
ANTERO RESOURCES

**VALLEY FARMS I11
MAMM CREEK
Garfield County , Colorado**

Cement Surface Casing
07-Oct-2011

Job Site Documents

The Road to Excellence Starts with Safety

Sold To #: 337854		Ship To #: 2880640		Quote #:		Sales Order #: 8496720	
Customer: ANTERO RESOURCES				Customer Rep: Oaks, Bowdie			
Well Name: VALLEY FARMS			Well #: 111		API/UWI #: 05-045-19498		
Field: MAMM CREEK		City (SAP): SILT		County/Parish: Garfield		State: Colorado	
Lat: N 39.527 deg. OR N 39 deg. 31 min. 35.911 secs.				Long: W 107.619 deg. OR W -108 deg. 22 min. 53.098 secs.			
Contractor: Craigs Roustabout Service, Inc.			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: HUGENTOBLER, LOGAN			MBU ID Emp #: 447333	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANKS, BRENT A	5	371353	CARTER, ERIC Earl	5	345598	HUGENTOBLE, LOGAN Mark	5	447333
ROSE, BENJAMIN Keith	5	487022						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248057	60 mile	10565341	60 mile	10804567	60 mile	11560046	60 mile
11562538	60 mile	11583934	60 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
10/7/11	4	1	10/8/11	1	0			

TOTAL	Total is the sum of each column separately							
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Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	07 - Oct - 2011	17:00	MST
Form Type		BHST	Job Started	07 - Oct - 2011	20:00	MST
Job depth MD	1075. ft	Job Depth TVD	Job Completed	07 - Oct - 2011	21:49	MST
Water Depth		Wk Ht Above Floor	Departed Loc	07 - Oct - 2011	23:01	MST
Perforation Depth (MD)	From	To		08 - Oct - 2011	01:10	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
12 1/4" Open Hole				12.25				.	1100.		
8 5/8" Surface Casing	New		8.625	7.825	36.		J-55	.	1100.		

Sales/Rental/3rd 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	HES
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 ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Spacer		20.00	bbl	8.34	.0	.0	5	
2	VersaCem Lead Cement	VERSACEM (TM) SYSTEM (452010)	180.0	sacks	12.3	2.38	13.77	5	13.77
		13.77 Gal	FRESH WATER						
3	SwiftCem Tail Cement	SWIFTCES (TM) SYSTEM (452990)	205.0	sacks	14.2	1.43	6.85	5	6.85
		6.85 Gal	FRESH WATER						
4	Displacement		59.00	bbl	8.34	.0	.0	6	
Calculated Values		Pressures		Volumes					
Displacement	59	Shut In: Instant		Lost Returns	0	Cement Slurry	128	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	5	Actual Displacement	59	Treatment	
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	
Rates									
Circulating		Mixing	5	Displacement	6	Avg. Job	5		
Cement Left In Pipe	Amount	40 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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Field: MAMM CREEK	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Legal Description:			
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Contractor: Craigs Roustabout Service, Inc.		Rig/Platform Name/Num: Craigs #2	
Job Purpose: Cement Surface Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL		Srv Supervisor: HUGENTOBLE, LOGAN	MBU ID Emp #: 447333

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	10/07/2011 17:00							
Pre-Convoy Safety Meeting	10/07/2011 18:00							ALL HES EMPLOYEES
Arrive At Loc	10/07/2011 20:00							RIG STILL RUNNING CASING
Assessment Of Location Safety Meeting	10/07/2011 20:15							ALL HES EMPLOYEES
Rig-Up Equipment	10/07/2011 20:30							1 HT-400 PUMP TRUCK, 1 660 BULK TRUCK, 1 F-450 P/U, 1 400 BODY LOAD, 1 SWAGE
Pre-Job Safety Meeting	10/07/2011 21:30							ALL HES EMPLOYEES, RIG CREW, CO REP AND ANY 3RD PARTY VENDORS
Start Job	10/07/2011 21:49							TP 1034 FT, TD 1075 FT, FC 994 FT, HOLE 12.25", MUD WT AIR, RATE WILL BE 5, WILL BUMP 500 PSI OVER LAND PSI
Pump Water	10/07/2011 21:50		2	2			5.0	FILL LINES PRIOR TO PRESSURE TESTING LINES
Pressure Test	10/07/2011 21:52							NO LEAKS, KICK OUTS SET TO 3000 PSI FOR TEST.
Pump Spacer 1	10/07/2011 21:58		5	20			7.0	FRESH WATER
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

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Quote # :

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8496720

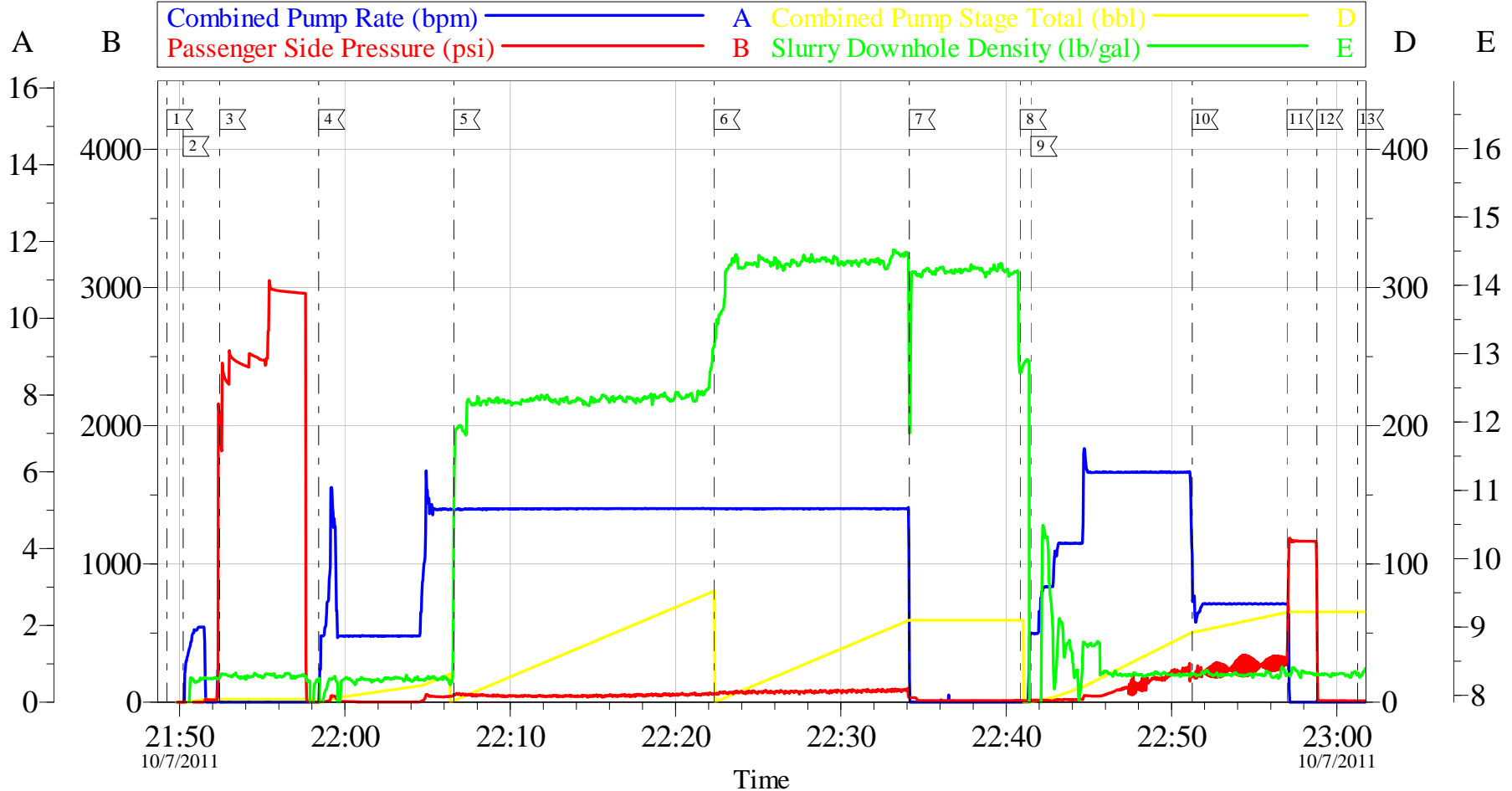
SUMMIT Version: 7.2.27

Thursday, October 13, 2011 02:48:00

Pump Lead Cement	10/07/2011 22:06		5	76			95.0	180 SKS VERSACEM CMT TO BE MIXED AT 12.3 PPG, 2.38 YIELD, 13.77 GAL/SK, CMT TO BE WEIGHED VIA PRESSURE BALANCED MUD SCALES WET AND DRY SAMPLES SUBMITTED.
Pump Tail Cement	10/07/2011 22:22		5	52			76.0	205 SKS SWIFTCM CMT TO BE MIXED AT 14.2 PPG, 1.43 YIELD, 6.85 GAL/SK, CMT TO BE WEIGHED VIA PRESSURE BALANCED MUD SCALES, WET AND DRY SAMPLES SUBMITTED,
Shutdown	10/07/2011 22:34							
Drop Plug	10/07/2011 22:40							PLUG LAUNCHED
Pump Displacement	10/07/2011 22:41		6	59			411.0	FRESH WATER
Slow Rate	10/07/2011 22:51		3				1157. 0	10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	10/07/2011 22:56							PLUG LANDED
Check Floats	10/07/2011 22:58							FLOATS HOLDING, 5 BBLS OF CEMENT TO SURFACE, 40 BBLS OF WATER TO SURFACE
End Job	10/07/2011 23:01							THANK YOU FOR USING HES LOGAN HUGENTOBLE AND CREW
Post-Job Safety Meeting (Pre Rig-Down)	10/07/2011 23:05							ALL HES EMPLOYEES
Rig-Down Equipment	10/07/2011 23:15							
Pre-Convoy Safety Meeting	10/08/2011 01:00							ALL HES EMPLOYEES
Crew Leave Location	10/08/2011 01:10							LOCATION CLEAN

ANTERO

8.625" SURFACE



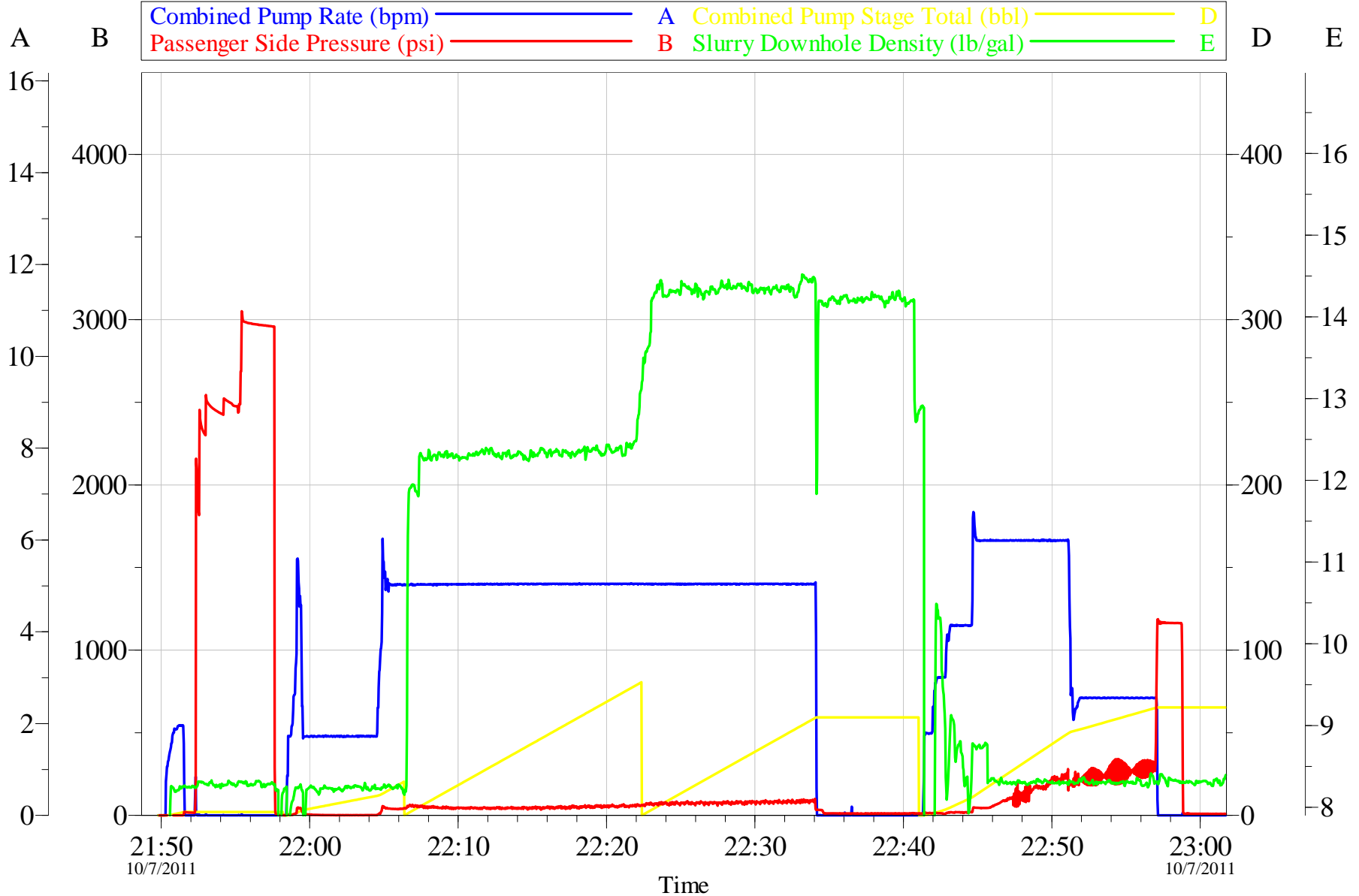
Local Event Log			
1	START JOB	21:49:14	2
2	PRIME LINES	21:50:13	3
3	PRESSURE TEST	21:52:26	4
4	PUMP H2O SPACER	21:58:25	5
5	PUMP LEAD CEMENT	22:06:36	6
6	PUMP TAIL CEMENT	22:22:20	7
7	SHUTDOWN	22:34:08	8
8	DROP PLUG	22:40:51	9
9	PUMP DISPLACEMENT	22:41:30	10
10	SLOW RATE	22:51:15	11
11	BUMP PLUG	22:56:59	12
12	CHECK FLOATS	22:58:48	13
13	END JOB	23:01:15	

Customer: ANTERO	Job Date: 07-Oct-2011	Sales Order #: 8496720
Well Description: I11	Job Type: SURFACE	ADC Used: YES
Company Rep: BOWDIE OAKS	Cement Supervisor: LOGAN HUGENTOBLE	Elite # 5/ Operator: BEN ROSE

OptiCem v6.4.10
07-Oct-11 23:24

ANTERO

8.625" SURFACE



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Company Rep: BOWDIE OAKS	Cement Supervisor: LOGAN HUGENTOBLE	Elite # 5/ Operator: BEN ROSE

OptiCem v6.4.10
07-Oct-11 23:24



Water Analysis Report

Company: ANTERO

Submitted by: LOGAN HUGENTOBLER

Attention: _____

Lease VALLEY FARM

Well # I11

Date: 10/13/2011

Date Rec.: 10/13/2011

S.O.# 8496720

Job Type: 8.625 SURFACE

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7</i>
Potassium (K)	<i>5000</i>	<i>0</i> Mg / L
Calcium (Ca)	<i>500</i>	<i>250</i> Mg / L
Iron (FE2)	<i>300</i>	<i>0</i> Mg / L
Chlorides (Cl)	<i>3000</i>	<i>0</i> Mg / L
Sulfates (SO ₄)	<i>1500</i>	<i>below 200</i> Mg / L
Chlorine (Cl ₂)		<i>0</i> Mg / L
Temp	<i>40-80</i>	<i>55</i> Deg
Total Dissolved Solids		<i>420</i> Mg / L

Respectfully: LOGAN HUGENTOBLER

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

Sales Order #: 8496720	Line Item: 10	Survey Conducted Date: 10/8/2011
Customer: ANTERO RESOURCES		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: BOWDIE OAKS		API / UWI: (leave blank if unknown) 05-045-19498
Well Name: VALLEY FARMS		Well Number: 111
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: 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	10/8/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	LOGAN HUGENTOBLE (HB15210)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	BOWDIE 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.	

CUSTOMER SIGNATURE

Sales Order #: 8496720	Line Item: 10	Survey Conducted Date: 10/8/2011
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Customer Representative: BOWDIE OAKS		API / UWI: (leave blank if unknown) 05-045-19498
Well Name: VALLEY FARMS		Well Number: I11
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	10/8/2011

Cementing KPI Survey	
Type of Job Select the type of job. (Cementing or Non-Cementing)	0
Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	5
HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only.	No
Was the job purpose achieved? Was the job delivered correctly as per customer agreed design?	Yes
Operating Hours (Pumping Hours) Total number of hours pumping fluid on this job. Enter in decimal format.	1
Customer Non-Productive Rig Time (hrs) 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.	0
Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
Number Of JSAs Performed Number Of Jsas Performed	6
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Was this a Primary Cement Job (Yes / No)	Yes

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Well Name: VALLEY FARMS		Well Number: I11
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Top
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	98
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate 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	98
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0