

# BJ Cementing Treatment Report

SERVICE SUPERVISOR	Hector Montoya	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	15,433.00	7,461.00	
Open Hole	8.50	0.00	0.00	15,444.00	7,461.00	5.00
Previous Casing	8.92	9.63	36.00	1,537.00	1,536.00	

## HARDWARE

Bottom Plug Used?	No	Max Casing Pressure - Rated (psi)	11080.00
Top Plug Used?	No	Max Casing Pressure - Operated (psi)	8864.00
Centralizers Used	No	Job Pumped Through	Manifold
Landing Collar Depth (ft)	15,433	Top Connection Thread	BTC
		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	7
Circulation Time (min)	180.00	YP Mud Out	7
Circulation Rate (bpm)	8.00	Solids Present at End of Circulation	No
Circulation Volume (bbls)	1440.00	10 sec SGS	6
Lost Circulation Prior to Cement Job	No	10 min SGS	12
Mud Density In (ppg)	10.10	30 min SGS	4
Mud Density Out (ppg)	10.10	Flare Prior to / during the Cement Job	No
PV Mud In	17	Gas Present	No

## TEMPERATURE

Ambient Temperature (°F)	25.00	Slurry Cement Temperature (°F)	65.00
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	110.00

Client: Bayswater Exploration & Production, LLC

Well: COT EAST #Q-30-29HC

Well API: 05-123-50418

Start Date: 12/10/2019

End Date: 12/11/2019



## 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	6,769.00	915	1674.0000	298.1000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4774	7.45	6,769.00	8,703.00	1415	2091.0000	372.3000
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	332.2000

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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	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	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	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	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-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	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
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraCare EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.7000	BWOB
Lead Slurry	BJCem P100.3.01C	IntegraGuard GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	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	RETARDER, SR-20	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	IntegraGuard GW-86	0.1000	BWOB
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 2	Retarded Water w/ Clay Protection & Biocide	ResCare CS-2	0.0800	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

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## DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amt of Cement Returned / Reversed	15.00
Calculated Displacement Vol (bbls)	342.00	Method Used to Verify Returns	Visual
Actual Displacement Vol (bbls)	342.00	Amt of Spacer to Surface	70.00
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)	3500.00	Total Volume Pumped (bbls)	1092.00
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

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Start     12/10/2019  
Date:

End       12/11/2019  
Date:



# BJ Cementing Event Log

Long String - Cheyenne, WY - Hector Montoya

SEQ	START DATE / TIME	EVENT	DENSITY (ppg)	PUMP RATE (bpm)	PUMP VOL (bbls)	PIPE PRESSURE (psi)	COMMENTS
1	12/10/2019 11:30	Callout					BJ Crew gets called out
2	12/10/2019 12:30	Other (See comment)					Load Up for job
3	12/10/2019 15:30	Arrive on Location					Arrive safely on location
4	12/10/2019 17:00	Rig Up					Rig Up
5	12/10/2019 19:00	STEACS Briefing					BJ Crew and Rig Crew discuss hazards of pumping the job
6	12/10/2019 19:30	Pump Spacer	12.0000	4.00	28.00	400.00	Spacer 28bbl at 12ppg, w/surfactant
7	12/10/2019 19:39	Pump Spacer	11.5000	4.00	26.00	390.00	Spacer 26bbl at 11.5ppg, w/surfactant
8	12/10/2019 19:48	Pump Spacer	11.0000	4.00	26.00	370.00	Spacer 26bbl at 11ppg, w/surfactant
9	12/10/2019 19:57	Pump Lead Cement	13.2000	5.50	298.00	350.00	Lead-298bbl at 13.2ppg, 915sks BJ Cem P100.3.01C, y-1.89, gps-8.97, mix water-213bbl. Estimated Top of Lead at 417ft.
10	12/10/2019 20:51	Pump Tail Cement	13.5000	5.50	372.00	380.00	Tail-372bbl at 13.5ppg, 1417sks BJ Cem P50.6.02C, y-1.47, gps-7.45, mix water-250bbl. Estimated Height of Tail at 9117ft, Estimated Top of Tail 6327ft.
11	12/10/2019 22:05	Wash Pumps and Lines					Wash pumps to the pit
12	12/10/2019 22:20	Pump Displacement	8.3300	9.00	322.00	2500.00	Total displacement 342bbl. First 20bbl w/ SR-617, ResCare and Biocide throughout
13	12/10/2019 22:56	Pump Displacement	8.3300	4.00	20.00	2900.00	Slow rate last 20bbl to 3bpm
14	12/10/2019 23:03	Land Plug					Land Plug, Final Circulating Pressure was 2900psi took to 3400psi
15	12/10/2019 23:05	Check Floats					Floats Held, 4bbl back to the truck
16	12/10/2019 23:10	Rig Down					Rig Down
17	12/11/2019 01:00	Leave Location					Leave Location

Client: Bayswater Exploration & Production, LLC

Well Name / API: COT EAST #Q-30-29HC / 05-123-50418

Well 15472  
MD:



Quote #: QUO-39861-R5P5Y3

Plan #: ORD-23059-F0H6X7

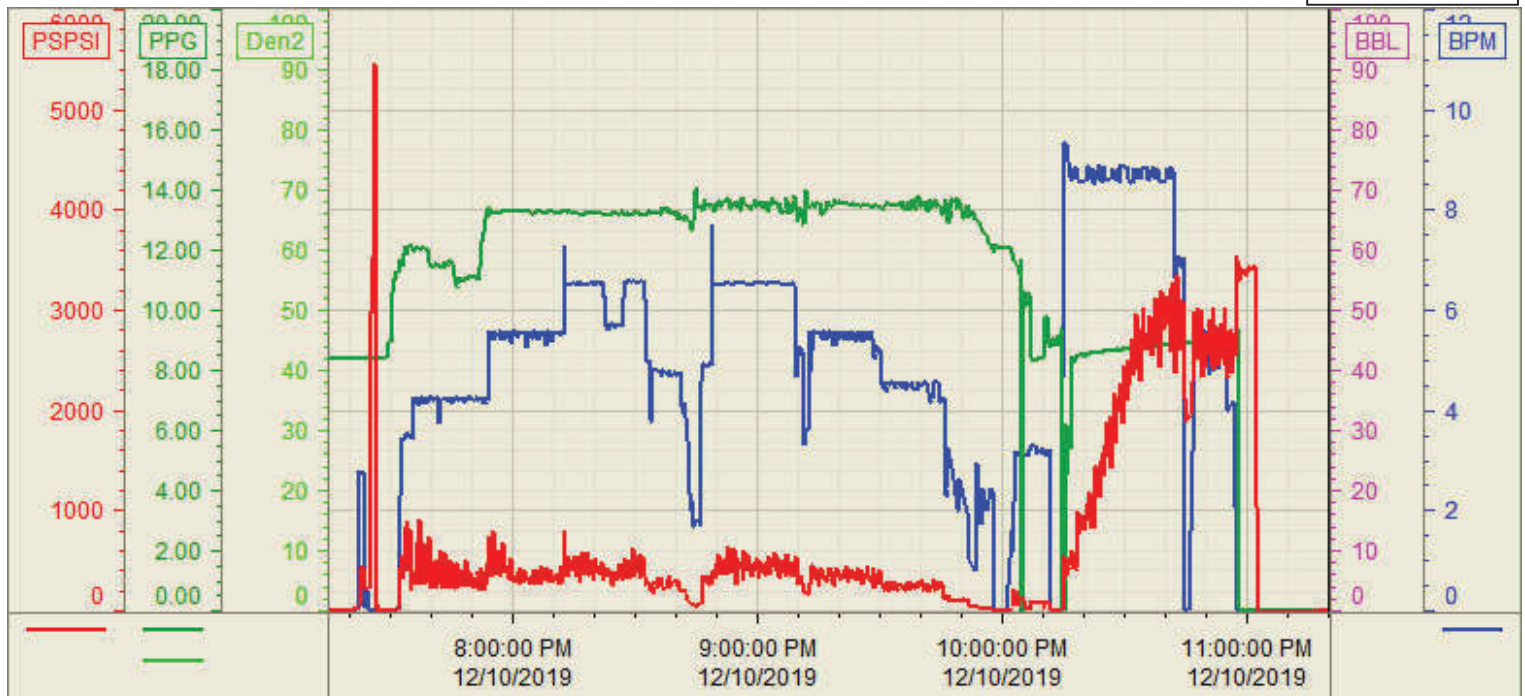
Execution #: EXC-23059-F0H6X702

Customer: BAYSWATER  
Well Number: Q-30-29HC  
Lease Info: COT EAST



Print Date/Time

12/11/2019 12:37:22 AM



	Name	Y value	X value/time stamp	Tag name Y
1	PPSI	-8.7 i.	12/10/2019 11:20:00 PM i.	CementPS_DISCHARGE_PRESS_DIAL
2	Den - Density (PPG)	0.01	12/10/2019 11:20:00 PM	CementDENSITY_ACTUAL_RATE
3	BPM	0.00	12/10/2019 11:20:02 PM	CementFlow_Combined
4	Den2 - Discharge Density (P	-0.24	12/10/2019 11:20:02 PM	CementDENSITY2_ACTUAL_RATE
5				

Source: Control1 12:37:07 AM