



WINDSOR MINERALS INC.

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8 December 1978

SUBJECT: Asbestiform Mineral Analysis -
Sampling Procedure for Hammondsville Cosmetic Ore.

TO: R. Miller

Present Sampling Procedure (Biweekly Composite)

During each 8-hour work shift, the W.W. wet mill operator collects a 2 kg ground talc ore composite, i.e., approx. 125 g talc per hour from each roller mill (#1 and #2).

From this composite the QC lab technician takes 5 g talc (0.25% of 2000 g) to make up a biweekly composite. Assuming a 16-hour work day, and a 5-day work week this represents 100g of talc. The talc is mixed and 50g is sent to McCrone Associates for analysis; 50g is stored in the lab for a repeat analysis if necessary. The 50g of talc is equivalent to 0.13% of the total amount of talc sampled biweekly;

$$\begin{aligned} \text{i.e. } 2 \text{ kg} \times 10 \times 2 &= 40 \text{ kg} \\ 50 \text{ g} \div 40 \text{ kg} &= 0.13\% \end{aligned}$$

Weighing error; $2 \times 10 \times 5g \pm 0.1g = 100g \pm 2g$ ($\pm 2\%$ error)
then; $50g \pm 0.1g$

Total weighing error: $50g \pm 2.1g$ ($\pm 4.2\%$ error)

Proposed Sampling Procedure (Triweekly Composite)

The QC lab technician takes 8g of talc from each mill shift composite to make a triweekly composite. This consists of 0.40% of the total amount of talc collected i.e., $3 \times 10 \times 8g = 240g$

The talc is mixed and 80g is sent to McCrone Associates for analysis; 160g is stored in the lab for repeat analysis if necessary. This amount can be reduced to 80g if the analysis shows no defects. 80g of talc is equivalent to 0.13% of the total amount of talc sampled triweekly;

$$\begin{aligned} \text{i.e. } 2 \text{ kg} \times 10 \times 3 &= 60 \text{ kg} \\ 80 \text{ g} \div 60 \text{ kg} &= 0.13\% \end{aligned}$$

Weighing error: $3 \times 10 \times 8g \pm 0.1g = 240g \pm 3g$ ($\pm 1.25\%$ error)
then : $80g \pm 0.1g$

Total weighing error: $80g \pm 3.1g$ ($\pm 3.9\%$ error)

APPROVED
R. Miller
12/13/78

DEFENDANT'S
EXHIBIT
D-8378

J&J-0043746

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Based on my report of 11/14/78 and the analysis above, I recommend that we change to a triweekly composite collection of HC ground for asbestiform mineral analysis. With the proposed sampling procedure, we will maintain the present level of surveillance.

Sixteen HC composite samples will be collected and analysed each year: a reduction from 25 samples.

Industrial Grade Talcs.

All industrial grade talcs can be collected as monthly composites. This will give a possible total of 24 samples: a reduction from 48 samples.

HJG:hjg

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