

PROSPECTING REPORT

on part of the

SNO GROUP

consisting of the

CAVA 1,2; LAST CHANCE 1,2; POLAR 1-7;
SKOOKUM 1 - 12; SNO 5 - 8; SWC 1, 3, 5 - 8; and RIV 2, 3
Mineral Claims

CLINTON MINING DIVISION

British Columbia

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by

FILMED

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Owner and Operator,
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WORK DONE ON: CAVA 1 and 2; Last Chance 1 and 2; SNO 7 and 8

RECORD NO.s: 302758,302759; 302752,302753; 308194,302195

WORK DATES: 28 May, 1993 - 2 June, 1993

LOCATION: 36.5 km. North 03° West of Savona, B.C.
N.T.S. Map 92 P 2 W ✓
Longitude 120° 52' North ✓
Latitude 51° 06.5' West ✓

SUBMITTED: 19 October, 1993

23,053

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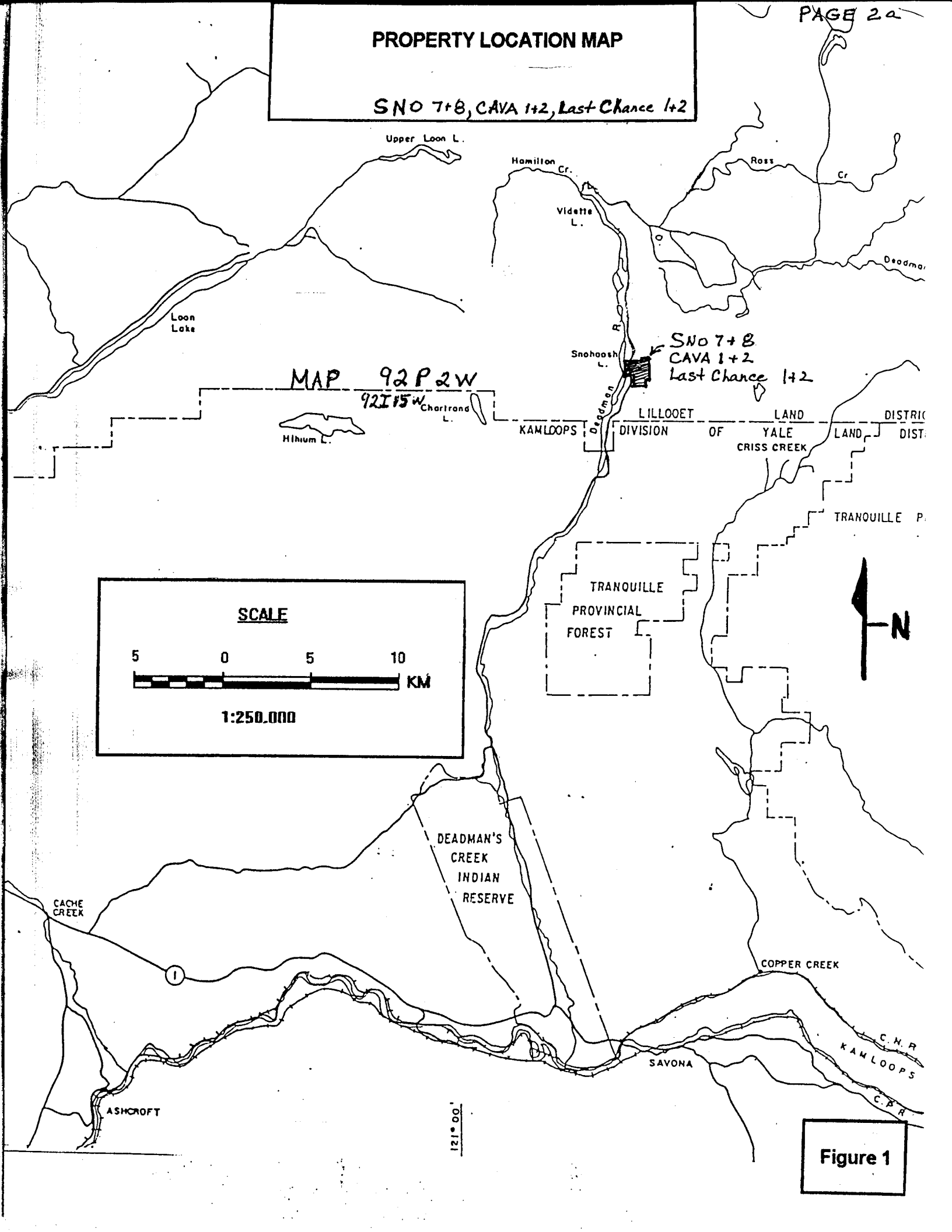
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GEOLOGICAL BRANCH ASSESSMENT REPORT

23,053

PROPERTY LOCATION MAP

SNO 7+8, CAVA 1+2, Last Chance 1+2



MAP 92P2W
92I15W Chartrand

SNO 7+8
CAVA 1+2
Last Chance 1+2

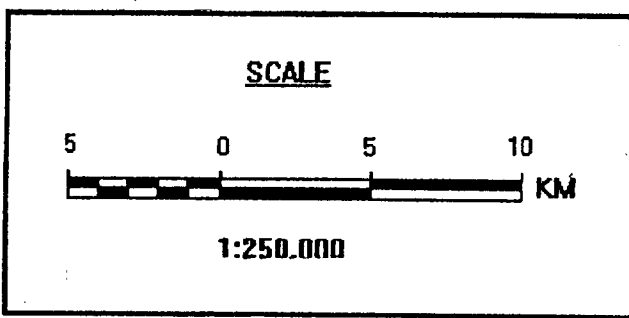


Figure 1

INTRODUCTION

The CAVA 1 and 2, Last Chance 1 and 2 and Sno 7 and 8 2 post claims cover an area underlain in part by silicic volcanic ash of Miocene age. This report outlines observations made while prospecting on the claims during the spring of 1993 as well as the results of testing of volcanic ash samples from the property. A brief description of some of the potential uses of the material is also included.

PROPERTY AND OWNERSHIP

The claims are part of the Sno Group which is owned and operated by the author and consists of a total of 40 claim units. A list of the claims is provided in Appendix A

LOCATION, ACCESS AND TERRAIN

The claims are located near the confluence of Sherwood Creek and Snohoosh Lake on N.T.S. Map 92 P 2W (see Figure 1, Page 3). The area is accessed by travelling north for about 40 kilometres on Deadman - Vidette Road from its junction with Highway 1, about 7 kilometres west of the town of Savona. There are no secondary roads within the property but the claims are easily reached on foot from the Deadman - Vidette Road.

The claims lie within the southern part of the Fraser Plateau between 823 and 1036 metres in elevation. The Last Chance 1 and 2 and Sno 8 claims are well-covered with fir and pine that has never been logged. Timber is sparse on the other three claims and large open areas are common.

Steep slopes lead to the plateaus north and south of Sherwood Creek and east of Snohoosh Lake on the Last Chance 1 and 2 claims. Rolling hills, typical of the Interior Dry Belt, prevail over the remainder of the property.

WORK PROGRAM

Four and one half days were spent prospecting on the the CAVA 1 and 2, Last Chance 1 and 2 and Sno 7 and 8 2 post mineral claims on the dates specified on the Title Page. The purpose of the work program was to outline the extent of the volcanic ash proximal to the large ash deposit exposed on the Unique 1 claim and to search for additional ash showings.

Representative samples of volcanic ash were collected from the showings and crushed, dried and tested at home for their ability to absorb oil and contain odors.

PROPERTY GEOLOGY

Shallow glacial till (unit 1) is fairly prevalent over much of the property. Very fine volcanic ash is a primary component of the till in several locations and some of the areas mapped as till, particularly throughout the CAVA 2 and Sno 7 claims, may represent volcanic ash subcrop.

Flat-lying Miocene plateau lava (unit 2), primarily olivine basalt and vesicular basalt, are prominent at higher elevations on the Last Chance 1 and 2 and Sno 8 claims and form extensive talus on the steepest slopes. These basalts are fine-grained, dark grey-green rocks in fresh exposures and weather to a rusty orange colour.

Miocene volcanic ash (Unit 3) occurs in nearly flat-lying beds beneath the basalts within a group of undeformed lacustrine sediments, mapped as the Deadman River Formation, by Campbell and Tipper, 1971.

The largest exposure of volcanic ash is located north of Sherwood Creek where the ash forms prominent cliffs and hoodoos over a vertical distance of about 100 metres and a minimum width of at least 250 metres from the Deadman - Vidette Road to beyond the eastern boundary of the Sno 7 and 8 claims. The Unique 1 claim, owned by competitors, is almost entirely underlain by volcanic ash.

North of the hoodoos on the Unique 1 claim, the ash can be traced for about 150 metres west of the location line for the CAVA claims. A test pit dug to a depth of 1/2 metre in a till-covered area on the CAVA 2 claim, about 100 metres north of the northeast corner of the Unique 1 claim, encountered volcanic ash in place. This suggests that the deposit may continue to the north and may connect with ash outcrops on the adjoining SWC claims.

Most of the ash beds are soft, poorly consolidated and primarily composed of sandy to pebbly, light grey-brown to buff-colored, medium to coarse-grained lapilli tuffs containing abundant fragments of quartz and feldspar up to 6mm in diameter in a soft and very fine-grained groundmass. Open cavities of various sizes are common.

Well-exposed beds along the hoodoos reveal considerable variation in grain size and composition from one bed to the next but this may be due in part to sorting caused by erosion and/or wave action when the ash beds were submerged. Locally, the finer material has been washed away leaving thin beds consisting primarily of quartz and feldspar fragments. Other beds are composed entirely of very fine-grained silty material which may be partly diatomaceous.

A second area which could have commercial interest was located on the Last Chance 1 claim, south of Sherwood Creek. Volcanic ash outcrops over an area measuring about 300 metres by 175 metres. Ash subcrop proximal to the showings suggests that the area underlain by the volcanic ash could be considerably larger.

Unit 3 consists of green to dark grey andesite of the Triassic Nicola Formation. It outcrops along the Deadman - Vidette Road south of the junction with Sherwood Creek for a distance of about 100 metres. A second small outcrop of andesite, altered to hornfels, was observed along the southern boundary of the CAVA 1 claim about 100 metres east of Snohoosh Lake.

Medium-grained quartz monzonite (unit 4) is well-exposed along the eastern shore of Snohoosh Lake throughout the entire length of the CAVA 1 claim. Along the northern boundary of the claim it outcrops extensively from the lakeshore to about 50 metres east of the Deadman - Vidette Road. The rock contains less than 5% mafic minerals and locally contains abundant pink potash feldspar. This rock has intruded the Nicola Formation resulting in large areas of skarn and hornfels south of the CAVA 1 claim and on the west side of Snohoosh Lake.

TEST RESULTS

Twenty samples of volcanic ash were collected from outcrop and crushed and screened to - 100 mesh using a Spincraft chainsaw impact crusher. The samples were representative of the various types of ash which occur on the claims. The following simple experiments were conducted to test the capacity of the samples to absorb and sink oil on water and to eliminate a variety of odors:

(1) Experiment 1

Saturate a sample of the ash with an odiferous substance, pat it dry with a tissue and place it inside a small glass screwtop jar. Screw down the lid and let sit for ten minutes.

Remove the lid, set aside the contaminated sample and smell the jar. The odor will be very strong. Quickly add a tablespoon of powdered ash, screw the lid back on and shake up and down for 30 seconds or just let it sit for a minute. Then remove the lid and smell again to determine if the odor has been eliminated by the ash.

All of the samples were tested and found to be effective in eliminating odors caused by ammonia, onions and garlic.

(2) Experiment 2

Fill a straight-sided glass or beaker to within an inch of the top with either sea water or tap water and then add crude oil to the water until a thin layer of oil covers the surface. Add powdered ash in sufficient quantity to completely cover the entire surface. The oil and ash combined must be dense enough to have a specific gravity greater than the water so that it will sink. The mass of oil and ash will unite without mechanical mixing and gradually sink in gobs to the bottom of the container.

Enough water should now be extracted with an eyedropper so that the rim of oil that has adhered to the sides of the container can be wiped clean. The remaining water will be somewhat cloudy for a few hours and then gradually clear up. The ash and oil mixture will not separate even after prolonged and vigorous shaking and stirring.

All of the samples were shown to be efficient in absorbing and sinking the crude oil.

CONCLUSIONS

The volcanic ash deposits located on the claims probably contain several million tonnes of ash and could be readily 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.

Simple experiments show that powdered ash will unite with oil on fresh water or sea water and the mixture will sink and will not separate, even in turbulent water. In time, indigenous microbes will break down the hydrocarbons.

In theory, the use of volcanic ash could be combined with bioremediation techniques. Cultures of oil-digesting micro-organisms and their nutrient fertilizers such as nitrogen and phosphorous could be mixed with volcanic ash and then broadcast onto an oceanic oil slick in either powder or slurry form. The hydrocarbons and ash will unite without any mechanical mixing required and sink in large gobs to the sea floor. The added microbes will soon break down the mixture of oil and ash to form non-toxic sediments capable of supporting new aquatic life.

Similarly, an ash-microbe slurry could be applied to an oil-contaminated shore at low tide. Surface oil will be absorbed by the mixture and will be flushed by the next high tide and sink to the sea floor to biodegrade.

Research could 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 and sampling claims 4 1/2 days at \$250.00 per day	\$1125.00
4x4 Truck 4 1/2 days at \$50.00 per day	225.00
Gasoline	50.00
Supplies Topofil, flagging etc.	
Analytical Fees	
Report preparation	<u>200.00</u>
TOTAL COSTS	\$1600.00

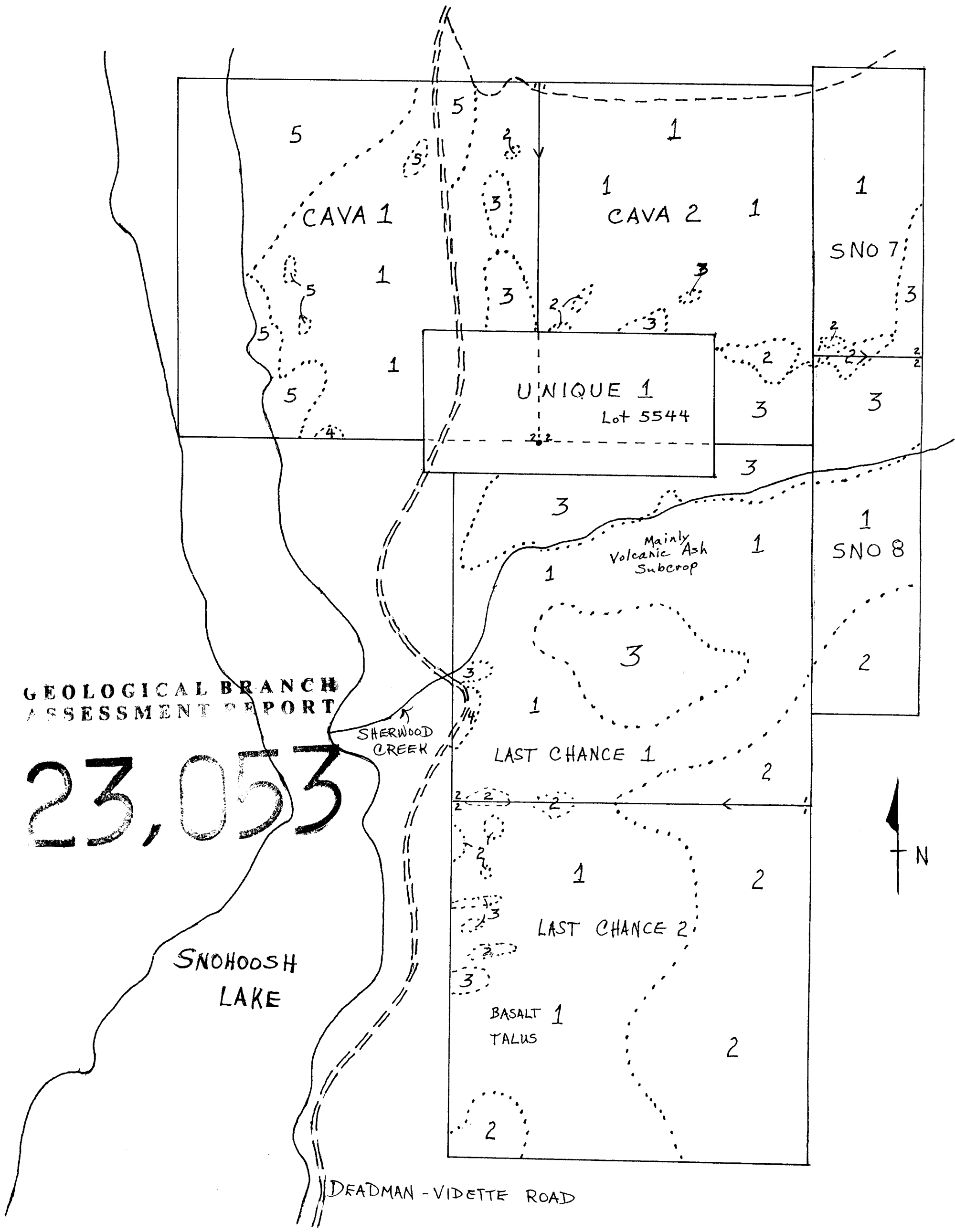
STATEMENT OF QUALIFICATIONS

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 14 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.

APPENDIX A - CLAIMS LIST SNO GROUP

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>UNITS</u>	<u>CLAIM TYPE</u>	<u>EXPIRY DATE</u>
Riv 2	209340	1	2 Post	25 Feb.,1994
Riv 3	209341	1	2 Post	25 Feb.,1994
Skookum 1	209262	1	2 Post	22 Dec.,1993
Skookum 2	209263	1	2 Post	22 Dec.,1993
Skookum 3	209264	1	2 Post	22 Dec.,1993
Skookum 4	209265	1	2 Post	22 Dec.,1993
Skookum 5	209266	1	2 Post	22 Dec.,1993
Skookum 6	209267	1	2 Post	22 Dec.,1993
Skookum 7	209268	1	2 Post	22 Dec.,1993
Skookum 8	209269	1	2 Post	22 Dec.,1993
Skookum 9	209270	1	2 Post	22 Dec.,1993
Skookum 10	209271	1	2 Post	22 Dec.,1993
Skookum 11	209272	1	2 Post	22 Dec.,1993
Skookum 12	209273	1	2 Post	22 Dec.,1993
SWC 1	209274	1	2 Post	23 Dec.,1993
SWC 3	209275	1	2 Post	23 Dec.,1993
SWC 5	302754	1	2 Post	21 July,1994
SWC 6	302755	1	2 Post	21 July,1994
SWC 7	302756	1	2 Post	21 July,1994
SWC 8	302757	1	2 Post	21 July,1994
SNO 5	208982	1	2 Post	16 Mar.,1994
SNO 6	208983	1	2 Post	16 Mar.,1994
SNO 7	308194	1	2 Post	17 Mar.,1994
SNO 8	308195	1	2 Post	17 Mar.,1994
CAVA 1	302758	1	2 Post	21 July,1994
CAVA 2	302759	1	2 Post	21 July,1994
Last Chance 1	302752	1	2 Post	21 July,1994
Last Chance 2	302753	1	2 Post	21 July,1994
Polar 1	302777	6	4 Post	21 July,1994
Polar 2	302748	1	2 Post	21 July,1994
Polar 3	302749	1	2 Post	21 July,1994
Polar 4	302750	1	2 Post	21 July,1994
Polar 5	302751	1	2 Post	21 July,1994
Polar 6	311212	1	2 Post	15 July,1994
Polar 7	311213	1	2 Post	15 July,1994

GEOLOGY MAP



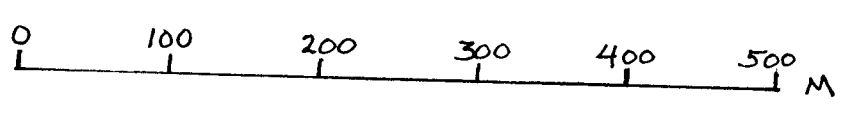
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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**SNOHOOSH
LAKE**

**SHERWOOD
CREEK**

DEADMAN-VIDETTE ROAD



SCALE 1:5000

LEGEND	
Recent	Triassic
1. Till	4. Nicola Formation - mainly andesite
Miocene	Jurassic or Later
2. Plateau Basalt	5. Intrusive Rocks - mainly quartz monzonite
3. Volcanic Ash	

FIG. 3