

'80 - #1018 - #8711

GEOLOGICAL INVESTIGATION
OF MOUNT THOEN CLAIM GROUP
OK-I, OK-II, OK-III AND OK-IV
MINERAL CLAIMS
OMINECA MINING DIVISION
SMITHERS, B.C.
NTS 93M 6E & 7W

PREPARED FOR
SHORT STAUN MINERALS CORPORATION

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SEPTEMBER, 1980

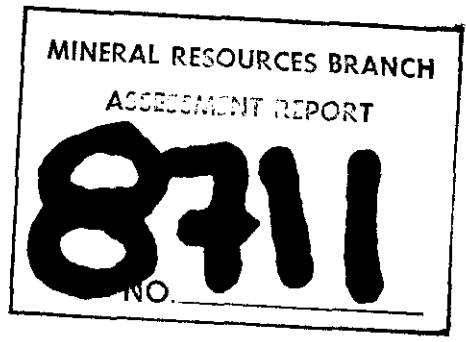


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ABSTRACT

The Mount Thoen claim group consists of four 'OK' Mineral Claims and is owned by Short Staun Minerals Corporation. Underlying rocks are Upper Jurassic to Lower Cretaceous age, of the Hazelton Group. Deposits of disseminated chalcopyrite and fissure fillings containing (1) chalcopyrite and (2) silver bearing galena and sphalerite are related genetically to the intrusion of an Early Tertiary(?) age granodiorite stock.

Mineral deposits of economic interest are located on the OK-II and possibly OK-III claims which require further exploration to assess their respective potentials. Detailed mapping and geochemical soil sampling are recommended with follow up drilling on the Original Silver showing, if warranted.



INTRODUCTION

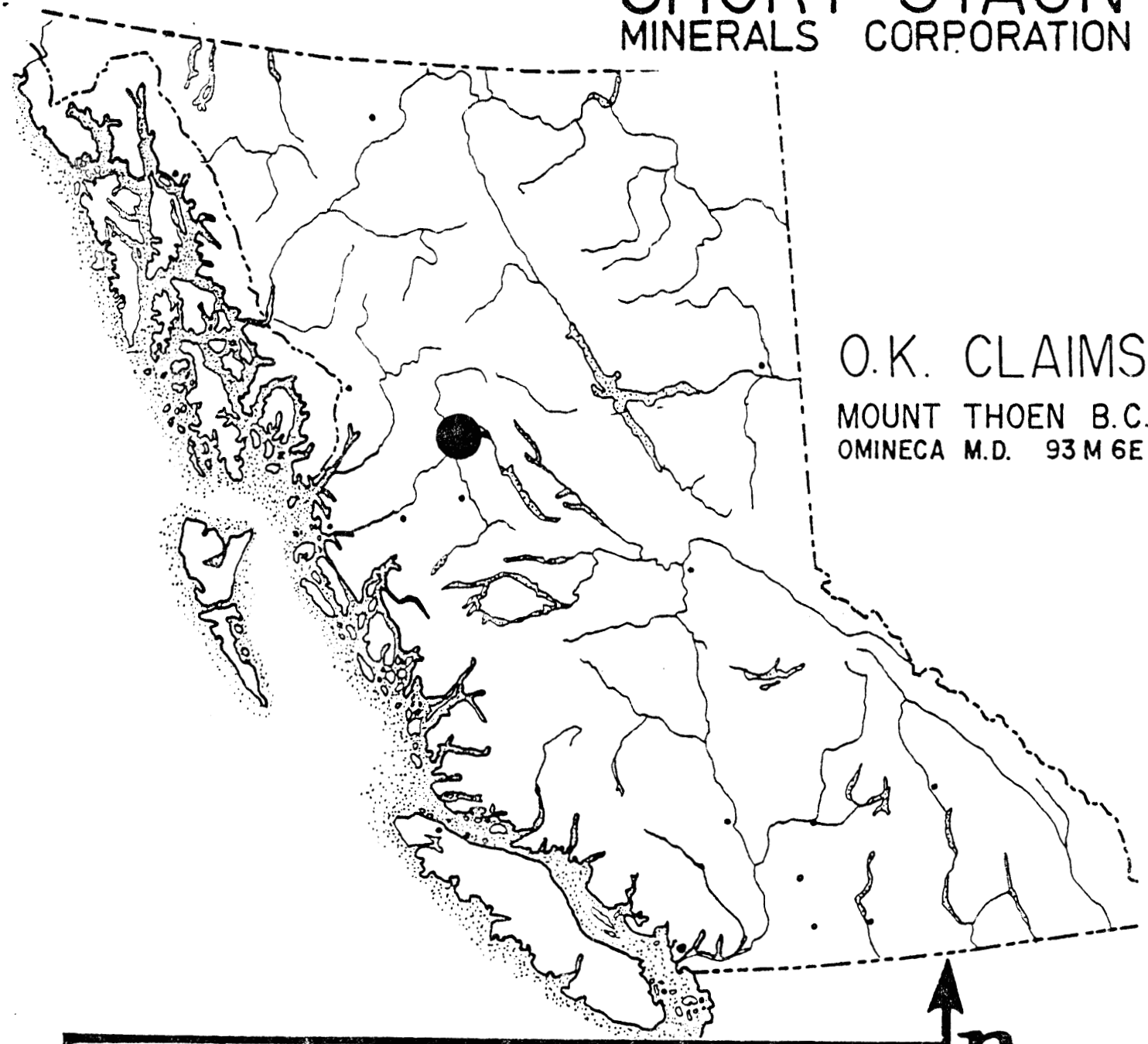
During August, 1980, a three man work party carried out a program of regional geological mapping and prospecting on the four claim areas. The object of the investigation was a rapid assessment to determine if potential exists for an economic orebody, and to recommend further evaluation if warranted.

The Mount Thoen claim block consists of the following four mineral claims: OK-I (2436[1]), OK-II (2437[1]), OK-III (2438[1]) and OK-IV (2439[1]). These are located on Mount Thoen approximately 40 air miles north of Smithers in the Omineca Mining Division (see location map, Fig.1).

Old workings pre-dating 1929 in part, are located in both OK-II and OK-III claims. More recent development has occurred, specifically in OK-II where ore has been mined and bagged (150 lbs/bag) and piled at the adit portal.



SHORT STAUN MINERALS CORPORATION



O.K. CLAIMS
MOUNT THOEN B.C.
OMINECA M.D. 93 M 6E

**Location
map**

Figure 1:

CLAIM STATUS

The claim boundaries of the four 'OK' claims are plotted on Figure 2. Due to topographical conditions only the legal corner posts were fixed as detailed in Figure 2. The legal corner post for OK-IV claim could not be located during field investigation.

The OK-I claim is located in the Copper Basin, due south of the Hot claims. Portions in the north west corner were not acquired, these overlapping the Hot claim group (in good standing).

The OK-II claim is situated east of Mount Thoen, containing the ridge dividing Thoen/Bergsten Basins and a portion of the Bergsten Basin.

The OK-III claim is situated due south of OK-II in Thoen Basin.

An error on the claim maps at the time of staking was not corrected by the B.C. Department of Mines until after the OK-IV claim had been staked and recorded. As a result, approximately half of the area staked was excluded from the claim. The remainder of the claim is located in the Thoen Basin.





Figure 2:

CLAIM MAP

0 500 1000
m.

**SHORT STAUN
MINERALS CORPORATION**

**O.K. CLAIMS
MOUNT THORN B.C.
OMINECA M.D. 93 M 6E**


GENERAL GEOLOGY

B.C. Department of Mines and Petroleum Resources
Map 69-1 shows the area to contain a large stock of granitic textured granodiorite that has intruded sediments of the Hazelton Group.

The sediments consist of well-bedded tuffaceous sandstone, argillite, greywacke and minor conglomerate of probable Upper Jurassic to Lower Cretaceous age. These have been altered to hornfels, slates and quartzitic rocks outward from the contact of the granodiorite stock. Pyrite alteration has imparted a reddish-brown staining to these altered sediments in proximity to the igneous contacts. Partially digested xenoliths are common along the margins of the contact (specifically OK-I), which have been altered to a fine- to medium-grained homogenous hornblende-feldspar rock.

The granodiorite exposed on the property represents the eastern continuity of the Mount Thoen granodiorite-quartz monzonite stock, which is 6 miles long and 2 miles wide. This intrusive rock is composed of quartz, hornblende, biotite and andesine feldspar; is massive, well-jointed, equigranular and from grey-white to green-white in colour.


Porphyritic feldspar diorite and aplite dykes of younger age cut the granodiorite and sediments. These strike generally NE and dip W, reflecting the dominant



jointing direction.

The porphyritic diorite dykes and small stocks consist of a grey to black fine-grained ground mass, containing mainly phenocrysts of plagioclase and biotite, hornblende and minor quartz. Minor finely disseminated pyrite was present at one locality.

Fine-grained buff coloured aplite occurs as dykes (3 to 6 feet wide) mainly in the hornfels. The rock is leucose containing minor amounts of biotite and muscovite as the only mafics.



MINERALIZATION AND ALTERATION

Mineral deposits within the claim block consist of: (1) widespread disseminated pyrite and chalcopyrite (locally with arsenopyrite), and (2) vein fissure-fillings containing lead, silver and zinc. To avoid confusion, mineralization will be discussed separately for each of the claims.

(A) OK-I

Within this claim no visible economic minerals were observed. Sampling was confined to pyrite-mineralized jointing shears varying from several inches wide to one 3 foot wide shear, occurring mainly in the granodiorite. The attitude of these shears varies from N50°E, dipping 90°S to N84°E, dipping 69°S.

At an elevation of 5600 feet and west of Mount Thoen peak there is reportedly (Ann.Repts., Minister of Mines, B.C.; 1929, p.161) a dyke mineralized across a width of 5 feet, with a width of 2 feet which is well mineralized. This 2 foot section assayed: gold, 0.05 oz./ton; silver, 1.4 oz./ton; and copper, 7.1%. The aforementioned dyke was not observed during the reconnaissance, although the reported location should be within the claim boundary. Coverage was adequate to have observed the dyke if it were exposed.

Alteration was restricted to contact zones of the



intrusive/sedimentary rocks. Here the sediments have been altered to hornfels, massive grey to greenish coloured quartzose rocks and slates. The granodiorite as a whole remains homogeneous and unaltered throughout the claim area, in places becoming finer-grained towards contacts.

(B) OK-II

Widespread mineralization of both types is present within the OK-II claim area.

(a) The original OK-Silver property is located at an elevation of 6000 feet just north of the OK-II, OK-III east-west claim line. The old workings consist of several open-cuts and a 40 foot adit. The veins on the surface are badly leached out, containing only iron oxides. Sample T-14-1 was therefore, a grab sample taken from ore piled (10-15 tons approximatley) at the adit portal. The showing consists of small stringers mineralized with galena and zinc-blende which seem to follow bedding planes in the sediments (N40°E/13°W). A stringer outcrops above the adit, but is not intersected underground (G.S.C. Rev. Ed. Memoir 223). This stringer about 10 inches wide in places shows from 4 to 6 inches of solid galena. This galena assayed: gold, 0.02 oz./ton; silver 190 oz./ton; lead, 70%.

(b) A shear zone 4 feet in width mineralized over a width of 1.5 feet is exposed by old trenching at an elevation of 5450 feet in Bergsten Basin. The shear strikes N18°E and



and dips 52°N , and contains galena, zinc-blende, arsenopyrite, massive pyrite and quartz. The vein was chip sampled over a 2 foot width (T-13-4) in the only one of the old trenches which was not filled with slumped soil and talus. A strike length of the shear could not be determined.

(c) To the west (5550 feet elevation) in quartzites, exposed in an open cut is another vein striking $\text{N}42^{\circ}\text{E}$, dipping 87°SE . This is mineralized over a width of 1 foot containing massive pyrite, zinc -blende and quartz (sample T-13-5). The mineralization is confined to a jointing shear which extends for 20 feet and appears to pinch out.

(d) A shear zone ($\text{S}27^{\circ}\text{W}$ [mag], dip NW) 6 feet in width showing a width of 1 foot of mixed galena, zinc-blende, arsenopyrite and pyrite is reported (Ann. Repts., Minister of Mines, B.C.; 1921) to lie in the center of the Bergsten Basin at elevation 5060 feet. This vein was not observed.

(e) Samples T-13-1 and T-13-2 are both taken from narrow shear/fracture zones (3-4 inches wide) located in altered sediments (see sample location map) containing chalcopryrite and pyrite.

(f) Sample T-13-3, taken from the same general area was however, located in an altered garnodiorite dyke (potassic alteration). The dyke strikes $\text{N}12^{\circ}\text{E}$, dips 31°W and is



mineralized over a width of 2 feet, but the mineralization/alteration pinches out 10 feet along the strike (porphyritic-type disseminated copper mineralization).

(g) Sample T-18-1 is located west of the pass between Thoen and Bergsten Basin at an elevation of 6300 feet. A shear zone (N53°W/32°S) containing traces of chalcopryrite, sphalerite and galena over a width of 1.5 feet in granodiorite was sampled. A reported assay (Ann. Repts. Minister of Mines, B.C.: 1921) from this mineralized granodiorite tongue gave: gold, 0.30 oz./ton; silver, 11.0 oz./ton; copper, 2.1%.

(h) A narrow shear mineralized with minor chalcopryrite was sampled (T-17-1) along the contact of a granodiorite dyke and altered sediments.

(i) Mineralized float located east of a porphyritic diorite dyke at an elevation of 6200 feet, north of the claim block was sampled (T-19-1). Several pieces of float contained siderite gangue, mineralized with sphalerite and traces of galena.

(j) Disseminated chalcopryrite and arsenopryrite located in a fine-grained black dyke(?)/hornfels(?) striking N08°E dipping 53°W was sampled (T-19-2). This mineralized zone (located southeast of campsite 1) is approximately 1 foot wide terminating to the south, with the northern extension covered by drift.

(k) A narrow (2 1/2 - 3 inches wide) heavily mineralized



jointing fracture, containing chalcopyrite, galena and sphalerite constituted sample T-19-3. This fracture-filling strikes $N46^{\circ}W$, dips $53^{\circ}NW$, but extends no distance along strike.


(1) Sample T-20-1 is mineralized float located up-slope from the above mentioned mineralization (T-19-2, -3).

(C) OK-III

The majority of this claim is covered in talus and/or overburden. Minor chalcopyrite/pyrite mineralization is present in outcrop, in narrow fractures within the northeastern area. The mineralization, however, was both too minor and too erratic to warrant sampling (at this time) until more information can be gathered from the remainder of the area.

(D) OK-IV

Mineralization on the True Fissure Group is reported to occur on the steep walls of the basin between elevations of 5000 feet and 6000 feet. The main ore deposit as described by E.D. Kindle in the G.S.C. (Rev. Ed.) Memoir 223, could not be located in the claim area. This is believed to be contained in the area to the east on the Thoen group of claims. Along the western border of the claim line, several narrow shear zones were located and one sampled (T-25-1). The 1 foot wide shear ($N55^{\circ}E/66^{\circ}S$) was badly leached, friable and gossan stained.



DISCUSSION

The assay certificates are located in Appendix A. Only the sample numbers prefixed with the letter 'T' pertain to the 'OK' claims.

OK-I

The assay values for all seven samples (T-21-1, T-22-1, T-22-2 and T-24-1 to 4 inclusive) are too low to warrant discussion or further interest.

OK-II

(a) The original OK Silver workings are the most interesting of the mineral occurrences for development of a potential high-grade vein-type orebody. The adit has been driven for 40 feet. Approximately 15³ yards of mineralized vein material are piled at the portal. Dimensions of the adit are approximately 7 feet high x 5 feet wide x 40 feet in length for a volume of approximately 52 cubic yards. Assuming no transportation of mineralization from the site, ratio of vein to waste is in the order of 1:3.5. On-site inspection revealed an industrial weigh-scale, possibly indicating (horse-back) transportation of high-grade ore, which would further enhance the vein to waste ratio.

The grab sample assayed: silver, 19.44 oz./ton; lead, 6.17%; and zinc, 11.1%. These values are believed representative of the ore lying at the portal.



(b) and (c) Both of these veins contain values of silver, with (c) [sample T-13-5] assaying: silver, 167.6 oz./ton; lead, 11.2%; and zinc, 9.2%. At this time, the zone is restricted to a strike length of only 20 feet, although with vertical continuity and possibly extension, this grade would make a promising high-grade ore.

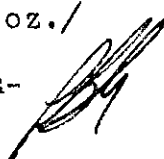
(e) and (f) Copper as chalcopyrite is present filling fractures in minor amounts as indicated by T-13-1 (1.86% Cu) and T-13-2 (1.07% Cu) assay results. In sample T-13-3, the altered intrusive assayed: gold, 0.014 oz./ton; molybdenum, 0.001%; and copper, 5.32%. Ample copper is present but the necessary tonnage is lacking, unless this zone represents a finger from a larger and/or more interesting center of alteration and mineralization at depth.

(g) The values for this altered granodiorite are appreciably lower than those given by the B.C.M.M. (1921). T-18-1 assayed: gold, 0.003 oz./ton; silver, 4.7 oz./ton; lead, 0.38%; zinc, 0.05%; molybdenum, 0.001%; and copper, 0.70%.

(h) Both gold and molybdenum assayed negligible, while copper assayed: 2.88% for sample T-17-1. The copper mineralization consisted of small discontinuous pods of chalcopyrite which do not constitute an economic body.

(i) Sample T-19-1 assayed: silver, 34.74 oz./ton; lead, 0.36%; and zinc, 0.82%. Although only float, the silver values indicate an area requiring investigation.

(j), (k) and (l) Sample T-19-3 assayed: silver, 47.22 oz./ton; lead, 14.0%; and zinc, 14.4%. These values are mis-



leading, because sampling virtually removed all of the mineralized shear. Sample T-19-2 carried values of silver (4.64 oz./ton) and copper (2.75%) but negligible gold, molybdenum, lead and zinc. Both of these mineralized zones are proximally located and within this area is abundant mineralized float (T-20-1).

OK-III

Disseminated copper mineralization (although not sampled) is present which may warrant further investigation in conjunction with further exploration of other sections of the property.

OK-IV

The valid portion of the OK-IV claim does not appear to contain mineralization or alteration which could be of economic interest. The single sample (T-25-1) assayed: silver, 1.80 oz./ton; lead, 0.14%; and zinc, 0.46%.



RECOMMENDATIONS

OK-I

Since encouraging values were not obtained from sampling and alteration was not observed, no additional work should be planned for the claim. It is advisable however, to file assessment work this year and hold the ground until evaluation of the OK-II and OK-III claims is completed in the event that mineralization may extend into the claim block.

OK-II

The original OK Silver adit (a) should be mapped and sampled. Drilling of the lode zone may be warranted subsequent to the results. A light diamond drill (BBS-1 or equivalent) might be suitable.

Two specific areas [(b,c) and (j,k)] require further work to determine the extent of their respective mineralized zones and shear/fracture patterns.

The area (f) containing porphyritic-type alteration/mineralization should be assessed for tonnage with depth continuity. a factor in mind.

The area (i) from which float was sampled must be prospected with subsequent staking if required.

Detailed mapping of the OK-II claim is required to correlate the various showings and to determine if a concentration of mineralized fractures exists which could be



mined in bulk.

Soil geochemical sampling within the Bergsten Basin should be completed to search for additional mineralization which is reported by the B.C.D.M.

OK-III

Reconnaissance soil geochemical sampling is recommended to explore the overburden-covered sectors of the claim adjacent to (1) the original Silver adit and (2) outcrops which contain scattered disseminations of chalcopyrite.

OK-IV

There appears to be no obvious mineralization on the claim. The claim should be allowed to lapse. Should the Thoen 1-4 claims lapse, the ground should be restaked.



Jan Leger B.S.
Robert S. Goldsmith

COST ESTIMATE

Phase 1

| | | |
|-----------------------------------------|--------------|-----------|
| Geological mapping, sampling, geologist | \$ 15,000 | |
| Geologist's assistant | 8,000 | |
| Assays, allow | 1,000 | |
| Soil geochemical sampling | 10,000 | |
| Geochemical analysis | 5,000 | |
| Helicopter support | 5,000 | |
| Supplies, travel, grub, accommodation | 5,000 | |
| Reporting | 3,000 | |
| Supervision, engineering | 8,000 | |
| Contingencies @ 10% | <u>6,000</u> | |
| Total Phase 1 | \$ 66,000 | \$ 66,000 |

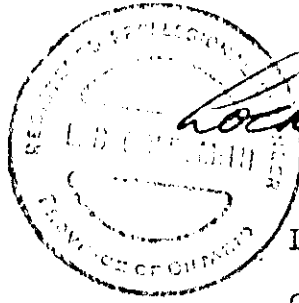
Phase 2

| | | |
|--------------------------------------------|---------------|-----------|
| Diamond drilling, 400 metres @ \$130/metre | \$ 52,000 | |
| Assays | 1,000 | |
| Supervision, engineering | 12,000 | |
| Supplies, accomodation, travel | 5,000 | |
| Contingencies @ 20% | <u>14,000</u> | |
| Total Phase 2 | \$ 84,000 | \$ 84,000 |
| TOTAL | | \$150,000 |

All of which is respectively submitted,


James M. Logan,

Geologist



Locke B. Goldsmith

Locke B. Goldsmith

Locke B. Goldsmith, P. Eng.

Consulting Geologist

George L. Mill

George L. Mill, P. Eng.

Consulting Engineer

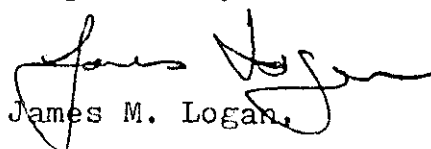
Vancouver, B.C.

September, 30, 1980

GEOLOGIST'S CERTIFICATE

1. I, James M. Logan, have a B. Sc. (Honours) degree from Brock University, St. Catharines, Ontario. My address is #1 - 1133 Harwood St., Vancouver, B.C. V6E 1R9.
2. I have been engaged in mining exploration for the past 5 years.
3. I have co-authored the report entitled "Geological Investigation of Mount Thoen Claim Group, OK-I, OK-II, OK-III and OK-IV Mineral Claims, Omineca Mining Division, Smithers, B.C." dated September 1980. The report is based on research and field work conducted and supervised by the author.
4. I have no ownership in the property, nor do I own shares of Short Staun Minerals Corporation.
5. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully submitted


James M. Logan,

Geologist

Vancouver, B.C.

September, 1980

ENGINEER'S CERTIFICATE

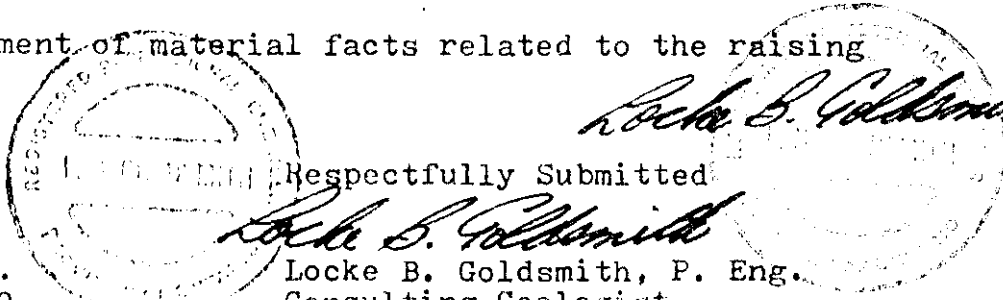
1. I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and a Registered Professional Geologist in the State of Oregon. My address is #301 - 1855 Balsam Street, Vancouver, B.C. V6K 3M3.
2. I have a B.Sc. (Honours) degree in Geology from Michigan Technological University and have done post-graduate study in Geology at Michigan Tech, University of Nevada and the University of British Columbia. I am a graduate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME and the Australasian Institute of Mining and Metallurgy.
3. I have been engaged in mining exploration for the past 21 years.
4. I have co-authored the report entitled "Geological Investigation of Mount Thoen Claim Group, OK-I, OK-II, OK-III and OK-IV Mineral Claims, Omineca Mining Division, Smithers, B.C." dated September 1980. The report is based on research and field work conducted and supervised by the author.
5. I have no ownership in the property, nor do I own shares of Short Staun Minerals Corporation.
6. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

Respectfully Submitted

Locke B. Goldsmith
Locke B. Goldsmith

Locke B. Goldsmith, P. Eng.
Consulting Geologist

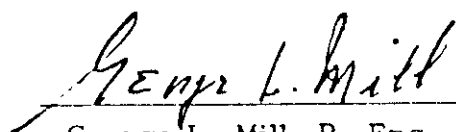
Vancouver, B.C.
September, 1980



CERTIFICATION

I, George L. Mill, hereby certify:

- 1 - That I am a Mining and Metallurgical Engineer residing at 255 - 5936 Willow Street, Vancouver, B.C. V5Z 3S6.
- 2 - That I am a graduate of Queen's University, B.Sc., and a registered member of the Corporation of Professional Engineers of the Province of British Columbia.
- 3 - That I have practised my profession for 49 years.
- 4 - That I have no financial interest, direct or indirect, in the shares of Short Staun Minerals Corporation, in the Mount Thoen Claim Group, in any claims in its immediate vicinity, nor do I expect to obtain any such interest.
- 5 - That, although I have not examined the claim group proper, I am familiar with the general district. Furthermore, I have reviewed all information made available to me by Mr. L.M. Goldsmith, co-author of the subject report, and favor the undertaking of an exploratory program.
- 6 - Taking all known factors into consideration, I have counter signed the enclosed cost estimate with the stipulation that the implementation of the work specified in Phase 2 would depend upon the results reporting in Phase I.


George L. Mill, P. Eng.

To accompany report on the
Mount Thoen Claim Group
Omineca Mining Division
prepared by J.M. Logan
Geologist, Sept./1980.

REFERENCES

- Carter, N.C., and Kirkham, R.V.
1969: Geological Compilation Map of Smithers, Hazelton
and Terrace Areas, B.C.; B.C. Dept. Mines and
Petroleum, Map 69-1
- Kindle, E.D.
1954: Mineral Resources, Hazelton and Smithers Area,
B.C.; Geol. Surv. Can. (Rev. Ed.) Mem. 223,
p.p. 83,84 and 54.
- Minister of Mines, B.C.
1922: Ann. Repts., p.p. 97-100.
- Minister of Mines, B.C.
1929: Ann. Repts., p.p. 159-160.

COST STATEMENT

PERSONNEL

| NAME | POSITION | RATE | DAYS | COST |
|------------|------------------|-------|------|----------|
| J.M. Logan | Field Geologist | \$200 | 16 | \$ 3200. |
| I. Francis | Field Prospector | 120 | 15 | 1800. |
| J.P. Ursel | Assistant | 90 | 16 | 1440. |

CAMP COSTS

36 Man Days @ \$10. per day 360.

ROOM AND BOARD

12 Man Days @ \$25. per day 300.

TRANSPORTATION

Auto 10 Days @ \$10. per day 100.
Travel Pacific Western Airlines 77.75
Okanagan Helicopters _____ Hours @ _____ 1062.36

ASSAYING

11 Rock Samples: analysed for Cu, Mo, Au
\$18.50 per sample 203.50
6 Rock Samples: analysed for Pb, Ag, Zn
\$18.50 per sample 111.00
3 Rock Samples: analysed for Cu, Mo, Pb, Zn, Ag, Au
\$32.50 per sample 97.50

REPORT WRITING

5 Days @ \$200. per day 1000.

DRAFTING

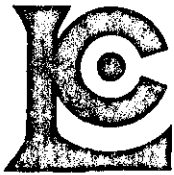
360.

REPORT TYPING

20 Pages @ \$2.00 per page 40.

TOTAL \$ 10152.11

APPENDIX



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Mr. Logan
 Apt. 1 - 1133 Harwood
 VANCOUVER, B.C.

CERTIFICATE NO. 70242
 INVOICE NO. 39356
 RECEIVED Sept. 24/80
 ANALYSED Oct. 3/80

ATTN:

| SAMPLE NO. : | % Cu | % Mo | % Pb | % Zn | Oz/Ton Ag | Oz/Ton Au |
|--------------|------|---------|------|------|-----------|-----------|
| F 4-1 | | | 12.6 | 1.13 | 4.70 | |
| 4-2 | | | 5.87 | 0.52 | 4.87 | |
| 4-3 | | | 5.61 | 1.49 | 2.72 | |
| 2-1 | | | 0.50 | 0.07 | 2.85 | |
| 2-2 | | | 0.25 | 0.89 | 0.22 | |
| 30-1 | | | 0.01 | 0.01 | 0.17 | |
| F 30-2 | | | 0.94 | 5.40 | 9.82 | |
| T 13-4 | | | 1.24 | 9.39 | 8.44 | |
| 13-5 | | | 11.2 | 9.20 | 167.60 | |
| 14-1 | | | 6.17 | 11.1 | 19.44 | |
| 25-1 | | | 0.14 | 0.46 | 1.80 | |
| 19-1 | | | 0.36 | 0.82 | 34.74 | |
| T 19-3 | | | 14.0 | 14.4 | 47.22 | |
| N 3-1 | | | 11.9 | 11.5 | 18.88 | |
| 3-2 | | | 0.08 | 0.04 | 0.26 | |
| 5-1 | | | 0.92 | 3.21 | 1.36 | |
| 5-2 | | | 1.83 | 1.22 | 4.02 | |
| 5-3 | | | 3.80 | 7.16 | 3.73 | |
| 5-4 | | | 5.71 | 26.2 | 14.02 | |
| 5-5 | | | 2.20 | 3.58 | 2.40 | |
| 5-6 | | | 33.8 | 2.22 | 6.68 | |
| 6-1 | | | 0.16 | 0.31 | 0.36 | |
| 6-2 | | | 0.06 | 0.19 | 0.12 | |
| 6-3 | | | 1.60 | 1.56 | 2.26 | |
| 7-1 | | | 1.12 | 12.2 | 13.72 | |
| 7-2 | | | 0.68 | 3.10 | 1.20 | |
| 8-1 | | | 0.21 | 0.29 | 0.20 | |
| 8-2 | | | 0.02 | 0.02 | 0.06 | |
| 8-3 | | | 0.08 | 0.15 | 0.26 | |
| 8-4 | | | 22.1 | 13.5 | 33.10 | |
| 8-5 | | | 20.9 | 12.0 | 24.26 | |
| 9-1 | | | 2.00 | 1.95 | 5.48 | |
| 9-2 | | | 9.79 | 8.68 | 21.96 | |
| 9-3 | | | 7.08 | 15.3 | 17.58 | |
| 9-4 | | | 1.65 | 10.3 | 5.50 | |
| 9-5 | | | 12.0 | 7.56 | 15.06 | |
| 29-1 | | | 0.16 | 0.14 | 0.40 | |
| 29-2 | | | 0.02 | 0.01 | 0.36 | |
| N 26-1 | | | 10.3 | 11.5 | 2.90 | |
| T 13-1 | 1.86 | < 0.001 | | | | 0.046 |



MEMBER
 CANADIAN TESTING
 ASSOCIATION

R. Swartz
 REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: Mr. Logan
 Atp. 1 1133 Harwood
 Vancouver, B.C.

CERTIFICATE NO. 70243
 INVOICE NO. 39356
 RECEIVED Sept. 24/80
 ANALYSED Oct. 3/80

ATTN:

| SAMPLE NO. : | % Cu. | % Mo | % Pb | % Zn | Oz/Ton Ag | Oz/Ton Au |
|--------------|----------|---------|---------|---------|--------------|--------------|
| T 13-2 | 1.07 | < 0.001 | | | | 0.003 |
| 13-3 | 5.32 | < 0.001 | | | | 0.014 |
| 17-1 | 2.88 | < 0.001 | | | | 0.005 |
| 18-1 | 0.70 | < 0.001 | 0.38 | 0.05 | 4.70 | 0.003 |
| 20-1 | 0.06 | < 0.001 | 5.80 | 12.5 | 3.32 | 0.005 |
| 19-2 | 2.75 | < 0.001 | 0.06 | 0.40 | 4.64 | 0.042 |
| 21-1 | 0.16 | < 0.001 | | | | < 0.003 |
| 22-1 | 0.01 | 0.003 | | | | < 0.003 |
| 22-2 | 0.20 | < 0.001 | | | | 0.003 |
| 24-1 | < 0.01 | 0.001 | | | | < 0.003 |
| 24-2 | < 0.01 | < 0.001 | | | | < 0.003 |
| 24-3 | 0.01 | < 0.001 | | | | < 0.003 |
| 24-4 | 0.35 | < 0.001 | | | | < 0.003 |



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 ASSOCIATION

B. Swaiter
 REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

