



Caerus Operating LLC

LONG STRING POST JOB REPORT

BJU B26 FED #13B-26-496 05-045-24435
S:26 T:4S R:96W Garfield CO

CallSheet #: 84833
Proposal #: 65398



LONG STRING 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	9.625	8.921	36	n/a	0	3038.8	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3038.8	6775	25
Open Hole	Outer	n/a	8.75	n/a	n/a	6775	12064	0
Casing	Inner	4.5	4	11.6	n/a	0	12049	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS-469		
Field Storage Silo	FSS-468		
Cement Trailer Float	CTF-182	TRC-425	Jackson, Duewayne
Light Duty Vehicles	LDV-083		Putnam, Gage
Cement Pump Float	CPF-091	TRH-082	Gonzales, Ivan
Cement Utility Float	CUF-164	LDV-088	Kirchenwitz, Jacob

Timing

Event	Date/Time
Call Out	12/6/2022 19:00
Depart Facility	12/6/2022 22:00
On Location	12/7/2022 12:50
Rig Up Iron	12/7/2022 12:55
Job Started	12/7/2022 13:42
Job Completed	12/7/2022 16:19
Rig Down Iron	12/7/2022 16:30
Depart Location	12/7/2022 18:30

General Job Information

Metrics	Value
Well Fluid Density	10.8 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	2862 bbls
Rig Circulation Time	10 hours
Calculated Displacement	185.4 bbls
Actual Displacement	185.4 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	10.8 lb/gal
Well Fluid Density Out of Well	10.8 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	215 °F
BHST	283 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	62 °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	0	175

Circulation Details

No circulation until 85 bbls into scavenger then full circulation. Lost circulation at 175 bbls into tail cement for the remainder of job. 452 bbls of mud recovered during job.

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	Mud Flush	Flush	8.45			40.86		20.00	653
2	Scavenger	Scavenger	11.50	2.76	16.68		235.00	115.50	1000
3	Lead	Lead	12.70	2.00	11.00		724.00	258.35	3000
4	Tail	Tail	13.50	2.00	9.66		817.00	290.66	6775
5	Water + KCL Sub	DisplacementFinal	8.34			42.00		185.40	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	STATIC FREE	Other	0.01	lb/sk
2	Scavenger	Scavenger	XCem-916	Retarder	0.55	%BWOB
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	STATIC FREE	Other	0.01	lb/sk
3	Lead	Lead	XCem-916	Retarder	0.50	%BWOB
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	S-8	StrengthRetrogression	25.00	%BWOB
4	Tail	Tail	XCem-916	Retarder	0.40	%BWOB

Job Logs

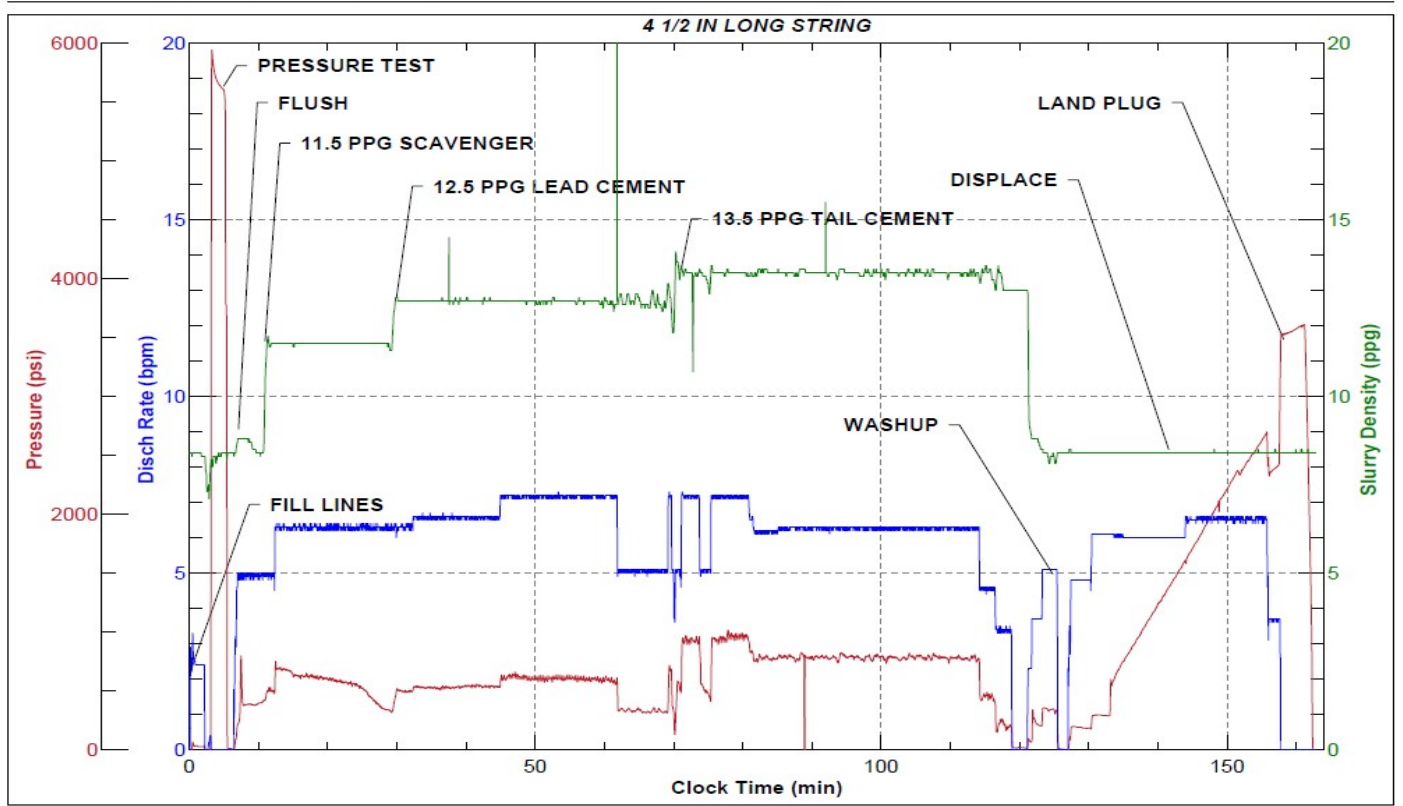
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	12/6/2022	21:00					CREW CALLED OUT FOR ON LOCATION TIME OF 03:00 12/7/22
2	Depart Location	12/6/2022	22:00					CREW DEPARTS RCO YARD FOR LOCATION
3	Arrive On Location	12/6/2022	23:00					FIELD LEADER AND PUMP OPERATOR ARRIVE ON LOCATION
4	Waiting	12/6/2022	23:00					WAITING FOR ALL CEMENT TO BE DELIVERED AND BULK TRUCK TO ARRIVE ON LOCATION. RIGGED UP WATER LINES AND AIR LINES
5	Arrive On Location	12/7/2022	12:50					ALL CEMENT AND CREW ON LOCATION
6	Rig Up Iron	12/7/2022	12:55					RIG UP IRON AND HOSES
7	Safety Meeting	12/7/2022	13:42					JSA SAFETY MEETING WITH AC CREW, RIG HANDS, AND CUSTOMER REP
8	Fill Lines	12/7/2022	13:42	8.34	2.5	5	34	FILL LINES WITH 5 BBLS FRESH WATER
9	Pressure Test Lines	12/7/2022	13:45				5000	PRESSURE TEST LINES TO 5000 PSI
10	Pump Spacer	12/7/2022	13:49	8.45	5	20	220	PUMP MUD FLUSH WITH SURFACTANT. RIG BEGINS PUMPING 800 CFM DOWN PARASITE LINE. NO RETURNS.
11	Pump Scavenger	12/7/2022	13:52	11.5	5	0	415	BEGIN PUMPING 11.5 PPG SCAVENGER SLURRY, DENSITY VERIFIED WITH MUD SCALE
12	Pump Scavenger	12/7/2022	14:01	11.5	6	50	607	50 BBLS SCAVENGER PUMPED
13	Pump Scavenger	12/7/2022	14:09	11.5	6	50	400	100 BBLS SCAVENGER PUMPED. BEGIN GETTING RETURNS AT 85 BBLS SCAVENGER PUMPED
14	Pump Scavenger	12/7/2022	14:11	11.5	6	15.5	415	115.5 BBLS SCAVENGER PUMPED
15	Pump Lead Cement	12/7/2022	14:11	12.7	6	0	463	BEGIN PUMPING 12.7 PPG LEAD CEMENT, DENSITY VERIFIED WITH MUD SCALE
16	Pump Lead Cement	12/7/2022	14:19	12.7	6.5	50	530	50 BBLS LEAD CEMENT PUMPED
17	Pump Lead Cement	12/7/2022	14:26	12.7	6.5	50	535	100 BBLS LEAD CEMENT PUMPED
18	Pump Lead Cement	12/7/2022	14:33	12.7	7	50	587	150 BBLS LEAD CEMENT PUMPED
19	Pump Lead Cement	12/7/2022	14:40	12.7	7	50	600	200 BBLS LEAD CEMENT PUMPED
20	Pump Lead Cement	12/7/2022	14:50	12.7	5	58.4	320	258.4 BBLS LEAD CEMENT PUMPED
21	Pump Tail Cement	12/7/2022	14:50	13.5	5	0	472	BEGIN PUMPING TAIL AT 13.5 PPG, DENSITY VERIFIED WITH MUD SCALE
22	Pump Tail Cement	12/7/2022	14:58	13.5	7	50	950	50 BBLS TAIL CEMENT PUMPED
23	Pump Tail Cement	12/7/2022	15:06	13.5	6	50	770	100 BBLS TAIL CEMENT PUMPED
24	Pump Tail Cement	12/7/2022	15:14	13.5	6	50	777	150 BBLS TAIL CEMENT PUMPED, PARASITE AIR BYPASSED
25	Pump Tail Cement	12/7/2022	15:22	13.5	6	50	787	200 BBLS TAIL CEMENT PUMPED, LOST RETURNS AT 175 BBLS PUMPED
26	Pump Tail Cement	12/7/2022	15:30	13.5	6.5	50	780	250 BBLS TAIL CEMENT PUMPED

Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
27	Pump Tail Cement	12/7/2022	15:40	13.5	4.5	40.7	450	290.7 BBLS TAIL CEMENT PUMPED
28	Clean Pumps and Lines	12/7/2022	15:40					SHUT DOWN, WASH PUMP AND LINES
29	Drop Top Plug	12/7/2022	15:49	8.34	5	0	190	DROP TOP PLUG, WITNESSED BY CUSTOMER REP. BEGIN DISPLACEMENT
30	Pump Displacement	12/7/2022	15:57	8.34	6	50	830	50 BBLS DISPLACEMENT PUMPED
31	Pump Displacement	12/7/2022	16:05	8.34	6	50	1590	100 BBLS DISPLACEMENT PUMPED
32	Pump Displacement	12/7/2022	16:13	8.34	6.5	50	2333	150 BBLS DISPLACEMENT PUMPED
33	Pump Displacement	12/7/2022	16:19	8.34	4	35.4	2420	185.4 BBLS DISPLACEMENT PUMPED, SLOWED RATE LAST 10 BBLS TO 4 BPM TO LAND PLUG
34	Land Plug	12/7/2022	16:19				3530	LAND PLUG, FCP - 2420 PSI, BUMPED TO 3530 PSI. 452 BBLS OF MUD RETURNED DURING CEMENT JOB
35	Check Floats	12/7/2022	16:24					CHECK FLOATS, FLOATS HELD, 2.5 BBLS BACK
36	Rig Down Iron	12/7/2022	16:30					RIG DOWN IRON AND HOSES
37	Depart Location	12/7/2022	18:30					AC CREW DEPARTS LOCATION

Pump Diagrams



JobMaster Program Version 5.01C1
Job Number: 84833
Customer: Caerus
Well Name: BJU B26 FED 13B-26-496



Job Start: Sunday, December 11, 2022