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# **OXY GRAND JUNCTION EBUSINESS**

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**CC 608-41  
GRAND VALLEY  
Garfield County , Colorado**

**Squeeze Perfs**  
**01-Aug-2012**

**Job Site Documents**

# HALLIBURTON

# Cementing Job Summary

*The Road to Excellence Starts with Safety*

Sold To #: 344034	Ship To #: 2942627	Quote #:	Sales Order #: 9706328
Customer: OXY GRAND JUNCTION EBUSINESS	Customer Rep: McKinney, Ken		
Well Name: CC	Well #: 608-41	API/UWI #: 05-045-07519-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Lat: N 39.542 deg. OR N 39 deg. 32 min. 31.837 secs.	Long: W 108.237 deg. OR W -109 deg. 45 min. 48.528 secs.		
Contractor: WORKOVER	Rig/Platform Name/Num: WORKOVER		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	Job Type: Squeeze Perfs		
Sales Person: PRUETT, BRADLEY	Srvc Supervisor: KUKUS, CHRISTOPHER	MBU ID Emp #: 413952	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BURKE, BRENDAN Patrick	19	487782	HAMMOND, DENNIS C	19	287025	HUGENTOBLE, KORY	3	474119
KEANE, JOHN Donovan	19	486519	KUKUS, CHRISTOPHER A	19	413952	LYNGSTAD, FREDRICK D	7	403742
RAMSEY, STANTON Michael	4	477609	ROMKEE, DALE Alan	7	488215			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10551730C	120 mile	10744549	120 mile	10784080	120 mile	11164590	120 mile
11360883	120 mile	11583931	120 mile	11710582	120 mile	11808841	120 mile

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
08/01/2012	12	3	08/02/2012	3	2	08/03/2012	4	1.5

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

## Job

## Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	01 - Aug - 2012	01:00	MST
Form Type		BHST	Job Started	01 - Aug - 2012	06:00	MST
Job depth MD	7167. ft	Job Depth TVD	Job Completed	01 - Aug - 2012	16:30	MST
Water Depth		Wk Ht Above Floor	Departed Loc	02 - Aug - 2012	02:00	MST
Perforation Depth (MD)	From	To		03 - Aug - 2012	10:30	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
Hole				7.875				2490.	8614.		
Production	Unknown		4.5	4.	11.6		L-80	.	8614.		
Surface	Unknown		9.625	8.921	36.		K-55	.	2490.		
Tubing	Unknown		2.375	1.995	4.7		L-80	.	6630.		

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

Description	Qty	Qty uom	Depth	Supplier
ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB		
PORT. DATA ACQUIS. W/OPTICEM RT W/HES	1	EA		
R/A DENSOMETER W/CHART RECORDER,/JOB,ZI	1	JOB		

## 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	4.5	1		7260	Bottom Plug			

# HALLIBURTON

## Cementing Job Summary

Float Collar				Retainer	4.5	1		6630	SSR plug set					
Insert Float									Plug Container					
Stage Tool									Centralizers					
<b>Miscellaneous Materials</b>														
Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc %		
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty		
<b>Fluid Data</b>														
<b>Stage/Plug #: 1</b>														
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	Injection Test				25.00	bbl	8.33	.0	.0	4				
2	SQUEEZEC	SQUEEZEC (TM) SYSTEM (452971)			50.0	sacks	15.8	1.15	4.95	2.0	4.95			
	4.95 Gal	FRESH WATER												
3	Displacement				25.00	bbl	8.33	.0	.0	2				
4	Injection Test				10.00	bbl	8.33	.0	.0	4				
5	SQUEEZEC	SQUEEZEC (TM) SYSTEM (452971)			50.0	sacks	15.8	1.15	4.95		4.95			
	4.95 Gal	FRESH WATER												
6	Displacement					bbl	8.33	.0	.0					
7	Dump Bailer Cement	HALCEM (TM) SYSTEM (452986)			01.0	sacks	15.8	1.15	4.99		4.99			
	4.99 Gal	FRESH WATER												
<b>Calculated Values</b>			<b>Pressures</b>			<b>Volumes</b>								
Displacement	25.7	Shut In: Instant			Lost Returns	0	Cement Slurry	26	Pad					
Top Of Cement		5 Min			Cement Returns	2	Actual Displacement	13.3	Treatment					
Frac Gradient		15 Min			Spacers	35	Load and Breakdown		Total Job	74.3				
<b>Rates</b>														
Circulating		Mixing		3	Displacement		1.6	Avg. Job		2				
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*

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Well Name: CC	Well #: 608-41	API/UWI #: 05-045-07519-00	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat: N 39.542 deg. OR N 39 deg. 32 min. 31.837 secs.		Long: W 108.237 deg. OR W -109 deg. 45 min. 48.528 secs.	
Contractor: WORKOVER		Rig/Platform Name/Num: WORKOVER	
Job Purpose: Squeeze Perfs		Ticket Amount:	
Well Type: Development Well		Job Type: Squeeze Perfs	
Sales Person: PRUETT, BRADLEY		Srv Supervisor: KUKUS, CHRISTOPHER	MBU ID Emp #: 413952

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	08/01/2012 01:00							ELITE # 2
Depart Yard Safety Meeting	08/01/2012 03:45							SAFETY MEETING WITH ALL HES
Arrive At Loc	08/01/2012 06:00							ARRIVED ON LOCATION 2 HOURS EARLY DIDNT START CHARGING TIME UNTIL REQUESTED ON LOCATION TIME HES WIRE LINE CREW ONLOCATION RIGGING UP HES CEMENT CREW WAITED OFF LOCATION TILL WIRE LINE WAS DONE
Assessment Of Location Safety Meeting	08/01/2012 14:00							RIG RIH WITH TUBING
Pre-Rig Up Safety Meeting	08/01/2012 14:15							ALL HES EMPLOYEES
Rig-Up Equipment	08/01/2012 14:30							1 F-550 PICKUP 1 HT-400 PUMP TRUCK 1 660 BULK TRUCK
Pre-Job Safety Meeting	08/01/2012 16:15							ALL PERSONNEL ON LOCATION
Start Job	08/01/2012 16:30							CBP @ 7260 CMT RETAINER @ 6630 PERFS @ 6769 - 7167 2 3/8 4.7 # TUBING 4 1/2 11.6 L-80 CSG
Pressure Test	08/01/2012 16:34					5000.0		PRESSURE TEST OK
Pump Spacer	08/01/2012 17:17		3	25	25	95.0		PUMP 10 BBL FRESH H2O INJECTION TEST

Sold To # : 344034

Ship To # :2942627

Quote # :

Sales Order # : 9706328

SUMMIT Version: 7.3.0039

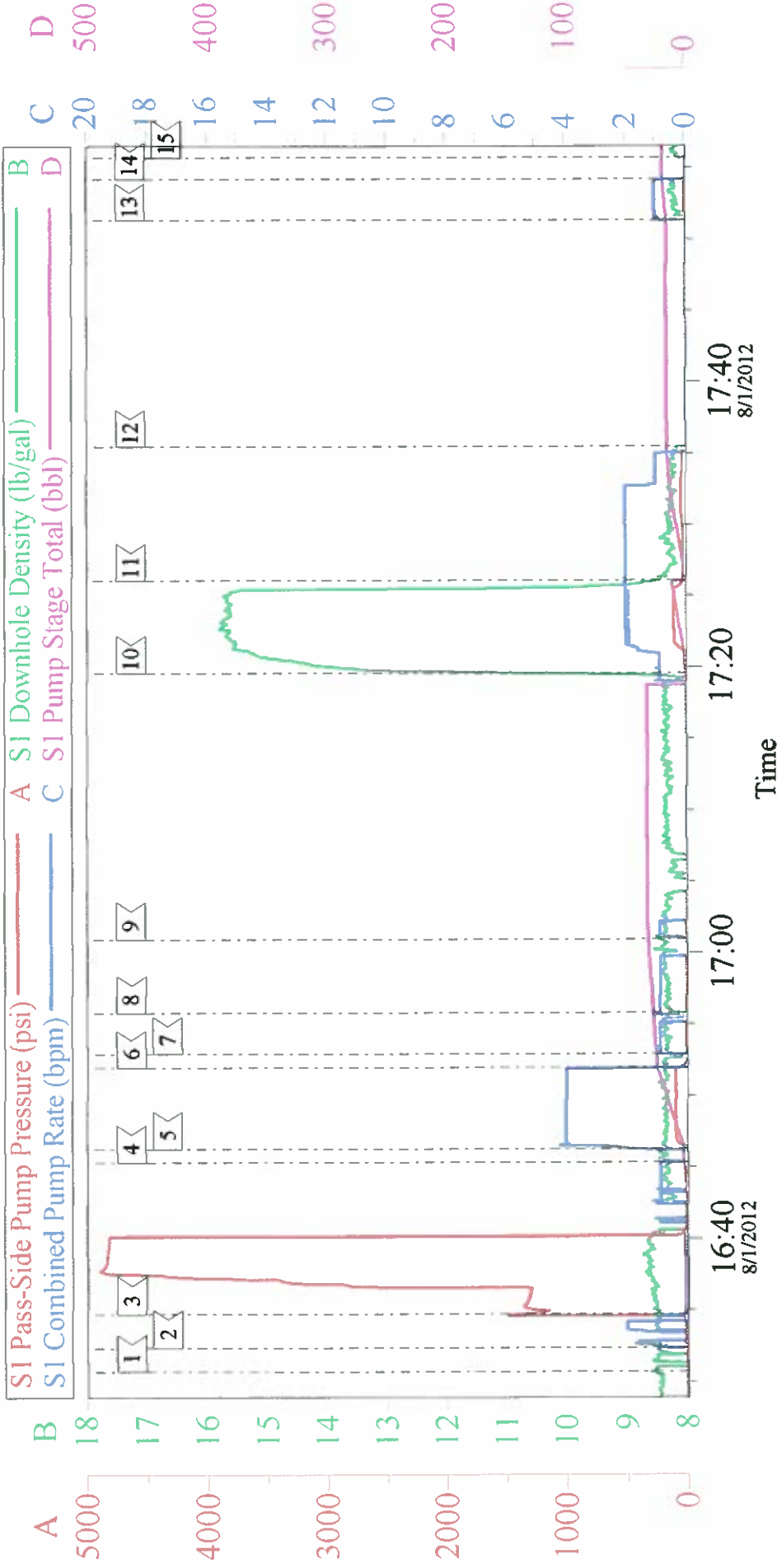
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Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Tail Cement	08/01/2012 17:19		2	10.2	10.2	100.0		50 SKS 15.8 PPG 1.15 YEILD 4.95 GAL / SK TAIL CEMENT WEIGHT VERIFIED VIA MUD SCALES THROUGH OUT TAIL CEMENT
Pump Displacement	08/01/2012 17:26		2	25.7	25.7	30.0		FRESH WATER
Shutdown	08/01/2012 17:54							RIG STING OUT OF PACKER PULL TUBING OUT OF THE HOLE
End Job	08/01/2012 17:55							HES CREW RELEASED FROM LOCATION TILL MORNING ALL EQUIPMENT LEFT ONLOCATION
Call Out	08/02/2012 07:00							ELITE # 2
Depart Yard Safety Meeting	08/02/2012 09:14							SAFETY MEETING WITH ALL HES
Arrive At Loc	08/02/2012 11:00							RIG READY ALL EQUIPMENT RIGGED UP AND READY
Rig-Up Equipment	08/02/2012 11:20							1 F-550 PICKUP 1 HT- 400 PUMP TRUCK 1 660 BULK TRUCK 1 TRANSPORT
Pre-Job Safety Meeting	08/02/2012 11:25							ALL PERSONNEL ON LOCATION
Start Job	08/02/2012 11:42							CBP @ 7260 CMT RETAINER @ 6630 PERFS @ 6769 - 7167 2 3/8 4.7 # TUBING 4 1/2 11.6 L-80 CSG
Pressure Test	08/02/2012 11:44					4900. 0		PRESSURE TEST OK
Pump Spacer	08/02/2012 11:52		4	10	10	73.0		FRESH WATER SPACER
Other	08/02/2012 11:55		4	20	20	1648. 0		SUPERFLUSH SPACER
Pump Spacer	08/02/2012 12:02		3	5	5	1150. 0		FRESH WATER SPACER
Pump Tail Cement	08/02/2012 12:04		3	26	26	1195. 0		127 SKS 15.8 PPG 1.15 YEILD 5 GAL / SK TAIL CEMENT WEIGHT VERIFIED VIA MUD SCALES THROUGH OUT TAIL CEMENT

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Displacement	08/02/2012 12:13		2	13.3	13.3	1700.0		FRESH WATER SPACER
Shutdown	08/02/2012 12:18							RIG PULLED 9 STANDS OF TUBING
Other	08/02/2012 12:36		3	22	22	42.0		CLEAN OUT TUBING
Shutdown	08/02/2012 12:46							RIG PULLED 4 STANDS OF TUBING
Other	08/02/2012 12:56							RIG REVERSE CIRCULATE THE WELL CIRCULATED 2 BBL CEMENT TO SURFACE
End Job	08/02/2012 13:00							HES EQUIPMENT LEFT RIGGED UP AND ON LOCATION CREW RELEASED AT 1300 TILL MORNING
Call Out	08/03/2012 03:00							
Depart Yard Safety Meeting	08/03/2012 04:30							SAFETY MEETING WITH ALL HES
Arrive At Loc	08/03/2012 06:30							HES CREW ARRIVED 1 1/2 EARLY WAITED FOR WIRE LINE TO RUN IN AND TAG CEMENT
Other	08/03/2012 09:00							HES CREW RELEASED FROM LOCATION RIG PUMPED 13 BBL IN TO FORMATION BEFORE IT LOCKED UP
Pre-Rig Down Safety Meeting	08/03/2012 09:15							ALL HES EMPLOYEES
Rig-Down Equipment	08/03/2012 09:20							
Pre-Convoy Safety Meeting	08/03/2012 10:15							ALL HES EMPLOYEES
Crew Leave Location	08/03/2012 10:30							THANK YOU FOR USING HALLIBURTON CEMENT CHRIS KUKUS AND CREW

# OXY - CC 608-41

SQUEEZE #1



## Local Event Log

1	START JOB	16:30:43	2	FILL LINES	16:32:25	3	PRESSURE TEST	16:34:46
4	SHUT DOWN	16:45:20	5	FILL TUBING	16:46:17	6	SHUT DOWN	16:51:57
7	WORKSTRING TEST	16:52:55	8	WORKSTRING TEST	16:55:47	9	WORKSTRING TEST	17:00:58
10	PUMP TAIL CEMENT	17:19:35	11	PUMP H2O DISPLACEMENT	17:26:04	12	SHUT DOWN	17:35:27
13	PUMP H2O DISPLACEMENT	17:51:18	14	SHUT DOWN	17:54:13	15	END JOB	17:55:45

Customer: OXY  
Well Description: CC 608-41  
Company Rep: KEN MCKINNEY

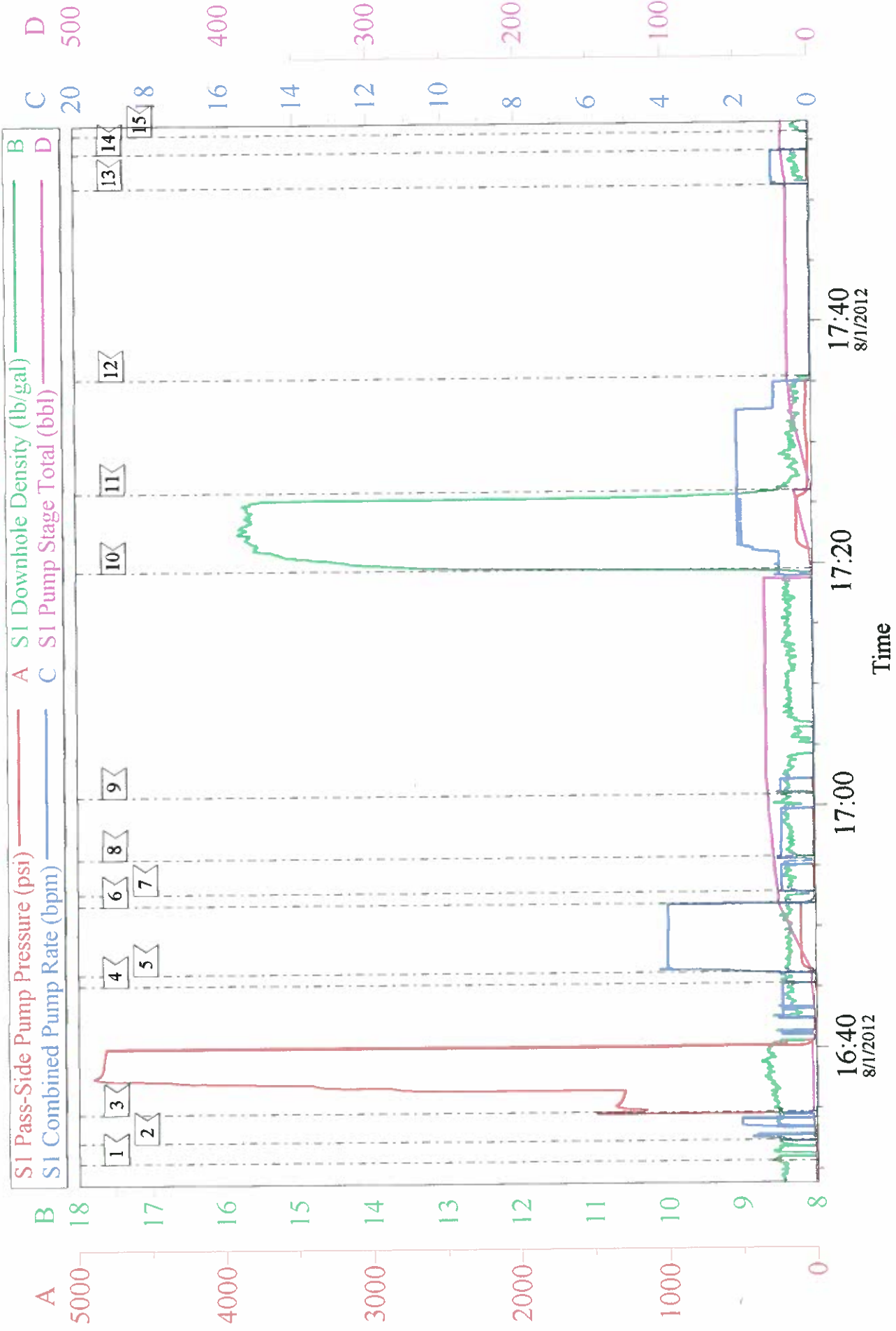
Job Date: 01-Aug-2012  
Job Type: SQUEEZE  
Cement Supervisor: CHRIS KUKUS

Sales Order #: 9706328  
ADC Used: YES  
Elite # 2: JOHN KEANE

OptiCem v6.4.10  
01-Aug-12 18:28

# OXY - CC 608-41

## SQUEEZE #1

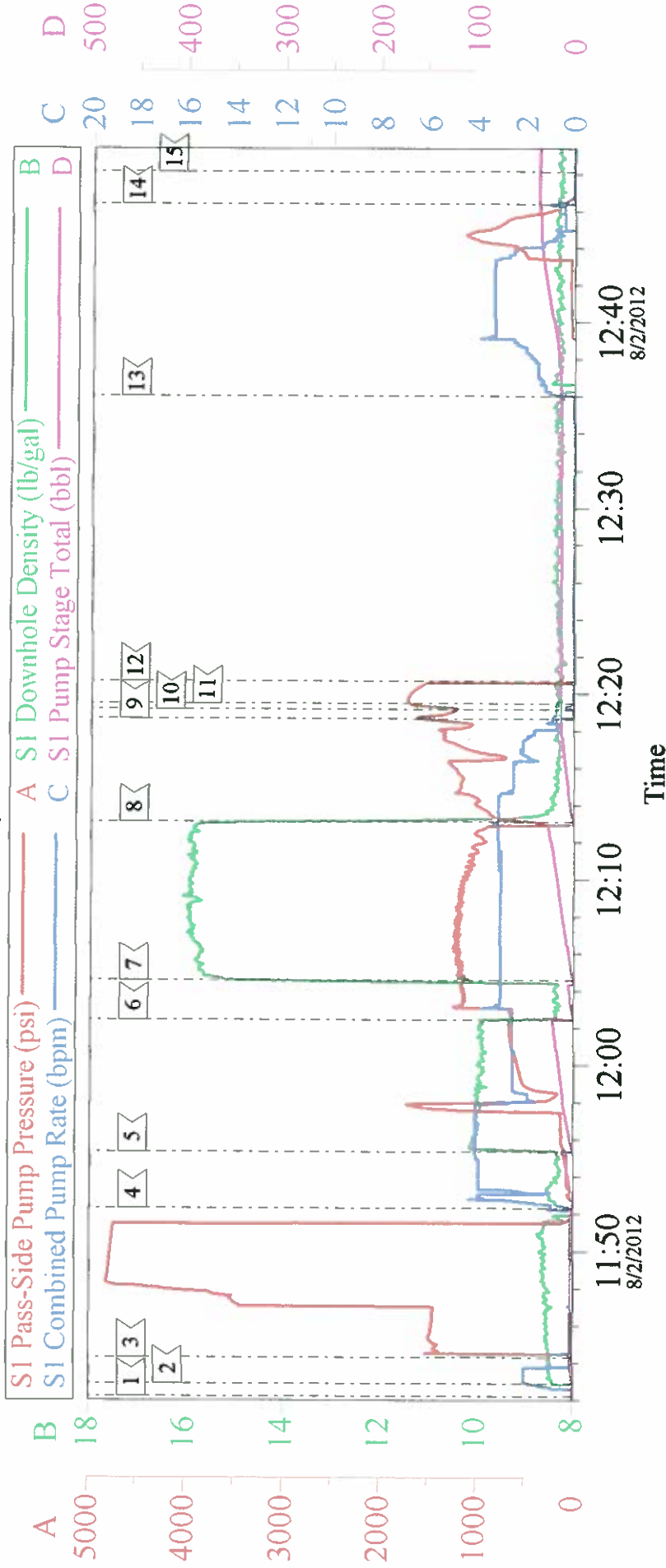


Customer: OXY	Job Date: 01-Aug-2012	Sales Order #: 9706328
Well Description: CC 608-41	Job Type: SQUEEZE	ADC Used: YES
Company Rep: KEN MCKINNEY	Cement Supervisor: CHRIS KUKUS	Elite # 2: JOHN KEANE



# OXY - CC 608-41

## SQUEEZE #2



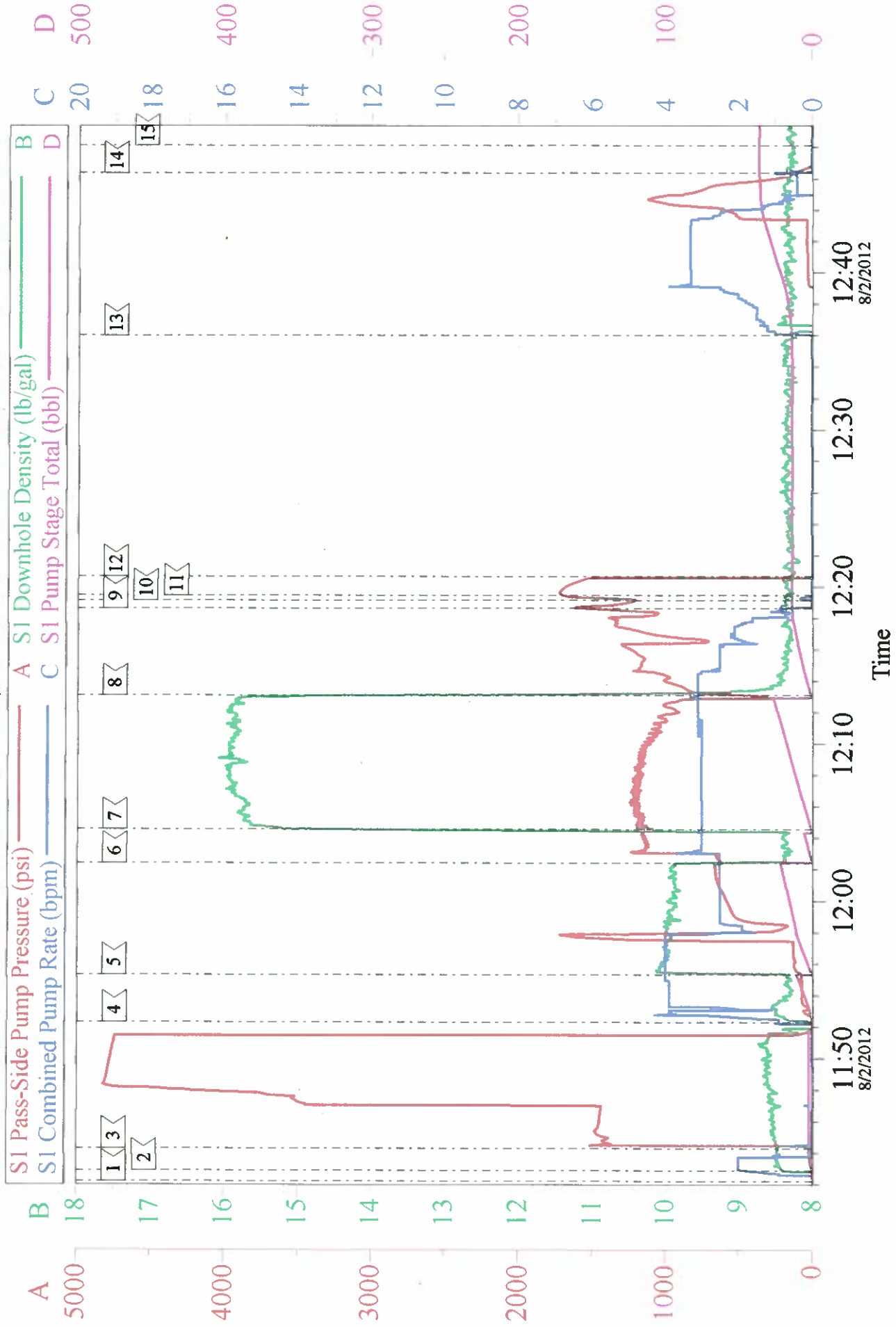
### Local Event Log

1	START JOB	11:42:13	2	FILL LINES	11:42:55
3	PRESSURE TEST	11:44:18	4	PUMP SPACER	11:52:19
5	PUMP SUPERFLUSH	11:55:21	6	PUMP SPACER	12:02:25
7	PUMP TAIL CEMENT	12:04:34	8	PUMP DISPLACEMENT	12:13:05
9	SHUT DOWN	12:18:39	10	SQUEEZE	12:19:09
11	SHUT DOWN	12:19:28	12	RELEASE PRESSURE / RIG PULL STANDS	12:20:40
13	CLEAR TUBING	12:36:00	14	SHUT DOWN	12:46:22
15	END JOB	12:48:07			

Customer: OXY	Job Date: 02-Aug-2012	Sales Order #: 9706328
Well Description: CC 608-41	Job Type: SQUEEZE	ADC Used: YES
Company Rep: KEN MCKINNEY	Cement Supervisor: CHRIS KUKUS	Elite # 2: JOHN KEANE

# OXY - CC 608-41

## SQUEEZE #2



Customer: OXY	Job Date: 02-Aug-2012	Sales Order #: 9706328
Well Description: CC 608-41	Job Type: SQUEEZE	ADC Used: YES
Company Rep: KEN MCKINNEY	Cement Supervisor: CHRIS KUKUS	Elite # 2: JOHN KEANE