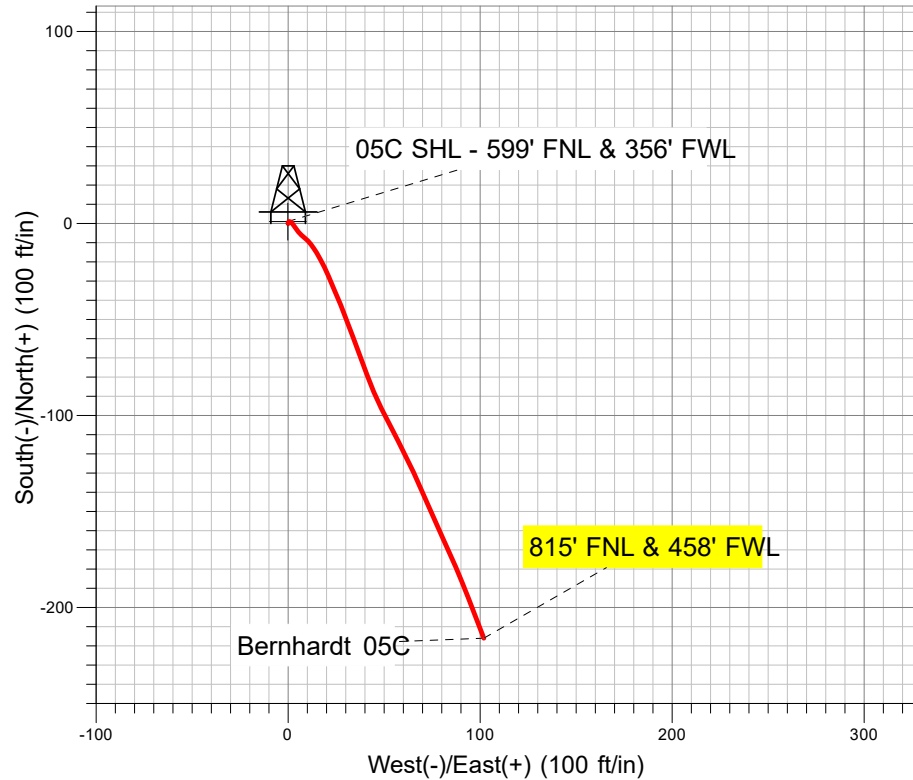
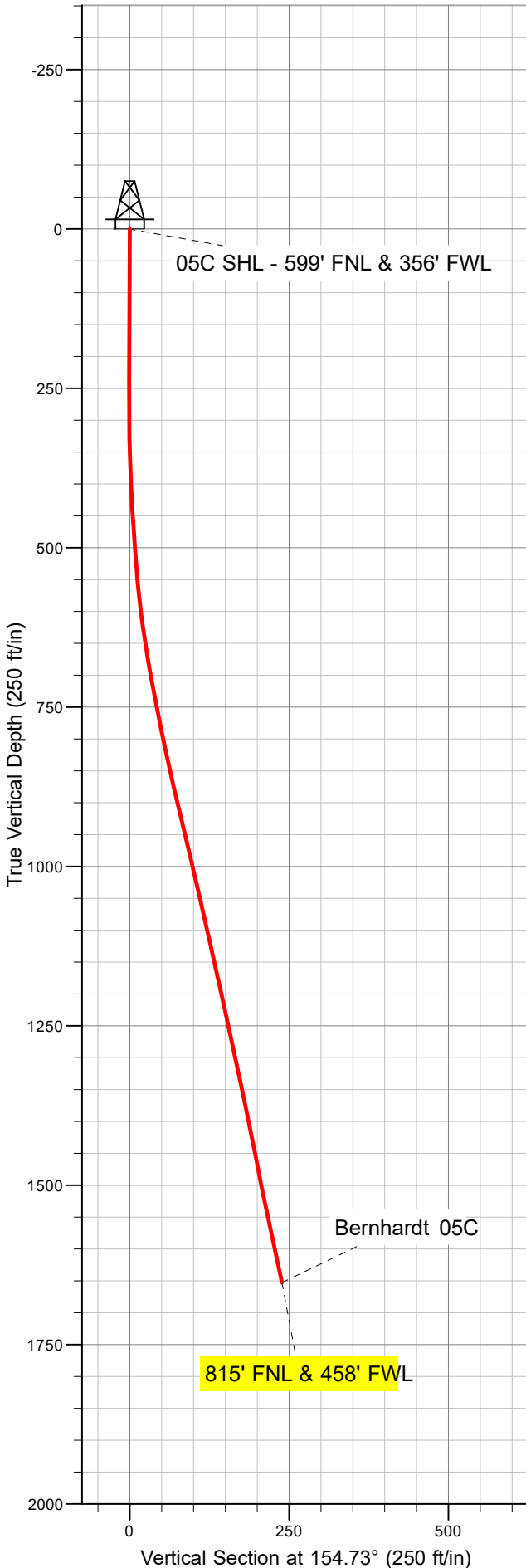




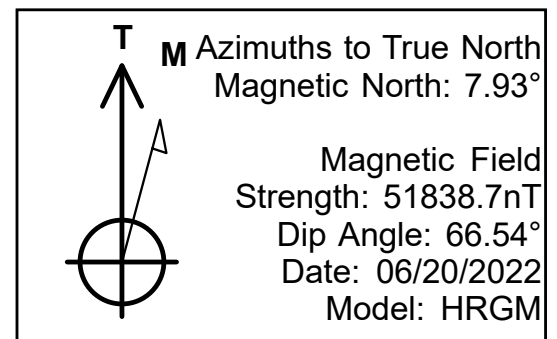
Well Name: Bernhardt 05C
Surface Location: Bernhardt 4-18
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4736.0
+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 1359237.13 3187264.77 40.317560 -104.828430
Ensign 122 - RKB 13' (As Built) WELL @ 4749.0ft (Ensign 122 - RKB 13' (As Built))

PDC Energy Inc. DJ Basin

Final Survey Plot



Project: SEC.18-T4N-R66W
Site: Bernhardt 4-18
Well: Bernhardt 05C
Plan: Bernhardt 05C





PDC Energy Inc. DJ Basin

SEC.18-T4N-R66W

Bernhardt 4-18

Bernhardt 05C

Bernhardt 05C

Design: Bernhardt 05C

Standard Survey Report

05 July, 2022

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Bernhardt 05C
Project:	SEC.18-T4N-R66W	TVD Reference:	WELL @ 4749.0ft (Ensign 122 - RKB 13' (As Built))
Site:	Bernhardt 4-18	MD Reference:	WELL @ 4749.0ft (Ensign 122 - RKB 13' (As Built))
Well:	Bernhardt 05C	North Reference:	True
Wellbore:	Bernhardt 05C	Survey Calculation Method:	Minimum Curvature
Design:	Bernhardt 05C	Database:	US_EDM

Project	SEC.18-T4N-R66W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Bernhardt 4-18			
Site Position:		Northing:	1,359,288.20 usft	Latitude:	40.317700
From:	Lat/Long	Easting:	3,187,272.84 usft	Longitude:	-104.828400
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.43 °

Well	Bernhardt 05C					
Well Position	+N/-S	0.0 ft	Northing:	1,359,237.13 usf	Latitude:	40.317560
	+E/-W	0.0 ft	Easting:	3,187,264.78 usf	Longitude:	-104.828431
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,736.0 ft

Wellbore	Bernhardt 05C				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	06/20/2022	7.93	66.54	51,838.74869816

Design	Bernhardt 05C				
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	154.73	

Survey Program	Date	07/05/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
146.0	1,677.0	Survey #1 (Bernhardt 05C)	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	
146.0	0.35	25.16	146.0	0.4	0.2	-0.3	0.24	0.24	0.00	
238.0	0.62	15.14	238.0	1.1	0.4	-0.8	0.31	0.29	-10.89	
329.0	1.32	129.92	329.0	0.9	1.4	-0.3	1.84	0.77	126.13	
444.0	3.52	147.55	443.9	-2.9	4.3	4.4	2.00	1.91	15.33	
531.0	5.10	128.87	530.6	-7.6	8.7	10.6	2.41	1.82	-21.47	
619.0	7.74	149.26	618.1	-15.1	14.8	20.0	3.92	3.00	23.17	
706.0	10.46	155.76	704.0	-27.4	21.0	33.7	3.34	3.13	7.47	
791.0	11.52	158.40	787.4	-42.3	27.3	49.9	1.38	1.25	3.11	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Bernhardt 05C
Project:	SEC.18-T4N-R66W	TVD Reference:	WELL @ 4749.0ft (Ensign 122 - RKB 13' (As Built))
Site:	Bernhardt 4-18	MD Reference:	WELL @ 4749.0ft (Ensign 122 - RKB 13' (As Built))
Well:	Bernhardt 05C	North Reference:	True
Wellbore:	Bernhardt 05C	Survey Calculation Method:	Minimum Curvature
Design:	Bernhardt 05C	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)	
878.0	13.19	159.28	872.4	-59.6	34.0	68.5	1.93	1.92	1.01	
965.0	13.54	160.16	957.1	-78.5	41.0	88.5	0.47	0.40	1.01	
1,050.0	12.93	153.65	1,039.8	-96.4	48.6	107.9	1.89	-0.72	-7.66	
1,135.0	12.66	151.72	1,122.7	-113.1	57.2	126.7	0.59	-0.32	-2.27	
1,221.0	12.22	155.59	1,206.7	-129.7	65.5	145.2	1.10	-0.51	4.50	
1,308.0	12.40	156.64	1,291.7	-146.7	73.0	163.8	0.33	0.21	1.21	
1,395.0	11.52	155.76	1,376.8	-163.2	80.3	181.8	1.03	-1.01	-1.01	
1,482.0	11.08	156.11	1,462.1	-178.7	87.2	198.9	0.51	-0.51	0.40	
1,569.0	12.13	158.93	1,547.3	-194.9	93.9	216.3	1.37	1.21	3.24	
1,617.0	12.05	159.10	1,594.3	-204.3	97.5	226.4	0.18	-0.17	0.35	
1,677.0	12.05	159.10	1,652.9	-216.0	101.9	238.8	0.00	0.00	0.00	
815' FNL & 458' FWL										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,677.0	1,652.9	-216.0	101.9	815' FNL & 458' FWL	

Checked By: _____	Approved By: _____	Date: _____
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