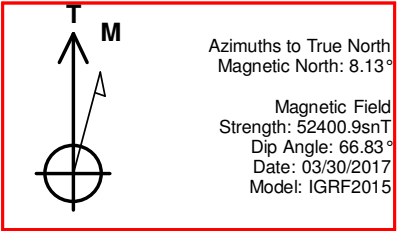


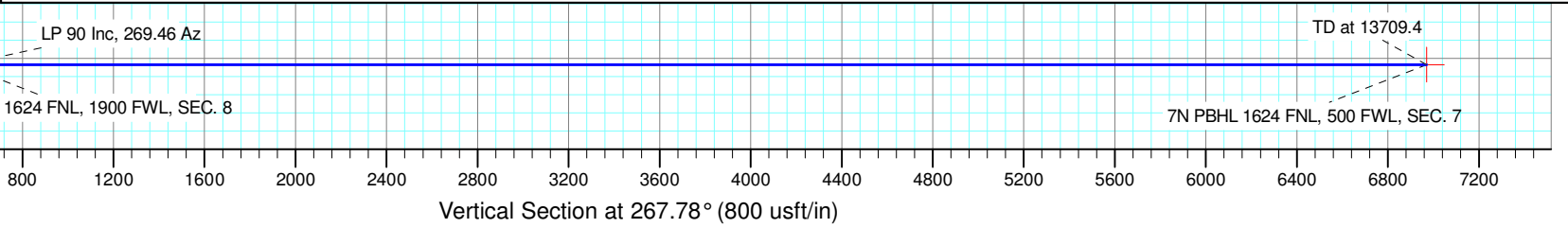
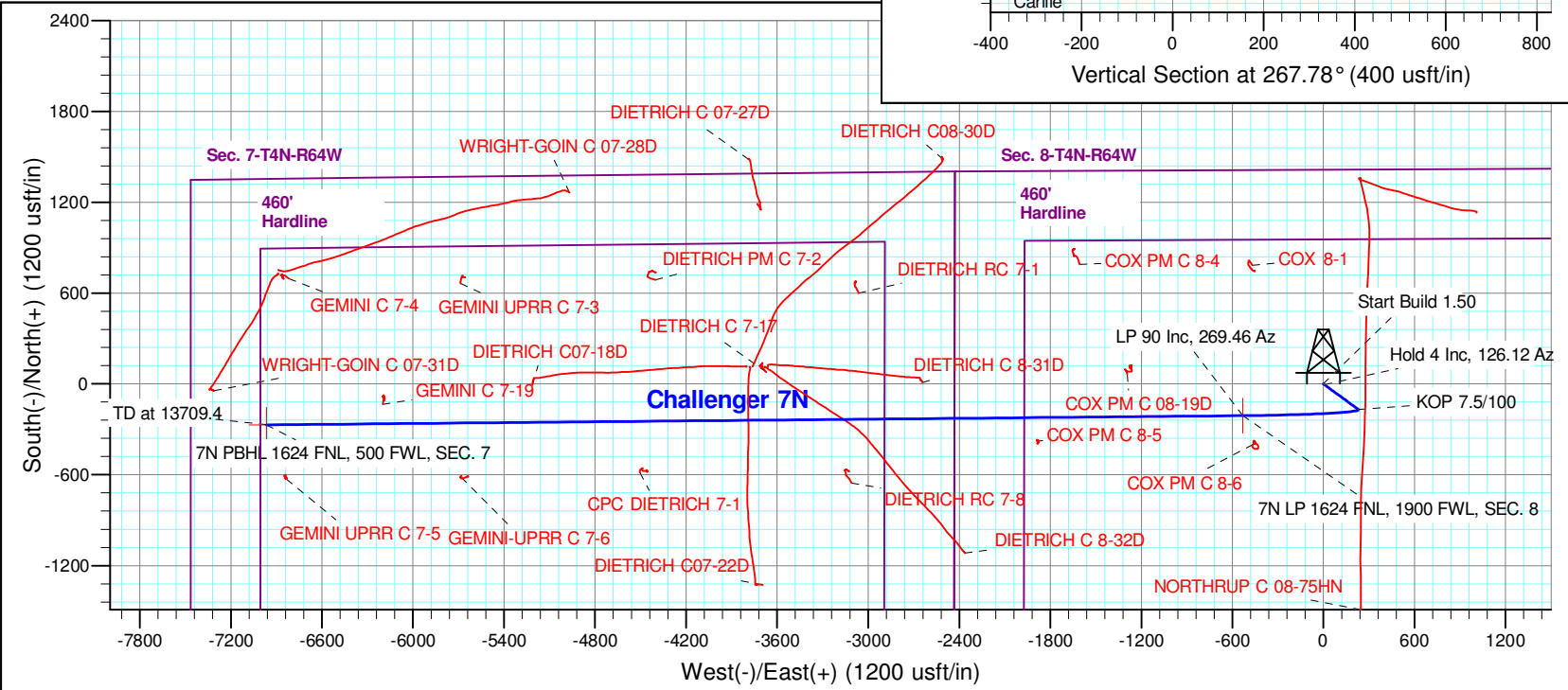
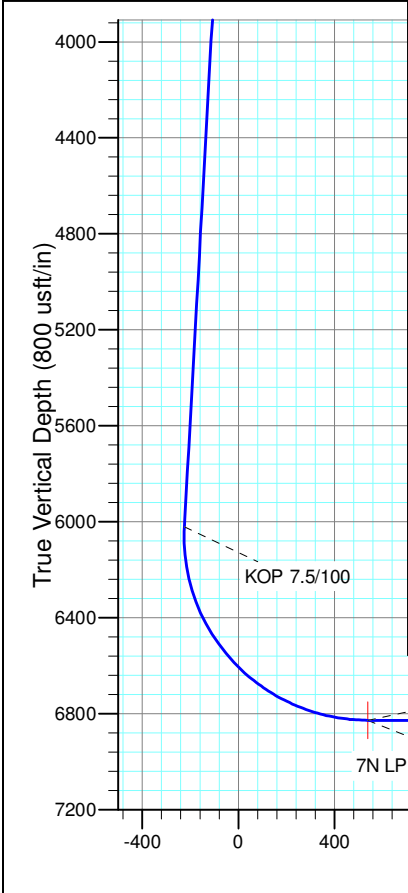
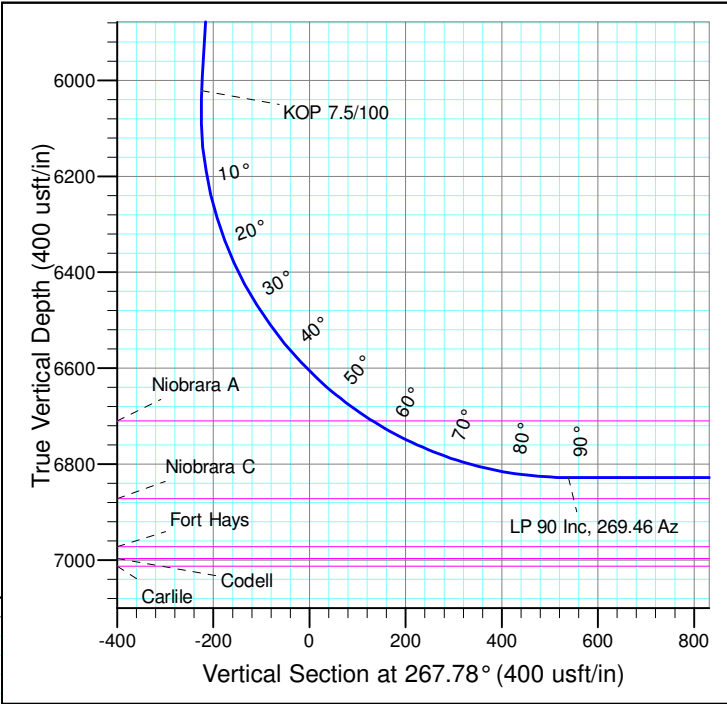


Well Name: Challenger 7N
Surface Location: CHALLENGER 4N64W08 1-9 PAD
North American Datum 1983
US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4775.0
WELL @ 4798.0usft (Original Well Elev)
Easting Latitude Longitude Slot
0.0 0.0 1364489.60 3257809.28 40° 19' 48.845 N 104° 34' 30.946 W

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1800.0	0.00	0.00	1800.0	0.0	0.0	0.00	0.00	0.0	
3	2066.7	4.00	126.12	2066.5	-5.5	7.5	1.50	126.12	-7.3	
4	6031.9	4.00	126.12	6022.0	-168.6	231.0	0.00	0.00	-224.3	
5	7274.7	90.00	269.46	6828.0	-209.4	-531.4	7.50	143.27	539.1	7N LP 1624 FNL, 1900 FWL, SEC. 8
6	13709.4	90.00	269.46	6828.0	-270.0	-6965.8	0.00	0.00	6971.0	7N PBHL 1624 FNL, 500 FWL, SEC. 7



Project: SEC. 8-T4N-R64W
Site: CHALLENGER 4N64W08 1-9 PAD
Well: Challenger 7N
Wellbore: Wellbore #1
Design: Design #1 30Mar17 kjs



PDC Energy Inc. DJ Basin

SEC. 8-T4N-R64W

CHALLENGER 4N64W08 1-9 PAD

Challenger 7N

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 7N
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 7N	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	13,709.2	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
Offset Well - Wellbore - Design						
CHALLENGER 4N64W08 1-9 PAD						
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	89.9	89.2	117.930	CC, ES
Challenger 1N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,799.6	1,522.0	1,038.2	3.146	SF
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	75.0	74.2	98.347	CC, ES
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,852.3	1,280.4	796.8	2.648	SF
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	60.0	59.2	78.668	CC, ES
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,750.1	1,027.2	543.0	2.121	SF
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	45.0	44.2	58.989	CC, ES
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,793.1	745.3	264.3	1.550	SF
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	1,800.0	1,800.0	30.0	20.4	3.135	CC, ES
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,724.7	512.1	27.9	1.058	Level 2, SF
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	1,800.0	1,800.0	15.0	5.4	1.568	CC
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,776.1	283.7	-185.3	0.605	Level 1, ES, SF
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	15.0	14.2	19.679	CC
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,784.6	224.2	-237.2	0.486	Level 1, ES, SF
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	30.0	29.2	39.310	CC
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	13,709.4	13,732.8	503.0	19.5	1.040	Level 2, ES, SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 7N
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 7N	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	11,251.9	6,844.2	326.7	153.0	1.880	CC, ES, SF
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,425.8	6,864.1	332.9	188.3	2.302	CC, ES, SF
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,389.0	6,975.9	251.1	134.7	2.157	CC
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,400.0	6,975.8	251.4	134.6	2.152	ES, SF
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1	9,118.1	7,122.1	886.3	775.4	7.992	CC, ES
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1	9,400.0	7,118.5	930.0	809.7	7.726	SF
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	11,950.2	7,085.7	274.7	56.2	1.257	Level 3, CC, ES, SF
DIETRICH C07-22D - Wellbore #1 - Wellbore #1	10,467.4	7,061.2	1,085.9	934.0	7.148	CC
DIETRICH C07-22D - Wellbore #1 - Wellbore #1	10,500.0	7,059.7	1,086.4	933.3	7.099	ES
DIETRICH C07-22D - Wellbore #1 - Wellbore #1	10,700.0	7,051.2	1,110.5	950.6	6.947	SF
DIETRICH C08-30D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,169.0	6,900.0	944.2	772.3	5.493	CC
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,200.0	6,889.8	944.6	771.6	5.460	ES
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,300.0	6,881.4	953.0	776.6	5.401	SF
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	9,804.8	6,860.5	847.7	721.5	6.718	CC, ES
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	10,000.0	6,855.7	869.8	737.0	6.550	SF
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	9,865.6	6,830.8	404.9	278.1	3.193	CC, ES
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1	9,900.0	6,829.8	406.4	278.4	3.176	SF
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	12,936.2	6,886.8	160.9	-70.1	0.697	Level 1, CC, ES, SF
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,574.6	6,898.5	982.7	730.1	3.891	CC
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,600.0	6,896.7	983.1	729.6	3.878	ES
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,709.4	6,889.1	991.9	734.6	3.855	SF
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,421.7	6,919.9	924.4	710.6	4.325	CC, ES
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,600.0	6,917.7	941.4	721.6	4.282	SF
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,580.0	6,841.1	360.4	107.5	1.425	Level 3, CC
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1	13,600.0	6,841.5	360.9	107.3	1.423	Level 3, ES, SF
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1	12,429.3	6,892.2	359.8	146.6	1.687	CC, ES, SF
NORTHRUP C 08-75HN - Wellbore #1 - Wellbore #1	6,600.0	8,289.9	466.7	421.3	10.280	SF
NORTHRUP C 08-75HN - Wellbore #1 - Wellbore #1	6,716.6	8,298.0	443.2	400.9	10.490	CC, ES
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,718.6	7,231.1	1,527.5	1,324.8	7.537	CC
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,800.0	7,224.9	1,529.6	1,324.2	7.445	ES
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	12,100.0	7,201.9	1,574.2	1,358.5	7.298	SF
WRIGHT-GOIN C 07-31D - Wellbore #1 - Wellbore #1	13,709.4	6,966.6	416.1	154.9	1.593	CC, ES, SF
Existing Wells Sec. 8-T4N-R64W						
COX 8-1 - Wellbore #1 - Wellbore #1	617.9	587.9	871.2	868.2	297.137	CC
COX 8-1 - Wellbore #1 - Wellbore #1	1,807.1	1,778.7	875.1	866.4	100.249	ES
COX 8-1 - Wellbore #1 - Wellbore #1	8,000.0	6,825.3	1,280.8	1,216.3	19.842	SF
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,040.6	6,818.2	303.9	239.2	4.699	CC, ES
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,100.0	6,817.6	309.6	243.0	4.652	SF
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,344.8	6,883.5	1,029.1	953.0	13.521	CC
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,400.0	6,882.5	1,030.6	952.7	13.227	ES
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,800.0	6,876.0	1,125.3	1,034.1	12.349	SF
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,622.7	6,831.8	151.7	67.1	1.792	CC, ES, SF
COX PM C 8-6 - Wellbore #1 - Wellbore #1	7,212.6	6,813.6	194.9	154.5	4.825	CC, ES, SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 7N
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 7N	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

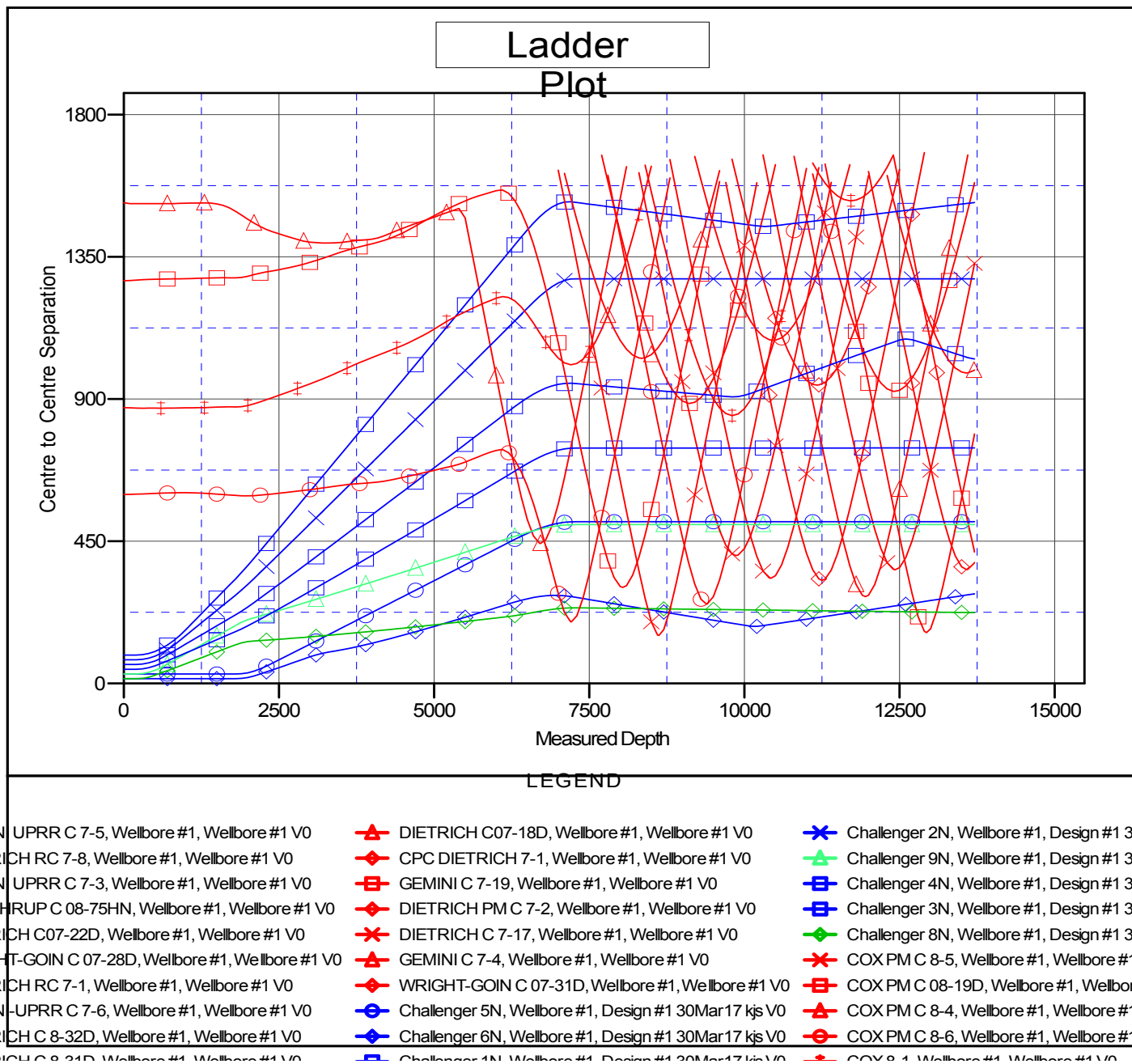
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Challenger 7N

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 7N
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 7N	Survey Calculation Method:	Minimum Curvature
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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 7N

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.60°

