



Caerus Operating LLC

LONG STRING POST JOB REPORT

BJU G35 FED #23D-35-496 05-045-24347
S:35 T:4S R:96W Garfield CO

CallSheet #: 79892
Proposal #: 57065



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,

Michael Harold

Field Engineer II | (970) 773-3636 | michael.harold@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	3003	0
Open Hole	Outer	n/a	8.75	n/a	n/a	3000	6564	25
Open Hole	Outer	n/a	8.75	n/a	n/a	6564	11750	0
Casing	Inner	4.5	4	11.6	n/a	0	11736.6	0

Equipment / People

Unit Type	Unit	Power Unit	Employee #1
Field Storage Silo	FSS(CTS)-469		
Field Storage Silo	FSS(CTS)-468		
AS Cement Trailer	CTF-7145	TRC(TRB)-425	
AS Cement Trailer	CTF-9299	TRC(TRB)-090	
AS Cement Trailer	CTF-138	TRC(TRB)-424	
AS Cement Trailer	CTF-019	TRC(TRB)-059	
Cement Trailer	CTF-522	TRC(TRB)-202	Hansen, James
Light Duty Vehicles	LDV-061		Linn, Andrew
Cement Pump	CPF-012	TRH-1140	Gonzales, Ivan

Timing

Event	Date/Time
Call Out	1/20/2022 18:55
Depart Facility	1/20/2022 23:22
On Location	1/21/2022 00:22
Rig Up Iron	1/21/2022 00:51
Job Started	1/21/2022 13:03
Job Completed	1/21/2022 15:49
Rig Down Iron	1/21/2022 16:16
Depart Location	1/21/2022 17:38

General Job Information

Metrics	Value
Well Fluid Density	10.3 lb/gal
Well Fluid Type	WBM
Rig Circulation Vol	1700 bbls
Rig Circulation Time	2.5 hours
Calculated Displacement	180.49 bbls
Actual Displacement	180.5 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	36 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	10.3 lb/gal
Well Fluid Density Out of Well	10.3 lb/gal

Job Details (cont.)

Metrics	Value
BHCT	207 °F
BHST	271 °F

Water Analysis

Metrics	Value	Recommended
Water Source	Flat Tank	
Temperature	66.8 °F	50-80 °F
pH Level	7.5	5.5-8.5
Chlorides	285 mg/L	0-3000 mg/L
Total Alkalinity	100	0-1000
Total Hardness	0 mg/L	0-500 mg/L
Carbonates	0 mg/L	0-100 mg/L
Sulfates	450 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	0	100 bbls of Tail	0

Circulation Details

Rig started the air at 1200 cfm, got returns 78 bbls of Scavenger away. Rig killed air at 100 bbls of Tail cement away, and lost returns

Job Execution Information

Fluid	Product	Function	Density (lb/gal)	Yield (ft ³ /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	658
2	Scav Cement	Scavenger	11.50	2.76	16.68		235.00	115.48	1005
3	Lead Cement	Lead	12.70	2.00	11.00		684.00	243.89	3000
4	Tail Cement	Tail	13.50	2.00	9.66		802.00	285.28	6564
5	Water + KCL Sub	DisplacementFinal	8.34			42.00		183.00	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	Scav Cement	ASTM TYPE I/II	Cement	100.00	%
2	Scavenger	Scav Cement	BA-60	GasMigration	0.30	%BWOB
2	Scavenger	Scav Cement	FP-24	Defoamer	0.30	%BWOB
2	Scavenger	Scav Cement	GW-86	Viscosifier	0.20	%BWOB
2	Scavenger	Scav Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
2	Scavenger	Scav Cement	R-3	Retarder	0.50	%BWOB
2	Scavenger	Scav Cement	STATIC FREE	Other	0.01	lb/sk
3	Lead	Lead Cement	ASTM TYPE I/II	Cement	100.00	%
3	Lead	Lead Cement	BA-60	GasMigration	0.30	%BWOB
3	Lead	Lead Cement	FL-66	FluidLoss	0.50	%BWOB
3	Lead	Lead Cement	FP-24	Defoamer	0.30	%BWOB
3	Lead	Lead Cement	GW-86	Viscosifier	0.10	%BWOB
3	Lead	Lead Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
3	Lead	Lead Cement	R-3	Retarder	0.30	%BWOB
3	Lead	Lead Cement	STATIC FREE	Other	0.01	lb/sk
4	Tail	Tail Cement	CLASS G	Cement	70.00	%
4	Tail	Tail Cement	FLY ASH (POZZOLAN)	Extender	30.00	%
4	Tail	Tail Cement	BA-60	GasMigration	0.20	%BWOB
4	Tail	Tail Cement	BENTONITE	Viscosifier	8.00	%BWOB
4	Tail	Tail Cement	FL-24	FluidLoss	0.40	%BWOB
4	Tail	Tail Cement	FP-24	Defoamer	0.30	%BWOB
4	Tail	Tail Cement	IntegraSeal PHENO	LostCirculation	3.00	lb/sk
4	Tail	Tail Cement	R-3	Retarder	0.35	%BWOB
4	Tail	Tail Cement	S-8	StrengthRetrogression	25.00	%BWOB

Job Logs

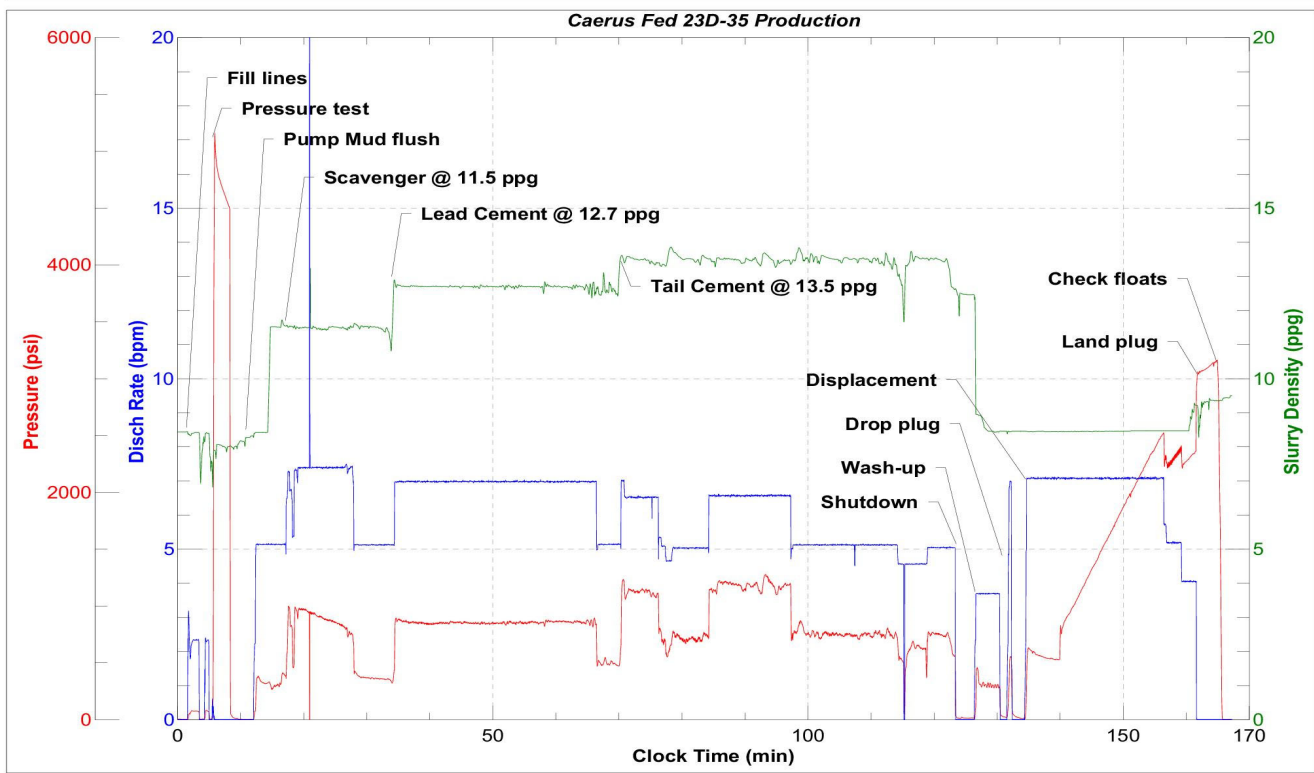
Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
1	Callout	1/20/2022	18:55					Callout, on location of 04:00 1/21/22
2	Safety Meeting	1/20/2022	23:00					Pre-Convoy safety meeting
3	Depart Location	1/20/2022	23:22					Depart from Rifle yard for H&P 330
4	Arrive On Location	1/21/2022	00:22					Arrive on location, rig was running casing
5	Safety Meeting	1/21/2022	00:38					Pre-Rig up safety meeting
6	Rig Up Iron	1/21/2022	00:51					Rig up all ground equipment
7	Safety Meeting	1/21/2022	12:15					Pre-Job safety meeting with rig crew, company man, and American Cementing crew
8	Rig Up Iron	1/21/2022	12:40					Load plug in plug container (verified by company man, stab plug container, hook up lines)
9	Fill Lines	1/21/2022	13:03	8.4	2	5	86	Fill lines
10	Pressure Test Lines	1/21/2022	13:08				5181	Pressure test to 5181 psi
11	Pump Spacer	1/21/2022	13:15	8.5	5	20	286	Pump Mud Flush, rig started with 600 cfm and walked it up to 1200 cfm
12	Pump Scavenger	1/21/2022	13:20	11.5	7	5	953	Pump Scavenger @ 11.5 ppg
13	Pump Scavenger	1/21/2022	13:26	11.5	7.5	50	881	Pump Scavenger, got returns with 78 bbls away
14	Pump Scavenger	1/21/2022	13:33	11.5	5	100	363	Pump Scavenger
15	Pump Scavenger	1/21/2022	13:37	11.5	5	115	333	Pump Scavenger
16	Pump Lead Cement	1/21/2022	13:38	12.7	7	5	882	Pump Lead Cement @12.7 ppg
17	Pump Lead Cement	1/21/2022	13:45	12.7	7	50	853	Pump Lead Cement
18	Pump Lead Cement	1/21/2022	13:51	12.7	7	100	849	Pump Lead Cement
19	Pump Lead Cement	1/21/2022	13:58	12.7	7	150	853	Pump Lead Cement
20	Pump Lead Cement	1/21/2022	14:05	12.7	7	200	855	Pump Lead Cement
21	Pump Lead Cement	1/21/2022	14:14	12.7	5	248	477	Pump Lead Cement
22	Pump Tail Cement	1/21/2022	14:15	13.5	6.5	5	1078	Pump Tail Cement
23	Pump Tail Cement	1/21/2022	14:22	13.5	5	50	707	Pump Tail Cement
24	Pump Tail Cement	1/21/2022	14:31	13.5	6.5	100	1213	Pump Tail Cement. Rig killed air, lost returns with 125 bbls away, return to surface 485 bbls
25	Pump Tail Cement	1/21/2022	14:39	13.5	6.5	150	1153	Pump Tail Cement
26	Pump Tail Cement	1/21/2022	14:47	13.5	5	200	716	Pump Tail Cement
27	Pump Tail Cement	1/21/2022	14:56	13.5	5	250	736	Pump Tail Cement
28	Pump Tail Cement	1/21/2022	15:06	13.5	4.5	296	598	Pump Tail Cement
29	Shutdown	1/21/2022	15:06					Shutdown with 296 bbls of Tail away



Line	Event	Date (MM/DD/YY)	Time (HH:MM)	Density (lb/gal)	Pump Rate (bpm)	Pump Volume (bbls)	Pipe Pressure (psi)	Comment
30	Clean Pumps and Lines	1/21/2022	15:08					Clean pumps & lines to 3-sided tank
31	Drop Top Plug	1/21/2022	15:16					Drop plug, verified by company man
32	Pump Displacement	1/21/2022	15:18	8.4	7	10	565	Pump ResCare displacement
33	Pump Displacement	1/21/2022	15:24	8.4	7	50	892	Pump ResCare displacement
34	Pump Displacement	1/21/2022	15:31	8.4	7	100	1676	Pump ResCare displacement
35	Pump Displacement	1/21/2022	15:38	8.4	7	150	2433	Pump ResCare displacement
36	Pump Displacement	1/21/2022	15:43	8.4	5	170	2337	Pump ResCare displacement
37	Pump Displacement	1/21/2022	15:45	8.4	4	181	2363	Pump ResCare displacement
38	Land Plug	1/21/2022	15:45				3055	Land the plug @ 2363 psi took to 3055 psi
39	Check Floats	1/21/2022	15:49					Check floats, floats held 2 bbls back
40	Safety Meeting	1/21/2022	16:04					Pre-Rig down safety meeting
41	Rig Down Iron	1/21/2022	16:16					Rig down all equipment
42	Safety Meeting	1/21/2022	17:22					Pre-Convoy safety meeting
43	Depart Location	1/21/2022	17:38					Depart from location for Rifle yard. Thank you for using American Cementing, Andrew Linn, and crew

Pump Diagrams

JobMaster Program Version 5.01C1
Job Number: 79892
Customer: Caerus
Well Name: FED 23D-35



BJ Services

Job Start: Friday, January 21, 2022