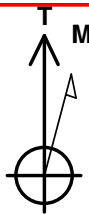


+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1364549.60	3257808.68	40° 19' 49.438 N	104° 34' 30.945 W	

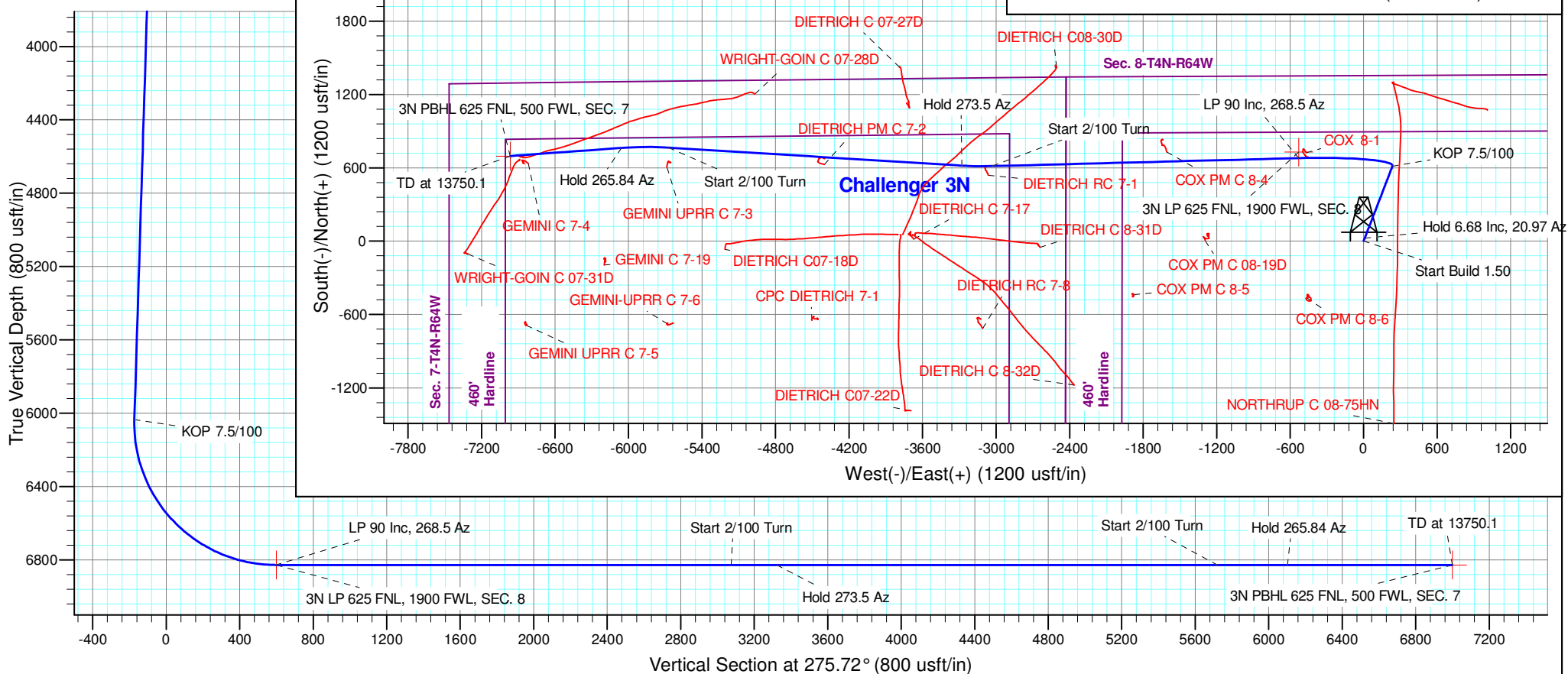
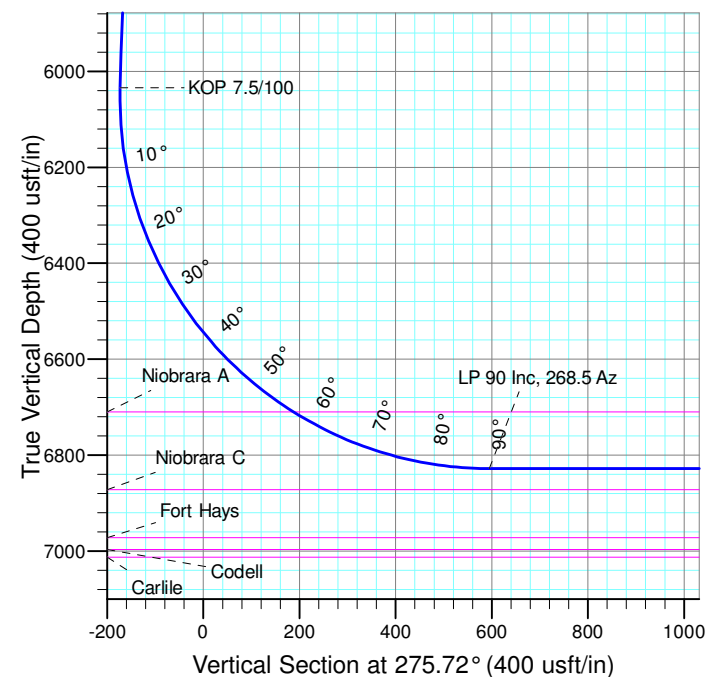
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	645.6	6.68	20.97	644.6	24.2	9.3	1.50	20.97	-6.8	
4	6072.6	6.68	20.97	6034.7	614.1	235.4	0.00	0.00	-173.0	
5	7306.6	90.00	268.50	6828.0	680.0	-529.8	7.50	-112.33	594.9	
6	9806.6	90.00	268.50	6828.0	614.6	-3029.0	0.00	0.00	3075.1	
7	10056.6	90.00	273.50	6828.0	618.9	-3278.8	2.00	90.00	3324.2	
8	12456.6	90.00	273.50	6828.0	765.4	-5674.4	0.00	0.00	5722.4	
9	12839.5	90.00	265.84	6828.0	763.2	-6057.0	2.00	-90.00	6102.9	
10	13750.1	90.00	265.84	6828.0	697.2	-6965.2	0.00	0.00	7000.0	3N PBHL 625 FNL, 500 FWL, SEC. 7



Azimuths to True North
Magnetic North: 8.13°

Magnetic Field
Strength: 52401.0nT
Dip Angle: 66.83°
Date: 03/30/2017
Model: IGRF2015

Project: SEC. 8-T4N-R64W
Site: CHALLENGER 4N64W08 1-9 PAD
Well: Challenger 3N
Wellbore: Wellbore #1
Design: Design #1 30Mar17 kjs



PDC Energy Inc. DJ Basin

SEC. 8-T4N-R64W

CHALLENGER 4N64W08 1-9 PAD

Challenger 3N

Wellbore #1

Design #1 30Mar17 kjs

Anticollision Summary Report

02 June, 2017

Anticollision Summary Report

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 3N
Project:	SEC. 8-T4N-R64W	TVD Reference:	WELL @ 4798.0usft (Original Well Elev)
Reference Site:	CHALLENGER 4N64W08 1-9 PAD	MD Reference:	WELL @ 4798.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Challenger 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1 30Mar17 kjs	Offset TVD Reference:	Offset Datum

Reference	Design #1 30Mar17 kjs		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,682.5 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.45 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	06/02/17		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	13,750.1	Design #1 30Mar17 kjs (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
CHALLENGER 4N64W08 1-9 PAD						
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	29.9	29.2	39.262	CC
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	12,700.0	12,766.2	408.3	-4.1	0.990	Level 1, ES, SF
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	15.0	14.2	19.679	CC
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	12,800.0	12,905.9	204.0	-188.7	0.519	Level 1, SF
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,852.3	260.9	-203.3	0.562	Level 1, ES
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	15.0	14.2	19.679	CC
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,789.9	293.7	-175.4	0.626	Level 1, ES, SF
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	30.0	29.2	39.310	CC, ES
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,719.3	515.2	33.0	1.068	Level 2, SF
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	45.0	44.2	58.989	CC, ES
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,782.1	755.4	275.5	1.574	SF
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	60.0	59.2	78.668	CC, ES
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,699.1	1,027.1	544.8	2.129	SF
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	75.0	74.2	98.347	CC, ES
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,776.8	1,242.1	760.2	2.578	SF
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	90.0	89.2	117.978	CC, ES
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	13,750.1	13,722.5	1,530.1	1,047.8	3.173	SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 3N
Project:	SEC. 8-T4N-R64W	TVD Reference:	WELL @ 4798.0usft (Original Well Elev)
Reference Site:	CHALLENGER 4N64W08 1-9 PAD	MD Reference:	WELL @ 4798.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Challenger 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1 30Mar17 kjs	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						
Existing Wells Sec. 7-T4N-R64W						
CPC DIETRICH 7-1 - Wellbore #1 - Wellbore #1	11,203.7	6,791.8	1,323.8	1,152.4	7.727	CC, ES
CPC DIETRICH 7-1 - Wellbore #1 - Wellbore #1	11,600.0	6,800.0	1,381.8	1,196.8	7.471	SF
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1	10,614.1	6,850.7	775.6	624.0	5.116	CC, ES
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1	10,800.0	6,852.1	797.6	639.7	5.050	SF
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,429.0	6,817.6	607.7	463.8	4.223	CC, ES
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,500.0	6,814.1	611.8	465.6	4.183	SF
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,443.1	6,966.4	662.4	545.2	5.651	CC, ES
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,600.0	6,964.9	680.8	558.3	5.558	SF
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	11,943.0	7,042.0	773.3	555.8	3.555	CC, ES
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,000.0	7,042.4	775.4	555.9	3.532	SF
DIETRICH C07-22D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,268.6	7,221.5	811.4	696.4	7.057	CC
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,300.0	7,221.4	812.0	696.0	6.998	ES
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,500.0	7,220.6	843.7	721.0	6.874	SF
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,215.7	6,857.0	51.0	-121.9	0.295	Level 1, CC, ES, SF
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	9,848.5	6,824.7	58.8	-67.8	0.465	Level 1, CC, ES, SF
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	9,900.0	6,787.9	1,311.3	1,184.3	10.326	CC, ES
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	10,300.0	6,775.2	1,390.7	1,250.1	9.890	SF
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,043.0	6,848.5	912.0	679.7	3.927	CC
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,100.0	6,849.2	913.7	679.5	3.902	ES
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,200.0	6,850.5	925.4	687.8	3.895	SF
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,631.4	6,851.9	51.1	-200.8	0.203	Level 1, CC, ES, SF
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,461.4	6,874.6	158.2	-56.3	0.737	Level 1, CC, ES, SF
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,718.2	6,809.7	1,391.7	1,136.6	5.455	CC
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,750.1	6,810.3	1,392.1	1,135.9	5.434	ES, SF
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,376.6	6,893.0	1,440.9	1,229.9	6.830	CC
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,400.0	6,893.0	1,441.1	1,229.3	6.805	ES
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,900.0	6,891.1	1,500.9	1,273.9	6.610	SF
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,600.0	7,360.5	495.9	457.5	12.923	SF
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,742.3	7,362.0	462.1	427.4	13.316	CC, ES
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,802.2	7,204.7	491.8	287.1	2.403	CC, ES, SF
WRIGHT-GOIN C 07-31D - Wellbore #1 - Wellbore #1	13,750.1	6,971.4	873.0	612.7	3.353	CC, ES, SF
Existing Wells Sec. 8-T4N-R64W						
COX 8-1 - Wellbore #1 - Wellbore #1	7,253.8	6,800.8	59.8	16.8	1.391	Level 3, CC, ES, SF
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,094.0	6,800.0	632.2	566.5	9.621	CC
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,100.0	6,800.0	632.3	566.4	9.594	ES
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,300.0	6,798.7	664.9	592.7	9.201	SF
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,386.6	6,822.6	99.7	23.2	1.303	Level 3, CC, ES, SF
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,683.5	6,826.3	1,078.1	992.3	12.561	CC
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,700.0	6,826.2	1,078.2	991.9	12.484	ES
COX PM C 8-5 - Wellbore #1 - Wellbore #1	9,100.0	6,823.8	1,155.8	1,056.1	11.603	SF
COX PM C 8-6 - Wellbore #1 - Wellbore #1	0.0	0.0	639.4			
COX PM C 8-6 - Wellbore #1 - Wellbore #1	100.0	79.2	639.6	639.3	2,722.063	ES
COX PM C 8-6 - Wellbore #1 - Wellbore #1	8,400.0	6,819.3	1,606.1	1,530.7	21.299	SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 3N
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Reference Site:	CHALLENGER 4N64W08 1-9 PAD	MD Reference:	WELL @ 4798.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Challenger 3N	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.45 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1 30Mar17 kjs	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4798.0usft (Original Well Ele

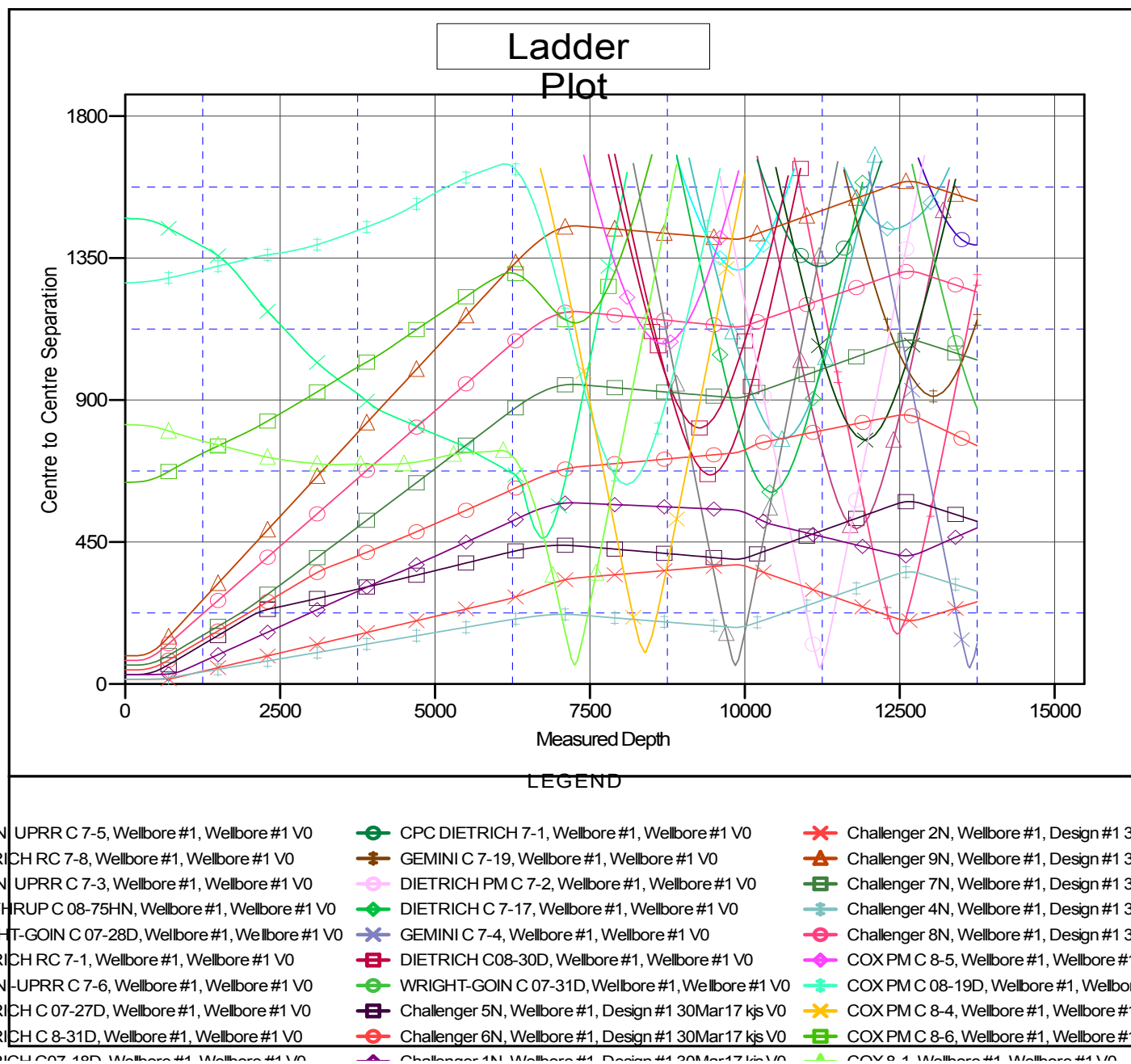
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Challenger 3N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°



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

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 3N
Project:	SEC. 8-T4N-R64W	TVD Reference:	WELL @ 4798.0usft (Original Well Elev)
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Reference Depths are relative to WELL @ 4798.0usft (Original Well Ele

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Challenger 3N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°

