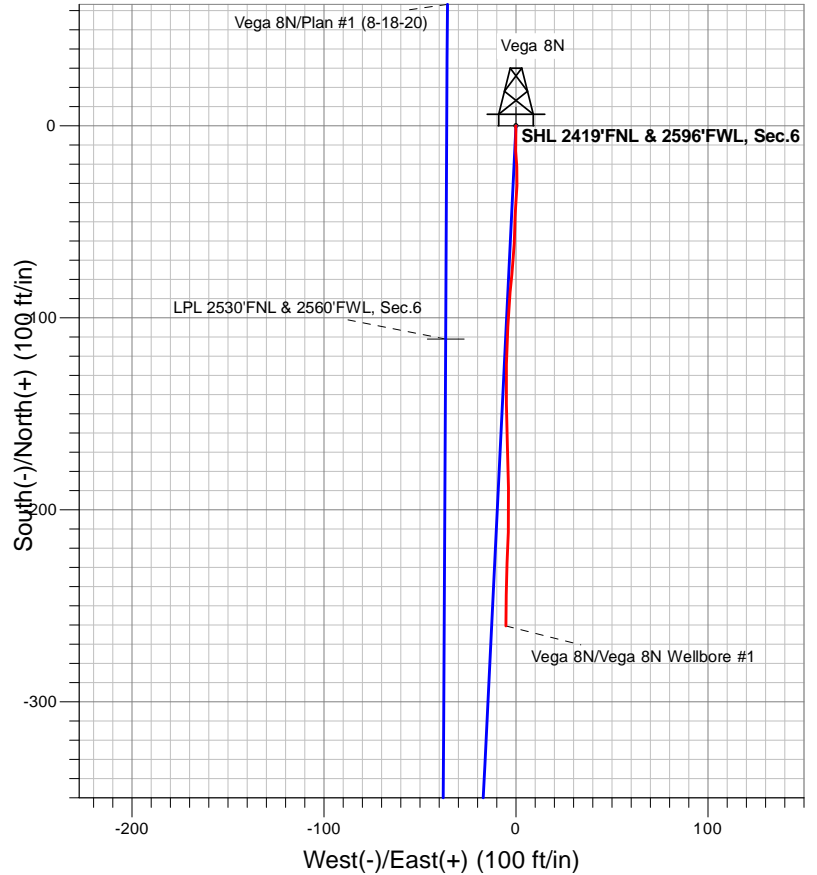
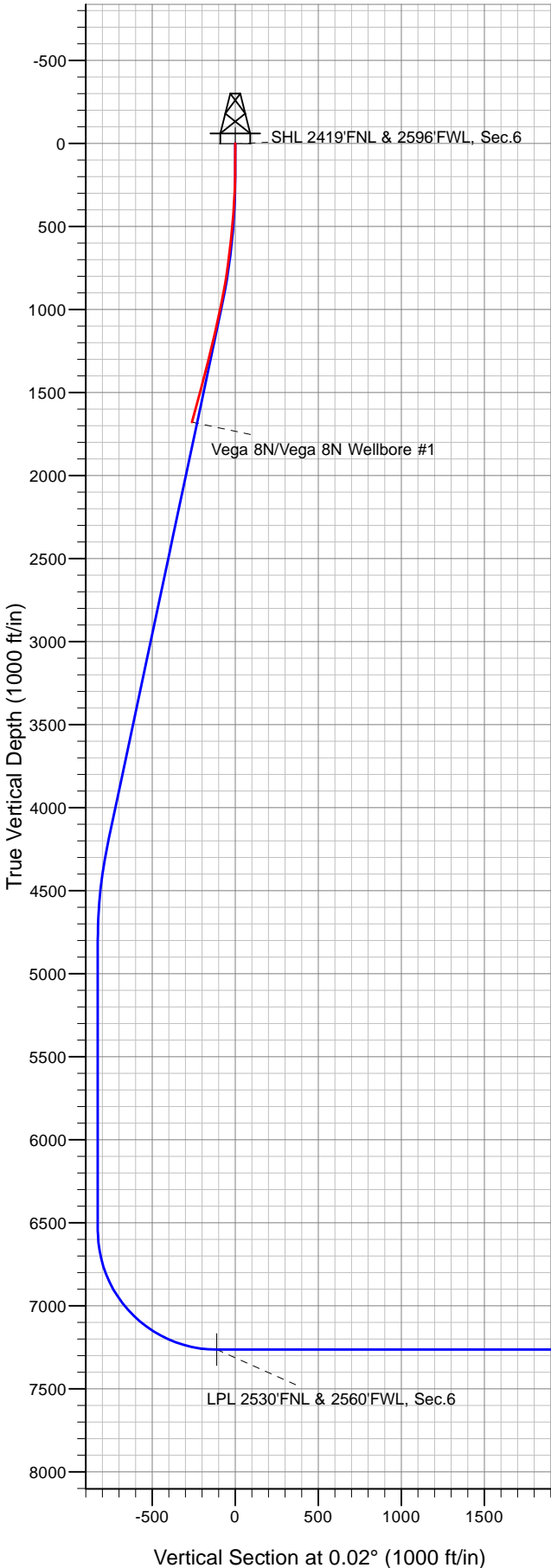


PDC Energy Inc. DJ Basin



LEGEND

- + Vega 8N, Vega 8N Wellbore #1, Plan #1 (8-18-20) V0
- + Vega 8N Wellbore #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Vega 3N65W06 1-16 Pad
 Well: Vega 8N
 Plan: Vega 8N Wellbore #1



PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Vega 3N65W06 1-16 Pad

Vega 8N

Vega 8N Wellbore #1

Design: Vega 8N Wellbore #1

Standard Survey Report

02 December, 2020

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 8N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Vega 3N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Vega 8N	North Reference:	True
Wellbore:	Vega 8N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 8N Wellbore #1	Database:	US_EDM

Project	SEC.6-T3N-R65W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Vega 3N65W06 1-16 Pad				
Site Position:		Northing:	1,336,847.37 usft	Latitude:	40.255324
From:	Lat/Long	Easting:	3,221,506.77 usft	Longitude:	-104.706356
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	Vega 8N					
Well Position	+N/-S	0.0 ft	Northing:	1,336,742.38 usft	Latitude:	40.255036
	+E/-W	0.0 ft	Easting:	3,221,508.13 usft	Longitude:	-104.706355
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,975.0 ft

Wellbore	Vega 8N Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	08/18/2020	7.98	66.62	52,045

Design	Vega 8N Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	7,263.0	0.0	0.0		0.02

Survey Program	Date	12/02/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
147.0	1,705.0	Survey #1 (Vega 8N Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
147.0	0.26	214.35	147.0	-0.3	-0.2	-0.3	0.18	0.18	0.00	
239.0	1.41	165.13	239.0	-1.5	0.0	-1.5	1.36	1.25	-53.50	
330.0	2.99	186.75	329.9	-5.0	0.0	-5.0	1.93	1.74	23.76	
450.0	4.84	177.61	449.6	-13.1	-0.2	-13.1	1.62	1.54	-7.62	
539.0	5.72	173.57	538.3	-21.3	0.5	-21.3	1.07	0.99	-4.54	
628.0	7.03	184.11	626.7	-31.1	0.6	-31.1	1.97	1.47	11.84	
717.0	6.86	183.76	715.1	-41.9	-0.1	-41.9	0.20	-0.19	-0.39	
806.0	8.79	181.12	803.2	-54.0	-0.6	-54.0	2.21	2.17	-2.97	
896.0	10.64	184.46	891.9	-69.1	-1.4	-69.1	2.15	2.06	3.71	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 8N
Project:	SEC.6-T3N-R65W	TVD Reference:	WELL @ 4988.0ft (Original Well Elev)
Site:	Vega 3N65W06 1-16 Pad	MD Reference:	WELL @ 4988.0ft (Original Well Elev)
Well:	Vega 8N	North Reference:	True
Wellbore:	Vega 8N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 8N Wellbore #1	Database:	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
985.0	12.13	186.05	979.2	-86.6	-3.0	-86.6	1.71	1.67	1.79	
1,070.0	12.31	181.83	1,062.3	-104.6	-4.3	-104.6	1.07	0.21	-4.96	
1,161.0	12.75	182.00	1,151.1	-124.3	-4.9	-124.3	0.49	0.48	0.19	
1,250.0	13.80	178.14	1,237.7	-144.7	-4.9	-144.7	1.54	1.18	-4.34	
1,339.0	13.89	179.54	1,324.1	-166.0	-4.5	-166.0	0.39	0.10	1.57	
1,429.0	15.21	177.43	1,411.2	-188.6	-3.9	-188.6	1.58	1.47	-2.34	
1,519.0	14.51	183.06	1,498.2	-211.7	-3.9	-211.7	1.78	-0.78	6.26	
1,645.0	15.56	180.77	1,619.9	-244.3	-5.0	-244.3	0.96	0.83	-1.82	
1,705.0	15.56	180.77	1,677.7	-260.4	-5.2	-260.4	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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