	30.21	205.785			
5,118.1	5,037.2	3,020.5	2,870.5	18.8	15.4	100.80	-5,544.7	1,287.6	6,222.9	6,192.4	30.43	204.523			
5,200.0	5,118.1	3,079.9	2,921.9	19.0	16.0	101.32	-5,561.4	1,312.3	6,253.9	6,222.7	31.20	200.419			
5,216.5	5,134.4	3,090.4	2,930.9	19.1	16.1	101.43	-5,564.4	1,316.7	6,260.2	6,228.8	31.35	199.718			
5,300.0	5,217.2	3,143.1	2,976.4	19.3	16.7	101.96	-5,579.4	1,338.9	6,291.7	6,259.7	32.05	196.280			
5,314.9	5,232.1	3,166.0	2,996.0	19.3	16.9	102.01	-5,585.9	1,348.6	6,297.4	6,265.1	32.28	195.076			
5,400.0	5,316.8	3,273.2	3,088.6	19.5	18.0	102.36	-5,616.5	1,393.2	6,329.0	6,295.6	33.35	189.802			
5,413.4	5,330.1	3,296.0	3,108.4	19.5	18.2	102.40	-5,622.9	1,402.4	6,333.8	6,300.3	33.55	188.787			
5,500.0	5,416.6	3,558.4	3,338.9	19.7	20.6	102.25	-5,694.5	1,505.6	6,364.5	6,328.9	35.56	178.989			
5,511.8	5,428.4	3,570.4	3,349.6	19.7	20.7	102.30	-5,697.6	1,509.9	6,368.4	6,332.7	35.66	178.586			
5,600.0	5,516.6	3,660.1	3,430.0	19.8	21.5	102.64	-5,721.4	1,542.0	6,397.3	6,360.9	36.42	175.644			
5,610.2	5,526.8	3,670.5	3,439.3	19.8	21.6	102.68	-5,724.1	1,545.6	6,400.6	6,364.1	36.51	175.322			
5,615.0	5,531.6	3,675.4	3,443.6	19.8	21.6	172.77	-5,725.4	1,547.3	6,402.2	6,365.6	36.51	175.332			
5,700.0	5,616.6	3,759.3	3,518.9	19.9	22.4	172.52	-5,747.5	1,577.3	6,429.7	6,392.5	37.15	173.081			
5,708.6	5,625.3	3,767.8	3,526.5	20.0	22.4	172.49	-5,749.7	1,580.4	6,432.5	6,395.2	37.21	172.854			
5,800.0	5,716.6	3,837.8	3,589.0	20.1	23.1	172.28	-5,767.8	1,606.2	6,462.1	6,424.3	37.79	170.990			
5,807.1	5,723.7	3,842.0	3,592.7	20.1	23.1	172.26	-5,768.9	1,607.7	6,464.4	6,426.6	37.83	170.879			
5,900.0	5,816.6	3,896.7	3,641.4	20.2	23.7	172.09	-5,783.3	1,628.2	6,495.0	6,456.7	38.33	169.455			
5,905.5	5,822.1	3,900.0	3,644.3	20.2	23.7	172.08	-5,784.1	1,629.4	6,496.9	6,458.5	38.36	169.372			
6,000.0	5,916.6	3,959.9	3,697.4	20.4	24.3	171.89	-5,800.0	1,652.1	6,528.5	6,489.6	38.89	167.886			
6,003.9	5,920.5	3,962.7	3,699.9	20.4	24.3	171.88	-5,800.8	1,653.1	6,529.8	6,490.9	38.91	167.817			
6,100.0	6,016.6	4,032.5	3,761.9	20.5	24.9	171.67	-5,819.6	1,679.1	6,562.4	6,522.9	39.49	166.163			
6,102.3	6,019.0	4,034.2	3,763.4	20.5	24.9	171.66	-5,820.1	1,679.7	6,563.2	6,523.7	39.51	166.123			
6,200.0	6,116.6	4,064.0	3,789.9	20.6	25.2	171.58	-5,828.2	1,690.6	6,596.9	6,557.0	39.84	165.592			
6,200.8	6,117.4	4,064.0	3,789.9	20.6	25.2	171.58	-5,828.2	1,690.6	6,597.1	6,557.3	39.84	165.594			
6,299.2	6,215.8	4,126.5	3,845.3	20.8	25.8	171.39	-5,845.6	1,713.7	6,631.6	6,591.2	40.38	164.216			
6,300.0	6,216.6	4,126.8	3,845.6	20.8	25.8	171.39	-5,845.7	1,713.8	6,631.9	6,591.5	40.39	164.210			
6,340.0	6,256.6	4,142.7	3,859.6	20.8	26.0	171.34	-5,850.2	1,719.8	6,646.1	6,605.6	40.55	163.916			
6,350.0	6,266.6	4,146.6	3,863.1	20.8	26.0	-8.84	-5,851.3	1,721.3	6,649.6	6,609.0	40.65	163.575			
6,397.6	6,314.2	4,193.0	3,903.8	20.9	26.5	-8.79	-5,864.7	1,739.0	6,664.9	6,623.8	41.00	162.545			
6,400.0	6,316.5	4,193.0	3,903.8	20.9	26.5	-8.78	-5,864.7	1,739.0	6,665.5	6,624.5	41.00	162.569			
6,450.0	6,366.2	4,193.0	3,903.8	20.9	26.5	-8.62	-5,864.7	1,739.0	6,678.1	6,637.2	40.85	163.487			
6,496.0	6,411.4	4,193.0	3,903.8	21.0	26.5	-8.51	-5,864.7	1,739.0	6,687.0	6,646.5	40.53	164.994			
6,500.0	6,415.3	4,193.0	3,903.8	21.0	26.5	-8.50	-5,864.7	1,739.0	6,687.6	6,647.1	40.49	165.152			
6,550.0	6,463.6	4,232.2	3,938.1	21.0	26.9	-8.56	-5,876.2	1,754.2	6,693.9	6,653.7	40.21	166.466			
6,594.5	6,505.8	4,252.8	3,956.1	21.0	27.1	-8.59	-5,882.3	1,762.2	6,696.8	6,657.1	39.70	168.700			
6,600.0	6,510.9	4,255.4	3,958.3	21.0	27.1	-8.60	-5,883.1	1,763.2	6,697.0	6,657.4	39.62	169.021			
6,650.0	6,557.0	4,278.4	3,978.4	21.0	27.3	-8.68	-5,890.0	1,772.2	6,696.9	6,658.0	38.84	172.417			
6,692.9	6,595.4	4,321.0	4,015.3	21.0	27.8	-8.86	-5,902.9	1,788.8	6,694.2	6,656.1	38.17	175.396			
6,700.0	6,601.6	4,321.0	4,015.3	21.0	27.8	-8.87	-5,902.9	1,788.8	6,693.5	6,655.5	38.00	176.157			
6,750.0	6,644.6	4,347.8	4,038.6	20.9	28.1	-9.05	-5,911.1	1,799.4	6,686.9	6,650.0	36.87	181.344			
6,791.3	6,678.6	4,469.2	4,144.0	20.9	29.3	-9.62	-5,947.0	1,847.6	6,678.5	6,642.2	36.38	183.576			
6,800.0	6,685.6	4,479.6	4,153.1	20.9	29.4	-9.69	-5,950.1	1,851.7	6,676.5	6,640.3	36.17	184.579			
6,850.0	6,724.6	4,539.3	4,205.2	20.9	30.0	-10.12	-5,967.3	1,875.1	6,662.6	6,627.7	34.86	191.104			
6,889.7	6,753.9	7,360.7	6,896.5	20.9	43.4	-19.98	-6,351.0	2,402.4	6,636.9	6,597.2	39.75	166.946			
6,900.0	6,761.3	7,403.8	6,939.5	20.9	43.5	-20.39	-6,349.7	2,402.6	6,629.8	6,590.4	39.35	168.495			
6,950.0	6,795.5	7,448.8	6,984.5	20.9	43.5	-22.07	-6,348.3	2,402.7	6,593.5	6,556.2	37.30	176.747			
6,988.2	6,819.9	7,480.6	7,016.3	20.9	43.5	-23.61	-6,347.3	2,402.7	6,564.3	6,528.4	35.83	183.202			
7,000.0	6,827.1	7,490.0	7,025.7	20.9	43.5	-24.14	-6,346.9	2,402.7	6,555.0	6,519.6	35.41	185.126			
7,050.0	6,855.9	7,527.2	7,062.9	20.9	43.5	-26.71	-6,345.7	2,402.6	6,514.5	6,480.6	33.85	192.439			

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 726-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,086.6	6,875.1	7,545.3	7,081.0	20.9	43.5	-28.95	-6,345.0	2,402.5	6,483.7	6,450.6	33.09	195.949		
7,100.0	6,881.8	7,551.1	7,086.8	20.9	43.5	-29.87	-6,344.8	2,402.5	6,472.2	6,439.3	32.89	196.790		
7,150.0	6,904.6	7,571.0	7,106.7	21.0	43.5	-33.86	-6,344.2	2,402.4	6,428.5	6,395.6	32.85	195.686		
7,185.0	6,918.8	7,583.2	7,118.8	21.1	43.5	-37.32	-6,343.8	2,402.3	6,397.0	6,363.5	33.55	190.644		
7,200.0	6,924.3	7,587.9	7,123.6	21.1	43.5	-38.99	-6,343.6	2,402.3	6,383.4	6,349.4	34.06	187.443		
7,250.0	6,940.8	7,601.8	7,137.4	21.2	43.5	-45.65	-6,343.1	2,402.2	6,337.3	6,300.6	36.66	172.857		
7,283.4	6,949.9	7,609.4	7,145.0	21.3	43.5	-51.19	-6,342.9	2,402.1	6,305.9	6,266.8	39.12	161.214		
7,300.0	6,953.9	7,612.6	7,148.2	21.4	43.5	-54.29	-6,342.8	2,402.1	6,290.3	6,249.8	40.47	155.434		
7,350.0	6,963.6	7,620.2	7,155.8	21.6	43.5	-65.28	-6,342.5	2,402.0	6,242.7	6,198.0	44.66	139.773		
7,381.9	6,968.0	7,623.3	7,158.9	21.7	43.5	-73.49	-6,342.4	2,402.0	6,212.1	6,165.2	46.85	132.593		
7,400.0	6,969.9	7,624.5	7,160.1	21.8	43.5	-78.49	-6,342.4	2,402.0	6,194.6	6,147.0	47.69	129.890		
7,450.0	6,972.6	7,625.6	7,161.2	22.1	43.5	-92.86	-6,342.4	2,402.0	6,146.5	6,098.6	47.87	128.399		
7,471.5	6,972.8	7,625.0	7,160.7	22.2	43.5	-98.97	-6,342.4	2,402.0	6,125.8	6,078.9	46.90	130.624		
7,480.3	6,972.7	7,624.7	7,160.3	22.3	43.5	-98.95	-6,342.4	2,402.0	6,117.3	6,070.3	46.98	130.203		
7,500.0	6,972.5	7,623.9	7,159.5	22.4	43.5	-98.93	-6,342.4	2,402.0	6,098.3	6,051.2	47.18	129.268		
7,578.7	6,971.8	7,620.8	7,156.4	23.1	43.5	-98.82	-6,342.5	2,402.0	6,022.6	5,974.6	47.97	125.541		
7,600.0	6,971.6	7,620.0	7,155.6	23.3	43.5	-98.79	-6,342.5	2,402.0	6,002.2	5,954.0	48.19	124.556		
7,677.1	6,970.9	7,616.9	7,152.6	24.0	43.5	-98.69	-6,342.6	2,402.1	5,928.1	5,879.0	49.03	120.901		
7,700.0	6,970.7	7,616.0	7,151.7	24.2	43.5	-98.66	-6,342.7	2,402.1	5,906.1	5,856.9	49.28	119.843		
7,775.6	6,970.0	7,613.1	7,148.7	25.0	43.5	-98.56	-6,342.8	2,402.1	5,833.6	5,783.4	50.20	116.200		
7,800.0	6,969.8	7,612.1	7,147.7	25.3	43.5	-98.52	-6,342.8	2,402.1	5,810.2	5,759.7	50.50	115.052		
7,874.0	6,969.1	7,609.1	7,144.8	26.2	43.5	-98.42	-6,342.9	2,402.1	5,739.4	5,687.9	51.48	111.485		
7,900.0	6,968.9	7,608.1	7,143.7	26.5	43.5	-98.39	-6,342.9	2,402.1	5,714.5	5,662.6	51.83	110.265		
7,972.4	6,968.2	7,605.2	7,140.8	27.4	43.5	-98.29	-6,343.0	2,402.1	5,645.2	5,592.4	52.85	106.820		
8,000.0	6,968.0	7,604.1	7,139.7	27.8	43.5	-98.25	-6,343.1	2,402.2	5,618.9	5,565.6	53.24	105.544		
8,070.8	6,967.3	7,601.3	7,136.9	28.7	43.5	-98.16	-6,343.2	2,402.2	5,551.2	5,496.9	54.29	102.250		
8,100.0	6,967.1	7,600.1	7,135.7	29.1	43.5	-98.12	-6,343.2	2,402.2	5,523.4	5,468.7	54.72	100.933		
8,169.3	6,966.4	7,597.3	7,132.9	30.1	43.5	-98.02	-6,343.3	2,402.2	5,457.3	5,401.5	55.80	97.809		
8,200.0	6,966.2	7,596.1	7,131.7	30.5	43.5	-97.98	-6,343.3	2,402.2	5,428.1	5,371.8	56.27	96.462		
8,267.7	6,965.5	7,593.3	7,129.0	31.5	43.5	-97.88	-6,343.4	2,402.2	5,363.6	5,306.3	57.36	93.516		
8,300.0	6,965.2	7,592.0	7,127.7	32.0	43.5	-97.84	-6,343.5	2,402.2	5,332.9	5,275.1	57.87	92.150		
8,366.1	6,964.6	7,589.4	7,125.0	33.0	43.5	-97.75	-6,343.6	2,402.2	5,270.1	5,211.2	58.96	89.384		
8,400.0	6,964.3	7,588.0	7,123.6	33.5	43.5	-97.70	-6,343.6	2,402.3	5,238.0	5,178.5	59.52	88.007		
8,464.5	6,963.8	7,585.3	7,121.0	34.5	43.5	-97.61	-6,343.7	2,402.3	5,176.8	5,116.2	60.60	85.420		
8,500.0	6,963.4	7,583.9	7,119.5	35.1	43.5	-97.56	-6,343.7	2,402.3	5,143.2	5,082.0	61.20	84.039		
8,563.0	6,962.9	7,581.3	7,117.0	36.1	43.5	-97.47	-6,343.8	2,402.3	5,083.6	5,021.3	62.28	81.625		
8,600.0	6,962.5	7,579.8	7,115.4	36.7	43.5	-97.42	-6,343.9	2,402.3	5,048.6	4,985.7	62.91	80.245		
8,661.4	6,962.0	7,577.3	7,112.9	37.7	43.5	-97.33	-6,344.0	2,402.3	4,990.7	4,926.7	63.98	77.997		
8,700.0	6,961.6	7,575.7	7,111.3	38.3	43.5	-97.28	-6,344.0	2,402.3	4,954.3	4,889.6	64.66	76.623		
8,759.8	6,961.1	7,573.2	7,108.9	39.3	43.5	-97.20	-6,344.1	2,402.3	4,897.9	4,832.2	65.71	74.533		
8,800.0	6,960.7	7,571.6	7,107.2	40.0	43.5	-97.14	-6,344.2	2,402.4	4,860.1	4,793.7	66.42	73.168		
8,858.2	6,960.2	7,569.2	7,104.8	40.9	43.5	-97.06	-6,344.2	2,402.4	4,805.4	4,737.9	67.47	71.228		
8,900.0	6,959.8	7,567.4	7,103.1	41.6	43.5	-97.00	-6,344.3	2,402.4	4,766.2	4,698.0	68.21	69.874		
8,956.7	6,959.3	7,565.1	7,100.7	42.6	43.5	-96.92	-6,344.4	2,402.4	4,713.1	4,643.8	69.23	68.074		
9,000.0	6,958.9	7,563.3	7,098.9	43.3	43.5	-96.85	-6,344.4	2,402.4	4,672.5	4,602.5	70.02	66.735		
9,055.1	6,958.4	7,561.0	7,096.6	44.3	43.5	-96.78	-6,344.5	2,402.4	4,621.0	4,550.0	71.02	65.066		
9,100.0	6,958.0	7,559.1	7,094.8	45.1	43.5	-96.71	-6,344.6	2,402.4	4,579.1	4,507.3	71.84	63.742		
9,153.5	6,957.5	7,556.9	7,092.5	46.0	43.5	-96.63	-6,344.7	2,402.4	4,529.3	4,456.4	72.82	62.197		
9,200.0	6,957.1	7,554.9	7,090.6	46.8	43.5	-96.57	-6,344.7	2,402.4	4,486.0	4,412.3	73.67	60.890		
9,251.9	6,956.6	7,552.8	7,088.4	47.7	43.5	-96.49	-6,344.8	2,402.5	4,437.8	4,363.1	74.63	59.460		
9,300.0	6,956.2	7,550.7	7,086.4	48.6	43.5	-96.42	-6,344.9	2,402.5	4,393.2	4,317.7	75.52	58.171		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 726-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
9,350.4	6,955.7	7,548.6	7,084.3	49.5	43.5	-96.35	-6,344.9	2,402.5	4,346.6	4,270.1	76.46	56.849		
9,400.0	6,955.2	7,546.5	7,082.2	50.3	43.5	-96.28	-6,345.0	2,402.5	4,300.7	4,223.3	77.38	55.578		
9,448.8	6,954.8	7,544.4	7,080.1	51.2	43.5	-96.21	-6,345.1	2,402.5	4,255.7	4,177.4	78.29	54.356		
9,500.0	6,954.3	7,542.3	7,077.9	52.1	43.5	-96.13	-6,345.2	2,402.5	4,208.5	4,129.3	79.25	53.104		
9,547.2	6,953.9	7,540.3	7,075.9	53.0	43.5	-96.06	-6,345.2	2,402.5	4,165.1	4,085.0	80.14	51.975		
9,600.0	6,953.4	7,538.0	7,073.7	53.9	43.5	-95.98	-6,345.3	2,402.5	4,116.7	4,035.6	81.13	50.744		
9,645.6	6,953.0	7,536.1	7,071.7	54.7	43.5	-95.92	-6,345.4	2,402.5	4,075.0	3,993.0	81.99	49.701		
9,700.0	6,952.5	7,533.7	7,069.4	55.7	43.5	-95.84	-6,345.4	2,402.5	4,025.3	3,942.3	83.01	48.489		
9,744.1	6,952.1	7,531.0	7,066.7	56.5	43.5	-95.74	-6,345.5	2,402.6	3,985.2	3,901.3	83.86	47.524		
9,800.0	6,951.6	7,529.1	7,064.7	57.5	43.5	-95.68	-6,345.6	2,402.6	3,934.3	3,849.4	84.91	46.335		
9,842.5	6,951.2	7,526.8	7,062.4	58.3	43.5	-95.60	-6,345.7	2,402.6	3,895.8	3,810.0	85.72	45.447		
9,900.0	6,950.7	7,523.7	7,059.3	59.4	43.5	-95.49	-6,345.8	2,402.6	3,843.8	3,756.9	86.82	44.273		
9,940.9	6,950.3	7,521.5	7,057.2	60.1	43.5	-95.41	-6,345.9	2,402.6	3,806.8	3,719.2	87.60	43.456		
10,000.0	6,949.8	7,518.3	7,054.0	61.2	43.5	-95.30	-6,346.0	2,402.6	3,753.7	3,664.9	88.73	42.303		
10,039.3	6,949.4	7,516.2	7,051.9	61.9	43.5	-95.23	-6,346.0	2,402.6	3,718.3	3,628.9	89.49	41.552		
10,100.0	6,948.9	7,513.0	7,048.7	63.0	43.5	-95.12	-6,346.2	2,402.6	3,664.1	3,573.4	90.65	40.420		
10,137.8	6,948.5	7,511.0	7,046.7	63.7	43.5	-95.05	-6,346.2	2,402.6	3,630.4	3,539.0	91.38	39.729		
10,200.0	6,948.0	7,507.7	7,043.4	64.9	43.5	-94.94	-6,346.3	2,402.6	3,575.0	3,482.5	92.57	38.618		
10,236.2	6,947.6	7,505.8	7,041.5	65.6	43.5	-94.87	-6,346.4	2,402.6	3,543.0	3,449.7	93.27	37.985		
10,300.0	6,947.1	7,502.5	7,038.2	66.7	43.5	-94.76	-6,346.5	2,402.7	3,486.6	3,392.1	94.50	36.895		
10,334.6	6,946.7	7,500.7	7,036.4	67.4	43.5	-94.69	-6,346.6	2,402.7	3,456.1	3,360.9	95.17	36.315		
10,400.0	6,946.2	7,497.3	7,033.0	68.6	43.5	-94.58	-6,346.7	2,402.7	3,398.8	3,302.4	96.43	35.245		
10,433.0	6,945.8	7,495.6	7,031.3	69.2	43.5	-94.52	-6,346.8	2,402.7	3,369.9	3,272.8	97.07	34.716		
10,500.0	6,945.2	7,492.1	7,027.8	70.5	43.5	-94.40	-6,346.9	2,402.7	3,311.7	3,213.3	98.37	33.667		
10,531.5	6,945.0	7,490.5	7,026.2	71.1	43.5	-94.34	-6,346.9	2,402.7	3,284.4	3,185.4	98.98	33.184		
10,600.0	6,944.3	7,487.0	7,022.7	72.3	43.5	-94.22	-6,347.0	2,402.7	3,225.3	3,125.0	100.30	32.155		
10,629.9	6,944.1	7,485.4	7,021.1	72.9	43.5	-94.17	-6,347.1	2,402.7	3,199.6	3,098.7	100.88	31.716		
10,700.0	6,943.4	7,481.9	7,017.6	74.2	43.5	-94.04	-6,347.2	2,402.7	3,139.7	3,037.4	102.24	30.708		
10,728.3	6,943.2	7,480.4	7,016.1	74.7	43.5	-93.99	-6,347.3	2,402.7	3,115.6	3,012.8	102.79	30.310		
10,800.0	6,942.5	7,476.8	7,012.5	76.1	43.5	-93.87	-6,347.4	2,402.7	3,055.0	2,950.8	104.18	29.323		
10,826.7	6,942.3	7,475.4	7,011.1	76.6	43.5	-93.82	-6,347.4	2,402.7	3,032.5	2,927.7	104.70	28.962		
10,900.0	6,941.6	7,471.7	7,007.4	78.0	43.5	-93.69	-6,347.5	2,402.7	2,971.2	2,865.1	106.13	27.996		
10,925.2	6,941.4	7,470.5	7,006.2	78.4	43.5	-93.65	-6,347.6	2,402.7	2,950.2	2,843.6	106.62	27.671		
11,000.0	6,940.7	7,466.7	7,002.4	79.9	43.5	-93.52	-6,347.7	2,402.7	2,888.4	2,780.4	108.07	26.726		
11,023.6	6,940.5	7,465.5	7,001.2	80.3	43.5	-93.48	-6,347.8	2,402.7	2,869.1	2,760.5	108.53	26.435		
11,100.0	6,939.8	7,461.7	6,997.4	81.7	43.5	-93.34	-6,347.9	2,402.7	2,806.8	2,696.8	110.02	25.511		
11,122.0	6,939.6	7,460.6	6,996.3	82.2	43.5	-93.31	-6,347.9	2,402.7	2,789.0	2,678.5	110.45	25.251		
11,200.0	6,938.9	7,456.8	6,992.5	83.6	43.5	-93.17	-6,348.0	2,402.7	2,726.4	2,614.4	111.97	24.349		
11,220.4	6,938.7	7,455.8	6,991.5	84.0	43.5	-93.14	-6,348.1	2,402.7	2,710.1	2,597.7	112.37	24.117		
11,300.0	6,938.0	7,451.9	6,987.6	85.5	43.5	-93.00	-6,348.2	2,402.7	2,647.3	2,533.4	113.92	23.238		
11,318.9	6,937.8	7,450.9	6,986.6	85.9	43.5	-92.97	-6,348.2	2,402.7	2,632.5	2,518.2	114.29	23.033		
11,400.0	6,937.0	7,447.0	6,982.7	87.4	43.5	-92.83	-6,348.4	2,402.7	2,569.6	2,453.8	115.87	22.176		
11,417.3	6,936.9	7,446.1	6,981.8	87.8	43.5	-92.80	-6,348.4	2,402.7	2,556.4	2,440.1	116.21	21.997		
11,500.0	6,936.1	7,442.1	6,977.8	89.3	43.5	-92.66	-6,348.5	2,402.7	2,493.6	2,375.8	117.83	21.163		
11,515.7	6,936.0	7,441.3	6,977.1	89.6	43.5	-92.63	-6,348.5	2,402.7	2,481.8	2,363.6	118.13	21.008		
11,600.0	6,935.2	7,437.3	6,973.0	91.2	43.5	-92.49	-6,348.7	2,402.7	2,419.3	2,299.5	119.78	20.197		
11,614.1	6,935.1	7,436.6	6,972.3	91.5	43.5	-92.47	-6,348.7	2,402.7	2,408.9	2,288.8	120.06	20.064		
11,700.0	6,934.3	7,432.5	6,968.2	93.1	43.5	-92.33	-6,348.8	2,402.7	2,346.8	2,225.1	121.74	19.278		
11,712.6	6,934.2	7,431.9	6,967.6	93.4	43.5	-92.30	-6,348.8	2,402.7	2,337.9	2,215.9	121.98	19.166		
11,800.0	6,933.4	7,427.7	6,963.4	95.1	43.5	-92.16	-6,349.0	2,402.7	2,276.5	2,152.8	123.69	18.405		
11,811.0	6,933.3	7,427.2	6,962.9	95.3	43.5	-92.14	-6,349.0	2,402.7	2,268.9	2,145.0	123.91	18.311		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-23D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 726-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,900.0	6,932.5	7,422.9	6,958.7	97.0	43.5	-91.99	-6,349.1	2,402.7	2,208.4	2,082.8	125.65	17.576	
11,909.4	6,932.4	7,422.5	6,958.2	97.1	43.5	-91.98	-6,349.1	2,402.7	2,202.1	2,076.3	125.83	17.501	
12,000.0	6,931.6	7,418.2	6,954.0	98.9	43.5	-91.83	-6,349.3	2,402.7	2,142.9	2,015.2	127.60	16.793	
12,007.8	6,931.5	7,417.9	6,953.6	99.0	43.5	-91.82	-6,349.3	2,402.7	2,137.8	2,010.1	127.76	16.733	
12,100.0	6,930.7	7,413.5	6,949.3	100.8	43.5	-91.67	-6,349.4	2,402.6	2,080.0	1,950.5	129.56	16.054	
12,106.3	6,930.6	7,413.2	6,949.0	100.9	43.5	-91.66	-6,349.4	2,402.6	2,076.2	1,946.5	129.68	16.009	
12,200.0	6,929.8	7,408.9	6,944.6	102.7	43.5	-91.50	-6,349.6	2,402.6	2,020.2	1,888.7	131.52	15.360	
12,204.7	6,929.7	7,408.7	6,944.4	102.8	43.5	-91.50	-6,349.6	2,402.6	2,017.4	1,885.8	131.61	15.329	
12,300.0	6,928.8	7,404.2	6,940.0	104.6	43.5	-91.34	-6,349.7	2,402.6	1,963.6	1,830.1	133.48	14.711	
12,303.1	6,928.8	7,404.1	6,939.8	104.7	43.5	-91.34	-6,349.7	2,402.6	1,961.9	1,828.3	133.54	14.692	
12,400.0	6,927.9	7,399.3	6,935.0	106.5	43.5	-91.17	-6,349.9	2,402.6	1,910.6	1,775.1	135.43	14.107	
12,401.5	6,927.9	7,399.2	6,934.9	106.6	43.5	-91.17	-6,349.9	2,402.6	1,909.8	1,774.3	135.47	14.098	
12,500.0	6,927.0	7,394.3	6,930.1	108.5	43.5	-91.00	-6,350.0	2,402.6	1,861.4	1,724.0	137.39	13.548	
12,598.4	6,926.1	7,389.6	6,925.3	110.4	43.5	-90.83	-6,350.2	2,402.6	1,817.1	1,677.7	139.32	13.042	
12,600.0	6,926.1	7,389.5	6,925.2	110.4	43.5	-90.83	-6,350.2	2,402.6	1,816.4	1,677.0	139.35	13.034	
12,696.8	6,925.2	7,385.0	6,920.7	112.3	43.5	-90.67	-6,350.3	2,402.5	1,777.1	1,635.8	141.25	12.581	
12,700.0	6,925.2	7,384.8	6,920.6	112.3	43.5	-90.67	-6,350.3	2,402.5	1,775.8	1,634.5	141.31	12.567	
12,795.2	6,924.3	7,380.5	6,916.2	114.1	43.5	-90.51	-6,350.4	2,402.5	1,741.7	1,598.5	143.17	12.165	
12,800.0	6,924.3	7,380.3	6,916.0	114.2	43.5	-90.51	-6,350.4	2,402.5	1,740.1	1,596.8	143.27	12.146	
12,893.7	6,923.4	7,376.1	6,911.9	116.0	43.4	-90.36	-6,350.6	2,402.5	1,711.3	1,566.2	145.10	11.794	
12,900.0	6,923.4	7,375.9	6,911.6	116.2	43.4	-90.35	-6,350.6	2,402.5	1,709.5	1,564.3	145.22	11.771	
12,992.1	6,922.5	7,371.9	6,907.6	117.9	43.4	-90.21	-6,350.7	2,402.5	1,686.0	1,539.0	147.02	11.468	
13,000.0	6,922.5	7,371.5	6,907.3	118.1	43.4	-90.20	-6,350.7	2,402.5	1,684.2	1,537.1	147.18	11.444	
13,090.5	6,921.6	7,367.7	6,903.5	119.8	43.4	-90.07	-6,350.8	2,402.5	1,666.2	1,517.3	148.95	11.187	
13,100.0	6,921.5	7,367.4	6,903.1	120.0	43.4	-90.06	-6,350.8	2,402.5	1,664.6	1,515.5	149.13	11.162	
13,188.9	6,920.7	7,363.7	6,899.5	121.7	43.4	-89.93	-6,350.9	2,402.4	1,652.1	1,501.2	150.87	10.950	
13,200.0	6,920.6	7,363.3	6,899.0	121.9	43.4	-89.91	-6,350.9	2,402.4	1,650.8	1,499.7	151.09	10.926	
13,287.4	6,919.8	7,359.8	6,895.5	123.6	43.4	-89.79	-6,351.0	2,402.4	1,643.7	1,490.9	152.80	10.757	
13,300.0	6,919.7	7,359.3	6,895.1	123.9	43.4	-89.78	-6,351.0	2,402.4	1,643.0	1,490.0	153.04	10.736	
13,379.0	6,919.0	7,356.2	6,892.0	125.4	43.4	-89.67	-6,351.1	2,402.4	1,641.1	1,486.5	154.59	10.616 CC	
13,385.8	6,918.9	7,356.0	6,891.7	125.5	43.4	-89.66	-6,351.1	2,402.4	1,641.1	1,486.4	154.72	10.607	
13,400.0	6,918.8	7,355.4	6,891.2	125.8	43.4	-89.64	-6,351.1	2,402.4	1,641.2	1,486.2	155.00	10.589 ES	
13,484.2	6,918.0	7,352.2	6,888.0	127.4	43.4	-89.53	-6,351.2	2,402.4	1,644.5	1,487.8	156.64	10.498	
13,500.0	6,917.9	7,351.7	6,887.4	127.7	43.4	-89.51	-6,351.2	2,402.4	1,645.5	1,488.6	156.95	10.485	
13,582.6	6,917.1	7,348.6	6,884.4	129.3	43.4	-89.40	-6,351.3	2,402.4	1,653.7	1,495.1	158.56	10.429	
13,600.0	6,917.0	7,348.0	6,883.7	129.7	43.4	-89.38	-6,351.3	2,402.4	1,655.9	1,497.0	158.90	10.421	
13,681.1	6,916.2	7,345.1	6,880.8	131.2	43.4	-89.28	-6,351.4	2,402.3	1,668.6	1,508.1	160.48	10.397	
13,700.0	6,916.1	7,344.4	6,880.1	131.6	43.4	-89.25	-6,351.4	2,402.3	1,672.2	1,511.3	160.85	10.395 SF	
13,779.5	6,915.3	7,341.6	6,877.4	133.1	43.4	-89.16	-6,351.5	2,402.3	1,689.2	1,526.8	162.41	10.401	
13,800.0	6,915.2	7,340.9	6,876.6	133.5	43.4	-89.13	-6,351.5	2,402.3	1,694.2	1,531.4	162.81	10.406	
13,877.9	6,914.4	7,338.2	6,874.0	135.1	43.4	-89.04	-6,351.5	2,402.3	1,715.2	1,550.8	164.33	10.438	
13,900.0	6,914.2	7,337.5	6,873.2	135.5	43.4	-89.01	-6,351.6	2,402.3	1,721.7	1,556.9	164.76	10.450	
13,976.3	6,913.5	7,334.9	6,870.7	137.0	43.4	-88.92	-6,351.6	2,402.3	1,746.3	1,580.0	166.25	10.504	
14,000.0	6,913.3	7,334.1	6,869.9	137.4	43.4	-88.90	-6,351.6	2,402.3	1,754.5	1,587.8	166.71	10.524	
14,074.8	6,912.6	7,331.7	6,867.5	138.9	43.4	-88.81	-6,351.7	2,402.2	1,782.3	1,614.2	168.17	10.599	
14,100.0	6,912.4	7,330.9	6,866.6	139.4	43.4	-88.78	-6,351.7	2,402.2	1,792.3	1,623.6	168.66	10.627	
14,145.0	6,912.0	7,329.4	6,865.2	140.2	43.4	-88.73	-6,351.7	2,402.2	1,810.8	1,641.3	169.49	10.684	

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 731-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)						
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	Centres (usft)	Ellipses (usft)	Separation (usft)	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	172.58	-5,118.5	666.5	5,161.8					
98.4	98.4	76.2	76.2	0.1	0.1	172.58	-5,118.5	666.5	5,161.7	5,161.6	0.17	N/A		
100.0	100.0	77.7	77.7	0.1	0.1	172.58	-5,118.5	666.5	5,161.7	5,161.6	0.18	N/A		
196.8	196.8	170.0	170.0	0.3	0.2	172.58	-5,118.6	666.5	5,161.9	5,161.4	0.49	N/A		
200.0	200.0	173.0	173.0	0.3	0.2	172.58	-5,118.6	666.5	5,161.9	5,161.4	0.50	N/A		
295.3	295.3	263.8	263.8	0.5	0.3	172.58	-5,118.8	666.6	5,162.1	5,161.3	0.81	6,388.498		
300.0	300.0	268.3	268.3	0.5	0.3	172.58	-5,118.8	666.6	5,162.1	5,161.3	0.82	6,270.083		
393.7	393.7	357.6	357.6	0.8	0.4	172.58	-5,119.1	666.6	5,162.4	5,161.2	1.13	4,584.922		
400.0	400.0	363.6	363.6	0.8	0.4	172.58	-5,119.1	666.6	5,162.4	5,161.2	1.15	4,503.548		
492.1	492.1	451.4	451.4	1.0	0.5	172.58	-5,119.5	666.6	5,162.7	5,161.3	1.44	3,575.652		
500.0	500.0	458.9	458.9	1.0	0.5	172.58	-5,119.5	666.6	5,162.8	5,161.3	1.47	3,513.773		
590.5	590.5	545.2	545.2	1.2	0.6	172.58	-5,119.9	666.6	5,163.2	5,161.4	1.76	2,930.683		
600.0	600.0	554.2	554.2	1.2	0.6	172.58	-5,120.0	666.6	5,163.3	5,161.5	1.79	2,880.800		
689.0	689.0	639.0	639.0	1.4	0.7	172.58	-5,120.4	666.7	5,163.8	5,161.7	2.08	2,482.947		
700.0	700.0	649.5	649.5	1.4	0.7	172.58	-5,120.5	666.7	5,163.8	5,161.7	2.12	2,441.179		
787.4	787.4	731.0	731.0	1.6	0.8	172.58	-5,121.0	666.7	5,164.4	5,162.0	2.40	2,155.678		
800.0	800.0	731.0	731.0	1.7	0.8	172.58	-5,121.0	666.7	5,164.5	5,162.1	2.42	2,130.537		
885.8	885.8	781.6	781.6	1.9	0.9	172.58	-5,121.6	666.8	5,165.6	5,162.8	2.73	1,890.674		
900.0	900.0	788.7	788.7	1.9	0.9	172.58	-5,121.8	666.8	5,165.8	5,163.0	2.78	1,858.033		
984.2	984.2	859.0	859.0	2.1	1.0	172.58	-5,123.5	667.1	5,167.8	5,164.7	3.13	1,651.216		
1,000.0	1,000.0	859.0	859.0	2.1	1.0	172.58	-5,123.5	667.1	5,168.2	5,165.0	3.17	1,632.858		
1,082.7	1,082.7	859.0	859.0	2.3	1.0	102.45	-5,123.5	667.1	5,171.0	5,167.7	3.34	1,548.356		
1,100.0	1,100.0	859.0	859.0	2.3	1.0	102.43	-5,123.5	667.1	5,171.9	5,168.5	3.38	1,531.350		
1,181.1	1,181.0	914.4	914.3	2.5	1.2	102.37	-5,125.6	667.5	5,176.1	5,172.4	3.68	1,406.836		
1,200.0	1,199.8	921.8	921.7	2.6	1.2	102.35	-5,126.0	667.6	5,177.3	5,173.6	3.74	1,385.470		
1,279.5	1,279.1	987.0	986.8	2.7	1.3	102.30	-5,129.8	668.3	5,183.4	5,179.3	4.07	1,274.106		
1,300.0	1,299.5	987.0	986.8	2.8	1.3	102.27	-5,129.8	668.3	5,185.0	5,180.8	4.11	1,260.103		
1,377.9	1,376.9	987.0	986.8	3.0	1.3	102.13	-5,129.8	668.3	5,191.9	5,187.6	4.31	1,205.572		
1,400.0	1,398.7	987.0	986.8	3.0	1.3	102.09	-5,129.8	668.3	5,194.2	5,189.8	4.36	1,190.996		
1,476.4	1,474.2	1,029.5	1,029.2	3.2	1.5	101.99	-5,133.0	668.9	5,202.6	5,197.9	4.67	1,113.732		
1,500.0	1,497.5	1,038.8	1,038.4	3.3	1.5	101.95	-5,133.8	669.1	5,205.4	5,200.7	4.76	1,094.000		
1,574.8	1,571.0	1,067.8	1,067.4	3.5	1.6	101.81	-5,136.3	669.7	5,215.1	5,210.0	5.06	1,030.528		
1,600.1	1,595.7	1,116.0	1,115.3	3.6	1.7	101.84	-5,141.0	670.9	5,219.0	5,213.7	5.25	993.477		
1,673.2	1,667.2	1,116.0	1,115.3	3.9	1.7	101.84	-5,141.0	670.9	5,229.2	5,223.7	5.51	949.763		
1,700.0	1,693.4	1,116.0	1,115.3	4.0	1.7	101.84	-5,141.0	670.9	5,233.3	5,227.7	5.60	934.761		
1,771.6	1,763.5	1,161.7	1,160.7	4.2	1.8	101.94	-5,145.9	672.1	5,244.4	5,238.4	5.97	879.025		
1,800.0	1,791.3	1,179.6	1,178.5	4.3	1.9	101.98	-5,147.8	672.6	5,248.8	5,242.7	6.11	858.906		
1,870.1	1,859.8	1,244.0	1,242.4	4.6	2.0	102.12	-5,155.2	674.1	5,260.2	5,253.7	6.53	806.017		
1,900.0	1,889.1	1,244.0	1,242.4	4.7	2.0	102.12	-5,155.2	674.1	5,265.1	5,258.5	6.64	792.915		
1,968.5	1,956.1	1,285.1	1,283.2	5.0	2.2	102.20	-5,160.1	675.2	5,276.7	5,269.7	7.00	753.653		
2,000.0	1,986.9	1,304.6	1,302.6	5.1	2.2	102.24	-5,162.5	675.8	5,282.1	5,274.9	7.17	736.787		
2,066.9	2,052.3	1,346.2	1,343.8	5.4	2.3	102.33	-5,167.8	677.1	5,293.9	5,286.3	7.53	702.930		
2,100.0	2,084.7	1,373.0	1,370.4	5.5	2.4	102.38	-5,171.2	678.2	5,299.8	5,292.1	7.72	686.118		
2,165.3	2,148.6	1,373.0	1,370.4	5.8	2.4	102.38	-5,171.2	678.2	5,311.9	5,303.9	7.99	664.730		
2,200.0	2,182.5	1,373.0	1,370.4	5.9	2.4	102.38	-5,171.2	678.2	5,318.6	5,310.5	8.13	653.991		
2,263.8	2,244.9	1,435.5	1,432.2	6.2	2.6	102.50	-5,179.8	681.0	5,330.7	5,322.1	8.54	623.958		
2,300.0	2,280.3	1,450.2	1,446.7	6.3	2.7	102.53	-5,181.9	681.7	5,337.9	5,329.2	8.73	611.595		
2,362.2	2,341.2	1,501.0	1,496.9	6.6	2.8	102.62	-5,189.8	684.6	5,350.8	5,341.7	9.11	587.521		
2,400.0	2,378.1	1,501.0	1,496.9	6.8	2.8	102.62	-5,189.8	684.6	5,358.6	5,349.3	9.27	578.326		
2,460.6	2,437.4	1,501.0	1,496.9	7.0	2.8	102.62	-5,189.8	684.6	5,371.6	5,362.1	9.52	564.135		
2,500.0	2,476.0	1,540.9	1,536.1	7.2	3.0	102.68	-5,196.3	687.4	5,380.2	5,370.4	9.79	549.827		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 731-MWD												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,559.0	2,533.7	1,572.5	1,567.1	7.4	3.1	102.73	-5,201.5	690.1	5,393.4	5,383.3	10.11	533.286	
2,600.0	2,573.8	1,594.4	1,588.6	7.6	3.2	102.76	-5,205.2	692.2	5,402.7	5,392.3	10.34	522.448	
2,657.5	2,630.0	1,629.0	1,622.5	7.9	3.3	102.81	-5,211.2	695.8	5,415.9	5,405.3	10.67	507.530	
2,700.0	2,671.6	1,629.0	1,622.5	8.1	3.3	102.81	-5,211.2	695.8	5,426.0	5,415.1	10.85	499.932	
2,755.9	2,726.3	1,673.0	1,665.6	8.3	3.5	102.86	-5,219.1	700.8	5,439.3	5,428.1	11.21	485.291	
2,800.0	2,769.4	1,694.2	1,686.3	8.5	3.6	102.88	-5,223.0	703.2	5,450.1	5,438.6	11.45	475.857	
2,854.3	2,822.5	1,720.3	1,711.7	8.7	3.7	102.91	-5,227.9	706.2	5,463.5	5,451.8	11.76	464.764	
2,900.0	2,867.2	1,758.0	1,748.4	8.9	3.8	102.96	-5,235.2	710.5	5,475.1	5,463.0	12.05	454.353	
2,952.7	2,918.8	1,758.0	1,748.4	9.2	3.8	102.96	-5,235.2	710.5	5,488.6	5,476.3	12.28	446.972	
3,000.0	2,965.0	1,758.0	1,748.4	9.4	3.8	102.96	-5,235.2	710.5	5,501.1	5,488.6	12.48	440.622	
3,051.2	3,015.1	1,804.7	1,793.8	9.6	4.1	103.01	-5,244.7	716.0	5,514.6	5,501.8	12.84	429.513	
3,100.0	3,062.8	1,823.9	1,812.5	9.8	4.2	103.03	-5,248.8	718.3	5,527.9	5,514.7	13.11	421.766	
3,149.6	3,111.4	1,843.5	1,831.4	10.0	4.2	103.05	-5,253.0	720.8	5,541.6	5,528.2	13.38	414.212	
3,200.0	3,160.7	1,886.0	1,872.5	10.3	4.4	103.10	-5,262.5	726.3	5,555.9	5,542.1	13.72	404.987	
3,248.0	3,207.6	1,886.0	1,872.5	10.5	4.4	103.10	-5,262.5	726.3	5,569.5	5,555.6	13.93	399.845	
3,300.0	3,258.5	1,886.0	1,872.5	10.7	4.4	103.10	-5,262.5	726.3	5,584.7	5,570.5	14.16	394.483	
3,346.4	3,303.9	1,936.8	1,921.4	10.9	4.7	103.15	-5,274.2	733.1	5,598.2	5,583.7	14.51	385.761	
3,400.0	3,356.3	1,967.5	1,950.9	11.2	4.9	103.17	-5,281.5	737.4	5,614.1	5,599.3	14.84	378.348	
3,444.9	3,400.2	2,015.0	1,996.6	11.4	5.1	103.22	-5,292.9	744.2	5,627.7	5,612.5	15.18	370.819	
3,500.0	3,454.1	2,037.1	2,017.8	11.6	5.2	103.23	-5,298.2	747.4	5,644.3	5,628.8	15.48	364.556	
3,543.3	3,496.5	2,093.5	2,071.9	11.8	5.5	103.28	-5,311.7	755.8	5,657.4	5,641.6	15.84	357.259	
3,600.0	3,551.9	2,143.0	2,119.4	12.0	5.8	103.32	-5,323.4	763.2	5,674.4	5,658.2	16.23	349.684	
3,641.7	3,592.7	2,187.3	2,161.9	12.2	6.0	103.35	-5,333.9	769.9	5,686.9	5,670.3	16.54	343.861	
3,700.0	3,649.7	2,229.9	2,202.8	12.5	6.2	103.39	-5,344.1	776.2	5,704.5	5,687.5	16.92	337.195	
3,740.1	3,689.0	2,271.0	2,242.3	12.7	6.4	103.42	-5,354.0	782.0	5,716.7	5,699.5	17.21	332.129	
3,800.0	3,747.5	2,319.2	2,288.5	12.9	6.6	103.46	-5,365.7	788.8	5,734.9	5,717.3	17.61	325.574	
3,838.6	3,785.3	2,361.8	2,329.4	13.1	6.8	103.50	-5,376.0	794.7	5,746.6	5,728.7	17.91	320.910	
3,900.0	3,845.4	2,438.2	2,402.8	13.4	7.2	103.57	-5,394.3	805.2	5,765.1	5,746.7	18.40	313.405	
3,937.0	3,881.5	2,490.9	2,453.6	13.6	7.4	103.62	-5,406.8	812.3	5,776.2	5,757.5	18.71	308.777	
4,000.0	3,943.2	2,554.4	2,514.8	13.8	7.7	103.68	-5,421.7	820.5	5,794.8	5,775.7	19.17	302.363	
4,035.4	3,977.8	2,579.7	2,539.1	14.0	7.8	103.70	-5,427.7	823.7	5,805.4	5,786.0	19.39	299.330	
4,100.0	4,041.0	2,625.6	2,583.4	14.3	8.0	103.75	-5,438.7	829.0	5,824.7	5,804.9	19.81	293.994	
4,133.8	4,074.1	2,657.0	2,613.6	14.4	8.2	103.79	-5,446.3	832.5	5,834.9	5,814.9	20.05	290.983	
4,200.0	4,138.8	2,657.0	2,613.6	14.7	8.2	103.79	-5,446.3	832.5	5,855.2	5,834.8	20.35	287.781	
4,232.3	4,170.4	2,694.8	2,650.1	14.9	8.4	103.83	-5,455.6	836.8	5,865.0	5,844.4	20.61	284.624	
4,300.0	4,236.6	2,723.9	2,677.9	15.2	8.5	103.86	-5,462.9	840.3	5,886.2	5,865.2	21.00	280.341	
4,330.7	4,266.6	2,737.0	2,690.5	15.3	8.6	103.87	-5,466.2	842.0	5,896.0	5,874.8	21.17	278.457	
4,400.0	4,334.4	2,785.0	2,736.4	15.6	8.9	103.92	-5,478.8	848.5	5,918.3	5,896.7	21.63	273.614	
4,429.1	4,362.9	2,785.0	2,736.4	15.8	8.9	103.92	-5,478.8	848.5	5,927.7	5,906.0	21.76	272.419	
4,500.0	4,432.2	2,785.0	2,736.4	16.1	8.9	103.92	-5,478.8	848.5	5,951.2	5,929.1	22.07	269.594	
4,527.5	4,459.2	2,821.6	2,771.2	16.2	9.1	103.95	-5,488.6	853.6	5,960.3	5,937.9	22.32	267.043	
4,600.0	4,530.1	2,852.8	2,801.0	16.5	9.3	103.97	-5,497.2	858.0	5,984.7	5,962.0	22.75	263.107	
4,626.0	4,555.5	2,864.0	2,811.6	16.7	9.4	103.98	-5,500.3	859.6	5,993.6	5,970.7	22.90	261.736	
4,700.0	4,627.9	2,913.0	2,858.0	17.0	9.7	104.02	-5,514.3	866.5	6,019.2	5,995.8	23.39	257.312	
4,724.4	4,651.7	2,913.0	2,858.0	17.1	9.7	104.02	-5,514.3	866.5	6,027.7	6,004.2	23.50	256.483	
4,800.0	4,725.7	2,913.0	2,858.0	17.4	9.7	104.02	-5,514.3	866.5	6,054.5	6,030.7	23.84	253.987	
4,822.8	4,748.0	2,953.0	2,895.8	17.6	9.9	104.05	-5,526.0	872.4	6,062.5	6,038.4	24.08	251.772	
4,900.0	4,823.5	2,990.2	2,930.9	17.9	10.2	104.08	-5,537.0	878.1	6,090.3	6,065.8	24.55	248.043	
4,921.2	4,844.3	3,000.4	2,940.5	18.0	10.2	104.09	-5,540.1	879.7	6,098.0	6,073.4	24.68	247.044	
5,000.0	4,921.3	3,332.0	3,254.6	18.4	12.2	104.30	-5,632.5	931.7	6,124.3	6,098.2	26.13	234.368	
5,014.9	4,935.9	3,369.7	3,290.6	18.4	12.4	104.32	-5,642.3	937.3	6,129.2	6,102.8	26.32	232.868	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 731-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
5,019.7	4,940.6	3,381.7	3,302.1	18.4	12.4	104.36	-5,645.4	939.0	6,130.7	6,104.3	26.38	232.410		
5,100.0	5,019.4	3,620.5	3,531.6	18.7	13.7	105.02	-5,702.9	970.6	6,154.2	6,126.7	27.46	224.073		
5,118.1	5,037.2	3,634.3	3,544.9	18.8	13.7	105.13	-5,706.2	972.5	6,159.4	6,131.8	27.57	223.415		
5,200.0	5,118.1	3,684.0	3,592.8	19.0	14.0	105.62	-5,717.7	979.2	6,182.7	6,154.7	28.00	220.816		
5,216.5	5,134.4	3,684.0	3,592.8	19.1	14.0	105.71	-5,717.7	979.2	6,187.4	6,159.3	28.05	220.606		
5,300.0	5,217.2	3,739.8	3,646.4	19.3	14.3	106.18	-5,731.1	986.8	6,210.8	6,182.4	28.48	218.073		
5,314.9	5,232.1	3,746.9	3,653.2	19.3	14.4	106.27	-5,732.8	987.8	6,215.0	6,186.5	28.54	217.745		
5,400.0	5,316.8	3,812.0	3,715.6	19.5	14.7	106.71	-5,749.0	996.9	6,238.9	6,210.0	28.98	215.277		
5,413.4	5,330.1	3,812.0	3,715.6	19.5	14.7	106.79	-5,749.0	996.9	6,242.6	6,213.6	29.01	215.194		
5,500.0	5,416.6	3,846.3	3,748.5	19.7	14.9	107.24	-5,757.8	1,001.7	6,266.6	6,237.3	29.31	213.779		
5,511.8	5,428.4	3,854.8	3,756.5	19.7	15.0	107.29	-5,759.9	1,002.9	6,269.8	6,240.5	29.36	213.523		
5,600.0	5,516.6	3,917.9	3,816.9	19.8	15.3	107.70	-5,776.2	1,011.7	6,293.8	6,264.0	29.74	211.631		
5,610.2	5,526.8	3,941.0	3,839.0	19.8	15.5	107.73	-5,782.3	1,015.0	6,296.5	6,266.7	29.84	211.032		
5,615.0	5,531.6	3,941.0	3,839.0	19.8	15.5	177.83	-5,782.3	1,015.0	6,297.8	6,268.0	29.83	211.097		
5,700.0	5,616.6	3,941.0	3,839.0	19.9	15.5	177.83	-5,782.3	1,015.0	6,320.9	6,291.0	29.94	211.125		
5,708.6	5,625.3	3,941.0	3,839.0	20.0	15.5	177.83	-5,782.3	1,015.0	6,323.3	6,293.4	29.95	211.122		
5,800.0	5,716.6	3,998.0	3,893.3	20.1	15.8	177.76	-5,797.6	1,023.1	6,348.8	6,318.5	30.29	209.625		
5,807.1	5,723.7	4,000.4	3,895.5	20.1	15.8	177.76	-5,798.2	1,023.4	6,350.8	6,320.5	30.30	209.562		
5,900.0	5,816.6	4,069.0	3,960.5	20.2	16.3	177.67	-5,817.8	1,033.9	6,378.0	6,347.3	30.69	207.849		
5,905.5	5,822.1	4,069.0	3,960.5	20.2	16.3	177.67	-5,817.8	1,033.9	6,379.6	6,348.9	30.69	207.848		
6,000.0	5,916.6	4,069.0	3,960.5	20.4	16.3	177.67	-5,817.8	1,033.9	6,407.5	6,376.7	30.83	207.858		
6,003.9	5,920.5	4,069.0	3,960.5	20.4	16.3	177.67	-5,817.8	1,033.9	6,408.7	6,377.9	30.83	207.859		
6,100.0	6,016.6	4,169.4	4,055.1	20.5	16.9	177.53	-5,847.3	1,050.0	6,437.8	6,406.4	31.34	205.386		
6,102.3	6,019.0	4,172.1	4,057.6	20.5	16.9	177.52	-5,848.0	1,050.5	6,438.5	6,407.1	31.36	205.321		
6,200.0	6,116.6	4,267.1	6,104.2	20.6	24.6	175.91	-6,158.6	1,245.8	6,459.6	6,422.6	36.98	174.683		
6,200.8	6,117.4	6,267.9	6,105.0	20.6	24.6	175.91	-6,158.6	1,245.8	6,459.6	6,422.6	36.98	174.671		
6,299.2	6,215.8	6,374.9	6,211.9	20.8	24.7	175.89	-6,158.2	1,248.2	6,459.5	6,422.2	37.30	173.184		
6,300.0	6,216.6	6,375.7	6,212.8	20.8	24.7	175.89	-6,158.2	1,248.2	6,459.5	6,422.1	37.30	173.172		
6,340.0	6,256.6	6,404.8	6,241.9	20.8	24.8	175.88	-6,158.1	1,248.9	6,459.4	6,422.0	37.41	172.675		
6,350.0	6,266.6	6,411.7	6,248.8	20.8	24.8	-4.33	-6,158.1	1,249.0	6,459.3	6,421.8	37.48	172.352		
6,397.6	6,314.2	6,444.5	6,281.6	20.9	24.8	-4.35	-6,158.1	1,249.8	6,457.1	6,419.5	37.60	171.729		
6,400.0	6,316.5	6,446.1	6,283.2	20.9	24.8	-4.35	-6,158.1	1,249.8	6,456.9	6,419.3	37.60	171.713		
6,450.0	6,366.2	6,480.4	6,317.4	20.9	24.8	-4.39	-6,158.2	1,250.6	6,451.2	6,413.6	37.56	171.754		
6,496.0	6,411.4	6,512.6	6,349.6	21.0	24.9	-4.46	-6,158.3	1,251.3	6,443.0	6,405.6	37.38	172.386		
6,500.0	6,415.3	6,516.3	6,353.3	21.0	24.9	-4.46	-6,158.3	1,251.4	6,442.2	6,404.8	37.35	172.459		
6,550.0	6,463.6	6,562.4	6,399.5	21.0	24.9	-4.56	-6,158.6	1,252.3	6,429.8	6,392.8	37.00	173.768		
6,594.5	6,505.8	6,602.7	6,439.8	21.0	25.0	-4.67	-6,158.8	1,253.0	6,415.9	6,379.4	36.55	175.528		
6,600.0	6,510.9	6,607.7	6,444.7	21.0	25.0	-4.69	-6,158.8	1,253.1	6,414.0	6,377.5	36.49	175.785		
6,650.0	6,557.0	6,650.4	6,487.4	21.0	25.1	-4.84	-6,159.1	1,253.7	6,395.1	6,359.3	35.82	178.556		
6,692.9	6,595.4	6,683.7	6,520.7	21.0	25.1	-5.00	-6,159.4	1,254.2	6,376.3	6,341.2	35.12	181.578		
6,700.0	6,601.6	6,689.1	6,526.1	21.0	25.1	-5.03	-6,159.4	1,254.3	6,373.0	6,338.0	34.99	182.135		
6,750.0	6,644.6	6,726.5	6,563.5	20.9	25.2	-5.26	-6,159.7	1,254.9	6,347.9	6,313.8	34.03	186.560		
6,791.3	6,678.6	6,756.1	6,593.1	20.9	25.2	-5.49	-6,160.0	1,255.4	6,324.9	6,291.8	33.13	190.903		
6,800.0	6,685.6	6,765.0	6,602.0	20.9	25.2	-5.55	-6,160.1	1,255.5	6,319.8	6,286.9	32.94	191.871		
6,850.0	6,724.6	6,798.8	6,635.8	20.9	25.3	-5.89	-6,160.4	1,256.1	6,289.0	6,257.3	31.73	198.182		
6,889.7	6,753.9	6,826.6	6,663.6	20.9	25.3	-6.22	-6,160.7	1,256.5	6,262.7	6,232.0	30.71	203.925		
6,900.0	6,761.3	6,833.6	6,670.6	20.9	25.3	-6.31	-6,160.8	1,256.6	6,255.6	6,225.2	30.44	205.513		
6,950.0	6,795.5	6,866.1	6,703.1	20.9	25.3	-6.83	-6,161.1	1,257.1	6,219.7	6,190.6	29.07	213.932		
6,988.2	6,819.9	6,889.2	6,726.2	20.9	25.4	-7.30	-6,161.3	1,257.5	6,190.7	6,162.7	28.00	221.091		
7,000.0	6,827.1	6,897.0	6,734.0	20.9	25.4	-7.47	-6,161.4	1,257.6	6,181.4	6,153.8	27.67	223.405		
7,050.0	6,855.9	6,935.7	6,772.7	20.9	25.4	-8.30	-6,161.8	1,258.2	6,141.1	6,114.8	26.28	233.636		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 731-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,086.6	6,875.1	6,963.1	6,800.0	20.9	25.5	-9.05	-6,162.1	1,258.6	6,110.2	6,084.9	25.32	241.342		
7,100.0	6,881.8	6,972.6	6,809.6	20.9	25.5	-9.37	-6,162.1	1,258.8	6,098.7	6,073.7	24.97	244.252		
7,150.0	6,904.6	7,005.3	6,842.2	21.0	25.5	-10.80	-6,162.4	1,259.2	6,054.6	6,030.8	23.81	254.251		
7,185.0	6,918.8	7,022.0	6,859.0	21.1	25.6	-12.08	-6,162.5	1,259.4	6,022.7	5,999.6	23.17	259.919		
7,200.0	6,924.3	7,022.0	6,859.0	21.1	25.6	-12.70	-6,162.5	1,259.4	6,008.9	5,986.0	22.94	261.922		
7,250.0	6,940.8	7,040.3	6,877.2	21.2	25.6	-15.47	-6,162.6	1,259.7	5,962.0	5,939.3	22.64	263.373		
7,283.4	6,949.9	7,047.2	6,884.1	21.3	25.6	-18.06	-6,162.6	1,259.7	5,930.0	5,907.1	22.94	258.472		
7,300.0	6,953.9	7,050.2	6,887.1	21.4	25.6	-19.68	-6,162.6	1,259.8	5,914.0	5,890.7	23.32	253.642		
7,350.0	6,963.6	7,057.6	6,894.6	21.6	25.6	-26.85	-6,162.7	1,259.9	5,865.2	5,839.4	25.86	226.841		
7,381.9	6,968.0	7,061.0	6,898.0	21.7	25.6	-34.53	-6,162.7	1,259.9	5,833.8	5,804.7	29.16	200.055		
7,400.0	6,969.9	7,062.5	6,899.5	21.8	25.6	-40.83	-6,162.7	1,260.0	5,815.9	5,784.0	31.86	182.541		
7,450.0	6,972.6	7,064.9	6,901.9	22.1	25.6	-70.91	-6,162.8	1,260.0	5,766.2	5,725.2	40.97	140.730		
7,471.5	6,972.8	7,065.1	6,902.1	22.2	25.6	-89.97	-6,162.8	1,260.0	5,744.8	5,702.8	41.97	136.862		
7,480.3	6,972.7	7,065.1	6,902.1	22.3	25.6	-89.97	-6,162.8	1,260.0	5,736.0	5,693.9	42.06	136.374		
7,500.0	6,972.5	7,065.1	6,902.1	22.4	25.6	-89.97	-6,162.8	1,260.0	5,716.4	5,674.1	42.25	135.288		
7,578.7	6,971.8	7,065.0	6,902.0	23.1	25.6	-89.96	-6,162.8	1,260.0	5,637.9	5,594.9	43.05	130.972		
7,600.0	6,971.6	7,065.0	6,902.0	23.3	25.6	-89.96	-6,162.8	1,260.0	5,616.8	5,573.5	43.26	129.833		
7,677.1	6,970.9	7,065.0	6,901.9	24.0	25.6	-89.95	-6,162.8	1,260.0	5,539.9	5,495.8	44.10	125.622		
7,700.0	6,970.7	7,064.9	6,901.9	24.2	25.6	-89.95	-6,162.8	1,260.0	5,517.2	5,472.8	44.35	124.406		
7,775.6	6,970.0	7,064.9	6,901.8	25.0	25.6	-89.94	-6,162.8	1,260.0	5,441.9	5,396.6	45.26	120.233		
7,800.0	6,969.8	7,064.8	6,901.8	25.3	25.6	-89.94	-6,162.8	1,260.0	5,417.6	5,372.0	45.56	118.920		
7,874.0	6,969.1	7,064.8	6,901.8	26.2	25.6	-89.94	-6,162.8	1,260.0	5,343.9	5,297.4	46.53	114.856		
7,900.0	6,968.9	7,064.8	6,901.7	26.5	25.6	-89.93	-6,162.8	1,260.0	5,318.0	5,271.1	46.87	113.468		
7,972.4	6,968.2	7,064.7	6,901.7	27.4	25.6	-89.93	-6,162.8	1,260.0	5,245.9	5,198.0	47.88	109.563		
8,000.0	6,968.0	7,064.7	6,901.6	27.8	25.6	-89.92	-6,162.8	1,260.0	5,218.5	5,170.2	48.27	108.119		
8,070.8	6,967.3	7,064.6	6,901.6	28.7	25.6	-89.92	-6,162.8	1,260.0	5,147.9	5,098.6	49.31	104.405		
8,100.0	6,967.1	7,064.6	6,901.6	29.1	25.6	-89.91	-6,162.8	1,260.0	5,118.9	5,069.2	49.74	102.922		
8,169.3	6,966.4	7,064.5	6,901.5	30.1	25.6	-89.91	-6,162.8	1,260.0	5,050.0	4,999.2	50.80	99.415		
8,200.0	6,966.2	7,064.5	6,901.5	30.5	25.6	-89.91	-6,162.8	1,260.0	5,019.4	4,968.1	51.27	97.906		
8,267.7	6,965.5	7,064.4	6,901.4	31.5	25.6	-89.90	-6,162.8	1,260.0	4,952.0	4,899.7	52.34	94.615		
8,300.0	6,965.2	7,064.4	6,901.4	32.0	25.6	-89.90	-6,162.8	1,260.0	4,919.9	4,867.1	52.85	93.092		
8,366.1	6,964.6	7,064.3	6,901.3	33.0	25.6	-89.89	-6,162.8	1,260.0	4,854.1	4,800.2	53.93	90.016		
8,400.0	6,964.3	7,064.3	6,901.3	33.5	25.6	-89.89	-6,162.8	1,260.0	4,820.4	4,766.0	54.48	88.487		
8,464.5	6,963.8	7,064.3	6,901.2	34.5	25.6	-89.88	-6,162.8	1,260.0	4,756.2	4,700.7	55.55	85.621		
8,500.0	6,963.4	7,064.2	6,901.2	35.1	25.6	-89.88	-6,162.8	1,260.0	4,721.0	4,664.8	56.14	84.094		
8,563.0	6,962.9	7,064.2	6,901.1	36.1	25.6	-89.87	-6,162.8	1,260.0	4,658.4	4,601.2	57.21	81.430		
8,600.0	6,962.5	7,064.1	6,901.1	36.7	25.6	-89.87	-6,162.8	1,260.0	4,621.6	4,563.7	57.83	79.910		
8,661.4	6,962.0	7,064.1	6,901.0	37.7	25.6	-89.86	-6,162.8	1,260.0	4,560.5	4,501.6	58.89	77.439		
8,700.0	6,961.6	7,064.0	6,901.0	38.3	25.6	-89.85	-6,162.8	1,260.0	4,522.1	4,462.6	59.56	75.931		
8,759.8	6,961.1	7,064.0	6,901.0	39.3	25.6	-89.85	-6,162.8	1,260.0	4,462.7	4,402.1	60.60	73.641		
8,800.0	6,960.7	7,063.9	6,900.9	40.0	25.6	-89.84	-6,162.8	1,260.0	4,422.8	4,361.5	61.30	72.148		
8,858.2	6,960.2	7,063.9	6,900.9	40.9	25.6	-89.84	-6,162.8	1,260.0	4,364.9	4,302.6	62.33	70.029		
8,900.0	6,959.8	7,063.9	6,900.8	41.6	25.6	-89.83	-6,162.8	1,260.0	4,323.4	4,260.4	63.07	68.553		
8,956.7	6,959.3	7,063.8	6,900.8	42.6	25.6	-89.83	-6,162.7	1,260.0	4,267.1	4,203.1	64.08	66.593		
9,000.0	6,958.9	7,063.8	6,900.7	43.3	25.6	-89.82	-6,162.7	1,260.0	4,224.1	4,159.3	64.85	65.136		
9,055.1	6,958.4	7,063.7	6,900.7	44.3	25.6	-89.82	-6,162.7	1,260.0	4,169.4	4,103.6	65.84	63.325		
9,100.0	6,958.0	7,063.7	6,900.6	45.1	25.6	-89.81	-6,162.7	1,260.0	4,124.8	4,058.2	66.65	61.889		
9,153.5	6,957.5	7,063.6	6,900.6	46.0	25.6	-89.81	-6,162.7	1,260.0	4,071.7	4,004.1	67.62	60.215		
9,200.0	6,957.1	7,063.6	6,900.5	46.8	25.6	-89.80	-6,162.7	1,260.0	4,025.6	3,957.1	68.46	58.800		
9,251.9	6,956.6	7,063.5	6,900.5	47.7	25.6	-89.80	-6,162.7	1,260.0	3,974.0	3,904.6	69.41	57.255		
9,300.0	6,956.2	7,063.5	6,900.4	48.6	25.6	-89.79	-6,162.7	1,260.0	3,926.4	3,856.1	70.29	55.863		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 731-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,350.4	6,955.7	7,063.4	6,900.4	49.5	25.6	-89.79	-89.79	-6,162.7	1,260.0	3,876.4	3,805.2	71.21	54.436	
9,400.0	6,955.2	7,063.4	6,900.3	50.3	25.6	-89.78	-89.78	-6,162.7	1,260.0	3,827.2	3,755.1	72.12	53.066	
9,448.8	6,954.8	7,063.3	6,900.3	51.2	25.6	-89.77	-89.77	-6,162.7	1,260.0	3,778.8	3,705.8	73.02	51.749	
9,500.0	6,954.3	7,063.3	6,900.2	52.1	25.6	-89.77	-89.77	-6,162.7	1,260.0	3,728.1	3,654.1	73.97	50.403	
9,547.2	6,953.9	7,063.2	6,900.2	53.0	25.6	-89.76	-89.76	-6,162.7	1,260.0	3,681.3	3,606.4	74.84	49.188	
9,600.0	6,953.4	7,063.2	6,900.1	53.9	25.6	-89.76	-89.76	-6,162.7	1,260.0	3,629.0	3,553.2	75.82	47.864	
9,645.6	6,953.0	7,063.1	6,900.1	54.7	25.6	-89.75	-89.75	-6,162.7	1,260.0	3,583.8	3,507.1	76.67	46.744	
9,700.0	6,952.5	7,063.1	6,900.0	55.7	25.6	-89.75	-89.75	-6,162.7	1,260.0	3,530.0	3,452.3	77.68	45.443	
9,744.1	6,952.1	7,063.0	6,900.0	56.5	25.6	-89.74	-89.74	-6,162.7	1,260.0	3,486.3	3,407.8	78.50	44.410	
9,800.0	6,951.6	7,063.0	6,899.9	57.5	25.6	-89.73	-89.73	-6,162.7	1,260.0	3,431.0	3,351.4	79.55	43.131	
9,842.5	6,951.2	7,062.9	6,899.9	58.3	25.6	-89.73	-89.73	-6,162.7	1,260.0	3,388.9	3,308.6	80.34	42.181	
9,900.0	6,950.7	7,062.8	6,899.8	59.4	25.6	-89.72	-89.72	-6,162.7	1,260.0	3,332.1	3,250.7	81.42	40.924	
9,940.9	6,950.3	7,062.8	6,899.8	60.1	25.6	-89.72	-89.72	-6,162.7	1,260.0	3,291.6	3,209.4	82.19	40.049	
10,000.0	6,949.8	7,062.7	6,899.7	61.2	25.6	-89.71	-89.71	-6,162.7	1,260.0	3,233.2	3,149.9	83.30	38.814	
10,039.3	6,949.4	7,062.7	6,899.7	61.9	25.6	-89.71	-89.71	-6,162.7	1,260.0	3,194.4	3,110.3	84.04	38.009	
10,100.0	6,948.9	7,062.6	6,899.6	63.0	25.6	-89.70	-89.70	-6,162.7	1,260.0	3,134.5	3,049.3	85.18	36.796	
10,137.8	6,948.5	7,062.6	6,899.6	63.7	25.6	-89.69	-89.69	-6,162.7	1,260.0	3,097.2	3,011.3	85.90	36.056	
10,200.0	6,948.0	7,062.5	6,899.5	64.9	25.6	-89.69	-89.69	-6,162.7	1,260.0	3,035.8	2,948.7	87.07	34.864	
10,236.2	6,947.6	7,062.5	6,899.5	65.6	25.6	-89.68	-89.68	-6,162.7	1,260.0	3,000.1	2,912.3	87.76	34.185	
10,300.0	6,947.1	7,062.4	6,899.4	66.7	25.6	-89.67	-89.67	-6,162.7	1,259.9	2,937.2	2,848.2	88.97	33.014	
10,334.6	6,946.7	7,062.4	6,899.3	67.4	25.6	-89.67	-89.67	-6,162.7	1,259.9	2,903.1	2,813.4	89.62	32.391	
10,400.0	6,946.2	7,062.3	6,899.3	68.6	25.6	-89.66	-89.66	-6,162.7	1,259.9	2,838.7	2,747.8	90.86	31.241	
10,433.0	6,945.8	7,062.3	6,899.2	69.2	25.6	-89.66	-89.66	-6,162.7	1,259.9	2,806.1	2,714.6	91.49	30.671	
10,500.0	6,945.2	7,062.2	6,899.2	70.5	25.6	-89.65	-89.65	-6,162.7	1,259.9	2,740.3	2,647.5	92.77	29.540	
10,531.5	6,945.0	7,062.2	6,899.1	71.1	25.6	-89.64	-89.64	-6,162.7	1,259.9	2,709.3	2,616.0	93.36	29.019	
10,600.0	6,944.3	7,062.1	6,899.0	72.3	25.6	-89.64	-89.64	-6,162.7	1,259.9	2,642.0	2,547.3	94.67	27.908	
10,629.9	6,944.1	7,062.0	6,899.0	72.9	25.6	-89.63	-89.63	-6,162.7	1,259.9	2,612.7	2,517.4	95.24	27.432	
10,700.0	6,943.4	7,062.0	6,898.9	74.2	25.6	-89.62	-89.62	-6,162.7	1,259.9	2,543.9	2,447.3	96.58	26.340	
10,728.3	6,943.2	7,061.9	6,898.9	74.7	25.6	-89.62	-89.62	-6,162.7	1,259.9	2,516.1	2,419.0	97.12	25.908	
10,800.0	6,942.5	7,061.8	6,898.8	76.1	25.6	-89.61	-89.61	-6,162.7	1,259.9	2,445.9	2,347.4	98.49	24.835	
10,826.7	6,942.3	7,061.8	6,898.8	76.6	25.6	-89.61	-89.61	-6,162.7	1,259.9	2,419.7	2,320.7	99.00	24.442	
10,900.0	6,941.6	7,061.7	6,898.7	78.0	25.6	-89.60	-89.60	-6,162.7	1,259.9	2,348.1	2,247.7	100.40	23.387	
10,925.2	6,941.4	7,061.7	6,898.7	78.4	25.6	-89.59	-89.59	-6,162.7	1,259.9	2,323.5	2,222.6	100.88	23.032	
11,000.0	6,940.7	7,061.6	6,898.6	79.9	25.6	-89.58	-89.58	-6,162.7	1,259.9	2,250.4	2,148.1	102.31	21.995	
11,023.6	6,940.5	7,061.6	6,898.5	80.3	25.6	-89.58	-89.58	-6,162.7	1,259.9	2,227.4	2,124.7	102.77	21.675	
11,100.0	6,939.8	7,061.5	6,898.5	81.7	25.6	-89.57	-89.57	-6,162.7	1,259.9	2,153.0	2,048.8	104.23	20.656	
11,122.0	6,939.6	7,061.5	6,898.4	82.2	25.6	-89.57	-89.57	-6,162.7	1,259.9	2,131.6	2,027.0	104.65	20.368	
11,200.0	6,938.9	7,061.4	6,898.3	83.6	25.6	-89.56	-89.56	-6,162.7	1,259.9	2,055.9	1,949.7	106.15	19.368	
11,220.4	6,938.7	7,061.3	6,898.3	84.0	25.6	-89.55	-89.55	-6,162.7	1,259.9	2,036.0	1,929.5	106.54	19.110	
11,300.0	6,938.0	7,061.2	6,898.2	85.5	25.6	-89.54	-89.54	-6,162.7	1,259.9	1,959.0	1,850.9	108.07	18.127	
11,318.9	6,937.8	7,061.2	6,898.2	85.9	25.6	-89.54	-89.54	-6,162.7	1,259.9	1,940.8	1,832.3	108.43	17.898	
11,400.0	6,937.0	7,061.1	6,898.1	87.4	25.6	-89.53	-89.53	-6,162.7	1,259.9	1,862.5	1,752.5	109.99	16.932	
11,417.3	6,936.9	7,061.1	6,898.1	87.8	25.6	-89.53	-89.53	-6,162.7	1,259.9	1,845.8	1,735.5	110.33	16.730	
11,500.0	6,936.1	7,061.0	6,898.0	89.3	25.6	-89.51	-89.51	-6,162.7	1,259.9	1,766.3	1,654.4	111.92	15.782	
11,515.7	6,936.0	7,061.0	6,897.9	89.6	25.6	-89.51	-89.51	-6,162.7	1,259.9	1,751.2	1,639.0	112.22	15.605	
11,600.0	6,935.2	7,060.9	6,897.8	91.2	25.6	-89.50	-89.50	-6,162.7	1,259.9	1,670.6	1,556.8	113.85	14.674	
11,614.1	6,935.1	7,060.8	6,897.8	91.5	25.6	-89.50	-89.50	-6,162.7	1,259.9	1,657.1	1,543.0	114.12	14.521	
11,700.0	6,934.3	7,060.7	6,897.7	93.1	25.6	-89.48	-89.48	-6,162.7	1,259.9	1,575.4	1,459.7	115.77	13.608	
11,712.6	6,934.2	7,060.7	6,897.7	93.4	25.6	-89.48	-89.48	-6,162.7	1,259.9	1,563.5	1,447.5	116.02	13.477	
11,800.0	6,933.4	7,060.6	6,897.6	95.1	25.6	-89.47	-89.47	-6,162.7	1,259.9	1,480.9	1,363.2	117.70	12.582	
11,811.0	6,933.3	7,060.6	6,897.6	95.3	25.6	-89.47	-89.47	-6,162.7	1,259.9	1,470.5	1,352.6	117.91	12.471	

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - NEI C18-24D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 731-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,900.0	6,932.5	7,060.5	6,897.4	97.0	25.6	-89.45	-6,162.7	1,259.9	1,387.1	1,267.5	119.63	11.595		
11,909.4	6,932.4	7,060.5	6,897.4	97.1	25.6	-89.45	-6,162.7	1,259.9	1,378.3	1,258.5	119.81	11.504		
12,000.0	6,931.6	7,060.3	6,897.3	98.9	25.6	-89.44	-6,162.7	1,259.9	1,294.3	1,172.7	121.56	10.647		
12,007.8	6,931.5	7,060.3	6,897.3	99.0	25.6	-89.44	-6,162.7	1,259.9	1,287.0	1,165.3	121.72	10.574		
12,100.0	6,930.7	7,060.2	6,897.2	100.8	25.6	-89.42	-6,162.7	1,259.9	1,202.6	1,079.1	123.50	9.738		
12,106.3	6,930.6	7,060.2	6,897.2	100.9	25.6	-89.42	-6,162.7	1,259.9	1,196.9	1,073.3	123.62	9.682		
12,200.0	6,929.8	7,060.1	6,897.0	102.7	25.6	-89.41	-6,162.7	1,259.9	1,112.3	986.9	125.43	8.868		
12,204.7	6,929.7	7,060.1	6,897.0	102.8	25.6	-89.41	-6,162.7	1,259.9	1,108.1	982.6	125.52	8.828		
12,300.0	6,928.8	7,059.9	6,896.9	104.6	25.6	-89.39	-6,162.7	1,259.9	1,023.9	896.5	127.37	8.039		
12,303.1	6,928.8	7,059.9	6,896.9	104.7	25.6	-89.39	-6,162.7	1,259.9	1,021.2	893.8	127.43	8.014		
12,400.0	6,927.9	7,059.8	6,896.8	106.5	25.6	-89.38	-6,162.7	1,259.9	937.8	808.5	129.30	7.253		
12,401.5	6,927.9	7,059.8	6,896.8	106.6	25.6	-89.38	-6,162.7	1,259.9	936.5	807.1	129.33	7.241		
12,500.0	6,927.0	7,059.7	6,896.6	108.5	25.6	-89.36	-6,162.7	1,259.9	854.7	723.5	131.24	6.513		
12,598.4	6,926.1	7,059.5	6,896.5	110.4	25.6	-89.34	-6,162.7	1,259.9	776.8	643.7	133.14	5.835		
12,600.0	6,926.1	7,059.5	6,896.5	110.4	25.6	-89.34	-6,162.7	1,259.9	775.6	642.4	133.18	5.824		
12,696.8	6,925.2	7,059.4	6,896.3	112.3	25.6	-89.33	-6,162.7	1,259.9	704.1	569.1	135.05	5.214		
12,700.0	6,925.2	7,059.4	6,896.3	112.3	25.6	-89.33	-6,162.7	1,259.9	701.9	566.8	135.11	5.195		
12,795.2	6,924.3	7,059.2	6,896.2	114.1	25.6	-89.31	-6,162.7	1,259.9	638.4	501.4	136.96	4.661		
12,800.0	6,924.3	7,059.2	6,896.2	114.2	25.6	-89.31	-6,162.7	1,259.9	635.4	498.3	137.05	4.636		
12,893.7	6,923.4	7,059.1	6,896.1	116.0	25.6	-89.30	-6,162.7	1,259.9	581.9	443.0	138.87	4.190		
12,900.0	6,923.4	7,059.1	6,896.0	116.2	25.6	-89.29	-6,162.7	1,259.9	578.6	439.6	138.99	4.163		
12,992.1	6,922.5	7,058.9	6,895.9	117.9	25.6	-89.28	-6,162.7	1,259.9	537.6	396.8	140.78	3.819		
13,000.0	6,922.5	7,058.9	6,895.9	118.1	25.6	-89.28	-6,162.7	1,259.9	534.7	393.7	140.93	3.794		
13,090.5	6,921.6	7,058.8	6,895.8	119.8	25.6	-89.26	-6,162.7	1,259.9	508.7	366.0	142.69	3.565		
13,100.0	6,921.5	7,058.8	6,895.7	120.0	25.6	-89.26	-6,162.7	1,259.9	506.9	364.0	142.87	3.548		
13,188.9	6,920.7	7,058.6	6,895.6	121.7	25.6	-89.24	-6,162.7	1,259.9	498.0	353.4	144.60	3.444		
13,194.7	6,920.7	7,058.6	6,895.6	121.8	25.6	-89.24	-6,162.7	1,259.9	498.0	353.2	144.71	3.441	CC	
13,200.0	6,920.6	7,058.6	6,895.6	121.9	25.6	-89.24	-6,162.7	1,259.9	498.0	353.2	144.82	3.439	ES, SF	
13,287.4	6,919.8	7,058.5	6,895.5	123.6	25.6	-89.23	-6,162.7	1,259.9	506.5	360.0	146.51	3.457		
13,300.0	6,919.7	7,058.5	6,895.4	123.9	25.6	-89.22	-6,162.7	1,259.9	509.0	362.2	146.76	3.468		
13,385.8	6,918.9	7,058.3	6,895.3	125.5	25.6	-89.21	-6,162.7	1,259.9	533.4	384.9	148.43	3.594		
13,400.0	6,918.8	7,058.3	6,895.3	125.8	25.6	-89.21	-6,162.7	1,259.9	538.6	389.9	148.70	3.622		
13,484.2	6,918.0	7,058.2	6,895.1	127.4	25.6	-89.19	-6,162.7	1,259.9	576.0	425.7	150.34	3.831		
13,500.0	6,917.9	7,058.1	6,895.1	127.7	25.6	-89.19	-6,162.7	1,259.9	584.1	433.5	150.64	3.877		
13,582.6	6,917.1	7,058.0	6,895.0	129.3	25.6	-89.17	-6,162.7	1,259.9	631.3	479.0	152.25	4.146		
13,600.0	6,917.0	7,058.0	6,895.0	129.7	25.6	-89.17	-6,162.7	1,259.9	642.1	489.5	152.59	4.208		
13,681.1	6,916.2	7,057.9	6,894.8	131.2	25.6	-89.15	-6,162.7	1,259.9	696.1	541.9	154.16	4.515		
13,700.0	6,916.1	7,057.8	6,894.8	131.6	25.6	-89.15	-6,162.7	1,259.9	709.4	554.9	154.53	4.591		
13,779.5	6,915.3	7,057.7	6,894.7	133.1	25.6	-89.13	-6,162.7	1,259.9	768.1	612.0	156.08	4.921		
13,800.0	6,915.2	7,057.7	6,894.6	133.5	25.6	-89.13	-6,162.7	1,259.9	783.8	627.3	156.48	5.009		
13,877.9	6,914.4	7,057.5	6,894.5	135.1	25.6	-89.12	-6,162.7	1,259.9	845.4	687.5	157.99	5.351		
13,900.0	6,914.2	7,057.5	6,894.5	135.5	25.6	-89.11	-6,162.7	1,259.9	863.4	705.0	158.42	5.450		
13,976.3	6,913.5	7,057.4	6,894.3	137.0	25.6	-89.10	-6,162.7	1,259.9	926.8	766.9	159.91	5.796		
14,000.0	6,913.3	7,057.3	6,894.3	137.4	25.6	-89.09	-6,162.7	1,259.9	946.8	786.5	160.37	5.904		
14,074.8	6,912.6	7,057.2	6,894.2	138.9	25.6	-89.08	-6,162.7	1,259.9	1,011.2	849.4	161.82	6.249		
14,100.0	6,912.4	7,057.1	6,894.1	139.4	25.6	-89.07	-6,162.7	1,259.9	1,033.2	870.9	162.31	6.366		
14,145.0	6,912.0	7,057.1	6,894.0	140.2	25.6	-89.06	-6,162.7	1,259.9	1,072.8	909.7	163.15	6.576		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 260-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	172.33	-5,114.9	688.8	5,161.1					
98.4	98.4	97.7	97.7	0.1	0.1	172.33	-5,114.7	688.7	5,160.9	5,160.7	0.18	N/A		
100.0	100.0	99.6	99.6	0.1	0.1	172.33	-5,114.7	688.7	5,160.9	5,160.7	0.18	N/A		
196.8	196.8	218.1	218.0	0.3	0.2	172.34	-5,114.1	688.0	5,160.3	5,159.8	0.50	N/A		
200.0	200.0	221.9	221.9	0.3	0.2	172.34	-5,114.1	688.0	5,160.3	5,159.8	0.51	N/A		
295.3	295.3	293.9	293.9	0.5	0.3	172.34	-5,113.6	687.4	5,159.7	5,158.8	0.83	6,238.694		
300.0	300.0	296.4	296.4	0.5	0.3	172.34	-5,113.6	687.4	5,159.6	5,158.8	0.84	6,122.805		
331.6	331.6	313.1	313.1	0.6	0.3	172.35	-5,113.6	687.3	5,159.6	5,158.7	0.95	5,445.352		
393.7	393.7	351.0	351.0	0.8	0.4	172.35	-5,113.8	687.2	5,159.8	5,158.6	1.16	4,435.442		
400.0	400.0	351.0	351.0	0.8	0.4	172.35	-5,113.8	687.2	5,159.8	5,158.6	1.18	4,382.130		
492.1	492.1	399.1	399.0	1.0	0.5	172.35	-5,114.3	687.2	5,160.8	5,159.3	1.48	3,479.324		
500.0	500.0	403.3	403.3	1.0	0.5	172.35	-5,114.3	687.2	5,160.9	5,159.4	1.51	3,418.442		
590.5	590.5	479.0	479.0	1.2	0.7	172.35	-5,115.9	687.5	5,162.7	5,160.9	1.87	2,762.221		
600.0	600.0	479.0	479.0	1.2	0.7	172.35	-5,115.9	687.5	5,162.9	5,161.0	1.89	2,731.278		
689.0	689.0	479.0	479.0	1.4	0.7	172.35	-5,115.9	687.5	5,165.5	5,163.4	2.09	2,471.178		
700.0	700.0	479.0	479.0	1.4	0.7	172.35	-5,115.9	687.5	5,165.9	5,163.8	2.12	2,442.424		
787.4	787.4	541.2	541.1	1.6	0.8	172.34	-5,118.0	688.5	5,169.2	5,166.7	2.45	2,108.472		
800.0	800.0	546.5	546.5	1.7	0.8	172.34	-5,118.3	688.7	5,169.7	5,167.2	2.49	2,074.602		
885.8	885.8	607.0	606.8	1.9	1.0	172.32	-5,121.2	690.7	5,174.2	5,171.3	2.82	1,834.189		
900.0	900.0	607.0	606.8	1.9	1.0	172.32	-5,121.2	690.7	5,174.9	5,172.0	2.85	1,813.962		
984.2	984.2	607.0	606.8	2.1	1.0	172.32	-5,121.2	690.7	5,180.1	5,177.0	3.04	1,702.743		
1,000.0	1,000.0	607.0	606.8	2.1	1.0	172.32	-5,121.2	690.7	5,181.2	5,178.1	3.08	1,683.519		
1,082.7	1,082.7	666.0	665.6	2.3	1.1	102.10	-5,125.2	693.5	5,187.5	5,184.1	3.39	1,528.628		
1,100.0	1,100.0	666.0	665.6	2.3	1.1	102.07	-5,125.2	693.5	5,188.9	5,185.5	3.43	1,512.163		
1,181.1	1,181.0	706.8	706.3	2.5	1.2	101.92	-5,128.4	695.8	5,196.7	5,193.0	3.70	1,403.498		
1,200.0	1,199.8	726.0	725.3	2.6	1.3	101.89	-5,130.0	696.9	5,198.6	5,194.8	3.79	1,372.478		
1,279.5	1,279.1	726.0	725.3	2.7	1.3	101.71	-5,130.0	696.9	5,207.6	5,203.6	3.97	1,312.008		
1,300.0	1,299.5	726.0	725.3	2.8	1.3	101.66	-5,130.0	696.9	5,210.1	5,206.1	4.02	1,297.407		
1,377.9	1,376.9	782.3	781.2	3.0	1.4	101.49	-5,135.1	700.7	5,220.0	5,215.7	4.35	1,201.142		
1,400.0	1,398.7	789.7	788.6	3.0	1.4	101.44	-5,135.9	701.3	5,223.1	5,218.7	4.42	1,182.084		
1,476.4	1,474.2	854.0	852.3	3.2	1.6	101.28	-5,143.3	706.4	5,234.9	5,230.2	4.78	1,094.264		
1,500.0	1,497.5	854.0	852.3	3.3	1.6	101.21	-5,143.3	706.4	5,238.5	5,233.7	4.85	1,080.294		
1,574.8	1,571.0	854.0	852.3	3.5	1.6	100.96	-5,143.3	706.4	5,250.9	5,245.8	5.08	1,032.952		
1,600.1	1,595.7	854.0	852.3	3.6	1.6	100.87	-5,143.3	706.4	5,255.3	5,250.2	5.16	1,017.950		
1,673.2	1,667.2	854.0	852.3	3.9	1.6	100.87	-5,143.3	706.4	5,269.0	5,263.6	5.42	972.927		
1,700.0	1,693.4	854.0	852.3	4.0	1.6	100.87	-5,143.3	706.4	5,274.3	5,268.8	5.51	957.485		
1,771.6	1,763.5	912.6	910.0	4.2	1.8	100.96	-5,151.3	711.9	5,288.0	5,282.1	5.93	891.558		
1,800.0	1,791.3	921.9	919.2	4.3	1.9	100.97	-5,152.7	712.9	5,293.8	5,287.7	6.06	873.502		
1,870.1	1,859.8	983.0	979.1	4.6	2.1	101.04	-5,162.4	720.1	5,308.8	5,302.3	6.49	817.585		
1,900.0	1,889.1	983.0	979.1	4.7	2.1	101.04	-5,162.4	720.1	5,315.1	5,308.4	6.61	804.395		
1,968.5	1,956.1	983.0	979.1	5.0	2.1	101.04	-5,162.4	720.1	5,329.9	5,323.1	6.88	775.101		
2,000.0	1,986.9	983.0	979.1	5.1	2.1	101.04	-5,162.4	720.1	5,337.1	5,330.1	7.00	762.414		
2,066.9	2,052.3	983.0	979.1	5.4	2.1	101.04	-5,162.4	720.1	5,352.8	5,345.5	7.27	736.370		
2,100.0	2,084.7	983.0	979.1	5.5	2.1	101.04	-5,162.4	720.1	5,360.9	5,353.5	7.40	724.226		
2,165.3	2,148.6	1,032.5	1,027.3	5.8	2.3	101.10	-5,171.3	726.6	5,376.6	5,368.8	7.82	687.441		
2,200.0	2,182.5	1,042.0	1,036.6	5.9	2.4	101.11	-5,173.1	727.9	5,385.3	5,377.3	7.99	673.830		
2,263.8	2,244.9	1,059.5	1,053.5	6.2	2.4	101.12	-5,176.6	730.4	5,401.7	5,393.4	8.31	650.025		
2,300.0	2,280.3	1,111.0	1,103.3	6.3	2.7	101.17	-5,187.6	737.9	5,411.8	5,403.2	8.62	628.069		
2,362.2	2,341.2	1,111.0	1,103.3	6.6	2.7	101.17	-5,187.6	737.9	5,428.3	5,419.4	8.88	611.438		
2,400.0	2,378.1	1,111.0	1,103.3	6.8	2.7	101.17	-5,187.6	737.9	5,438.6	5,429.5	9.04	601.834		
2,460.6	2,437.4	1,111.0	1,103.3	7.0	2.7	101.17	-5,187.6	737.9	5,455.6	5,446.3	9.29	587.022		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 260-MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,500.0	2,476.0	1,111.0	1,103.3	7.2	2.7	101.17	-5,187.6	737.9	5,467.0	5,457.5	9.46	577.865		
2,559.0	2,533.7	1,159.6	1,150.0	7.4	2.9	101.22	-5,198.7	745.5	5,484.1	5,474.2	9.87	555.475		
2,600.0	2,573.8	1,178.4	1,168.0	7.6	3.1	101.23	-5,203.1	748.5	5,496.2	5,486.1	10.11	543.682		
2,657.5	2,630.0	1,204.7	1,193.2	7.9	3.2	101.25	-5,209.3	752.8	5,513.5	5,503.0	10.44	527.995		
2,700.0	2,671.6	1,240.0	1,226.9	8.1	3.4	101.28	-5,217.9	758.8	5,526.5	5,515.7	10.74	514.557		
2,755.9	2,726.3	1,240.0	1,226.9	8.3	3.4	101.28	-5,217.9	758.8	5,543.7	5,532.7	10.98	504.800		
2,800.0	2,769.4	1,240.0	1,226.9	8.5	3.4	101.28	-5,217.9	758.8	5,557.6	5,546.4	11.17	497.432		
2,854.3	2,822.5	1,285.0	1,269.8	8.7	3.7	101.31	-5,229.3	766.6	5,574.8	5,563.2	11.56	482.206		
2,900.0	2,867.2	1,302.2	1,286.1	8.9	3.8	101.32	-5,233.8	769.5	5,589.5	5,577.7	11.82	472.996		
2,952.7	2,918.8	1,321.9	1,304.8	9.2	3.9	101.33	-5,239.0	772.8	5,606.8	5,594.7	12.11	462.842		
3,000.0	2,965.0	1,368.0	1,348.4	9.4	4.2	101.37	-5,251.6	780.6	5,622.7	5,610.2	12.48	450.699		
3,051.2	3,015.1	1,368.0	1,348.4	9.6	4.2	101.37	-5,251.6	780.6	5,639.8	5,627.1	12.70	444.099		
3,100.0	3,062.8	1,368.0	1,348.4	9.8	4.2	101.37	-5,251.6	780.6	5,656.5	5,643.6	12.91	438.045		
3,149.6	3,111.4	1,368.0	1,348.4	10.0	4.2	101.37	-5,251.6	780.6	5,673.9	5,660.7	13.13	432.104		
3,200.0	3,160.7	1,423.0	1,400.2	10.3	4.5	101.40	-5,267.3	790.3	5,691.3	5,677.8	13.55	420.071		
3,248.0	3,207.6	1,444.3	1,420.3	10.5	4.7	101.42	-5,273.5	794.3	5,708.3	5,694.5	13.84	412.548		
3,300.0	3,258.5	1,496.0	1,468.6	10.7	5.0	101.44	-5,288.8	804.4	5,727.1	5,712.8	14.25	401.843		
3,346.4	3,303.9	1,496.0	1,468.6	10.9	5.0	101.44	-5,288.8	804.4	5,743.8	5,729.3	14.46	397.304		
3,400.0	3,356.3	1,496.0	1,468.6	11.2	5.0	101.44	-5,288.8	804.4	5,763.4	5,748.7	14.69	392.255		
3,444.9	3,400.2	1,496.0	1,468.6	11.4	5.0	101.44	-5,288.8	804.4	5,780.2	5,765.3	14.89	388.160		
3,500.0	3,454.1	1,548.8	1,517.7	11.6	5.4	101.46	-5,304.9	815.3	5,800.6	5,785.3	15.35	377.998		
3,543.3	3,496.5	1,565.6	1,533.2	11.8	5.5	101.46	-5,310.2	818.8	5,817.1	5,801.5	15.60	372.793		
3,600.0	3,551.9	1,625.0	1,588.0	12.0	6.0	101.48	-5,329.2	831.6	5,839.1	5,823.0	16.09	362.913		
3,641.7	3,592.7	1,625.0	1,588.0	12.2	6.0	101.48	-5,329.2	831.6	5,855.0	5,838.8	16.27	359.770		
3,700.0	3,649.7	1,627.5	1,590.3	12.5	6.0	101.48	-5,330.0	832.2	5,877.8	5,861.2	16.54	355.303		
3,740.1	3,689.0	1,669.6	1,629.0	12.7	6.3	101.48	-5,343.7	841.6	5,893.6	5,876.7	16.89	348.844		
3,800.0	3,747.5	1,732.4	1,686.6	12.9	6.8	101.49	-5,364.0	856.3	5,917.1	5,899.6	17.42	339.709		
3,838.6	3,785.3	1,753.0	1,705.5	13.1	6.9	101.49	-5,370.6	861.2	5,932.2	5,914.5	17.67	335.652		
3,900.0	3,845.4	1,753.0	1,705.5	13.4	6.9	101.49	-5,370.6	861.2	5,956.7	5,938.7	17.95	331.909		
3,937.0	3,881.5	1,796.6	1,745.3	13.6	7.3	101.48	-5,384.8	872.0	5,971.3	5,953.0	18.31	326.157		
4,000.0	3,943.2	1,819.8	1,766.3	13.8	7.5	101.48	-5,392.5	877.9	5,996.7	5,978.0	18.69	320.803		
4,035.4	3,977.8	1,832.8	1,778.1	14.0	7.6	101.48	-5,396.9	881.2	6,011.2	5,992.3	18.91	317.898		
4,100.0	4,041.0	1,882.0	1,822.5	14.3	8.0	101.47	-5,413.7	894.3	6,037.9	6,018.5	19.42	310.952		
4,133.8	4,074.1	1,882.0	1,822.5	14.4	8.0	101.47	-5,413.7	894.3	6,051.9	6,032.4	19.57	309.269		
4,200.0	4,138.8	1,882.0	1,822.5	14.7	8.0	101.47	-5,413.7	894.3	6,079.7	6,059.9	19.86	306.075		
4,232.3	4,170.4	1,882.0	1,822.5	14.9	8.0	101.47	-5,413.7	894.3	6,093.5	6,073.5	20.01	304.560		
4,300.0	4,236.6	1,930.8	1,866.2	15.2	8.4	101.45	-5,430.9	907.6	6,122.4	6,101.8	20.55	297.875		
4,330.7	4,266.6	1,942.3	1,876.4	15.3	8.5	101.44	-5,435.0	910.8	6,135.7	6,114.9	20.75	295.723		
4,400.0	4,334.4	1,968.1	1,899.4	15.6	8.8	101.43	-5,444.3	917.9	6,165.9	6,144.7	21.19	291.033		
4,429.1	4,362.9	2,010.0	1,936.6	15.8	9.2	101.42	-5,459.7	929.6	6,178.9	6,157.3	21.52	287.057		
4,500.0	4,432.2	2,010.0	1,936.6	16.1	9.2	101.42	-5,459.7	929.6	6,210.1	6,188.3	21.84	284.323		
4,527.5	4,459.2	2,010.0	1,936.6	16.2	9.2	101.42	-5,459.7	929.6	6,222.4	6,200.5	21.96	283.289		
4,600.0	4,530.1	2,010.0	1,936.6	16.5	9.2	101.42	-5,459.7	929.6	6,255.3	6,233.0	22.29	280.644		
4,626.0	4,555.5	2,050.9	1,972.6	16.7	9.6	101.40	-5,475.1	941.1	6,266.9	6,244.3	22.62	277.099		
4,700.0	4,627.9	2,077.5	1,996.0	17.0	9.8	101.39	-5,485.4	948.7	6,300.9	6,277.8	23.08	272.943		
4,724.4	4,651.7	2,086.3	2,003.7	17.1	9.9	101.39	-5,488.7	951.2	6,312.1	6,288.9	23.24	271.616		
4,800.0	4,725.7	2,138.0	2,048.9	17.4	10.4	101.36	-5,509.1	966.1	6,347.5	6,323.6	23.84	266.212		
4,822.8	4,748.0	2,138.0	2,048.9	17.6	10.4	101.36	-5,509.1	966.1	6,358.1	6,334.2	23.95	265.519		
4,900.0	4,823.5	2,185.1	2,089.9	17.9	10.8	101.34	-5,527.8	979.8	6,394.5	6,370.0	24.53	260.675		
4,921.2	4,844.3	2,218.2	2,118.7	18.0	11.2	101.32	-5,540.8	989.7	6,404.5	6,379.7	24.79	258.314		
5,000.0	4,921.3	2,316.7	2,204.4	18.4	12.0	101.26	-5,579.1	1,019.3	6,441.2	6,415.6	25.63	251.292		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 260-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)						
5,014.9	4,935.9	2,332.3	2,218.1	18.4	12.2	101.25	-5,585.1	1,023.9	6,448.2	6,422.4	25.77	250.173		
5,019.7	4,940.6	2,337.3	2,222.4	18.4	12.2	101.30	-5,587.1	1,025.4	6,450.4	6,424.5	25.82	249.813		
5,100.0	5,019.4	2,444.6	2,316.3	18.7	13.1	102.04	-5,628.6	1,056.7	6,487.3	6,460.6	26.71	242.872		
5,118.1	5,037.2	2,480.4	2,347.7	18.8	13.4	102.20	-5,642.3	1,066.9	6,495.5	6,468.6	26.95	241.022		
5,200.0	5,118.1	2,567.4	2,424.5	19.0	14.2	102.92	-5,675.4	1,091.0	6,532.0	6,504.3	27.69	235.857		
5,216.5	5,134.4	2,579.3	2,435.0	19.1	14.3	103.07	-5,679.9	1,094.3	6,539.3	6,511.5	27.81	235.111		
5,300.0	5,217.2	2,639.6	2,488.1	19.3	14.8	103.79	-5,703.0	1,111.1	6,576.1	6,547.7	28.42	231.412		
5,314.9	5,232.1	2,652.0	2,499.1	19.3	14.9	103.91	-5,707.7	1,114.5	6,582.6	6,554.1	28.53	230.741		
5,400.0	5,316.8	2,715.6	2,555.0	19.5	15.6	104.61	-5,732.2	1,132.3	6,619.7	6,590.5	29.15	227.093		
5,413.4	5,330.1	2,725.8	2,564.0	19.5	15.7	104.72	-5,736.1	1,135.1	6,625.4	6,596.2	29.24	226.557		
5,500.0	5,416.6	2,780.0	2,611.7	19.7	16.2	105.41	-5,757.0	1,150.3	6,662.6	6,632.8	29.79	223.650		
5,511.8	5,428.4	2,798.9	2,628.3	19.7	16.4	105.48	-5,764.3	1,155.6	6,667.7	6,637.7	29.92	222.837		
5,600.0	5,516.6	2,859.3	2,681.3	19.8	17.0	106.14	-5,787.8	1,172.4	6,705.0	6,674.6	30.47	220.078		
5,610.2	5,526.8	2,866.3	2,687.5	19.8	17.0	106.21	-5,790.5	1,174.3	6,709.3	6,678.8	30.53	219.779		
5,615.0	5,531.6	2,869.5	2,690.3	19.8	17.0	176.33	-5,791.8	1,175.2	6,711.3	6,680.8	30.53	219.812		
5,700.0	5,616.6	2,909.0	2,725.0	19.9	17.4	176.24	-5,807.2	1,186.1	6,747.3	6,716.4	30.85	218.706		
5,708.6	5,625.3	2,909.0	2,725.0	20.0	17.4	176.24	-5,807.2	1,186.1	6,750.9	6,720.1	30.86	218.742		
5,800.0	5,716.6	2,977.8	2,785.2	20.1	18.1	176.07	-5,834.3	1,205.5	6,789.9	6,758.5	31.37	216.463		
5,807.1	5,723.7	2,981.6	2,788.5	20.1	18.1	176.06	-5,835.8	1,206.6	6,792.9	6,761.5	31.40	216.348		
5,900.0	5,816.6	3,037.0	2,836.6	20.2	18.6	175.93	-5,857.8	1,222.9	6,833.0	6,801.2	31.83	214.676		
5,905.5	5,822.1	3,037.0	2,836.6	20.2	18.6	175.93	-5,857.8	1,222.9	6,835.4	6,803.6	31.84	214.699		
6,000.0	5,916.6	3,104.9	2,895.5	20.4	19.3	175.76	-5,884.8	1,243.1	6,876.6	6,844.2	32.35	212.598		
6,003.9	5,920.5	3,107.8	2,898.1	20.4	19.3	175.75	-5,886.0	1,244.0	6,878.3	6,845.9	32.37	212.506		
6,100.0	6,016.6	3,311.4	3,075.5	20.5	21.2	175.27	-5,966.6	1,302.7	6,920.0	6,886.5	33.57	206.157		
6,102.3	6,019.0	3,313.5	3,077.4	20.5	21.2	175.26	-5,967.4	1,303.3	6,921.0	6,887.4	33.58	206.098		
6,200.0	6,116.6	3,401.4	3,154.3	20.6	22.0	175.06	-6,001.3	1,328.8	6,962.3	6,928.1	34.18	203.717		
6,200.8	6,117.4	3,402.1	3,154.9	20.6	22.0	175.06	-6,001.6	1,329.0	6,962.6	6,928.4	34.18	203.698		
6,299.2	6,215.8	3,582.3	3,313.4	20.8	23.7	174.64	-6,069.9	1,381.2	7,003.7	6,968.4	35.24	198.727		
6,300.0	6,216.6	3,583.2	3,314.1	20.8	23.7	174.64	-6,070.2	1,381.4	7,004.0	6,968.7	35.25	198.708		
6,340.0	6,256.6	3,624.7	3,350.9	20.8	24.0	174.55	-6,085.8	1,392.5	7,020.5	6,985.0	35.50	197.750		
6,350.0	6,266.6	3,635.1	3,360.2	20.8	24.1	-5.64	-6,089.8	1,395.3	7,024.5	6,988.9	35.64	197.115		
6,397.6	6,314.2	3,685.5	3,405.1	20.9	24.5	-5.59	-6,108.9	1,408.0	7,042.0	7,006.0	35.99	195.681		
6,400.0	6,316.5	3,687.9	3,407.3	20.9	24.6	-5.59	-6,109.8	1,408.6	7,042.8	7,006.8	36.00	195.630		
6,450.0	6,366.2	3,739.5	3,453.2	20.9	25.0	-5.57	-6,129.3	1,421.7	7,057.8	7,021.6	36.19	195.004		
6,496.0	6,411.4	3,787.6	3,495.9	21.0	25.4	-5.58	-6,147.2	1,434.6	7,068.6	7,032.4	36.22	195.155		
6,500.0	6,415.3	3,791.7	3,499.5	21.0	25.5	-5.58	-6,148.8	1,435.8	7,069.4	7,033.2	36.22	195.200		
6,550.0	6,463.6	3,836.0	3,538.8	21.0	25.9	-5.61	-6,165.2	1,448.1	7,077.7	7,041.6	36.04	196.380		
6,594.5	6,505.8	3,872.4	3,570.9	21.0	26.2	-5.66	-6,178.8	1,458.3	7,082.2	7,046.4	35.73	198.210		
6,600.0	6,510.9	3,876.9	3,574.9	21.0	26.3	-5.67	-6,180.4	1,459.6	7,082.5	7,046.8	35.68	198.484		
6,650.0	6,557.0	3,917.9	3,611.1	21.0	26.7	-5.75	-6,195.7	1,471.1	7,084.0	7,048.8	35.16	201.490		
6,692.9	6,595.4	4,064.0	3,740.8	21.0	28.0	-6.10	-6,249.2	1,512.1	7,082.2	7,047.0	35.11	201.695		
6,700.0	6,601.6	4,064.0	3,740.8	21.0	28.0	-6.11	-6,249.2	1,512.1	7,081.6	7,046.6	34.98	202.473		
6,750.0	6,644.6	4,100.8	3,773.6	20.9	28.3	-6.25	-6,262.5	1,522.4	7,075.5	7,041.4	34.09	207.544		
6,791.3	6,678.6	4,118.3	3,789.1	20.9	28.5	-6.36	-6,268.8	1,527.2	7,068.0	7,034.8	33.19	212.962		
6,800.0	6,685.6	4,121.9	3,792.3	20.9	28.5	-6.38	-6,270.1	1,528.3	7,066.2	7,033.2	32.99	214.203		
6,850.0	6,724.6	4,142.6	3,810.7	20.9	28.7	-6.56	-6,277.7	1,534.1	7,053.7	7,022.0	31.75	222.139		
6,889.7	6,753.9	4,193.0	3,855.2	20.9	29.1	-6.81	-6,296.5	1,548.3	7,041.8	7,010.9	30.83	228.398		
6,900.0	6,761.3	4,193.0	3,855.2	20.9	29.1	-6.85	-6,296.5	1,548.3	7,038.3	7,007.7	30.53	230.551		
6,950.0	6,795.5	4,193.0	3,855.2	20.9	29.1	-7.04	-6,296.5	1,548.3	7,019.5	6,990.5	29.00	242.038		
6,988.2	6,819.9	4,193.0	3,855.2	20.9	29.1	-7.22	-6,296.5	1,548.3	7,003.2	6,975.4	27.80	251.955		
7,000.0	6,827.1	4,193.0	3,855.2	20.9	29.1	-7.28	-6,296.5	1,548.3	6,997.8	6,970.4	27.42	255.219		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 260-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
7,050.0	6,855.9	4,193.0	3,855.2	20.9	29.1	-7.57	-6,296.5	1,548.3	6,973.4	6,947.6	25.81	270.137		
7,086.6	6,875.1	4,193.0	3,855.2	20.9	29.1	-7.82	-6,296.5	1,548.3	6,953.8	6,929.1	24.66	282.019		
7,100.0	6,881.8	4,193.0	3,855.2	20.9	29.1	-7.92	-6,296.5	1,548.3	6,946.2	6,922.0	24.23	286.662		
7,150.0	6,904.6	4,242.3	3,898.5	21.0	29.6	-8.54	-6,315.2	1,562.7	6,916.0	6,893.1	22.90	301.956		
7,185.0	6,918.8	4,251.2	3,906.3	21.1	29.7	-8.94	-6,318.6	1,565.5	6,893.5	6,871.5	21.97	313.811		
7,200.0	6,924.3	4,254.9	3,909.5	21.1	29.8	-9.12	-6,320.1	1,566.6	6,883.5	6,861.9	21.59	318.775		
7,250.0	6,940.8	4,266.7	3,919.7	21.2	29.9	-9.82	-6,324.6	1,570.2	6,848.6	6,828.0	20.53	333.582		
7,283.4	6,949.9	4,274.1	3,926.1	21.3	29.9	-10.38	-6,327.5	1,572.5	6,823.9	6,803.9	20.02	340.917		
7,300.0	6,953.9	4,277.6	3,929.2	21.4	30.0	-10.68	-6,328.8	1,573.6	6,811.4	6,791.6	19.83	343.465		
7,350.0	6,963.6	4,321.0	3,966.6	21.6	30.4	-11.96	-6,345.8	1,587.7	6,772.3	6,752.5	19.79	342.134		
7,381.9	6,968.0	4,321.0	3,966.6	21.7	30.4	-12.74	-6,345.8	1,587.7	6,746.2	6,726.2	19.97	337.848		
7,400.0	6,969.9	4,321.0	3,966.6	21.8	30.4	-13.24	-6,345.8	1,587.7	6,731.0	6,710.8	20.19	333.443		
7,450.0	6,972.6	4,321.0	3,966.6	22.1	30.4	-14.88	-6,345.8	1,587.7	6,688.0	6,666.7	21.29	314.179		
7,471.5	6,972.8	4,321.0	3,966.6	22.2	30.4	-15.74	-6,345.8	1,587.7	6,669.0	6,647.0	22.00	303.199		
7,480.3	6,972.7	4,321.0	3,966.6	22.3	30.4	-15.74	-6,345.8	1,587.7	6,661.2	6,639.1	22.04	302.191		
7,500.0	6,972.5	4,321.0	3,966.6	22.4	30.4	-15.74	-6,345.8	1,587.7	6,643.7	6,621.5	22.15	299.951		
7,578.7	6,971.8	4,321.0	3,966.6	23.1	30.4	-15.74	-6,345.8	1,587.7	6,573.8	6,551.2	22.59	291.006		
7,600.0	6,971.6	4,321.0	3,966.6	23.3	30.4	-15.74	-6,345.8	1,587.7	6,555.0	6,532.3	22.71	288.650		
7,677.1	6,970.9	4,355.8	3,996.4	24.0	30.8	-16.10	-6,359.6	1,599.2	6,486.7	6,463.2	23.48	276.268		
7,700.0	6,970.7	4,363.0	4,002.6	24.2	30.9	-16.18	-6,362.4	1,601.6	6,466.4	6,442.8	23.68	273.062		
7,775.6	6,970.0	4,386.8	4,022.9	25.0	31.1	-16.43	-6,371.8	1,609.5	6,399.6	6,375.3	24.38	262.516		
7,800.0	6,969.8	4,394.5	4,029.5	25.3	31.2	-16.51	-6,374.9	1,612.0	6,378.1	6,353.5	24.61	259.217		
7,874.0	6,969.1	4,417.8	4,049.5	26.2	31.5	-16.77	-6,384.2	1,619.8	6,312.8	6,287.5	25.32	249.325		
7,900.0	6,968.9	4,426.1	4,056.5	26.5	31.6	-16.86	-6,387.4	1,622.6	6,289.9	6,264.3	25.57	245.962		
7,972.4	6,968.2	4,450.0	4,077.0	27.4	31.8	-17.12	-6,396.9	1,630.6	6,226.1	6,199.8	26.31	236.636		
8,000.0	6,968.0	4,473.9	4,097.4	27.8	32.1	-17.39	-6,406.4	1,638.5	6,201.8	6,175.0	26.74	231.907		
8,070.8	6,967.3	4,542.6	4,156.4	28.7	32.8	-18.16	-6,433.6	1,660.6	6,139.3	6,111.4	27.96	219.551		
8,100.0	6,967.1	4,570.6	4,180.7	29.1	33.0	-18.48	-6,444.7	1,669.3	6,113.6	6,085.1	28.47	214.714		
8,169.3	6,966.4	4,599.6	4,205.8	30.1	33.3	-18.81	-6,456.1	1,678.3	6,052.4	6,023.1	29.31	206.518		
8,200.0	6,966.2	4,610.4	4,215.2	30.5	33.4	-18.94	-6,460.4	1,681.6	6,025.3	5,995.6	29.66	203.163		
8,267.7	6,965.5	4,634.3	4,235.9	31.5	33.6	-19.21	-6,469.9	1,688.9	5,965.6	5,935.2	30.45	195.924		
8,300.0	6,965.2	4,645.7	4,245.8	32.0	33.8	-19.35	-6,474.4	1,692.3	5,937.2	5,906.3	30.83	192.578		
8,366.1	6,964.6	4,669.2	4,266.1	33.0	34.0	-19.62	-6,483.7	1,699.5	5,879.0	5,847.3	31.63	185.881		
8,400.0	6,964.3	4,681.3	4,276.6	33.5	34.1	-19.77	-6,488.5	1,703.1	5,849.2	5,817.1	32.04	182.557		
8,464.5	6,963.8	4,706.0	4,298.0	34.5	34.3	-20.06	-6,498.3	1,710.5	5,792.4	5,759.6	32.86	176.261		
8,500.0	6,963.4	4,706.0	4,298.0	35.1	34.3	-20.06	-6,498.3	1,710.5	5,761.3	5,728.2	33.16	173.769		
8,563.0	6,962.9	4,706.0	4,298.0	36.1	34.3	-20.06	-6,498.3	1,710.5	5,706.2	5,672.5	33.68	169.417		
8,600.0	6,962.5	4,706.0	4,298.0	36.7	34.3	-20.06	-6,498.3	1,710.5	5,673.8	5,639.9	33.99	166.922		
8,661.4	6,962.0	4,746.5	4,333.1	37.7	34.7	-20.55	-6,514.6	1,722.6	5,620.1	5,585.0	35.02	160.484		
8,700.0	6,961.6	4,754.8	4,340.3	38.3	34.8	-20.65	-6,518.0	1,725.0	5,586.4	5,550.9	35.46	157.559		
8,759.8	6,961.1	4,767.8	4,351.5	39.3	34.9	-20.81	-6,523.3	1,728.8	5,534.3	5,498.1	36.14	153.123		
8,800.0	6,960.7	4,776.6	4,359.1	40.0	35.0	-20.92	-6,526.9	1,731.4	5,499.3	5,462.7	36.61	150.224		
8,858.2	6,960.2	4,789.5	4,370.3	40.9	35.1	-21.08	-6,532.2	1,735.2	5,448.7	5,411.4	37.29	146.112		
8,900.0	6,959.8	4,798.9	4,378.4	41.6	35.2	-21.20	-6,536.1	1,737.9	5,412.5	5,374.8	37.79	143.242		
8,956.7	6,959.3	4,835.0	4,409.5	42.6	35.6	-21.65	-6,551.1	1,748.2	5,363.6	5,324.8	38.79	138.282		
9,000.0	6,958.9	4,835.0	4,409.5	43.3	35.6	-21.64	-6,551.1	1,748.2	5,326.1	5,286.9	39.18	135.949		
9,055.1	6,958.4	4,835.0	4,409.5	44.3	35.6	-21.64	-6,551.1	1,748.2	5,278.5	5,238.9	39.68	133.038		
9,100.0	6,958.0	4,861.0	4,431.9	45.1	35.8	-21.97	-6,562.1	1,755.6	5,239.8	5,199.4	40.46	129.521		
9,153.5	6,957.5	4,894.1	4,460.5	46.0	36.2	-22.39	-6,575.9	1,764.9	5,193.7	5,152.3	41.43	125.357		
9,200.0	6,957.1	4,922.6	4,485.1	46.8	36.4	-22.76	-6,587.8	1,772.9	5,153.7	5,111.4	42.29	121.864		
9,251.9	6,956.6	4,954.2	4,512.4	47.7	36.7	-23.18	-6,600.9	1,781.8	5,108.9	5,065.7	43.27	118.082		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 260-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.0	6,956.2	4,977.2	4,532.4	48.6	37.0	-23.49	-6,610.5	1,788.2	5,067.6	5,023.5	44.08	114.951		
9,350.4	6,955.7	4,998.6	4,550.9	49.5	37.2	-23.78	-6,619.3	1,794.2	5,024.2	4,979.3	44.91	111.871		
9,400.0	6,955.2	5,019.5	4,569.0	50.3	37.4	-24.06	-6,628.0	1,800.2	4,981.6	4,935.8	45.73	108.924		
9,448.8	6,954.8	5,040.1	4,586.8	51.2	37.6	-24.35	-6,636.5	1,806.0	4,939.7	4,893.1	46.56	106.104		
9,500.0	6,954.3	5,061.6	4,605.4	52.1	37.8	-24.65	-6,645.3	1,812.1	4,895.8	4,848.3	47.43	103.229		
9,547.2	6,953.9	5,081.4	4,622.5	53.0	38.0	-24.93	-6,653.5	1,817.8	4,855.3	4,807.1	48.24	100.647		
9,600.0	6,953.4	5,109.6	4,646.9	53.9	38.2	-25.34	-6,665.0	1,825.9	4,810.2	4,760.9	49.27	97.623		
9,645.6	6,953.0	5,138.7	4,672.2	54.7	38.5	-25.77	-6,676.9	1,834.2	4,771.1	4,720.8	50.27	94.915		
9,700.0	6,952.5	5,173.0	4,702.0	55.7	38.8	-26.28	-6,690.9	1,844.0	4,724.6	4,673.1	51.47	91.798		
9,744.1	6,952.1	5,200.6	4,725.9	56.5	39.1	-26.70	-6,702.1	1,851.9	4,686.9	4,634.5	52.45	89.352		
9,800.0	6,951.6	5,348.0	4,855.1	57.5	40.4	-29.02	-6,760.2	1,892.5	4,638.8	4,582.8	56.02	82.809		
9,842.5	6,951.2	5,370.4	4,875.0	58.3	40.6	-29.39	-6,768.8	1,898.5	4,602.1	4,545.1	56.96	80.801		
9,900.0	6,950.7	5,387.2	4,889.8	59.4	40.8	-29.67	-6,775.3	1,902.9	4,552.5	4,494.5	57.95	78.564		
9,940.9	6,950.3	5,399.2	4,900.4	60.1	40.9	-29.87	-6,779.9	1,906.0	4,517.2	4,458.6	58.66	77.007		
10,000.0	6,949.8	5,416.7	4,915.9	61.2	41.0	-30.16	-6,786.7	1,910.6	4,466.5	4,406.8	59.70	74.812		
10,039.3	6,949.4	5,428.5	4,926.3	61.9	41.1	-30.36	-6,791.3	1,913.6	4,432.7	4,372.3	60.41	73.382		
10,100.0	6,948.9	5,446.8	4,942.5	63.0	41.3	-30.67	-6,798.5	1,918.2	4,380.8	4,319.3	61.50	71.230		
10,137.8	6,948.5	5,458.3	4,952.6	63.7	41.4	-30.86	-6,803.0	1,921.1	4,348.5	4,286.3	62.19	69.919		
10,200.0	6,948.0	5,477.0	4,969.2	64.9	41.6	-31.18	-6,810.4	1,925.8	4,295.4	4,232.1	63.34	67.819		
10,236.2	6,947.6	5,477.0	4,969.2	65.6	41.6	-31.18	-6,810.4	1,925.8	4,264.7	4,200.9	63.75	66.895		
10,300.0	6,947.1	5,477.0	4,969.2	66.7	41.6	-31.18	-6,810.4	1,925.8	4,210.6	4,146.1	64.48	65.299		
10,334.6	6,946.7	5,506.2	4,994.9	67.4	41.9	-31.69	-6,822.1	1,933.1	4,181.2	4,115.6	65.59	63.748		
10,400.0	6,946.2	5,520.4	5,007.4	68.6	42.0	-31.94	-6,827.7	1,936.8	4,126.1	4,059.4	66.70	61.859		
10,433.0	6,945.8	5,527.5	5,013.7	69.2	42.1	-32.06	-6,830.6	1,938.7	4,098.3	4,031.0	67.27	60.924		
10,500.0	6,945.2	5,542.2	5,026.5	70.5	42.2	-32.33	-6,836.5	1,942.5	4,042.1	3,973.7	68.43	59.072		
10,531.5	6,945.0	5,549.0	5,032.6	71.1	42.3	-32.45	-6,839.2	1,944.4	4,015.8	3,946.8	68.98	58.219		
10,600.0	6,944.3	5,564.1	5,045.7	72.3	42.4	-32.73	-6,845.3	1,948.5	3,958.7	3,888.5	70.18	56.404		
10,629.9	6,944.1	5,570.7	5,051.5	72.9	42.5	-32.85	-6,848.0	1,950.3	3,933.9	3,863.1	70.72	55.628		
10,700.0	6,943.4	5,605.0	5,081.4	74.2	42.8	-33.49	-6,861.8	1,959.8	3,875.9	3,803.4	72.49	53.467		
10,728.3	6,943.2	5,605.0	5,081.4	74.7	42.8	-33.49	-6,861.8	1,959.8	3,852.5	3,779.7	72.83	52.895		
10,800.0	6,942.5	5,616.6	5,091.4	76.1	42.9	-33.71	-6,866.5	1,963.1	3,793.6	3,719.5	74.02	51.248		
10,826.7	6,942.3	5,635.8	5,108.1	76.6	43.1	-34.08	-6,874.3	1,968.6	3,771.6	3,696.7	74.90	50.357		
10,900.0	6,941.6	5,687.6	5,153.3	78.0	43.6	-35.09	-6,895.1	1,983.1	3,711.6	3,634.3	77.31	48.010		
10,925.2	6,941.4	5,705.2	5,168.6	78.4	43.7	-35.43	-6,902.0	1,988.0	3,691.0	3,612.8	78.14	47.232		
11,000.0	6,940.7	5,761.3	5,217.9	79.9	44.3	-36.57	-6,924.2	2,003.5	3,629.7	3,549.0	80.79	44.927		
11,023.6	6,940.5	5,780.6	5,234.8	80.3	44.4	-36.97	-6,931.7	2,008.8	3,610.4	3,528.8	81.69	44.198		
11,100.0	6,939.8	5,841.7	5,288.7	81.7	45.0	-38.25	-6,955.3	2,025.3	3,548.0	3,463.4	84.60	41.937		
11,122.0	6,939.6	5,858.9	5,303.9	82.2	45.2	-38.62	-6,961.9	2,029.9	3,530.0	3,444.5	85.45	41.312		
11,200.0	6,938.9	5,994.8	5,425.1	83.6	46.3	-41.66	-7,011.6	2,066.0	3,466.0	3,375.0	90.99	38.090		
11,220.4	6,938.7	6,002.2	5,431.8	84.0	46.4	-41.83	-7,014.2	2,068.0	3,449.1	3,357.6	91.53	37.684		
11,300.0	6,938.0	6,031.0	5,457.7	85.5	46.6	-42.51	-7,024.4	2,075.6	3,383.9	3,290.3	93.62	36.144		
11,318.9	6,937.8	6,037.9	5,463.8	85.9	46.7	-42.67	-7,026.8	2,077.4	3,368.5	3,274.4	94.13	35.787		
11,400.0	6,937.0	6,067.4	5,490.3	87.4	46.9	-43.37	-7,037.2	2,085.1	3,302.5	3,206.2	96.30	34.293		
11,417.3	6,936.9	6,073.7	5,496.0	87.8	47.0	-43.52	-7,039.4	2,086.7	3,288.5	3,191.7	96.77	33.982		
11,500.0	6,936.1	6,103.8	5,523.1	89.3	47.2	-44.25	-7,050.0	2,094.5	3,221.7	3,122.7	99.03	32.533		
11,515.7	6,936.0	6,109.6	5,528.3	89.6	47.3	-44.39	-7,052.1	2,096.0	3,209.1	3,109.6	99.46	32.264		
11,600.0	6,935.2	6,138.4	5,554.2	91.2	47.5	-45.10	-7,062.3	2,103.4	3,141.6	3,039.9	101.73	30.882		
11,614.1	6,935.1	6,143.1	5,558.4	91.5	47.6	-45.22	-7,063.9	2,104.6	3,130.4	3,028.3	102.11	30.657		
11,700.0	6,934.3	6,171.8	5,584.3	93.1	47.8	-45.94	-7,074.2	2,111.8	3,062.4	2,957.9	104.43	29.324		
11,712.6	6,934.2	6,176.1	5,588.1	93.4	47.9	-46.04	-7,075.7	2,112.9	3,052.4	2,947.7	104.77	29.133		
11,800.0	6,933.4	6,205.7	5,614.7	95.1	48.1	-46.79	-7,086.3	2,120.3	2,983.9	2,876.7	107.19	27.839		

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Offset Design SE SE SEC. 18 T4N R64W 6th P.M. - OSTER C19-27D - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 260-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,811.0	6,933.3	6,209.5	5,618.1	95.3	48.1	-46.89	-7,087.6	2,121.2	2,975.4	2,867.9	107.49	27.680		
11,900.0	6,932.5	6,240.1	5,645.6	97.0	48.4	-47.67	-7,098.7	2,128.8	2,906.4	2,796.4	109.99	26.424		
11,909.4	6,932.4	6,243.3	5,648.6	97.1	48.4	-47.76	-7,099.9	2,129.6	2,899.2	2,788.9	110.26	26.294		
12,000.0	6,931.6	6,280.3	5,681.9	98.9	48.7	-48.72	-7,113.3	2,138.5	2,829.9	2,716.8	113.07	25.029		
12,007.8	6,931.5	6,283.6	5,684.9	99.0	48.8	-48.80	-7,114.5	2,139.3	2,823.9	2,710.6	113.31	24.921		
12,100.0	6,930.7	6,322.5	5,719.9	100.8	49.1	-49.83	-7,128.7	2,148.4	2,754.3	2,638.0	116.25	23.692		
12,106.3	6,930.6	6,325.2	5,722.3	100.9	49.1	-49.90	-7,129.7	2,149.0	2,749.6	2,633.1	116.45	23.611		
12,200.0	6,929.8	6,365.3	5,758.5	102.7	49.4	-50.97	-7,144.4	2,158.1	2,679.7	2,560.2	119.49	22.425		
12,204.7	6,929.7	6,367.3	5,760.3	102.8	49.5	-51.02	-7,145.1	2,158.6	2,676.2	2,556.6	119.65	22.367		
12,300.0	6,928.8	6,409.4	5,798.3	104.6	49.8	-52.17	-7,160.6	2,168.0	2,606.3	2,483.4	122.82	21.219		
12,303.1	6,928.8	6,410.8	5,799.6	104.7	49.8	-52.20	-7,161.1	2,168.3	2,604.0	2,481.0	122.93	21.183		
12,400.0	6,927.9	6,452.8	5,837.5	106.5	50.1	-53.37	-7,176.3	2,177.7	2,534.0	2,407.8	126.16	20.086		
12,401.5	6,927.9	6,453.4	5,838.1	106.6	50.1	-53.38	-7,176.5	2,177.9	2,532.9	2,406.7	126.21	20.069		
12,500.0	6,927.0	6,494.8	5,875.6	108.5	50.5	-54.56	-7,191.3	2,187.3	2,463.1	2,333.6	129.48	19.023		
12,598.4	6,926.1	6,523.0	5,901.2	110.4	50.7	-55.37	-7,201.3	2,193.8	2,394.8	2,262.6	132.24	18.110		
12,600.0	6,926.1	6,523.4	5,901.5	110.4	50.7	-55.38	-7,201.4	2,193.9	2,393.7	2,261.4	132.28	18.096		
12,696.8	6,925.2	6,547.4	5,923.3	112.3	50.9	-56.08	-7,209.9	2,199.6	2,328.3	2,193.4	134.87	17.264		
12,700.0	6,925.2	6,548.2	5,924.0	112.3	50.9	-56.10	-7,210.1	2,199.8	2,326.2	2,191.2	134.95	17.237		
12,795.2	6,924.3	6,571.7	5,945.3	114.1	51.1	-56.80	-7,218.4	2,205.5	2,263.8	2,126.3	137.51	16.463		
12,800.0	6,924.3	6,572.9	5,946.3	114.2	51.1	-56.83	-7,218.8	2,205.8	2,260.7	2,123.1	137.63	16.426		
12,893.7	6,923.4	6,596.0	5,967.1	116.0	51.3	-57.52	-7,226.9	2,211.6	2,201.4	2,061.2	140.16	15.706		
12,900.0	6,923.4	6,597.5	5,968.5	116.2	51.3	-57.56	-7,227.4	2,212.0	2,197.4	2,057.1	140.33	15.659		
12,992.1	6,922.5	6,632.0	5,999.6	117.9	51.6	-58.60	-7,239.5	2,220.9	2,141.4	1,998.0	143.32	14.941		
13,000.0	6,922.5	6,632.0	5,999.6	118.1	51.6	-58.60	-7,239.5	2,220.9	2,136.6	1,993.2	143.45	14.894		
13,090.5	6,921.6	6,677.9	6,040.9	119.8	52.0	-60.00	-7,255.6	2,232.5	2,083.6	1,936.8	146.89	14.185		
13,100.0	6,921.5	6,686.7	6,049.0	120.0	52.0	-60.27	-7,258.7	2,234.6	2,078.2	1,930.8	147.42	14.098		
13,188.9	6,920.7	6,768.6	6,123.3	121.7	52.7	-62.79	-7,287.8	2,252.8	2,027.7	1,875.5	152.22	13.321		
13,200.0	6,920.6	6,776.2	6,130.2	121.9	52.8	-63.02	-7,290.5	2,254.3	2,021.5	1,868.8	152.70	13.238		
13,287.4	6,919.8	6,834.6	6,183.6	123.6	53.2	-64.85	-7,311.1	2,265.9	1,973.8	1,817.3	156.46	12.615		
13,300.0	6,919.7	6,842.8	6,191.2	123.9	53.3	-65.11	-7,313.9	2,267.4	1,967.0	1,810.0	156.99	12.529		
13,385.8	6,918.9	7,054.5	6,389.5	125.5	54.7	-72.01	-7,378.8	2,302.3	1,920.9	1,755.3	165.56	11.603		
13,400.0	6,918.8	7,059.1	6,393.9	125.8	54.7	-72.16	-7,380.0	2,303.0	1,913.3	1,747.4	165.95	11.530		
13,484.2	6,918.0	7,084.6	6,418.3	127.4	54.8	-73.03	-7,386.2	2,306.8	1,870.0	1,701.8	168.23	11.116		
13,500.0	6,917.9	7,089.1	6,422.6	127.7	54.8	-73.19	-7,387.3	2,307.5	1,862.2	1,693.5	168.65	11.041		
13,582.6	6,917.1	7,111.7	6,444.3	129.3	55.0	-73.96	-7,392.6	2,311.0	1,822.6	1,651.8	170.81	10.671		
13,600.0	6,917.0	7,116.2	6,448.6	129.7	55.0	-74.11	-7,393.6	2,311.7	1,814.7	1,643.4	171.25	10.596		
13,681.1	6,916.2	7,136.2	6,467.9	131.2	55.1	-74.80	-7,398.1	2,314.9	1,779.1	1,605.8	173.30	10.266		
13,700.0	6,916.1	7,140.7	6,472.2	131.6	55.1	-74.96	-7,399.1	2,315.7	1,771.2	1,597.5	173.77	10.193		
13,779.5	6,915.3	7,163.6	6,494.2	133.1	55.2	-75.75	-7,404.0	2,319.3	1,739.8	1,564.0	175.84	9.895		
13,800.0	6,915.2	7,169.8	6,500.3	133.5	55.3	-75.97	-7,405.3	2,320.3	1,732.2	1,555.8	176.38	9.821		
13,877.9	6,914.4	7,192.5	6,522.2	135.1	55.4	-76.76	-7,410.0	2,323.9	1,705.0	1,526.6	178.38	9.558		
13,900.0	6,914.2	7,198.6	6,528.0	135.5	55.4	-76.97	-7,411.3	2,324.8	1,697.8	1,518.9	178.94	9.488		
13,976.3	6,913.5	7,219.1	6,547.9	137.0	55.5	-77.68	-7,415.5	2,328.0	1,674.9	1,494.0	180.84	9.262		
14,000.0	6,913.3	7,225.3	6,553.9	137.4	55.5	-77.90	-7,416.7	2,328.9	1,668.4	1,486.9	181.42	9.196		
14,074.8	6,912.6	7,244.6	6,572.5	138.9	55.6	-78.57	-7,420.6	2,331.9	1,649.8	1,466.5	183.25	9.003		
14,100.0	6,912.4	7,251.0	6,578.7	139.4	55.7	-78.80	-7,421.9	2,332.8	1,644.2	1,460.3	183.86	8.943		
14,145.0	6,912.0	7,262.2	6,589.6	140.2	55.7	-79.19	-7,424.1	2,334.5	1,635.1	1,450.2	184.90	8.843 CC, ES, SF		

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 70-243 - Slot HONEBEIN 70-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 70-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4865.5usft (ENS 123)

Offset Depths are relative to Offset Datum

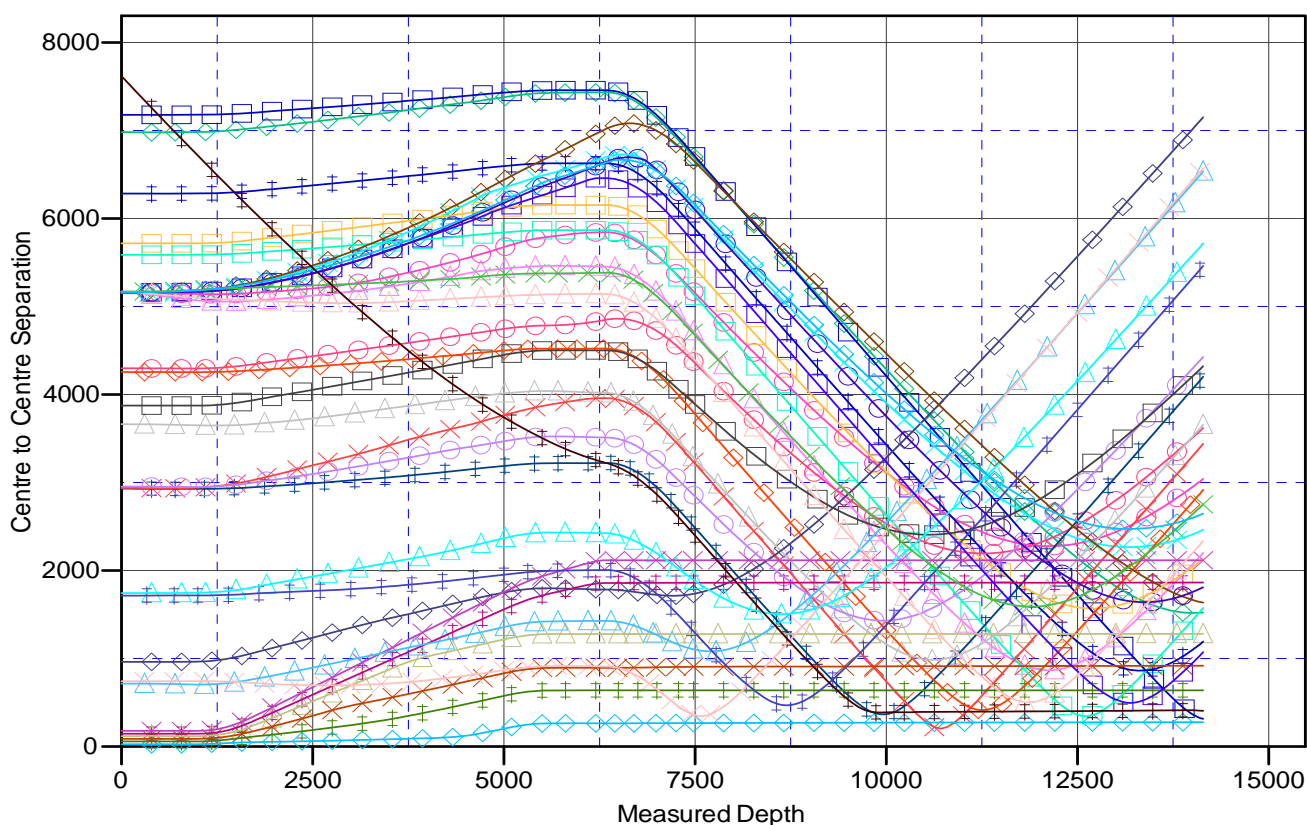
Central Meridian is -105.500000

Coordinates are relative to: HONEBEIN 70-243 - Slot HONEBEIN 70-243

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.58°

Ladder Plot



LEGEND

I, Wellbore #1, Wellbore #1 V0	FRY 22-18, Wellbore #1, Wellbore #1 V0	LATHAM 7-1, Wellbore #1, Wellbore
JD, Wellbore #1, Wellbore #1 V0	FRY 5, Wellbore #1, Wellbore #1 V0	LATHAM 7-2, Wellbore #1, Wellbore
2D, Wellbore #1, Wellbore #1 V0	FRY PM C 18-4, Wellbore #1, Wellbore #1 V0	LATHAM 7-3, Wellbore #1, Wellbore
3D, Wellbore #1, Wellbore #1 V0	HONEBEIN 13-7U, Wellbore #1, Wellbore #1 V0	LATHAM 7-4, Wellbore #1, Wellbore
18-12, Wellbore #1, Design #1 V0	HONEBEIN 7G-203, ORIGINAL WELLBORE, PROPOSAL #2 V0	OSTER C19-27D, Wellbore #1, Well
18-14, Wellbore #1, Design #1 V0	HONEBEIN 7G-323, ORIGINAL WELLBORE, PROPOSAL #2 V0	NEI C18-24D, Wellbore #1, Wellbore
2, Wellbore #1, Design #1 V0	HONEBEIN 7K-223, ORIGINAL WELLBORE, PROPOSAL #2 V0	NEI C18-23D, Wellbore #1, Wellbore
# 8-25, Wellbore #1, Design #1 V0	HONEBEIN 7K-243, ORIGINAL WELLBORE, PROPOSAL #2 V0	NEI C18-22D, Wellbore #1, Wellbore
I, Wellbore #1 V0	HONEBEIN 7K-323, ORIGINAL WELLBORE, PROPOSAL #2 V0	NEI C18-21D, Wellbore #1, Wellbore
#1, Wellbore #1 V0	HONEBEIN 7K-403, ORIGINAL WELLBORE, PROPOSAL #2 V0	NEI C17-33D, Wellbore #1, Wellbore

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well HONEBEIN 7O-243 - Slot HONEBEIN 7O-243
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4865.5usft (ENS 123)
Reference Site:	NE SW SEC. 7 T4N R64W 6th P.M.	MD Reference:	KB-EST @ 4865.5usft (ENS 123)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	HONEBEIN 7O-243	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4865.5usft (ENS 123)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: HONEBEIN 7O-243 - Slot HONEBEIN 7O-243
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.58°

