

# Cementing Treatment



<b>Start Date</b>	8/1/2018	<b>Field Ticket#</b>	FT-09315-M8C3H10202-90630
<b>End Date</b>	8/1/2018	<b>Well</b>	KTC FARMS D-35-36HN
<b>Client</b>	BAYSWATER EXPLORATION & PRODUCTION, LLC	<b>API#</b>	05-123-47090
<b>Client Field Rep.</b>	Scott Osborn	<b>Well Classification</b>	
<b>Service Sup.</b>	Paul Linn III	<b>County</b>	WELD
<b>District</b>	Rifle, CO	<b>State/Province</b>	CO
<b>Type of Job</b>	Surface	<b>Formation</b>	
<b>Execution ID</b>	EXC-09315-M8C3H102	<b>Rig</b>	
<b>Project ID</b>	PRJ1009135		

## WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50	0.00	0.00	1,578.00	25.00		
Casing	8.92	9.63	36.00	1,567.00			

**Shoe Length (ft):** 42.19

## HARDWARE

<b>Bottom Plug Used?</b>	No	<b>Tool Type</b>	Float Collar
<b>Top Plug Used?</b>	Yes	<b>Tool Depth (ft)</b>	1,525.89
<b>Top Plug Provided By</b>	Non BJ	<b>Max Casing Pressure - Rated (psi)</b>	2,220.00
<b>Top Plug Size</b>	9.625	<b>Max Casing Pressure - Operated (psi)</b>	1,776.00
<b>Centralizers Used</b>	Yes	<b>Pipe Movement</b>	None
<b>Centralizers Quantity</b>	16.00	<b>Job Pumped Through</b>	Manifold
<b>Centralizers Type</b>	Bow	<b>Top Connection Thread</b>	8 RND
<b>Landing Collar Depth (ft)</b>	1,458	<b>Top Connection Size</b>	9.625

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## CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	1.00
Circulation Time (min)	30.00	10 min SGS	2.00
Circulation Rate (bpm)	11.90	30 min SGS	2.00
Circulation Volume (bbls)	357.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	8.70	Gas Units	0
Mud Density Out (ppg)	8.70		
PV Mud In	1		
PV Mud Out	1		
YP Mud In	4		
YP Mud Out	4		

## TEMPERATURE

Ambient Temperature (°F)	88.00	Slurry Cement Temperature (°F)	80.50
Mix Water Temperature (°F)	76.20	Flow Line Temperature (°F)	0.00

## 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	1000	242	611.0000	108.7000
Tail Slurry	BJCem S100.03.1C	12.5000	2.2256	12.59	1,000.00	500	146	324.0000	57.6000
Displacement Final	Water	8.3337			0.00			0.0000	112.7000

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Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	Water	Fresh Water	100.0000	PCT
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
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	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Tail Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	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	FOAM PREVENTER, FP-25	0.3000	BWOB
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
Displacement Final	Water	Fresh Water	100.0000	PCT

## TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
8/1/2018 2:52:00 PM	Water	6.00	20.00	141.00
8/1/2018 2:58:00 PM	BJCem S100.03.1C	6.00	109.04	230.00
8/1/2018 3:18:00 PM	BJCem S100.03.1C	6.00	57.99	261.00
8/1/2018 3:32:00 PM	Water	8.00	117.95	191.00
		<b>Min</b>	<b>Max</b>	<b>Avg</b>
<b>Pressure (psi)</b>		55.00	552.00	181.00
<b>Rate (bpm)</b>		2.00	8.00	6.00

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## DISPLACEMENT AND END OF JOB SUMMARY

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<b>Displaced By</b>	BJ	<b>Amount of Cement Returned/Reversed</b>	19.00
<b>Calculated Displacement Volume (bbls)</b>	117.95	<b>Method Used to Verify Returns</b>	Visual
<b>Actual Displacement Volume (bbls)</b>	118.00	<b>Amount of Spacer to Surface</b>	20.00
<b>Did Float Hold?</b>	Yes	<b>Pressure Left on Casing (psi)</b>	0.00
<b>Bump Plug</b>	Yes	<b>Amount Bled Back After Job</b>	0.50
<b>Bump Plug Pressure (psi)</b>	386.00	<b>Total Volume Pumped (bbls)</b>	299.00
<b>Were Returns Planned at Surface</b>	Yes	<b>Top Out Cement Spotted</b>	No
<b>Cement returns During Job</b>	Full	<b>Lost Circulation During Cement Job</b>	No

# EVENT LOG



**Customer Name:** BAYSWATER EXPLORATION & PRODUCTION, LLC

**Well Name:** KTC FARMS D-35-36HN

**Job Type:** Surface

**Quote ID:** QUO-16143-X6R4F7

**Plan ID:** ORD-09315-M8C3H1

**Execution ID:** EXC-09315-M8C3H102

**District:** Rifle, CO

**BJ Supervisor:** Paul Linn III

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	08/01/2018 06:00	Callout					CALL OUT ON LOCATION TIME OF 12:00
2	08/01/2018 11:30	Arrive on Location					ARRIVED ON LOCATION, RIG WAS PULLING DRILL PIPE
3	08/01/2018 11:38	Spot Units					SITE ASSESMENT, DID ROCK DRILL, SPOT EQUIPMENT
4	08/01/2018 11:46	Safety Meeting					PRE RIG UP SAFETY MEETING
5	08/01/2018 11:58	Rig Up					RIG UP ALL EQUIPMENT
6	08/01/2018 12:25	Customer					WAIT ON RIG TO RUN CASING
7	08/01/2018 14:10	Safety Meeting					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ SERVICES CEMENT CREW
8	08/01/2018 14:26	Rig Up					LOAD PLUG CONTAINER, STAB PLUG CONTAINER, AND HOOK UP LINES
9	08/01/2018 14:45	Prime Up	8.3300	2.00	5.00	55.00	FILL LINES
10	08/01/2018 14:48	Pressure Test				6,915.00	PRESSURE TESTED TO 6915, PRESSURE HELD

## EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
11	08/01/2018 14:52	Pump Spacer	8.3300	6.00	20.00	141.00	FRESH WATER SPACER WITH DYE IN IT
12	08/01/2018 14:58	Pump Lead Cement	12.0000	6.00	50.00	241.00	PUMPED LEAD CEMENT 12 PPG. 242 SKS, 2.23 CUFT/SK 14.86 GAL/SK FOR 109.04 BBLS REQUIRING 85.62 BBLS OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALES, TOP OF LEAD IS 0 FT, WITH A HEIGHT OF 939 FT.
13	08/01/2018 15:07	Pump Lead Cement	12.0000	6.00	100.00	259.00	PUMPED LEAD CEMENT
14	08/01/2018 15:15	Pump Lead Cement	12.0000	6.00	109.00	254.00	FINISHED PUMPING LEAD CEMENT
15	08/01/2018 15:17	Pump Tail Cement	12.5000	6.00	28.00	261.00	PUMPED TAIL CEMENT 12.5 PPG. 146 SKS. 2.53 CUFT/SK 12.59 GAL/SK FOR 57.99 BBLS OF TAIL CEMENT REQUIRING 43.77 BBL OF MIX WATER. WEIGHT VERIFIED WITH MUD SCALE, TOP OF TAIL IS 939 FT, WITH A HEIGHT OF 629.08 FT.
16	08/01/2018 15:22	Pump Tail Cement	12.5000	4.50	52.00	102.00	FINISHED PUMPING TAIL CEMENT CEMENT
17	08/01/2018 15:27	Drop Top Plug					DROPPED TOP PLUG, VERIFIED BY COMPANY MAN
18	08/01/2018 15:32	Pump Displacement	8.3300	8.00	50.00	227.00	PUMPED FRESH WATER DISPLACEMENT
19	08/01/2018 15:39	Pump Displacement	8.3300	8.00	100.00	552.00	PUMPED FRESH WATER DISPLACEMENT
20	08/01/2018 15:45	Cement Back to Surface					19 BBLS OF CEMENT TO SURFACE
21	08/01/2018 15:45	Pump Displacement	8.3300	2.00	118.00	386.00	FINISHED PUMPING DISPLACEMENT
22	08/01/2018 15:53	Land Plug				747.00	LANDED PLUG AT 386 PSI, TOOK TO 747 PSI.
23	08/01/2018 15:56	Check Floats					CHECK FLOATS 1/2 BBL BACK
24	08/01/2018 16:00	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH RIG CREW
25	08/01/2018 16:10	Rig Down					RIG DOWN RIG FLOOR

# EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
26	08/01/2018 16:10	Clean Pumps and Lines					WASH PUMPS AND LINES TO CELLAR
27	08/01/2018 16:38	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH ALL BJ CEMENT CREW
28	08/01/2018 16:46	Rig Down					RIG DOWN ALL EQUIPMENT
29	08/01/2018 16:55	Leave Location					LEAVE LOCATION, THANK YOU FOR USING BJ SEVICES, ANDREW LINN AND CREW

