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# **OXY GRAND JUNCTION EBUSINESS**

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**CC 697-08-10B  
GRAND VALLEY  
Colorado**

**Cement Surface Casing**  
**29-Feb-2012**

**Post Job Report**



## Cementing Job Summary

## *The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 344034	<b>Ship To #:</b> 344034	<b>Quote #:</b>	<b>Sales Order #:</b> 9107195
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Customer Rep:</b> Vallegas, Alex	
<b>Well Name:</b> CC		<b>Well #:</b> 697-08-10B	<b>API/UWI #:</b> 05-045-20972
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> ADDISON	<b>County/Parish:</b>	<b>State:</b> Colorado
<b>Lat:</b> N 39.544 deg. OR N 39 deg. 32 min. 36.996 secs.		<b>Long:</b> W 108.246 deg. OR W -109 deg. 45 min. 12.924 secs.	
<b>Contractor:</b> H&P		<b>Rig/Platform Name/Num:</b> H&P 353	
<b>Job Purpose:</b> Cement Surface Casing			
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> HIMES, JEFFREY		<b>Srvs Supervisor:</b> NICKLE, RYON	<b>MBU ID Emp #:</b> 454759

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANKS, BRENT A	17.5	371353	NICKLE, RYON	17.5	454759	TRIPLETT, MICHEAL Anthony	17.5	447908
WEAVER, CARLTON Russell	17.5	457698						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10001431	60 mile	10872429	60 mile	10951250	60 mile	10969711	60 mile
11360883	60 mile						

### Job Hours

<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>
2/28/2012	1	0	2/29/2012	16.5	6			

<b>TOTAL</b>	<i>Total is the sum of each column separately</i>				
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**Job**

### Job Times

<b>Formation Name</b>						<b>Date</b>	<b>Time</b>	<b>Time Zone</b>
<b>Formation Depth (MD)</b>	<b>Top</b>	0	<b>Bottom</b>	2711	<b>Called Out</b>	28 - Feb - 2012	15:30	MST
<b>Form Type</b>			<b>BHST</b>		<b>On Location</b>	28 - Feb - 2012	23:00	MST
<b>Job depth MD</b>	2691. ft		<b>Job Depth TVD</b>	2691. ft	<b>Job Started</b>	29 - Feb - 2012	10:59	MST
<b>Water Depth</b>			<b>Wk Ht Above Floor</b>	2. ft	<b>Job Completed</b>	29 - Feb - 2012	14:40	GMT
<b>Perforation Depth (MD)</b>	<b>From</b>		<b>To</b>		<b>Departed Loc</b>	29 - Feb - 2012	16:30	MST

## Well Data

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				14.75				.	2711.	.	2711.
SURFACE CASING	Unknown		9.625	8.921	36.		J-55	.	2691.	.	2691.

## Tools and Accessories

Tools and Accessories													
Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9.625	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	1	HES
Stage Tool										Centralizers	90.625	14	

## 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
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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	Fresh Water Spacer		10.00	bbl	8.33	.0	.0	4	
2	Gel Water Spacer		20.00	bbl	8.4	.0	.0	4	
0.25 gal/bbl		LGC-36 UC, BULK (101582749)							
3	Fresh Water Spacer		10.00	bbl	8.33	.0	.0	4	
4	Lead Cement	VERSACEM (TM) SYSTEM (452010)	1060.0	sacks	12.3	2.33	12.62	6.0	12.62
12.62 Gal		FRESH WATER							
5	Tail Cement	VERSACEM (TM) SYSTEM (452010)	150.0	sacks	12.8	2.07	10.67	6.0	10.67
10.67 Gal		FRESH WATER							
6	Fresh Water Displacement		204.00	bbl	8.34	.0	.0	6	
Calculated Values		Pressures		Volumes					
Displacement	204.4	Shut In: Instant		Lost Returns		Cement Slurry	495.1	Pad	
Top Of Cement		5 Min		Cement Returns	180	Actual Displacement	204.4	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	739.5
Rates									
Circulating	RIG	Mixing	6	Displacement	6	Avg. Job	6		
Cement Left In Pipe	Amount	46.6 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>Well Name:</b> CC		<b>Well #:</b> 697-08-10B	<b>API/UWI #:</b> 05-045-20972
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> ADDISON	<b>County/Parish:</b>	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.544 deg. OR N 39 deg. 32 min. 36.996 secs.		<b>Long:</b> W 108.246 deg. OR W -109 deg. 45 min. 12.924 secs.	
<b>Contractor:</b> H&P		<b>Rig/Platform Name/Num:</b> H&P 353	
<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> HIMES, JEFFREY		<b>Srv Supervisor:</b> NICKLE, RYON	<b>MBU ID Emp #:</b> 454759

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/28/2012 15:30							HES CEMENT CREW
Pre-Convoy Safety Meeting	02/28/2012 18:40							ALL HES CEMENT CREW
Crew Leave Yard	02/28/2012 19:00							
Arrive At Loc	02/28/2012 23:00							RIG RUNNING CASING
Assessment Of Location Safety Meeting	02/28/2012 23:05							ALL HES CEMENT CREW
Other	02/28/2012 23:15							SPOT EQUIPMENT; 1 CEMENTERS F 450, 1 ELITE PUMPING UNIT, 1 660 BULK TRANSPORT
Pre-Rig Up Safety Meeting	02/29/2012 08:40							ALL HES CEMENT CREW, PASS SIDE PUMP FROZEN
Pressure Test	02/29/2012 10:01							STALL OUT @ 2376 PSI, HELD FOR 30 SEC. PRESSURE UP TO 4506 PSI HELD FOR 3 MIN, PRESSURE DROP TO 4448 PSI
Pre-Job Safety Meeting	02/29/2012 10:40							ALL HES CEMENT CREW, RIG CREW, COMPANY REP, AVAILABLE 3RD PARTY EE'S
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

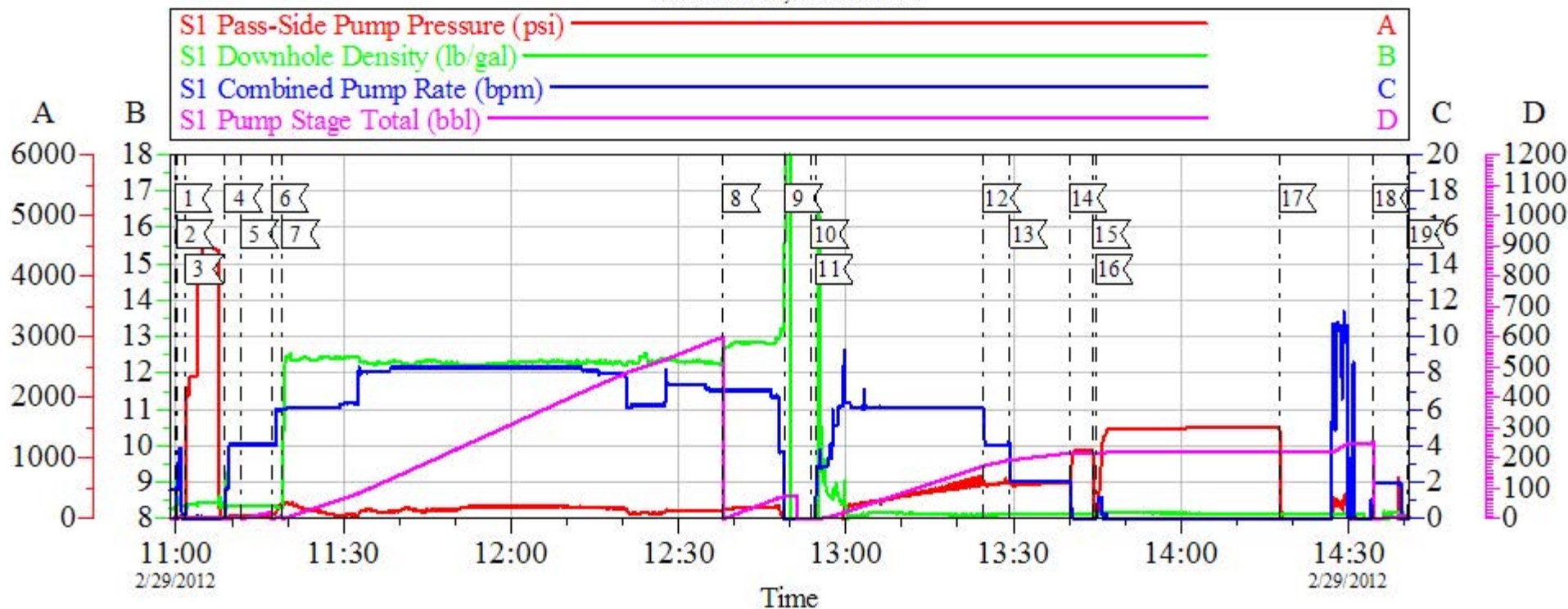
Start Job	02/29/2012 10:59							TD- 2711' TP- 2691' SHOE- 46.61' OH- 14.75" SURFACE CASING- 9.625" 36#/FT J-55 CENTRALIZERS- 14 MUD- 9.1 PPG **OFFLINE CEMENT JOB
Other	02/29/2012 11:00		2	2			22.0	FILL LINES, FRESH WATER
Pump Spacer 1	02/29/2012 11:08		4	10			48.0	FRESH WATER
Pump Spacer 2	02/29/2012 11:11		4	20			58.0	
Pump Spacer 1	02/29/2012 11:17		4	10			55.0	FRESH WATER
Pump Lead Cement	02/29/2012 11:19		6	439.8			221.0	1060 SKS; 12.3 PPG, 2.33 FT3/SK, 12.62 GAL/SK, PUMP RATE DOES NOT REFLECT ACTUAL PUMP RATE, CALCULATED RATE OFF OF GAL/MIN, PUMP RATE WAS APPX 5.8 BBLS / MIN
Pump Tail Cement	02/29/2012 12:38		6	55.3			209.0	150 SKS; 12.8 PPG, 2.07 FT3/SK, 10.67 GAL/SK, PUMP RATE DOES NOT REFLECT ACTUAL PUMP RATE, CALCULATED RATE OFF OF GAL/MIN, PUMP RATE WAS APPX 5.5 BBLS / MIN
Shutdown	02/29/2012 12:49							WASH UP ON TOP OF PLUG PER CO REP
Drop Top Plug	02/29/2012 12:53							CO REP VERIFIED PLUG LAUNCHED
Pump Displacement	02/29/2012 12:54		6	160			582.0	FRESH WATER, CEMENT TO SURFACE 20 BBLS INTO DISPLACEMENT
Slow Rate	02/29/2012 13:24		4	20			605.0	PER COMPANY REP
Slow Rate	02/29/2012 13:29		2	24.4			584.0	PER COMPANY REP
Bump Plug	02/29/2012 13:40						1126. 0	
Check Floats	02/29/2012 13:44							FLOATS HELD, RETURNED 1 BBLS H2O
Pressure Up	02/29/2012 13:44						1504. 0	

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Release Casing Pressure	02/29/2012 14:17							
Other	02/29/2012 14:34		2	9.5			650.0	PUMP TO CLEAR PARASITE
End Job	02/29/2012 14:40							PIPE WAS NOT MOVED, GAINED RETURNS 300 BBLS INTO LEAD CEMENT, 180 BBLS CEMENT TO SURFACE, DID NOT LOOSE RETURNS AFTER GAINING THEM.
Post-Job Safety Meeting (Pre Rig-Down)	02/29/2012 14:45							ALL HES CEMENT CREW
Pre-Convoy Safety Meeting	02/29/2012 16:15							ALL HES CEMENT CREW
Crew Leave Location	02/29/2012 16:30							THANK YOU FOR USING HALLIBURTON CEMENTING, RYON NICKLE AND CREW

# OXY - CC 697-08-10B

SURFACE; OFF LINE



Local Event Log					
1	START JOB	10:59:43	2	FILL LINES	11:00:02
3	PRESSURE TEST	11:01:43	4	PUMP H2O SPACER	11:08:50
5	PUMP GEL SPACER	11:11:38	6	PUMP H2O SPACER	11:17:02
7	PUMP LEAD CEMENT	11:19:01	8	PUMP TAIL CEMENT	12:38:01
9	SHUTDOWN	12:49:08	10	DROP TOP PLUG	12:53:49
11	PUMP DISPLACEMENT	12:54:37	12	SLOW RATE	13:24:34
13	SLOW RATE	13:29:22	14	BUMP PLUG	13:40:00
15	CHECK FLOATS	13:44:13	16	PRESSURE UP ON CASING	13:44:42
17	RELEASE CASING PRESSURE	14:17:33	18	PUMP TO CLEAR PARASITE	14:34:15
19	END JOB	14:40:30			

Customer: OXY GRAND JUNCTION EBUSINESS  
Well Description: CC 697-08-10B  
Company Rep: ALEX VALLEGAS

Job Date: 29-Feb-2012  
Job Type: OFFLINE SURFACE  
Cement Supervisor: RYON NICKLE

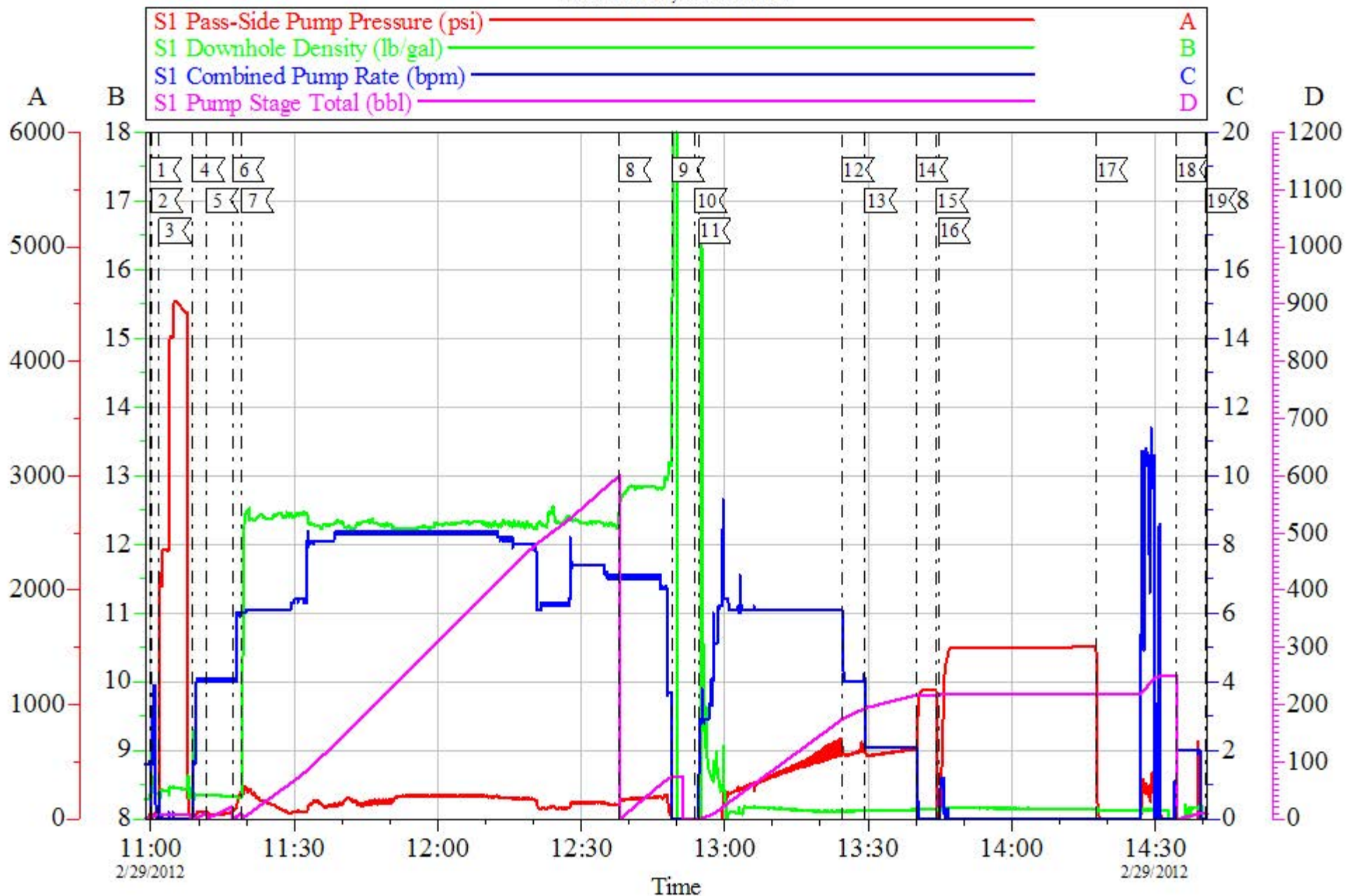
Sales Order #: 9107195  
ADC Used: YES  
Elite # / Operator: E7 / BRENT BANKS

OptiCem v6.4.10  
29-Feb-12 14:47



# OXY - CC 697-08-10B

SURFACE; OFF LINE



Customer: OXY GRAND JUNCTION EBUSINESS  
Well Description: CC 697-08-10B  
Company Rep: ALEX VALLEGAS

Job Date: 29-Feb-2012  
Job Type: OFFLINE SURFACE  
Cement Supervisor: RYON NICKLE

Sales Order #: 9107195  
ADC Used: YES  
Elite # / Operator: E7 / BRENT BANKS

OptiCem v6.4.10  
29-Feb-12 14:48



# HALLIBURTON

## Water Analysis Report

Company: OXY

Submitted by: RYON NICKLE

Attention: LAB

Lease H&P 353

Well # CC 697-08-10B

Date: 2/28/2012

Date Rec.: 2/28/2012

S.O.# 9107195

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>7</b>
Potassium (K)	<i>5000</i>	<b>0</b> Mg / L
Hrdness	<i>500</i>	<b>420</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>300</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200</b> Mg / L
Temp	<i>40-80</i>	<b>55</b> Deg
Total Dissolved Solids		<b>650</b> Mg / L

Respectfully: RYON NICKLE

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 it

<b>Sales Order #:</b> 9107195	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/29/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b>
<b>Well Name:</b> CC		<b>Well Number:</b> 697-08-10B
<b>Well Type:</b> DEVELOP	<b>Well Country:</b>	
<b>H2S Present:</b>	<b>Well State:</b>	<b>Well County:</b>

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	2/29/2012
Survey Interviewer	The survey interviewer is the person who initiated the survey.	RYON NICKLE (HB22175)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ALEX VALLEGAS
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	GREAT JOB

<b>CUSTOMER SIGNATURE</b>
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<b>Sales Order #:</b> 9107195	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/29/2012
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<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b>
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<b>Well Type:</b> DEVELOP	<b>Well Country:</b>	
<b>H2S Present:</b>	<b>Well State:</b>	<b>Well County:</b>

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b> The date the survey was conducted	2/29/2012

Cementing KPI Survey	
<b>Type of Job</b> Select the type of job. (Cementing or Non-Cementing)	0
<b>Select the Maximum Deviation range for this Job</b> What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
<b>Total Operating Time (hours)</b> Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	6
<b>HSE Incident, Accident, Injury</b> HSE Incident, Accident, Injury. This should be recordable incidents only.	No
<b>Was the job purpose achieved?</b> Was the job delivered correctly as per customer agreed design?	Yes
<b>Operating Hours (Pumping Hours)</b> Total number of hours pumping fluid on this job. Enter in decimal format.	4
<b>Customer Non-Productive Rig Time (hrs)</b> 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
<b>Type of Rig Classification Job Was Performed</b> Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
<b>Number Of JSAs Performed</b> Number Of Jsas Performed	6
<b>Number of Unplanned Shutdowns</b> Unplanned shutdown is when injection stops for any period of time.	0
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

<b>Sales Order #:</b> 9107195	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/29/2012
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<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b>
<b>Well Name:</b> CC		<b>Well Number:</b> 697-08-10B
<b>Well Type:</b> DEVELOP	<b>Well Country:</b>	
<b>H2S Present:</b>	<b>Well State:</b>	<b>Well County:</b>

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	95
<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	95
<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