

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Zachary Hyde	RIG	True 38
CLIENT FIELD REPRESENTATIVE	Trevor Smith	COUNTY	WELD
DISTRICT	Cheyenne, WY	STATE / PROVINCE	CO
SERVICE	Cementing		

WELL GEOMETRY

TYPE	ID (in)	OD (in)	WEIGHT (lb/ft)	MD (ft)	TVD (ft)	EXCESS (%)
Open Hole	8.50	0.00	0.00	18,925.00	7,195.00	5.00
Previous Casing	8.92	9.63	36.00	1,552.00	1,552.00	
Casing	4.78	5.50	20.00	18,907.00	7,195.00	

HARDWARE

Bottom Plug Used?	No	Centralizers Type	Rigid
Top Plug Used?	Yes	Landing Collar Depth (ft)	18,675
Top Plug Provided By	Non BJ	Pipe Movement	None
Top Plug Size	5.500	Job Pumped Through	No Manifold
Centralizers Used	Yes	Top Connection Thread	BTC
Centralizers Quantity	222.00	Top Connection Size	5.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	17
Circulation Prior to Job	Yes	YP Mud In	8
Circulation Time (min)	240.00	YP Mud Out	8
Circulation Rate (bpm)	10.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	2400.00	10 sec SGS	9
Lost Circulation Prior to Cement Job	No	10 min SGS	19
Mud Density In (ppg)	10.30	30 min SGS	21
Mud Density Out (ppg)	10.30	Flare Prior to / during the Cement Job	No
PV Mud In	17	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	90.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	70.00	Flow Line Temperature (°F)	125.00

Client: Bayswater Exploration & Production, LLC

Well: LEFFLER #LA-26-28HN

Well API: 05-123-50042

Start Date: 7/15/2019

End Date: 7/15/2019



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	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	7,225.00	980	1793.0000	319.3000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4772	7.45	7,225.00	11,492.00	1885	2785.0000	495.9000
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	404.2000

Client: Bayswater Exploration & Production, LLC

Well: LEFFLER #LA-26-28HN

Well API: 05-123-50042

Start Date: 7/15/2019

End Date: 7/15/2019



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

Client: Bayswater Exploration & Production, LLC

Well: LEFFLER #LA-26-28HN

Well API: 05-123-50042

Start Date: 7/15/2019

End Date: 7/15/2019



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	42.00
Calculated Displacement Vol (bbls)	419.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	401.00	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	5.00
Bump Plug Pressure (psi)	2500.00	Total Volume Pumped (bbls)	1309.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	No

Client: Bayswater Exploration &
Production, LLC

Well: LEFFLER #LA-26-28HN

Well
API: 05-123-50042

Start
Date: 7/15/2019

End
Date: 7/15/2019



BJ Cementing Event Log

Long String - Cheyenne, WY

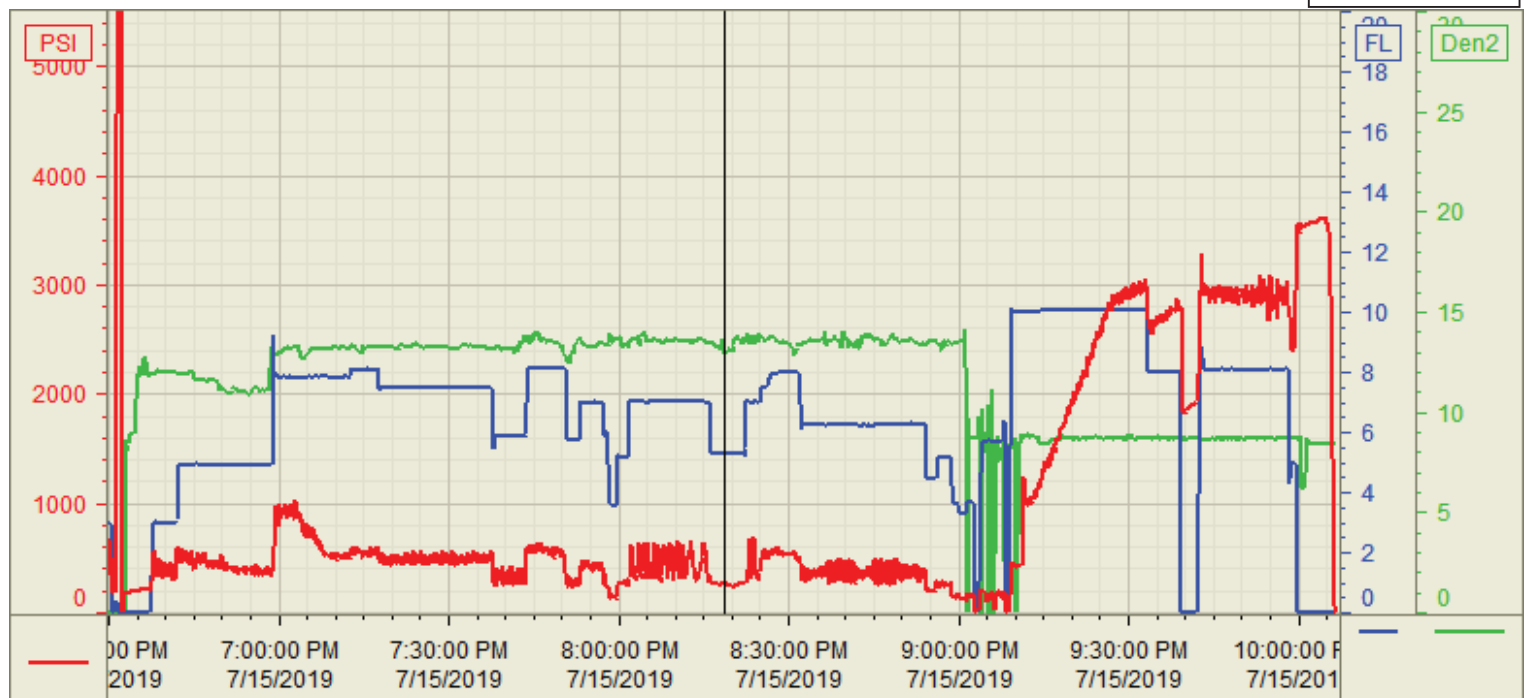
SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	07/15/2019 08:30	Callout					Call out requested time 1330
2	07/15/2019 09:00	Depart for Location					Crew departs for location
3	07/15/2019 12:00	Arrive on Location					Crew arrives on location
4	07/15/2019 12:30	Spot Units					Spot units
5	07/15/2019 12:30	Rig Up					Crew rigs up iron and hoses needed for the job
6	07/15/2019 14:00	Rig					Crew waits for rig to finish circulating
7	07/15/2019 18:00	STEACS Briefing					Crew has a briefing with company man and rig crew discussing the job
8	07/15/2019 18:30	Prime Up	8.3300	3.00	3.00	250.00	Filled lines 3 bbls
9	07/15/2019 18:31	Pressure Test					Pressure tested pump and lines to 5500 psi
10	07/15/2019 18:37	Pump Spacer	12.0000	5.00	28.00	400.00	Pumped 28 bbls of Spacer at 12 ppg with Surfactant
11	07/15/2019 18:45	Pump Spacer	11.5000	5.00	26.00	400.00	Pumped 26 bbls of Spacer at 11.5 ppg with Surfactant
12	07/15/2019 18:50	Pump Spacer	11.0000	5.00	26.00	400.00	Pumped 26 bbls of Spacer at 11 ppg with Surfactant
13	07/15/2019 19:00	Pump Lead Cement	13.2000	8.00	319.00	800.00	Pumped 319 bbls of Lead at 13.2 ppg(980sks,1.82yld,9.87gal/sk)
14	07/15/2019 19:42	Pump Tail Cement	13.5000	8.00	495.00	600.00	Pumped 495 bbls of Tail at 13.5 ppg(1885sks,1.47yld,7.45gal/sk)
15	07/15/2019 21:03	End Pumping					Shutdown
16	07/15/2019 21:03	Wash Pumps and Lines					Wash pump and lines to pit
17	07/15/2019 21:08	Drop Top Plug					Dropped top plug
18	07/15/2019 21:08	Pump Displacement	8.3300	10.00	20.00	400.00	Pumped the first 20 bbls of Displacement with fresh water and retarder
19	07/15/2019 21:10	Pump Displacement	8.3300	10.00	379.00	3100.00	Pumped 379 bbls with biocide and rescare
20	07/15/2019 21:58	Spacer Back-to-Surface					At 297 away got spacer to surface
21	07/15/2019 21:58	Cement Back-to-Surface					At 377 got cement to surface
22	07/15/2019 21:58	Pump Displacement	8.3300	5.00	20.00	2500.00	Slowed rate the last 20 bbls to 5bpm to land plug and switched back to fresh water. Landed 18 bbls early
23	07/15/2019 22:00	Land Plug					Landed plug went 1000 psi over FCP. FCP was 2500 psi brought it up to 3500 psi for 5 minutes
24	07/15/2019 22:05	Check Floats					Checked floats got

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



Print Date/Time

7/15/2019 10:33:32 PM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	257.2	7/15/2019 8:18:40 PM	Cement/PS_DISCHARGE_PRESS_DIAL
2	Combined pump rate	5.29	7/15/2019 8:18:34 PM	Cement/Flow_Combined
3	re circdensity	13.22 i.	7/15/2019 8:18:35 PM i.	Cement/DENSITY_ACTUAL_RATE
4				
5				

Source: Control1 10:33:32 PM