

# BJ Cementing Treatment Report

SERVICE SUPERVISOR	Chad Johnson	RIG	True 38
DISTRICT	Cheyenne, WY	COUNTY	WELD
SERVICE	Cementing	STATE / PROVINCE	CO

## WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Previous Casing	8.92	9.63	36.00	1,556.00	1,556.00	
Casing	4.78	5.50	20.00	18,477.00	7,000.00	
Open Hole	8.50	0.00	0.00	18,493.00	7,000.00	5.00

## HARDWARE

Bottom Plug Used?	No	Centralizers Type	Rigid
Top Plug Used?	Yes	Landing Collar Depth (ft)	18,456
Top Plug Provided By	Non BJ	Pipe Movement	None
Top Plug Size	5.500	Job Pumped Through	Manifold
Centralizers Used	Yes	Top Connection Thread	BTC
Centralizers Quantity	220.00	Top Connection Size	5.5

## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud Out	8
Circulation Prior to Job	Yes	Solids Present at End of Circulation	No
Lost Circulation Prior to Cement Job	No	10 sec SGS	7
Mud Density In (ppg)	10.00	10 min SGS	16
Mud Density Out (ppg)	10.00	30 min SGS	19
PV Mud In	14	Flare Prior to / during the Cement Job	No
PV Mud Out	14	Gas Present	No
YP Mud In	8		

## TEMPERATURE

Ambient Temperature (°F)	80.00	Mix Water Temperature (°F)	65.00
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Client: Bayswater Exploration & Production, LLC

Well: LEFFLER #F-26-28HN

Well API: 05-123-49490

Start Date: 9/1/2019

End Date: 9/1/2019



## 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	IntegraGuard EZ Spacer II	12.0000			0.00				28.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.5000			0.00				26.0000
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	11.0000			0.00				26.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8295	9.87	0.00	6,818.00	920	1684.0000	299.8000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4772	7.45	6,818.00	11,657.00	1910	2822.0000	502.5000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0.00	0	0.0000	10.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	398.8000

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FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-7C	2.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	IntegraGuard GW-86	1.2000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	WEIGHTING ADDITIVE, W-11	243.3100	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	SPACER SURFACTANT, SS-267	1.0000	GPB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	BWOB
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraCare EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.0700	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, SR-61L	0.1000	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB

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## DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	37.00
Calculated Displacement Vol (bbls)	410.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	410.00	Amt of Spacer to Surface	80.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amt Bled Back After Job	4.00
Were Returns Planned at Surface	Yes	Total Volume Pumped (bbls)	1298.00
Cement Returns During Job	Full	Top Out Cement Spotted	No
		Lost Circulation During Cement Job	No

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Well  
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Start  
Date: 9/1/2019

End  
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# BJ Cementing Event Log

Long String - Cheyenne, WY - Chad Johnson

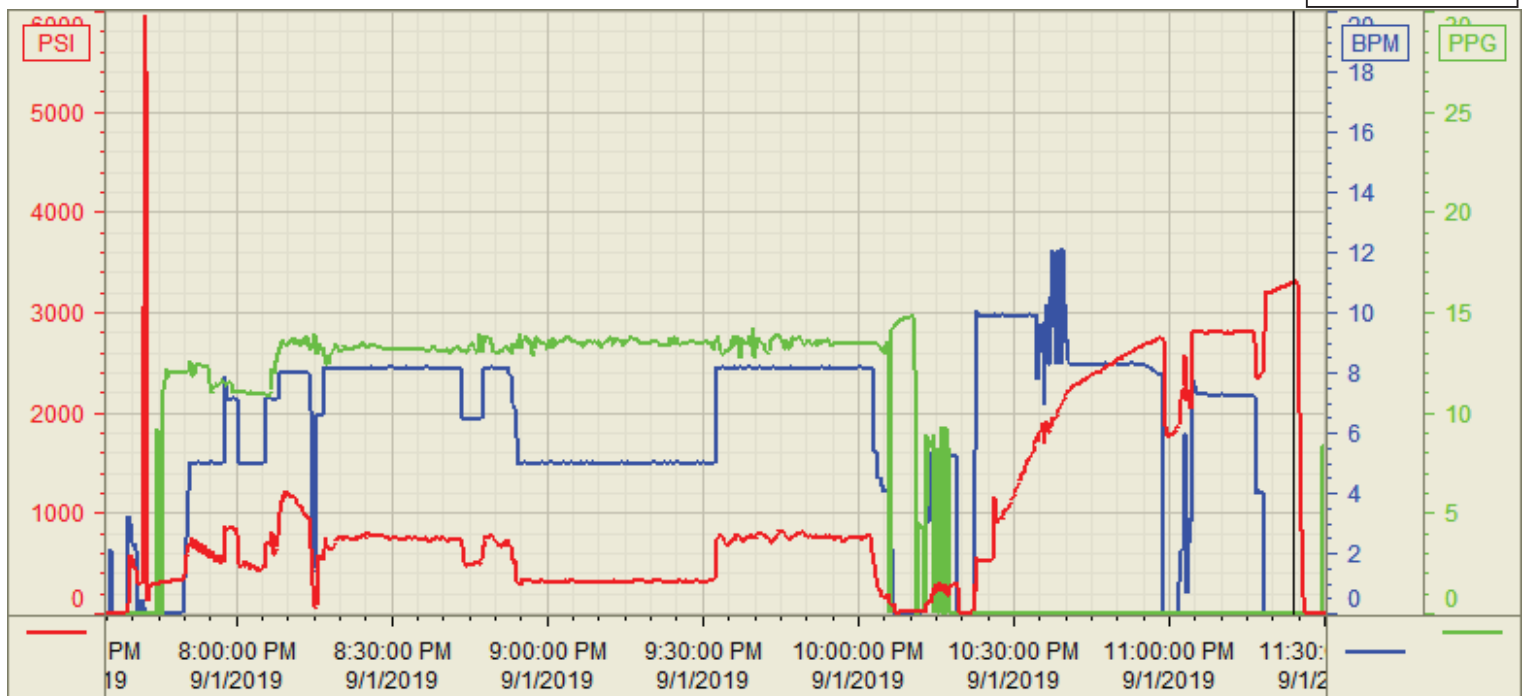
SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	09/01/2019 12:00	Callout					Crew called out requested on location for 1800
2	09/01/2019 16:00	Arrive on Location					Crew arrived on location
3	09/01/2019 16:05	STEACS Briefing					Safety meeting
4	09/01/2019 16:20	Spot Units					Spotted all units
5	09/01/2019 16:30	Rig Up					Rigged up all equipment
6	09/01/2019 18:00	Client					Waiting on rig to finish circulating the well
7	09/01/2019 19:15	STEACS Briefing					Safety meeting
8	09/01/2019 19:44	Prime Up	8.3400	3.00	5.00	400.00	Fill lines
9	09/01/2019 19:47	Pressure Test					Pressure test lines to 5000 psi
10	09/01/2019 19:55	Pump Spacer		5.00	80.00	500.00	Pump 28 bbls spacer at 12 ppg, 26 bls at 11.5 ppg, 26 bbls at 11 ppg
11	09/01/2019 20:13	Pump Lead Cement	13.2000	8.00	300.00	600.00	Pump lead cement (920 sks, 1.83 Y, 9.83 gal/sk)
12	09/01/2019 20:53	Pump Tail Cement	135.0000	8.00	503.00	500.00	Pump tail cement (1910 sks, 1.48 Y, 7.45 gal/sk)
13	09/01/2019 22:12	Other (See comment)					Shutdown
14	09/01/2019 22:15	Wash Pumps and Lines					Wash pumps and lines to pit
15	09/01/2019 22:22	Drop Top Plug					Drop top plug
16	09/01/2019 22:23	Pump Displacement	8.3400	8.00	390.00	2000.00	Pump displacement
17	09/01/2019 23:04	Spacer Back-to-Surface					Spacer back to surface, 80 bbls spacer to surface
18	09/01/2019 23:22	Cement Back-to-Surface					Cement back to surface, 37 bbls cement to surface
19	09/01/2019 23:24	Other (See comment)	8.3400	4.00	20.00	2200.00	Slow rate
20	09/01/2019 23:26	Land Plug					Land plug at 2200 psi, took to 3200 psi
21	09/01/2019 23:30	Check Floats					Check floats, floats holding, 4 bbls back
22	09/01/2019 23:35	STEACS Briefing					Safety meeting
23	09/01/2019 23:50	Rig Down					Rigged down all equipment
24	09/02/2019 01:00	Leave Location					Crew departed location

Customer: Bayswater  
Well Number: F-26-28HN  
Lease Info: Leffler



Print Date/Time

9/1/2019 11:50:28 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	3288.1	9/1/2019 11:23:20 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	0.01	9/1/2019 11:23:18 PM	Cementer\DENSITY_ACTUAL_RATE
3	Combined Rate	0.00	9/1/2019 11:23:18 PM	Cementer\Flow_Combined
4				
5				

Source: Control1

11:50:24 PM