

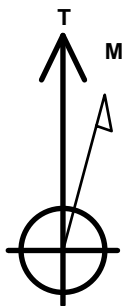
# PDC Energy Inc. DJ Basin

Well Name: **Challenger 6N (Nio C)**

Surface Location: Challenger 4N64W8 Pad Sec.8-T4N-R64W  
North American Datum 1983 , US State Plane 1983, Colorado Northern Zone  
Ground Elevation: 4776.0  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1364506.09 3257809.86 40.330280 -104.575260  
Original Well Elev WELL @ 4799.0ft (Original Well Elev)

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 1403'FNL & 2431'FWL, Sec.8	1.0	0.0	0.0	Point
BHL 1360'FNL & 150'FWL, Sec.7	6899.0	-25.8	-7316.9	Point
LPL 1360'FNL & 1900'FWL, Sec.8	6899.0	36.4	-532.5	Point
WP1 (6N)	6899.0	34.4	-2648.0	Point
WP2 (6N)	6899.0	31.0	-5208.4	Point



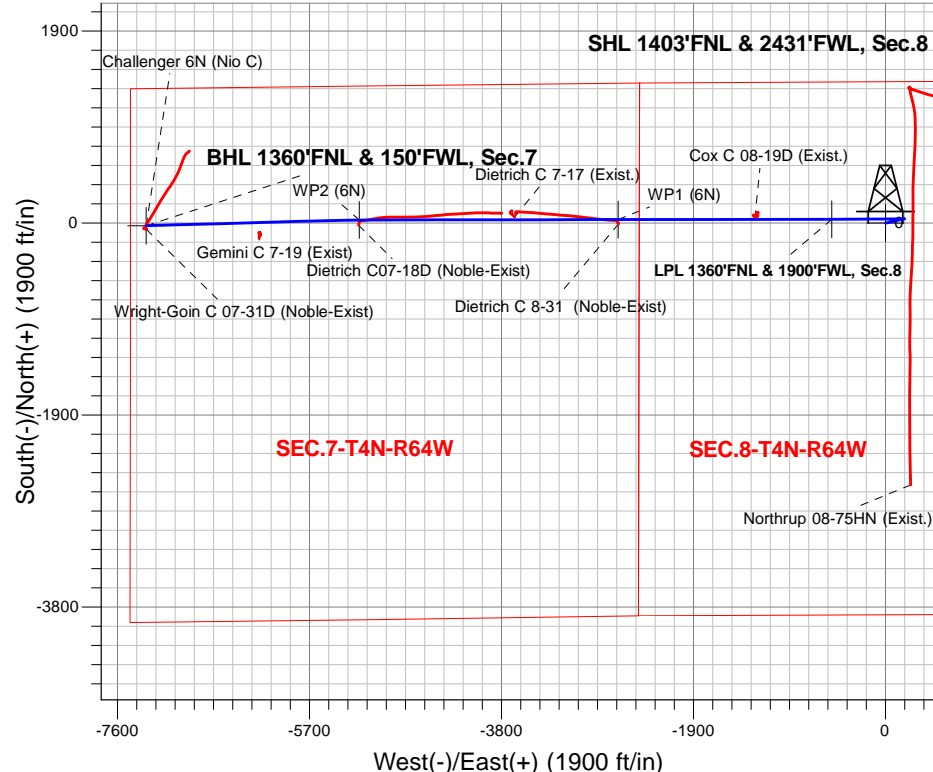
Azimuths to True North  
Magnetic North: 7.81°

Magnetic Field  
Strength: 52373.6snT  
Dip Angle: 66.78°  
Date: 6/28/2018  
Model: IGRF2010

Challenger 4N64W8 Pad Sec.8-T4N-R64W  
Challenger 6N (Nio C)  
Plan #1 (6-28-18)  
15:07, July 02 2018

## ANNOTATIONS

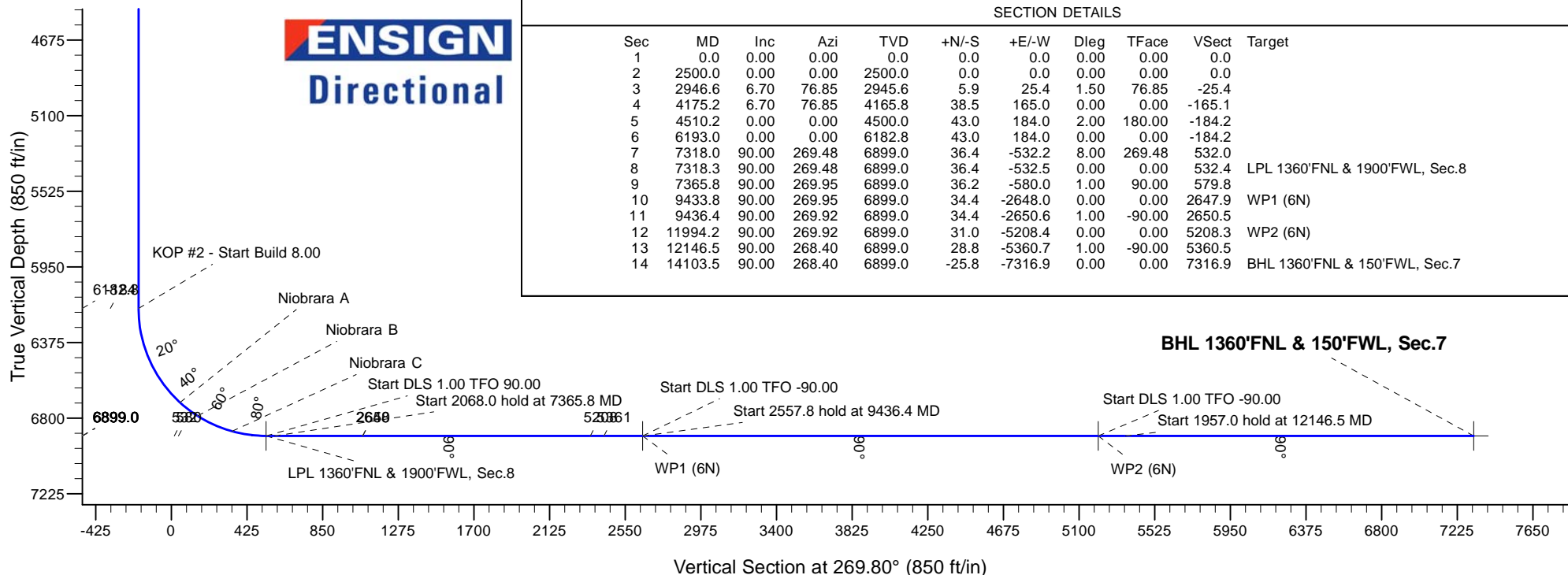
TVD	MD	Annotation
2500.0	2500.0	KOP - Start Build 1.50
6182.8	6193.0	KOP #2 - Start Build 8.00
6899.0	7318.3	Start DLS 1.00 TFO 90.00
6899.0	7365.8	Start 2068.0 hold at 7365.8 MD
6899.0	9433.8	Start DLS 1.00 TFO -90.00
6899.0	9436.4	Start 2557.8 hold at 9436.4 MD
6899.0	11994.2	Start DLS 1.00 TFO -90.00
6899.0	12146.5	Start 1957.0 hold at 12146.5 MD
6899.0	14103.5	TD at 14103.5



## 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	2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	
3	2946.6	6.70	76.85	2945.6	5.9	25.4	1.50	76.85	-25.4	
4	4175.2	6.70	76.85	4165.8	38.5	165.0	0.00	0.00	-165.1	
5	4510.2	0.00	0.00	4500.0	43.0	184.0	2.00	180.00	-184.2	
6	6193.0	0.00	0.00	6182.8	43.0	184.0	0.00	0.00	-184.2	
7	7318.0	90.00	269.48	6899.0	36.4	-532.2	8.00	269.48	532.0	
8	7318.3	90.00	269.48	6899.0	36.4	-532.5	0.00	0.00	532.4	LPL 1360'FNL & 1900'FWL, Sec.8
9	7365.8	90.00	269.95	6899.0	36.2	-580.0	1.00	90.00	579.8	
10	9433.8	90.00	269.95	6899.0	34.4	-2648.0	0.00	0.00	2647.9	WP1 (6N)
11	9436.4	90.00	269.92	6899.0	34.4	-2650.6	1.00	-90.00	2650.5	
12	11994.2	90.00	269.92	6899.0	31.0	-5208.4	0.00	0.00	5208.3	WP2 (6N)
13	12146.5	90.00	268.40	6899.0	28.8	-5360.7	1.00	-90.00	5360.5	
14	14103.5	90.00	268.40	6899.0	-25.8	-7316.9	0.00	0.00	7316.9	BHL 1360'FNL & 150'FWL, Sec.7

## BHL 1360'FNL & 150'FWL, Sec.7



## **PDC Energy Inc. DJ Basin**

**SEC.8-T4N-R64W**

**Challenger 4N64W8 Pad Sec.8-T4N-R64W**

**Challenger 6N (Nio C)**

**Wellbore #1**

**Plan #1 (6-28-18)**

## **Anticollision Report**

**02 July, 2018**

<b>Company:</b>	PDC Energy Inc. DJ Basin	<b>Local Co-ordinate Reference:</b>	Well Challenger 6N (Nio C)
<b>Project:</b>	SEC.8-T4N-R64W	<b>TVD Reference:</b>	WELL @ 4799.0ft (Original Well Elev)
<b>Reference Site:</b>	Challenger 4N64W8 Pad Sec.8-T4N-R64W	<b>MD Reference:</b>	WELL @ 4799.0ft (Original Well Elev)
<b>Site Error:</b>	0.0 ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Challenger 6N (Nio C)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 ft	<b>Output errors are at</b>	2.45 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	US_EDM
<b>Reference Design:</b>	Plan #1 (6-28-18)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (6-28-18)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 500.0 ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.45 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	7/2/2018		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	14,103.2	Plan #1 (6-28-18) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Challenger 4N64W8 Pad Sec.8-T4N-R64W						
Challenger 1N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	200.0	198.0	72.9	72.0	88.795	CC, ES
Challenger 1N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	1,000.0	972.5	153.4	147.7	27.084	SF
Challenger 2N (Nio C) - Wellbore #1 - Plan #1 (6-27-18)	400.0	399.0	58.3	56.4	30.286	CC, ES
Challenger 2N (Nio C) - Wellbore #1 - Plan #1 (6-27-18)	800.0	791.7	78.5	74.4	18.957	SF
Challenger 3N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	600.0	599.0	43.7	40.7	14.447	CC, ES
Challenger 3N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	900.0	895.1	55.0	50.3	11.773	SF
Challenger 4N (Nio C) - Wellbore #1 - Plan #1 (6-27-18)	1,000.0	999.0	29.1	23.9	5.574	CC
Challenger 4N (Nio C) - Wellbore #1 - Plan #1 (6-27-18)	14,103.5	14,132.7	477.9	-27.5	0.946	Level 1, ES, SF
Challenger 5N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	1,500.0	1,500.0	14.6	6.6	1.825	CC
Challenger 5N (Nio B) - Wellbore #1 - Plan #1 (6-27-18)	14,103.5	14,053.4	255.1	-237.6	0.518	Level 1, ES, SF
Challenger 7N (Nio B) - Wellbore #1 - Plan #1 (6-28-18)	1,300.0	1,300.0	18.2	11.3	2.646	CC
Challenger 7N (Nio B) - Wellbore #1 - Plan #1 (6-28-18)	14,103.5	14,037.0	273.1	-216.6	0.558	Level 1, ES, SF
Challenger 8N (Nio C) - Wellbore #1 - Plan #1 (6-28-18)	1,000.0	1,000.0	32.8	27.6	6.267	CC
Challenger 8N (Nio C) - Wellbore #1 - Plan #1 (6-28-18)	14,103.5	14,119.2	492.9	-12.6	0.975	Level 1, ES, SF
Challenger 9N (Nio B) - Wellbore #1 - Plan #1 (6-28-18)	766.3	767.3	47.4	43.4	11.998	CC
Challenger 9N (Nio B) - Wellbore #1 - Plan #1 (6-28-18)	800.0	801.0	47.4	43.2	11.461	ES
Challenger 9N (Nio B) - Wellbore #1 - Plan #1 (6-28-18)	1,000.0	998.4	52.4	47.3	10.204	SF
Dietrich C Pad Sec.7-T4N-R64W						
Dietrich C 8-31 (Noble-Exist) - Dietrich C 8-31 - Dietrich	9,433.7	7,054.7	30.6	-92.2	0.249	Level 1, CC
Dietrich C 8-31 (Noble-Exist) - Dietrich C 8-31 - Dietrich	9,433.8	7,054.7	30.6	-92.2	0.249	Level 1, ES, SF
Dietrich C07-18 Pad Sec.7-T4N-R64W						
Dietrich C07-18D (Noble-Exist) - Wellbore #1 - Wellbore	11,996.8	7,154.8	30.0	-188.1	0.138	Level 1, CC, ES, SF
Existing Wells Sec.7-T4N-R64W (GRID)						
Dietrich C 7-17 (Exist.) - Wellbore #1 - Wellbore #1	10,469.8	6,918.8	41.1	-103.2	0.285	Level 1, CC, ES, SF
Gemini C 7-19 (Exist.) - Wellbore #1 - Wellbore #1	12,985.6	6,952.1	126.3	-104.4	0.548	Level 1, CC, ES, SF
Existing Wells Sec.8-T4N-R64W (GRID)						
Cox C 08-19D (Exist.) - Wellbore #1 - Wellbore #1	8,086.2	6,888.1	33.7	-30.8	0.522	Level 1, CC, ES, SF
Northrup 08-75HN (Exist.) - Wellbore #1 - Wellbore #1	6,650.0	8,044.1	366.5	324.5	8.728	SF
Northrup 08-75HN (Exist.) - Wellbore #1 - Wellbore #1	6,700.0	8,043.3	358.4	318.0	8.871	ES
Northrup 08-75HN (Exist.) - Wellbore #1 - Wellbore #1	6,714.3	8,043.1	357.9	318.0	8.967	CC
Wright-Goin Pad Sec.7-T4N-R64W						
Wright-Goin C 07-31D (Noble-Exist) - Wright goin C7-31D	14,103.5	7,053.0	33.9	-238.9	0.124	Level 1, CC, ES, SF

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