



WELL DETAILS: OTTESEN FEDERAL 10NA

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1245246.06	3202300.09	40° 0' 15.570 N	104° 46' 40.231 W

Project: WELD COUNTY
Site: Ottesen Pad
Well: OTTESEN FEDERAL 10NA
Wellbore: OWB
Design: Plan #2
Lat: 40° 0' 15.570 N
Long: 104° 46' 40.231 W
GL: 5076.0
KB: KB 20' @ 5096.0usft

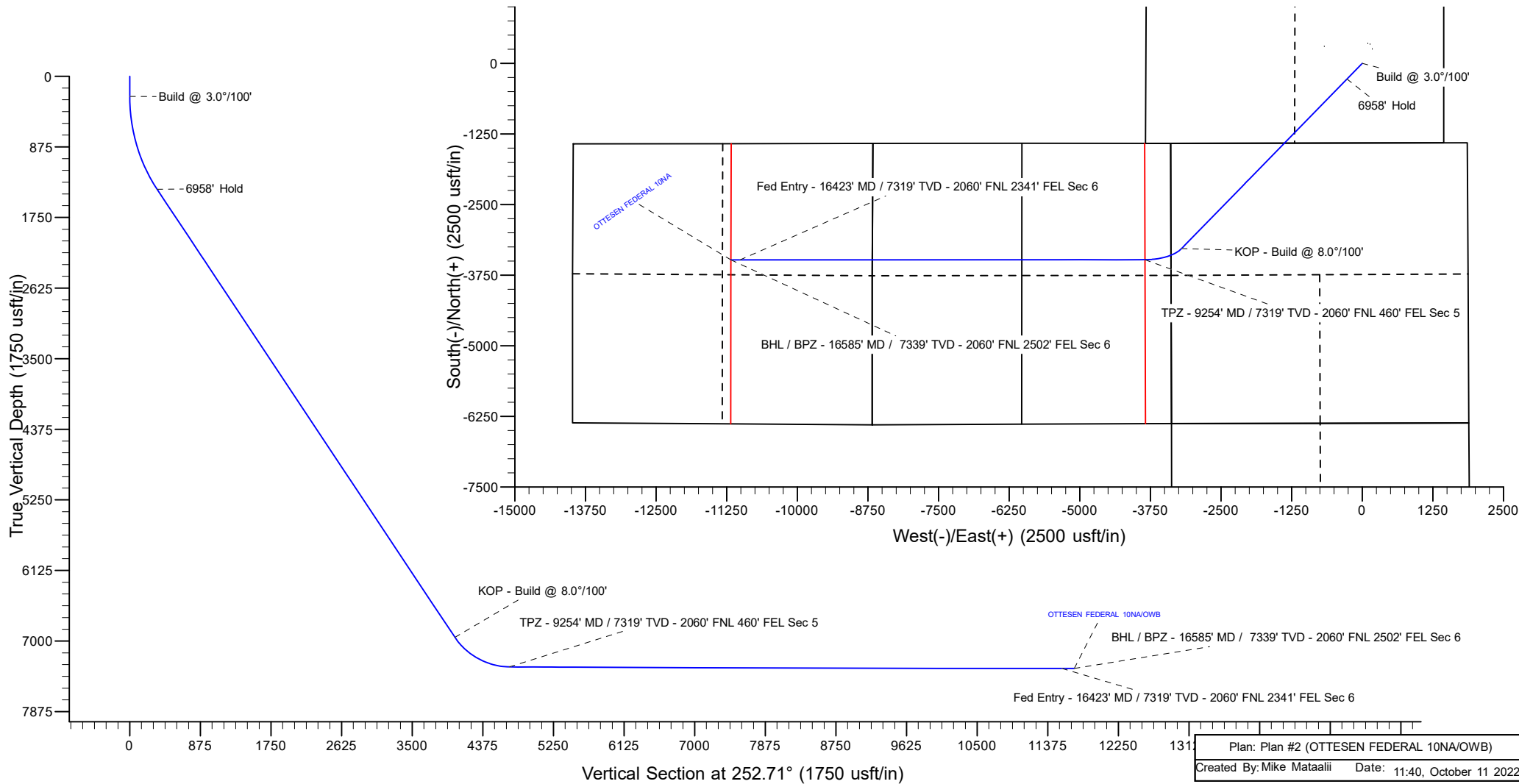


Azimuths to True North
Magnetic North: 7.73°

Magnetic Field
Strength: 51656.6nT
Dip Angle: 66.30°
Date: 4/12/2022
Model: IGRF2000

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0	Build @ 3.0°/100'
1485.6	37.07	224.29	1401.2	-276.3	-269.5	3.00	224.29	339.4	6958' Hold
8444.3	37.07	224.29	6953.7	-3278.7	-3198.3	0.00	0.00	4028.4	KOP - Build @ 8.0°/100'
9254.4	89.68	269.97	7319.0	-3475.1	-3844.2	8.00	52.24	4703.5	TPZ - 9254' MD / 7319' TVD - 2060' FNL 460' FEL Sec 5
16423.4	90.00	269.97	7339.0	-3479.3	-11013.2	0.00	0.18	11549.6	Fed Entry - 16423' MD / 7319' TVD - 2060' FNL 2341' FEL Sec 6
16585.1	90.00	269.97	7339.0	-3479.4	-11174.8	0.00	0.00	11704.0	BHL / BPZ - 16585' MD / 7339' TVD - 2060' FNL 2502' FEL Sec 6



PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN FEDERAL 10NA
Project:	WELD COUNTY	TVD Reference:	KB 20' @ 5096.0usft
Reference Site:	Ottesen Pad	MD Reference:	KB 20' @ 5096.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	OTTESEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	10/11/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	16,585.1	Plan #2 (OWB)	MWD	OWSG 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						
Ottesen Offsets						
Bailey #1 - OWB - OWB	7,072.4	5,838.1	67.2	-15.3	0.815	No-Go Zone - Stop Drilling, (
Great Western Sugar 3X - OWB - OWB	16,585.1	7,215.0	775.0	580.5	3.984	CC, ES, SF
Grein #1 - OWB - OWB	10,300.0	7,247.4	815.3	691.3	6.574	SF
Grein #1 - OWB - OWB	10,400.0	7,247.9	808.8	688.1	6.701	ES
Grein #1 - OWB - OWB	10,403.4	7,247.9	808.7	688.2	6.709	CC
OTTESEN LE 06-290HN - OWB - OWB	882.3	871.8	107.1	100.1	15.181	CC, ES
OTTESEN LE 06-290HN - OWB - OWB	16,585.1	17,787.1	1,337.0	829.4	2.634	SF
OTTESEN LE 06-290HNN - OWB - OWB	4,328.1	4,472.2	25.3	-54.5	0.317	No-Go Zone - Stop Drilling, (
OTTESEN LE 06-311HC - OWB - OWB	926.9	912.0	127.4	120.1	17.393	CC, ES
OTTESEN LE 06-311HC - OWB - OWB	16,585.1	17,885.4	1,744.0	1,234.4	3.423	SF
OTTESEN LE 06-311HN - OWB - OWB	981.8	964.7	138.8	130.8	17.473	CC
OTTESEN LE 06-311HN - OWB - OWB	1,000.0	982.0	138.9	130.7	17.056	ES
OTTESEN LE 06-311HN - OWB - OWB	16,585.1	17,827.1	1,796.9	1,278.3	3.465	SF
OTTESEN LE 06-351HN - OWB - OWB	1,046.3	1,026.0	147.1	138.7	17.485	CC
OTTESEN LE 06-351HN - OWB - OWB	3,200.0	3,256.8	173.4	124.7	3.562	ES
OTTESEN LE 06-351HN - OWB - OWB	3,400.0	3,445.0	186.8	131.9	3.402	SF
OTTESEN LE 06-351HNN - OWB - OWB	2,513.5	2,510.5	66.1	31.6	1.913	Collision Risk Procedures R
OTTESEN LE 06-351HNN - OWB - OWB	2,600.0	2,593.6	70.6	33.2	1.889	Collision Risk Procedures R
OTTESEN LE 06-370HC - OWB - OWB	2,741.8	2,761.1	118.7	81.1	3.153	CC
OTTESEN LE 06-370HC - OWB - OWB	2,800.0	2,817.9	119.7	80.2	3.029	ES
OTTESEN LE 06-370HC - OWB - OWB	3,000.0	3,013.8	131.0	85.1	2.851	SF
OTTESEN LE 06-370HN - OWB - OWB	2,057.2	1,997.3	47.7	19.0	1.663	Collision Risk Procedures R
OTTESEN LE 09-362HC - OWB - OWB	0.0	0.5	156.9			
OTTESEN LE 09-362HC - OWB - OWB	200.0	198.9	158.2	155.1	52.537	ES
OTTESEN LE 09-362HC - OWB - OWB	700.0	692.4	216.8	206.4	20.799	SF
OTTESEN LE 09-363HN - OWB - OWB	240.1	240.6	135.1	131.9	41.561	CC
OTTESEN LE 09-363HN - OWB - OWB	250.0	250.3	135.1	131.8	40.920	ES
OTTESEN LE 09-363HN - OWB - OWB	700.0	692.7	193.7	183.4	18.760	SF
OTTESEN LE 09-365HC - OWB - OWB	0.0	0.5	118.1			
OTTESEN LE 09-365HC - OWB - OWB	200.0	199.9	118.6	115.6	39.613	ES
OTTESEN LE 09-365HC - OWB - OWB	700.0	691.9	179.1	168.8	17.408	SF
OTTESEN LE 09-365HN - OWB - OWB	0.0	0.5	124.6			
OTTESEN LE 09-365HN - OWB - OWB	200.0	198.7	126.0	122.9	41.769	ES
OTTESEN LE 09-365HN - OWB - OWB	700.0	697.2	178.9	168.8	17.647	SF
OTTESEN LE 09-366HN - OWB - OWB	0.0	0.5	106.6			
OTTESEN LE 09-366HN - OWB - OWB	200.0	199.9	107.2	104.2	35.760	ES
OTTESEN LE 09-366HN - OWB - OWB	600.0	594.1	141.8	132.9	15.899	SF

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

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN FEDERAL 10NA
Project:	WELD COUNTY	TVD Reference:	KB 20' @ 5096.0usft
Reference Site:	Ottesen Pad	MD Reference:	KB 20' @ 5096.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	OTTESEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #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
Offset Well - Wellbore - Design						
Ottesen Offsets						
OTTESEN LE 09-366HXX - OWB - OWB	0.0	0.5	111.8			
OTTESEN LE 09-366HXX - OWB - OWB	253.2	253.9	112.3	109.0	34.051	ES
OTTESEN LE 09-366HXX - OWB - OWB	700.0	696.9	162.3	152.3	16.254	SF
OTTESEN LE 09-368HC - OWB - OWB	0.0	0.5	101.2			
OTTESEN LE 09-368HC - OWB - OWB	200.0	199.7	101.7	98.7	33.862	ES
OTTESEN LE 09-368HC - OWB - OWB	700.0	694.0	155.0	145.3	15.915	SF
OTTESEN LE 09-368HN - OWB - OWB	0.0	0.5	102.3			
OTTESEN LE 09-368HN - OWB - OWB	250.0	249.9	102.8	99.5	31.002	ES
OTTESEN LE 09-368HN - OWB - OWB	700.0	698.8	149.0	139.2	15.282	SF

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Reference Well:	OTTESEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #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
Offset Well - Wellbore - Design						
Ottesen Pad						
OTTESEN 14NA - OWB - Plan #2	250.0	250.0	59.9	57.2	21.460	CC
OTTESEN 14NA - OWB - Plan #2	700.0	709.0	62.7	52.5	6.149	ES
OTTESEN 14NA - OWB - Plan #2	16,585.1	16,942.0	699.8	163.3	1.304	Collision Avoidance Req., SF
OTTESEN 15C - OWB - OWB	0.0	0.0	75.4			
OTTESEN 15C - OWB - OWB	252.2	252.3	76.2	73.3	25.965	ES
OTTESEN 15C - OWB - OWB	600.0	598.1	100.1	92.2	12.652	SF
OTTESEN 15C - OWB - Plan #2	0.0	0.0	75.4			
OTTESEN 15C - OWB - Plan #2	252.2	252.3	76.2	73.3	25.965	ES
OTTESEN 15C - OWB - Plan #2	16,585.1	17,562.9	970.4	488.4	2.013	SF
OTTESEN 16N - OWB - OWB	256.1	256.3	89.5	86.5	29.690	CC, ES
OTTESEN 16N - OWB - OWB	700.0	696.2	132.3	123.0	14.212	SF
OTTESEN 16N - OWB - Plan #2	256.1	256.3	89.5	86.5	29.690	CC, ES
OTTESEN 16N - OWB - Plan #2	16,585.1	17,564.8	1,065.9	539.3	2.024	SF
OTTESEN 17N - OWB - OWB	849.1	838.5	242.0	235.5	37.049	CC, ES
OTTESEN 17N - OWB - OWB	1,400.0	1,333.8	340.9	326.8	24.136	SF
OTTESEN 17N - OWB - Plan #2	849.1	838.5	242.0	235.5	37.049	CC
OTTESEN 17N - OWB - Plan #2	8,850.0	10,313.3	327.1	198.0	2.533	ES
OTTESEN 17N - OWB - Plan #2	8,900.0	10,325.3	343.9	207.0	2.512	SF
OTTESEN 18C - OWB - Plan #2	250.0	250.0	246.0	243.2	88.060	CC
OTTESEN 18C - OWB - Plan #2	400.0	389.1	247.3	242.8	55.272	ES
OTTESEN 18C - OWB - Plan #2	8,950.0	10,212.2	673.5	535.9	4.894	SF
OTTESEN 19NA - OWB - Plan #2	250.0	250.0	232.3	229.6	83.175	CC
OTTESEN 19NA - OWB - Plan #2	400.0	389.8	233.7	229.3	52.670	ES
OTTESEN 19NA - OWB - Plan #2	8,600.0	9,801.0	486.7	345.6	3.448	SF
OTTESEN 20N - OWB - Plan #2	250.0	250.0	219.0	216.2	78.381	CC
OTTESEN 20N - OWB - Plan #2	400.0	391.0	220.3	215.9	50.644	ES
OTTESEN 20N - OWB - Plan #2	8,700.0	9,965.5	782.5	640.7	5.516	SF
OTTESEN 21N - OWB - OWB	658.3	653.1	199.5	194.1	37.349	CC, ES
OTTESEN 21N - OWB - OWB	1,200.0	1,160.5	266.2	254.0	21.846	SF
OTTESEN 21N - OWB - Plan #2	658.3	653.1	199.5	194.1	37.349	CC, ES
OTTESEN 21N - OWB - Plan #2	8,600.0	10,000.4	890.3	751.9	6.430	SF
OTTESEN 22C - OWB - Plan #2	250.0	250.0	192.8	190.0	69.019	CC
OTTESEN 22C - OWB - Plan #2	400.0	393.7	193.9	189.8	46.806	ES
OTTESEN 22C - OWB - Plan #2	8,700.0	10,032.1	1,202.9	1,061.8	8.521	SF
OTTESEN 23NA - OWB - Plan #2	250.0	250.0	180.1	177.3	64.483	CC
OTTESEN 23NA - OWB - Plan #2	400.0	395.1	181.1	177.1	44.973	ES
OTTESEN 23NA - OWB - Plan #2	8,450.0	9,531.2	1,164.1	1,024.4	8.335	SF
OTTESEN 24N - OWB - OWB	0.0	0.0	168.3			
OTTESEN 24N - OWB - OWB	427.1	425.6	169.4	165.3	41.571	ES
OTTESEN 24N - OWB - OWB	1,100.0	1,057.2	264.6	252.1	21.224	SF
OTTESEN 24N - OWB - Plan #2	0.0	0.0	168.3			
OTTESEN 24N - OWB - Plan #2	427.1	425.6	169.4	165.3	41.571	ES
OTTESEN 24N - OWB - Plan #2	8,550.0	9,863.1	1,430.3	1,293.1	10.426	SF
OTTESEN 25N - OWB - Plan #2	250.0	250.0	156.0	153.2	55.853	CC
OTTESEN 25N - OWB - Plan #2	400.0	398.1	156.5	152.7	41.025	ES
OTTESEN 25N - OWB - Plan #2	8,500.0	9,574.4	1,574.7	1,435.8	11.333	SF
OTTESEN 26C - OWB - Plan #2	250.0	250.0	145.1	142.4	51.960	CC
OTTESEN 26C - OWB - Plan #2	700.0	698.6	146.7	140.8	24.747	ES
OTTESEN 26C - OWB - Plan #2	1,485.6	1,466.9	202.6	183.9	10.838	SF
OTTESEN 27NA - OWB - OWB	261.7	261.7	133.8	130.8	45.902	CC
OTTESEN 27NA - OWB - OWB	400.0	399.2	134.5	130.7	35.110	ES
OTTESEN 27NA - OWB - OWB	1,000.0	982.5	204.5	193.3	18.228	SF
OTTESEN 27NA - OWB - Plan #2	261.7	261.7	133.8	130.8	45.902	CC

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

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Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN FEDERAL 10NA
Project:	WELD COUNTY	TVD Reference:	KB 20' @ 5096.0usft
Reference Site:	Ottesen Pad	MD Reference:	KB 20' @ 5096.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	OTTESEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #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
Offset Well - Wellbore - Design						
Ottesen Pad						
OTTESEN 27NA - OWB - Plan #2	400.0	399.2	134.5	130.7	35.110	ES
OTTESEN 27NA - OWB - Plan #2	8,400.0	9,429.3	1,886.9	1,752.5	14.045	SF
OTTESEN 28N - OWB - Plan #2	907.8	915.3	115.5	106.6	13.078	CC
OTTESEN 28N - OWB - Plan #2	1,000.0	1,006.8	116.6	106.1	11.117	ES
OTTESEN 28N - OWB - Plan #2	1,300.0	1,298.5	148.7	130.9	8.322	SF
OTTESEN 29C - OWB - Plan #2	864.7	875.3	103.3	93.6	10.630	CC
OTTESEN 29C - OWB - Plan #2	900.0	910.4	103.5	93.1	9.979	ES
OTTESEN 29C - OWB - Plan #2	1,200.0	1,203.9	131.2	113.8	7.550	SF
OTTESEN 30N - OWB - OWB	0.0	0.0	110.1			
OTTESEN 30N - OWB - OWB	200.0	199.4	110.5	108.0	44.276	ES
OTTESEN 30N - OWB - OWB	800.0	792.8	158.0	146.9	14.226	SF
OTTESEN 30N - OWB - Plan #2	0.0	0.0	110.1			
OTTESEN 30N - OWB - Plan #2	200.0	199.4	110.5	108.0	44.276	ES
OTTESEN 30N - OWB - Plan #2	800.0	792.8	158.0	146.9	14.226	SF
OTTESEN 31N - OWB - Plan #2	777.1	792.8	87.6	75.4	7.206	CC
OTTESEN 31N - OWB - Plan #2	800.0	815.5	87.7	75.1	6.967	ES
OTTESEN 31N - OWB - Plan #2	1,000.0	1,012.6	102.6	86.2	6.253	SF
OTTESEN 32NA - OWB - OWB	0.0	0.0	102.0			
OTTESEN 32NA - OWB - OWB	250.0	249.7	103.3	100.4	36.234	ES
OTTESEN 32NA - OWB - OWB	700.0	696.5	140.3	131.0	15.082	SF
OTTESEN 32NA - OWB - Plan #2	0.0	0.0	102.0			
OTTESEN 32NA - OWB - Plan #2	250.0	249.7	103.3	100.4	36.234	ES
OTTESEN 32NA - OWB - Plan #2	700.0	696.5	140.3	131.0	15.082	SF
OTTESEN FEDERAL 01N - OWB - Plan #2	250.0	250.0	134.5	131.7	48.136	CC
OTTESEN FEDERAL 01N - OWB - Plan #2	500.0	485.6	136.4	128.5	17.319	ES
OTTESEN FEDERAL 01N - OWB - Plan #2	16,585.1	16,150.7	1,595.1	1,065.1	3.010	SF
OTTESEN FEDERAL 02NA - OWB - Plan #2	250.0	250.0	119.6	116.8	42.821	CC
OTTESEN FEDERAL 02NA - OWB - Plan #2	600.0	582.3	123.1	113.5	12.811	ES
OTTESEN FEDERAL 02NA - OWB - Plan #2	16,585.1	16,016.3	1,399.6	865.5	2.620	SF
OTTESEN FEDERAL 03C - OWB - Plan #2	250.0	250.0	105.1	102.3	37.606	CC
OTTESEN FEDERAL 03C - OWB - Plan #2	600.0	584.8	108.1	98.5	11.323	ES
OTTESEN FEDERAL 03C - OWB - Plan #2	16,585.1	16,420.5	1,293.1	778.9	2.515	SF
OTTESEN FEDERAL 04N - OWB - Plan #2	250.0	250.0	89.4	86.6	31.990	CC
OTTESEN FEDERAL 04N - OWB - Plan #2	600.0	587.2	92.0	82.5	9.700	ES
OTTESEN FEDERAL 04N - OWB - Plan #2	16,585.1	16,258.2	1,065.9	535.7	2.010	SF
OTTESEN FEDERAL 05N - OWB - Plan #2	250.0	250.0	74.5	71.7	26.675	CC
OTTESEN FEDERAL 05N - OWB - Plan #2	600.0	589.6	76.7	67.3	8.140	ES
OTTESEN FEDERAL 05N - OWB - Plan #2	16,581.6	16,389.8	911.2	390.4	1.750	Collision Risk Procedures Req., SF
OTTESEN FEDERAL 06NA - OWB - Plan #2	250.0	250.0	59.9	57.2	21.460	CC
OTTESEN FEDERAL 06NA - OWB - Plan #2	700.0	689.4	62.9	52.2	5.879	ES
OTTESEN FEDERAL 06NA - OWB - Plan #2	16,581.4	16,269.9	699.8	164.6	1.308	Collision Avoidance Req., SF
OTTESEN FEDERAL 07C - OWB - Plan #2	250.0	250.0	44.3	41.5	15.845	CC
OTTESEN FEDERAL 07C - OWB - Plan #2	800.0	790.7	47.4	35.7	4.042	ES
OTTESEN FEDERAL 07C - OWB - Plan #2	16,581.7	16,683.4	655.1	213.7	1.484	Collision Avoidance Req., SF
OTTESEN FEDERAL 08N - OWB - Plan #2	250.0	250.0	29.4	26.6	10.530	CC
OTTESEN FEDERAL 08N - OWB - Plan #2	16,582.1	16,534.9	395.8	-94.1	0.808	No-Go Zone - Stop Drilling, ES
OTTESEN FEDERAL 09N - OWB - Plan #2	250.0	250.0	14.6	11.8	5.215	CC
OTTESEN FEDERAL 09N - OWB - Plan #2	16,585.1	16,678.8	313.4	-37.2	0.894	No-Go Zone - Stop Drilling, ES
OTTESEN FEDERAL 11C - OWB - OWB	0.0	0.0	15.4			
OTTESEN FEDERAL 11C - OWB - OWB	254.0	254.0	15.5	12.6	5.241	ES
OTTESEN FEDERAL 11C - OWB - OWB	400.0	399.8	20.5	15.5	4.090	SF
OTTESEN FEDERAL 11C - OWB - Plan #2	0.0	0.0	15.4			
OTTESEN FEDERAL 11C - OWB - Plan #2	254.0	254.0	15.5	12.6	5.241	ES

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Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN FEDERAL 10NA
Project:	WELD COUNTY	TVD Reference:	KB 20' @ 5096.0usft
Reference Site:	Ottesen Pad	MD Reference:	KB 20' @ 5096.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	OTTESEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

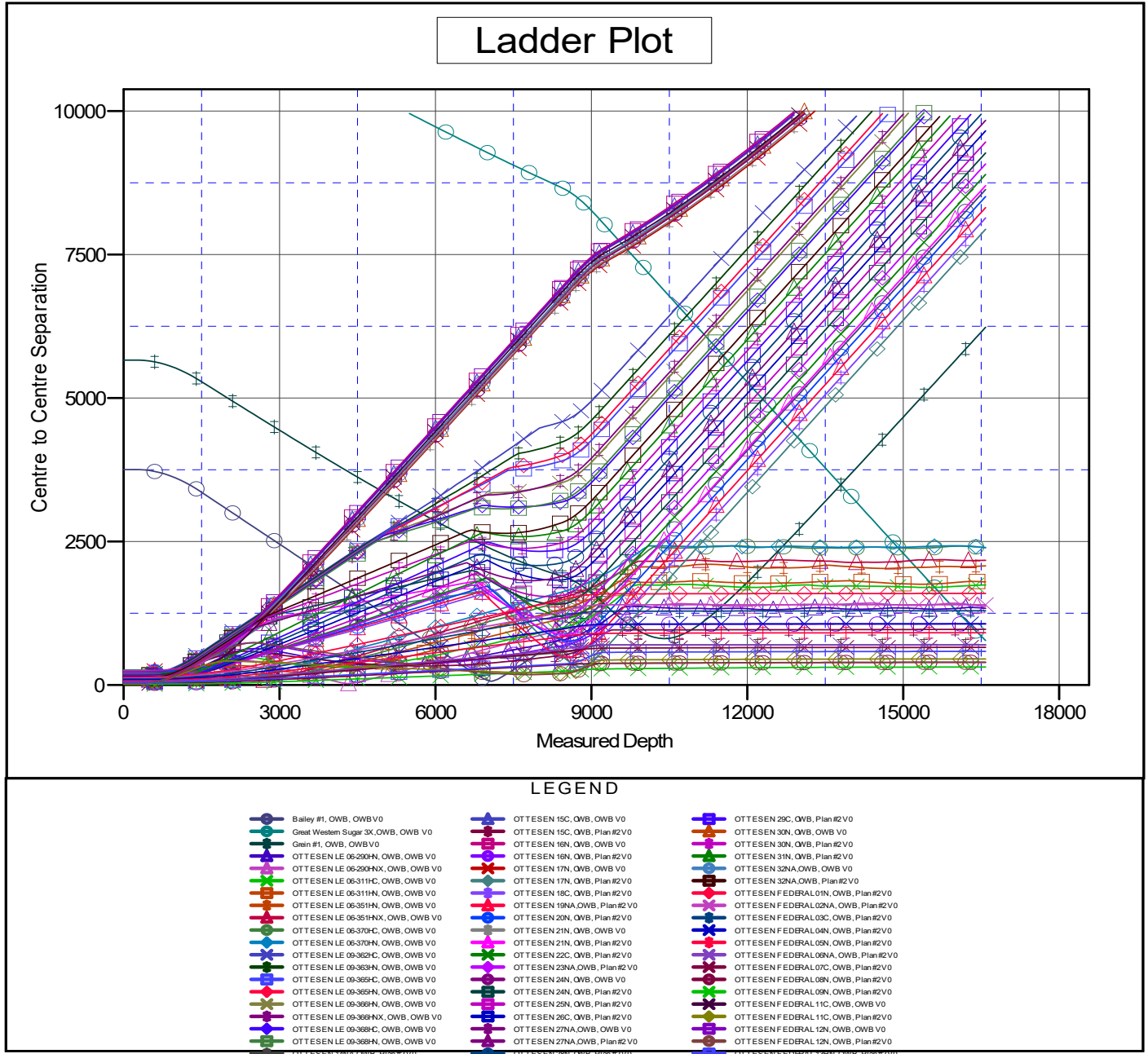
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Ottesen Pad						
OTTESEN FEDERAL 11C - OWB - Plan #2	8,500.0	8,654.2	198.0	68.6	1.531	Collision Risk Procedures Re
OTTESEN FEDERAL 12N - OWB - OWB	0.0	0.0	30.3			
OTTESEN FEDERAL 12N - OWB - OWB	250.0	250.0	31.4	28.7	11.448	ES
OTTESEN FEDERAL 12N - OWB - OWB	500.0	499.5	44.1	37.5	6.637	SF
OTTESEN FEDERAL 12N - OWB - Plan #2	0.0	0.0	30.3			
OTTESEN FEDERAL 12N - OWB - Plan #2	16,585.1	17,154.1	395.8	-78.6	0.834	No-Go Zone - Stop Drilling, E
OTTESEN FEDERAL 13HN - OWB - Plan #2	250.0	250.0	45.1	42.3	16.145	CC
OTTESEN FEDERAL 13HN - OWB - Plan #2	800.0	808.4	48.2	36.9	4.259	ES
OTTESEN FEDERAL 13HN - OWB - Plan #2	16,585.1	17,012.0	585.7	107.5	1.225	Collision Avoidance Req., SF

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESSEN FEDERAL 10NA
Project:	WELD COUNTY	TVD Reference:	KB 20' @ 5096.0usft
Reference Site:	Ottesen Pad	MD Reference:	KB 20' @ 5096.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	OTTESSEN FEDERAL 10NA	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 20' @ 5096.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: OTTESSEN FEDERAL 10NA
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°



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

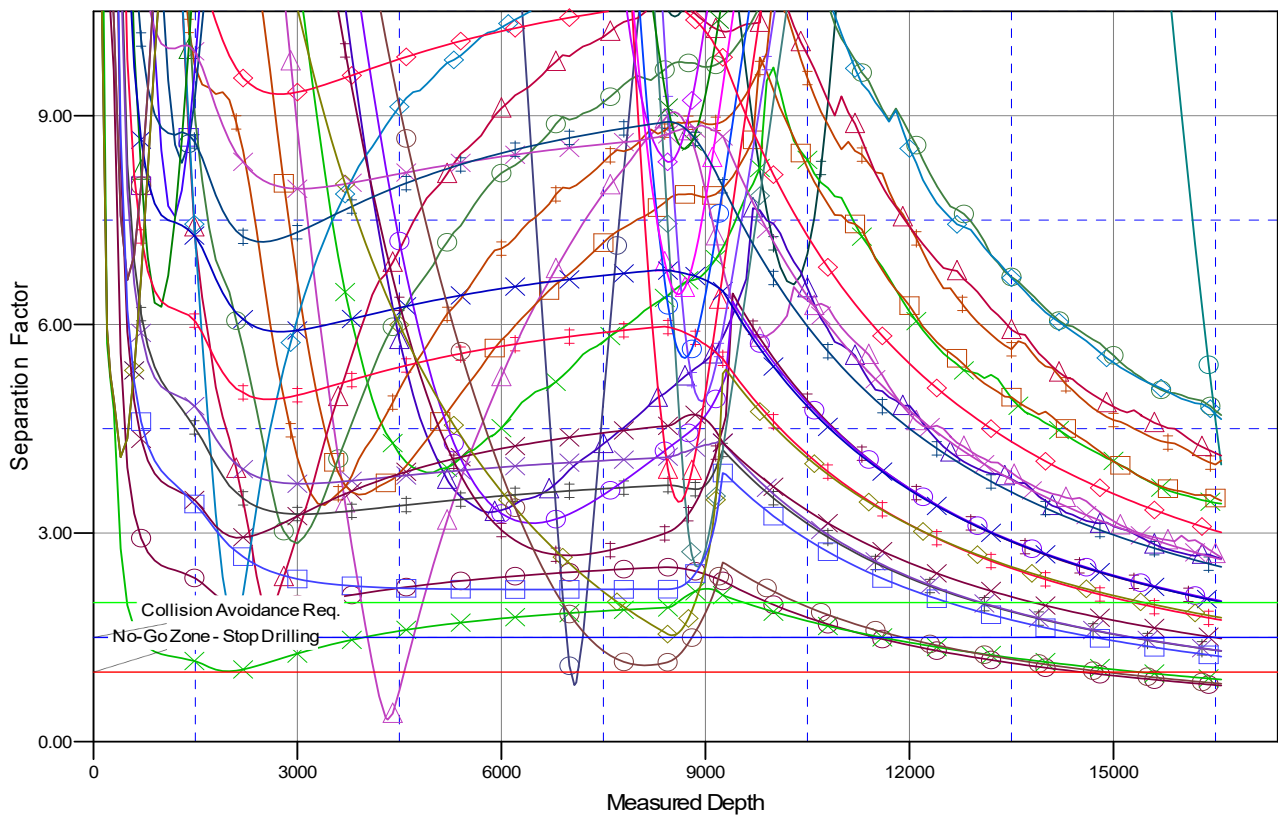
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Coordinates are relative to: OTTESSEN FEDERAL 10NA
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Separation Factor Plot



LEGEND

● Bailey #1, OWB, OWB V0	▲ OTTESSEN 15C, OWB, OWB V0	■ OTTESSEN 29C, OWB, Plan#2 V0
● Great Western Sugar 3X, OWB, OWB V0	▲ OTTESSEN 15C, OWB, Plan#2 V0	■ OTTESSEN 30N, OWB, OWB V0
● Grain #1, OWB, OWB V0	▲ OTTESSEN 16N, OWB, OWB V0	■ OTTESSEN 30N, OWB, Plan#2 V0
● OTTESSEN LE 06-290HN, OWB, OWB V0	▲ OTTESSEN 16N, OWB, Plan#2 V0	■ OTTESSEN 31N, OWB, Plan#2 V0
● OTTESSEN LE 06-290HN, OWB, OWB V0	▲ OTTESSEN 17N, OWB, OWB V0	■ OTTESSEN 32NA, OWB, OWB V0
● OTTESSEN LE 06-311HC, OWB, OWB V0	▲ OTTESSEN 17N, OWB, Plan#2 V0	■ OTTESSEN 32NA, OWB, Plan#2 V0
● OTTESSEN LE 06-311HN, OWB, OWB V0	▲ OTTESSEN 18C, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 01N, OWB, Plan#2 V0
● OTTESSEN LE 06-351HN, OWB, OWB V0	▲ OTTESSEN 19NA, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 02NA, OWB, Plan#2 V0
● OTTESSEN LE 06-351HN, OWB, OWB V0	▲ OTTESSEN 20N, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 03C, OWB, Plan#2 V0
● OTTESSEN LE 06-370HC, OWB, OWB V0	▲ OTTESSEN 21N, OWB, OWB V0	■ OTTESSEN FEDERAL 04N, OWB, Plan#2 V0
● OTTESSEN LE 06-370HN, OWB, OWB V0	▲ OTTESSEN 21N, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 05N, OWB, Plan#2 V0
● OTTESSEN LE 09-362HC, OWB, OWB V0	▲ OTTESSEN 22C, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 06NA, OWB, Plan#2 V0
● OTTESSEN LE 09-363HN, OWB, OWB V0	▲ OTTESSEN 23NA, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 07C, OWB, Plan#2 V0
● OTTESSEN LE 09-365HC, OWB, OWB V0	▲ OTTESSEN 24N, OWB, OWB V0	■ OTTESSEN FEDERAL 08N, OWB, Plan#2 V0
● OTTESSEN LE 09-365HN, OWB, OWB V0	▲ OTTESSEN 24N, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 09N, OWB, Plan#2 V0
● OTTESSEN LE 09-366HN, OWB, OWB V0	▲ OTTESSEN 25N, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 11C, OWB, OWB V0
● OTTESSEN LE 09-366HN, OWB, OWB V0	▲ OTTESSEN 26C, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 11C, OWB, Plan#2 V0
● OTTESSEN LE 09-368HC, OWB, OWB V0	▲ OTTESSEN 27NA, OWB, OWB V0	■ OTTESSEN FEDERAL 12N, OWB, OWB V0
● OTTESSEN LE 09-368HN, OWB, OWB V0	▲ OTTESSEN 27NA, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 12N, OWB, Plan#2 V0
● OTTESSEN 19NA, OWB, Plan#2 V0	▲ OTTESSEN 28N, OWB, Plan#2 V0	■ OTTESSEN FEDERAL 13N, OWB, Plan#2 V0

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