



Caerus

Surface Post Job Report

Puckett 25A-26-697 05-045-23427

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

Quote #:

I Execution #:



Caerus

Attention: Mr. Steve Schmitz | (720) 880-6412 | 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,

Zen Keith
Field Engineer II | (307) 757-7178 | Zen.Keith@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



Start Date	4/20/2018	Well	Puckett 25A-26-697
End Date	4/21/2018	County	GARFIELD
Client	CAERUS OPERATING, LLC	State/Province	CO
Client Field Rep	DOUG MCADAM	API	05-045-23427
Service Supervisor	GLEN GILLIAM	Formation	
Field Ticket No.	Surface	Rig	H&P 330
District	Rifle, CO	Type of Job	Surface

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Previous Casing	19.50	20.00	52.73	100.00			
Open Hole	14.75			2,035.00	25.00		
Open Hole	14.75			2,535.00	0.00		
Casing	8.92	9.63	36.00	2,515.00			

Shoe Length (ft): 44

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	2,471.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	2,816.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	2,000.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	5.00	Job Pumped Through	No Manifold
Centralizers Type	Bow	Top Connection Thread	8 ROUND
Landing Collar Depth (ft)	2,515	Top Connection Size	9.625

Cementing Treatment



CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	7.00
Circulation Time (min)	60.00	10 min SGS	15.00
Circulation Rate (bpm)	3.50	30 min SGS	28.00
Circulation Volume (bbls)	194.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	9.30	Gas Units	
PV Mud In	18		
YP Mud In	13		

TEMPERATURE

Ambient Temperature (°F)	29.00	Slurry Cement Temperature (°F)	62.00
Mix Water Temperature (°F)	50.00	Flow Line Temperature (°F)	85.00

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	Water 1	8.3300			0.00			20.0000
Spacer / Pre Flush / Flush	Sodium Silicate	10.0000			0.00			20.0000
Spacer / Pre Flush / Flush	Water 2	8.3300			0.00			20.0000
Lead Slurry	BJCem S100.3.01D	12.0000	2.5329	14.89	0.00	704	1,774.0000	315.9000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2282	12.62	2,000.00	162	358.0000	63.7000
Displacement Final	Displacement	8.3300			0.00		0.0000	190.2000
Top Out Slurry	BJCem S100.3.01D	12.5000	2.2282	12.62	2,000.00	204	454.0000	80.9000

Cementing Treatment



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

Cementing Treatment



TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
4/21/2018 1:33 AM	Water 1	5.00	20.00	210.00		
4/21/2018 1:37 AM	Sodium Silicate	6.00	20.00	435.00		
4/21/2018 1:40 AM	Water 2	6.00	20.00	204.00		
4/21/2018 1:46 AM	BJCem S100.3.01D	4.00	317.00	235.00		
4/21/2018 2:45 AM	BJCem S100.3.01D	4.00	63.70	124.00		
4/21/2018 2:59 AM	Displacement	4.00	190.20	595.00		
4/21/2018 8:15 AM	BJCem S100.3.01D	3.00	80.00	114.00		80 BBLS OF TOPOUT/ 204 SKS

	Min	Max	Avg
Pressure (psi)	114.00	595.00	273.86
Rate (bpm)	3.00	6.00	4.57

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	0.00
Calculated Displacement Volume (bbls)	191.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	191.00	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)	377.00	Total Volume Pumped (bbls)	191.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Partial	Lost Circulation During Cement Job	Yes

EVENT LOG

Service Line Cementing
Client CAERUS OPERATING, LLC
District Rifle, CO



Well: Puckett 25A-26 **Quotes:** QUO-08405-V5W4H8

Job Type: Surface

Supervisor: Glen Gilliam **Plans:** ORD-05974-L1C0H2

Engineer: Zen Keith **Executions:** EXC-05974-L1C0H202

Seq.	Start Dt./Time	End Dt./Time	Duration	Category	Event	Equipment	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	04/20/2018 09:41	04/20/2018 15:30	5.82	Mobilization	Callout						BJ CREW CALLED OUT WITH AN RTS TIME OF 21:00
2	04/20/2018 15:30	04/20/2018 16:30	1.00	Operational	Other (See comment)						BJ CREW YARD TIME
3	04/20/2018 16:45	04/20/2018 17:00	0.25	Operational	Safety Meeting						STEACS/ JOURNEY WITH BJ CREW ON CONVOY TO LOCATION
4	04/20/2018 17:00	4-20-2018 19:30	2.50	Mobilization	Arrive on Location						BJ CREW DEPARTS YARD, ARRIVES ON LOCATION
5	4-20-2018 19:30	4-20-2018 20:30	1.00	Operational	Rig Up						BJ CREW ON LOCATION, STEACS/ RIG UP
6	4-20-2018 20:30	4-21-2018 00:15	3.75	StandBy	Customer						BJ CREW DOWN, RIG RUNNING CASING
7	4-21-2018 00:15	4-21-2018 00:30	0.25	Operational	Safety Meeting						SAFETY MEETING WITH RIG CREW,

EVENT LOG

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Client CAERUS OPERATING, LLC
District Rifle, CO



8	4-21-2018 00:30	4-21-2018 1:00	0.50	Operational	Circulate Well		9.3000	3.50	194.00		RIG CIRCULATING ON BOTTOM, FULL RETURNS
9	4-21-2018 1:00	4-21-2018 1:15	0.25	Operational	Other (See comment)						STAB HEAD TO WELL
10	4-21-2018 1:25	4-21-2018 1:28	0.05	Operational	Pump Spacer		8.3300	2.00	5.00	52.00	FILL LINES 5 BBLS FRESH WATER
11	4-21-2018 1:28	4-21-2018 1:33	0.08	Operational	Pressure Test		8.3300				TEST LINES AT 3000 PSI
12	4-21-2018 1:33	4-21-2018 1:37	0.07	Operational	Pump Spacer		8.3300	5.00	15.00	210.00	PUMP 15 BBLS FRESH WATER
13	4-21-2018 1:37	4-21-2018 1:40	0.05	Operational	Pump Spacer		11.2000	6.00	20.00	235.00	PUMP 20 BBLS SODIUM SILICATE
14	4-21-2018 1:40	4-21-2018 1:46	0.10	Operational	Pump Spacer		8.3300	6.00	20.00	204.00	PUMP 20 BBLS FRESH WATER
15	4-21-2018 1:46	4-21-2018 1:57	0.18	Operational	Pump Lead Cement		12.0000	4.00	50.00	95.00	LEAD DOWN HOLE/ 50 BBLS GONE
16	4-21-2018 1:57	4-21-2018 2:07	0.17	Operational	Pump Lead Cement		12.0000	6.00	100.00	229.00	LEAD DOWN HOLE/ 100 BBLS GONE
17	4-21-2018 2:07	4-21-2018 2:15	0.13	Operational	Pump Lead Cement		12.0000	6.00	150.00	224.00	LEAD DOWN HOLE/ 150 BBLS GONE
18	04/21/2018 02:24	04/21/2018 02:24	0.00	Operational	Pump Lead Cement		12.0000	6.00	200.00	229.00	LEAD DOWN HOLE/ 200 BBLS GONE
19	04/21/2018 02:24	04/21/2018 02:33	0.15	Operational	Pump Lead Cement		12.0000	6.00	250.00	229.00	LEAD DOWN HOLE/ 250 BBLS GONE
20	04/21/2018 02:33	04/21/2018 02:43	0.17	Operational	Pump Lead Cement		12.0000	4.00	300.00	121.00	LEAD DOWN HOLE/ 300 BBLS GONE
21	04/21/2018 02:43	04/21/2018 02:54	0.18	Operational	Pump Tail Cement		12.5000	4.00	50.00	127.00	TAIL DOWN HOLE/ 50 BBLS GONE

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22	04/21/2018 02:54	04/21/2018 02:59	0.08	Operational	End Pumping						DROP TOP PLUG
23	04/21/2018 02:59	04/21/2018 03:01	0.03	Operational	Pump Displacement		12.5000	4.00	4.00	81.00	KICK OUT PLUG 4 BBLS CEMENT
24	04/21/2018 03:01	04/21/2018 03:09	0.13	Operational	Pump Displacement		8.3300	6.00	50.00	250.00	50 BBLS GONE DISPLACEMENT
25	04/21/2018 03:09	04/21/2018 03:18	0.15	Operational	Pump Displacement		8.3300	8.00	100.00	422.00	100 BBLS GONE DISPLACEMENT
26	04/21/2018 03:18	04/21/2018 03:24	0.10	Operational	Pump Displacement		8.3300	8.00	150.00	595.00	150 BBLS GONE DISPLACEMENT
27	04/21/2018 03:24	4-21-2018 3:31	0.12	Operational	Land Plug		8.3300	2.50	191.00	377.00	BUMP PLUG FCP- 377 TOOK TO 1029
28	4-21-2018 3:31	4-21-2018 3:36	0.08	Operational	Check Floats						FLOATS HELD 0.5 BBLS BACK
29	4-21-2018 3:36	4-21-2018 4:00	0.40	Operational	Other (See comment)		9.0000	2.50	10.00	298.00	PUMP 10 BBLS SUGAR WATER DOWN PARASITE LINE
30	4-21-2018 4:00	4-21-2018 8:00	4.00	StandBy	Other (See comment)						BJ CREW DOWN, WAITING 4 HRS TO TOPOUT
31	4-21-2018 8:00	4-21-2018 8:15	0.25	Operational	Rig Up						BJ CREW RIGS UP TOPOUT EQUIPMENT
32	4-21-2018 8:15	4-21-2018 8:21	0.10	Operational	Pump Spacer		9.0000	3.00	5.00	95.00	PUMP 2 BBLS OF CALCIUM CHLORIDE #200, PUMP SODIUM SILICATE
33	4-21-2018 8:21	4-21-2018 9:00	0.65	Operational	Pumping Cement		12.5000	3.00	80.00	114.00	PUMP 80 BBLS/204 SKS OF TOPOUT
34	4-21-2018 9:00	4-21-2018 9:15	0.25	Operational	Safety Meeting						STEACS/ RIG DOWN WITH BJ CREW
35	4-21-2018 9:15	4-21-2018 10:30	1.25	Operational	Rig Down						BJ CREW RIGS DOWN EQUIPMENT

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District Rifle, CO



36	4-21-2018 10:30	4-21-2018 11:15	0.75	Operational	Safety Meeting						STEACS/ JOURNEY WITH BJ CREW ON CONVOY BACK TO YARD
37	4-21-2018 11:15	4-21-2018 13:00	1.75	Mobilization	Leave Location						BJ CREW DEPARTS LOCATION
38	4-21-2018 13:00	4-21-2018 13:00	0.00	Operational	Other (See comment)						BUMPED PLUG FCP-377 TOOK TO 1029 HELD FOR 5 MINS, FLOATS HELD 0.5 BBLS BACK/ TOPOUT JOB 80 BBLS/ 204 SKS



CAERUS PUCKETT 25A-26 SURFACE



