
ANTERO RESOURCES

**Mclin C19
KOKOPELLI
Garfield County , Colorado**

**Cement Surface Casing
01-Nov-2011**

Post Job Summary

The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2887683	Quote #:	Sales Order #: 8474690
Customer: ANTERO RESOURCES		Customer Rep: Oaks, Bowdie	
Well Name: Mclin		Well #: C19	API/UWI #: 05-045-20139
Field: KOKOPELLI	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Lat: N 39.525 deg. OR N 39 deg. 31 min. 30.202 secs.		Long: W 107.607 deg. OR W -108 deg. 23 min. 34.231 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: CHASTAIN, DERICK	MBU ID Emp #: 455848

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BROWN, TRAVIS A	4	396848	CHASTAIN, DERICK Allan	4	455848	LESTER, LEVI William	4	474117
MUHLESTEIN, RYAN Herrick	4	453609						

Equipment

HES Unit #	Distance-1 way						
10551730C	120 mile	10784064	120 mile	10856958	120 mile	10867322	120 mile
10897891	120 mile	10973571	120 mile	11259884	120 mile		

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
11/1/2011	4	2						

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	01 - Nov - 2011	05:00	MST
Form Type		BHST	Job Started	01 - Nov - 2011	10:00	MST
Job depth MD	1060. ft	Job Depth TVD	1060. ft	Job Started	01 - Nov - 2011	12:06
Water Depth		Wk Ht Above Floor	2. ft	Job Completed	01 - Nov - 2011	13:16
Perforation Depth (MD)	<i>From</i>	<i>To</i>	Departed Loc	01 - Nov - 2011	14:00	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
12 1/4" Open Hole				12.25				.	1060.		
8 5/8" Surface Casing	New		8.625	7.825	36.		J-55	.	1043.7		

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	8.33	.0	.0	3.5		
2	VersaCem Lead Cement	VERSACEM (TM) SYSTEM (452010)	160.0	sacks	12.3	2.38	13.77	5.5	13.77	
	13.77 Gal	FRESH WATER								
3	SwiftCem Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	205.0	sacks	14.2	1.43	6.85	5	6.85	
	6.85 Gal	FRESH WATER								
4	Displacement		61.00	bbl	8.33	.0	.0	5		
Calculated Values		Pressures			Volumes					
Displacement	61	Shut In: Instant		Lost Returns	0	Cement Slurry	120	Pad		
Top Of Cement	SURFACE	5 Min		Cement Returns	29	Actual Displacement	61	Treatment		
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	201	
Rates										
Circulating	0	Mixing	5.5	Displacement	5	Avg. Job	4.5			
Cement Left In Pipe	Amount	41.5 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

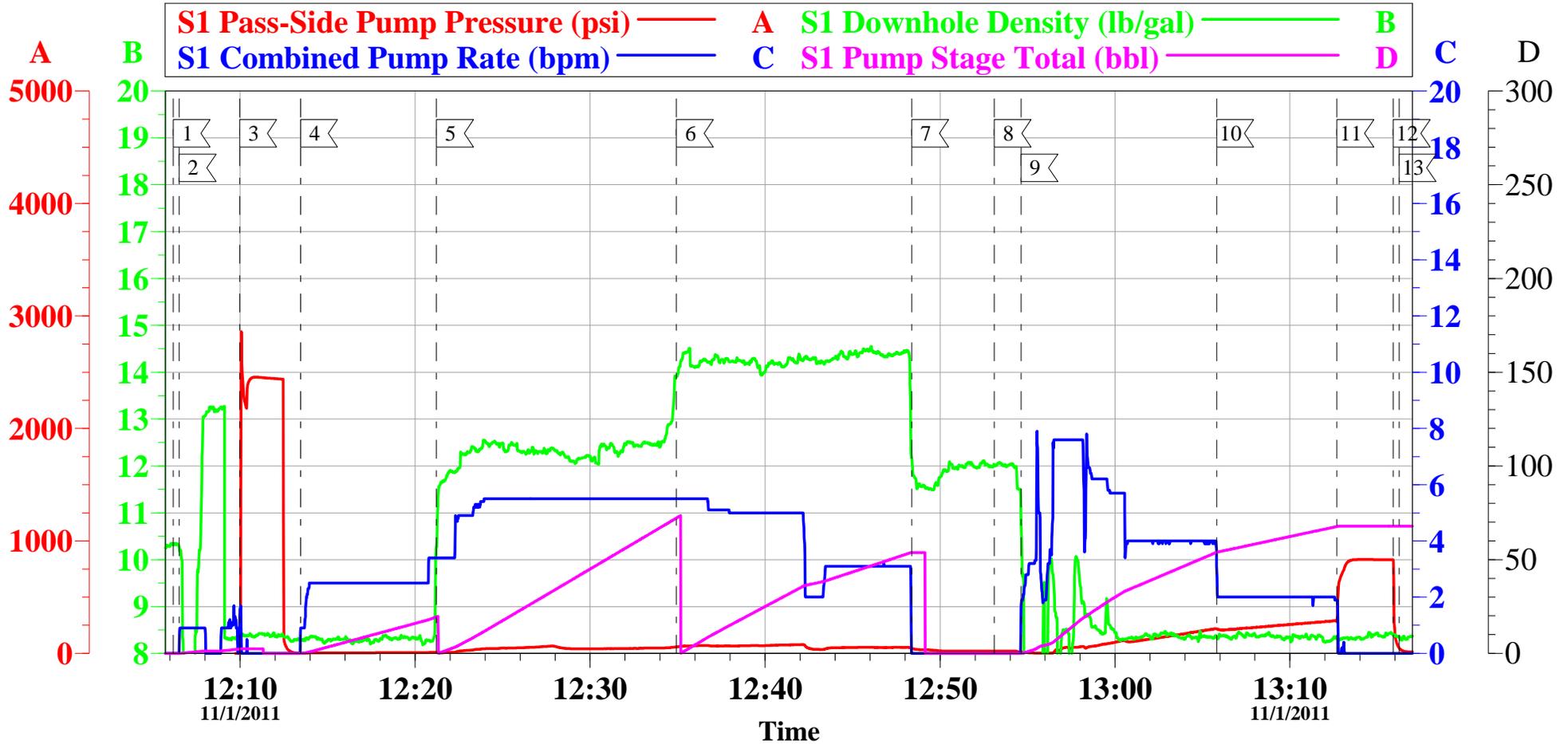
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Well Name: Mclin		Well #: C19	API/UWI #: 05-045-20139
Field: KOKOPELLI	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat: N 39.525 deg. OR N 39 deg. 31 min. 30.202 secs.		Long: W 107.607 deg. OR W -108 deg. 23 min. 34.231 secs.	
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		Srvc Supervisor: CHASTAIN, DERICK	MBU ID Emp #: 455848

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	11/01/2011 05:00							
Pre-Convoy Safety Meeting	11/01/2011 08:00							WITH ALL HES PERSONNEL SAFE DRIVING PRACTICES AND TRAVEL ROUTE REVIEWED
Arrive at Location from Service Center	11/01/2011 10:00							RIG RUNNING CASING
Assessment Of Location Safety Meeting	11/01/2011 10:10							WITH ALL HES PERSONNEL
Pre-Rig Up Safety Meeting	11/01/2011 11:15							WITH ALL HES PERSONNEL
Rig-Up Equipment	11/01/2011 11:30							1 ELITE HT 400 PUMP, 2 660 BULK TRUCKS, 1 F-450 PICK-UP, 1 HES CIRCULATING SWAGE, 2" IRON TO WELL HEAD
Pre-Job Safety Meeting	11/01/2011 11:55							WITH ALL HES PERSONNEL, RIG CREW AND CO REP
Start Job	11/01/2011 12:06							TD 1060', TP 11043.7061', FC 1002.2' SJ 41.5', OH 12.25", SURFACE CASING 8.625" 32# J-55.
Pump Water	11/01/2011 12:06		1	1			11.0	FRESH H2O, TO PRIME LINES
Test Lines	11/01/2011 12:09							HELD 2471 PSI 2 MIN NO LEAKS
Pump Spacer 1	11/01/2011 12:13		3.5	20			21.0	FRESH H2O

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Lead Cement	11/01/2011 12:21		5.5	67.8			80.0	160 SKS 12.3 PPG 2.38 FT3/SK 13.77 GAL/SK WEIGHED VERIFIED VIA MUD SCALES WET AND DRY SAMPLES SUBMITTED
Pump Tail Cement	11/01/2011 12:34		5	52.2			80.0	205 SKS 14.2 PPG 1.43 FT3/SK 6.85 GAL/SK WEIGHED VERIFIED VIA MUD SCALES WET AND DRY SAMPLES SUBMITTED
Shutdown	11/01/2011 12:48							WASH UP ON TOP OF PLUG
Drop Top Plug	11/01/2011 12:53							VERIFY PLUG LAUNCHED
Pump Displacement	11/01/2011 12:54		5	61			235.0	CMT RETURNS 32 BBLs INTO DIS, 29 BBLs TO SURFACE
Slow Rate	11/01/2011 13:05		2	51			316.0	SLOW RATE 10 BBLs PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	11/01/2011 13:12		2	61			820.0	BUMP PLUG HOLD 2 MINS
Check Floats	11/01/2011 13:15							FLOATS HOLDING, GOOD RETURNS THROUGHOUT JOB
End Job	11/01/2011 13:16							NO ADD HOURS OR DERRICK CHARGE. 80 LBS SUGAR USED
Pre-Rig Down Safety Meeting	11/01/2011 13:20							WITH ALL HES PERSONNEL
Rig-Down Equipment	11/01/2011 13:30							AREA FREE FROM DEBRIS
Pre-Convoy Safety Meeting	11/01/2011 13:50							WITH ALL HES PERSONNEL
Crew Leave Location	11/01/2011 14:00							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. DERICK CHASTAIN AND CREW

ANTERO - MCLIN C19

SURFACE CASING

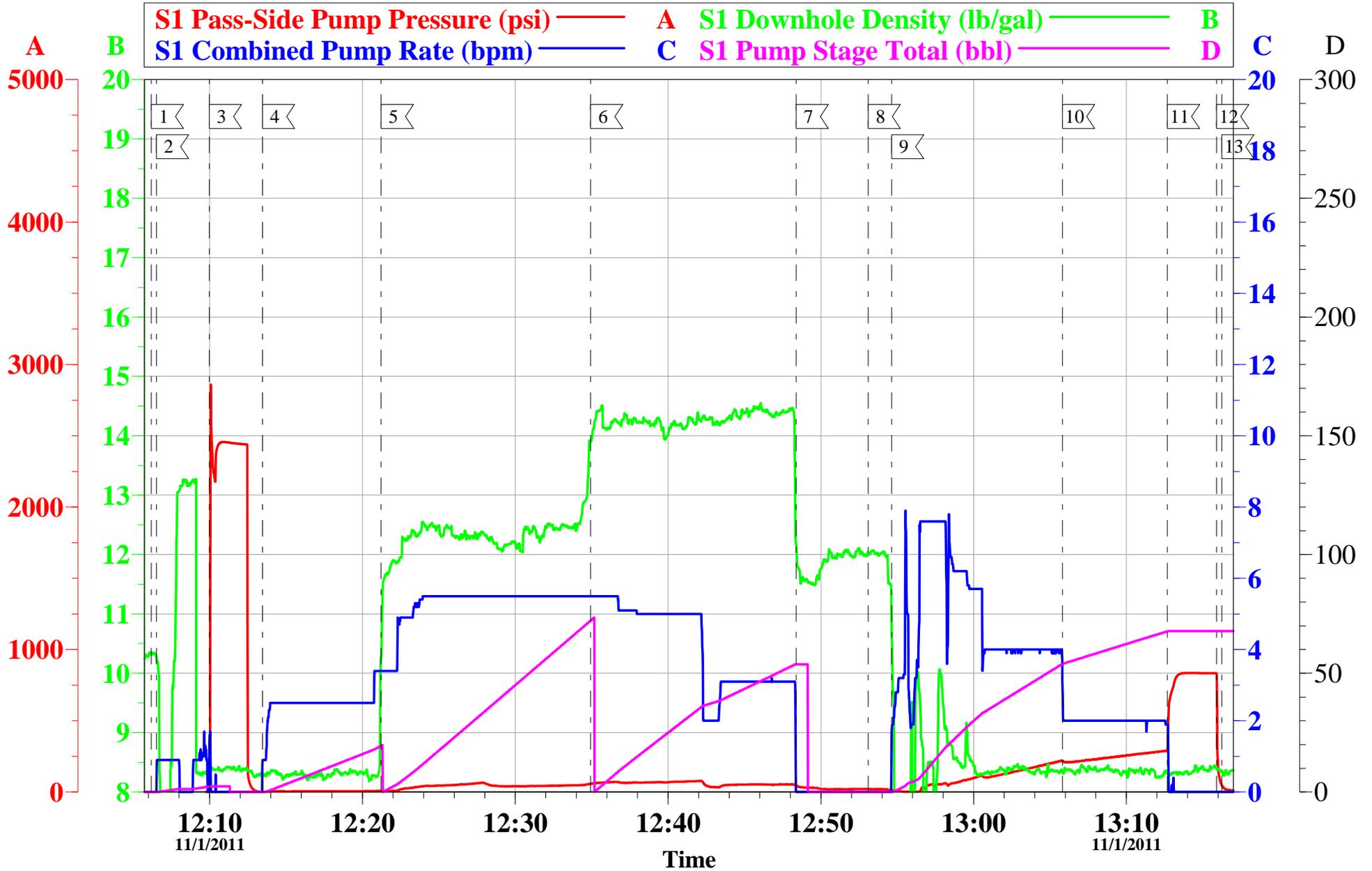


Local Event Log			
1 START JOB	12:06:11	2 FILL LINES	12:06:31
3 TEST LINES	12:09:58	4 PUMP H2O SPACER	12:13:27
5 PUMP LEAD CEMENT	12:21:13	6 PUMP TAIL CEMENT	12:34:56
7 SHUTDOWN	12:48:23	8 DROP PLUG	12:53:05
9 PUMP DISPLACEMENT	12:54:38	10 SLOW RATE	13:05:49
11 BUMP PLUG	13:12:41	12 CHECK FLOATS	13:15:54
13 END JOB	13:16:14		

Customer: ANTERO	Job Date: 01-Nov-2011	Sales Order #: 8474690
Well Description: MC LIN C19	Job type: SURFACE	ADC Used: YES
Customer Rep: BOWDIE OAKS	Service Supervisor: DERICK CHASTAIN	Operator/ Pump #2: RYAN MUHLESTEIN

ANTERO - MCLIN C19

SURFACE CASING



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Customer Rep: BOWDIE OAKS	Service Supervisor: DERICK CHASTAIN	Operator/ Pump #2: RYAN MUHLESTEIN

Sales Order #: 8474690	Line Item: 10	Survey Conducted Date: 11/1/2011
Customer: ANTERO RESOURCES		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: BOWDIE OAKS		API / UWI: (leave blank if unknown) 05-045-20139
Well Name: Mclin		Well Number: C19
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	11/1/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	DERICK CHASTAIN (HB23225)
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	NONE

CUSTOMER SIGNATURE

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H2S Present: No	Well State: Colorado	Well County: Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	11/1/2011
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	3
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Operating Hours (Pumping Hours)	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	6
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	Yes

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Well Name: Mclin		Well Number: C19
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	95
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