

# BJ Cementing Treatment Report

SERVICE SUPERVISOR	Gregory Black	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 (%)
Casing	4.78	5.50	20.00	15,918.00	7,000.00	
Open Hole	8.50			15,930.00	7,000.00	5.00
Previous Casing	8.92	9.63	36.00	1,567.00	1,567.00	

## HARDWARE

Bottom Plug Used?	No	Tool Type	Float Collar
Top Plug Used?	Yes	Tool Depth (ft)	15,894.00
Top Plug Provided By	Non BJ	Max Casing Pressure - Rated (psi)	5000.00
Top Plug Size	5.500	Max Casing Pressure - Operated (psi)	4000.00
Centralizers Used	Yes	Pipe Movement	None
Centralizers Quantity	184.00	Job Pumped Through	Manifold
Centralizers Type	Bow	Top Connection Thread	LTC
Landing Collar Depth (ft)	15,921.00	Top Connection Size	5.5

## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Mud Density In (ppg)	9.00
Circulation Prior to Job	Yes	Mud Density Out (ppg)	9.00
Circulation Time (min)	120.00	Solids Present at End of Circulation	No
Circulation Rate (bpm)	12.50	Flare Prior to / during the Cement Job	No
Circulation Volume (bbls)	1500.00	Gas Present	No
Lost Circulation Prior to Cement Job	No		

## TEMPERATURE

Ambient Temperature (°F)	28.00	Slurry Cement Temperature (°F)	61.00
Mix Water Temperature (°F)	60.00		

## 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	Dye Flush	8.3300			0.00				2.0000
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	7,085.00	960	1757.0000	312.8000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4774	7.45	7,085.00	8,837.00	1440	2128.0000	378.9000
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	342.2000

FLUID TYPE	FLUID NAME	COMPONENT	CONCENTRATION	UOM
Spacer / Pre Flush / Flush	Dye Flush	DYE, LIQUID, BLUE	1.0000	GPB
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	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-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	WEIGHTING ADDITIVE, W-11	243.3100	PPB
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Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer II	RETARDER, R-31	0.5000	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	WEIGHTING ADDITIVE, W-11	243.3100	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	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB

Client: Bayswater Exploration & Production, LLC

Well: COT WEST #U-30-25HN

Well API: 05-123-50407

Start Date: 2/25/2020

End Date: 2/26/2020



Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	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
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	CEMENT, FLY ASH (ROCKIES)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
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 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

## DISPLACEMENT AND END OF JOB SUMMARY

<b>Displaced By</b>	BJ	<b>Amt of Cement Returned / Reversed</b>	0.00
<b>Calculated Displacement Vol (bbls)</b>	351.00	<b>Method Used to Verify Returns</b>	Visual
<b>Actual Displacement Vol (bbls)</b>	351.00	<b>Amt of Spacer to Surface</b>	57.00
<b>Did Float Hold?</b>	Yes	<b>Pressure Left on Casing (psi)</b>	0.00
<b>Bump Plug</b>	Yes	<b>Amt Bled Back After Job</b>	4.00
<b>Bump Plug Pressure (psi)</b>	3500.00	<b>Total Volume Pumped (bbls)</b>	1123.00
<b>Were Returns Planned at Surface</b>	Yes	<b>Top Out Cement Spotted</b>	No
<b>Cement Returns During Job</b>	None	<b>Lost Circulation During Cement Job</b>	No

# 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	02/25/2020 11:00	Callout					Crew called out with a RTS of 1700.
2	02/25/2020 15:00	Arrive on Location					Arrived on location.
3	02/25/2020 15:00	STEACS Briefing					Pre rig up safety meeting.
4	02/25/2020 15:05	Rig Up					Rigged up.
5	02/25/2020 16:00	Rig					Waited for rig to finish circulating.
6	02/25/2020 18:45	STEACS Briefing					Pre job safety/ procedure with rig crew and company man.
7	02/25/2020 19:17	Prime Up	8.3400	2.80	2.00	500.00	Primed up treating iron.
8	02/25/2020 19:20	Pressure Test	8.3400			5500.00	Pressure tested.
9	02/25/2020 19:24	Pump Spacer	12.0000	6.00	28.00	950.00	Pumped weighted spacer.
10	02/25/2020 19:30	Pump Spacer	11.5000	6.00	26.00	600.00	Pumped weighted spacer.
11	02/25/2020 19:34	Pump Spacer	11.0000	6.00	26.00	400.00	Pumped weighted spacer.
12	02/25/2020 19:36	Pump Lead Cement	13.2000	8.30	312.00	600.00	Pumped 960 sks;Yield:1.82; GPS:9.87.
13	02/25/2020 20:18	Pump Tail Cement	13.5000	8.00	378.00	400.00	Pumped 1440 SKS; Yield: 1.47; GPS:7.45.
14	02/25/2020 21:17	Drop Top Plug					Dropped top plug while pumper washed pumps and lines to four sided tank.
15	02/25/2020 21:27	Pump Displacement	8.3400	8.00	20.00	450.00	Pumped water displacement.
16	02/25/2020 21:35	Pump Displacement	8.3400	8.00	271.00	1300.00	Pumped water displacement.
17	02/25/2020 22:07	Spacer Back-to-Surface					57 bbls to surface.
18	02/25/2020 22:07	Other (See comment)					shutdown to swap returns to 4 sided tanks.
19	02/25/2020 22:09	Cement Back-to-Surface					0 bbls to surface.
20	02/25/2020 22:09	Pump Displacement	8.3400	6.00	60.00	2500.00	Pumped water displacement, slowed rate to land plug.
21	02/25/2020 22:20	Land Plug					Plug landed 351 bbls pumped. Final circulation psi was 2500 took to 3500 psi.
22	02/25/2020 22:23	Check Floats					Floats held 4 bbls back.
23	02/25/2020 22:23	STEACS Briefing					Rig down safety meeting.
24	02/25/2020 22:30	Rig Down					Rigged down.
25	02/25/2020 23:15	STEACS Briefing					Return journey safety meeting.
26	02/25/2020 23:20	Leave Location					Left location.

Client: Bayswater Exploration & Production, LLC

Well Name / API: COT WEST #U-30-25HN / 05-123-50407

Well MD: 15930



Quote #: QUO-42847-X2G2J7

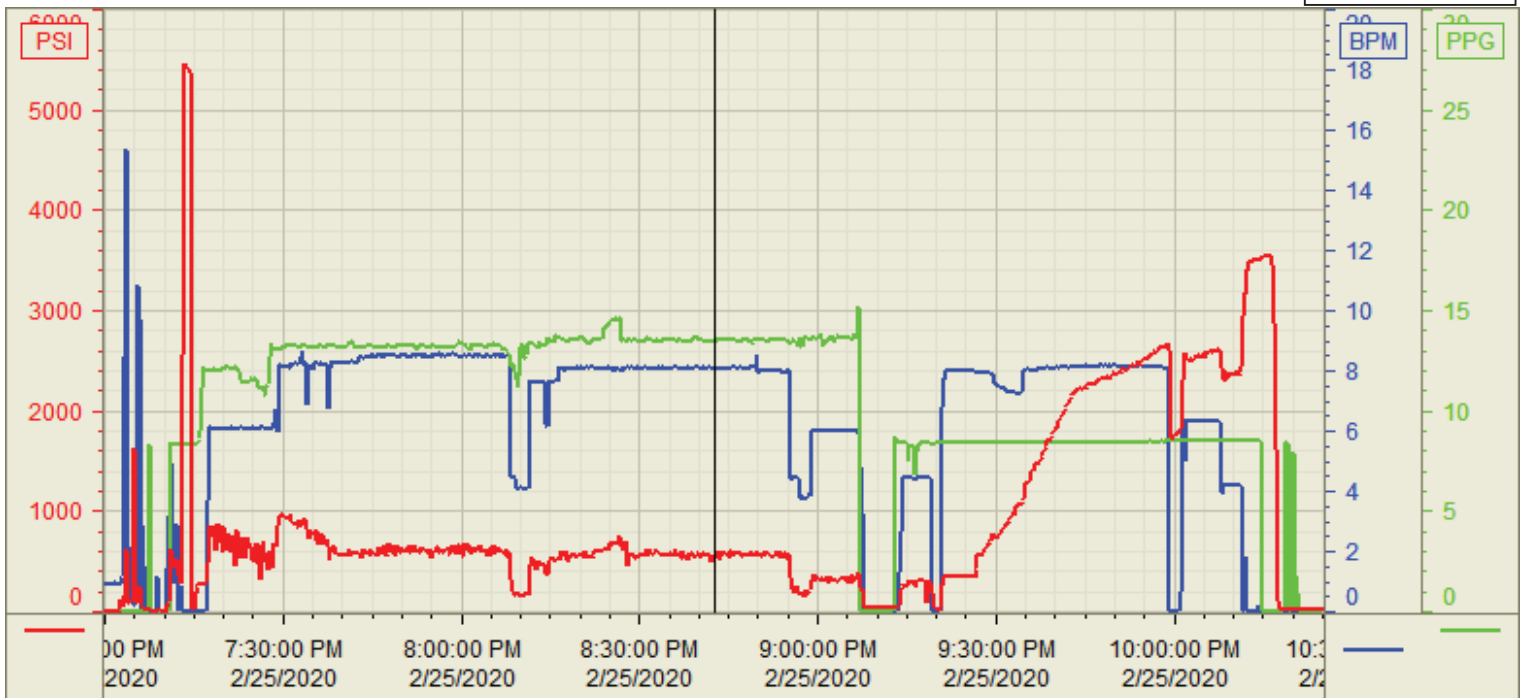
Plan #: ORD-24802-G2T3J8

Execution #: EXC-24802-G2T3J802

Customer: BAYSWATER  
 Well Number: U-30-25HN  
 Lease Info: COT WEST



Print Date/Time  
 2/25/2020 10:34:08 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	543.3 i.	2/25/2020 8:42:35 PM i.	CementerDS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	13.45	2/25/2020 8:42:39 PM	CementerDENSITY_ACTUAL_RATE
3	Combined Rate	8.11	2/25/2020 8:42:37 PM	CementerFlow_Combined
4				
5				

Source: Control1 10:34:03 PM