



# Caerus

---

## Surface Post Job Report

---

Puckett 13A-26-697 05-045-23408

S:26 T:6S R:97W Garfield CO

Quote #:

I Execution #:



## Caerus

Attention: Mr. Steve Schmitz | (720) 880-6412 | [sschmitz@caerusoilandgas.com](mailto:sschmitz@caerusoilandgas.com)

Caerus | 1001 17th Street, Suite 1600 | Denver, CO 80202

---

Dear Mr. Schmitz,

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

Sincerely,

Gage Putnam  
Field Engineer I | (970) 632-2006 | [Gage.Putnam@BJServices.com](mailto:Gage.Putnam@BJServices.com)

Field Office 28730 US-6, Rifle, CO 81650  
Phone: (970) 632-2412

Sales Office 999 18th St. Suite 1200 Denver, CO 80202  
Phone: (281) 408-2361

---

# Cementing Treatment



<b>Start Date</b>	3/4/2018	<b>Well</b>	Puckett 13A-26-697
<b>End Date</b>	3/4/2018	<b>County</b>	GARFIELD
<b>Client</b>	CAERUS OPERATING, LLC	<b>State/Province</b>	CO
<b>Client Field Rep</b>	George Urban	<b>API</b>	05-045-23408
<b>Service Supervisor</b>	Francisco Castillo	<b>Formation</b>	-
<b>Field Ticket No.</b>	Surface	<b>Rig</b>	H&P 330
<b>District</b>	Rifle, CO	<b>Type of Job</b>	Surface

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)
Previous Casing	19.50	20.00	52.73	100.00	
Open Hole	14.75			2,000.00	25.00
Open Hole	14.75			2,543.00	0.00
Casing	8.92	9.63	36.00	2,493.00	

**Shoe Length (ft):** 40

## HARDWARE

<b>Bottom Plug Used?</b>	No	<b>Tool Type</b>	Float Collar
<b>Bottom Plug Provided By</b>	-	<b>Tool Depth (ft)</b>	-
<b>Bottom Plug Size</b>	-	<b>Max Tubing Pressure - Rated (psi)</b>	-
<b>Top Plug Used?</b>	Yes	<b>Max Tubing Pressure - Operated (psi)</b>	-
<b>Top Plug Provided By</b>	Non BJ	<b>Max Casing Pressure - Rated (psi)</b>	3,520.00
<b>Top Plug Size</b>	9.625	<b>Max Casing Pressure - Operated (psi)</b>	2,816.00
<b>Centralizers Used</b>	Yes	<b>Pipe Movement</b>	None
<b>Centralizers Quantity</b>	-	<b>Job Pumped Through</b>	Manifold
<b>Centralizers Type</b>	Bow	<b>Top Connection Thread</b>	8RD
<b>Landing Collar Depth (ft)</b>	2,460	<b>Top Connection Size</b>	9.625

# Cementing Treatment



## CIRCULATION PRIOR TO JOB

---

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	No	10 sec SGS	-
Circulation Time (min)	-	10 min SGS	-
Circulation Rate (bpm)	-	30 min SGS	-
Circulation Volume (bbls)		Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	Yes	Gas Present	No
Mud Density In (ppg)	9.20	Gas Units	0
Mud Density Out (ppg)	-		
PV Mud In	21		
PV Mud Out	-		
YP Mud In	28		
YP Mud Out	-		

## TEMPERATURE

---

Ambient Temperature (°F)	25.00	Slurry Cement Temperature (°F)	75.00
Mix Water Temperature (°F)	62.00	Flow Line Temperature (°F)	95.00

# Cementing Treatment



## BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Sodium Silicate	10.00			0.00				20.00
Spacer / Pre Flush / Flush	Water 2	8.33			0.00				20.00
Spacer / Pre Flush / Flush	Water 1	8.33			0.00				20.00
Lead Slurry	BJCem S100.3.01D	12.00	2.5329	14.89	0.00		704	1,774.00	317.00
Tail Slurry	BJCem S100.3.01D	12.50	2.2282	12.62	2,000.00		162	358.00	64.00
Displacement Final	Displacement	8.33			0.00			0.00	190.20
Top Out Slurry	BJCem S100.3.01D	12.50	2.2282	12.62	0.00		177	394.40	70.00

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Sodium Silicate	SILICATE, SODIUM, A-3L	21.0000	GPB
Lead Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	Foam Preventer, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.01D	Foam Preventer, FP-25	0.3000	BWOB

# Cementing Treatment



Top Out Slurry	BJCem S100.3.01D	CEMENT EXTENDER, SODIUM METASILICATE, A-2	2.0000	LBS/SK
Top Out Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Top Out Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Top Out Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Top Out Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Top Out Slurry	BJCem S100.3.01D	Foam Preventer, FP-25	0.3000	BWOB

## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Comments
3/4/2018 9:15 AM	Water 1	6.00	20.00	265.00	WATER SPACER
3/4/2018 9:18 AM	Sodium Silicate	6.00	20.00	133.00	SS SPACER
3/4/2018 9:22 AM	Water 2	6.00	20.00	147.00	WATER SPACER
3/4/2018 9:23 AM	BJCem S100.3.01D	6.00	317.00	173.00	LEAD CEMENT
3/4/2018 10:16 AM	BJCem S100.3.01D	5.00	64.00	157.00	TAIL CEMENT
3/4/2018 10:29 AM	Displacement	7.00	190.00	449.00	DISPLACEMENT
3/4/2018 5:49 PM	BJCem S100.3.01D	3.50	70.00	89.00	TOP OUT CEMENT

	Min	Max	Avg
Pressure (psi)	133.00	449.00	291.00
Rate (bpm)	5.00	7.00	6.00

# Cementing Treatment



## DISPLACEMENT AND END OF JOB SUMMARY

---

Displaced By	BJ	Amount of Cement Returned/Reversed	1.00
Calculated Displacement Volume (bbls)	190.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	190.00	Amount of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	478.00	Total Volume Pumped (bbls)	630.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	Yes
Cement returns During Job	None	Lost Circulation During Cement Job	Yes

Customer Name CAERUS District RIFLE  
 Well Name PUCKETT 13A-26 Supervisor JAVIER CASTILLO  
 Job Type SURFACE Engineer GAGE PUTNAM



Seq No.	Start Date	Start Time	Event	Equipment	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure	Comments
1	3/4/2018	1:00	YARD CALL						ON LOCATION AT 07:00HRS
2	3/4/2018	1:40	MEETING						STEACS JOURNEY MANAGEMENT MEETING WITH BJ CREW
3	3/4/2018	1:45	LEAVE YARD						BJ CREW LEAVE YARD
4	3/4/2018	3:20	ARRIVE ON LOC.						ARRIVE ON LOCATION, RIG WAS RUNNING CASING
5	3/4/2018	3:45	MEETING						STEACS RIG UP SAFETY MEETING
6	3/4/2018	3:50	RIG UP						PUT UP TARPS AND HEAT ON CEMENT PUMP, RIG UP PUMPING IRON STAYING AWAY FROM RED ZONE, RIG UP WATER HOSES, RIG UP BULK HOSES
7	3/4/2018	4:50	COMPLETE						RIG UP COMPLETE TILL RIG LANDS CASING
8	3/4/2018	7:45	LAND CASING						RIG LANDED CASING
9	3/4/2018	8:00	MEETING						PRE-JOB SAFETY MEETING WITH RIG CREW
10	3/4/2018	9:05	SPACER		8.34	3	5	75	FILL LINES
11	3/4/2018	9:08	TEST LINES					3500	PRESSURE TEST PUMPING IRON
12	3/4/2018	9:15	SPACER		8.34	6	15	265	WATER SPACER
13	3/4/2018	9:18	SPACER		9	6	20	133	SODIUM SILICATE SPACER
14	3/4/2018	9:22	SPACER		8.34	5.9	20	147	WATER SPACER
15	3/4/2018	9:23	LEAD CEMENT		12				BEGIN LEAD CEMENT 704 SKS/317 BBLs, 12.0 PPG, 2.53, 14.89
16	3/4/2018	9:33	LEAD CEMENT		12	6	50	170	50 BBLs PUMPED LEAD CEMENT
17	3/4/2018	9:40	LEAD CEMENT		12	6	50	167	100 BBLs PUMPED LEAD CEMENT
18	3/4/2018	9:48	LEAD CEMENT		12	6	50	165	150 BBLs PUMPED LEAD CEMENT
19	3/4/2018	9:56	LEAD CEMENT		12	6	50	167	200 BBLs PUMPED LEAD CEMENT
20	3/4/2018	10:04	LEAD CEMENT		12	6	50	173	250 BBLs PUMPED LEAD CEMENT
21	3/4/2018	10:15	LEAD CEMENT		12	5.5	67	137	317 BBLs PUMPED LEAD CEMENT
22	3/4/2018	10:16	TAIL CEMENT		12.5	5	64	157	TAIL CEMENT 162 SKS/64 BBLs, 12.5 PPG, 2.22, 12.62
23	3/4/2018	10:16	TAIL CEMENT		12.5				CALCULATED TOP OF TAIL AT 1994 FT
24	3/4/2018	10:28	SHUTDOWN						SHUTDOWN, DROP PLUG, NO RETURN THROUGHOUT CEMENT
25	3/4/2018	10:29	DISPLACEMENT		8.34				BEGIN DISPLACEMENT, 4 BBLs CEMENT ON TOP OF PLUG
26	3/4/2018	10:37	DISPLACEMENT		8.34	7	50	189	50 BBLs PUMPED DISPLACEMENT
27	3/4/2018	10:45	DISPLACEMENT		8.34	7	50	259	100 BBLs PUMPED DISPLACEMENT
28	3/4/2018	10:52	DISPLACEMENT		8.34	7	50	385	150 BBLs PUMPED DISPLACEMENT
29	3/4/2018	10:55	DISPLACEMENT		8.34	7	31	449	180 BBLs PUMPED DISPLACEMENT
30	3/4/2018	10:56	SLOW RATE		8.34	2.5	10	338	SLOW RATE
31	3/4/2018	11:06	LAND PLUG					1038	BUMP PLUG, NO RETURN THROUGHOUT DISPLACEMENT
32	3/4/2018	11:11	CHECK FLOATS						FLOATS HELD, 0.5BBL FLOW BACK
33	3/4/2018	11:21	PARASITE		8.34	1.5	10	15	PUMP SUGAR WATER THROUGH PARASITE LINE, BROKE AT 400 PSI AT 6 BBLs
34	3/4/2018	11:29	SHUTDOWN						WASH LINES, PUMP AND PICKLE PUMP, GET READY FOR TOPOUT
35	3/4/2018	17:38	CACL2		8.9	3.5	2	95	PUMPED 200 LBS OF CACL2
36	3/4/2018	17:39	WATER		8.34	3.5	2	93	2 BBLs WATER BEHIND CACL2
37	3/4/2018	17:49	TOPOUT		12.5	3.5	70	89	GOT CMT TO SURFACE WITH 177 SKS/70 BBLs AT 12.5 PPG
38	3/4/2018	17:49							PUMPED 175 GAL OF SODIUM SILICATE WITH TOP OUT CEMENT
39	3/4/2018	18:17	SHUTDOWN						SWITCHED OVER TO PREVIOUS PARASITE
40	3/4/2018	18:20	PARASITE		12.5	3	2	70	PUMPED 2 BBLs OF CEMENT AT 12.5 PPG IN PREVIOUS PARASITE
41	3/4/2018	18:22	SHUTDOWN						SWITCH OVER TO WASH UP TANK
42	3/4/2018	18:25	MEETING						RIG DOWN SAFETY MEETING
43	3/4/2018	18:30	RIG DOWN						WASH LINES, PUMP AND PICKLE PUMP, RIG DOWN
44	3/4/2018	19:45	COMPLETE						RIG DOWN COMPLETE



Customer Name	CAERUS	District	RIFLE
Well Name	PUCKETT 13A-26	Supervisor	JAVIER CASTILLO
Job Type	SURFACE	Engineer	GAGE PUTNAM



Seq No.	Start Date	Start Time	Event	Equipment	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure	Comments
45	3/4/2018	19:50	AAR						AAR AND JOURNEY MANAGEMENT MEETING WITH BJ CREW
46	3/4/2018	20:00	LEAVE LOCATION						CREW LEAVE LOCATION
47									
48									CALCULATED TOP OF TAIL AT 1994 FT
49									PUMPED 183 SKS/72 BBLS OF TOPOUT CEMENT INCLUDING THE 2 BBLS FOR THE PREVIOUS PARASITE
50									USED 175 GAL OF SODIUM SILICATE ON TOPOUT, USED 420 GAL OF SODIUM SILICATE ON PRIMARY JOB
51									THANK YOU FOR YOUR BUSINESS FROM JAVIER AND CREW



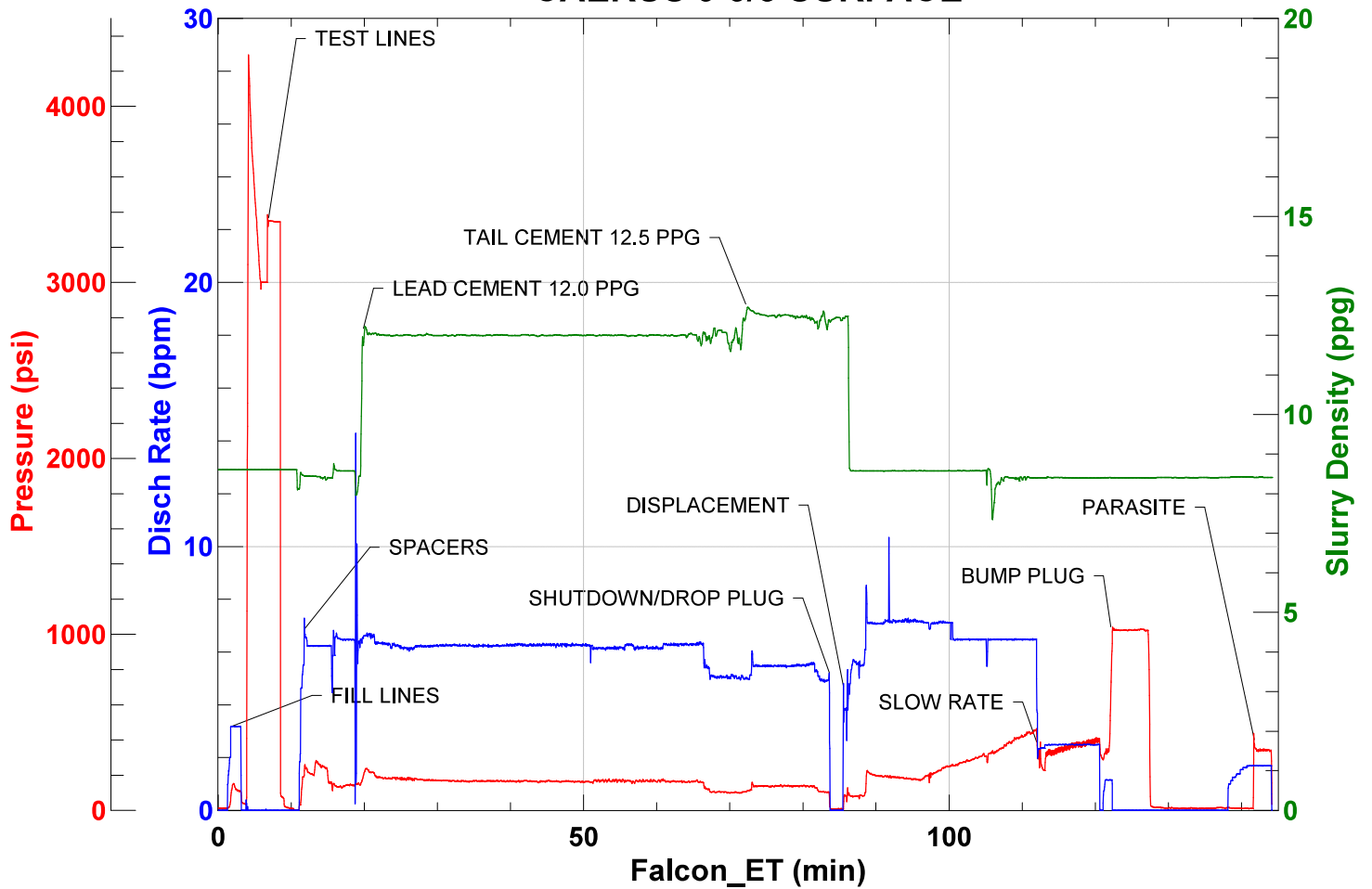
JobMaster Program Version 4.02C1

Job Number: 3600

Customer: CAERUS

Well Name: PUCKETT 13A-26

## CAERUS 9 5/8 SURFACE





JobMaster Program Version 4.02C1

Job Number: 3600

Customer: CAERUS

Well Name: PUCKETT 13A-26

## CAERUS TOPOUT

