

004673

TING PROPERTY

Ting 1-50, 85-96, Noting 51-76, Prospecting 77-84 claims

DECEMBER 1977

NTS 116B7

latitude 64°23' north, longitude 138°38' west

INTRODUCTION

The Ting property is composed of the Ting, Noting and Prospecting claim groups lying along the southwest edge of the Tombstone stock. Three areas of uranium mineralization called the Ting, Fawn and Prospecting showings were located here in 1976 (see 1976 UJV Report, pp. 22-40). Work in 1977 consisted of detailed prospecting and grid radiometric surveys of the Ting and Prospecting showings plus hand trenching of the Ting showing (see Figure U-TG1 in pocket).

The crew was mobilized by truck to the Dempster Highway and from there to the property by Bell 206B (Jet Ranger) helicopter from Dawson. Work was conducted from June 6 to 23 at which time the crew was moved by Jet Ranger to the Prospecting showing until June 30. Snow prevented surface prospecting until June 16 although it did not hamper hand trenching. The claims were still 5 per cent snow covered on June 30.

A day of helicopter supported regional prospecting was conducted June 26 to examine uranium geochemical anomalies shown on GSC Open File 418, which presented the assays for samples collected in 1976 as part of the Uranium Evaluation Program, and to check an occurrence of radioactive float reported north of Urangesellschaft's Teta claims. The Ting 85-90 claims were staked as a separate group in the area of float and the Ting 91-96 added to the main group of claims to fill gaps in the 1976 coverage.

PROPERTY, LOCATION AND ACCESS

The Ting property consists of 96 mineral claims of which 90 form an arcuate block along the south margin of the Tombstone syenite stock and 6 are located as a separate group 900 metres to the northwest. The claims are recorded in the Dawson Mining District as follows:

<u>CLAIM NAME</u>	<u>GRANT NUMBERS</u>	<u>EXPIRY DATE</u>
Ting 1-10	YA 5027-YA 5036	12 Feb. 1979
Ting 11-26	YA 5037-YA 5052	12 Feb. 1978
Ting 27-40	YA 5053-YA 5066	12 Feb. 1979
Ting 41-48	*YA 5163-YA 5156	12 Feb. 1979
Ting 49-50	YA 5140-YA 5141	12 Feb. 1979
Noting 51-55	YA 5174-YA 5178	12 Feb. 1979
Noting 56-59	YA 5182-YA 5185	12 Feb. 1979
Noting 60	YA 5179	12 Feb. 1979
Noting 61-64	YA 5190-YA 5193	12 Feb. 1979
Noting 65-68	YA 5186-YA 5189	12 Feb. 1979
Noting 69-70	YA 5180-YA 5181	12 Feb. 1979
Noting 71-76	YA 9509-YA 9514	12 Feb. 1979
Prospecting 77-84	YA 9525-YA 9532	12 Feb. 1978
Ting 85-94	YA10379-YA10388	4 July 1978
Ting 95F-96F	YA10389-YA10390	4 July 1978

* Note reverse order

The claims are centered at latitude 64°23' north and longitude 138°38' west within NTS sheet 116B7, 51 km (32 miles) northeast of Dawson. The nearest road point is Km 53 (mile 33) on the Dempster Highway 13.5 km (8.5 miles) to the east. Access is by helicopter from a permanent base maintained by Trans North Turbo Air in Dawson.

GEOLOGICAL SETTING

The geological and morphological setting is described in detail in the 1976 report and is briefly summarized below.

The Tombstone intrusion forms the core of the Tombstone Range, which is characterized by numerous blind valleys heading in steep cirque walls separated by knife-edge, almost vertical, ridges reaching elevations of up to 2100 m. Valleys are wide and well mantled with debris from extinct alpine glaciation while their sides are obscured by talus slopes heading on steep walled rock faces. Local relief ranges from 1000 to 1600 m. Mappable outcrop makes up only a small portion of the total. The claims lie above timberline and vegetation consists only of grasses and scattered stunted buckbrush.

The Tombstone intrusion consists of a sub-circular, 11 km wide, Middle Cretaceous syenite stock cutting Lower Cretaceous quartzite with limy and argillaceous sections. Contact metamorphism has produced a hornfels halo up to 1000 m from the contact and has selectively bleached the quartzites. There was no faulting associated with emplacement of the stock or post-intrusion. A distinctive tinguaitite phase (a variation of nepheline syenite related to phonolite) is found along the southwestern margin of the stock. The tinguaitite may have been a last phase of intrusive activity, possibly emplaced as a rapidly cooling dike system. It consists of fine grained aphanitic zones alternating with coarse grained phases containing phenocrysts of pseudoleucite (mainly a mixture of potassium feldspar and nepheline pseudomorphic after leucite) up to 4 cm across and less commonly of smaller subhedral orthoclase, which are cut by occasional

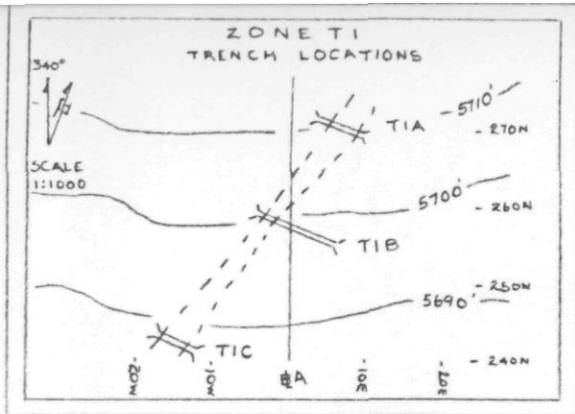
narrow (up to 30 cm) zones of healed breccia. The flow-banding plus a strong joint system are sub-parallel to the intrusive contact.

Exploration in 1976 showed that the Tombstone stock is radiometrically positive with rock assays commonly ranging from 5 to 20 ppm uranium. Specific small areas or "hot-spots" assaying up to several hundred or more ppm uranium were found easily but were not sufficiently abundant to be of economic interest. Limited assaying suggested uranium to thorium ratios of 3 to 1 or lower. The tinguaitite proved similarly radiometrically positive but contained more continuous zones of uranium mineralization with a low thorium content, returning grades up to 1% U_3O_8 from selected specimens. The 1976 staking covered the tinguaitite as well as its contact with the sediments.

1977 EXPLORATION PROGRAM

Trenching

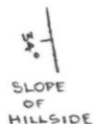
Three hand trenches were blasted into bedrock on the T1 zone at the Ting showing. Geology, assay and radiometric data for each trench are illustrated in the figures on the following three pages. The trenches expose a uranium-bearing zone averaging 2.67 m wide along a strike length of 35 m. The zone cuts across a 75 m band of aphanitic tinguaitite lying within fine grained syenite and coarse grained pseudoleucite tinguaitite. Although the radioactivity forms a linear, steep dipping zone, there is no obvious control other than the fact that it is only developed within the aphanitic tinguaitite. The tinguaitite is weakly jointed and joints cutting through areas of radioactivity are hematite stained and thinly coated by yellow and green uranium oxide near surface. Traces of galena, pyrite,



TRENCH TIA

LEGEND

- TOP OF TRENCH
- - - BOTTOM OF TRENCH
- ||||| VERTICAL FACE : EAST END
1 METER LOWER THAN WEST END
- I VERTICAL SAMPLE



ALL ASSAYS EXPRESSED IN PERCENT U_2O_8
 ALL SCINT READINGS TAKEN ALONG BOTTOM
 OF NORTH TRENCH WALL WITH SCINTREX
 BGS-15L (43cc CRYSTAL).



TRENCH LENGTH IN METERS	SAMPLE SPACING AGGAY (G/G) AND CPE IN BAG	SCINT READING AGAINST TRENCH WALL
0		1500
	0.011% 250/140	1500
1		1500
	0.014% 240/140	1500
2		1500
	0.052% 1200/140	1800
3		2300
	0.208% 2100/140	6000
4		10000
	0.195% 1700/140	10000
5		8000
	0.051% 860/140	6200
6		4600
	0.011% 240/140	4200
7		2200
	0.012% 180/140	1500
7.6		1400
		1300
		1300
		1200
		1200

FIG. U-TG2

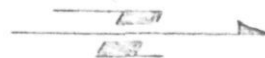
ARCHER, CATRO AND ASSOCIATES

GEOLOGY, RADIOMETRICS AND ASSAYS

TRENCH TIA - TING ZONE

TING 1-50, 91-94, 95F, 96F
 NOTING 51-76
 PROSPECTING 77-84

UKON JOINT VENTURE



SCALE 1:60



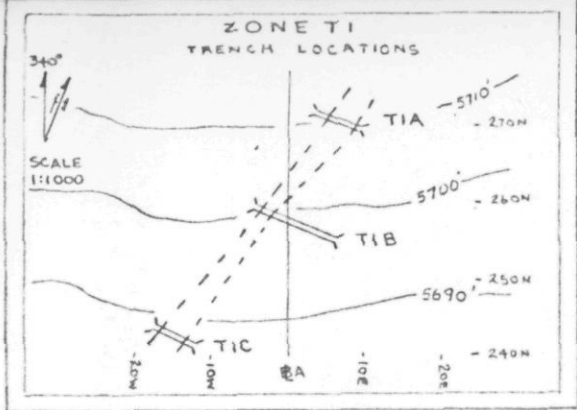


FIG. U-TG3

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GEOLOGY, RADIOMETRICS
AND ASSAYS
TRENCH TIB - TING ZONE

TING 1-50, 91-94, 95F, 96F
NOTING 51-76
PROSPECTING 77-84

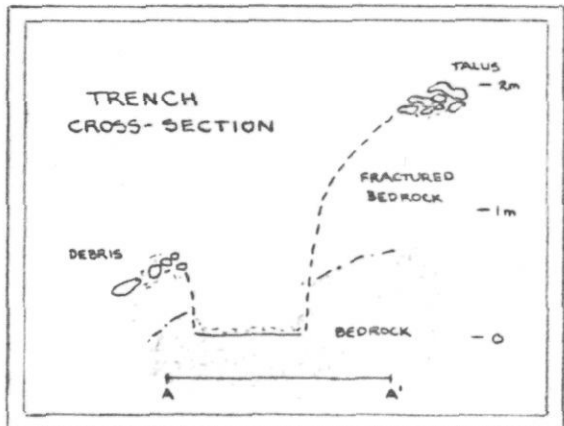
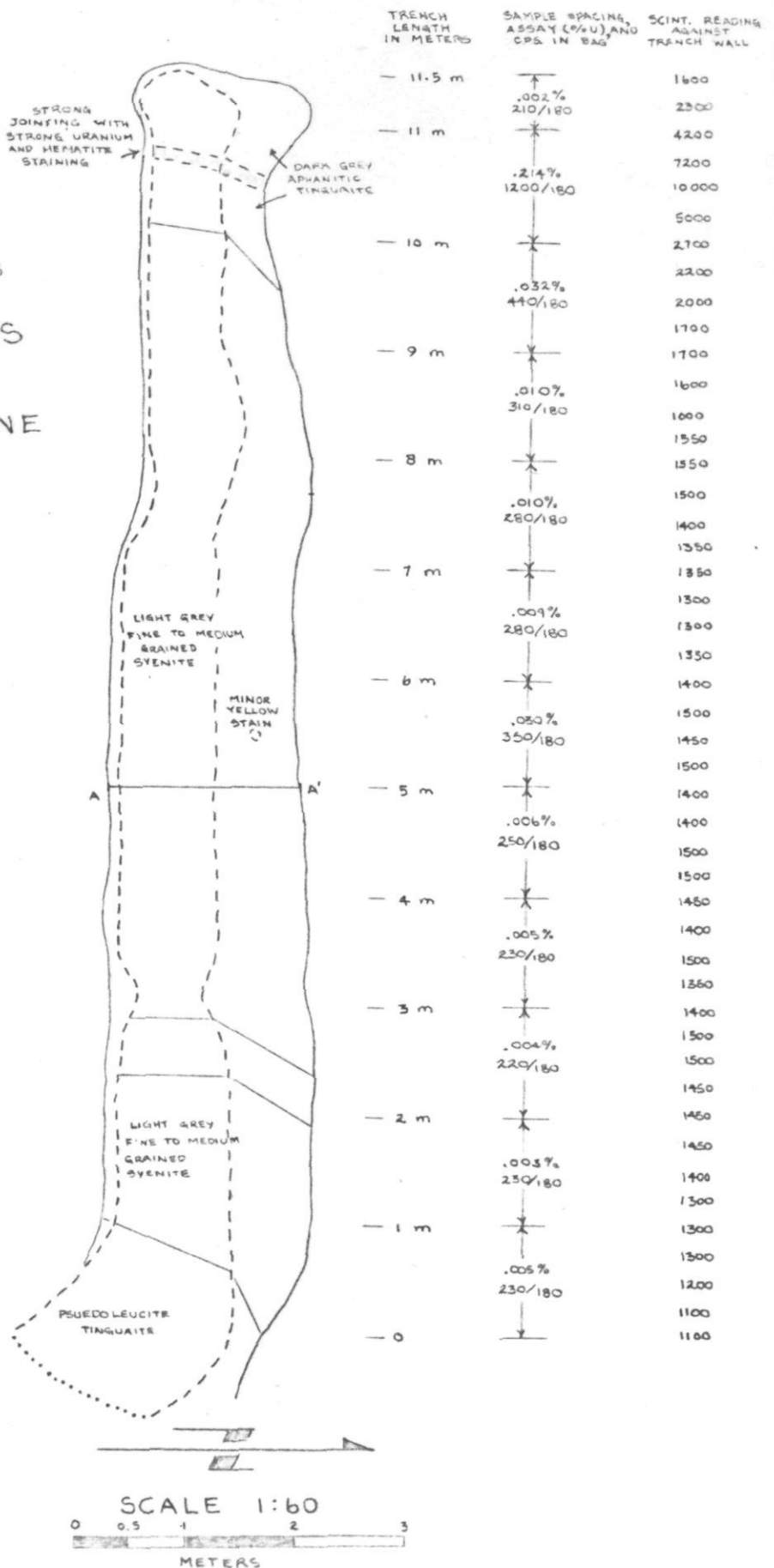
UKON JOINT VENTURE

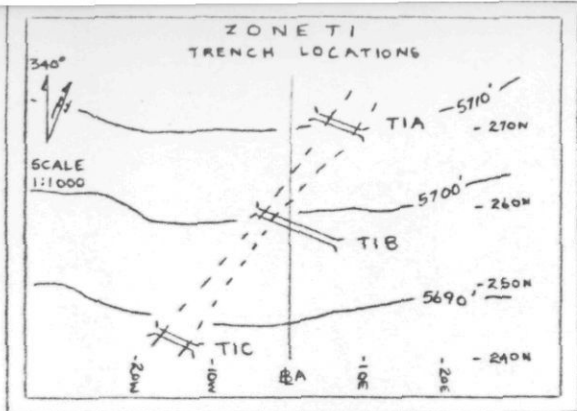
- TOP OF TRENCH
- - - BOTTOM OF TRENCH
- GEOLOGICAL CONTACTS

ALL ASSAYS EXPRESSED IN PERCENT U_3O_8 .

ALL SCINT READINGS TAKEN ALONG BOTTOM OF NORTH TRENCH WALL WITH SCINTREX BGS-15L (43cc CRYSTAL).

TRENCH TIB





TRENCH TIC

FIG. U-TG4

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GEOLOGY, RADIOMETRICS AND ASSAYS TRENCH TIC - TING ZONE

TING 1-50, 91-94, 95F, 96F

NOTING 51-76

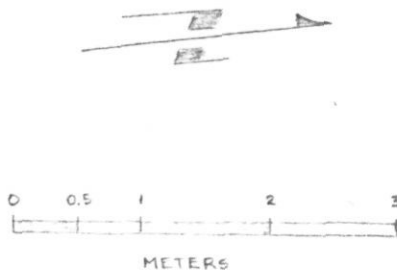
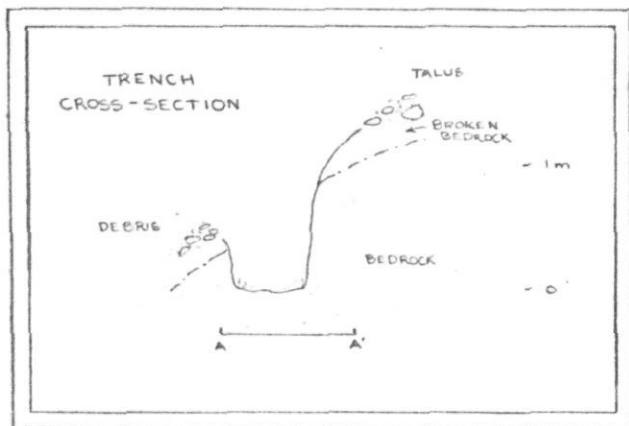
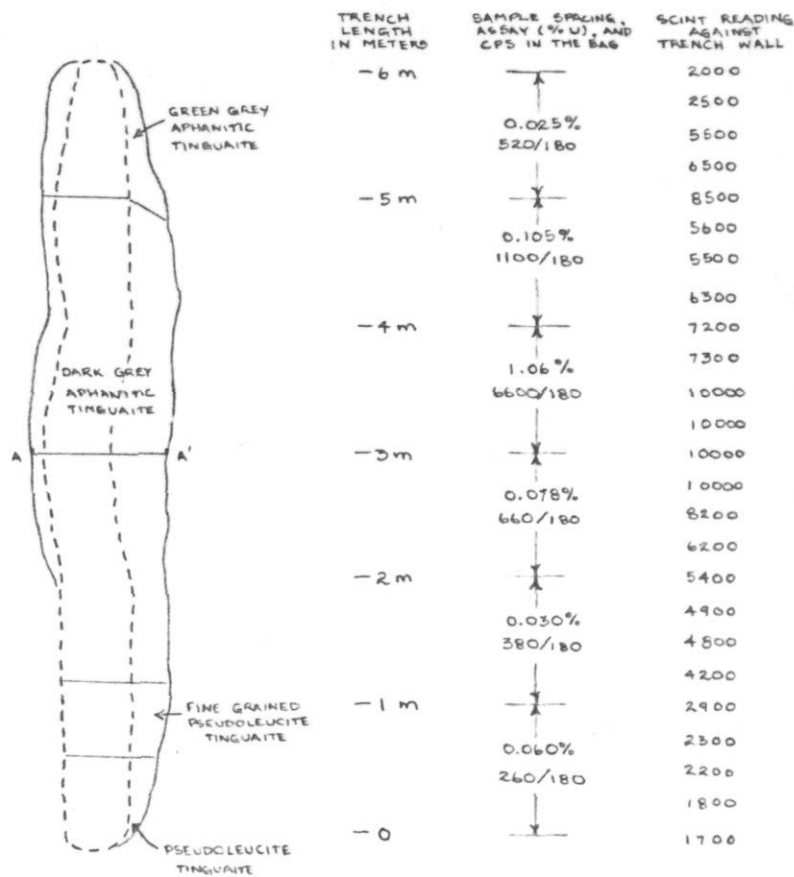
PROSPECTING 77-84

UKON JOINT VENTURE

- TOP OF TRENCH
- BOTTOM OF TRENCH
- GEOLOGICAL CONTACTS

ALL ASSAYS EXPRESSED IN PERCENT U_3O_8

ALL SCINT READINGS TAKEN ALONG BOTTOM
OF NORTH TRENCH WALL WITH SCINTREX
BGS-15L (43CC CRYSTAL).



molybdenite and purple fluorite are found in areas of strongest radioactivity. Although no specific radioactive mineral is seen, the source is assumed to be fine grained disseminated pitchblende or uraninite.

The T1 zone is completely covered by shallow blocky talus. Each trench was cut through the frozen talus and then from 1/2 m to 1 m into bedrock on the uphill side. The bedrock side of each trench was chip sampled at 1 m intervals and assayed for uranium at Chemex Labs Ltd. Samples assaying more than 0.05% U_3O_8 were also assayed for ThO_2 . Assay results of the three trenches are summarized in Table 1 on the following page.

The indicated reserves of the T1 zone using a 0.05% U_3O_8 cut-off is 27,000 tonnes grading 2.32 kg/tonne U_3O_8 (0.232 per cent) assuming the zone has a strike length of 75 m, extends to a depth of 50 m and has a width equal to the arithmetic average of the three trenches. Total contained uranium in this reserve is 62,640 kg or 137,800 pounds.

PROSPECTING, GRID RADIOMETRICS

Prospecting located four additional radioactive zones (T2 to T5) near the Ting 1 zone; two radioactive zones (H1 and H2) on the Hot claims of Mountain Minerals Ltd., which were subsequently optioned by Union Carbide; two radioactive zones (P1 and P2) on the Prospecting claims; and an area of radioactive float north of the Urangesellschaft Teta claims. All but the P1 zone occur either in aphanitic tinguaitite or along the contact of the stock. Grid radiometric surveys, using a Scintrex BGS-1SL broadband scintillometer (43 cc crystal), were conducted over

TABLE 1

TING ZONE TRENCHING ASSAY DATA

<u>TRENCH NO.</u>	<u>SAMPLE NO.</u>	<u>INTERVAL IN M</u>	<u>ASSAY % U₃O₈</u>	<u>ASSAY % ThO₂</u>	<u>AVERAGE OF INTERVALS EXCEEDING 0.05% U₃O₈</u>
T1A	11058	0-1	0.012	.010	4 metres wide grading 0.114% U ₃ O ₈ and 0.005% ThO ₂
	11057	1-2	0.011	.010	
	11056	2-3	0.051	.005	
	11055	3-4	0.145	.005	
	11054	4-5	0.208	.005	
	11053	5-6	0.052	.005	
	11052	6-7	0.014	.010	
	11051	7-8	0.011	.005	
T1B	11060	0-1	0.005	NA	1 metre wide grading 0.214% U ₃ O ₈ and 0.01% ThO ₂
	11061	1-2	0.003	NA	
	11062	2-3	0.004	NA	
	11063	3-4	0.005	NA	
	11064	4-5	0.006	NA	
	11065	5-6	0.030	NA	
	11066	6-7	0.009	NA	
	11067	7-8	0.010	NA	
	11068	8-9	0.010	NA	
	11069	9-10	0.032	.010	
	11070	10-11	0.214	.010	
11071	11-11.3	0.002	.010		
T1C	11072	0-1	0.006	.010	3 metres wide grading 0.396% U ₃ O ₈ and .008% ThO ₂
	11073	1-2	0.030	.010	
	11074	2-3	0.078	.010	
	11075	3-4	1.06	.010	
	11076	4-5	0.105	.005	
	11077	5-6	0.025	.005	

Average all trenches 2.67 metres wide grading 0.232% U₃O₈ and .007% ThO₂

* Sample intervals measured from east to west

* NA - not assayed

zone T2 and two overburden covered areas along the contact of the stock as illustrated on Figure U-TG1 in the pocket. No significant mineralized areas were located by the radiometric surveys although they proved useful in determining the approximate location of zone T2 and the quartzite contact. A short description of individual zones follows.

Zone T2 occurs on a steep, talus covered slope and is defined by scattered radioactive float over a length of 60 m. Three hand trenches were dug to bedrock but the talus was too thick to allow determination of widths or proper sampling. Chip samples assayed 0.031% U_3O_8 across 25 cm in one of the pits and 0.086% U_3O_8 across 75 cm from a second pit. A grab sample of broken bedrock from the third pit assayed 0.344% U_3O_8 . The radioactivity occurs in an aphanitic phase of the tinguaitite and, like the T1 zone, no specific radioactive mineral can be identified megascopically. Minor green and yellow secondary uranium oxides are found on joint surfaces in strongly radioactive float.

Zones T3 to T5 are small areas of scattered radioactive float associated with the same band of aphanitic tinguaitite that hosts the T1 and T2 zones. Grab samples of better grade float range from 0.02 to 0.09% U_3O_8 .

Zone H1 is exposed on a steep, almost talus free, slope about 100 m below the ridge top and about 800 m northeast of zone T1. It consists of 4 or 5 sub-parallel radioactive zones over an area of at least 50 m by 50 m in a 100 m wide zone of aphanitic tinguaitite. Individual radioactive zones generally follow, but are not obviously controlled by, a strong set of joints striking 40° and dipping 73° east. This is also (coincidentally ?) the approximate attitude of the nearby intrusive-quartzite contact. The best zone is about 40 m long and ranges from

1 m to 3 m wide. A chip sample across 3 m of the most strongly radioactive portion assayed 0.279% U_3O_8 . The outcrop is strongly leached and the level of radioactivity (greater than 10,000 cps with the Scrintrex BGS-1SL) suggests a sample from unleached rock would assay over 1% U_3O_8 . This zone is very similar in appearance to the T1 zone.

Zone H2 is an area of radioactivity developed along the intrusive contact in a location where the tinguaitite band hosting the H1 zone comes in direct contact with the quartzite. The contact is continuously radioactive along 100 m of slope length on a 30° slope. A light talus cover obscures most of the contact but a few exposures suggest it is sharp. A 1/2 m deep hand trench dug at the most radioactive section exposed a 5 cm wide zone of mylonite with yellow uranium stains and sooty pitchblende at the contact, from which a chip sample assayed 1.1% U_3O_8 . Small pieces of good grade float were found 150 m east, one of which assayed 1.27% U_3O_8 while another (not assayed) contained about 15% sooty pitchblende. The mineralized host rock appears to be light coloured, altered syenite, although most of the talus consists of quartzite. No attempt was made to locate the source.

Zone P1 is an area of float located in 1976 and called the Prospecting showing (see 1976 UJV Report, pp. 38-40). It consists of a small train of strongly radioactive boulders from which specimens assayed as high as 1.2% U_3O_8 . The 1977 work indicates that the sources are "hot-spots" up to 1 m by 1 m in size occurring sporadically within two parallel, weakly foliated pseudoleucite tinguaitite dikes that cut fine grained syenite. The dikes are 3 to 4 m wide and about 4 m apart. They strike 65° and dip steeply. A chip sample across 1 m of the best exposed hot-spot assayed 0.066% U_3O_8 .

Zone P2 is a new area of mineralization found in 1977. It consists of discontinuous, patchy zones of radioactivity developed in weak shears up to 25 cm wide along the pseudoleucite tinguaites-syenite contact some 1000 m northeast along strike from zone H2. The radioactivity can be traced about 50 m to the point where the contact runs up an inaccessible cirque wall. Specimens of mineralization assayed between 0.049% and 0.637% U_3O_8 .

Other Zones. Prospecting the projected portion of the syenite-quartzite contact in the glacial-boulder-covered valley south of zone H2 located a small area of above-background radioactivity that increased to 1200/340 cps in a 1 m deep pit. Although only glacial till is exposed in the pit, the increase in count suggests an underlying mineralized zone. It is interesting to note that this location is also on strike of the band of aphanitic tinguaites which hosts the T1 zone.

Half a day of prospecting north of Urangesellschaft's Teta claims located an area of scattered radioactive float as shown on the location map insert on Figure U-TG1. This area was examined following a rumour that the GSC had identified a specimen of tinguaites containing better than 1 percent U_3O_8 from this location while checking material from previous field programs stored in Ottawa. The UJV prospecting outlined a 250 m wide zone of tinguaites at the locality. No mineralized zones were found in the tinguaites but a few fragments of good grade float, from an uphill source in the Teta claims, were located. The best float assayed 5.63% U_3O_8 . Six claims (the Ting 85 to 90) were staked for positional value.

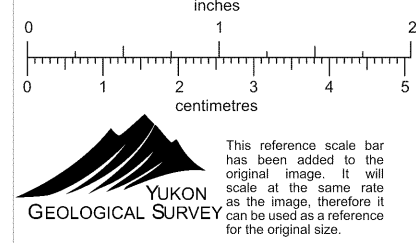
CONCLUSIONS AND RECOMMENDATIONS

Although the entire Tombstone stock contains anomalous quantities of uranium, only the tinguaitite phase, particularly those portions that are aphanitic, exhibits continuous zones of mineralization. These zones may be fairly abundant, since prospecting in 1977 outlined three (the T1, T2 and H1) with more or less equivalent tonnage and grade while exploring only 20 per cent of the area underlain by tinguaitite. Surface trenching at the T1 zone suggests a possible reserve of 27,000 tonnes, grading 2.32 kg/t U_3O_8 (0.232 percent), to a depth of some 50 m. Assuming further surface exploration is equally successful, some 15 zones of similar tonnage and grade might be expected. Work in 1978 should consist of (a) detailed prospecting of the remainder of the claims to verify the overall abundance of mineralized zones; and, (b) close spaced diamond drilling of the best zone to determine more accurate tonnage and grade potential of individual zones. This program is estimated to cost \$150,000 assuming 2,000 feet of drilling are required.

The Ting 85 to 90 claims staked north of the Teta claims should be allowed to lapse on their expiry date of July 4, 1978.

LEGEND

- 18A AMPHIBITIC TINGUAITE
- 18A PSEUDOLEUCITE TINGUAITE
- 18 SYENITE-QUARTZ MONZONITE
- 13 KENO HILL QUARTZITES
- 16 DIABASE AND GABBRO
- T4 Zone of anomalous radioactivity (TING Zone 4)
- Geological contact - observed, approximate
- Rock assay in % U₃O₈ or ppm U if less than 0.05%
- Total count at waist height using a Scintrex BOS-ISL scintillometer (43 cc crystal)
- Soil sample assay in ppm U
- Trench
- Talus



This reference scale bar is for use with the map. It is not to be used as a scale for the map. The scale of the map is 1:5000. The scale of the reference scale bar is 1:1250.

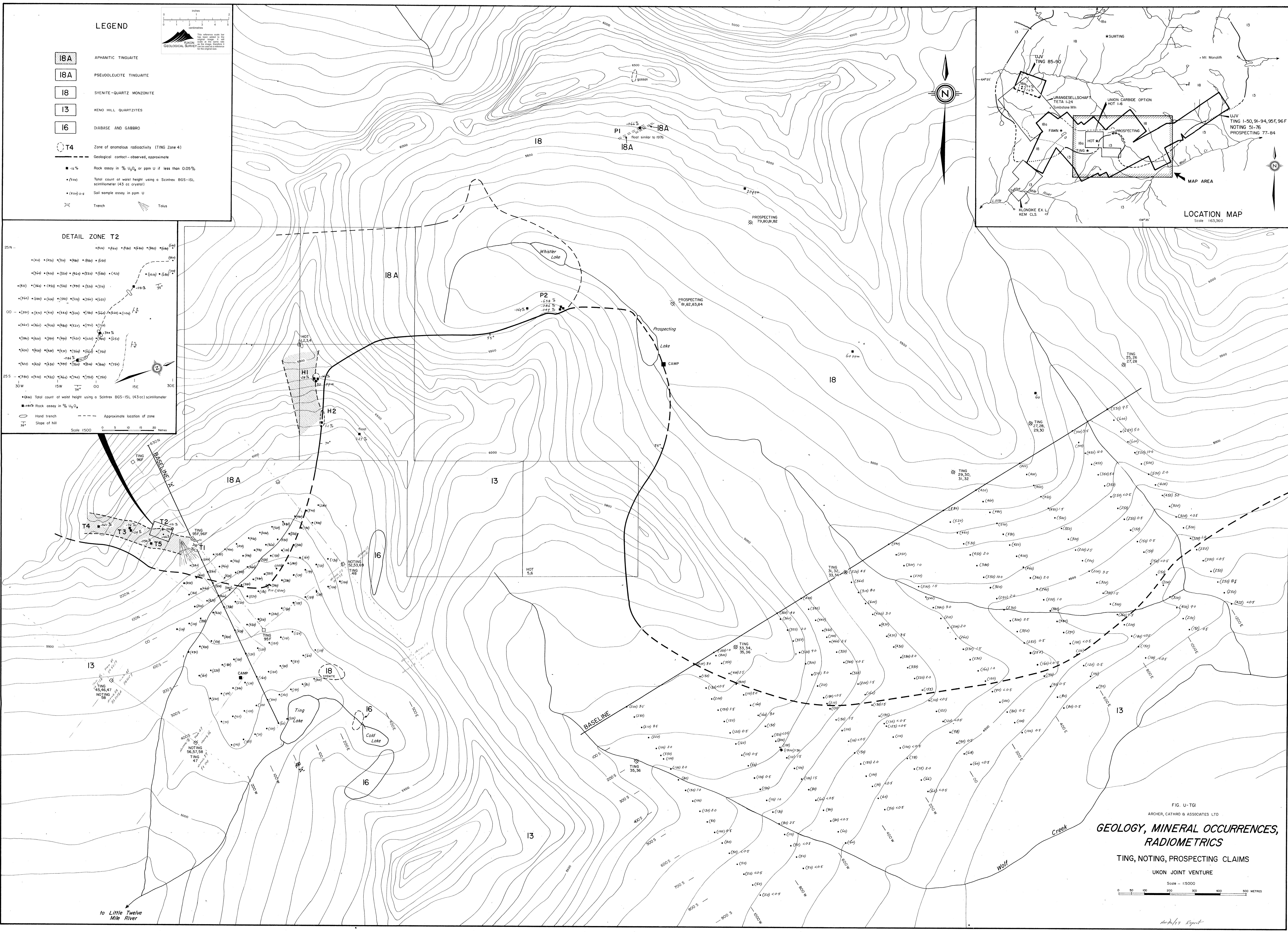
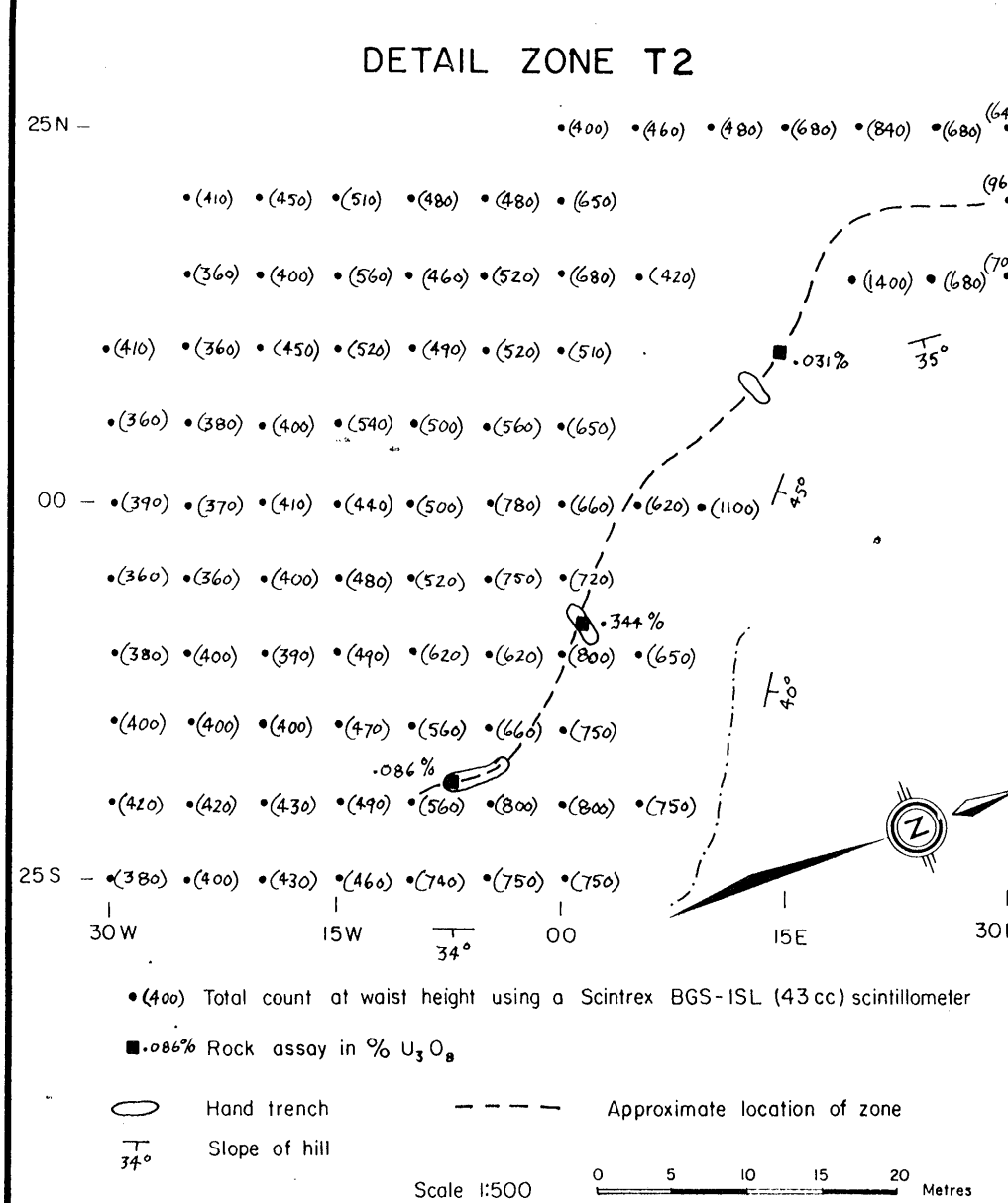
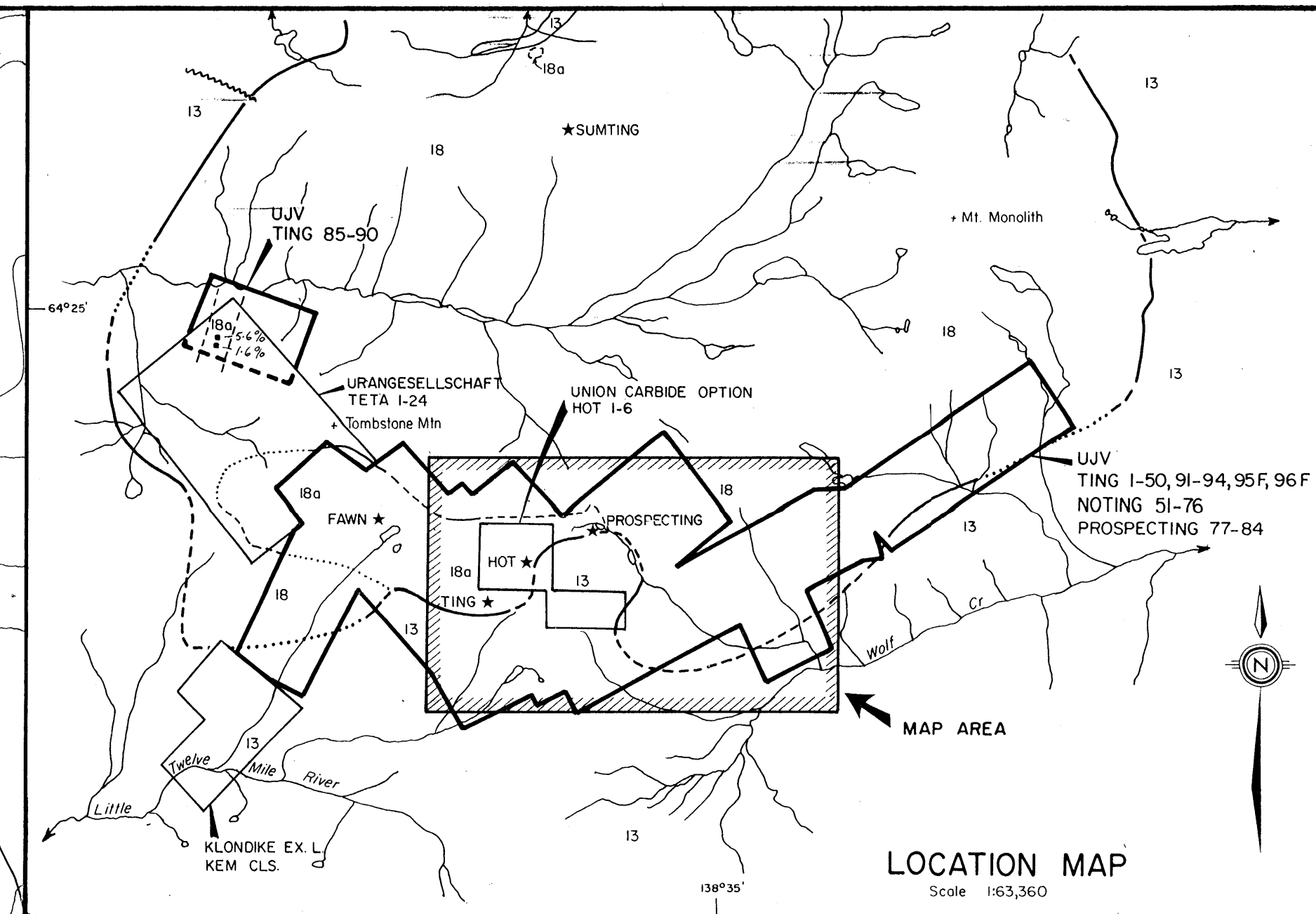
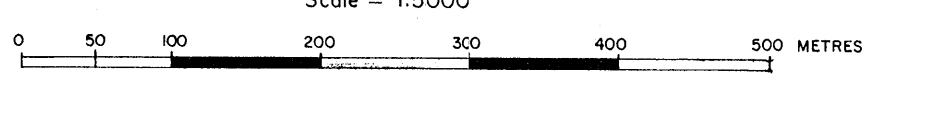


FIG. U-TGI
 ARCHER, CATHRO & ASSOCIATES LTD
**GEOLOGY, MINERAL OCCURRENCES,
 RADIOMETRICS**
 TING, NOTING, PROSPECTING CLAIMS
 UKON JOINT VENTURE
 Scale - 1:5000



Map/17 Report