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685 TWO BENTALL CENTRE
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VANCOUVER 1, B.C.

# RECOMMENDED EXPLORATION
# NOR, BEA, DOP & LEA CLAIMS
# SUMMIT LAKE AREA, Y.T.

MAKACO DEVELOPMENT CO. LTD.

R.J. Cathro, P. Eng.

May 11, 1973

## INTRODUCTION

Makaoo Development Co. Ltd. holds two properties in the Summit Lake area, on the Yukon-N.W.T. boundary. They were staked in December, 1972 for their positional value relative to nearby claims owned by Canex Placer Ltd., on which rich showings of lead-zinc were found on surface during the 1972 field season. No exploration work of any kind has been done on the Makaoo property. Information contained in this report is derived from government maps, discussions with government and industry geologists, and the writer's close familiarity with Yukon mineral exploration during the past ten years.

## PROPERTY

Makaoo Developments has acquired the following two claim blocks, both of which touch or straddle the Yukon-N.W.T. boundary:

| CLAIM NAME | TAG NUMBERS | EXPIRY DATE | No. CLAIMS |
|---|---|---|---|
| 1. NORTHWEST PROPERTY | | | |
| Nor 14-19 (Yukon) | Y 71036-41 | December, 1973 | 6 |
| 34-39 " | Y 71056-61 | " | 6 |
| 51-56 " | Y 71073-78 | " | 6 |
| BEA 1-7 (N.W.T) | A 49801-07 | February, 1973 | 7 |
| 10-15 " | A 49810-15 | " | 6 |
| 18-23 " | A 49818-23 | " | 6 |
| 26-27 " | A 49826-27 | " | 2 |
| DOP 8-9 " | A 49808-09 | " | 2 |
| 16-17 " | A 49816-17 | " | 2 |
| 24-25 " | A 49824-25 | " | 2 |
| 28-29 " | A 49828-29 | " | 2 |

2. SOUTHEAST PROPERTY

| | | | |
|---|---|---|---|
| LEA 1-15 (Yukon) | Y 71124-38 | December, 1972 | 15 |
| | | TOTAL- Both Properties | 62 |

The claims on the Yukon side of the border are registered in Watson Lake, Y.T. while the N.W.T. claims are registered in Watson Lake, Y.T. and Yellowknife, N.W.T. No inspections have been made in the field to confirm the position of the claims or quality of the staking because the posts are in an untimbered, snow-covered area and will be difficult to find until after the spring thaw.

## LOCATION AND ACCESS

The northwest property is centered at 62°35'N and 129°31'W within claim sheets 105 I/11 and 12. The second property is centered at 62°32'N and 129°20'W within claim sheet 105 I/12.

Both properties are presently accessible only by helicopter. The nearest lake suitable for fixed-wing aircraft is probably Summit Lake, about 15 miles to the south. A smaller lake on the northeast side of the northwest property may prove suitable. The nearest all-weather roads are the Cantung Highway and Canol Road, which are about fifty miles southeast and northwest, respectively. Canex Placer walked a bulldozer overland from the Cantung Highway in the fall of 1972 and followed the same route with a winter cat train in the spring of 1973.

## REGIONAL AND ECONOMIC GEOLOGY

The Summit Lake area is situated within the Selwyn Basin of the Omineca Tectonic Belt, a major depositional site throughout Paleozoic time for sediments derived from the east.

The mineralization discovered by Canex Placer in 1972 is thought to be of the stratiform or stratabound type, although it is in a very early stage of exploration and its significance is not yet known. This type of deposit is considered to be an excellent exploration target because it can reach substantial size and grade and often occur in clusters within a larger mineralized district. Prominent examples in Western Canada include the Anvil, Pine Point and Sullivan Mines. Although there are different schools of thought, most geologists consider that this type of deposit formed initially as a metal-rich shale near the compositional (facies) boundary within a sedimentary basin between shale and carbonate rocks. From these uneconomic concentrations, deposits are sometimes produced by later forces related to compaction and metamorphic deformation which cause migration of the metals to more porous rocks in the vicinity, such as breccia zones in dolomite. This process is remarkably similar to that which produces oil and natural gas and, in fact, they often occur in the same age and types of rocks as the base metal deposits.

The mineralization discovered by Canex Placer consists of galena and sphalerite occurring in limy shales of the upper Ordovician or Silurian Road River Formation. This horizon is designated as Unit 10 by the Geological Survey of Canada on Map #8-1967 (Nahanni Map-sheet). Unit 10 is characterized by dark-grey to black colour, fissile to flaggy parting and the presence of graptolite fossils, and contains minor horizons

of argillaceous limestone, chert and cherty argillite. Because of its fissility, the shale weathers rapidly into fine talus slopes and rarely outcrops. It commonly contains a high content of finely disseminated pyrite and and is noteworthy for regionally exhibiting an unusually high background in zinc, molybdenum and selenium.

On the reconnaissance scale of mapping used in this district to date, Unit 10 has only been recognized in areas where it forms large outcrops. In the Summit Lake area, it is underlain by Middle Cambrian or Ordovician blue-grey limestone and dolomitic sandstone of Unit 7b and is capped unconformably by Unit 18 shale, sandstone, chert and conglomerate of Devonian and Mississippian age. The presence of Unit 10 can be inferred and suspected wherever Units 7b and 18 are shown in contact on G.S.C. Map #8-1967. The Canex Placer discovery showings are in just such an area, where Unit 10 is present but was not recognized without detailed mapping and prospecting.

## SUMMARY AND RECOMMENDATIONS

Mineralization discovered in Unit 10 in 1972 by Canex Placer Ltd. is of the stratabound lead-zinc type. These deposits are characteristically extensive over large areas within a favourable rock unit and occur close to the facies change between carbonate rocks and shale. Very rich assays have been reported by Canex Placer from preliminary exploration, although it is, as yet, premature to say that economic concentrations will be found in this district.

Because of the relatively little prospecting or exploration conducted to date in this district, and the lask of detailed gelogical maps, any areas

close to the interpreted outcrop position of Unit 10 warrant a preliminary evaluation. Government maps indicate that the Makaoo properties probably lie close to the contact between Units 7b and 18 and that Unit 10 may outcrop or be present at depth on the claims. If present at depth, Unit 10 may come close to surface through combinations of folding and erosion. Only minor glaciation has occurred in this district and careful prospecting of creek float often gives a good indication of all rock types present nearby, even where outcrop is scarce.

The following preliminary program is recommended:

1. geological mapping and prospecting to determine if the favourable host rocks outcrop or could be anticipated at depth within the property.
2. grid soil sampling to determine if significant concentrations of lead or zinc occur close to surface. Because of the high zinc background of rocks in this district, zinc will be of little value in outlining sulfide deposits and lead should be used as the main indicator metal.

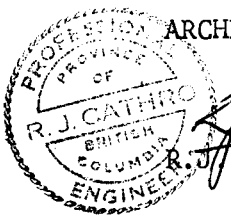
The program is estimated to cost:

| | |
|---|---|
| Wages | $8,000 |
| Camp Supplies | 1,500 |
| Transportaion | 4,500 |
| Assays | 1,500 |

| | |
|---|---|
| Management & Engineering | $3,000 |
| Contingency | 1,000 |
| | $19,500 |

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LTD.

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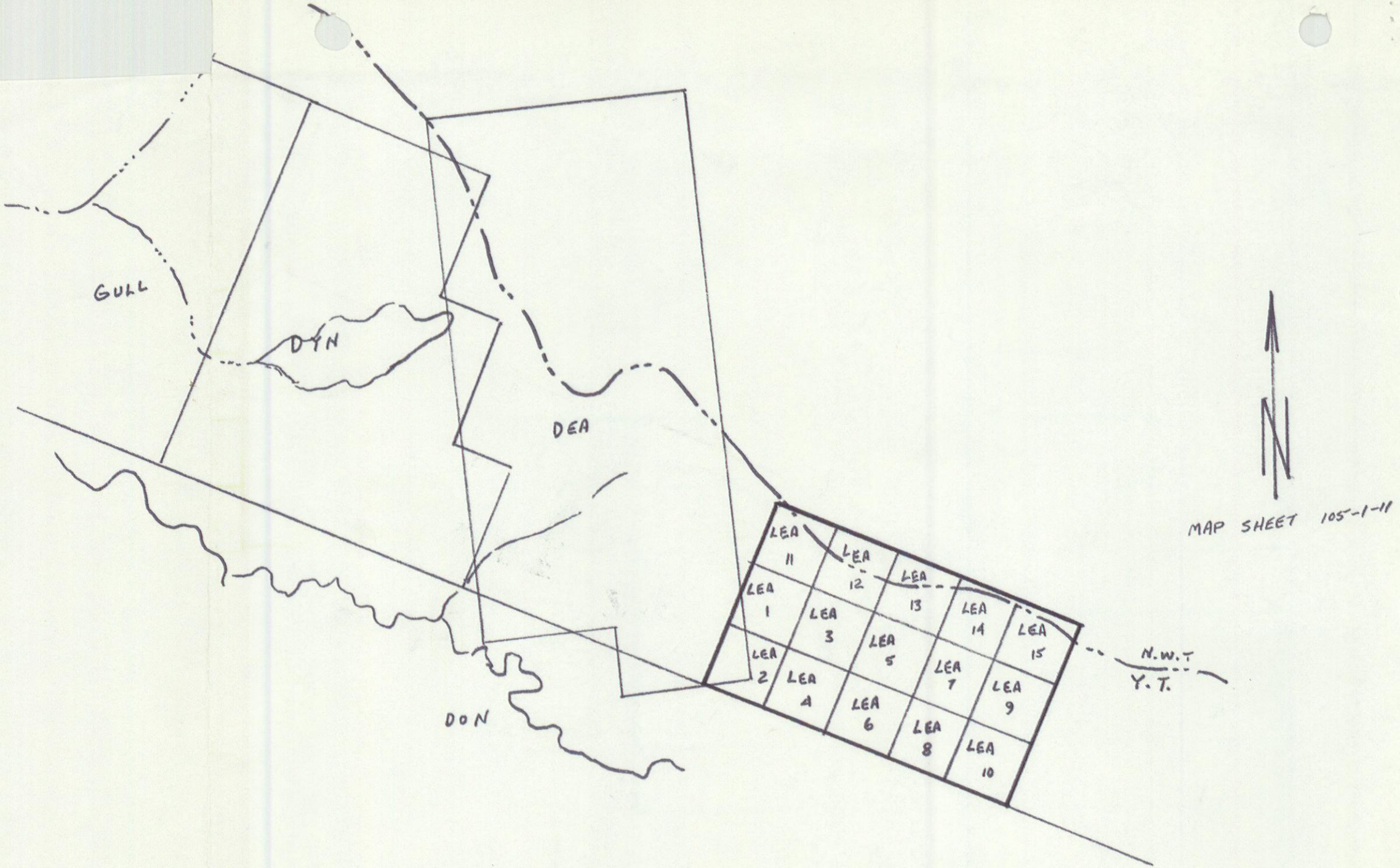
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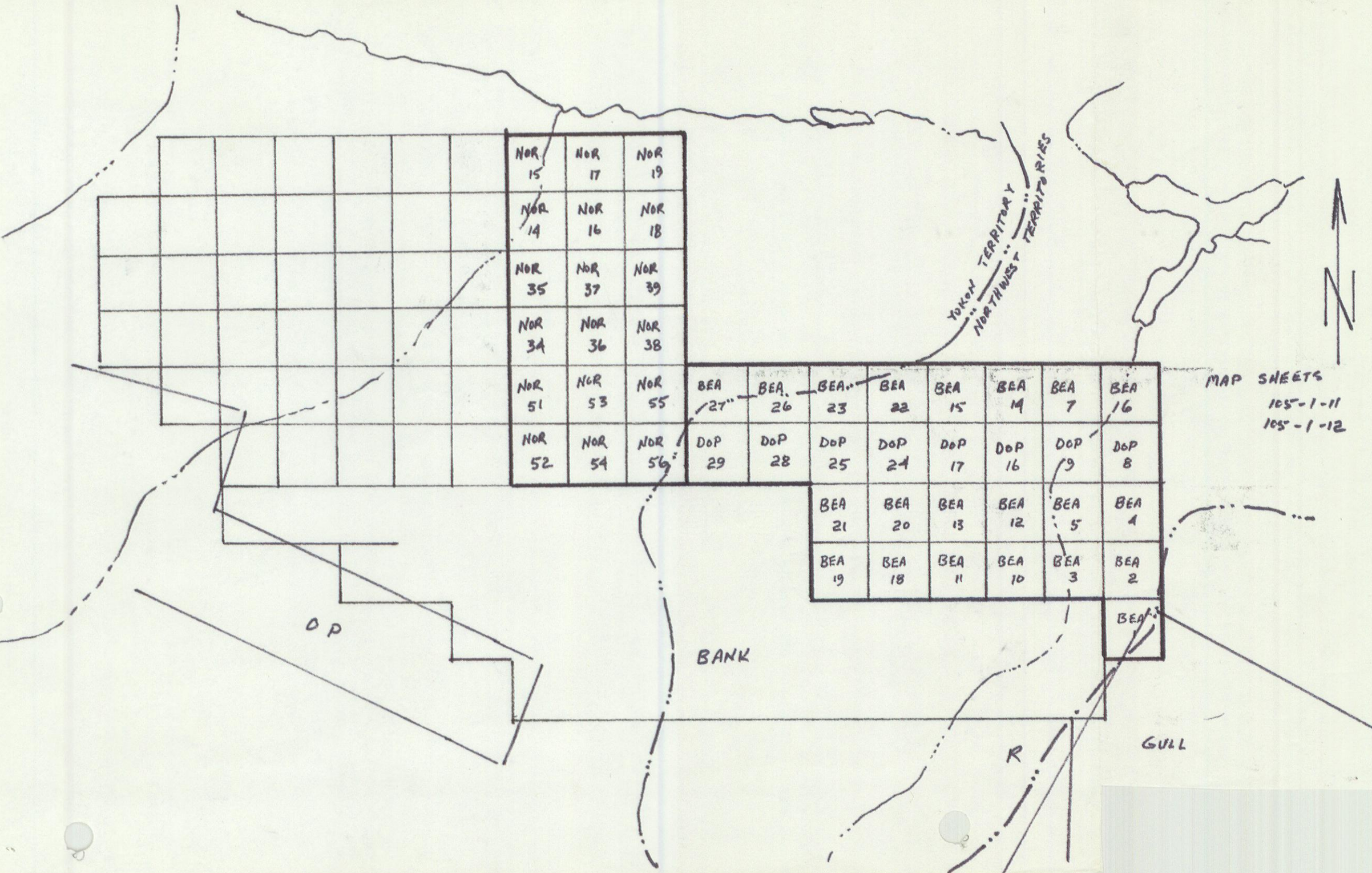
MAP SHEET 105-1-11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MAP SHEETS
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