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# **OXY GRAND JUNCTION EBUSINESS**

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**CC 697-04-76B  
GRANDVALLEY  
Garfield County , Colorado**

**Cement Production Casing**  
**23-Feb-2012**

**Job Site Documents**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 344034		<b>Ship To #:</b> 2896837		<b>Quote #:</b>		<b>Sales Order #:</b> 9187898	
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS				<b>Customer Rep:</b> Benevides, Victor			
<b>Well Name:</b> CC			<b>Well #:</b> 697-04-76B			<b>API/UWI #:</b> 05-045-20729	
<b>Field:</b> GRANDVALLEY		<b>City (SAP):</b> PARACHUTE		<b>County/Parish:</b> Garfield		<b>State:</b> Colorado	
<b>Legal Description:</b>							
<b>Lat:</b> N 39.549 deg. OR N 39 deg. 32 min. 55.788 secs.				<b>Long:</b> W 108.23 deg. OR W -109 deg. 46 min. 11.568 secs.			
<b>Contractor:</b> H&P 330			<b>Rig/Platform Name/Num:</b> H&P 330				
<b>Job Purpose:</b> Cement Production Casing						<b>Ticket Amount:</b>	
<b>Well Type:</b> Development Well			<b>Job Type:</b> Cement Production Casing				
<b>Sales Person:</b> HIMES, JEFFREY			<b>Srvc Supervisor:</b> REEVES, BRANDON			<b>MBU ID Emp #:</b> 287883	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/13/2012 17:15							ELITE # 8
Depart Yard Safety Meeting	02/13/2012 20:30							ALL HES EMPLOYEES
Arrive At Loc	02/14/2012 00:30							ARRIVED ON LOCATION 3 1/2 HOURS EARLY DIDNT START CHARGING TIME UNTIL REQUESTED ON LOCATION TIME RIG RUNNING CASING
Assessment Of Location Safety Meeting	02/14/2012 05:10							ALL HES EMPLOYEES
Pre-Rig Up Safety Meeting	02/14/2012 05:10							ALL HES EMPLOYEES
Rig-Up Equipment	02/14/2012 05:30							1 F-550 PICKUP 1 HT-400 PUMP 2 SILOS 1 660 BULK TRUCK 1 BODY LOAD BULK TRUCK RIG UP AND WAIT FOR RIG TO RUN CASING TO BOTTOM
Pre-Rig Down Safety Meeting	02/14/2012 16:00							ALL HES EMPLOYEES COMPANY REP RELEASED CREW FROM LOCATION @ 1600 CASING STUCK @ 6200'
Rig-Down Equipment	02/14/2012 16:15							
Pre-Convoy Safety Meeting	02/14/2012 17:45							ALL HES EMPLOYEES
Crew Leave Location	02/14/2012 18:00							

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/23/2012 03:30							
Depart Yard Safety Meeting	02/23/2012 06:40							
Arrive At Loc	02/23/2012 09:20							
Assessment Of Location Safety Meeting	02/23/2012 14:25							
Other	02/23/2012 14:45							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	02/23/2012 15:00							
Rig-Up Equipment	02/23/2012 15:15							
Pre-Job Safety Meeting	02/23/2012 19:20							
Start Job	02/23/2012 19:57							
Test Lines	02/23/2012 20:02						7485.0	
Pump Spacer 1	02/23/2012 20:09		4	10			170.0	FRESH WATER SPACER
Pump Spacer 2	02/23/2012 20:12		4	20			160.0	GEL WATER SPACER
Pump Spacer 1	02/23/2012 20:17		4	10			160.0	FRESH WATER SPACER
Pump Lead Cement	02/23/2012 20:19		6	291			480.0	851 SKS. @ 12.4# 1.92 YIELD 10.14 WRQ.
Pump Tail Cement	02/23/2012 21:14		6	296.5			500.0	1034 SKS. @ 13.1# 1.61 YIELD 7.29 WRQ.
Clean Lines	02/23/2012 22:18							
Drop Top Plug	02/23/2012 22:25							
Pump Displacement	02/23/2012 22:27		6				1580.0	KCL WATER DISPLACEMENT. STARTING RATE WAS 8 BPM. SLOWED TO 6 BPM AFTER CATCHING PRESSURE.
Slow Rate	02/23/2012 22:47		2	136			1210.0	SLOWED RATE TO 2 BPM AT 136 BBLS. 10 BBLS. PRIOR TO LANDING THE PLUG

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Bump Plug	02/23/2012 22:50		2	146			2000.0	PLUG LANDED AT 1250 PSI. PRESSURED UP TO 2000 PSI.
Check Floats	02/23/2012 22:55							FLOATS HELD
Pressure Up Well	02/23/2012 23:34						2500.0	PRESSURE TEST CASING TO 2500 PSI. HOLD FOR 30 MINUTES. ATTEMPTED TO PRESSURE TEST TO 6500 PSI 2 TIMES. HAD TO REDUCE PRESSURE TO 2500 PSI DUE TO THE VAVLE ON THE POSITIVE DISPLACEMENT MANIFOLD LEAKING.
Release Casing Pressure	02/24/2012 00:03						.0	
End Job	02/24/2012 00:05							WELL WAS CIRCULATED BEFORE STARTING THE JOB. GOOD CIRCULATION THROUGHOUT THE JOB. PIPE WAS NOT RECIPROCATED.
Rig-Down Equipment	02/24/2012 00:15							THANKS FOR USING HALLIBURTON. BRANDON REEVES AND CREW

## The Road to Excellence Starts with Safety

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<b>Well Name:</b> CC			<b>Well #:</b> 697-04-76B			<b>API/UWI #:</b> 05-045-20729	
<b>Field:</b> GRANDVALLEY		<b>City (SAP):</b> PARACHUTE		<b>County/Parish:</b> Garfield		<b>State:</b> Colorado	
<b>Lat:</b> N 39.549 deg. OR N 39 deg. 32 min. 55.788 secs.				<b>Long:</b> W 108.23 deg. OR W -109 deg. 46 min. 11.568 secs.			
<b>Contractor:</b> H&P 330			<b>Rig/Platform Name/Num:</b> H&P 330				
<b>Job Purpose:</b> Cement Production Casing							
<b>Well Type:</b> Development Well			<b>Job Type:</b> Cement Production Casing				
<b>Sales Person:</b> HIMES, JEFFREY			<b>Srvc Supervisor:</b> REEVES, BRANDON			<b>MBU ID Emp #:</b> 287883	

### Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARNOLD, EDWARD John	9	439784	BECK, MICHAEL George	9	489151	HYDE, DUSTIN	17.5	453940
KUKUS, CARLTON Dean	9	458577	KUKUS, CHRISTOPHER A	17.5	413952	PARKER, BRANDON	17.5	503646
REEVES, BRANDON W	9	287883	SPARKS, CLIFFORD Paul	17.5	502476			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10011429	120 mile	10784080	120 mile	10804579	120 mile	10871245	120 mile
11057893	120 mile	11259883	120 mile	11360881	120 mile	11583931	120 mile
4904	120 mile	6374L	120 mile				

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
02/23/2012	9	4						

<b>TOTAL</b>	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	13 - Feb - 2012	17:15	MST
Form Type	BHST		Job Started	14 - Feb - 2012	00:30	MST
Job depth MD	9468. ft	Job Depth TVD	Job Started	23 - Feb - 2012	19:57	MST
Water Depth		Wk Ht Above Floor	Job Completed	23 - Feb - 2012	00:05	MST
Perforation Depth (MD)	From	To	Departed Loc	23 - Feb - 2012	18:00	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
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### Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
PLUG,CMTG,TOP,4 1/2,HWE,3.65 MIN/4.14 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	4.5"	1	
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	4.5"	1	
Stage Tool										Centralizers			

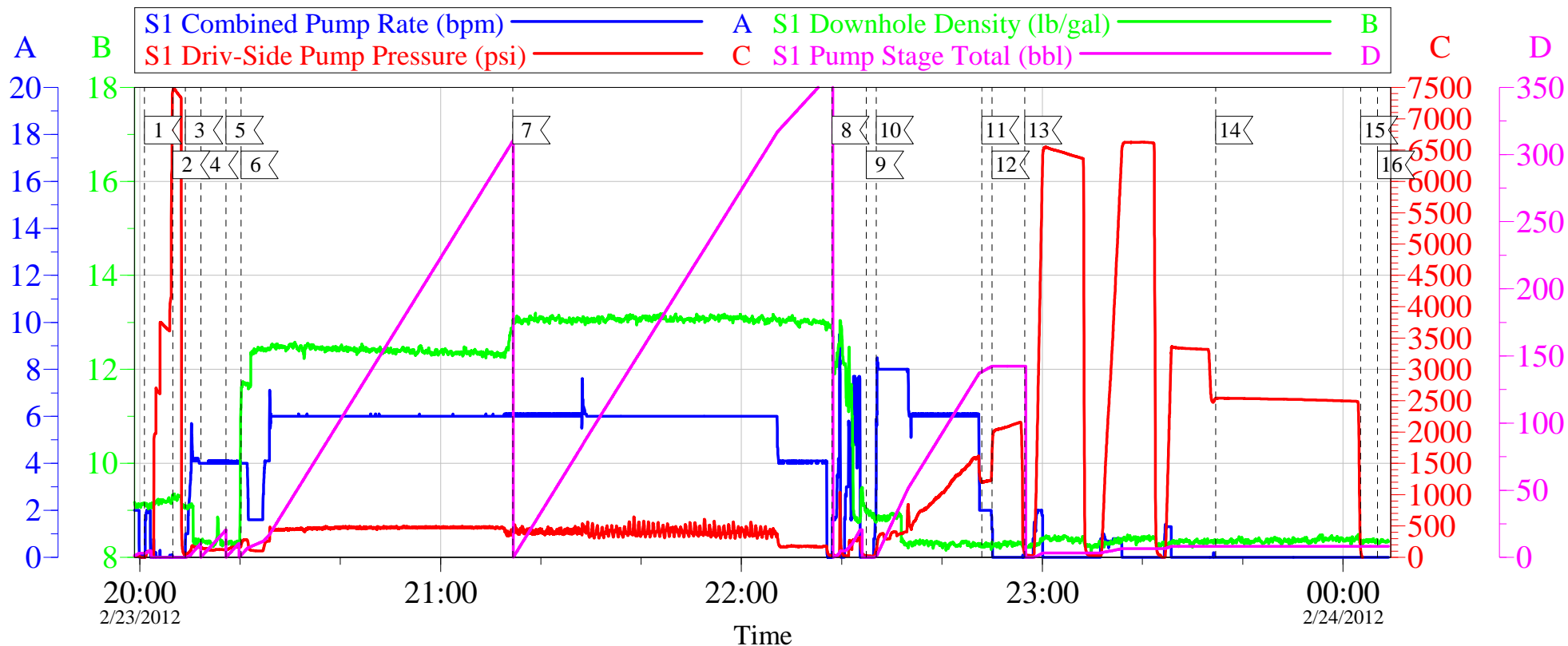
### Miscellaneous Materials

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		10.00	bbl	.	.0	.0	.0	
2	Gel Water		20.00	bbl	8.5	.0	.0	.0	
3	Water Spacer		10.00	bbl	.	.0	.0	.0	
4	Lead Cement	EXTENDACEM (TM) SYSTEM (452981)	851.0	sacks	12.4	1.92	10.14		10.14
10.12 Gal		FRESH WATER							
5	VariCem Tail Cement	VARICEM (TM) CEMENT (452009)	1034.0	sacks	13.1	1.61	7.29		7.29
7.29 Gal		FRESH WATER							
6	KCL Displacement		146.00	bbl	.	.0	.0	.0	
Calculated Values		Pressures		Volumes					
Displacement	146.2	Shut In: Instant		Lost Returns	N0	Cement Slurry	587.5	Pad	
Top Of Cement		5 Min		Cement Returns	0	Actual Displacement	146	Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		6	Displacement		6	Avg. Job	6
Cement Left In Pipe	Amount	38.76 ft	Reason	Shoe Joint					
Frac Ring # 1 @	ID		Frac ring # 2 @	ID		Frac Ring # 3 @	ID		Frac Ring # 4 @
The Information Stated Herein Is Correct				Customer Representative Signature					

# OXY

## 4 1/2" PRODUCTION

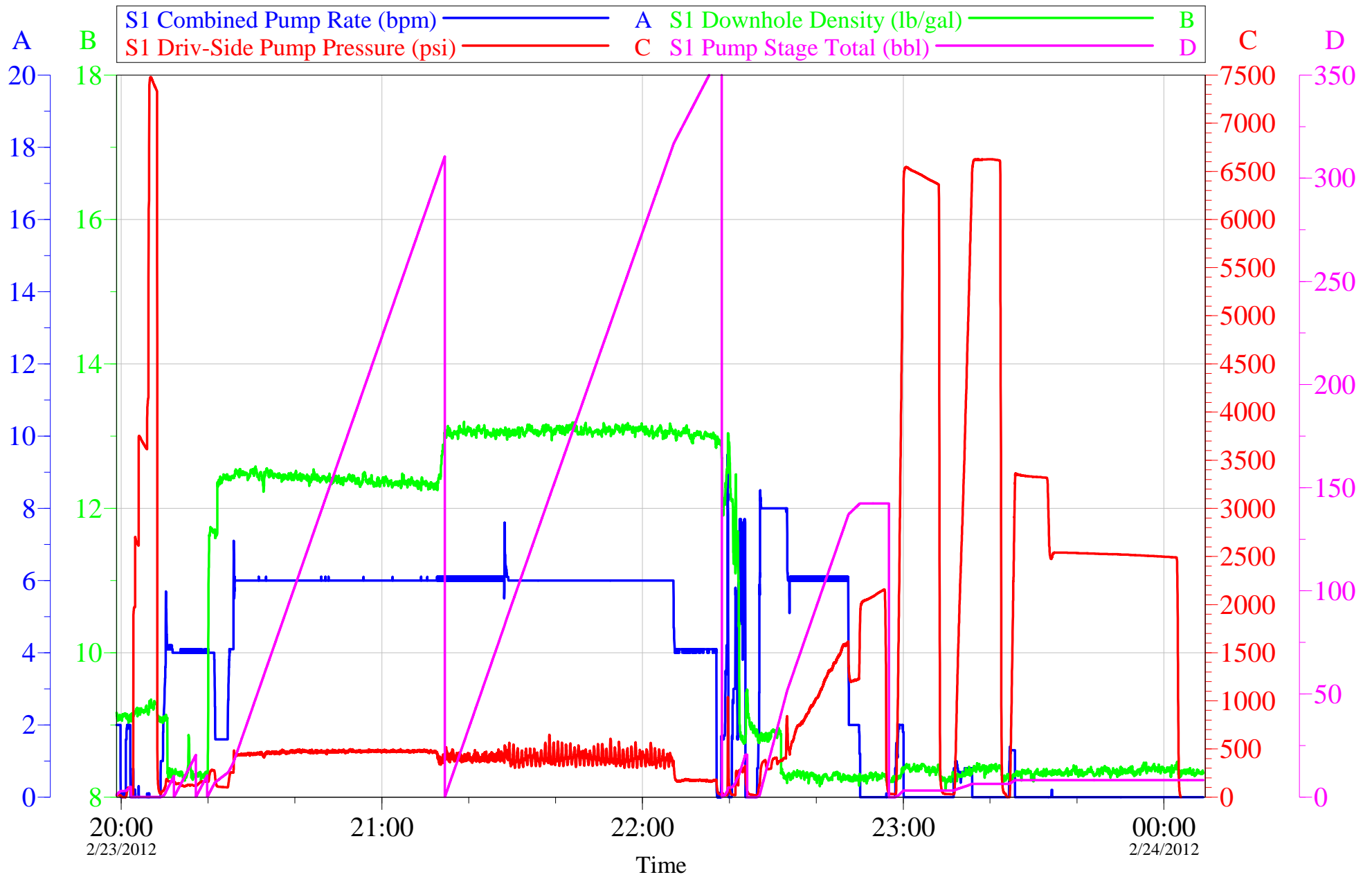


Local Event Log					
1	START JOB	2/23/2012 20:00:54	2	TEST LINES	2/23/2012 20:06:36
3	PUMP H2O SPACER	2/23/2012 20:09:07	4	PUMP GEL WATER SPACER	2/23/2012 20:12:12
5	PUMP H2O SPACER	2/23/2012 20:17:13	6	PUMP LEAD CEMENT	2/23/2012 20:20:12
7	PUMP TAIL CEMENT	2/23/2012 21:14:24	8	CLEAN LINES	2/23/2012 22:18:04
9	DROP PLUG	2/23/2012 22:24:55	10	KCL DISPLACEMENT	2/23/2012 22:26:53
11	SLOW RATE	2/23/2012 22:47:58	12	LAND PLUG	2/23/2012 22:49:59
13	CHECK FLOATS	2/23/2012 22:56:29	14	CASING PRESSURE TEST	2/23/2012 23:34:37
15	RELEASE PRESSURE	2/24/2012 00:03:31	16	END JOB	2/24/2012 00:06:52

Customer:	OXY	Job Date:	23-Feb-2012	Sales Order #:	9187898
Well Description:	CC 697-04-76B	Job Type:	PRODUCTION	ADC Used:	YES
Supervisor:	BRANDON REEVES	Company Rep:	VICTOR BENAVIDES	Elite/Operator:	8/MIKE BECK

# OXY

## 4 1/2" PRODUCTION



Customer: OXY	Job Date: 23-Feb-2012	Sales Order #: 9187898
Well Description: CC 697-04-76B	Job Type: PRODUCTION	ADC Used: YES
Supervisor: BRANDON REEVES	Company Rep: VICTOR BENAVIDES	Elite/Operator: 8/MIKE BECK

OptiCem v6.4.4  
24-Feb-12 00:11



<b>Sales Order #:</b> 9187898	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 2/24/2012
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT PRODUCTION CASING BOM
<b>Customer Representative:</b>		<b>API / UWI: (leave blank if unknown)</b> 05-045-20729
<b>Well Name:</b> CC		<b>Well Number:</b> 697-04-76B
<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	2/24/2012
Survey Interviewer	The survey interviewer is the person who initiated the survey.	BRANDON REEVES (HBT9414)
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

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>	2/24/2012
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>	4
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
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>	6
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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<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	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	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