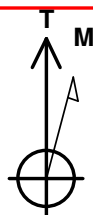


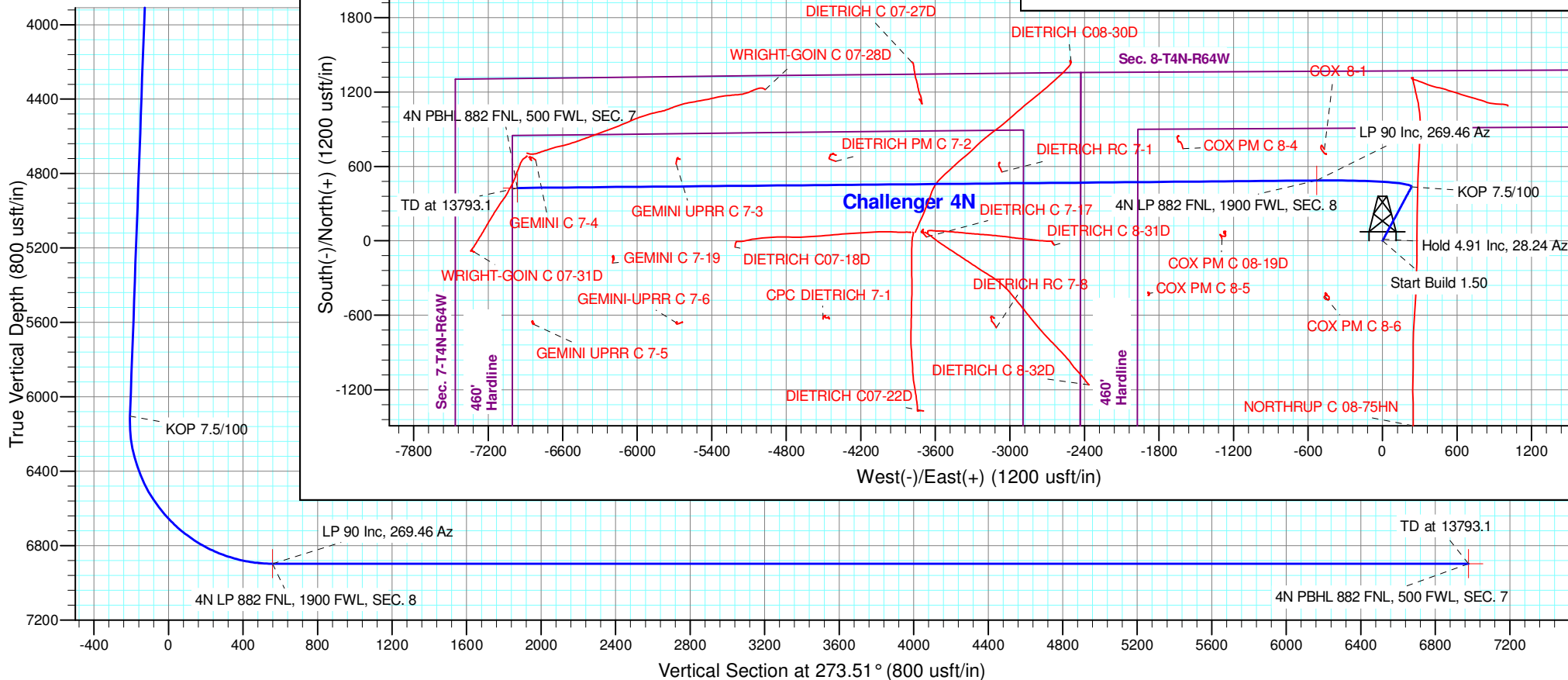
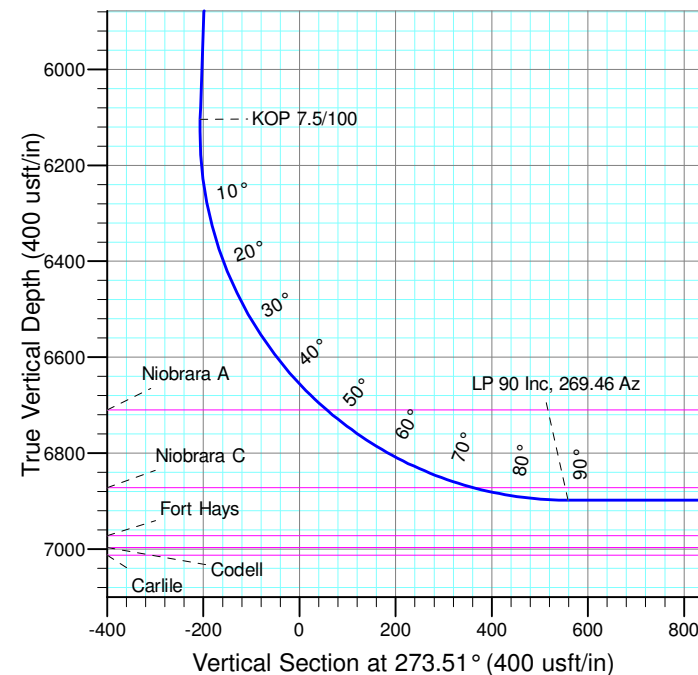
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1364534.59	3257808.90	40° 19' 49.290 N	104° 34' 30.945 W	

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	527.6	4.91	28.24	527.2	12.4	6.6	1.50	28.24	-5.9	
4	6125.8	4.91	28.24	6104.8	434.8	233.6	0.00	0.00	-206.5	
5	7357.3	90.00	269.46	6898.0	487.4	-530.3	7.50	-118.69	559.1	4N LP 882 FNL, 1900 FWL, SEC. 8
6	13793.1	90.00	269.46	6898.0	427.0	-6965.8	0.00	0.00	6978.9	4N PBHL 882 FNL, 500 FWL, SEC. 7



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

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



PDC Energy Inc. DJ Basin

SEC. 8-T4N-R64W

CHALLENGER 4N64W08 1-9 PAD

Challenger 4N

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 4N
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 4N	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	13,792.8	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
Offet Well - Wellbore - Design						
CHALLENGER 4N64W08 1-9 PAD						
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	45.0	44.2	58.941	CC
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	400.0	397.7	45.4	43.6	24.373	ES
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,809.5	784.2	302.8	1.629	SF
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	30.0	29.3	39.358	CC
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	400.0	398.5	30.4	28.6	16.322	ES
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,852.3	536.5	53.1	1.110	Level 2, SF
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	15.0	14.2	19.679	CC
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,750.1	293.7	-177.6	0.623	Level 1, ES, SF
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	15.0	14.2	19.631	CC
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,722.5	237.7	-230.3	0.508	Level 1, ES, SF
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	30.0	29.2	39.310	CC
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,782.1	467.0	-15.3	0.968	Level 1, ES, SF
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	45.0	44.2	58.989	CC, ES
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,702.3	745.3	264.5	1.550	SF
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	60.0	59.2	78.668	CC, ES
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,779.3	955.0	472.1	1.978	SF
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	75.0	74.2	98.299	CC, ES
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	13,793.1	13,725.8	1,246.9	765.3	2.589	SF

Anticollision Summary Report

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 4N
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 4N	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	11,343.1	6,882.8	1,071.0	896.8	6.148	CC
CPC DIETRICH 7-1 - Wellbore #1 - Wellbore #1	11,400.0	6,883.2	1,072.5	896.3	6.088	ES
CPC DIETRICH 7-1 - Wellbore #1 - Wellbore #1	11,600.0	6,884.8	1,101.3	918.4	6.019	SF
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1	10,606.3	6,928.6	985.2	835.8	6.593	CC, ES
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1	10,800.0	6,928.9	1,004.1	848.0	6.435	SF
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,515.2	6,894.6	411.6	266.6	2.838	CC, ES, SF
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,479.2	7,030.7	491.9	374.9	4.203	CC
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,500.0	7,030.4	492.3	374.6	4.182	ES, SF
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1	9,208.1	7,186.3	1,629.3	1,517.7	14.600	CC
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1	9,300.0	7,185.0	1,631.9	1,517.2	14.231	ES
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1	9,600.0	7,180.5	1,675.7	1,551.0	13.434	SF
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,041.4	7,119.8	469.7	250.8	2.146	CC, ES
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,100.0	7,120.4	473.3	252.4	2.142	SF
DIETRICH C07-22D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,330.0	7,296.4	985.2	869.8	8.537	CC, ES
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,600.0	7,295.5	1,021.5	897.0	8.206	SF
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,256.4	6,935.2	200.4	28.1	1.163	Level 2, CC, ES, SF
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	9,894.6	6,901.3	103.6	-23.1	0.817	Level 1, CC
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	9,900.0	6,901.2	103.7	-23.2	0.817	Level 1, ES, SF
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	9,955.5	6,863.7	1,149.3	1,022.0	9.029	CC
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	10,000.0	6,862.5	1,150.2	1,021.4	8.931	ES
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	10,300.0	6,853.9	1,199.8	1,061.0	8.640	SF
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,027.5	6,929.0	583.1	351.7	2.520	CC, ES
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,100.0	6,929.7	587.6	353.7	2.512	SF
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,663.3	6,935.2	238.3	-14.5	0.943	Level 1, CC, ES, SF
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,511.9	6,958.3	180.2	-34.0	0.841	Level 1, CC, ES, SF
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,671.0	6,850.0	1,104.9	852.0	4.370	CC
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,700.0	6,850.0	1,105.3	851.4	4.354	ES
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,793.1	6,850.0	1,111.6	855.7	4.344	SF
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,519.8	6,959.3	1,101.7	888.0	5.155	CC, ES
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,700.0	6,958.4	1,116.4	896.5	5.077	SF
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,700.0	7,588.5	415.3	377.0	10.840	SF
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,767.7	7,585.6	406.8	370.4	11.162	CC, ES
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,805.8	7,289.5	784.0	581.0	3.861	CC, ES
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,900.0	7,283.5	789.7	583.3	3.827	SF
WRIGHT-GOIN C 07-31D - Wellbore #1 - Wellbore #1	13,793.1	7,036.3	621.9	361.4	2.388	CC, ES, SF
Existing Wells Sec. 8-T4N-R64W						
COX 8-1 - Wellbore #1 - Wellbore #1	7,302.6	6,881.8	264.6	221.7	6.175	CC, ES, SF
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,131.0	6,872.8	439.2	373.8	6.709	CC, ES
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,200.0	6,872.3	444.6	377.0	6.573	SF
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,435.3	6,905.8	284.3	207.6	3.705	CC, ES
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,500.0	6,904.7	291.6	212.7	3.698	SF
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,713.2	6,897.2	893.9	808.5	10.468	CC, ES
COX PM C 8-5 - Wellbore #1 - Wellbore #1	9,000.0	6,896.1	938.8	843.9	9.893	SF
COX PM C 8-6 - Wellbore #1 - Wellbore #1	0.0	0.0	628.9			
COX PM C 8-6 - Wellbore #1 - Wellbore #1	100.0	79.2	629.0	628.7	2,676.379	ES
COX PM C 8-6 - Wellbore #1 - Wellbore #1	8,000.0	6,889.9	1,167.3	1,106.0	19.052	SF

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 4N
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Site Error:	0.0 usft	North Reference:	True
Reference Well:	Challenger 4N	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

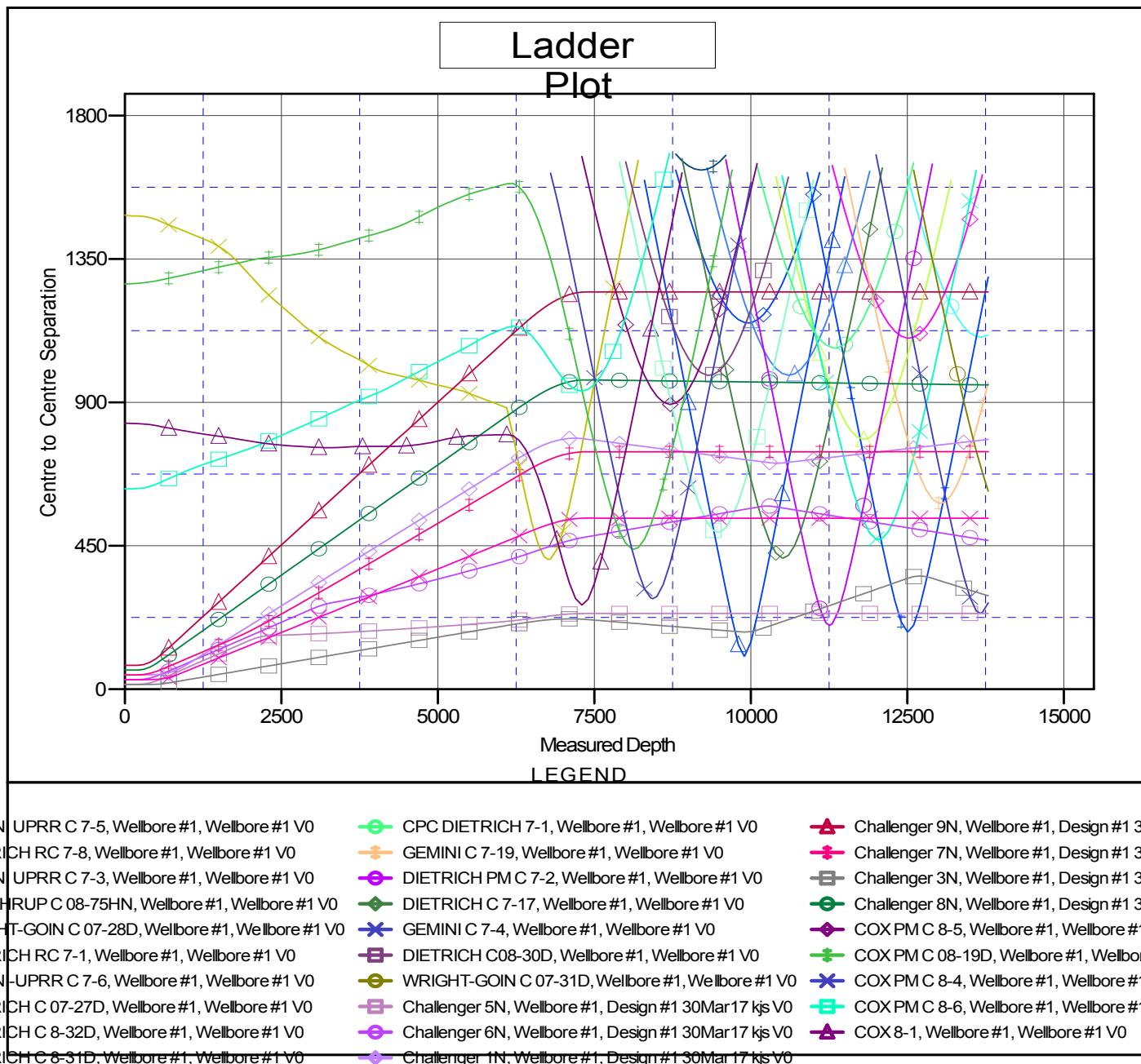
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Challenger 4N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°



Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 4N
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)
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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 4N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°

