

Cement Post Job Report

Client: PDC Energy

Well Name: Steamboat 1N

API #: 05-123-51300-00

Job Date: January 3, 2023

Job Type: New Well - 5.5" Production String

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



ROCK SOLID
WELL INTEGRITY
SOLUTIONS

JOB TREATMENT REPORT

Client	Well	Rig	Date	Job Type				
PDC	Steamboat 1N	Patterson 272	1/3/2023	Production				
Connection Type	Thread Type	Number of Stages	BHST Deg	BHCT Deg				
5 1/2" HP Cement Head	Buttress	1	230	230				
Well MD (ft)	Well TVD (ft)	Deg Dev.	Max-Cas/DP PSI	Max Ann. PSI				
14820'	7210'	90	4100	3000				
Packer/Retainer/CIBP/DV Tool Depths		Top of Perfs	Bottom of Perfs	Number of Holes				
Pkr @ 3537'/ Wet Shoe Sub @ 14774'		NA	NA	NA				
String - Surf, Int, Prod. Work etc	Grade	OD	Wt/ft	ID	OH Size	% XS Lead	% XS Tail	Total Depth (ft)
Production		5 1/2"	20		8.5	0	0	14,807
Surface		9 5/8"	36					1701

PRE-JOB MUD AND WELL CONDITIONS

Mud Type	OBM	Pipe Rotation				Circulation Data				Water Requirements (bbls)		
Mud wt. ppg	10.8	Rotate Y,N		Circulate Time (hrs)		2		Spacers		140		
Flow Temp		Rate		Circulation Rate (bpm)				Stage 1 Lead		119		
Vis. Sec/qt		Torque Val.		Full Circ?		Full		Stage 1 Tail		168		
PV (cP)		Time		Gas Present (Y,N)		YES	Units	4000	Stage 2 Lead		0	
Yield Pt		Pipe Reciprocation		Centralizers/Plugs				Stage 2 Tail		0		
10 sec gel		Recip Y,N		Quantity & Type		CUSTOMER PROVIDED				Displacement		328
10 min gel		Stroke (ft)		Top Plug/Type		1-5.5" CUSTOMER PROVIDED				Wash up		20
30 min gel		Recip time		Bottom Plug/Type		2-5.5" CUSTOMER PROVIDED				Total + 10% Safety		853

PRE-JOB CALCULATED MATERIALS, VOLUMES, & RATES

Preflush & Spacers		Stage 1 Lead: Class G		Stage 1 Tail: Class G		Stage 2 Lead		Stage 2 Tail		Displacement	
Spacer 1	Spacer	Density	12.9	Density	13.7	Density		Density		Fluid Type	Water
Density	12	Sacks	1276	Sacks	1032	Sacks		Sacks		Dens. ppg	8.33
Volume	140	Vol/bbls	256.8	Vol/bbls	251.8	Vol/bbls	0.0	Vol/bbls	0.0	Vol. bbl	328
Rate	10	Rate	10	Rate	10	Rate		Rate		Rate bpm	
Spacer 2		Yield	1.13	Yield	1.37	Yield		Yield		Clay Stay?	No
Density		Gal/Sk	3.90	Gal/Sk	6.63	Gal/Sk		Gal/Sk		Biocide ?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow @ bbl	308
Rate		TOL (ft)	2340	TOT (ft)	8639	TOL (ft)		TOT (ft)		Bump PSI	2750

POST JOB DETAILS, FINAL VOLUMES & PRESSURES

Final Displacement (bbls)	328
Bump Plug?	Yes
Final Bump Pressure (psi)	3300
Full Returns throughout job?	Full
Vol away/Time when returns lost	
Vol away/Time When returns regained	

Top out cement type	NA
Density	NA
Sack Quantity	NA
Mix water requirement (gal/sk)	NA
Yield	NA

Summary of Additives Used on Job

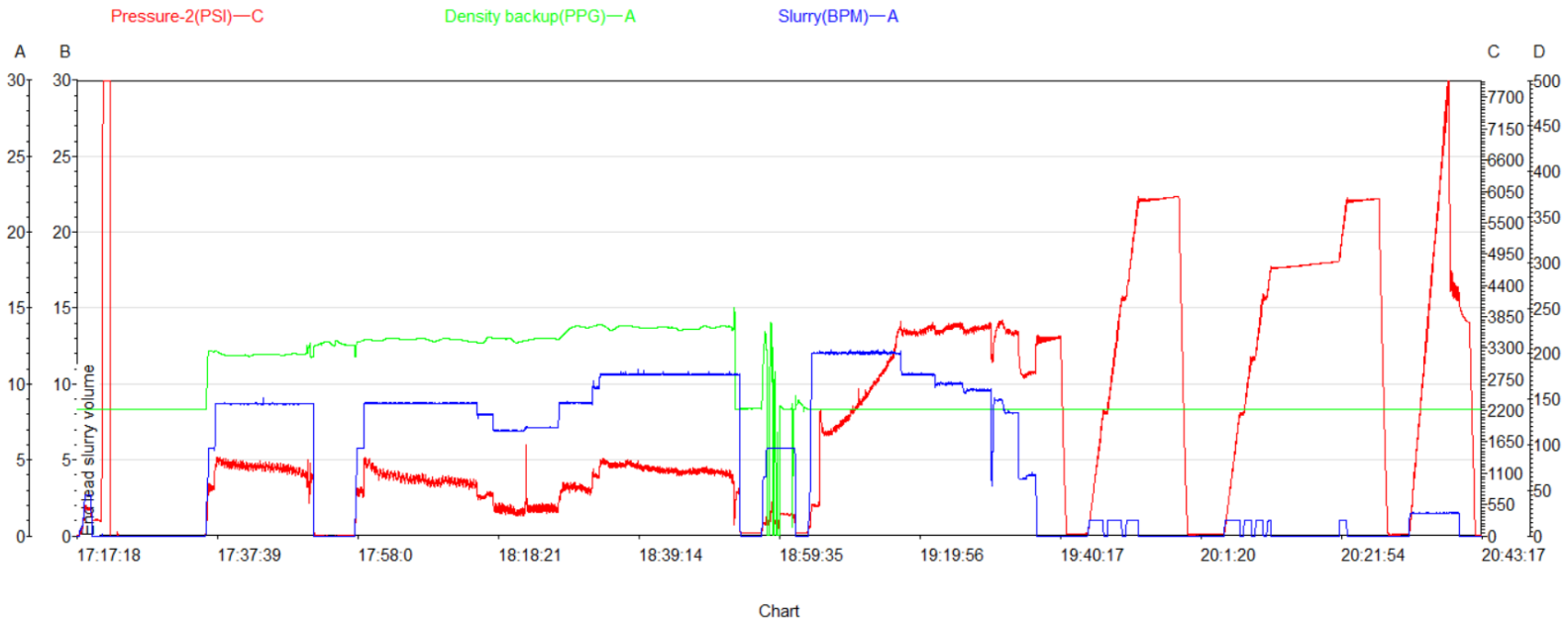
Surfactants (gal)	238
Clay Stabilizer (gal)	
Biocide (gal)	15
Corrosion Inhibitor (gal)	
Defoamer (gal)	15
PhenoSeal (LCM lbs)	
Fiber (LCM lbs)	290

Spacer to Surface?	Yes
Spacer volume returned	32
Cement to surface?	No
Cement volume to surface stage 1 (bbls)	Stg 2 0
Surface top out?	
Top out volume pumped (bbls)	

Job Treatment Log

Client		Well					Ambient Conditions (Temp / Humidity / Air Pressure)
PDC		Steamboat 1N					22 Deg F / 85 % / 24.78 in
Date DD/MM	Time HH:MM	Density (ppg)	Rate (bpm)	Vol. (bbl)	Total Vol. (bbl)	Pressure (psi)	Treatment Comments
1/3/23	12:00 PM						Arrived on location
1/3/23	12:30 PM						Wait for casing crew to rig down
1/3/23	1:30 PM						Spot equipment
1/3/23	2:10 PM						Rig up/ Wait for rig to finish circulating
1/3/23	3:45 PM						Pre job safety meeting
1/3/23	4:00 PM						Rig up floor
1/3/23	4:10 PM	8.33	3.00	3.0	3.0	450	Fill lines
1/3/23	4:12 PM					8300	Pressure test
1/3/23	4:25 PM						Drop 1st bottom plug
1/3/23	4:27 PM	12.00	8.70	140.0	140.0	1250	Pump 12# Spacer w/fiber & surfactant
1/3/23	4:44 PM						Shutdown/ Drop 2nd bottom plug
1/3/23	4:49 PM	12.90	8.00	257.0	257.0	700	Pump 257 bbl Lead cement @ 12.9#
1/3/23	5:20 PM	13.70	9.50	252.0	252.0	1150	Pump Tail cement @ 13.7#
1/3/23	5:45 PM	8.30	10.60	8.0	8.0	750	Pump 8bbl sugar water
1/3/23	5:46 PM	8.30					Shutdown/ Wash pumps & lines/ Drop top plug
1/3/23	5:55 PM	8.30	12.00	10.0	10.0	450	Pump displacement
1/3/23	6:00 PM	8.30	12.00	50.0	50.0	1400	Pump displacement
1/3/23	6:05 PM	8.30	12.00	100.0	100.0	2500	Pump displacement
1/3/23	6:09 PM	8.30	12.00	150.0	150.0	3450	Pump displacement
1/3/23	6:14 PM	8.30	12.00	200.0	200.0	3450	Pump displacement
1/3/23	6:19 PM	8.30	9.50	250.0	250.0	3450	Pump displacement
1/3/23	6:25 PM	8.30	4.00	300.0	300.0	2850	Pump displacement/ Good spacer to surface @ 298bbl away- slow rate to bump plug
1/3/23	6:29 PM	8.30	12.00	328.0	328.0	2750-3300	Bump Plug / Shutdown- 2750psi-3300psi
1/3/23	6:34 PM	8.33					Wait 5 minutes/ Check Floats/ Floats held , 3.5 bbl back to truck
1/3/23	6:36 PM	8.33		12.2	12.2	5700	Set Packer per tool hand
1/3/23	7:27 PM	8.33	1.50	2.0	2.0	4050	Shift wet shoe sub per company man, Shift @ 8050psi, pump 2bbl wet shoe, Packer held
1/3/23	7:54 AM	8.33					Wash Stack
1/3/23	8:20 AM						Rig down
1/3/23	9:00 AM						Depart location

Steamboat 1N Production Pump Chart – Pressure / Rate / Density





Centralizer Depths

Well Name: Steamboat 1N

Production, Set Depth: 14,807.0ftKB

API 0512351300000		Surface Legal Location NWSE 34 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
7	1	Casing Joints	5 1/2	20.00	P-110	Yes	44.92	Yes			14,724.0	83.01
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			14,630.4	176.58
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			14,536.6	270.37
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			14,443.0	364.01
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			14,349.4	457.63
17		Marker Joint A	5 1/2	20.00	P-110	Yes	11.80	Yes			14,290.9	516.13
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			14,197.3	609.69
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			14,103.7	703.30
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	46.99	Yes			14,009.6	797.37
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			13,916.5	890.55
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	47.00	Yes			13,822.7	984.35
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			13,730.8	1,076.22
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	46.56	Yes			13,637.2	1,169.78
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			13,543.7	1,263.27
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	46.57	Yes			13,450.1	1,356.88
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			13,356.6	1,450.45
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	44.93	Yes			13,265.0	1,542.04
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			13,171.8	1,635.19
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			13,077.9	1,729.08
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	45.17	Yes			12,986.2	1,820.79
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	46.67	Yes			12,892.7	1,914.26
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			12,799.2	2,007.76
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			12,705.6	2,101.39
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	46.05	Yes			12,615.2	2,191.79
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			12,522.0	2,285.00
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	45.47	Yes			12,429.8	2,377.19
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			12,339.4	2,467.60
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			12,249.3	2,557.70
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			12,158.8	2,648.16
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	45.17	Yes			12,067.9	2,739.11
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			11,977.9	2,829.12



Centralizer Depths

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Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
69	62	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			11,887.4	2,919.60
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	45.26	Yes			11,796.9	3,010.13
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			11,705.9	3,101.09
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			11,616.6	3,190.39
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			11,525.2	3,281.79
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	45.19	Yes			11,434.9	3,372.12
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			11,343.5	3,463.48
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	45.82	Yes			11,252.0	3,555.00
85	77	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			11,194.9	3,612.09
87	79	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			11,103.5	3,703.49
89	81	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			11,012.6	3,794.41
91	83	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			10,921.0	3,886.02
93	85	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			10,829.7	3,977.35
95	87	Casing Joints	5 1/2	20.00	P-110	Yes	43.66	Yes			10,741.2	4,065.79
97	89	Casing Joints	5 1/2	20.00	P-110	Yes	43.64	Yes			10,651.8	4,155.24
99	91	Casing Joints	5 1/2	20.00	P-110	Yes	45.02	Yes			10,561.1	4,245.93
101	93	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			10,471.2	4,335.76
103	95	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			10,381.1	4,425.94
105	97	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			10,290.9	4,516.11
107	99	Casing Joints	5 1/2	20.00	P-110	Yes	44.88	Yes			10,200.8	4,606.16
109	101	Casing Joints	5 1/2	20.00	P-110	Yes	45.34	Yes			10,110.3	4,696.71
111	103	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			10,019.8	4,787.24
113	105	Casing Joints	5 1/2	20.00	P-110	Yes	44.88	Yes			9,929.5	4,877.55
115	107	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			9,843.9	4,963.12
117	109	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			9,753.4	5,053.56
119	111	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			9,663.0	5,143.98
121	113	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			9,573.0	5,233.98
123	115	Casing Joints	5 1/2	20.00	P-110	Yes	44.32	Yes			9,483.5	5,323.50
125	117	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			9,393.5	5,413.53
127	119	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			9,303.1	5,503.92
129	121	Casing Joints	5 1/2	20.00	P-110	Yes	37.13	Yes			9,220.5	5,586.46



Centralizer Depths

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Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
131	123	Casing Joints	5 1/2	20.00	P-110	Yes	45.20	Yes			9,130.1	5,676.90
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	37.52	Yes			9,052.0	5,755.04
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	45.20	Yes			8,961.4	5,845.58
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			8,870.4	5,936.59
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			8,780.2	6,026.77
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	45.02	Yes			8,690.0	6,117.02
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			8,599.5	6,207.49
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	46.83	Yes			8,505.6	6,301.40
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	42.78	Yes			8,417.6	6,389.40
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			8,326.4	6,480.64
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			8,235.7	6,571.34
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	46.95	Yes			8,142.0	6,664.98
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			8,048.4	6,758.62
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	46.57	Yes			7,955.0	6,852.02
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	46.84	Yes			7,861.2	6,945.78
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			7,769.2	7,037.77
163		Marker Joint C	5 1/2	20.00	P-110	Yes	11.74	Yes			7,710.6	7,096.38
164	155	Casing Joints	5 1/2	20.00	P-110	Yes	47.04	Yes			7,663.6	7,143.42
165	156	Casing Joints	5 1/2	20.00	P-110	Yes	47.03	Yes			7,616.6	7,190.45
166	157	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			7,570.0	7,236.98
167	158	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			7,523.1	7,283.90
168	159	Casing Joints	5 1/2	20.00	P-110	Yes	46.94	Yes			7,476.2	7,330.84
169	160	Casing Joints	5 1/2	20.00	P-110	Yes	46.93	Yes			7,429.2	7,377.77
170	161	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			7,382.2	7,424.83
171	162	Casing Joints	5 1/2	20.00	P-110	Yes	46.68	Yes			7,335.5	7,471.51
172	163	Casing Joints	5 1/2	20.00	P-110	Yes	46.84	Yes			7,288.7	7,518.35
173	164	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			7,242.1	7,564.88
174	165	Casing Joints	5 1/2	20.00	P-110	Yes	38.71	Yes			7,203.4	7,603.59
175	166	Casing Joints	5 1/2	20.00	P-110	Yes	46.89	Yes			7,156.5	7,650.48
176	167	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			7,109.5	7,697.53
177	168	Casing Joints	5 1/2	20.00	P-110	Yes	47.05	Yes			7,062.4	7,744.58



Centralizer Depths

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Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
178	169	Casing Joints	5 1/2	20.00	P-110	Yes	46.70	Yes			7,015.7	7,791.28
179	170	Casing Joints	5 1/2	20.00	P-110	Yes	45.15	Yes			6,970.6	7,836.43
180	171	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			6,923.5	7,883.50
181	172	Casing Joints	5 1/2	20.00	P-110	Yes	46.72	Yes			6,876.8	7,930.22
182	173	Casing Joints	5 1/2	20.00	P-110	Yes	46.84	Yes			6,829.9	7,977.06
183	174	Casing Joints	5 1/2	20.00	P-110	Yes	46.90	Yes			6,783.0	8,023.96
184	175	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			6,736.1	8,070.87
185	176	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			6,689.2	8,117.79
186	177	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			6,642.1	8,164.89
187	178	Casing Joints	5 1/2	20.00	P-110	Yes	46.91	Yes			6,595.2	8,211.80
188	179	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			6,548.1	8,258.87
189		Marker Joint D	5 1/2	20.00	P-110	Yes	22.03	Yes			6,526.1	8,280.90
190	180	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			6,480.5	8,326.50
191	181	Casing Joints	5 1/2	20.00	P-110	Yes	46.87	Yes			6,433.6	8,373.37
192	182	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			6,386.6	8,420.44
193	183	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			6,339.5	8,467.52
194	184	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			6,292.7	8,514.34
195	185	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			6,245.9	8,561.14
196	186	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			6,199.0	8,607.99
197	187	Casing Joints	5 1/2	20.00	P-110	Yes	46.83	Yes			6,152.2	8,654.82
198	188	Casing Joints	5 1/2	20.00	P-110	Yes	46.64	Yes			6,105.5	8,701.46
199	189	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			6,058.5	8,748.52
200	190	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			6,011.4	8,795.59
201	191	Casing Joints	5 1/2	20.00	P-110	Yes	46.97	Yes			5,964.4	8,842.56
202	192	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			5,917.3	8,889.66
203	193	Casing Joints	5 1/2	20.00	P-110	Yes	46.81	Yes			5,870.5	8,936.47
204	194	Casing Joints	5 1/2	20.00	P-110	Yes	46.81	Yes			5,823.7	8,983.28
205	195	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			5,776.9	9,030.10
206	196	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			5,730.1	9,076.92
207	197	Casing Joints	5 1/2	20.00	P-110	Yes	46.87	Yes			5,683.2	9,123.79
208	198	Casing Joints	5 1/2	20.00	P-110	Yes	46.86	Yes			5,636.4	9,170.65



Centralizer Depths

Well Name: Steamboat 1N

Production, Set Depth: 14,807.0ftKB

API 0512351300000		Surface Legal Location NWSE 34 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
209	199	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			5,589.8	9,217.18
210	200	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			5,543.0	9,264.00
211	201	Casing Joints	5 1/2	20.00	P-110	Yes	46.57	Yes			5,496.4	9,310.57
212	202	Casing Joints	5 1/2	20.00	P-110	Yes	46.65	Yes			5,449.8	9,357.22
213	203	Casing Joints	5 1/2	20.00	P-110	Yes	47.09	Yes			5,402.7	9,404.31
214	204	Casing Joints	5 1/2	20.00	P-110	Yes	46.59	Yes			5,356.1	9,450.90
215	205	Casing Joints	5 1/2	20.00	P-110	Yes	46.84	Yes			5,309.3	9,497.74
216	206	Casing Joints	5 1/2	20.00	P-110	Yes	46.93	Yes			5,262.3	9,544.67
217	207	Casing Joints	5 1/2	20.00	P-110	Yes	47.06	Yes			5,215.3	9,591.73
218	208	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			5,168.5	9,638.53
219	209	Casing Joints	5 1/2	20.00	P-110	Yes	47.11	Yes			5,121.4	9,685.64
220	210	Casing Joints	5 1/2	20.00	P-110	Yes	47.07	Yes			5,074.3	9,732.71
221	211	Casing Joints	5 1/2	20.00	P-110	Yes	46.81	Yes			5,027.5	9,779.52
222	212	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			4,980.7	9,826.32
223	213	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			4,933.9	9,873.12
224	214	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			4,887.1	9,919.92
225	215	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			4,840.0	9,967.00
226	216	Casing Joints	5 1/2	20.00	P-110	Yes	46.52	Yes			4,793.5	10,013.52
227	217	Casing Joints	5 1/2	20.00	P-110	Yes	46.60	Yes			4,746.9	10,060.12
228	218	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			4,700.4	10,106.65
229	219	Casing Joints	5 1/2	20.00	P-110	Yes	46.83	Yes			4,653.5	10,153.48
230	220	Casing Joints	5 1/2	20.00	P-110	Yes	46.53	Yes			4,607.0	10,200.01
231	221	Casing Joints	5 1/2	20.00	P-110	Yes	46.80	Yes			4,560.2	10,246.81
232	222	Casing Joints	5 1/2	20.00	P-110	Yes	46.89	Yes			4,513.3	10,293.70
233	223	Casing Joints	5 1/2	20.00	P-110	Yes	46.58	Yes			4,466.7	10,340.28
234	224	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			4,422.5	10,384.51
235	225	Casing Joints	5 1/2	20.00	P-110	Yes	44.74	Yes			4,377.8	10,429.25
236	226	Casing Joints	5 1/2	20.00	P-110	Yes	47.10	Yes			4,330.7	10,476.35
237	227	Casing Joints	5 1/2	20.00	P-110	Yes	46.54	Yes			4,284.1	10,522.89
238	228	Casing Joints	5 1/2	20.00	P-110	Yes	47.08	Yes			4,237.0	10,569.97
239	229	Casing Joints	5 1/2	20.00	P-110	Yes	46.54	Yes			4,190.5	10,616.51



Centralizer Depths

Well Name: Steamboat 1N

Production, Set Depth: 14,807.0ftKB

API 0512351300000		Surface Legal Location NWSE 34 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
240	230	Casing Joints	5 1/2	20.00	P-110	Yes	46.73	Yes			4,143.8	10,663.24
241	231	Casing Joints	5 1/2	20.00	P-110	Yes	46.87	Yes			4,096.9	10,710.11
242	232	Casing Joints	5 1/2	20.00	P-110	Yes	46.82	Yes			4,050.1	10,756.93
243	233	Casing Joints	5 1/2	20.00	P-110	Yes	46.86	Yes			4,003.2	10,803.79
244	234	Casing Joints	5 1/2	20.00	P-110	Yes	46.85	Yes			3,956.4	10,850.64
245	235	Casing Joints	5 1/2	20.00	P-110	Yes	46.93	Yes			3,909.4	10,897.57
246	236	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			3,864.2	10,942.80
247	237	Casing Joints	5 1/2	20.00	P-110	Yes	45.14	Yes			3,819.1	10,987.94
248	238	Casing Joints	5 1/2	20.00	P-110	Yes	46.57	Yes			3,772.5	11,034.51
249	239	Casing Joints	5 1/2	20.00	P-110	Yes	46.88	Yes			3,725.6	11,081.39
250	240	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			3,678.7	11,128.31
251	241	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			3,633.5	11,173.53
252	242	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			3,588.2	11,218.78
253	243	Casing Joints	5 1/2	20.00	P-110	Yes	43.15	Yes			3,545.1	11,261.93
255	244	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			3,484.5	11,322.55
256	245	Casing Joints	5 1/2	20.00	P-110	Yes	45.26	Yes			3,439.2	11,367.81
257	246	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			3,394.0	11,413.04
258	247	Casing Joints	5 1/2	20.00	P-110	Yes	44.94	Yes			3,349.0	11,457.98
259	248	Casing Joints	5 1/2	20.00	P-110	Yes	45.02	Yes			3,304.0	11,503.00
260	249	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			3,258.8	11,548.23
261	250	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			3,213.6	11,593.44
262	251	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			3,168.8	11,638.22
263	252	Casing Joints	5 1/2	20.00	P-110	Yes	43.43	Yes			3,125.4	11,681.65
264	253	Casing Joints	5 1/2	20.00	P-110	Yes	44.83	Yes			3,080.5	11,726.48
265	254	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			3,035.3	11,771.72
266	255	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			2,990.1	11,816.90
267	256	Casing Joints	5 1/2	20.00	P-110	Yes	38.00	Yes			2,952.1	11,854.90
268	257	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			2,906.5	11,900.50
269	258	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			2,861.3	11,945.75
270	259	Casing Joints	5 1/2	20.00	P-110	Yes	44.80	Yes			2,816.5	11,990.55
271	260	Casing Joints	5 1/2	20.00	P-110	Yes	44.82	Yes			2,771.6	12,035.37



Centralizer Depths

Well Name: Steamboat 1N

Production, Set Depth: 14,807.0ftKB

API 0512351300000		Surface Legal Location NWSE 34 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
272	261	Casing Joints	5 1/2	20.00	P-110	Yes	45.26	Yes			2,726.4	12,080.63
273	262	Casing Joints	5 1/2	20.00	P-110	Yes	44.58	Yes			2,681.8	12,125.21
274	263	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			2,637.6	12,169.41
275	264	Casing Joints	5 1/2	20.00	P-110	Yes	45.12	Yes			2,592.5	12,214.53
276	265	Casing Joints	5 1/2	20.00	P-110	Yes	38.35	Yes			2,554.1	12,252.88
277	266	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			2,508.9	12,298.11
278	267	Casing Joints	5 1/2	20.00	P-110	Yes	44.53	Yes			2,464.4	12,342.64
279	268	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			2,419.1	12,387.89
280	269	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			2,373.9	12,433.11
281	270	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			2,328.7	12,478.34
282	271	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			2,283.4	12,523.57
283	272	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			2,238.2	12,568.79
284	273	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			2,193.2	12,613.76
285	274	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			2,148.0	12,659.01
286	275	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			2,102.8	12,704.22
287	276	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			2,057.6	12,749.45
288	277	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			2,012.3	12,794.67
289	278	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			1,967.1	12,839.90
290	279	Casing Joints	5 1/2	20.00	P-110	Yes	41.00	Yes			1,926.1	12,880.90
291	280	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			1,880.9	12,926.12
292	281	Casing Joints	5 1/2	20.00	P-110	Yes	45.27	Yes			1,835.6	12,971.39
293	282	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			1,790.4	13,016.64
294	283	Casing Joints	5 1/2	20.00	P-110	Yes	44.92	Yes			1,745.4	13,061.56
295	284	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			1,700.2	13,106.80
296	285	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			1,655.0	13,152.03
297	286	Casing Joints	5 1/2	20.00	P-110	Yes	44.52	Yes			1,610.5	13,196.55
298	287	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			1,565.2	13,241.76
299	288	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			1,520.0	13,286.98
300	289	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			1,474.8	13,332.22
301	290	Casing Joints	5 1/2	20.00	P-110	Yes	45.28	Yes			1,429.5	13,377.50
302	291	Casing Joints	5 1/2	20.00	P-110	Yes	46.93	Yes			1,382.6	13,424.43



Centralizer Depths

Well Name: Steamboat 1N

Production, Set Depth: 14,807.0ftKB

API 05123513000000		Surface Legal Location NWSE 34 4N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,805.00	Original KB Elevation (ft) 4,833.50	KB-Ground Distance (ft) 28.50	Spud Date 12/30/2022 18:30	Rig Release Date 1/3/2023 23:00	On Production Date	Abandon Date					

Casing Run Tally

Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwry	Connections	Top (ftKB)	Cum Len (ft)
303	292	Casing Joints	5 1/2	20.00	P-110	Yes	43.10	Yes			1,339.5	13,467.53
304	293	Casing Joints	5 1/2	20.00	P-110	Yes	42.72	Yes			1,296.8	13,510.25
305	294	Casing Joints	5 1/2	20.00	P-110	Yes	44.80	Yes			1,252.0	13,555.05
306	295	Casing Joints	5 1/2	20.00	P-110	Yes	44.73	Yes			1,207.2	13,599.78
307	296	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			1,162.0	13,645.01
308	297	Casing Joints	5 1/2	20.00	P-110	Yes	46.58	Yes			1,115.4	13,691.59
309	298	Casing Joints	5 1/2	20.00	P-110	Yes	36.70	Yes			1,078.7	13,728.29
310	299	Casing Joints	5 1/2	20.00	P-110	Yes	46.92	Yes			1,031.8	13,775.21
311	300	Casing Joints	5 1/2	20.00	P-110	Yes	46.94	Yes			984.9	13,822.15
312	301	Casing Joints	5 1/2	20.00	P-110	Yes	44.80	Yes			940.1	13,866.95
313	302	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			894.8	13,912.17
314	303	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			849.6	13,957.40
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			804.4	14,002.64
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			759.2	14,047.85
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			713.9	14,093.08
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			668.7	14,138.30
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	45.10	Yes			623.6	14,183.40
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			578.4	14,228.61
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			533.2	14,273.84
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	45.20	Yes			488.0	14,319.04