

Cement Post Job Report

Client: PDC Energy

Well Name: Steamboat 14N

API #: 05-123-51304-00

Job Date: February 23, 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

TREATMENT REPORT

CLIENT	WELL	RIG	JOB TYPE	THREAD TYPE	WELLHEAD CONNECTION
PDC Energy	Steamboat 14N	Patterson 272	Production	Buttress	5 1/2" HP Cement Head

WELL MD (FT)	WELL TVD (FT)	DEVIATION (DEG)	NUMBER OF STAGES	BHST (DEG)	BHCT (DEG)
15058	7061	90	1	220	175

PACKER/RETAINER/CIBP/DV TOOL DEPTHS	TOOL TYPE	TOP OF PERFS (FT)	BOTTOM OF PERFS (FT)	NUMBER OF HOLES
3438	PACKER			

CASING/TUBING/DP DETAILS								
STRING TYPE	GRADE	OD"	WT/FT	ID"	OH SIZE"	% EXCESS LEAD	% EXCESS TAIL	TOTAL DEPTH (FT)
Production		5.5	20	4.77	8.5	0	0	15049
Surface		9.625	36			0	0	1694
MAXIMUM CASING/TUBING/DP PSI				7500		MAXIMUM ANNULAR PSI		1500

Mud Type	OBM	Rotate Y,N	No	Circulation Data				Water Requirements (bbls)	
Mud ppg	10.7	Rate (rpm)		Circulate Time (hrs)		2		Spacers	140
Flow Temp		Torque Val.		Circulation Rate (bpm)		10		Stage 1 Lead	118
Vis. Sec/qt		Time (hr)		Full Circulation ? (Y,N,P)		Yes		Stage 1 Tail	168
PV (cP)		Pipe Reciprocation		Gas Present (Y,N)		No	Units	Stage 2 Lead	
Yield Pt		Recip Y,N	No	Centralizers/Plugs				Stage 2 Tail	
10 sec gel		Stroke (ft)		Quantity & Type				Displacement	333
10 min gel		Recip time		Top Plug/Type				Wash up	40
30 min gel		Stuck ?		Bottom Plug/Type				Total + 10% Safety	880

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	1065	Sacks		Sacks		Dens. ppg	8.3
Volume	140	Vol/bbbls	256.8	Vol/bbbls	259.9	Vol/bbbls	0.0	Vol/bbbls	0.0	Vol. bbl	333
Rate	10	Rate	10	Rate	10	Rate		Rate		Rate bpm	10
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	313
Rate		TOL (ft)	2376	TOT (ft)	8675	TOL (ft)		TOT (ft)		Bump PSI	2500

Final Displacement (bbbls)	333
Bump Plug?	YES
Final Bump Pressure (psi)	3000
Full Returns throughout job?	Full
Vol away/Time when returns lost	NA
Vol away when returns were regained	NA
Spacer to Surface?	YES
Spacer volume returned (bbbls)	50
Cement to surface?	NO
Cement volume to surface stage 1	NA
Cement volume to surface stage 2	NA

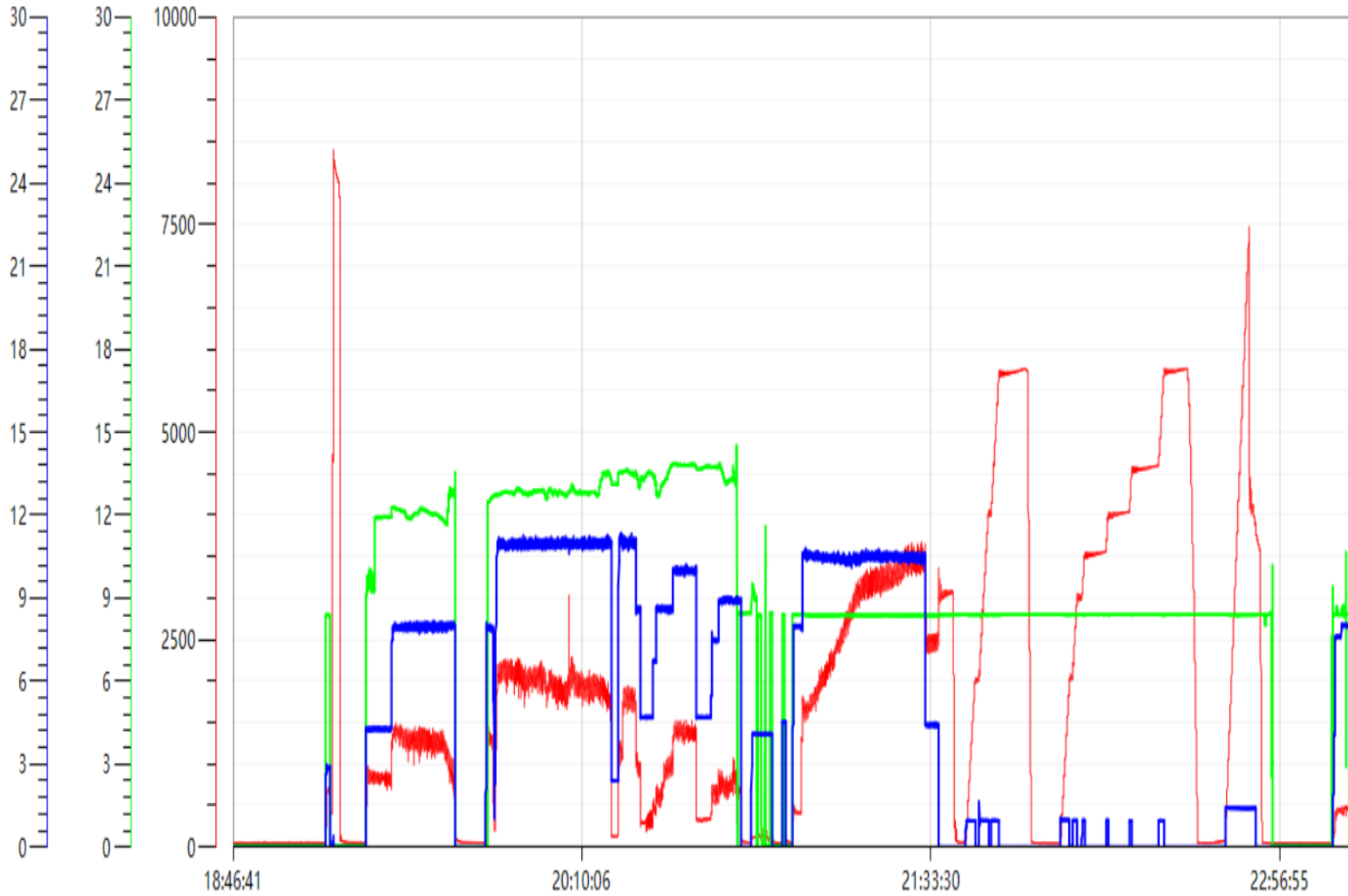
Surface Top Out Details-Pumped		Job Summary Additional Chems Used	
Cement Type		MFC 47 (gal)	70
Dens. ppg	NA	MFC 67 (gal)	168
Sacks qty	NA	Defoamer (gal)	50
Gal/sk	NA	Biocide (gal)	20
Yield	NA	Corr. Inhib (gal)	NS
Calcium Chlor. Used?	NA	Fiber (lbs)	290
Top out pipe used ?	NA	Chloride (lbs)	NA
Annulus holding?	NA	Retarder (lbs)	NA
		Clay Stabilizer (gal)	NA
		Other	

JOB LOG

CLIENT	WELL	RIG	JOB TYPE	START DATE	Ambient Conditions		
PDC Energy	Steamboat 14N	Patterson 272	Production	2/23/2023	Temp / Hum /Air Press 3 Deg F / 66% / 25.05 in		
DATE (dd/mm)	TIME (hh:mm)	DENSITY (ppg)	RATE (bpm)	VOL. (bbl)	TOTAL VOL.	PRESSURE	TREATMENT COMMENTS
2/23/2023	4:00:00 AM						CREW CALLED OUT FOR AN ON LOCATION TIME OF 12:00PM
	10:00:00 AM						CREW ARRIVES AT LOCATION/CHECK IN WITH CO REP/CALCULATE JOB
	4:30:00 PM						LANDED CASING AT 15048'/FILL PIPE/2 BOTTOMS UP
	5:20:00 PM						SPOT IN AND RIG UP EQUIPMENT
	6:45:00 PM						SAFETY MEETING
	7:18:00 PM						RIG UP FLOOR WITH BOWL AND CAP
	7:22:00 PM	8.33	3.0	3	3	500	PUMP 3 BBLS OF FRESHWATER TO FILL LINES
	7:23:00 PM	8.33	1.0	1	1	8300	PRESSURE TEST
	7:28:00 PM						DROP 1ST BOTTOM PLUG
	7:32:00 PM	12	8.0	140	140	1400	PUMP 140 BBLS OF SPACER AT 12#
	7:54:00 PM						SHUT IN
	7:55:00 PM						DROP 2ND BOTTOM PLUG
	7:59:00 PM	12.9	11.0	257	257	2200	PUMP 257 BBLS OF LEAD CEMENT AT 12.9# (1276 SKS, 1.13 YLD, 3.90 GAL/SK, 118 BBLS MW)
	8:27:00 PM	13.7	11.0	260	260	2100	PUMP 260 BBLS OF TAIL CEMENT AT 13.73 (1065 SKS, 1.37 YLD, 6.63 GAL/SK, 168 BBLS MW)
	9:02:00 PM	8.33	9.5	8	8	900	PUMP 8 BBLS OF SUGAR WATER
	9:03:00 PM						SHUT IN
	9:07:00 PM						DROP TOP PLUG
	9:13:00 PM	8.33	8.0	17	17	500	COME ON LINE WITH 333 BBLS OF FRESHWATER DISPLACEMENT WITH BIOCIDES IN ALL
	9:14:00 PM	8.33	10.5	3	20	1400	CAUGHT PLUG INCREASED RATE
	9:19:00 PM	8.33	10.5	30	50	1900	FRESHWATER DISPLACEMENT WITH BIOCIDES
	9:24:00 PM	8.33	10.5	50	100	2300	FRESHWATER DISPLACEMENT WITH BIOCIDES
	9:29:00 PM	8.33	10.5	50	150	3100	FRESHWATER DISPLACEMENT WITH BIOCIDES
	9:34:00 PM	8.33	10.5	50	200	3200	FRESHWATER DISPLACEMENT WITH BIOCIDES
	9:39:00 PM	8.33	10.5	50	250	3400	FRESHWATER DISPLACEMENT WITH BIOCIDES/NEOFLO PRESENT AT SHAKERS
	9:41:00 PM	8.33	10.5	20	270	3400	FRESHWATER DISPLACEMENT WITH BIOCIDES/FIBER PRESENT AT SHAKERS/SWAP TO THE OPEN TOPS
	9:44:00 PM	8.33	10.5	20	290	3400	FRESHWATER DISPLACEMENT WITH BIOCIDES/SPACER PRESENT AT OPEN TOPS
	9:45:00 PM	8.33	10.5	10	300	3400	FRESHWATER DISPLACEMENT WITH BIOCIDES
	9:46:00 PM	8.33	4.5	10	310	2500	SLOW RATE TO LAND PLUG
	9:49:00 PM	8.33	4.5	23	333	3000	BUMP PLUG GOING 500 OVER FCP
	9:53:00 PM	8.33					CHECKED FLOATS/FLOATS HELD/RECEIVED 3.5 BBLS BACK
	9:58:00 PM	8.33	1.0	16	16	5900	SET PACKER PER TOOL REP
	10:56:00 PM	8.33	1.5	8	8		PRESSURE UP TO BURST SHOE
	11:02:00 PM	8.33	1.5	1	9	7400	SHOE BURST/NO RETURNS PRESENT AT THE OPEN TOPS
	11:03:00 PM	8.33	1.5	2	2	4300	PUMP A 2 BBL WET SHOE/RETURNS NOT PRESENT AT THE OPEN TOPS/PACKER CONFIRMED HELD
	11:08:00 PM	8.33					CHECKED FLOATS/FLOATS HELD/RECEIVED 3.5 BBLS BACK
	11:12:00 PM						RIG UP TO FLUSH STACK
	11:16:00 PM	8.33	5.0	40	40	300	PUMP 40 BBLS OF FRESHWATER THRU STACK
	11:23:00 PM						RIG DOWN EQUIPMENT
	11:30:00 PM						FINISH PAPERWORK
	11:59:00 PM						DEPART LOCATION

Steamboat 14N Production Pump Chart – Pressure / Rate / Density

— pressure1 psi — density backup lbs/gal — Combined Rate





Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	On Production Date	Abandon Date					

Casing Run Tally												
Run #	Ref #	Item Des	OD (in)	Wt (lb/ft)	Grade	Run?	Len (ft)	Centralized?	Ext Jwly	Connections	Top (ftKB)	Cum Len (ft)
7	1	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			14,965.5	83.52
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			14,874.5	174.47
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	41.02	Yes			14,787.6	261.40
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	45.85	Yes			14,696.2	352.82
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			14,606.7	442.30
17		Marker Joint A	5 1/2	20.00	P-110	Yes	10.10	Yes			14,552.3	496.70
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			14,462.0	587.04
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			14,370.6	678.41
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			14,280.6	768.40
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			14,189.1	859.88
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			14,098.1	950.91
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			14,007.2	1,041.83
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			13,915.8	1,133.20
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			13,826.0	1,223.01
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			13,737.9	1,311.06
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			13,646.7	1,402.34
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			13,555.2	1,493.81
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	40.38	Yes			13,469.5	1,579.51
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			13,379.6	1,669.36
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	45.53	Yes			13,288.8	1,760.16
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			13,197.5	1,851.53
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			13,106.0	1,943.04
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			13,014.6	2,034.45
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			12,923.2	2,125.83
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			12,831.7	2,217.34
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			12,740.2	2,308.77
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	45.96	Yes			12,648.6	2,400.42
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			12,557.2	2,491.83
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			12,465.8	2,583.19
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	46.00	Yes			12,374.0	2,674.97
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			12,282.6	2,766.36



Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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	42.74	Yes			12,194.0	2,854.96
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			12,102.6	2,946.37
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			12,011.2	3,037.82
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			11,920.3	3,128.74
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	45.77	Yes			11,828.8	3,220.19
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			11,737.4	3,311.57
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			11,646.0	3,403.04
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			11,555.0	3,494.00
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			11,468.1	3,580.95
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			11,376.5	3,672.53
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			11,284.9	3,764.07
91	83	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			11,215.6	3,833.37
93	85	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			11,124.2	3,924.77
95	87	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			11,032.7	4,016.29
97	89	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			10,941.3	4,107.72
99	91	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			10,849.9	4,199.13
101	93	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			10,758.5	4,290.51
103	95	Casing Joints	5 1/2	20.00	P-110	Yes	46.00	Yes			10,666.8	4,382.25
105	97	Casing Joints	5 1/2	20.00	P-110	Yes	44.08	Yes			10,577.7	4,471.28
107	99	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			10,487.2	4,561.77
109	101	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			10,395.8	4,653.22
111	103	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			10,304.3	4,744.66
113	105	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			10,213.0	4,836.01
115	107	Casing Joints	5 1/2	20.00	P-110	Yes	42.78	Yes			10,124.5	4,924.52
117	109	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			10,033.0	5,016.03
119	111	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			9,941.7	5,107.30
121	113	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			9,852.3	5,196.68
123	115	Casing Joints	5 1/2	20.00	P-110	Yes	45.42	Yes			9,761.2	5,287.84
125	117	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			9,670.6	5,378.41
127	119	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			9,580.1	5,468.94
129	121	Casing Joints	5 1/2	20.00	P-110	Yes	45.72	Yes			9,488.7	5,560.34



Centralizer Depths

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Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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)
131	123	Casing Joints	5 1/2	20.00	P-110	Yes	45.00	Yes			9,397.9	5,651.08
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	45.30	Yes			9,306.9	5,742.10
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			9,215.5	5,833.54
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			9,124.1	5,924.95
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			9,032.7	6,016.28
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	41.42	Yes			8,945.4	6,103.60
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			8,855.3	6,193.72
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			8,763.9	6,285.14
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			8,674.3	6,374.71
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	45.94	Yes			8,582.6	6,466.37
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			8,490.9	6,558.10
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			8,399.3	6,649.75
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	45.98	Yes			8,307.2	6,741.83
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			8,217.4	6,831.61
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			8,126.1	6,922.86
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			8,034.8	7,014.24
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			7,943.0	7,105.97
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	40.71	Yes			7,857.7	7,191.29
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	45.15	Yes			7,766.9	7,282.14
169	161	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			7,675.7	7,373.34
171	163	Casing Joints	5 1/2	20.00	P-110	Yes	45.20	Yes			7,584.8	7,464.19
173		Marker Joint H	5 1/2	20.00	P-110	Yes	22.31	Yes			7,516.7	7,532.34
174	165	Casing Joints	5 1/2	20.00	P-110	Yes	41.94	Yes			7,474.7	7,574.28
175	166	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			7,429.0	7,620.03
176	167	Casing Joints	5 1/2	20.00	P-110	Yes	45.91	Yes			7,383.1	7,665.94
177	168	Casing Joints	5 1/2	20.00	P-110	Yes	38.54	Yes			7,344.5	7,704.48
178	169	Casing Joints	5 1/2	20.00	P-110	Yes	45.05	Yes			7,299.5	7,749.53
179	170	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			7,253.6	7,795.41
180	171	Casing Joints	5 1/2	20.00	P-110	Yes	45.07	Yes			7,208.5	7,840.48
181	172	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			7,162.7	7,886.32
182	173	Casing Joints	5 1/2	20.00	P-110	Yes	45.88	Yes			7,116.8	7,932.20



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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)
183	174	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			7,071.1	7,977.91
184	175	Casing Joints	5 1/2	20.00	P-110	Yes	45.28	Yes			7,025.8	8,023.19
185	176	Casing Joints	5 1/2	20.00	P-110	Yes	45.84	Yes			6,980.0	8,069.03
186	177	Casing Joints	5 1/2	20.00	P-110	Yes	37.80	Yes			6,942.2	8,106.83
187	178	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			6,896.6	8,152.45
188	179	Casing Joints	5 1/2	20.00	P-110	Yes	45.11	Yes			6,851.4	8,197.56
189	180	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			6,806.2	8,242.78
190	181	Casing Joints	5 1/2	20.00	P-110	Yes	46.09	Yes			6,760.1	8,288.87
191	182	Casing Joints	5 1/2	20.00	P-110	Yes	44.54	Yes			6,715.6	8,333.41
192	183	Casing Joints	5 1/2	20.00	P-110	Yes	45.32	Yes			6,670.3	8,378.73
193	184	Casing Joints	5 1/2	20.00	P-110	Yes	45.93	Yes			6,624.3	8,424.66
194	185	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			6,578.7	8,470.27
195	186	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			6,535.4	8,513.64
196	187	Casing Joints	5 1/2	20.00	P-110	Yes	45.32	Yes			6,490.0	8,558.96
197		Marker Joint I	5 1/2	20.00	P-110	Yes	22.54	Yes			6,467.5	8,581.50
198	188	Casing Joints	5 1/2	20.00	P-110	Yes	45.93	Yes			6,421.6	8,627.43
199	189	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			6,375.8	8,673.22
200	190	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			6,330.0	8,719.02
201	191	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			6,284.2	8,764.81
202	192	Casing Joints	5 1/2	20.00	P-110	Yes	45.00	Yes			6,239.2	8,809.81
203	193	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			6,194.2	8,854.78
204	194	Casing Joints	5 1/2	20.00	P-110	Yes	45.51	Yes			6,148.7	8,900.29
205	195	Casing Joints	5 1/2	20.00	P-110	Yes	43.60	Yes			6,105.1	8,943.89
206	196	Casing Joints	5 1/2	20.00	P-110	Yes	45.50	Yes			6,059.6	8,989.39
207	197	Casing Joints	5 1/2	20.00	P-110	Yes	45.04	Yes			6,014.6	9,034.43
208	198	Casing Joints	5 1/2	20.00	P-110	Yes	45.40	Yes			5,969.2	9,079.83
209	199	Casing Joints	5 1/2	20.00	P-110	Yes	41.65	Yes			5,927.5	9,121.48
210	200	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			5,881.8	9,167.21
211	201	Casing Joints	5 1/2	20.00	P-110	Yes	43.59	Yes			5,838.2	9,210.80
212	202	Casing Joints	5 1/2	20.00	P-110	Yes	45.37	Yes			5,792.8	9,256.17
213	203	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			5,747.2	9,301.80



Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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)
214	204	Casing Joints	5 1/2	20.00	P-110	Yes	45.48	Yes			5,701.7	9,347.28
215	205	Casing Joints	5 1/2	20.00	P-110	Yes	45.36	Yes			5,656.4	9,392.64
216	206	Casing Joints	5 1/2	20.00	P-110	Yes	38.20	Yes			5,618.2	9,430.84
217	207	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			5,572.6	9,476.36
218	208	Casing Joints	5 1/2	20.00	P-110	Yes	45.38	Yes			5,527.3	9,521.74
219	209	Casing Joints	5 1/2	20.00	P-110	Yes	45.40	Yes			5,481.9	9,567.14
220	210	Casing Joints	5 1/2	20.00	P-110	Yes	45.54	Yes			5,436.3	9,612.68
221	211	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			5,390.7	9,658.28
222	212	Casing Joints	5 1/2	20.00	P-110	Yes	45.50	Yes			5,345.2	9,703.78
223	213	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			5,300.0	9,748.99
224	214	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			5,254.2	9,794.78
225	215	Casing Joints	5 1/2	20.00	P-110	Yes	45.52	Yes			5,208.7	9,840.30
226	216	Casing Joints	5 1/2	20.00	P-110	Yes	45.44	Yes			5,163.3	9,885.74
227	217	Casing Joints	5 1/2	20.00	P-110	Yes	39.94	Yes			5,123.3	9,925.68
228	218	Casing Joints	5 1/2	20.00	P-110	Yes	45.50	Yes			5,077.8	9,971.18
229	219	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			5,032.1	10,016.91
230	220	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			4,986.5	10,062.46
231	221	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			4,940.8	10,108.19
232	222	Casing Joints	5 1/2	20.00	P-110	Yes	45.62	Yes			4,895.2	10,153.81
233	223	Casing Joints	5 1/2	20.00	P-110	Yes	43.81	Yes			4,851.4	10,197.62
234	224	Casing Joints	5 1/2	20.00	P-110	Yes	45.11	Yes			4,806.3	10,242.73
235	225	Casing Joints	5 1/2	20.00	P-110	Yes	45.48	Yes			4,760.8	10,288.21
236	226	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			4,715.1	10,333.91
237	227	Casing Joints	5 1/2	20.00	P-110	Yes	45.64	Yes			4,669.5	10,379.55
238	228	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			4,623.7	10,425.26
239	229	Casing Joints	5 1/2	20.00	P-110	Yes	42.32	Yes			4,581.4	10,467.58
240	230	Casing Joints	5 1/2	20.00	P-110	Yes	42.98	Yes			4,538.4	10,510.56
241	231	Casing Joints	5 1/2	20.00	P-110	Yes	45.80	Yes			4,492.6	10,556.36
242	232	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			4,447.0	10,602.05
243	233	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			4,401.2	10,647.83
244	234	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			4,355.5	10,693.49



Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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)
245	235	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			4,309.8	10,739.20
246	236	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			4,264.0	10,784.96
247	237	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			4,218.3	10,830.70
248	238	Casing Joints	5 1/2	20.00	P-110	Yes	44.34	Yes			4,174.0	10,875.04
249	239	Casing Joints	5 1/2	20.00	P-110	Yes	45.66	Yes			4,128.3	10,920.70
250	240	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			4,082.7	10,966.30
251	241	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			4,037.0	11,012.04
252	242	Casing Joints	5 1/2	20.00	P-110	Yes	45.48	Yes			3,991.5	11,057.52
253	243	Casing Joints	5 1/2	20.00	P-110	Yes	45.72	Yes			3,945.8	11,103.24
254	244	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			3,900.0	11,149.00
255	245	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			3,854.4	11,194.61
256	246	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			3,808.8	11,240.19
257	247	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			3,763.1	11,285.89
258	248	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			3,717.4	11,331.57
259	249	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			3,671.7	11,377.28
260	250	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			3,626.0	11,423.03
261	251	Casing Joints	5 1/2	20.00	P-110	Yes	45.60	Yes			3,580.4	11,468.63
262	252	Casing Joints	5 1/2	20.00	P-110	Yes	45.51	Yes			3,534.9	11,514.14
263	253	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			3,489.3	11,559.72
264	254	Casing Joints	5 1/2	20.00	P-110	Yes	45.74	Yes			3,443.5	11,605.46
266	255	Casing Joints	5 1/2	20.00	P-110	Yes	45.59	Yes			3,383.8	11,665.23
267	256	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			3,338.1	11,710.94
268	257	Casing Joints	5 1/2	20.00	P-110	Yes	45.53	Yes			3,292.5	11,756.47
269	258	Casing Joints	5 1/2	20.00	P-110	Yes	45.00	Yes			3,247.5	11,801.47
270	259	Casing Joints	5 1/2	20.00	P-110	Yes	46.05	Yes			3,201.5	11,847.52
271	260	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			3,155.9	11,893.15
272	261	Casing Joints	5 1/2	20.00	P-110	Yes	38.15	Yes			3,117.7	11,931.30
273	262	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			3,072.1	11,976.91
274	263	Casing Joints	5 1/2	20.00	P-110	Yes	45.55	Yes			3,026.5	12,022.46
275	264	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			2,981.9	12,067.06
276	265	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			2,936.2	12,112.82



Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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)
277	266	Casing Joints	5 1/2	20.00	P-110	Yes	45.67	Yes			2,890.5	12,158.49
278	267	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			2,844.9	12,204.07
279	268	Casing Joints	5 1/2	20.00	P-110	Yes	46.20	Yes			2,798.7	12,250.27
280	269	Casing Joints	5 1/2	20.00	P-110	Yes	46.12	Yes			2,752.6	12,296.39
281	270	Casing Joints	5 1/2	20.00	P-110	Yes	45.57	Yes			2,707.0	12,341.96
282	271	Casing Joints	5 1/2	20.00	P-110	Yes	44.88	Yes			2,662.2	12,386.84
283	272	Casing Joints	5 1/2	20.00	P-110	Yes	41.61	Yes			2,620.6	12,428.45
284	273	Casing Joints	5 1/2	20.00	P-110	Yes	43.20	Yes			2,577.4	12,471.65
285	274	Casing Joints	5 1/2	20.00	P-110	Yes	45.72	Yes			2,531.6	12,517.37
286	275	Casing Joints	5 1/2	20.00	P-110	Yes	45.87	Yes			2,485.8	12,563.24
287	276	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,440.1	12,608.94
288	277	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			2,394.3	12,654.75
289	278	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			2,348.6	12,700.45
290	279	Casing Joints	5 1/2	20.00	P-110	Yes	45.81	Yes			2,302.7	12,746.26
291	280	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			2,257.0	12,791.99
292	281	Casing Joints	5 1/2	20.00	P-110	Yes	45.77	Yes			2,211.2	12,837.76
293	282	Casing Joints	5 1/2	20.00	P-110	Yes	45.98	Yes			2,165.3	12,883.74
294	283	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			2,119.5	12,929.52
295	284	Casing Joints	5 1/2	20.00	P-110	Yes	45.48	Yes			2,074.0	12,975.00
296	285	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			2,028.3	13,020.73
297	286	Casing Joints	5 1/2	20.00	P-110	Yes	45.65	Yes			1,982.6	13,066.38
298	287	Casing Joints	5 1/2	20.00	P-110	Yes	42.78	Yes			1,939.8	13,109.16
299	288	Casing Joints	5 1/2	20.00	P-110	Yes	45.95	Yes			1,893.9	13,155.11
300	289	Casing Joints	5 1/2	20.00	P-110	Yes	45.91	Yes			1,848.0	13,201.02
301	290	Casing Joints	5 1/2	20.00	P-110	Yes	45.76	Yes			1,802.2	13,246.78
302	291	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			1,756.4	13,292.61
303	292	Casing Joints	5 1/2	20.00	P-110	Yes	45.63	Yes			1,710.8	13,338.24
304	293	Casing Joints	5 1/2	20.00	P-110	Yes	45.79	Yes			1,665.0	13,384.03
305	294	Casing Joints	5 1/2	20.00	P-110	Yes	44.52	Yes			1,620.5	13,428.55
306	295	Casing Joints	5 1/2	20.00	P-110	Yes	43.28	Yes			1,577.2	13,471.83
307	296	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			1,531.5	13,517.54



Centralizer Depths

Well Name: Steamboat 14N

Production, Set Depth: 15,049.0ftKB

API 05123513040000		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 2/20/2023 04:30	Rig Release Date 2/24/2023 02:00	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)
308	297	Casing Joints	5 1/2	20.00	P-110	Yes	45.73	Yes			1,485.7	13,563.27
309	298	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			1,440.0	13,608.98
310	299	Casing Joints	5 1/2	20.00	P-110	Yes	45.72	Yes			1,394.3	13,654.70
311	300	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			1,348.6	13,700.45
312	301	Casing Joints	5 1/2	20.00	P-110	Yes	45.56	Yes			1,303.0	13,746.01
313	302	Casing Joints	5 1/2	20.00	P-110	Yes	45.78	Yes			1,257.2	13,791.79
314	303	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			1,211.5	13,837.47
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			1,165.8	13,883.16
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	44.70	Yes			1,121.1	13,927.86
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			1,075.4	13,973.61
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			1,029.7	14,019.32
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			984.0	14,065.02
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	45.83	Yes			938.2	14,110.85
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	45.68	Yes			892.5	14,156.53
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	45.75	Yes			846.7	14,202.28
323	312	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			801.0	14,247.99
324	313	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			755.3	14,293.69
325	314	Casing Joints	5 1/2	20.00	P-110	Yes	38.14	Yes			717.2	14,331.83
326	315	Casing Joints	5 1/2	20.00	P-110	Yes	45.71	Yes			671.5	14,377.54
327	316	Casing Joints	5 1/2	20.00	P-110	Yes	45.69	Yes			625.8	14,423.23
328	317	Casing Joints	5 1/2	20.00	P-110	Yes	45.61	Yes			580.2	14,468.84
329	318	Casing Joints	5 1/2	20.00	P-110	Yes	45.70	Yes			534.5	14,514.54
330	319	Casing Joints	5 1/2	20.00	P-110	Yes	45.58	Yes			488.9	14,560.12