

OXY GRAND JUNCTION EBUSINESS  
DO NOT MAIL - PO BOX 1767  
ADDISON, Texas

CC 697-09-48B

**H&P 330**

## **Post Job Summary** **Cement Surface Casing**

Prepared for: TERRY ROSSER  
Date Prepared: JULY 16, 2011  
Version: 1

Service Supervisor: ROSS, CHARLES

Submitted by:

**HALLIBURTON**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 344034	<b>Ship To #:</b> 2825560	<b>Quote #:</b>	<b>Sales Order #:</b> 8311297
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Customer Rep:</b> ROSSER, TERRY	
<b>Well Name:</b> CC		<b>Well #:</b> 697-09-48B	<b>API/UWI #:</b> 05-045-18132
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> PARACHUTE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
<b>Legal Description:</b>			
<b>Lat:</b> N 39.535 deg. OR N 39 deg. 32 min. 6.158 secs.		<b>Long:</b> W 108.222 deg. OR W -109 deg. 46 min. 40.3 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> ROYSTER, JACOB		<b>Srvc Supervisor:</b> ROSS, CHARLES	<b>MBU ID Emp #:</b> 453128

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	07/16/2011 08:22							
Pre-Convoy Safety Meeting	07/16/2011 11:00							WITH ALL HES EE'S
Depart from Service Center or Other Site	07/16/2011 11:10							
Arrive at Location from Service Center	07/16/2011 14:10							
Assessment Of Location Safety Meeting	07/16/2011 14:40							WITH ALL HES EE'S
Pre-Rig Up Safety Meeting	07/16/2011 14:45							WITH ALL HES EE'S
Rig-Up Equipment	07/16/2011 14:50							1-F550 PICKUP, 1-ELITE PUMP TRUCK, 2-CEMENT FIELD STORAGE BINS, 1-HARD LINE TO RIG AND WASH UP OUT TO THE CELLAR FROM MANIFOLD, 1- 9 5/8" PLUG CONTAINER, 1-HARD LINE TO PARASITE STRING IN THE CELLAR.
Pre-Job Safety Meeting	07/16/2011 19:05							WITH ALL HES EE'S AND RIG CREW
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl	Pressure psig	Comments		
				Stage	Total	Tubing	Casing	

Start Job	07/16/2011 19:23							TD 2730, 9 5/8 36# CASING SET @ 2694, SJ 44.3, FC 2649.7 MW# 9.6, RIG CIRCULATED 1 HR 3 MIN PRIOR TO CEMENT JOB, HEAD AND CASING CHAINED DOWN BECAUSE OF PSI TO LIFT
Pump Water	07/16/2011 19:24		2	2			36.0	FILL LINES, FRESH WATER
Test Lines	07/16/2011 19:26							TEST TO 3000 PSI
Pump Spacer 1	07/16/2011 19:32		4	20			260.0	FRESH WATER
Pump Spacer 2	07/16/2011 19:37		4	20			123.0	GEL SPACER
Pump Spacer 1	07/16/2011 19:41		4	20			145.0	FRESH WATER
Pump Lead Cement	07/16/2011 19:47		7	435.7			420.0	1050 SKS OF VERSACEM PUMPED @ 12.3 PPG, YIELD 2.33, WATER 12.62. NO TUFF FIBER WAS USED IN THE LEAD CEMENT PER CO REP
Pump Tail Cement	07/16/2011 20:58		7	62.3			430.0	169 SKS OF VERSACEM PUMPED @ 12.8 PPG, YIELD 2.07, WATER 10.67
Shutdown	07/16/2011 21:04							
Drop Plug	07/16/2011 21:07							TOP PLUG, PLUG WENT
Pump Displacement	07/16/2011 21:07		8	204.8			870.0	FRESH WATER
Slow Rate	07/16/2011 21:23		4	126			720.0	RATE SLOWED TO 4 BPM PER CO REP
Slow Rate	07/16/2011 21:36		2	175			630.0	RATE SLOWED TO 2 BPM PER CO REP
Bump Plug	07/16/2011 21:49		2	204.8			750.0	PLUG LANDED. PRESSURED UP TO 1280 PSI.
Check Floats	07/16/2011 21:54							FLOATS HELD
Clean Lines	07/16/2011 22:15							CLEAN RIG PARASITE LINE.
Shutdown	07/16/2011 22:23							
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Sold To #: 344034

Ship To #: 2825560

Quote #:

Sales Order #: 8311297

SUMMIT Version: 7.20.130

Monday, July 18, 2011 04:38:00

Pressure Test	07/16/2011 22:33						1600. 0	PRESSURE TEST CASING TO 1500 PSI FOR 30 MINUTES.
Release Casing Pressure	07/16/2011 23:05							
End Job	07/16/2011 23:07							NO RETURNS UNTIL 365 BBL OF LEAD CEMENT WAS PUMPED. GOOD RETURNS THROUGHOUT JOB FROM THAT POINT, NO MOVEMENT OF PIPE THROUGHOUT JOB, 120 BBLs OF CEMENT CIRCULATED TO THE PIT=289 SKS
Post-Job Safety Meeting (Pre Rig-Down)	07/16/2011 23:15							WITH ALL HES EE'S
Rig-Down Equipment	07/16/2011 23:20							
Pre-Convoy Safety Meeting	07/17/2011 00:20							WITH ALL HES EE'S
Depart Location for Service Center or Other Site	07/17/2011 00:25							THANKS FOR USING GRAND JUNCTION HALLIBURTON CEMENT DEPARTMENT, CHUCK ROSS AND CREW

**The Road to Excellence Starts with Safety**

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<b>Well Name:</b> CC		<b>Well #:</b> 697-09-48B	<b>API/UWI #:</b> 05-045-18132
<b>Field:</b> GRAND VALLEY	<b>City (SAP):</b> PARACHUTE	<b>County/Parish:</b> Garfield	<b>State:</b> Colorado
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<b>Job Purpose:</b> Cement Surface Casing			
<b>Well Type:</b> Development Well		<b>Job Type:</b> Cement Surface Casing	
<b>Sales Person:</b> ROYSTER, JACOB		<b>Srvc Supervisor:</b> ROSS, CHARLES	<b>MBU ID Emp #:</b> 453128

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DOUT, JACOB J	11	430298	KUKUS, CHRISTOPHER A	11	413952	MILLER II, MATTHEW Reginald	11	425164
ROSE, BENJAMIN Keith	11	487022	ROSS, CHARLES Raymond	11	453128			

**Equipment**

HES Unit #	Distance-1 way						
10616651C	120 mile	10713294	120 mile	10856450	120 mile	10857016	120 mile
10938658	120 mile	10938665	120 mile	10988978	120 mile	10995025	120 mile
11021972	120 mile	11027039	120 mile	11259883	120 mile		

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
7/16/2011	9	4						
<b>TOTAL</b>	<i>Total is the sum of each column separately</i>							

**Job**

**Job Times**

Formation Name				Date	Time	Time Zone
<b>Formation Depth (MD)</b>	<b>Top</b>	<b>Bottom</b>		<b>Called Out</b>	16 - Jul - 2011	08:15 MST
<b>Form Type</b>	BHST			<b>On Location</b>	16 - Jul - 2011	14:10 MST
<b>Job depth MD</b>	2730. ft	<b>Job Depth TVD</b>	2730. ft	<b>Job Started</b>	16 - Jul - 2011	19:23 MST
<b>Water Depth</b>		<b>Wk Ht Above Floor</b>	6. ft	<b>Job Completed</b>	16 - Jul - 2011	23:05 MST
<b>Perforation Depth (MD)</b>	<b>From</b>	<b>To</b>		<b>Departed Loc</b>	17 - Jul - 2011	00:25 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
14 3/4" OPEN HOLE				14.75				.	2730.		
9 5/8" SURFACE CASING	New		9.625	8.921	36.		J-55	.	2694.		

**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	9.625	1	HWE
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	1	
Stage Tool										Centralizers			

**Miscellaneous Materials**

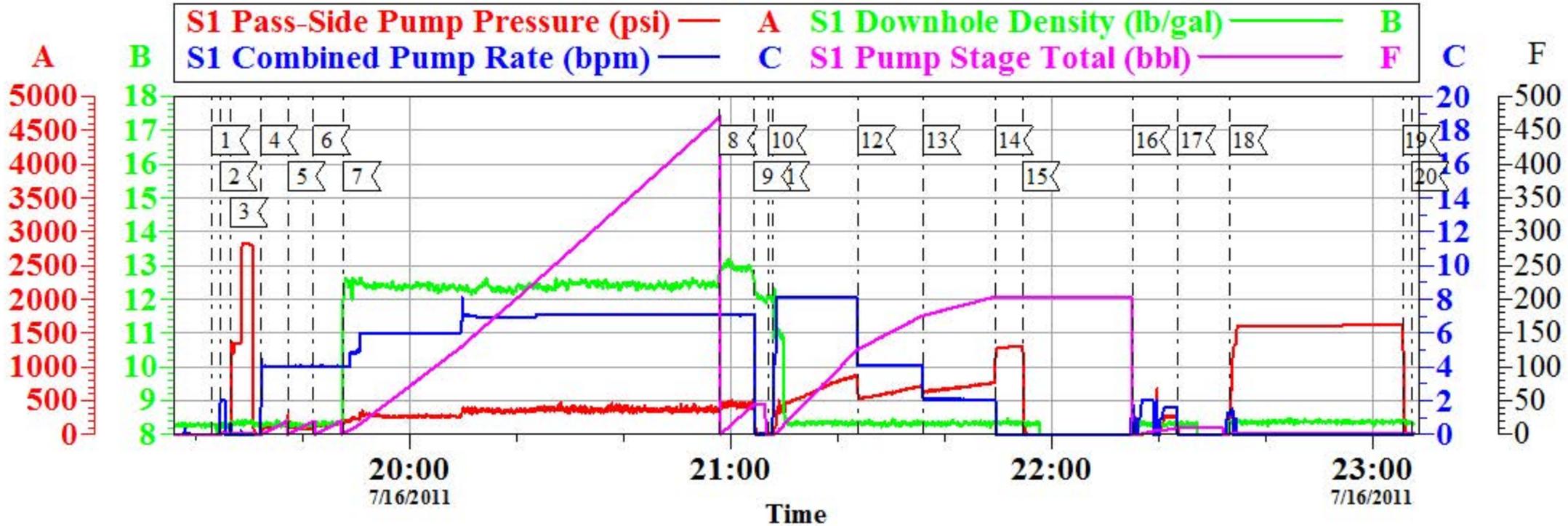
Gelling Agt	Conc	Surfactant	Conc	Acid Type	Qty	Conc	%
Treatment Fld	Conc	Inhibitor	Conc	Sand Type	Size	Qty	

Fluid Data									
Stage/Plug #: 1									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Spacer		20.00	bbl	8.33	.0	.0	.0	
2	Gel Spacer		20.00	bbl	.	.0	.0	.0	
3	Water Spacer		20.00	bbl	.	.0	.0	.0	
4	Lead Cement	VERSACEM (TM) SYSTEM (452010)	1050.0	sacks	12.3	2.33	12.62		12.62
	12.62 Gal	FRESH WATER							
5	Tail Cement	VERSACEM (TM) SYSTEM (452010)	169.0	sacks	12.8	2.07	10.67		10.67
	10.67 Gal	FRESH WATER							
6	Displacement		205.00	bbl	.	.0	.0	.0	
7	Topout Cement	HALCEM (TM) SYSTEM (452986)		sacks	12.5	1.97	10.96		10.96
	10.96 Gal	FRESH WATER							
Calculated Values		Pressures			Volumes				
Displacement	204.8	Shut In: Instant		Lost Returns	427	Cement Slurry	499	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	120	Actual Displacement	204.8	Treatment	
Frac Gradient		15 Min		Spacers	60	Load and Breakdown		Total Job	764
Rates									
Circulating	7.3	Mixing	7	Displacement	8	Avg. Job	7.3		
Cement Left In Pipe	Amount	44.3 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					

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job		<b>1616    <u>Max Psi</u></b>			
6	Test Lines	3000.0				
	H2O Spacer	20.0				
	Gel Spacer	20.0				
9	H2O Spacer	20.0				
	Lead Cement	435.7	1050	12.3	2.33	12.62
15	Tail Cement	62.3	169	12.8	2.07	10.67
22	Drop Plug	0.0				
23	Displace with H2O	204.8				
26	Land Plug	548.4	500 over			
2	Release Psi / Job Over	0.0				
			<b>Do Not Overdisplace</b>			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		FLOAT COLLAR	BBL/FT	H2O REQ.
204.82	2694	44.30		2649.70	0.0773	683
Pressure to Lift	1137	<b>*****<u>Use Mud Scales on Each Tier</u>*****</b>				
Total Displacement	204.82					
<b>CALCULATED DIFFERENTIAL PSI</b>		548		<b>TOTAL FLUID PUMPED</b>		763
Collapse	2020	Burst	3520		SO#	8311297

# OXY

## CEMENT 9 5/8" SURFACE CASING CC 697-09-48B



		Local Event Log					
	Maximum		SPPP	Maximum	SPPP		
1	START JOB	19:23:03	-2.000	2	PRIME LINES	19:24:33	36.00
3	PRESSURE TEST	19:26:27	2828	4	PUMP FRESH WATER SPACER	19:32:10	290.0
5	PUMP GEL SPACER	19:37:15	241.0	6	PUMP FRESH WATER SPACER	19:41:56	165.0
7	PUMP LEAD CEMENT	19:47:39	475.0	8	PUMP TAIL CEMENT	20:58:02	516.0
9	SHUT DOWN	21:04:25	565.0	10	DROP PLUG	21:07:10	17.00
11	PUMP DISPLACEMENT	21:07:48	881.0	12	SLOW RATE TO 4 BBL	21:23:55	719.0
13	SLOW RATE TO 2 BBL	21:36:01	1188	14	BUMP PLUG	21:49:36	1294
15	CHECK FLOATS	21:54:41	1220	16	CLEAN PARASITE LINE	22:15:15	677.0
17	SHUT DOWN	22:23:44	381.5	18	PRESSURE TEST CASING	22:33:28	1624
19	RELEASE PRESSURE	23:05:42	1528	20	END JOB	23:07:25	0.000

Customer: OXY  
Well Description: CC 697-09-48B  
Customer Rep: TERRY ROSSER

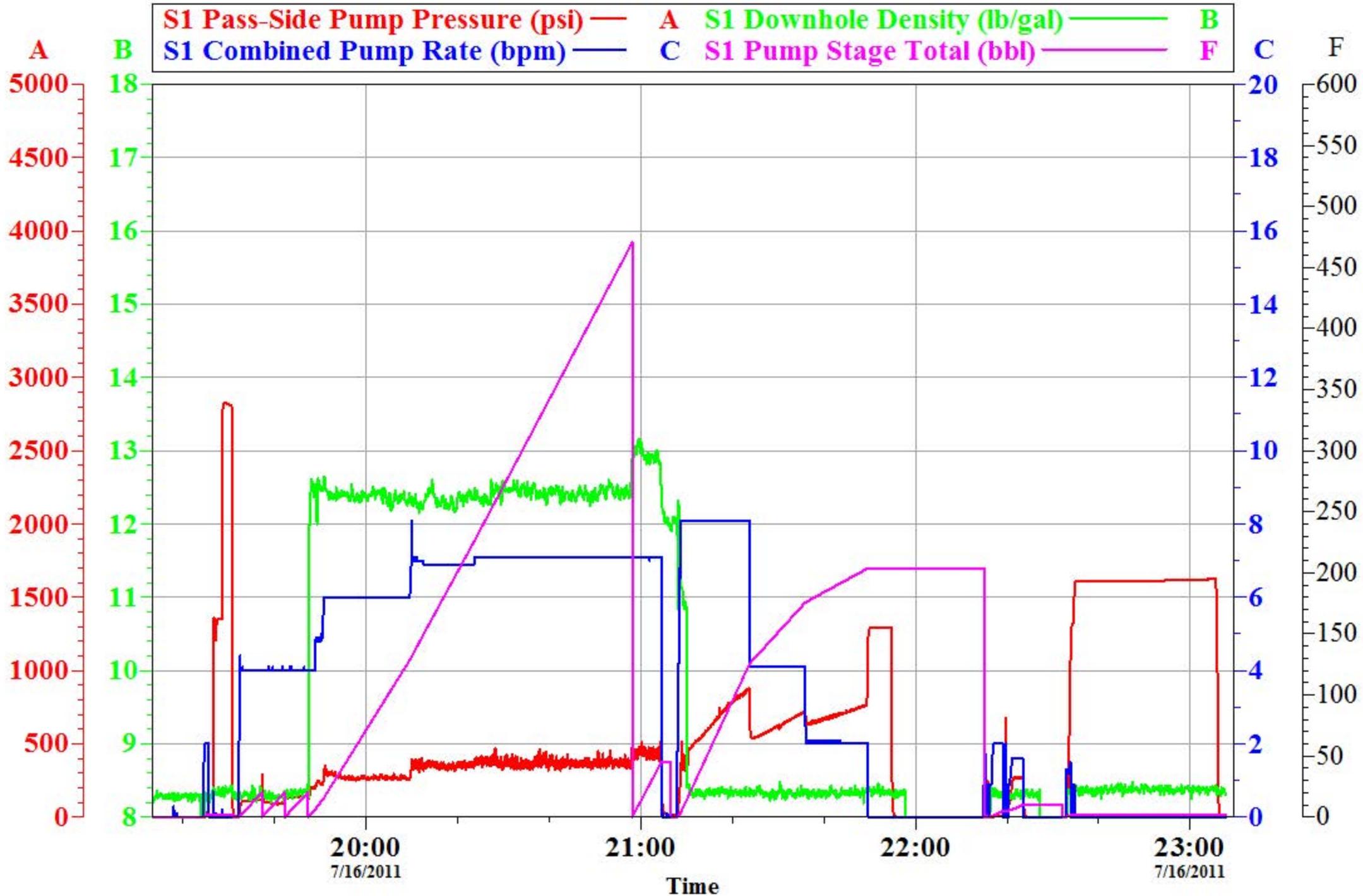
Job Date: 16-Jul-2011  
Job type: SURFACE  
Service Supervisor: CHUCK ROSS

Sales Order #: 8311297  
ADC Used: YES  
Operator/ Pump: JACOB DOUT

OptiCem v6.4.10  
16-Jul-11 23:56

# OXY

## CEMENT 9 5/8" SURFACE CASING CC 697-09-48B



Customer: OXY  
 Well Description: CC 697-09-48B  
 Customer Rep: TERRY ROSSER

Job Date: 16-Jul-2011  
 Job type: SURFACE  
 Service Supervisor: CHUCK ROSS

Sales Order #: 8311297  
 ADC Used: YES  
 Operator/ Pump: JACOB DOUT

OptiCem v6.4.10  
 16-Jul-11 23:19

# HALLIBURTON

## Water Analysis Report

Company: OXY Date: 7/16/2011  
Submitted by: CHUCK ROSS Date Rec.: 7/16/2011  
Attention: JON TROUT S.O.# 8311297  
Lease CASCADE CREEK Job Type: 9 5/8" SURFACE  
Well # 697-09-48B

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>6.8</b>
Potassium (K)	<i>5000</i>	<b>450 Mg / L</b>
Calcium (Ca)	<i>500</i>	<b>120 Mg / L</b>
Iron (FE2)	<i>300</i>	<b>0 Mg / L</b>
Chlorides (Cl)	<i>3000</i>	<b>0 Mg / L</b>
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>&lt;200 Mg / L</b>
Chlorine (Cl <sub>2</sub> )		<b>NA Mg / L</b>
Temp	<i>40-80</i>	<b>66 Deg</b>
Total Dissolved Solids		<b>180 Mg / L</b>

Respectfully: CHUCK ROSS

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 i

<b>Sales Order #:</b> 8311297	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 7/16/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> DEREK ADAM		<b>API / UWI: (leave blank if unknown)</b> 05-045-18132
<b>Well Name:</b> CC		<b>Well Number:</b> 697-09-48B
<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	7/16/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	CHARLES ROSS (HB20648)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	DEREK ADAM
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	
Job DVA	Did we provide job DVA above our normal service today? Circle Y or N	Yes
Time	Please enter hours in decimal format to nearest quarter hour.	0
Other	Enter short text for other efficiencies gained.	LOWERED COST BY ONLY CHARGING FOR THE PRE-LOAD ONE WAY AND NOT ROUND TRIP BECAUSE THEY STAYED FOR THE JOB
Customer Initials	Customer's Initials	DA
Please provide details	Please describe how the job efficiencies were gained.	COST

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<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

CUSTOMER SIGNATURE

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<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	7/16/2011
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Deviated
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	9.5
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	3.7
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	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.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	5
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

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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	98
<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	98
<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