Plan #2

PDC ENERGY

Project: WELD COUNTY
Site: Ottesen Pad
Well: OTTESEN FEDERAL 02NA
Wellbore: OWB
Design: Plan #2
Lat: 40° 0' 15.568 N
Long: 104° 46' 41.768 W
GL: 5076.0
KB: KB 20' @ 5096.0usft

T M

Azimuths to True North
Magnetic North: 7.73°

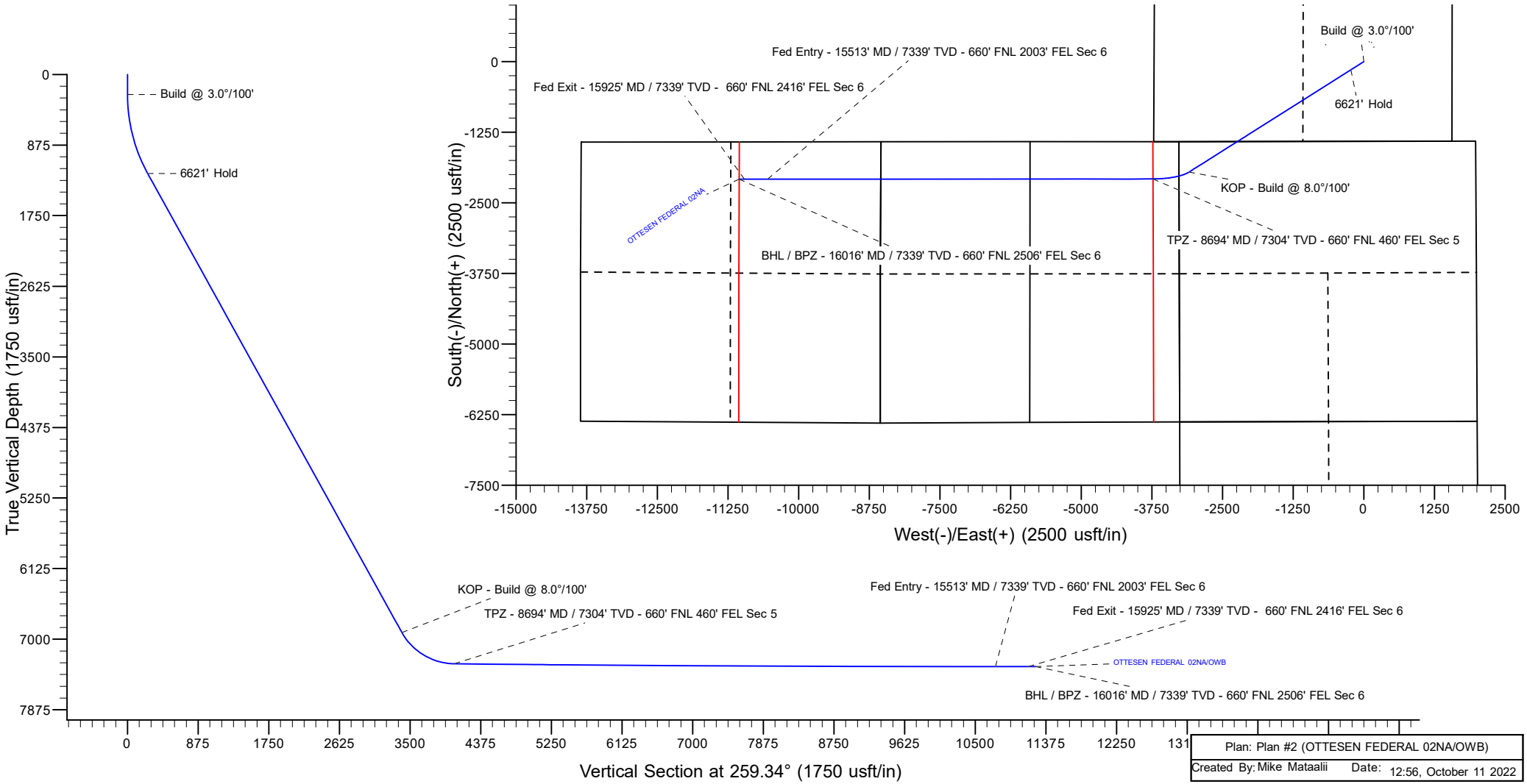
Magnetic Field
Strength: 51656.5nT
Dip Angle: 66.30°
Date: 4/12/2022
Model: IGRF2000

WELL DETAILS: OTTESEN FEDERAL 02NA

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1245244.95	3202180.48	40° 0' 15.568 N	104° 46' 41.768 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	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'
1275.5	30.77	237.70	1227.0	-143.6	-227.2	3.00	237.70	249.8	6621' Hold
7896.7	30.77	237.70	6916.3	-1953.3	-3090.1	0.00	0.00	3398.1	KOP - Build @ 8.0°/100'
8694.3	89.41	269.97	7304.0	-2075.4	-3728.8	8.00	36.50	4048.3	TPZ - 8694' MD / 7304' TVD - 660' FNL 460' FEL Sec 5
15513.7	90.00	269.97	7339.0	-2079.4	-10548.0	0.01	0.18	10750.6	Fed Entry - 15513' MD / 7339' TVD - 660' FNL 2003' FEL Sec 6
15925.6	90.00	269.97	7339.0	-2079.7	-10960.0	0.00	0.00	11155.5	Fed Exit - 15925' MD / 7339' TVD - 660' FNL 2416' FEL Sec 6
16016.3	90.00	269.97	7339.0	-2079.7	-11050.6	0.00	0.00	11244.6	BHL / BPZ - 16016' MD / 7339' TVD - 660' FNL 2506' FEL Sec 6



Plan: Plan #2 (OTTESEN FEDERAL 02NA/OWB)
Created By: Mike Mataalii Date: 12:56, October 11 2022

PDC Energy Inc.

Anticollision Summary Report

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN FEDERAL 02NA
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 02NA	**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	16,016.3	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	7,659.2	6,691.2	1,000.0	919.5	12.419	CC
Bailey #1 - OWB - OWB	7,700.0	6,726.3	1,000.2	919.2	12.354	ES
Bailey #1 - OWB - OWB	7,950.0	6,940.2	1,012.3	929.1	12.157	SF
Great Western Sugar 3X - OWB - OWB	16,016.3	7,215.0	1,237.9	1,021.0	5.707	CC, ES, SF
Grein #1 - OWB - OWB	9,840.0	7,237.8	590.9	473.6	5.038	CC
Grein #1 - OWB - OWB	9,900.0	7,238.3	593.9	472.5	4.892	ES
Grein #1 - OWB - OWB	10,000.0	7,239.1	612.1	486.0	4.853	SF
OTTESEN LE 06-290HN - OWB - OWB	556.3	555.5	18.3	13.2	3.590	CC, ES
OTTESEN LE 06-290HN - OWB - OWB	600.0	598.6	19.9	13.6	3.199	SF
OTTESEN LE 06-290HNX - OWB - OWB	631.4	629.4	24.6	19.1	4.466	CC, ES
OTTESEN LE 06-290HNX - OWB - OWB	700.0	696.3	28.9	21.4	3.872	SF
OTTESEN LE 06-311HC - OWB - OWB	685.4	682.3	30.3	24.5	5.177	CC
OTTESEN LE 06-311HC - OWB - OWB	700.0	696.4	30.5	24.5	5.021	ES
OTTESEN LE 06-311HC - OWB - OWB	800.0	792.5	43.5	34.0	4.560	SF
OTTESEN LE 06-311HN - OWB - OWB	750.8	745.8	39.7	33.4	6.328	CC, ES
OTTESEN LE 06-311HN - OWB - OWB	900.0	888.4	59.9	49.3	5.638	SF
OTTESEN LE 06-351HN - OWB - OWB	805.9	799.5	47.4	40.8	7.206	CC, ES
OTTESEN LE 06-351HN - OWB - OWB	900.0	890.2	54.6	45.2	5.794	SF
OTTESEN LE 06-351HNX - OWB - OWB	961.1	950.7	40.6	30.9	4.179	CC
OTTESEN LE 06-351HNX - OWB - OWB	1,000.0	988.8	41.7	30.2	3.637	ES
OTTESEN LE 06-351HNX - OWB - OWB	1,100.0	1,089.3	52.2	35.9	3.199	SF
OTTESEN LE 06-370HC - OWB - OWB	954.6	944.7	59.4	50.7	6.825	CC
OTTESEN LE 06-370HC - OWB - OWB	1,000.0	989.3	60.4	50.0	5.781	ES
OTTESEN LE 06-370HC - OWB - OWB	1,100.0	1,087.6	70.2	55.6	4.809	SF
OTTESEN LE 06-370HN - OWB - OWB	1,253.0	1,227.5	13.4	-5.4	0.713	No-Go Zone - Stop Drilling, (
OTTESEN LE 09-362HC - OWB - OWB	0.0	0.5	260.1			
OTTESEN LE 09-362HC - OWB - OWB	200.0	198.1	261.3	258.3	86.942	ES
OTTESEN LE 09-362HC - OWB - OWB	900.0	883.7	376.4	363.9	29.959	SF
OTTESEN LE 09-363HN - OWB - OWB	217.3	217.9	232.5	229.4	74.901	CC
OTTESEN LE 09-363HN - OWB - OWB	250.0	250.0	232.5	229.2	70.513	ES
OTTESEN LE 09-363HN - OWB - OWB	800.0	788.8	314.5	303.0	27.290	SF
OTTESEN LE 09-365HC - OWB - OWB	0.0	0.5	206.1			
OTTESEN LE 09-365HC - OWB - OWB	200.0	198.8	207.1	204.1	69.069	ES
OTTESEN LE 09-365HC - OWB - OWB	800.0	788.6	292.5	281.0	25.420	SF
OTTESEN LE 09-365HN - OWB - OWB	0.0	0.5	218.1			
OTTESEN LE 09-365HN - OWB - OWB	200.0	197.8	219.3	216.3	72.931	ES
OTTESEN LE 09-365HN - OWB - OWB	800.0	794.5	297.4	286.1	26.333	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 FEDERAL 02NA
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 02NA	**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 09-366HN - OWB - OWB	0.0	0.5	181.6			
OTTESEN LE 09-366HN - OWB - OWB	250.0	250.0	182.4	179.1	55.313 ES	
OTTESEN LE 09-366HN - OWB - OWB	700.0	693.7	239.5	229.0	22.840 SF	
OTTESEN LE 09-366HNX - OWB - OWB	0.0	0.5	194.0			
OTTESEN LE 09-366HNX - OWB - OWB	250.3	250.8	194.9	191.6	59.164 ES	
OTTESEN LE 09-366HNX - OWB - OWB	800.0	792.1	273.8	262.5	24.273 SF	
OTTESEN LE 09-368HC - OWB - OWB	0.0	0.5	156.8			
OTTESEN LE 09-368HC - OWB - OWB	200.0	198.9	157.7	154.7	52.398 ES	
OTTESEN LE 09-368HC - OWB - OWB	700.0	694.6	217.0	206.7	20.931 SF	
OTTESEN LE 09-368HN - OWB - OWB	0.0	0.5	168.4			
OTTESEN LE 09-368HN - OWB - OWB	250.0	249.4	168.9	165.6	51.031 ES	
OTTESEN LE 09-368HN - OWB - OWB	700.0	699.7	221.1	210.9	21.626 SF	

PDC Energy Inc.

Anticollision Summary Report

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN FEDERAL 02NA
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 02NA	**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 14NA - OWB - Plan #2	250.0	250.0	179.6	176.8	64.281	CC
OTTESEN 14NA - OWB - Plan #2	500.0	515.7	182.4	174.5	23.014	ES
OTTESEN 14NA - OWB - Plan #2	16,016.3	16,936.6	2,099.4	1,564.6	3.925	SF
OTTESEN 15C - OWB - OWB	0.0	0.0	195.0			
OTTESEN 15C - OWB - OWB	251.7	251.9	195.8	192.9	66.755	ES
OTTESEN 15C - OWB - OWB	1,600.0	1,709.6	519.2	497.2	23.584	SF
OTTESEN 15C - OWB - Plan #2	0.0	0.0	195.0			
OTTESEN 15C - OWB - Plan #2	251.7	251.9	195.8	192.9	66.755	ES
OTTESEN 15C - OWB - Plan #2	16,016.3	17,557.5	2,312.8	1,789.0	4.415	SF
OTTESEN 16N - OWB - OWB	255.0	255.5	209.1	206.1	69.485	CC, ES
OTTESEN 16N - OWB - OWB	900.0	888.5	307.6	295.7	25.904	SF
OTTESEN 16N - OWB - Plan #2	255.0	255.5	209.1	206.1	69.485	CC, ES
OTTESEN 16N - OWB - Plan #2	16,016.3	17,559.4	2,456.3	1,923.4	4.609	SF
OTTESEN 17N - OWB - OWB	667.4	663.5	148.6	143.2	27.386	CC, ES
OTTESEN 17N - OWB - OWB	1,100.0	1,072.0	204.8	193.3	17.801	SF
OTTESEN 17N - OWB - Plan #2	667.4	663.5	148.6	143.2	27.386	CC, ES
OTTESEN 17N - OWB - Plan #2	8,350.0	8,941.8	359.3	252.3	3.359	SF
OTTESEN 18C - OWB - Plan #2	250.0	250.0	145.1	142.3	51.956	CC
OTTESEN 18C - OWB - Plan #2	600.0	592.0	147.0	141.0	24.537	ES
OTTESEN 18C - OWB - Plan #2	8,400.0	8,824.8	689.8	581.2	6.351	SF
OTTESEN 19NA - OWB - Plan #2	250.0	250.0	134.7	131.9	48.208	CC
OTTESEN 19NA - OWB - Plan #2	500.0	495.7	135.9	131.1	28.047	ES
OTTESEN 19NA - OWB - Plan #2	8,100.0	8,463.3	518.4	407.3	4.666	SF
OTTESEN 20N - OWB - Plan #2	250.0	250.0	125.2	122.4	44.814	CC
OTTESEN 20N - OWB - Plan #2	500.0	497.8	126.1	121.5	27.406	ES
OTTESEN 20N - OWB - Plan #2	8,150.0	8,603.0	800.1	690.5	7.300	SF
OTTESEN 21N - OWB - OWB	275.8	275.9	117.4	114.5	40.270	CC
OTTESEN 21N - OWB - OWB	400.0	400.0	117.7	113.9	31.345	ES
OTTESEN 21N - OWB - OWB	1,000.0	983.2	189.4	178.0	16.562	SF
OTTESEN 21N - OWB - Plan #2	275.8	275.9	117.4	114.5	40.270	CC
OTTESEN 21N - OWB - Plan #2	400.0	400.0	117.7	113.9	31.345	ES
OTTESEN 21N - OWB - Plan #2	8,050.0	8,651.0	908.6	803.5	8.649	SF
OTTESEN 22C - OWB - Plan #2	954.6	960.1	108.4	99.8	12.568	CC
OTTESEN 22C - OWB - Plan #2	1,100.0	1,105.2	109.6	98.8	10.205	ES
OTTESEN 22C - OWB - Plan #2	1,500.0	1,498.9	141.3	121.7	7.196	SF
OTTESEN 23NA - OWB - Plan #2	1,006.7	1,017.7	97.5	87.0	9.286	CC
OTTESEN 23NA - OWB - Plan #2	1,100.0	1,110.7	98.5	86.3	8.054	ES
OTTESEN 23NA - OWB - Plan #2	1,400.0	1,406.2	122.8	103.4	6.342	SF
OTTESEN 24N - OWB - OWB	0.0	0.0	102.2			
OTTESEN 24N - OWB - OWB	250.0	249.9	102.7	99.9	36.580	ES
OTTESEN 24N - OWB - OWB	700.0	689.0	143.0	134.4	16.577	SF
OTTESEN 24N - OWB - Plan #2	0.0	0.0	102.2			
OTTESEN 24N - OWB - Plan #2	250.0	249.9	102.7	99.9	36.580	ES
OTTESEN 24N - OWB - Plan #2	8,000.0	8,520.9	1,447.5	1,345.5	14.201	SF
OTTESEN 25N - OWB - Plan #2	914.5	933.3	86.9	73.6	6.527	CC
OTTESEN 25N - OWB - Plan #2	1,000.0	1,018.5	88.4	73.5	5.917	ES
OTTESEN 25N - OWB - Plan #2	1,100.0	1,117.6	94.7	77.6	5.543	SF
OTTESEN 26C - OWB - Plan #2	842.7	863.5	88.5	74.6	6.370	CC
OTTESEN 26C - OWB - Plan #2	900.0	920.6	89.2	74.4	6.007	ES
OTTESEN 26C - OWB - Plan #2	1,000.0	1,019.9	94.6	78.0	5.683	SF
OTTESEN 27NA - OWB - OWB	251.5	251.5	104.6	101.8	36.964	CC, ES
OTTESEN 27NA - OWB - OWB	700.0	694.2	150.6	141.4	16.351	SF
OTTESEN 27NA - OWB - Plan #2	251.5	251.5	104.6	101.8	36.964	CC, ES

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 FEDERAL 02NA
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 02NA	**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	700.0	694.2	150.6	141.4	16.351	SF
OTTESEN 28N - OWB - Plan #2	751.0	775.9	100.3	85.6	6.834	CC, ES
OTTESEN 28N - OWB - Plan #2	900.0	924.0	106.8	90.1	6.407	SF
OTTESEN 29C - OWB - Plan #2	689.7	714.6	110.4	96.7	8.074	CC
OTTESEN 29C - OWB - Plan #2	700.0	724.8	110.5	96.6	7.995	ES
OTTESEN 29C - OWB - Plan #2	800.0	824.2	114.1	99.0	7.580	SF
OTTESEN 30N - OWB - OWB	179.1	179.1	125.0	122.7	55.010	CC
OTTESEN 30N - OWB - OWB	200.0	199.4	125.1	122.5	49.655	ES
OTTESEN 30N - OWB - OWB	700.0	690.2	176.4	166.1	17.159	SF
OTTESEN 30N - OWB - Plan #2	179.1	179.1	125.0	122.7	55.010	CC
OTTESEN 30N - OWB - Plan #2	200.0	199.4	125.1	122.5	49.655	ES
OTTESEN 30N - OWB - Plan #2	700.0	690.2	176.4	166.1	17.159	SF
OTTESEN 31N - OWB - Plan #2	473.8	489.3	134.6	125.8	15.244	CC
OTTESEN 31N - OWB - Plan #2	600.0	623.4	135.2	123.4	11.470	ES
OTTESEN 31N - OWB - Plan #2	800.0	822.8	148.1	134.2	10.657	SF
OTTESEN 32NA - OWB - OWB	189.1	189.1	144.7	142.3	60.506	CC
OTTESEN 32NA - OWB - OWB	250.0	249.5	145.0	142.2	51.698	ES
OTTESEN 32NA - OWB - OWB	700.0	695.5	197.2	187.2	19.794	SF
OTTESEN 32NA - OWB - Plan #2	189.1	189.1	144.7	142.3	60.506	CC
OTTESEN 32NA - OWB - Plan #2	250.0	249.5	145.0	142.2	51.698	ES
OTTESEN 32NA - OWB - Plan #2	700.0	695.5	197.2	187.2	19.794	SF
OTTESEN FEDERAL 01N - OWB - Plan #2	250.0	250.0	14.8	12.1	5.315	CC
OTTESEN FEDERAL 01N - OWB - Plan #2	16,016.3	16,150.7	309.2	-32.3	0.905	No-Go Zone - Stop Drilling, E
OTTESEN FEDERAL 03C - OWB - Plan #2	250.0	250.0	14.6	11.8	5.215	CC
OTTESEN FEDERAL 03C - OWB - Plan #2	900.0	904.0	16.6	2.9	1.213	Collision Avoidance Req., ES
OTTESEN FEDERAL 04N - OWB - Plan #2	250.0	250.0	30.3	27.5	10.830	CC
OTTESEN FEDERAL 04N - OWB - Plan #2	16,016.3	16,257.3	395.8	-75.9	0.839	No-Go Zone - Stop Drilling, E
OTTESEN FEDERAL 05N - OWB - Plan #2	250.0	250.0	45.1	42.3	16.145	CC
OTTESEN FEDERAL 05N - OWB - Plan #2	700.0	708.4	47.6	36.0	4.084	ES
OTTESEN FEDERAL 05N - OWB - Plan #2	16,016.3	16,387.8	583.5	104.2	1.217	Collision Avoidance Req., SF
OTTESEN FEDERAL 06NA - OWB - Plan #2	250.0	250.0	59.7	56.9	21.360	CC
OTTESEN FEDERAL 06NA - OWB - Plan #2	700.0	710.9	63.0	51.4	5.442	ES
OTTESEN FEDERAL 06NA - OWB - Plan #2	16,016.3	16,268.2	699.8	166.1	1.311	Collision Avoidance Req., SF
OTTESEN FEDERAL 07C - OWB - Plan #2	250.0	250.0	75.4	72.6	26.976	CC
OTTESEN FEDERAL 07C - OWB - Plan #2	600.0	610.5	77.9	67.8	7.736	ES
OTTESEN FEDERAL 07C - OWB - Plan #2	16,016.3	16,681.3	984.5	501.8	2.040	SF
OTTESEN FEDERAL 08N - OWB - Plan #2	250.0	250.0	90.2	87.4	32.291	CC
OTTESEN FEDERAL 08N - OWB - Plan #2	600.0	612.4	93.1	83.1	9.286	ES
OTTESEN FEDERAL 08N - OWB - Plan #2	16,016.3	16,532.4	1,065.9	542.0	2.035	SF
OTTESEN FEDERAL 09N - OWB - Plan #2	250.0	250.0	105.1	102.3	37.606	CC
OTTESEN FEDERAL 09N - OWB - Plan #2	600.0	614.1	108.5	98.5	10.887	ES
OTTESEN FEDERAL 09N - OWB - Plan #2	16,016.3	16,674.1	1,252.0	731.8	2.407	SF
OTTESEN FEDERAL 10NA - OWB - Plan #2	250.0	250.0	119.6	116.8	42.821	CC
OTTESEN FEDERAL 10NA - OWB - Plan #2	500.0	511.3	121.5	113.4	14.999	ES
OTTESEN FEDERAL 10NA - OWB - Plan #2	16,016.3	16,579.6	1,399.6	865.3	2.619	SF
OTTESEN FEDERAL 11C - OWB - OWB	252.4	252.6	135.0	132.0	45.672	CC, ES
OTTESEN FEDERAL 11C - OWB - OWB	800.0	793.8	206.6	195.9	19.207	SF
OTTESEN FEDERAL 11C - OWB - Plan #2	252.4	252.6	135.0	132.0	45.672	CC, ES
OTTESEN FEDERAL 11C - OWB - Plan #2	16,016.3	17,123.4	1,629.6	1,115.2	3.168	SF
OTTESEN FEDERAL 12N - OWB - OWB	0.0	0.0	149.9			
OTTESEN FEDERAL 12N - OWB - OWB	250.0	249.9	151.1	148.3	55.002	ES
OTTESEN FEDERAL 12N - OWB - OWB	800.0	793.4	220.4	209.8	20.758	SF
OTTESEN FEDERAL 12N - OWB - Plan #2	0.0	0.0	149.9			

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 FEDERAL 02NA
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 02NA	**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 12N - OWB - Plan #2	250.0	249.9	151.1	148.3	55.002	ES
OTTESEN FEDERAL 12N - OWB - Plan #2	16,016.3	17,148.8	1,759.3	1,227.8	3.310	SF
OTTESEN FEDERAL 13HN - OWB - Plan #2	250.0	250.0	164.7	161.9	58.966	CC
OTTESEN FEDERAL 13HN - OWB - Plan #2	500.0	514.7	167.3	159.4	21.001	ES
OTTESEN FEDERAL 13HN - OWB - Plan #2	16,016.3	17,006.6	1,942.0	1,414.1	3.679	SF

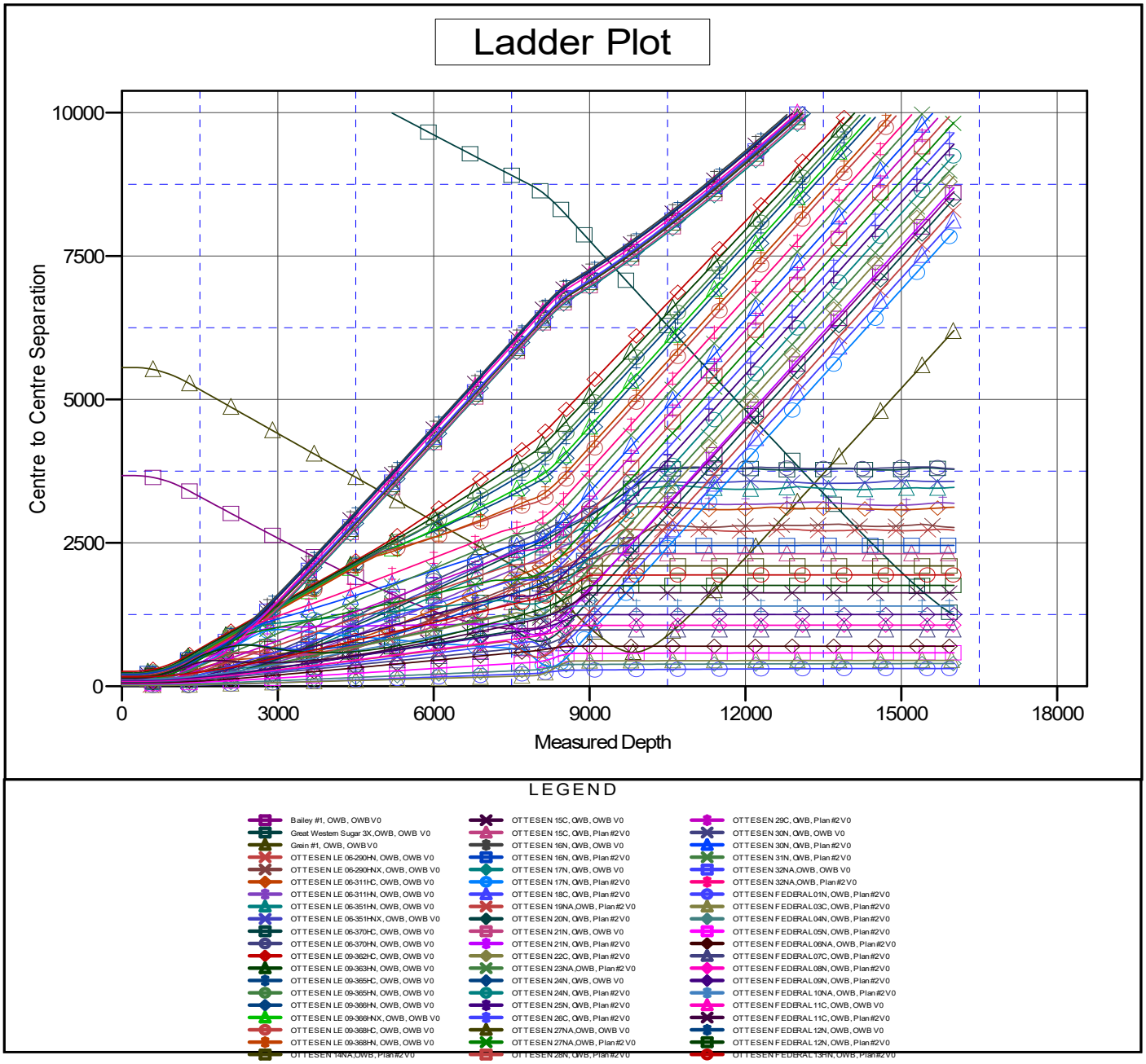
PDC Energy Inc.

Anticollision Summary Report

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN FEDERAL 02NA
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 02NA	**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 FEDERAL 02NA
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

Company:	GWP - PLANNING DB	**Local Co-ordinate Reference:**	Well OTTESEN FEDERAL 02NA
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 02NA	**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 FEDERAL 02NA
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°