



WELL DETAILS: OTTESEN 26C

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1245345.37	3202194.23	40° 0' 16.560 N	104° 46' 41.581 W

Project: WELD COUNTY
 Site: Ottesen Pad
 Well: OTTESEN 26C
 Wellbore: OWB
 Design: Plan #2
 Lat: 40° 0' 16.560 N
 Long: 104° 46' 41.581 W
 GL: 5076.0
 KB: KB 20' @ 5096.0usft

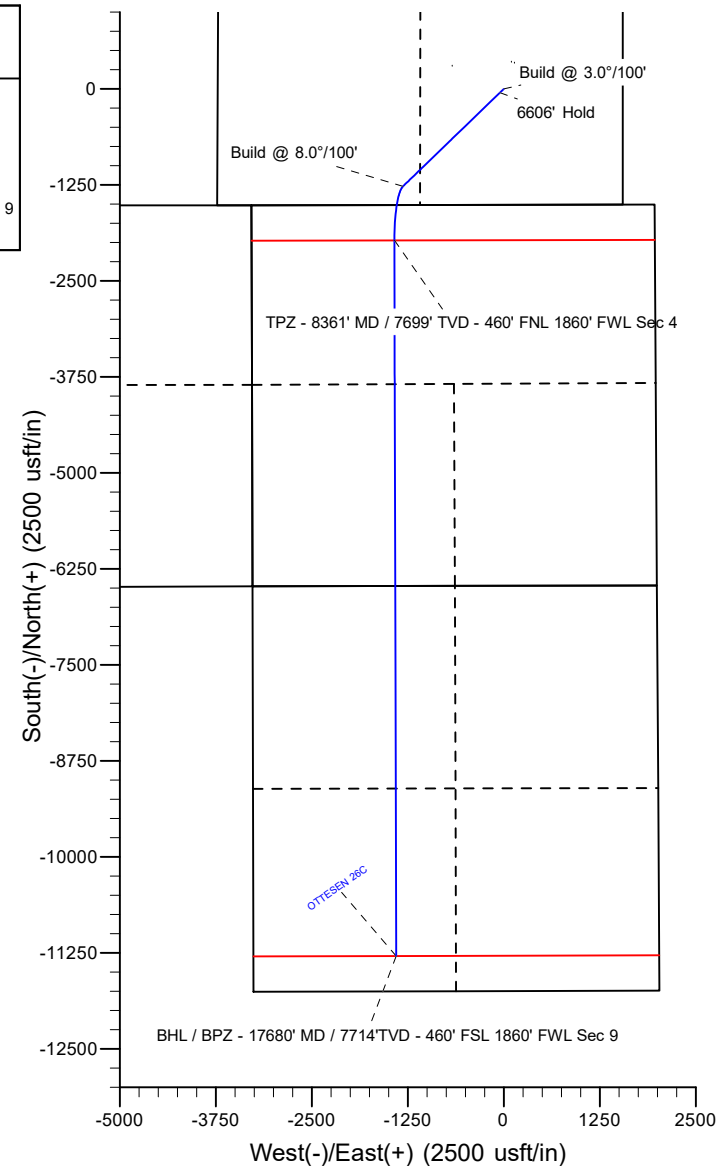
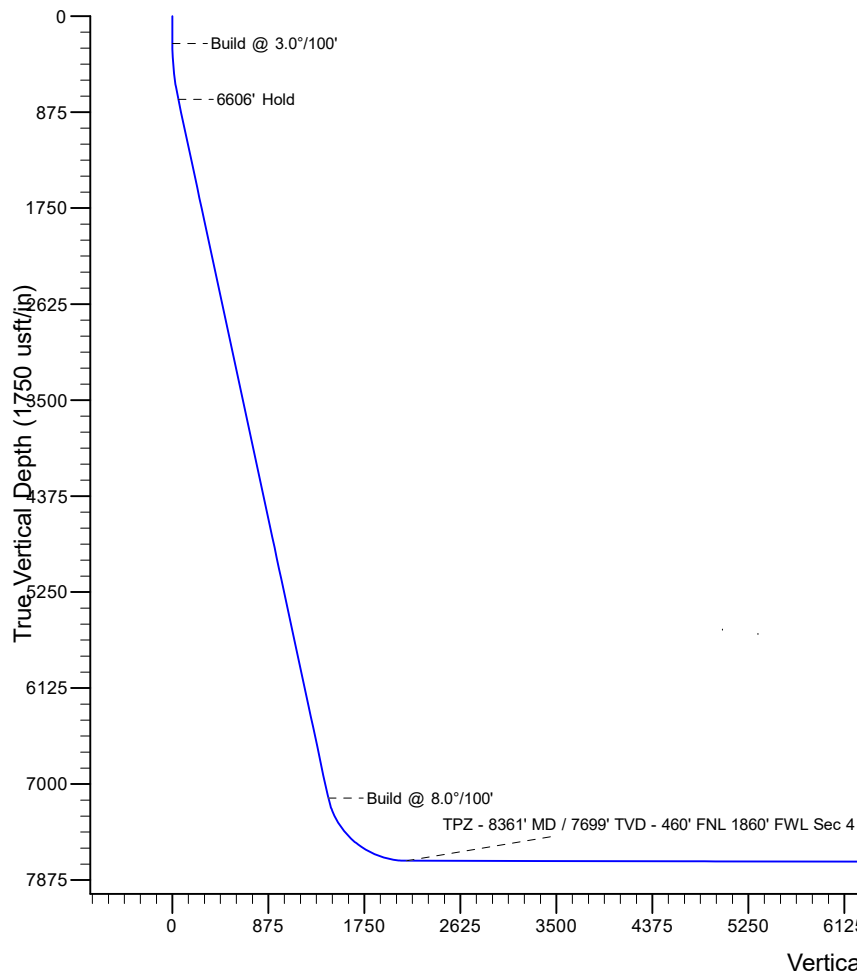


Azimuths to True North
 Magnetic North: 7.73°

Magnetic Field
 Strength: 51656.7nT
 Dip Angle: 66.30°
 Date: 4/12/2022
 Model: IGRF2000

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'
764.1	15.42	225.97	757.9	-47.8	-49.5	3.00	225.97	53.5	6606' Hold
7370.1	15.42	225.97	7126.0	-1268.9	-1312.7	0.00	0.00	1420.8	Build @ 8.0°/100'
8361.2	89.91	179.85	7699.0	-1972.0	-1424.6	8.00	-47.19	2132.3	TPZ - 8361' MD / 7699' TVD - 460' FNL 1860' FWL Sec 4
17679.9	89.91	179.85	7714.0	-11290.7	-1400.4	0.00	0.00	11377.2	BHL / BPZ - 17680' MD / 7714'TVD - 460' FSL 1860' FWL Sec 9



Plan: Plan #2 (OTTESEN 26C/OWB)

Created By: Mike Mataalii Date: 14:32, October 03 2022

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN 26C
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 26C	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	10/3/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,679.9	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	9,220.4	7,679.4	1,045.3	976.0	15.084	CC, ES
Bailey #1 - OWB - OWB	9,500.0	7,679.8	1,082.1	1,007.4	14.495	SF
Great Western Sugar 3X - OWB - OWB						Out of range
Grein #1 - OWB - OWB	9,147.5	7,623.3	3,466.1	3,397.9	50.840	CC
Grein #1 - OWB - OWB	9,200.0	7,623.4	3,466.5	3,397.4	50.194	ES
Grein #1 - OWB - OWB	10,900.0	7,626.1	3,883.9	3,789.4	41.068	SF
OTTESEN LE 06-290HN - OWB - OWB	877.2	867.3	40.9	34.1	5.954	CC, ES
OTTESEN LE 06-290HN - OWB - OWB	2,800.0	2,833.1	123.2	99.8	5.264	SF
OTTESEN LE 06-290HNN - OWB - OWB	925.2	913.5	30.6	23.5	4.314	CC, ES
OTTESEN LE 06-290HNN - OWB - OWB	2,200.0	2,205.6	74.1	55.5	3.987	SF
OTTESEN LE 06-311HC - OWB - OWB	961.5	949.0	21.0	13.6	2.849	CC, ES
OTTESEN LE 06-311HC - OWB - OWB	1,000.0	986.2	23.2	14.4	2.644	SF
OTTESEN LE 06-311HN - OWB - OWB	1,024.2	1,009.1	10.6	2.5	1.302	Collision Avoidance Req., CC
OTTESEN LE 06-351HN - OWB - OWB	1,100.0	1,082.0	7.6	-5.3	0.588	No-Go Zone - Stop Drilling, ES
OTTESEN LE 06-351HN - OWB - OWB	1,154.0	1,135.6	4.7	-4.9	0.487	No-Go Zone - Stop Drilling, CC
OTTESEN LE 06-351HNN - OWB - OWB	1,155.9	1,127.3	54.9	38.7	3.391	CC
OTTESEN LE 06-351HNN - OWB - OWB	1,200.0	1,170.2	55.5	38.6	3.281	ES, SF
OTTESEN LE 06-370HC - OWB - OWB	1,324.8	1,298.3	32.9	16.3	1.982	Collision Risk Procedures Req., CC
OTTESEN LE 06-370HN - OWB - OWB	957.4	917.2	126.7	111.6	8.388	CC
OTTESEN LE 06-370HN - OWB - OWB	1,000.0	956.9	127.2	111.5	8.095	ES
OTTESEN LE 06-370HN - OWB - OWB	1,100.0	1,051.8	132.0	115.2	7.825	SF
OTTESEN LE 09-362HC - OWB - OWB	0.0	0.5	225.0			
OTTESEN LE 09-362HC - OWB - OWB	250.0	249.8	226.2	222.9	68.211	ES
OTTESEN LE 09-362HC - OWB - OWB	17,680.9	17,878.0	2,898.7	2,495.3	7.186	SF
OTTESEN LE 09-363HN - OWB - OWB	0.0	0.5	194.6			
OTTESEN LE 09-363HN - OWB - OWB	250.0	250.0	194.8	191.5	59.047	ES
OTTESEN LE 09-363HN - OWB - OWB	17,679.9	17,479.0	2,562.8	2,163.6	6.419	SF
OTTESEN LE 09-365HC - OWB - OWB	0.0	0.5	164.3			
OTTESEN LE 09-365HC - OWB - OWB	200.0	199.0	165.6	162.6	55.144	ES
OTTESEN LE 09-365HC - OWB - OWB	17,680.9	17,645.6	2,206.4	1,806.4	5.516	SF
OTTESEN LE 09-365HN - OWB - OWB	0.0	0.5	179.1			
OTTESEN LE 09-365HN - OWB - OWB	200.0	199.2	179.9	176.9	59.887	ES
OTTESEN LE 09-365HN - OWB - OWB	17,680.9	17,626.0	2,300.9	1,900.1	5.740	SF
OTTESEN LE 09-366HN - OWB - OWB	0.0	0.5	135.5			
OTTESEN LE 09-366HN - OWB - OWB	255.3	256.0	135.8	132.5	41.012	ES
OTTESEN LE 09-366HN - OWB - OWB	17,679.9	17,533.2	1,800.0	1,401.5	4.517	SF
OTTESEN LE 09-366HNN - OWB - OWB	0.0	0.5	150.3			

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 26C
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 26C	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	250.0	250.3	151.2	147.9	45.861	ES
OTTESEN LE 09-366HXX - OWB - OWB	17,680.9	17,215.9	1,976.6	1,588.7	5.096	SF
OTTESEN LE 09-368HC - OWB - OWB	0.0	0.5	105.1			
OTTESEN LE 09-368HC - OWB - OWB	200.0	199.8	105.9	102.9	35.198	ES
OTTESEN LE 09-368HC - OWB - OWB	17,679.9	17,677.0	1,442.4	1,042.9	3.610	SF
OTTESEN LE 09-368HN - OWB - OWB	0.0	0.5	119.9			
OTTESEN LE 09-368HN - OWB - OWB	250.0	250.0	120.2	116.9	36.400	ES
OTTESEN LE 09-368HN - OWB - OWB	17,679.9	17,466.2	1,546.5	1,152.9	3.930	SF

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN 26C
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 26C	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
Ottesen Pad						
OTTESEN 15C - OWB - OWB	0.0	0.0	206.2			
OTTESEN 15C - OWB - OWB	300.0	300.6	206.8	203.6	64.755	ES
OTTESEN 15C - OWB - OWB	1,700.0	1,734.0	300.9	282.0	15.901	SF
OTTESEN 15C - OWB - Plan #2	2,655.0	2,735.9	133.0	107.0	5.111	CC, ES, SF
OTTESEN 16N - OWB - OWB	251.0	251.0	218.7	215.8	73.867	CC
OTTESEN 16N - OWB - OWB	300.0	300.0	218.9	215.7	67.364	ES
OTTESEN 16N - OWB - OWB	1,700.0	1,735.0	379.4	360.5	20.054	SF
OTTESEN 16N - OWB - Plan #2	2,965.3	3,075.1	190.2	160.9	6.498	CC, ES
OTTESEN 16N - OWB - Plan #2	3,000.0	3,104.0	191.1	161.5	6.466	SF
OTTESEN 17N - OWB - OWB	865.1	854.9	94.1	87.6	14.479	CC, ES
OTTESEN 17N - OWB - OWB	1,100.0	1,081.7	113.6	104.2	12.024	SF
OTTESEN 17N - OWB - Plan #2	865.1	854.9	94.1	87.6	14.479	CC, ES
OTTESEN 17N - OWB - Plan #2	17,680.9	17,949.3	1,729.9	1,331.0	4.336	SF
OTTESEN 18C - OWB - Plan #2	250.0	250.0	119.8	117.0	42.873	CC
OTTESEN 18C - OWB - Plan #2	500.0	486.9	121.7	113.7	15.181	ES
OTTESEN 18C - OWB - Plan #2	17,680.9	17,825.8	1,526.1	1,125.9	3.814	SF
OTTESEN 19NA - OWB - Plan #2	250.0	250.0	104.7	101.9	37.489	CC
OTTESEN 19NA - OWB - Plan #2	500.0	488.3	106.9	98.8	13.294	ES
OTTESEN 19NA - OWB - Plan #2	17,680.9	17,656.0	1,385.6	992.0	3.520	SF
OTTESEN 20N - OWB - Plan #2	250.0	250.0	89.8	87.0	32.133	CC
OTTESEN 20N - OWB - Plan #2	500.0	490.1	91.8	83.8	11.467	ES
OTTESEN 20N - OWB - Plan #2	17,680.9	17,785.7	1,150.2	750.4	2.877	SF
OTTESEN 21N - OWB - OWB	688.5	684.1	53.0	47.4	9.599	CC, ES
OTTESEN 21N - OWB - OWB	900.0	889.7	74.9	65.7	8.174	SF
OTTESEN 21N - OWB - Plan #2	688.5	684.1	53.0	47.4	9.599	CC, ES
OTTESEN 21N - OWB - Plan #2	17,680.9	17,855.9	976.0	581.5	2.474	SF
OTTESEN 22C - OWB - Plan #2	250.0	250.0	59.8	57.0	21.397	CC
OTTESEN 22C - OWB - Plan #2	500.0	493.6	61.4	53.5	7.773	ES
OTTESEN 22C - OWB - Plan #2	17,680.9	17,851.5	759.9	361.0	1.905	Collision Risk Procedures Required
OTTESEN 23NA - OWB - Plan #2	250.0	250.0	44.7	41.9	16.016	CC
OTTESEN 23NA - OWB - Plan #2	600.0	593.4	47.5	38.0	5.013	ES
OTTESEN 23NA - OWB - Plan #2	17,680.9	17,445.5	687.7	329.5	1.920	Collision Risk Procedures Required
OTTESEN 24N - OWB - OWB	496.5	495.4	24.5	19.9	5.248	CC
OTTESEN 24N - OWB - OWB	500.0	498.8	24.5	19.9	5.243	ES
OTTESEN 24N - OWB - OWB	600.0	597.2	30.2	23.4	4.464	SF
OTTESEN 24N - OWB - Plan #2	496.5	495.4	24.5	19.9	5.248	CC
OTTESEN 24N - OWB - Plan #2	500.0	498.8	24.5	19.9	5.243	ES
OTTESEN 24N - OWB - Plan #2	17,680.9	17,737.7	412.2	30.9	1.081	Collision Avoidance Required, SF
OTTESEN 25N - OWB - Plan #2	250.0	250.0	14.6	11.8	5.215	CC
OTTESEN 25N - OWB - Plan #2	17,680.9	17,469.7	290.7	-17.7	0.943	No-Go Zone - Stop Drilling, ES
OTTESEN 27NA - OWB - OWB	0.0	0.0	15.4			
OTTESEN 27NA - OWB - OWB	250.0	250.0	16.1	13.3	5.700	ES
OTTESEN 27NA - OWB - OWB	400.0	399.9	20.5	15.7	4.257	SF
OTTESEN 27NA - OWB - Plan #2	0.0	0.0	15.4			
OTTESEN 27NA - OWB - Plan #2	250.0	250.0	16.1	13.3	5.700	ES
OTTESEN 27NA - OWB - Plan #2	17,679.9	17,364.8	429.3	204.8	1.912	Collision Risk Procedures Required
OTTESEN 28N - OWB - Plan #2	250.0	250.0	30.5	27.7	10.931	CC
OTTESEN 28N - OWB - Plan #2	500.0	502.4	32.2	25.1	4.518	ES
OTTESEN 28N - OWB - Plan #2	17,679.5	17,449.6	412.2	45.7	1.125	Collision Avoidance Required, SF
OTTESEN 29C - OWB - Plan #2	250.0	250.0	45.1	42.3	16.145	CC
OTTESEN 29C - OWB - Plan #2	500.0	503.2	47.9	41.0	6.933	ES
OTTESEN 29C - OWB - Plan #2	17,679.9	17,591.9	569.9	170.9	1.428	Collision Avoidance Required, SF
OTTESEN 30N - OWB - OWB	257.8	258.0	59.5	56.4	19.092	CC

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 26C
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 26C	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 30N - OWB - OWB	300.0	300.5	59.7	56.2	16.792	ES
OTTESEN 30N - OWB - OWB	600.0	598.2	85.1	76.7	10.149	SF
OTTESEN 30N - OWB - Plan #2	257.8	258.0	59.5	56.4	19.092	CC
OTTESEN 30N - OWB - Plan #2	300.0	300.5	59.7	56.2	16.792	ES
OTTESEN 30N - OWB - Plan #2	17,679.9	17,395.0	791.0	409.3	2.072	SF
OTTESEN 31N - OWB - Plan #2	250.0	250.0	75.6	72.8	27.076	CC
OTTESEN 31N - OWB - Plan #2	300.0	300.7	75.9	72.8	25.026	ES
OTTESEN 31N - OWB - Plan #2	17,679.9	17,390.0	964.0	572.3	2.461	SF
OTTESEN 32NA - OWB - OWB	204.7	204.7	88.3	85.7	33.555	CC
OTTESEN 32NA - OWB - OWB	250.0	249.8	88.5	85.6	30.583	ES
OTTESEN 32NA - OWB - OWB	700.0	695.1	133.1	123.9	14.440	SF
OTTESEN 32NA - OWB - Plan #2	204.7	204.7	88.3	85.7	33.555	CC
OTTESEN 32NA - OWB - Plan #2	250.0	249.8	88.5	85.6	30.583	ES
OTTESEN 32NA - OWB - Plan #2	17,679.9	17,211.7	1,209.5	833.6	3.217	SF
OTTESEN FEDERAL 01N - OWB - Plan #2	852.4	828.9	91.6	76.9	6.219	CC
OTTESEN FEDERAL 01N - OWB - Plan #2	900.0	874.5	92.2	76.8	5.982	ES
OTTESEN FEDERAL 01N - OWB - Plan #2	1,000.0	969.7	97.2	80.4	5.771	SF
OTTESEN FEDERAL 02NA - OWB - Plan #2	863.5	842.7	88.5	74.6	6.370	CC
OTTESEN FEDERAL 02NA - OWB - Plan #2	900.0	877.8	88.8	74.3	6.146	ES
OTTESEN FEDERAL 02NA - OWB - Plan #2	1,000.0	973.6	92.9	76.8	5.784	SF
OTTESEN FEDERAL 03C - OWB - Plan #2	872.6	854.4	88.3	75.5	6.928	CC
OTTESEN FEDERAL 03C - OWB - Plan #2	900.0	881.0	88.4	75.2	6.714	ES
OTTESEN FEDERAL 03C - OWB - Plan #2	1,100.0	1,072.4	100.0	83.3	5.978	SF
OTTESEN FEDERAL 04N - OWB - Plan #2	883.3	868.1	90.7	79.3	7.977	CC
OTTESEN FEDERAL 04N - OWB - Plan #2	900.0	884.3	90.7	79.1	7.804	ES
OTTESEN FEDERAL 04N - OWB - Plan #2	1,200.0	1,170.8	112.5	95.1	6.454	SF
OTTESEN FEDERAL 05N - OWB - Plan #2	888.6	876.1	96.0	85.9	9.544	CC
OTTESEN FEDERAL 05N - OWB - Plan #2	900.0	887.3	96.0	85.8	9.389	ES
OTTESEN FEDERAL 05N - OWB - Plan #2	1,200.0	1,175.1	114.5	98.2	7.023	SF
OTTESEN FEDERAL 06NA - OWB - Plan #2	888.7	878.9	103.4	94.5	11.557	CC
OTTESEN FEDERAL 06NA - OWB - Plan #2	1,000.0	987.7	104.9	94.1	9.750	ES
OTTESEN FEDERAL 06NA - OWB - Plan #2	1,300.0	1,271.8	134.2	117.0	7.765	SF
OTTESEN FEDERAL 07C - OWB - Plan #2	873.3	866.5	113.6	105.6	14.305	CC
OTTESEN FEDERAL 07C - OWB - Plan #2	1,000.0	990.8	114.9	105.2	11.801	ES
OTTESEN FEDERAL 07C - OWB - Plan #2	1,300.0	1,276.1	140.6	124.5	8.684	SF
OTTESEN FEDERAL 08N - OWB - Plan #2	855.8	851.8	123.8	116.5	16.940	CC
OTTESEN FEDERAL 08N - OWB - Plan #2	1,000.0	994.0	125.0	116.0	13.753	ES
OTTESEN FEDERAL 08N - OWB - Plan #2	1,400.0	1,371.2	165.4	147.9	9.472	SF
OTTESEN FEDERAL 09N - OWB - Plan #2	250.0	250.0	135.0	132.2	48.325	CC
OTTESEN FEDERAL 09N - OWB - Plan #2	1,000.0	996.8	137.0	128.3	15.721	ES
OTTESEN FEDERAL 09N - OWB - Plan #2	1,400.0	1,375.2	173.5	156.8	10.408	SF
OTTESEN FEDERAL 10NA - OWB - Plan #2	250.0	250.0	145.1	142.4	51.960	CC
OTTESEN FEDERAL 10NA - OWB - Plan #2	700.0	700.4	146.7	140.8	24.718	ES
OTTESEN FEDERAL 10NA - OWB - Plan #2	1,500.0	1,467.4	204.4	186.4	11.362	SF
OTTESEN FEDERAL 11C - OWB - OWB	238.3	238.3	155.1	152.3	54.013	CC
OTTESEN FEDERAL 11C - OWB - OWB	400.0	399.6	156.1	152.1	39.595	ES
OTTESEN FEDERAL 11C - OWB - OWB	1,706.6	1,736.0	215.3	196.8	11.651	SF
OTTESEN FEDERAL 11C - OWB - Plan #2	2,235.1	2,290.6	118.7	97.6	5.639	CC, ES
OTTESEN FEDERAL 11C - OWB - Plan #2	2,300.0	2,349.9	121.6	99.9	5.602	SF
OTTESEN FEDERAL 12N - OWB - OWB	0.0	0.0	168.1			
OTTESEN FEDERAL 12N - OWB - OWB	400.0	400.7	169.5	165.7	44.038	ES
OTTESEN FEDERAL 12N - OWB - OWB	1,700.0	1,742.0	346.4	328.2	19.113	SF
OTTESEN FEDERAL 12N - OWB - Plan #1	3,125.0	3,232.0	38.3	8.2	1.272	Collision Avoidance Req., CC

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 26C
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 26C	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

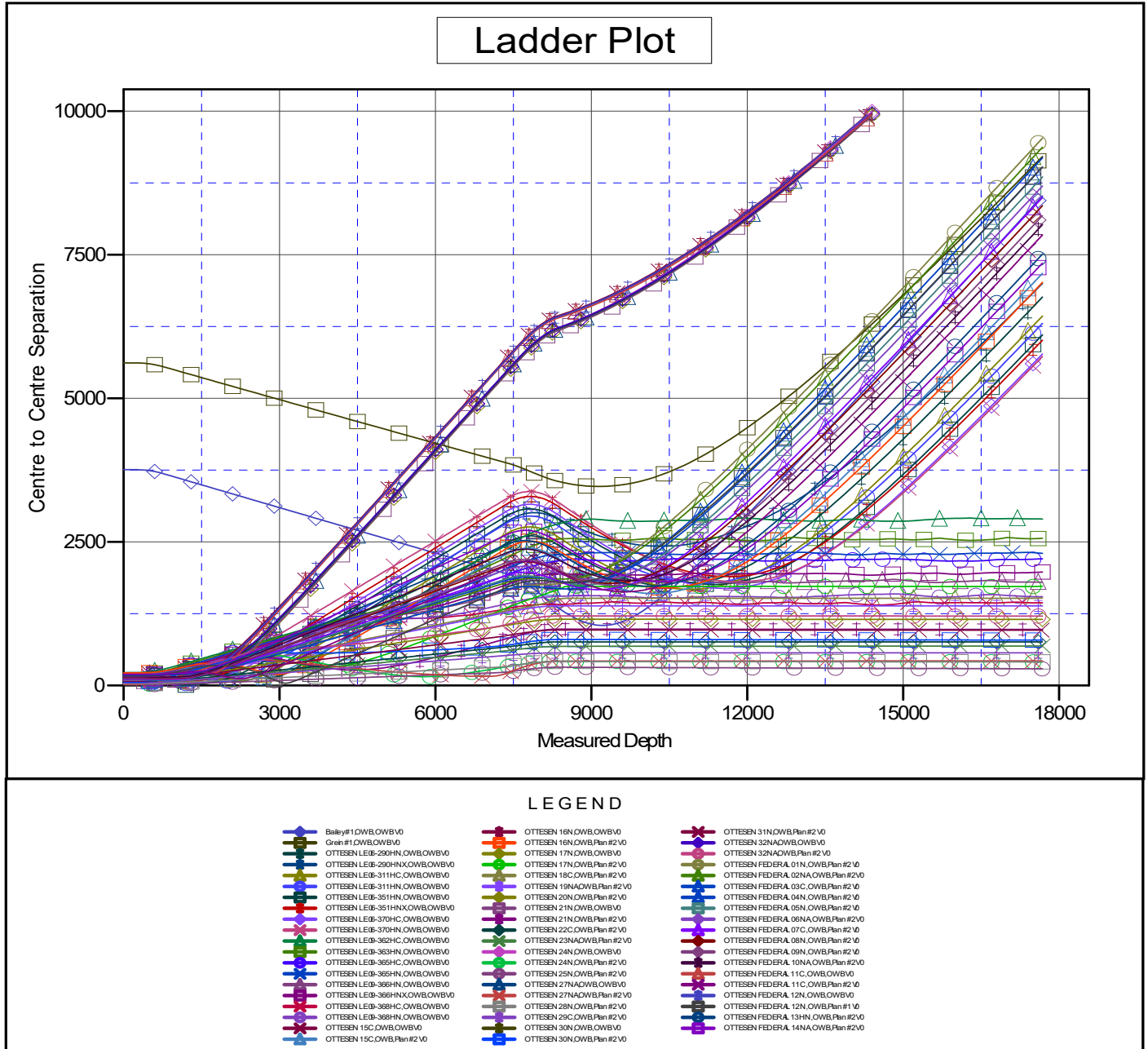
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Ottesen Pad						
OTTESEN FEDERAL 13HN - OWB - Plan #2	250.0	250.0	180.5	177.7	64.616	CC
OTTESEN FEDERAL 13HN - OWB - Plan #2	400.0	401.7	181.0	177.2	46.725	ES
OTTESEN FEDERAL 13HN - OWB - Plan #2	10,800.0	8,849.1	1,834.4	1,665.0	10.826	SF
OTTESEN FEDERAL 14NA - OWB - Plan #2	250.0	250.0	193.0	190.2	69.097	CC
OTTESEN FEDERAL 14NA - OWB - Plan #2	400.0	402.2	193.7	189.7	49.378	ES
OTTESEN FEDERAL 14NA - OWB - Plan #2	11,000.0	8,850.0	1,906.4	1,733.0	10.995	SF

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESSEN 26C
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 26C	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 26C
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

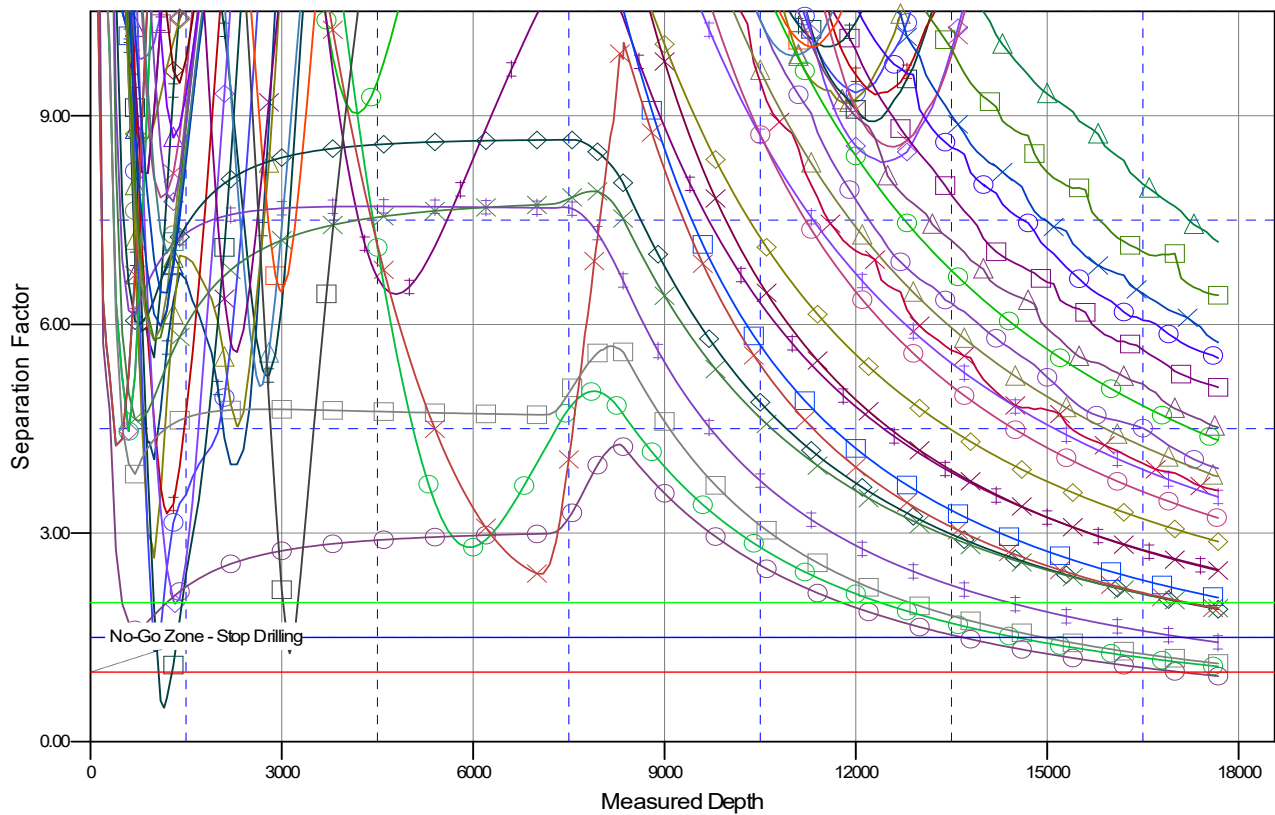
PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESSEN 26C
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 26C	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 26C
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.47°

Separation Factor Plot



LEGEND

● Bailey#1.OWB,OWB#0	● OTTESSEN 16N,OWB,OWB#0	● OTTESSEN 31N,OWB,Plan#2 V0
● Green#1.OWB,OWB#0	● OTTESSEN 16N,OWB,Plan#2 V0	● OTTESSEN 32N,OWB,OWB#0
● OTTESSEN LE03-250HN,OWB,OWB#0	● OTTESSEN 17N,OWB,OWB#0	● OTTESSEN 32N,OWB,Plan#2 V0
● OTTESSEN LE03-311HC,OWB,OWB#0	● OTTESSEN 18C,OWB,Plan#2 V0	● OTTESSEN FEDERAL 01N,OWB,Plan#2 V0
● OTTESSEN LE03-311HN,OWB,OWB#0	● OTTESSEN 19N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 02N,OWB,Plan#2 V0
● OTTESSEN LE03-351HN,OWB,OWB#0	● OTTESSEN 20N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 03C,OWB,Plan#2 V0
● OTTESSEN LE03-351HN,OWB,OWB#0	● OTTESSEN 21N,OWB,OWB#0	● OTTESSEN FEDERAL 04N,OWB,Plan#2 V0
● OTTESSEN LE03-370HC,OWB,OWB#0	● OTTESSEN 21N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 05N,OWB,Plan#2 V0
● OTTESSEN LE03-370HN,OWB,OWB#0	● OTTESSEN 22C,OWB,Plan#2 V0	● OTTESSEN FEDERAL 06N,OWB,Plan#2 V0
● OTTESSEN LE03-362HC,OWB,OWB#0	● OTTESSEN 23N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 07C,OWB,Plan#2 V0
● OTTESSEN LE03-363HC,OWB,OWB#0	● OTTESSEN 24N,OWB,OWB#0	● OTTESSEN FEDERAL 08N,OWB,Plan#2 V0
● OTTESSEN LE03-365HC,OWB,OWB#0	● OTTESSEN 24N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 09N,OWB,Plan#2 V0
● OTTESSEN LE03-365HN,OWB,OWB#0	● OTTESSEN 25N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 10N,OWB,Plan#2 V0
● OTTESSEN LE03-366HN,OWB,OWB#0	● OTTESSEN 26N,OWB,OWB#0	● OTTESSEN FEDERAL 11C,OWB,OWB#0
● OTTESSEN LE03-366HN,OWB,OWB#0	● OTTESSEN 27N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 11C,OWB,Plan#2 V0
● OTTESSEN LE03-368HC,OWB,OWB#0	● OTTESSEN 28N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 12N,OWB,OWB#0
● OTTESSEN LE03-368HN,OWB,OWB#0	● OTTESSEN 29C,OWB,Plan#2 V0	● OTTESSEN FEDERAL 12N,OWB,Plan#1 V0
● OTTESSEN 15C,OWB,OWB#0	● OTTESSEN 30N,OWB,OWB#0	● OTTESSEN FEDERAL 13HN,OWB,Plan#2 V0
● OTTESSEN 15C,OWB,Plan#2 V0	● OTTESSEN 30N,OWB,Plan#2 V0	● OTTESSEN FEDERAL 14N,OWB,Plan#2 V0

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