

~~Leak Interval~~  
Bekas Shoe Squeeze  
#3

# HALLIBURTON

iCem® Service

## CHEVRON - MID-CONTINENT EBIZ

**For: TERRI MOORE**

Date: Tuesday, October 03, 2017

### **U P 72 X 31**

U P

CHEVRON U P 72 X 31 PTA

Job Date: Tuesday, October 03, 2017

Sincerely,

**JEREMY YOUNG**

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## 1.0 Cementing Job Summary

### 1.1 Executive Summary

Halliburton appreciates the opportunity to perform the cementing services for this cementing services job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

Halliburton, Rock Springs

Job Times

	Date	Time	Time Zone
Called Out	10/03/17	05:00	MST
On Location	10/03/17	11:00	MST
Job Started	10/03/17	16:00	MST
Job Completed	10/03/17	16:57	MST
Departed Location	10/03/17	18:00	MST

## 1.2 Job Overview

		Units	Description
1	Surface temperature at time of job	°F	50
2	Mud type (OBM, WBM, SBM, Water, Brine)	lb/gal	WATER
3	Actual mud density	lb/gal	8.3
4	Time circulated before job	HH:MM	00:30
5	Mud volume circulated	Bbls	109
6	Rate at which well was circulated	Bpm	4
7	Pipe movement during hole circulation	Y/N	N
8	Rig pressure while circulating	Psi	700
9	Time from end mud circulation to start of job	HH:MM	02:00
10	Pipe movement during cementing	Y/N	N
11	Calculated displacement	Bbls	4.6
12	Job displaced by	Rig/HES	HES
13	Annular before job)?	Y/N	N
14	Annular flow after job	Y/N	N
15	Length of rat hole	Ft	N/A
16	Units of gas detected while circulating	Units	N/A
17	Was lost circulation experienced at any time ?	Y/N	Y

### Lost Circulation Details

RIG WAS UNABLE TO CIRCULATE THROUGH PERFS TO SURFACE.

## 1.3 Squeeze Job Information

	Units	Description
1	Y/N	Y
2	psi/bpm	1 AT 300 PSI
3	psi/bpm	1.5 AT 400 PSI
4	psi/bpm	2 AT 500 PSI
5	psi	300 PSI
6	lb/gal	8.33
7	psi	300 PSI
8	lb/gal	8.33

## 1.4 Water Analysis Report

### CEMENT MIX WATER REQUIREMENTS

Item	Recorded Test Value	Units	Max. Acceptable Limit	Potential Problems in Exceeding Limit
pH	7		6.0 - 8.0	Chemicals in the water can cause severe retardation
Chlorides	0	ppm	3000 ppm	Can shorten thickening time of cement
Sulfates	<200	ppm	1500 ppm	Will greatly decrease the strength of cement
Total Hardness	50	ppm	500 mg/L	High concentrations will accelerate the set of the cement
Calcium	0	ppm	500 ppm	High concentrations will accelerate the set of the cement
Total Alkalinity	140	ppm	1000 ppm	Cement is greatly retarded to the point where it may not set up at all (typically occurs @ pH ≥ 8.3).
Potassium	0	ppm	5000 ppm	High concentrations will shorten the pump time of cement (indicates the presence of chlorides, therefore if Potassium levels are measured as high, so should the chlorides)
Iron	0	ppm	300 ppm	High concentrations will accelerate the set of the cement
Temperature	50	°F	50-80 °F	High temps will accelerate; Low temps may risk freezing in cold weather
Magnesium	50	ppm	300 ppm	High concentrations will accelerate the set of the cement <b>Calculation Method:</b> Subtract tested "Calcium" value from "Total Hardness" value.

## 2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	Call Out	10/3/2017	05:00:00	USER					CREW CALLED OUT TO WORKOVER RIG FOR CHEVRON PTA PLUG #4
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/3/2017	06:30:00	USER					WITH ALL HES PERSONNEL
Event	3	Crew Leave Yard	Crew Leave Yard	10/3/2017	06:45:00	USER					
Event	4	Arrive At Loc	Arrive At Loc	10/3/2017	11:00:00	USER					RIG WAS RH WITH WIRELINE TO SHOOT PERFS UPON HES ARRIVAL
Event	5	Assessment Of Location Safety Meeting	Assessment Of Location Safety Meeting	10/3/2017	11:05:00	USER					WITH ALL HES PERSONNEL
Event	6	Other	Other	10/3/2017	11:10:00	USER					SPOT EQUIPMENT
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/3/2017	11:20:00	USER					WITH ALL HES PERSONNEL
Event	8	Rig-Up Equipment	Rig-Up Equipment	10/3/2017	11:30:00	USER					
Event	9	Rig-Up Completed	Rig-Up Completed	10/3/2017	12:00:00	USER					RIG-UP COMPLETED. WAIT ON RIG
Event	10	Comment	Comment	10/3/2017	12:01:00	USER					RIG WAS NOT ABLE TO CIRCULATE THROUGH PERFS TO SURFACE. DECIDED TO RUN IN WITH RETAINER ON TUBING TO ABOVE PERFS AND CEMENT OFF PERFS.
Event	11	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/3/2017	15:45:00	USER	0.00	0.03	0.00	0.0	WITH ALL PERSONNEL ON LOCATION

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Event	12	Start Job	Start Job	10/3/2017	16:00:00	USER	2.00	8.54	0.00	0.0	
Event	13	Pump Water	Pump Water	10/3/2017	16:02:12	USER	1.00	8.59	0.10	0.0	PUMP WATER AHEAD TO FILL LINES
Event	14	Shutdown	Shutdown	10/3/2017	16:03:40	USER	361.00	8.32	1.60	2.2	SHUTDOWN TO LINE OUT VALVES FOR PRESSURE TEST
Event	15	Pressure Test	Pressure Test	10/3/2017	16:06:32	USER	1145.00	8.29	0.00	0.0	TEST KICKOUTS AND LINES TO 1100 PSI.
Event	16	Injection Test	Injection Test	10/3/2017	16:12:54	USER	142.00	8.26	1.10	0.1	PUMP 8 BBL H2O FOR INJECTION TEST. 1 BPM AT 300 PSI. 1.5 BPM AT 400 PSI. 2 BPM AT 500 PSI.
Event	17	ISIP	ISIP	10/3/2017	16:17:31	USER	474.00	8.31	0.00	8.7	SHUTDOWN FOR ISIP. ISIP 300 PSI
Event	18	Pump Cement	Pump Cement	10/3/2017	16:30:14	USER	237.00	8.27	0.90	0.2	PUMP 39 BBL SQUEZCEM. 190 SKS AT 15.8 PRG. 1.15 FT3/SK. 5 GAL/SK. PUMPED AT 2 BPM WITH 300 PSI
Event	19	Pump Displacement	Pump Displacement	10/3/2017	16:51:49	USER	270.00	12.24	2.00	0.1	PUMP 5 BBL H2O TO DISPLACE CEMENT TO BELOW RETAINER DUE TO NOT SEEING ANY CIRCULATION DURING JOB.
Event	20	Shutdown	Shutdown	10/3/2017	16:54:16	USER	434.00	8.28	0.00	4.8	
Event	21	String out	String out	10/3/2017	16:55:40	USER	120.00	8.26	0.00	4.8	RIG STRING OUT OF RETAINER AND POOH
Event	22	End Job	End Job	10/3/2017	16:57:00	USER	2.00	8.21	0.00	4.8	NO CIRCULATION THROUGHOUT JOB. RIG POOH TO RUN IN WITH WIRELINE AND RUN CBL. CREW RELEASED FROM LOCATION.
Event	23	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/3/2017	17:05:00	USER	3.00	8.25	0.00	4.8	WITH ALL HES PERSONNEL
Event	24	Rig-Down Equipment	Rig-Down Equipment	10/3/2017	17:10:00	USER	3.00	8.25	0.00	4.8	LEFT PUMP TRUCK AND

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Customer: CHEVRON - MID-CONTINENT EBIZ

Job: 904336742

Case: CHEVRON U P 72 X 31 PTA | SO#: 904336742

BULK TRUCKS RIGGED UP  
ON LOCATION.

Event	25	Rig-Down Completed	Rig-Down Completed	10/3/2017	17:50:00	USER	
Event	26	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	10/3/2017	17:55:00	USER	WITH ALL HES PERSONNEL
Event	27	Crew Leave Location	Crew leave Location	10/3/2017	18:00:00	USER	
Event	28	Other	Well Info	10/3/2017	18:01:00	USER	TUBING 2 7/8" 6.5 LB/FT, RETAINER SET AT 798', PERFS FROM 826' TO 828' CSG 7" 23 LB/FT J-55, SURFACE CSG SET AT 776' 10 3/4" 45.5 LB/FT H-40, OPEN HOLE 8 3/4"
Event	29	Comment	Comment	10/3/2017	18:02:00	USER	THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JEREMY YOUNG AND CREW.

Customer: CHEVRON - MID-CONTINENT EBIZ  
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3.1 CHEVRON U P 72 X 31 PTA PLUG #4-WITH EVENTS.png

