



Caerus

Surface Post Job Report

NPR 24C-10-596 05-045-23772

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	6/15/2018	Field Ticket#	FT-07726-Y3X6S90202-80310
End Date	6/15/2018	Well	NPR 24C-10-596
Client	CAERUS OPERATING, LLC	API#	05-045-23772
Client Field Rep.	Leonard Stomley	Well Classification	
Service Sup.	Paul Linn III	County	GARFIELD
District	Rifle, CO	State/Province	CO
Type of Job	Surface	Formation	
Execution ID	EXC-07726-Y3X6S902	Rig	H&P 273
Project ID	PRJ1007677		

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			2,975.00			
Casing	8.92	9.63	36.00	2,960.00		J-55	LTC

Shoe Length (ft): 43

HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	2,917.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Operated (psi)	1,400.00
Top Plug Size	9.625	Pipe Movement	None
Centralizers Used	Yes	Job Pumped Through	Manifold
Centralizers Quantity	7.00	Top Connection Thread	8 RND
Centralizers Type	Bow	Top Connection Size	9.625
Landing Collar Depth (ft)	2,917		

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	14.00
Circulation Time (min)	60.00	10 min SGS	32.00
Circulation Rate (bpm)	6.00	30 min SGS	51.00
Circulation Volume (bbls)	360.00	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	13		
YP Mud In	17		

TEMPERATURE

Ambient Temperature (°F)	86.00	Slurry Cement Temperature (°F)	91.30
Mix Water Temperature (°F)	78.30	Flow Line Temperature (°F)	0.00

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	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	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	CEMENT, ASTM TYPE III	100.0000	PCT
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, GYPSUM, A-10	5.0000	BWOB
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	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, GYPSUM, A-10	5.0000	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,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
6/15/2018 5:09 PM	Water 1	4.00	20.00	123.00		
6/15/2018 5:21 PM	Sodium Silicate	3.00	20.00	165.00		
6/15/2018 5:26 PM	Water 2	3.00	20.00	129.00		
6/15/2018 5:31 PM	BJCem S100.3.01D	4.50	319.02	215.00		
6/15/2018 6:33 PM	BJCem S100.3.01D	4.50	63.94	109.00		
6/15/2018 6:52 PM	Displacement	5.00	225.48	332.00		

	Min	Max	Avg
Pressure (psi)	73.00	1,402.00	332.00
Rate (bpm)	0.50	6.00	4.50

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	80.00
Calculated Displacement Volume (bbls)	225.48	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	190.00	Amount of Spacer to Surface	60.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	No	Amount Bled Back After Job	1.00
Bump Plug Pressure (psi)		Total Volume Pumped (bbls)	611.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Partial	Lost Circulation During Cement Job	Yes

Customer Name CAERUS District Rifle
 Well Name NPR 24C-10 Supervisor ANDREW LINN
 Job Type Surface Engineer ZEN KEITH



Seq No.	Start Date	Start Time	Event	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	6/15/2018	7:45	CALL OUT					CALL OUT ON LOCATION TIME OF 13:00
2	6/15/2018	10:08	STEACS					PRE CONVOY SAFETY MEETING
3	6/15/2018	10:28	LEAVE RIFLE YARD					LEAVE RIFLE YARD FOR H&P 273.
4	6/15/2018	11:40	ARRIVE ON LOCATION					ARRIVE ON LOCATION. RIG CREW WAS RUNNING CASING.
5	6/15/2018	11:45	SITE ASSESSMENT					DID ROCK DRILL WITH CREW AND WALKED LOCATION
6	6/15/2018	11:52	SPOT EQUIPMENT					SPOT IN EQUIPMENT AND RIG UP ALL GROUND EQUIPMENT
7	6/15/2018	12:00	STEACS					PRE RIG UP SAFETY MEETING
8	6/15/2018	12:18	RIG UP					RIGGED IN ALL GROUND EQUIPMENT
9	6/15/2018	15:30	PUMP ON LAST PARASITE	12.5	0.5	3.5	36	PUMPED 3.5 BBLs OF CEMENT DOWN LAST PARASITE STING
10	6/15/2018	16:20	STEACS					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ SERVICES CEMENT CREW
11	6/15/2018	16:35	RIG UP					STAB PLUG CONTAINER, LOADED PLUG IN PLUG CONTAINER, AND HOOK UP LINES TO PLUG CONTAINER
12	6/15/2018	16:57	FILL LINES	8.33	2	5	98	FILL LINES WITH 5 BBLs. OF FRESH WATER AT 2 BBLs./MIN.
13	6/15/2018	17:04	PRESSURE TEST				5218	PRESSURE TEST TO 5218 PSI. PRESSURE HELD
14	6/15/2018	17:14	FRESH WATER SPACER	8.33	4	20	123	REMAINING 15 BBLs. OF FRESH WATER FOR A TOTAL OF 20 BBLs. OF FRESH WATER
15	6/15/2018	17:23	SODIUM SILICATE SPACER	10.5	3	20	165	SODIUM SILICATE SPACER 50/50
16	6/15/2018	17:30	FRESH WATER SPACER	8.33	3	20	129	FRESH WATER SPACER
17	6/15/2018	17:31	LEAD CEMENT	12	4.5	5	215	LEAD CEMENT 12 PPG. 708 SKS. 2.53 CUFT./SK. 14.86 GAL./SK. FOR 319.02 BBLs OF LEAD REQUIRING A TOTAL OF 250.5 BBLs. OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES
18	6/15/2018	17:43	LEAD CEMENT	12	4	50	106	PUMPED LEAD CEMENT
19	6/15/2018	17:53	LEAD CEMENT	12	4.5	100	100	PUMPED LEAD CEMENT
20	6/15/2018	18:05	LEAD CEMENT	12	5	150	108	PUMPED LEAD CEMENT
21	6/15/2018	18:15	LEAD CEMENT	12	5	200	135	PUMPED LEAD CEMENT
22	6/15/2018	18:25	LEAD CEMENT	12	5	250	102	PUMPED LEAD CEMENT
23	6/15/2018	16:32	LEAD CEMENT	12	4.5	296	110	FINISHED PUMPING LEAD CEMENT WITH 296 BBLs. AWAY.
24	6/15/2018	18:33	TAIL CEMENT	12.5	4.5	5	109	TAIL CEMENT 12.5 PPG. 161 SKS. 2.23 CUFT./SK. 12.59 GAL./SK. FOR 63.94 BBLs OF TAIL REQUIRING A TOTAL OF 48.26BBLs. OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES.
25	6/15/2018	18:46	TAIL CEMENT	12.5	4.5	50	106	PUMPED TAIL CEMENT
26	6/15/2018	18:49	TAIL CEMENT	12.5	4.5	65	84	FINISHED PUMPING TAIL CEMENT WITH 65 BBLs. AWAY.
27	6/15/2018	18:49	SHUT DOWN					SHUT DOWN
28	6/15/2018	18:51	DROP PLUG					DROP TOP PLUG VERIFIED BY COMPANY MAN
29	6/15/2018	18:54	DISPLACEMENT	8.33	5	10	332	FRESH WATER DISPLACEMENT WITH THE FIRST 4 BBLs. OF DISPLACEMENT BEING TAIL CEMENT AT 12.5 PPG.
30	6/15/2018	18:59	DISPLACEMENT	8.33	6	20	376	FRESH WATER DISPLACEMENT
31	6/15/2018	19:01	DISPLACEMENT	8.33	5	30	353	FRESH WATER DISPLACEMENT
32	6/15/2018	19:05	DISPLACEMENT	8.33	5	50	501	FRESH WATER DISPLACEMENT
33	6/15/2018	19:10	DISPLACEMENT	8.33	2	70	570	FRESH WATER DISPLACEMENT
34	6/15/2018	19:11	CEMENT TO SURFACE					80 BBLs OF CEMENT TO SURFACE BEFORE LOOSING RETURNS
35	6/15/2018	19:26	DISPLACEMENT	8.33	2	100	849	FRESH WATER DISPLACEMENT
36	6/15/2018	19:36	DISPLACEMENT	8.33	4	120	1120	FRESH WATER DISPLACEMENT
37	6/15/2018	19:35	LOST RETURNS					LOST RETURNS
38	6/15/2018	19:44	DISPLACEMENT	8.33	4	150	1157	FRESH WATER DISPLACEMENT
39	6/15/2018	19:47	DISPLACEMENT	8.33	3.5	160	1158	FRESH WATER DISPLACEMENT
40	6/15/2018	19:51	DISPLACEMENT	8.33	2.5	170	1152	FRESH WATER DISPLACEMENT
41	6/15/2018	19:56	DISPLACEMENT	8.33	2	180	1355	FRESH WATER DISPLACEMENT
42	6/15/2018	20:02	DISPLACEMENT	8.33	1	190	1402	FRESH WATER DISPLACEMENT
43	6/15/2018	20:03	DIDN'T LAND PLUG				1402	HIT MAX PRESSURE OF 1400 PSI. SHUTDOWN, WITH 35 BBLs OF DISPLACEMENT TO GO
44	6/15/2018	20:05	CHECK FLOATS					CHECK FLOATS FLOATS HELD 1 BBL BACK
45	6/15/2018	20:17	PUMP ON PARASITE					PUMPED 20 BBLs OF SUGAR WATER DOWN PARASITE STING
46	6/15/2018	20:28	STEACS					PRE RIG DOWN SAFETY MEETING WITH ALL BJ SERVICES CEMENT CREW.
47	6/15/2018	20:36	WASH PUMPS AND LINES					WASH PUMPS AND LINES TO 3- SIDED TANK
48	6/15/2018	20:36	BLOW DOWN SILO					BLOW DOWN SILO #6 INTO BULK TRUCK
49	6/15/2018	20:50	RIG DOWN					RIG DOWN ALL EQUIPMENT
50	6/15/2018	21:06	AAR					AFTER ACTION REVIEW
51	6/15/2018	21:12	STEACS					PRE CONVOY SAFETY MEETING
52	6/15/2018	21:27	DEPART LOCATION					DEPART FROM H&P 273 FOR RIFLE YARD. THANK YOU FOR USING BJ SERVICES, ANDREW LINN AND CREW.



JobMaster Program Version 4.02C1

Job Number: 6335

Customer: CAERUS

Well Name: NPR 24C-10

