

# HALLIBURTON

iCem<sup>®</sup> Service

## **CATAMOUNT ENERGY PARTNERS LLC-EBUS**

United States of America, COLORADO

**For: BRETT HOUSTON**

Date: Friday, July 13, 2018

**JAQUES #10**

LA PLATA, JAQUES #10

CATAMOUNT

Job Date: Friday, July 13, 2018

Sincerely,

**LEMONT JOJOLA**

## Legal Notice

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## Table of Contents

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1.0	Job Design .....	4
1.1	Pump Schedule .....	4
2.0	Real-Time Job Summary .....	5
2.1	Job Event Log .....	5
3.0	Attachments.....	8
3.1	CATAMOUNT JAQUES #10 PRODUCTION -Custom Results.png.....	8
4.0	Custom Graphs.....	<b>Error! Bookmark not defined.</b>
4.1	Custom Graph.....	<b>Error! Bookmark not defined.</b>

## 1.0 Job Design

### 1.1 Pump Schedule

Description	Stage No.	Density (ppg)	Rate (bbl/min)	Yield (ft <sup>3</sup> /sack)	Water Req. (gal/sack)	Volume (bbl)	Bulk Cement (sacks)	Duration (min)
WBM	1	10.00	6.00			0.00		0.00
Tuned Spacer	2	11.50	5.00			20.00		4.00
PRB w/out CBL 2388560	3	12.30	6.00	2.4347	13.641	39.03	90.00	6.50
PRB w/ CBL 2388560	4	12.30	6.00	2.4347	13.641	73.72	170.00	12.29
PRB w CBL 2388561	5	13.50	6.00	1.8690	9.406	59.92	180.00	9.99
Top Plug/Start Displacement								
Fresh Water	6-1	8.33	6.00			50.00		8.33
Fresh Water	6-2	8.33	4.00			40.00		10.00
Fresh Water	6-3	8.33	2.50			11.64		4.66
<b>Total:</b>						<b>294.30</b>		<b>55.77</b>

\*Pump schedule may include additional rows for displacement if "Automatic Rate Adjustment" was enabled and ECDs approached the fracture gradient.

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	PS Pump Press (psi)	DH Density (ppg)	PS Pump Rate (bbl/min)	Pump Stg Tot (bbl)	Comments
Event	1	Call Out	Call Out	7/12/2018	20:00:00	USER					CEMENT CREW CALLED OUT
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	7/12/2018	21:50:00	USER					SAFETY MEETING HELD WITH CEMENT CREW
Event	3	Depart Home for Location	Depart Home for Location	7/12/2018	22:00:00	USER					1-PICKUP 11583927, 1- RED TIGER 12638114, 3- BULK TRUCKS 10897849 - 10025041, 10822043 - 10025040, 10897805 - 10025104
Event	4	Arrive At Loc	Arrive At Loc	7/12/2018	23:30:00	USER					CEMENT CREW ARRIVES ON LOCATION
Event	5	Other	Tubulars	7/12/2018	23:35:00	USER					TD = 4276 FT, TP = 5 1/2" 17# SET @ 4253 FT, SJ = 44 FT, OH = 7 7/8", SURFACE = 8 5/8" 24# SET @ 406 FT
Event	6	Other	Water Test	7/12/2018	23:40:00	USER					TEMPERATURE = 56 DEGREES, CHLORIDES = 0, PH = 7
Event	7	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	7/13/2018	02:25:00	USER	-13.00	0.00	0.00	0.00	SAFETY MEETING HELD WITH CEMENT CREW
Event	8	Rig-Up Equipment	Rig-Up Equipment	7/13/2018	02:30:00	USER	-12.00	-0.94	0.00	0.00	CEMENT CREW RIGS UP EQUIPMENT
Event	9	Start Job	Start Job	7/13/2018	03:04:21	COM5	-12.00	8.26	0.00	16.70	
Event	10	Pre-Job Safety Meeting	Pre-Job Safety Meeting	7/13/2018	03:10:09	USER	-15.00	8.26	0.00	0.00	SAFETY MEETING HELD WITH EVERYONE ON LOCATION
Event	11	Pressure Test	Pressure Test	7/13/2018	03:35:20	USER	55.00	8.40	0.00	2.10	PRESSURE TEST GOOD TO 3400 PSI

Event	12	Check Weight	Check Weight	7/13/2018	03:42:41	COM5	3256.00	8.53	0.00	2.10	CHECK CEMENT WEIGHT = 11.5#
Event	13	Pump Spacer 1	Pump Spacer 1	7/13/2018	03:44:54	USER	3.00	8.30	0.50	2.10	PUMPED 10 BBLS H2O
Event	14	Pump Spacer 2	Tuned Spacer III	7/13/2018	03:47:09	USER	343.00	11.96	6.00	1.80	PUMPED 20 BBLS TUNED SPACER @ 11.5#
Event	15	Pump Lead Cement	Pump 1st Lead Cement	7/13/2018	03:50:33	USER	267.00	11.83	6.00	1.50	140 SKS 2.43 CUFT/SK 13.61 GAL/SK = 60.6 BBLS @ 12.3# 29.2 BBLS H2O REQ
Event	16	Check Weight	Check Weight	7/13/2018	03:55:39	COM5	114.00	12.44	6.00	31.90	CHECK CEMENT WEIGHT = 12.4#
Event	17	Pump Lead Cement	Pump 2nd Lead Cement	7/13/2018	04:00:46	USER	100.00	12.43	6.00	62.40	170 SKS 2.43 CUFT/SK 13.64 GAL/SK = 73.6 BBLS @ 12.3# 55.2 BBLS H2O REQ
Event	18	Check Weight	Check Weight	7/13/2018	04:04:06	COM5	75.00	12.57	6.00	19.60	CHECK CEMENT WEIGHT = 12.4#
Event	19	Pump Tail Cement	Pump Tail Cement	7/13/2018	04:17:41	USER	67.00	12.55	6.00	0.80	180 SKS 1.87 CUFT/SK 9.4 GAL/SK = 60 BBLS @ 13.5# 40.3 BBLS H2O REQ
Event	20	Shutdown	Shutdown	7/13/2018	04:30:57	USER	85.00	13.66	6.00	79.90	SHUTDOWN DROP PLUG
Event	21	Clean Lines	Clean Lines	7/13/2018	04:33:01	USER	14.00	12.78	2.50	0.20	WASH PUMPS AND LINES
Event	22	Pump Displacement	Pump Displacement	7/13/2018	04:34:57	USER	-6.00	-0.05	2.10	0.10	CALCULATED 97 BBLS TO DISPLACE CEMENT, ACTUALLY PUMPED 98 BBLS TANK TO TANK MARK TO MARK
Event	23	Cement Returns to Surface	Cement Returns to Surface	7/13/2018	04:45:27	USER	661.00	7.39	6.00	62.50	CALCULATED 60 BBLS OF CEMENT BACK TO SURFACE, ACTUALLY CIRCULATED 30 BBLS OF CEMENT BACK TO SURFACE
Event	24	Bump Plug	Bump Plug	7/13/2018	04:55:24	USER	867.00	7.39	1.70	102.30	CALCULATED 1008 PSI TO LAND PLUG, PLUG BUMPED @ PSI 830UP TO 1800 PSI

Event	25	Check Floats	Check Floats	7/13/2018	04:59:16	USER	69.00	7.42	0.00	102.60	CHECK FLOATS, FLOATS HELD 1/2 BBLS BACK
Event	26	Shutdown	Shutdown	7/13/2018	05:01:04	USER	-8.00	7.40	0.00	0.00	SHUTDOWN END JOB, THANK YOU FOR CHOOSING HALLIBURTON LEMONT JOJOLA AND CREW
Event	27	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	7/13/2018	05:30:00	USER					SAFETY MEETING HELD WITH CEMENT CREW
Event	28	Rig-Down Equipment	Rig-Down Equipment	7/13/2018	05:35:00	USER					CEMENT CREW RIGS DOWN EQUIPMENT
Event	29	Depart Location Safety Meeting	Depart Location Safety Meeting	7/13/2018	06:00:00	USER					SAFETY MEETING HELD WITH CEMENT CREW
Event	30	Depart Location	Depart Location	7/13/2018	06:10:00	USER					CENEMT CREW DEPARTS LOCATION

3.0 Attachments

3.1 CATAMOUNT JAQUES #10 PRODUCTION -Custom Results.png

