





Quote #:

| Execution #:



BJ



Cementing Treatment



Start Date 10/20/2017 **Well** ANSCHUTZ EQUUS FARMS 4-62-28-1724C
End Date 12/30/2018 **County** WELD
Client BILL BARRETT CORPORATION **State/Province** CO
Client Field Rep Robert **API** 05-123-42724
Service Supervisor C. Johnson **Type of Job** Liner
District Cheyenne, WY

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	6.37	7.00	23.00	6,706.00	6,706.00	
Open Hole	6.13			16,352.00	6,706.00	10.00
Drill Pipe	3.34	4.00	14.00	5,773.00	5,773.00	
Liner	4.00	4.50	11.60	16,356.00	6,706.00	

Shoe Length (ft): 58

HARDWARE

Bottom Plug Used? No **Landing Collar Depth (ft)** 16,298
Top Plug Used? No **Tool Type** Liner hanger
Centralizers Used No **Tool Depth (ft)** 5773

CIRCULATION PRIOR TO JOB

Well Circulated By Rig **Mud Density Out (ppg)** 9.3
Circulation Prior to Job No **Solids Present at End of Circulation** No
Lost Circulation Prior to Cement Job No **Flare Prior to/during the Cement Job** No
Mud Density In (ppg) 9.3 **Gas Present** No

TEMPERATURE

Ambient Temperature (°F) 40 **Mix Water Temperature (°F)** 80

Cementing Treatment



BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	CD Spacer	11.0000					30.0000
Tail Slurry	P50-X1	13.5000	1.5930	7.95	684	1,089.0000	193.8000
Displacement 1	Retarded Water	8.3300				0.0000	0.0000
Displacement 2	Water + Chems	8.3300				0.0000	130.0000
Displacement 2	Retarded Water	8.3300				0.0000	20.0000
Displacement Final	Water	8.3300				0.0000	95.2000

Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Spacer	SAND, S-8, Silica Flour, 200 Mesh	179.4000	PPB
Spacer / Pre Flush / Flush	CD Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	CD Spacer	AR-20	0.6000	PPB
Tail Slurry	P50-X1	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	P50-X1	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	P50-X1	BONDING AGENT, BA-90	3.0000	LBS/SK
Tail Slurry	P50-X1	AR-20	0.2000	BWOB
Tail Slurry	P50-X1	Flyash (Rockies)	50.0000	PCT
Tail Slurry	P50-X1	FLUID LOSS, FL-24	0.4000	BWOB
Tail Slurry	P50-X1	GELLANT WATER, GW-86	0.1000	BWOB
Tail Slurry	P50-X1	EXTENDER, BENTONITE	4.0000	BWOB
Tail Slurry	P50-X1	BONDING AGENT, EC-2	3.0000	BWOB
Displacement 1	Retarded Water	BIOCIDE, AQUICAR DB 20	0.1000	GPB
Displacement 1	Retarded Water	ASF-50	0.0800	GPB
Displacement 1	Retarded Water	RETARDER, R-8L	0.5000	GPB
Displacement 2	Water + Chems	BIOCIDE, AQUICAR DB 20	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, R-8L	0.5000	GPB
Displacement 2	Water + Chems	ASF-50	0.0800	GPB

Cementing Treatment



TREATMENT SUMMARY

Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
CD Spacer	4.00	30.00	50
P50-X1	7.00	193.80	2300
Retarded Water	4.00	20.00	1200
Water + Chems	7.00	140.00	3000
Retarded Water	7.00	20.00	3000
Water	5.00	20.00	1500

	Min	Max	Avg
Pressure (psi)	300	3000	2000
Rate (bpm)	3	8	7

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ	Amount of Cement Returned/Reversed	20
Calculated Displacement Volume (bbls)	200	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	200	Amount of Spacer to Surface	30
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	0.5
Bump Plug Pressure (psi)	1500	Total Volume Pumped (bbls)	600
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No



Customer Name BBC
 Well Name Anschutz Equus Farms 4-62-28-1724C
 Job Type Liner

District Cheyenne
 Supervisor C. Johnson
 Engineer _____

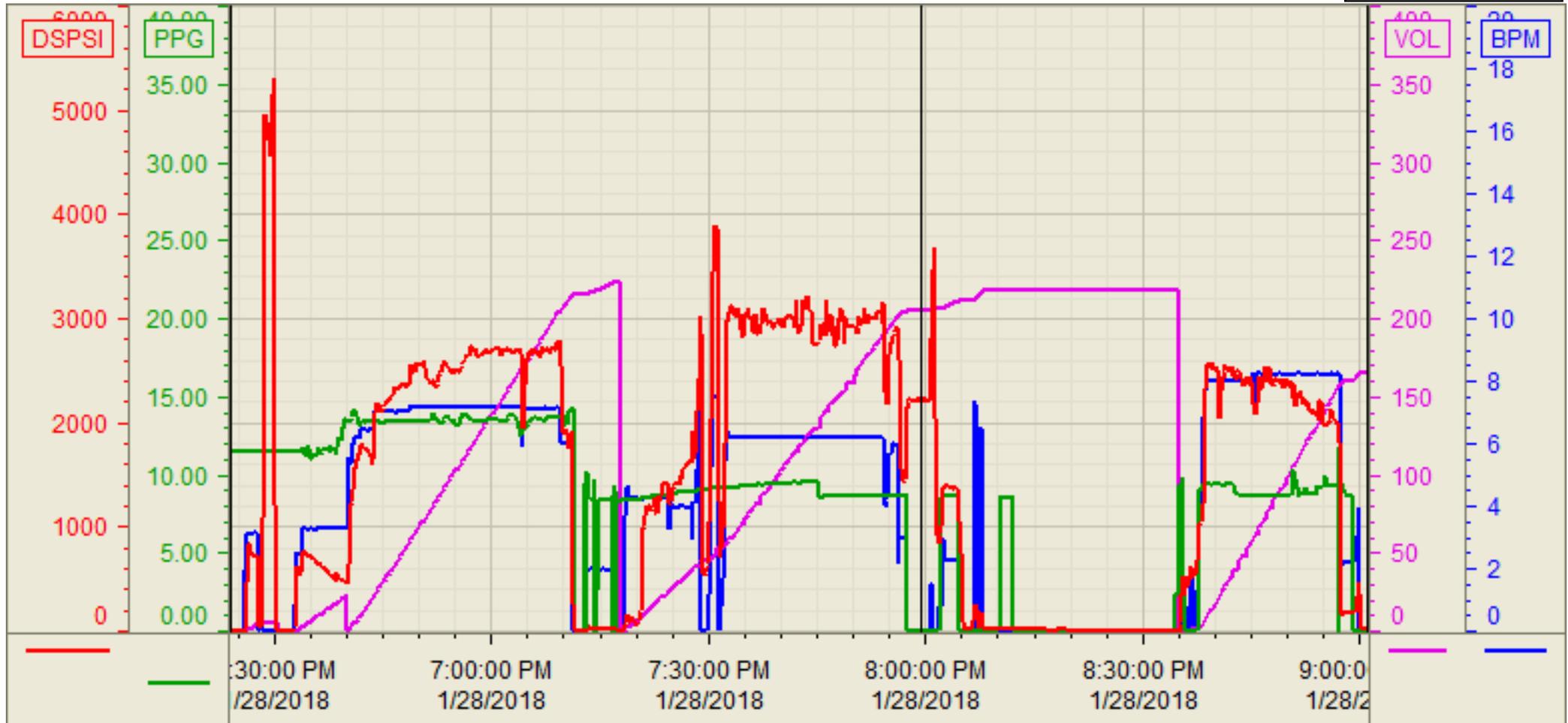
Seq No.	Start Date/Time	Category	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	1/28/18 1000	Mobilization	Callout	1					Crew called out requested on location at 1630
2	1/28/18 1530	Mobilization	Arrive on Location	48					Crew arrived on location at 1530
3	1/28/18 1545	Operational	Safety Meeting	53					Safety meeting
4	1/28/18 1600	Operational	Spot Units	49					Spotted all equipment
5	1/28/18 1630	Operational	Rig Up	50					Rigged up all equipment
6	1/28/18 1800	Operational	Safety Meeting	53					Safety meeting
7	1/28/18 1833	Operational	Prime Up	52	8.34	3	5	500	Fill line with 5 bbls fresh water
8	1/28/18 1837	Operational	Pressure Test	54					Pressure test lines to 5000 psi
9	1/28/18 1841	Operational	Pump Spacer	56	11	4	30	500	Pump 30 bbls spacer @ 11 ppg
10	1/28/18 1849	Operational	Pump Tail Cement	60	13.5	7	194	2000	Pump 194 bbls cement @ 13.5 ppg (684 sks, 1.59Y, 7.95 gal/sk)
11	1/28/18 1920	Operational	Other (See comments)	76					Shutdown
12	1/28/18 1922	Operational	Clean Pumps and Lines	62					Clean pumps and lines
13	1/28/18 1926	Operational	Drop Top Plug	63					Drop third party plug
14	1/28/18 1927	Operational	Pump Displacement	64	8.34	4	20	1200	Pump 20 bbls water displacement with RL-8
15	1/28/18 1933	Operational	Pump Displacement	64	8.34	8	140	3000	Pump 140 bbls water displacement with ASF-50 and biocide
16	1/28/18 2000	Operational	Pump Displacement	64	8.34	8	20	3000	Pump 20 bbls water displacement with RL-8
17	1/28/18 2003	Operational	Other (See comments)	76	8.34	3	20	1500	Pump 20 bbls water displacement
18	1/28/18 2006	Operational	Land Plug	67				1500	Land plug at calculated 200 bbls away, final pressure was 1500 psi took to 2300 psi
19	1/28/18 2009	Operational	Pump Displacement	64	8.34	3	5		Pressure up 3300 to psi to induce wet shoe, pump 5 bbls water displacement
20	1/28/18 2010	Operational	Other (See comments)	76					Shutdown
21	1/28/18 2011	Operational	Check Floats	68					Check floats, floats holding, 0.5 bbls back
22	1/28/18 2045	Operational	Circulate Well	51	8.34	8	150		Circulate well pump a total of 150 bbls. 30 bbls spacer and 20 bbls cement circulated out
23	1/28/18 2109	Operational	Other (See comments)	76					Shutdown
24	1/28/18 2115	Operational	Safety Meeting	53					Safety meeting
25	1/28/18 2130	Operational	Rig Down	73					Rigged down all equipment
26	1/28/18 2300	Mobilization	Leave Location	74					Crew departed location

Customer: BBC
 Well Number: 4-62-28-1742C
 Lease Info: Anschutz Equus Farms



Print Date/Time

1/28/2018 9:09:32 PM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press(PSI)	2207.1 i.	1/28/2018 7:59:24 PM i.	Cementer\DS_DISCHARGE_PRESS_DIAL
2	Recirc - Density (PPG)	0.0	1/28/2018 7:59:25 PM	Cementer\DENSITY_ACTUAL_RATE
3	Down Hole Total (BBL)	205.3 i.	1/28/2018 7:59:24 PM i.	Cementer\DOWNHOLE_FLOW_TOTAL
4	Combined rate (BPM)	0.00 i.	1/28/2018 7:59:24 PM i.	Cementer\Flow_Combined
5				