

# Cement Post Job Report

**Client:** PDC Energy

**Well Name:** Bost Farm 16N-8A-L

**API #:** 05-123-51448-00

**Job Date:** April 22, 2022

**Job Type:** New Well - 5.5" Production String

**Cement Company & Contact:** EXERO Well Integrity -  
Cheve Meyer 720-239-3819



ROCK SOLID  
WELL INTEGRITY  
SOLUTIONS

## Treatment Report

Client PDC		Well Name & No. Bost Farm 16N-8A-L		Rig Name & No. Patterson 272		Date 4/22/2022	
Job Type Production		Wellhead Connection 5 1/2" HP Cement Head		Casing/Tubing Thread Type Buttress		BHST Deg 275	BHCT Deg 200
Well MD (ft) 17995	Well TVD (ft) 7072	Deg Dev. 90	No. of Stages 1	Tapered String No	Max. PSI. 7000	Max. Ann. PSI. 2500	
Packer/Retainer/DV Tool Depth		Top of Perfs NA		Bottom of Perfs NA		Number of Holes NA	

### Pipe/String Details

String	Type of Casing, Tub, DP	OD"	Wt-lb/Ft	ID"	OH Size"	% Excess Lead	% Excess Tail	Depth (ft)
Surface	Casing	9.625	36					1700
Production	Casing	5.5	20	4.778	8.5	0	0	17983

### Pre-Job Mud and Well Conditions

Mud Type	OBM	Pipe Rotation		Circulation Data			
Mud wt. ppg	10.4	Rotate Y,N	Yes	Time Circulated (hrs)		2.5	
Flow Temp		Rate		Circulation Rate (bpm)		8	
Vis. Sec/qt		Torque Val.		Full Circulation (Y,N, Partial)		Yes	
PV (cP)		Rotate Time		Gas Present (Y,N)		Yes	Units
Yield Pt		Pipe Reciprocation		Centralizers/Plugs			
10 sec gel		Recip Y,N	No	Quantity & Type			
10 min gel		Stroke (ft)		Top Plug/Type		PDC Provided	
30 min gel		Recip time		Bottom Plug/Type/Burst psi		PDC Provided	

### Prejob Calculated Materials, Volumes, & Rates

Preflush & Spacers		Stage 1 Lead: Class G		Stage 1 Tail: Class G		Stage 2 Lead: NA		Stage 2 Tail: NA		Displacement	
Spacer 1	Spacer	Density	12.9	Density	13.7	Density		Density		Fluid Type	Water
Density	12	Sacks	1276	Sacks	1565	Sacks		Sacks		Density	8.33
Volume	140	Vol/bbls	256.8	Vol/bbls	381.9	Vol/bbls	0.0	Vol/bbls	0.0	Volume (bbls)	399.3
Rate	10	Rate	11	Rate	11	Rate		Rate		Rate (bpm)	10
Spacer 2		Yield	1.13	Yield	1.37	Yield		Yield		Clay Stabilizer?	No
Density		Gal/Sk	3.9	Gal/Sk	6.63	Gal/Sk		Gal/Sk		Biocide/Inhibitor?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow Rate @ bbl	380
Rate		Lead Top	2377	Tail Top	8651	Lead Top		Tail Top		Bump (psi)	1900
H2O Req.	140	H2O Req.	118	H2O Req.	247	H2O Req.	0	H2O Req.	0	H2O Req.	399.3

### Post Job Details, Final Volumes & Pressures

Job Water Requirements (job+ washup+20% safety factor)				1086		bbls	
Actual Displacement (bbls)	399			Spacer to Surface		Yes	
Bump Plug?	yes			Spacer Volume To Pit (bbls)		32	
Final Bump Pressure	3500			Cement To Surface (Y,N)		No	
Full Returns Thru Job	Yes			Cement Volume To Surface		0	
Vol/Time When Circ. Loss				Surface Top Out?			
Vol/Time when Loss Stops				Top Out Volume (bbls)			

### Additional Post Job Notes



**ROCK SOLID**  
**WELL INTEGRITY**  
**SOLUTIONS**

### Job Treatment Log

Client	Well Name & Number			Rig Name		Date	Ambient Conditions ( Temperature / Humidity / Air Pressure )
PDC	Bost Farm 16N-8A-L			Patterson 272		4/22/2022	48 Deg F / 56% / 24.74 in
Date (MM/DD/YY)	Time (HH:MM)	Density (ppg)	Rate (bpm)	Volume (bbl)	Cumulative Volume (bbl)	Pressure	Treatment Details
4/21/2022	18:30						Arrive on Location Requested Time 20:00 ,Met with customer to get well information and discuss the job.
	20:30						Spot equipment
	20:45						Rig up
	21:30						Wait on rig to circulate to condition the well
	23:30						Safety Meeting with the rig crew
	23:45						Rig up floor line
	23:50						Began batching up spacer
4/22/2022	0:04	8.33	3.00	3.0		500.0	Fill Lines
	0:06					8000.0	Pressure test lines to 8000 PSI
	0:08						drop bottom plug
	0:17	12.00	10.00	140.0		2000.0	Pump Spacer @ 12 PPG with surfactants and fiber
	0:32						Shut down open wash up line
	0:35						Drop Bottom Plug
	0:40	12.90	10.00	256.0		1700.0	Mix and pump 1276 Sks Lead @ 12.9 PPG Yield 1.13 WR- 3.87 GAL/SK , Top of Lead @ 2359'
	1:14	13.70	9.00	382.0		1100.0	Mix and pump 1565 Sks Tail @ 13.7 PPG Yield 1.37 WR- 6.61 GAL/Sk , Top of Tail @ 8633'
	2:00	8.33	7.00	8.0		600.0	Pump 8 BBLs sugar water
	2:02						Shut down
	2:04						Wash Pump and lines
	2:06						Drop Top Plug / Rig up to casing
	2:12	8.33	10.00	50.0		3000.0	Start water displacement , sugar in the first 10 bbls and biocide in all.
	2:14	8.33	10.00	50.0	50.0	3600.0	Water displacement
	2:17	8.33	8.00	50.0	100.0	2700.0	Water displacement
	2:26	8.33	8.00	50.0	150.0	3200.0	Water displacement
	2:34	8.33	8.00	50.0	200.0	3500.0	Water displacement
	2:40	8.33	8.00	50.0	250.0	3600.0	Water displacement
	2:46	8.33	6.50	50.0	300.0	3600.0	Water displacement
	3:02	8.33	6.50	49.0	350.0	3600.0	Water displacement , spacer to surface @ 359 away 40 bbls back
	3:14	8.33	4.00		399.0	3000-3500	Land plug and bump it to 3500
	3:19						Check floats , floats held 6 bbls back
	3:21						Set packer per toolhand
	4:14	8.33	2.00	2.0		4100.0	Shift sleeve and pump wet shoe , sleeve opened @ 7700 psi
	4:20						Flush BOP stack clean.
	4:30						Rig down
	5:30						Depart location
							40 bbl spacer back to surface
							estimated top of lead 2359'
							estimated top of tail 8633'

Bost Farm 16N-8A-L Pump Chart – Pressure / Rate / Density





## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal					
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00		On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
7	1	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			17,904.4	78.56
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	43.57	Yes			17,817.5	165.48
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	43.31	Yes			17,730.9	252.13
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	41.34	Yes			17,646.7	336.32
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			17,559.0	424.04
17		Marker Joint A	5 1/2	20.00	P-110	Yes	10.23	Yes			17,505.1	477.87
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	43.18	Yes			17,418.9	564.10
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	42.78	Yes			17,332.6	650.43
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	43.52	Yes			17,245.0	737.99
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	43.23	Yes			17,159.0	824.03
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	42.95	Yes			17,072.6	910.38
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	42.73	Yes			16,986.5	996.46
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	42.77	Yes			16,900.6	1,082.41
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			16,813.3	1,169.75
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	43.03	Yes			16,726.9	1,256.11
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			16,641.7	1,341.28
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			16,555.3	1,427.73
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	43.45	Yes			16,468.5	1,514.52
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	42.98	Yes			16,382.1	1,600.87
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	43.74	Yes			16,295.0	1,687.96
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			16,209.0	1,773.97
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			16,122.8	1,860.22
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	44.00	Yes			16,036.0	1,947.02
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	43.45	Yes			15,949.1	2,033.93
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	42.33	Yes			15,863.4	2,119.60
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			15,777.1	2,205.91
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			15,692.7	2,290.35
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			15,606.0	2,376.99
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	41.61	Yes			15,521.1	2,461.87
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			15,435.0	2,547.99
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	42.26	Yes			15,349.6	2,633.43



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
69	62	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			15,263.4	2,719.63
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			15,175.9	2,807.06
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			15,089.1	2,893.86
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	42.90	Yes			15,004.1	2,978.86
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			14,918.1	3,064.90
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			14,830.7	3,152.27
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	43.23	Yes			14,746.9	3,236.07
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			14,660.6	3,322.43
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	43.20	Yes			14,573.4	3,409.65
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	39.97	Yes			14,489.8	3,493.25
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			14,402.4	3,580.60
91	84	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			14,315.0	3,667.97
93	86	Casing Joints	5 1/2	20.00	P-110	Yes	40.97	Yes			14,230.7	3,752.35
95	88	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			14,143.3	3,839.73
97	90	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			14,055.9	3,927.08
99	92	Casing Joints	5 1/2	20.00	P-110	Yes	42.69	Yes			13,969.6	4,013.43
101	94	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			13,882.2	4,100.80
103	96	Casing Joints	5 1/2	20.00	P-110	Yes	42.12	Yes			13,796.4	4,186.62
105	98	Casing Joints	5 1/2	20.00	P-110	Yes	41.82	Yes			13,710.9	4,272.09
107	100	Casing Joints	5 1/2	20.00	P-110	Yes	43.58	Yes			13,625.0	4,358.00
109	102	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			13,538.9	4,444.13
111	104	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			13,451.9	4,531.14
113	106	Casing Joints	5 1/2	20.00	P-110	Yes	42.72	Yes			13,365.9	4,617.06
115	108	Casing Joints	5 1/2	20.00	P-110	Yes	43.28	Yes			13,279.0	4,704.02
117	110	Casing Joints	5 1/2	20.00	P-110	Yes	42.15	Yes			13,193.8	4,789.24
119	112	Casing Joints	5 1/2	20.00	P-110	Yes	44.00	Yes			13,108.7	4,874.29
121	114	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			13,022.3	4,960.74
123	116	Casing Joints	5 1/2	20.00	P-110	Yes	42.71	Yes			12,936.2	5,046.78
125	118	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			12,849.8	5,133.25
127	120	Casing Joints	5 1/2	20.00	P-110	Yes	43.17	Yes			12,763.6	5,219.45
129	122	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			12,676.9	5,306.13



## Centralizer Depths

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Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
131	124	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			12,590.5	5,392.50
133	126	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			12,504.1	5,478.88
135		Marker Joint B	5 1/2	20.00	P-110	Yes	10.00	Yes			12,451.1	5,531.89
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	43.00	Yes			12,365.2	5,617.77
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			12,277.9	5,705.14
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			12,191.4	5,791.63
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	42.88	Yes			12,105.5	5,877.48
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	41.96	Yes			12,021.1	5,961.88
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	41.30	Yes			11,937.4	6,045.63
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			11,851.0	6,131.98
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	44.04	Yes			11,763.6	6,219.36
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	44.00	Yes			11,676.6	6,306.38
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	43.15	Yes			11,591.0	6,392.03
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	44.05	Yes			11,503.6	6,479.40
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			11,417.0	6,566.01
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			11,332.3	6,650.71
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			11,245.8	6,737.21
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	42.98	Yes			11,160.0	6,822.99
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	42.99	Yes			11,073.7	6,909.35
169	161	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			10,987.5	6,995.51
171	163	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			10,901.1	7,081.93
173	165	Casing Joints	5 1/2	20.00	P-110	Yes	42.57	Yes			10,814.9	7,168.13
175	167	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			10,730.5	7,252.55
177	169	Casing Joints	5 1/2	20.00	P-110	Yes	42.60	Yes			10,644.8	7,338.18
179	171	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			10,558.8	7,424.24
181	173	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			10,472.1	7,510.95
183	175	Casing Joints	5 1/2	20.00	P-110	Yes	42.61	Yes			10,386.1	7,596.95
185	177	Casing Joints	5 1/2	20.00	P-110	Yes	43.06	Yes			10,300.4	7,682.56
187	179	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			10,214.3	7,768.66
189	181	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			10,128.0	7,855.03
191	183	Casing Joints	5 1/2	20.00	P-110	Yes	43.25	Yes			10,041.4	7,941.63



## Centralizer Depths

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### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
193	185	Casing Joints	5 1/2	20.00	P-110	Yes	43.04	Yes			9,956.2	8,026.79
195	187	Casing Joints	5 1/2	20.00	P-110	Yes	42.49	Yes			9,870.4	8,112.65
197	189	Casing Joints	5 1/2	20.00	P-110	Yes	42.68	Yes			9,784.8	8,198.24
199	191	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			9,698.4	8,284.61
201	193	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			9,612.2	8,370.80
203	195	Casing Joints	5 1/2	20.00	P-110	Yes	42.63	Yes			9,526.6	8,456.38
205	197	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			9,441.4	8,541.56
207	199	Casing Joints	5 1/2	20.00	P-110	Yes	42.58	Yes			9,355.8	8,627.16
209	201	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			9,269.3	8,713.71
211	203	Casing Joints	5 1/2	20.00	P-110	Yes	39.72	Yes			9,187.2	8,795.85
213	205	Casing Joints	5 1/2	20.00	P-110	Yes	42.98	Yes			9,101.8	8,881.23
215	207	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			9,018.5	8,964.49
217	209	Casing Joints	5 1/2	20.00	P-110	Yes	43.19	Yes			8,932.3	9,050.66
219	211	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			8,846.0	9,136.98
221	213	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			8,758.9	9,224.10
223	215	Casing Joints	5 1/2	20.00	P-110	Yes	43.18	Yes			8,672.4	9,310.64
225	217	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			8,585.7	9,397.31
227	219	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			8,498.9	9,484.06
229	221	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			8,412.2	9,570.81
231	223	Casing Joints	5 1/2	20.00	P-110	Yes	42.23	Yes			8,326.2	9,656.76
233	225	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			8,239.3	9,743.74
235	227	Casing Joints	5 1/2	20.00	P-110	Yes	43.93	Yes			8,152.1	9,830.86
237		Marker Joint C	5 1/2	20.00	P-110	Yes	10.06	Yes			8,098.7	9,884.28
238	229	Casing Joints	5 1/2	20.00	P-110	Yes	43.06	Yes			8,055.7	9,927.34
239	230	Casing Joints	5 1/2	20.00	P-110	Yes	42.75	Yes			8,012.9	9,970.09
240	231	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			7,969.6	10,013.42
241	232	Casing Joints	5 1/2	20.00	P-110	Yes	43.58	Yes			7,926.0	10,057.00
242	233	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			7,882.6	10,100.39
243	234	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			7,839.3	10,143.72
244	235	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			7,795.9	10,187.11
245	236	Casing Joints	5 1/2	20.00	P-110	Yes	42.38	Yes			7,753.5	10,229.49



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
246	237	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			7,709.7	10,273.35
247	238	Casing Joints	5 1/2	20.00	P-110	Yes	43.25	Yes			7,666.4	10,316.60
248	239	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			7,623.0	10,360.00
249	240	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			7,579.7	10,403.35
250	241	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			7,536.3	10,446.68
251	242	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			7,492.9	10,490.07
252	243	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			7,449.6	10,533.42
253	244	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			7,406.2	10,576.79
254	245	Casing Joints	5 1/2	20.00	P-110	Yes	40.77	Yes			7,365.4	10,617.56
255	246	Casing Joints	5 1/2	20.00	P-110	Yes	41.24	Yes			7,324.2	10,658.80
256	247	Casing Joints	5 1/2	20.00	P-110	Yes	42.75	Yes			7,281.5	10,701.55
257	248	Casing Joints	5 1/2	20.00	P-110	Yes	42.34	Yes			7,239.1	10,743.89
258	249	Casing Joints	5 1/2	20.00	P-110	Yes	42.64	Yes			7,196.5	10,786.53
259	250	Casing Joints	5 1/2	20.00	P-110	Yes	43.32	Yes			7,153.2	10,829.85
260	251	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			7,109.5	10,873.55
261	252	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			7,066.1	10,916.88
262	253	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			7,022.7	10,960.27
263	254	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			6,979.3	11,003.68
264	255	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			6,935.6	11,047.37
265	256	Casing Joints	5 1/2	20.00	P-110	Yes	41.73	Yes			6,893.9	11,089.10
266	257	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			6,850.5	11,132.50
267	258	Casing Joints	5 1/2	20.00	P-110	Yes	42.76	Yes			6,807.7	11,175.26
268	259	Casing Joints	5 1/2	20.00	P-110	Yes	42.03	Yes			6,765.7	11,217.29
269	260	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			6,722.3	11,260.69
270		Marker Joint G	5 1/2	20.00	P-110	Yes	21.38	Yes			6,700.9	11,282.07
271	261	Casing Joints	5 1/2	20.00	P-110	Yes	42.98	Yes			6,658.0	11,325.05
272	262	Casing Joints	5 1/2	20.00	P-110	Yes	43.24	Yes			6,614.7	11,368.29
273	263	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			6,571.4	11,411.65
274	264	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			6,528.3	11,454.72
275	265	Casing Joints	5 1/2	20.00	P-110	Yes	42.63	Yes			6,485.7	11,497.35
276	266	Casing Joints	5 1/2	20.00	P-110	Yes	43.09	Yes			6,442.6	11,540.44



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
277	267	Casing Joints	5 1/2	20.00	P-110	Yes	43.06	Yes			6,399.5	11,583.50
278	268	Casing Joints	5 1/2	20.00	P-110	Yes	43.19	Yes			6,356.3	11,626.69
279	269	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			6,313.0	11,670.03
280	270	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			6,269.6	11,713.38
281	271	Casing Joints	5 1/2	20.00	P-110	Yes	42.60	Yes			6,227.0	11,755.98
282	272	Casing Joints	5 1/2	20.00	P-110	Yes	43.29	Yes			6,183.7	11,799.27
283	273	Casing Joints	5 1/2	20.00	P-110	Yes	43.76	Yes			6,140.0	11,843.03
284	274	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			6,096.6	11,886.38
285	275	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			6,053.3	11,929.74
286	276	Casing Joints	5 1/2	20.00	P-110	Yes	42.48	Yes			6,010.8	11,972.22
287	277	Casing Joints	5 1/2	20.00	P-110	Yes	42.93	Yes			5,967.9	12,015.15
288	278	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			5,923.8	12,059.18
289	279	Casing Joints	5 1/2	20.00	P-110	Yes	43.94	Yes			5,879.9	12,103.12
290	280	Casing Joints	5 1/2	20.00	P-110	Yes	44.05	Yes			5,835.8	12,147.17
291	281	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			5,792.8	12,190.24
292	282	Casing Joints	5 1/2	20.00	P-110	Yes	41.75	Yes			5,751.0	12,231.99
293	283	Casing Joints	5 1/2	20.00	P-110	Yes	43.08	Yes			5,707.9	12,275.07
294	284	Casing Joints	5 1/2	20.00	P-110	Yes	43.55	Yes			5,664.4	12,318.62
295	285	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			5,620.7	12,362.32
296	286	Casing Joints	5 1/2	20.00	P-110	Yes	43.53	Yes			5,577.2	12,405.85
297	287	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			5,533.5	12,449.51
298	288	Casing Joints	5 1/2	20.00	P-110	Yes	43.58	Yes			5,489.9	12,493.09
299	289	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			5,446.2	12,536.82
300	290	Casing Joints	5 1/2	20.00	P-110	Yes	42.30	Yes			5,403.9	12,579.12
301	291	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			5,360.2	12,622.82
302	292	Casing Joints	5 1/2	20.00	P-110	Yes	43.02	Yes			5,317.2	12,665.84
303	293	Casing Joints	5 1/2	20.00	P-110	Yes	41.23	Yes			5,275.9	12,707.07
304	294	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			5,232.3	12,750.74
305	295	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			5,188.6	12,794.40
306	296	Casing Joints	5 1/2	20.00	P-110	Yes	44.05	Yes			5,144.6	12,838.45
307	297	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			5,100.9	12,882.14



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwlry	Connections	Top (ftKB)	Cum Len (ft)
308	298	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			5,057.2	12,925.84
309	299	Casing Joints	5 1/2	20.00	P-110	Yes	41.91	Yes			5,015.3	12,967.75
310	300	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			4,971.9	13,011.08
311	301	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			4,928.5	13,054.48
312	302	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			4,885.1	13,097.87
313	303	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			4,841.7	13,141.28
314	304	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			4,798.4	13,184.65
315	305	Casing Joints	5 1/2	20.00	P-110	Yes	43.25	Yes			4,755.1	13,227.90
316	306	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			4,711.7	13,271.29
317	307	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			4,668.3	13,314.67
318	308	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			4,625.0	13,358.02
319	309	Casing Joints	5 1/2	20.00	P-110	Yes	42.64	Yes			4,582.3	13,400.66
320	310	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			4,538.7	13,444.32
321	311	Casing Joints	5 1/2	20.00	P-110	Yes	42.86	Yes			4,495.8	13,487.18
322	312	Casing Joints	5 1/2	20.00	P-110	Yes	44.07	Yes			4,451.8	13,531.25
323	313	Casing Joints	5 1/2	20.00	P-110	Yes	42.30	Yes			4,409.5	13,573.55
324	314	Casing Joints	5 1/2	20.00	P-110	Yes	42.48	Yes			4,367.0	13,616.03
325	315	Casing Joints	5 1/2	20.00	P-110	Yes	41.97	Yes			4,325.0	13,658.00
326	316	Casing Joints	5 1/2	20.00	P-110	Yes	43.32	Yes			4,281.7	13,701.32
327	317	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			4,238.4	13,744.65
328	318	Casing Joints	5 1/2	20.00	P-110	Yes	42.45	Yes			4,195.9	13,787.10
329	319	Casing Joints	5 1/2	20.00	P-110	Yes	43.33	Yes			4,152.6	13,830.43
330	320	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			4,109.5	13,873.50
331	321	Casing Joints	5 1/2	20.00	P-110	Yes	40.85	Yes			4,068.7	13,914.35
332	322	Casing Joints	5 1/2	20.00	P-110	Yes	43.20	Yes			4,025.5	13,957.55
333	323	Casing Joints	5 1/2	20.00	P-110	Yes	39.45	Yes			3,986.0	13,997.00
334	324	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			3,942.7	14,040.34
335	325	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			3,899.3	14,083.71
336	326	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			3,855.6	14,127.41
337	327	Casing Joints	5 1/2	20.00	P-110	Yes	43.30	Yes			3,812.3	14,170.71
338	328	Casing Joints	5 1/2	20.00	P-110	Yes	42.20	Yes			3,770.1	14,212.91



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
339	329	Casing Joints	5 1/2	20.00	P-110	Yes	42.37	Yes			3,727.7	14,255.28
340	330	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			3,684.4	14,298.63
341	331	Casing Joints	5 1/2	20.00	P-110	Yes	42.14	Yes			3,642.2	14,340.77
342	332	Casing Joints	5 1/2	20.00	P-110	Yes	43.53	Yes			3,598.7	14,384.30
343	333	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			3,555.0	14,427.99
344	334	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			3,511.6	14,471.36
345	335	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			3,468.3	14,514.72
346	336	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			3,424.9	14,558.06
347	337	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			3,381.6	14,601.43
348	338	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			3,338.2	14,644.83
349	339	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			3,294.5	14,688.51
350	340	Casing Joints	5 1/2	20.00	P-110	Yes	43.36	Yes			3,251.1	14,731.87
351	341	Casing Joints	5 1/2	20.00	P-110	Yes	42.83	Yes			3,208.3	14,774.70
352	342	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			3,165.2	14,817.77
353	343	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			3,121.3	14,861.67
354	344	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			3,077.9	14,905.08
355	345	Casing Joints	5 1/2	20.00	P-110	Yes	43.98	Yes			3,033.9	14,949.06
356		Cross Over A	5 1/2	20.00	P-110	Yes	5.03	Yes			3,028.9	14,954.09
358		Casing Joints B	5 1/2	20.00	P-110	Yes	5.10	Yes			3,008.7	14,974.31
359	346	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			2,965.6	15,017.36
360	347	Casing Joints	5 1/2	20.00	P-110	Yes	43.98	Yes			2,921.7	15,061.34
361	348	Casing Joints	5 1/2	20.00	P-110	Yes	43.00	Yes			2,878.7	15,104.34
362	349	Casing Joints	5 1/2	20.00	P-110	Yes	43.32	Yes			2,835.3	15,147.66
363	350	Casing Joints	5 1/2	20.00	P-110	Yes	43.14	Yes			2,792.2	15,190.80
364	351	Casing Joints	5 1/2	20.00	P-110	Yes	43.04	Yes			2,749.2	15,233.84
365	352	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			2,705.4	15,277.56
366	353	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			2,662.1	15,320.91
367	354	Casing Joints	5 1/2	20.00	P-110	Yes	43.00	Yes			2,619.1	15,363.91
368	355	Casing Joints	5 1/2	20.00	P-110	Yes	42.68	Yes			2,576.4	15,406.59
369	356	Casing Joints	5 1/2	20.00	P-110	Yes	43.99	Yes			2,532.4	15,450.58
370	357	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			2,488.7	15,494.31



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal	
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00	
						On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
371	358	Casing Joints	5 1/2	20.00	P-110	Yes	40.83	Yes			2,447.9	15,535.14
372	359	Casing Joints	5 1/2	20.00	P-110	Yes	40.62	Yes			2,407.2	15,575.76
373	360	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			2,363.9	15,619.14
374	361	Casing Joints	5 1/2	20.00	P-110	Yes	43.15	Yes			2,320.7	15,662.29
375	362	Casing Joints	5 1/2	20.00	P-110	Yes	42.99	Yes			2,277.7	15,705.28
376	363	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			2,234.4	15,748.65
377	364	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			2,190.9	15,792.06
378	365	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			2,147.5	15,835.46
379	366	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			2,103.8	15,879.18
380	367	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			2,060.1	15,922.87
381	368	Casing Joints	5 1/2	20.00	P-110	Yes	42.68	Yes			2,017.5	15,965.55
382	369	Casing Joints	5 1/2	20.00	P-110	Yes	42.54	Yes			1,974.9	16,008.09
383	370	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			1,931.9	16,051.14
384	371	Casing Joints	5 1/2	20.00	P-110	Yes	43.31	Yes			1,888.6	16,094.45
385	372	Casing Joints	5 1/2	20.00	P-110	Yes	42.97	Yes			1,845.6	16,137.42
386	373	Casing Joints	5 1/2	20.00	P-110	Yes	43.49	Yes			1,802.1	16,180.91
387	374	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			1,759.0	16,223.96
388	375	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			1,715.7	16,267.30
389	376	Casing Joints	5 1/2	20.00	P-110	Yes	43.74	Yes			1,672.0	16,311.04
390	377	Casing Joints	5 1/2	20.00	P-110	Yes	42.28	Yes			1,629.7	16,353.32
391	378	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			1,586.0	16,397.02
392	379	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			1,542.3	16,440.70
393	380	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			1,498.9	16,484.07
394	381	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			1,455.3	16,527.73
395	382	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			1,411.6	16,571.40
396	383	Casing Joints	5 1/2	20.00	P-110	Yes	43.53	Yes			1,368.1	16,614.93
397	384	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			1,324.3	16,658.66
398	385	Casing Joints	5 1/2	20.00	P-110	Yes	43.47	Yes			1,280.9	16,702.13
399	386	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			1,237.8	16,745.20
400	387	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			1,194.4	16,788.58
401	388	Casing Joints	5 1/2	20.00	P-110	Yes	42.87	Yes			1,151.6	16,831.45



## Centralizer Depths

Well Name: Bost Farm 16N-8A-L

Production, Set Depth: 17,983.0ftKB

API 05123514480000		Surface Legal Location SWNW 7 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal					
Ground Elevation (ft) 4,874.00		Original KB Elevation (ft) 4,902.00		KB-Ground Distance (ft) 28.00		Spud Date 4/18/2022 04:30		Rig Release Date 4/22/2022 06:00		On Production Date		Abandon Date	

### Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jw/ry	Connections	Top (ftKB)	Cum Len (ft)
402	389	Casing Joints	5 1/2	20.00	P-110	Yes	39.06	Yes			1,112.5	16,870.51
403	390	Casing Joints	5 1/2	20.00	P-110	Yes	42.75	Yes			1,069.7	16,913.26
404	391	Casing Joints	5 1/2	20.00	P-110	Yes	42.06	Yes			1,027.7	16,955.32
405	392	Casing Joints	5 1/2	20.00	P-110	Yes	43.07	Yes			984.6	16,998.39
406	393	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			941.2	17,041.77
407	394	Casing Joints	5 1/2	20.00	P-110	Yes	42.71	Yes			898.5	17,084.48
408	395	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			854.8	17,128.21
409	396	Casing Joints	5 1/2	20.00	P-110	Yes	43.35	Yes			811.4	17,171.56
410	397	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			767.8	17,215.25
411	398	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			724.1	17,258.95
412	399	Casing Joints	5 1/2	20.00	P-110	Yes	43.31	Yes			680.7	17,302.26
413	400	Casing Joints	5 1/2	20.00	P-110	Yes	40.18	Yes			640.6	17,342.44
414	401	Casing Joints	5 1/2	20.00	P-110	Yes	40.32	Yes			600.2	17,382.76
415	402	Casing Joints	5 1/2	20.00	P-110	Yes	42.43	Yes			557.8	17,425.19
416	403	Casing Joints	5 1/2	20.00	P-110	Yes	43.38	Yes			514.4	17,468.57
417	404	Casing Joints	5 1/2	20.00	P-110	Yes	42.03	Yes			472.4	17,510.60