

80-#918-#8722

GEOCHEMICAL AND PROSPECTING REPORT

ON THE

LIGHTSTAR AND STAR MINERAL CLAIMS

ALBERNI & ~~VICTORIA~~
MINING DIVISIONS

N.T.S. 92F/2E

Latitude 49° 03'N

Longitude 124° 39'W

ESPERANZA EXPLORATIONS LTD.

(Owner and Operator)

Period of Work November 9, 1979 to November 12, 1980

Report by J. D. Guild, P.Eng.

November, 1980

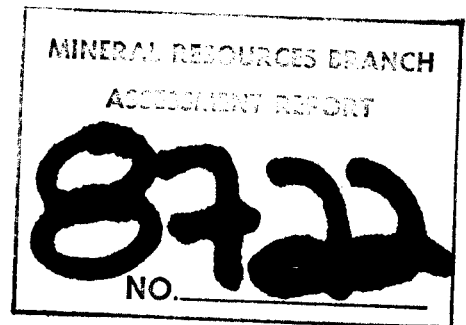


TABLE OF CONTENTS

	<u>Page No:</u>
Introduction	1
Location and Access	1
Property Definition	2
Previous Work	2
Property Geology	3
Geochemical Program	4
Property Prospecting	6
Results of Geochemical & Prospecting Surveys	6
Conclusion and Recommendations	7

APPENDICES

Appendix 1	Itemized Cost Statement	9
Appendix	Author's Qualification	10

ILLUSTRATIONS

Figure 1	Index Map	1a
Figure 2	Geology & Geochemistry (Au/Ag) Compilation Map	4a
Figure 3	Geochemistry Lead-Zinc	5a

INTRODUCTION

The LIGHTSTAR-STAR Property is located on south central Vancouver Island on the flanks of Mount Spencer, 20 kilometres to the southeast of Port Alberni, (N.T.S. 92F/2E)(figure 1). Access to the claims is by way of an all-weather gravel road leading some 32 kilometres from that city.

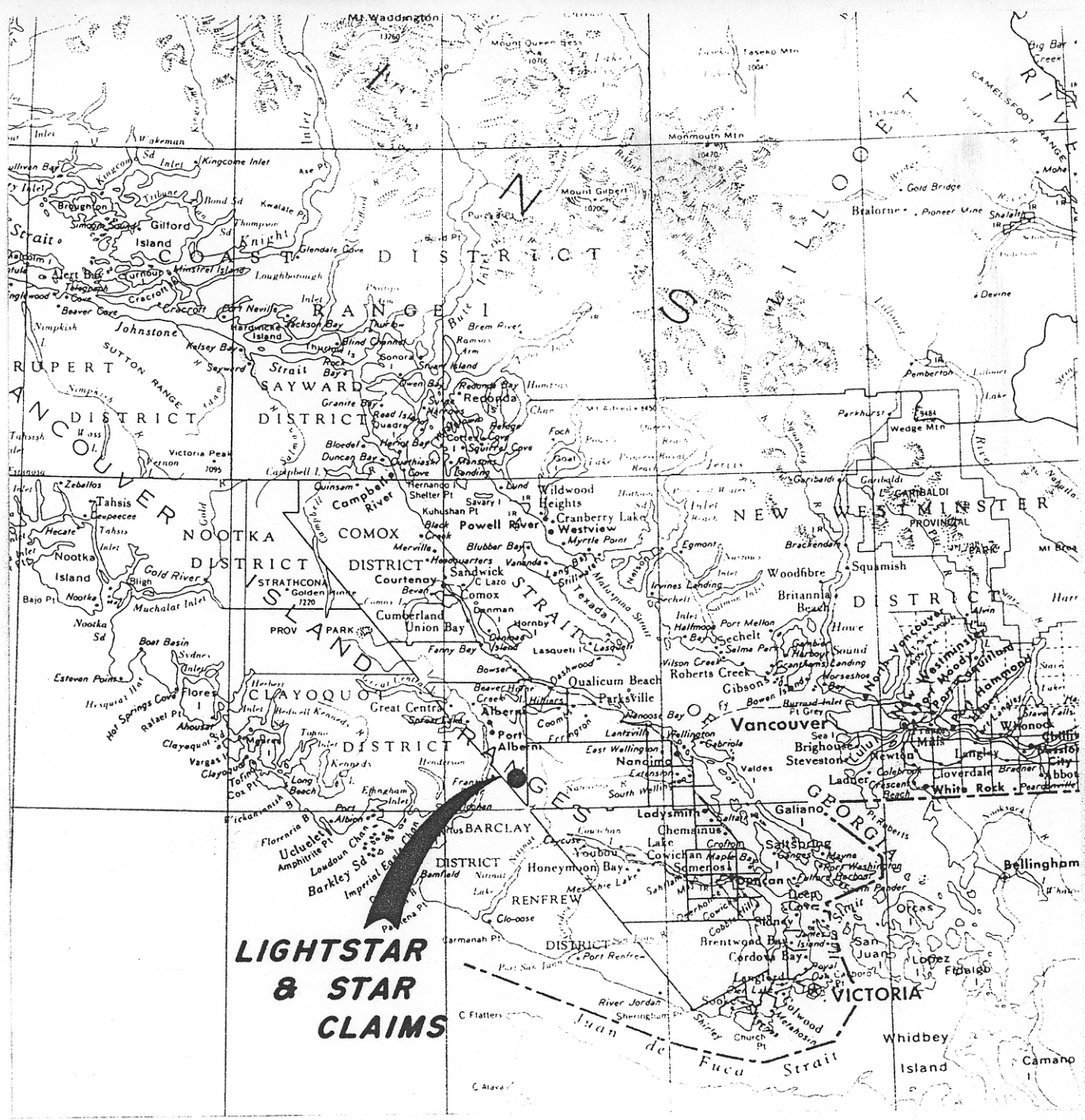
The property consists of two claims the LIGHTSTAR and the STAR made up of 20 and 15 units respectively. The current owner of the claims is Esperanza Explorations Ltd. Certain parts of the claims block have been previously held and have received exploration attention in the past.

The program carried out by Esperanza Explorations Ltd. consisted of a geochemical and prospecting survey. The program was successful in indicating at least one new significant mineral discovery on which an on-going exploratory program is recommended.

LOCATION AND ACCESS

The adjoining LIGHTSTAR and STAR mineral claims were located on south central Vancouver Island on the eastern side of Alberni Inlet. The claims straddle the boundary between the Alberni and the Victoria Mining Divisions. The location can be more precisely defined by co-ordinates $124^{\circ} 39'W$ and $49^{\circ} 3'N$ within N.T.S. Map Sheet "Alberni Inlet", 92F/2E (figure 1).

The property covers the southerly flanks of Mount Spencer and is drained by Corrigan, Museum and Rift creeks. Elevations on the claims range from 400 to 1460 metres. The area is densely treed with outcrop being restricted to creek cuts, isolated steep cliff faces and the rocky upper reaches of Mount Spencer (figure 2).



**LIGHTSTAR
& STAR
CLAIMS**

126° 125° 124 123°

ESPERANZA EXPLORATIONS LTD.		
LIGHTSTAR & STAR CLAIMS		
INDEX MAP		
Scale: 1:2,000,000	Date: DEC. 1980	NTS. 92F/2
Revised:	By: J.G./d.h.	Fig. 1

Access to the LIGHTSTAR-STAR Property can be most conveniently gained by helicopter from Port Alberni which lies 21 kilometres to the southwest of the claims. A system of all-weather gravel roads leading from Port Alberni forms a 32 kilometre ground access route which cuts through the southwestern corner of the claim block.

PROPERTY DEFINITION

The property consists of the following two mineral claims (figure 2):

<u>Claim Name</u>	<u>Grant Number</u>	<u>Number of Units</u>	<u>Recording Date</u>
LIGHTSTAR	638	20	November 13, 1979
STAR	639	15	November 13, 1979

The owner and operator of the claims is Esperanza Explorations Ltd. 1027 - 470 Granville Street, Vancouver, B.C. V6C 1V5.

PREVIOUS WORK

Current work on the LIGHTSTAR-STAR mineral claims has been directed mainly to the southern and southwesterly sections of the claim block. The only previously known mineral occurrence on the property (B.C. Department of Mines Mineral Inventory Occurrence 92F-207) occurs on and near the peak of Mount Spencer in proximity to the contact between the Karmutsen Formation volcanics and the Quatsino Formation carbonates. The zones of previous economic interest consist of fracture zones mineralized with chalcopyrite, molybdenite, sphalerite and galena. This area was the subject of exploration by Gunnex Ltd. in 1964-66, by Cominco in 1967 and by Gold Valley Resources in 1976. The exploration consisted of geophysics, geological mapping and diamond drilling (total of 1766 metres in 20 holes).

The mineralization of previous exploration attention, although possibly genetically related, does not appear to bear a direct relationship to the new discoveries resulting from the work by Esperanza in 1979-80. The latter mineralization appears to occur mainly in the Island Intrusives and the more recent Bonanza volcanics.

Esperanza was initially attracted to the vicinity of the claims by a description in the 1896 Report of the Ministry of Mines page 654 which is quoted below:

"Two miles beyond Sweet Water Meadow, on Granite Creek, near the divide, as shown on map, five claims have been recorded on a large intrusive boss of granite upwards of 1,000 feet across. It is a fine-grained granite, with numerous quartz veins, and heavily charged with sulphurets. Although the assays made have been small, still it is a remarkable mineralized mass, and will justify a thorough prospecting. In one spot I came across some chalcopyrite associated with molybdenite. It is interesting to note the common occurrence of molybdenite throughout British Columbia in association with copper ores; it has been found in numerous places, but only in small quantities."

PROPERTY GEOLOGY

The property is in part underlain by an easterly extending tongue of the Jurassic age Island Intrusives which in this area is composed of undifferentiated granodiorite and quartz diorite. Fault segments of volcanic rock believed to be partly Jurassic Bonanza volcanics and partly Triassic Karmutsen Formation form linear northwesterly trending bands cross the claims.

8722
NO.

LEGEND:

JURASSIC

Jg ISLAND INTRUSIONS: grandiorite, quartz diorite, granite, quartz monzonite

IJB BONANZA VOLCANICS: basaltic to rhyolitic lava, tuff, breccia, minor argillite, grey wacke

TRIASSIC

URQ QUANTSINO FORMATION: limestone

muRk KARMUTSEN FORMATION: basaltic lava, pillow lava, breccia, tuff

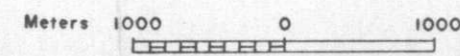
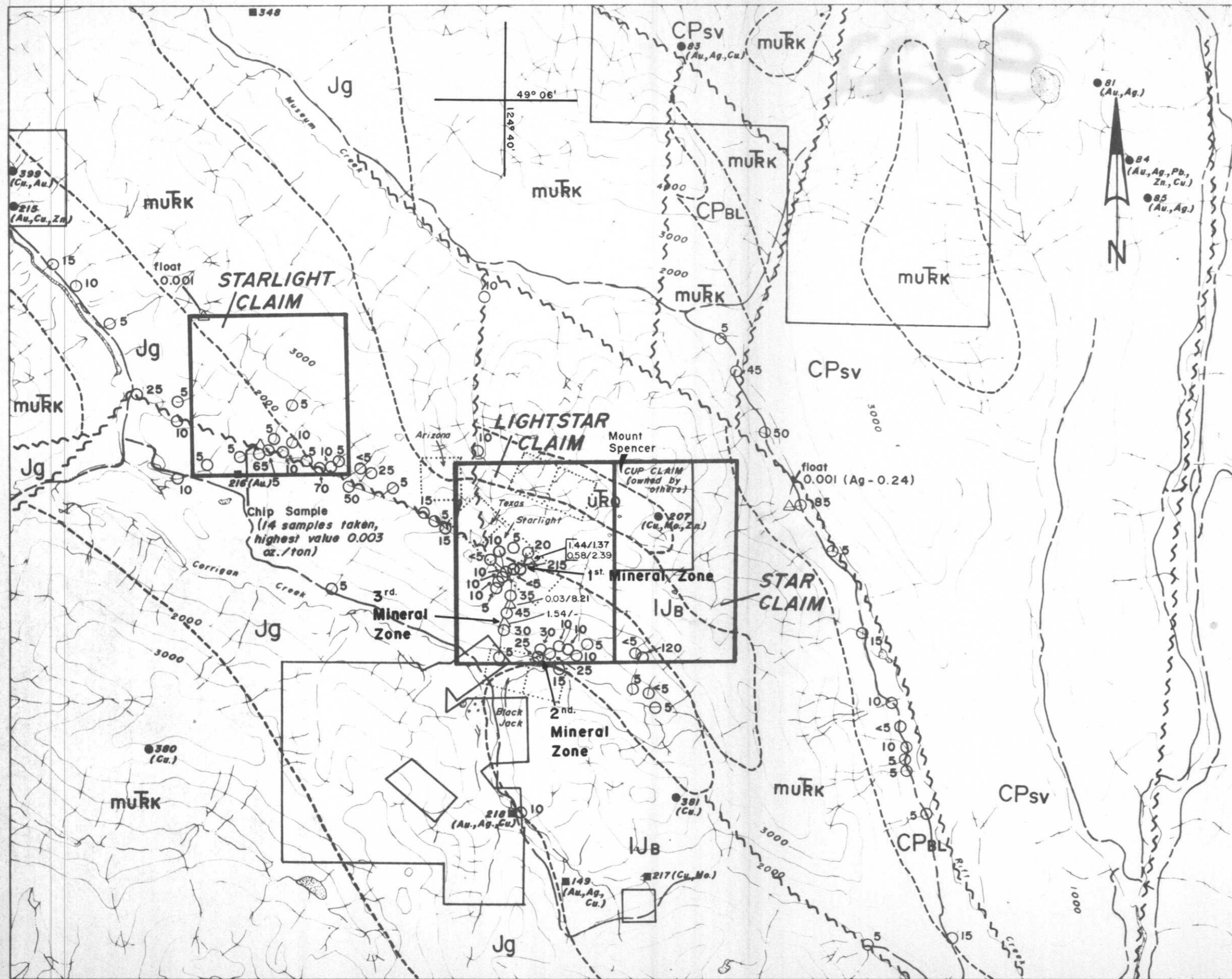
PENNSYLVANIAN and ? PERMIAN

CPBL BUTTLE LAKE FORMATION: limestone, chert

CPsv SICKER VOLCANICS: basaltic to rhyolitic meta-volcanic flows, tuff, agglomerate

SYMBOLS:

- Geological contact
 - Fault
 - Creek
 - Road
 - Contour (500 ft. intervals)
 - Esperanza mineral claims
 - Existing and Crown granted mineral claims
 - 10 Silt sample location (Au, values given in P.P.B.)
 - 125 (Cu) Mineral occurrence (within 300 metres)
 - 234 (Au) Mineral occurrence (not within 3 kilometres)
 - △ 0.001 Rock samples (Au g./t. / Ag g./t.)
- (The above mineral occurrences are from, "Revised Mineral Inventory Map 92F," Dept. of Mines and Petroleum Res.)



ESPERANZA EXPLORATIONS LTD.		
LIGHTSTAR & STAR CLAIMS		
GEOLOGY & GEOCHEMISTRY		
Au, Ag COMPILATION MAP		
Scale 1:50,000	Date DEC. 1980	NTS 92F/2
Revised:	By J.G./d.h.	Fig. 2

A small remnant of Quatsino Formation limestone occurs at the northern boundary of the property (figure 2).

Regional northwesterly trending faults appear to exercise a localizing influence on the mineralization of the area. More detailed geology of the area may be referred to in Open File 463, Geology of Vancouver Island by J.E.Muller, 1977.

GEOCHEMICAL PROGRAM

Reconnaissance silt samples were collected mainly from the southerly flowing tributaries of Corrigan creek but also from the north-westerly flowing Pool creek. Silt accumulations were noted to be well developed and samples were collected in a standard manner in craft paper bags at approximate 250 metre intervals along the creeks. Six silt samples were collected and analysed.

In addition, three contour lines of soil samples were taken with 300 metres between lines and at approximately 100 metres spacing along the lines. Wherever possible, the "B" soil horizon was collected at an average depth of 0.3 metres. A total of 16 soil samples were collected and analyzed.

As outcrop was encountered in the geochemical and prospecting traverses rock chips were also collected. Four rock chips of dioritic composition were taken for assay.

Samples were sent for analysis to Min-En Laboratories Ltd. 705 West 15th Street, North Vancouver, B.C. where they were sieved to - 80 mesh and ground to - 80 and to - 100 mesh for geochem and for assay respectively. Geochem analysis was by nitric perchloric and aqua regia digestion with A.A. analysis and assays by fire with A.A. finish.

The samples were analysed for the elements listed below, (figures 2 & 3)

Soil Samples

<u>Sample Number</u>	<u>Pb ppm</u>	<u>Zn ppm</u>	<u>Au ppb</u>
986	20	72	5
987	20	68	10
988	23	80	5
989	26	89	20
990	30	96	215
991	23	76	5
992	22	60	10
993	18	63	10
994	24	56	10
995	20	44	5
996	23	92	25
997	18	74	5
998	20	84	10
999	16	54	10
1000	14	53	10
1001	28	65	30

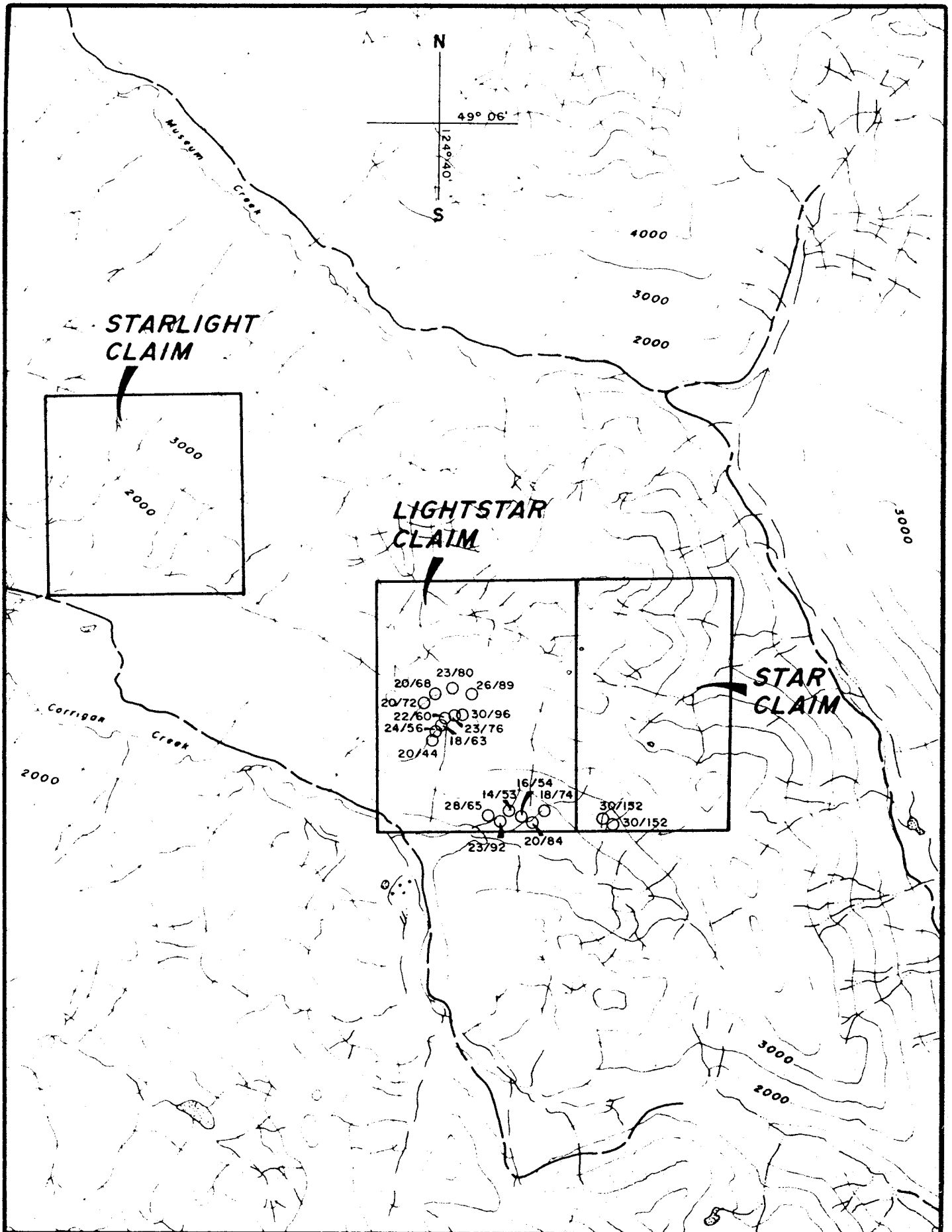
Silt Samples

798	-	-	5
799	-	-	30
800	-	-	45
801	-	-	35
802	-	-	25
803	-	-	15

Rock Samples

	<u>Au oz/ton (g/t)</u>	<u>Ag oz/ton (g/t)</u>
503	0.042 (1.44)	0.04 (1.37)
504	0.017 (0.58)	0.07 (2.39)
519	0.001 (0.03)	0.24 (8.21)
28236	-	-

Comments On p. 5, conversions of oz/t to g/tonne, i.e. ppm, should read Au Hg
 0.042 (1.31) 0.04 (1.24)
 0.017 (0.53) 0.07 (2.18)
 0.001 (0.03) 0.24 (7.46)
 0.045 (1.40)



Geochemistry Values Lead / Zine (p.p.m.)



Fig. 3

PROPERTY PROSPECTING

Prospecting on the property was carried out by David Heino of Box 1524. Hope, B.C. a prospector of eight years professional experience.

As outcrop on the claims amounts to less than 10% and the principal target of the program was gold, a great amount of test panning was carried out.

All of the streams and "pup" streams on the southern section of the claim block were panned. Results ranged from 0 to 8 fine colours to a pan within that area of the claims underlain by intrusive rocks. Only very minor amounts of gold were obtained from areas underlain by other rock types.

Quantitative evaluation of the panning and the identification of rock type in the pan and in the sparse outcrop encountered successfully narrowed down the area of search. Geochemical results confirmed the location and eventually led to the discovery of mineralization in place through prospecting.

RESULTS OF GEOCHEMICAL AND PROSPECTING PROGRAM

Initial silt sampling results on southerly flowing tributaries of Corrigan creek within the LIGHTSTAR claims indicated slightly anomalous silts ranging up to 45 ppb gold against a background of 5 ppb. These results led to follow-up prospecting panning and soil sampling.

Soil sampling and panning indicated anomalous gold values centred in two areas. One area in the central LIGHTSTAR claim showed a high of 215 ppb. which result was corroborated by the discovery of a pyritized shear zone some 15 metres in width, consisting of sheared and altered porphyritic intrusives cut by 25% irregular vitreous white quartz veinlets.

The pyrite occurs in both the quartz and the host rock to the quartz. A character rock sample of this material assayed 0.042 oz/ton gold (1.44 grams/tonne) which at \$700 per ounce would indicate a gross value of \$29.40 a ton. The showing is exposed for approximately 50 metres on strike. The zone appears to occur in the Island Intrusives within 100 metres of the contact with Bonanza rhyolitic tuffs.

A second anomalous zone near the southern boundary of the LIGHTSTAR claim showed high values of 30 ppb gold against a background of 10 ppb. An examination of this area failed to turn up any mineralized outcrop. This search however was hindered by the heavy overburden cover of the area.

A third zone of interest was found by prospecting within the lower creek cuts of Corrigan creek. This showing consists of sericitic altered granodiorite cut by a series of quartz veinlets with accompanying pyrite mineralization. The zone is 0.3 metres in width and can be traced for 4 metres across the creek with both possible extensions disappearing into overburden cover. A rock sample of this material assayed 0.045 oz/ton gold (1.54 grams/tonne).

CONCLUSION AND RECOMMENDATIONS

Soil sampling in the area of the LIGHTSTAR and STAR mineral claims appears to accurately indicate the presence of mineralization in bedrock. There is a vague association in soils between zinc and gold. Lead values are uniformly low and do not appear to reflect a gold association.

The mineral showings on the property discovered by Esperanza Explorations Ltd. through a combination of geochemistry and prospecting are of economic interest and are therefore worthy of additional exploration.

To this end the following exploration program is recommended:

1. A geochemical grid survey, assaying for gold and zinc, throughout the STARLIGHT-STAR property with detailed emphasis placed on the contact areas between the Island Intrusives and the adjoining volcanic rocks.
2. Follow-up detailed sampling and trenching of the 15 metre wide shear zone. The trenching may reasonably be delayed until the results of the geochemical survey are available as these results may serve as a guide to trench locations.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "J. D. Guild".

J. D. Guild, P.Eng.

APPENDIX I

ITEMIZED COST STATEMENT - LIGHTSTAR AND STAR MINERAL CLAIMS

Period November 9, 1979 - November 12, 1980

Persons employed:

David Heino, Nov. 9-13, 1979, five days @ \$115/day (Prospecting and geochem sampling)	\$575.00
David Heino, Nov.14-16, 1979, three days @ \$115/day (Travel, compiling assay sketches etc).	345.00
David Harding, Feb.11,12, 14, 1980, three days @ \$67.20/ day (Drafting)	201.60
Robert Holland Feb.8,11,1980, 1 1/2 days @ \$92.40/day (Geological review of data)	138.60
Jane Gahan Feb.22 1980, 1/2 day @ \$67.20/day (drafting and coloring)	33.60
John Guild (Nov.4-12,1980, six days @ \$140/day (research and report compilation)	840.00
Accommodation Nov.8-13, six days @ \$32.50/day	195.00
Meals " " " " " @ \$25.00/day	150.00
Travel ferry etc.	57.50
Truck rental, fuel etc. Nov.8-13,1979 @ \$25.00/day	230.30
Telephone	2.45
Geochem & assay 26 samples @ av.\$7.44/sample	193.50
Field Equipment - power saw, camp, flagging, drafting material etc.	<u>248.75</u>
sub total:	<u>3211.30</u>
Administration costs - 10%	<u>321.13</u>
Total Costs -	<u>\$ 3532.43</u>

APPENDIX II

CERTIFICATE

I, JOHN D. GUILD do hereby certify that:

1. I am a practicing geologist employed by Welcome North Mines Ltd.
2. I am a graduate of the University of Alberta, B.Sc., (Geology).
3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
4. I have practiced my profession since 1959 primarily in Western North America but also in Eastern Canada, Australia and Mexico.
5. Part of my duties with Welcome North Mines consist of supervising the field activities of employees of Esperanza Explorations Ltd.