

## Cementing Treatment



<b>Start Date</b>	6/8/18	<b>Field Ticket#</b>	07549-G2V7F40202-09908
<b>End Date</b>	6/8/18	<b>Well</b>	Thornton A-29-30HN
<b>Client</b>	BAYSWATER EXPLORATION & PRODUCTION, LLC	<b>API#</b>	05-123-43605
<b>Client Field Rep.</b>	Scott	<b>County</b>	WELD
<b>Service Sup.</b>	Brian Boyd	<b>State/Province</b>	CO
<b>District</b>	Cheyenne, WY	<b>Rig</b>	True 38
<b>Type of Job</b>	Surface	<b>Project ID</b>	PRJ1007528
<b>Execution ID</b>	EXC-07549-G2V7F402		

### WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Open Hole	13.50			1,562.00	1,562.00	30.00
Casing	8.92	9.63	36.00	1,552.00	1,552.00	

Shoe Length (ft): 42

### HARDWARE

<b>Top Plug Used?</b>	Yes	<b>Tool Type</b>	Float collar
<b>Top Plug Provided By</b>	Bayswater	<b>Tool Depth (ft)</b>	1510'
<b>Top Plug Size</b>	9 5/8"	<b>Max Casing Pressure - Rated (psi)</b>	3520
<b>Centralizers Used</b>	Yes	<b>Max Casing Pressure - Operated (psi)</b>	2820
<b>Centralizers Quantity</b>	16	<b>Job Pumped Through</b>	BJ cement head
<b>Centralizers Type</b>	Catamount	<b>Top Connection Thread</b>	LTC
<b>Landing Collar Depth (ft)</b>	1,510	<b>Top Connection Size</b>	9 5/8"

### CIRCULATION PRIOR TO JOB

<b>Well Circulated By</b>	True 38	<b>YP Mud In</b>	4
<b>Circulation Prior to Job</b>	Yes	<b>Solids Present at End of Circulation</b>	No
<b>Circulation Time (min)</b>	60	<b>10 sec SGS</b>	1
<b>Circulation Rate (bpm)</b>	6	<b>10 min SGS</b>	1
<b>Circulation Volume (bbls)</b>	140	<b>30 min SGS</b>	2
<b>Lost Circulation Prior to Cement Job</b>	No	<b>Flare Prior to/during the Cement Job</b>	No
<b>Mud Density In (ppg)</b>	8.33	<b>Gas Present</b>	No
<b>PV Mud In</b>	1		

### TEMPERATURE

<b>Ambient Temperature (°F)</b>	84	<b>Slurry Cement Temperature (°F)</b>	76
<b>Mix Water Temperature (°F)</b>	71	<b>Flow Line Temperature (°F)</b>	89

## Cementing Treatment



### 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	Water	8.3337			0.00				20.0000
Lead Slurry	BJCem S100.03.1C	12.0000	2.5298	14.86	0.00	1,050.00	265	667.0000	118.7000
Tail Slurry	BJCem S100.03.1C	12.5000	2.2256	12.59	1,050.00	500.00	150	336.0000	59.8000
Displacement Final	Water	8.3337			0.00			0.0000	116.6000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Water	Fresh Water	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.03.1C	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Tail Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Tail Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem S100.03.1C	CEMENT EXTENDER, SODIUM METASILICATE A-2 ANHYDROUS	2.0000	LBS/SK
Displacement Final	Water	Fresh Water	100.0000	PCT

### DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	Amount of Cement Returned/Reversed	39 bbls
Calculated Displacement Volume (bbls)	116	Method Used to Verify Returns	Visual/ Dye
Actual Displacement Volume (bbls)	116	Amount of Spacer to Surface	20 bbls
Did Float Hold?	Yes	Amount Bled Back After Job	0.5 bbl
Bump Plug	Yes	Total Volume Pumped (bbls)	320
Bump Plug Pressure (psi)	815	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 A-29-30HN

**Job Type:** Surface

**TMD (ft):** 1552

**District:** Cheyenne, WY

**Field Leader:** Brian Boyd

**Quote ID:** QUO-12900-Y7G2H1

**Plan ID:** ORD-07549-G2V7F4

**Execution ID:** EXC-07549-G2V7F402

Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
06/08/2018 7:30	Callout					Customer requested crew to be on location at 14:30
06/08/2018 8:40	Leave Location					BJ crew has journey mangement and dparts from shop
06/08/2018 10:15	Arrive on Location					Crew arrives on location and meets with customer
06/08/2018 11:30	Safety Meeting					BJ crew has steacs over rigging up iron and hoses
06/08/2018 12:00	Rig Up					BJ crew rigs up iron and hoses
06/08/2018 12:30	Other (See comment)					Waiting on rig to finsih wiper trip and running casing
06/08/2018 16:13	Circulate Well					Rig lands casing and begins to recirculate on well
06/08/2018 16:20	Safety Meeting					Steacs breifing with BJ crew, rig crew and company man over job and hazrds
06/08/2018 17:33	Start Pumping	8.3300	2.00	3.00	34.00	Fill pumps and lines
06/08/2018 17:35	Pressure Test	8.3300	0.50	0.50	3,200.00	Pressure test iron and head to 3000 PSI
06/08/2018 17:43	Pump Spacer	8.3300	3.00	20.00	41.00	pump 20 bbls of red dye ahead
06/08/2018 17:47	Pump Lead Cement	12.0000	5.00	118.00	175.00	Pump 118 bbls of 12 PPG lead cement ( 2.52 Yield, 14.89 Gals/Sks, 265 Sks)
06/08/2018 18:12	Pump Tail Cement	12.5000	5.00	59.00	135.00	Pump 59 bbls of 12.5 PPG Tail cement ( 2.22 Yield, 12.59 Gals/Sks, 150 Sks)
06/08/2018 18:34	End Pumping					Shut down pumping
06/08/2018 18:43	Drop Top Plug					Drop top plug with comapny man to verify plug went downhole
06/08/2018 18:43	Pump Displacement	8.3300	5.00	116.00	121.00	Pump 116 bbls of fresh water displacement
06/08/2018 18:57	Cement Back to Surface	8.3300	5.00	77.00	327.00	77 bbls into displacement got cement to surface for total of 39 bbls back
06/08/2018 19:03	Other (See comment)	8.3300	2.50	106.00	251.00	last 10 bbls of displacemnt slow rate to 2.5 bpm
06/08/2018 19:07	Land Plug			116.00	815.00	Bump plug to 815 PSI, FCP of 290 PSI
06/08/2018 19:10	Check Floats					Check floats and got .5 bbl back to pump truck
06/08/2018 19:15	Safety Meeting					BJ crew has steacs over rigging down iron and hoses
06/08/2018 19:20	Rig Down					BJ crew rigs down iron and hoses
06/08/2018 20:30	Leave Location					BJ crew has journey mangement and departs from location



JobMaster Program Version 4.02C1

Job Number:

Customer: Bayswater

Well Name: Thorton A-29-30HN

