

Cementing Treatment



Start Date	7/17/18	Field Ticket#	08743-N9T1F50202-27389
End Date	7/17/18	Well	Thornton E-29-30HC
Client	BAYSWATER EXPLORATION & PRODUCTION, LLC	API#	05-123-43597
Client Field Rep.	Scott	County	WELD
Service Sup.	Chad Johnson	State/Province	CO
District	Cheyenne, WY	Execution ID	EXC-08743-N9T1F502
Type of Job	Long String	Project ID	PRJ1008645

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	8.92	9.63	36.00	1,552.00	1,552.00	
Open Hole	8.50			17,785.00	7,399.00	7.00
Casing	4.78	5.50	20.00	17,775.00	7,399.00	

Shoe Length (ft): 42

HARDWARE

Top Plug Used?	Yes	Centralizers Quantity	212
Top Plug Provided By	Rig	Centralizers Type	Bow
Top Plug Size	5.5"	Landing Collar Depth (ft)	17,727
Centralizers Used	Yes		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	YP Mud In	10
Circulation Prior to Job	Yes	YP Mud Out	10
Circulation Time (min)	180	Solids Present at End of Circulation	No
Lost Circulation Prior to Cement Job	No	10 sec SGS	9
Mud Density In (ppg)	10.2	10 min SGS	11
Mud Density Out (ppg)	10.2	30 min SGS	13
PV Mud In	17	Flare Prior to/during the Cement Job	No
PV Mud Out	17	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	85	Mix Water Temperature (°F)	70
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BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Planned Top of Fluid (Ft)	Length (Ft)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	11.5000			0.00				80.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8254	9.88	0.00	6,750.00	930	1,692.0000	301.3000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4777	7.45	6,750.00	11,022.00	1,840	2,707.0000	482.1000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0.00	0	0.0000	20.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	373.3000

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Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SPACER SURFACTANT, SS-247	0.7000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SPACER SURFACTANT, SS-267	0.7000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.9000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	215.0000	PPB
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	RETARDER, R-31	0.1700	BWOB
Lead Slurry	BJCem P100.3.01C	GELLANT WATER, GW-86	0.0500	BWOB
Lead Slurry	BJCem P100.3.01C	BONDING AGENT, EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
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	GELLANT WATER, GW-86	0.1000	BWOB
Tail Slurry	BJCem P50.6.02C	EXTENDER, BENTONITE	2.0000	BWOB
Tail Slurry	BJCem P50.6.02C	RETARDER, SR-20	0.1500	BWOB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, R-8L	0.5000	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	CLAY STABILIZER ResCare CS	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	CLAY STABILIZER ResCare CS	0.0800	GPB

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TREATMENT SUMMARY

Fluid	Rate (bpm)	Fluid Vol. (bbls)
IntegraGuard EZ Spacer	6.00	80.00
BJCem P100.3.01C	8.00	301.30
BJCem P50.6.02C	8.00	482.10
Retarded Water w/ Clay Protection & Biocide	8.00	20.00
Water w/ Clay Protection & Biocide	8.00	373.30

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	40
Calculated Displacement Volume (bbls)	392	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	392	Amount of Spacer to Surface	80
Did Float Hold?	Yes	Amount Bled Back After Job	4.54
Bump Plug	Yes	Total Volume Pumped (bbls)	1256
Bump Plug Pressure (psi)	2500	Top Out Cement Spotted	No
Were Returns Planned at Surface	Yes	Lost Circulation During Cement Job	No
Cement returns During Job	Yes		

EVENT LOG



Customer Name: BAYSWATER EXPLORATION & PRODUCTION, LLC

Well Name: Thornton E-29-30HC

Job Type: Long String

Quote ID: QUO-15318-N6N2T1

Plan ID: ORD-08743-N9T1F5

Execution ID: EXC-08743-N9T1F502

District: Cheyenne, WY

BJ Supervisor: Chad Johnson

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	07/17/2018 06:00	Callout					Crew called out requested on location at 1100
2	07/17/2018 08:30	Arrive on Location					Crew arrived on location
3	07/17/2018 08:45	Safety Meeting					Safety meeting
4	07/17/2018 09:00	Spot Units					Spotted all equipment
5	07/17/2018 09:15	Rig Up					Rigged up all equipment
6	07/17/2018 10:30	Customer					Waiting on rig to finish circulating the well
7	07/17/2018 12:30	Safety Meeting					Safety meeting
8	07/17/2018 13:12	Prime Up	8.3400	3.00	5.00	300.00	Fill lines with 5 bbls fresh water
9	07/17/2018 13:17	Pressure Test					Pressure test line to 6000 psi
10	07/17/2018 13:27	Pump Spacer	11.5000	6.00	80.00	400.00	Pump 80 bbls spacer at 11.5 ppg
11	07/17/2018 13:48	Pump Lead Cement	13.2000	8.00	303.00	700.00	Pump 303 bbls lead cement at 13.2 ppg (930 sks, 1.83 Y, 9.88 gal/sk)
12	07/17/2018 14:28	Pump Tail Cement	13.5000	8.00	485.00	500.00	Pump 485 bbls tail cement at 13.5 ppg (1840 sks, 1.48 Y, 7.45 gal/sk)
13	07/17/2018 15:40	Other (See comment)					Shutdown
14	07/17/2018 15:42	Clean Pumps and Lines					Wash pumps and lines to pit
15	07/17/2018 15:54	Drop Top Plug					Drop top plug
16	07/17/2018 15:55	Pump Displacement	8.3400	8.00	370.00	1,500.00	Pump 392 bbls water displacement. (20 bbls W/ R-8L, 372 W/ Biocide & Rescare)

EVENT LOG

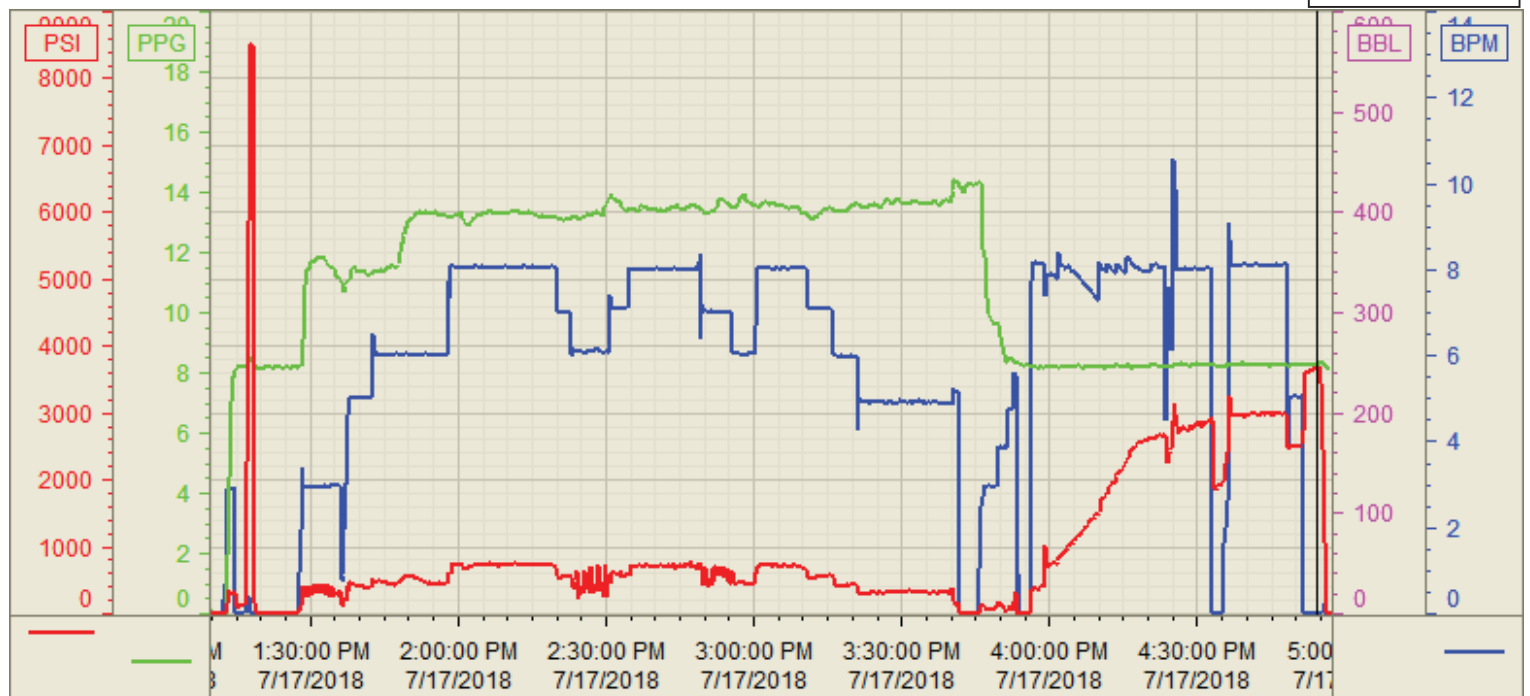


17	07/17/2018 16:32	Spacer Back to Surface					Spacer back to surface at 272 bbls away, 80 bbls spacer to surface
18	07/17/2018 16:45	Cement Back to Surface					Cement back to surface at 352 bbls away, 40 bbls cement back to surface
19	07/17/2018 16:48	Other (See comment)					Slow pump rate to 5 bpm at 370 bbls away
20	07/17/2018 16:51	Land Plug					Land plug at 2500 psi took to 3500 psi
21	07/17/2018 16:54	Check Floats					Check floats, floats holding, 2.5 bbls back
22	07/17/2018 17:00	Safety Meeting					Safety meeting
23	07/17/2018 17:15	Rig Down					Rigged down all equipment
24	07/17/2018 19:00	Leave Location					Crew departed location

Customer: BAYSWATER
Well Number: E-29-30HC
Lease Info: THORTON



Print Date/Time
7/17/2018 5:23:40 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	3661.0	7/17/2018 4:54:09 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	DH - Density (PPG)	8.28	7/17/2018 4:54:21 PM	Cementer\DENSITY2_ACTUAL_RATE
3	Combined Rate	0.00 i.	7/17/2018 4:54:15 PM i.	Cementer\Flow_Combined
4				
5				

Source: Control1 5:23:35 PM