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# **ANTERO RESOURCES**

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**MCLIN B3  
KOKPELLI  
Garfield County , Colorado**

## **Cement Surface Casing** **23-May-2010**

### **Post Job Report**

## The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2785572	Quote #:	Sales Order #: 7387351
Customer: ANTERO RESOURCES		Customer Rep: CANADY, JOE	
Well Name: MCLIN		Well #: B3	API/UWI #: 05-045-19377
Field: KOKPELLI	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Lat: N 39.531 deg. OR N 39 deg. 31 min. 51.715 secs.		Long: W 107.608 deg. OR W -108 deg. 23 min. 31.052 secs.	
Contractor: FRONTIER 12		Rig/Platform Name/Num: FRONTIER 12	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL	Srvs Supervisor: STILLSON, ERIC		MBU ID Emp #: 393789

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BRUN, JUSTIN M	4	459269	DUBON, TODD N	4	443351	STILLSON, ERIC W	4	393789
YOUNG, JEREMY R	4	418013						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10713212	60 mile	10741123	60 mile	10872429	60 mile	10951246	60 mile
11360883	60 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
05-23-10	4	1						

TOTAL	Total is the sum of each column separately							
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## Job

## Job Times

Formation Name					Date				Time	Time Zone	
Formation Depth (MD)	Top			Bottom			Called Out	22 - May - 2010	19:00	MST	
Form Type		BHST					On Location	23 - May - 2010	00:00	MST	
Job depth MD		1077. ft		Job Depth TVD		1077. ft	Job Started	23 - May - 2010	02:17	MST	
Water Depth					Wk Ht Above Floor		4. ft	Job Completed	23 - May - 2010	03:00	MST
Perforation Depth (MD)	From			To			Departed Loc	23 - May - 2010	04:30	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
OPEN HOLE SECTION				12.25				.	1077.		
SURFACE CASING	Unknown		8.625	7.921	32.			.	1064.4		

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	8.625	1	
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	8.625	1	
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
1	Freshwater Ahead		20.00	bbl	8.33	.0	.0	6.0	
2	VersaCem GJC085	VERSACEM (TM) SYSTEM (452010)	155.0	sacks	12.3	2.38	13.77	7.0	13.77
13.77 Gal		FRESH WATER							
3	SwiftCem GJC138	SWIFTCM (TM) SYSTEM (452990)	113.0	sacks	14.2	1.43	6.85	7.0	6.85
6.85 Gal		FRESH WATER							
4	FreshWater Displacement		62.00	bbl	8.33	.0	.0	8.0	
Calculated Values		Pressures		Volumes					
Displacement	62.4	Shut In: Instant		Lost Returns	0	Cement Slurry	94	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	14	Actual Displacement	62.4	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	
Rates									
Circulating	RIG	Mixing	7	Displacement	8	Avg. Job	7		
Cement Left In Pipe	Amount	39.5 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*

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<b>Legal Description:</b>			
<b>Lat:</b> N 39.531 deg. OR N 39 deg. 31 min. 51.715 secs.		<b>Long:</b> W 107.608 deg. OR W -108 deg. 23 min. 31.052 secs.	
<b>Contractor:</b> FRONTIER 12		<b>Rig/Platform Name/Num:</b> FRONTIER 12	
<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> STILLSON, ERIC	<b>MBU ID Emp #:</b> 393789

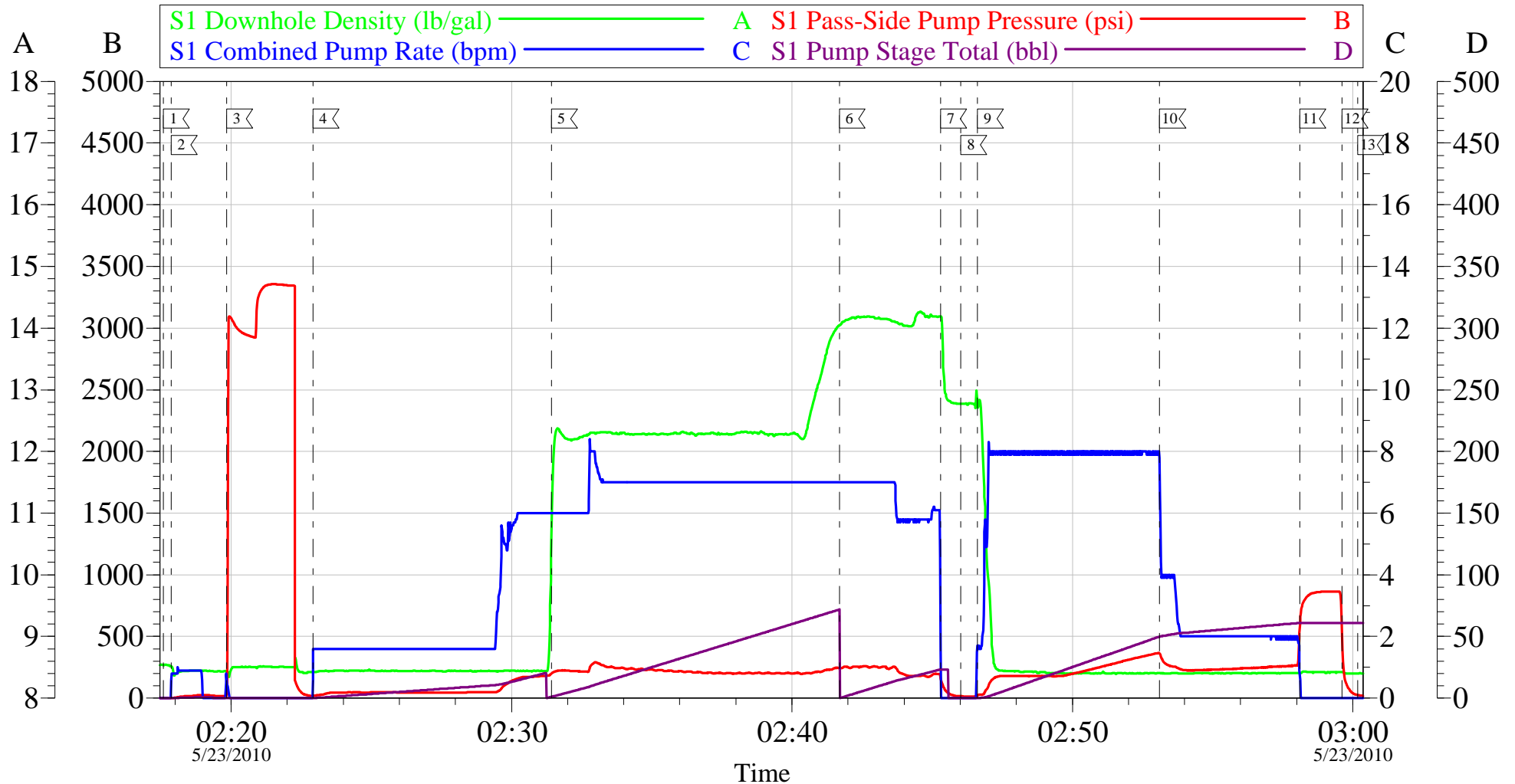
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/22/2010 19:00							8 5/8 SURFACE CASING, ANTERO, FRONTIER 12, MCLIN B-3
Pre-Convoy Safety Meeting	05/22/2010 21:45							ENTIRE CREW, OBSERVE ALL SAFE DRIVING PROCEDURES
Arrive At Loc	05/23/2010 00:00							ARRIVED EARLY, RIG RUNNING CASING HAVE TO WAIT TO SPOT EQUIPMENT.
Assessment Of Location Safety Meeting	05/23/2010 00:30							REVIEWED EMERGENCY PLAN, ASSESSED WORK AREA AND SPOTTED EQUIPMENT.
Pre-Rig Up Safety Meeting	05/23/2010 00:55							ENTIRE CREW, WALKED THROUGH RIG UP LOOKING FOR HAZARDS.
Rig-Up Equipment	05/23/2010 01:00							1 PICK UP, 1 HT400 PUMP TRUCK, 1 660 BULK CEMENT TRUCKS, 1 QUICK LATCH HEAD WITH PLUG,
Pre-Job Safety Meeting	05/23/2010 01:55							ENTIRE CREW, CO REP AND RIG CREW.

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Start Job	05/23/2010 02:17							TD 1077 TP 1064.4 SJ 39.47 FC 1024.93 MW 9.2 PPG, 8 5/8 32# CASING IN 12 1/4 HOLE. RIG CIRC APPROX 1 HR, 6 BPM 200 PSI, 15 GAS UNITS. YP 8 PV 12.
Pump Water	05/23/2010 02:17		1	1			20.0	FILL LINES BEFORE TESTING
Pressure Test	05/23/2010 02:19		0.5	0.1			3250. 0	HELD PRESSURE FOR 2 MIN, PRESSURE HELD, NO LEAKS.
Pump Spacer 1	05/23/2010 02:22		6	20			170.0	FRESH WATER, PUMPED AT 2 BPM UNTIL CEMENT TUB UP TO WEIGHT AND WEIGHED WITH SCALES, SPED RATE TO 6 BPM AT 10 BBLS GONE.
Pump Lead Cement	05/23/2010 02:31		7	65.7			280.0	155 SKS VERSACEM, 12.3 PPG, 2.38 CUFT/SK, 13.77 GAL/SK. STARTED AT 6 BPM THEN SPED TO 7 BPM AT 10 BBLS GONE.
Pump Tail Cement	05/23/2010 02:41		7	28.8			243.0	113 SKS VERSACEM, 14.2 PPG, 1.43 CUFT/SK, 6.85 GAL/SK. SLOWED RATE TO 6 BPM THE LAST 8 BBLS.
Shutdown	05/23/2010 02:45							
Drop Top Plug	05/23/2010 02:46							VARIFIED PLUG LEFT CONTAINER.
Pump Displacement	05/23/2010 02:46		8	62.4			310.0	FRESH WATER, CEMENT TO SURFACE AT 48 BBLS GONE, 14 BBLS OF CEMENT TO SURFACE. USED 100 LBS SUGAR.
Slow Rate	05/23/2010 02:53		2	52			265.0	SLOWED RATE TO 2 BPM TO BUMP PLUG.

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Bump Plug	05/23/2010 02:58		2	62.4			830.0	PLUG LANDED AT 265 PSI, BUMPED UP TO 830 PSI AND HELD FOR 2 MIN PER CO REP.
Check Floats	05/23/2010 02:59							FLOATS HELD, WHEN RELEASED PRESSURE GOT 1 BBL OF WATER BACK TO TRUCK.
End Job	05/23/2010 03:00							GOOD RETURNS THROUGHOUT, DID NOT RECIPROCATATE PIPE DURING JOB.
Post-Job Safety Meeting (Pre Rig-Down)	05/23/2010 03:05							ENTIRE CREW
Rig-Down Equipment	05/23/2010 03:30							
Pre-Convoy Safety Meeting	05/23/2010 04:25							ENTIRE CREW, OBSERVE ALL SAFE DRIVING PROCEDURES
Crew Leave Location	05/23/2010 04:30							THANK YOU FOR USING HALLIBURTON, ERIC STILLSON AND CREW.

# ANTERO

## 8 5/8 SURFACE



Local Event Log								
1	START JOB	02:17:35	2	FILL LINES	02:17:52	3	TEST LINES	02:19:50
4	PUMP H2O SPACER	02:22:56	5	PUMP LEAD CEMENT	02:31:25	6	PUMP TAIL CEMENT	02:41:41
7	SHUTDOWN	02:45:18	8	DROP PLUG	02:46:01	9	PUMP H2O DISPLACEMENT	02:46:37
10	SLOW RATE	02:53:07	11	BUMP PLUG	02:58:07	12	CHECK FLOATS	02:59:37
13	END JOB	03:00:10						

Customer:	ANTERO	Job Date:	23-May-2010	Sales Order #:	7387351
Well Description:	MCLIN B3	Job Type:	SURFACE	ADC Used:	YES
Company Rep:	JOE CANADY	Cement Supervisor:	ERIC STILLSON	Elite #:	11/ JUSTIN BRUN

OptiCem v6.4.2  
23-May-10 03:22