

Cement Post Job Report

Client: PDC Energy

Well Name: Stugart 22N

API #: 05-123-51259-00

Job Date: February 25, 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	Stugart 22N	Ensign 769	Production	Buttress	CRT Connection

WELL MD (FT)	WELL TVD (FT)	DEVIATION (DEG)	NUMBER OF STAGES	BHST (DEG)	BHCT (DEG)
15400	7291	90	1	230	230

PACKER/RETAINER/CIBP/DV TOOL DEPTHS	TOOL TYPE	TOP OF PERFS (FT)	BOTTOM OF PERFS (FT)	NUMBER OF HOLES
3883	PACKER			

CASING/TUBING/DP DETAILS								
STRING TYPE	GRADE	OD"	WT/FT	ID"	OH SIZE"	% EXCESS LEAD	% EXCESS TAIL	TOTAL DEPTH (FT)
Surface		9.625	36					1730
Production		5.5	20		8.5	0	0	15395
MAXIMUM CASING/TUBING/DP PSI				MAXIMUM ANNULAR PSI				

Mud Type	OBM	Rotate Y,N	No	Circulation Data				Water Requirements (bbls)	
Mud ppg	10.4	Rate (rpm)		Circulate Time (hrs)		2		Spacers	140
Flow Temp		Torque Val.		Circulation Rate (bpm)		10		Stage 1 Lead	119
Vis. Sec/qt		Time (hr)		Full Circulation ? (Y,N,P)		Yes		Stage 1 Tail	171
PV (cP)		Pipe Reciprocation		Gas Present (Y,N)		Yes	Units	Stage 2 Lead	
Yield Pt		Recip Y,N	No	Centralizers/Plugs				Stage 2 Tail	
10 sec gel		Stroke (ft)		Quantity & Type		customer provided		Displacement	341
10 min gel		Recip time		Top Plug/Type		customer provided		Wash up	20
30 min gel		Stuck ?		Bottom Plug/Type		customer provided		Total + 10% Safety	870

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	1385	Sacks	1100	Sacks		Sacks		Dens. ppg	8.33
Volume	140	Vol/bbbls	254.1	Vol/bbbls	268.4	Vol/bbbls	0.0	Vol/bbbls	0.0	Vol. bbl	341
Rate	12	Rate	12	Rate	12	Rate		Rate		Rate bpm	11
Spacer 2		Yield	1.03	Yield	1.37	Yield		Yield		Clay Stay?	
Density		Gal/Sk	3.90	Gal/Sk	6.63	Gal/Sk		Gal/Sk		Biocide ?	Yes
Volume		% Excess	0	% Excess	0	% Excess		% Excess		Slow @ bbl	320
Rate		TOL (ft)	2618	TOT (ft)	8843	TOL (ft)		TOT (ft)		Bump PSI	3100

Final Displacement (bbbls)	341
Bump Plug?	Yes
Final Bump Pressure (psi)	3100
Full Returns throughout job?	Full
Vol away/Time when returns lost	
Vol away when returns were regained	
Spacer to Surface?	Yes
Spacer volume returned (bbbls)	30
Cement to surface?	
Cement volume to surface stage 1	
Cement volume to surface stage 2	

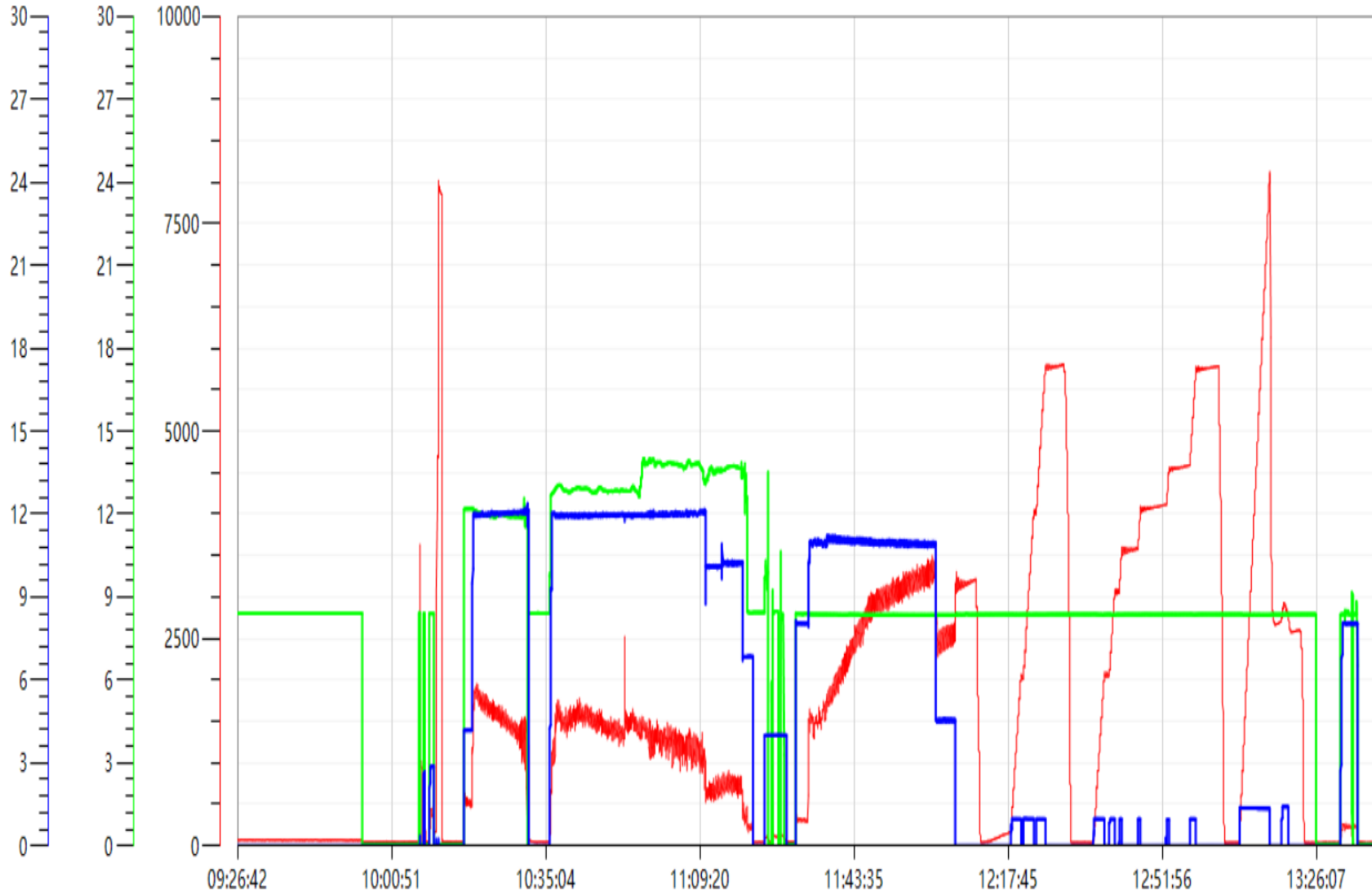
Surface Top Out Details-Pumped		Job Summary Additional Chems Used	
Cement Type		MFC 47 (gal)	70
Dens. ppg	NA	MFC 67 (gal)	168
Sacks qty	NA	Defoamer (gal)	
Gal/sk	NA	Biocide (gal)	20
Yield	NA	Corr. Inhib (gal)	
Calcium Chlor. Used?	NA	Fiber (lbs)	290
Top out pipe used ?	NA	Chloride (lbs)	
Annulus holding?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

JOB LOG

CLIENT	WELL	RIG	JOB TYPE	START DATE	Ambient Conditions		
PDC Energy	Stugart 22N	Ensign 769	Production	2/25/2023	Temp / Hum / Air Press 34 deg F / 59% / 24.96 in		
DATE (dd/mm)	TIME (hh:mm)	DENSITY (ppg)	RATE (bpm)	VOL. (bbl)	TOTAL VOL.	PRESSURE	TREATMENT COMMENTS
2/25/2023	6:00:00 AM						arrive on location time requested 08:00
	7:30:00 AM						spot equipment and rig up
	9:45:00 AM						pre job safety meeting
	10:00:00 AM						rig up floor
	10:06:00 AM	8.33	3.0	3	3	400	fill lines
	10:11:00 AM					8000	pressure test
	10:16:00 AM						drop bottom plug
	10:17:00 AM	12	12.0	140	140	1600	pump spacer with fiber and surfactants
	10:35:00 AM						drop bottom plug
	10:37:00 AM	12.9	12.0	254	254	1600	pump lead cement 1385 sks 1.03 yield 3.9 gal, calculated TOC 2618
	10:57:00 AM	13.7	12.0	268	268	1400	pump tail cement 1100 sks 1.37 yield 6.63 gal, calculated TOC 8843
	11:20:00 AM	8.33	7.0	8	8	420	pump sugar water
	11:22:00 AM						shut down wash pumps and lines, drop top plug
	11:30:00 AM	8.33	8.0	10	10	400	pump displacement biocide in all
	11:36:00 AM	8.33	11.0	50	50	1500	pump displacement
	11:41:00 AM	8.33	11.0	100	100	2100	pump displacement
	11:46:00 AM	8.33	11.0	150	150	2700	pump displacement
	11:50:00 AM	8.33	11.0	200	200	3000	pump displacement
	11:55:00 AM	8.33	11.0	250	250	3100	pump displacement
	12:00:00 PM	8.33	11.0	300	300	3300	pump displacement
	12:06:00 PM	8.33	4.5	341	341	2600	pump displacement
	12:06:00 PM					3100	bump plug 30 bbls spacer to pit
	12:11:00 PM						check floats, 3.5 bbls back
	12:15:00 PM						set packer per tool hand
	1:09:00 PM					8100	shift wet shoe sleeve and pump 2 bbl wet shoe, open psi 8100 circ psi 2875, packer did not hold
	1:22:00 PM						check floats, 3 bbls back
	1:30:00 PM						flush stack
	1:40:00 PM						rig down
	2:00:00 PM						depart location

Stugart 22N Production Pump Chart – Pressure / Rate / Density

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





Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 05123512590000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00		Original KB Elevation (ft) 4,913.00		KB-Ground Distance (ft) 28.00		Spud Date 2/22/2023 14:00		Rig Release Date 2/25/2023 15:30		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	43.85	Yes			15,316.8	78.22
9	3	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			15,228.3	166.66
11	5	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			15,139.9	255.11
13	7	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			15,051.9	343.15
15	9	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			14,964.1	430.88
17		Marker Joint	5 1/2	20.00	P-110	Yes	9.98	Yes			14,910.3	484.74
19	12	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			14,822.5	572.48
21	14	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			14,734.2	660.84
23	16	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			14,645.7	749.33
25	18	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			14,557.5	837.52
27	20	Casing Joints	5 1/2	20.00	P-110	Yes	42.70	Yes			14,470.5	924.50
29	22	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			14,382.1	1,012.91
31	24	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			14,293.7	1,101.35
33	26	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			14,205.6	1,189.39
35	28	Casing Joints	5 1/2	20.00	P-110	Yes	43.82	Yes			14,117.6	1,277.41
37	30	Casing Joints	5 1/2	20.00	P-110	Yes	43.50	Yes			14,029.9	1,365.13
39	32	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			13,941.4	1,453.57
41	34	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			13,853.0	1,542.05
43	36	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			13,764.8	1,630.20
45	38	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			13,676.3	1,718.67
47	40	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			13,588.2	1,806.77
49	42	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			13,499.8	1,895.23
51	44	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			13,411.3	1,983.73
53	46	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			13,323.5	2,071.49
55	48	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			13,235.4	2,159.62
57	50	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			13,147.3	2,247.71
59	52	Casing Joints	5 1/2	20.00	P-110	Yes	44.26	Yes			13,058.8	2,336.19
61	54	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			12,971.5	2,423.52
63	56	Casing Joints	5 1/2	20.00	P-110	Yes	43.54	Yes			12,883.7	2,511.30
65	58	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			12,795.3	2,599.75
67	60	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			12,707.6	2,687.41



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 0512351259000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00		Original KB Elevation (ft) 4,913.00		KB-Ground Distance (ft) 28.00		Spud Date 2/22/2023 14:00		Rig Release Date 2/25/2023 15:30		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	44.22	Yes			12,619.6	2,775.44
71	64	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			12,531.8	2,863.16
73	66	Casing Joints	5 1/2	20.00	P-110	Yes	43.46	Yes			12,444.2	2,950.84
75	68	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			12,356.1	3,038.92
77	70	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			12,268.3	3,126.66
79	72	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			12,180.0	3,215.05
81	74	Casing Joints	5 1/2	20.00	P-110	Yes	43.80	Yes			12,092.4	3,302.61
83	76	Casing Joints	5 1/2	20.00	P-110	Yes	43.44	Yes			12,005.1	3,389.90
85	78	Casing Joints	5 1/2	20.00	P-110	Yes	43.82	Yes			11,918.2	3,476.82
87		Marker Joint	5 1/2	20.00	P-110	Yes	9.97	Yes			11,865.3	3,529.71
89	81	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			11,776.9	3,618.14
91	83	Casing Joints	5 1/2	20.00	P-110	Yes	42.94	Yes			11,690.1	3,704.92
93	85	Casing Joints	5 1/2	20.00	P-110	Yes	43.78	Yes			11,602.5	3,792.48
95	87	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			11,514.6	3,880.38
97	89	Casing Joints	5 1/2	20.00	P-110	Yes	43.79	Yes			11,427.0	3,968.00
99	91	Casing Joints	5 1/2	20.00	P-110	Yes	42.32	Yes			11,340.8	4,054.16
101	93	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			11,253.6	4,141.38
103	95	Casing Joints	5 1/2	20.00	P-110	Yes	43.82	Yes			11,165.6	4,229.38
105	97	Casing Joints	5 1/2	20.00	P-110	Yes	43.75	Yes			11,078.1	4,316.91
107	99	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			10,990.4	4,404.56
109	101	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			10,903.2	4,491.82
111	103	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			10,815.2	4,579.85
113	105	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			10,727.2	4,667.85
115	107	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			10,639.1	4,755.95
117	109	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			10,551.0	4,844.00
119	111	Casing Joints	5 1/2	20.00	P-110	Yes	43.92	Yes			10,462.8	4,932.16
121	113	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			10,374.8	5,020.24
123	115	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			10,286.3	5,108.68
125	117	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			10,197.9	5,197.12
127	119	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			10,109.8	5,285.18
129	121	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			10,021.4	5,373.60



Centralizer Depths

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API 05123512590000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,913.00	KB-Ground Distance (ft) 28.00	Spud Date 2/22/2023 14:00	Rig Release Date 2/25/2023 15:30	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	44.23	Yes			9,933.0	5,462.03
133	125	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			9,844.5	5,550.46
135	127	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			9,756.1	5,638.88
137	129	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			9,667.7	5,727.30
139	131	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			9,579.3	5,815.74
141	133	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			9,490.9	5,904.12
143	135	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			9,402.5	5,992.53
145	137	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			9,314.0	6,081.03
147	139	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			9,226.2	6,168.79
149	141	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			9,137.8	6,257.22
151	143	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			9,049.7	6,345.30
153	145	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			8,962.0	6,433.04
155	147	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			8,873.5	6,521.48
157	149	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			8,785.8	6,609.22
159	151	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			8,697.3	6,697.67
161	153	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			8,608.9	6,786.12
163	155	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			8,520.4	6,874.56
165	157	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			8,432.0	6,962.96
167	159	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			8,343.6	7,051.44
168		Marker Joint	5 1/2	20.00	P-110	Yes	22.26	Yes			8,321.3	7,073.70
169	160	Casing Joints	5 1/2	20.00	P-110	Yes	43.82	Yes			8,277.5	7,117.52
170	161	Casing Joints	5 1/2	20.00	P-110	Yes	43.18	Yes			8,234.3	7,160.70
171	162	Casing Joints	5 1/2	20.00	P-110	Yes	43.49	Yes			8,190.8	7,204.19
172	163	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			8,147.0	7,248.02
173	164	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			8,102.8	7,292.17
174	165	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			8,059.0	7,336.02
175	166	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			8,015.1	7,379.86
176	167	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			7,970.9	7,424.06
177	168	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			7,926.7	7,468.26
178	169	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			7,882.5	7,512.46
179	170	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			7,838.3	7,556.67



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)
180	171	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,794.2	7,600.85
181	172	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			7,750.3	7,644.68
182	173	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,706.1	7,688.86
183	174	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			7,662.0	7,733.02
184	175	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			7,617.8	7,777.17
185	176	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,573.7	7,821.35
186	177	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			7,529.5	7,865.50
187	178	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,485.3	7,909.68
188	179	Casing Joints	5 1/2	20.00	P-110	Yes	43.86	Yes			7,441.5	7,953.54
189	180	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,397.3	7,997.72
190	181	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			7,353.1	8,041.92
191	182	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			7,308.9	8,086.07
192	183	Casing Joints	5 1/2	20.00	P-110	Yes	44.15	Yes			7,264.8	8,130.22
193	184	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			7,220.6	8,174.38
194	185	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,176.4	8,218.56
195	186	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			7,132.3	8,262.74
196		Marker Joint	5 1/2	20.00	P-110	Yes	21.80	Yes			7,110.5	8,284.54
197	187	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			7,066.2	8,328.76
198	188	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			7,022.0	8,372.99
199	189	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			6,977.8	8,417.17
200	190	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,933.6	8,461.37
201	191	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			6,889.5	8,505.55
202	192	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,845.3	8,549.75
203	193	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,801.1	8,593.95
204	194	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			6,756.9	8,638.13
205	195	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			6,713.0	8,682.03
206	196	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,668.8	8,726.23
207	197	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,624.6	8,770.43
208	198	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,580.4	8,814.63
209	199	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			6,536.2	8,858.85
210	200	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			6,492.0	8,903.03



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 0512351259000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,913.00	KB-Ground Distance (ft) 28.00	Spud Date 2/22/2023 14:00	Rig Release Date 2/25/2023 15:30	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)
211	201	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			6,447.7	8,947.27
212	202	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			6,403.5	8,991.49
213	203	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			6,359.3	9,035.74
214	204	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,315.1	9,079.94
215	205	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			6,270.9	9,124.14
216	206	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			6,226.6	9,168.36
217	207	Casing Joints	5 1/2	20.00	P-110	Yes	44.28	Yes			6,182.4	9,212.64
218	208	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			6,138.1	9,256.89
219	209	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			6,094.2	9,300.77
220	210	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			6,050.0	9,345.01
221	211	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			6,005.7	9,389.26
222	212	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,961.5	9,433.48
223	213	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			5,917.6	9,477.38
224	214	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,873.4	9,521.60
225	215	Casing Joints	5 1/2	20.00	P-110	Yes	42.65	Yes			5,830.8	9,564.25
226	216	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			5,786.6	9,608.45
227	217	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			5,742.4	9,652.65
228	218	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,698.1	9,696.87
229	219	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,653.9	9,741.09
230	220	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,609.7	9,785.31
231	221	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,565.5	9,829.53
232	222	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			5,521.2	9,873.77
233	223	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			5,477.0	9,917.97
234	224	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			5,432.8	9,962.20
235	225	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,388.6	10,006.42
236	226	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,344.4	10,050.64
237	227	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,300.1	10,094.86
238	228	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			5,255.9	10,139.06
239	229	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,211.7	10,183.28
240	230	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,167.5	10,227.50
241	231	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			5,123.3	10,271.75



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 0512351259000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,913.00	KB-Ground Distance (ft) 28.00	Spud Date 2/22/2023 14:00	Rig Release Date 2/25/2023 15:30	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)
242	232	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			5,079.0	10,315.97
243	233	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			5,035.2	10,359.85
244	234	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			4,991.0	10,404.05
245	235	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			4,946.7	10,448.26
246	236	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			4,902.5	10,492.47
247	237	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			4,858.3	10,536.68
248	238	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			4,814.1	10,580.88
249	239	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			4,769.9	10,625.09
250	240	Casing Joints	5 1/2	20.00	P-110	Yes	43.50	Yes			4,726.4	10,668.59
251	241	Casing Joints	5 1/2	20.00	P-110	Yes	43.45	Yes			4,683.0	10,712.04
252	242	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			4,638.7	10,756.28
253	243	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			4,594.9	10,800.12
254	244	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			4,550.7	10,844.32
255	245	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			4,506.8	10,888.16
256	246	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			4,462.6	10,932.40
257	247	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			4,418.4	10,976.62
258	248	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			4,374.2	11,020.82
259	249	Casing Joints	5 1/2	20.00	P-110	Yes	43.94	Yes			4,330.2	11,064.76
260	250	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			4,286.0	11,108.98
261	251	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			4,241.8	11,153.16
262	252	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			4,197.7	11,197.34
263	253	Casing Joints	5 1/2	20.00	P-110	Yes	43.81	Yes			4,153.9	11,241.15
264	254	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			4,110.0	11,285.05
265	255	Casing Joints	5 1/2	20.00	P-110	Yes	43.41	Yes			4,066.5	11,328.46
266	256	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			4,022.3	11,372.68
267	257	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			3,978.1	11,416.89
268	258	Casing Joints	5 1/2	20.00	P-110	Yes	43.70	Yes			3,934.4	11,460.59
269	259	Casing Joints	5 1/2	20.00	P-110	Yes	43.30	Yes			3,891.1	11,503.89
271	260	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,831.7	11,563.27
272	261	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,787.5	11,607.47
273	262	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			3,743.3	11,651.69



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 05123512590000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,913.00	KB-Ground Distance (ft) 28.00	Spud Date 2/22/2023 14:00	Rig Release Date 2/25/2023 15:30	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)
274	263	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,699.1	11,695.89
275	264	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			3,654.9	11,740.12
276	265	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			3,610.7	11,784.35
277	266	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			3,566.4	11,828.57
278	267	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,522.2	11,872.77
279	268	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			3,478.0	11,916.99
280	269	Casing Joints	5 1/2	20.00	P-110	Yes	43.44	Yes			3,434.6	11,960.43
281	270	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			3,390.3	12,004.67
282	271	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			3,346.1	12,048.89
283	272	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			3,301.9	12,093.07
284	273	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			3,257.8	12,137.25
285	274	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			3,213.5	12,181.50
286	275	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,169.3	12,225.70
287	276	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			3,125.1	12,269.90
288	277	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			3,080.9	12,314.15
289	278	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			3,036.6	12,358.39
290	279	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,992.4	12,402.63
291	280	Casing Joints	5 1/2	20.00	P-110	Yes	44.28	Yes			2,948.1	12,446.91
292	281	Casing Joints	5 1/2	20.00	P-110	Yes	43.90	Yes			2,904.2	12,490.81
293	282	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			2,859.9	12,535.06
294	283	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,815.7	12,579.30
295	284	Casing Joints	5 1/2	20.00	P-110	Yes	44.16	Yes			2,771.5	12,623.46
296	285	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			2,727.3	12,667.67
297	286	Casing Joints	5 1/2	20.00	P-110	Yes	43.45	Yes			2,683.9	12,711.12
298	287	Casing Joints	5 1/2	20.00	P-110	Yes	43.83	Yes			2,640.1	12,754.95
299	288	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,595.8	12,799.19
300	289	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,551.6	12,843.43
301	290	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			2,507.4	12,887.63
302	291	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,463.1	12,931.87
303	292	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,418.9	12,976.11
304	293	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,374.7	13,020.35



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 0512351259000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00		Original KB Elevation (ft) 4,913.00		KB-Ground Distance (ft) 28.00		Spud Date 2/22/2023 14:00		Rig Release Date 2/25/2023 15:30		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)
305	294	Casing Joints	5 1/2	20.00	P-110	Yes	43.78	Yes			2,330.9	13,064.13
306	295	Casing Joints	5 1/2	20.00	P-110	Yes	43.75	Yes			2,287.1	13,107.88
307	296	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			2,242.9	13,152.12
308	297	Casing Joints	5 1/2	20.00	P-110	Yes	44.17	Yes			2,198.7	13,196.29
309	298	Casing Joints	5 1/2	20.00	P-110	Yes	43.91	Yes			2,154.8	13,240.20
310	299	Casing Joints	5 1/2	20.00	P-110	Yes	43.15	Yes			2,111.7	13,283.35
311	300	Casing Joints	5 1/2	20.00	P-110	Yes	44.28	Yes			2,067.4	13,327.63
312	301	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			2,023.2	13,371.85
313	302	Casing Joints	5 1/2	20.00	P-110	Yes	44.25	Yes			1,978.9	13,416.10
314	303	Casing Joints	5 1/2	20.00	P-110	Yes	43.81	Yes			1,935.1	13,459.91
315	304	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			1,890.9	13,504.15
316	305	Casing Joints	5 1/2	20.00	P-110	Yes	43.52	Yes			1,847.3	13,547.67
317	306	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,803.1	13,591.89
318	307	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,758.9	13,636.11
319	308	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,714.7	13,680.33
320	309	Casing Joints	5 1/2	20.00	P-110	Yes	43.44	Yes			1,671.2	13,723.77
321	310	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,627.0	13,767.99
322	311	Casing Joints	5 1/2	20.00	P-110	Yes	43.43	Yes			1,583.6	13,811.42
323	312	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,539.4	13,855.64
324	313	Casing Joints	5 1/2	20.00	P-110	Yes	42.60	Yes			1,496.8	13,898.24
325	314	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,452.5	13,942.46
326	315	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,408.3	13,986.68
327	316	Casing Joints	5 1/2	20.00	P-110	Yes	43.40	Yes			1,364.9	14,030.08
328	317	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			1,320.7	14,074.28
329	318	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			1,276.5	14,118.52
330	319	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			1,232.3	14,162.74
331	320	Casing Joints	5 1/2	20.00	P-110	Yes	43.85	Yes			1,188.4	14,206.59
332	321	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			1,144.2	14,250.83
333	322	Casing Joints	5 1/2	20.00	P-110	Yes	44.12	Yes			1,100.1	14,294.95
334	323	Casing Joints	5 1/2	20.00	P-110	Yes	43.84	Yes			1,056.2	14,338.79
335	324	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			1,012.0	14,382.99



Centralizer Depths

Well Name: STUGART 22N

Production, Set Depth: 15,395.0ftKB

API 05123512590000		Surface Legal Location SENW 20 5N 66W		Field Name Wattenberg		State CO		Well Configuration Type Horizontal			
Ground Elevation (ft) 4,885.00	Original KB Elevation (ft) 4,913.00	KB-Ground Distance (ft) 28.00	Spud Date 2/22/2023 14:00	Rig Release Date 2/25/2023 15:30	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)
336	325	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			967.8	14,427.21
337	326	Casing Joints	5 1/2	20.00	P-110	Yes	44.23	Yes			923.6	14,471.44
338	327	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			879.4	14,515.64
339	328	Casing Joints	5 1/2	20.00	P-110	Yes	44.18	Yes			835.2	14,559.82
340	329	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			791.0	14,604.02
341	330	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			746.8	14,648.23
342	331	Casing Joints	5 1/2	20.00	P-110	Yes	44.21	Yes			702.6	14,692.44
343	332	Casing Joints	5 1/2	20.00	P-110	Yes	44.20	Yes			658.4	14,736.64
344	333	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			614.1	14,780.86
345	334	Casing Joints	5 1/2	20.00	P-110	Yes	44.22	Yes			569.9	14,825.08
346	335	Casing Joints	5 1/2	20.00	P-110	Yes	44.24	Yes			525.7	14,869.32
347	336	Casing Joints	5 1/2	20.00	P-110	Yes	43.88	Yes			481.8	14,913.20