PROSPECTING REPORT

on part of the

ASH GROUP

consisting of the

POLAR 1-7, CAVA 1,2 LAST CHANCE 1,2

Mineral Claims

Clinton Mining Division

British Columbia

by

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Owner and Operator,
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Savona, British Columbia
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WORK DONE ON: Polar 1-7 Claims

RECORD NO.s: 302777, 302748-302751 and 311212,311213

WORK DATES: 20,22 June, 1992
15-18 July, 1992

LOCATION: 37.5 km. North 03° West of Savona,B.C.
N.T.S. Map 92 P 2W
Longitude 120° 52.5' North
Latitude 51° 03.7' West

SUBMITTED: 13 October, 1992

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LOCATION MAP

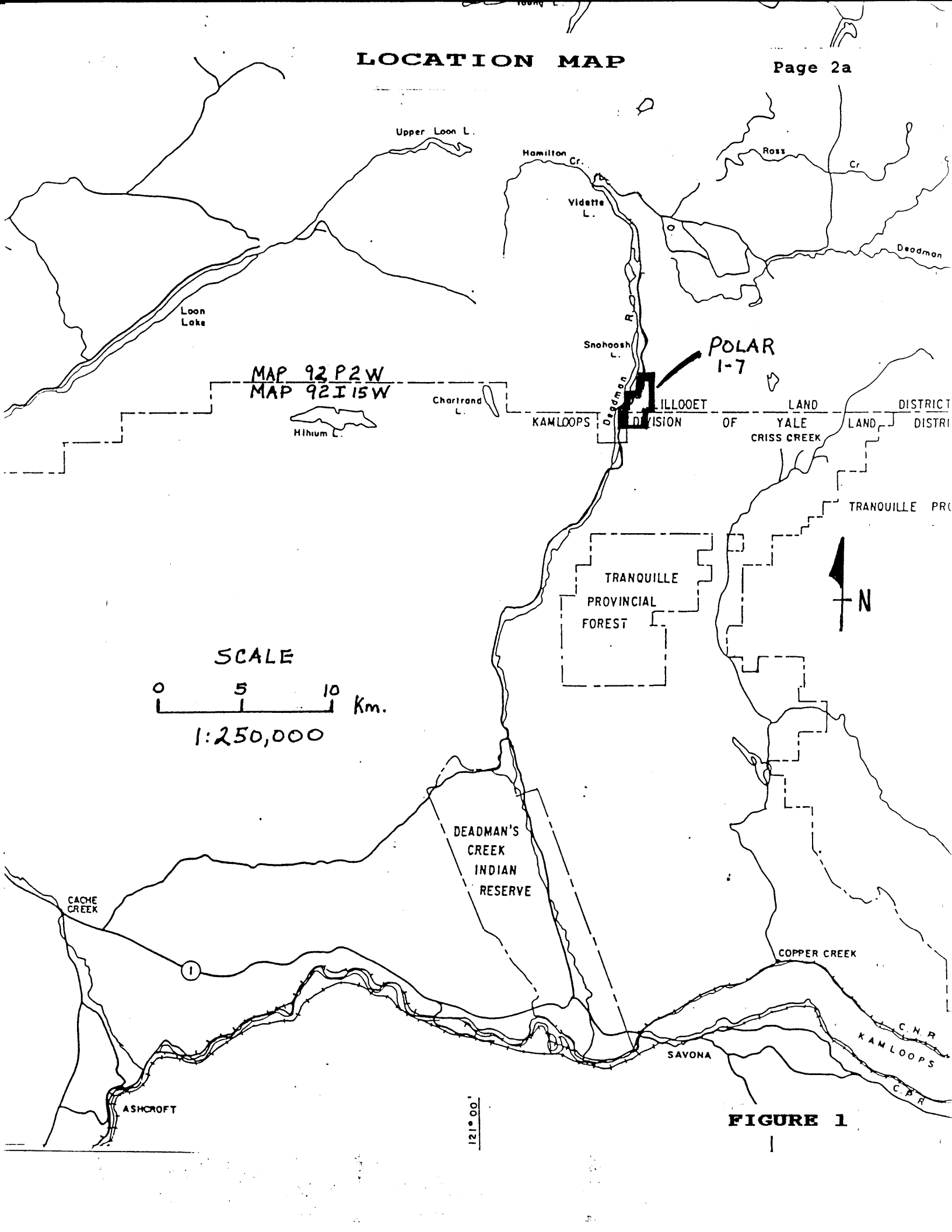


FIGURE 1

INTRODUCTION

The Polar 1-7 claims were staked to cover an area underlain in part by silicic volcanic ash of Miocene age. This report outlines observations made by the author while prospecting on the claims during the summer of 1992, as well as the results of preliminary sampling of volcanic ash from the property. A brief description of some of the potential uses of the material is also included.

PROPERTY AND OWNERSHIP

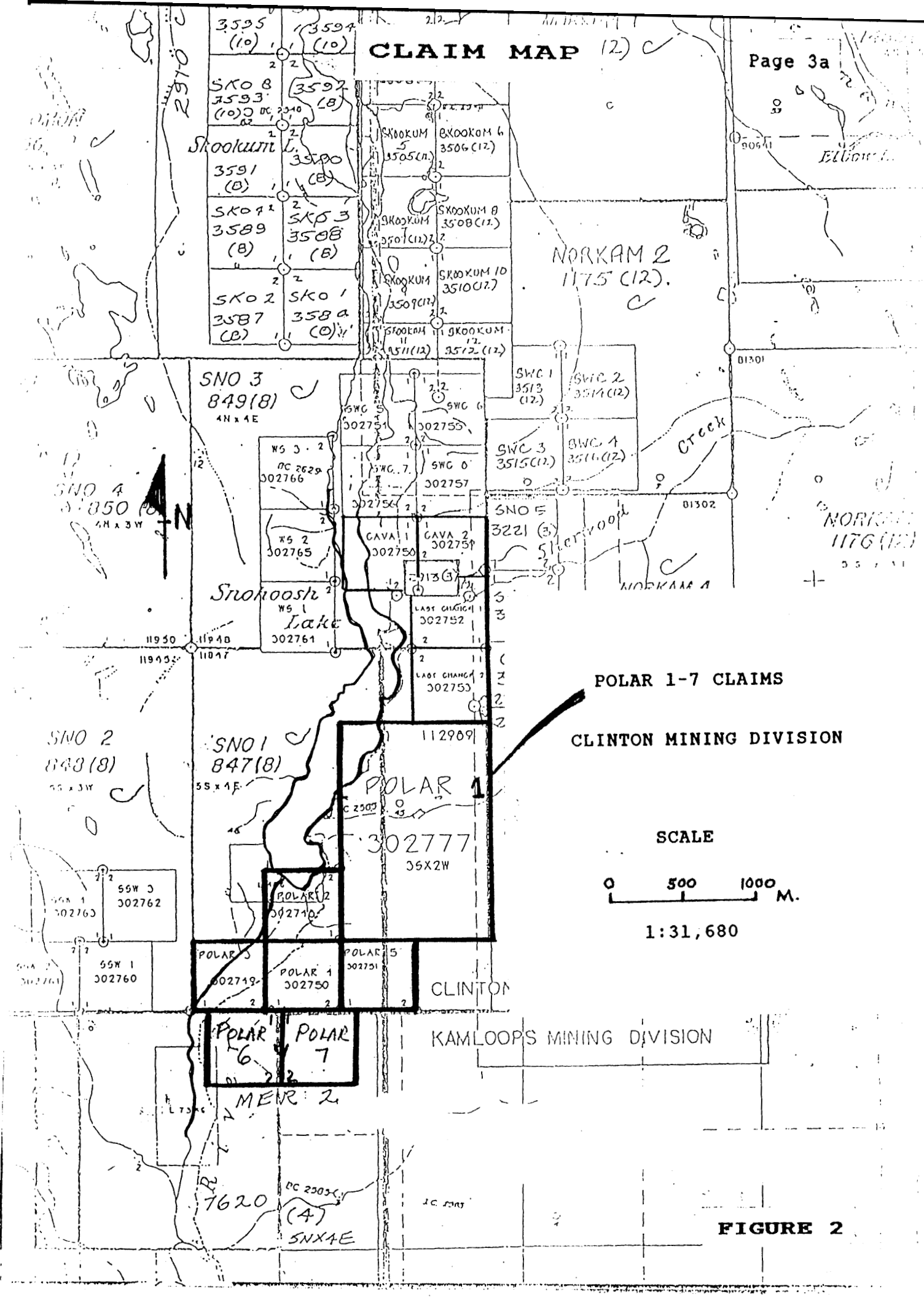
The Ash Group was located and is owned and operated by the author and consists of the mineral claims listed in Table 1, on which work was performed as well as the claims listed in Table 2, on which part of the work was applied.

Table 1

CLAIM NAME	RECORD NO.	UNITS	CLAIM TYPE	EXPIRY DATE
Polar 1	302777	6	4 Post	21 July,1993
Polar 2	302748	1	2 Post	21 July,1993
Polar 3	302749	1	2 Post	21 July,1993
Polar 4	302750	1	2 Post	21 July,1993
Polar 5	302751	1	2 Post	21 July,1993
Polar 6	311212	1	2 Post	15 July,1994
Polar 7	311213	1	2 Post	15 July,1994

Table 2

CLAIM NAME	RECORD NO.	UNITS	CLAIM TYPE	EXPIRY DATE
CAVA 1	302758	1	2 Post	21 July,1993
CAVA 2	302759	1	2 Post	21 July,1993
Last Chance 1	302752	1	2 Post	21 July,1993
Last Chance 2	302753	1	2 Post	21 July,1993


CLAIM MAP
POLAR 1-7 CLAIMS
CLINTON MINING DIVISION
SCALE
0 500 1000 M.
1:31,680
POLAR 1
112989
302777
POLAR 2
302710
POLAR 3
302749
POLAR 4
302750
POLAR 5
302751
POLAR 6
POLAR 7
SNO 1
847(8)
SNO 2
848(8)
SNO 3
849(8)
SNO 4
850(8)
SNO 5
3221 (3)
Skookum L.
Shoshoosh Lake
302761
CAVA 1
302750
CAVA 2
302751
WS 1
302761
WS 2
302765
WS 3
302766
SWC 1
3513 (12)
SWC 2
3514 (12)
SWC 3
3515 (12)
SWC 4
3516 (12)
SWC 5
302754
SWC 6
302755
SWC 7
302756
SWC 8
302757
SSW 1
302760
SSW 3
302762
NORKAM 2
1175 (12)
NORKAM 3
1176 (12)
CLINTON
KAMLOOPS MINING DIVISION
MER 2
7620
(4)
5NX4E
FIGURE 2

LOCATION, ACCESS AND TERRAIN

The Polar 1-7 claims are centered about 500 metres east of the southern tip of Snohoosh Lake on N.T.S. Map 92 P 2W (see Figure 1, Page 2a). The area is accessed by travelling north for about 38 kilometres on Deadman River Road from its junction with Highway 1, about 7 kilometres west of the town of Savona.

From Polar Springs, located on the Deadman Road about 200 metres south of Snohoosh Lake, the Marshy Lake and Jules Lake logging roads provide good access to the main areas of interest.

The claims lie within the southern part of the Fraser Plateau between 793 and 1037 metres in elevation. From lake level to about 915 metres there are some fairly steep slopes but at higher elevations, gently rolling hills prevail. Most of the property is covered with second growth fir and pine with occasional open grassy meadows.

WORK PROGRAM

Five days were spent working on the Polar 1-7 mineral claims on the dates specified on the Title Page. A grid over the entire property was not considered necessary since the purpose of the work program was to outline the extent of the volcanic ash and most of the ash outcrops are accessible by road. However, a small grid was established on the Polar 6 claim to map and measure an area underlain by volcanic ash. A sample of volcanic ash from the Polar 4 claim was sent to Eco-Tech Laboratories Ltd., Kamloops, B.C. for analysis.

PROPERTY GEOLOGY

Glacial till (unit 1) is extensive over most of the property but is unlikely to exceed a depth of more than a metre or two in most areas.

Flat-lying Miocene plateau lava (unit 2), primarily olivine basalt and vesicular basalt, forms a prominent scarp, at least 30 metres thick, on the southern part of the Polar 1 claim. Basalt of varying thickness also outcrops at higher elevations throughout the property and forms a thin blanket over the volcanic ash deposits of interest.

Miocene volcanic ash (Unit 3) occurs in flat-lying beds beneath the basalts within a group of undeformed lacustrine sediments, mapped as the Deadman River Formation, by Campbell and Tipper, 1971. Significant volcanic ash deposits outcrop in three areas on the Polar claims:

(1) The southern half of the Polar 6 claim is underlain by poorly consolidated ash over a 440x250 metre area. The ash beds are about 100 metres thick and are composed of sandy to pebbly, light grey-brown to buff-colored, medium to coarse-grained lapilli tuff containing abundant fragments of quartz and feldspar up to 4mm in diameter in a soft and very fine-grained groundmass. Open cavities of various sizes are common.

(2) On the Polar 4 claim, ash is exposed for 350 metres along the main Deadman road south of Polar Springs and directly above for 500 metres along the Jules Lake logging road. This zone is at least 250 metres wide and 70 metres thick. The ash is variable in composition, ranging between

fine-grained ash in some outcrops to medium-grained material similar to the exposures on the Polar 6 claim in others.

(3) From Polar Springs, volcanic ash is fairly continuously exposed for 1.5 km. along the Marshy Lake road on the Polar 2 and central part of the Polar 1 claim. The ash is difficult to trace away from the road cuts due to till cover but an area measuring 750x300 metres is indicated by ash outcrop and subcrop on a network of old logging roads about 1 km northeast of Polar Springs. Most of the ash in this area is fine-grained and light grey-brown in colour.

Unit 4a is primarily augite andesite of the Triassic Nicola Formation. These rocks are well-exposed along the Deadman River Road and are locally altered to quartz-carbonate zones near faults. Hornfelsed andesite with up to 10% garnet was noted along the eastern shore of Snohoosh Lake.

Black argillite (unit 4b) outcrops near the dam at the south end of Snohoosh Lake. It contains up to 5% finely disseminated pyrite and is overlain by Nicola andesite.

ANALYTICAL RESULTS

A representative sample of volcanic ash from the Polar 4 claim and a sample of Nonscents clinoptilolite zeolite from Arizona were analyzed by Eco-Tech Laboratories Ltd. of Kamloops, B.C., in order to determine and compare their chemical compositions and cation exchange capacities. The results of this analysis are outlined in Table 3 below as well as the published results for a high quality "pure"

montmorillonite clay from Wyoming[1] for comparison.

Table 3

Element Wt.%	Symbol	Clay	POLAR ASH	Zeolite
Silica	SiO_2	55.60	64.18	66.75
Alumina	Al_2O_3	20.10	15.07	12.86
Calcium	CaO	.5	1.74	3.45
Potassium	K_2O	.6	2.06	1.75
Sodium	Na_2O	2.8	1.33	.62
Magnesium	MgO	2.5	.80	1.45
Iron	Fe_2O_3	3.7	2.85	2.17
Manganese	MnO		.05	.10
Barium	BaO		.07	.02
Phosphorous	P_2O_5		.05	.03
Titanium	TiO_2		.36	.30
L.O.I.			10.62	12.12
CEC		120	118	180

L.O.I. - loss on ignition.
CEC - Cation Exchange Capacity measured in mille equivalents per 100 grams (meq/100 grams).

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[1] Choudary, B.M., Subba Rao, Y.V and Prasad, B.P. (1991) New Triphase Catalysts From Montmorillonite: *Clays and Clay Minerals* No.3 P.329

A preliminary x-ray diffraction analysis (XRD) of four samples of altered volcanic ash which was conducted at the University of British Columbia indicates that the ash is primarily composed of the following minerals:

montmorillonite clay	35% ± 10%
feldspar	35% ± 10%
cristobalite	15% ± 5%
quartz	15% ± 5%

Further XRD analysis is required to more precisely define the constituents of the ash as the purpose of the initial analysis was to test the samples for the presence of clay or zeolite mineralization.

CONCLUSIONS

The volcanic ash deposits located on the Polar claims probably contain several million tonnes of ash and could be easily mined by open pit methods if a market for the material can be found.

Home tests by the author have shown the ash to be as effective as clinoptilolite zeolite in eliminating virtually any odor from common sources including ammonia, fish, food, feet, cooking, human and animal wastes, onions, garlic, formaldehyde, new cars, decomposing meat, vomit, sewage, fireplaces, smoke, mildew, restaurants, carpets etc. by merely placing dehydrated ash near or on the source of odor.

It will also eliminate odors from a host of other sources including pulp mill waste, battery acid, lacquer thinners, anti-freeze, and most petroleum products such as motor oil,

crude oil, transmission fluid, brake fluid, etc. that the zeolites contain poorly if at all.

The ash has remarkable and easily demonstrated oleophilic qualities and readily absorbs any kind of oil, even from the surface of water. Hypothetically, the oil affinity of the volcanic ash could be used to advantage in combination with recently tested bioremediation techniques (Oilweek, 25 February, 1991) for cleaning oil spills at sea and on the foreshore.

Cultures of oil-digesting micro-organisms and their nutrient fertilizers such as nitrogen and phosphorous could be added to powdered ash and then broadcast onto an oil slick. The hydrocarbons and ash will unite and sink to the sea floor. The microbes, aided by the naturally occurring process of biodegradation, should soon break down the mixture of oil and ash to form non-toxic sediments capable of supporting new aquatic life.

Research could also focus on developing a technique to modify the ash by physical or chemical means to prevent oil-ash mixtures from sinking. Such a product could prove to be invaluable in preventing the spread of oil over a larger area and containing the oil before it reaches the shoreline. The oil and ash mixture could then be easily recovered by skimmers or other methods and eventually separated by heat treatment.

Ants seem to be the only insects that thrive after contact with volcanic ash. Limited testing indicates that garden pests such as aphids, slugs and various bugs and caterpillars die within a day or two after exposure to the ash. It

seems likely that the fine silica clogs the breathing pores in the exoskeleton or has a lethal effect on the digestive systems of the insects that ingest it. This suggests that the ash may have potential as a natural pesticide.

The ash is also being investigated for use as a specialty absorbent, cat litter and as pozzolan for the cement industry.

ITEMIZED COST STATEMENT

Prospecting claims: 5 days at $250.00 per day	$1250.00
4x4 Truck: 5 days at $40.00 per day	200.00
Gasoline	50.00
Supplies: Topofil, flagging etc.	25.00
Report preparation	200.00
TOTAL COSTS	$1725.00

STATEMENT OF QUALIFICATIONS

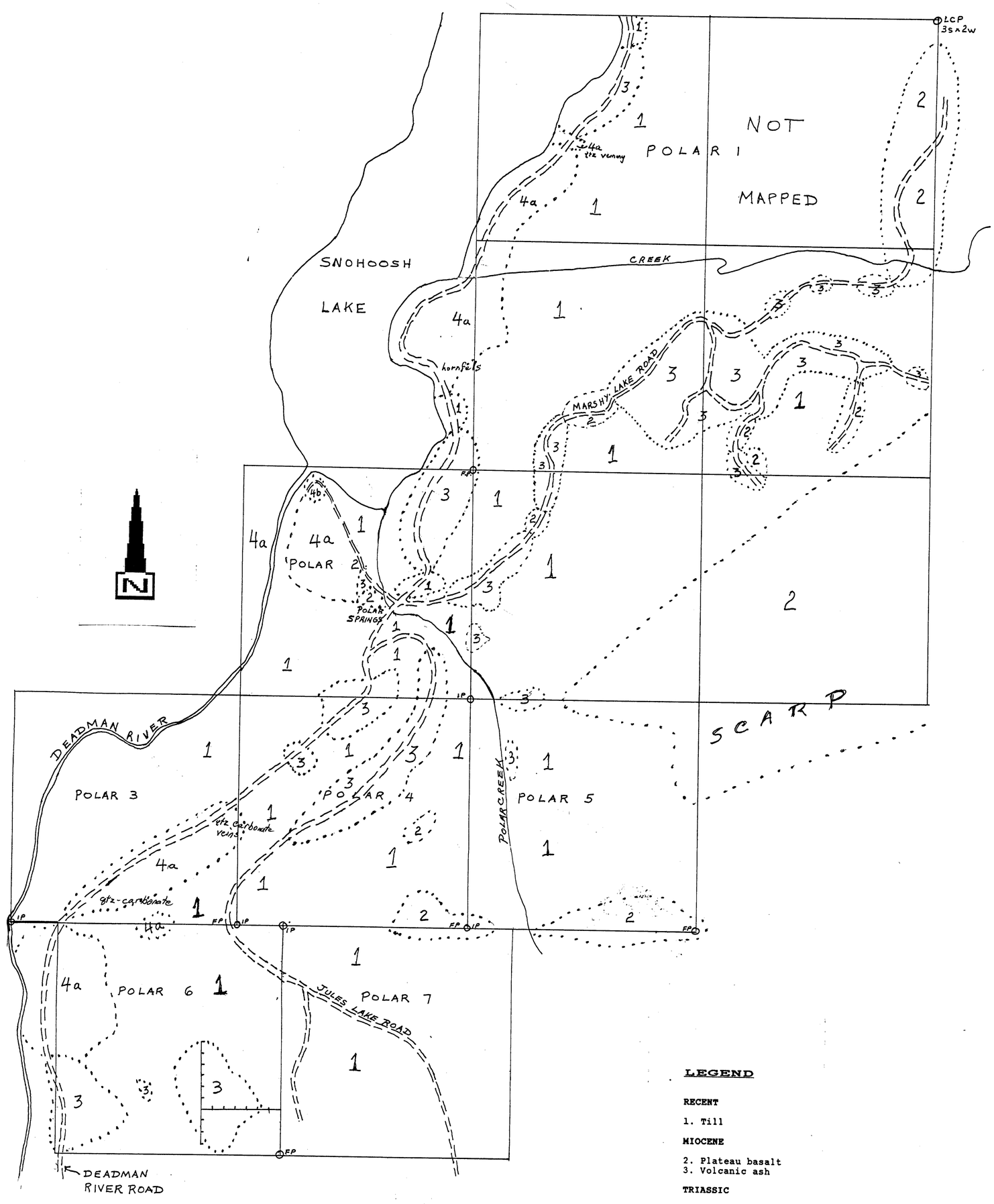
I have been prospecting in the province of British Columbia since 1972 and have been self-employed as a full-time prospector for the past 13 years. During this time, I have studied several geological textbooks as well as government reports and publications describing regional and local geology throughout the province. In addition, I subscribe to ***Economic Geology*** for information regarding mineral deposits worldwide and ***Clays and Clay Minerals*** for current research in clay mineralogy and the utilization of clay minerals.

GEOLOGY MAP

Polar 1–7 Claims

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,546



LEGEND

RECENT

1. Till

MIOCENE

2. Plateau basalt
3. Volcanic ash

TRIASSIC

4. Nicola Formation
   (a) andesite
   (b) argillite

SCALE

0 100 200 300 400 500 METRES

1:5000

FIGURE 3