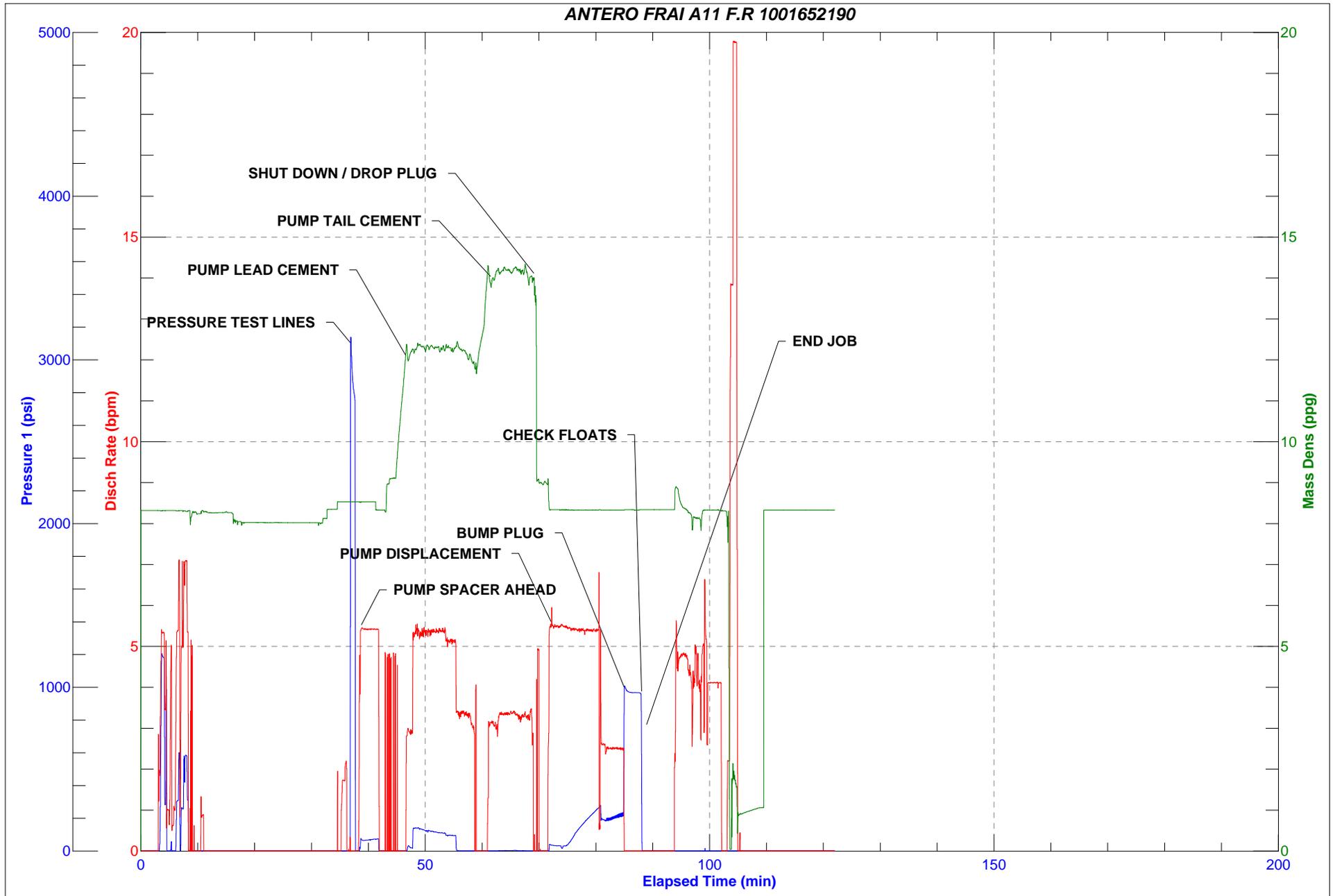


Surface Job



CEMENT JOB REPORT



CUSTOMER Antero Resources Corporation		DATE 18-JUL-10	F.R. # 1001652190		SERV. SUPV. JOSE E CARCAMO		
LEASE & WELL NAME FREI #A11 - API 05045196400000		LOCATION 7-6S-91W		COUNTY-PARISH-BLOCK Garfield Colorado			
DISTRICT Grand Junction		DRILLING CONTRACTOR RIG #		TYPE OF JOB Surface			
SIZE & TYPE OF PLUGS		LIST-CSG-HARDWARE		PHYSICAL SLURRY PROPERTIES			
8-5/8" Bot Cem Plug, Nitrile cvr, Phe		Float Collar, AI Flap, 8-5/8 - 8rd		SACKS OF CEMENT	SLURRY WGT PPG	SLURRY YLD FT³	
				WATER GPS	PUMP TIME HR:MIN	Bbl SLURRY	
						Bbl MIX WATER	
MATERIALS FURNISHED BY BJ							
WATER				0	8.34	0	
(35:65) poz (fly ash) Type III cmt+.04 lbs/sk				157	12.3	2.09	
static free+1% bwoc CaCl2+.25 lbs/cello flake +.5				0	12.3	2.09	
FP-13L+8% bwoc bentonite II				0	12.3	2.09	
Type III cmt+ .04 lbs/sk static free+1% CaCl2+.25%				110	14.2	1.47	
cello flake + .5 gal/100sks FP-13L				0	14.2	1.47	
WATER					8.34		
Available Mix Water <u>500</u> Bbl.		Available Displ. Fluid <u>500</u> Bbl.		TOTAL			
						163.38	
						61.44	
HOLE		TBG-CSG-D.P.				COLLAR DEPTHS	
SIZE	% EXCESS	DEPTH	SIZE	WGT.	TYPE	DEPTH	GRADE
12.25		1013	8.625	24	CSG	1000	
LAST CASING		PKR-CMT RET-BR PL-LINER		PERF. DEPTH		TOP CONN	
SIZE	WGT	TYPE	DEPTH	BRAND & TYPE		DEPTH	TOP
				no packer		0	0
						0	0
						8.625	8RD
							WATER BASED MU
							9.9
DISPL. VOLUME		DISPL. FLUID		CAL. PSI	CAL. MAX PSI	OP. MAX	MAX TBG PSI
VOLUME	UOM	TYPE	WGT.	BUMP PLUG	TO REV.	SQ. PSI	RATED
58.4	BBLS	WATER	8.34	229	0	0	0
							Operator
							Rated
							Operator
							Rated
							Operator
							MIX WATER
							day tank
Circulation Prior to Job							
Circulated Well: Rig <input checked="" type="checkbox"/> BJ <input type="checkbox"/>				Circulation Time: _____			
Mud Density In: 9.9 LBS/GAL				Mud Density Out: 9.9 LBS/GAL			
PV & YP Mud In: _____				PV & YP Mud Out: _____			
Gas Present: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>				Solids Present at End of Circulation: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>			
Displacement And Mud Removal							
Displaced By: Rig <input type="checkbox"/> BJ <input type="checkbox"/>				Amount Bled Back After Job: .25 BBLS			
Returns During Job: <input type="checkbox"/> NONE <input type="checkbox"/> PARTIAL <input checked="" type="checkbox"/> FULL				Method Used to Verify Returns: visual			
Cement Returns at Surface: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				Were Returns Planned at Surface: <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES			
Pipe Movement: <input type="checkbox"/> ROTATION <input type="checkbox"/> RECIPROCATION <input type="checkbox"/> NONE <input type="checkbox"/> UNABLE DUE TO STUCK PIPE							
Centralizers: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				Quantity: _____		Type: <input type="checkbox"/> BOW <input type="checkbox"/> RIGID	
Job Pumped Through: <input type="checkbox"/> CHOKE MANIFOLD <input type="checkbox"/> SQUEEZE MANIFOLD <input checked="" type="checkbox"/> MANIFOLD <input type="checkbox"/> NO MANIFOLD							
Plugs							
Number of Attempts by BJ: _____				Competition: _____			
Wiper Balls Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				Quantity: _____			
Plug Catcher Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				Parabow Used: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES			
Was There a Bottom: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				Top of Plug: FT _____			
				Bottom of Plug: FT _____			
Squeezes (Update Original Treatment Report for Primary Job)							
BLOCK SQUEEZE <input type="checkbox"/> SHOE SQUEEZE <input type="checkbox"/> TOP OF LINER SQUEEZE <input type="checkbox"/> PLANNED <input type="checkbox"/> UNPLANNED <input type="checkbox"/>							
Liner Packer: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES				Bond Log: <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES		PSI Applied: _____	
				Fluid Weight: LBS/GAL _____			
Casing Test (Update Original Treatment Report for Primary Job)							
Casing Test Pressure: _____ PSI				With _____ LBS/GAL Mud		Time Held: _____ Hours _____ Minutes	
EXPLANATION: TROUBLE SETTING TOOL, RUNNING CSG, ETC. PRIOR TO CEMENTING: none							

CEMENT JOB REPORT



Shoe Test (Update Original Treatment Report for Primary Job)

Depth Drilled out of Shoe: FT	Target EMW: LBS/GAL	Actual EMW: LBS/GAL
Number of Times Tests Conducted:	Mud Weight When Test was Conducted: LBS/GAL	

Problems Before Job (I.E. Running Casing, Circulating Well, ETC)

Problems During Job (I.E. Lost Returns, Equipment Failure, Bulk Delivery, Foaming, ETC)

Problems After Job (I.E. Gas at Surface, Float Equipment Failed, ETC)

PRESSURE/RATE DETAIL						EXPLANATION	
TIME HR:MIN.	PRESSURE - PSI		RATE BPM	Bbl. FLUID PUMPED	FLUID TYPE	SAFETY MEETING: BJ CREW <input checked="" type="checkbox"/> CO. REP. <input type="checkbox"/>	
	PIPE	ANNULUS				TEST LINES	3000 PSI
						CIRCULATING WELL - RIG <input checked="" type="checkbox"/> BJ <input type="checkbox"/>	
22:00						PRE CONVOY SAFETY MEETING	
22:15						LEAVE YARD	
00:00						ARRIVED ON LOCATION	
01:20						SPOT EQUIPMENT	
01:30						PRE RIG UP SAFETY MEETING	
01:55						PRE JOB SAFETY MEETING	
02:25						START JOB	
02:29	3000				WATER	PRESSURE TEST LINES	
02:31	190		5.4	20	WATER	PUMP SPACER AHEAD	
02:38	194		5.3		CEMENT	PUMP LEAD CEMENT	
02:46	160		5.1	40	CEMENT	PUMP LEAD CEMENT	
02:51	74		3.3	55	CEMENT	PUMP LEAD CEMENT	
02:52	74		3.3	7	CEMENT	PUMP TAIL CEMENT	
03:01	65		3.3	28	CEMENT	PUMP TAIL CEMENT	
03:02						SHUT DOWN	
03:03						DROP PLUG	
03:05	134		5.5	10	WATER	PUMP DISPLACEMENT	
03:11	324		5.5	40	WATER	PUMP DISPLACEMENT	
03:13	265		2.5	48	WATER	SLOW RATE	
03:17	1055		2.5	58	WATER	BUMP PLUG	
03:20						CHECK FLOATS/FLOATS HELD	
03:25						END JOB	
						20 BBLs OF CMT BACK TO THE PIT	
03:30						POST JOB SAFETY MEETING	
04:15						CONVOY SAFETY MEETING	
04:30						DEPART LOCATION	

BUMPED PLUG	PSI TO BUMP PLUG	TEST FLOAT EQUIP.	BBL.CMT RETURNS/ REVERSED	TOTAL BBL. PUMPED	PSI LEFT ON CSG	SPOT TOP OUT CEMENT	Service Supervisor Signature:
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	1055	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	20	155	0	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	