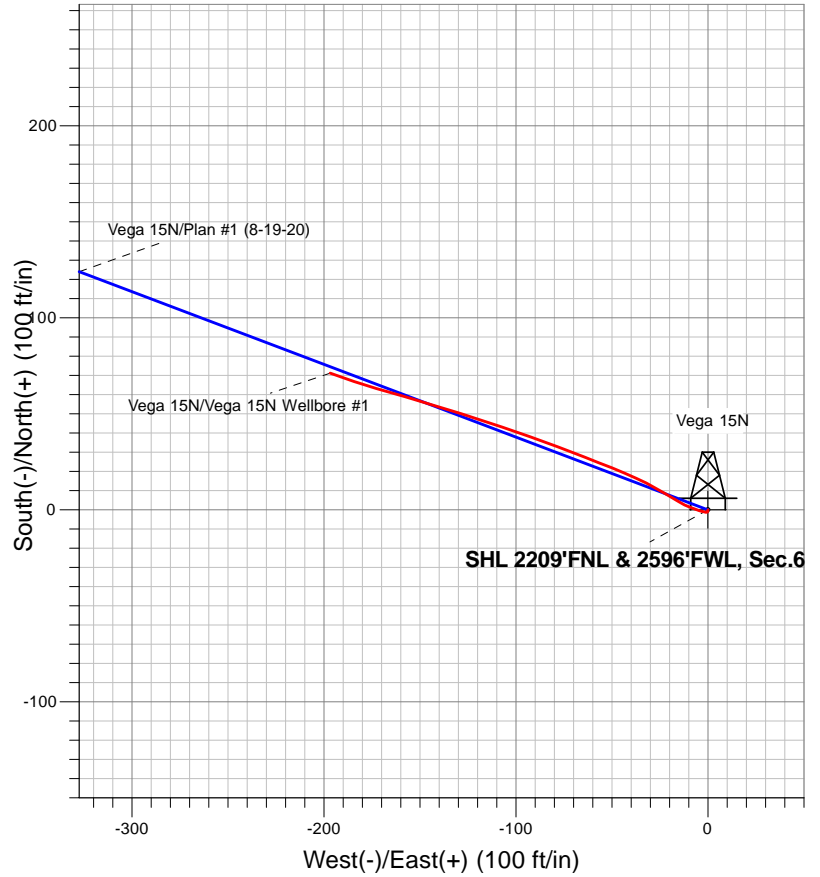
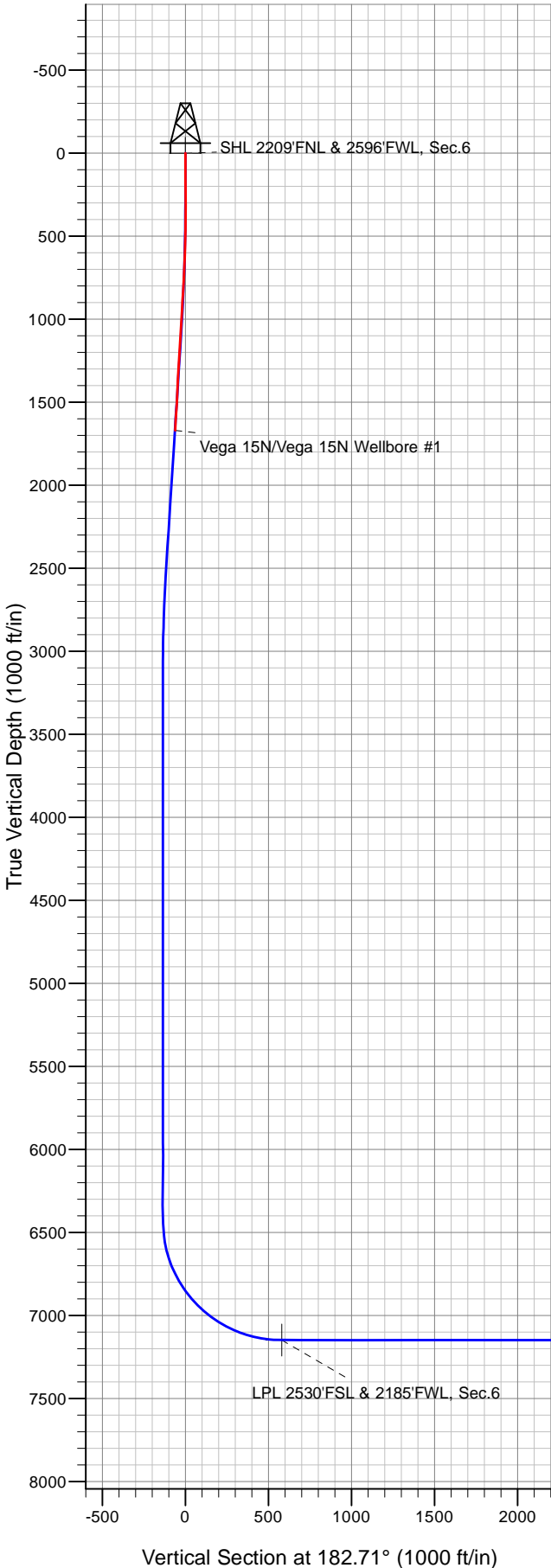


PDC Energy Inc. DJ Basin



LEGEND

- Vega 15N, Vega 15N Wellbore #1, Plan #1 (8-19-20) V0
- Vega 15N Wellbore #1

Final Survey Plot

Project: SEC.6-T3N-R65W
 Site: Vega 3N65W06 1-16 Pad
 Well: Vega 15N
 Plan: Vega 15N Wellbore #1



PDC Energy Inc. DJ Basin

SEC.6-T3N-R65W

Vega 3N65W06 1-16 Pad

Vega 15N

Vega 15N Wellbore #1

Design: Vega 15N Wellbore #1

Standard Survey Report

01 December, 2020

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 15N
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 15N	North Reference:	True
Wellbore:	Vega 15N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 15N 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 15N					
Well Position	+N/-S	0.0 ft	Northing:	1,336,952.31 usft	Latitude:	40.255612
	+E/-W	0.0 ft	Easting:	3,221,505.44 usft	Longitude:	-104.706358
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,975.0 ft

Wellbore	Vega 15N Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	08/19/2020	7.98	66.62	52,045

Design	Vega 15N 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 (°)	
	0.0	0.0	0.0	182.71	

Survey Program	Date	12/01/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
148.0	1,690.0	Survey #1 (Vega 15N 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	
148.0	0.35	186.93	148.0	-0.4	-0.1	0.5	0.24	0.24	0.00	
240.0	0.44	197.12	240.0	-1.1	-0.2	1.1	0.12	0.10	11.08	
331.0	0.88	272.00	331.0	-1.4	-1.0	1.4	0.96	0.48	82.29	
450.0	2.46	289.41	449.9	-0.5	-4.3	0.7	1.38	1.33	14.63	
540.0	4.04	289.76	539.8	1.2	-9.1	-0.8	1.76	1.76	0.39	
629.0	5.01	301.36	628.5	4.3	-15.4	-3.6	1.49	1.09	13.03	
718.0	6.33	301.18	717.1	8.9	-22.9	-7.8	1.48	1.48	-0.20	
807.0	7.12	296.96	805.5	13.9	-32.0	-12.4	1.05	0.89	-4.74	
897.0	8.71	292.92	894.6	19.1	-43.3	-17.0	1.87	1.77	-4.49	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Vega 15N
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 15N	North Reference:	True
Wellbore:	Vega 15N Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Vega 15N 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	10.46	291.34	981.4	24.6	-56.8	-21.9	2.01	1.99	-1.80
1,071.0	11.78	290.99	1,065.8	30.6	-72.3	-27.1	1.54	1.53	-0.41
1,161.0	11.26	289.58	1,153.9	36.8	-89.2	-32.5	0.66	-0.58	-1.57
1,251.0	11.52	289.05	1,242.2	42.7	-105.9	-37.6	0.31	0.29	-0.59
1,340.0	11.78	287.30	1,329.3	48.3	-123.0	-42.4	0.49	0.29	-1.97
1,430.0	12.75	287.47	1,417.3	54.0	-141.3	-47.3	1.08	1.08	0.19
1,520.0	13.28	285.01	1,505.0	59.7	-160.7	-52.0	0.85	0.59	-2.73
1,630.0	12.66	289.05	1,612.2	66.9	-184.3	-58.1	1.00	-0.56	3.67
1,690.0	12.66	289.05	1,670.7	71.2	-196.8	-61.8	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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