



Caerus

Surface Post Job Report

NPR 11A-15-596 05-045-23785

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 3/16/2018 **Well** NPR 11A-15-596
End Date 3/16/2018 **County** GARFIELD
Client CAERUS OPERATING, LLC **State/Province** CO
Client Field Rep **API** 05-045-23785
Service Supervisor GLEN GILLIAM **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	10.00		
Open Hole	13.50			2,061.00			
Casing	8.92	9.63	36.00	2,046.00		J-55	LTC

Shoe Length (ft): 45

HARDWARE

Bottom Plug Used? No **Tool Type** Float Collar
Top Plug Used? Yes **Tool Depth (ft)** 2,001.00
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) 2,061 **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	10 sec SGS	6.00
Circulation Time (min)	60.00	10 min SGS	7.00
Circulation Rate (bpm)	3.00	30 min SGS	18.00
Circulation Volume (bbls)	180.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	9.50	Gas Units	
PV Mud In	9		
YP Mud In	23		

TEMPERATURE

Ambient Temperature (°F)	32.00	Slurry Cement Temperature (°F)	63.00
Mix Water Temperature (°F)	68.00	Flow Line Temperature (°F)	96.00

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	360	909.0000	161.8000
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 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	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	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.3.01D	CEMENT EXTENDER,SODIUM METASILICATE A-2 ANHYDROUS	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	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,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
3/16/2018 4:03 PM	Water 1	3.00	20.00	97.00		
3/16/2018 4:07 PM	Sodium Silicate	4.00	20.00	165.00		
3/16/2018 4:11 PM	Water 2	4.00	20.00	178.00		
3/16/2018 4:19 PM	BJCem S100.3.01D	2.50	161.80	185.00		
3/16/2018 4:45 PM	BJCem S100.3.01D	4.00	46.60	110.00		
3/16/2018 4:58 PM	Displacement	3.00	151.50	105.00		

	Min	Max	Avg
Pressure (psi)	97.00	185.00	140.00
Rate (bpm)	2.50	4.00	3.42

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	30.00
Calculated Displacement Volume (bbls)	154.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	156.00	Amount of Spacer to Surface	0.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amount Bled Back After Job	0.50
Were Returns Planned at Surface	Yes	Total Volume Pumped (bbls)	156.00
Cement returns During Job	Full	Top Out Cement Spotted	No
		Lost Circulation During Cement Job	No

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

District Rifle
 Supervisor GLEN GILLIAM
 Engineer ZEN KEITH



Seq No.	Start Date	Start Time	Event	Equipment	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	3/16/2018	5:00	CALLOUT						BJ CREW CALLED OUT WITH AN RTS OF 11:00
2	3/16/2018	7:00	YARD CALL						BJ CREW TO BE AT YARD BY 07:00
3	3/16/2018	8:00	STEACS/ JOURNEY						STEACS/ JOURNEY WITH BJ CREW ON CONVOY TO LOCATION
4	3/16/2018	8:15	DEPART YARD						BJ CREW DEPARTS YARD, HEADED TO LOCATION
5	3/16/2018	9:30	ON LOCATION						BJ CREW ON LOCATION
6	3/16/2018	10:00	STEACS/ RIG UP						STEACS/ RIG UP MEETING WITH BJ CREW
7	3/16/2018	10:30	RIG UP EQUIP						BJ CREW RIGS UP EQUIPMENT FOR SURFACE JOB
8	3/16/2018	11:00	STEACS/ JOB OPERATION						STEACS/ JOB OPERATIONS WITH BJ CREW
9	3/16/2018	11:30	DOWN TIME						BJ CREW DOWN, RIG STILL RUNNING CASING
10	3/16/2018	14:15	PIPE ON BOTTOM						PIPE ON BOTTOM RIG CIRCULATING
11	3/16/2018	14:45	SAFETY MEETING						SAFETY MEETING WITH RIG CREW
12	3/16/2018	15:40	STAB HEAD						BJ CREW STABS HEAD
13	3/16/2018	15:57	FILL LINES		8.33	3	5	68	FILL LINES 5 BBLS FRESH WATER
14	3/16/2018	16:00	TEST LINES						TEST LINES AT 3000 PSI
15	3/16/2018	16:03	SPACER		8.33	3	15	97	15 BBLS FRESH WATER
16	3/16/2018	16:07	SODIUM SILICATE		10.4	4	20	165	20 BBLS SODIUM SILICATE
17	3/16/2018	16:11	SPACER		8.33	4	20	178	20 BBLS FRESH WATER
18	3/16/2018	16:18	BATCH UP LEAD		12				BATCH UP LEAD CEMENT AT 12 PPG
19	3/16/2018	16:19	LEAD DOWN HOLE		12	2.5		185	LEAD CEMENT DOWN HOLE AT 12 PPG
20	3/16/2018	16:28	50 BBLS GONE		12	5.5	50	300	50 BBLS GONE LEAD CEMENT
21	3/16/2018	16:37	100 BBLS GONE		12	5.5	100	200	100 BBLS GONE LEAD CEMENT
22	3/16/2018	16:46	150 BBLS GONE		12	3	150	125	150 BBLS GONE LEAD CEMENT
23	3/16/2018	16:47	BATCH UP TAIL		12.5				BATCH UP TAIL CEMENT AT 12.5 PPG
24	3/16/2018	16:47	TAIL DOWN HOLE		12.5	4		110	TAIL CEMENT DOWN HOLE AT 12.5 PPG
25	3/16/2018	16:49	20 BBLS GONE		12.5	4.3	20	108	20 BBLS GONE TAIL CEMENT
26	3/16/2018	16:55	SHUT DOWN						SHUT DOWN DROP TOP PLUG
27	3/16/2018	16:58	DISPLACEMENT		13	3	5	105	KICK OUT PLUG WITH 4 BBLS OF TAIL CEMENT AT 12.5 PPG
28	3/16/2018	17:08	50 BBLS GONE		8.5	5.5	50	220	50 BBLS GONE DISPLACEMENT
29	3/16/2018	17:18	100 BBLS GONE		8.5	5.5	100	402	100 BBLS GONE DISPLACEMENT
30	3/16/2018	17:28	150 BBLS GONE		8.5	3	150	389	150 BBLS GONE DISPLACEMENT
31	3/16/2018	17:47	156 BBLS GONE		8.5		156	415	PUMPED 2 BBLS OVER DISPLACEMENT, DID NOT BUMP PLUG, FINAL CIRCULATING PRESSURE 415 PSI
32	3/16/2018	17:50	CHECK FLOATS						FLOATS HELD 0.5 BBLS BACK
33	3/16/2018	17:50	CEMENT TO SURFACE						30 BBLS OF CEMENT BACK TO SURFACE
34	3/16/2018	18:00	STEACS/ RIG DOWN						STEACS/ RIG DOWN MEETING WITH BJ CREW
35	3/16/2018	18:10	RIG DOWN EQUIP						BJ CREW RIGS DOWN EQUIPMENT
36	3/16/2018	18:45	AAR/ JOB COMPLETE						AAR WITH BJ CREW
37	3/16/2018	19:15	STEACS/ JOURNEY						STEACS/ JOURNEY WITH BJ CREW ON CONVOY BACK TO DISTRICT
38	3/16/2018	19:45	DEPART LOCATION						BJ CREW DEPARTS LOCATION
39	3/16/2018		***MISC***						DID NOT BUMP PLUG, SHUT DOWN CHECKED PLUG TO SEE IF IT LEFT HEAD, IT DID, PUMPED 2BBLS OVER CALCULATED DISPLACEMENT, FCP- 415 PSI, FLOATS HELD 0.5 BBLS BACK, 30 BBLS OF CEMENT TO SURFACE



JobMaster Program Version 4.02C1
Job Number: 3880
Customer: CAERUS
Well Name: NPR 11A-15

