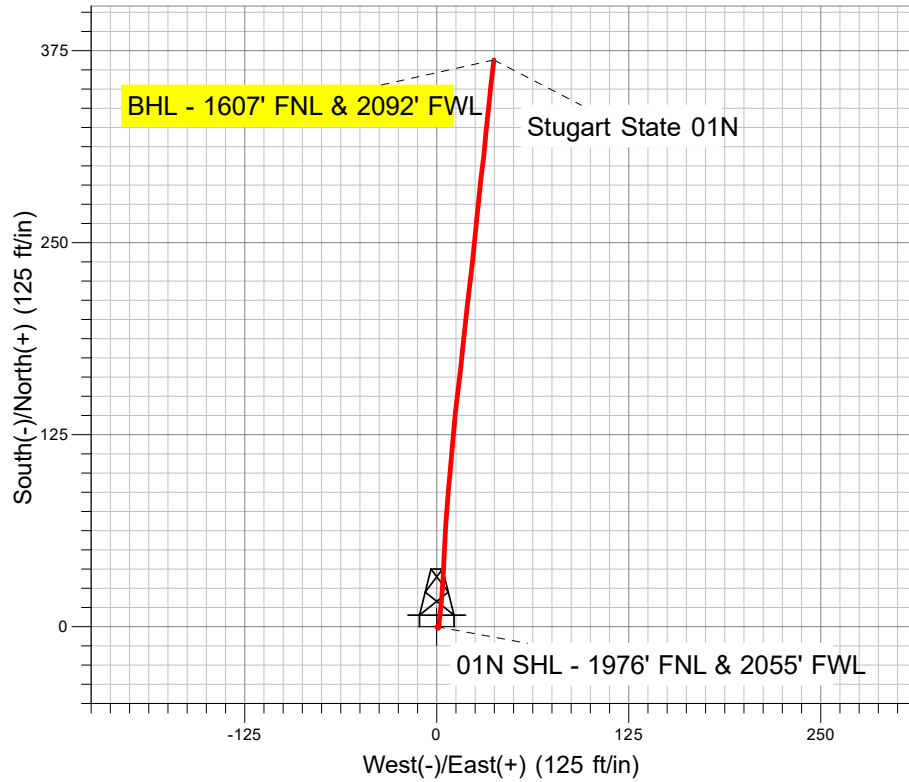
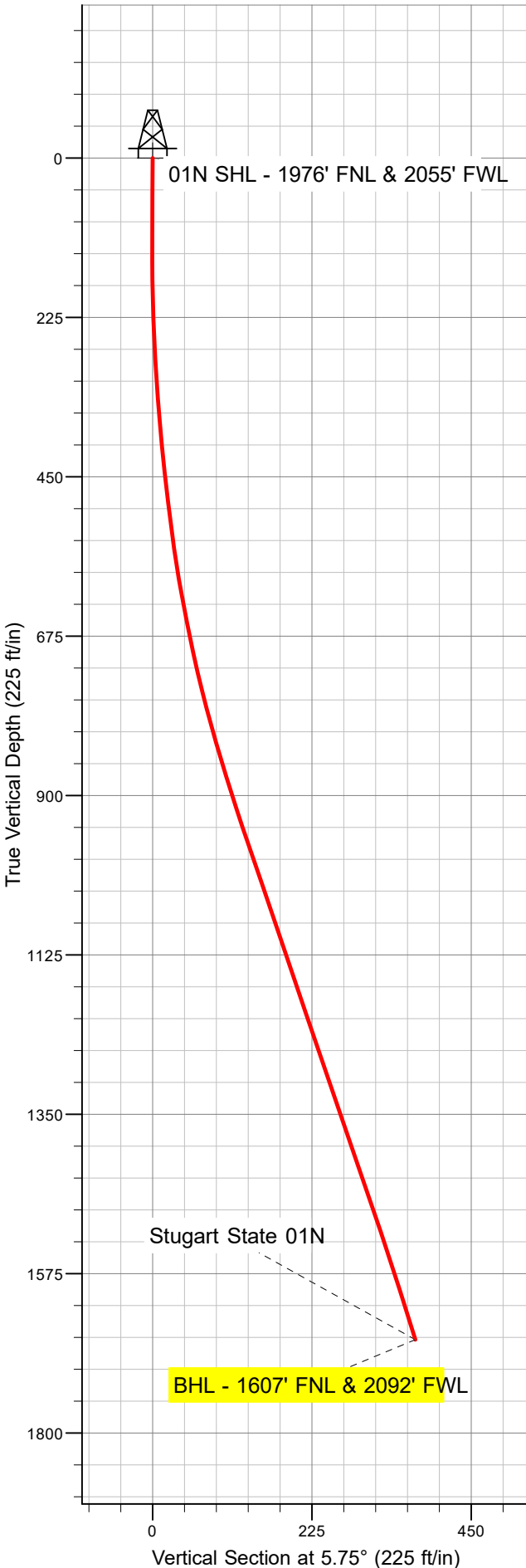




Well Name: Stugart State 01N
 Surface Location: Stugart State 6-20
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4885.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 1384531.66 3193390.47 40.38685 -104.80574
 ENSIGN 122 - RKB 13' WELL @ 4898.0ft (ENSIGN 122 - RKB 13')

PDC Energy Inc. DJ Basin

Final Survey Plot



Project: SEC.20-T5N-R66W
 Site: Stugart State 6-20
 Well: Stugart State 01N
 Plan: Stugart State 01N

M Azimuths to True North
 Magnetic North: 7.87°

Magnetic Field
 Strength: 51873.8nT
 Dip Angle: 66.62°
 Date: 07/06/2022
 Model: HRGM





PDC Energy Inc. DJ Basin

SEC.20-T5N-R66W

Stugart State 6-20

Stugart State 01N

Stugart State 01N

Design: Stugart State 01N

Standard Survey Report

26 July, 2022



Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Stugart State 01N
Project:	SEC.20-T5N-R66W	TVD Reference:	WELL @ 4898.0ft (ENSIGN 122 - RKB 13')
Site:	Stugart State 6-20	MD Reference:	WELL @ 4898.0ft (ENSIGN 122 - RKB 13')
Well:	Stugart State 01N	North Reference:	True
Wellbore:	Stugart State 01N	Survey Calculation Method:	Minimum Curvature
Design:	Stugart State 01N	Database:	US_EDM

Project	SEC.20-T5N-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	Stugart State 6-20				
Site Position:		Northing:	1,384,531.67 usft	Latitude:	40.386863
From:	Lat/Long	Easting:	3,193,390.47 usft	Longitude:	-104.805753
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	Stugart State 01N					
Well Position	+N/-S	0.0 ft	Northing:	1,384,531.66 usft	Latitude:	40.38685
	+E/-W	0.0 ft	Easting:	3,193,390.47 usft	Longitude:	-104.80574
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,885.0 ft

Wellbore	Stugart State 01N				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	07/06/2022	7.87	66.62	51,873.76040521

Design	Stugart State 01N				
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	5.75	

Survey Program	Date 07/26/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
55.0	1,722.0	Survey #1 (Stugart State 01N)	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	
55.0	1.06	147.97	55.0	-0.4	0.3	-0.4	1.93	1.93	0.00	
145.0	0.70	62.01	145.0	-0.9	1.2	-0.8	1.36	-0.40	-95.51	
237.0	2.29	357.32	237.0	1.2	1.6	1.4	2.27	1.73	-70.32	
328.0	4.04	5.76	327.8	6.2	1.8	6.4	1.98	1.92	9.27	
444.0	6.33	6.46	443.3	16.6	3.0	16.9	1.97	1.97	0.60	
531.0	7.47	4.53	529.7	27.1	4.0	27.3	1.34	1.31	-2.22	
618.0	10.38	1.54	615.6	40.5	4.6	40.8	3.39	3.34	-3.44	
702.0	12.13	3.30	698.0	56.9	5.3	57.2	2.12	2.08	2.10	
787.0	15.04	4.35	780.6	76.8	6.7	77.1	3.44	3.42	1.24	

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well Stugart State 01N
Project:	SEC.20-T5N-R66W	TVD Reference:	WELL @ 4898.0ft (ENSIGN 122 - RKB 13')
Site:	Stugart State 6-20	MD Reference:	WELL @ 4898.0ft (ENSIGN 122 - RKB 13')
Well:	Stugart State 01N	North Reference:	True
Wellbore:	Stugart State 01N	Survey Calculation Method:	Minimum Curvature
Design:	Stugart State 01N	Database:	US_EDM

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)
872.0	16.97	5.41	862.3	100.2	8.7	100.5	2.30	2.27	1.25
958.0	18.55	4.53	944.2	126.3	10.9	126.8	1.86	1.84	-1.02
1,044.0	19.26	7.52	1,025.6	154.0	13.9	154.6	1.40	0.83	3.48
1,129.0	18.29	5.41	1,106.1	181.2	17.0	182.0	1.39	-1.14	-2.48
1,217.0	19.17	6.82	1,189.4	209.3	20.0	210.2	1.12	1.00	1.60
1,304.0	18.64	6.46	1,271.7	237.3	23.3	238.4	0.62	-0.61	-0.41
1,389.0	18.91	4.88	1,352.2	264.5	26.0	265.8	0.68	0.32	-1.86
1,476.0	19.17	7.34	1,434.4	292.7	29.0	294.1	0.97	0.30	2.83
1,562.0	18.55	4.88	1,515.8	320.3	31.9	321.9	1.17	-0.72	-2.86
1,647.0	17.94	6.99	1,596.6	346.8	34.7	348.5	1.06	-0.72	2.48
1,662.0	17.32	6.29	1,610.8	351.3	35.2	353.1	4.37	-4.13	-4.67
1,722.0	17.32	6.29	1,668.1	369.1	37.2	370.9	0.00	0.00	0.00
BHL - 1607' FNL & 2092' FWL									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,722.0	1,668.1	369.1	37.2	BHL - 1607' FNL & 2092' FWL

Checked By: _____ Approved By: _____ Date: _____