

Cementing Treatment



Start Date 8/25/2018 **Field Ticket#** FT-10159-H4V4Y80202-08716
End Date 8/26/2018 **Well** KTC FARMS EA-35-36HN
Client BAYSWATER EXPLORATION & PRODUCTION, LLC **API#** 05-123-47086
Service Sup. Andrew Hyde **County** WELD
District Cheyenne, WY **State/Province** CO
Type of Job Long String **Rig** True 38
Execution ID EXC-10159-H4V4Y802
Project ID PRJ1010070

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	8.92	9.63	36.00	1,533.00	1,533.00	
Open Hole	8.50	0.00	0.00	17,290.00	7,062.00	7.00
Casing	4.78	5.50	20.00	17,281.00	7,062.00	

Shoe Length (ft): 26.00

HARDWARE

Bottom Plug Used? No **Tool Type** Float Collar
Top Plug Used? Yes **Tool Depth (ft)** 17,254.00
Top Plug Provided By Non BJ **Pipe Movement** None
Top Plug Size 5.500 **Job Pumped Through** Casing
Centralizers Used Yes **Top Connection Thread** BTC
Centralizers Quantity 205.00 **Top Connection Size** 5.5
Landing Collar Depth (ft) 17,254

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CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	PV Mud Out	14
Circulation Prior to Job	Yes	YP Mud In	7
Circulation Time (min)	2 hrs	YP Mud Out	7
Circulation Rate (bpm)	7	Solids Present at End of Circulation	No
Circulation Volume (bbls)	840	10 sec SGS	6.00
Lost Circulation Prior to Cement Job	No	10 min SGS	11.00
Mud Density In (ppg)	9.80	30 min SGS	13.00
Mud Density Out (ppg)	9.80	Flare Prior to/during the Cement Job	No
PV Mud In	14	Gas Present	No

TEMPERATURE

Ambient Temperature (°F)	75.00	Slurry Cement Temperature (°F)	
Mix Water Temperature (°F)	60.00	Flow Line Temperature (°F)	116.00

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	IntegraGuard EZ Spacer	11.5000			0.00				80.0000
Lead Slurry	BJCem P100.3.01C	13.2000	1.8283	9.87	0.00	6800	940	1,704.0000	303.5000
Tail Slurry	BJCem P50.6.02C	13.5000	1.4777	7.45	6,800.00	10505	1750	2,581.0000	459.5000
Displacement 2	Retarded Water w/ Clay Protection & Biocide	8.3331				0	0	0.0000	20.0000
Displacement Final	Water w/ Clay Protection & Biocide	8.3331			0.00			0.0000	363.6000

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Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SPACER SURFACTANT, SS-267	0.7000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	215.0000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SPACER SURFACTANT, SS-247	0.7000	GPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.9000	PPB
Lead Slurry	BJCem P100.3.01C	FLUID LOSS, FL-66	0.5000	BWOB
Lead Slurry	BJCem P100.3.01C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	BJCem P100.3.01C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem P100.3.01C	BONDING AGENT, EC-2	3.0000	BWOB
Lead Slurry	BJCem P100.3.01C	GELLANT WATER, GW-86	0.0500	BWOB
Lead Slurry	BJCem P100.3.01C	RETARDER, SR-20	0.6000	BWOB
Tail Slurry	BJCem P50.6.02C	FLUID LOSS, FL-66	0.2000	BWOB
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
Tail Slurry	BJCem P50.6.02C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem P50.6.02C	FOAM PREVENTER, FP-25	0.3000	BWOB
Tail Slurry	BJCem P50.6.02C	Flyash (Rockies)	50.0000	PCT
Displacement 2	Retarded Water w/ Clay Protection & Biocide	CLAY STABILIZER ResCare CS	0.0800	GPB
Displacement 2	Retarded Water w/ Clay Protection & Biocide	RETARDER, R-8L	0.5000	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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DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	40.00
Calculated Displacement Volume (bbls)	383.60	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	383.60	Amount of Spacer to Surface	80.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	5.00
Bump Plug Pressure (psi)	2,600.00	Total Volume Pumped (bbls)	1,226.60
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Full	Lost Circulation During Cement Job	No

EVENT LOG



Customer BAYSWATER EXPLORATION &
Name: PRODUCTION, LLC
Well Name: KTC FARMS EA-35-36HN
Job Type: Long String
Quote ID: QUO-17875-R2M2J0
Plan ID: ORD-10159-H4V4Y8 **District:** Cheyenne, WY
Execution ID: EXC-10159-H4V4Y802 **BJ Supervisor:** Andrew Hyde

Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
1	08/25/2018 14:00	Callout					BJ crew gets called out and requested on location at 20:00
2	08/25/2018 15:30	Safety Meeting					BJ crew talks about the hazards of driving to location
3	08/25/2018 16:00	Other (See comment)					Depart yard
4	08/25/2018 18:00	Arrive on Location					Arrive on location
5	08/25/2018 18:20	Safety Meeting					BJ crew talks about the hazards of spotting in equipment and rigging up
6	08/25/2018 18:45	Rig Up					Rig up
7	08/25/2018 20:42	Safety Meeting					BJ and rig crew talk about the hazards of pumping the job

EVENT LOG



8	08/25/2018 21:38	Prime Up	8.3300	2.00	3.00	300.00	Pump 3 bbls of water ahead
9	08/25/2018 21:40	Pressure Test					Pressure test pumps and lines to 5,500 psi
10	08/25/2018 21:47	Pump Spacer	11.5000	4.00	80.00	400.00	Pump 80 bbls of spacer at 11.5 ppg, with 60 gals of SS-247, 60 GALS OF SS-267
11	08/25/2018 22:13	Pump Lead Cement	13.2000	8.00	303.50	650.00	Mix up and pump 940 sks of BJCem P100.3.01C lead cement at 13.2 ppg, yield 1.83, 9.87 gals/sk, 303.5 bbls
12	08/25/2018 22:59	Pump Tail Cement	13.5000	7.00	459.50	230.00	Mix up and pump 1750 sks of BJCem P50.6.02C tailcement at 13.5 ppg, yield 1.48, 7.45 gals/sk, 459.5 bbls
13	08/26/2018 00:06	Other (See comment)					Shutdown line out manifold to wash pumps and lines
14	08/26/2018 00:09	Clean Pumps and Lines					Wash pumps and lines to the pit
15	08/26/2018 00:16	Drop Top Plug					Customer witness plug leave manifold
16	08/26/2018 00:17	Pump Displacement	8.3300	8.00	363.60	2,900.00	Pump 383.6 bls of displacement with 30 gals of rescare, 5 gals of biocide

EVENT LOG

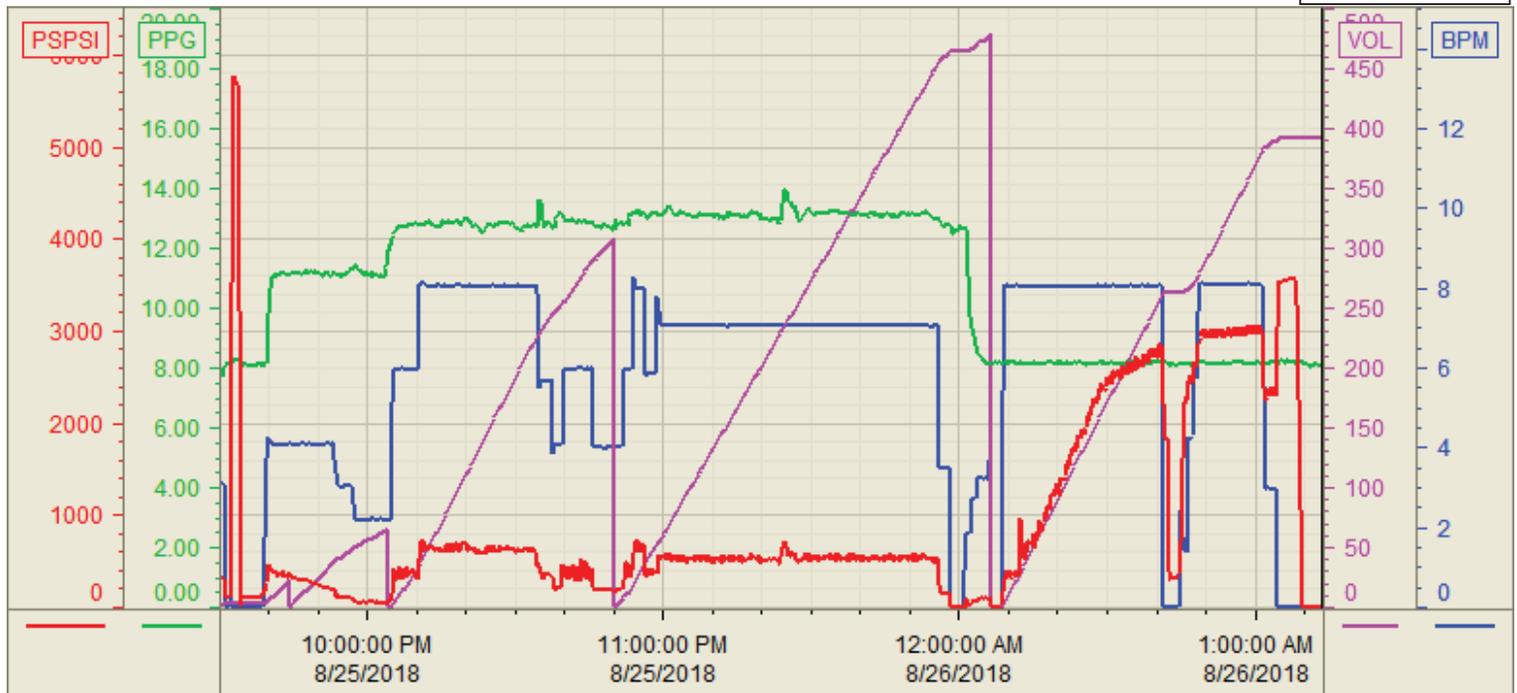


17	08/26/2018 01:10	Pump Displacement	8.3300	3.00	20.00	2,600.00	Slow rate the last 20 bbls to 3 bpm
18	08/26/2018 01:13	Land Plug					Bump plug at 2,600 psi, took it up to 3,600 psi
19	08/26/2018 01:16	Check Floats					Got 5 bbls back to the truck
20	08/26/2018 01:20	Safety Meeting					BJ crew talks about the hazards of rigging down
21	08/26/2018 01:35	Rig Down					Rig down
22	08/26/2018 02:29	Leave Location					Depart location
23	08/26/2018 02:30	Other (See comment)					Estimated top of tail at 6,018 ft, got 40 bbls of cement to surface

Customer: Bayswater
 Well Number: EA-35-HN
 Lease Info: KTC Farms



Print Date/Time
 8/26/2018 1:29:38 AM



Name	Y value	X value/time stamp	Tag name Y
1 PS - Press (PSI)	0.0 i.	8/26/2018 1:13:30 AM i.	Cementer\PS_DISCHARGE_PRESS_DIAL
2 DH - Density (PPG)	8.04	8/26/2018 1:13:32 AM	Cementer\DENSITY2_ACTUAL_RATE
3 Down Hole Total (BBLs)	391.4	8/26/2018 1:13:32 AM	Cementer\DOWNHOLE_FLOW_TOTAL
4 Combined rate (BPM)	0.00	8/26/2018 1:13:32 AM	Cementer\Flow_Combined
5			

Source: Control1 1:29:32 AM