



Great Western Operating Company, LLC

Seltzer LD 09-371HN

API # 05-001-10195

Surface

April 09, 2020

Quote #: QUO-43978-P0Q1W9

Execution #: EXC-25687-G4N6T702



Great Western Operating Company, LLC

Great Western Operating Company, LLC | 1801 Broadway, Suite 500 | Denver, CO 80202

Dear Great Western Operating Company, LLC,

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,
Jason Creel
Field Engineer I | (307) 256-0306 | Jason.Creel@BJServices.com

Field Office
1716 East Allison Rd., Cheyenne WY. 82007 | (307) 638-5585

Sales Office
999 18th St. Suite 1200, Denver, CO. 80202 | (281) 408-2361

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Lenny Baeza	RIG	Ikon 12
DISTRICT	Cheyenne, WY	COUNTY	ADAMS
SERVICE	Cementing	STATE / PROVINCE	CO

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lbs/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Open Hole	13.50	0.00	0.00	2,012.00	2,011.00	30.00		
Casing	8.92	9.63	36.00	2,012.00	2,011.00		J-55	LTC

HARDWARE

Bottom Plug Used?	No	Centralizers Type	Bow
Top Plug Used?	Yes	Landing Collar Depth (ft)	1,966.49
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3,520.00
Top Plug Size	9.630	Max Casing Pressure - Operated (psi)	2,816.00
Centralizers Used	Yes	Top Connection Thread	9.63
Centralizers Quantity	18.00	Top Connection Size	9.63

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Lost Circulation Prior to Cement Job	No
Circulation Prior to Job	Yes	Solids Present at End of Circulation	No
Circulation Time (min)	30.00	Flare Prior to / during the Cement Job	No
Circulation Rate (bpm)	8.00	Gas Present	No
Circulation Volume (bbls)	200.00		

TEMPERATURE

Ambient Temperature (°F)	54.00	Slurry Cement Temperature (°F)	58.00
Mix Water Temperature (°F)	48.00		

Client: Great Western Operating Company, LLC

Well: SELTZER LD 09-371HN

Well API: 05-001-10195

Start Date: 4/9/2020

End Date: 4/9/2020

Field Ticket #: FT-25687-G4N6T70202-1161106326



FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H ₂ O REQ. (gals/sk)	PLN TOP FLD (ft)	LENGTH (ft)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3300			0.00				20.0000
Tail Slurry	BJCem S100.3.XC	14.5000	1.3902	6.81	0.00	2,000.00	930	1,293.0000	230.3000
Displacement Final	Water	8.3300			0.00			0.0000	151.4000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Tail Slurry	BJCem S100.3.XC	CEMENT, ASTM TYPE III	100.0000	PCT

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	48.00
Calculated Displacement Vol (bbls)	152.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	152.00	Amt of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	0.50
Bump Plug Pressure (psi)	1,512.00	Total Volume Pumped (bbls)	152.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Yes	Lost Circulation During Cement Job	No

Comments

JOB SUMMARY

Load lines 3 bbls of Fresh Water
 Pressure Test Line 3000psi
 Pump 20 bbls of Fresh water with Blue Dye
 Pump 930 sk (230 bbls Slurry)
 Drop Plug
 Displacement of 152 bbls.

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Start Date: 4/9/2020

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Field Ticket #: FT-25687-G4N6T70202-1161106326



BJ Cementing Event Log

Surface - Cheyenne, WY - Lenny Baeza

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	04/09/2020 03:00	Callout					Crew called on to be at the yard @4:00a.m.
2	04/09/2020 04:00	Requested Time					Crew at the yard pretrip trucks and getting ready for job.
3	04/09/2020 05:30	Arrive on Location					Crew arrived on location and rig had 10 joints of casing to run.
4	04/09/2020 07:30	STEACS Briefing					Rigging up to the well head.
5	04/09/2020 08:30	Rig					Standby waiting on rig to finish running casing.
6	04/09/2020 10:25	STEACS Briefing					Safety meeting with Company man and Rig Crew.
7	04/09/2020 10:35	Rig Up					Rigging up the head to casing.
8	04/09/2020 10:42	Circulate Well	8.3300	3.00	5.00	2800.00	Pumping 5 bbls of flush to get well to circulate, had about 2,800 pressure to get returns.
9	04/09/2020 10:45	Pressure Test				3000.00	Pressure testing lines to 3,000 psi
10	04/09/2020 10:47	Pump Spacer	8.3300	5.50	20.00	310.00	Pumping flush 20 bbls
11	04/09/2020 10:51	Pumping Cement	14.5000	5.50	0.00	380.00	Started pumping Tier 1 out of CTF-014 total of 315sk
12	04/09/2020 11:04	Pump Tail Cement	14.5000	0.00	55.00	365.00	Shut down to get weight up and pumping the rest of Pot.
13	04/09/2020 11:08	Pump Tail Cement	14.5000	5.50	78.00	355.00	Swapped to 2nd tier of field bin CTF-014 total of 315sk
14	04/09/2020 11:27	Pumping Cement	14.5000	5.50	156.00	355.00	Finished the 2nd tier of Field bin total of 630sk 155bbls of Slurry. Pumping out of Rear Pot on Bulk truck 150sk.
15	04/09/2020 11:33	Pumping Cement	14.5000	5.50	194.00	350.00	Finished Rear Tier of Bulk truck CTF-338 total of 150sk (37 bbls of Slurry) swapping Front Tier.
16	04/09/2020 11:40	Drop Top Plug	8.3300	0.00	230.00	0.00	Finished pumping cement total of 930 sk 230 bbls of Slurry. Shutting down to release plug.
17	04/09/2020 11:45	Pump Displacement	8.3300	8.00	0.00	320.00	Top Plug left head and started displacement of 152 bbls
18	04/09/2020 11:48	Pump Displacement	8.3300	8.00	30.00	450.00	30 bbls away 8 bpm 450 psi.
19	04/09/2020 11:53	Pump Displacement	8.3300	8.00	50.00	580.00	50 bbls away 8 bpm 580 psi
20	04/09/2020 11:56	Pump Displacement	8.3000	8.00	80.00	760.00	80 bbls away and getting blue dye back to surface.

Client: Great Western Operating Company, LLC

Well Name / API: SELTZER LD 09-371HN / 05-001-10195



Quote #: QUO-43978-POQ1W9

Plan #: ORD-25687-G4N6T7

Execution #: EXC-25687-G4N6T702

21	04/09/2020 12:00	Pump Displacement	8.3300	8.00	104.00	880.00	104 bbls gone and getting cement to surface.
22	04/09/2020 12:05	Pump Displacement	8.3300	3.00	140.00	620.00	140 bbls gone and slowing down to land the plug.
23	04/09/2020 12:08	Land Plug	8.3000	3.00	152.00	1512.00	Landed plug 680psi to 1512psi. Total of 48 bbls of cement to surface.
24	04/09/2020 12:12	Pressure Test	8.3300	0.00	152.00	1520.00	10 mins pressure 1520psi
25	04/09/2020 12:22	Pressure Test	8.3300	0.00	152.00	1518.00	20 mins pressure 1513psi
26	04/09/2020 12:29	Pressure Test	8.3300	0.00	152.00	1510.00	30 mins pressure 1512psi final pressure.
27	04/09/2020 12:38	Pressure Test	8.3300	0.00	152.00	1480.00	Pressure drop by misinformation on closing hole valve.
28	04/09/2020 12:43	Check Floats	8.3300	0.00	152.00	0.00	Release Pressure and got .5 bbls back to truck.
29	04/09/2020 12:50	Rig Down					Rigging down and Supervisor finishing up paper work.
30	04/09/2020 14:00	Leave Location					Leaving location.



JobMaster Program Version 5.00C1

Job Number:

Customer: Great Western

Well Name: Seltzer LD 09-371HN

