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PROPERTY FILE 92B/13W

GEOLOGY

MT. SICKER MINES LTD., N.P.L.
VICTORIA MINING DIVISION
BRITISH COLUMBIA

92B-12,13

92 B/13W

GEOLOGY

MT. SICKER MINES LTD. N.P.L.

VICTORIA MINING DIVISION

BRITISH COLUMBIA

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E. PERCY SHEPPARD
PROFESSIONAL ENGINEER

VANCOUVER, B.C.

DECEMBER 22, 1966.

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CONCLUSIONS AND RECOMMENDATIONS

MT. SICKER MINES LTD. N.P.L. HAS A PROPERTY WHICH HAS NOT BEEN ASSESSED AT CURRENT ECONOMIC CONSIDERATIONS. IT APPEARS THAT THERE IS A POSSIBILITY OF LOCATING MORE OF THE HIGH GRADE OREBODIES AS WELL AS LOWER GRADE BUT ECONOMIC OREBODIES IN THE MAIN FRACTURE ZONE.

IT IS RECOMMENDED THAT AN EXPENDITURE OF $140,000 BE MADE TO REPAIR A SMALL PART OF THE SURFACE FACILITIES; TO REHABILITATE SOME OF THE ADITS, DRIFTS, AND CROSSCUTS TO PERMIT MAPPING, SAMPLING AND DIAMOND DRILLING; AND TO COMPLETE THE SURFACE EXPLORATION AND MAPPING TO CORRELATE IT WITH THE UNDERGROUND DATA.

AT THE END OF THIS PROGRAM THE RESULTS SHOULD BE STUDIED TO INDICATE WHAT FURTHER WORK SHOULD BE CARRIED OUT.

* * * * * * * *

THE PRESIDENT AND DIRECTORS,
MT. SICKER MINES LTD., N.P.L.,
P.O. BOX 576,
VICTORIA, B.C.

DEAR SIRS:

ACTING UPON YOUR INSTRUCTIONS, WE HAVE MADE AN EXAMINATION OF YOUR PROPERTY FORMERLY KNOWN AS THE TWIN J ON MOUNT SICKER, VANCOUVER ISLAND.

WE INSPECTED THE ACCESSIBLE UNDERGROUND WORKINGS, THE AVAILABLE PERTINENT MINE DATA, AND STUDIED MANY GEOLOGICAL PROGRESS AND OPERATIONAL REPORTS FROM THE YEAR 1897 TO DATE. THE FOLLOWING REPORT SHOWS OUR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.

PROPERTY

THE MT. SICKER MINES LTD. PROPERTY CONSISTS OF APPROXIMATELY 210 ~~800~~ ACRES LYING ON THE FLANKS OF MOUNT SICKER IN THE VICTORIA MINING DIVISION, BRITISH COLUMBIA (48° 123° N.W.).

THE HOLDINGS ARE MADE UP OF 25 MINERAL CLAIMS AND 26 CROWN GRANTED MINERAL CLAIMS AND FRACTIONAL CLAIMS ADJOINING TO THE SOUTH OF THE GROUP OF MINERAL CLAIMS.

25 MINERAL CLAIMS - CHEMAINUS DISTRICT

RECORD OR LOT NO.

516870 TO 516879	INCLUSIVE	10 CLAIMS
727334 TO 727343	"	10 "
727352 TO 727355	"	4 "
516881		1 "

(NOTE: THESE CLAIMS ARE ENTERED ON THE MINING RECORDER'S MAP AS C.F. GROUP NOS. 14150 TO 14174 INCLUSIVE).

26 Crown Granted Mineral Claims and Fractions

Lot No.	Name	Lot No.	Name
35 G	Lenora*	43 G	N T Fraction*
36 G	Tyee*	39 G	Richard III*
37 G	Key City*	41 G	Magic Fraction*
60 G	International Fraction*	53 G	Estelle*
18 G	Tony*	18 G	Donagan***
19 G	X L*	54 G	Westholme*
63 G	Donald*	51 G	Blue Bell*
108 G	Muriel Fraction*	50 G	Moline Fraction*
87 G	Doubtful Fraction**	59 G	Westholme Fraction***
85 G	Thelma Fraction**	21 G	Dixie Fraction***
86 G	Imperial Fraction**/***	44 G	Golden Rod*
20 G	Herbert*	47 G	Nellena*
110 G	Phil Fraction**	4 G	Acme***

* Chemainus District, ** Seymour District, *** Somenos District

OWNERSHIP

The property described above is owned by Mt. Sicker Mines Ltd. N.P.L.

LOCATION AND ACCESS

Situated about 14 miles by road from the city of Duncan, the property lies upon the slopes of Mount Sicker which is a heavily-wooded mountain of medium to rugged relief rising to an elevation of nearly 2300 feet above sea level. The Chemainus River flows along the northerly base of the mountain.

The mine and mill sites are serviced by eight miles of all-weather road, partly paved, partly gravelled, which joins Trans-Canada Highway 1 six miles north of Duncan.

FACILITIES

On the property there is a concentrator of 120-150 tons per day dated capacity which has not been used or maintained since 1952.

Electric power and telephone services are four or five miles distant; however, for preliminary work, diesel-driven units could be rented. Labour and supplies for a surface and underground program should not be a problem. Water can be taken from hillside creeks or pumped from the Chemainus River. Timber required for underground renovation is in good local supply. The old office and change house buildings can be repaired and put to good use.

HISTORY

The Mount Sicker area owes its development to the fact that in 1897 a forest fire and subsequent rains swept bare the hillside, disclosing a gossan outcrop which proved to be the surface exposure of the Lenora and Tyee south orebodies. During that year separate interests began surface and underground work on each claim.

A brief history of the three main claims (Lenora, Tyee and Richard III) is given in chronological order. Much of the following information was gleaned from the annual reports of the Minister of Mines of British Columbia.

LENORA

1898	Drifting, crosscutting and sinking. Two parallel ore zones identified.
1899	Development and stoped ore stored in dumps. Some hand-picked ore sent to a smelter.
1900 to mid-1902	Lenora-Mount Sicker Mining Company formed. Development and stoping continued. Shipped ore by wagon, narrow-gauge railway, E&N Railway to Ladysmith thence by steamer to Van Anda, Everett and Tacoma smelters.

LATE 1902	RAILROAD COMPLETED TO THE MINE. SMELTER COMPLETED AT CROFTON. SHORTLY AFTER SHIPMENTS COMMENCED TO CROFTON THE MINE WAS CLOSED BECAUSE OF LITIGATION.
1903 TO 1907	MINOR WORK DONE AND SMALL SHIPMENTS OF ORE FROM THE DUMP MADE TO CROFTON.
1924	RE-OPENED UNDER LEASE AND BOND BY R. G. MELLIN PRIMARILY TO RE-EXAMINE THE NORTH ORE ZONE, WHICH WAS REPORTED TO ASSAY 2% COPPER, 7% ZINC, WITH $1.50 IN GOLD AND SILVER. THIS ORE HAD BECOME ATTRACTIVE BECAUSE OF ADVANCES MADE IN SEPARATING COPPER AND ZINC BY FLOTATION.
1925	NO WORK.
1926	LADYSMITH TIDEWATER SMELTERS LTD. TOOK OVER ASSETS OF TYEE MINE AND SMELTER AND LEASED THE LENORA. UNDER THE DIRECTION OF R. G. MELLIN AN ADIT WAS STARTED ON THE LENORA TO CONNECT BOTH MINES TO PROVIDE EFFICIENT WORKING CONDITIONS.
1929	THE LEASE ON LENORA WAS DROPPED AND WORK CEASED.

TYEE

1897 TO 1901	EXPLORED AND DEVELOPED THE PROPERTY WITH DRIFTS, CROSSCUTS AND SHAFTS. MADE A SMALL SHIPMENT OF SORTED ORE IN 1901 WHICH RAN 8% COPPER, $5 IN GOLD AND $5 IN SILVER PER TON. THE BULK OF PRODUCTION STORED IN SURFACE DUMPS.
1902 TO 1907	COMPLETED CONSTRUCTION OF AERIAL TRAMWAY TO SOMENOS WHERE ORE WAS TRANSSHIPPED BY E&N RAILWAY TO THE NEWLY-BUILT TYEE SMELTER AT LADYSMITH. A 1250-FOOT SHAFT SUNK TO DEVELOP LOWER GRADE ORE ZONE FOUND ON 1000, 1150 AND 1250 LEVELS. MUCH DEVELOPMENT, EXPLORATION AND PRODUCTION DURING THESE YEARS. CONCENTRATION TESTS WERE BEING MADE ON LOW GRADE ORE WHEN MINE CLOSED DUE TO LOW PRICE OF COPPER. WORK DONE ON TONY, XL, KEY CITY AND WESTHOLME CLAIMS DISCLOSED SOME COPPER MINERALIZATION.
1928	TYEE HOLDINGS TAKEN OVER BY PACIFIC TIDEWATER MINES, LIMITED, WHICH THEN OBTAINED FROM MELLIN THE LENORA LEASE. THE ADIT BEING DRIVEN ON THE LENORA TOWARDS THE TYEE WAS CONTINUED AND ORE WAS ENCOUNTERED.
1929	PACIFIC TIDEWATER MINES, LIMITED, TAKEN OVER BY LADYSMITH TIDEWATER SMELTERS, LIMITED. NO WORK DONE ON TYEE OR LENORA, AND LENORA LEASE DROPPED.

RICHARD III

1898 TO 1907 — Developed and explored sporadically but lacked sufficient working capital for efficient operations. Shipped some ore from dump to Tyee smelter. When work stopped ore was showing on floor of the 500 level.

1924 TO 1925 — Victoria interests undertook further exploration of North ore zone through drifting, crosscutting and sinking after which no further work done until the beginning of World War II.

SHEEP CREEK GOLD MINES LTD.

1939 — Sheep Creek optioned Lenora, Tyee and Richard III.

1940 — A considerable amount of diamond drilling and development was done before option dropped due to low zinc price.

TWIN J MINES LTD.

1942 TO 1944 — Taken over by Twin J Mines Ltd. who drilled and sampled followed by underground rehabilitation and preparation of mine site. Milling began in mid-1943 at 125-150 tons daily. Much exploration and development done. Operations suspended in 1944 when sales contract with Wartime Metals Corporation was cancelled. Most production came from the Lenora North ore zone.

1946 1947 — Retimbered underground operations. Mining and milling resumed. Concentrate shipped to Tacoma and Trail. Closed in September.

1949 — Property taken over by Vancouver Island Base Metals Limited. They repaired Tyee shaft, retimbered tunnels, developed and drilled before ceasing work.

1951 1952 — Re-opened and milled 9,754 tons. Modest exploration program carried out. Closed in January 1952.

1964 TO 1966 — The present interests blasted an outcrop on the Lenora and shipped 167 tons to Tacoma Smelter. Subsequently, Mt. Sicker Mines Ltd. was formed to work the property. A feasibility study being made with regard to bacterial leaching of copper from the various dumps.

PRODUCTION RECORD

Period	Tons	Gold ounces	Silver ounces	Copper pounds	Zinc pounds	Lead pounds
1898-1907	252,678	35,600	738,019	19,078,049		
1943-1944	34,893	2,617	71,531	921,175	4,270,903	418,716
1947	8,295	507	15,878	173,952	536,995	
1951-1952*	9,754	316	15,554	86,773	713,954	85,757
1964	167	12	294	5,814	10,548	

* 2,629 lbs. of Cadmium recovered.

COMPARATIVE METAL PRICES

Year	Copper U.S. cents/ pound	Copper L.M.E. pounds/ long ton	Silver U.S. cents/ ounce	Lead U.S. cents/ pound	Zinc U.S. cents/ pound	Gold U.S. dollars/ ounce
1901	16.12	66.79	58.95	4.33	4.08	20.67
1902	11.63	52.46	52.16	4.07	4.84	"
1903	13.24	57.97	53.57	4.24	5.40	"
1904	12.82	58.59	57.22	4.31	4.93	"
1905	15.59	69.47	60.35	4.71	5.88	"
1906	19.28	87.28	66.79	5.66	6.20	"
1907	20.04	87.01	65.33	5.33	5.96	"
1908	13.21	59.90	52.86	4.20	4.73	"
1939	10.97	48.26	39.08	5.05	5.11	35.00
1940	11.30	62.00	34.77	5.18	6.34	"
1943	11.78	62.00	44.75	6.50	8.25	"
1944	11.78	62.00	44.75	6.50	8.25	"
1947	20.96	130.54	71.82	14.67	10.50	"
1951	24.20	233.00	89.37	17.50	18.00	"
1952	24.20	259.48	84.91	16.47	16.22	"
1966	36.09	408.89	129.30	15.00	15.00	"
Canadian Price						
1966 Nov.	45.00	490.00	140.50	14.00	14.50	37.85

The U.S. and London prices were taken from the Engineering and Mining Journal. The 1966 Canadian prices were taken from The Northern Miner.

GEOLOGY

The area is underlain by a series of cherty tuffs, graphitic schists, sodic-andesites, porphyry, sodic-rhyolite porphyry and sodic-diorite. The cherty tuffs are light grey rocks, usually consisting of 1/8" to 1/2" laminae of cherts separated by thin layers of sericite schist. Where undeformed, the rocks are slaty, but where they are deformed they possess laminae and are bent into small canoe-shaped folds. Where intensely deformed, either by close shearing or folding, the tuffs are very schistose and it is difficult to identify the former chert layers which serve to distinguish these rocks from the more schistose phases of the rhyolite porphyry. The cherty tuffs are always associated with black graphitic schists.

Much of the black schist has been folded into a succession of small drag-folds, and where dragfolding has been so extreme that it passes into shearing, the thin laminae of the schist have been nearly destroyed and are difficult to identify in the resultant sheared rock. This series is classified tentatively as belonging to the Mount Sicker group of rocks.

The series strikes N 70° W and dips 50 degrees to the south west. The andesite porphyry is intrusive into the sediments, andesite porphyry and early phases of the diorite, but it is cut by the later phases of the diorite. Diorites are generally older than both the sediments and the andesite porphyry but some phases are younger than the rhyolite porphyry and other phases are older than the rhyolite.

ORE DEPOSITS

The ore deposits occur as a replacement of folded, cherty tuffs and related graphitic schists. There are two separate, easterly-trending bodies about 150 feet apart known as the North orebody and the South orebody. The ore is of two closely allied types; one type, called "barite ore", consists mainly of barite and sulfides with small amounts of quartz; the second type, called "quartz ore", consists mainly of quartz and chalcopyrite. The two orebodies are parallel and lie along two main dragfolds in the band of sediments. Study of the ore deposits from underground openings is impossible because of caved workings.

The North orebody measures about 1700 feet along the strike, 120 feet down dip, and from one to 10 feet in width.

The South orebody lies about 150 feet south of the North orebody and has a length of 2100 feet, a depth of about 150 feet, and a thickness of 20 feet or more. The upper limit of this orebody is about 150 feet higher than the North orebody.

Post ore faults: Two main faults striking east and west and dipping vertically displaced the orebodies. The north fault is between the two orebodies. This fault strikes into the South orebody at a small angle. Near the Richard III shaft it is 26 feet north of the ore, further west near the Tyee shaft it is closer, and near the portal of No. 1 adit it makes the north wall of the ore. The fault displaces the South orebody 200 feet upward and an unknown distance eastward with respect to the North orebody. Long sections of barite drag-ore may be seen in the north fault below the South orebody.

The south fault lies 80 to 100 feet south of the Tyee shaft and south of the South orebody. Very little is known about this fault. Diagonal faults, which moved segments of the ore southward and downward relatively small distances, give a resultant plunge to the orebody that is steeper than the horizontal crestlines of the drag fold. However, because of reversal of the vertical displacement in some of the diagonal faults, the orebody does not exhibit any appreciable plunge.

Ores: The barite ores are a fine-grained mixture of pyrite, chalcopyrite, sphalerite and a little galena in a gangue of barite, quartz and calcite. The order of mineralization from oldest to youngest is as follows: barite, calcite, pyrite, sphalerite, chalcopyrite and galena, quartz and late calcite. A characteristic of this ore is its banded appearance. Quartz ore is fairly uniformly mineralized with chalcopyrite. Mineralogical composition of this ore is as follows: pyrite 4.1%, chalcopyrite 20.5%, sphalerite 0.3%, galena trace, barite 1.1%, quartz 68.1%, calcite 5.6%. In addition some of the chalcopyrite occurs as layers or streaks that follow unreplaced layers of schist in the quartz.

Barite: The presence of barite as a gangue mineral in the "barite ore" and as separate occurrences in the mine adds another economic consideration to the ores. It is reported that an appreciable tonnage of barite was indicated by early operators. Tentative markets for the barite have been investigated and samples have been sent to an interested company for analysis and study. The Mount Sicker areas have been mentioned in the 1947 report of the Minister of Mines of British Columbia as a source of

BY-PRODUCT BARITE. THIS MINERAL OCCURRENCE WARRANTS FURTHER CONSIDERATION.

THE ORES ARE LATER THAN BOTH THE FOLDING AND METAMORPHISM OF THE SEDIMENTS. THEY APPEAR TO BE CLOSELY RELATED TO THE SODIC RHYOLITE PORPHYRY AND SODIC DIORITE. THIS ASSOCIATION HAS BEEN OBSERVED IN IMPORTANT PYRITE DEPOSITS OF THE RIO TINTO DISTRICT IN SPAIN AND ELSEWHERE.

THE LOCALIZATION OF THE OREBODIES HAS BEEN CONTROLLED STRUCTURALLY BY A REGIONAL FRACTURE ZONE AND BY DRAG FOLDS IN THE NARROW BAND OF TUFFS AND GRAPHITIC SCHISTS. THE FRACTURE ZONE IS A REGIONAL FEATURE, WHICH CAN BE TRACED FOR A TOTAL DISTANCE OF EIGHT MILES AND WAS ENCOUNTERED ON THE BOTTOM LEVEL OF THE 1250-FOOT TYEE SHAFT. LITTLE IS KNOWN ABOUT THE MINERALIZATION ALONG THE FULL LENGTH AND DEPTH OF THIS ZONE BECAUSE THE EARLY OPERATORS LARGELY IGNORED IT AS UNECONOMIC, BUT IT CONSTITUTES A POTENTIAL EXPLORATION TARGET OF GREAT IMPORTANCE.

SUMMARY

THE MT. SICKER MINES LTD. PROPERTY IN THE VICTORIA MINING DIVISION, BRITISH COLUMBIA, WAS DISCOVERED IN 1897 AND HAS PRODUCED IMPORTANT AMOUNTS OF GOLD, SILVER, COPPER AND ZINC, AS WELL AS LESSER AMOUNTS OF LEAD AND CADMIUM.

THE PROPERTY IS LOCATED 14 ROAD MILES FROM DUNCAN, B.C., AND CONSISTS OF ~~800~~ 218 ACRES OF MINERAL CLAIMS AND CROWN GRANTED MINERAL CLAIMS. IT IS FAVOURABLY LOCATED WITH REGARD TO TRANSPORTATION, WATER SUPPLY, ELECTRIC POWER, LABOUR AND SUPPLIES. THERE ARE NO SEVERE WEATHER CONDITIONS WHICH MIGHT CAUSE WORK STOPPAGES.

IDLE SINCE 1952, THE 120 TO 150-TON CONCENTRATOR HAS NOT BEEN MAINTAINED AND ITS CONDITION IS NOT KNOWN. PROBABLY MUCH OF IT COULD BE PUT IN OPERATING CONDITION.

IN GENERAL, THE SURFACE OF THE PROPERTY HAS NOT BEEN ADEQUATELY PROSPECTED AND MAPPED. SOME DETAILED MAPPING WAS DONE IN 1943 AND 1944, BUT THIS WAS NOR CORRELATED TO THE UNDERGROUND WORK.

UNDERGROUND DEVELOPMENT, EXPLORATION AND MINING HAVE BEEN EXTENSIVE. MOST OF IT WAS DONE IN THE EARLY PART OF THE CENTURY WHEN METAL PRICES WERE LOW OR WHEN METALLURGICAL PROCESSES WERE RELATIVELY CRUDE. MODERN SELECTIVE FLOTATION METHODS WOULD PERMIT EFFICIENT RECOVERY OF MORE OF THE ECONOMIC MINERALS.

METAL PRICES ARE MUCH HIGHER IN 1966 THAN DURING THE PERIOD 1901 TO 1908. FOR EXAMPLE, THE U.S. COPPER PRICE IS 2.4 TIMES HIGHER NOW, WHILE SILVER AND GOLD PRICES ARE UP 2.2 AND 1.7 TIMES RESPECTIVELY.

THE HIGH GRADE OREBODIES LOCATED TO DATE OCCUR WITHIN A MAJOR FRACTURE ZONE WHICH HAS BEEN TRACED ON SURFACE FOR EIGHT MILES AND WHICH HAS BEEN ENCOUNTERED, STILL STRONGLY GOING DOWN, AT A DEPTH OF 1250 FEET NEAR THE TYEE SHAFT BOTTOM. FROM THESE OBSERVATIONS IT APPEARS TO BE PERSISTENT ON BOTH STRIKE AND DIP. SULFIDE MINERALIZATION IN THE FRACTURE ZONE HAS BEEN REPORTED BY THE FORMER OPERATORS, BUT WAS NOT CONSIDERED TO BE ORE AT THAT TIME.

LEACHING OF COPPER FROM THE DUMPS IS BEING STUDIES; AND A POSSIBLE MARKET FOR THE BARITE GANGUE MINERAL IS BEING INVESTIGATED BY AN INTERESTED COMPANY.

ESTIMATED COST OF EXPLORATION PROGRAM

AN EXPLORATION PROGRAM IS ENVISAGED WHICH WOULD REQUIRE THE REPAIR OF THE OLD OFFICE AND CHANGEHOUSE BUILDINGS, THE REHABILITATION OF ADITS TO PROVIDE ACCESS TO DRILLING SITES IN THE MINE, AN UNDERGROUND MAPPING, SAMPLING AND DIAMOND DRILLING PROGRAM, AND COMPLETION OF SURFACE MAPPING. THE ESTIMATED COST IS AS FOLLOWS:

REPAIR SURFACE FACILITIES	$ 12,000.
UNDERGROUND REHABILITATION	88,000.
UNDERGROUND EXPLORATION	33,000.
SURFACE EXPLORATION	7,000.
TOTAL	$140,000.

RESPECTFULLY SUBMITTED,

E. Percy Sheppard

E. PERCY SHEPPARD, P.ENG.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
E. P. SHEPPARD

VANCOUVER, B.C.

DECEMBER 22, 1966.

CERTIFICATE

I, E. PERCY SHEPPARD, OF THE CITY OF VANCOUVER, IN THE PROVINCE OF BRITISH COLUMBIA, HEREBY CERTIFY:

1. THAT I AM A CONSULTING GEOLOGIST WITH OFFICES AT 402 WEST PENDER STREET, SUITE 517, VANCOUVER, BRITISH COLUMBIA;
2. THAT I AM A GRADUATE OF DALHOUSIE UNIVERSITY WITH A B.Sc. IN GEOLOGY, AND HAVE BEEN ACTIVE IN MINING EXPLORATION AND GEOPHYSICS FOR THIRTY YEARS;
3. THAT I HAVE NO DIRECT OR INDIRECT INTEREST WHATSOEVER IN THE PROPERTY OR MINING CLAIMS COVERED BY THIS REPORT NOR DO I HAVE ANY DIRECT OR INDIRECT INTEREST IN THE SHARES OF MT. SICKER MINES LTD., N.P.L. I DO NOT EXPECT TO RECEIVE ANY DIRECT OR INDIRECT INTEREST IN THE SHARES OR MINING CLAIMS OF THIS COMPANY;
4. THAT THIS REPORT IS BASED ON (1) A REVIEW OF AVAILABLE DATA FROM COMPANY RECORDS AND GOVERNMENTAL REPORTS AND (2) AN EXAMINATION OF THE PROPERTY ON OCTOBER 31, 1966;
5. THAT I AM A MEMBER OF THE PROFESSIONAL ENGINEERS ASSOCIATION OF BRITISH COLUMBIA, THE AMERICAN INSTITUTE OF MINING ENGINEERS, THE SOCIETY OF EXPLORATION GEOPHYSICISTS, AND A FELLOW IN THE GEOLOGICAL ASSOCIATION OF CANADA.

DATED AT VANCOUVER THIS 22ND DAY OF DECEMBER, 1966.

E. Percy Sheppard

E. PERCY SHEPPARD

REFERENCES

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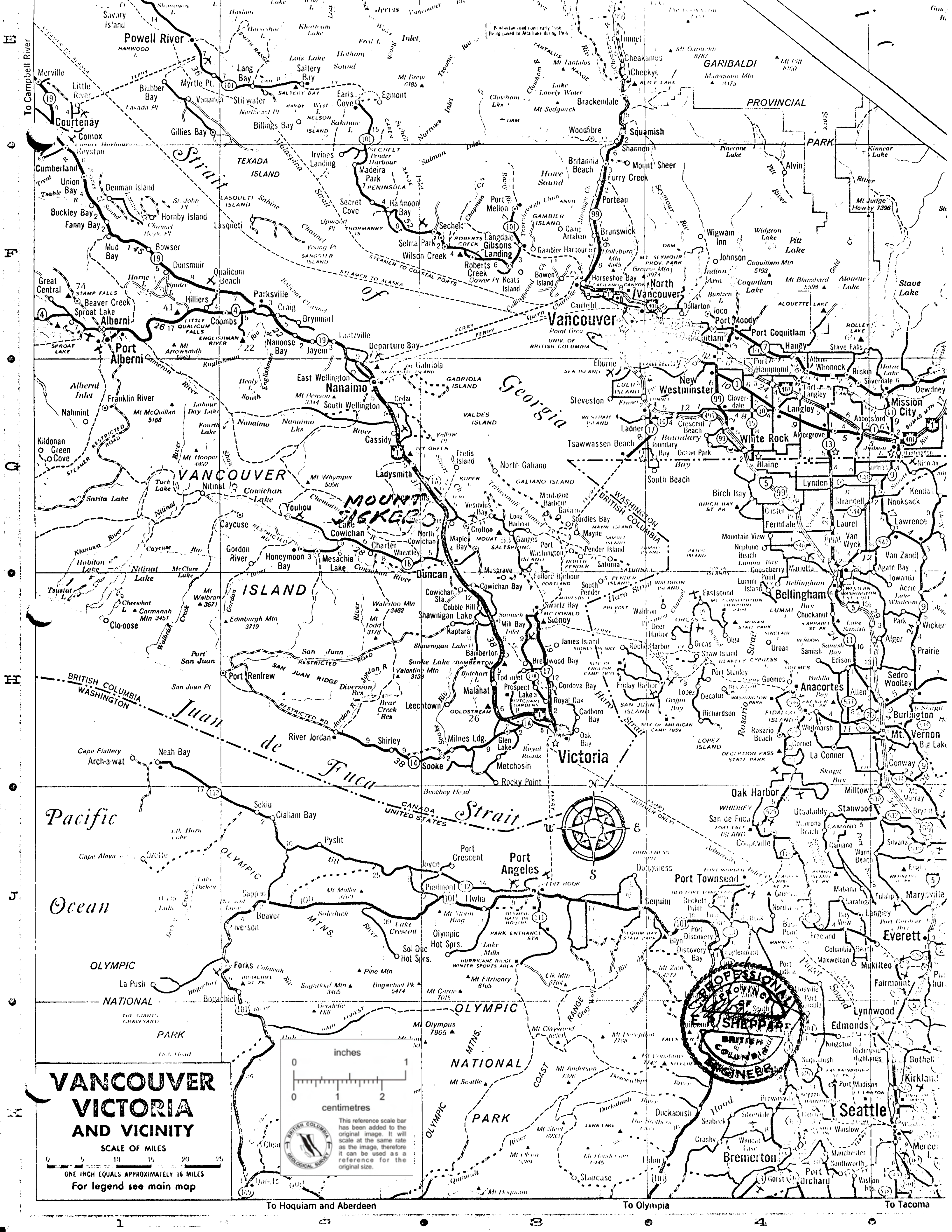
J. E. REEVES; BARITE 1965, MINERAL PROCESSING DIVISION, MINES BRANCH, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, OTTAWA, ONTARIO.



VANCOUVER
VICTORIA
AND VICINITY
SCALE OF MILES
0 5 10 15 20 25
ONE INCH EQUALS APPROXIMATELY 16 MILES
For legend see main map
inches
0 1
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centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.
BRITISH COLUMBIA GEOLOGICAL SURVEY
To Campbell River
To Hoquiam and Aberdeen
To Olympia
To Tacoma
Strait of Georgia
Juan de Fuca Strait
Pacific Ocean
VANCOUVER ISLAND
OLYMPIC NATIONAL PARK
OLYMPIC MTNS.
GARIBALDI PROVINCIAL PARK
BRITISH COLUMBIA
WASHINGTON
CANADA
UNITED STATES
MOUNT SICKER
Powell River
Courtenay
Comox
Cumberland
Union Bay
Qualicum Beach
Parksville
Alberni
Port Alberni
Nanaimo
Ladysmith
Chemainus
Duncan
Cowichan Lake
Lake Cowichan
Shawnigan Lake
Sooke
Victoria
Sidney
Port Renfrew
Texada Island
Sechelt
Gibsons Landing
Squamish
Vancouver
North Vancouver
New Westminster
Port Moody
Port Coquitlam
Haney
Mission City
Langley
White Rock
Ladner
Tsawwassen Beach
Blaine
Bellingham
Lynden
Ferndale
Anacortes
Mt. Vernon
Burlington
Sedro Woolley
Oak Harbor
Everett
Seattle
Bremerton
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Port Angeles
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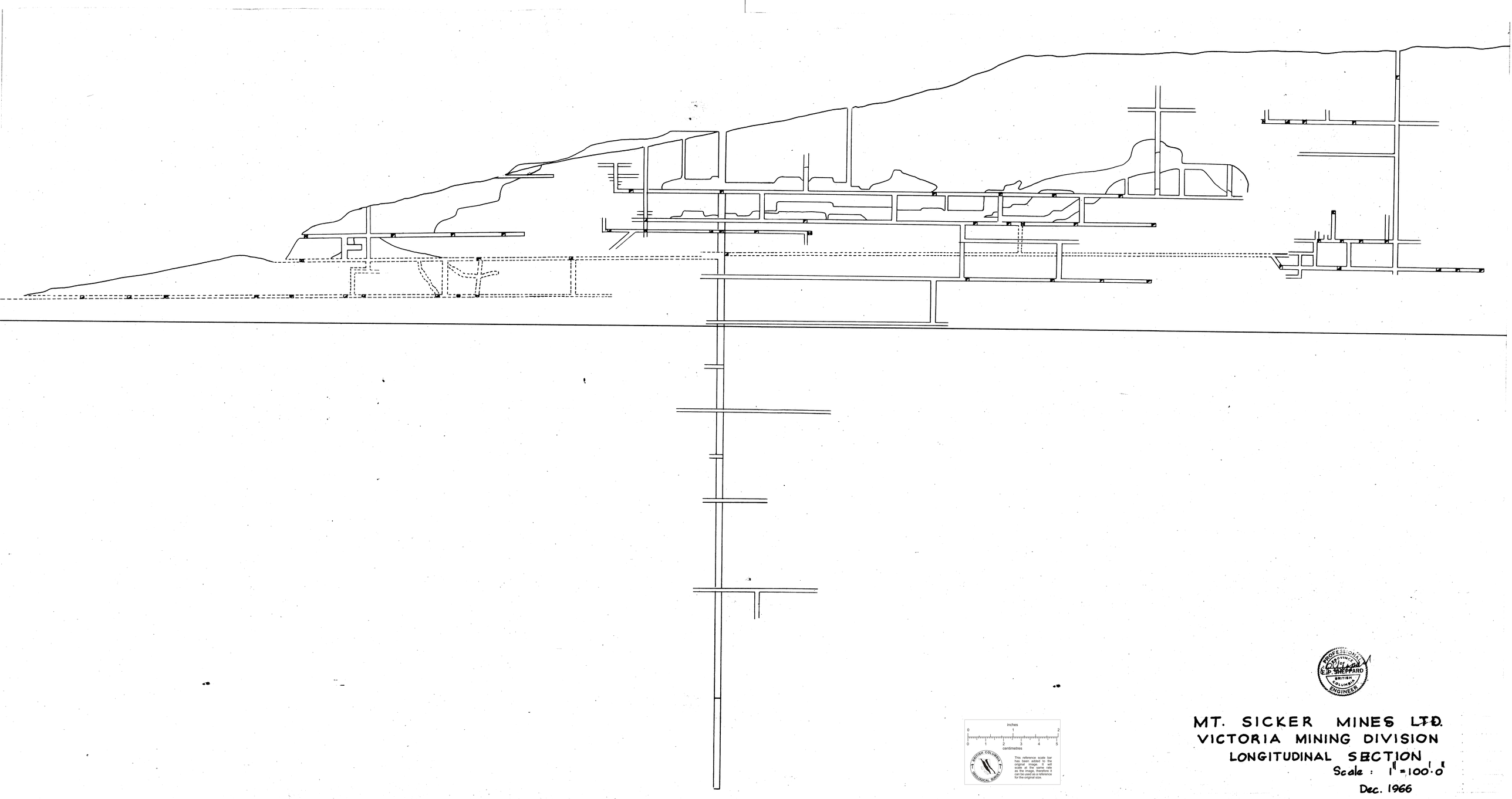
Neah Bay
Forks
La Push
Clallam Bay
Port Crescent
PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA



MT. SICKER MINES LTD.
VICTORIA MINING DIVISION
LONGITUDINAL SECTION

Scale : 1" = 100.0'

Dec. 1966