



Caerus

Surface Post Job Report

NPR 11D-15-596 05-045-23752

S:10 T:5S R:96W Garfield CO

Quote #: | 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	4/4/2018	Well	NPR 11D-15-596
End Date	4/4/2018	County	GARFIELD
Client	CAERUS OPERATING, LLC	State/Province	CO
Client Field Rep	Boyd Cottam	API	05-045-23752
Service Supervisor	Wendell Youngberg	Formation	
Field Ticket No.	Surface	Rig	H&P 273
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	13.50			1,500.00	0.00		
Open Hole	13.50			2,004.00			
Casing	8.92	9.63	36.00	1,983.00		J-55	LTC

Shoe Length (ft): 40

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	1,938.00
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	No	Pipe Movement	None
Landing Collar Depth (ft)	1,960	Job Pumped Through	Manifold
		Top Connection Thread	
		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	15.00
Circulation Time (min)	30.00	10 min SGS	26.00
Circulation Rate (bpm)	5.00	30 min SGS	45.00
Circulation Volume (bbls)	149.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	10.00	Gas Units	0
PV Mud In	14		
YP Mud In	22		

TEMPERATURE

Ambient Temperature (°F)	47.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	70.00	Flow Line Temperature (°F)	132.00

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	1,500.00	333	841.0000	149.7000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2256	12.59	1,500.00	500.00	118	262.0000	46.6000
Displacement Final	Displacement	8.3300			0.00			0.0000	151.5000

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 EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	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	IntegraSeal CELLO	0.1300	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
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	Foam Preventer, FP-25	0.3000	BWOB
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

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
4/4/2018 11:25 PM	Water 1	2.50	20.00	80.00		
4/4/2018 11:29 PM	Sodium Silicate	2.50	20.00	89.00		
4/4/2018 11:35 PM	Water 2	3.40	20.00	141.00		
4/4/2018 11:45 PM	BJCem S100.3.01D	3.50	150.00	150.00		
4/5/2018 12:10 AM	BJCem S100.3.01D	2.50	46.60	56.00		
4/5/2018 1:28 AM	Displacement	5.00	146.00	192.00		

	Min	Max	Avg
Pressure (psi)	50.00	487.00	234.00
Rate (bpm)	1.50	5.00	2.50

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	20.00
Calculated Displacement Volume (bbls)	149.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	142.00	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	1.00
Bump Plug Pressure (psi)	487.00	Total Volume Pumped (bbls)	399.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Full	Lost Circulation During Cement Job	No



Customer Name CAERUS
Well Name NPR 11D-15
Job Type Surface

District Rifle
Supervisor WENDELL YOUNGBERG
Engineer GAGE PUTNAM

Seq No.	Start Date	Start Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	4/4/2018	14:00	Mobilization	Callout		1					BJ CREW CALLED OUT WITH A RTS OF 20:00 4/4/2018
2	4/4/2018	15:00	Mobilization								JOURNEY MANAGEMENT WITH BJ CREW
3	4/4/2018	15:15	Mobilization	Leave Location		74					LEAVE DISTRICT
4	4/4/2018	16:40	Mobilization	Arrive on Location		48					ARRIVE ON LOCATION
5	4/4/2018	16:50	Operational								STEACS BREIFING WITH BJ CREW
6	4/4/2018	17:00	Operational	Spot Units		49					SPOT TRUCKS
7	4/4/2018	17:15	Operational	Rig Up		50					RIG UP ALL EQUIPMENT
9	4/4/2018	21:40	Operational	Prime Up		52					PIPE ON BOTTOM, RIG TO CIRCULATE
10	4/4/2018	22:35	Operational	Safety Meeting		53					SAFETY MEETING WITH BJ CREW, COMPANY, AND RIG CREW
11	4/4/2018	23:17	Operational	Rig Up		50					RIG UP CEMENT HEAD TO CASING
12	4/4/2018	23:18	Operational	Start Pumping		55	8.34	3	5	206	BREAK CIRCULATION
13	4/4/2018	23:23	Operational	Pressure Test		54					TEST LINES 3000
14	4/4/2018	23:25	Operational	Pump Spacer		56	8.34	3	15	170	FRESH WATER SPACER
15	4/4/2018	23:29	Operational	Pump Spacer		56	10	3	20	89	SODIUM SILICATE SPACER
16	4/4/2018	23:35	Operational	Pump Spacer		56	8.34	3	20	141	FRESH WATER SPACER
17	4/4/2018	23:41	Operational	Pump Lead Cement		58	12				BATCH UP LEAD CEMENT @ 12.0 PPG (333 SXS Y- 2.53 MW- 14.89)
18	4/4/2018	23:45	Operational	Pump Lead Cement			12	3.5	118	150	LEAD CEMENT @ 12.0 PPG DOWNHOLE
19	4/5/2018	0:10	Operational	Pump Lead Cement		58	12	4		126	50 BBLs GONE LEAD SLURRY
20	4/5/2018	0:20	Operational	Pump Lead Cement			12				shut down rig sump pump malfunction
21	4/4/2018	0:40	Operational	Pump Lead Cement		58	12	1.5		50	78 BBLs GONE LEAD SLURRY
22	4/5/2018	0:42	Operational	Pump Lead Cement			12				shut down at 81bbls
23	4/5/2018	0:45	Operational	Pump Lead Cement			12	1.5		57	start back up lead
24	4/5/2018	0:49	Operational	pump lead Cement			12				shut down at 89 bbls gone
25	4/5/2018	0:52	Operational	Pump Lead Cement		58	12	1.5		51	100 BBLs GONE LEAD SLURRY
26	4/5/2018	0:57	Operational	Pump Lead Cement		58	12				shut down at 107 bbls gone
27	4/5/2018	0:59	Operational	Pump Lead Cement		58	12	2		120	start pumping LEAD SLURRY
28	4/5/2018	1:04	Operational	Pump Tail Cement		60	12.5				BATCH UP TAIL SLURRY @ 12.5 PPG (118 SXS Y- 2.22 MW-12.62)
29	4/5/2018	1:05	Operational	Pump Tail Cement		60	12.5	2.5	46	56	TAIL CEMENT @ 12.5 PPG DOWN HOLE
30	4/5/2018	1:08	Operational	Pump Tail Cement		60	12.5	2.5		52	13 BBLs GONE TAIL SLURRY
31	4/5/2018	2:09	Operational	Pump Tail Cement			12.5				shut down
32	4/5/2018	1:12	Operational	Pump Tail Cement		60	12.5	4.2		58	20 bbls gone tail slurry
33	4/5/2018	1:15	Operational	Pump Tail Cement		60	12.5	4.2		54	33 BBLs GONE tail cement
34	4/5/2018	1:23	Operational	Drop Bottom Plug							drop plug
35	4/5/2018	1:25	Operational	Pump Displacement		64	12.5	5	4	153	4 BBLs tail cement on plug
36	4/5/2018	1:28	Operational	Pump Displacement		64	8.34	5	146	192	20 BBLs GONE DISPLACEMENT
37	4/5/2018	1:36	Operational	Pump Displacement		64	8.34	5		280	50 bbls gone displacement
38	4/5/2018	1:56	Operational	Pump Displacement			8.34	1.5		324	100 bbls gone displacement
39	4/5/2018	2:12	Operational	Land Plug		67				994	BUMP PLUG 994 PSI
40	4/5/2018	2:23	Operational	Check Floats		68					BLEED PRESSURE, CHECK FLOATS 1 BBLs BACK
41	4/5/2018	2:35	Operational	Rig Down							STEACS rig down
42	4/5/2018	4:05	Mobilization	Leave Location		74					LEAVE LOCATION
43	4/5/2018										
44	4/5/2018										FCP-487 PSI, BUMP PLUG-996PSI, BLEED PRESSURE FLOATS HOLDING- 1 BBL BACK



JobMaster Program Version 4.02C1
Job Number: 4431
Customer: Caerus
Well Name: NPR 11D-15

