
ANTERO RESOURCES

**McLin C-16
KOKOPELLI
Garfield County , Colorado**

**Cement Surface Casing
31-Oct-2011**

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2887680	Quote #:	Sales Order #: 8493127
Customer: ANTERO RESOURCES		Customer Rep: Oaks, Bowdie	
Well Name: McLin		Well #: C-16	API/UWI #: 05-045-20510
Field: KOKOPELLI	City (SAP):	County/Parish: Garfield	State: Colorado
Lat: N 39.617 deg. OR N 39 deg. 37 min. 0.379 secs.		Long: W 108.071 deg. OR W -109 deg. 55 min. 45.901 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: YOUNG, JEREMY	MBU ID Emp #: 418013

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BATH, KYLE Thomas		477632	BECK, MICHAEL George		489151	KUKUS, CARLTON Dean		458577
ROSS, CHARLES Raymond		453128	YOUNG, JEREMY R		418013			

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10565341	60 mile	10744648C	60 mile	10804567	60 mile	10867423	60 mile
10897887	60 mile	10998508	60 mile	11259881	60 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

TOTAL *Total is the sum of each column separately*

Job

Job Times

Formation Name				Date	Time	Time Zone
Formation Depth (MD)	Top	Bottom		Called Out	31 - Oct - 2011	07:00 MST
Form Type	BHST			On Location	31 - Oct - 2011	11:30 MST
Job depth MD	1041. ft	Job Depth TVD	1041. ft	Job Started	31 - Oct - 2011	13:00 MST
Water Depth		Wk Ht Above Floor		Job Completed	31 - Oct - 2011	14:17 MST
Perforation Depth (MD)	From	To		Departed Loc	31 - Oct - 2011	15:40 MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbf/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
OPEN HOLE				12.25				.	1060.		
SURFACE CASING	Unknown		8.625	7.921	32.			.	1041.		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB		
PORT. DATA ACQUIS. W/OPTICEM RT W/HES	1	EA		
R/A DENSOMETER W/CHART RECORDER,/JOB,ZI	1	JOB		
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 ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk				
1	Water Spacer				20.00	bbl	8.34	.0	.0	7.0					
2	VERSACEM	VERSACEM (TM) SYSTEM (452010)			160.0	sacks	12.3	2.38	13.77	7.0	13.77				
		13.77 Gal FRESH WATER													
3	SWIFTCEM	SWIFTCEM (TM) SYSTEM (452990)			205.0	sacks	14.2	1.43	6.85	7.0	6.85				
		6.85 Gal FRESH WATER													
4	Displacement Fluid				60.00	bbl	.	.0	.0	.0					
Calculated Values				Pressures				Volumes							
Displacement				Shut In: Instant				Lost Returns		Cement Slurry		Pad			
Top Of Cement				5 Min				Cement Returns		Actual Displacement		Treatment			
Frac Gradient				15 Min				Spacers		Load and Breakdown		Total Job			
Rates															
Circulating				Mixing				Displacement				Avg. Job			
Cement Left In Pipe		Amount	41 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

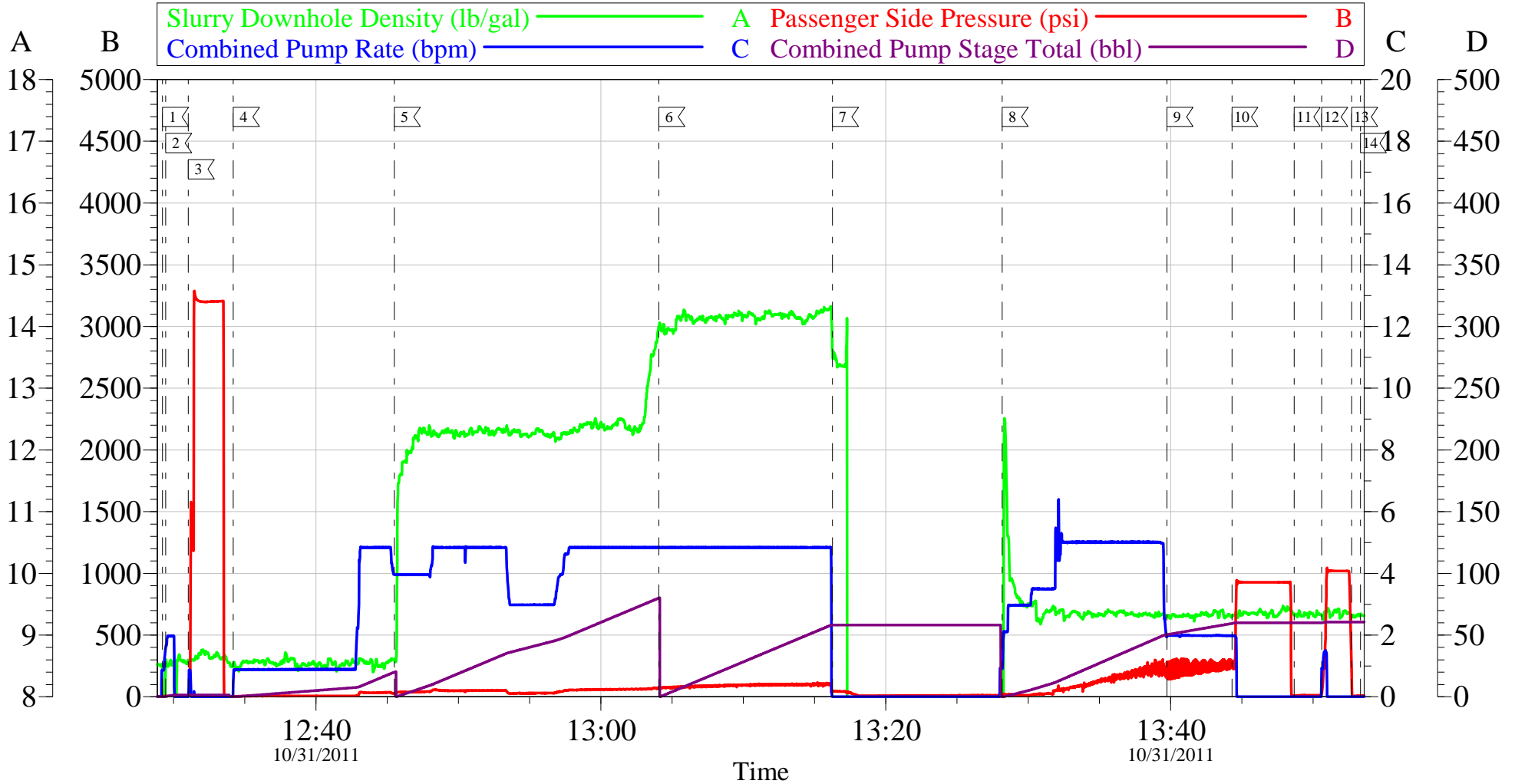
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Job Purpose: Cement Surface Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL		Srvc Supervisor: YOUNG, JEREMY	MBU ID Emp #: 418013

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	10/31/2011 07:00							TD 1060 FT, TP 1041 FT, SHOE 41 FT, HOLE 12 1/4 IN, DRILLED WITH AIR, CSG 8 5/8 IN 32 LB/FT
Pre-Convoy Safety Meeting	10/31/2011 09:20							WITH ALL HES PERSONNEL
Crew Leave Yard	10/31/2011 09:30							
Arrive At Loc	10/31/2011 11:30							
Assessment Of Location Safety Meeting	10/31/2011 11:45							WITH ALL HES PERSONNEL
Other	10/31/2011 11:50							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	10/31/2011 12:10							WITH ALL HES PERSONNEL
Rig-Up Equipment	10/31/2011 12:15							
Pre-Job Safety Meeting	10/31/2011 12:55							WITH ALL PERSONNEL ON LOCATION
Start Job	10/31/2011 13:00							JOB WAS PUMPED OFFLINE THROUGH SWAGE
Other	10/31/2011 13:01		2	1.5			15.0	FILL LINES WITH FRESH WATER
Test Lines	10/31/2011 13:03							TEST LINES TO 3200 PSI. PRESSURE HOLDING
Pump Spacer 1	10/31/2011 13:09		5	20			45.0	FRESH WATER
Pump Lead Cement	10/31/2011 13:18		5	67.8			62.0	160 SKS AT 12.3 PPG, 2.38 FT ³ /SK, 13.77 GAL/SK
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

		#	Stage	Total	Tubing	Casing	
Pump Tail Cement	10/31/2011 13:35		5	52.2		100.0	205 SKS AT 14.2 PPG, 1.43 FT3/SK, 6.85 GAL/SK
Shutdown	10/31/2011 13:48						
Drop Top Plug	10/31/2011 14:00						PLUG LAUNCHED
Pump Displacement	10/31/2011 14:00		5	50.9		233.0	FRESH WATER
Slow Rate	10/31/2011 14:07		2	10		210.0	SLOW RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	10/31/2011 14:17		2		60.9	260.0	PLUG BUMPED. PRESSURED UP TO 1012 PSI.
Check Floats	10/31/2011 14:25						FLOATS HOLDING
End Job	10/31/2011 14:27						
Pre-Rig Down Safety Meeting	10/31/2011 14:32						WITH ALL HES PERSONNEL
Rig-Down Equipment	10/31/2011 14:35						
Pre-Convoy Safety Meeting	10/31/2011 15:35						WITH ALL HES PERSONNEL
Crew Leave Location	10/31/2011 15:40						
Comment	10/31/2011 15:40						THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JEREMY YOUNG AND CREW.

ANTERO MCLIN C-16

8 5/8 SURFACE

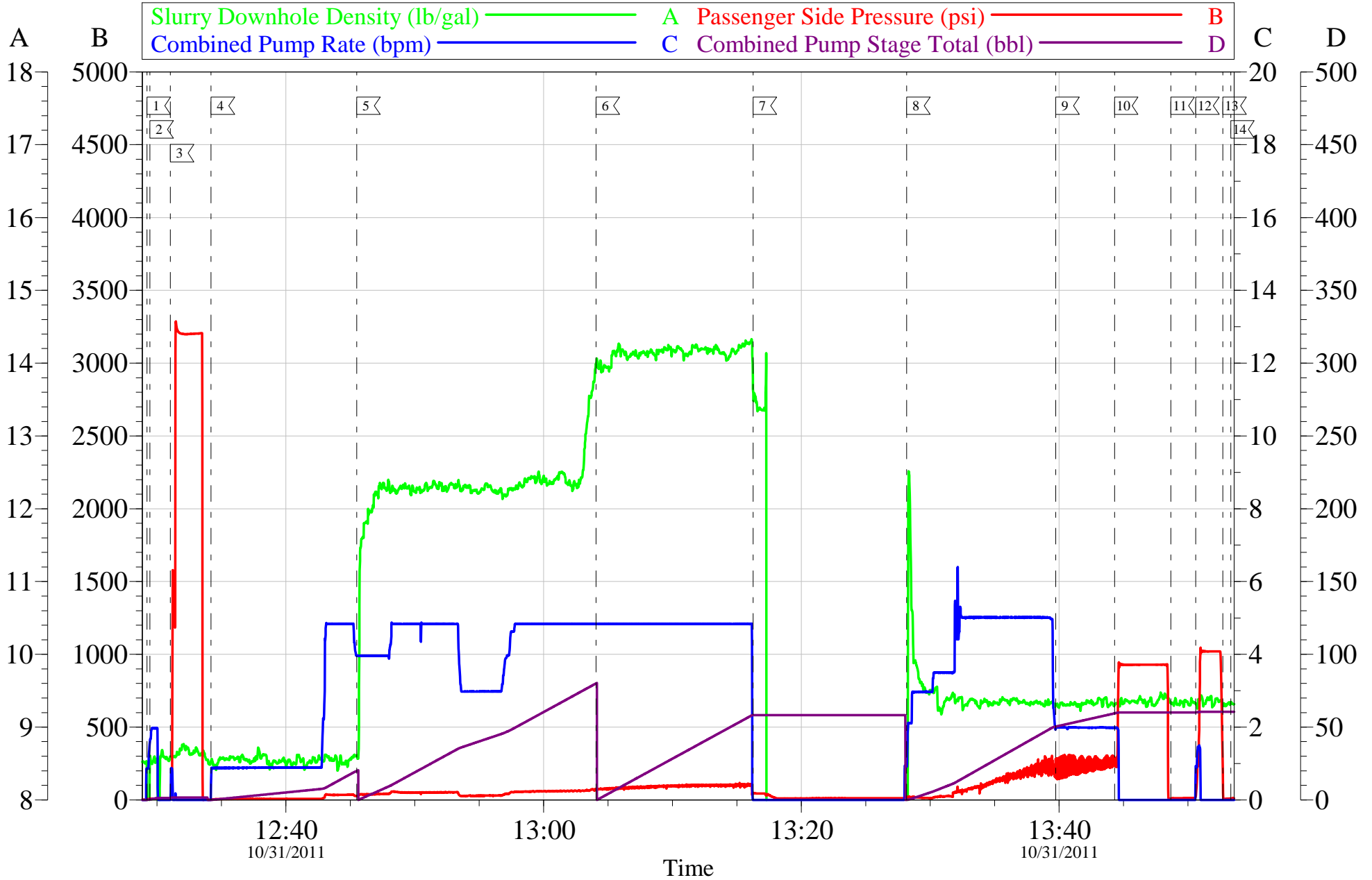


Local Event Log								
1	START JOB	12:29:14	2	FILL LINES	12:29:27	3	PRESSURE TEST	12:31:03
4	PUMP SPACER	12:34:12	5	PUMP LEAD CEMENT	12:45:30	6	PUMP TAIL CEMENT	13:04:04
7	SHUTDOWN/ DROP PLUG	13:16:15	8	PUMP DISPLACEMENT	13:28:10	9	SLOW RATE	13:39:45
10	BUMP PLUG	13:44:18	11	CHECK FLOATS	13:48:41	12	BUMP PLUG	13:50:36
13	CHECK FLOATS	13:52:42	14	END JOB	13:53:19			

Customer: ANTERO RESOURCES	Job Date: 31-Oct-2011	Sales Order #: 12:28:27
Well Description: MCLIN C-16	Job Type: 8 5/8 SURFACE	ADC Used: YES
Company Rep: BEAUDIE OAKS	Cement Supervisor: CHUCK ROSS	Elite #: 6 KYLE BATH

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8 5/8 SURFACE



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HALLIBURTON

Water Analysis Report

Company: ANTERO

Date: 10/31/2011

Submitted by: JEREMY YOUNG

Date Rec.: _____

Attention: LAB

S.O.# 8493127

Lease MCLIN

Job Type: SURFACE

Well # C-16

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	6.8
Potassium (K)	<i>5000</i>	250 Mg / L
Calcium (Ca)	<i>500</i>	120 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	UNDER 200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	<i>40-80</i>	55 Deg
Total Dissolved Solids		420 Mg / L

Respectfully: JEREMY YOUNG

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE: This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its