



# Great Western Operating Company, LLC

B-Farm LD 18-388HNX

---

API # 05-001-10272

---

---

Surface

April 11, 2020

---

Quote #: QUO-43758-T4M6Y0

Execution #: EXC-25743-M0Z7S202



# 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](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

---

# BJ Cementing Treatment Report

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

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)	GRADE	THREAD
Open Hole	13.50	0.00	0.00	2,020.00	2,020.00	30.00		
Casing	8.92	9.63	36.00	2,020.00	2,020.00		J-55	LTC

## HARDWARE

Bottom Plug Used?	No	Centralizers Type	Bow
Top Plug Used?	Yes	Landing Collar Depth (ft)	1,974.97
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	3520.00
Top Plug Size	9.630	Max Casing Pressure - Operated (psi)	2816.00
Centralizers Used	Yes	Top Connection Thread	LTC
Centralizers Quantity	20.00	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)	240.00		

## TEMPERATURE

Ambient Temperature (°F)	65.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	60.00		

Client: Great Western Operating Company, LLC

Well: B-FARM LD #18-388HNX

Well API: 05-001-10272

Start Date: 4/11/2020

End Date: 4/11/2020

Field Ticket #: FT-25743-M0Z7S20201-193802101



## FLUID DETAILS

FLUID TYPE	FLUID NAME	DENSITY (ppg)	YIELD (Cu Ft/sk)	H <sub>2</sub> 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	1293.0000	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	15.00
Calculated Displacement Vol (bbls)	152.70	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	152.70	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)	1547.00	Total Volume Pumped (bbls)	402.70
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Yes	Lost Circulation During Cement Job	No

Client: Great Western Operating Company, LLC

Well: B-FARM LD #18-388HNX

Well API: 05-001-10272

Start Date: 4/11/2020

End Date: 4/11/2020

Field Ticket #: FT-25743-M0Z7S20201-193802101



# 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	04/11/2020 04:00	Callout					Crew got called out @4:00am
2	04/11/2020 06:30	Depart for Location					Crew is pre tripped and heading to location.
3	04/11/2020 08:30	Arrive on Location					Arrived on location and they have about 25 joints left of casing.
4	04/11/2020 09:30	Rig Up					Rigging up to be ready for job.
5	04/11/2020 10:30	STEACS Briefing					Safety meeting with company man and rig crew.
6	04/11/2020 11:15	Rig Up					Rigging up Head to casing.
7	04/11/2020 11:25	Pump Spacer	8.3300	5.60	3.00	450.00	Pumping 5 bbls of flush ahead to fill lines.
8	04/11/2020 11:28	Pump Spacer	8.3000	5.60	5.00	360.00	Pumped 5 bbls and found little leak on the pin of the head tighten up and NOT LEAKING.
9	04/11/2020 11:29	Pressure Test	8.3000	0.00	0.00	3720.00	Pressured Test to 3720 and holding
10	04/11/2020 11:31	Pump Spacer	8.3000	5.60	20.00	320.00	Pumping 20 bbls of Fresh Water with Blue Dye.
11	04/11/2020 11:33	Pump Tail Cement	14.5000	5.60	0.00	270.00	Pumping Tail Cement out of CTF-014 Pot #2 315 sk and 78 bbls Slurry.
12	04/11/2020 11:49	Pump Tail Cement	14.5000	5.60	78.00	130.00	Pot #2 of CTF-014 is empty swapping to Pot#1 with 315 sk and 78 bbls Slurry
13	04/11/2020 12:01	Pump Tail Cement	14.5000	5.60	156.00	125.00	Pot #1 of CTF-014 is empty swapping to CTF-338 Pot #2 with 150sk and 37 bbls of Slurry
14	04/11/2020 12:07	Pump Tail Cement	14.5000	5.60	193.00	130.00	Pot #2 is empty swapping to Pot #1 of CTF-338 with 150sk and 37 bbls of slurry.
15	04/11/2020 12:11	Pump Tail Cement	14.5000	5.60	195.00	110.00	Pot #1 is not delivering as well shut down to bring weight up.
16	04/11/2020 12:12	Pump Tail Cement	14.5000	2.80	195.00	87.00	Pumping again 2.8 bpm / 92 psi.
17	04/11/2020 12:13	Pump Tail Cement	14.5000	0.00	200.00	85.00	Shut down to batch up cement again, having back delivery
18	04/11/2020 12:15	Pump Tail Cement	14.5000	4.00	230.00	95.00	Pumping cement down hole.
19	04/11/2020 12:20	Drop Top Plug	14.5000	0.00	230.00	0.00	Finished Pot #1 of CTF-338 down to release plug.
20	04/11/2020 12:25	Pump Displacement	8.3000	4.00	0.00	92.00	Plug left the head and started displacement of 152.7 bbls
21	04/11/2020 12:26	Pump Displacement	8.3000	8.00	30.00	280.00	30 bbls gone and picked up rate to 8 bpm @280 psi.
22	04/11/2020 12:30	Pump Displacement	8.3000	8.00	60.00	640.00	60 bbls gone 8bpm @640 psi.

Client: Great Western Operating Company, LLC

Well Name / API: B-FARM LD #18-388HNX / 05-001-10272



Quote #: QUO-43758-T4M6Y0

Plan #: ORD-25743-M0Z7S2

Execution #: EXC-25743-M0Z7S202

23	04/11/2020 12:36	Pump Displacement	8.3000	8.00	100.00	670.00	100 bbls gone 8bpm @670psi and getting Blue Dye back to surface.
24	04/11/2020 12:39	Pump Displacement	8.3000	8.00	120.00	750.00	120 bbls gone 8bpm @750psi
25	04/11/2020 12:40	Pump Displacement	8.3000	8.00	137.70	800.00	137 bbls gone 8bpm @800psi and we have good cement to surface.
26	04/11/2020 12:42	Land Plug	8.3000	3.00	152.70	830.00	152.7 bbls gone and landed plug, 830psi to 1547psi got 15 bbls cement to surface.
27	04/11/2020 12:50	Pressure Test	8.3000	0.00	152.70	1567.00	10min 1,567psi
28	04/11/2020 13:00	Pressure Test	8.3000	0.00	152.70	1557.00	20min 1,557psi
29	04/11/2020 13:10	Pressure Test	8.3000	0.00	152.70	1557.00	30 min 1557psi Pressure test was good and we are release pressure.
30	04/11/2020 13:30	Check Floats	8.3000	0.00	152.00	1557.00	Release pressure and getting .5 bbls back.
31	04/11/2020 13:35	Rig Down	8.3000				Rigging down head and iron.
32	04/11/2020 13:40	Leave Location					Leaving location.



JobMaster Program Version 5.01C1  
Job Number: 27249  
Customer: Great Western Operating  
Well Name: B-Farm LD 18-388HNX

