

2380

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

GEOLOGICAL SURVEY

PINE No. 5 GROUP

(Pine Mineral Claims 18,39,41,43,44,46,48,65,67,69,  
71,74,76-79,81,83,143 Fr,144 Fr)

Situated 13 miles northeast of Thutade Lake,  
Omineca Mining Division,  
British Columbia

57° 126° SW

By

R. W. Stevenson, P. Eng.

July 19 to August 20, 1969

April 13, 1970

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LIST OF ILLUSTRATIONS

#1 Plate No. 1    Geological Map    1" = 400'    Pocket (*front*)

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. **2380** MAP

STATEMENT OF COSTS INCURRED

Geological Survey

A detailed explanation of how the geological survey expenditures were incurred is given under the section titled 'Geological Survey Field Work'.

The total cost of the geological survey on Pine No. 5 group is as follows:

Wages & Board:

S.C. Gower	July 19,21-25,28-30; Aug. 5,6,10,12, 16,18,20	@ \$22.00 + \$4.50	\$ 424.00
M.A. Vreugde	July 19,21-25,28-30; Aug. 5,6,12,16, 18,20	@ \$19.50 + \$4.50	\$ 360.00
M. Murison	Aug. 10	@ \$17.50 + \$4.50	\$ 22.00
Helicopter set-out on the property 1:20 hrs @ \$160/hr			<u>\$ 213.00</u>
			<u><u>\$1019.00</u></u>

INTRODUCTION

The mineral property discussed in this report is about 13 miles northeast of Thutade Lake, B. C., on the southeast side of the Finlay River. The geological survey was done during the period July 19 to August 20, 1969, under the supervision of R. W. Stevenson, P. Eng.

This geological survey is an extension of a geological survey that was done on part of the Pine property in 1968. The previous survey was recorded in a report by R. W. Stevenson dated May 5, 1969.

LOCATION AND ACCESS

The property is situated at Latitude 57°13'N, Longitude 126°43'W, about 270 miles northwest of Prince George. This is about 13 miles northeast of Thutade Lake. It is on the south side of the Finlay River, in the Finlay valley, an area of subdued topography which is characterized by erratic drainage caused by numerous eskers and both lateral and terminal moraines. The elevation there is from 3400' to 4500' above sea level; and vegetation varies from good stands of mature pine to semi-open swamp areas.

Access to the area is by fixed-wing aircraft from Smithers to Pine Lake, a distance of about 175 miles. This is a small lake, about 4000' long, which is situated 3 miles northeast of the Pine area. Local travel on the Pine property is fairly easy, except for the difference in elevation between the showing area and the river level. Small clearings in swamps and in burn areas provide good helicopter access to most parts of the property. Helicopter set-outs were used so as to minimize the travel time from the camp to the outlying claims surveyed.

## GEOLOGICAL SURVEY

### Geological Survey Field Work

In planning how to conduct the geologic mapping, it was noted that there was considerable difficulty in using air photos to locate outcrops that were situated in uniform stands of Lodgepole Pine. A survey grid had already been established in the area to be mapped, for use in a soil sample survey. This grid was used to control the geologic mapping, with pace and compass location of outcrops relative to the nearest grid station. In some instances a 1" = 800' photo enlargement was used to assist in the location of outcrops remote from any grid station.

The geologic map area consists of 20 Pine Mineral Claims; No. 18, 39, 41, 43, 44, 46, 48, 65, 67, 69, 71, 74, 76 - 79, 81, 83, 143 Fr, 144 Fr. Outcrop was found on all but three claims.

## Geology

### Regional Setting

The Pine property is situated near the eastern margin of a northwest-trending belt of Takla Group volcanics of intermediate composition, which are Upper Triassic in age. The east boundary of the property approximately coincides with the edge of the main body of Omineca diorite, which is probably Upper Jurassic in age. Syenite, and lesser amounts of monzonite and granite, occur as small stocks in much of the mapped area. They are usually porphyritic, and are thought to be younger than the diorite. The granite is probably a quartz-rich phase of the syenite.

About ten miles west of the Pine property, the Takla volcanics are bordered by a narrow band of Palaeozoic sediments which lie between the volcanics and Upper Cretaceous Sustut sediments.

The geology in the mapped area is shown on Plate No. 1. These claims are peripheral to claims mapped in 1968.

### Lithology

#### Triassic

Takla Group volcanics and minor sediments are the "country rock" in the Pine area. Their age has been established as probably Upper Triassic by C. S. Lord of the G.S.C. on the McConnell Creek map sheet, the border of which is 15 miles south of the Pine property.

Fine to medium-grained andesite is a dark greenish-gray rock. It occurs in the southeast part of the map area between the porphyry intrusives to the northwest, and the Omineca diorite to the southeast.

The contacts between fine-grained and medium-grained phases of the andesite are gradational. The ratio between the amounts of fine-grained and medium-grained phases is about equal. Both fine-grained and medium-grained phases are equigranular, but there are porphyritic phases with "medium-grained" phenocrysts and fine-grained groundmass. The subhedral to euhedral, dark green, amphibole or pyroxene phenocrysts comprise up to 40% of the rock. The groundmass is a mixture of very fine-grained feldspar and mafics in approximately equal proportion. It is not as dark as the mafic phenocrysts.

#### Jurassic or Cretaceous

The Omineca intrusions are considered to be Upper Jurassic in age. The porphyry intrusives are thought to be only slightly younger, but there is no direct evidence to prove or disprove this.

Diorite intrudes the andesite just east of the property. This is part of a granitic body, about 5 to 10 miles in width, that trends northwest from south of Serrated Peak to beyond Chukachida Lake, a distance of over 50 miles. It is one of the Omineca intrusions. This diorite is a light-pinkish, medium-grained rock, close to granodiorite in composition. It is composed mainly of anhedral feldspar (70%), and euhedral biotite (30%).

Syenite and syenite porphyry occur as part of a small stock underlying much of the mapped area. It intrudes the andesite. There are two phases of syenite: syenite porphyry and fine-grained syenite. The two phases are intergradational.

The syenite porphyry is a reddish rock, in which the phenocrysts consist mainly of medium-grained, subhedral to euhedral feldspar. Occasionally there are a few phenocrysts of dark-greenish, medium-grained amphibole. The groundmass is a mixture of fine-grained feldspar and mafics. Phenocrysts and groundmass are approximately equal in volume.

Fine-grained syenite is closely similar in composition to the syenite porphyry, and appears to be just a fine-grained, equigranular phase of that rock.

Monzonite Porphyry is a grey, fine- to medium-grained rock associated with the syenite porphyry on claims 39, 41, 69, 67, and 71. The contacts between monzonite and syenite porphyry appear to be gradational.

Granite occurs on claim 43. It is similar in appearance to the syenite porphyry, but contains sufficient quartz to be classed as a granite. It is probably a quartz-rich phase of the granite.

### Structure

Several strong faults have been observed elsewhere on the Pine property. Some areas of andesite are fractured; however, it is difficult to correlate these separate areas, because most of the fracturing apparently took place before emplacement of the younger intrusives which obliterated the pre-existing structures. A northwest structural trend may be indicated by some of the drainage erosion.



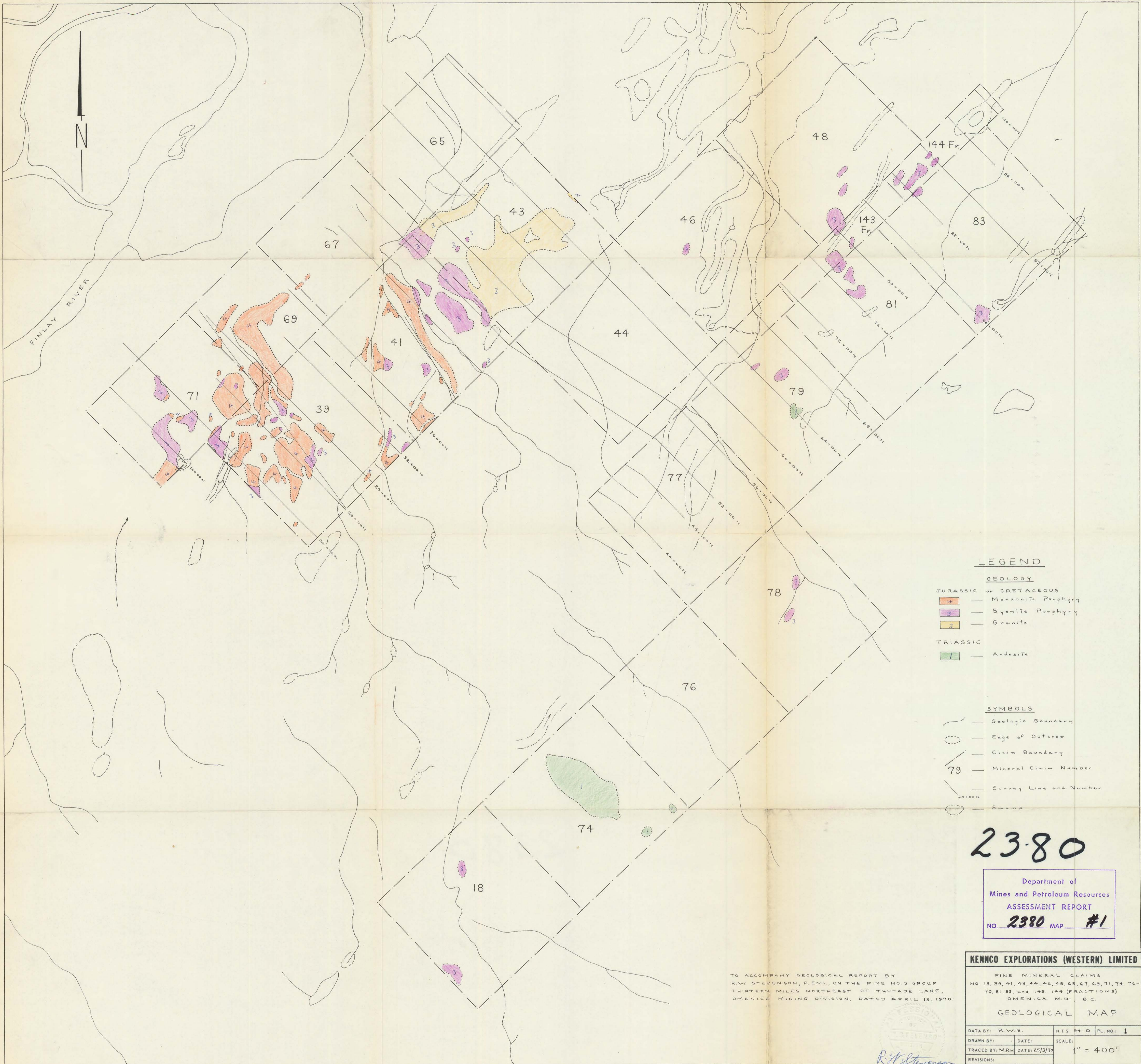
Alteration

Epidote occurs in minor amounts in the andesite in much of the map area, mostly as fracture coatings.

Vancouver, B. C.

April 13, 1970

  
R. W. Stevenson



**LEGEND**

**GEOLOGY**

- JURASSIC or CRETACEOUS
  - 4 — Monzonite Porphyry
  - 3 — Syenite Porphyry
  - 2 — Granite
- TRIASSIC
  - 1 — Andesite

**SYMBOLS**

- Geologic Boundary
- — Edge of Outcrop
- Claim Boundary
- 79 — Mineral Claim Number
- Survey Line and Number
- — Swamp

2380

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 2380 MAP #1

<b>KENNCO EXPLORATIONS (WESTERN) LIMITED</b>			
PINE MINERAL CLAIMS			
NO. 18, 39, 41, 43, 44, 46, 48, 65, 67, 69, 71, 74, 76-79, 81, 83, and 143, 144 (FRACTIONS) OMEICA M.D., B.C.			
GEOLOGICAL MAP			
DATA BY: R.W.S.	N.T.S. D+O	PL. NO. 1	
DRAWN BY:	DATE:	SCALE:	
TRACED BY: MRH	DATE: 25/3/70	1" = 400'	
REVISIONS:			

TO ACCOMPANY GEOLOGICAL REPORT BY R.W. STEVENSON, P. ENG., ON THE PINE NO. 5 GROUP THIRTEEN MILES NORTHEAST OF THUTADE LAKE, OMEICA MINING DIVISION, DATED APRIL 13, 1970.

*R.W. Stevenson*