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**ANTERO RESOURCES**

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**DIXON FED B11  
MAMM CREEK  
Garfield County , Colorado**

**Cement Surface Casing  
10-Jul-2011**

**Job Site Documents**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 337854		<b>Ship To #:</b> 2864591		<b>Quote #:</b>		<b>Sales Order #:</b> 8306382							
<b>Customer:</b> ANTERO RESOURCES				<b>Customer Rep:</b> Oaks, Beaudé									
<b>Well Name:</b> DIXON FED			<b>Well #:</b> B11		<b>API/UWI #:</b> 05-045-20428								
<b>Field:</b> MAMM CREEK		<b>City (SAP):</b> SILT		<b>County/Parish:</b> Garfield		<b>State:</b> Colorado							
<b>Lat:</b> N 39.524 deg. OR N 39 deg. 31 min. 26.749 secs.				<b>Long:</b> W 107.66 deg. OR W -108 deg. 20 min. 25.224 secs.									
<b>Contractor:</b> Craigs Roustabout Service, Inc.			<b>Rig/Platform Name/Num:</b> Craigs #2										
<b>Job Purpose:</b> Cement Surface Casing													
<b>Well Type:</b> Development Well				<b>Job Type:</b> Cement Surface Casing									
<b>Sales Person:</b> METLI, MARSHALL			<b>Srvc Supervisor:</b> ANDREWS, ANTHONY			<b>MBU ID Emp #:</b> 321604							
<b>Job Personnel</b>													
<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>	<b>HES Emp Name</b>	<b>Exp Hrs</b>	<b>Emp #</b>					
ANDREWS, ANTHONY Michael		321604	LEIST, JAMES R		362787	SALAZAR, PAUL Omar		445614					
<b>Equipment</b>													
<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>	<b>HES Unit #</b>	<i>Distance-1 way</i>						
<b>Job Hours</b>													
<b>Date</b>	<i>On Location Hours</i>	<b>Operating Hours</b>	<b>Date</b>	<i>On Location Hours</i>	<b>Operating Hours</b>	<b>Date</b>	<i>On Location Hours</i>	<b>Operating Hours</b>					
7/10/11	3.5	1											
<b>TOTAL</b>		<i>Total is the sum of each column separately</i>											
<b>Job</b>				<b>Job Times</b>									
<b>Formation Name</b>				<b>Date</b>	<b>Time</b>	<b>Time Zone</b>							
<b>Formation Depth (MD)</b>	<b>Top</b>	<b>Bottom</b>		<b>Called Out</b>	10 - Jul - 2011	13:30	MST						
<b>Form Type</b>	BHST			<b>On Location</b>	10 - Jul - 2011	18:00	MST						
<b>Job depth MD</b>	1070. ft	<b>Job Depth TVD</b>	1070. ft	<b>Job Started</b>	10 - Jul - 2011	19:28	MST						
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	3. ft	<b>Job Completed</b>	10 - Jul - 2011	20:37	MST						
<b>Perforation Depth (MD)</b>	<i>From</i>	<i>To</i>		<b>Departed Loc</b>	10 - Jul - 2011	21:30	MST						
<b>Well Data</b>													
<i>Description</i>	<b>New / Used</b>	<b>Max pressure Psig</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>		
12 1/4" Open Hole				12.25				.	1070.				
8 5/8" Surface Casing	New		8.625	7.825	36.		J-55	.	1070.				
<b>Sales/Rental/3<sup>rd</sup> Party (HES)</b>													
<b>Description</b>				<b>Qty</b>	<b>Qty uom</b>	<b>Depth</b>	<b>Supplier</b>						
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								
<b>Tools and Accessories</b>													
<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>	<b>Depth</b>	<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>	<b>Depth</b>	<b>Type</b>	<b>Size</b>	<b>Qty</b>	<b>Make</b>
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	bbl	8.33	.0	.0	.0	
2	Lead Cement	VERSACEM (TM) SYSTEM (452010)			160	sacks	12.3	2.38	13.77		13.77
		13.77 Gal FRESH WATER									
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)			205	sacks	14.2	1.43	6.85		6.85
		6.85 Gal FRESH WATER									
4	Displacement				60.8	bbl	8.33	.0	.0	.0	
Calculated Values		Pressures			Volumes						
Displacement	60.8	Shut In: Instant			Lost Returns	N	Cement Slurry		120	Pad	
Top Of Cement	SURFACE	5 Min			Cement Returns	16	Actual Displacement		60.8	Treatment	
Frac Gradient		15 Min			Spacers	20	Load and Breakdown			Total Job	201
Rates											
Circulating	RIG	Mixing	5			Displacement	5-2		Avg. Job	5	
Cement Left In Pipe	Amount	42.73 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> 2864591	<b>Quote #:</b>	<b>Sales Order #:</b> 8306382
<b>Customer:</b> ANTERO RESOURCES		<b>Customer Rep:</b> Oaks, Beaudé	
<b>Well Name:</b> DIXON FED		<b>Well #:</b> B11	<b>API/UWI #:</b> 05-045-20428
<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 39.524 deg. OR N 39 deg. 31 min. 26.749 secs.		<b>Long:</b> W 107.66 deg. OR W -108 deg. 20 min. 25.224 secs.	
<b>Contractor:</b> Craigs Roustabout Service, Inc.		<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> ANDREWS, ANTHONY	<b>MBU ID Emp #:</b> 321604

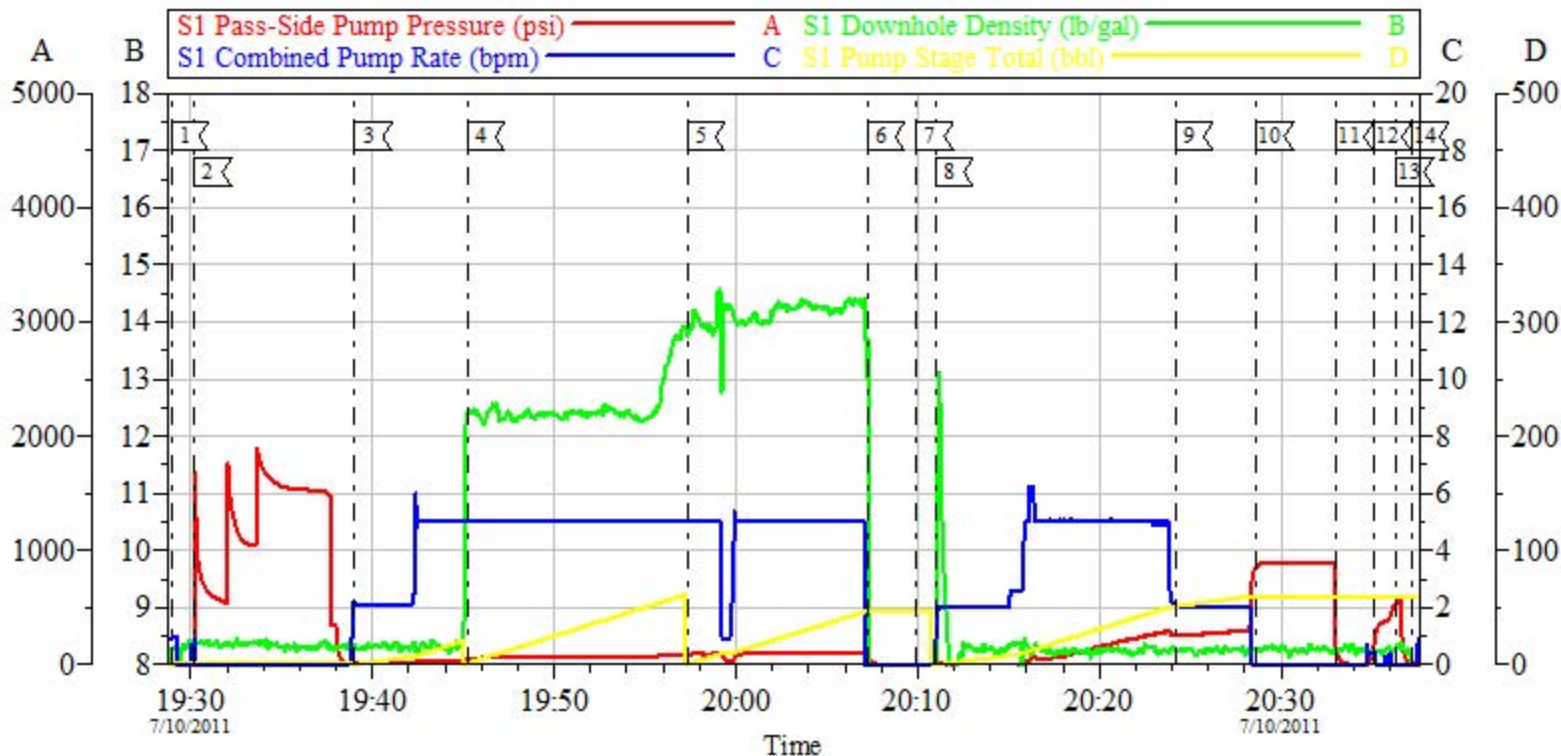
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	07/10/2011 13:30							
Pre-Convoy Safety Meeting	07/10/2011 16:00							
Crew Leave Yard	07/10/2011 16:05							
Arrive At Loc	07/10/2011 18:00							
Assessment Of Location Safety Meeting	07/10/2011 18:05							
Other	07/10/2011 18:15							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	07/10/2011 18:25							
Rig-Up Equipment	07/10/2011 18:30							
Pre-Job Safety Meeting	07/10/2011 19:10							
Start Job	07/10/2011 19:28							TD: 1060 TP: 1041.85' SJ: 42.73 MW: AIR 8.625" 32#/FT CSG IN 12.25" OH
Test Lines	07/10/2011 19:30							1500 PSI TEST
Pump Spacer	07/10/2011 19:39		3	20			20.0	FRESH H2O SPACER
Pump Lead Cement	07/10/2011 19:45		5	67.8			55.0	160 SKS @ 12.3 PPG 2.38 YLD 13.77 GAL/SK H2O
Pump Tail Cement	07/10/2011 19:57		5	52.2			100.0	205 SKS @ 14.2 PPG 1.43 YLD 6.85 GAL/SK H2O
Shutdown	07/10/2011 20:07							

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Plug	07/10/2011 20:09							
Pump Displacement	07/10/2011 20:11		5		60.8		115.0	FRESH H2O DISPLACEMENT, WASH UP O TOP OF PLUG
Slow Rate	07/10/2011 20:24		2	50			259.0	
Bump Plug	07/10/2011 20:28		2	60.8			860.0	PLUG BUMPED @ CALCULATED DISPLACEMENT
Check Floats	07/10/2011 20:33							FLOATS WERE LEAKING BACK JUST A LITTLE BIT, CUSTOMER ERQUESTED TO SHUT IN CASING WITH 500 PSI AS A PRECAUTION.
Pressure Up	07/10/2011 20:35		0.4	0.2			500.0	
Shut In Well	07/10/2011 20:36						500.0	SHUT IN 2" LO-TORC WITH 500 PSI ON CASING, AS PER CUSTOMER REQUEST.
Other	07/10/2011 20:36							RELEASE PRESSURE FROM PUMP TRUCK
End Job	07/10/2011 20:37							
Post-Job Safety Meeting (Pre Rig-Down)	07/10/2011 20:40							GAINED RETURNS AT APPROX 55BBL AWAY ON LEAD CEMENT, HAD RETURNS FOR THE REMAINDER OF THE JOB. CIRCULATED 16 BBLS CMT TO SURFACE
Rig-Down Equipment	07/10/2011 20:45							USED 80 LBS SUGAR FOR RETURNS. NO ADD HOURS CHARGED.
Pre-Convoy Safety Meeting	07/10/2011 21:25							

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Crew Leave Location	07/10/2011 21:30							THANK YOU FOR CHOOSING HALLIBURTON CEMENTING OF GRAND JUNCTION, COLORADO ANTHONY ANDREWS AND CREW

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job		<b><u>Max Psi</u></b>			
6	Test Lines	1500.0				
	H2O SPACER	20.0				
	LEAD CEMENT	67.8	160	12.3	2.38	13.77
	TAIL CEMENT	52.2	205	14.2	1.43	6.85
	SHUTDOWN					
	DROP PLUG					
	WATER DISPLACEMENT	60.8		SLOW @ 50		2 BPM
	BUMP PLUG	269+500				
2	CHECK FLOATS	0.0				
Do Not Overdisplace						
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		FLOAT COLLAR	BBL/FT	H2O REQ.
60.85	1041.85	42.73		999.12	0.0609	182
PSI to Lift Pipe	498	<b><u>*****Use Mud Scales on Each Tier*****</u></b>				
Total Displacement	60.85					
<b>CALCULATED DIFFERENTIAL PSI</b>		269		<b>TOTAL FLUID PUMPED</b>		201
Collapse		BURST		SO#		

ANTERO - CRAIGS ROUSTABOUT  
8.625" SURFACE



Local Event Log

Intersection	SPPP	Intersection	SPPP	Intersection	SPPP
1 START JOB	19:28:56 5.000	2 TEST LINES	19:30:13 28.50	3 PUMP SPACER	19:39:02 11.00
4 PUMP LEAD CEMENT	19:45:14 53.52	5 PUMP TAIL CEMENT	19:57:20 94.84	6 SHUTDOWN	20:07:14 58.03
7 DROP PLUG	20:09:56 1.000	8 PUMP DISPLACEMENT	20:11:00 2.000	9 SLOW RATE	20:24:12 259.0
10 BUMP PLUG	20:28:39 863.1	11 CHECK FLOATS	20:33:01 139.8	12 PRESSURE UP	20:35:07 187.4
13 SHUT IN WELL	20:36:19 539.7	14 END JOB	20:37:12 12.62		

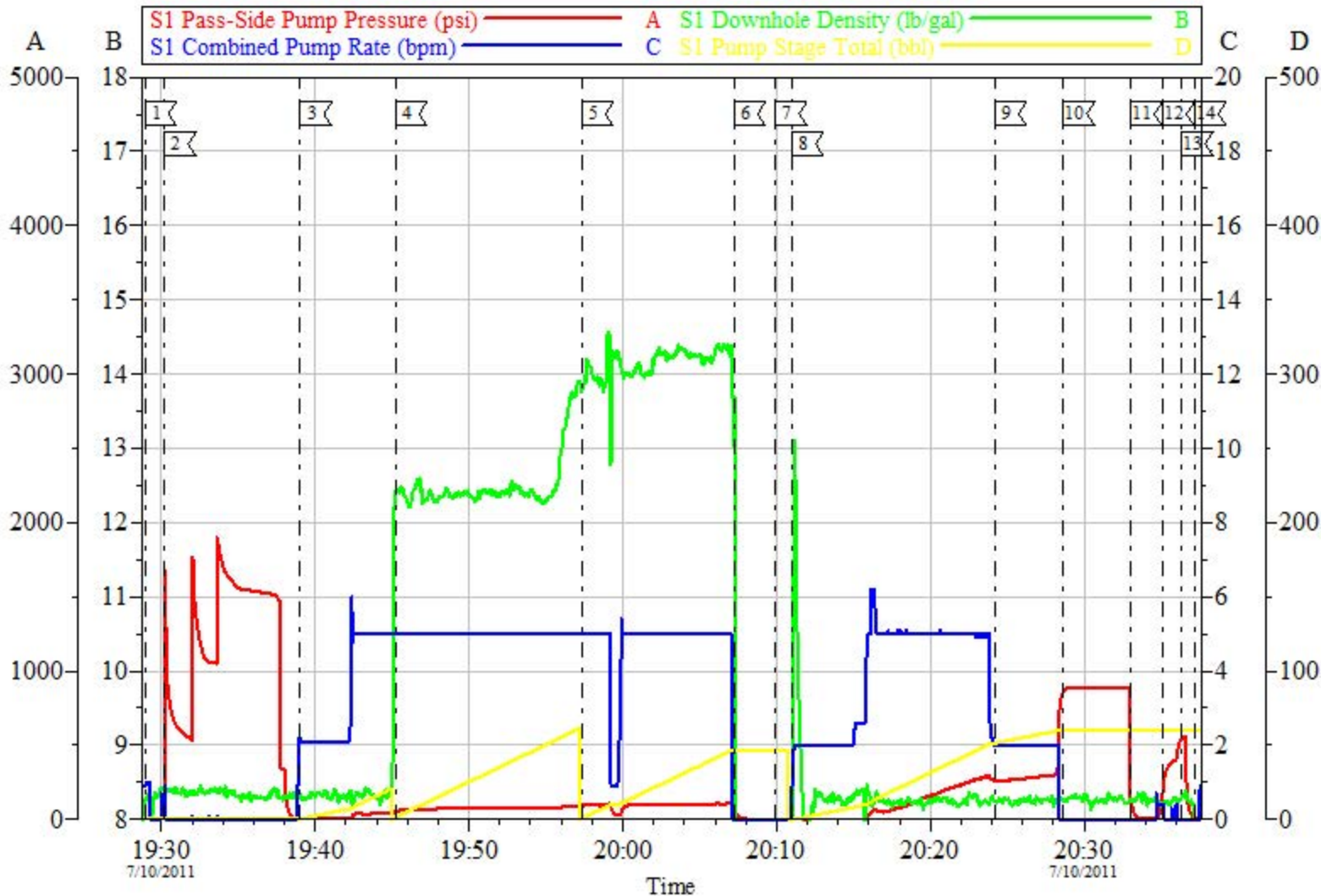
Customer: ANTERO  
Well #: DIXON FED B11  
Customer Rep: BEAUDE OAKS

Job Date: 10-Jul-2011  
Job Type: SURFACE  
Pump Truck: ELITE 2/ PAUL SALAZAR

Sales Order #: 8306382  
ADC Used: YES  
Supervisor: ANTHONY ANDREWS

OptiCem v6.3.4  
10-Jul-11 20:57

ANTERO - CRAIGS ROUSTABOUT  
8.625" SURFACE



Customer: ANTERO  
Well #: DIXON FED B11  
Customer Rep: BEAUDE OAKS

Job Date: 10-Jul-2011  
Job Type: SURFACE  
Pump Truck: ELITE 2/ PAUL SALAZAR

Sales Order #: 8306382  
ADC Used: YES  
Supervisor: ANTHONY ANDREWS

OptiCem v6.3.4  
10-Jul-11 20:58

# HALLIBURTON

## Water Analysis Report

Company: ANTERO

Date: 7/10/2011

Submitted by: ANTHONY ANDREWS

Date Rec.: 7/10/2011

Attention: R.Chambers/ J.Trout

S.O.# 8306382

Lease DIXON FED

Job Type: PRODUCTION

Well # B11

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>700</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>0</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&gt;200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>66</b> Deg
Total Dissolved Solids		<b>400</b> Mg / L

Respectfully: ANTHONY ANDREWS

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 i

<b>Sales Order #:</b> 8306382	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/11/2011
<b>Customer:</b> ANTERO RESOURCES		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> BEAUDE OAKS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20428
<b>Well Name:</b> DIXON FED		<b>Well Number:</b> B11
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

### CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	7/11/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	ANTHONY ANDREWS (HAM3833)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	BEAUDE OAKS
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	
Job DVA	Did we provide job DVA above our normal service today? Circle Y or N	No
Time	Please enter hours in decimal format to nearest quarter hour.	
Other	Enter short text for other efficiencies gained.	
Customer Initials	Customer's Initials	
Please provide details	Please describe how the job efficiencies were gained.	

<b>CUSTOMER SIGNATURE</b>
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<b>Sales Order #:</b> 8306382	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/11/2011
<b>Customer:</b> ANTERO RESOURCES		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> BEAUDE OAKS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20428
<b>Well Name:</b> DIXON FED		<b>Well Number:</b> B11
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	7/11/2011
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	2.5
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	1
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	7
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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<b>Customer Representative:</b> BEAUDE OAKS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20428
<b>Well Name:</b> DIXON FED		<b>Well Number:</b> B11
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b> No	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
<b>Did We Run Wiper Plugs?</b> Did We Run Top And Bottom Casing Wiper Plugs?	Top
<b>Mixing Density of Job Stayed in Designed Density Range (0-100%)</b> Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	90
<b>Was Automated Density Control Used?</b> Was Automated Density Control (ADC) Used ?	Yes
<b>Pump Rate (percent) of Job Stayed At Designed Pump Rate</b> Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	90
<b>Nbr of Remedial Sqz Jobs Rqd - Competition</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
<b>Nbr of Remedial Plug Jobs Rqd - HES</b> Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
<b>Nbr of Remedial Sqz Jobs Rqd - HES</b> Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0