

# Cement Post Job Report

**Client:** PDC Energy

**Well Name:** Drake 3N

**API #:** 05-123-51830

**Job Date:** November 16, 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
<b>PDC Energy</b>	<b>Drake 03N</b>	<b>Patterson 272</b>	<b>Production</b>	<b>Buttress</b>	<b>5 1/2" Cement Head</b>

WELL MD (FT)	WELL TVD (FT)	DEVIATION (DEG)	NUMBER OF STAGES	BHST (DEG)	BHCT (DEG)
<b>18927</b>	<b>6791</b>	<b>90</b>	<b>1</b>	<b>230</b>	<b>230</b>

PACKER/RETAINER/CIBP/DV TOOL DEPTHS	TOOL TYPE	TOP OF PERFS (FT)	BOTTOM OF PERFS (FT)	NUMBER OF HOLES
<b>3485</b>	<b>PACKER</b>			

CASING/TUBING/DP DETAILS								
STRING TYPE	GRADE	OD"	WT/FT	ID"	OH SIZE"	% EXCESS LEAD	% EXCESS TAIL	TOTAL DEPTH (FT)
<b>Surface</b>		<b>9.625</b>	<b>36</b>	<b>8.921</b>	<b>13.50</b>			<b>1749</b>
<b>Production</b>	<b>P-110</b>	<b>5.5</b>	<b>20</b>	<b>4.778</b>	<b>8.5</b>	<b>0</b>	<b>0</b>	<b>18921</b>
MAXIMUM CASING/TUBING/DP PSI				<b>9888</b>		MAXIMUM ANNULAR PSI		<b>4100</b>

Mud Type	OBM	Rotate Y,N	No	Circulation Data				Water Requirements (bbbls)	
Mud ppg	<b>10.6</b>	Rate (rpm)		Circulate Time (hrs)		<b>2</b>		Spacers	<b>160</b>
Flow Temp	<b>151</b>	Torque Val.		Circulation Rate (bpm)		<b>10</b>		Stage 1 Lead	<b>112</b>
Vis. Sec/qt	<b>50</b>	Time (hr)		Full Circulation ? (Y,N,P)		<b>Yes</b>		Stage 1 Tail	<b>387</b>
PV (cP)	<b>14</b>	Pipe Reciprocation		Gas Present (Y,N)		<b>No</b>	Units	Stage 2 Lead	
Yield Pt	<b>6</b>	Recip Y,N	<b>No</b>	Centralizers/Plugs				Stage 2 Tail	
10 sec gel	<b>5</b>	Stroke (ft)		Quantity & Type		<b>Customer Provided</b>		Displacement	<b>419</b>
10 min gel	<b>9</b>	Recip time		Top Plug/Type		<b>Customer Provided</b>		Wash up	<b>20</b>
30 min gel	<b>12</b>	Stuck ?		Bottom Plug/Type		<b>Customer Provided</b>		Total + 10% Safety	<b>1208</b>

Preflush & Spacers		Stage 1 Lead - Class G		Stage 1 Tail - Class G		Stage 2 Lead		Stage 2 Tail		Displacement	
Spacer 1	<b>Spacer</b>	Density	<b>12.9</b>	Density	<b>13.7</b>	Density		Density		Fluid Type	<b>Water</b>
	<b>12</b>	Sacks	<b>1276</b>	Sacks	<b>1718</b>	Sacks		Sacks		Dens. ppg	<b>8.33</b>
Volume	<b>160</b>	Vol/bbbls	<b>256.8</b>	Vol/bbbls	<b>419.2</b>	Vol/bbbls	<b>0.0</b>	Vol/bbbls	<b>0.0</b>	Vol. bbl	<b>419</b>
Rate	<b>12</b>	Rate	<b>10</b>	Rate	<b>11</b>	Rate		Rate		Rate bpm	<b>9</b>
Spacer 2		Yield	<b>1.13</b>	Yield	<b>1.37</b>	Yield		Yield		Clay Stay?	<b>No</b>
Density		Gal/Sk	<b>3.68</b>	Gal/Sk	<b>6.63</b>	Gal/Sk		Gal/Sk		Biocide ?	<b>Yes</b>
Volume		% Excess	<b>0</b>	% Excess	<b>0</b>	% Excess		% Excess		Slow @ bbl	<b>395</b>
Rate		TOL (ft)	<b>2033</b>	TOT (ft)	<b>8308</b>	TOL (ft)		TOT (ft)		Bump PSI	<b>3600</b>

Final Displacement (bbbls)	<b>419</b>
Bump Plug?	<b>Yes</b>
Final Bump Pressure (psi)	<b>3600</b>
Full Returns throughout job?	<b>Full</b>
Vol. away/Time when returns lost	-
Vol. away when returns were regained	-
Spacer to Surface?	<b>Yes</b>
Spacer volume returned (bbbls)	<b>65</b>
Cement to surface?	<b>No</b>
Cement volume to surface stage 1	-
Cement volume to surface stage 2	-

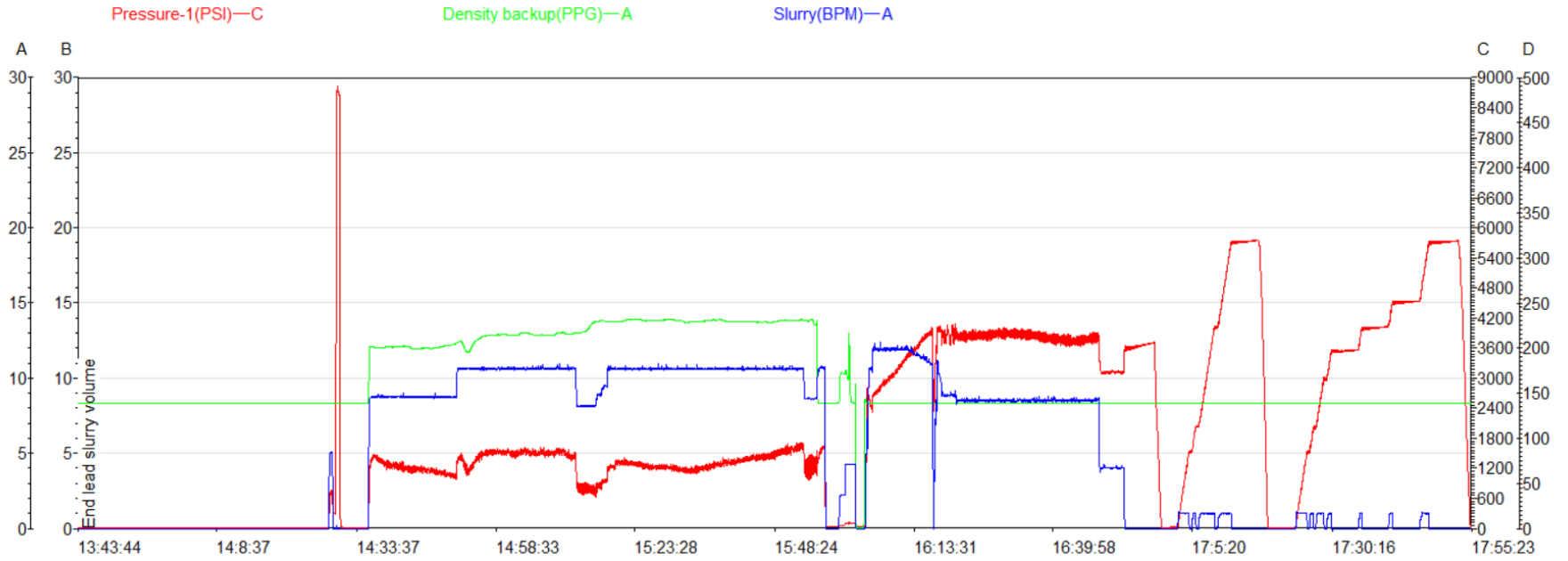
Surface Top Out Details-Pumped		Job Summary Additional Chems Used	
Cement Type		MFC 47 (gal)	<b>70</b>
Dens. ppg	<b>NA</b>	MFC 67 (gal)	<b>168</b>
Sacks qty	<b>NA</b>	Defoamer (gal)	<b>20</b>
Gal/sk	<b>NA</b>	Biocide (gal)	<b>20</b>
Yield	<b>NA</b>	Corr. Inhib (gal)	<b>0</b>
Lbs. of chloride used	<b>NA</b>	Fiber (lbs)	<b>290</b>
Top out pipe used ?	<b>NA</b>	Chloride (lbs)	<b>0</b>
Feet of top out pipe	<b>NA</b>	Retarder (lbs)	<b>0</b>
Annulus holding?		Clay Stabilizer (gal)	<b>0</b>
Sodium Silicate Used		Other	<b>0</b>

## JOB LOG

CLIENT	WELL	RIG	JOB TYPE	START DATE	Ambient Conditions
<b>PDC Energy</b>	<b>Drake 03N</b>	<b>Patterson 272</b>	<b>Production</b>	<b>11/16/2023</b>	Temp / Hum / Air Press 68 Deg F / 25% / 24.83 in

DATE (dd/mm)	TIME (hh:mm)	DENSITY (ppg)	RATE (bpm)	VOL. (bbl)	TOTAL VOL.	PRESSURE	TREATMENT COMMENTS
11/15/2023	11:00:00 AM						Called out, requested by 10:30.
11/16/2023	10:30:00 AM						Spotted equipment.
11/16/2023	10:45:00 AM						Rig up.
11/16/2023	1:00:00 PM						Safety meeting.
11/16/2023	1:24:00 PM	8.33	5.0	3	3	500	Filled lines.
11/16/2023	1:26:00 PM					8500	Pressure tested lines. No leaks.
11/16/2023	1:29:00 PM						Dropped bottom plug.
11/16/2023	1:32:00 PM	12	9.0	160	160	1400	Mixed and pumped spacer @ 12ppg, with fiber and surfactant.
11/16/2023	1:50:00 PM	12.9	10.5	256	256	1500	Mixed and pumped lead cmt @ 12.9ppg. (1276sk, 1.13yld, 3.68gl/sk.) TOL 2033'.
11/16/2023	2:13:00 PM	13.7	10.5	418	418	1200	Mixed and pumped tail cmt @ 13.7ppg. (1718sk, 1.37yld, 6.63gl/sk.) TOT 8308'.
11/16/2023	2:52:00 PM	8.33	8.3	15	15	1500	Pumped sugar water.
11/16/2023	2:54:00 PM						Shutdown.
11/16/2023	2:57:00 PM						Dropped top plug. Verified by company man.
11/16/2023	3:01:00 PM	8.33	10.5	10	419	2200	Fresh water displacement with biocide.
11/16/2023	3:05:00 PM	8.33	11.8	50	419	3000	Fresh water displacement with biocide.
11/16/2023	3:10:00 PM	8.33	11.6	100	419	3600	Fresh water displacement with biocide.
11/16/2023	3:16:00 PM	8.33	9.0	150	419	3700	Fresh water displacement with biocide.
11/16/2023	3:21:00 PM	8.33	8.5	200	419	3750	Fresh water displacement with biocide.
11/16/2023	3:27:00 PM	8.33	8.5	250	419	3800	Fresh water displacement with biocide.
11/16/2023	3:33:00 PM	8.33	8.5	300	419	3800	Fresh water displacement with biocide.
11/16/2023	3:39:00 PM	8.33	8.5	350	419	3800	Fresh water displacement with biocide.
11/16/2023	3:46:00 PM	8.33	4.0	400	419	3100	Fresh water displacement with biocide.
11/16/2023	3:49:00 PM			419	419	3600	Landed plug @ calculated displacement, received 65bbl of spacer to surface. FCP 3100psi.
11/16/2023	3:54:00 PM						Checked floats, 5.5 bbl back.
11/16/2023	4:00:00 PM						Turned over to Welltec toolhand for packer procedure.
11/16/2023	5:00:00 PM						Flushed stack, verified clean by rig hands.
11/16/2023	6:00:00 PM						Crew departs location.

# Drake 3N Production Pump Chart – Pressure / Rate / Density



Chart



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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	44.62	Yes			18,840.7	80.34
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	44.76	Yes			18,751.1	169.87
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	44.42	Yes			18,662.5	258.53
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			18,573.1	347.91
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	42.17	Yes			18,486.8	434.17
17		Marker Joint A	5 1/2	20.00	P-110	Yes	7.86	Yes			18,435.2	485.76
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	43.37	Yes			18,346.9	574.11
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	38.74	Yes			18,263.4	657.63
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	43.74	Yes			18,175.2	745.80
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			18,085.8	835.24
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			17,996.0	924.99
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	44.34	Yes			17,907.3	1,013.71
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			17,818.7	1,102.32
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	45.14	Yes			17,728.6	1,192.43
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			17,638.6	1,282.38
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	45.19	Yes			17,549.1	1,371.95
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	42.23	Yes			17,461.9	1,459.14
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	42.28	Yes			17,374.8	1,546.19
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	45.11	Yes			17,284.8	1,636.24
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	42.12	Yes			17,198.7	1,722.30
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	41.46	Yes			17,113.6	1,807.45
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			17,024.0	1,897.01
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	43.94	Yes			16,935.1	1,985.93
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	44.74	Yes			16,848.0	2,073.04
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			16,759.9	2,161.15
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	44.43	Yes			16,670.7	2,250.33
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	45.27	Yes			16,584.8	2,336.17
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	41.09	Yes			16,499.3	2,421.72
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	36.90	Yes			16,417.9	2,503.14
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			16,327.8	2,593.23
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			16,241.4	2,679.59



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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	35.51	Yes			16,161.4	2,759.58
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			16,075.9	2,845.13
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			15,986.7	2,934.28
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			15,899.8	3,021.22
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			15,811.1	3,109.86
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	36.75	Yes			15,729.2	3,191.81
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	39.15	Yes			15,645.2	3,275.84
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	39.20	Yes			15,561.0	3,360.01
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	39.09	Yes			15,481.0	3,439.97
87	80	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			15,391.1	3,529.95
89	82	Casing Joints	5 1/2	20.00	P-110	Yes	44.62	Yes			15,301.6	3,619.39
91	84	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			15,212.4	3,708.59
93	86	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			15,128.1	3,792.87
95	88	Casing Joints	5 1/2	20.00	P-110	Yes	44.76	Yes			15,038.6	3,882.42
97	90	Casing Joints	5 1/2	20.00	P-110	Yes	45.20	Yes			14,948.4	3,972.58
99	92	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			14,859.5	4,061.54
101	94	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			14,769.9	4,151.09
103	96	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			14,682.5	4,238.49
105	98	Casing Joints	5 1/2	20.00	P-110	Yes	40.86	Yes			14,596.9	4,324.11
107	100	Casing Joints	5 1/2	20.00	P-110	Yes	40.31	Yes			14,518.0	4,403.03
109	102	Casing Joints	5 1/2	20.00	P-110	Yes	44.09	Yes			14,429.8	4,491.20
111	104	Casing Joints	5 1/2	20.00	P-110	Yes	44.74	Yes			14,341.1	4,579.86
113	106	Casing Joints	5 1/2	20.00	P-110	Yes	44.14	Yes			14,252.0	4,668.96
115	108	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			14,165.5	4,755.53
117	110	Casing Joints	5 1/2	20.00	P-110	Yes	42.92	Yes			14,083.4	4,837.65
119	112	Casing Joints	5 1/2	20.00	P-110	Yes	43.03	Yes			13,997.8	4,923.25
121	114	Casing Joints	5 1/2	20.00	P-110	Yes	41.65	Yes			13,911.2	5,009.84
123	116	Casing Joints	5 1/2	20.00	P-110	Yes	44.59	Yes			13,822.5	5,098.52
125	118	Casing Joints	5 1/2	20.00	P-110	Yes	44.59	Yes			13,734.0	5,187.05
127	120	Casing Joints	5 1/2	20.00	P-110	Yes	43.67	Yes			13,645.3	5,275.70
129	122	Casing Joints	5 1/2	20.00	P-110	Yes	42.89	Yes			13,557.9	5,363.10



## Centralizer Depths

Well Name: **Drake 03N**

Production, Set Depth: **18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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	44.10	Yes			13,502.7	5,418.29
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	37.66	Yes			13,421.4	5,499.62
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			13,334.9	5,586.15
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	42.24	Yes			13,248.1	5,672.89
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			13,160.5	5,760.49
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			13,071.2	5,849.85
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	41.85	Yes			12,985.2	5,935.78
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	44.10	Yes			12,897.9	6,023.08
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	44.54	Yes			12,809.5	6,111.50
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	44.07	Yes			12,720.2	6,200.84
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			12,634.1	6,286.90
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	44.40	Yes			12,546.0	6,375.03
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	42.18	Yes			12,460.2	6,460.83
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	41.97	Yes			12,374.7	6,546.32
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	44.44	Yes			12,286.6	6,634.45
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			12,200.6	6,720.41
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			12,114.2	6,806.79
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	45.29	Yes			12,024.4	6,896.60
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	43.65	Yes			11,935.9	6,985.13
169	161	Casing Joints	5 1/2	20.00	P-110	Yes	42.84	Yes			11,851.2	7,069.79
171	163	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			11,761.7	7,159.35
173	165	Casing Joints	5 1/2	20.00	P-110	Yes	38.48	Yes			11,678.9	7,242.07
175	167	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			11,589.6	7,331.37
177	169	Casing Joints	5 1/2	20.00	P-110	Yes	38.96	Yes			11,505.9	7,415.09
179	171	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			11,416.9	7,504.11
181	173	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			11,327.1	7,593.86
183	175	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			11,239.2	7,681.82
185	177	Casing Joints	5 1/2	20.00	P-110	Yes	44.07	Yes			11,155.2	7,765.82
187	179	Casing Joints	5 1/2	20.00	P-110	Yes	44.19	Yes			11,068.5	7,852.48
189	181	Casing Joints	5 1/2	20.00	P-110	Yes	42.19	Yes			10,981.6	7,939.44
191	183	Casing Joints	5 1/2	20.00	P-110	Yes	42.56	Yes			10,894.9	8,026.07



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

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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)
193	185	Casing Joints	5 1/2	20.00	P-110	Yes	45.23	Yes			10,806.3	8,114.72
195	187	Casing Joints	5 1/2	20.00	P-110	Yes	45.31	Yes			10,715.9	8,205.10
197	189	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			10,631.5	8,289.48
199	191	Casing Joints	5 1/2	20.00	P-110	Yes	43.60	Yes			10,544.0	8,377.05
201	193	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			10,455.8	8,465.17
203	195	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			10,368.0	8,552.98
205	197	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			10,277.9	8,643.06
207	199	Casing Joints	5 1/2	20.00	P-110	Yes	42.78	Yes			10,189.9	8,731.06
209	201	Casing Joints	5 1/2	20.00	P-110	Yes	38.56	Yes			10,108.1	8,812.91
211	203	Casing Joints	5 1/2	20.00	P-110	Yes	44.55	Yes			10,018.8	8,902.24
213	205	Casing Joints	5 1/2	20.00	P-110	Yes	44.89	Yes			9,929.0	8,992.01
215	207	Casing Joints	5 1/2	20.00	P-110	Yes	42.64	Yes			9,842.0	9,079.05
217	209	Casing Joints	5 1/2	20.00	P-110	Yes	44.32	Yes			9,758.3	9,162.68
219	211	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			9,668.8	9,252.16
221	213	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			9,580.7	9,340.27
223	215	Casing Joints	5 1/2	20.00	P-110	Yes	43.62	Yes			9,492.6	9,428.38
225	217	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			9,404.1	9,516.95
227	219	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			9,316.1	9,604.89
229	221	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			9,226.8	9,694.21
231	223	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			9,137.5	9,783.48
233	225	Casing Joints	5 1/2	20.00	P-110	Yes	44.48	Yes			9,048.1	9,872.94
235	227	Casing Joints	5 1/2	20.00	P-110	Yes	40.87	Yes			8,963.2	9,957.84
237	229	Casing Joints	5 1/2	20.00	P-110	Yes	43.01	Yes			8,877.5	10,043.50
239	231	Casing Joints	5 1/2	20.00	P-110	Yes	44.86	Yes			8,787.7	10,133.33
241	233	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			8,698.2	10,222.79
243	235	Casing Joints	5 1/2	20.00	P-110	Yes	44.49	Yes			8,613.3	10,307.73
245	237	Casing Joints	5 1/2	20.00	P-110	Yes	44.41	Yes			8,524.1	10,396.92
247	239	Casing Joints	5 1/2	20.00	P-110	Yes	44.48	Yes			8,434.9	10,486.13
249	241	Casing Joints	5 1/2	20.00	P-110	Yes	44.04	Yes			8,346.4	10,574.62
251	243	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			8,256.9	10,664.06
253	245	Casing Joints	5 1/2	20.00	P-110	Yes	43.34	Yes			8,178.1	10,742.93



# Centralizer Depths

Well Name: Drake 03N

Production, Set Depth: 18,921.0ftKB

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
254		Marker Joint F	5 1/2	20.00	P-110	Yes	20.12	Yes			8,158.0	10,763.05
255	246	Casing Joints	5 1/2	20.00	P-110	Yes	44.48	Yes			8,113.5	10,807.53
256	247	Casing Joints	5 1/2	20.00	P-110	Yes	36.79	Yes			8,076.7	10,844.32
257	248	Casing Joints	5 1/2	20.00	P-110	Yes	44.43	Yes			8,032.3	10,888.75
258	249	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			7,987.7	10,933.26
259	250	Casing Joints	5 1/2	20.00	P-110	Yes	44.59	Yes			7,943.2	10,977.85
260	251	Casing Joints	5 1/2	20.00	P-110	Yes	44.10	Yes			7,899.1	11,021.95
261	252	Casing Joints	5 1/2	20.00	P-110	Yes	44.57	Yes			7,854.5	11,066.52
262	253	Casing Joints	5 1/2	20.00	P-110	Yes	44.60	Yes			7,809.9	11,111.12
263	254	Casing Joints	5 1/2	20.00	P-110	Yes	43.23	Yes			7,766.7	11,154.35
264	255	Casing Joints	5 1/2	20.00	P-110	Yes	44.11	Yes			7,722.5	11,198.46
265	256	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			7,678.0	11,242.97
266	257	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			7,633.5	11,287.48
267	258	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			7,589.1	11,331.93
268	259	Casing Joints	5 1/2	20.00	P-110	Yes	44.52	Yes			7,544.6	11,376.45
269	260	Casing Joints	5 1/2	20.00	P-110	Yes	43.92	Yes			7,500.6	11,420.37
270	261	Casing Joints	5 1/2	20.00	P-110	Yes	42.56	Yes			7,458.1	11,462.93
271	262	Casing Joints	5 1/2	20.00	P-110	Yes	43.73	Yes			7,414.3	11,506.66
272	263	Casing Joints	5 1/2	20.00	P-110	Yes	44.90	Yes			7,369.4	11,551.56
273	264	Casing Joints	5 1/2	20.00	P-110	Yes	44.06	Yes			7,325.4	11,595.62
274	265	Casing Joints	5 1/2	20.00	P-110	Yes	43.17	Yes			7,282.2	11,638.79
275	266	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			7,237.8	11,683.24
277	267	Casing Joints	5 1/2	20.00	P-110	Yes	42.36	Yes			7,193.7	11,727.27
278	268	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			7,148.9	11,772.14
279	269	Casing Joints	5 1/2	20.00	P-110	Yes	43.97	Yes			7,104.9	11,816.11
280	270	Casing Joints	5 1/2	20.00	P-110	Yes	42.94	Yes			7,062.0	11,859.05
281	271	Casing Joints	5 1/2	20.00	P-110	Yes	44.82	Yes			7,017.1	11,903.87
282	272	Casing Joints	5 1/2	20.00	P-110	Yes	42.69	Yes			6,974.4	11,946.56
283	273	Casing Joints	5 1/2	20.00	P-110	Yes	44.35	Yes			6,930.1	11,990.91
284	274	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			6,885.1	12,035.88
285	275	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			6,841.1	12,079.91



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
286	276	Casing Joints	5 1/2	20.00	P-110	Yes	44.59	Yes			6,796.5	12,124.50
287	277	Casing Joints	5 1/2	20.00	P-110	Yes	42.79	Yes			6,753.7	12,167.29
288	278	Casing Joints	5 1/2	20.00	P-110	Yes	44.42	Yes			6,709.3	12,211.71
289	279	Casing Joints	5 1/2	20.00	P-110	Yes	44.14	Yes			6,665.2	12,255.85
290	280	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			6,620.2	12,300.82
291	281	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			6,576.2	12,344.85
292	282	Casing Joints	5 1/2	20.00	P-110	Yes	44.83	Yes			6,531.3	12,389.68
293	283	Casing Joints	5 1/2	20.00	P-110	Yes	44.02	Yes			6,487.3	12,433.70
294		Marker Joint H	5 1/2	20.00	P-110	Yes	21.06	Yes			6,466.2	12,454.76
295	284	Casing Joints	5 1/2	20.00	P-110	Yes	44.62	Yes			6,421.6	12,499.38
296	285	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			6,376.8	12,544.17
297	286	Casing Joints	5 1/2	20.00	P-110	Yes	44.42	Yes			6,332.4	12,588.59
298	287	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			6,287.8	12,633.20
299	288	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			6,242.8	12,678.17
300	289	Casing Joints	5 1/2	20.00	P-110	Yes	44.63	Yes			6,198.2	12,722.80
301	290	Casing Joints	5 1/2	20.00	P-110	Yes	44.34	Yes			6,153.9	12,767.14
302	291	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			6,109.8	12,811.17
303	292	Casing Joints	5 1/2	20.00	P-110	Yes	43.11	Yes			6,066.7	12,854.28
304	293	Casing Joints	5 1/2	20.00	P-110	Yes	41.76	Yes			6,025.0	12,896.04
305	294	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			5,980.0	12,941.02
306	295	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			5,935.2	12,985.81
307	296	Casing Joints	5 1/2	20.00	P-110	Yes	43.95	Yes			5,891.2	13,029.76
308	297	Casing Joints	5 1/2	20.00	P-110	Yes	41.43	Yes			5,849.8	13,071.19
309	298	Casing Joints	5 1/2	20.00	P-110	Yes	42.67	Yes			5,807.1	13,113.86
310	299	Casing Joints	5 1/2	20.00	P-110	Yes	44.14	Yes			5,763.0	13,158.00
311	300	Casing Joints	5 1/2	20.00	P-110	Yes	44.53	Yes			5,718.5	13,202.53
312	301	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			5,675.4	13,245.58
313	302	Casing Joints	5 1/2	20.00	P-110	Yes	42.54	Yes			5,632.9	13,288.12
314	303	Casing Joints	5 1/2	20.00	P-110	Yes	44.44	Yes			5,588.4	13,332.56
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	44.44	Yes			5,544.0	13,377.00
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			5,500.3	13,420.69



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	44.83	Yes			5,455.5	13,465.52
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	44.09	Yes			5,411.4	13,509.61
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	44.69	Yes			5,366.7	13,554.30
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	45.25	Yes			5,321.5	13,599.55
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	43.69	Yes			5,277.8	13,643.24
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	39.11	Yes			5,238.7	13,682.35
323	312	Casing Joints	5 1/2	20.00	P-110	Yes	43.72	Yes			5,194.9	13,726.07
324	313	Casing Joints	5 1/2	20.00	P-110	Yes	45.00	Yes			5,149.9	13,771.07
325	314	Casing Joints	5 1/2	20.00	P-110	Yes	44.08	Yes			5,105.9	13,815.15
326	315	Casing Joints	5 1/2	20.00	P-110	Yes	41.79	Yes			5,064.1	13,856.94
327	316	Casing Joints	5 1/2	20.00	P-110	Yes	44.74	Yes			5,019.3	13,901.68
328	317	Casing Joints	5 1/2	20.00	P-110	Yes	44.10	Yes			4,975.2	13,945.78
329	318	Casing Joints	5 1/2	20.00	P-110	Yes	43.82	Yes			4,931.4	13,989.60
330	319	Casing Joints	5 1/2	20.00	P-110	Yes	44.03	Yes			4,887.4	14,033.63
331	320	Casing Joints	5 1/2	20.00	P-110	Yes	44.44	Yes			4,842.9	14,078.07
332	321	Casing Joints	5 1/2	20.00	P-110	Yes	40.63	Yes			4,802.3	14,118.70
333	322	Casing Joints	5 1/2	20.00	P-110	Yes	39.70	Yes			4,762.6	14,158.40
334	323	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			4,718.4	14,202.62
335	324	Casing Joints	5 1/2	20.00	P-110	Yes	42.56	Yes			4,675.8	14,245.18
336	325	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			4,631.6	14,289.41
337	326	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			4,586.6	14,334.38
338	327	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			4,542.0	14,378.99
339	328	Casing Joints	5 1/2	20.00	P-110	Yes	44.71	Yes			4,497.3	14,423.70
340	329	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			4,452.5	14,468.49
341	330	Casing Joints	5 1/2	20.00	P-110	Yes	44.86	Yes			4,407.7	14,513.35
342	331	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			4,362.9	14,558.13
343	332	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			4,318.4	14,602.64
344	333	Casing Joints	5 1/2	20.00	P-110	Yes	39.93	Yes			4,278.4	14,642.57
345	334	Casing Joints	5 1/2	20.00	P-110	Yes	44.81	Yes			4,233.6	14,687.38
346	335	Casing Joints	5 1/2	20.00	P-110	Yes	44.52	Yes			4,189.1	14,731.90
347	336	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			4,144.1	14,776.87



## Centralizer Depths

Well Name: **Drake 03N**

Production, Set Depth: **18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
348	337	Casing Joints	5 1/2	20.00	P-110	Yes	37.64	Yes			4,106.5	14,814.51
349	338	Casing Joints	5 1/2	20.00	P-110	Yes	44.42	Yes			4,062.1	14,858.93
350	339	Casing Joints	5 1/2	20.00	P-110	Yes	44.38	Yes			4,017.7	14,903.31
351	340	Casing Joints	5 1/2	20.00	P-110	Yes	45.07	Yes			3,972.6	14,948.38
352	341	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			3,927.6	14,993.36
353	342	Casing Joints	5 1/2	20.00	P-110	Yes	44.36	Yes			3,883.3	15,037.72
354	343	Casing Joints	5 1/2	20.00	P-110	Yes	40.57	Yes			3,842.7	15,078.29
355	344	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			3,797.8	15,123.16
356	345	Casing Joints	5 1/2	20.00	P-110	Yes	40.32	Yes			3,757.5	15,163.48
357	346	Casing Joints	5 1/2	20.00	P-110	Yes	44.50	Yes			3,713.0	15,207.98
358	347	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			3,668.3	15,252.75
359	348	Casing Joints	5 1/2	20.00	P-110	Yes	44.81	Yes			3,623.4	15,297.56
360	349	Casing Joints	5 1/2	20.00	P-110	Yes	44.97	Yes			3,578.5	15,342.53
361	350	Casing Joints	5 1/2	20.00	P-110	Yes	40.30	Yes			3,538.2	15,382.83
362	351	Casing Joints	5 1/2	20.00	P-110	Yes	45.24	Yes			3,492.9	15,428.07
364	352	Casing Joints	5 1/2	20.00	P-110	Yes	43.92	Yes			3,434.4	15,486.62
365	353	Casing Joints	5 1/2	20.00	P-110	Yes	44.50	Yes			3,389.9	15,531.12
366	354	Casing Joints	5 1/2	20.00	P-110	Yes	43.56	Yes			3,346.3	15,574.68
367	355	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			3,301.9	15,619.13
368	356	Casing Joints	5 1/2	20.00	P-110	Yes	44.34	Yes			3,257.5	15,663.47
369	357	Casing Joints	5 1/2	20.00	P-110	Yes	43.87	Yes			3,213.7	15,707.34
370	358	Casing Joints	5 1/2	20.00	P-110	Yes	44.39	Yes			3,169.3	15,751.73
371	359	Casing Joints	5 1/2	20.00	P-110	Yes	44.84	Yes			3,124.4	15,796.57
372	360	Casing Joints	5 1/2	20.00	P-110	Yes	44.36	Yes			3,080.1	15,840.93
373	361	Casing Joints	5 1/2	20.00	P-110	Yes	44.62	Yes			3,035.5	15,885.55
374	362	Casing Joints	5 1/2	20.00	P-110	Yes	44.83	Yes			2,990.6	15,930.38
375	363	Casing Joints	5 1/2	20.00	P-110	Yes	44.36	Yes			2,946.3	15,974.74
376	364	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			2,901.3	16,019.72
377	365	Casing Joints	5 1/2	20.00	P-110	Yes	44.76	Yes			2,856.5	16,064.48
378	366	Casing Joints	5 1/2	20.00	P-110	Yes	44.45	Yes			2,812.1	16,108.93
379	367	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			2,767.1	16,153.89



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
380	368	Casing Joints	5 1/2	20.00	P-110	Yes	39.75	Yes			2,727.4	16,193.64
381	369	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			2,682.1	16,238.86
382	370	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			2,637.6	16,283.37
383	371	Casing Joints	5 1/2	20.00	P-110	Yes	39.88	Yes			2,597.8	16,323.25
384	372	Casing Joints	5 1/2	20.00	P-110	Yes	43.53	Yes			2,554.2	16,366.78
385	373	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			2,509.4	16,411.57
386	374	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			2,464.7	16,456.35
387	375	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			2,419.7	16,501.33
388	376	Casing Joints	5 1/2	20.00	P-110	Yes	44.46	Yes			2,375.2	16,545.79
389	377	Casing Joints	5 1/2	20.00	P-110	Yes	43.51	Yes			2,331.7	16,589.30
390	378	Casing Joints	5 1/2	20.00	P-110	Yes	44.52	Yes			2,287.2	16,633.82
391	379	Casing Joints	5 1/2	20.00	P-110	Yes	37.62	Yes			2,249.6	16,671.44
392	380	Casing Joints	5 1/2	20.00	P-110	Yes	44.77	Yes			2,204.8	16,716.21
393	381	Casing Joints	5 1/2	20.00	P-110	Yes	38.19	Yes			2,166.6	16,754.40
394	382	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			2,122.3	16,798.66
395	383	Casing Joints	5 1/2	20.00	P-110	Yes	44.42	Yes			2,077.9	16,843.08
396	384	Casing Joints	5 1/2	20.00	P-110	Yes	39.60	Yes			2,038.3	16,882.68
397	385	Casing Joints	5 1/2	20.00	P-110	Yes	43.13	Yes			1,995.2	16,925.81
398	386	Casing Joints	5 1/2	20.00	P-110	Yes	41.27	Yes			1,953.9	16,967.08
399	387	Casing Joints	5 1/2	20.00	P-110	Yes	44.78	Yes			1,909.1	17,011.86
400	388	Casing Joints	5 1/2	20.00	P-110	Yes	44.51	Yes			1,864.6	17,056.37
401	389	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			1,819.4	17,101.58
402	390	Casing Joints	5 1/2	20.00	P-110	Yes	44.37	Yes			1,775.1	17,145.95
403	391	Casing Joints	5 1/2	20.00	P-110	Yes	39.76	Yes			1,735.3	17,185.71
404	392	Casing Joints	5 1/2	20.00	P-110	Yes	43.39	Yes			1,691.9	17,229.10
405	393	Casing Joints	5 1/2	20.00	P-110	Yes	38.61	Yes			1,653.3	17,267.71
406	394	Casing Joints	5 1/2	20.00	P-110	Yes	37.54	Yes			1,615.8	17,305.25
407	395	Casing Joints	5 1/2	20.00	P-110	Yes	41.84	Yes			1,573.9	17,347.09
408	396	Casing Joints	5 1/2	20.00	P-110	Yes	37.87	Yes			1,536.0	17,384.96
409	397	Casing Joints	5 1/2	20.00	P-110	Yes	41.65	Yes			1,494.4	17,426.61
410	398	Casing Joints	5 1/2	20.00	P-110	Yes	45.21	Yes			1,449.2	17,471.82



## Centralizer Depths

**Well Name: Drake 03N**

**Production, Set Depth: 18,921.0ftKB**

API 05123518300000		Surface Legal Location SWNW 17 4N 64W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,737.00	Original KB Elevation (ft) 4,765.50	KB-Ground Distance (ft) 28.50	Spud Date 11/13/2023 06:30	Rig Release Date 11/16/2023 19:00	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)
411	399	Casing Joints	5 1/2	20.00	P-110	Yes	44.48	Yes			1,404.7	17,516.30
412	400	Casing Joints	5 1/2	20.00	P-110	Yes	44.98	Yes			1,359.7	17,561.28
413	401	Casing Joints	5 1/2	20.00	P-110	Yes	40.41	Yes			1,319.3	17,601.69
414	402	Casing Joints	5 1/2	20.00	P-110	Yes	42.77	Yes			1,276.5	17,644.46
415	403	Casing Joints	5 1/2	20.00	P-110	Yes	43.05	Yes			1,233.5	17,687.51
416	404	Casing Joints	5 1/2	20.00	P-110	Yes	39.89	Yes			1,193.6	17,727.40
417	405	Casing Joints	5 1/2	20.00	P-110	Yes	43.68	Yes			1,149.9	17,771.08
418	406	Casing Joints	5 1/2	20.00	P-110	Yes	45.18	Yes			1,104.7	17,816.26
419	407	Casing Joints	5 1/2	20.00	P-110	Yes	44.99	Yes			1,059.8	17,861.25
420	408	Casing Joints	5 1/2	20.00	P-110	Yes	40.87	Yes			1,018.9	17,902.12
421	409	Casing Joints	5 1/2	20.00	P-110	Yes	44.34	Yes			974.5	17,946.46
422	410	Casing Joints	5 1/2	20.00	P-110	Yes	44.79	Yes			929.8	17,991.25
423	411	Casing Joints	5 1/2	20.00	P-110	Yes	44.96	Yes			884.8	18,036.21
424	412	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			840.6	18,080.42
425	413	Casing Joints	5 1/2	20.00	P-110	Yes	37.53	Yes			803.1	18,117.95
426	414	Casing Joints	5 1/2	20.00	P-110	Yes	39.87	Yes			763.2	18,157.82
427	415	Casing Joints	5 1/2	20.00	P-110	Yes	44.13	Yes			719.1	18,201.95
428	416	Casing Joints	5 1/2	20.00	P-110	Yes	45.22	Yes			673.8	18,247.17
429	417	Casing Joints	5 1/2	20.00	P-110	Yes	40.58	Yes			633.3	18,287.75
430	418	Casing Joints	5 1/2	20.00	P-110	Yes	44.61	Yes			588.6	18,332.36
431	419	Casing Joints	5 1/2	20.00	P-110	Yes	44.87	Yes			543.8	18,377.23
432	420	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			499.6	18,421.41