

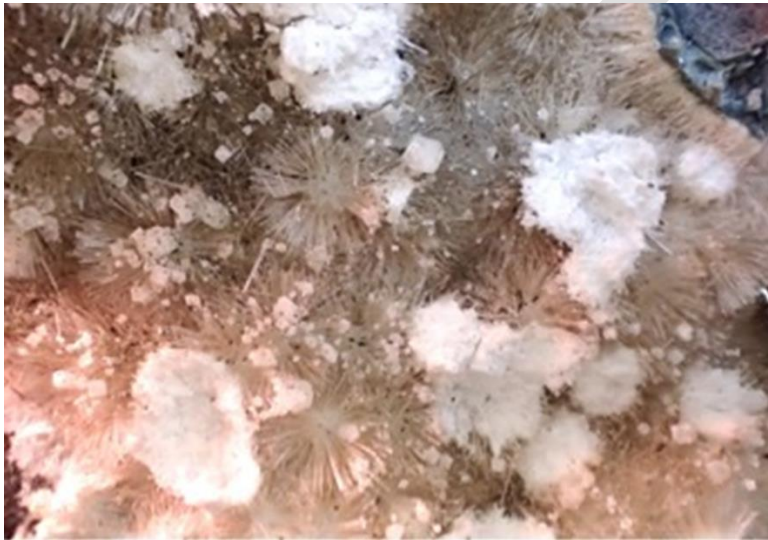
Mineral Resources Tasmania

Mineralogical/Petrology Report

LJN2018-149

LJN2017-039

MINERAL ANALYSES, LITTLE PLAINS QUARRY



An unpublished Mineral Resources
Tasmania Report for:

R Bottrill

By: R.S. Bottrill, R Woolleyⁿ

Date: 26/3/2020

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SUMMARY

The zeolite in the basalt comprises mostly natrolite with lesser thomsonite, and in places has a coating of apophyllite and saponite.

INTRODUCTION

Two samples were collected by R Bottrill and were submitted for mineralogical analysis by XRD in the MRT laboratories, Rosny Park; details are listed in table 1 below.

TABLE 1: SAMPLE DETAILS.

Reg. No	Location	Description
G407389	Little Plains Qy	Fibrous white zeolite
G407997	Little Plains Qy	Natrolite with apophyllite

The samples were examined by XRD (powder X-ray diffraction) and lower power stereomicroscopy in the MRT petrology laboratories, Rosny Park.

DESCRIPTION

The sample G407389 contains fibrous white zeolites to about 10mm long, partly filling vesicles in fine grained black Tertiary basalt (Fig. 1). Some of the natrolite sample (eg. G407997) contain loose aggregates of white to colourless apophyllite in short prismatic tetragonal crystals to about 1mm in length (Fig. 2).

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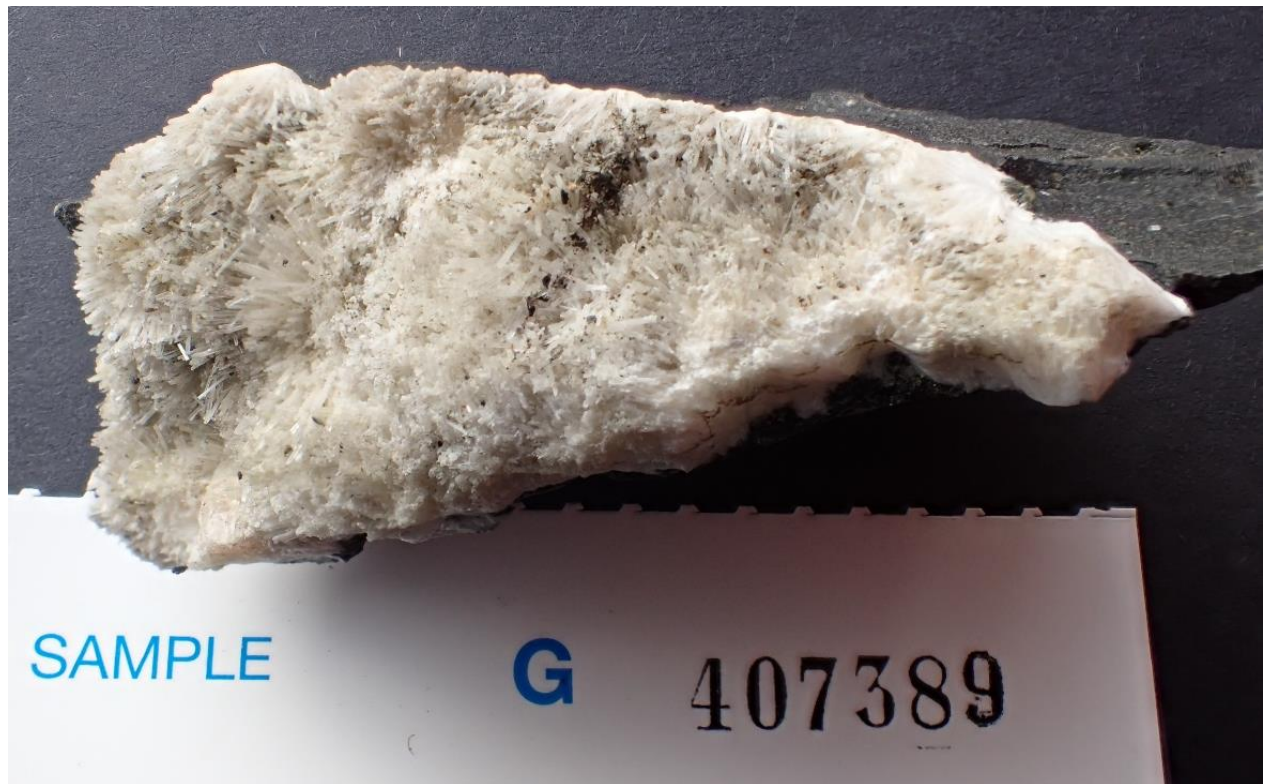


Fig. 1 Zeolite on basalt, FOV about 80mm.

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Fig. 2. Aggregates of white crystalline apophyllite plus white saponite, on fibrous natrolite, on basalt, FOV about 30mm.

XRD

The samples were prepared, examined and analysed in the MRT laboratories, Rosny Park, Tasmania. They were run on an automated Philips X-Ray diffractometer system: PW 1729 generator, PW 1050 goniometer and PW 1710 microprocessor with nickel-filtered copper radiation at 40kV/30mA, a graphite monochromator (PW1752), sample spinner and a proportional detector (sealed gas-filled PW1711). The PW1710 system is presently driven by the CSIRO XRD software: "PW1710 for Windows" and "XPLOT for Windows".

RESULTS AND DISCUSSION

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The XRD (X-Ray Diffraction) analyses (Appendix 1) indicate that the fibrous zeolite comprises mostly natrolite with lesser thompsonite. The fine grained overgrowths on G407997 are apophyllite and saponite.

R.S. Bottrill
MINERALOGIST/PETROLOGIST

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TECHNICAL OFFICER

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Appendix 1: XRD Analysis Report

Client: R. Bottrill

Sample Source: Little Plains Quarry

MRT Job Number: LJN2017/039

Analysis: Approximate Mineralogy

Method: X-Ray Diffraction

Results:

Sample	Minerals Identified
G407389 (needles)	major Natrolite, minor Thomsonite

Peak overlap may interfere with identifications and quantitative calculations.
Amorphous minerals and minerals present in trace amounts may not be detected.

Analyst: R.N. Woolley

Date: 4 May 2017

Client: R. Bottrill

Sample Source: Little Plains Quarry

MRT Job Number: LJN2018-149

Analysis: Approximate Mineralogy

Method: X-Ray Diffraction

Results:

Sample	Minerals Identified
G407997	Apophyllite and saponite

Peak overlap may interfere with identifications and quantitative calculations.
Amorphous minerals and minerals present in trace amounts may not be detected.

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Analyst: R.S. Bottrill

Date: 15/5/2018

DRAFT