

5757

UNICORN PROPERTY

Report of

GEOLOGIC MAPPING, TRENCHING & SAMPLING

19-22 (incl) Sept/75

UNICORN CLAIM GROUP

OWNER

TOURNIGAN MINING EXPLORATIONS LTD.

OPERATOR

ASARCO INCORPORATED

Located on

BIG MISSOURI RIDGE 6 MILES NORTH OF PREMIER

SKEENA MINING DIVISION

56° - 130° SE

D.H. Olson, P. Engr., B.C.

Dec/75

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5757 MAP.....

TABLE OF CONTENTS

	<u>PAGE</u>
INTRODUCTION	1
LOCATION AND ACCESS	1
REGIONAL GEOLOGY	1
LOCAL GEOLOGY	2
ALTERATION	3
MINERALIZATION	3
CONCLUSIONS AND RECOMMENDATIONS	3
EXPENDITURES	4

APPENDIX "A" - MINERAL CLAIM SCHEDULE

#1 LOCATION AND ACCESS MAP

1" = 1/2 Mile, Figure 1.

2 CLAIM MAP

Unicorn Group, Figure 2.

3 SURFACE ASSAY PLAN - "Ridge Zone"

Scale 1 cm = 1 Meter, Figure 3.

4 GEOLOGIC MAP, "Ridge Zone"

Scale 1 mm = 1 Meter, Figure 4.

GEOLOGIC MAPPING, TRENCHING AND SAMPLING
on the
UNICORN CLAIM GROUP

INTRODUCTION

Geologic mapping, trenching (10 trenches P-1 to P-10), and rock sampling was carried out on the Good Hope, Unity and Rambler crown-granted claims of the Unicorn Group of claims in an attempt to delineate the better grade gold-silver mineralization of the "Ridge Zone". The Unicorn Group of claims is owned by Tournigan Mining Explorations Limited. The above work was carried out by Asarco Incorporated during the period September 20th - 23rd, inclusive, under the direction and supervision of R.E. Gale and D.H. Olson, Professional Engineers for the Province of British Columbia.

LOCATION AND ACCESS (Figure 1)

The Unicorn Group of mineral claims covering the "Ridge Zone" are situated on the Big Missouri Ridge, approximately 6 miles north of Premier, and $1\frac{1}{2}$ ^{mile} north of the Big Missouri Mine. Access from Stewart, B.C. is by motor vehicle (4-wheel drive) via the Silbak-Premier-Granduc Mines road to Mile Post 18, thence by approximately 5 miles of reasonable gravel road northerly to the south boundary of the Unicorn Property where the road is impassable due to washouts.

REGIONAL GEOLOGY

The Unicorn claims lie within a deformed belt of

volcanic, sedimentary and metamorphic rocks belonging to the Lower Jurassic Hazelton Formation, between the east margin of the Coast Range Crystalline Belt and the west edge of the Bowser Basin which is underlain by a thick sequence of Middle and Upper Jurassic clastic sediments.

LOCAL GEOLOGY (Figure 4)

Underlying the Unicorn claims is a metamorphosed Hazelton assemblage dominated by epiclastic sediments with a mixture of pyroclastics and cataclastics. These rocks are traversed by numerous west dipping lamprophyre and hornblende diorite dikes trending northwesterly and northerly. The monotonous assemblage of massive green rocks provides little evidence of lithologic trends. Geologic evidence peripheral to this specific area suggests that these epiclastic rocks trend northwesterly with a steep west dip.

Parallel to the lithologic trend is a silicified zone which is the principal zone of interest. This zone varies in width from 70 to 120 meters, is exposed in numerous outcrops, cuts, trenches and short adits over a length of 500+ meters. The current mapping did not establish the north and south limits of silicification, but did establish the areas of most intense silicification, stronger sulfide mineralization and the better developed quartz-calcite vein stockwork zones.

ALTERATION

Alteration minerals include chlorite, sericite, ubiquitous quartz and calcite and epidote.

MINERALIZATION (Figure 3)

Pyrite is the most abundant sulfide and occurs throughout the silicified zone and the adjoining wallrock. Locally, pyrite constitutes 10% of the rock by volume. Other sulfides occurring within, or adjacent to quartz veining, include sphalerite, galena and chalcopyrite. Minerals contributing gold were not observed, but it was noted that the better gold values are associated with areas of intense silicification and veining. The best gold values were obtained from samples taken at #1 and #2 tunnels and at widely separated outcrops from a point 30 meters south to a point 320 meters north-northwest of #1 tunnel on the Good Hope claim. The better gold values are erratic and no continuity of these values is indicated. No significant values for Pb or Zn were obtained from the samples assayed.

CONCLUSIONS AND RECOMMENDATIONS

Sampling of surface exposures throughout the large gold-silver-bearing "silicified zone (Ridge Zone) has demonstrated widespread gold-silver values. The gold-silver values locally are interesting, but lack continuity and sufficient grade to constitute a large, low grade economic deposit at today's metal

prices of \$140/Oz. Au, and \$4.60/Oz Ag.

Further interest in the Unicorn Property at this time is not warranted.

EXPENDITURES

A summary of costs incurred and personnel involved in conducting the mapping, trenching and sampling program is outlined as follows:

GEOLOGIC MAPPING, TRENCHING AND SAMPLING PROGRAM

(1)	<u>Rotary Wing Charter</u> - Bell 47G3B2 Vancouver Island Helicopters Limited, Stewart, B.C.	
	<u>September 19th, 1975</u> - Transport Cobra Drill, steel, powder and miscellaneous supplies from Stewart	
	0.5 hrs. @ \$160/hr	\$ 80.00
	<u>September 22nd, 1975</u> - Transport Cobra Drill, steel and samples to Stewart.	
	0.6 hrs. @ \$160/hr.	\$ 96.00
	<u>Helicopter Fuel</u>	
	1.1 hrs. @ 14.55	\$ 16.01
	T O T A L	<u>\$ 192.01</u>
(2)	<u>Wages</u> - Geologic Mapping, Trenching and Sampling	
	<u>CURTIS, P.G.</u> - Sept. 20-23, incl. 4 days @ \$50.36	\$ 201.44
	<u>LANCASTER, M.F.</u> - Sept. 20-23, incl. 4 days @ \$51.19	204.76
	<u>MACINTYRE, D.G.</u> - Sept. 20-23, incl. 4 days @ \$46.30	185.20

	<u>GALE, R.E. - Sept. 20-23, incl.</u> 4 days @ \$69.69	\$ 278.76
	<u>OLSON, D.H. - Sept. 20-23, incl.</u> 4 days @ \$58.52	234.08
	<u>TOTAL DAYS - 20.</u> <u>TOTAL WAGES</u>	<u>\$ 1,104.24</u>
(3)	<u>ACCOMMODATION AND SUBSISTENCE</u>	
	5 men for total of 24 days	<u>\$ 889.17</u>
(4)	<u>TRAVEL</u>	
	5 men plus equipment- Vancouver to Stewart to Vancouver	<u>\$ 738.03</u>
(5)	<u>MISCELLANEOUS</u>	
	Maps	\$ 14.93
	Drilling & Blasting Supplies	158.70
	Vehicle Repairs	51.60
	Miscellaneous	<u>45.99</u>
		<u>\$ 271.22</u>
(6)	<u>ASSAYING - Chemex Laboratories, Ltd.,</u> <u>North Vancouver, B.C.</u>	
	46 rock sample determinations for Pb, Zn, Ag and Au (Fire assay for Au)	<u>\$ 885.75</u>
(7)	<u>REPORT PREPARATION</u>	
	Olson, D.H., 2 days @ \$58.52	<u>\$ 117.04</u>
	 <u>TOTAL - 1 to 7 inclusive</u>	 <u>\$ 4,197.46</u>

DHO:sm

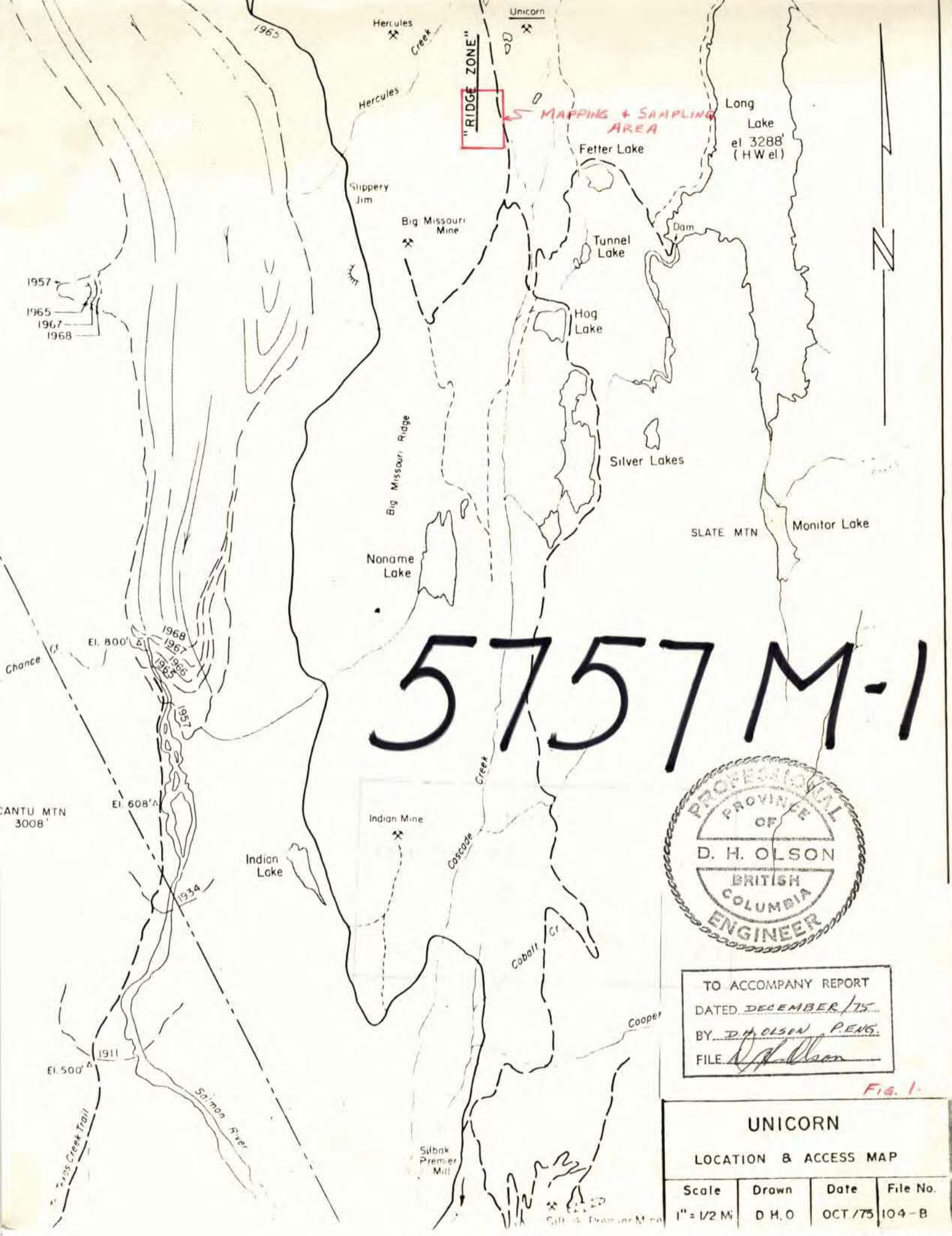


D.H. Olson,
Professional Engineer.

APPENDIX "A"

MINERAL CLAIM SCHEDULE

<u>GROUP</u>	<u>CLAIM NAME</u>	<u>LOT NO. or RECORD NO.</u>	<u>REMARKS</u>
Unicorn Group	Unicorn	4534	C.G.
Unicorn Group	Unicorn #2	4535	C.G.
Unicorn Group	Unicorn #3	4536	C.G.
Unicorn Group	Unity	4537	C.G.
Unicorn Group	Good Hope	4538	C.G.
Unicorn Group	Snow King	4539	C.G.
Unicorn Group	Silver Creek Fr.	4540	C.G.
Unicorn Group	H & W Fraction	4541	C.G.
Unicorn Group	Unity Fraction	4542	C.G.
Unicorn Group	V.Fraction	4543	C.G.
Unicorn Group	Rambler	38923	Reverted C.G.
Unicorn Group	Tip Top Fraction	38922	Reverted C.G.
Unicorn Group	Union Fraction	39013K	Reverted C.G.



5757 M-1



TO ACCOMPANY REPORT
 DATED DECEMBER 1975
 BY D. H. OLSON P. ENG.
 FILE D. H. Olson

Fig. 1

UNICORN
 LOCATION & ACCESS MAP

Scale	Drawn	Date	File No.
1" = 1/2 Mi	D. H. O.	OCT / 75	104-B

Department of
Mines and Petroleum Resources
ACCESS-EIT REPORT
NO. 5757 M.P. 3

RAMBLER C.G.
L.3206

UNITY C.G.
L.4537

GOOD HOPE C.G.
L.4538

BUENA VISTA C.G.
L.3207

UNITY FR. C.G.
L.4542

UNION FR.
L.3215

LEGEND

- CHIP SAMPLE NO., LENGTH (METERS), OZ AGT., OZ AU/T. —
- FIRE ASSAYS BY CHEMEX LABS LTD. —
- TRENCH OR CUT —
- PROSPECT PIT —
- GULLY OR INTERMITTENT STREAM —
- TOP EDGE OF BLUFF —
- GRID POINT —

BUENA VISTA
ADIT 3

BUENA VISTA
ADIT 2

ADIT 1

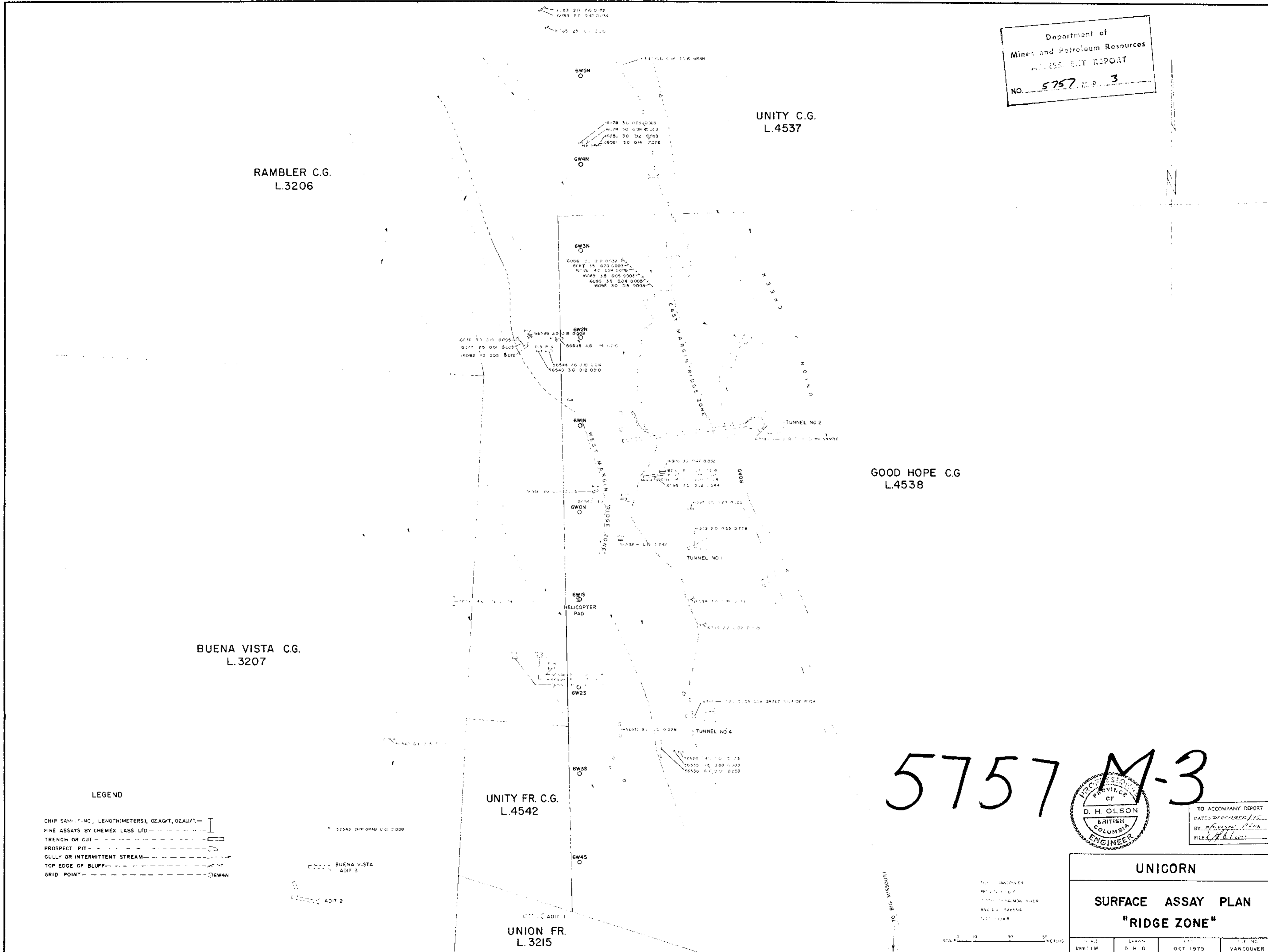
5757 M-3



TO ACCOMPANY REPORT
DATED DECEMBER 1975
BY D. H. OLSON
FILE

UNICORN			
SURFACE ASSAY PLAN "RIDGE ZONE"			
SCALE 1mm = 1M	DRAWN D. H. O.	DATE OCT 1975	FILE NO. VANCOUVER

SCALE 1:100000
10 20 30 40 METERS



RAMBLER C.G.
L.3206

UNITY C.G.
L.4537

GOOD HOPE C.G.
L.4538

BUENA VISTA C.G.
L.3207

UNITY FR. C.G.
L.4542

UNION FR.
L.3215

LEGEND

- STEWART COMPLEX (JURASSIC-CRETACEOUS ?)
- A GREENSTONE (andesite, tuff, agglomerate)
- B GREENSTONE (silicified)
- TERTIARY
- LAMPROPHYRE
- GEOLOGIC CONTACT (defined, approximate) - - - - -
- FOLIATION (inclined, vertical) - - - - -
- FRACTURE (inclined, vertical) - - - - -
- FAULT OR SHEAR - - - - -
- QUARTZ & OR CALCITE VEIN - - - - -
- CHIP SAMPLE - - - - -
- TRENCH OR CUT - - - - -
- PROSPECT PIT - - - - -
- GULLY OR INTERMITTENT STREAM - - - - -
- TOP EDGE OF BLUFF - - - - -
- GRID POINT - - - - -



5757 M-4



TO ACCOMPANY REPORT
DATED DECEMBER 175
BY D.H. OLSON, P. ENG.
FILE D.H. Olson

UNICORN

GEOLOGICAL MAP
"RIDGE ZONE"

SCALE 1mm = 1M	DRAWN D. H. O.	DATE OCT. 1975	FILE NO. VANCOUVER
-------------------	-------------------	-------------------	-----------------------

FILE - VANCOUVER
PROVINCE-B.C.
DISTRICT-SALMON RIVER
MND DIV-SKEENA
N.T.S.-104 B

SCALE 0 10 30 50 METERS