JUL 24 1978
Pse. attach to previous June 78
105 K

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

008796

I.D.B.
A.M.C.
P.S.C.
W.J.
D.A.L.
S.P.
M.B.N.
J.B.S.
J.C.
FILE

To D.A. Lowrie *From* W.M. Sirola

Subject Ross River Coal Deposit *Date* July 21, 1978
105-F-16
105 K.

On July 14, 1978, I had an opportunity to look at this occurrence, and I have the following observations: the coal is best exposed in a roadcut, approximately two miles south-west of Ross River. Here the coal is 1½ metres thick, and dips 20°-30° south-eastward under a small lake which follows the Highway at that point. Contrary to the meagre literature available, the coal does not look like lignite but rather like a lustrous sub-bituminous variety, with very thin lignitic bands.

Someone had attempted to follow the coal by bulldozer trenching, to the south-east of the roadcut, with indifferent success. I suspect whoever did the work did not know the stratigraphy of the Tertiary rocks in the immediate vicinity of the coal, and did not therefore know whether they were excavating above or below the coal. This does constitute something of a problem in the sense that we were unable to see the football rocks, but found shale in the hanging wall in at least one instance.

The coal can be traced for approximately 0.8 miles along the Highway, and while a complete thickness is not always exposed, it would seem reasonable to expect from 1 to 1½ metres as an average for the known length of the coal. One of the more obvious problems with the deposit is that the gentle dip of the coal is almost the same as the dip of the hillside and, to some extent, the coal has probably been eroded leaving pockets, or remnants, instead of a continuous length.

The location is ideal except for the fact that the Highway would have to be moved further uphill if any serious attempt were made to mine the coal by open pit methods.

I am afraid there is a definite limitation in size brought about by the fact that some erosion has taken place, the coal dips under the lake, and the fact that the deposit (unlike Hat Creek) is small in the first place.

For the moment, the only dimensions I can use are a length of 1200 metres, a thickness of 1 metre, and the downdip dimension of 60 metres. This approximates 100,000 metric tons, which is scarcely enough to supply the needs of a 10 megawatt operation such as Grum. Depending on the B.t.u. content, the Grum operation will require approximately 33,250 tons per year,

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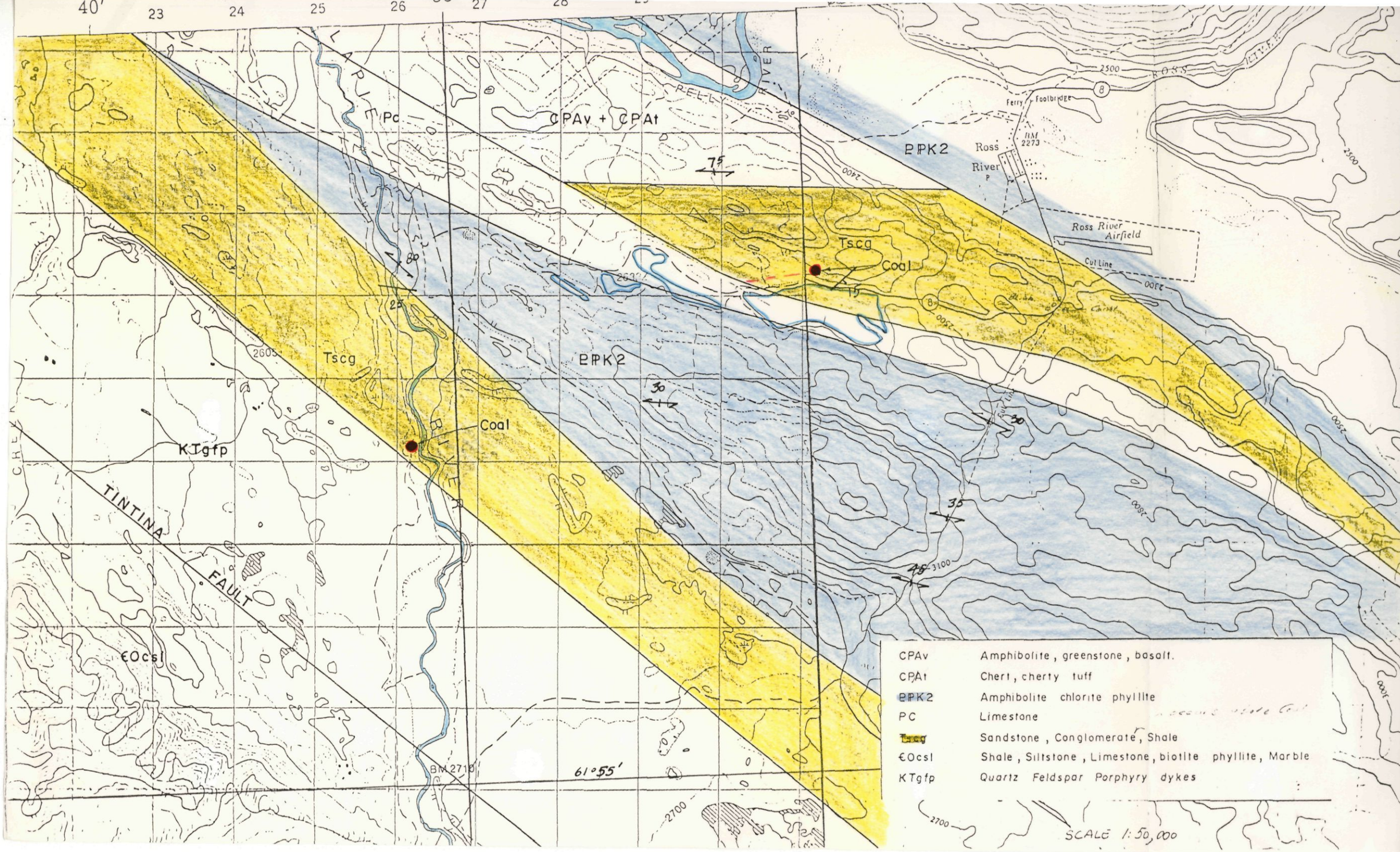
or 665,000 metric tons for a twenty year period, based on a 5,000 metric ton per day operation.

These observations on the coal occurrence are rather harsh, and probably do not reflect the true potential of the Ross River coal deposit. As you suggest, we could begin by obtaining a 50 lb. or 100 lb. sample of fresh coal, and have the necessary metallurgical testing done. If we are to carry on beyond that point, we would then have to take out the licence, and do some back-hoe work to determine what the football rocks might be. We would then be in a position to trace the coal along its length, provided that the rock formation did not change along the strike.

The above estimates of required coal for the Grum deposit are based on a 10,000 B.t.u. content. Should the Ross River coal be less than that, then correspondingly more tonnage would have to be found.

W.M. Sirola

WMS:ps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LARRY CREEK
PELLY RIVER
Pc
CPAv + CPAt
PPK2
Tscg
Coal
KTgfp
TINTINA FAULT
€Ocsl
BM 2710
61°55'
Ross River
Ferry
Footbridge
BM 2273
Ross River Airfield
Cut Line
ROSS
2500
2400
2700
3100
SCALE 1:50,000
CPAv Amphibolite, greenstone, basalt.
CPAt Chert, cherty tuff
PPK2 Amphibolite chlorite phyllite
PC Limestone
Tscg Sandstone, Conglomerate, Shale
€Ocsl Shale, Siltstone, Limestone, biotite phyllite, Marble
KTgfp Quartz Feldspar Porphyry dykes

JUL 4 1978

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I.D.B.
A.H.C.
P.S.C.
W.J.
~~D.A.L.~~
S.P.
~~M.D.R.~~
J.B.S.

FILE

To D.A. Lowrie *From* W.M. Sirola

Subject Ross River Coal Area, Ross River, Y.T.
105-K-6 *Date* June 28, 1978

Two years ago, when we were casting about for coal areas, somewhere in the proximity of the Grum deposit, we selected the coal area at Big Salmon in preference to the coal area at Ross River, largely because of the fact that the former had occurrences of bituminous coal, whereas the latter was classed as lignite.

In recent conversations with Fred Chow, and Dirk Templemann-Kluitt, I get the impression that the coal in the road cut, two miles south-west of Ross River, has more of the appearance of a bituminous, or sub-bituminous, coal rather than a lignite. Be that as it may, the coal is certainly well-situated, is about 1.5 metres thick, and dips about 15° to the south-east.

we should take some samples and have them analysed.

Apart from some hand trenching, very little work appears to have been done to trace the coal. Certainly there is almost nothing in the literature. The only information we have been able to find is one paragraph written by Milner and Craig, in 1973, which reads as follows:-

> "Ross River coal (61° 58'N, 132° 33'W), consists of a seam roughly 5 ft. thick in an area of poor exposure, half a mile north of a granite pebble conglomerate - black shale repetitive sequence which dips south under the lake, a mile south of Ross River. The sediments are at a bench roughly 200 ft. above the Pelly River."

Done

There is a second occurrence on the Lapie River, located 2,200 metres south-west of the road exposure, and this is described as follows:-

> "The Lapie River coal occurrence described by Kindle (in 1946), (61° 57'N, 132° 37'W), consists of a few inches of coal in about 500 ft. of Pliocene conglomerate sandstone and shale where the Lapie River enters the southern margin of the Tintina Valley."

Recent mapping by Templemann-Kluitt, indicates that the Tertiary basin in which the coal occurs, has been sliced into north-westerly trending strips and down-faulted against older carboniferous Permian rocks. In

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105-K-6

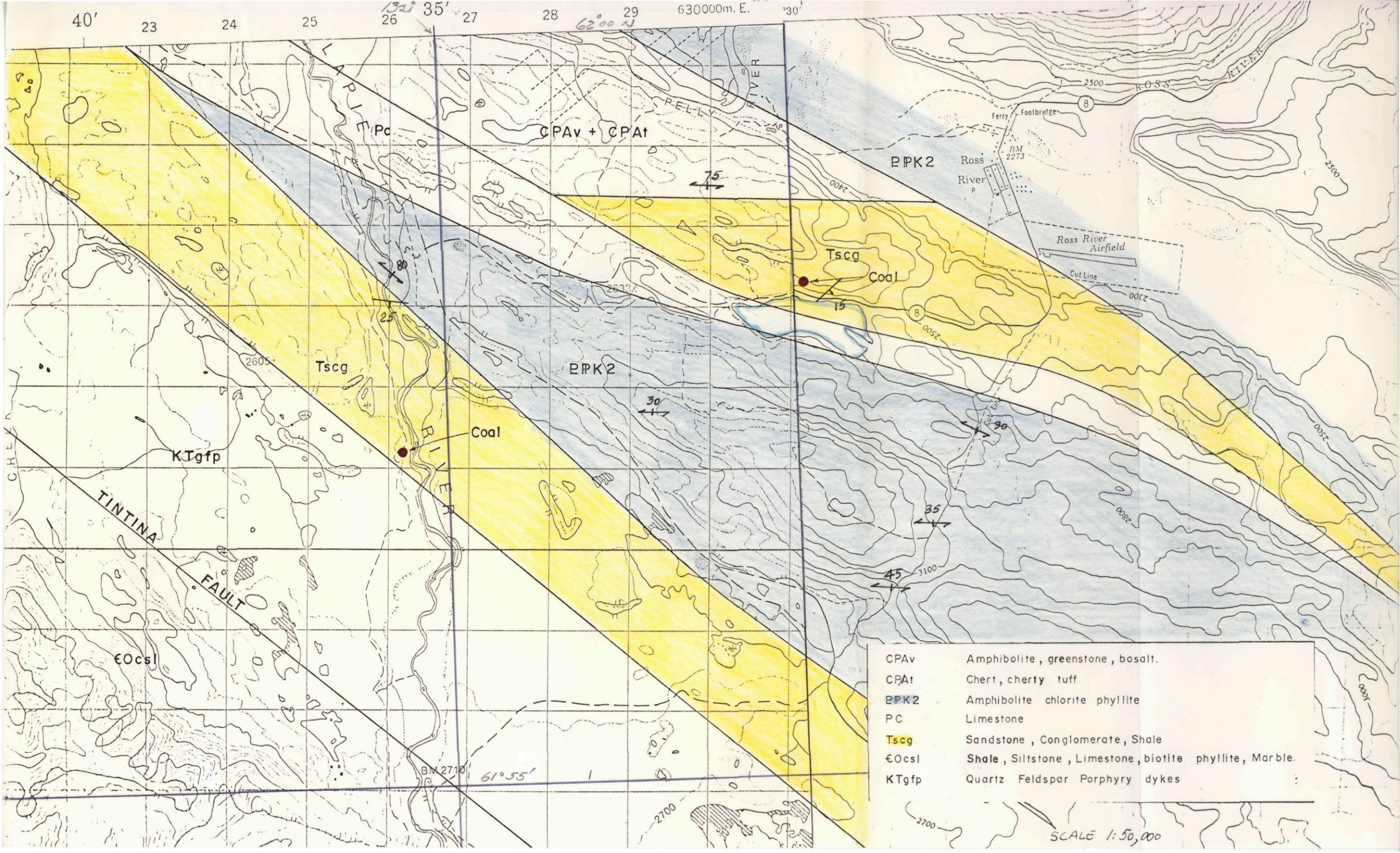
consequence, the maximum strike range of the coal in a north-easterly direction would be about 2,000 metres. This is true of both occurrences.

We could obtain an exploration licence for the coal occurrences on the Highway by application to Ottawa, and the payment of $2,264.00, or 5¢ per acre for the first year. The area involved is approximately 64 square miles, or 42,280 acres. Before doing this, however, I would like to feel that it is worthwhile. I would have Fred Chow spend a day looking at this occurrence - if I can reach him on the radio telephone, but recently he has been incommunicado. Also, there is a GSC geologist, by the name of Darel Long, who is looking at coal occurrences in the Y.T., and it would be interesting if either Fred, or I, could meet him while he is in Ross River. According to Templeman-Kluitt, he is going to be there at the end of this month, and will be around for about a week.

Hopefully, I will be able to finalize the Carlos-Harris option, at least in a verbal manner, by June 30, and I will then head for Ross River, look at the coal, and have a visit with Fred and Alex. If we can establish the likelihood of continuity for the coal seam, and if the calibre of the coal is not too poor, then we should consider applying for the exploration licence.

W.M. Sirola

WMS:ps
enclosures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CPAv + CPAt
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Coal
KTgfp
€Ocsl
TINTINA
FAULT
LARSEN
PELLY
RIVER
ROSS
Ferry
Footbridge
BM 2273
Ross River
Ross River Airfield
Cut Line
BM 2710
2500
2400
2300
2600
3100
2700
75
80
25
30
35
45
CPAv Amphibolite, greenstone, basalt.
CPAt Chert, cherty tuff
PPK2 Amphibolite chlorite phyllite
Pc Limestone
Tscg Sandstone, Conglomerate, Shale
€Ocsl Shale, Siltstone, Limestone, biotite phyllite, Marble.
KTgfp Quartz Feldspar Porphyry dykes
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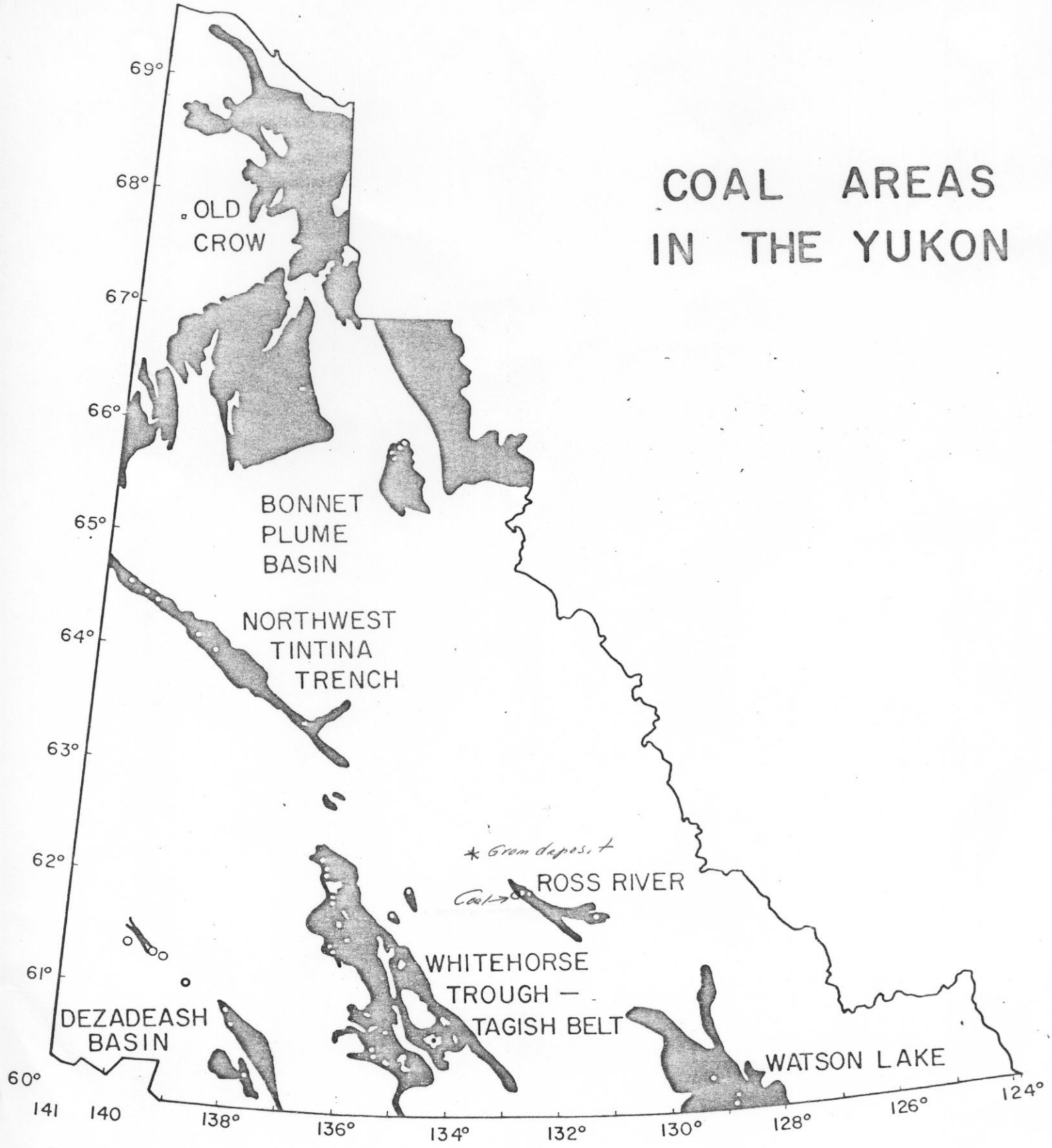
COAL AREAS
IN THE YUKON
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66°
65°
64°
63°
62°
61°
60°
141
140
138°
136°
134°
132°
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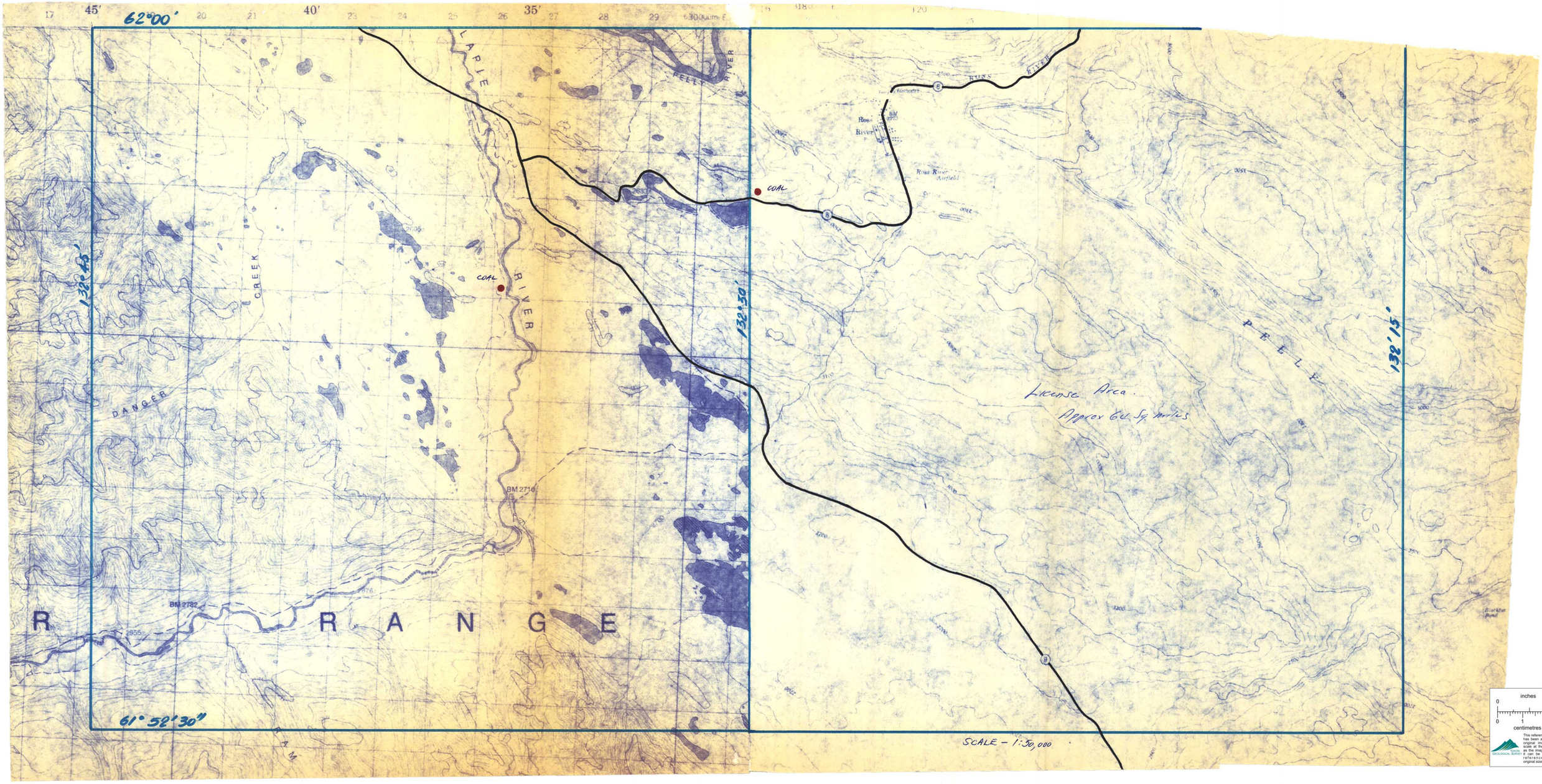
126°
124°
OLD
CROW
BONNET
PLUME
BASIN
NORTHWEST
TINTINA
TRENCH
* Grom deposit
Coal
ROSS RIVER
WHITEHORSE
TROUGH —
TAGISH BELT
DEZADEASH
BASIN
WATSON LAKE


62°00'
45'
40'
35'
132°45'
132°30'
132°15'
61°52'30"
LAPIE RIVER
PEEL RIVER
RUNS RIVER
Ross River
Ross River Airfield
COAL
COAL
CREEK
RIVER
DANGER
BM 2716
BM 2782
R A N G E
P E E L
License Area.
Approx 60 Sq. miles
SCALE - 1:50,000
inches
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.