

---

# **ANTERO RESOURCES**

---

**BURKLE FED A13  
MAMM CREEK  
Garfield County , Colorado**

## **Cement Surface Casing** **12-Apr-2011**

### **Post Job Summary**

## The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2845442	Quote #:	Sales Order #: 8062030
Customer: ANTERO RESOURCES		Customer Rep: Honeycutt, Matt	
Well Name: BURKLE FED	Well #: A13	API/UWI #: 05-045-20491	
Field: MAMM CREEK	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Lat: N 39.525 deg. OR N 39 deg. 31 min. 30.936 secs.		Long: W 107.67 deg. OR W -108 deg. 19 min. 47.23 secs.	
Contractor: CRAIGS #2		Rig/Platform Name/Num: CRAIGS #2	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL		Srvc Supervisor: TRIPLETT, MICHEAL	MBU ID Emp #: 447908

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DEUSSEN, EDWARD Eric	4.5	485182	STILLSON, ERIC W	4.5	393789	TRIPLETT, MICHEAL Anthony	4.5	447908
WEAVER, CARLTON Russell	4.5	457698						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10025118	120 mile	10565341	120 mile	10567589C	120 mile	10741259	120 mile
10804567	120 mile	10995027	120 mile	11259886	120 mile		

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
04/12/2011	4.5	1						

<b>TOTAL</b>	Total is the sum of each column separately							
--------------	--	--	--	--	--	--	--	--

### Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	12 - Apr - 2011	00:30	MST
Form Type		BHST	Job Started	12 - Apr - 2011	04:30	MST
Job depth MD	1030. ft	Job Depth TVD	Job Completed	12 - Apr - 2011	07:00	MST
Water Depth		Wk Ht Above Floor	Departed Loc	12 - Apr - 2011	08:08	MST
Perforation Depth (MD)	From	To			09:00	MST

### Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
-------------	------------	-------------------	---------	-------	---------------	--------	-------	-----------	--------------	------------	---------------

### Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,8 5/8,HWE,7.20 MIN/8.09 MA	1	EA		

### Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

### Miscellaneous Materials

Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size		Qty

### Fluid Data

Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk	
1	Fresh Water Spacer		10.00	bbl	8.4	.0	.0	.0		
2	VersaCem Lead Cement	VERSACEM (TM) SYSTEM (452010)	195.0	sacks	12.3	2.38	13.75		13.75	
3	SwiftCem Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	200.0	sacks	14.2	1.43	6.85		6.85	
6.85 Gal		FRESH WATER								
4	Displacement		73.00	bbl	8.4	.0	.0	.0		
Calculated Values		Pressures		Volumes						
Displacement	73.1	Shut In: Instant		Lost Returns	0	Cement Slurry	133	Pad		
Top Of Cement	SURFACE	5 Min		Cement Returns	10	Actual Displacement		Treatment		
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	230	
Rates										
Circulating	0	Mixing	6	Displacement	6	Avg. Job	6			
Cement Left In Pipe	Amount	39.64 ft	Reason	Shoe Joint						
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID			
The Information Stated Herein Is Correct				Customer Representative Signature						

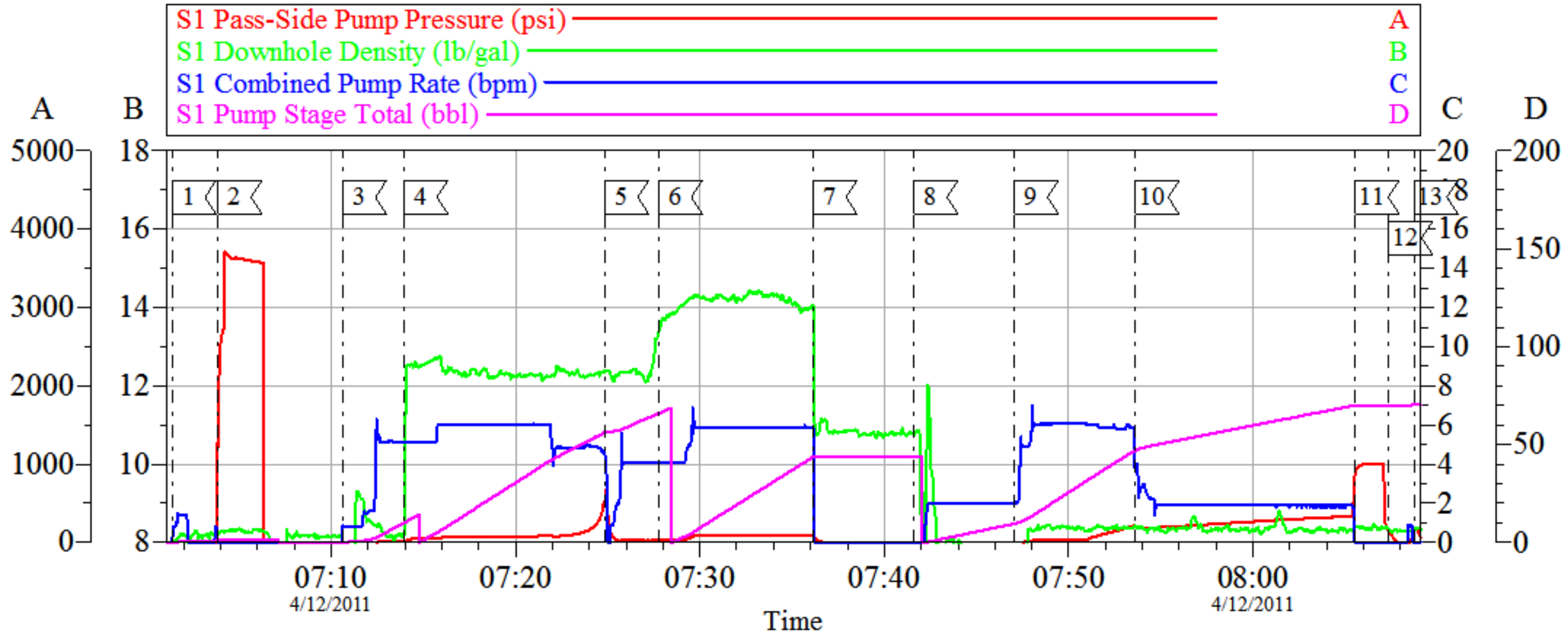
*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 337854	<b>Ship To #:</b> 2845442	<b>Quote #:</b>	<b>Sales Order #:</b> 8062030
<b>Customer:</b> ANTERO RESOURCES		<b>Customer Rep:</b> Honeycutt, Matt	
<b>Well Name:</b> BURKLE FED	<b>Well #:</b> A13	<b>API/UWI #:</b> 05-045-20491	
<b>Field:</b> MAMM CREEK	<b>City (SAP):</b> SILT	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.525 deg. OR N 39 deg. 31 min. 30.936 secs.		<b>Long:</b> W 107.67 deg. OR W -108 deg. 19 min. 47.23 secs.	
<b>Contractor:</b> CRAIGS #2		<b>Rig/Platform Name/Num:</b> CRAIGS #2	
<b>Job Purpose:</b> Cement Surface Casing			<b>Ticket Amount:</b>
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> METLI, MARSHALL		<b>Srvc Supervisor:</b> TRIPLETT, MICHEAL <b>MBU ID Emp #:</b> 447908	

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	04/12/2011 00:30							
Pre-Convoy Safety Meeting	04/12/2011 02:45							
Crew Leave Yard	04/12/2011 03:00							
Arrive At Loc	04/12/2011 04:30							
Assessment Of Location Safety Meeting	04/12/2011 05:45							
Other	04/12/2011 05:55							SPOT EQUIPMENT, 1 RCM PUMP TRUCK, 2 660'S
Pre-Rig Up Safety Meeting	04/12/2011 06:00							GO OVER JSA, HAVE CREW SIGN
Rig-Up Equipment	04/12/2011 06:23							
Pre-Job Safety Meeting	04/12/2011 06:50							
Start Job	04/12/2011 07:01							TD:1260', TP:1240.07', SJ:39.64', CASING: 8.625" 32#, OH: 12.25"
Test Lines	04/12/2011 07:03						3000. 0	TEST LINES AND PUMPS HOLD FOR TWO MINUTES, NO LEAKS
Pump Spacer	04/12/2011 07:10		5	20			30.0	FRESH WATER
Pump Lead Cement	04/12/2011 07:13		6	82.7			200.0	195 SACKS MIXED @ 12.3, 2.38 YIELD, 13.75GAL/SACK, HAD TO SHUTDOWN DO TO PIPE LIFTING.
Pump Tail Cement	04/12/2011 07:27		6	50.9			110.0	200 SACKS MIXED @ 14.2, 1.43 YIELD, 6.85GAL/SACK

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	04/12/2011 07:36							
Drop Top Plug	04/12/2011 07:41							OFF-LINE CEMENT GOOD TAKE SWAGE OFF AND DROP PLUG
Pump Displacement	04/12/2011 07:47		6	73.1			300.0	FRESHWATER
Slow Rate	04/12/2011 07:53			63.1			300.0	SLOW RATE LAST 10BBLS PRIOR TO BUMPING PLUG
Bump Plug	04/12/2011 08:05						365.0	BUMPED PLUG AND WENT 500PSI OVER TO 900PSI
Check Floats	04/12/2011 08:07							FLOATS HELD
End Job	04/12/2011 08:08							OFF-LINE CEMENT JOB HAD NO CIRCULATION UNTIL 50BBLS GONE OF DISPLACEMENT GOT CEMENT BACK WITH 60 BBLS OF DISPLACEMENT AWAY. 10BBLS OF CEMENT BACK TO SURFACE, USED 80#'S OF SUGAR. HAD TO SHUTDOWN DURING LEAD CEMENT DUE TO PIPE LIFTING OUT OF HOLE.
Post-Job Safety Meeting (Pre Rig-Down)	04/12/2011 08:10							
Rig-Down Equipment	04/12/2011 08:15							
Pre-Convoy Safety Meeting	04/12/2011 08:45							
Crew Leave Location	04/12/2011 09:00							THANKS FOR USING HALLIBURTON MIKE TRIPLETT AND CREW

# ANTERO SURFACE BURKLE FED A-13



## Local Event Log

1	START JOB	07:01:23	2	PRESSURE TEST	07:03:52
3	START FRESHWATER SPACER	07:10:37	4	START LEAD CEMENT	07:13:57
5	SHUTDOWN DO TO PIPE LIFT	07:24:50	6	START TAIL CEMENT	07:27:45
7	SHUTDOWN	07:36:08	8	DROP PLUG	07:41:37
9	START DISPLACEMENT	07:47:04	10	SLOWRATE	07:53:37
11	BUMP PLUG	08:05:32	12	CHECK FLOATS	08:07:22
13	END JOB	08:08:44			

Customer: ANTERO  
Well Description: BURKLE FED A-13  
ADC USED: YES

Job Date: 12-Apr-2011  
JOB TYPE: SURFACE  
SERVICE SUPERVISOR: MIKE TRIPLETT

Sales Order #: 8062030  
COMPANY REP: MATT HONEYCUTT  
ELITE/OPERATER 3/RUSTY WEAVER

OptiCem v6.4.9  
12-Apr-11 08:14