



# Great Western Operating Company, LLC

Schaefer LD 13-032HN

API # 05-001-10255

Surface

12/9/2018

Quote #: 23795

Execution #: 13825



# Great Western Operating Company, LLC

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

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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](mailto: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

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# BJ Cementing Treatment Report

SERVICE SUPERVISOR	Victor Corona-Marta	RIG	Ikon 12
CLIENT FIELD REPRESENTATIVE	Ricky W/Kyle H	COUNTY	ADAMS
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO
SERVICE	Cementing		

## WELL GEOMETRY

TYPE	OD (in)	ID (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Open Hole	0.00	13.50	0.00	1,788.00	1,788.00	40.00		
Casing	9.63	8.92	36.00	1,788.00	1,788.00		J-55	LTC

## HARDWARE

Top Plug Used?	Yes	Tool Type	Float Collar
Top Plug Provided By	Non BJ	Tool Depth (ft)	1,743.64
Top Plug Size	9.630	Pipe Movement	None
Centralizers Used	Yes	Job Pumped Through	Manifold
Centralizers Quantity	17.00	Top Connection Thread	LTC
Centralizers Type	Bow	Top Connection Size	9.625
Landing Collar Depth (ft)	1,744		

## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	8.40
Circulation Prior to Job	Yes	Mud Density Out (ppg)	8.40
Circulation Time (min)	15.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	10.00	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	150.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

## TEMPERATURE

Ambient Temperature (°F)	45.00	Slurry Cement Temperature (°F)	50.00
Mix Water Temperature (°F)	50.00		

## FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H <sub>2</sub> O REQ (gals/sk)	VOL (sk)	VOL (Cu Ft)	VOL (bbls)
Spacer / Pre Flush / Flush	Water	8.3300					20.0000
Tail Slurry	BJCem S100.3.XC	14.5000	1.3902	6.81	650	1215.0000	160.0000
Displacement Final	Water	8.3300				0.0000	133.0000

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 Services	Amt of Cement Returned / Reversed	0.00
Calculated Displacement Vol (bbls)	133.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	133.00	Amt of Spacer to Surface	2.00
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)	1256.00	Total Volume Pumped (bbls)	313.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	Yes
Cement Returns During Job	No	Lost Circulation During Cement Job	No

### Note:

Load out sheet indicated that 890 sx cement were loaded on truck, but actually only loaded 650 sx. Will do top out during next surface casing job.

Client Name: Great Western Operating Company LLC

Well: SCHAEFER LD #13-032HN

Well API: 05-001-10255

Start Date: 12/8/2018

End Date: 12/8/2018

Field Ticket #:



# BJ Cementing Event Log

Surface - Cheyenne, WY - Victor Corona-Marta

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/09/2018 09:30	Callout					Callout to location/pre-trip vehicles and load chemicals
2	12/09/2018 10:30	Depart for Location					Drive to location
3	12/09/2018 10:45	Arrive on Location					Arrived to location
4	12/09/2018 13:00	Rig					Rig crew is getting casing down hole
5	12/09/2018 17:35	STEACS Briefing					Steacs briefing for rig up
6	12/09/2018 17:45	Rig Up					Rig up to rig floor
7	12/09/2018 18:10	STEACS Briefing					Steacs briefing for cementing well procedures
8	12/09/2018 18:25	Pump Spacer	8.3300	2.00	3.00	150.00	Pump 3bbls of fresh water with dye to fill lines
9	12/09/2018 18:27	Pressure Test				2000.00	Pressure test lines to psi
10	12/09/2018 18:35	Pump Spacer	8.3300	4.00	17.00	300.00	Pump 17bbls of fresh water spacer with dye
11	12/09/2018 18:41	Pumping Cement	14.5000	5.00	160.00	300.00	Pump 160bbls of cement at 14.5lbs(650sks/yield-1.3902/gpsk-6.81)
12	12/09/2018 19:15	Other (See comment)					Shut down to change to another silo
13	12/09/2018 19:20	Pumping Cement					Back on line pumping cement
14	12/09/2018 19:36	Drop Top Plug					Drop top plug/wash pump and lines on top of plug
15	12/09/2018 19:39	Pump Displacement	8.3300	6.00	50.00	450.00	Started pumping displacement/ 50bbls gone
16	12/09/2018 19:48	Pump Displacement	8.3300	5.00	110.00	550.00	110bbls gone/slow down rate to 3bpm
17	12/09/2018 19:58	Land Plug	8.3300	3.00	130.00	1256.00	Land plug. No cement to surface.
18	12/09/2018 20:03	Pressure Test				1256.00	Pressure tes casing for 15 minutes to 1364 psi.
19	12/09/2018 20:18	Check Floats					Bleed pressure off to check floats/got .5 bbls
20	12/09/2018 20:20	STEACS Briefing					Steacs briefing for rig down
21	12/09/2018 20:25	Rig Down					Rig down cementing head, hoses, and iron
22	12/09/2018 20:40	Leave Location					Crew heading back to yard



**JobMaster Program Version 4.02C1**

**Job Number:**

**Customer:** Great Western

**Well Name:** Schaefer LD 13-032HN

