



Caerus

Surface Post Job Report

NPR 24A-10-596 05-045-23753

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 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 5/31/2018 **Field Ticket#** FT-07260-M4M1Q80202-21680
End Date 5/31/2018 **Well** NPR 24A-10-596
Client CAERUS OPERATING, LLC **API#** 05-045-23753
Client Field Rep. Boyd Cottam **Well Classification**
Service Sup. Glen Gilliam **County** GARFIELD
District Rifle, CO **State/Province** CO
Type of Job Surface **Formation**
Execution ID EXC-07260-M4M1Q802 **Rig** H&P 273
Project ID PRJ1007247

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			2,995.00			
Casing	8.92	9.63	36.00	2,971.00		J-55	LTC

Shoe Length (ft): 44

HARDWARE

Bottom Plug Used? No **Tool Type** Float Collar
Top Plug Used? Yes **Tool Depth (ft)** 2,927.00
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 No **Pipe Movement** None
Landing Collar Depth (ft) 2,971 **Job Pumped Through** No Manifold
Top Connection Thread 8 ROUND
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)	120.00	Gas Present	No
Circulation Rate (bpm)	3.00		
Circulation Volume (bbls)	360.00		
Lost Circulation Prior to Cement Job	No		
Mud Density In (ppg)	10.60		

TEMPERATURE

Ambient Temperature (°F)	55.00	Slurry Cement Temperature (°F)	64.00
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	2,500.00	708	1,791.0000	318.9000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2256	12.59	2,500.00	500.00	161	358.0000	63.7000
Displacement Final	Displacement	8.3300			0.00			0.0000	228.8000

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	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	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	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail 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	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	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.3.01D	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
5/31/2018 2:54 PM	Water 1	5.00	20.00	150.00		
5/31/2018 2:56 PM	Sodium Silicate	5.50	20.00	180.00		
5/31/2018 3:00 PM	Water 2	5.50	20.00	195.00		
5/31/2018 3:04 PM	BJCem S100.3.01D	5.50	318.90	155.00		
5/31/2018 4:06 PM	BJCem S100.3.01D	5.00	63.70	150.00		
5/31/2018 4:21 PM	Displacement	5.50	226.00	815.00		170 BBLS OF CEMENT BACK TO SURFACE
			Min	Max		Avg
Pressure (psi)			150.00	815.00		274.17
Rate (bpm)			5.00	5.50		5.33

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	170.00
Calculated Displacement Volume (bbls)	226.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	226.00	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	1.00
Bump Plug Pressure (psi)	815.00	Total Volume Pumped (bbls)	226.00
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 273
 Well Name NPR 24A-10
 Job Type Surface

District Rifle
 Supervisor GLEN GILLIAM
 Engineer GAGE PUTNAM



Seq No.	Start Date	Start Time	Event	Equipment	Density (lb/gal)	Pump Rate	Pump Vol (bbls)	Pipe Pressure	Comments
1	5/31/2018	7:00	CALLOUT						BJ CREW CALLED OUT TO LOCATION WITH AN RTS OF 11:00
2	5/31/2018	7:20	STEACS/ JOURNEY						STEACS/ JOURNEY WITH BJ CREW ON CONVOY TO LOCATION
3	5/31/2018	7:30	DEPART YARD						BJ CREW DEPARTS YARD TO LOCATION
4	5/31/2018	9:00	ON LOCATION						BJ CREW ON LOCATION, SPOT EQUIPMENT
5	5/31/2018	9:15	RIG UP STEACS						STEACS/ RIG UP WITH BJ CREW
6	5/31/2018	9:30	RIG UP EQUIPMENT						BJ CREW RIGS UP EQUIPMENT
7	5/31/2018	10:00	STANDBY						BJ CREW ON STANDBY, RIG STILL RUNNING CASING, CIRCULATING ON BOTTOM
8	5/31/2018	14:30	SAFETY MEETING						SAFETY MEETING WITH RIG CREW ON CEMENT JOB OPERATIONS
9	5/31/2018	14:40	STAB HEAD						BJ CREW STABS HEAD TO WELL
10	5/31/2018	14:47	FILL LINES		8.33	2	5	35	FILL LINES 5 BBLS FRESH WATER
11	5/31/2018	14:50	PRESSURE TEST					3000	TEST LINES TO 3000 PSI
12	5/31/2018	14:54	SPACER		8.33	5	15	150	FRESH WATER SPACER 15 BBLS
13	5/31/2018	14:56	SODIUM SILICATE		10.4	5.5	20	180	20 BBLS SODIUM SILICATE SPACER
14	5/31/2018	15:00	SPACER		8.33	5.5	20	195	20 BBLS FRESH WATER SPACER
15	5/31/2018	15:04	LEAD CEMENT		12	5		190	LEAD CEMENT DOWN HOLE AT 12.0 PPG
16	5/31/2018	15:18	50 BBLS GONE		12	3.5	50	122	50 BBLS GONE LEAD CEMENT
17	5/31/2018	15:28	100 BBLS GONE		12	5.5	100	153	100 BBLS GONE LEAD CEMENT
18	5/31/2018	15:37	150 BBLS GONE		12	5.5	150	130	150 BBLS GONE LEAD CEMENT
19	5/31/2018	15:46	200 BBLS GONE		12	5.5	200	146	200 BBLS GONE LEAD CEMENT
20	5/31/2018	15:56	250 BBLS GONE		12	5.5	250	135	250 BBLS GONE LEAD CEMENT
21	5/31/2018	16:05	300 BBLS GONE		12	3	300	59	300 BBLS GONE LEAD CEMENT
23	5/31/2018	16:06	TAIL CEMENT		12.5	3		65	TAIL CEMENT DOWN HOLE AT 12.5 PPG
24	5/31/2018	16:16	50 BBLS GONE		12.5	5.5	50	150	50 BBLS GONE TAIL CEMENT
25	5/31/2018	16:20	SHUT DOWN						SHUT DOWN, DROP TOP PLUG
26	5/31/2018	16:21	DISPLACEMENT		12.5	4	4	70	KICK OUT PLUG WITH 4 BBLS OF TAIL CEMENT
27	5/31/2018	16:31	50 BBLS GONE		8.33	5.5	50	305	50 BBLS GONE FRESH WATER DISPLACEMENT
28	5/31/2018	16:40	100 BBLS GONE		8.33	5.5	100	440	100 BBLS GONE FRESH WATER DISPLACEMENT
29	5/31/2018	16:50	150 BBLS GONE		8.33	5.5	150	617	150 BBLS GONE FRESH WATER DISPLACEMENT
30	5/31/2018	16:59	200 BBLS GONE		8.33	5.5	200	751	200 BBLS GONE FRESH WATER DISPLACEMENT
31	5/31/2018	17:07	BUMP PLUG		8.33	2.5	226	815	BUMP PLUG FCP- 815 TOOK TO 1351 HELD FOR 2 MINS
32	5/31/2018	17:09	CHECK FLOATS						FLOATS HELD 1.0 BBLS BACK
33	5/31/2018	17:18	PARASITE LINE		8.4	3	10	650	PUMP 10 BBLS SUGAR WATER DOWN PARASITE LINE, BREAKOVER PRESSURE WAS 650
34	5/31/2018	17:30	PARASITE LINE		12.5	3	3	40	PUMPED 3 BBLS OF CEMENT DOWN PREVIOUS PARASITE LINE
35	5/31/2018	17:45	STEACS/ RIG DOWN						STEACS/ RIG DOWN WITH BJ CREW
36	5/31/2018	18:00	RIG DOWN						BJ CREW RIGS DOWN EQUIPMENT ON LOCATION
37	5/31/2018	18:45	STEACS/ JOURNEY						STEACS/ JOURNEY WITH BJ CREW ON CONVOY BACK TO YARD
38	5/31/2018		***MISC***						BUMP PLUG FCP- 815 TOOK TO 1351 HELD FOR 2 MINS, FLOATS HELD 1.0 BBLS BACK, FULL RETURNS DURING JOB, 170 BBLS OF CEMENT BACK TO SURFACE, PUMPED DOWN PARASITE LINE, BREAKOVER PRESSURE WAS 650. NO ISSUES DURING JOB.



JobMaster Program Version 4.02C1

Job Number: 5928

Customer: CAERUS

Well Name: NPR 24A-10

