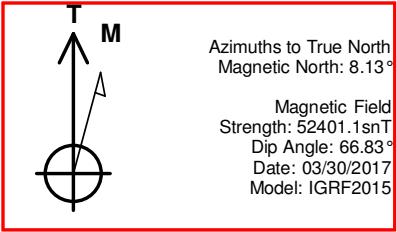


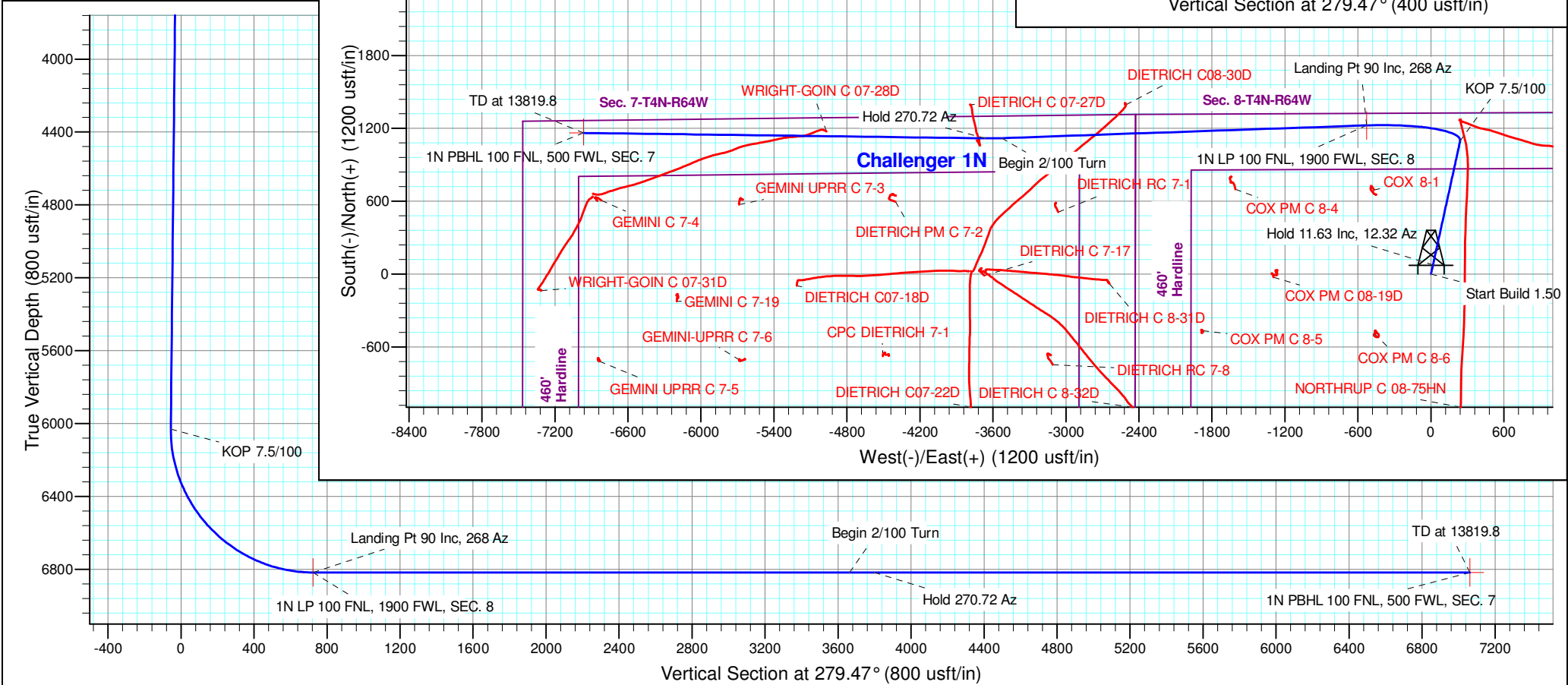
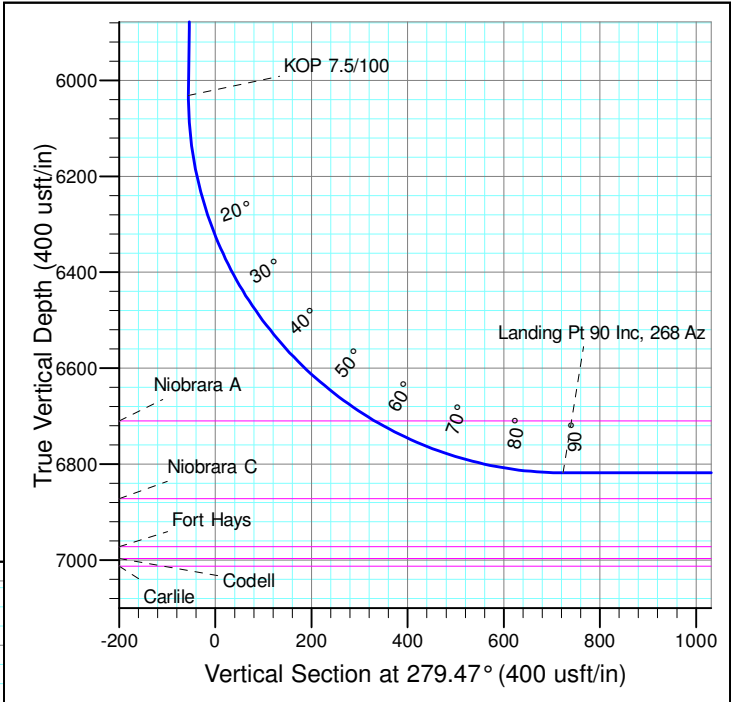


Well Name: Challenger 1N
Surface Location: CHALLENGER 4N64W08 1-9 PAD
North American Datum 1983
US State Plane 1983 , Colorado Northern Zone
Ground Elevation: 4775.0
WELL @ 4798.0usft (Original Well Elev)
Easting Latitude Longitude Slot
0.0 0.0 1364579.54 3257808.48 40° 19' 49.734 N 104° 34' 30.944 W

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	975.2	11.63	12.32	969.9	76.6	16.7	1.50	12.32	-3.9	
4	6142.8	11.63	12.32	6031.5	1094.2	239.0	0.00	0.00	-55.6	
5	7380.9	90.00	268.00	6818.0	1224.3	-529.0	7.50	-104.04	723.3	1N LP 100 FNL, 1900 FWL, SEC. 8
6	10380.9	90.00	268.00	6818.0	1119.6	-3527.2	0.00	0.00	3663.4	
7	10519.2	90.00	270.77	6818.0	1118.1	-3665.5	2.00	90.00	3799.5	
8	13819.8	90.00	270.77	6818.0	1162.2	-6965.8	0.00	0.00	7062.1	1N PBHL 100 FNL, 500 FWL, SEC. 7



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



PDC Energy Inc. DJ Basin

SEC. 8-T4N-R64W

CHALLENGER 4N64W08 1-9 PAD

Challenger 1N

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 1N
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 1N	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	13,819.8	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
Offset Well - Wellbore - Design						
CHALLENGER 4N64W08 1-9 PAD						
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	14.9	14.2	19.583	CC
Challenger 2N - Wellbore #1 - Design #1 30Mar17 kjs	13,819.8	13,850.0	256.4	-208.5	0.552	Level 1, ES, SF
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	29.9	29.2	39.262	CC
Challenger 3N - Wellbore #1 - Design #1 30Mar17 kjs	12,900.0	12,803.5	415.1	-6.4	0.985	Level 1, ES, SF
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	100.0	100.0	45.0	44.7	212.035	CC
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	400.0	402.1	45.4	43.6	24.211	ES
Challenger 4N - Wellbore #1 - Design #1 30Mar17 kjs	13,819.8	13,785.7	784.2	302.2	1.627	SF
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	59.9	59.2	78.572	CC, ES
Challenger 5N - Wellbore #1 - Design #1 30Mar17 kjs	13,819.8	13,715.1	1,010.3	525.6	2.084	SF
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	74.9	74.2	98.251	CC, ES
Challenger 6N - Wellbore #1 - Design #1 30Mar17 kjs	13,819.8	13,782.1	1,249.7	766.5	2.586	SF
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	89.9	89.2	117.930	CC, ES
Challenger 7N - Wellbore #1 - Design #1 30Mar17 kjs	13,819.8	13,694.9	1,522.1	1,037.9	3.144	SF
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	105.0	104.2	137.609	CC, ES
Challenger 8N - Wellbore #1 - Design #1 30Mar17 kjs	11,100.0	11,054.6	1,681.8	1,384.0	5.647	SF
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	200.0	200.0	119.9	119.2	157.240	CC, ES
Challenger 9N - Wellbore #1 - Design #1 30Mar17 kjs	5,700.0	5,455.7	1,663.1	1,629.1	48.863	SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 1N
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 1N	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						Out of range
DIETRICH C 07-27D - Wellbore #1 - Wellbore #1	10,645.4	6,842.5	277.4	127.1	1.846	CC, ES, SF
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,533.3	6,783.2	1,112.0	967.1	7.677	CC, ES
DIETRICH C 7-17 - Wellbore #1 - Wellbore #1	10,800.0	6,771.8	1,144.7	990.9	7.442	SF
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,544.1	6,954.9	1,217.5	1,099.3	10.300	CC
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	9,600.0	6,954.4	1,218.8	1,098.7	10.151	ES
DIETRICH C 8-31D - Wellbore #1 - Wellbore #1	10,000.0	6,951.3	1,300.1	1,166.6	9.740	SF
DIETRICH C 8-32D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,046.6	7,018.4	1,205.6	987.1	5.516	CC
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,100.0	7,018.8	1,206.8	986.4	5.476	ES
DIETRICH C07-18D - Wellbore #1 - Wellbore #1	12,300.0	7,020.6	1,232.0	1,004.7	5.421	SF
DIETRICH C07-22D - Wellbore #1 - Wellbore #1						Out of range
DIETRICH C08-30D - Wellbore #1 - Wellbore #1	9,356.7	7,206.3	254.7	139.1	2.203	CC, ES, SF
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,289.2	6,823.4	518.7	346.0	3.003	CC
DIETRICH PM C 7-2 - Wellbore #1 - Wellbore #1	11,300.0	6,822.2	518.8	345.7	2.998	ES, SF
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	9,945.7	6,795.0	609.3	482.2	4.793	CC, ES
DIETRICH RC 7-1 - Wellbore #1 - Wellbore #1	10,000.0	6,793.9	611.8	482.8	4.745	SF
DIETRICH RC 7-8 - Wellbore #1 - Wellbore #1						Out of range
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,029.7	6,822.4	1,342.1	1,111.2	5.812	CC
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,100.0	6,823.1	1,344.0	1,110.6	5.760	ES
GEMINI C 7-19 - Wellbore #1 - Wellbore #1	13,300.0	6,825.0	1,369.1	1,128.9	5.699	SF
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,691.5	6,826.9	535.0	281.6	2.111	CC
GEMINI C 7-4 - Wellbore #1 - Wellbore #1	13,700.0	6,826.5	535.1	281.4	2.109	ES, SF
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,534.0	6,849.2	566.8	352.6	2.645	CC, ES
GEMINI UPRR C 7-3 - Wellbore #1 - Wellbore #1	12,600.0	6,848.9	570.7	354.1	2.636	SF
GEMINI UPRR C 7-5 - Wellbore #1 - Wellbore #1						Out of range
GEMINI-UPRR C 7-6 - Wellbore #1 - Wellbore #1						Out of range
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,472.6	6,360.6	128.4	83.7	2.869	CC, ES
NORTHROP C 08-75HN - Wellbore #1 - Wellbore #1	6,500.0	6,386.8	129.1	84.0	2.862	SF
WRIGHT-GOIN C 07-28D - Wellbore #1 - Wellbore #1	11,846.9	7,188.4	50.8	-152.9	0.249	Level 1, CC, ES, SF
WRIGHT-GOIN C 07-31D - Wellbore #1 - Wellbore #1	13,819.8	6,964.4	1,341.2	1,079.2	5.119	CC, ES, SF
Existing Wells Sec. 8-T4N-R64W						
COX 8-1 - Wellbore #1 - Wellbore #1	7,341.2	6,766.7	513.6	469.2	11.553	CC, ES
COX 8-1 - Wellbore #1 - Wellbore #1	7,500.0	6,763.3	535.5	487.6	11.163	SF
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,194.9	6,779.6	1,198.9	1,131.9	17.896	CC
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,200.0	6,779.6	1,198.9	1,131.8	17.855	ES
COX PM C 08-19D - Wellbore #1 - Wellbore #1	8,900.0	6,773.1	1,390.8	1,301.3	15.525	SF
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,481.4	6,780.7	463.3	386.0	5.993	CC
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,500.0	6,780.5	463.6	385.8	5.953	ES
COX PM C 8-4 - Wellbore #1 - Wellbore #1	8,600.0	6,779.5	478.2	397.1	5.898	SF
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,788.2	6,813.0	1,639.8	1,552.8	18.834	CC
COX PM C 8-5 - Wellbore #1 - Wellbore #1	8,800.0	6,812.9	1,639.9	1,552.4	18.751	ES
COX PM C 8-5 - Wellbore #1 - Wellbore #1	9,100.0	6,811.0	1,669.2	1,571.9	17.155	SF
COX PM C 8-6 - Wellbore #1 - Wellbore #1	0.0	0.0	661.2			
COX PM C 8-6 - Wellbore #1 - Wellbore #1	100.0	79.1	661.3	661.1	2,816.257	ES
COX PM C 8-6 - Wellbore #1 - Wellbore #1	5,700.0	5,556.9	1,664.8	1,634.4	54.766	SF

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Challenger 1N
Project:	SEC. 8-T4N-R64W	TVD Reference:	WELL @ 4798.0usft (Original Well Elev)
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Site Error:	0.0 usft	North Reference:	True
Reference Well:	Challenger 1N	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

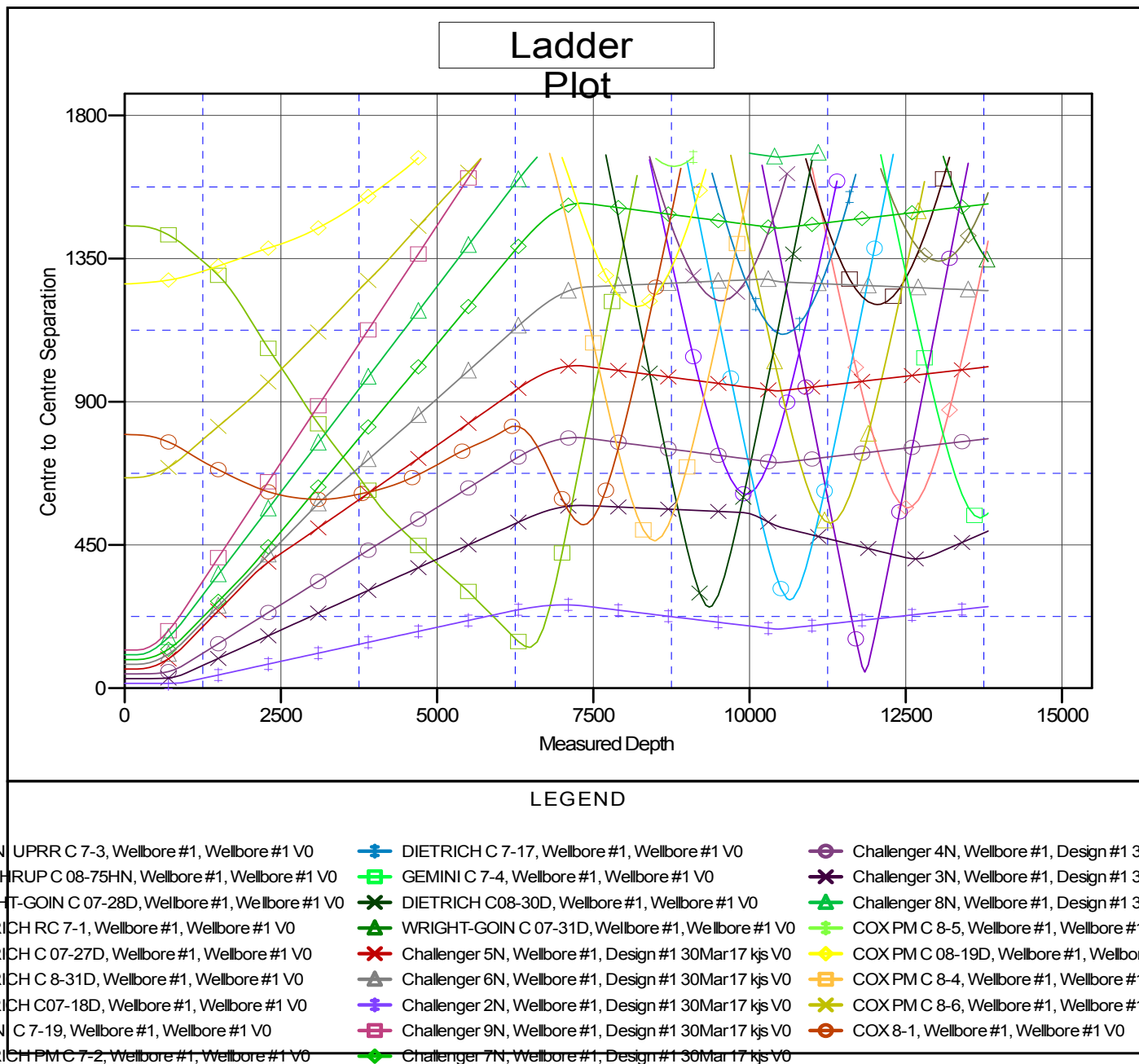
Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Challenger 1N

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 1N
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
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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 1N

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