



Bill Barrett Corporation

Production Liner Post Job Report

Anschutz Equus Farms 4-62-28-6457CB

API: 05-123-43721

S:28 T:4N R:62W Weld CO



Bill Barrett Corporation

Matt Schwartz | (303) 312-8142 | maschwartz@billbarrettcorp.com

Bill Barrett Corporation | 1099 18 St. | Denver, CO 80202

Dear Mr. Schwartz,

Thank you for the opportunity to provide cementing services on this well. BJ Services strives to achieve complete customer satisfaction. If you have any questions regarding the services or data provided, please contact BJ Services at any time.

Sincerely,

Karl Griesser

Field Engineer I | (713) 829-7498 | Karl.Griesser@BJServices.com

Field Office 1716 East Allison Rd., Cheyenne WY, 82007

Phone: (307) 638-5585

Sales Office 999 18th St. Suite 1200 Denver, CO 80202

Phone: (281) 408-2361

Cementing Treatment



Start Date	4/1/2018	Well	ANSCHUTZ EQUUS FARMS 4-62-28-6457CB
End Date	4/2/2018	County	WELD
Client	BILL BARRETT CORPORATION	State/Province	CO
Client Field Rep	Robert/Daniel	API	05-123-43721
Service Supervisor	Albert Snyder	Rig	Savanna 802
Field Ticket No.	FT-05314-R1D0L40202-78969	Type of Job	Liner
District	Cheyenne, WY		

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Open Hole	6.13			16,322.00	6,222	10.00
Drill Pipe	3.34	4.00	14.00	5,863.1	5,811	
Liner	4.00	4.50	11.60	16,318.00	6,222	
Previous Casing	6.37	7.00	23.00	6,653.00	6,301	

Shoe Length (ft): 42

HARDWARE

Bottom Plug Used?	No	Pipe Movement	None
Top Plug Used?	Yes	Job Pumped Through	Drill Pipe Pin
Top Plug Provided By	Weatherford	Top Connection Thread	Drill pin
Top Plug Size	4.5 Dart	Top Connection Size	4.5
Centralizers Used	No		
Landing Collar Depth (ft)	16,314		
Tool Type	Hanger		
Tool Depth (ft)	5876		
Max Casing Pressure - Rated (psi)	5350		
Max Casing Pressure - Operated (psi)	2800		

Cementing Treatment



CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	1
Circulation Time (min)	120	10 min SGS	1
Circulation Rate (bpm)	5	30 min SGS	1
Circulation Volume (bbls)	600	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	8.8		
Mud Density Out (ppg)	8.8		
PV Mud In	2		
PV Mud Out	2		
YP Mud In	1		
YP Mud Out	1		

TEMPERATURE

Ambient Temperature (°F)	45	Slurry Cement Temperature (°F)	70
Mix Water Temperature (°F)	70	Flow Line Temperature (°F)	108

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	11.0000			4,178.00				30.0000
Tail Slurry	BJCem L50.6.01C	13.5000	1.5930	7.95	5,700.00	10,650.00	700	1,114.0000	198.3000
Displacement 1	Retarded Water	8.3300			15,021.00				20.0000
Displacement 2	Retarded Water	8.3300			13,734.00				20.0000
Displacement 2	Water + Chems	8.3300			6,656.00				130.0000
Displacement Final	Water	8.3300			0.00				76.6000

Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	SAND, S-8, Silica Flour, 200 Mesh	179.4000	PPB
Spacer / Pre Flush / Flush	IntegraGuard EZ Spacer	RETARDER, SR-20	0.6000	PPB
Tail Slurry	BJCem L50.6.01C	CEMENT, CLASS G	50.0000	PCT
Tail Slurry	BJCem L50.6.01C	EXTENDER, BENTONITE	4.0000	BWOB
Tail Slurry	BJCem L50.6.01C	Flyash (Rockies)	50.0000	PCT
Tail Slurry	BJCem L50.6.01C	GELLANT WATER, GW-86	0.1000	BWOB
Tail Slurry	BJCem L50.6.01C	FLUID LOSS, FL-24	0.4000	BWOB
Tail Slurry	BJCem L50.6.01C	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	BJCem L50.6.01C	BONDING AGENT, BA-90	3.0000	LBS/SK
Tail Slurry	BJCem L50.6.01C	BONDING AGENT, EC-2	3.0000	BWOB
Tail Slurry	BJCem L50.6.01C	RETARDER, SR-20	0.2000	BWOB
Displacement 1	Retarded Water	CLAY STABILIZER ResCare CS	0.0800	GPB
Displacement 1	Retarded Water	RETARDER, R-8L	0.5000	GPB
Displacement 1	Retarded Water	BIOCIDE, BIOC11139W	0.0100	GPB
Displacement 2	Retarded Water	RETARDER, R-8L	0.5000	GPB
Displacement 2	Water + Chems	CLAY STABILIZER ResCare CS	0.0800	GPB
Displacement 2	Water + Chems	BIOCIDE, BIOC11139W	0.0100	GPB

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJ Services	Amount of Cement Returned/Reversed	20
Calculated Displacement Volume (bbls)	201	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	201	Amount of Spacer to Surface	30
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	1.5 bbl
Bump Plug Pressure (psi)	2000	Total Volume Pumped (bbls)	593
Were Returns Planned at Surface	No	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No

COMMENTS

Job went according to plan. We landed the plug on calculated 201 barrels. Plug burst at 2800 psi we over displacer 5 barrels and reversed out 140 barrels. We got back 30 barrels of spacer and 20 barrels of cement to the surface. We pump all cement on location scaled and took samples (wet & dry).



Customer Name BILL BARRETT
 Well Name ANSHUTZ EQUUS FARMS 4-62-28-6457CB
 Job Type Liner

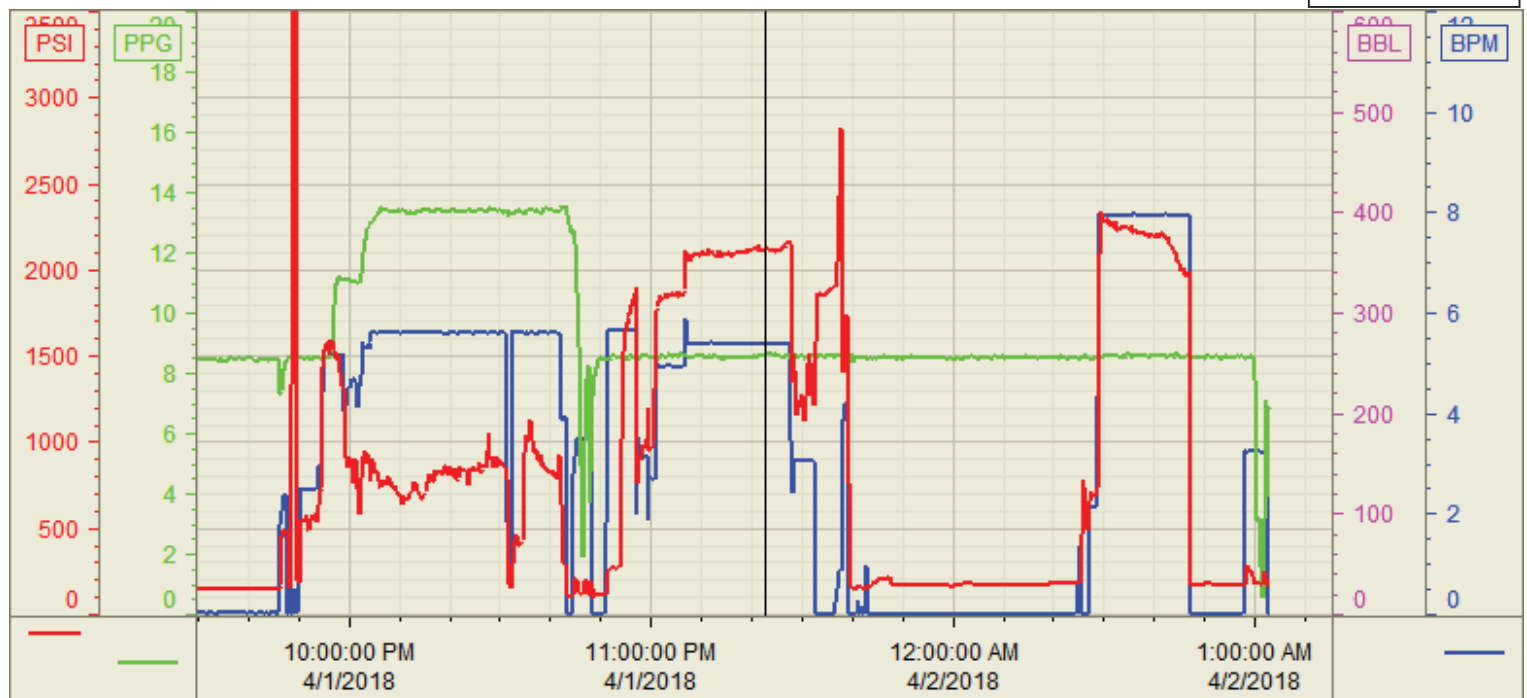
District Cheyenne
 Supervisor ALBERT SNYDER

Start Date/Time	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
4/1/2018 16:00	Called out						Called out at 16:00
4/1/2018 17:00	Journey Steacs						Discussed journey to location
4/1/2018 18:30	Depart Yard						Drive in convoy
4/1/2018 21:30	Requested on location						Requested at 21:30
4/1/2018 20:30	Arrive on location	48					Arrives 1 hour earl rig was waiting on us
4/1/2018 20:40	Steacs briefing						Discussed rigging up and spotting equipment
4/1/2018 21:00	rig up	50					Work safe and timely
4/1/2018 21:45	Safety Meeting	53					Discussed job with rig crew
4/1/2018 22:00	Fill Lines		8.33	2	3	230	Pump fresh water
4/1/2018 22:03	Test Lines		8.33	1	1	5000	lines tested up to 5000 psi good
4/1/2018 22:05	Water spacer		8.33	4	20	300	Fresh water
4/1/2018 22:10	Ez spacer		11	4	20	600	mix and pump EZ spacer @11#
4/1/2018 22:17	Pump Cement		13.5	5.5	198	800	Mix and pump 700 sks of p50 @13.5#/gal with 1.59 yiels and 7.95 wr
4/1/2018 22:51	Drop plug						dropped Weatherford dart
4/1/2018 0:00	Displace well		8.33	5	20	1200	Fresh water /R8L/Claystabilizer
4/1/2018 23:05	Displace well		8.33	5	20	1200	Claystabilizer
4/1/2018 23:14	Displace well		8.33	5	10	1800	Freswwater R8L/Claystabilizer
4/1/2018 23:27	Displace well		8.33	5	100	1100	Claystabilizer
4/1/2018 23:42	Displace well		8.33	5	170	1100	Claystabilizer
4/1/2018 23:45	Slow rate		8.33	3	180	1100	Claystabilizer
4/1/2018 23:47	Land th plug		8.33	3	201	1100/2000	plug landed on calculated
4/1/2018 23:51	Burst plug		8.33	2	2	2800	burst the plug at 2800 psi
4/1/2018 23:55	Over displace		8.33	5	3	350	fresh water
4/1/2018 23:57	Check Float						Float is holding flowed back 1.5 bls
4/2/2018 0:09	Sting ou/set hanger						waiting on tool man
4/2/2018 0:14	Reverse out						
4/2/2018 0:40	Pump water		8.33	8	90	2000	spacer back 20 bbls
4/2/2018 1:00	Pump water		8.33	8	135	2000	Cement back to surface 20 bbls
4/2/2018 1:05	end of job		8.33	3	140	1500	end of job
4/2/2018 1:20	Steacs briefing						Discussed how to rig down safely
4/2/2018 1:25	Rig down	73					take our time so not to get injured
4/2/2018 1:40	After Action review						Discussed how to do the job even better
4/2/2018 2:00	Steacs Journey						travel in convoy/good following distances
4/2/2018 2:10	Leave location	74					Travel to Kersy Colorado

Customer: BILL BARRETT
Well Number: 4-62-28-6457C0
Lease Info: ANSHUTZ EQUIS FARMS



Print Date/Time
4/2/2018 1:02:52 AM



	Name	Y value	X value/time stamp	Tag name Y
1	DS - Press (PSI)	2106.1	4/1/2018 11:22:33 PM	Cementer\DS_DISCHARGE_PRESS_DIAL
2	DH - Density (PPG)	8.60 i.	4/1/2018 11:22:36 PM i.	Cementer\DENSITY2_ACTUAL_RATE
3	Combined Rate	5.39 i.	4/1/2018 11:22:36 PM i.	Cementer\Flow_Combined
4				
5				
				Source: Control1 1:02:46 AM