

Cementing Treatment



Start Date 8/5/2018 **Field Ticket#** FT-09360-L4G6C70202-35798
End Date 8/5/2018 **Well** KTC FARMS E-35-36HC
Client BAYSWATER EXPLORATION & PRODUCTION, LLC **API#** 05-123-47091
Client Field Rep. SCOTT OSBORN **Well Classification**
Service Sup. Paul Linn III **County** WELD
District Rifle, CO **State/Province** CO
Type of Job Surface **Formation**
Execution ID EXC-09360-L4G6C702 **Rig**
Project ID PRJ1009182

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	Excess(%)	Grade	Thread
Open Hole	13.50	0.00	0.00	1,565.00	25.00		
Casing	8.92	9.63	36.00	1,555.00			

Shoe Length (ft): 42.00

HARDWARE

Bottom Plug Used? No **Tool Type** Float Collar
Top Plug Used? Yes **Tool Depth (ft)** 1,511.00
Top Plug Provided By Non BJ **Pipe Movement** None
Top Plug Size 9.625 **Job Pumped Through** Manifold
Centralizers Used Yes **Top Connection Thread** 8 RND.
Centralizers Quantity 16.00 **Top Connection Size** 9.625
Centralizers Type Bow
Landing Collar Depth (ft) 1,458

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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)	20.00	10 min SGS	2.00
Circulation Rate (bpm)	11.90	30 min SGS	2.00
Circulation Volume (bbls)	238.00	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	8.90	Gas Units	0
Mud Density Out (ppg)	8.90		
PV Mud In	1		
PV Mud Out	1		
YP Mud In	4		
YP Mud Out	4		

TEMPERATURE

Ambient Temperature (°F)	81.00	Slurry Cement Temperature (°F)	78.60
Mix Water Temperature (°F)	70.30	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	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT EXTENDER, GYPSUM, A-10	5.0000	BWOB
Lead Slurry	BJCem S100.03.1C	FOAM PREVENTER, FP-25	0.3000	BWOB
Lead Slurry	BJCem S100.03.1C	ACCELERATOR, SALT, CHLORIDE, CALCIUM, A-7P, PELLETS	2.0000	LBS/SK
Lead Slurry	BJCem S100.03.1C	CEMENT, ASTM TYPE III	100.0000	PCT
Lead 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	IntegraSeal CELLO	0.1300	LBS/SK
Tail Slurry	BJCem S100.03.1C	Cement Additive, Sodium Metasilicate A-2	2.0000	LBS/SK
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
Displacement Final	Water	Fresh Water	100.0000	PCT

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
8/5/2018 6:32:00 PM	Water	5.00	20.00	85.00
8/5/2018 6:37:00 PM	BJCem S100.03.1C	5.00	109.04	196.00
8/5/2018 6:58:00 PM	BJCem S100.03.1C	5.00	57.99	223.00
8/5/2018 7:15:00 PM	Water	7.00	116.85	157.00

	Min	Max	Avg
Pressure (psi)	39.00	471.00	181.00
Rate (bpm)	0.00	7.00	5.00

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DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	17.00
Calculated Displacement Volume (bbls)	116.85	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	117.00	Amount of Spacer to Surface	20.00
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0.00
Bump Plug	Yes	Amount Bled Back After Job	0.50
Bump Plug Pressure (psi)	383.00	Total Volume Pumped (bbls)	304.50
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 Name: BAYSWATER EXPLORATION & PRODUCTION, LLC

Well Name: KTC FARMS E-35-36HC

Job Type: Surface

Quote ID: QUO-16144-X2R2C9

Plan ID: ORD-09360-L4G6C7

Execution ID: EXC-09360-L4G6C702

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	08/05/2018 07:00	Callout					CALL OUT ON LOCATION TIME OF 16:00
2	08/05/2018 07:30	Safety Meeting					PRE CONVOY SAFETY MEETING WITH ALL BJ CEMENT CREW, LEFT RIFLE YARD FOR TRUE 38
3	08/05/2018 13:30	Arrive on Location					ARRIVE ON LOCATION, RIG CREW WAS PULLING DRILL PIPE
4	08/05/2018 13:38	Spot Units					DID A SITE ASSESMENT AND ROCK DRILL,AND SOITTED IN ALL EQUIPMENT
5	08/05/2018 13:46	Safety Meeting					PRE RIG UP SAFETY MEETING WITH ALL BJ CEMENT CREW
6	08/05/2018 13:57	Rig Up					RIG IN ALL GROUND EQUIPMENT
7	08/05/2018 14:22	Customer					WAIT ON RIG TO RUN CASING
8	08/05/2018 17:52	Safety Meeting					PRE JOB SAFETY MEETING WITH RIG CREW AND ALL BJ CEMENT CREW
9	08/05/2018 18:11	Rig Up					LOAD PLUG CONTAINER, STAB PLUG CONTAINER, AND HOOK UP LINES

EVENT LOG



Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
10	08/05/2018 18:26	Prime Up	8.3300	2.00	5.00	39.00	FILL LINES WITH 5 BBLS FRESH WATER
11	08/05/2018 18:29	Pressure Test				4,058.00	PRESSURE TESTED TO 4058 PSI. PRESSURE HELD
12	08/05/2018 18:32	Pump Spacer	8.3300	5.00	20.00	85.00	FRESH WATER SPACER WITH DYE
13	08/05/2018 18:36	Pump Lead Cement	12.0000	5.00	50.00	196.00	PUMPED LEAD CEMENT 12 PPG 242 SKS 2.53 CUFT/SK 14.86 GAL/SK FOR A TOTAL OF 109.04 BBLS OF LEAD CEMENT REQUIRING 85.62 BBLS OF MIX WATER. WEIGHT VERFIED WITH MUD SCALE, HEIGHT OF LEAD 930.49 FT, WITH A TOP 0 FT.
14	08/05/2018 18:46	Pump Lead Cement	12.0000	5.00	100.00	209.00	PUMPED LEAD CEMENT
15	08/05/2018 18:56	Pump Lead Cement	12.0000	5.00	107.50	211.00	FINISHED PUMPING LEAD CEMENT WITH 107.5 BBLS AWAY
16	08/05/2018 18:57	Pump Tail Cement	12.5000	5.00	50.00	223.00	PUMPED TAIL CEMENT 12.5 PPG 146 SKS 2.23 CUFT/SK 12.59 GAL/SK FOR 57.99 BBLS OF TAIL CEMENT REQUIRING 43.77 BBLS OF MIX WATER. WEIGHT VERFIED WITH MUD SCALE HEIGHT OF TAIL IS 627.82 FT WITH A TOP OF 930.49 FT.
17	08/05/2018 19:06	Pump Tail Cement	12.5000	2.50	60.00	69.00	FINISHED PUMPING TAIL CEMENT WITH 60 BBLS AWAY
18	08/05/2018 19:11	Drop Top Plug					DROP TOP PLUG. VERIFIED BY COMPANY MAN
19	08/05/2018 19:15	Pump Displacement	8.3300	7.00	50.00	178.00	PUMPED FRESH WATER DISPLACEMENT
20	08/05/2018 19:20	Pump Displacement	8.3300	7.00	100.00	471.00	PUMPED FRESH WATER DISPLACEMENT
21	08/05/2018 19:30	Cement Back to Surface					17 BBLS OF CEMENT TO SURFACE
22	08/05/2018 19:30	Pump Displacement	8.3300	2.00	117.00	383.00	PUMPED FRESH WATER DISPLACEMENT
23	08/05/2018 19:35	Pump Displacement	8.3300	2.00	117.00	383.00	PUMPED FRESH WATER DISPLACEMENT

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Seq.	Start Dt./Time	Event	Density (ppg)	Pump Rate (bpm)	Pump Vol(bbls)	Pipe Pressure(psi)	Comments
24	08/05/2018 19:35	Land Plug				818.00	LANDED PLUG. FINAL CIRCULATING PRESSURE WAS 383 PSI TOOK TO 818 PSI
25	08/05/2018 19:36	Check Floats					CHECK FLOATS, FLOATS HELD 1/2 BBL BACK
26	08/05/2018 19:38	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH RIG CREW
27	08/05/2018 19:44	Rig Down					RIG DOWN RIG FLOOR
28	08/05/2018 19:53	Clean Pumps and Lines					WASH PUMPS AND LINES TO CELLAR
29	08/05/2018 20:00	Safety Meeting					PRE RIG DOWN SAFETY MEETING WITH ALL BJ CEMENT CREW
30	08/05/2018 20:08	Rig Down					RIG DOWN ALL GROUND EQUIPMENT
31	08/05/2018 20:22	Leave Location					LEAVE LOCATION. THANK YOU FOR USING BJ SERVICES, ANDREW LINN AND CREW

