



Bill Barrett Corporation

Intermediate Post-Job Report

Anschutz Equus Farms 4-62-28-0108CS (API 05-123-43686)

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

Quote #: | Execution #:



Bill Barrett Corporation

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

Bill Barrett Corporation | 1099 18th Street, | 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	2/6/2018	Well	ANSCHUTZ EQUUS FARMS 4-62-28-0108CS
End Date	2/6/2018	County	WELD
Client	BILL BARRETT CORPORATION	State/Province	CO
Client Field Rep	Dustin	API	05-123-43686
Service Supervisor	Hector Chapparo		
Field Ticket No.	FT-03477-J2B4N40202-73086	Rig	Savanna 802
District	Cheyenne, WY	Type of Job	Intermediate

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)	Grade
Open Hole	8.75			6,655.00	6,246.00	18.00	
Casing	6.37	7.00	23.00	6,627.00	6,246.00		J-55
Previous Casing	8.92	9.63	36.00	885.00	885.00		

Shoe Length (ft): 47.69

HARDWARE

Bottom Plug Used?	No	Job Pumped Through	2 in.
Top Plug Used?	Yes	Top Connection Thread	LTC
Top Plug Provided By	Customer	Top Connection Size	7 in
Top Plug Size	7 in		
Centralizers Used	Yes		
Landing Collar Depth (ft)	6,579.31		

CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	Solids Present at End of Circulation	No
Circulation Prior to Job	Yes	10 sec SGS	4
Circulation Time (min)	90	10 min SGS	3
Circulation Rate (bpm)	15		

Cementing Treatment



Circulation Volume (bbls)	1350	Flare Prior to/during the Cement Job	No
Lost Circulation Prior to Cement Job	No	Gas Present	No
Mud Density In (ppg)	10		
Mud Density Out (ppg)	10		
PV Mud In	11		
PV Mud Out	11		
YP Mud In	4		
YP Mud Out	4		

TEMPERATURE

Ambient Temperature (°F)	38	Slurry Cement Temperature (°F)	55
Mix Water Temperature (°F)	55	Flow Line Temperature (°F)	55

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					20.0000
Lead Slurry	I100-X2	12.5000	2.0735	11.83	375	778.0000	138.4800
Tail Slurry	I100-X1	15.8000	1.1550	4.98	260	296.0000	53.4800
Displacement Final	Water	8.3300				0.0000	259.2200

Cementing Treatment



Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Spacer	GELLANT WATER, GW-86	0.8000	PPB
Spacer / Pre Flush / Flush	CD Spacer	SAND, S-8, Silica Flour, 200 Mesh	179.6000	PPB
Spacer / Pre Flush / Flush	CD Spacer	AR-20	1.0200	PPB
Spacer / Pre Flush / Flush	CD Spacer	Spacer Surfactant, SS-247	0.5000	GPB
Lead Slurry	I100-X2	CEMENT, ASTM TYPE III	100.0000	PCT
Lead Slurry	I100-X2	BONDING AGENT, BA-60	0.3000	BWOB
Lead Slurry	I100-X2	FLUID LOSS, FL-24	0.3000	BWOB
Lead Slurry	I100-X2	AR-20	0.4000	BWOB
Lead Slurry	I100-X2	Foam Preventer, FP-25	0.3000	BWOB
Tail Slurry	I100-X1	R-6 LOW TEMP RETARDER 50 LB BAG BJS	0.1000	BWOB
Tail Slurry	I100-X1	BONDING AGENT, BA-60	0.2000	BWOB
Tail Slurry	I100-X1	FLUID LOSS, FL-24	0.2000	BWOB
Tail Slurry	I100-X1	DISPERSANT, CD-31	0.2000	BWOB
Tail Slurry	I100-X1	CEMENT, CLASS G	100.0000	PCT
Tail Slurry	I100-X1	Foam Preventer, FP-25	0.3000	BWOB

TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
14:17	CD Spacer	4.00	20.00	338
14:21	I100-X2	6.00	138.48	298
14:44	I100-X1	6.00	53.48	240
15:00	Water	8.00	259.22	1525

	Min	Max
Pressure (psi)	0	2139
Rate (bpm)	3	8

Cementing Treatment



DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJS	Amount of Cement Returned/Reversed	8
Calculated Displacement Volume (bbls)	259.22	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	258	Amount of Spacer to Surface	20
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	Yes	Amount Bled Back After Job	2 bbls
Bump Plug Pressure (psi)	2109	Total Volume Pumped (bbls)	470
Were Returns Planned at Surface	Yes	Top Out Cement Spotted	No
Cement returns During Job	Yes	Lost Circulation During Cement Job	No



Customer Name Bill Barrett Corp.

Well Name Anschutz Equus Farms 4-62-28-0108 CS

Job Type Intermediate

District Cheyenne

Supervisor Hector Ch.

Engineer _____

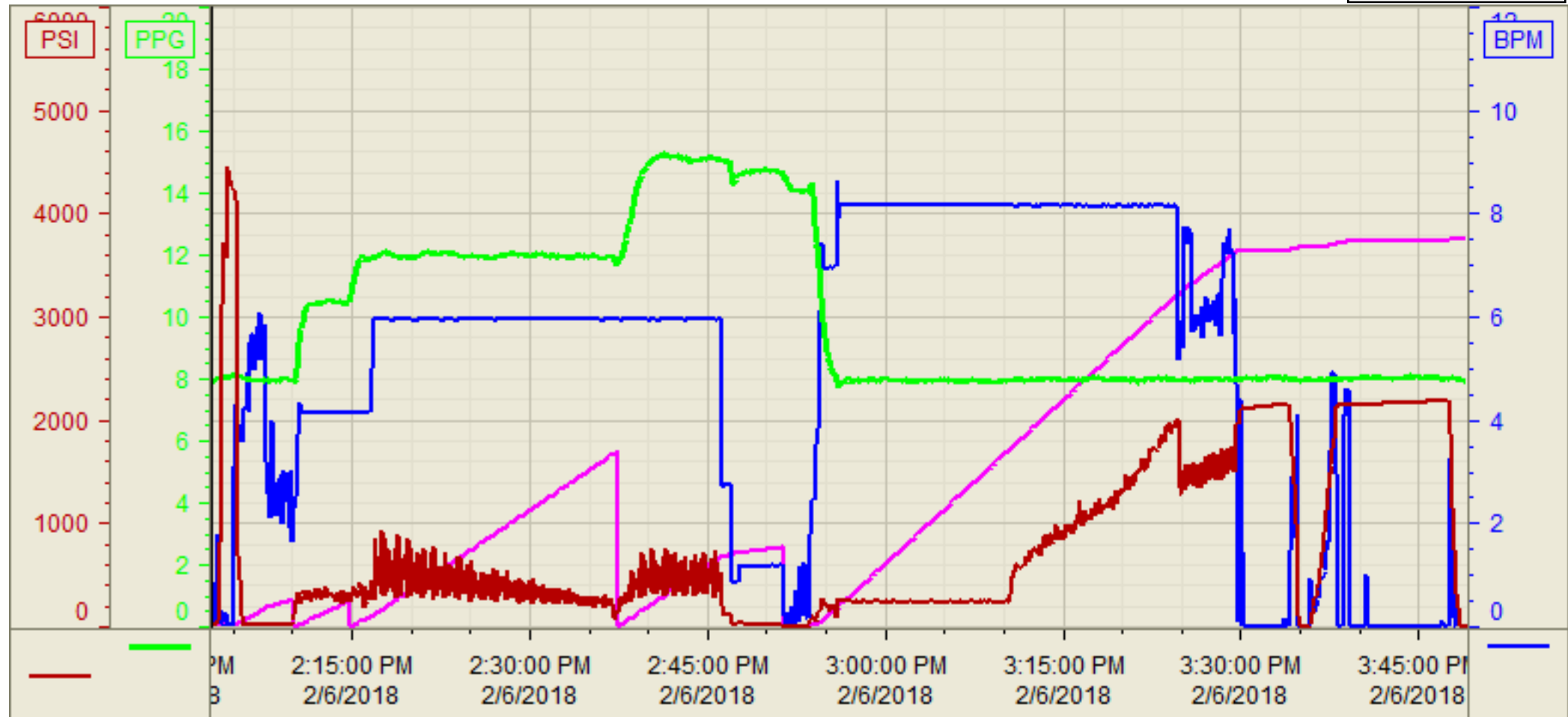
Start Date/Time	Event	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
2/6/2018 10:00	Call out						BJ services crew gets call out for job. On location requested time 12:30 pm.
2/6/2018 10:30	Depart location						BJ services crew departs location to head out to job.
2/6/2018 12:30	Arrive on location						BJ services crew arrives on location.
2/6/2018 12:35	Safety meeting	53					BJ services crew has a pre-rig up safety meeting.
2/6/2018 12:40	Rig up	50					BJ services starts to rig up hoses and iron.
2/6/2018 13:30	Safety meeting	53					BJ services crew has a safety meeting and goes over pump procedure with rig hands and Co-man.
2/6/2018 13:59	Prime up	52					Prime up pumps and lines
2/6/2018 14:09	Pressure test						Pressure test lines to 4000 psi.
2/6/2018 14:17	Pump CD spacer		11	4	20	338	Pump 20 bbls of CD spacer 11 ppg w/ Chems at 4 bpm w/ 338 psi.
2/6/2018 14:21	Pump lead cement	58	12.5	6	138.48	298	Pump 138.48 bbls of 12.5 ppg (260 sks 2.0735 yld 11.83 g/sk) lead cement at 6 bpm w/ 298 psi.
2/6/2018 14:44	Pump tail cement		15.8	6	53.48	240	Pump 53.48 bbls of 15.8 ppg (260 sks 1.1550 yld 4.98 g/sk) tail cement at 6 bpm 240 psi.
2/6/2018 14:58	Shut Down						Shut down pumping cement
2/6/2018 15:00	Drop top plug						Drop top plug
2/6/2018 15:00	Start Displacement		8.33	8	0	250	Start displacement at 8 bpm w/ 250 psi.
2/6/2018 15:30	Spacer to surface		8.33	8	230	1550	At 230 bbls into displacement got spacer to surface going 8 bpm w/ 1550 psi.
2/6/2018 15:31	Slow down rate		8.33	3	238	1336	At 238 bbls into displacement slow down rate to 3 bpm w/ 1336 psi.
2/6/2018 15:35	Cement to surface		8.33	3	250	1451	At 250 bbls into displacement got cement to surface going 3 bpm w/ 1451 psi.
2/6/2018 15:37	Land plug		8.33	3	258	2109	At 258 bbls into displacement landed plug, final circulating pressure was 1525 psi bumped it up to 2109 psi.
2/6/2018 15:40	Check floats	68					Check floats got 2 bbls back.
2/6/2018 15:41	Casing test		8.33			2139	Casing test to 2139 psi. for 15 min.
2/6/2018 15:56	Release pressure						Released pressure.
2/6/2018 16:00	Safety meeting	53					BJ services crew has a pre-rig down safety meeting.
2/6/2018 16:05	Rig down						BJ services crew starts to rig down
2/6/2018 17:00	Depart location						BJ services crew departs location.
	Other						Spacer to surface 20 bbls.
	other						Cement to surface 8 bbl.

Customer: Bill Barrett Corp.
Well Number: 4-62-28-0108CS
Lease Info: Anschutz Equus Farms



Print Date/Time

2/6/2018 4:04:18 PM



	Name	Y value	X value/time stamp	Tag name Y
1	PS - Press (PSI)	13.0 i.	2/6/2018 2:03:10 PM i.	Cementer\PS_DISCHARGE_PRESS_DIAL
2	DH - Density (PPG)	7.96 i.	2/6/2018 2:03:10 PM i.	Cementer\DENSITY2_ACTUAL_RATE
3	Combined Rate (BPM)	0.03 i.	2/6/2018 2:03:10 PM i.	Cementer\Flow_Combined
4	Down Hole Total (BBLs)	1 i.	2/6/2018 2:03:10 PM i.	Cementer\DOWNHOLE_FLOW_TOTAL
5				

Source: Control1 4:04:13 PM