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# **OXY GRAND JUNCTION EBUSINESS**

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**Cascade Creek 697-05-76A  
GRAND VALLEY  
Garfield County , Colorado**

## **Cement Surface Casing** **02-May-2012**

### **Post Job Summary**

# HALLIBURTON

## Cementing Job Summary

*The Road to Excellence Starts with Safety*

Sold To #: 344034	Ship To #: UNKNOWN	Quote #:	Sales Order #: 9474130
Customer: OXY GRAND JUNCTION EBUSINESS	Customer Rep: VILLEGAS, ALEX		
Well Name: CC	Well #: 697-05-76A	API/UWI #: 05-045-20965	
Field: GRAND VALLEY	City (SAP): Debeque	County/Parish: Garfield	State: Colorado
Lat: N 39.544 deg. OR N 39 deg. 32 min. 37.32 secs.	Long: W 108.246 deg. OR W -109 deg. 45 min. 12.888 secs.		
Contractor: H&P 353	Rig/Platform Name/Num: H&P 353		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: HIMES, JEFFREY	Srvc Supervisor: NICKLE, RYON	MBU ID Emp #: 454759	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ENGBERG, KEVIN W	18	454218	NICKLE, RYON	18	454759	PARKER, BRANDON	18	503646
WADE, LOGAN D	18	488896						

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10744648C	120 mile	10867304	120 mile	10867425	120 mile	10897891	120 mile
10951249	120 mile	10998054	120 mile	11808845	120 mile		

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
5/2/12	1	0	5/3/12	17	7			

TOTAL Total is the sum of each column separately

### Job

### Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
		0	2723	02 - May - 2012	04:45	MST	
Form Type		BHST		02 - May - 2012	11:00	MST	
Job depth MD	2723. ft	Job Depth TVD	2723. ft	03 - May - 2012	06:37	MST	
Water Depth		Wk Ht Above Floor	ft	03 - May - 2012	14:29	MST	
Perforation Depth (MD)	From	To		03 - May - 2012	16:30	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
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### 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			

### 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 uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
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# HALLIBURTON

## Cementing Job Summary

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	3	
2	Gel Water Spacer		20.00	bbl	8.34	.0	.0	3	
		0.25 gal/bbl	LGC-36 UC, BULK (101582749)						
3	Fresh Water Spacer		10.00	bbl	8.33	.0	.0	2	
4	HalCem Lead Cement	HALCEM (TM) SYSTEM (452986)	1160.0	sacks	12.3	2.15	11.83	6	11.83
		11.83 Gal	FRESH WATER						
5	VariCem Tail Cement	VARICEM (TM) CEMENT (452009)	160.0	sacks	12.8	2.07	10.67	2	10.67
		10.67 Gal	FRESH WATER						
6	Fresh Water Displacement		205.00	bbl	8.34	.0	.0	6	
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
Displacement	205.8	Shut In: Instant		Lost Returns		Cement Slurry	525	Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement	205.8	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	770.8
<b>Rates</b>									
Circulating	RIG	Mixing	6	Displacement	6	Avg. Job	6		
Cement Left In Pipe	Amount	0 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 <i>Denzel Z. Brown</i>					

# HALLIBURTON

## Cementing Job Log

*The Road to Excellence Starts with Safety*

Sold To #: 344034	Ship To #: UNKNOWN	Quote #:	Sales Order #: 9474130
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Well Name: CC	Well #: 697-05-76A	API/UWI #: 05-045-20965	
Field: GRAND VALLEY	City (SAP): Debeque	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat: N 39.544 deg. OR N 39 deg. 32 min. 37.32 secs.		Long: W 108.246 deg. OR W -109 deg. 45 min. 12.888 secs.	
Contractor: H&P 353	Rig/Platform Name/Num: H&P 353		
Job Purpose: Cement Surface Casing	Ticket Amount:		
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: HIMES, JEFFREY	Srv Supervisor: NICKLE, RYON	MBU ID Emp #: 454759	

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/02/2012 16:30							HES CEMENT CREW
Pre-Convoy Safety Meeting	05/02/2012 19:45							ALL HES CEMENT CREW
Crew Leave Yard	05/02/2012 20:00							
Arrive At Loc	05/02/2012 23:00							RIG RUNNING CASING
Assessment Of Location Safety Meeting	05/02/2012 23:10							ALL HES CEMENT CREW
Other	05/02/2012 23:20							SPOT EQUIPMENT; 1 CEMENTERS F 450, 1 ELITE PUMPING UNIT, 2 660 BULK TRANSPORT
Pre-Rig Up Safety Meeting	05/02/2012 23:30							ALL HES CEMENT CREW
Pre-Job Safety Meeting	05/03/2012 05:30							ALL HES CEMENT CREW, RIG CREW, COMPANY REP, AVAILABLE 3RD PARTY EE'S
Start Job	05/03/2012 06:37							TD- 2723' TP- 2703' SHOE- 46' OH- 14.75" SURFACE CASING- 9.625" 36#/FT H-40 D- 9.3
Other	05/03/2012 06:37							FILL LINES, FRESH WATER
Pressure Test	05/03/2012 06:40							STALL OUT @ 1358 PSI, HELD FOR 30 SEC. PRESSURE UP TO 3565 PSI HELD FOR 3 MIN, PRESSURE DROP TO 3462 PSI

Sold To #: 344034

Ship To #: UNKNOWN

Quote #:

Sales Order #:

9474130

SUMMIT Version: 7.3.0021

Thursdav. May 03. 2012 03:17:00



# HALLIBURTON

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer 1	05/03/2012 06:47		3	10			35.0	FRESH WATER
Pump Spacer 2	05/03/2012 06:51		4	20			35.0	GEL SPACER
Pump Spacer 1	05/03/2012 06:57		3	10			37.0	FRESH WATER
Pump Lead Cement	05/03/2012 07:04		6	444.1			229.0	1160 SKS; 12.3 PPG, 2.15 FT3/SK, 11.83 GAL/SK, WEIGHED UP TUB 2 X, BOTH WEIGH UPS WERE IN LINE WITH RECERC. OPERATOR AUTO CALED DOWNHOLE ON ACCIDENT, RE-CALED DOWNHOLE TO MATCH WEIGH UP WITH PRESSURIZED MUD SCALE.
Pump Tail Cement	05/03/2012 08:23		2	8			148.0	160 SKS; 12.8 PPG, 2.07 FT3/SK, 10.67 GAL/SK, CEMENT HEAD STUCK OPEN APPX 8 BBLs INTO TAIL CEMENT CAUSING TUB TO POWDER OFF, ABLE TO CLEAN UP TUB BUT NOT CLEAR RECIRC LINE OF CEMENT THUS UNABLE TO MIX REMAINING TAIL CEMENT
Shutdown	05/03/2012 08:28							PER COMPANY REP, OKAY TO DROP TOP PLUG AND PUMP DISPLACEMENT WITHOUT PUMPING REMAINING TAIL CEMENT
Drop Top Plug	05/03/2012 09:12							CO REP VERIFIED PLUG LAUNCHED
Pump Displacement	05/03/2012 09:12		6	150.3			659.0	FRESH WATER
Slow Rate	05/03/2012 09:48		3	45			898.0	PER COMPANY REP SLOW RATE
Slow Rate	05/03/2012 10:04		2	10			833.0	PER COMPANY REP SLOW RATE

Sold To # : 344034

Ship To # : UNKNOWN

Quote # :

Sales Order # :

9474130

SUMMIT Version: 7.3.0021

Thursday, May 03, 2012 03:17:00

# HALLIBURTON

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Bump Plug	05/03/2012 10:07						1429. 0	
Check Floats	05/03/2012 10:15							FLOATS HELD, RETURNED 1.2 BBLS H2O
Pressure Up	05/03/2012 10:18						1538. 0	PRESSURE TEST CASING TO 1500 PSI, HOLD FOR 30 MIN
Release Casing Pressure	05/03/2012 10:50							
Other	05/03/2012 10:53							ABLE TO FIX RECERC LINE AND CLEAR CEMENT PLUG, PER COMPANY REP OKAY TO WASH UP LINES AND TRUCK TO CELLAR
Other	05/03/2012 11:43		1.5	10			428.0	PUMP TO CLEAR PARASITE; 10 LB SUGAR TO 10 BBLS H2O PUMPED AT 1.5 BBLS / MIN, CAUGHT PRESSURE AT 6 BBLS AWAY
Shutdown	05/03/2012 11:47							
Pump Cement	05/03/2012 12:39		3.5	40		101.0		PUMPED REMAINING 50 BBLS OF TAIL CEMENT, PUMPED 68 SKS OF TOP OUT CEMENT; 12.5 #/GAL, 1.97 FT3/SK, 10.67 GAL/SK TO TOP OUT. WELL 697-05-76A TOOK 35 BBLS TO BRING CEMENT TO SURFACE, PUMPED ADDITIONAL 5 BBLS TO CELLAR
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Sold To #: 344034

Ship To #: UNKNOWN

Quote #:

Sales Order #:

9474130

SUMMIT Version: 7.3.0021

Thursday, May 03, 2012 03:17:00

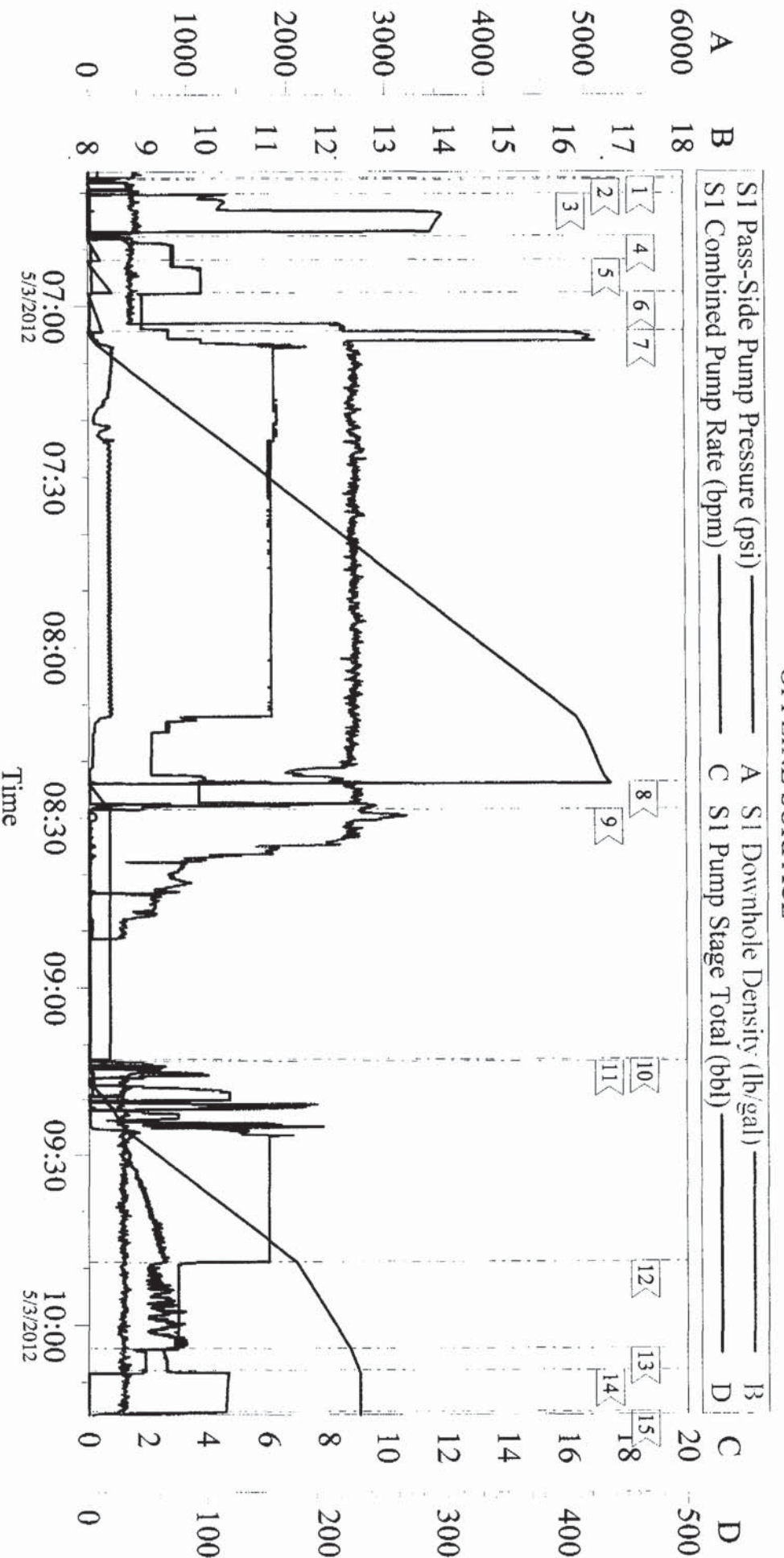
# HALLIBURTON

## *Cementing Job Log*

Pump Cement	05/03/2012 12:39		3.5	33		117.0		PUMPED REMAINING CEMENT VOLUMES LISTED ABOVE TO THE FOLLOWING; 697-05-67A - 4 BBLS, 697-05-59 - 5 BBLS, 697-05-51 - 24 BBLS. IN ALL CASES VOLUMES LITED WERE TO BRNIG CEMENT TO SURFACE
End Job	05/03/2012 14:29							PIPE WAS NOT MOVED, NO RETURNS THROUGHOUT JOB, NO CEMENT TO SURFACE
Post-Job Safety Meeting (Pre Rig-Down)	05/03/2012 14:35							ALL HES CEMENT CREW
Pre-Convoy Safety Meeting	05/03/2012 16:15							ALL HES CEMENT CREW
Crew Leave Location	05/03/2012 16:30							THANK YOU FOR USING HALLIBURTON CEMENTING, RYON NICKLE AND CREW



# OXY - CC 697-05-76A OFFLINE SURFACE



## Local Event Log

1	START JOB	06:37:25	2	FILL LINES	06:37:42	3	PRESSURE TEST	06:40:14
4	PUMP H2O SPACER	06:47:40	5	PUMP GEL SPACER	06:51:53	6	PUMP H2O SPACER	06:57:38
7	PUMP LEAD CEMENT	07:04:22	8	PUMP TAIL CEMENT	08:23:44	9	SHUTDOWN	08:28:30
10	DROP TOP PLUG	09:12:35	11	PUMP DISPLACEMENT	09:12:58	12	SLOW RATE	09:48:59
13	SLOW RATE	10:04:05	14	BUMP PLUG	10:07:58	15	CHECK FLOATS	10:15:15

Customer: OXY GRAND JUNCTION EBUSINESS  
 Well Description: CC 697-05-76A  
 Company Rep: ALEX VILLEGAS

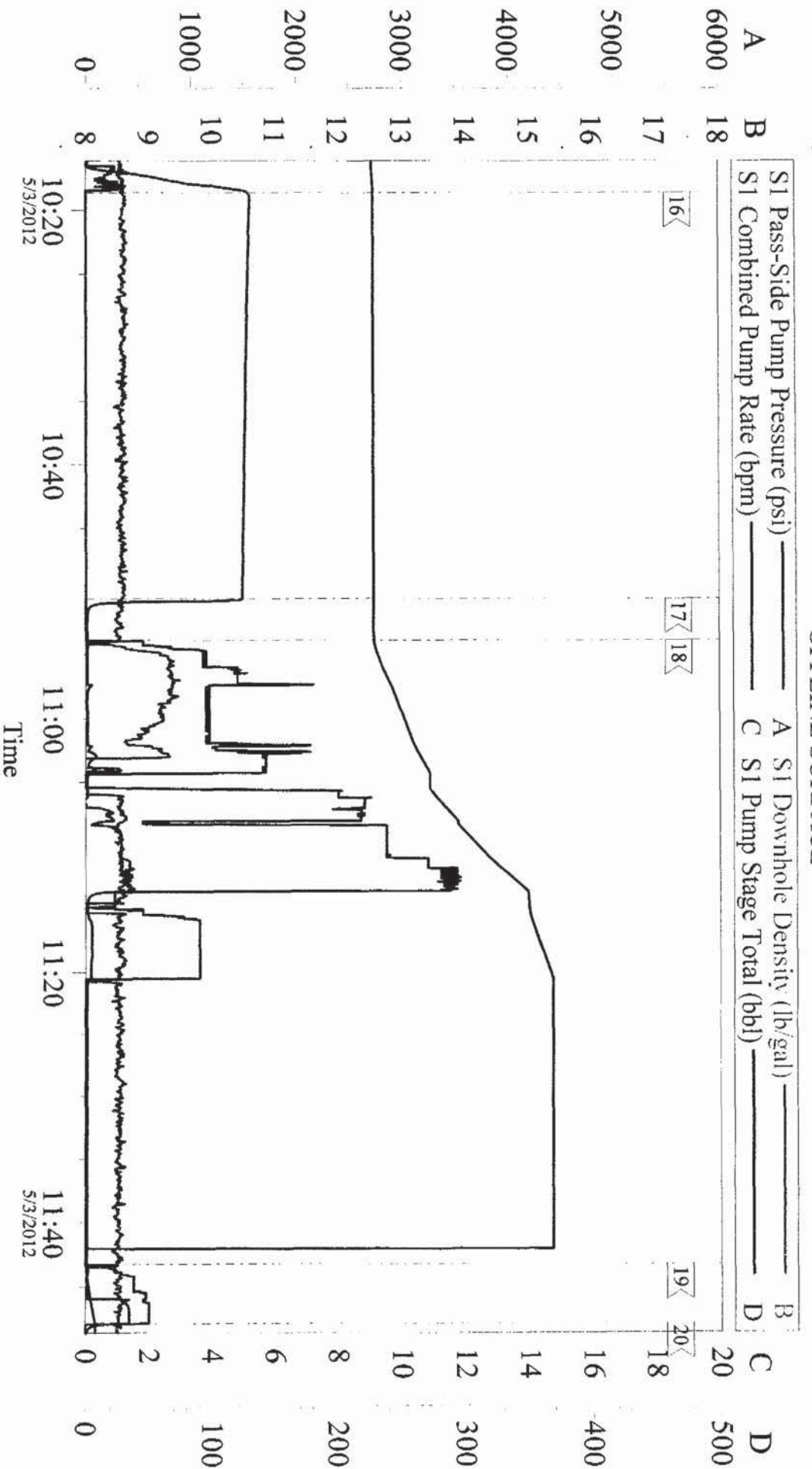
Job Date: 03-May-2012  
 Job Type: OFFLINE SURFACE  
 Cement Supervisor: RYON NICKLE

Sales Order #: 9474130  
 ADC Used: YES  
 Elite # / Operator: E6 / LOGAN WADE

OptiCem v6.4.10  
 03-May-12 12:11



# OXY - CC 697-05-76A OFFLINE SURFACE



## Local Event Log

16<	START CASING TEST	10:18:38	17<	RELEASE CASING PRESSURE	10:50:36
18<	WASH UP TRUCK TO CELLAR	10:53:51	19<	PUMP TO CLEAR PARASITE	11:43:13
20<	SHUTDOWN	11:47:52			

Customer:	OXY GRAND JUNCTION EBUSINESS	Job Date:	03-May-2012	Sales Order #:	9474130
Well Description:	CC 697-05-76A	Job Type:	OFFLINE SURFACE	ADC Used:	YES
Company Rep:	ALEX VILLEGAS	Cement Supervisor:	RYON NICKLE	Elite # / Operator:	E6 / LOGAN WADE

# HALLIBURTON

## CUSTOMER SURVEY

<b>Sales Order #:</b> 9474130	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/3/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> TERRY ROSSER		<b>API / UWI: (leave blank if unknown)</b> 05-045-20965
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-76A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<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	5/3/2012
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	TERRY ROSSER
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	

CUSTOMER SIGNATURE



<b>Sales Order #:</b> 9474130	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/3/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> TERRY ROSSER		<b>API / UWI: (leave blank if unknown)</b> 05-045-20965
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-76A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

<b>General</b>	
<b>Survey Conducted Date</b> The date the survey was conducted	5/3/2012

<b>Cementing KPI Survey</b>	
<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.	9
<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.	5
<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.	1
<b>Reason For Unplanned Shutdown</b>	PACKED OFF RECIRC WHEN TUB POWDERED OFF

# HALLIBURTON

## CUSTOMER SURVEY

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<b>Customer Representative:</b> TERRY ROSSER		<b>API / UWI: (leave blank if unknown)</b> 05-045-20965
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-76A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

<b>Reason For Unplanned Shutdowns (after Starting To Pump)</b>	
<b>Was this a Primary Cement Job (Yes / No)</b> Primary Cement Job= Casing job, Liner job, or Tie-back job.	Yes
<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