

ASSESSMENT REPORT
GEOLOGICAL MAPPING AND PROSPECTING SURVEYS
ON THE
OD 1-46 MINERAL CLAIMS

(Record Nos. YA2088-YA2099, YA2298-YA2303,
YA2350-YA2365, YA9466-YA9477)

Dawson Mining District, Yukon
N.T.S. 116B/13

Latitude $64^{\circ}49'N$
Longitude $139^{\circ}38'W$

by
Colin V. Dyson, P.Eng.

Work Done: August 20 to August 29, 1976

Date: August, 1977

Owner: Union Miniere Explorations and
Mining Corporation Limited

090215



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 4600.00

[Signature]

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Signature]
B.R. BAXTER
Supervising Mining Recorder

[Signature] Commissioner of Yukon Territory





UNION MINIÈRE EXPLORATIONS
AND MINING CORPORATION LIMITED

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ASSESSMENT REPORT

GEOLOGICAL MAPPING AND PROSPECTING SURVEYS ON THE OD 1-46 MINERAL CLAIMS

INTRODUCTION

In the period August 20 to 29, 1976 geological mapping and prospecting surveys were completed over the OD 1-46 mineral claims in the Dawson Mining District, Yukon. The claims are located approximately twenty-eight miles north of Mount Ina and thirty-two miles west of Caldwell Lake at latitude $64^{\circ}49'N$ and longitude $139^{\circ}38'W$ (Figure 1) and are accessible via helicopter.

The geological mapping and prospecting surveys were completed in the field by Mr. R. Tolbert, B.Sc. (geologist), Mr. R. Boyce, B.Sc. (geologist), Mr. Z. House (geological assistant/pro prospector), and Mr. H. Holm (prospector) under the supervision of Mr. C.V. Dyson, P.Eng., who was on the property August 20, 21, and 25 to study the geology and review the surveys.

PROPERTY

Relevant details of the claim status are as follows:

Claim Name	Grant Numbers	Expiry Date
OD 1-12	YA2088-YA2099	August 8, 1977
OD 13-18	YA2298-YA2303	August 19, 1977
OD 19-34	YA2350-YA2365	August 28, 1977
OD 35-46	YA9466-YA9477	August 27, 1977

The claims are owned by Union Miniere Explorations and Mining Corporation Limited for whom the surveys were completed.

REGIONAL GEOLOGY

The claim area is regionally mapped by the G.S.C. (Green, 1972)¹ as underlain by Units 1 and 2b Precambrian sediments. These consist of (i) Unit 1: dark weathering shale, argillite, siltstone, to fine-grained quartzite, and very minor limestone, some jasper and specular hematite. Locally the shales and argillites are altered to phyllite. (ii) Unit 2b: fine-grained dolomite and dark shale to slate with lesser amounts of brightly coloured shale, vari-coloured quartzite, limestone, dolomite conglomerate, and jasper-bearing

¹G.S.C. Memoir 364, Dawson Geology Map 1284A, Green, 1972.



64°45'

139°15'

FIGURE 1

LOCATION MAP - OD CLAIMS

1/250,000

Handwritten signature or initials

conglomerate.

In most places Unit 2b rocks appear to overlie those of Unit 1 conformably and to have a gradational contact with them.

The claims regionally lie on the northern flanks of an east-west trending, oval-shaped area some fifty miles by twenty miles in extent which is referred to as the Coal Creek Dome.

CLAIM GROUP GEOLOGY

The claim area is entirely underlain by a thick conformable sequence of Proterozoic sediments (Figure 2) which can be subdivided into three main geological formations characteristic of marine and continental depositional environment. The oldest basal formation consists of a varied conformable sequence of microclenic shales and siltstones, orange brown-weathering dark grey dolomite (locally stromatolitic), bedded black chert, and brown-to-maroon-to-mottled shales and siltstones (Units 1 (a), (b), (c), respectively, Figure 2). This basal sequence exhibits rapid variations in facies both laterally and vertically. It is tentatively correlated with G.S.C. Unit 1 (Green, 1972)¹ of the regional geology.

Conformably overlying these sediments is a thick (1300 feet estimated) sequence (Unit 3, Figure 2) of massive, grey weathering, dark grey, stromatolitic (algal) dolomites. A detailed, measured geological section (P-P¹, Figure 2) in the central claim area shows the formation consists of thin-to-thick bedded algal dolomites with collenia-type stromatolite zones. Dolomite and ankerite veining occurs throughout this sequence with several zones of brecciation concentrated in the lower-to-middle part of the formation.

The Proterozoic sequence is capped by laminated, flaggy to blocky, orange weathering, grey to dark grey dolomite, dolo-breccia and minor black shale, and maroon and light brown shales and siltstones (Units 4 and 5, Figure 2). The more continental type of sedimentation occurs in the western part of the property with regression to the east where minor black, graphitic shale lenses occur. Units 3, 4, and 5 (Figure 2) are tentatively correlated with G.S.C. Unit 2b (Green, 1972)¹ and are interpreted to be Hadrynian in age.

A large diabasic textured dyke cuts across the entire eastern portion of the claims in a northeast to southwest direction, with a smaller diabase occurrence in the central claim area.

Several widespread, very minor sulphide occurrences are located within

Unit 3 massive dolomites and Unit 4 flaggy dolomites (Figure 2), including:

Location B: Minor sphalerite along bedding planes and cross-fractures in Unit 3 algal-mat dolomites in the west-central claim area. A grab sample of the best mineralization assayed 1.09% Zn across 30 feet.

Location F: Sphalerite, pyrite, and galena occurs in Unit 3 brecciated dolomite in veins and fracture fillings along the projected trace of a strong fault zone.

Location G: Minor sphalerite and galena occurs locally in fractures and as disseminations in Unit 4 laminated dolomite adjacent to a strong northeasterly striking fault zone. A grab sample assayed 0.41% Zn, 0.04% Pb.

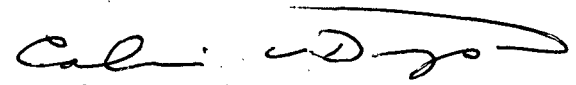
Locations H, I: Minor galena, sphalerite and pyrite occurs in calcite-ankerite veins and as disseminations associated with, but rarely within, brecciated Unit 4 dolomite. Samples assayed 0.36% Zn, 0.05% Pb in grabs and 0.02% Zn and 0.51% Pb over 50 inches in chips.

The intrusive dykes are completely barren and appear to be unrelated to any of the observed mineralization. The lead and zinc mineralization located on the claims is minor in nature and extent and appears related to local fault structures.

CONCLUSIONS AND RECOMMENDATIONS

- (1) A geological mapping survey completed over the OD 1-46 mineral claims shows them to be underlain by a thick conformable sequence of Proterozoic sediments.
- (2) Minor lead and zinc mineralization was located in several localized areas and is interpreted to be mostly fault-related in origin.
- (3) Further prospecting and geological studies are recommended to determine if other environments favourable for mineralization exist on the claims.

Respectfully submitted,



Colin V. Dyson, P.Eng.

CORE ACQUISITION FORM

PROPERTY NAME: OD Claim Group

CLAIM NAME(S): OD

COMPANY STORING CORE: Union Miniere Explorations and Mining Corp. Ltd.

COMPANY CONTACT PERSON: Al Burgoyne

DATE STORED: D M Y
 / /
 10 / 77

DATE DRILLED: M Y
 / /
 6 / 77

LOCATION: (NTS) 138 36' , 64 47.5' (UTM)
n

CORE LIBRARY STORAGE LOCATION: _____

	<i>Ident. # - length</i>	<i>GRID LOCATION - AZIMUTH</i>
DRILL HOLES:	No. 1: <u>OD-77-2, 634'</u>	<u>20W,15S - North, -45°</u>
	2: <u>OD-77-3, 315'</u>	<u>20.15W,21S North, -45°</u>
	3: <u>OD-77-4, 69'</u>	<u>20W,32.63S North, -45°</u>
	4: <u>OD-77-5, 70'</u>	<u>10W,28S North, -45°</u>
	5: _____	_____
	6: _____	_____
	7: _____	_____
	8: _____	_____
	9: _____	_____
	10: _____	_____



8N--

BASE LINE

Line 1P--

--6W

--10S--

● D.D.H. OD-77-2
20W, 15S
634', -45°

--20S--

● D.D.H. OD-77-3
20.15W, 21S
315', -45°

--30S--

● D.D.H. OD-77-5
10W, 28S
70', -45°

Line 40W--

Line 30W--

○ D.D.H. OD-77-4
20W, 32.63S
69', -45°

Line 20W--

--40S--

--50S--

Line 10W--

Line 0--

58708

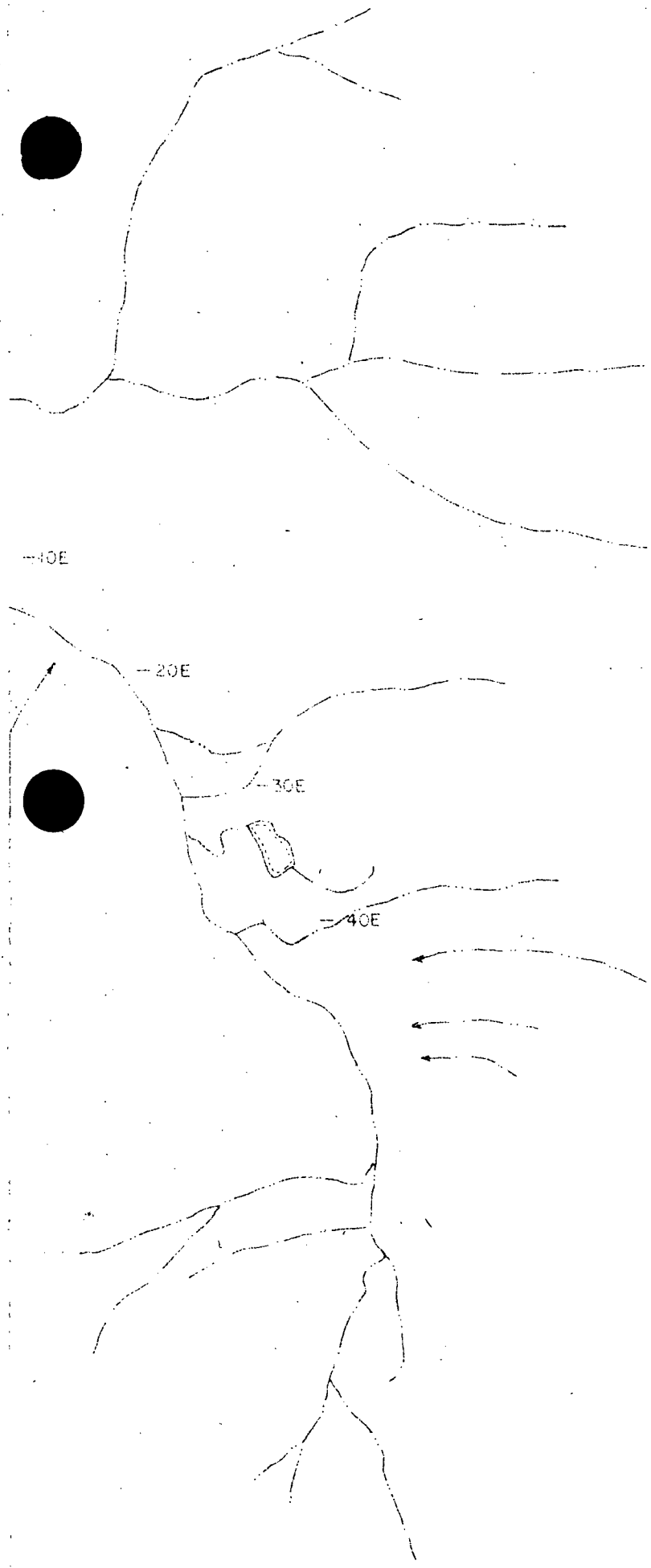


FIG. 10

BLACKSTONE PROJECT - 1977

OD CLAIMS

DIAMOND DRILL HOLE
LOCATIONS

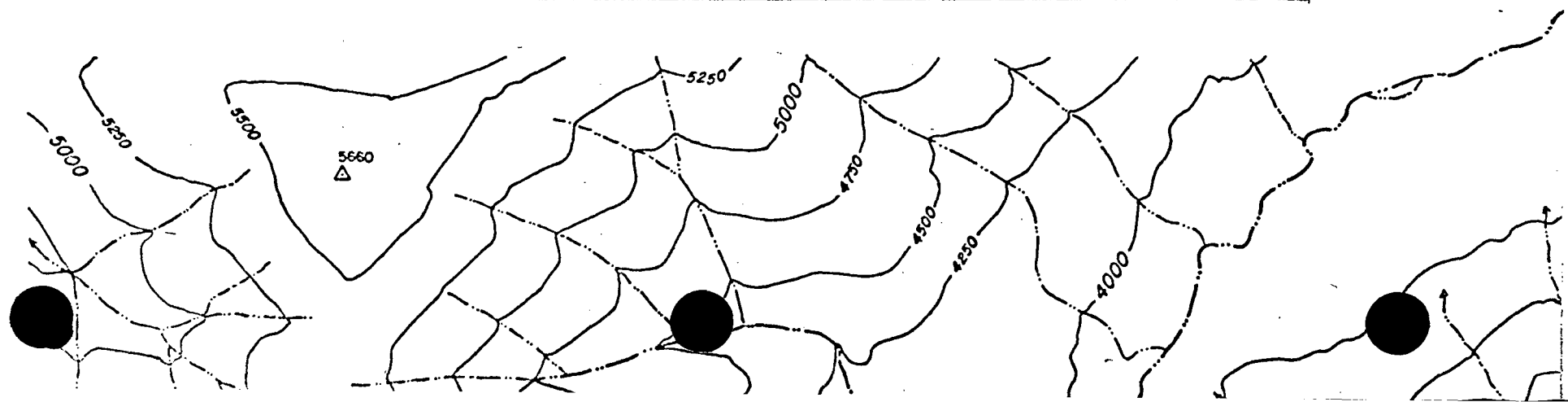
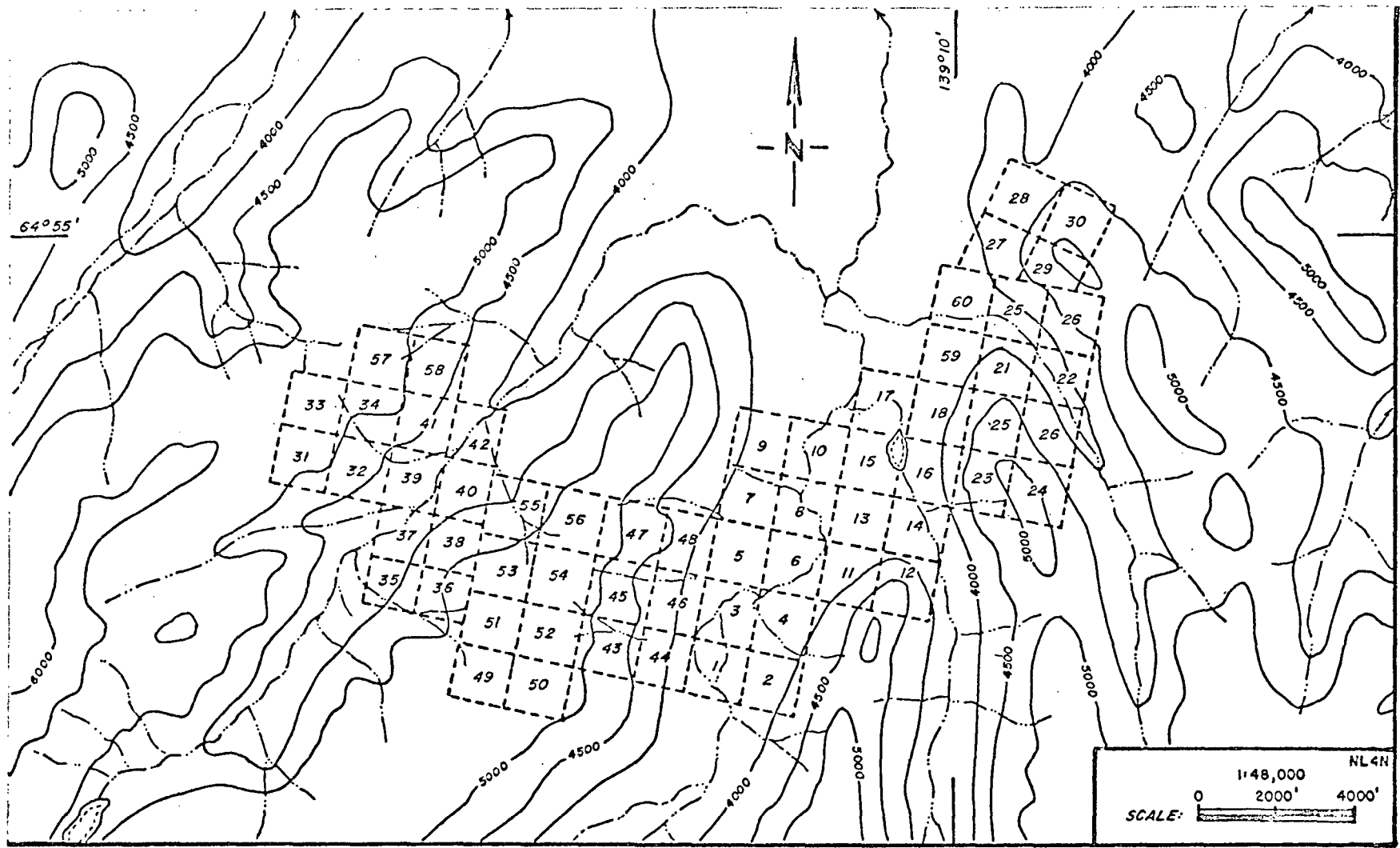
N.T.S. 1163-DAWSON

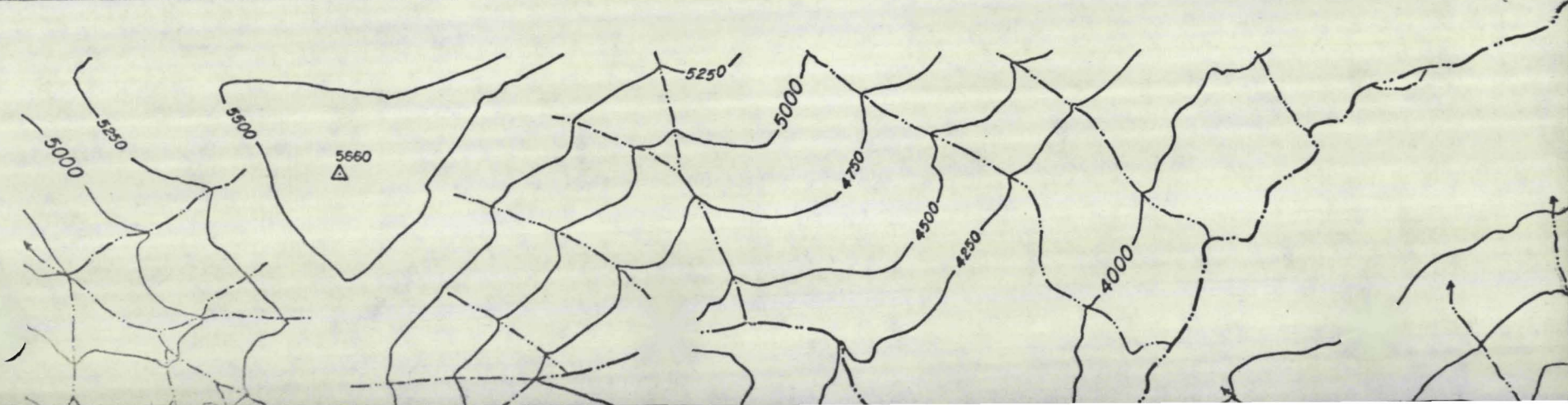
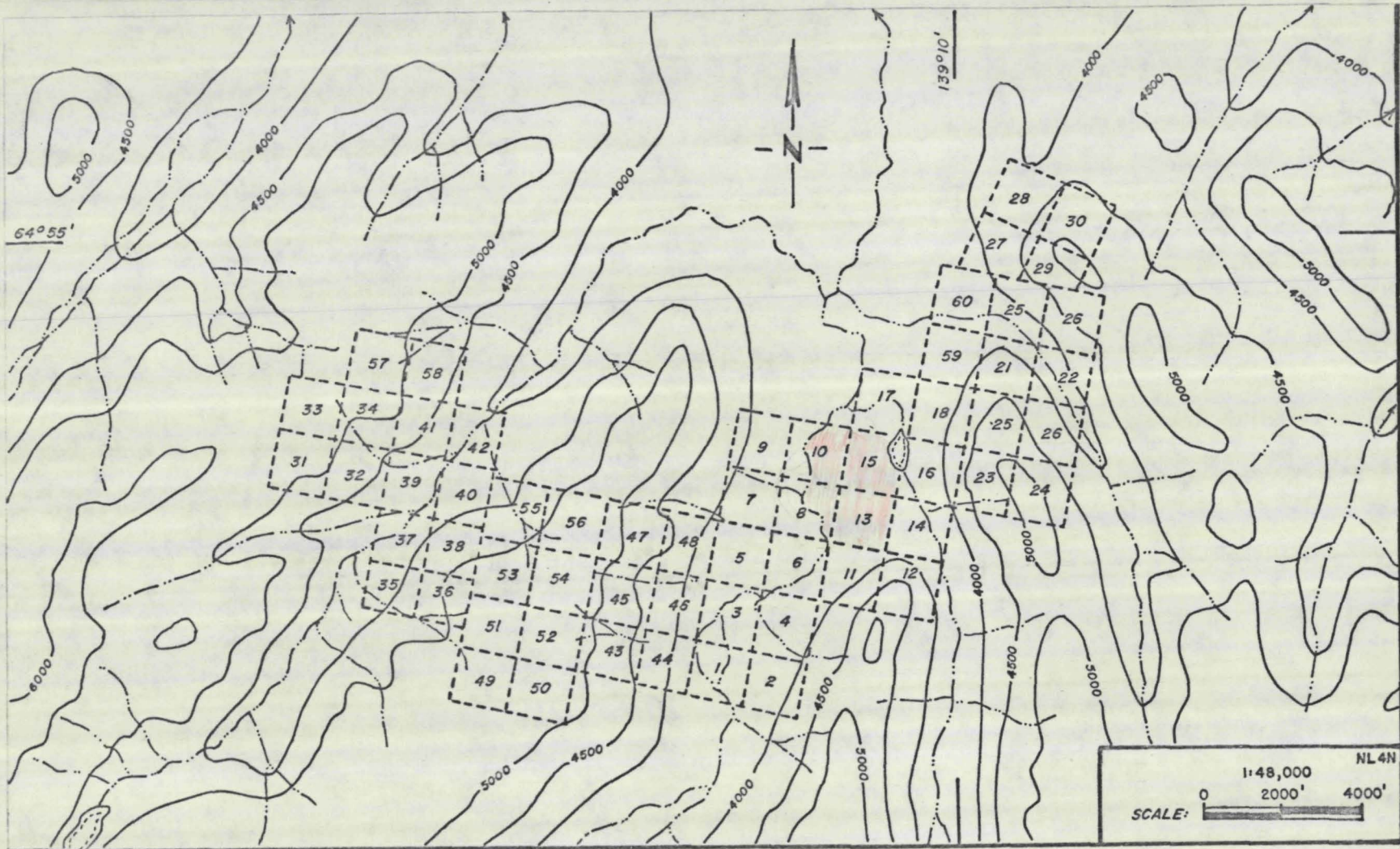
Scale 0 500' 1000' 1500' 1:12,000

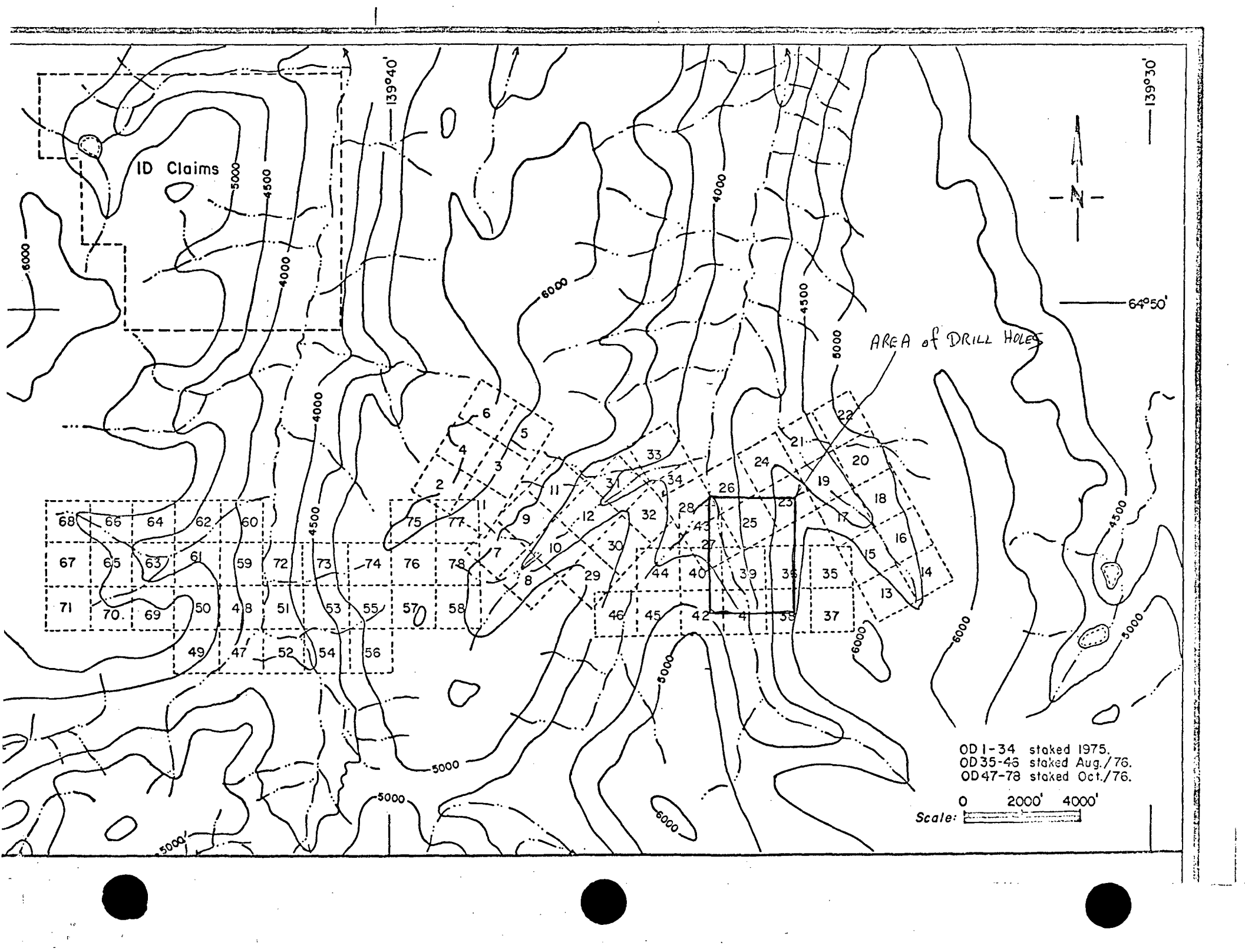
UMEX CORPORATION LTD.

Drawn by H. Helm
Date
Checked by H. Helm

U.M.C. No.







ID Claims

AREA of DRILL HOLES

OD 1-34 staked 1975.
OD 35-46 staked Aug./76.
OD 47-78 staked Oct./76.

Scale: 0 2000' 4000'

N.T.S. 116B-116 (E/W)
DAWSON.

CANADA

140°00' 55 56 57 58 59 139°00'

