

BJ Cementing Treatment Report

SERVICE SUPERVISOR	Zachary Hyde	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	1,532.00	1,532.00	
Casing	4.78	5.50	20.00	15,373.00	7,363.00	
Open Hole	8.50	0.00	0.00	15,385.00	7,363.00	5.00

HARDWARE

Bottom Plug Used?	No	Centralizers Type	Rigid
Top Plug Used?	Yes	Landing Collar Depth (ft)	15,352
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	181.00	Top Connection Size	5.5

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	16
Circulation Prior to Job	Yes	YP Mud In	8
Circulation Time (min)	180.00	YP Mud Out	8
Circulation Rate (bpm)	10.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	1800.00	10 sec SGS	8
Lost Circulation Prior to Cement Job	No	10 min SGS	14
Mud Density In (ppg)	9.90	30 min SGS	17
Mud Density Out (ppg)	9.90	Flare Prior to / during the Cement Job	No
PV Mud In	16	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	20.00	Slurry Cement Temperature (°F)	70.00
Mix Water Temperature (°F)	70.00	Flow Line Temperature (°F)	95.00

Client: Bayswater Exploration & Production, LLC

Well: COT EAST #O-30-29HN

Well API: 05-123-50408

Start Date: 11/28/2019

End Date: 11/29/2019



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	6,742.00	915	1674.0000	298.1000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4774	7.45	6,742.00	8,616.00	1400	2069.0000	368.4000
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	329.7000

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	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	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	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	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	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	IntegraGuard GW-86	1.2000	PPB
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
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	RETARDER, SR-20	0.7000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	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	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.1000	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	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement Final	Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	GPB

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	16.00
Calculated Displacement Vol (bbls)	340.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	340.00	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
Bump Plug Pressure (psi)	2400.00	Total Volume Pumped (bbls)	1086.00
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement Returns During Job	Full	Lost Circulation During Cement Job	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	11/28/2019 14:17	Callout					Crew get called out Requested time 1830
2	11/28/2019 15:30	Depart for Location					Crew departs for location
3	11/28/2019 18:00	Arrive on Location					Crew arrives on location
4	11/28/2019 18:00	Rig Up					Crew rigs up iron and hoses needed for job
5	11/28/2019 21:00	STEACS Briefing					Crew has a briefing with company man and rig crew discussing the job
6	11/28/2019 21:27	Prime Up	8.3300	3.00	5.00	500.00	Filled lines 5 bbls
7	11/28/2019 21:29	Pressure Test					Pressure tested to 6500 psi
8	11/28/2019 21:34	Pump Spacer	12.0000	5.00	28.00	1000.00	Pumped 28 bbls of Spacer at 12ppg with surfactant
9	11/28/2019 21:41	Pump Spacer	11.5000	5.00	26.00	1000.00	Pumped 26 bbls of Spacer at 11.5ppg with surfactant
10	11/28/2019 21:45	Pump Spacer	11.0000	5.00	26.00	800.00	Pumped 26 bbls of Spacer at 11ppg with surfactant
11	11/28/2019 21:51	Pump Lead Cement	13.2000	7.00	298.00	800.00	Pumped 298bbls of Lead at 13.2ppg(915sks,1.82yld,9.87gal/sk)
12	11/28/2019 22:33	Pump Tail Cement	13.5000	7.00	368.00	800.00	Pumped 368bbls of Tail at 13.5ppg(1400sks,1.47yld,7.45gal/sk)
13	11/28/2019 23:30	End Pumping					Shutdown
14	11/28/2019 23:30	Wash Pumps and Lines					Washed pump and lines
15	11/28/2019 23:36	Drop Top Plug					Dropped top plug
16	11/28/2019 23:36	Pump Displacement	8.3300	8.00	20.00	100.00	Pumped the first 20bbls of Displacement with fresh water and retarder
17	11/28/2019 23:37	Pump Displacement	8.4000	8.00	300.00	2800.00	Pumped 300 bbls of displacement with rescare and biocide
18	11/29/2019 00:21	Spacer Back-to-Surface					At 244 bbls away got spacer to surface
19	11/29/2019 00:21	Cement Back-to-Surface					At 324 bbls away got cement to surface. Had a total of 16 bbls of cement to surface
20	11/29/2019 00:21	Pump Displacement	8.3300	4.00	20.00	2400.00	Slowed rate last 20 bbls to 4 bpm
21	11/29/2019 00:25	Land Plug					Landed plug went 1000psi over FCP. FCP was 2400 psi brought it up to 3400 psi
22	11/29/2019 00:27	Check Floats					Checked floats got 4 bbls back
23	11/29/2019 00:29	Rig Down					Crew rigs down iron and hoses

Client: Bayswater Exploration & Production, LLC

Well Name / API: COT EAST #O-30-29HN / 05-123-50408

Well MD: 15358



Quote #: QUO-39405-G8H4P4

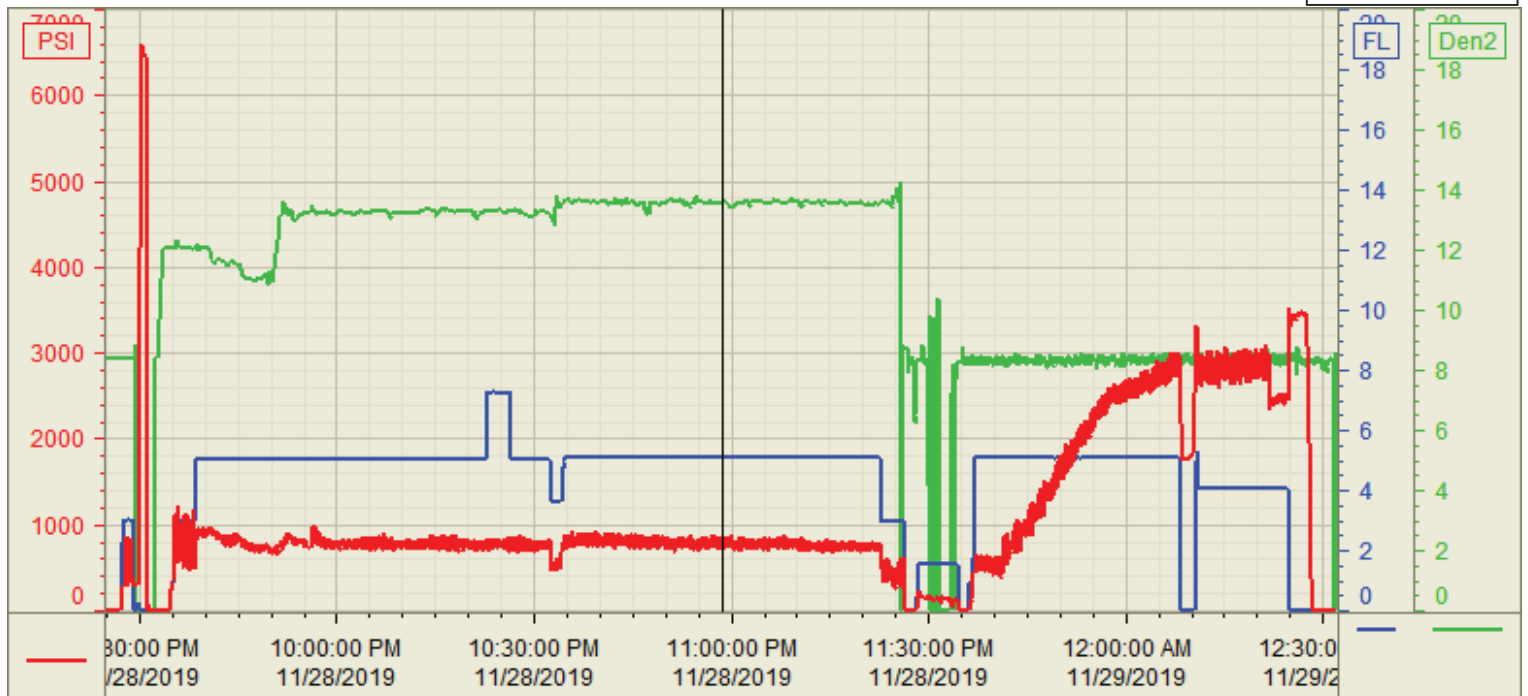
Plan #: ORD-22769-V1S0T8

Execution #: EXC-22769-V1S0T802

Customer: Bayswater
Well Number: O-30-29HN
Lease Info: COT EAST



Print Date/Time
11/29/2019 1:09:04 AM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	848.0 i.	11/28/2019 10:58:34 PM i.	CementerPS_DISCHARGE_PRESS_DIAL
2	Combined pump rate	5.09	11/28/2019 10:58:31 PM	CementerFlow_Combined
3	re circdensity	13.56 i.	11/28/2019 10:58:34 PM i.	CementerDENSITY_ACTUAL_RATE
4				
5				

Source: Control1 1:09:03 AM