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# **OXY GRAND JUNCTION EBUSINESS**

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**Shell 797-03-08A  
GRAND VALLEY  
Garfield County , Colorado**

**Cement Surface Casing**  
**16-May-2012**

**Post Job Summary**

## The Road to Excellence Starts with Safety

Sold To #: 344034	Ship To #: 344034	Quote #:	Sales Order #: 9502982
Customer: OXY GRAND JUNCTION EBUSINESS	Customer Rep: VILLEGAS, ALEX		
Well Name: Shell	Well #: 797-03-08A	API/UWI #: 05-045-21279	
Field: GRAND VALLEY	City (SAP): ADDISON	County/Parish: Garfield	State: Colorado
Lat: N 39.48 deg. OR N 39 deg. 28 min. 46.596 secs.	Long: W 108.202 deg. OR W -109 deg. 47 min. 52.764 secs.		
Contractor: H&P 330	Rig/Platform Name/Num: H&P 330		
Job Purpose: Cement Surface Casing			
Well Type: Development Well	Job Type: Cement Surface Casing		
Sales Person: HIMES, JEFFREY	Srv Supervisor: ARNOLD, EDWARD	MBU ID Emp #: 439784	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARNOLD, EDWARD John	0.0	439784	BRENNECKE, ANDREW Bailey	0.0	486345	DEUSSEN, EDWARD Eric	0.0	485182
VANALSTYNE, TROY L	0.0	420256						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10867531	120 mile	10989685	120 mile	11259882	120 mile	11542767	120 mile
11808835	120 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

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	16 - May - 2012	17:30	MST
Form Type		BHST	Job Started	16 - May - 2012	21:04	MST
Job depth MD	999. ft	Job Depth TVD	Job Completed	16 - May - 2012	22:41	MST
Water Depth		Wk Ht Above Floor	Departed Loc	16 - May - 2012	23:30	MST
Perforation Depth (MD)	From	To				

## 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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Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 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			
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

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			bbl	8.33	.0	.0	.0	
2	Gel Water Spacer			bbl	8.34	.0	.0	.0	
0.25 gal/bbl		LGC-36 UC, BULK (101582749)							
3	Fresh Water Spacer			bbl	8.33	.0	.0	.0	
4	VersaCem Lead Cement	VERSACEM (TM) SYSTEM (452010)		sacks	12.3	2.38	13.77		13.77
13.77 Gal		FRESH WATER							
5	SwiftCem Tail Cement	SWIFTCCEM (TM) SYSTEM (452990)		sacks	14.2	1.43	6.85		6.85
6.85 Gal		FRESH WATER							
6	Fresh Water Displacement			bbl	8.34	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
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					

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 344034	<b>Ship To #:</b> 344034	<b>Quote #:</b>	<b>Sales Order #:</b> 9502982
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Customer Rep:</b> VILLEGAS, ALEX	
<b>Well Name:</b> Shell		<b>Well #:</b> 797-03-08A	<b>API/UWI #:</b> 05-045-21279
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> ADDISON	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.48 deg. OR N 39 deg. 28 min. 46.596 secs.		<b>Long:</b> W 108.202 deg. OR W -109 deg. 47 min. 52.764 secs.	
<b>Contractor:</b> H&P 330		<b>Rig/Platform Name/Num:</b> H&P 330	
<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>Srvc Supervisor:</b> ARNOLD, EDWARD	<b>MBU ID Emp #:</b> 439784

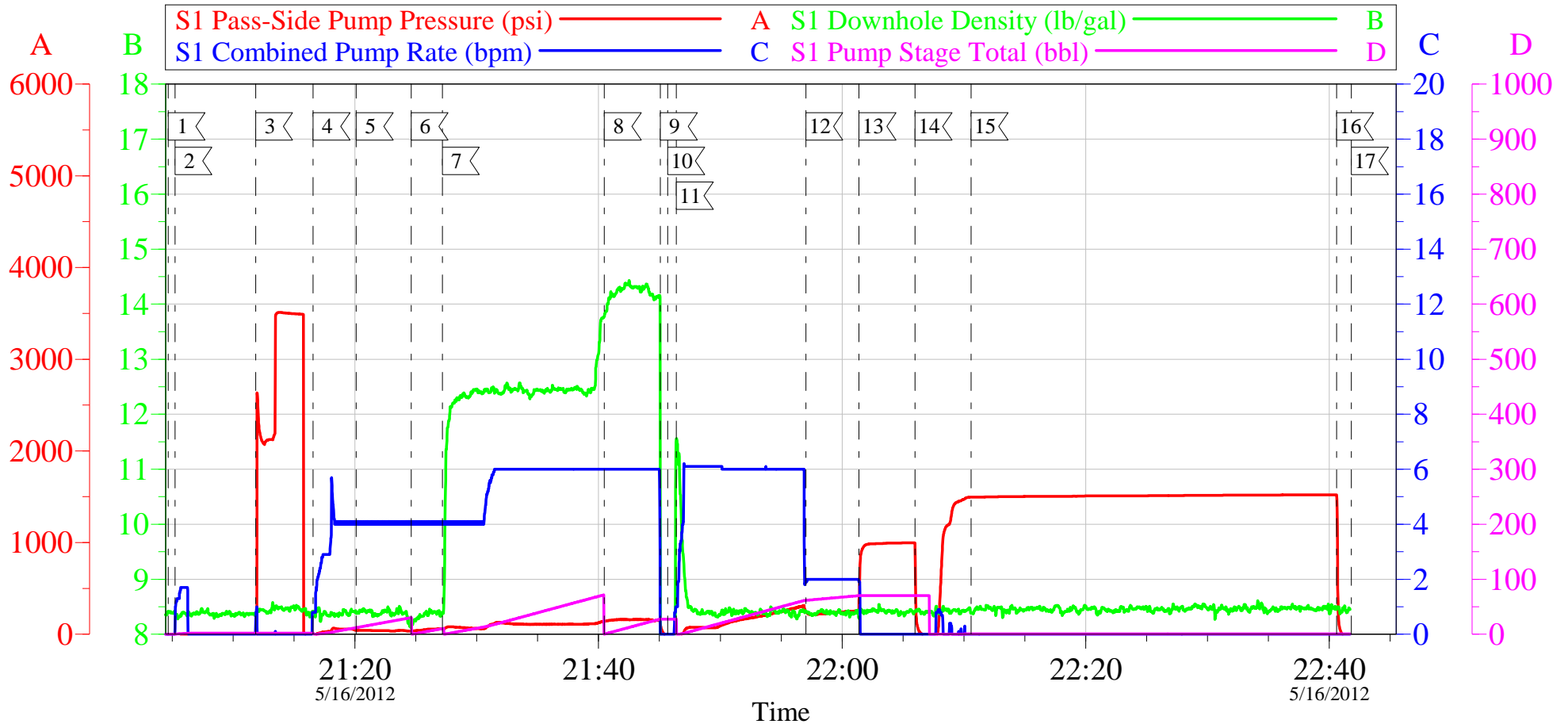
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/16/2012 14:00							
Pre-Convoy Safety Meeting	05/16/2012 15:45							Including entire cement crew.
Crew Leave Yard	05/16/2012 16:00							
Arrive At Loc	05/16/2012 17:30							Rig still Running casing.
Assessment Of Location Safety Meeting	05/16/2012 17:35							Water; PH ; KCL ; So4 ; Fe ; Calcuim ; Chlorides ; Temp ; TDS .
Pre-Rig Up Safety Meeting	05/16/2012 17:55							Including entire cement crew.
Rig-Up Equipment	05/16/2012 18:00							1 Elite # ; 1 Field storage bin; 1 660 bulk truck; 1 hard line to floor; 1 hard line to pit; 1 line to upright; 1 line to rig tank. 4.5" compact head.
Rig-Up Completed	05/16/2012 18:30							
Pre-Job Safety Meeting	05/16/2012 20:30							Including everyone on location.
Start Job	05/16/2012 21:04							TD ; TP ; SJ ; OH ; Casing 4.5" 11.6# ; Surface at 9.625" 32.3#; Mud ppg.
Pump Water	05/16/2012 21:05		2	2			34.0	Fill lines with fresh water.
Test Lines	05/16/2012 21:11						3529. 0	Had to wait on rig hands to clear cellar - good pressure test
Pump Spacer 1	05/16/2012 21:16		4	10			87.0	10 BBL fresh water spacer.
Pump Spacer 2	05/16/2012 21:20		4	20			79.0	20 BBL Mudflush III spacer.

## Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Spacer 1	05/16/2012 21:24		4	10			80.0	10 BBL fresh water spacer.
Pump Lead Cement	05/16/2012 21:27		6	67			152.0	158 sks Lead Cement, 12.3 ppg, 2.38 cf3, 13.77 gal/sk.
Pump Tail Cement	05/16/2012 21:40		6	32.1			167.0	126 sks Tail Cement, 14.2 ppg, 1.43 cf3, 6.85 gal/sk.
Shutdown	05/16/2012 21:45							
Clean Lines	05/16/2012 21:45							Clean pumps and lines to pit.
Drop Plug	05/16/2012 21:45							Plug left container.
Pump Displacement	05/16/2012 21:46		6	61			315.0	
Slow Rate	05/16/2012 21:57		2	10	71		260.0	Slow rate 10 BBL's prior to bumping the plug.
Bump Plug	05/16/2012 22:01						995.0	Bumped plug, took 500 PSI over.
Check Floats	05/16/2012 22:06							Floats held, 1/2 BBL back
Test Lines	05/16/2012 22:10						1500.0	Casing Test 1500 psi for 30 minutes
End Job	05/16/2012 22:41							
Pre-Rig Down Safety Meeting	05/16/2012 22:50							Including entire cement crew.
Rig-Down Equipment	05/16/2012 23:00							
Rig-Down Completed	05/16/2012 23:15							
Pre-Convoy Safety Meeting	05/16/2012 23:20							Including entire cement crew.
Crew Leave Location	05/16/2012 23:30							Crew leave location for Service Center or another location.
Other	05/16/2012 23:31							Thank You for using Halliburton. Ed Arnold and Crew.

# OXY - SHELL 797-03-08A

9 5/8 SURFACE CASING



## Local Event Log

1 START JOB	21:04:40	2 FILL LINES	21:05:13	3 PRESSURE TEST	21:11:51
4 PUMP WATER SPACER	21:16:34	5 PUMP GEL SPACER	21:20:06	6 PUMP WATER SPACER	21:24:37
7 PUMP LEAD CEMENT	21:27:11	8 PUMP TAIL CEMENT	21:40:28	9 SHUT DOWN	21:45:05
10 DROP PLUG	21:45:41	11 PUMP DISPLACEMENT	21:46:23	12 SLOW RATE	21:57:02
13 BUMP PLUG	22:01:24	14 CHECK FLOATS	22:06:00	15 CASING PRESSURE TEST	22:10:36
16 RELEASE PRESSURE	22:40:36	17 END JOB	22:41:49		

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Well Description: SHELL 797-03-08A  
Company Rep: ALEX VILLEGAS

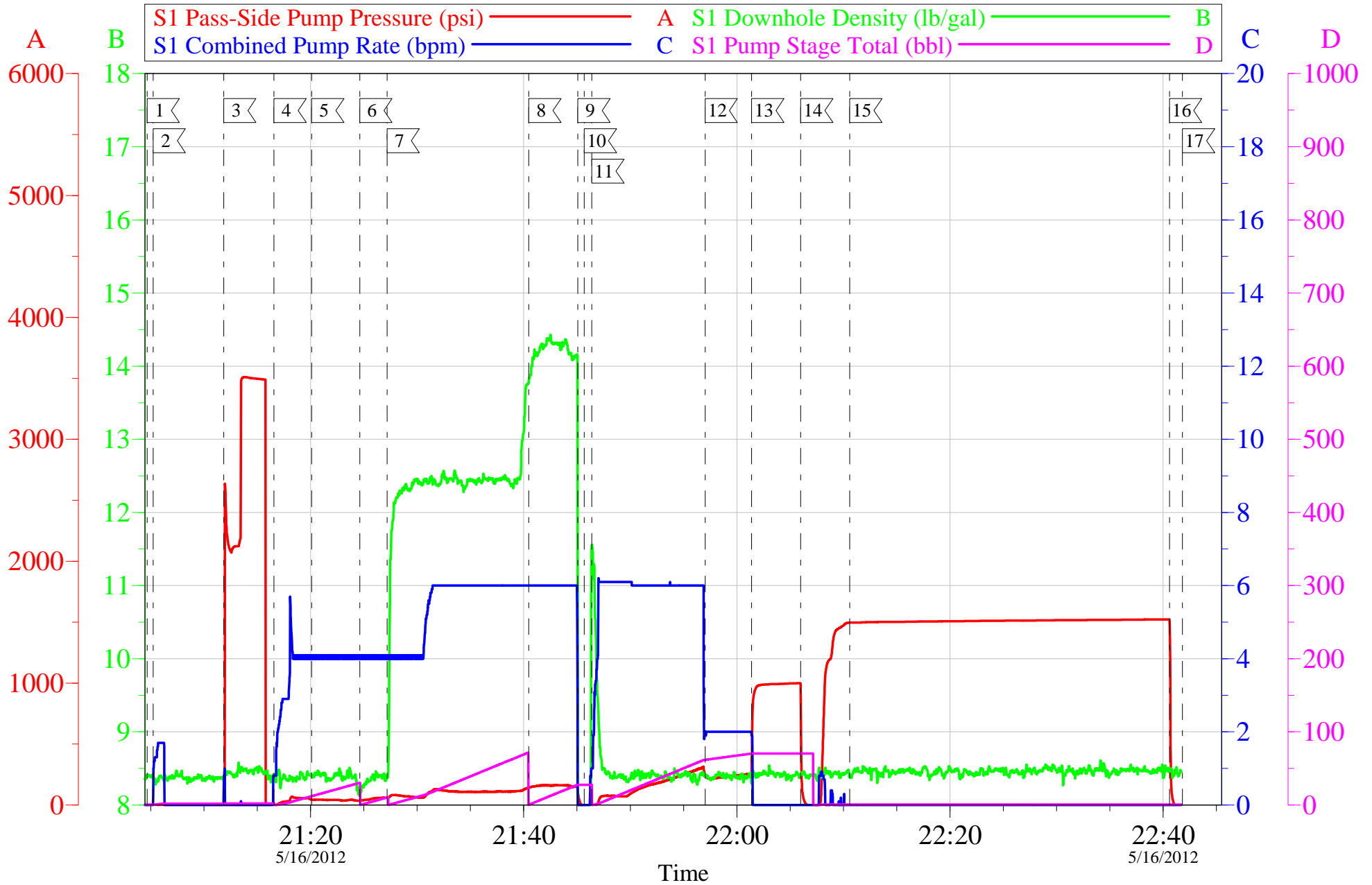
Job Date: 16-May-2012  
Job Type: SURFACE CASING  
Cement Supervisor: ED DEUSSEN

Sales Order #: 9502982  
ADC Used: YES  
Elite #1 TROY VANALSTYNE

OptiCem v6.4.10  
16-May-12 22:43

# OXY - SHELL 797-03-08A

9 5/8 SURFACE CASING



Customer: OXY  
Well Description: SHELL 797-03-08A  
Company Rep: ALEX VILLEGAS

Job Date: 16-May-2012  
Job Type: SURFACE CASING  
Cement Supervisor: ED DEUSSEN

Sales Order #: 9502982  
ADC Used: YES  
Elite #1 TROY VANALSTYNE

OptiCem v6.4.10  
16-May-12 22:44

<b>Sales Order #:</b> 9502982	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/16/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> CASEY BURNS		<b>API / UWI: (leave blank if unknown)</b> 05-045-21279
<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-08A
<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	5/16/2012
Survey Interviewer	The survey interviewer is the person who initiated the survey.	EDWARD DEUSSEN (HB57194)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	CASEY BURNS
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	GOOD SAFE JOB WELL DONE

<b>CUSTOMER SIGNATURE</b>
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<b>Sales Order #:</b> 9502982	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/16/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
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<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-08A
<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

General	
<b>Survey Conducted Date</b> The date the survey was conducted	5/16/2012

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.	3
<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.	1.5
<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	5
<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> 9502982	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/16/2012
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<b>Customer Representative:</b> CASEY BURNS		<b>API / UWI: (leave blank if unknown)</b> 05-045-21279
<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-08A
<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

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	99
<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	100
<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