 **DATE**: 08-OCT-24

**RIG:** ADM-688

**WELL:** ZULF-1262

CaCl2 Brine & SAMAA MUD WASH

# Objective:

* + - * Prepare Cacl2 brine, spacers & mud wash
			* Displacement from OBM to Brine
			* Spot SAMAA wash in the open hole/screen annulus

# Procedure:

1. Finish mixing fresh Cacl2 brine in pit #4
 🡺 400 bbl. Drill water
 🡺 40 Big Bag CaCl2.
2. Transfer all OBM (10 bbl.) in pit #10 to pit #1
3. Once start POOH with reaming BHA, start cleaning, slug #9, Slug #10
4. Transfer 80 BBL 86 PCF Brine from Pit#2 🡺 to Slug #9 (Viscous Push Spacer)
5. Transfer 80 BBL 86 PCF Brine from Pit#2 🡺 to Slug #10 (Non-Viscous Push Spacer)
6. keep 320 BBL 86 PCF Brine in pit #4 (final volume will confirm by SAMAA engineer)

# Mix Spacers:

1. **Slug #9** 🡺 Viscous Push Spacer: Mix the following with the same order:

|  |  |  |  |
| --- | --- | --- | --- |
| **NO.** |  **Chemical** | **Quantity** | **notes** |
| 1 | Drill water | 7 bbl. | Final M. WT=84 PCF |
| 2 | HEC | 4 sacks | Mix Slowly |
| 3 | Slick-5 | 4 Drums |  |

1. **Slug #10** 🡺 Non-Viscous Push Spacer: Mix the following with the same order:

|  |  |  |  |
| --- | --- | --- | --- |
| **NO.** |  **Chemical** | **Quantity** | **notes** |
| 1 | Drill water | 7 bbl. | Final M. WT=84 PCF |
| 2 | Slick-5 | 4 Drums |  |

Displace to Cacl2 brine pumping Sequence:

* + - * Keep sand trap pits Isolated (short system).
			* Empty & Clean trip tank from any OBM.
			* Fill up Trip tank with Brine

# Displacement Pumping sequence:

* + - * **Pit #5**  🡺 20 bbl. Safra Oil / Low Rheology Mud
			* **Slug #9** 🡺 80 bbl. of viscous Push Spacer
			* **Slug #10** 🡺 80 bbl. of non-viscous Spacer
			* **Pit #3 & Pit #4** 🡺Brine Active pit#3

Line up pit#3 as active pit for CaCl2 Brine and top up from pit #4 to pit #3.

* + - * **OBM Return** 🡺 pit #7 then pit #5 then pit #6
			* Once viscous spacer returns to the surface, divert the flow overboard from shakers till a clean brine is observed.
			* Once a clean brine reaches the surface, cease pumping & monitoring closely for any well losses.

# Cleaning surface lines:

* + - * + Flush Chock Manifold with brine.
				+ Clean all surface lines.
				+ Clean ditch line from shakers to mud pits. (dirty water to Pit Slug #9)
			* Dump and Clean Slug #10 from any spacers.
				+ Transfer 80 bbl. Brine from pit#3 to slug #10
				+ Mix 4 Sacks of HEC into slug #10
			* Prepare CaCl2 brine in pit #4:
				+ Transfer 400 bbl. of 86 PCF CaCl2 brine from Brine tank to pit #4
				+ Then add 35 bbl. of Drill water for final M. WT=84 PCF

.

SAMAA WASH:

# Mixing SAMAA wash pill as per SAMAA engineer:

* **Pit #2 🡺** SAMAA engineer to confirm and finalize the volumes and mix the pill.

SAMAA Wash must be pumped downhole within 1-2 hours after mixing.

|  |  |  |  |
| --- | --- | --- | --- |
| **NO.** |  **Chemical** | **Quantity** | **notes** |
| 1 | Brine |  320 bbl. | 86 PCF |
| 2 | Orca-B | 32 Drums |  |
| 3 | Orca-4 | 15 Drums |  |

# Spot in the open hole/screen annulus

# Pumping sequence:

* + - * **Pit Slug #10** 🡺 60 bbl. HEC Pill
			* **Pit #4**  🡺 10 bbl. Brine
			* **Pit#2** 🡺 SAMAA Wash Pill.
			* **Pit #4**  🡺 10 bbl. Brine
			* **Pit Slug #10** 🡺 10 bbl. HEC Pill
			* **Pit #4 & Pit #3 🡺** Active pit for brine suction and return.

Displace with brine to Spot SAMAA wash as per SAMAA engineer.

* + - * **Flow Check for 30 Min Before POOH, DON`T POOH IF LOSSES MORE THAN 20 BPH.**

.

Mud Pits:

|  |  |  |
| --- | --- | --- |
| Pit NO. | Details | Notes |
| **Pit#1** | OBM |  |
| **Pit#2** | SAMAA WASH |  |
| **Pit#3** | CaCl2 brine |  |
| **Pit#4** | CaCl2 brine |  |
| **Pit#5** | Low Rheology OBM |  |
| **Pit#6** | OBM |  |
| **Pit#7** | OBM |  |
| **Pit#8** | OBM |  |
| **Pit#9** | Viscous Push Spacer / HEC Pill | HEC PILL after Displacement |
| **Pit#10** | Non-viscous Spacer / HEC Pill |  |

# Safety Precautions:

- Follow all safety protocols during the mixing process.

- Ensure all personnel involved wear appropriate PPE (Personal Protective Equipment).

- In case of any issues or uncertainty, contact the mud engineer immediately.