



Caerus

Surface Post Job Report

NPR 12D-10-596 05-045-23771

S:10 T:5S R:96W 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 III | (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	7/10/2018	Field Ticket#	FT-08585-T5P8N50202-78581
End Date	7/10/2018	Well	NPR 12D-10-596
Client	CAERUS OPERATING, LLC	API#	05-045-23771
Client Field Rep.	Leonard Stomley	Well Classification	
Service Sup.	Mark Rust	County	GARFIELD
District	Rifle, CO	State/Province	CO
Type of Job	Surface	Formation	
Execution ID	EXC-08585-T5P8N502	Rig	H&P 273
Project ID	PRJ1008481		

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	13.50			2,400.00			
Casing	8.92	9.63	36.00	2,383.00		J-55	LTC

Shoe Length (ft): 43

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	2,340.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3,520.00
Top Plug Size	9.625	Max Casing Pressure - Operated (psi)	2,816.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	7.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	8 RND.
Landing Collar Depth (ft)	2,340	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	Flare Prior to/during the Cement Job	No
Circulation Time (min)	60.00	Gas Present	No
Circulation Rate (bpm)	9.00		
Lost Circulation Prior to Cement Job	No		
Mud Density In (ppg)	10.00		
Mud Density Out (ppg)	10.00		

TEMPERATURE

Ambient Temperature (°F)	75.00	Slurry Cement Temperature (°F)	82.00
Mix Water Temperature (°F)	68.00	Flow Line Temperature (°F)	

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	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	2.5298	14.86	0.00	1,900.00	410	1,036.0000	184.4000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2256	12.59	1,900.00	500.00	118	262.0000	46.6000
Displacement Final	Displacement	8.3300			0.00			0.0000	181.0000

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, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.3.01D	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.3.01D	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.3.01D	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.3.01D	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.3.01D	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Tail Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
7/10/2018 6:26 PM	Water 1	5.00	20.00	751.00		
7/10/2018 6:30 PM	Sodium Silicate	5.00	20.00	747.00		
7/10/2018 6:35 PM	Water 2	5.00	20.00	862.00		
7/10/2018 6:40 PM	BJCem S100.3.01D	5.00	184.40	1,101.00		
7/10/2018 7:30 PM	BJCem S100.3.01D	5.00	46.60	831.00		
7/10/2018 7:46 PM	Displacement	5.50	181.00	1,100.00		

	Min	Max	Avg
Pressure (psi)	747.00	1,101.00	898.67
Rate (bpm)	5.00	5.50	5.08

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	50.00
Calculated Displacement Volume (bbls)	181.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	180.00	Amount of Spacer to Surface	60.00
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)	1,270.00	Total Volume Pumped (bbls)	450.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Partial	Lost Circulation During Cement Job	No

Customer Name Caerus Operating
Well Name NPR 12D-10-596
Job Type Surface

District Rifle
Supervisor Mark W. Rust
Engineer Zen Keith



Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbbls)	Pipe Pressure (psi)	Comments
1	7/10/2018 9:00	Mobilization	Callout		1					Leave Rifle District (RTS 12:00)
2	7/10/2018 10:30	Mobilization	Arrive on Location		48					Arrive on Location
3	7/10/2018 10:45	Operational	Spot Units		49					Spot Pump and Bulk Truck
4	7/10/2018 11:00	Operational	Safety Meeting		53					Safety Meeting/Start Rig Up
5	7/10/2018 12:00	StandBy	Customer							Rigged up/Crew off duty/Waiting on Rig
6	7/10/2018 16:30	Operational	Safety Meeting		53					Safety meeting with Rig Crew & Customer
7	7/10/2018 17:00	Operational	Other (See comments)		76					Rig up cement head
8	7/10/2018 17:20	Operational	Prime Up		52	8.34	2.5	5	309	Load lines with 5bbls water
9	7/10/2018 17:23	Operational	Pressure Test		54	8.34			4700	Test Lines
10	7/10/2018 17:26	Operational	Pump Spacer		56	8.34	5	15	751	Start water Spacer/No Returns
11	7/10/2018 17:29	Operational	Pump Spacer		56	8.7	5	20	747	Pump SS spacer
12	7/10/2018 17:35	Operational	Pump Spacer		56	8.34	5	20	862	Pump water Spacer
13	7/10/2018 17:40	Operational	Pump Lead Cement		58	12	5	0	1101	Start pumping lead cement
14	7/10/2018 17:49	Operational	Pump Lead Cement		58	12	5	50	1009	Pumping Lead
15	7/10/2018 17:58	Operational	Pump Lead Cement		58	12	5	100	836	Pumping Lead
16	7/10/2018 18:06	Operational	Other (See comments)		76	12	0	117	2819	Pressure out/Unable to pump
17	7/10/2018 18:10	Operational	Other (See comments)		76	12	0	117	0	Casing jumps/Pressure falls off
18	7/10/2018 18:11	Operational	Pump Lead Cement		58	12	1	117	210	Start easing back into job
19	7/10/2018 18:28	Operational	Pump lead Cement		58	12	6	150	833	Pumping Lead
20	7/10/2018 18:34	Operational	Pump Lead Cement		58	12	4	183	405	Pumping Lead
21	7/10/2018 18:35	Operational	Pump Tail Cement		60	12.5	4	0	477	Swap to Tail cement
22	7/10/2018 18:42	Operational	Pump Tail Cement		60	12.5	5	40	831	Pumping Tail
23	7/10/2018 18:44	Operational	Drop Top Plug		63	8.34				Shut down/Drop top plug
24	7/10/2018 18:46	Operational	Pump Displacement		64	8.34	5.5	0	647	Start Displacement
25	7/10/2018 18:56	Operational	Pump Displacement		64	8.34	5.5	50	629	Pumping Displacement
26	7/10/2018 19:05	Operational	Pump Displacement		64	8.34	5.5	100	918	Pumping Displacement/Lose returns
27	7/10/2018 19:10	Operational	Cement Back to Surface		66	8.34	5.5	130	1024	Cement to Surface
28	7/10/2018 19:14	Operational	Pump Displacement		64	8.34	5.5	150	1100	Pumping Displacement
29	7/10/2018 19:17	Operational	Pump Displacement		64	8.34	2.5	170	936	Pumping Displacement
30	7/10/2018 19:22	Operational	Land Plug		67	8.34		180	1270	Land top plug/Final Circ. Psi 906
31	7/10/2018 19:25	Operational	Check Floats		68					Bleed pressure/Check floats 0.5 bbls back
32	7/10/2018 19:40	Operational	Rig Down		73					Safety meeting/Start rig down
33	7/10/2018 19:45	Operational	Safety Meeting		53					Have JM meeting for trip down the mountain
34	7/10/2018 21:30	Mobilization	Leave Location		74					Depart location



JobMaster Program Version 4.02C1
Job Number: 7138
Customer: Caerus Operating
Well Name: NPR 12D-10-596

