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0001734S0	C	Standard Operating Procedure (SO)	1 of 3
Title			
PREPARATION OF PLUGGING AGENT BENTONITE CLAY FOR STRESS TESTING			
Responsible Location	Approval Locations	Reference Locations	Language
C	N/A	F	English
Referenced Documents		Special Notes	
N/A		N/A	

1.0 SUBJECT

- 1.1 This procedure contains instructions on how to mix Bentonite Clay in the Physical Test Lab located at EMD Millipore in Jaffrey, New Hampshire.

2.0 PURPOSE

- 2.1 To prepare a plugging procedure for products using Bentonite Clay.

3.0 SCOPE

- 3.1 To give instruction for mixing bentonite prior to using for a plugging agent for stress testing

4.0 RESPONSIBILITIES

- 4.1 It is the responsibility of the supervisor to ensure that this document is available to the operator.
- 4.2 It is the responsibility of the supervisor to provide adequate training of this procedure to the operator.
- 4.3 It is the responsibility of the operator to follow this procedure and notify the supervisor if a problem should arise.

5.0 DEFINITIONS N/A

6.0 MATERIALS

- 6.1 Volclay GPG-30
- 6.2 Benonite Powder, Sodium form
- 6.3 Water
- 6.4 3,000 ml graduated cylinder
- 6.5 Blender or mixer (American stirrer)
- 6.6 EMD Millipore Corporation product for Stress Test
- 6.7 250 ml beaker

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- 6.8 Hand strainer
- 6.9 Pressure vessel
- 6.10 Polygard CR cartridge filter

7.0 PROCEDURE

7.1 Procedure for Bentonite Volclay GPG-30

- 7.1.1 Measure 200 mls bentonite Volclay GPG-30 in small beaker
- 7.1.2 Measure 3,000 mls water into graduated cylinder
- 7.1.3 Place stirrer into water and turn power on.
- 7.1.4 Slowly pour in 200 mls bentonite clay powder.
- 7.1.5 Allow to mix until a thick smooth consistency. (Approximately 15-30 minutes)
- 7.1.6 Turn off stirrer.
- 7.1.7 Pour 1500 mls of mixed strained Volclay GPG-30 with 8,000mls water in pressure vessel.
- 7.1.8 Pressurize and filter through a 30" Polygard CR cartridge filtering into gallon jugs.
- 7.1.9 Repeat with remaining 1500 mls of Bentonite.
- 7.1.10 Flush filter for next use by adding 8,000mls water to pressure vessel
- 7.1.11 Pressurize and filter into gallon jugs.

Note: Bentonite clay should be mixed ahead of time and covered until it is to be used.

7.2 Procedure for Bentonite Powder Sodium Form

- 7.2.1 Measure 2 tablespoons Bentonite powder sodium form into 1 gallon jug.
- 7.2.2 Fill 1 gallon jug halfway with hot water and place cap on jug tightly.
- 7.2.3 Shake vigorously until all clumps are dissolved.
- 7.2.4 Fill remaining space in jug with hot water.

Note: Bentonite sodium form should be mixed ahead of time and covered until it is to be used.

8.0 QUALITY RECORD REQUIREMENTS N/A

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REVISION SHEET

DATE	REV	NATURE OF CHANGES	CHANGED BY
4/24/09	B	Put on new template. Added procedure for filtering Volclay GPG-30. Added procedure for Bentonite powder sodium form.	P. Ryan
01-JUN-2012	C	Replace the current existing Millipore Corporation document header and footer with the new EMD Millipore Corporation header and footer, if applicable, update the company name in the body of the document to reflect legal entity of the responsible location.	A. Rivard

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