

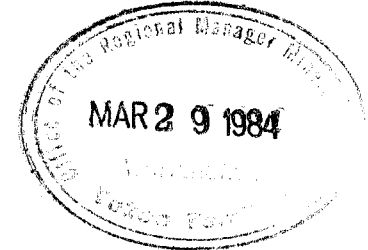
ARCHER, CATHRO

& ASSOCIATES (1981) LIMITED

CONSULTING GEOLOGICAL ENGINEERS1016-510 WEST HASTINGS STREET
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Report on Trenching
Horseshoe Claims, Livingstone Creek
Claim Map 105E/8, Whitehorse M.D., Y.T.

Introduction

Trenching was performed between August 15-31, 1983 on the Horseshoe claim (YA 48274) by Archer, Cathro & Associates (1981) Limited and Al Serafinchon, owners. The trenching utilized a Caterpillar D6 bulldozer and a Case backhoe. It was directed towards excavation of a caved adit located on the claim.

History

The early history of the adit is unknown, in spite of careful research, as early lode claim records in this district have been lost and the adit was not mentioned in early accounts of the Livingstone Creek placer camp prepared by the Geological Survey of Canada in 1901 (McConnell), 1907 (Cairnes) and 1931 (Bostock). Circumstantial evidence collected from placer miners in the camp, particularly Serafinchon, suggests that the adit was driven soon after the original placer mining was performed on Livingstone Creek in 1899-1900. Samples submitted for assay in 1901 by J.E. Peters, the principal pioneer miner on the creek, and in 1953 by Louie Engle, a placer miner who worked on Livingstone Creek with Clem Eminger from 1928 to 1974, have a close resemblance to assays obtained from the ore dump at the adit in 1983. This suggests that the placer miners were either aware of the adit or had recovered similar float in their sluice boxes.

The condition of the adit in 1983 indicated it was quite old. Trees at least forty years old grow on or through the dump and moss, lichen and shrubs are well developed on its surface. No cabin or artifacts are present that would assist in dating the adit but old stumps and mature trees around the site suggest an age of at least sixty years or more.

The earliest claim records found date from October 1944, when John Stenbraten recorded the St. Paul claim (4464). An old post found near the adit contains Stenbraten's name and the inscription Paystreak claim, July 3, 1943. P. Sharpe recorded the Kasseka claim (19253) in this general vicinity in 1938. The first modern staking occurred in July, 1971, when the adit was restaked as the Float claim (Y 61041) by Ace Parker, acting on information obtained from Engle. It was restaked as the Gold claim (YA 4630) in June, 1976 by Parker's associate, Gerry McCully, and again in October, 1979 as the Horseshoe claim (YA 48274) by Gary Elliott and Al Serafinchon. They performed a small program of road construction and bulldozer trenching in 1980. Archer, Cathro & Associates (1981) Limited purchased Elliott's interest in 1983 and added 24 Summer, Spring and Liv claims.

Mineralization

The portal of the old adit had caved by the time it was restaked in the 1970's. It was of interest because of a pile of mineralized vein quartz piled on the surface of the adit dump. As shown in the assays listed below, the quartz vein material contains significant gold and silver values:

<u>Sample Number</u>	<u>Assay Lab</u>	<u>Date</u>	<u>Sampler</u>	<u>Au (oz/t)</u>	<u>Ag (oz/t)</u>	<u>Pb (%)</u>	<u>Zn (%)</u>	<u>Cu (%)</u>
2980	Chemex	Sept/83	Cathro	0.06	1.04	---	---	---
2981	Chemex	Sept/83	Cathro	0.03	0.64	---	---	---
2982	Chemex	Sept/83	Cathro	0.07	1.14	---	---	---
2983	Chemex	Sept/83	Cathro	0.08	2.12	---	---	---
1799	Chemex	July/83	Cathro	1.37	4.89	1.38	0.01	0.03
1800	Chemex	July/83	Cathro	1.58	16.60	9.90	<0.01	0.18
1801	Chemex	July/83	Cathro	0.74	10.22	5.03	0.01	0.04
1	Eldridge	Sept/53	Engle	1.36	35.80	14.80	---	---
5530	Mines Branch	Jan/54	Engle	1.52	25.17	12.57	---	---
2	Bogardus (Seattle)	Dec/01	Peters	1.21	10.20	2.00	---	---
3	Bogardus (Seattle)	Dec/01	Peters	1.29	---	---	---	2.13

Samples 2980 - 2983 are representative 25 kg samples of the quartz mineralization. Sample 1799 comprised several specimens of leached and oxidized limonitic boxwork within the quartz veins. Sample 1800 consisted of several specimens of limonitic, oxidized fault breccia in quartz. Sample 1801 was a 5 kg sample of selected mineralized specimens. Nothing is known about the nature or location of the Engle or Peters samples.

The mineralization on the dump consists of patchy bands of fine-grained sulphides within milky white, massive bull quartz. The bands are generally less than 2 cm wide and irregular in outline. They are often surrounded by disseminated, isolated, small patches and individual grains of sulphides. The principal minerals present are galena and sphalerite. Pyrite is rare although limonitic boxwork suggests that some has been removed by surface

oxidation. No visible gold or sulphosalts have been recognized but mineral identification of the fine-grained material is impossible without microscopy. The dimensions of the largest blocks of quartz on the adit dump indicate that they came from a vein at least 0.6 m wide.

Trenching

The 1983 program was performed in an effort to gain entry to the adit through the caved portal. Crude measurement of the volume of material on the dump indicated that it represented approximately 30 to 50 m of adit, while the absence of a large slump at surface suggested that the caved area was small. The 1980 trenching consisted only of a road cut through the old portal that only removed about 4 or 5 m of cave.

The results of the 1983 trenching are shown on the attached plan. The former adit was found to be only about 15 m long and completely filled with frozen, caved wallrock and overburden. Excavation located the base of rotted posts and cribbing along the lower outside walls, which revealed the position of the original floor elevation. The soft and frost-shattered nature of the wallrocks produced unstable ground conditions that necessitated far more stripping and excavation than anticipated.

Results of this work were disappointing because no mineralized vein was found in the adit. A strong fault that cuts diagonally across the face of the adit presumably terminated the mineralized quartz vein. This fault separates micaceous quartzite to the west from talc schist to the east and is unmineralized. Only a few fragments of mineralized quartz were found in the cave and in the wallrocks, which suggests that the vein was completely mined to the bedrock surface. The enlarged size of the adit dump may have

resulted from that work or because a large quantity of overburden was removed before the adit was collared. Four discontinuous and narrow quartz veins were uncovered during the 1983 stripping around the adit, but these contained only traces of galena-sphalerite mineralization. Five grab samples of typical vein material were sampled, as shown on the plan. The assays for these samples are shown below:

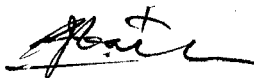
<u>Sample No.</u>	<u>Gold (oz/ton)</u>	<u>Silver (oz/ton)</u>
2976	0.006	0.05
2977	0.022	0.14
2978	< 0.003	0.01
2979	< 0.003	0.02
2984	< 0.003	0.03

Recommendations

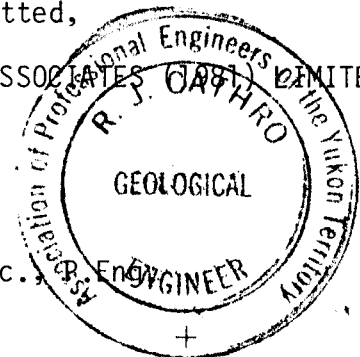
Sampling and trenching are warranted to explore the Horseshoe adit vein downhill to the south and to located the offset to the north, beyond the fault mapped in the face of the adit.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LIMITED



R.J. Cathro, B.A.Sc.



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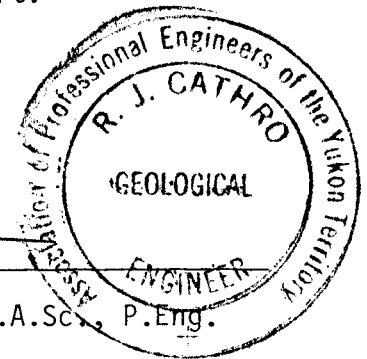
STATEMENT OF QUALIFICATIONS

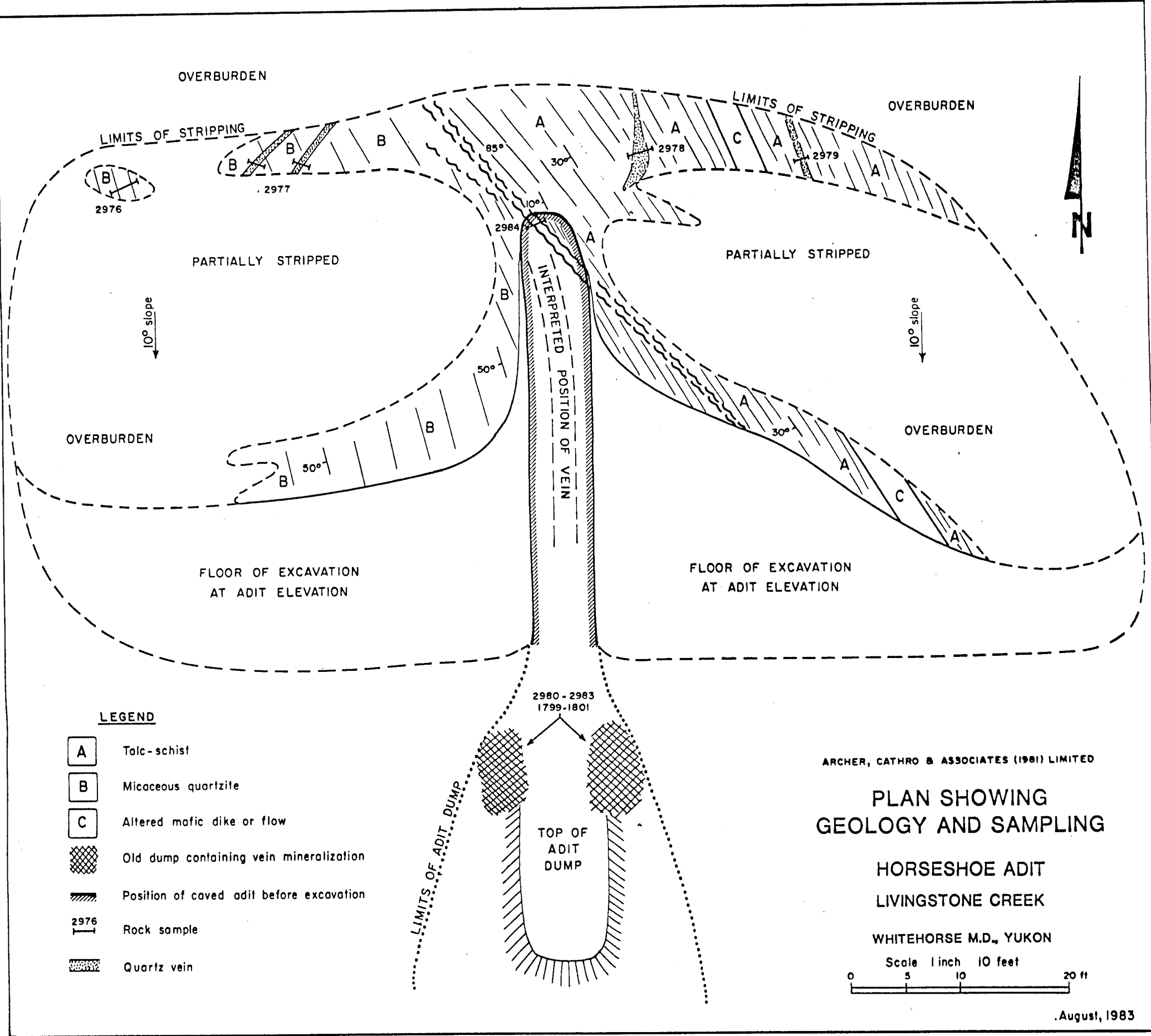
I, Robert J. Cathro, with business addresses in Whitehorse, Yukon Territory and Vancouver, British Columbia, and residential address in West Vancouver, British Columbia, do hereby declare:

1. I am a 1959 graduate of the University of British Columbia in geological engineering.
2. I have been engaged in geological engineering for over twenty years, the past seventeen of which have been as a consultant.
3. I am a registered professional engineer in British Columbia and in Yukon Territory.
4. I have supervised the work described in this report.



Robert J. Cathro, B.A.Sc., P.Eng.





LEGEND

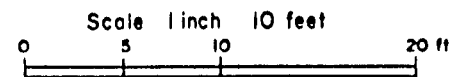
- A** Talc-schist
- B** Micaceous quartzite
- C** Altered mafic dike or flow
- Old dump containing vein mineralization
- Position of caved adit before excavation
- Rock sample
- Quartz vein

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**PLAN SHOWING
GEOLOGY AND SAMPLING**

**HORSESHOE ADIT
LIVINGSTONE CREEK**

WHITEHORSE M.D., YUKON



.August, 1983