



# Caerus Operating LLC

## LONG STRING POST JOB REPORT

BJU B26 FED 13A-26-496 05-045-24432  
S:26 T:4S R:96W Garfield CO

CallSheet #: 84126  
Proposal #: 64299



**LONG STRING Post Job Report**

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

Caerus Operating LLC

1001 17TH STREET | DENVER, CO 80202

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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	9.625	8.921	36	n/a	0	2996	0
Open Hole	Outer	n/a	8.75	n/a	n/a	2996	6743	25
Open Hole	Outer	n/a	8.75	n/a	n/a	6743	12027	0
Casing	Inner	4.5	4	11.6	n/a	0	12008.5	0

### Equipment / People

Unit Type	Unit	Power Unit	Employee #1
AS Cement Trailer Float	CTF-9299	TRB-421	Wall, Lynn
AS Cement Trailer Float	CTF-9309	TRB-421	Wall, Lynn
AS Cement Trailer Float	CTF-7145	TRH-769	Bonin, Matthew
AS Cement Trailer Float	CTF-138	TRH-769	Bonin, Matthew
Field Storage Silo	FSS-469		
Field Storage Silo	FSS-468		
Cement Trailer Float	CTF-254	TRH-769	Bonin, Matthew
Light Duty Vehicles	LDV-083		Putnam, Gage
Cement Pump Float	CPF-058	TRH-959	Gonzales, Ivan

### Timing

Event	Date/Time
Call Out	10/22/2022 02:00
Depart Facility	10/22/2022 04:00
On Location	10/22/2022 06:45
Rig Up Iron	10/22/2022 07:00
Job Started	10/22/2022 09:45
Job Completed	10/22/2022 12:39
Rig Down Iron	10/22/2022 13:00
Depart Location	10/22/2022 14:15

### General Job Information

Metrics	Value
Well Fluid Density	10.5 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1650 bbls
Rig Circulation Time	3 hours
Calculated Displacement	184.7 bbls
Actual Displacement	184.7 bbls
Total Spacer to Surface	0 bbls
Total CMT to Surface	0 bbls
Well Topped Out	N/A

### 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	10.5 lb/gal
Well Fluid Density Out of Well	10.5 lb/gal

### Job Details (cont.)

Metrics	Value
BHCT	214 °F
BHST	282 °F

### Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	44 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	80	0-1000
Total Hardness	250 mg/L	0-500 mg/L
Carbonates	NA mg/L	0-100 mg/L
Sulfates	200 mg/L	0-1500 mg/L
Potassium	450 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	0	456	0

#### Circulation Details

No returns until 65 bbls into scavenger then full returns. Lost circulation at 200 bbls of tail cement pumped. Regained intermittent circulation from 85 bbls displacement until the end of the job.

### Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water Rq. (gal/sk)	Water Rq. (gal/bbl)	Volume (sk)	Volume (bbl)	Designed Top (ft)
1	Mud Flush	Flush	8.45			40.86		20.00	653
2	Scavenger	Scavenger	11.50	2.76	16.68		235.00	115.48	1000
3	Lead	Lead	12.70	2.00	11.00		718.00	256.02	3000
4	Tail	Tail	13.50	2.00	9.66		818.00	290.89	6743
5	Water + KCL Sub	DisplacementFinal	8.34			42.00		184.70	0

### Job Fluid Details

Fluid	Type	Fluid	Product	Function	Conc.	Uom
1	Flush	Mud Flush	SAPP	Surfactant	10.00	lb/bbl
1	Flush	Mud Flush	SS-201	Surfactant	0.50	gal/bbl
2	Scavenger	Scavenger	ASTM TYPE I/II	Cement	100.00	%
2	Scavenger	Scavenger	BA-60	GasMigration	0.30	%BWOB
2	Scavenger	Scavenger	FP-24	Defoamer	0.30	%BWOB
2	Scavenger	Scavenger	GW-86	Viscosifier	0.20	%BWOB
2	Scavenger	Scavenger	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
2	Scavenger	Scavenger	R-3	Retarder	0.50	%BWOB
2	Scavenger	Scavenger	STATIC FREE	Other	0.01	lb/sk
3	Lead	Lead	ASTM TYPE I/II	Cement	100.00	%
3	Lead	Lead	BA-60	GasMigration	0.30	%BWOB
3	Lead	Lead	FL-66	FluidLoss	0.50	%BWOB
3	Lead	Lead	FP-24	Defoamer	0.30	%BWOB
3	Lead	Lead	GW-86	Viscosifier	0.10	%BWOB
3	Lead	Lead	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
3	Lead	Lead	R-3	Retarder	0.30	%BWOB
3	Lead	Lead	STATIC FREE	Other	0.01	lb/sk
4	Tail	Tail	CLASS G	Cement	70.00	%
4	Tail	Tail	FLY ASH (POZZOLAN)	Extender	30.00	%
4	Tail	Tail	BA-60	GasMigration	0.20	%BWOB
4	Tail	Tail	BENTONITE	Viscosifier	8.00	%BWOB
4	Tail	Tail	FL-24	FluidLoss	0.40	%BWOB
4	Tail	Tail	FP-24	Defoamer	0.30	%BWOB
4	Tail	Tail	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Tail	Tail	R-3	Retarder	0.25	%BWOB
4	Tail	Tail	S-8	StrengthRetroggression	25.00	%BWOB

## 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	10/22/2022	02:00					CREW CALLED OUT FOR ON LOCATION TIME OF 08:00 10/22/22
2	Depart Location	10/22/2022	04:00					CREW DEPARTS RCO YARD FOR LOCATION
3	Arrive On Location	10/22/2022	06:45					FULL CREW ARRIVES ON LOCATION
4	Rig Up Iron	10/22/2022	07:00					RIG UP IRON AND HOSES
5	Safety Meeting	10/22/2022	09:20					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
6	Fill Lines	10/22/2022	09:45	8.34	2	5	62	FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	10/22/2022	09:48				5000	PRESSURE TEST LINES TO 5000 PSI
8	Pump Spacer	10/22/2022	09:53	8.45	5	20	230	PUMP MUD FLUSH WITH SURFACTANT. RIG BEGINS PUMPING 1200 CFM DOWN PARASITE LINE. NO RETURNS.
9	Pump Scavenger	10/22/2022	09:57	11.5	5	0	102	BEGIN PUMPING 11.5 PPG SCAVENGER SLURRY, DENSITY VERIFIED WITH MUD SCALE
10	Pump Scavenger	10/22/2022	10:04	11.5	6.5	50	550	50 BBLS SCAVENGER PUMPED
11	Pump Scavenger	10/22/2022	10:12	11.5	6.5	50	420	100 BBLS SCAVENGER PUMPED. BEGIN GETTING RETURNS AT 65 BBLS SCAVENGER PUMPED
12	Pump Scavenger	10/22/2022	10:18	11.5	5	15.5	208	115.5 BBLS SCAVENGER PUMPED
13	Pump Lead Cement	10/22/2022	10:18	12.7	6.6	0	691	BEGIN PUMPING 12.7 PPG LEAD CEMENT, DENSITY VERIFIED WITH MUD SCALE
14	Pump Lead Cement	10/22/2022	10:27	12.7	6.3	50	600	50 BBLS LEAD CEMENT PUMPED
15	Pump Lead Cement	10/22/2022	10:34	12.7	7	50	601	100 BBLS LEAD CEMENT PUMPED
16	Pump Lead Cement	10/22/2022	10:41	12.7	7	50	670	150 BBLS LEAD CEMENT PUMPED
17	Pump Lead Cement	10/22/2022	10:48	12.7	7	50	600	200 BBLS LEAD CEMENT PUMPED
18	Pump Lead Cement	10/22/2022	11:00	12.7	7	56	633	256 BBLS LEAD CEMENT PUMPED
19	Pump Tail Cement	10/22/2022	11:00	13.5	7	0	605	BEGIN PUMPING TAIL AT 13.5 PPG, DENSITY VERIFIED WITH MUD SCALE
20	Pump Tail Cement	10/22/2022	11:07	13.5	7	50	850	50 BBLS TAIL CEMENT PUMPED
21	Pump Tail Cement	10/22/2022	11:14	13.5	7	50	800	100 BBLS TAIL CEMENT PUMPED
22	Pump Tail Cement	10/22/2022	11:21	13.5	7	50	960	150 BBLS TAIL CEMENT PUMPED, PARASITE AIR BYPASSED
23	Pump Tail Cement	10/22/2022	11:29	13.5	7	50	990	200 BBLS TAIL CEMENT PUMPED, LOST RETURNS
24	Pump Tail Cement	10/22/2022	11:41	13.5	5.5	50	580	250 BBLS TAIL CEMENT PUMPED
25	Pump Tail Cement	10/22/2022	11:55	13.5	5	40.9	574	290.9 BBLS TAIL CEMENT PUMPED
26	Clean Pumps and Lines	10/22/2022	11:55					SHUT DOWN, WASH PUMP AND LINES
27	Drop Top Plug	10/22/2022	12:06	8.34	5	0	131	DROP TOP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT

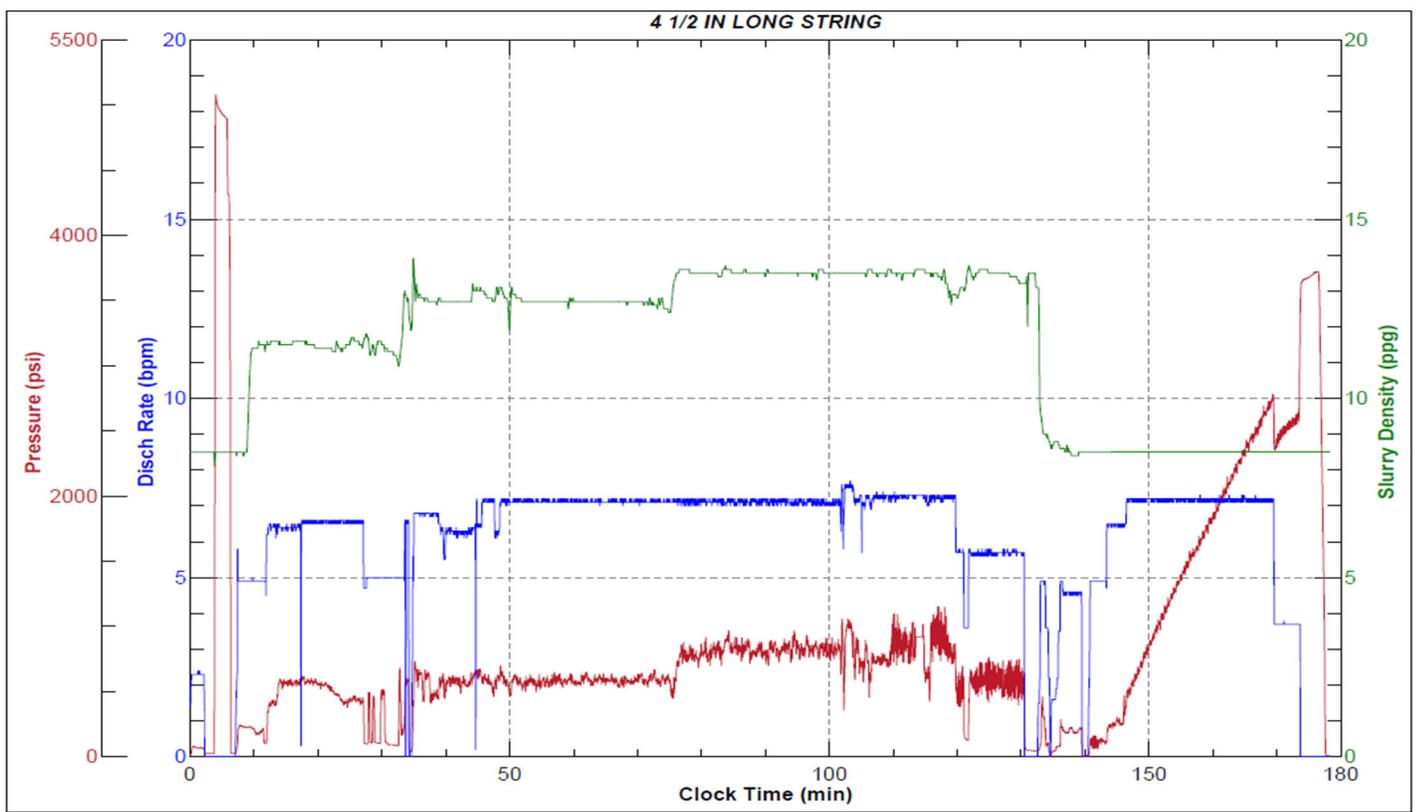


Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
28	Pump Displacement	10/22/2022	12:15	8.34	7	50	800	50 BBLS DISPLACEMENT PUMPED
29	Pump Displacement	10/22/2022	12:23	8.34	7	50	1650	100 BBLS DISPLACEMENT PUMPED, BEGAN GETTING INTERMITTENT RETURNS AFTER 85 BBLS DISPLACEMENT PUMPED
30	Pump Displacement	10/22/2022	12:31	8.34	7	50	2480	150 BBLS DISPLACEMENT PUMPED
31	Pump Displacement	10/22/2022	12:39	8.34	4	34.7	2773	184.7 BBLS DISPLACEMENT PUMPED, SLOWED RATE LAST 10 BBLS TO 4 BPM TO LAND PLUG
32	Land Plug	10/22/2022	12:39				3683	LAND PLUG, FCP - 2773 PSI, BUMPED TO 3683 PSI. 567 BBLS OF MUD RETURNED DURING CEMENT JOB
33	Check Floats	10/22/2022	12:43					CHECK FLOATS, FLOATS HELD, 2.5 BBLS BACK
34	Rig Down Iron	10/22/2022	13:00					RIG DOWN IRON AND HOSES
35	Depart Location	10/22/2022	14:15					AC CREW DEPARTS LOCATION

## Pump Diagrams



JobMaster Program Version 5.01C1  
Job Number: 84126  
Customer: Caerus  
Well Name: BJU B26 Fed 13A-26-496



Job Start: Monday, October 24, 2022