



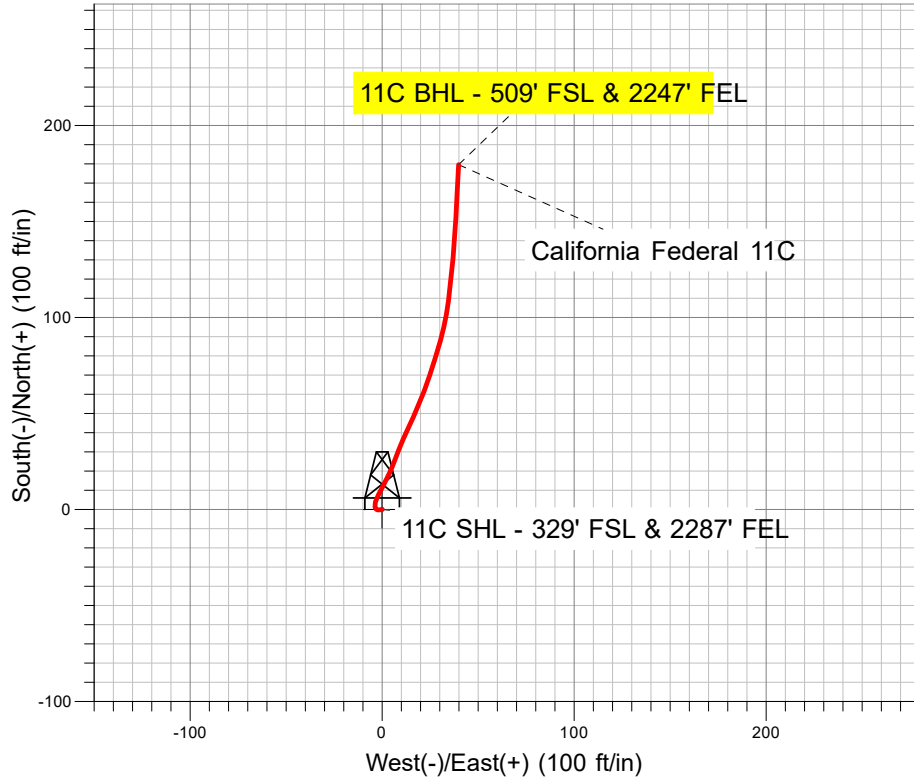
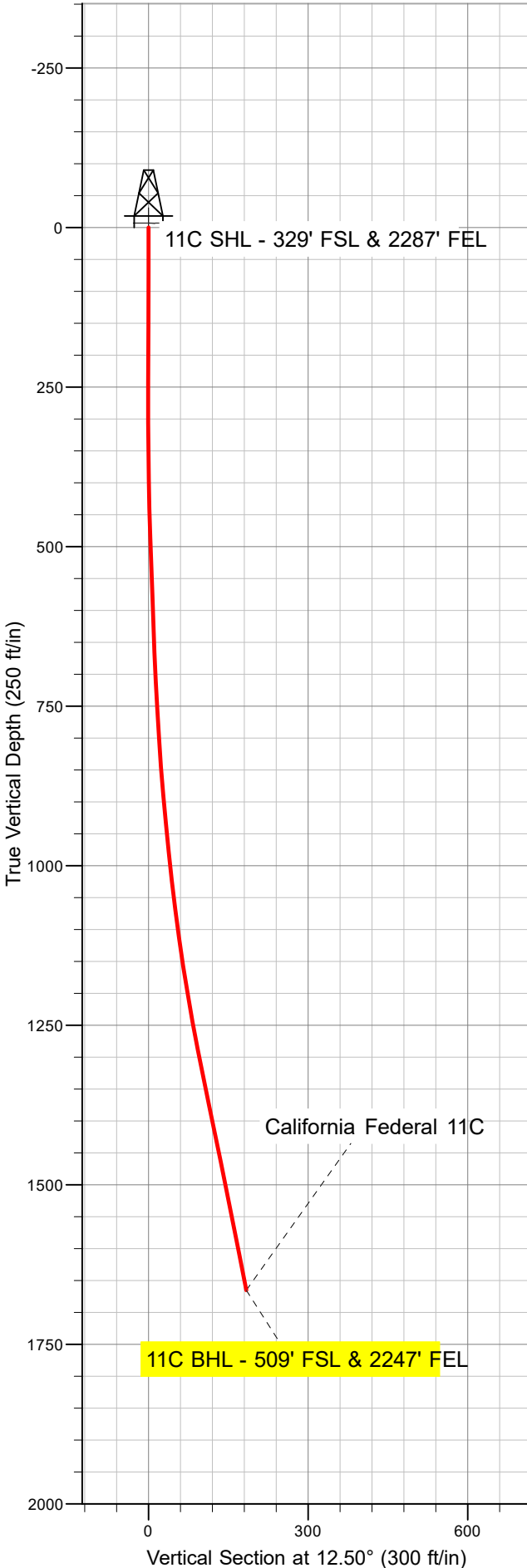
Well Name: California Federal 11C
 Surface Location: California Pad
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4900.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1451038.77	3210156.84	40.569040	-104.743530

 ICON - RKB 5' WELL @ 4905.0ft (ICON - RKB 5')

PDC Energy Inc. DJ Basin

Final Survey Plot



Project: SEC.14-T7N-R66W
 Site: California Pad
 Well: California Federal 11C
 Plan: California Federal 11C

M Azimuths to True North
 Magnetic North: 7.77°

Magnetic Field
 Strength: 51953.6nT
 Dip Angle: 66.79°
 Date: 06/09/2022
 Model: HRGM





PDC Energy Inc. DJ Basin

SEC.14-T7N-R66W

California Pad

California Federal 11C

California Federal 11C

Design: California Federal 11C

Standard Survey Report

13 June, 2022



Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well California Federal 11C
Project:	SEC.14-T7N-R66W	TVD Reference:	WELL @ 4905.0ft (ICON - RKB 5')
Site:	California Pad	MD Reference:	WELL @ 4905.0ft (ICON - RKB 5')
Well:	California Federal 11C	North Reference:	True
Wellbore:	California Federal 11C	Survey Calculation Method:	Minimum Curvature
Design:	California Federal 11C	Database:	US_EDM

Project	SEC.14-T7N-R66W, Weld County, CO		
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	California Pad				
Site Position:		Northing:	1,450,951.37 usft	Latitude:	40.568800
From:	Lat/Long	Easting:	3,210,160.36 usft	Longitude:	-104.743520
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	California Federal 11C					
Well Position	+N/-S	0.0 ft	Northing:	1,451,038.77 usft	Latitude:	40.569040
	+E/-W	0.0 ft	Easting:	3,210,156.84 usft	Longitude:	-104.743530
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,900.0 ft

Wellbore	California Federal 11C				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	06/09/2022	7.77	66.79	51,953.58265760

Design	California Federal 11C				
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	12.50	

Survey Program	Date	06/13/2022			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
66.0	1,683.0	Survey #1 (California Federal 11C)	MWD	MWD - Standard	

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
66.0	0.50	252.50	66.0	-0.1	-0.3	-0.1	0.76	0.76	0.00
156.0	0.60	284.30	156.0	-0.1	-1.1	-0.3	0.35	0.11	35.33
245.0	0.90	259.50	245.0	-0.1	-2.2	-0.6	0.49	0.34	-27.87
306.0	0.80	315.70	306.0	0.1	-3.0	-0.5	1.32	-0.16	92.13
396.0	1.10	338.80	396.0	1.4	-3.8	0.5	0.53	0.33	25.67
486.0	2.50	18.80	485.9	4.0	-3.4	3.2	2.00	1.56	44.44
576.0	2.60	27.10	575.8	7.7	-1.9	7.1	0.42	0.11	9.22
666.0	2.70	27.30	665.7	11.4	0.0	11.1	0.11	0.11	0.22
756.0	4.10	27.60	755.6	16.1	2.5	16.3	1.56	1.56	0.33

Company:	PDC Energy Inc. DJ Basin	Local Co-ordinate Reference:	Well California Federal 11C
Project:	SEC.14-T7N-R66W	TVD Reference:	WELL @ 4905.0ft (ICON - RKB 5')
Site:	California Pad	MD Reference:	WELL @ 4905.0ft (ICON - RKB 5')
Well:	California Federal 11C	North Reference:	True
Wellbore:	California Federal 11C	Survey Calculation Method:	Minimum Curvature
Design:	California Federal 11C	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)	
846.0	5.20	21.70	845.3	22.8	5.5	23.4	1.33	1.22	-6.56	
936.0	6.60	20.40	934.8	31.4	8.8	32.6	1.56	1.56	-1.44	
1,026.0	8.00	25.90	1,024.1	41.9	13.3	43.8	1.74	1.56	6.11	
1,116.0	9.70	22.70	1,113.0	54.5	19.0	57.4	1.97	1.89	-3.56	
1,206.0	11.40	18.70	1,201.5	70.0	24.8	73.7	2.06	1.89	-4.44	
1,296.0	13.20	15.90	1,289.4	88.3	30.4	92.8	2.11	2.00	-3.11	
1,386.0	14.20	7.10	1,376.9	109.1	34.6	114.0	2.57	1.11	-9.78	
1,476.0	13.90	5.30	1,464.2	130.8	37.0	135.7	0.59	-0.33	-2.00	
1,566.0	13.70	2.70	1,551.6	152.2	38.5	157.0	0.72	-0.22	-2.89	
1,623.0	13.50	2.80	1,607.0	165.6	39.1	170.2	0.35	-0.35	0.18	
1,683.0	13.50	2.80	1,665.3	179.6	39.8	184.0	0.00	0.00	0.00	
11C BHL - 509' FSL & 2247' FEL										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,683.0	1,665.3	179.6	39.8	11C BHL - 509' FSL & 2247' FEL	

Checked By: _____	Approved By: _____	Date: _____
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