



WELL DETAILS: OTTESEN 22C

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1245344.75	3202134.46	40° 0' 16.558 N	104° 46' 42.349 W

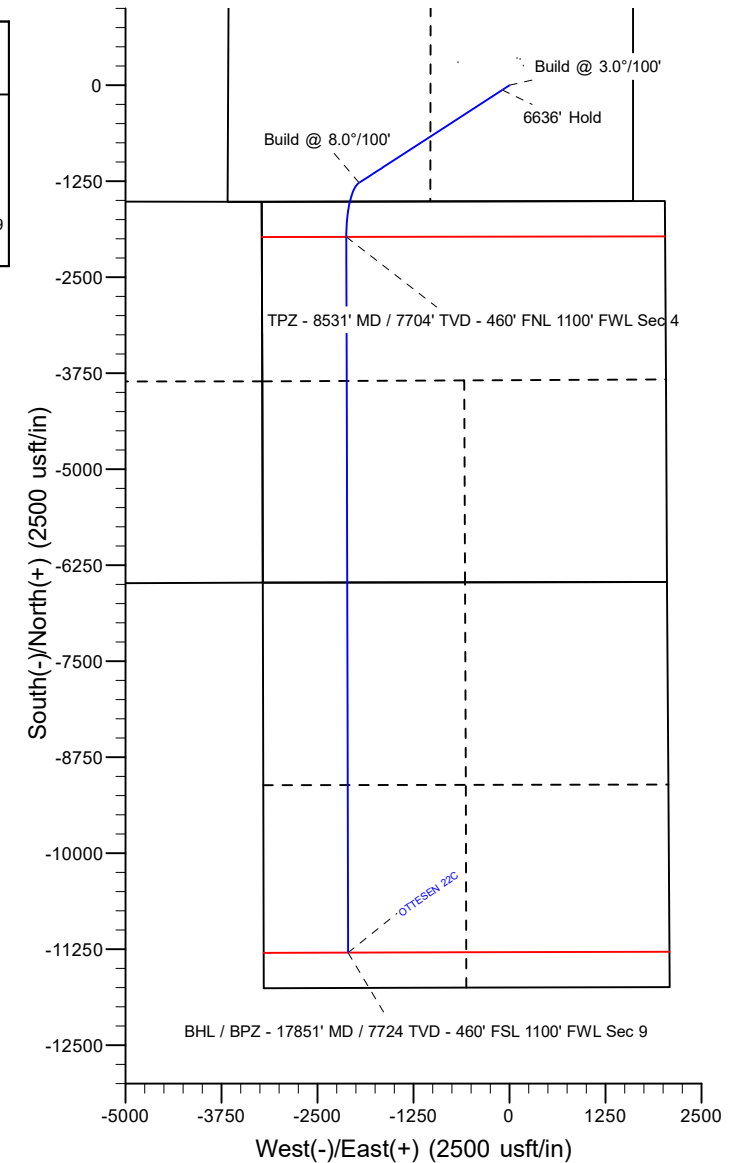
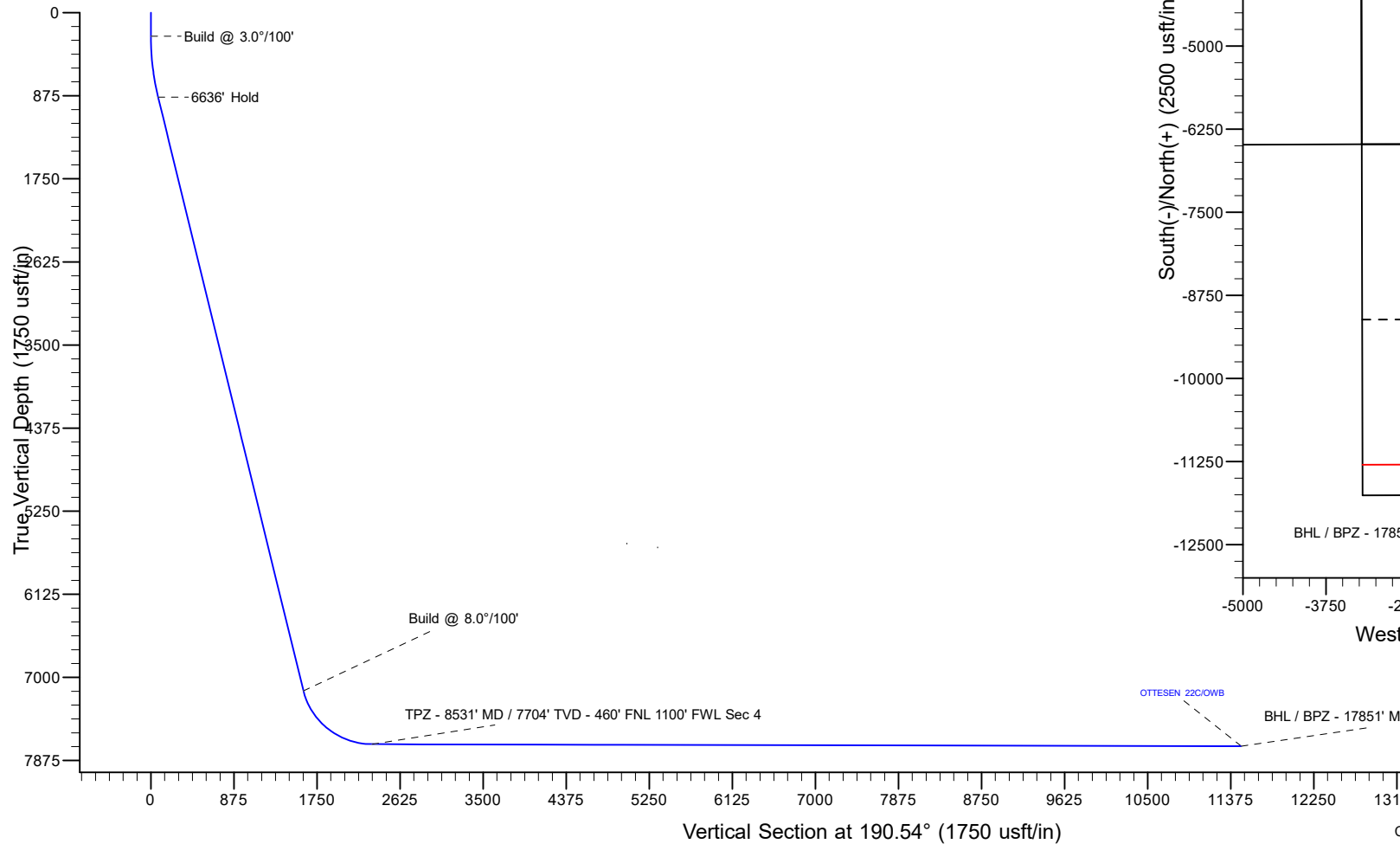
Project: WELD COUNTY
 Site: Ottesen Pad
 Well: OTTESEN 22C
 Wellbore: OWB
 Design: Plan #2
 Lat: 40° 0' 16.558 N
 Long: 104° 46' 42.349 W
 GL: 5076.0
 KB: KB 20' @ 5096.0usft



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'
902.7	19.58	237.05	890.1	-60.1	-92.7	3.00	237.05	76.0	6636' Hold
7538.7	19.58	237.05	7142.3	-1269.8	-1958.9	0.00	0.00	1606.6	Build @ 8.0°/100'
8531.5	89.88	179.85	7704.0	-1973.1	-2124.6	8.00	-58.77	2328.3	TPZ - 8531' MD / 7704' TVD - 460' FNL 1100' FWL Sec 4
17851.5	89.88	179.85	7724.0	-11293.1	-2100.4	0.00	0.00	11486.7	BHL / BPZ - 17851' MD / 7724' TVD - 460' FSL 1100' FWL Sec 9



PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN 22C
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 22C	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	17,851.5	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	9,391.4	7,684.8	285.6	212.9	3.928	CC
Bailey #1 - OWB - OWB	9,400.0	7,684.9	285.7	212.4	3.897	ES, SF
Great Western Sugar 3X - OWB - OWB	9,743.9	7,582.6	9,570.0	9,492.5	123.509	CC
Great Western Sugar 3X - OWB - OWB	9,900.0	7,582.9	9,571.3	9,491.2	119.594	ES
Great Western Sugar 3X - OWB - OWB	12,600.0	7,588.7	9,987.1	9,861.5	79.533	SF
Grein #1 - OWB - OWB	9,318.5	7,628.7	2,706.3	2,634.6	37.764	CC
Grein #1 - OWB - OWB	9,400.0	7,628.9	2,707.5	2,634.2	36.958	ES
Grein #1 - OWB - OWB	10,600.0	7,631.4	2,994.4	2,900.3	31.831	SF
OTTESEN LE 06-290HN - OWB - OWB	632.6	630.1	90.3	84.7	16.201	CC, ES
OTTESEN LE 06-290HN - OWB - OWB	11,500.0	9,647.0	1,145.9	955.6	6.022	SF
OTTESEN LE 06-290HNN - OWB - OWB	708.0	704.3	83.5	77.6	14.037	CC, ES
OTTESEN LE 06-290HNN - OWB - OWB	2,700.0	2,721.4	275.1	246.5	9.601	SF
OTTESEN LE 06-311HC - OWB - OWB	748.7	743.7	77.9	71.7	12.511	CC, ES
OTTESEN LE 06-311HC - OWB - OWB	11,800.0	9,794.1	1,082.3	881.1	5.380	SF
OTTESEN LE 06-311HN - OWB - OWB	803.8	796.3	68.4	61.8	10.370	CC, ES
OTTESEN LE 06-311HN - OWB - OWB	12,000.0	9,783.0	1,171.7	968.3	5.760	SF
OTTESEN LE 06-351HN - OWB - OWB	839.8	829.8	61.1	54.3	8.965	CC, ES
OTTESEN LE 06-351HN - OWB - OWB	12,200.0	9,873.0	1,147.3	937.9	5.478	SF
OTTESEN LE 06-351HNN - OWB - OWB	902.7	886.4	67.7	57.9	6.886	ES
OTTESEN LE 06-351HNN - OWB - OWB	929.5	912.5	67.4	57.9	7.091	CC
OTTESEN LE 06-351HNN - OWB - OWB	12,300.0	9,782.0	1,264.5	1,060.7	6.206	SF
OTTESEN LE 06-370HC - OWB - OWB	930.0	913.6	48.7	40.5	5.903	CC, ES
OTTESEN LE 06-370HC - OWB - OWB	12,500.0	10,115.7	1,086.7	863.7	4.873	SF
OTTESEN LE 06-370HN - OWB - OWB	925.9	894.0	92.9	78.6	6.491	CC, ES
OTTESEN LE 06-370HN - OWB - OWB	12,500.0	9,961.0	1,151.1	935.5	5.340	SF
OTTESEN LE 09-362HC - OWB - OWB	0.0	0.5	284.8			
OTTESEN LE 09-362HC - OWB - OWB	250.0	249.6	286.0	282.7	86.245	ES
OTTESEN LE 09-362HC - OWB - OWB	17,851.5	17,899.0	3,658.4	3,254.4	9.056	SF
OTTESEN LE 09-363HN - OWB - OWB	0.0	0.5	254.4			
OTTESEN LE 09-363HN - OWB - OWB	250.0	249.8	254.6	251.3	77.173	ES
OTTESEN LE 09-363HN - OWB - OWB	17,851.5	17,453.0	3,320.3	2,921.7	8.328	SF
OTTESEN LE 09-365HC - OWB - OWB	0.0	0.5	224.1			
OTTESEN LE 09-365HC - OWB - OWB	200.0	198.5	225.4	222.4	75.096	ES
OTTESEN LE 09-365HC - OWB - OWB	17,851.5	17,600.1	2,965.5	2,566.9	7.439	SF
OTTESEN LE 09-365HN - OWB - OWB	0.0	0.5	238.8			
OTTESEN LE 09-365HN - OWB - OWB	200.0	198.7	239.6	236.6	79.833	ES
OTTESEN LE 09-365HN - OWB - OWB	17,851.5	17,626.0	3,057.5	2,655.6	7.607	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 22C
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 22C	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 09-366HN - OWB - OWB	0.0	0.5	195.3			
OTTESEN LE 09-366HN - OWB - OWB	254.7	255.6	195.6	192.3	59.076	ES
OTTESEN LE 09-366HN - OWB - OWB	17,851.5	17,533.2	2,557.8	2,158.6	6.407	SF
OTTESEN LE 09-366HNX - OWB - OWB	0.0	0.5	210.1			
OTTESEN LE 09-366HNX - OWB - OWB	250.0	250.3	210.9	207.7	63.995	ES
OTTESEN LE 09-366HNX - OWB - OWB	17,851.5	17,180.0	2,723.0	2,332.4	6.971	SF
OTTESEN LE 09-368HC - OWB - OWB	0.0	0.5	164.9			
OTTESEN LE 09-368HC - OWB - OWB	200.0	199.4	165.6	162.6	55.098	ES
OTTESEN LE 09-368HC - OWB - OWB	17,851.5	17,651.3	2,201.9	1,803.1	5.522	SF
OTTESEN LE 09-368HN - OWB - OWB	0.0	0.5	179.7			
OTTESEN LE 09-368HN - OWB - OWB	250.0	249.7	179.9	176.6	54.513	ES
OTTESEN LE 09-368HN - OWB - OWB	17,851.5	17,460.8	2,300.2	1,904.2	5.809	SF

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN 22C
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 22C	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 Pad						
OTTESEN 15C - OWB - OWB	0.0	0.0	260.0			
OTTESEN 15C - OWB - OWB	300.0	300.8	260.9	257.7	81.202	ES
OTTESEN 15C - OWB - OWB	1,700.0	1,734.0	446.5	426.3	22.130	SF
OTTESEN 15C - OWB - Plan #2	0.0	0.0	260.0			
OTTESEN 15C - OWB - Plan #2	300.0	300.8	260.9	257.7	81.202	ES
OTTESEN 15C - OWB - Plan #2	11,000.0	9,406.9	997.0	817.9	5.567	SF
OTTESEN 16N - OWB - OWB	252.0	252.1	273.2	270.2	91.917	CC, ES
OTTESEN 16N - OWB - OWB	1,700.0	1,735.0	523.4	503.1	25.772	SF
OTTESEN 16N - OWB - Plan #2	252.0	252.1	273.2	270.2	91.917	CC, ES
OTTESEN 16N - OWB - Plan #2	11,200.0	9,500.0	1,101.5	922.0	6.137	SF
OTTESEN 17N - OWB - OWB	740.3	734.8	40.9	35.0	6.972	CC, ES
OTTESEN 17N - OWB - OWB	902.7	889.6	63.2	52.8	6.071	SF
OTTESEN 17N - OWB - Plan #2	740.3	734.8	40.9	35.0	6.972	CC, ES
OTTESEN 17N - OWB - Plan #2	17,800.0	17,949.3	982.3	586.1	2.479	SF
OTTESEN 18C - OWB - Plan #2	250.0	250.0	60.0	57.2	21.476	CC
OTTESEN 18C - OWB - Plan #2	902.7	885.3	62.4	47.6	4.200	ES
OTTESEN 18C - OWB - Plan #2	17,800.0	17,825.8	764.9	364.0	1.908	Collision Risk Procedures Re
OTTESEN 19NA - OWB - Plan #2	250.0	250.0	45.0	42.2	16.092	CC
OTTESEN 19NA - OWB - Plan #2	800.0	788.8	47.8	34.4	3.570	ES
OTTESEN 19NA - OWB - Plan #2	17,851.5	17,655.7	696.2	336.3	1.934	Collision Risk Procedures Re
OTTESEN 20N - OWB - Plan #2	250.0	250.0	30.0	27.2	10.736	CC
OTTESEN 20N - OWB - Plan #2	800.0	792.6	32.1	18.9	2.423	ES
OTTESEN 20N - OWB - Plan #2	17,851.5	17,785.7	414.2	29.2	1.076	Collision Avoidance Req., SF
OTTESEN 21N - OWB - OWB	467.2	466.8	8.4	4.2	1.989	Collision Risk Procedures Re
OTTESEN 21N - OWB - OWB	500.0	499.4	9.3	4.0	1.775	Collision Risk Procedures Re
OTTESEN 21N - OWB - Plan #2	467.2	466.8	8.4	4.2	1.989	Collision Risk Procedures Re
OTTESEN 21N - OWB - Plan #2	6,517.2	6,687.1	48.1	-29.0	0.624	No-Go Zone - Stop Drilling, ES
OTTESEN 23NA - OWB - Plan #2	250.0	250.0	15.0	12.2	5.381	CC
OTTESEN 23NA - OWB - Plan #2	902.7	906.8	17.6	4.1	1.302	Collision Avoidance Req., ES
OTTESEN 23NA - OWB - Plan #2	7,100.0	7,103.5	101.2	18.4	1.222	Collision Avoidance Req., SF
OTTESEN 24N - OWB - OWB	255.6	255.7	28.3	25.4	9.808	CC, ES
OTTESEN 24N - OWB - OWB	500.0	498.8	44.4	37.3	6.317	SF
OTTESEN 24N - OWB - Plan #2	255.6	255.7	28.3	25.4	9.808	CC, ES
OTTESEN 24N - OWB - Plan #2	17,850.9	17,737.7	416.2	54.8	1.152	Collision Avoidance Req., SF
OTTESEN 25N - OWB - Plan #2	250.0	250.0	45.2	42.4	16.182	CC
OTTESEN 25N - OWB - Plan #2	600.0	606.3	47.6	37.6	4.790	ES
OTTESEN 25N - OWB - Plan #2	17,851.5	17,469.7	614.5	248.0	1.676	Collision Risk Procedures Re
OTTESEN 26C - OWB - Plan #2	250.0	250.0	59.8	57.0	21.397	CC
OTTESEN 26C - OWB - Plan #2	500.0	505.7	61.5	53.5	7.652	ES
OTTESEN 26C - OWB - Plan #2	17,851.5	17,680.9	760.2	362.1	1.909	Collision Risk Procedures Re
OTTESEN 27NA - OWB - OWB	0.0	0.0	75.2			
OTTESEN 27NA - OWB - OWB	250.0	250.0	75.9	73.0	26.861	ES
OTTESEN 27NA - OWB - OWB	600.0	598.5	103.6	95.4	12.551	SF
OTTESEN 27NA - OWB - Plan #2	0.0	0.0	75.2			
OTTESEN 27NA - OWB - Plan #2	250.0	250.0	75.9	73.0	26.861	ES
OTTESEN 27NA - OWB - Plan #2	17,851.5	17,364.8	1,028.6	662.8	2.812	SF
OTTESEN 28N - OWB - Plan #2	250.0	250.0	90.3	87.5	32.327	CC
OTTESEN 28N - OWB - Plan #2	500.0	507.3	93.8	86.1	12.247	ES
OTTESEN 28N - OWB - Plan #2	17,851.5	17,449.6	1,152.3	760.1	2.938	SF
OTTESEN 29C - OWB - Plan #2	250.0	250.0	104.9	102.1	37.542	CC
OTTESEN 29C - OWB - Plan #2	400.0	404.6	106.5	101.2	20.173	ES
OTTESEN 29C - OWB - Plan #2	17,851.5	17,591.9	1,329.7	930.8	3.333	SF
OTTESEN 30N - OWB - OWB	256.8	257.1	119.2	116.1	38.371	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 22C
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 22C	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	300.9	119.5	116.0	33.471	ES
OTTESEN 30N - OWB - OWB	700.0	689.7	168.0	158.2	17.158	SF
OTTESEN 30N - OWB - Plan #2	256.8	257.1	119.2	116.1	38.371	CC
OTTESEN 30N - OWB - Plan #2	300.0	300.9	119.5	116.0	33.471	ES
OTTESEN 30N - OWB - Plan #2	17,850.8	17,395.0	1,536.9	1,144.5	3.917	SF
OTTESEN 31N - OWB - Plan #2	250.0	250.0	135.4	132.6	48.473	CC, ES
OTTESEN 31N - OWB - Plan #2	17,850.5	17,390.0	1,718.5	1,322.9	4.344	SF
OTTESEN 32NA - OWB - OWB	204.6	204.6	148.1	145.5	56.259	CC
OTTESEN 32NA - OWB - OWB	250.0	249.7	148.2	145.4	51.233	ES
OTTESEN 32NA - OWB - OWB	800.0	792.2	220.0	209.3	20.711	SF
OTTESEN 32NA - OWB - Plan #2	204.6	204.6	148.1	145.5	56.259	CC
OTTESEN 32NA - OWB - Plan #2	250.0	249.7	148.2	145.4	51.233	ES
OTTESEN 32NA - OWB - Plan #2	17,851.5	17,211.7	1,944.3	1,556.3	5.011	SF
OTTESEN FEDERAL 01N - OWB - Plan #2	1,023.6	1,014.0	98.1	87.9	9.579	CC
OTTESEN FEDERAL 01N - OWB - Plan #2	1,100.0	1,089.0	98.7	87.1	8.535	ES
OTTESEN FEDERAL 01N - OWB - Plan #2	1,500.0	1,481.2	128.2	108.2	6.431	SF
OTTESEN FEDERAL 02NA - OWB - Plan #2	960.1	954.6	108.4	99.8	12.568	CC
OTTESEN FEDERAL 02NA - OWB - Plan #2	1,100.0	1,092.8	109.5	98.9	10.325	ES
OTTESEN FEDERAL 02NA - OWB - Plan #2	1,500.0	1,483.2	140.3	121.2	7.356	SF
OTTESEN FEDERAL 03C - OWB - Plan #2	250.0	250.0	116.6	113.8	41.751	CC
OTTESEN FEDERAL 03C - OWB - Plan #2	1,000.0	997.1	120.4	111.6	13.722	ES
OTTESEN FEDERAL 03C - OWB - Plan #2	1,700.0	1,685.4	172.5	151.2	8.126	SF
OTTESEN FEDERAL 04N - OWB - Plan #2	250.0	250.0	125.4	122.6	44.884	CC
OTTESEN FEDERAL 04N - OWB - Plan #2	500.0	500.2	126.3	121.8	27.908	ES
OTTESEN FEDERAL 04N - OWB - Plan #2	1,700.0	1,685.9	192.1	170.9	9.086	SF
OTTESEN FEDERAL 05N - OWB - Plan #2	250.0	250.0	134.8	132.0	48.265	CC
OTTESEN FEDERAL 05N - OWB - Plan #2	400.0	400.7	135.3	131.5	35.424	ES
OTTESEN FEDERAL 05N - OWB - Plan #2	9,500.0	8,350.0	1,138.6	1,005.6	8.559	SF
OTTESEN FEDERAL 06NA - OWB - Plan #2	250.0	250.0	145.0	142.2	51.899	CC
OTTESEN FEDERAL 06NA - OWB - Plan #2	400.0	401.3	145.7	141.8	37.448	ES
OTTESEN FEDERAL 06NA - OWB - Plan #2	9,700.0	8,300.0	1,251.4	1,117.2	9.324	SF
OTTESEN FEDERAL 07C - OWB - Plan #2	250.0	250.0	156.7	153.9	56.091	CC
OTTESEN FEDERAL 07C - OWB - Plan #2	400.0	401.9	157.5	153.6	39.676	ES
OTTESEN FEDERAL 07C - OWB - Plan #2	9,800.0	8,569.8	1,045.9	902.3	7.285	SF
OTTESEN FEDERAL 08N - OWB - Plan #2	250.0	250.0	168.4	165.6	60.273	CC
OTTESEN FEDERAL 08N - OWB - Plan #2	400.0	402.5	169.3	165.3	41.787	ES
OTTESEN FEDERAL 08N - OWB - Plan #2	10,000.0	8,500.0	1,167.9	1,023.4	8.086	SF
OTTESEN FEDERAL 09N - OWB - Plan #2	250.0	250.0	180.5	177.7	64.621	CC
OTTESEN FEDERAL 09N - OWB - Plan #2	400.0	403.0	181.6	177.5	44.013	ES
OTTESEN FEDERAL 09N - OWB - Plan #2	10,100.0	8,617.8	1,109.8	961.2	7.467	SF
OTTESEN FEDERAL 10NA - OWB - Plan #2	250.0	250.0	192.8	190.0	69.019	CC
OTTESEN FEDERAL 10NA - OWB - Plan #2	400.0	403.5	194.0	189.8	46.274	ES
OTTESEN FEDERAL 10NA - OWB - Plan #2	10,400.0	8,600.0	1,246.5	1,093.7	8.159	SF
OTTESEN FEDERAL 11C - OWB - OWB	241.3	241.3	205.0	202.1	70.917	CC
OTTESEN FEDERAL 11C - OWB - OWB	250.0	249.8	205.0	202.0	69.595	ES
OTTESEN FEDERAL 11C - OWB - OWB	1,700.0	1,736.0	363.0	343.3	18.411	SF
OTTESEN FEDERAL 11C - OWB - Plan #2	241.3	241.3	205.0	202.1	70.917	CC
OTTESEN FEDERAL 11C - OWB - Plan #2	250.0	249.8	205.0	202.0	69.595	ES
OTTESEN FEDERAL 11C - OWB - Plan #2	10,400.0	9,000.0	1,025.3	863.8	6.350	SF
OTTESEN FEDERAL 12N - OWB - OWB	0.0	0.0	219.1			
OTTESEN FEDERAL 12N - OWB - OWB	250.0	249.8	219.9	217.2	80.305	ES
OTTESEN FEDERAL 12N - OWB - OWB	1,700.0	1,742.0	488.6	469.2	25.203	SF
OTTESEN FEDERAL 12N - OWB - Plan #1	3,703.7	3,875.5	215.7	171.5	4.880	CC, ES

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 22C
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 22C	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

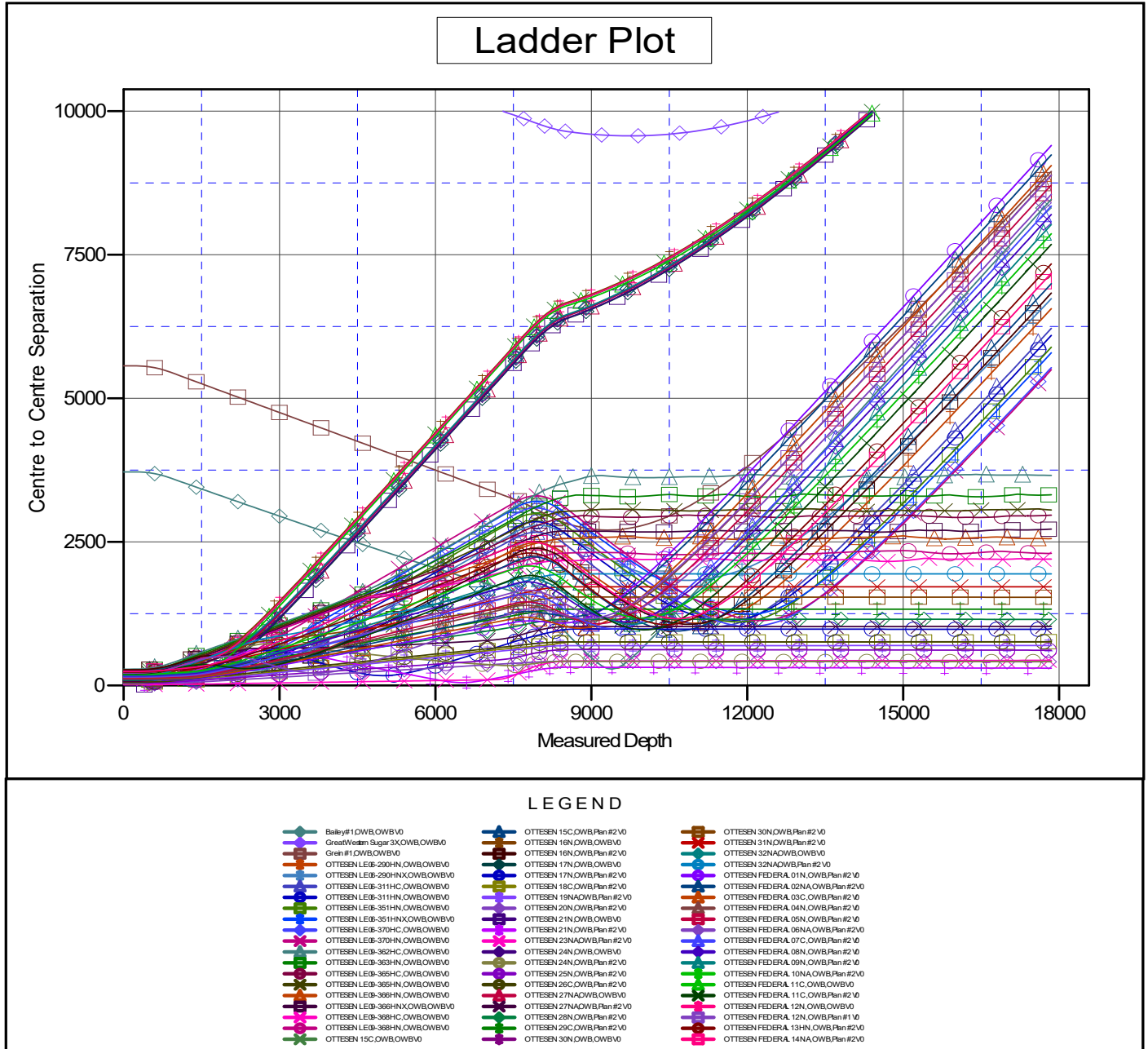
Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Ottesen Pad						
OTTESEN FEDERAL 12N - OWB - Plan #1	3,800.0	3,966.4	218.0	172.3	4.767	SF
OTTESEN FEDERAL 13HN - OWB - Plan #2	250.0	250.0	232.5	229.8	83.246	CC
OTTESEN FEDERAL 13HN - OWB - Plan #2	300.0	301.6	232.7	229.7	76.824	ES
OTTESEN FEDERAL 13HN - OWB - Plan #2	10,800.0	8,950.0	1,111.0	942.1	6.577	SF
OTTESEN FEDERAL 14NA - OWB - Plan #2	250.0	250.0	246.0	243.2	88.071	CC
OTTESEN FEDERAL 14NA - OWB - Plan #2	300.0	301.8	246.2	243.2	81.210	ES
OTTESEN FEDERAL 14NA - OWB - Plan #2	11,000.0	8,950.0	1,213.0	1,043.7	7.165	SF

PDC Energy Inc.
Anticollision Summary Report

Company:	GWP - PLANNING DB	Local Co-ordinate Reference:	Well OTTESEN 22C
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 22C	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 22C
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

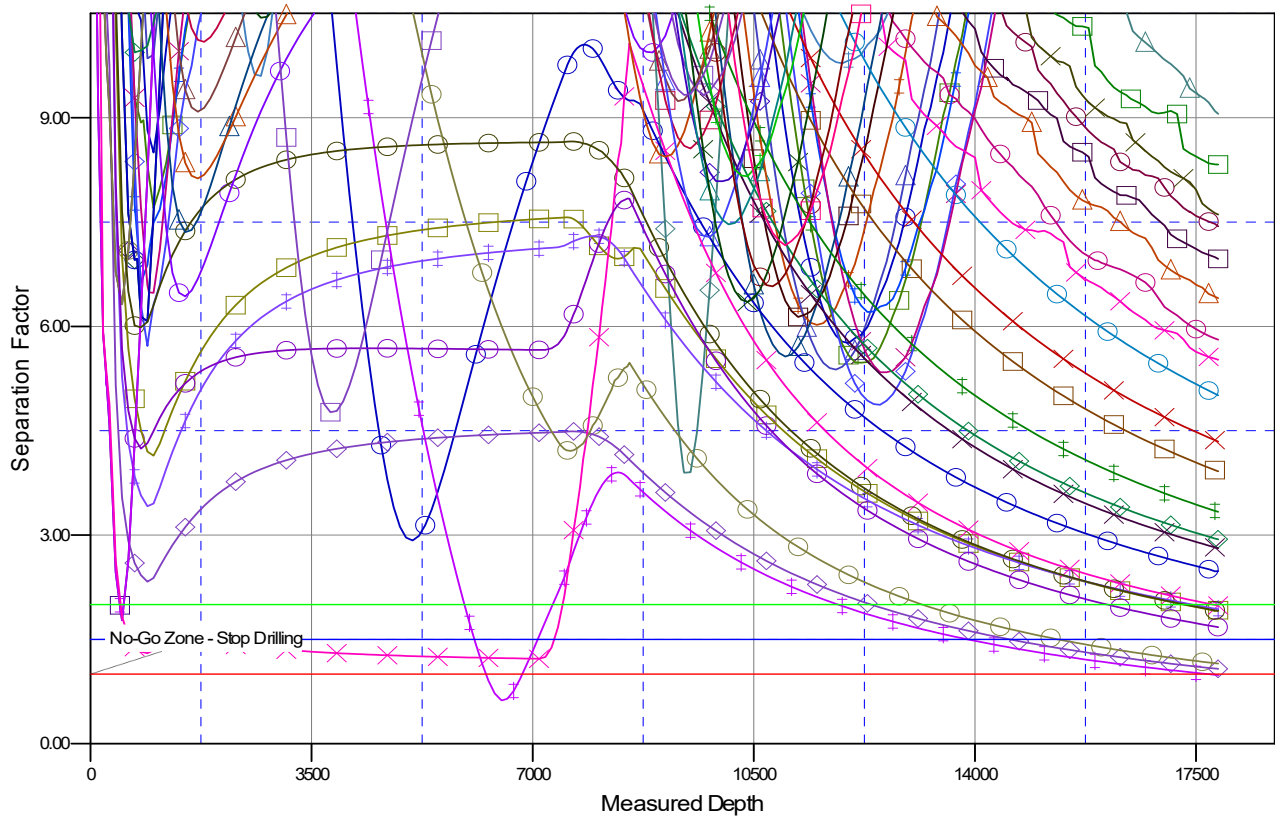
Company: GWP - PLANNING DB
Project: WELD COUNTY
Reference Site: Ottesen Pad
Site Error: 0.0 usft
Reference Well: OTTESEN 22C
Well Error: 0.0 usft
Reference Wellbore: OWB
Reference Design: Plan #2

Local Co-ordinate Reference: Well OTTESEN 22C
TVD Reference: KB 20' @ 5096.0usft
MD Reference: KB 20' @ 5096.0usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.15 Single User Db
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 22C
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	● OTTESEN 15C,OWB,OWB#0	● OTTESEN 30N,OWB,OWB#0
● GreatWell#1,OWB,OWB#0	● OTTESEN 16N,OWB,OWB#0	● OTTESEN 31N,OWB,OWB#0
● GreatWell#1,OWB,OWB#0	● OTTESEN 17N,OWB,OWB#0	● OTTESEN 32N,OWB,OWB#0
● OTTESEN LE03-290H,OWB,OWB#0	● OTTESEN 18C,OWB,OWB#0	● OTTESEN FEDERAL 01N,OWB,OWB#0
● OTTESEN LE03-311HC,OWB,OWB#0	● OTTESEN 19N,OWB,OWB#0	● OTTESEN FEDERAL 02N,OWB,OWB#0
● OTTESEN LE03-311HN,OWB,OWB#0	● OTTESEN 20N,OWB,OWB#0	● OTTESEN FEDERAL 03C,OWB,OWB#0
● OTTESEN LE03-351HN,OWB,OWB#0	● OTTESEN 21N,OWB,OWB#0	● OTTESEN FEDERAL 04N,OWB,OWB#0
● OTTESEN LE03-351HN,OWB,OWB#0	● OTTESEN 22N,OWB,OWB#0	● OTTESEN FEDERAL 05N,OWB,OWB#0
● OTTESEN LE03-370HC,OWB,OWB#0	● OTTESEN 23N,OWB,OWB#0	● OTTESEN FEDERAL 06N,OWB,OWB#0
● OTTESEN LE03-370HN,OWB,OWB#0	● OTTESEN 24N,OWB,OWB#0	● OTTESEN FEDERAL 07C,OWB,OWB#0
● OTTESEN LE03-362HC,OWB,OWB#0	● OTTESEN 25N,OWB,OWB#0	● OTTESEN FEDERAL 08N,OWB,OWB#0
● OTTESEN LE03-363HN,OWB,OWB#0	● OTTESEN 26C,OWB,OWB#0	● OTTESEN FEDERAL 09N,OWB,OWB#0
● OTTESEN LE03-365HC,OWB,OWB#0	● OTTESEN 27N,OWB,OWB#0	● OTTESEN FEDERAL 10NA,OWB,OWB#0
● OTTESEN LE03-365HN,OWB,OWB#0	● OTTESEN 28N,OWB,OWB#0	● OTTESEN FEDERAL 11C,OWB,OWB#0
● OTTESEN LE03-366HN,OWB,OWB#0	● OTTESEN 29C,OWB,OWB#0	● OTTESEN FEDERAL 12N,OWB,OWB#0
● OTTESEN LE03-366HN,OWB,OWB#0	● OTTESEN 30N,OWB,OWB#0	● OTTESEN FEDERAL 12N,OWB,OWB#1
● OTTESEN LE03-368HC,OWB,OWB#0		● OTTESEN FEDERAL 13HN,OWB,OWB#0
● OTTESEN LE03-368HN,OWB,OWB#0		● OTTESEN FEDERAL 14NA,OWB,OWB#0
● OTTESEN 15C,OWB,OWB#0		

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