



Great Western Operating Company

B-Farm LD 18-390HN

API # 05-001-10271

Surface

11/28/2018

Quote #: 23458

Execution #: 13487



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

Cementing Treatment



Start Date	11/28/2018	Well	B-FARM LD #18-390HN
End Date	11/28/2018	API#	05-001-10271
Client	Great Western Operating Company LLC	County	ADAMS
Service Sup.	Hector Montoya	State/Province	CO
District	Cheyenne, WY	Rig	460
Type of Job	Surface	Project ID	PRJ1013035
Execution ID	EXC-13487-N8S3N902		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50	0.00	0.00	1,769.00	1,769.00	25.00		
Casing	8.92	9.63	36.00	1,769.00	1,769.00		J-55	LTC

Shoe Length (ft): 42.00

HARDWARE

Top Plug Used?	Yes	Max Casing Pressure - Rated (psi)	3,520.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Operated (psi)	2,816.00
Top Plug Size	9.625	Pipe Movement	None
Centralizers Used	Yes	Job Pumped Through	Manifold
Centralizers Quantity	18.00	Top Connection Thread	LTC
Centralizers Type	Bow	Top Connection Size	9.625
Landing Collar Depth (ft)	1,72 5		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	8.33
Circulation Prior to Job	Yes	Mud Density Out (ppg)	8.33
Circulation Time (min)	30.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	5.00	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)	58.00	Slurry Cement Temperature (°F)	61.00
Mix Water Temperature (°F)	65.00	Flow Line Temperature (°F)	62.00

Cementing Treatment



BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Length (Ft)	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	1700	760	1,056.0000	188.0000
Displacement Final	Water	8.3300					0.0000	132.0000

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	Amount of Cement Returned/Reversed	22.00
Calculated Displacement Volume (bbls)	132.00	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	132.00	Amount of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	1,350.00	Total Volume Pumped (bbls)	343.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No

EVENT LOG



Customer Great Western Operating Company
Name: LLC

Well Name: B-FARM LD #18-390HN

Job Type: Surface

Quote ID: QUO-23458-V0N7R9

Plan ID: ORD-13487-N8S3N9

District: Cheyenne, WY

Execution ID: EXC-13487-N8S3N902

BJ Supervisor: Hector Montoya

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	11/28/2018 04:30	Callout					BJ crew gets called out
2	11/28/2018 06:30	STEACS Briefing					BJ crew talks about hazards of driving to location
3	11/28/2018 07:00	Arrive on Location					BJ crew arrives safely to location
4	11/28/2018 10:00	STEACS Briefing					BJ crew talks about dangers of rigging up
5	11/28/2018 10:30	Rig Up					Rig up
6	11/28/2018 12:00	STEACS Briefing					BJ crew has STEACS with Rig Crew
7	11/28/2018 12:26	Prime Up	8.3300	2.00	3.00	110.00	fill lines
8	11/28/2018 12:29	Pressure Test					pressure test to 3000
9	11/28/2018 12:34	Pump Spacer	8.3300	2.50	20.00	300.00	pump 20 bbls of red dye spacer
10	11/28/2018 12:40	Pump Tail Cement	14.5000	5.00	188.00	650.00	pump 188 bbls of 14.5 cement, 760sks of BJcem s100.3.xc, mix water 123bbls, yield 1.39, gps 6.81
11	11/28/2018 13:28	Drop Top Plug					customer witnesses plug leave
12	11/28/2018 13:30	Pump Displacement	8.3300	5.00	122.00	810.00	pump 132bbls of fresh water
13	11/28/2018 13:58	Pump Displacement	8.3300	3.00	10.00	1,350.00	slow rate last 10 bbl to 3bpm
14	11/28/2018 14:00	Land Plug				1,350.00	land plug, final circulating pressure 710psi took to 1350psi. 22 bbls cmt to surface.
15	11/28/2018 14:01	Other (See comment)				1,350.00	15 min casing test - 1350psi start, 1330 psi end.
16	11/28/2018 14:15	Check Floats					floats held .5 bbls back
17	11/28/2018 14:20	STEACS Briefing					BJ crew talks about rigging down
18	11/28/2018 14:30	Rig Down					Rigged down
19	11/28/2018 15:30	Leave Location					BJ crew leaves location

GREAT WESTERN
LD 18-390HN - Entry Blank - Surface

