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# **OXY GRAND JUNCTION EBUSINESS**

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**Shell 797-03-40  
GRAND VALLEY  
Garfield County , Colorado**

**Cement Surface Casing**  
**21-May-2012**

**Post Job Summary**

## The Road to Excellence Starts with Safety

Sold To #: 344034	Ship To #: 2928355	Quote #:	Sales Order #: 9528460
Customer: OXY GRAND JUNCTION EBUSINESS	Customer Rep: Clark, Darryl		
Well Name: Shell	Well #: 797-03-40	API/UWI #: 05-045-21282	
Field: GRAND VALLEY	City (SAP): ADDISON	County/Parish: Garfield	State: Colorado
Lat: N 39.48 deg. OR N 39 deg. 28 min. 46.524 secs.	Long: W 108.202 deg. OR W -109 deg. 47 min. 52.98 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: 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 #
CHASTAIN, DERICK Allan	0.0	455848	HUGENTOBLE, LOGAN Mark	0.0	447333	WEAVER, CARLTON Russell	0.0	457698

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10867322	120 mile	10951251	120 mile	10998512	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
5/21/2012	8.5	2						

**TOTAL** Total is the sum of each column separately

## Job

Formation Name					Date				Time		Time Zone				
Formation Depth (MD)		Top		Bottom		Called Out			21 - May - 2012		01:00		MST		
Form Type		BHST		On Location			21 - May - 2012		04:30		MST				
Job depth MD		1060. ft		Job Depth TVD		1060. ft		Job Started		21 - May - 2012		10:58		MST	
Water Depth		Wk Ht Above Floor		. ft		Job Completed		21 - May - 2012		12:34		MST			
Perforation Depth (MD)		From		To		Departed Loc			21 - May - 2012		13:00		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
OPEN HOLE				12.25				.	1060.	.	1060.
SURFACE CASING	Unknown		9.625	8.921	36.		J-55	.	1010.	.	1010.

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	9 5/8	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9 5/8	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

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

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	6	
4	Lead Cement	VERSACEM (TM) SYSTEM (452010)	158.0	sacks	12.3	2.38	13.77	6	13.77
5	Tail Cement	SWIFTCES (TM) SYSTEM (452990)	126.0	sacks	14.2	1.43	6.85	6	6.85
6.85 Gal		FRESH WATER							
6	Fresh Water Displacement		75.00	bbl	8.34	.0	.0	6	
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
Displacement	74.7	Shut In: Instant		Lost Returns	0	Cement Slurry	99.1	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	35	Actual Displacement	74.7	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	214
<b>Rates</b>									
Circulating	6	Mixing		6	Displacement	6	Avg. Job	5	
Cement Left In Pipe	Amount	44 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> 2928355	<b>Quote #:</b>	<b>Sales Order #:</b> 9528460
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Customer Rep:</b> Clark, Darryl	
<b>Well Name:</b> Shell	<b>Well #:</b> 797-03-40	<b>API/UWI #:</b> 05-045-21282	
<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. 46.524 secs.		<b>Long:</b> W 108.202 deg. OR W -109 deg. 47 min. 52.98 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> CHASTAIN, DERICK	<b>MBU ID Emp #:</b> 455848

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/21/2012 01:00							
Pre-Convoy Safety Meeting	05/21/2012 03:30							WITH ALL HES PERSONNEL
Arrive at Location from Service Center	05/21/2012 04:30							RIG PULLING DRILL PIPE
Assessment Of Location Safety Meeting	05/21/2012 04:50							WITH ALL HES PERSONNEL
Other	05/21/2012 08:30							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	05/21/2012 08:45							WITH ALL HES PERSONNEL
Rig-Up Equipment	05/21/2012 09:00							RIGGING UP OFF LINE INTO CELLAR.
Pre-Job Safety Meeting	05/21/2012 10:30							WITH ALL PERSONNEL ON LOCATION
Start Job	05/21/2012 10:58							TD: 1060', TP: 1010', SJ: 44', FC: 966', CSG: 9.625" 36# J-55, OH: 12 1/4", MUD: PPG: 9.2, TEMP: 92, PV: 14, YP: 14
Other	05/21/2012 10:59		2	2			23.0	FILL LINES
Test Lines	05/21/2012 11:01							STAGED TEST AT 2300 PSI, THEN TESTED TO 4026 PSI
Pump Spacer 1	05/21/2012 11:07		3	10			40.0	FRESH H2O SPACER
Pump Spacer 1	05/21/2012 11:10		3	20			49.0	GEL SPACER, 5 GAL PER 20 BBL
Pump Spacer 1	05/21/2012 11:16		6	10			67.0	FRESH H2O SPACER. SLOWED RATE TO MIX UP TUB.
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

Sold To # : 344034

Ship To # :2928355

Quote # :

Sales Order # :

9528460

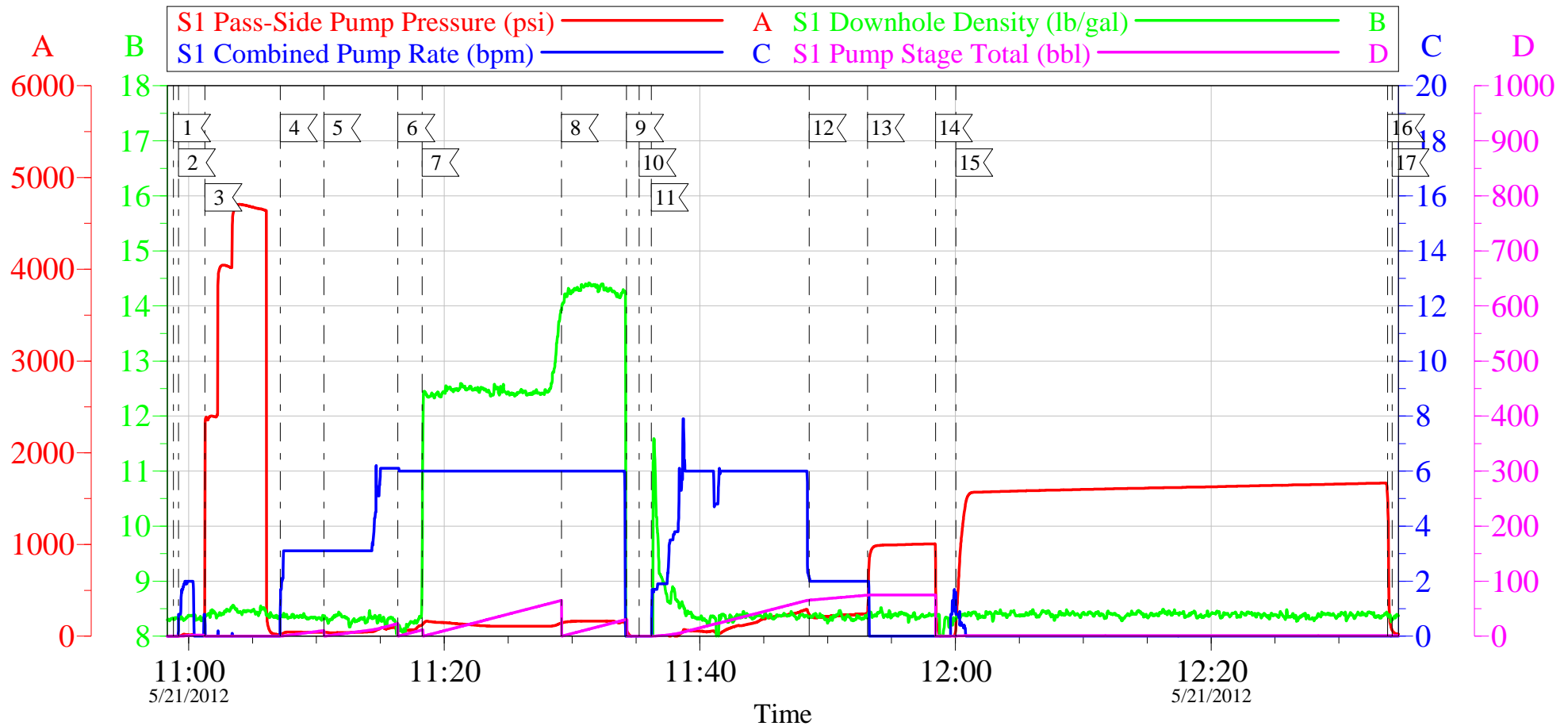
SUMMIT Version: 7.3.0021

Monday, May 21, 2012 01:11:00

		#		Stage	Total	Tubing	Casing	
Pump Lead Cement	05/21/2012 11:18		6	67			130.0	158 SKS, 12.3 LB/GAL, 2.38 FT3/SK, 13.77 GAL/SK.
Pump Tail Cement	05/21/2012 11:29		6	32.1			170.0	126 SKS, 14.2 LB/GAL, 1.43 FT3/SK, 6.85 GAL/SK
Shutdown	05/21/2012 11:34							WASH UP ON TOP OF THE PLUG
Drop Top Plug	05/21/2012 11:35							VERIFY PLUG LAUNCHED
Pump Displacement	05/21/2012 11:36		6	74.7			300.0	FRESH H2O DISPLACEMENT. CEMENT TO SURFACE @ 39.7 BBL GONE OF DISPLACEMENT.
Slow Rate	05/21/2012 11:48		2	65			280.0	SLOW RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	05/21/2012 11:53		2	74.7			1124. 0	PLUG BUMPED
Check Floats	05/21/2012 11:58							FLOATS HOLDING
Pressure Up	05/21/2012 12:00			0.75			1630. 0	TEST CASING AT 1500 PSI FOR 30 MIN.
Release Casing Pressure	05/21/2012 12:33							
End Job	05/21/2012 12:34							GOOD RETURNS THROUGHOUT JOB. 35 BBLS OF CEMENT TO SURFACE. 3 ADD HOURS CHARGED. 0600-1300.
Pre-Rig Down Safety Meeting	05/21/2012 12:40							WITH ALL HES PERSONNEL
Rig-Down Equipment	05/21/2012 12:45							RIG DOWN CELLAR, LEAVING TRUCKS ON LOCATION.
Comment	05/21/2012 13:00							THANK YOU FOR CHOOSING HALLIBURTON. DERICK CHASTAIN AND CREW

# OXY - SHELL 797-03-40

9 5/8" SURFACE CASING



## Local Event Log

1 START JOB	10:58:49	2 FILL LINES	10:59:13	3 TEST LINES	11:01:17
4 PUMP H2O SPACER	11:07:11	5 PUMP GEL SPACER	11:10:35	6 PUMP H2O SPACER	11:16:23
7 PUMP LEAD CEMENT	11:18:17	8 PUMP TAIL CEMENT	11:29:10	9 SHUTDOWN	11:34:16
10 DROP TOP PLUG	11:35:14	11 PUMP DISPLACEMENT	11:36:13	12 SLOW RATE	11:48:34
13 BUMP PLUG	11:53:07	14 CHECK FLOATS	11:58:26	15 TEST CASING	12:00:02
16 RELEASE PRESSURE	12:33:49	17 END JOB	12:34:10		

Customer: OXY  
Well Description: SHELL 797-03-40  
Company Rep: DARRYL CLARK

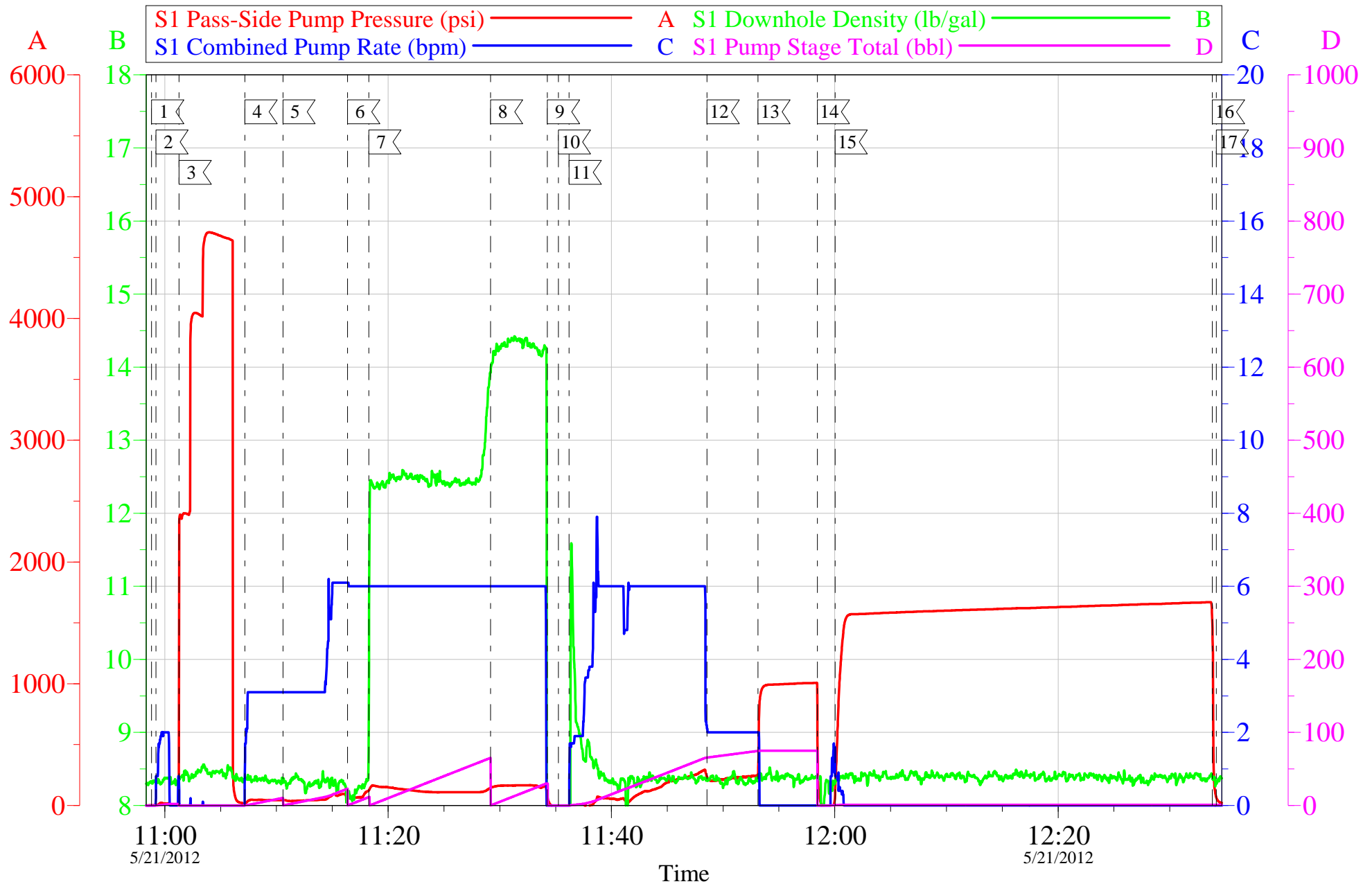
Job Date: 21-May-2012  
Job Type: SURFACE  
Cement Supervisor: DERICK CHASTAIN

Sales Order #: 9528460  
ADC Used: YES  
Elite #1: LOGAN HUGENTOBLE

OptiCem v6.4.10  
21-May-12 12:38

# OXY - SHELL 797-03-40

9 5/8" SURFACE CASING



Customer: OXY	Job Date: 21-May-2012	Sales Order #: 9528460
Well Description: SHELL 797-03-40	Job Type: SURFACE	ADC Used: YES
Company Rep: DARRYL CLARK	Cement Supervisor: DERICK CHASTAIN	Elite #1: LOGAN HUGENTOBLE

OptiCem v6.4.10  
21-May-12 12:39

# HALLIBURTON

## Water Analysis Report

Company: OXY  
Submitted by: DERICK CHASTAIN  
Attention: J. Trout  
Lease: SHELL  
Well #: 797-03-40

Date: 5/21/2012  
Date Rec.: 5/21/2012  
S.O.#: 9528460  
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
Calcium (Ca)	<i>500</i>	<b>0</b> Mg / L
Iron (FE2)	<i>300</i>	<b>200</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>300</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>0</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>55</b> Deg
Total Dissolved Solids		<b>210</b> Mg / L

Respectfully: DERICK CHASTAIN

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 its use



<b>Sales Order #:</b> 9528460	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/21/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> DARRYL CLARK		<b>API / UWI: (leave blank if unknown)</b> 05-045-21282
<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-40
<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	5/21/2012
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	DARRYL CLARK
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> 9528460	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/21/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> DARRYL CLARK		<b>API / UWI: (leave blank if unknown)</b> 05-045-21282
<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-40
<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	5/21/2012

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.	2
<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
<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	9
<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> 9528460	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/21/2012
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<b>Well Name:</b> Shell		<b>Well Number:</b> 797-03-40
<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	99
<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