

PROPERTY FILE

003292

PROPERTY EVALUATION

for

TANDEM RESOURCES LTD

on

DEER AND BEAR CLAIMS

in the

TRAIL CREEK MINING DIVISION

of

BRITISH COLUMBIA

December 30, 1976

Vancouver, B.C.

E. Amendolagine, P.Eng.

Consulting Geologist

082FSW212

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INTRODUCTION

The report is written at the request of Mr. K. McKay for Tandem Resources Ltd.

The property was visited by Mr. K. McKay, R. Carlson and myself during the period of December 17th to 19th, 1976 to examine the uranium claims to be optioned by the Company.

SUMMARY

Tandem Resources Ltd has under option claims Deer No. 1 and Bear No. 1 consisting of 26 units. They are uranium claims situated some six miles south of Castlegar in the Trail Creek Mining Division of British Columbia. The property is easily accessible by highway No. 3 which passes through the south-^{eastern}~~western~~ portion of the property. There is a good dirt road through both of the claims. There are both gas and electric power lines passing through the property which could be a source for power. The property lies to the west of the Columbia River Valley on the north slope of China Creek.

Geologic field observations and a preliminary scintillometer examination suggests the possibility of multi-millions of tons of a favourable uranium mineralized host rock formation being present on the property.

The property area and the area for some ten miles by $1\frac{1}{2}$ miles as indicated by the G.S.C. geologic maps is underlain by a metamorphosed, recrystallized, granitoid gneissic, schistose sheared, pegmatitic rock formation of undetermined geologic age. This formation is exposed north and south of China Creek. The exposed formation is an area emitting varying degrees of uranium radiation. Assays obtained from these exposures yielded up to 0.60% U_3O_8 .

The surface area of Tandem Resources Ltd. measures over two square miles of surface area of the favourable host granitoid uranium mineralized rock formation.

With a uranium mineralized formation of this magnitude, there is a very good possibility of developing a very large low grade uranium ore body. The aim of the exploration and developing program should be to develop an economic and large low grade uranium ore body. One square mile of this favourable host rock would yield some $2\frac{1}{2}$ million tons per vertical foot and some 250 million tons per 100 vertical feet and some 2.5 billion tons per 1,000 vertical feet. With the price of uranium in the \pm \$50.00 per pound range, it is conceivable that one square mile by 100 vertical feet of mineralization of $1/4$ lb of uranium per ton would be worth upwards of 3 billion dollars.

This is a very interesting uranium mineralized area and it is recommended that the property justifies a very thorough exploration and development program with the aim of developing a low grade large tonnage uranium ore body.

A complete preliminary program as discussed would require some \$108,900.00.

HISTORY OF THE AREA

Some uranium exploration was carried out in this area during 1968 when uranium was at ± \$7.00 per pound. From the available information some drilling was completed ^{but} by the program was not completed and conclusive.

PROPERTY

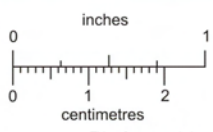
The property consists of two contiguous uranium mining claims known as the upper claim Deer No. 1 and the lower claim Bear No. 1 with twenty units and six units respectively, and tag numbers 15172 and 34578. respectively. They are located in the Trail Creek Mining Division of British Columbia. (see attached recording G Forms and recording location plan by R. Carlson).

LOCATION

The claims lie to the west of the Columbia River Valley, to the north of China Creek on Highway No. 3, eight miles south of Castlegar, and 12 miles north of Trail, B.C., some 250 air miles east of Vancouver, B.C. and some 200 air miles west of Calgary, Alberta at N latitude $49^{\circ} 14'$ and W longitude $117^{\circ} 45'$.

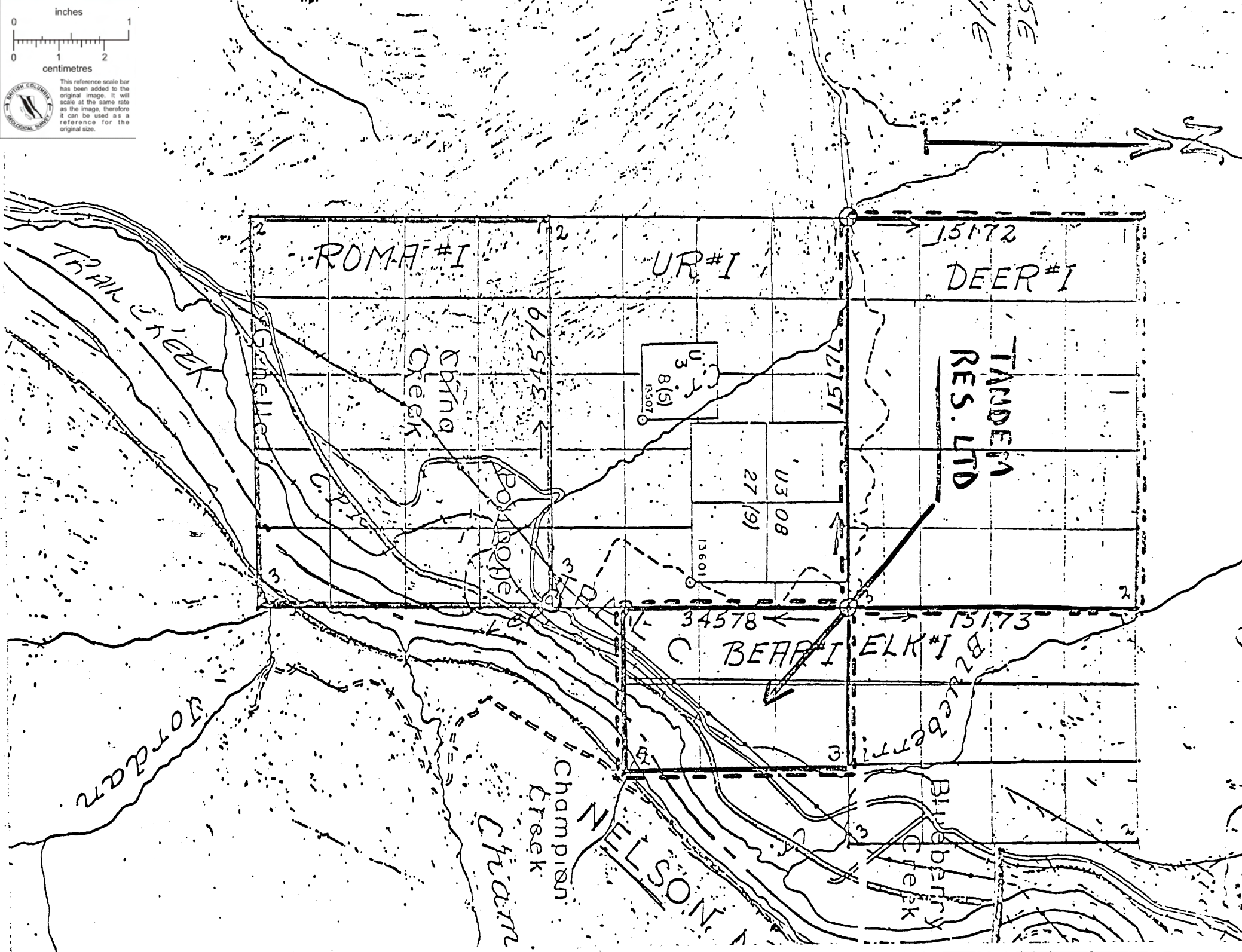
ACCESS

Access to the property by road from Castlegar is some eight miles south on paved highway No. 3 to the southern end of the town of Blueberry Creek, then westward on a fairly good dirt road which runs through both claims. The road is good enough for conventional drive in good weather, but would require four-



BRITISH COLUMBIA
GEOLOGICAL SURVEY

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wheel drive in bad weather. Highway No. 3 crosses the southeastern corner of the lower claim Bear No. 1. A power line and gas line cross in the same general area and could be sources for power.

TOPOGRAPHY

The topography is considered high relief with an elevation of 1,500 feet a.s.l. at Highway No. 3 and rising gently to the north west to 2,800 feet in the center of the upper claim Deer No. 1 then rising steeply to 4,300 feet at the north west corner of Deer No. 1.

GENERAL GEOLOGY

The general geology of the property and property area is comprised of some Nelson Plutonics and mainly of high grade metamorphic rocks of unknown age which are layered and contain some marble. (Ref: G.S.C. Paper 62-5; Trail Map Area; 82 F/4, E1/2; Maps 7-1962; by H.W. White, 1962 (see following map) with property location).

The area was also mapped as argillite, quartzite, greywacke, breccia and pyroclastic probably of Carboniferous-Jurassic age. (Ref: G.S.C., Map 1090A Geology of Nelson, B.C. west half; by H.W. White, 1948-52 (see colored geologic sheet with property location.)).

The geology of the area is also described as pegmatite which occurs in irregular sheets up to a few tens of feet thick in gently dipping biotite gneiss and schist. The wall rocks have an east-west lineation and the pegmatites terminate in rounded and bulbous shapes with the long axes parallel to this lineation. The area is reported to give scintillometer readings which are three times background with local areas in which uraninite is visible, giving much higher readings. The uranium showings consist of local concentrations of uraninite in pegmatite. The uranium occurs as subhedral crystals up to one-sixteenth of an inch across. (Ref: B.C. Minister of Mines, Annual Report 1968, page 239 by J.T.Fyles.)

INSTRUMENTATION

The property examination for radioactivity was conducted with a Ludlum High Energy Gamma Scintillator attached to a Model 3 Geiger Counter Instrument Box which has four scales and measures in counts per minutes.

The four scales measure in ranges of X-0.1, X-1.0, X-10.0, X-100.0. The readings are indicated on a dial which is divided in five units. The instrument is calibrated to read progressively from scale to scale.

The instrument should not be used as an assay instrument but used to outline areas of higher intensity of radioactivity. Then, the areas should be rock sampled after blasting or drilling.

The instrumentation has a built in audio sound to alert for change in cpm or R.A.

PROPERTY EXAMINATION

The property was examined during the periods of November 27th and 28th by R. Carlson, H. Buhr and myself and also during the period of December 17th to 19th, 1976 by R. Carlson, K. McKay and myself. During these visits traverses were made along the southern and northern slopes of China Creek up to elevations of ± 3,000 feet a.s.l. Observations were made of the geology and some rock samples were taken for assaying. A Ludlum Model 3 scintillometer with an audio sounder was carried with the instruments on at all times.

China Creek is a steep walled ravine rising nearly 1,000 feet from the creek bed to the Oko Poko Peak. The geology on both sides of the creek is similar being a granitoid gneiss consisting of mainly feldspar and quartz with varying degrees of biotite, garnets, calcite and visible uranite crystals. The feldspars develop to coarse crystals in places giving the rock formation a lensoid elongated pegmatitic appearance. Some of the lenses

measure to 10 and 15 feet in thickness and sometimes grade into a quartz biotite schist and gneiss and sometimes are separated by gneissic or schistose layers or bands.

The radioactivity is also similar on both sides of China Creek where the formation is exposed. The background of the whole area is very high being at least 2-3 times above normal.

In some areas or spots the readings range in four to eight times background with isolated areas nearly reading off the high scale on the instrument. There were samples taken on both sides of China Creek mainly for qualitative analysis. Four of the samples assayed yielded the following:

<u>Sample</u>	<u>Assay</u>	<u>lbs/ton</u>
39051	0.012	0.24
39052	0.600	12.00
0039	0.072	1.44
0040	0.232	4.64

These are samples taken south of China Creek. Some samples taken on the north side are being assayed.

The property inspection was conducted carrying in one position, a Ludlum Model 3 instrument. The background reading for the scintillometer in Vancouver is 0.6 on the X-1.0 scale. The background reading on the property ranges from 1.8 upwards on X-1.0 scale. Readings on the property varied from high background reading of 1.8 on the X-1.0 scale to 4.0 readings on X-100 scale.

All of the property has exceptionally high background readings. Although the assays returned from the samples are considered high, they are only indicative of uranium being present on the property. The radioactive granitoid formation extends some 10 miles by 1 1/2 miles and over 1,000 feet in thickness as per G.S.C. mapping by H.W. White, Fyles & Hewlett.

With a uranium mineralized formation of this magnitude, there is a very good possibility of developing a very large low grade uranium ore body. The aim of the exploration and developing program should be to develop an economic and large low grade uranium ore body. One square mile of this favourable host rock would yield some 2½ million tons per vertical foot and some 250 million tons per 100 vertical feet and some 2.5 billion tons per 1000 vertical feet. With the price of uranium in the + \$50.00 per pound range, it is conceivable that one square mile by 100 vertical feet of mineralization of 1/4 lb of uranium per ton would be worth upwards of 3 billion dollars.

The surface area of Tandem Res. Ltd. measures over two square miles of surface area of the favourable host granitoid uranium mineralized rock formation. Attached are copies of assayed samples.

TO Nomad Mines Ltd.,
510 W. Hastings St.,
Vancouver, B.C.

ACME ANALYTICAL LABORATORIES LTD.
Assaying & Trace Analysis
6455 Laurel St., Burnaby 2, B.C.

14
Tel: 299 5242

File No. 6932
Type of Samples Rocks
Disposition _____

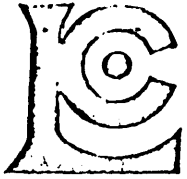
ANALYSES CERTIFICATE

No.	Sample	U ₃ O ₈ %						No.
1	0039	.072						1
2	0040	.232						2
3								3
4								4
5								5
6								6
7								7
8								8
9								9
0								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

All reports are the confidential property of clients.

DATE SAMPLES RECEIVED 1 Dec. 1976
DATE REPORTS MAILED 6 Dec. 1976

Alan Joyce
CERTIFIED B.C. ASSAYER



CHEMEX LABS LTD.

21 BRIDGESBANK AVE.
DORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

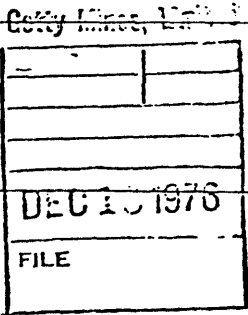
CERTIFICATE OF ASSAY

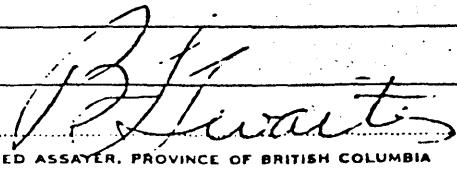
TO: Getty Mines Ltd.,
622 - 510 W. Hastings St.,
Vancouver, B. C.

ATTN: G. Delane

CERTIFICATE NO. 32142
INVOICE NO. 19129
RECEIVED Dec. 3/76
ANALYSED Dec. 14/76

SAMPLE NO. :	% U ₃ O ₈
39051	0.012
39052	0.600


 CTA
 MEMBER
 CANADIAN TESTING
 ASSOCIATION
 DEC 15 1976
 FILE


 REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

CONCLUSION

Tandem Resources Ltd hold two mining claims in the Trail Creek Mining Division of B.C. which cover more than two square miles of surface area. More than one square mile of this surface area is indicated on the G.S.C. geological map by H.W. White, Fyles & Hewlett and is believed to be favourable uranium-bearing granitoid formation.

One square mile of this favourable host rock would yield some 2.5 million tons per vertical foot and 100 vertical feet would yield some 250 million tons per 100 vertical feet. The formation is some 1,000 feet in thickness. Considering 1,000 feet of thickness of this formation would yield astronomical figures and will not be considered at this point, and with uranium at \pm \$50.00 per pound uranium mineralization of 1/4 per ton would make a viable ore body.

Samples of uranium mineralization in these formations has yielded assays of uranium to 0.60% U_3O_8 or 12 pounds per ton. The entire portion of the property examined has an exceptionally high background with areas or many spots reading 10 times background or better. One traverse up the road for over two miles gave consistent high radiometric readings. There were many rock exposures along the road that read off the X-1.0 scale and gave readings on the X10.0 scale.

These results all give indications of the possibility of a multi-million ton ore body being present. This can be proven

if the property is systematically surveyed.

RECOMMENDATIONS

It is recommended that this property be fully explored with the intention of developing a uranium ore body. The emphasis should be to develop a low grade or as high a grade of uranium ore body as possible. It is essential that to pursue a program to develop this type of ore body that a systematic exploration program be instituted. The program should consist of:

1. Control lines established;
2. Geologic mapping;
3. Scintillometer survey;
4. Rock geochemistry survey
5. Rock trenching
6. Track etch survey
7. Minimum of 5,000 feet of drilling.

EXPENDITURES

The monies required would be:

1. Detail geologic mapping with petrographic studies	\$ 5,000.00
2. Scintillometer survey on 200 foot lines	4,000.00
3. Control lines established	7,000.00
4. Rock geochemical survey	5,000.00
5. Rock trenching	3,000.00
6. Track etch survey on covered ground	9,000.00
7. Drilling minimum 5000 feet percussion	25,000.00
8. Assays	8,000.00
9. Road repair	3,000.00
10. Rental pick up 2 months	2,000.00
11. Rental miscellaneous equipment	2,000.00
12. Room and board 3 men 2 months	6,000.00
13. Transportation and communication	3,000.00
14. Three field men 2 months	12,000.00
15. Engineering	5,000.00
	<hr/>
	\$99,000.00
Contingency 10%	9,900.00
	<hr/>
TOTAL	<u>\$108,900.00</u>

Respectfully submitted,
MANNY CONSULTANTS LTD.,

E. Amendolagine, P.Eng.,
Consulting Geologist

December 30, 1976

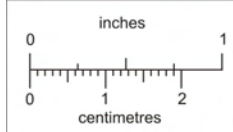
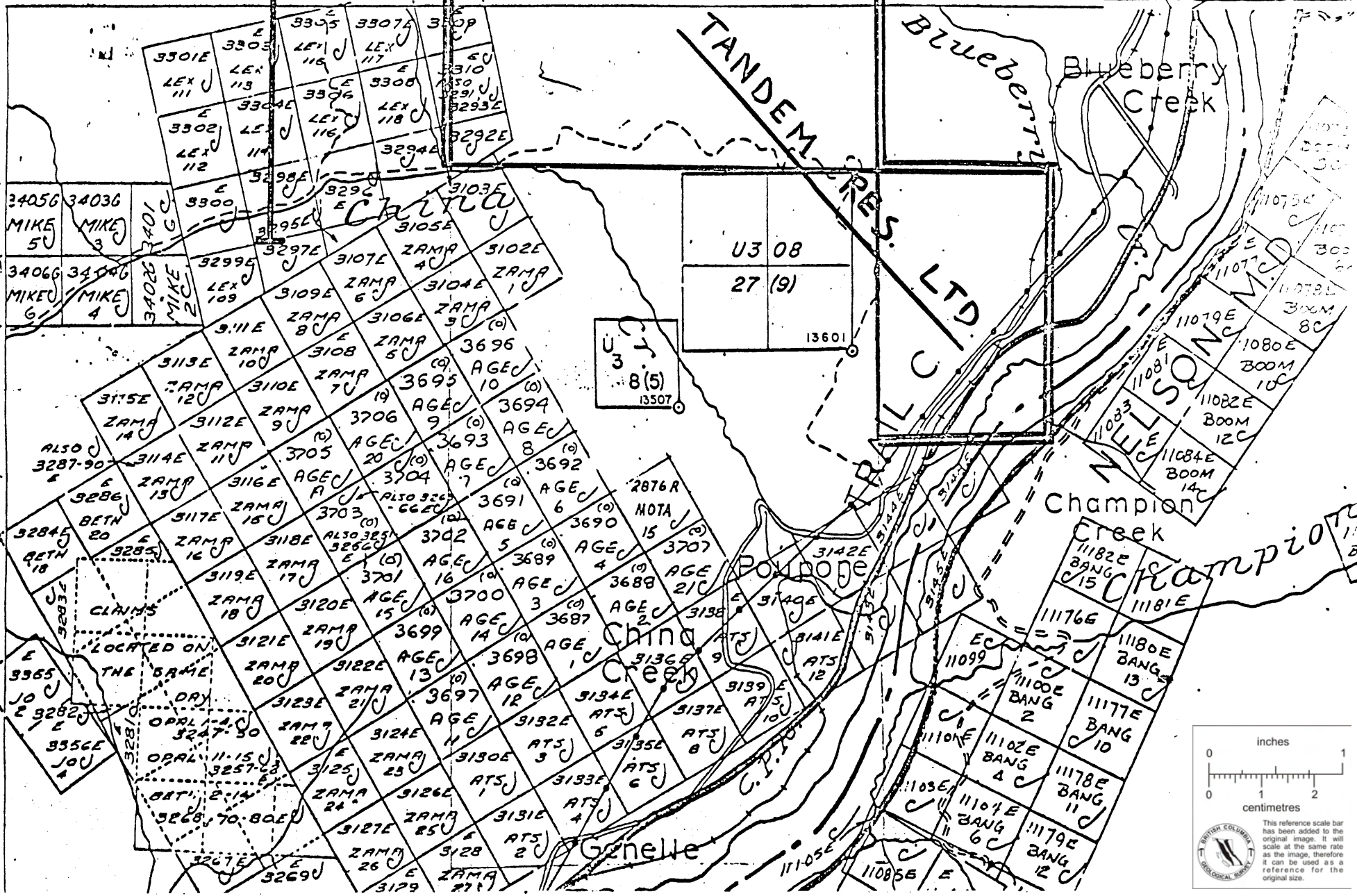
MAR 1 1 197

CE

M82F/4E

117° 45'

19° 15'



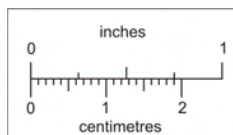
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LEGEND

TANDEM RESOURCES LTD

- QUATERNARY**
PLEISTOCENE AND RECENT
 11 Till, gravel, sand, and silt
- TERTIARY**
EARLY TERTIARY
 10 SHEPPARD INTRUSIONS: leucocratic granite
 9 CORYELL PLUTONIC ROCKS: syenite; minor granite and monzonite, locally porphyritic
- JURASSIC OR CRETACEOUS**
LATEST JURASSIC OR CRETACEOUS
 8 NELSON PLUTONIC ROCKS: quartz diorite and granodiorite; minor granite and diorite; 8a, medium-grained diorite and porphyritic diorite (may be Tertiary)
 7 Monzonite, mainly medium grained
- JURASSIC**
MIDDLE JURASSIC AND(?) LATER
UPPER ROSSLAND GROUP
 5 Volcanic flows; agglomerate, flow breccia, tuff, and interbedded siltstone
- LOWER AND(?) MIDDLE JURASSIC**
 4 HALL FORMATION: argillite, shale, and some siltstone, and locally, volcanic flows; 4a, lava (may not be Hall Formation)
- LOWER JURASSIC**
 3 ELISE FORMATION: andesite, latite, and basalt flows, agglomerate, flow breccia, augite porphyry; minor tuff and siltstone
- 2 ARCHIBALD FORMATION: siltstone; minor shale and volcanic flows; 2a, interbedded flows locally abundant
- 6 LOWER ROSSLAND GROUP (Undivided)
 Volcanic rocks; minor interbedded siltstone (probably in part equivalent in age to the Archibald Formation); 6a, mainly siltstone (possibly equivalent to the Archibald Formation); 6b, siltstone with abundant interbedded flows
- UPPER PALAEOZOIC (?)**
 1 1a, black argillite, calcareous argillite, shale, and phyllite; 1b, white-weathering, dark grey limestone; 1c, greenstone and phyllite
 A Layered, granitoid gneiss; A1, marble



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PRELIMINARY SERIES

117° 45'

49° 15'

