Plan #2

PDC ENERGY

Project: WELD COUNTY
Site: Ottesen Pad
Well: OTTESEN 14NA
Wellbore: OWB
Design: Plan #2
Lat: 40° 0' 15.570 N
Long: 104° 46' 39.461 W
GL: 5076.0
KB: KB 20' @ 5096.0usft

Azimuths to True North
Magnetic North: 7.73°

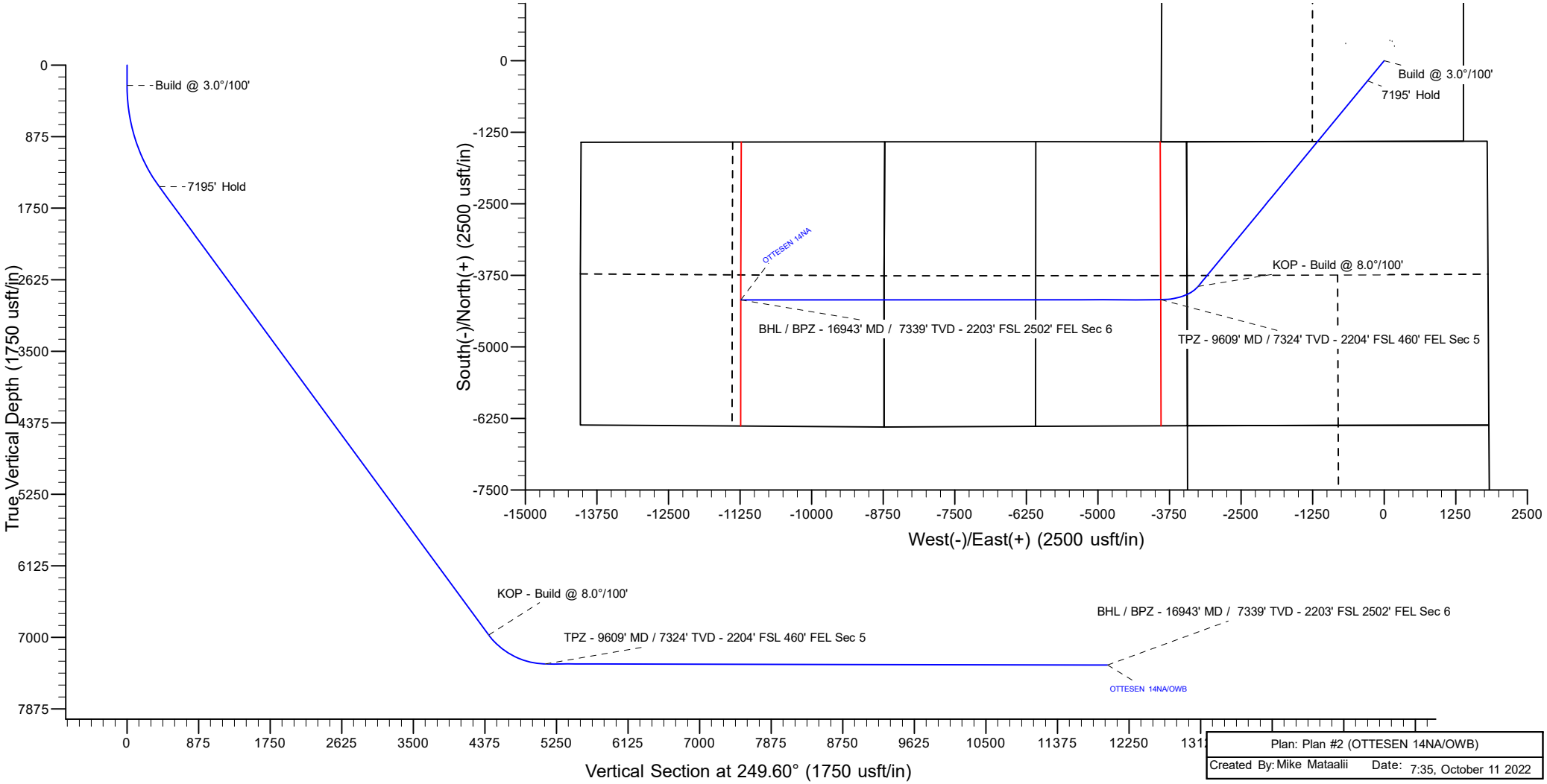
Magnetic Field
Strength: 51656.6nT
Dip Angle: 66.30°
Date: 4/12/2022
Model: IGRF2000

WELL DETAILS: OTTESEN 14NA

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1245246.55	3202360.04	40° 0' 15.570 N	104° 46' 39.461 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	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'
1594.5	40.33	219.50	1486.1	-350.3	-288.8	3.00	219.50	392.8	7195' Hold
8790.3	40.33	219.50	6971.4	-3944.2	-3251.1	0.00	0.00	4422.1	KOP - Build @ 8.0°/100'
9609.9	89.88	269.97	7324.0	-4174.9	-3902.3	8.00	57.90	5112.9	TPZ - 9609' MD / 7324' TVD - 2204' FSL 460' FEL Sec 5
16943.8	89.88	269.97	7339.0	-4179.2	-11236.1	0.00	0.00	11988.2	BHL / BPZ - 16943' MD / 7339' TVD - 2203' FSL 2502' FEL Sec 6



Plan: Plan #2 (OTTESEN 14NA/OWB)
Created By: Mike Mataalii Date: 7:35, October 11 2022

PDC Energy Inc.

Anticollision Summary Report

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN 14NA
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 14NA	**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	16,943.8	Plan #2 (OWB)	MWD	OWSG MWD - Standard

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Ottesen Offsets						
Bailey #1 - OWB - OWB	6,739.4	5,387.1	292.8	210.9	3.574	CC, ES, SF
Great Western Sugar 3X - OWB - OWB	16,943.8	7,215.0	1,267.0	991.3	4.596	CC, ES, SF
Grein #1 - OWB - OWB	10,600.0	7,249.0	1,517.0	1,392.7	12.197	SF
Grein #1 - OWB - OWB	10,760.4	7,249.4	1,508.5	1,386.6	12.369	CC, ES
OTTESEN LE 06-290HN - OWB - OWB	964.2	948.4	161.3	153.7	21.196	CC
OTTESEN LE 06-290HN - OWB - OWB	7,700.0	7,936.1	182.6	19.5	1.119	Collision Avoidance Req., ES
OTTESEN LE 06-290HN - OWB - OWB	7,800.0	8,034.3	186.1	19.8	1.119	Collision Avoidance Req., SF
OTTESEN LE 06-290HNX - OWB - OWB	1,004.3	986.7	172.8	165.0	21.993	CC
OTTESEN LE 06-290HNX - OWB - OWB	5,100.0	5,234.2	208.3	106.0	2.035	ES
OTTESEN LE 06-290HNX - OWB - OWB	16,943.8	17,050.0	673.4	160.1	1.312	Collision Avoidance Req., SF
OTTESEN LE 06-311HC - OWB - OWB	997.2	976.6	184.2	176.4	23.589	CC
OTTESEN LE 06-311HC - OWB - OWB	6,000.0	6,153.0	220.4	106.2	1.929	Collision Risk Procedures Re
OTTESEN LE 06-311HC - OWB - OWB	6,800.0	6,953.1	264.8	122.9	1.866	Collision Risk Procedures Re
OTTESEN LE 06-311HN - OWB - OWB	4,729.1	4,817.8	127.7	47.3	1.588	Collision Risk Procedures Re
OTTESEN LE 06-311HN - OWB - OWB	5,000.0	5,085.5	134.1	40.1	1.426	Collision Avoidance Req., ES
OTTESEN LE 06-311HN - OWB - OWB	5,100.0	5,184.3	139.8	41.7	1.426	Collision Avoidance Req., SF
OTTESEN LE 06-351HN - OWB - OWB	3,834.6	3,883.3	97.5	40.9	1.724	Collision Risk Procedures Re
OTTESEN LE 06-351HN - OWB - OWB	4,200.0	4,247.8	105.8	29.6	1.389	Collision Avoidance Req., ES
OTTESEN LE 06-351HNX - OWB - OWB	3,174.6	3,163.2	9.9	-40.9	0.194	No-Go Zone - Stop Drilling, (
OTTESEN LE 06-370HC - OWB - OWB	3,512.9	3,525.4	56.3	3.8	1.073	Collision Avoidance Req., C(
OTTESEN LE 06-370HC - OWB - OWB	3,600.0	3,610.9	58.6	-0.1	0.998	No-Go Zone - Stop Drilling, E
OTTESEN LE 06-370HN - OWB - OWB	2,537.5	2,461.7	102.3	66.3	2.844	CC, ES, SF
OTTESEN LE 09-362HC - OWB - OWB	0.0	0.5	117.6			
OTTESEN LE 09-362HC - OWB - OWB	200.0	199.3	118.8	115.8	39.458	ES
OTTESEN LE 09-362HC - OWB - OWB	700.0	692.2	178.6	168.2	17.111	SF
OTTESEN LE 09-363HN - OWB - OWB	249.6	250.2	105.3	102.0	31.833	CC
OTTESEN LE 09-363HN - OWB - OWB	250.0	250.5	105.3	102.0	31.819	ES
OTTESEN LE 09-363HN - OWB - OWB	600.0	595.4	141.0	132.3	16.190	SF
OTTESEN LE 09-365HC - OWB - OWB	187.2	187.7	102.0	99.1	35.878	CC
OTTESEN LE 09-365HC - OWB - OWB	250.0	249.9	102.2	98.9	31.078	ES
OTTESEN LE 09-365HC - OWB - OWB	700.0	691.6	157.1	147.3	16.080	SF
OTTESEN LE 09-365HN - OWB - OWB	0.0	0.5	101.2			
OTTESEN LE 09-365HN - OWB - OWB	200.0	199.1	102.4	99.4	33.980	ES
OTTESEN LE 09-365HN - OWB - OWB	700.0	697.1	151.0	141.2	15.439	SF
OTTESEN LE 09-366HN - OWB - OWB	0.0	0.5	106.4			
OTTESEN LE 09-366HN - OWB - OWB	200.0	199.9	106.7	103.7	35.664	ES
OTTESEN LE 09-366HN - OWB - OWB	700.0	691.3	152.9	143.5	16.198	SF

CC - Min centre to center distance or covergent 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 14NA
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 14NA	**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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Ottesen Offsets						
OTTESEN LE 09-366HNX - OWB - OWB	0.0	0.5	103.3			
OTTESEN LE 09-366HNX - OWB - OWB	256.9	257.6	103.3	100.0	31.199	ES
OTTESEN LE 09-366HNX - OWB - OWB	700.0	697.2	143.4	134.1	15.429	SF
OTTESEN LE 09-368HC - OWB - OWB	0.0	0.5	117.6			
OTTESEN LE 09-368HC - OWB - OWB	250.0	249.6	117.9	114.6	35.680	ES
OTTESEN LE 09-368HC - OWB - OWB	800.0	790.0	175.2	165.2	17.484	SF
OTTESEN LE 09-368HN - OWB - OWB	0.0	0.5	110.8			
OTTESEN LE 09-368HN - OWB - OWB	250.0	250.2	111.2	107.8	33.577	ES
OTTESEN LE 09-368HN - OWB - OWB	800.0	794.6	161.6	151.6	16.169	SF

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Reference Site:	Ottesen Pad	**MD Reference:**	KB 20' @ 5096.0usft
Site Error:	0.0 usft	**North Reference:**	True
Reference Well:	OTTESEN 14NA	**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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Ottesen Pad						
OTTESEN 15C - OWB - OWB	0.0	0.0	15.4			
OTTESEN 15C - OWB - OWB	252.4	252.4	16.3	13.4	5.547	ES
OTTESEN 15C - OWB - OWB	400.0	400.0	19.8	15.0	4.086	SF
OTTESEN 15C - OWB - Plan #2	0.0	0.0	15.4			
OTTESEN 15C - OWB - Plan #2	252.4	252.4	16.3	13.4	5.547	ES
OTTESEN 15C - OWB - Plan #2	8,950.0	9,192.5	227.7	93.0	1.690	Collision Risk Procedures Re
OTTESEN 16N - OWB - OWB	256.6	256.7	29.5	26.5	9.788	CC, ES
OTTESEN 16N - OWB - OWB	500.0	499.2	42.5	35.8	6.396	SF
OTTESEN 16N - OWB - Plan #2	256.6	256.7	29.5	26.5	9.788	CC
OTTESEN 16N - OWB - Plan #2	16,943.8	17,566.5	395.8	-78.8	0.834	No-Go Zone - Stop Drilling, E
OTTESEN 17N - OWB - OWB	900.5	886.8	295.6	288.8	43.051	CC, ES
OTTESEN 17N - OWB - OWB	1,500.0	1,413.8	407.6	392.7	27.464	SF
OTTESEN 17N - OWB - Plan #2	900.5	886.8	295.6	288.8	43.051	CC
OTTESEN 17N - OWB - Plan #2	9,200.0	11,003.5	319.6	175.0	2.210	ES
OTTESEN 17N - OWB - Plan #2	9,250.0	11,017.5	337.0	183.2	2.191	SF
OTTESEN 18C - OWB - Plan #2	250.0	250.0	301.8	299.0	108.025	CC
OTTESEN 18C - OWB - Plan #2	400.0	385.6	303.3	298.8	66.956	ES
OTTESEN 18C - OWB - Plan #2	9,300.0	10,906.2	666.3	512.3	4.328	SF
OTTESEN 19NA - OWB - Plan #2	250.0	250.0	287.6	284.8	102.965	CC
OTTESEN 19NA - OWB - Plan #2	400.0	386.2	289.3	284.8	64.072	ES
OTTESEN 19NA - OWB - Plan #2	8,950.0	10,478.4	476.1	316.1	2.977	SF
OTTESEN 20N - OWB - Plan #2	250.0	250.0	273.7	270.9	97.967	CC
OTTESEN 20N - OWB - Plan #2	400.0	387.5	275.3	270.8	61.812	ES
OTTESEN 20N - OWB - Plan #2	9,050.0	10,648.6	773.8	613.6	4.828	SF
OTTESEN 21N - OWB - OWB	772.8	765.7	250.0	244.0	41.526	CC
OTTESEN 21N - OWB - OWB	800.0	792.2	250.1	243.9	40.413	ES
OTTESEN 21N - OWB - OWB	1,300.0	1,247.1	323.3	310.5	25.212	SF
OTTESEN 21N - OWB - Plan #2	772.8	765.7	250.0	244.0	41.526	CC
OTTESEN 21N - OWB - Plan #2	800.0	792.2	250.1	243.9	40.413	ES
OTTESEN 21N - OWB - Plan #2	8,950.0	10,677.8	881.1	723.5	5.592	SF
OTTESEN 22C - OWB - Plan #2	250.0	250.0	246.0	243.2	88.072	CC
OTTESEN 22C - OWB - Plan #2	400.0	390.1	247.5	243.2	57.510	ES
OTTESEN 22C - OWB - Plan #2	9,050.0	10,715.1	1,193.7	1,033.8	7.465	SF
OTTESEN 23NA - OWB - Plan #2	250.0	250.0	232.4	229.6	83.188	CC
OTTESEN 23NA - OWB - Plan #2	400.0	391.6	233.7	229.5	55.499	ES
OTTESEN 23NA - OWB - Plan #2	8,800.0	10,199.1	1,154.2	995.0	7.247	SF
OTTESEN 24N - OWB - OWB	599.0	595.4	218.9	213.6	41.030	CC
OTTESEN 24N - OWB - OWB	600.0	596.3	218.9	213.6	40.974	ES
OTTESEN 24N - OWB - OWB	1,200.0	1,145.3	318.4	305.3	24.199	SF
OTTESEN 24N - OWB - Plan #2	599.0	595.4	218.9	213.6	41.030	CC
OTTESEN 24N - OWB - Plan #2	600.0	596.3	218.9	213.6	40.974	ES
OTTESEN 24N - OWB - Plan #2	8,900.0	10,537.6	1,421.5	1,264.4	9.049	SF
OTTESEN 25N - OWB - Plan #2	250.0	250.0	205.6	202.8	73.608	CC
OTTESEN 25N - OWB - Plan #2	400.0	394.7	206.5	202.5	51.574	ES
OTTESEN 25N - OWB - Plan #2	8,850.0	10,245.6	1,566.6	1,407.7	9.856	SF
OTTESEN 26C - OWB - Plan #2	250.0	250.0	193.0	190.2	69.098	CC
OTTESEN 26C - OWB - Plan #2	400.0	396.2	193.6	189.7	49.605	ES
OTTESEN 26C - OWB - Plan #2	8,950.0	10,503.2	1,853.9	1,694.6	11.640	SF
OTTESEN 27NA - OWB - OWB	415.6	414.5	179.0	175.1	45.668	CC
OTTESEN 27NA - OWB - OWB	500.0	498.4	179.1	174.7	40.244	ES
OTTESEN 27NA - OWB - OWB	1,100.0	1,070.9	245.4	234.0	21.381	SF
OTTESEN 27NA - OWB - Plan #2	415.6	414.5	179.0	175.1	45.668	CC
OTTESEN 27NA - OWB - Plan #2	500.0	498.4	179.1	174.7	40.244	ES

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

PDC Energy Inc.

Anticollision Summary Report

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Reference Well:	OTTESEN 14NA	**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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Ottesen Pad						
OTTESEN 27NA - OWB - Plan #2	8,790.3	10,114.0	1,889.4	1,733.7	12.135	SF
OTTESEN 28N - OWB - Plan #2	965.7	964.1	164.5	156.3	20.198	CC
OTTESEN 28N - OWB - Plan #2	1,000.0	998.1	164.5	156.0	19.300	ES
OTTESEN 28N - OWB - Plan #2	1,500.0	1,477.3	220.4	201.2	11.488	SF
OTTESEN 29C - OWB - Plan #2	964.2	967.0	145.8	137.2	16.974	CC
OTTESEN 29C - OWB - Plan #2	1,000.0	1,002.3	145.9	136.8	15.982	ES
OTTESEN 29C - OWB - Plan #2	1,400.0	1,386.5	191.5	173.1	10.403	SF
OTTESEN 30N - OWB - OWB	0.0	0.0	145.2			
OTTESEN 30N - OWB - OWB	200.0	199.3	145.8	143.3	57.642	ES
OTTESEN 30N - OWB - OWB	1,000.0	980.3	212.8	200.0	16.537	SF
OTTESEN 30N - OWB - Plan #2	0.0	0.0	145.2			
OTTESEN 30N - OWB - Plan #2	200.0	199.3	145.8	143.3	57.642	ES
OTTESEN 30N - OWB - Plan #2	8,850.0	10,171.7	2,492.5	2,337.2	16.051	SF
OTTESEN 31N - OWB - Plan #2	912.1	922.5	111.7	101.4	10.801	CC
OTTESEN 31N - OWB - Plan #2	1,000.0	1,008.9	113.6	101.3	9.197	ES
OTTESEN 31N - OWB - Plan #2	1,200.0	1,202.3	137.0	119.7	7.923	SF
OTTESEN 32NA - OWB - OWB	0.0	0.0	125.8			
OTTESEN 32NA - OWB - OWB	250.0	249.8	127.5	124.6	43.841	ES
OTTESEN 32NA - OWB - OWB	900.0	886.5	184.7	173.8	16.981	SF
OTTESEN 32NA - OWB - Plan #2	0.0	0.0	125.8			
OTTESEN 32NA - OWB - Plan #2	250.0	249.8	127.5	124.6	43.841	ES
OTTESEN 32NA - OWB - Plan #2	900.0	886.5	184.7	173.8	16.981	SF
OTTESEN FEDERAL 01N - OWB - Plan #2	250.0	250.0	194.4	191.6	69.596	CC
OTTESEN FEDERAL 01N - OWB - Plan #2	500.0	479.7	197.1	189.5	25.971	ES
OTTESEN FEDERAL 01N - OWB - Plan #2	16,936.4	16,150.7	2,288.6	1,755.5	4.293	SF
OTTESEN FEDERAL 02NA - OWB - Plan #2	250.0	250.0	179.6	176.8	64.281	CC
OTTESEN FEDERAL 02NA - OWB - Plan #2	500.0	481.5	182.0	174.5	24.113	ES
OTTESEN FEDERAL 02NA - OWB - Plan #2	16,943.8	16,016.3	2,099.4	1,564.7	3.926	SF
OTTESEN FEDERAL 03C - OWB - Plan #2	250.0	250.0	165.0	162.2	59.066	CC
OTTESEN FEDERAL 03C - OWB - Plan #2	500.0	483.3	167.2	159.7	22.283	ES
OTTESEN FEDERAL 03C - OWB - Plan #2	16,938.1	16,420.5	1,968.7	1,441.0	3.731	SF
OTTESEN FEDERAL 04N - OWB - Plan #2	250.0	250.0	149.3	146.5	53.450	CC
OTTESEN FEDERAL 04N - OWB - Plan #2	500.0	485.1	151.4	143.9	20.272	ES
OTTESEN FEDERAL 04N - OWB - Plan #2	16,943.8	16,258.2	1,759.3	1,225.0	3.293	SF
OTTESEN FEDERAL 05N - OWB - Plan #2	250.0	250.0	134.5	131.7	48.136	CC
OTTESEN FEDERAL 05N - OWB - Plan #2	500.0	486.8	136.3	128.9	18.360	ES
OTTESEN FEDERAL 05N - OWB - Plan #2	16,939.1	16,389.8	1,595.1	1,062.9	2.997	SF
OTTESEN FEDERAL 06NA - OWB - Plan #2	250.0	250.0	119.9	117.1	42.921	CC
OTTESEN FEDERAL 06NA - OWB - Plan #2	600.0	583.9	123.1	114.1	13.639	ES
OTTESEN FEDERAL 06NA - OWB - Plan #2	16,943.8	16,270.9	1,399.6	864.1	2.613	SF
OTTESEN FEDERAL 07C - OWB - Plan #2	250.0	250.0	104.2	101.4	37.305	CC
OTTESEN FEDERAL 07C - OWB - Plan #2	600.0	586.3	106.9	98.0	11.933	ES
OTTESEN FEDERAL 07C - OWB - Plan #2	16,941.2	16,684.8	1,276.0	759.5	2.470	SF
OTTESEN FEDERAL 08N - OWB - Plan #2	250.0	250.0	89.4	86.6	31.990	CC
OTTESEN FEDERAL 08N - OWB - Plan #2	600.0	588.4	91.7	82.8	10.298	ES
OTTESEN FEDERAL 08N - OWB - Plan #2	16,939.6	16,535.5	1,065.9	533.5	2.002	SF
OTTESEN FEDERAL 09N - OWB - Plan #2	250.0	250.0	74.5	71.7	26.675	CC
OTTESEN FEDERAL 09N - OWB - Plan #2	600.0	590.5	76.5	67.6	8.639	ES
OTTESEN FEDERAL 09N - OWB - Plan #2	16,941.5	16,678.8	912.6	389.9	1.746	Collision Risk Procedures Re
OTTESEN FEDERAL 10NA - OWB - Plan #2	250.0	250.0	59.9	57.2	21.460	CC
OTTESEN FEDERAL 10NA - OWB - Plan #2	700.0	690.4	62.6	52.5	6.214	ES
OTTESEN FEDERAL 10NA - OWB - Plan #2	16,943.8	16,585.1	699.8	163.5	1.305	Collision Avoidance Req., SF
OTTESEN FEDERAL 11C - OWB - OWB	576.4	575.1	35.0	30.0	7.001	CC

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PDC Energy Inc.

Anticollision Summary Report

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN 14NA
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 14NA	**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 Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Ottesen Pad						
OTTESEN FEDERAL 11C - OWB - OWB	600.0	598.4	35.2	29.9	6.690	ES
OTTESEN FEDERAL 11C - OWB - OWB	700.0	695.8	43.1	35.4	5.600	SF
OTTESEN FEDERAL 11C - OWB - Plan #2	576.4	575.1	35.0	30.0	7.001	CC
OTTESEN FEDERAL 11C - OWB - Plan #2	600.0	598.4	35.2	29.9	6.690	ES
OTTESEN FEDERAL 11C - OWB - Plan #2	16,943.7	17,129.5	672.2	223.5	1.498	Collision Avoidance Req., SF
OTTESEN FEDERAL 12N - OWB - OWB	503.4	502.6	23.4	19.0	5.245	CC, ES
OTTESEN FEDERAL 12N - OWB - OWB	600.0	598.2	27.4	21.1	4.345	SF
OTTESEN FEDERAL 12N - OWB - Plan #2	503.4	502.6	23.4	19.0	5.245	CC
OTTESEN FEDERAL 12N - OWB - Plan #2	16,943.6	17,155.3	395.8	-97.9	0.802	No-Go Zone - Stop Drilling, E
OTTESEN FEDERAL 13HN - OWB - Plan #2	250.0	250.0	14.8	12.1	5.315	CC
OTTESEN FEDERAL 13HN - OWB - Plan #2	16,943.8	17,013.5	313.4	-43.4	0.878	No-Go Zone - Stop Drilling, E

PDC Energy Inc.

Anticollision Summary Report

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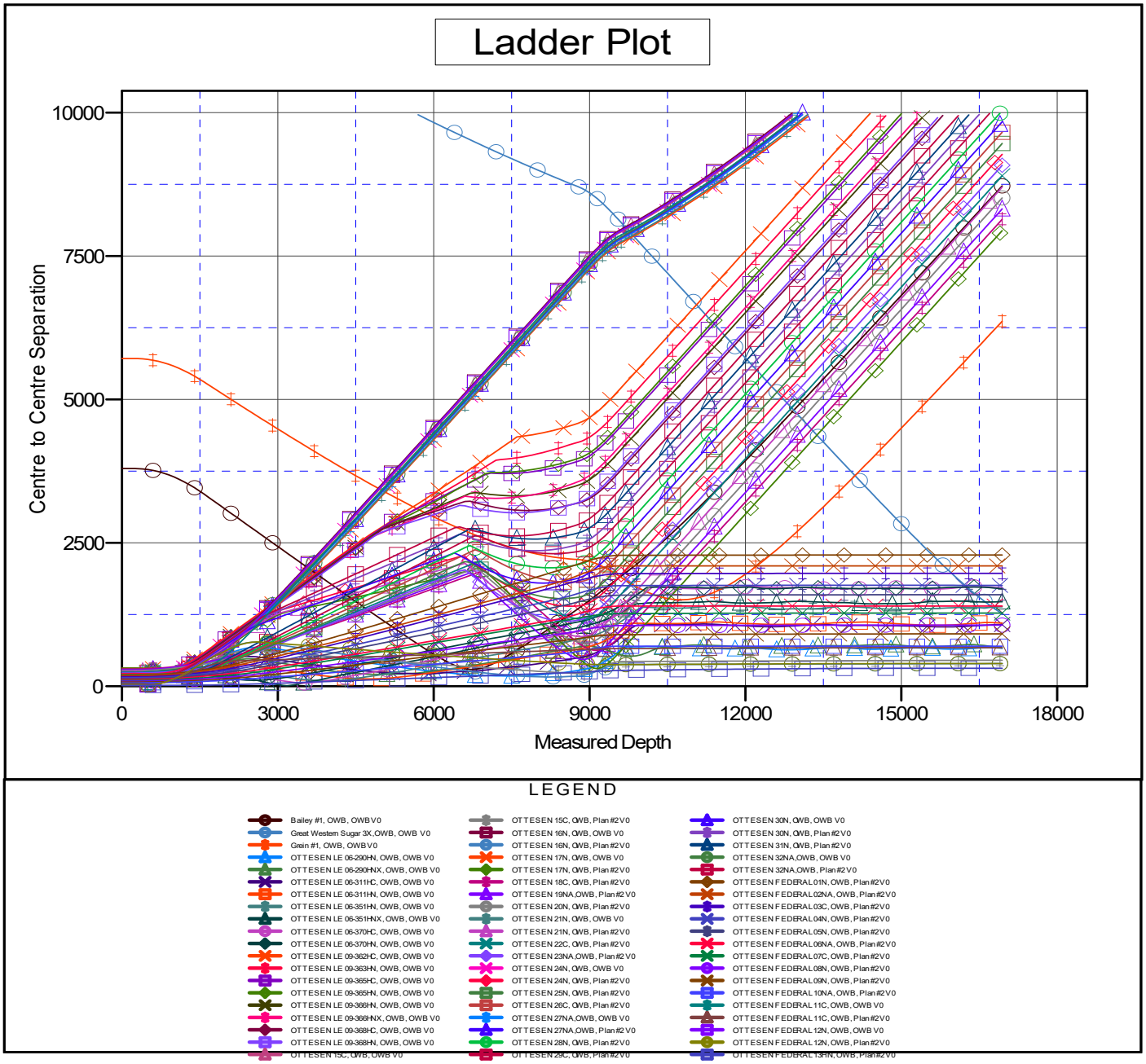
Reference Well:	OTTESEN 14NA	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

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: OTTESEN 14NA
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°



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

PDC Energy Inc.

Anticollision Summary Report

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Reference Wellbore	OWB	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

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Offset Depths are relative to Offset Datum
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Coordinates are relative to: OTTESEN 14NA
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°