



# Caerus

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## Surface Post Job Report

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**NPR 13B-10-596 05-045-23766**

S:10 T:5S R:96W 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

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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](mailto: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

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# Cementing Treatment



<b>Start Date</b>	7/20/2018	<b>Field Ticket#</b>	FT-08897-M7K6N80202-56334
<b>End Date</b>	7/21/2018	<b>Well</b>	NPR 13B-10-596
<b>Client</b>	CAERUS OPERATING, LLC	<b>API#</b>	05-045-23766
<b>Client Field Rep.</b>	R. Boyd Cottam	<b>Well Classification</b>	
<b>Service Sup.</b>	Hamza Busheri	<b>County</b>	GARFIELD
<b>District</b>	Rifle, CO	<b>State/Province</b>	CO
<b>Type of Job</b>	Surface	<b>Formation</b>	
<b>Execution ID</b>	EXC-08897-M7K6N802	<b>Rig</b>	H&P 273
<b>Project ID</b>	PRJ1008802		

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Previous Casing	15.50	16.00	42.05	100.00			
Open Hole	14.75			2,401.00			
Casing	8.92	9.63	36.00	2,390.00		J-55	LTC

**Shoe Length (ft):** 45

## HARDWARE

<b>Bottom Plug Used?</b>	No	<b>Tool Type</b>	Float Collar
<b>Top Plug Used?</b>	Yes	<b>Tool Depth (ft)</b>	2,345.00
<b>Top Plug Provided By</b>	Non BJ	<b>Max Casing Pressure - Rated (psi)</b>	3,820.00
<b>Top Plug Size</b>	9.630	<b>Max Casing Pressure - Operated (psi)</b>	3,000.00
<b>Centralizers Used</b>	Yes	<b>Pipe Movement</b>	None
<b>Centralizers Type</b>	Bow	<b>Job Pumped Through</b>	No Manifold
<b>Landing Collar Depth (ft)</b>	2,345	<b>Top Connection Thread</b>	8 rd
		<b>Top Connection Size</b>	9.63

# 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	9.00
Circulation Time (min)	40.00	10 min SGS	14.00
Circulation Rate (bpm)	5.00	30 min SGS	22.00
Circulation Volume (bbls)	185.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	8.80		
PV Mud In	19		
YP Mud In	23		

## TEMPERATURE

Ambient Temperature (°F)	79.00
Mix Water Temperature (°F)	77.00

## 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	1,900.00	517	1,306.0000	232.6000
Tail Slurry	BJCem S100.3.01D	12.5000	2.2256	12.59	1,900.00	500.00	161	358.0000	63.7000
Displacement Final	Displacement	8.3300			0.00			0.0000	182.5000

# 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, 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	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.3.01D	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	IntegraSeal CELLO	0.1300	LBS/SK
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 Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
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	IntegraSeal CELLO	0.1300	LBS/SK

## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)	Annulus Pressure (psi)	Comments
7/21/2018 3:18 AM	Water 1	4.00	20.00	158.00		
7/21/2018 3:22 AM	Sodium Silicate	4.00	20.00	198.00		
7/21/2018 3:28 AM	Water 2	5.00	20.00	210.00		
7/21/2018 3:36 AM	BJCem S100.3.01D	5.50	232.60	125.00		
7/21/2018 4:43 AM	BJCem S100.3.01D	5.00	63.70	115.00		
7/21/2018 5:05 AM	Displacement	5.50	181.00	858.00		

	Min	Max	Avg
Pressure (psi)	115.00	858.00	277.33
Rate (bpm)	4.00	5.50	4.83

# Cementing Treatment



## DISPLACEMENT AND END OF JOB SUMMARY

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Displaced By	BJ	Amount of Cement Returned/Reversed	67.00
Calculated Displacement Volume (bbls)	182.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	182.00	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)	1,545.00	Total Volume Pumped (bbls)	583.00
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 13B-10

Job Type Surface

District Rifle

Supervisor H. Zeke Busheri

Engineer Zen Keith



Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	7/20/2018 16:00	Mobilization	Callout		1					Leave Rifle District 17:50 (RTS 22:00)
2	7/20/2018 18:57	Mobilization	Arrive on Location		48					Arrive on Location
3	7/20/2018 19:03	Operational	Spot Units		49					Spot Pump and Bulk Truck
4	7/20/2018 19:07	Operational	Safety Meeting		53					Safety Meeting/Start Rig Up
5	7/20/2018 19:41	StandBy	Customer		85					Rigged up/Crew off Duty
6	7/21/2018 2:04	Operational	Safety Meeting		53					Safety meeting with Rig Crew & Customer
7	7/21/2018 3:01	Operational	Other (See comments)		76					Rig up cement head
8	7/21/2018 3:06	Operational	Prime Up		52	8.34	2.5	5	158	Load lines with 5bbls water
9	7/21/2018 3:10	Operational	Pressure Test		54	8.34			4600	Test Lines
10	7/21/2018 3:18	Operational	Pump Spacer		56	8.34	4	15	200	Start water Spacer/ Returns
11	7/21/2018 3:22	Operational	Pump Spacer		56	8.7	4	20	198	Pump SS spacer
12	7/21/2018 3:28	Operational	Pump Spacer		56	8.34	4	20	210	Pump water Spacer
13	7/21/2018 3:36	Operational	Pump Lead Cement		58	12	5	0	127	Start pumping lead cement
14	7/21/2018 3:51	Operational	Pump Lead Cement		58	12	5	50	111	Pumping Lead
15	7/21/2018 4:01	Operational	Pump Lead Cement		58	12	6	100	125	Pumping Lead
16	7/21/2018 4:10	Operational	Pump Lead Cement		58	12	6	150	107	Pumping Lead
17	7/21/2018 4:26	Operational	Pump Lead Cement		58	12	4	200	104	Pumping Lead
18	7/21/2018 4:39	Operational	Pump Tail Cement		60	12.5	5	0	115	Swap to Tail cement
19	7/21/2018 4:54	Operational	Pump Tail Cement		60	12.5	4	50	112	Pumping Tail/Regain returns
20	7/21/2018 5:03	Operational	Drop Top Plug		63	8.34				Shut down/Drop top plug
21	7/21/2018 5:04	Operational	Pump Displacement		64	8.34	5.5	0	78	Start Displacement
22	7/21/2018 5:16	Operational	Pump Displacement		64	8.34	5.5	50	285	Pumping Displacement
23	7/21/2018 5:31	Operational	Pump Displacement		64	8.34	5.5	100	632	Pumping Displacement
24	7/21/2018 5:35	Operational	Pump Displacement		64	8.34	5.5	150	740	Pumping Displacement
25	7/21/2018 5:41	Operational	Pump Displacement		64	8.34	5.5	182	831	Pumping Displacement/Cement to Surface
26	7/21/2018 5:45	Operational	Land Plug		67	8.34		189	1545	Land top plug/Final Circ. Psi 968
27	7/21/2018 5:51	Operational	Check Floats		68					Bleed pressure/Check floats .5 bbls back
28	7/21/2018 6:02	Operational	Other (See comments)			8.34	3	10	133	Pump sugar water down Parasite line
29	7/21/2018 6:20	Operational	Rig Down		73					Safety meeting/Start rig down
30	7/21/2018 7:30	Operational	Safety Meeting		53					Have JM meeting for trip down the mountain
31	7/21/2018 8:00	Mobilization	Leave Location		74					Depart location



JobMaster Program Version 4.02C1  
Job Number:  
Customer: Caerus  
Well Name: NPR 13B-10

