



Caerus Operating LLC

TWO-STAGE/MULTI-STAGE CEMENT POST JOB REPORT

BJU B26 FED 23A-26-496 05-045-24446
S:26 T:4S R:96W Garfield CO

CallSheet #: 84141
Proposal #: 64374



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,

Krystal Schell

Field Engineer I | (719) 992-1830 | krystal.schell@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	3026	0
Casing	Inner	9.625	8.921	36	n/a	0	3015	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1	Employee #2
Field Storage Silo	FSS-469			
Field Storage Silo	FSS-468			
AS Cement Trailer Float	CTF-901	TRC-202	Dragon, Shane	
AS Cement Trailer Float	CTF-148	TRH-769	Dragon, Shane	
Cement Trailer Float	CTF-273	TRC-188	Schweitzer, Casey	Morales, Adrian
Cement Pump Float	CPF-091	TRH-082	Woronovitch, Collin	
Light Duty Vehicles	LDV-062		Lancaster, Stephen	

Timing

Event	Date/Time
Call Out	10/24/2022 08:00
Depart Facility	10/24/2022 13:00
On Location	10/24/2022 15:00
Rig Up Iron	10/24/2022 15:05
Job Started	10/24/2022 18:05
Job Completed	10/24/2022 23:08
Rig Down Iron	10/24/2022 23:59
Depart Location	10/25/2022 04:10

General Job Information

Metrics	Value
Well Fluid Density	9.4 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	748 bbls
Rig Circulation Time	1 hours
Calculated Displacement	227/ 68 bbls
Actual Displacement	227/68 bbls
Total Spacer to Surface	bbls
Total CMT to Surface	154 bbls
Well Topped Out	No

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	47 °F	50-80 °F
pH Level	7	5.5-8.5
Chlorides	72 mg/L	0-3000 mg/L
Total Alkalinity	120	0-1000
Total Hardness	70 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

No

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		40.00	686
2	Stage-1 Lead	Lead	12.00	2.52	14.80		524.00	235.42	950
3	Stage-1 Tail	Tail	13.00	2.06	11.21		175.00	64.08	2500
4	Water	DisplacementFinal	8.34			42.00		229.00	0
1	Water	Flush	8.34			42.00		40.00	0
2	Stage-2 Primary	Primary	12.00	2.55	14.95		346.00	157.14	0
3	Water	DisplacementFinal	8.34			42.00		74.00	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-5	Accelerator	5.00	%BWOW
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

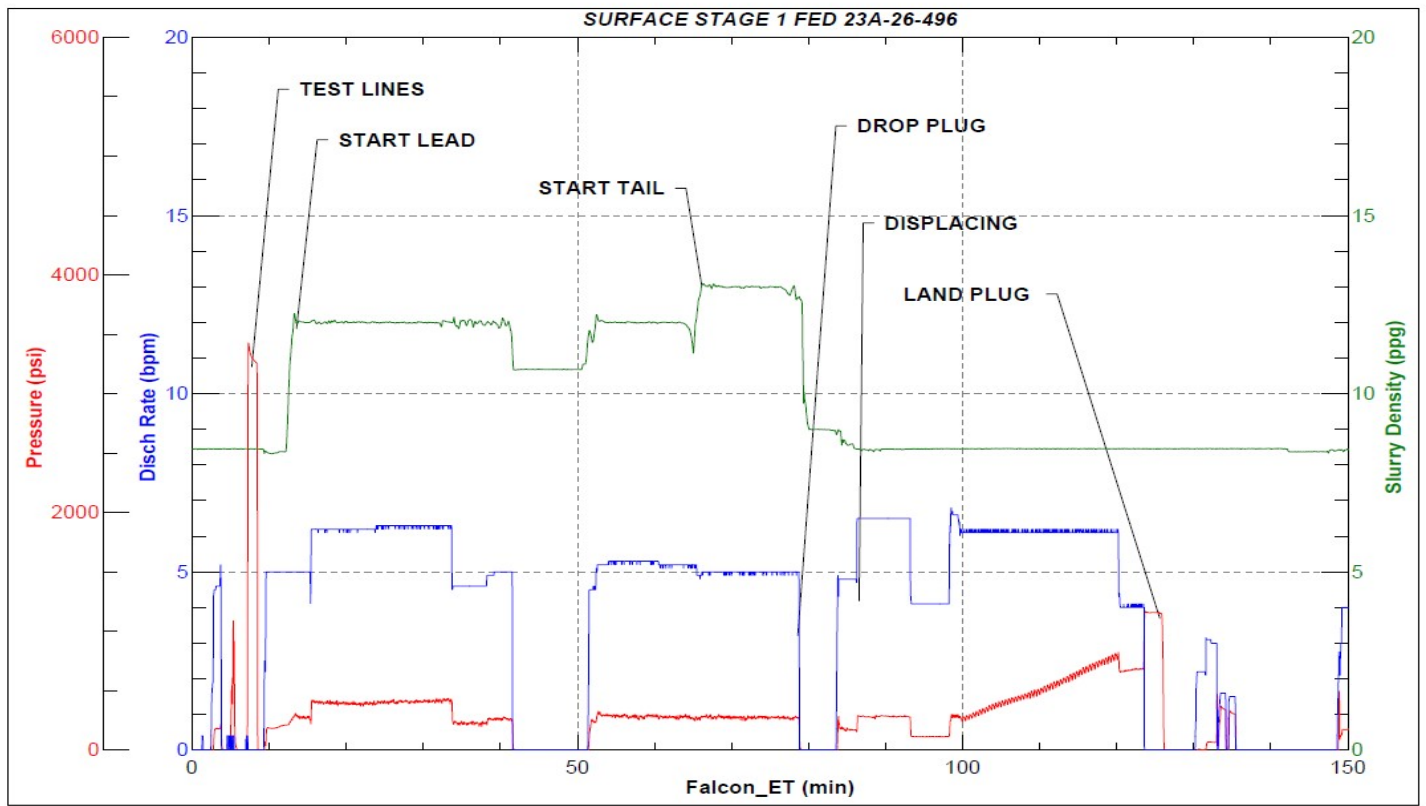
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	10/24/2022	08:00					CREW CALLED OUT FOR AN ON LOCATION TIME OF 15:00 10/24/2022
2	Leave for location	10/24/2022	13:00					AC CREW DEPART RCO YARD FOR LOCATION
3	Arrive On Location	10/24/2022	15:00					AC CREW ARRIVES AT LOCATION
4	Rig Up Iron	10/24/2022	15:05					RIG UP ALL IRON AND HOSES
5	Safety Meeting	10/24/2022	18:05					JSA, PRE JOB-SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
6	Fill Lines	10/24/2022	18:06	8.34	2.5	5	54	BEGIN STAGE 1. FILL LINES WITH 5 BBLS FRESH WATER
7	Pressure Test Lines	10/24/2022	18:25				3200	PRESSURE TEST LINES TO 3000 PSI
8	Water spacer	10/24/2022	18:30	8.34	5	20	232	PUMP 20 BBLS FRESH WATER SPACER
9	Pump Lead Cement	10/24/2022	18:34	12	5	2	210	BEGIN PUMPING LEAD CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
10	Pump Lead Cement	10/24/2022	18:42	12	6.2	50	420	50 BBLS LEAD CEMENT PUMPED (No returns)
11	Pump Lead Cement	10/24/2022	18:50	12	6.2	100	415	100 BBLS LEAD CEMENT PUMPED
12	Pump Lead Cement	10/24/2022	18:59	12	4.9	150	279	150 BBLS LEAD CEMENT PUMPED
13	Pump Lead Cement	10/24/2022	19:18	12	5.3	200	285	200 BBLS LEAD CEMENT PUMPED (No returns)
14	Pump Lead Cement	10/24/2022	19:25	12	5.3	235	277	235 BBLS LEAD CEMENT PUMPED
15	Pump Tail Cement	10/24/2022	19:26	13	5	2	279	BEGIN PUMPING TAIL CEMENT. DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
16	Pump Tail Cement	10/24/2022	19:35	13	5	50	298	50 BBLS TAIL CEMENT PUMPED (No returns)
17	Pump Tail Cement	10/24/2022	19:39	13	5	64	301	64 BBLS TAIL CEMENT PUMPED
18	Shutdown	10/24/2022	19:40					SHUT DOWN, WASHUP PUMP, LOAD PLUG
19	Drop Top Plug	10/24/2022	19:44	8.34		5	200	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN FRESH WATER DISPLACEMENT, WASHED UP ON TOP OF PLUG
20	Pump Displacement	10/24/2022	19:53	8.34	6.5	50	315	50 BBLS FRESH WATER DISPLACEMENT PUMPED
21	Pump Displacement	10/24/2022	20:02	8.34	6	100	331	100 BBLS FRESH WATER DISPLACEMENT PUMPED
22	Pump Displacement	10/24/2022	20:10	8.34	6	150	500	150 BBLS FRESH WATER DISPLACEMENT PUMPED
23	Pump Displacement	10/24/2022	20:18	8.34	6	200	730	200 BBLS FRESH WATER DISPLACEMENT PUMPED, (Returns @ 198 bbls pumped)
24	Pump Displacement	10/24/2022	20:24	8.34	4	227	527	226 BBLS FRESH WATER DISPLACEMENT PUMPED
25	Land Plug	10/24/2022	20:24	8.34	4	226	1162	LAND PLUG, FCP - 695 PSI, BUMPED TO 1162 PSI
26	Check Floats	10/24/2022	20:26					CHECK FLOATS, FLOATS HELD, 1 BBLS BACK
27	Other	10/24/2022	20:31	8.34	3	20	550	PUMP 10 BBLS SUGAR WATER DOWN PARASITE LINE, BROKE OVER AT 8 BBLS
28	Drop Opening Plug	10/24/2022	20:31	8.34	0		0	DROP DV TOOL OPENING BOMB.

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
29	Circulate Well	10/24/2022	20:48	8.34	4	10	746	SHIFT DV TOOL, BEGIN CIRCULATING OFF DV TOOL, OPENED W/ 600 PSI
30	Circulate Well	10/24/2022	20:58	8.34	4	20	110	CIRCULATE 20 BBLS THROUGH DV TOOL, (No returns)
31	Waiting	10/24/2022	20:59					SHUT DOWN, WAIT WHILE RIG CIRCULATES ABOVE DV TOOL
32	Other	10/24/2022	21:58	8.34	5	10	208	BEGIN STAGE 2, PUMP 10 BBLS FRESH WATER
33	Pump Cement	10/24/2022	22:04	12	5.6	5	270	BEGIN PUMPING PRIMARY CEMENT, DENSITY VERIFIED WITH PRESSURIZED MUD SCALE
34	Pump Cement	10/24/2022	22:18	12	4	50	89	50 BBLS PRIMARY CEMENT PUMPED
35	Pump Cement	10/24/2022	22:29	12	4.5	100	240	100 BBLS PRIMARY CEMENT PUMPED (Cement to surface @ 97 bbls 22:29)
36	Pump Cement	10/24/2022	22:41	12	4.6	157	234	157.1 BBLS PRIMARY CEMENT PUMPED,
37	Shutdown	10/24/2022	22:42					
38	Drop Top Plug	10/24/2022	22:49	8.34	5	5	231	DROP PLUG, WITNESSED BY CUSTOMER REP. BEGIN FRESH WATER DISPLACEMENT, WASHED UP ON TOP OF PLUG
39	Pump Displacement	10/24/2022	23:01	8.34	3.3	50	285	50 BBLS FRESH WATER DISPLACEMENT PUMPED
40	Pump Displacement	10/24/2022	23:08	8.34	3.3	68	265	68 BBLS FRESH WATER DISPLACEMENT PUMPED
41	Land Plug	10/24/2022	23:08	8.34		68	1917	LAND PLUG, FCP - 330 PSI, BUMPED TO 1917 PSI (154 bbls cement to surface)
42	Bleed pressure	10/24/2022	23:11					BLEED OFF PRESSURE, 0.5 BBLS BACK
43	Other	10/24/2022	23:30					PICKEL THE PUMP TO THE CELLAR
44	Rig Down Iron	10/24/2022	23:59					RIG DOWN IRON AND HOSES
45	Other	10/25/2022	01:10					OFFLOAD TOP OUT AIRSLIDE INTO TOP OUT SILO
46	Depart Location	10/25/2022	04:10					DEPART LOCATION FOR RCO

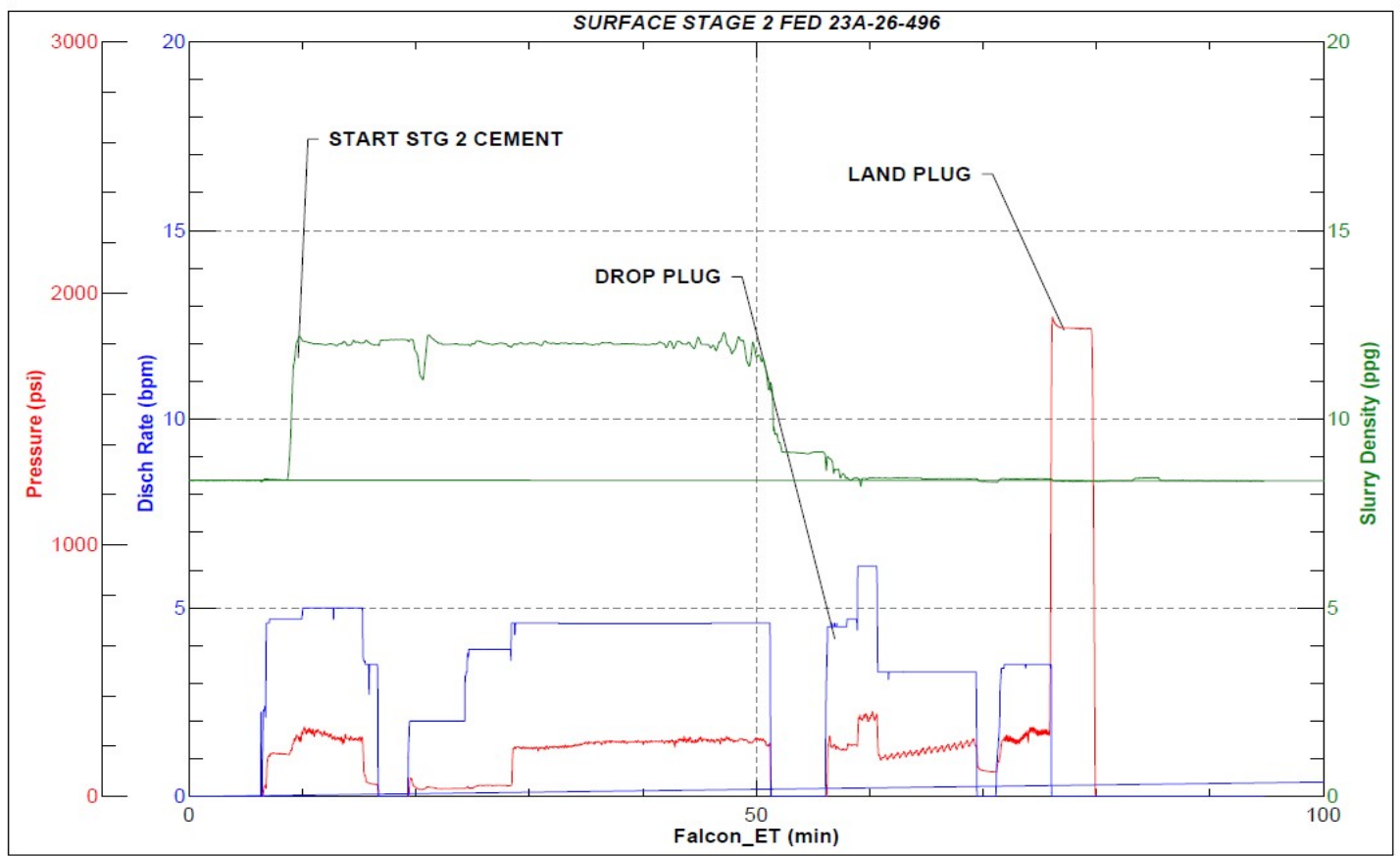
Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 84141
Customer: CAERUS
Well Name: BJU B26 FED 23A-26-496



Job Start: Monday, October 24, 2022



Job Start: Monday, October 24, 2022