



Caerus Operating LLC

TWO-STAGE/MULTI-STAGE CEMENT POST JOB REPORT

BJU B26 FED #11C-26-496 05-045-24449
S:26 T:4S R:96W Garfield CO

CallSheet #: 82901
Proposal #: 62317



TWO-STAGE/MULTI-STAGE CEMENT Post Job Report

Attention: Mr. Cole Walton | (720) 880-6325 | cwalton@caerusoilandgas.com

Caerus Operating LLC

1001 17TH STREET | DENVER, CO 80202

Dear Mr. Cole Walton,

Thank you for the opportunity to provide cementing services on this well. American Cementing strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact American Cementing at any time.

Sincerely,

Holly Mbugua

Field Engineer II | (720) 505-1300 | holly.mbugua@americacementing.com

Field Office 28730 US-6, Rifle, CO 81650
Phone: (970) 657-1157

Job Details & Summary

Geometry

Type	Function	OD (in)	ID (in)	Weight (lb/ft)	Thread	Top (ft)	Bottom (ft)	Excess (%)
Casing	Outer	20	19.5	53	n/a	0	100	0
Open Hole	Outer	n/a	14.75	n/a	n/a	100	2500	25
Open Hole	Outer	n/a	14.75	n/a	n/a	2500	3056	0
Casing	Inner	9.625	8.921	36	n/a	0	3011.29	0
DV Tool							979.7	

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-469		
Field Storage Silo	FSS(CTS)-468		
AS Cement Trailer Float	CTF-9898	TRH(TRB)-769	Bonin, Matthew
AS Cement Trailer Float	CTF-558	TRH(TRB)-769	Bonin, Matthew
Cement Trailer Float	CTF-263	TRC(TRB)-180	Bonin, Matthew
Cement Pump Float	CPF-058	TRH-959	Hale, Jason
Light Duty Vehicles	LDV-063		Castillo, Francisco

Timing

Event	Date/Time
Call Out	8/14/2022 19:00
Depart Facility	8/14/2022 20:00
On Location	8/14/2022 22:00
Rig Up Iron	8/14/2022 22:15
Job Started	8/15/2022 02:34
Job Completed	8/15/2022 09:15
Rig Down Iron	8/15/2022 09:45
Depart Location	8/15/2022 11:00

General Job Information

Metrics	Value
Well Fluid Density	9.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	300 bbls
Rig Circulation Time	0.5 hours
Calculated Displacement	229/73 bbls
Actual Displacement	229/73 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	Yes
Top Out Volume	33 bbls

Job Details

Metrics	Value
Flare Prior to Job	No
Flare Prior to Job	0 units
Flare During Job	No
Flare During Job	0 units
Flare at End of Job	No
Flare at End of Job	0 units
Well Full Prior to Job	Yes
Well Fluid Density Into Well	9.4 lb/gal
Well Fluid Density Out of Well	9.4 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	87 °F
BHST	123 °F

Water Analysis

Metrics	Value	Recommended
Water Source	None	
Temperature	73 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	0 mg/L	0-3000 mg/L
Total Alkalinity	240	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	250 mg/L	0-3000 mg/L
Iron	0 mg/L	0-300 mg/L

Circulation

Lost Circulation Experienced	Losses into Spacer	Losses into Cement	Losses into Displacement
Yes	N/A	N/A	N/A

Circulation Details

GOT RETURNS 5 BBLS INTO STG-1 LEAD AND LOST IT AT 30 BBLS AND DIDN'T GET IT BACK FOR STG-1. HAD FULL RETURNS ON STG-2

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sks)	Volume (bbl)	Designed Top (ft)
1	Water	Flush	8.34			42.00		20.00	686
2	Stage-1 Lead	Lead	12.00	2.52	14.80		524.00	235.42	950
3	Stage-1 Tail	Tail	12.50	2.23	12.56		161.00	63.94	2500
4	Water	DisplacementFinal	8.34			42.00		229.00	0
1	Water	Flush	8.34			42.00		20.00	0
2	Stage-2 Primary	Primary	12.00	2.55	14.95		346.00	157.14	0
3	Water	DisplacementFinal	8.34			42.00		73.00	0

Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
2	Lead	Stage-1 Lead	ASTM TYPE I/II	Cement	100.00	%
2	Lead	Stage-1 Lead	A-10	Accelerator	5.00	%BWOB
2	Lead	Stage-1 Lead	A-2	Accelerator	3.00	lb/sk
2	Lead	Stage-1 Lead	FP-24	Defoamer	0.30	%BWOB
2	Lead	Stage-1 Lead	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
2	Lead	Stage-1 Lead	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Lead	Stage-1 Lead	R-7C	Retarder	0.30	%BWOB
2	Lead	Stage-1 Lead	STATIC FREE	Other	0.01	lb/sk
3	Tail	Stage-1 Tail	ASTM TYPE I/II	Cement	100.00	%
3	Tail	Stage-1 Tail	A-10	Accelerator	5.00	%BWOB
3	Tail	Stage-1 Tail	A-2	Accelerator	2.00	lb/sk
3	Tail	Stage-1 Tail	A-7P	Accelerator	2.00	lb/sk
3	Tail	Stage-1 Tail	FP-24	Defoamer	0.30	%BWOB
3	Tail	Stage-1 Tail	IntegraSeal PHENO	LostCirculation	0.50	lb/sk
3	Tail	Stage-1 Tail	IntegraSeal POLI	LostCirculation	0.25	lb/sk
3	Tail	Stage-1 Tail	STATIC FREE	Other	0.01	lb/sk
2	Primary	Stage-2 Primary	ASTM TYPE I/II	Cement	100.00	%
2	Primary	Stage-2 Primary	A-10	Accelerator	5.00	%BWOB
2	Primary	Stage-2 Primary	A-2	Accelerator	3.00	lb/sk
2	Primary	Stage-2 Primary	A-7P	Accelerator	2.00	lb/sk
2	Primary	Stage-2 Primary	FP-24	Defoamer	0.30	%BWOB
2	Primary	Stage-2 Primary	IntegraSeal POLI	LostCirculation	0.25	lb/sk
2	Primary	Stage-2 Primary	STATIC FREE	Other	0.01	lb/sk

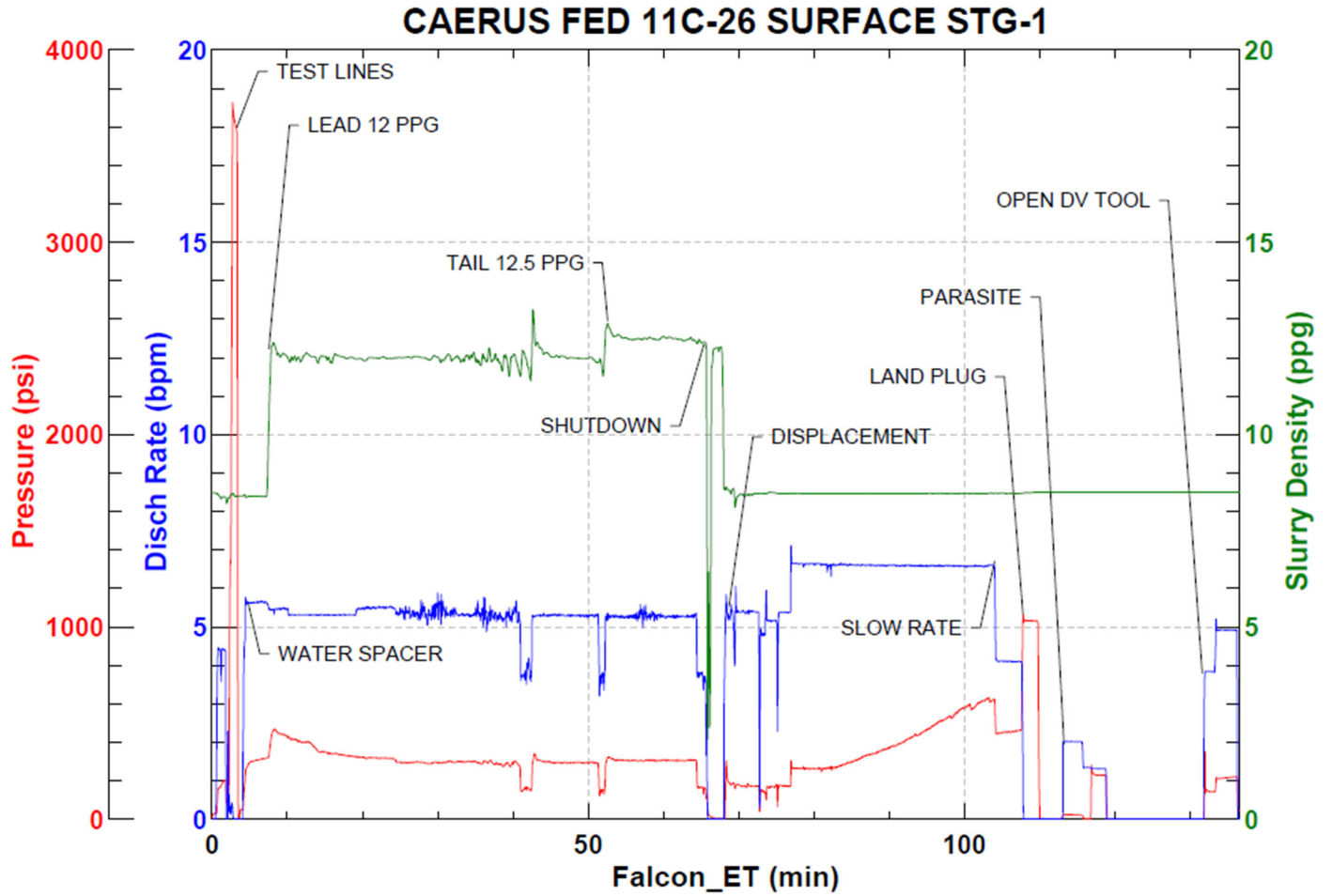
Job Logs

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	CALLOUT	8/14/2022	19:00					ON LOCATION AT MIDNIGHT
2	LEAVE YARD	8/14/2022	20:00					CREW LEAVE THE YARD
3	ON LOCATION	8/14/2022	22:00					CREW ON LOCATION
4	RIG UP	8/14/2022	22:15					RIG UP MEETING, RIG UP
5	SAFETY MEETING	9/15/2022	02:20					PRE-JOB SAFETY MEETING
6	PRESSURE TEST	9/15/2022	02:31				3700	PRESSURE TEST LINES
7	PUMP SPACER	9/15/2022	02:34	8.34	5.5	20	315	WATER SPACER
8	LEAD CEMENT	9/15/2022	02:37	12	5.3	50	333	LEAD 524 SKS/235 BBLS AT 12 PPG, GOT RETURNS 5 BBLS INTO LEAD, LOST RETURNS AT 30 BBLS
9	LEAD CEMENT	9/15/2022	02:46	12	5.3	50	295	100 BBLS LEAD CEMENT PUMPED
10	LEAD CEMENT	9/15/2022	02:56	12	5.5	50	289	150 BBLS LEAD CEMENT PUMPED
11	LEAD CEMENT	9/15/2022	03:05	12	5.3	85	293	235 BBLS LEAD CEMENT PUMPED
12	TAIL CEMENT	9/15/2022	03:21	12.5	5.3	50	307	TAIL 161 SKS/64 BBLS AT 12.5 PPG
13	SHUTDOWN	9/15/2022	03:36					SHUTDOWN, DROP PLUG
14	DISPLACEMENT	9/15/2022	03:38	8.34	6.5	50	271	DISPLACEMENT WATER
15	DISPLACEMENT	9/15/2022	03:48	8.34	6.5	50	325	100 BBLS DISPLACEMENT PUMPED
16	DISPLACEMENT	9/15/2022	03:56	8.34	6.5	50	457	150 BBLS DISPLACEMENT PUMPED
17	DISPLACEMENT	9/15/2022	04:04	8.34	6.5	69	625	219 BBLS DISPLACEMENT PUMPED
18	SLOW RATE	9/15/2022	04:14	8.34	4	10	469	SLOW RATE
19	LAND PLUG	9/15/2022	04:18				1040	LAND PLUG, NO RETURNS
20	CHECK FLOATS	9/15/2022	04:20					FLOATS HELD, 1 BBL FLOW BACK
21	PARASITE	9/15/2022	04:23	8.5	1	10	381	SUGAR WATER THROUGH PARASITE, BROKE AT 38 PSI
22	OTHER	9/15/2022	04:30					DROP DV TOOL OPENING DEVICE
23	OPEN DV TOOL	9/15/2022	04:41	8.34	4		436	OPEN DV TOOL AT 436 PSI
24	CIRCULATE	9/15/2022	04:42	8.34	5	20	221	CIRCULATE 20 BBLS
25	OTHER	9/15/2021	04:47					SWAP OVER TO RIG
53	SAFETY MEETING	8/15/2022	05:00					PRE-JOB SAFETY MEETING
54	PUMP SPACER	8/15/2022	05:17	8.34	5	20	183	WATER SPACER
55	STG-2 CEMENT	8/15/2022	05:21	12	5	50	279	2ND STG 346 SKS/157 BBLS AT 12 PPG
56	STG-2 CEMENT	8/15/2022	05:30	12	5	50	281	100 BBLS STG-2 CEMENT PUMPED
57	STG-2 CEMENT	8/15/2022	05:40	12	5	57	283	157 BBLS STG-2 CEMENT PUMPED
58	SHUTDOWN	8/15/2022	05:55					SHUTDOWN, DROP PLUG
59	DISPLACEMENT	8/15/2022	05:56	8.34	5	63	293	DISPLACEMENT WATER
60	SLOW RATE	8/15/2022	06:07	8.34	4	10	302	SLOW RATE
61	LAND PLUG	8/15/2022	06:12				2000	LAND CLOSING PLUG, 24 BBLS CMT TO SURFACE
62	CHECK FLOATS	8/15/2022	06:14					PLUG CLOSED, 1 BBL FLOW BACK
63	TOPOUT	8/15/2022	08:41	15.8	2	28	115	137 SKS/28 BBLS TO TOPOUT WELL, 24 SKS/5 BBLS LEFT IN MIXING TUB, TOTAL 161 SKS/33 BBLS TOPOUT
64	SHUTDOWN	8/15/2022	09:15					SHUTDOWN
65	RIG DOWN	8/15/2022	09:45					RIG DOWN MEETING, RIG DOWN
66	LEAVE LOCATION	8/15/2022	11:00					CREW LEAVE LOCATION

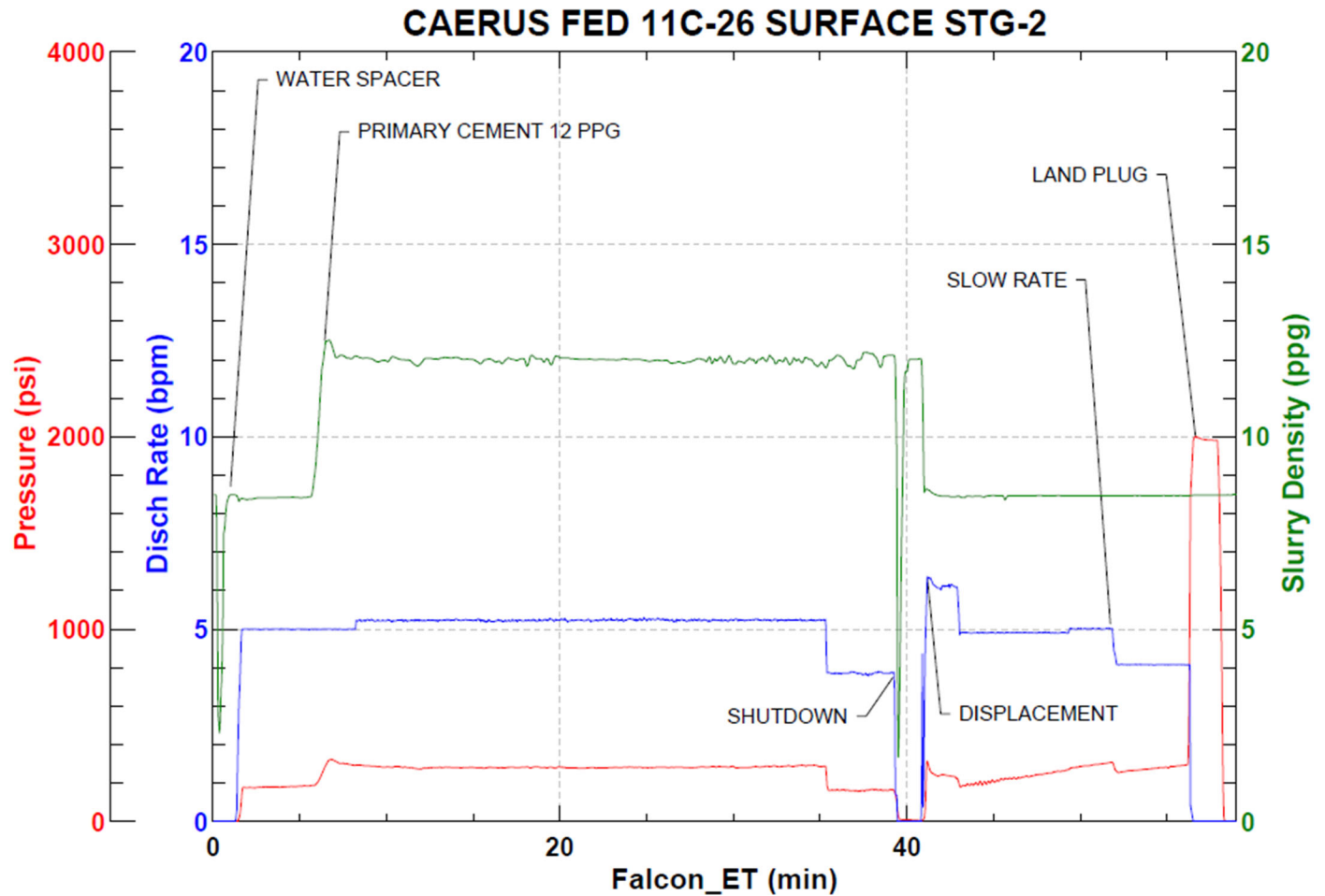
Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 82901
Customer: CAERUS
Well Name: FED 11C-26



Job Start: Monday, August 15, 2022

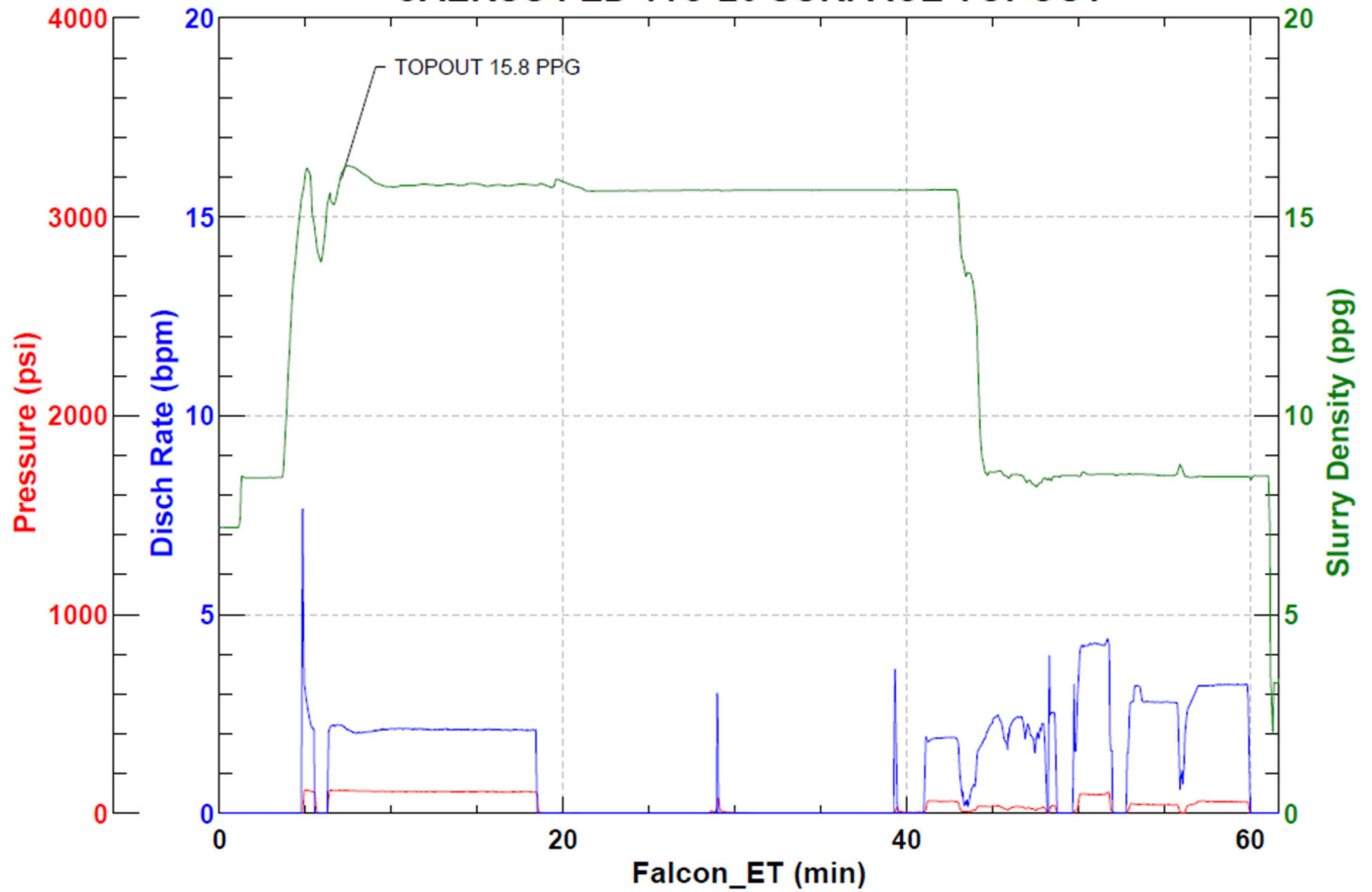


Job Start: Monday, August 15, 2022



JobMaster Program Version 5.01C1
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CAERUS FED 11C-26 SURFACE TOPOUT



Job Start: Monday, August 15, 2022