

INTRODUCTION

This test was designed to be a quick method for identifying probable cement contamination in barite. It can be used to screen material in bulk trucks prior to load-out at the barite plants, or as a check for suspected contamination at the wellsite or field stockpoints. Its chief advantage over earlier phenolphthalein methods is in the use of thymolphthalein, which changes color at a higher pH and is therefore less likely to give false readings when used with naturally alkaline barites.

SAFETY

Chemicals in this kit may cause hazards to the user's health by direct contact, inhalation, ingestion, explosion or fire. Read all warnings, precautions and hazard classifications (fire, health and reactivity) on the container label. For in depth information on handling, reactivity with other substances, storage and other safety information refer to the "Material Safety Data Sheet (MSDS)" for each chemical. If personal contact or an environmental accident occur use the counteractive measures outlined on the label and on the MSDS sheet.

PROCEDURE

1. Add 35 ml deionized water and 1 ml thymolphthalein indicator solution to a 2 oz. clear glass bottle.
2. Scoop a sample of the barite to be tested into the 1/4 teaspoon. Level the sample with the edge of a spatula.
3. Carefully add the barite sample to the glass bottle, using a funnel or transfer paper if necessary to ensure complete transfer.
4. Screw the lid on tightly and shake for 15 seconds.
5. Set the bottle on a flat, steady surface and set stopwatch for one minute.
6. Observe color of liquid in the bottle after exactly one minute has elapsed.

CALCULATIONS

A color change from colorless to blue within one minute after shaking the bottle indicates the likely presence of a contaminating alkaline material such as cement.

NOTE

Any material with a pH of approximately 9.4 or greater will give a positive result in this test. Therefore, materials other than cement may be detected. However, it is usually desirable to determine contamination of any type, and hence the test is still useful. While some barites are in themselves alkaline, generally their pH does not exceed 9 and therefore the possibility of a false positive reading due to the barite itself is remote.

PARTS LIST

PART NO.	DESCRIPTION
10337	SPATULA STAINLESS 3"
20703	STOPWATCH
35109	SYRINGE 1CC SLIP TIP
51224	*THYMOPHTHALEIN INDICATOR .04%, 2 OZ
52714	*WATER DISTILLED, 16 OZ
B1016	CASE
N2900	CYLINDER GRADUATED 50 ML GLASS "TD"
J3029	1/4 TEASPOON
N4620	BOTTLE 2 OZ GLASS, CLEAR

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