

3486

REPORT OF A MAGNETOMETER AND GEOCHEMICAL SURVEY
OF THE K CLAIMS OF THE PARROTT GROUP
OMINECA MINING DIVISION

by

J. R. Woodcock Consultants Ltd.

93 L / 2 E

North Vancouver, B. C.

25 January 1971

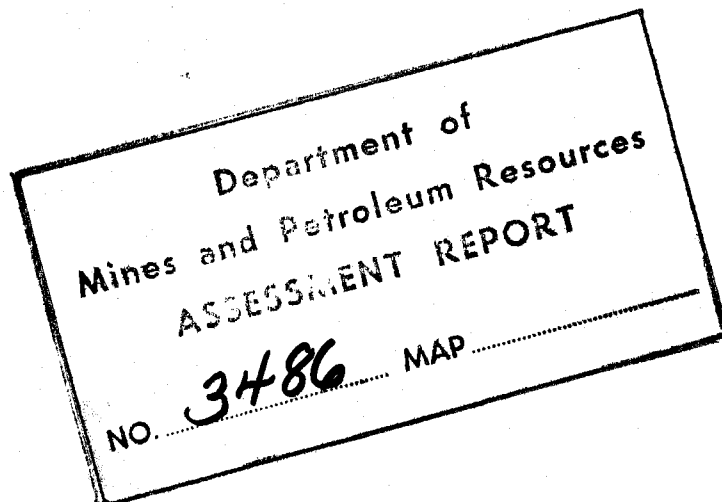


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K CLAIMS OF THE PARROTT GROUP

INTRODUCTION

The Parrott Lakes property is located about 20 miles south of Houston, B. C. (Figure 1). It consists of 54 claims (K #1 to K #54) (Figure 2) located immediately southwest of the middle Parrott Lake. The claim block covers an overburden area southeast of a gabbro stock. This stock, similar in composition to the Goosly Lake stock, lies in the important trend line defined by three distinct gabbro stocks and a local dyke swarm of similar composition.

In early June, 800 foot lines were blazed parallel to the existing claim location lines. Soil and silt samples were collected while blazing the lines. Additional samples were collected along a bulldozer trail which crosses the claim area. Towards the end of the line cutting, G. Childs did a magnetometer survey of the claim area.

GEOLOGY

Outcrop in the claim area is rare and where present is intermediate and basic volcanics.

Porphyritic dacite is exposed in a small knoll in the middle of the low northeast part of the claim area. This small knoll is surrounded by an extensive area of swampy ground and an area of glacial eskers to the east. Southwest of the gabbro stock and immediately northwest of the claim area, biotite-feldspar dacite porphyry is exposed. These porphyritic rocks are believed to be part of the Goosly Lake volcanics. At higher elevations in the west part of the claim block, vesicular, amygdaloidal, and weakly porphyritic basic volcanics form small exposures. Some of these exposures form local terraces on the slope, suggestive of sub-horizontal flows.

Mineralization was observed in place in the vicinity of 33SE 2 SW as a small rubbly exposure on a bulldozer trail in the logging slash. It consisted of minor very finely disseminated pyrite in a dark grey amygdaloidal basalt with celadonite*-filled amygdules. Rock geochemical assay of a weakly pyritized specimen ran 38 ppm Cu, 100 ppm Zn, and 1.0 ppm Ag. Several weakly pyritized samples of biotite-feldspar-dacite porphyry were found as float in the low part of the claim area near the lakes. This area is largely swampy in the northwest part and is covered with glacial sands and gravels in the eastern part. Several pieces of the pyritized dacite float were geochemically assayed and the highest value ran 13 ppm Cu, 89 ppm Zn, and 1.0 ppm Ag.

The claim area is located about 2500 feet southeast of the alkali - gabbro stock. Exposures southeast of the stock (on the hillside above the lake) are mainly biotite-feldspar dacite porphyry. This is mapped as Goosly Lake Volcanics (Church, 1970). Thus it is quite probable that most of the swampy low-lying part of the claim area is underlain by similar flow rocks. It is in this area that the weakly pyritized float was found and is the best target area for any geophysical work.

* Celadonite is a soft green mineral often confused with malachite and commonly found in the basic Tertiary volcanics in the area.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3486 MAP # 1

**PARROTT
LAKES
PROJECT**

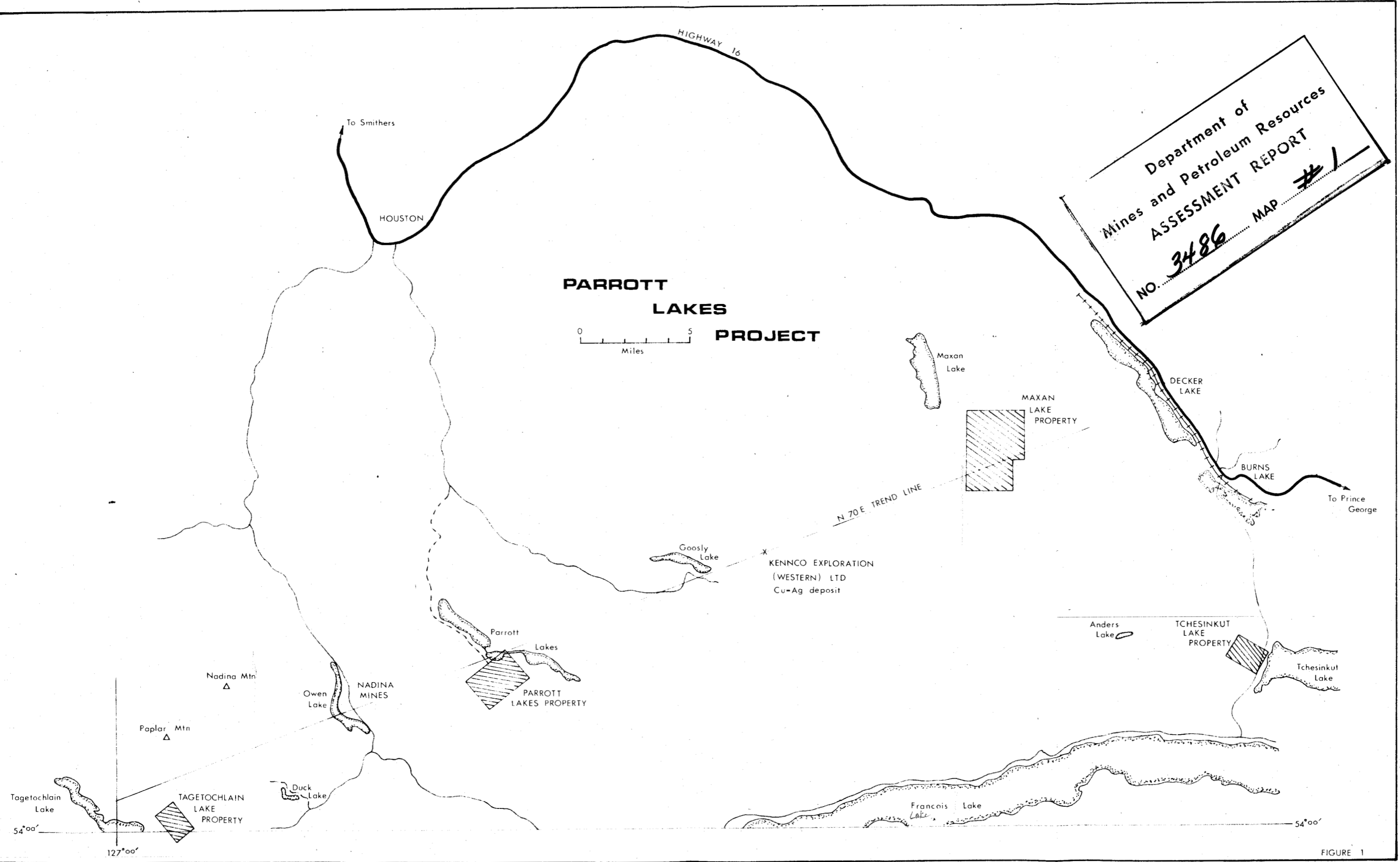
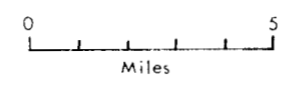
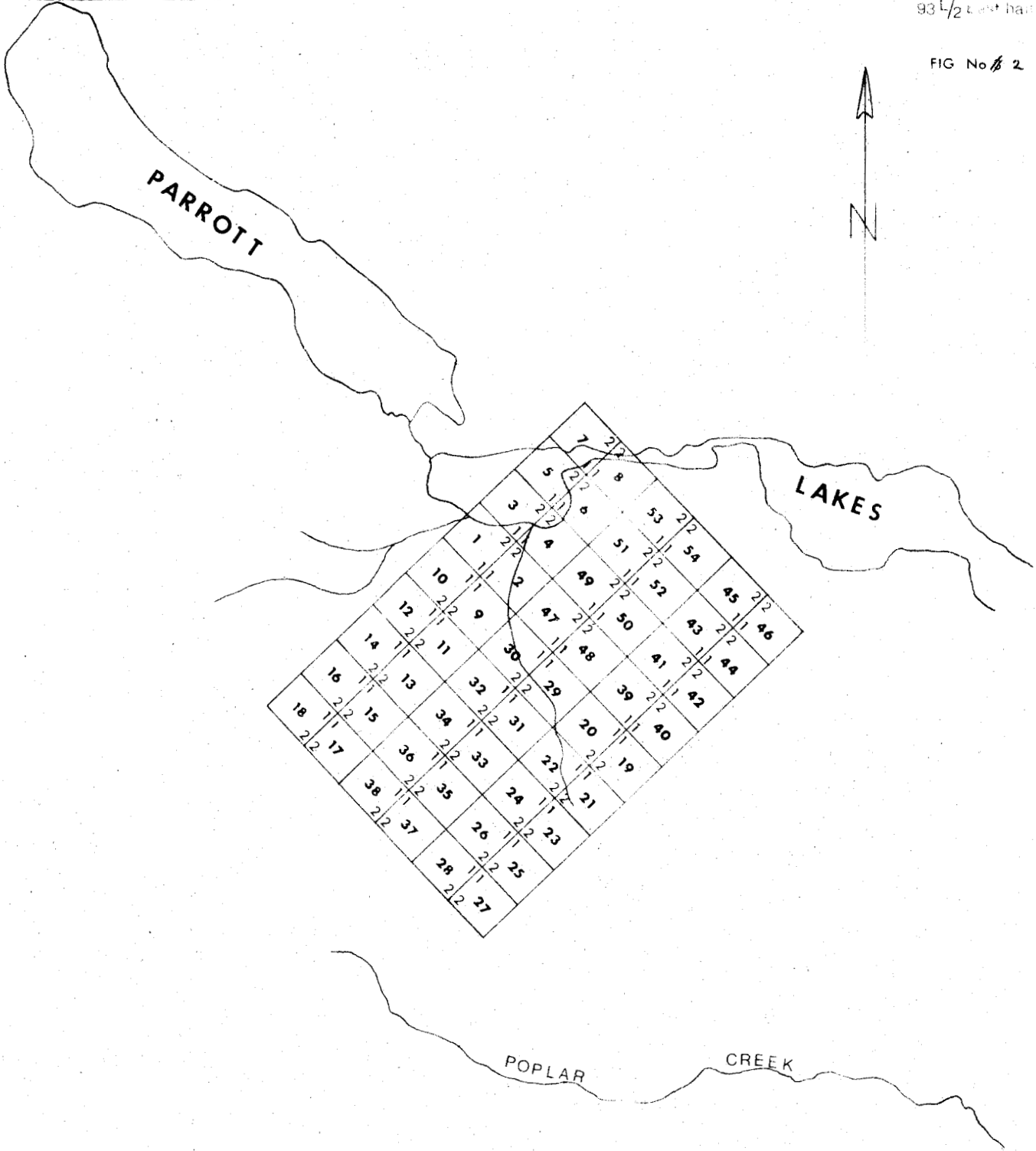


FIGURE 1



Department of
 Mines and Petroleum Resources
 RELEASE REPORT
 NO. 3486 MAP # 2

"K" CLAIMS 1-54

Scale: 1:50,000

AUGUST 1971

GEOCHEMISTRY

Soil and silt samples were collected at 200 foot stations while the grid lines were established. Much of the area is covered with a deposit of clay. On the ridge towards the west side of the claim area are large swamps and ponds and deposits of glacial sand and gravel. Esker deposits are common in the north part of the claim area adjacent to the lower Parrott Lake.

All geochemical samples were analyzed for Cu and Zn and samples with Zn >100 ppm were analyzed for Ag (Figure 3). Background interference was measured on any high Ag values. No anomalous areas were indicated. The writer decided that soil geochemistry may not be entirely useful in the area and accordingly not all samples collected were analyzed. Geochemical expression of bedrock in the area of geological interest could be masked by the surficial deposits of glacial sand and gravel.

MAGNETOMETER SURVEY

A magnetometer survey was conducted over the claim area using a Sintrex MS-1 magnetometer (Figure 4). At a base station, 16SE Baseline, the magnetometer was set to zero and all readings were taken with reference to the base station by a method of looping traverses. Data were corrected for the diurnal variation. The absolute reading at the base station was 42,500 gammas. *Arbitrary value*

The claim area appears to be divided into two distinct areas on the basis of the ground magnetic pattern. South of the baseline are three north-trending magnetic highs separated by distinct lenticular magnetic lows. The trend of the magnetics in this area is generally north-south. This direction is approximately the slope direction of the terrain and the magnetic trend lines sharply intersect topographic contours. If one considers the regional distribution of the Tertiary volcanics and the few exposures observed in the claim area, it appears that the normal structure of the Tertiary flow rocks is generally flat-lying or gently dipping. If the magnetics in the area are reflecting the magnetic susceptibility of the underlying volcanics, then one would expect to find the magnetic trend lines to be sub-parallel to the topographic contours for sub-horizontal volcanics. This is not the case in the claim area.

Because of the poor exposure in the claim area, any explanation of the magnetics in terms of geology and structure must be regarded as tenuous. It is possible that the north-trending magnetic lows which separate the magnetic highs may be normal faults and each area of magnetic high is generally reflecting the magnetics of a similar suite of rocks but at a slightly different topographic level. Thus one could consider each magnetic high as a geologic entity. The trend of the northeast flank of individual anomalies is generally east-west and parallel to the topographic contours. This flank of the anomaly may reflect the outcrop pattern of the suite of magnetic flows causing the anomaly. Such an outcrop pattern would be the same as observed in the few exposures in the anomalous area, that is, subhorizontal. To develop this theme further, one must consider this structure in terms of the volcanic "stratigraphy" that is exposed. The exposures that are present in the anomalous area are mainly mauve or dark grey vesicular basalt, rarely weakly porphyritic. These rocks are typical of Buck Creek volcanics.

On strike to the north from these anomalous areas and topographically lower, are exposures of porphyritic dacite, mapped as Goosly Lake Volcanics (Church, 1970). Thus the section would be exposed from Goosly Lake volcanics at low elevations to Buck Creek volcanics at higher elevations in each fault block.

The other area distinguished by magnetics is northeast of the baseline and southeast of the lakes, at low elevations. Here, there is no high frequency magnetic variation and no definite trends. There is a small northeast-trending magnetic high in the vicinity of Line 32SE. One exposure of porphyritic dacite was found in this area. Several samples of weakly pyritized dacite porphyry were found as float in various places on the northeast extremity of Line 32 SE. This magnetic area is believed to be underlain by Goosly Lake volcanics or older rocks, particularly towards the Lake. Similar float was found immediately northwest of the claim area.

In various discussions with other geologists and geophysicists, it appears that there is conflicting opinions as to the usefulness of ground magnetics for finding a Goosly Lake deposit. At the Goosly Lake deposit, magnetics are reported to define the gabbro stock quite well. However profile traverses across two other stocks, including the Parrott Lake stock, did not indicate any such distinction. At Goosly Lake, ore is believed to be on the flanks of a magnetic anomaly. This may be a local anomaly caused by the related pyrrhotite-magnetite mineralization.

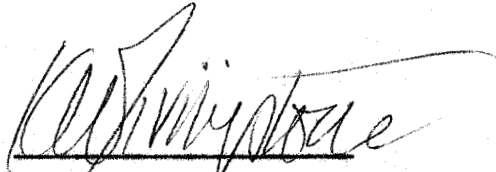
Thus it appears that although one of these gabbro intrusive centres are indicated by distinct high magnetic anomalies, some of the gabbro stocks do not have consistently high magnetite content to enable their differentiation from the basic volcanics by the sole use of the magnetometer. Although the Goosly Lake mineralization has pyrrhotite and magnetite and does occur within a magnetic anomaly, these magnetic characteristics of the ore could have been imposed by subsequent intrusion of the gabbro stocks. It is conceivable that economic mineralization of a similar type could also be present and not yield a distinctively high magnetic pattern. Thus the only certain way of thoroughly investigating low areas of overburden would be to use an induced polarization technique.

SUMMARY

The Parrott Lakes Property is located in an area of poor exposure southeast of a gabbro stock similar to the Goosly Lake stock near Kennco's Cu - Ag mineralization. The area is largely covered in glacial clay, swampy areas and glacial sandy eskers. The few exposures observed were intermediate and basic volcanics probably equivalent to the Eocene Goosly Lake and Miocene Buck Creek volcanics. Soil and silt geochemistry in the claim area did not indicate any anomalous areas, however geochemical expression of bed rock may be masked by the surficial deposits, particularly in the low-lying areas.


The magnetometer survey in the claim area appears to have limited usefulness in detecting Cu-Ag mineralization of the Goosly Lake type. Geological

and structural interpretation of the data was attempted but should be regarded as tenuous because of limited outcrop control.


K. Wayne Livingstone

25 January 1972

Supervised by:


J. A. Woodcock, P. Eng.

APPENDIX 1.

SOIL SAMPLING PROCEDURE

Soil samples were collected at each station by digging a hole with a shovel and selecting approximately 1/2 cupful of soil from the "B" horizon wherever possible. Where the "B" horizon could not be reached, the "A" horizon was sampled. Samples were placed in high wet-strength Kraft sample bags and were shipped to Vancouver for analysis by Atomic Absorption Methods.

Vancouver Geochemical Laboratories Ltd.

1521 PEMBERTON AVENUE NORTH VANCOUVER, B.C., CANADA TELEPHONE: 604-988-2171

J. R. WOODCOCK
CONWAY CHUN

APPENDIX 2.

ANALYTICAL PROCEDURES

TO: J.R. Woodcock Consultants Ltd.
1521 Pemberton Avenue
North Vancouver, B. C.

FROM: Mr. Laurie Nicol, Supervisor Chemist
Vancouver Geochemical Laboratories Ltd.
1521 Pemberton Avenue
North Vancouver, B.C.

SUBJECT: Analytical procedure used to process acid soluble
Cu, Zn & Ag in geochemical samples received from
J.R. Woodcock Consultants Ltd.

1. Sample Preparation

- (a) Geochemical soil, silt and rock samples were received in the laboratory in wet-strength $3\frac{1}{2}$ x $6\frac{1}{2}$ Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted, using an 80-mesh stainless steel sieve. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.
- (d) The dried rock samples were crushed and pulverized to minus 80-mesh. The pulverized sample was then put in a new bag for later analysis.

2. Methods of Digestion

- (a) 1.00 gram or 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).

Continued

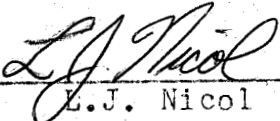
2. Methods of Digestion (Continued)

- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.

3. Method of Analysis

Cu, Zn, & Ag analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamp. The digested samples were aspirated directly into an air and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mr. Conway Chun, or Mr. Laurie Nicol and their laboratory staff.


L.J. Nicol

VANCOUVER GEOCHEMICAL LABORATORIES LTD.

LJN/ati

APPENDIX 4.

CLAIM DATA

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>TAG NO.</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>
"K" # 1	98195	240301M	March 26, 1971	April 5, 1971
2	98196	240302M	" " "	" " "
3	98197	240303M	" " "	" " "
4	98198	240304M	" " "	" " "
6	98200	240306M	" " "	" " "
8	98202	240308M	" " "	" " "
9	98203	240309M	" 27 "	" " "
10	98204	240310M	" " "	" " "
30	98224	240330M	" 30 "	" " "
39	98233	240339M	" 31 "	" " "
41	98235	240341M	" " "	" " "
43	98237	240343M	" " "	" " "
45	98239	240345M	" " "	" " "
47	98241	240347M	April 1 "	" " "
48	98242	240348M	" " "	" " "
49	98243	240349M	" " "	" " "
50	98244	240350M	" " "	" " "
51	98245	240351M	" " "	" " "
52	98246	240352M	" " "	" " "
53	98247	240353M	" " "	" " "
54	98248	240354M	" " "	" " "

APPENDIX 5.

CERTIFICATION

I, Kent Wayne Livingstone, of Delta, B. C., do hereby certify that:

1. I am a geologist residing at 5043 Lynden Drive, Delta, B. C. and have practiced my profession for five years.
2. I am a graduate of Carlton University, Ottawa, Ontario, with a B.Sc. degree, 1966, in honours geology and chemistry.
3. I am a graduate of the University of British Columbia, Vancouver, B. C. with a M.Sc. degree, 1968, in geology.
4. I am a member of the Geological Association of Canada.
5. The information contained in this report is based on work carried out by me, or under my direction, between the period of April 12 to November 1971.

25 January 1972



Kent Wayne Livingstone

#3486

J. R. Woodcock Consultants Ltd.

1521 PEMBERTON AVENUE NORTH VANCOUVER, B.C., CANADA TELEPHONE: 604-980-2171

15 February 1972

Dr. G. E. P. Eastwood
Geologist
Department of Mines and Petroleum Resources
Victoria, B. C.

764

Dear Sir:

With regard to your query of February 10 concerning the magnetometer survey on the K claims near Parrott Lake, the magnetometer was a Sintrex MS-1. We believe that the machine was in proper working order and that the relative values of the survey are accurate. However, it may not have been adjusted for that region. Therefore, the absolute reading taken at the base station would be only an arbitrary datum.

We regret that the report did not indicate that this was an arbitrary datum. If you wish to return the reports we can correct them accordingly.

Yours very truly,

J. R. Woodcock
J. R. Woodcock

JRW:rb

DEPT. OF MINES AND PETROLEUM RESOURCES		
Rec'd FEB 16 1972		
SH		
GEPE		

APPENDIX 3.

STATEMENT OF COSTS (Affidavit)

DOMINION OF CANADA:
 PROVINCE OF BRITISH COLUMBIA.
 To Wit:

In the Matter of **The geochemical survey and the magnetometer survey carried out on the "K" Mineral Claims, Onitoca Mining Division.**

I, **T. D. Wilkinson**

of **1521 Pemberton Avenue, North Vancouver, B. C.**

in the Province of British Columbia, do solemnly declare that **the following is a true statement of the cost incurred in carrying out the surveys:**

<u>Name</u>	<u>Dates Worked</u>	<u>Rate of Fee</u>	<u>No. of Days</u>	<u>Total Amount Paid</u>
K. W. Livingstone	April 12 - Nov. 19	\$90/day	13 1/2	\$ 1,215.00
T. D. Wilkinson	May 28 - July 6	50/day	1	50.00
G. W. Childs	June 13 - June 21	50/day	9	450.00
H. O. Hong	June 8 - June 21	50/day	14	700.00
D. Symonds	June 8 - June 16	50/day	9	450.00
			Total	\$ 2,865.00

Direct Costs:

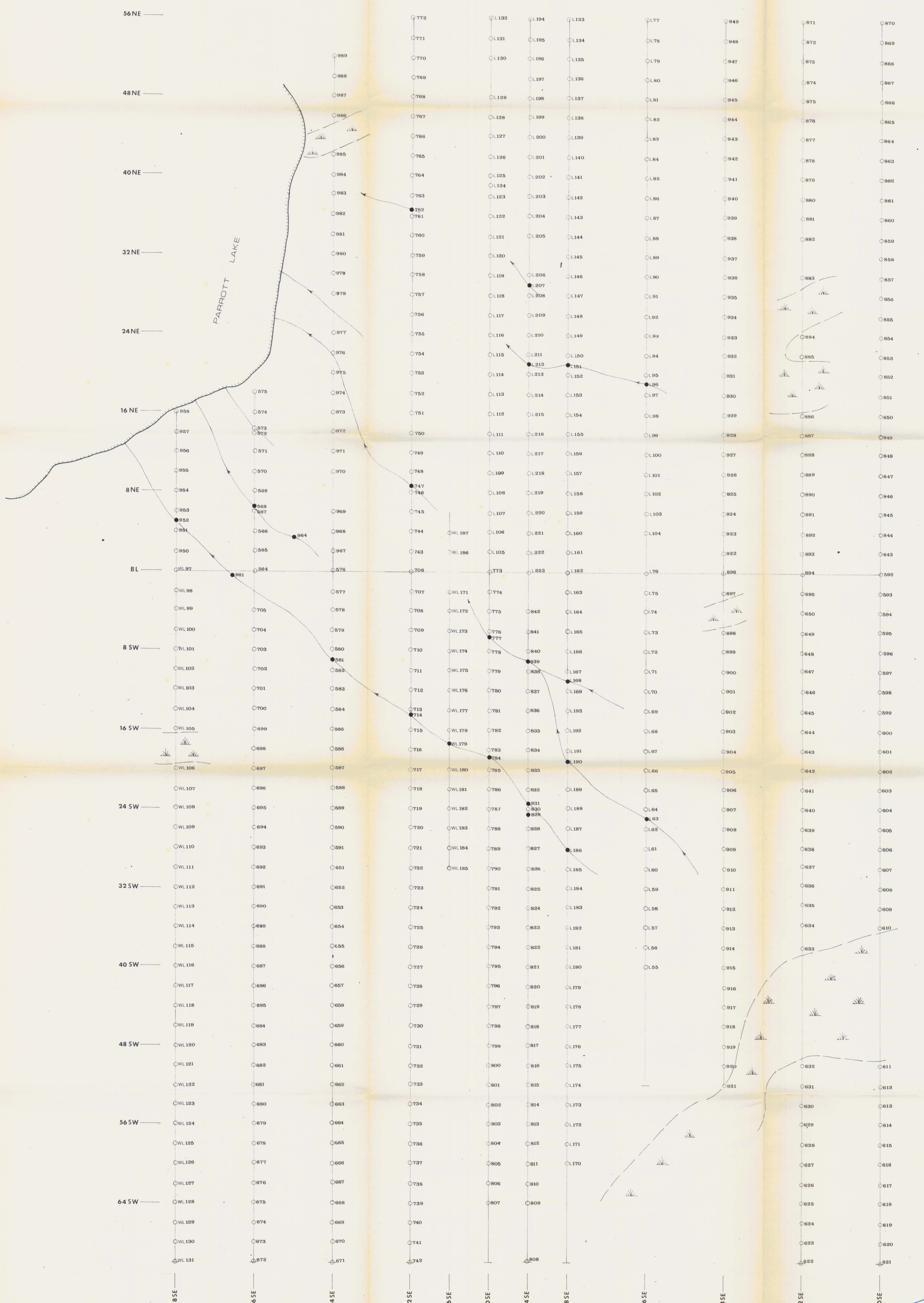
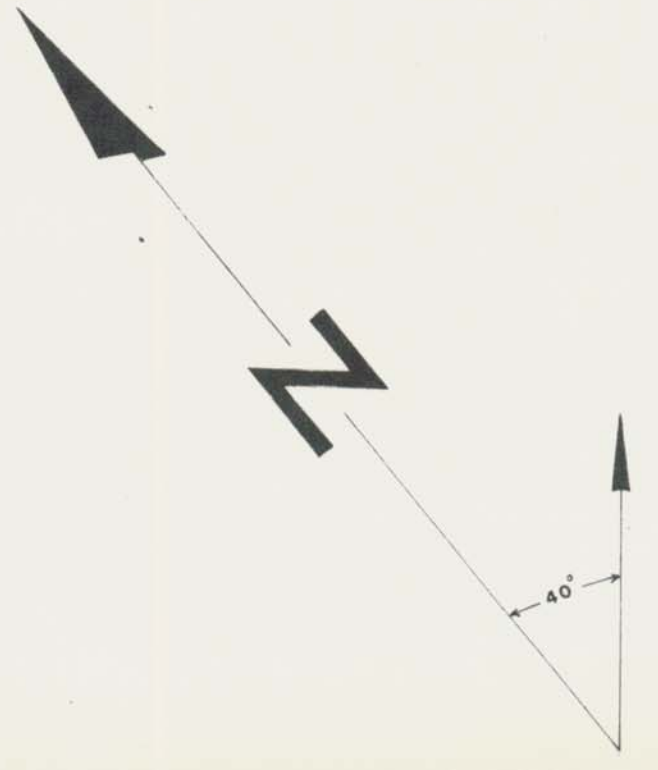
4-wheel drive rental	\$ 156.72	
Magnetometer rental	120.00	
Geochemical analysis	505.30	
Camp costs-food-accommodation-travel	<u>309.72</u>	<u>2,391.74</u>
Total Project Costs		\$ <u>4,256.74</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the *City*
 of *Vancouver*, in the
 Province of British Columbia, this *1*
 day of *February* 1972, A.D.

T. D. Wilkinson

Gene Turner
 A Commissioner for taking Affidavits within British Columbia or
 A Notary Public in and for the Province of British Columbia.
 Sub-mining Recorder



LEGEND

- 924 - D Symonds
- WL 98 - W Livingstone
- L154 - L Hong
- Silt sample

To accompany Magnetometer - Geochemical Report by R.W. Livingstone and J.R. Woodcock, P. Eng. on the Parrott Claim Group, 20 miles south of Houston, Ontario Mining Division, dated January 25, 1972.

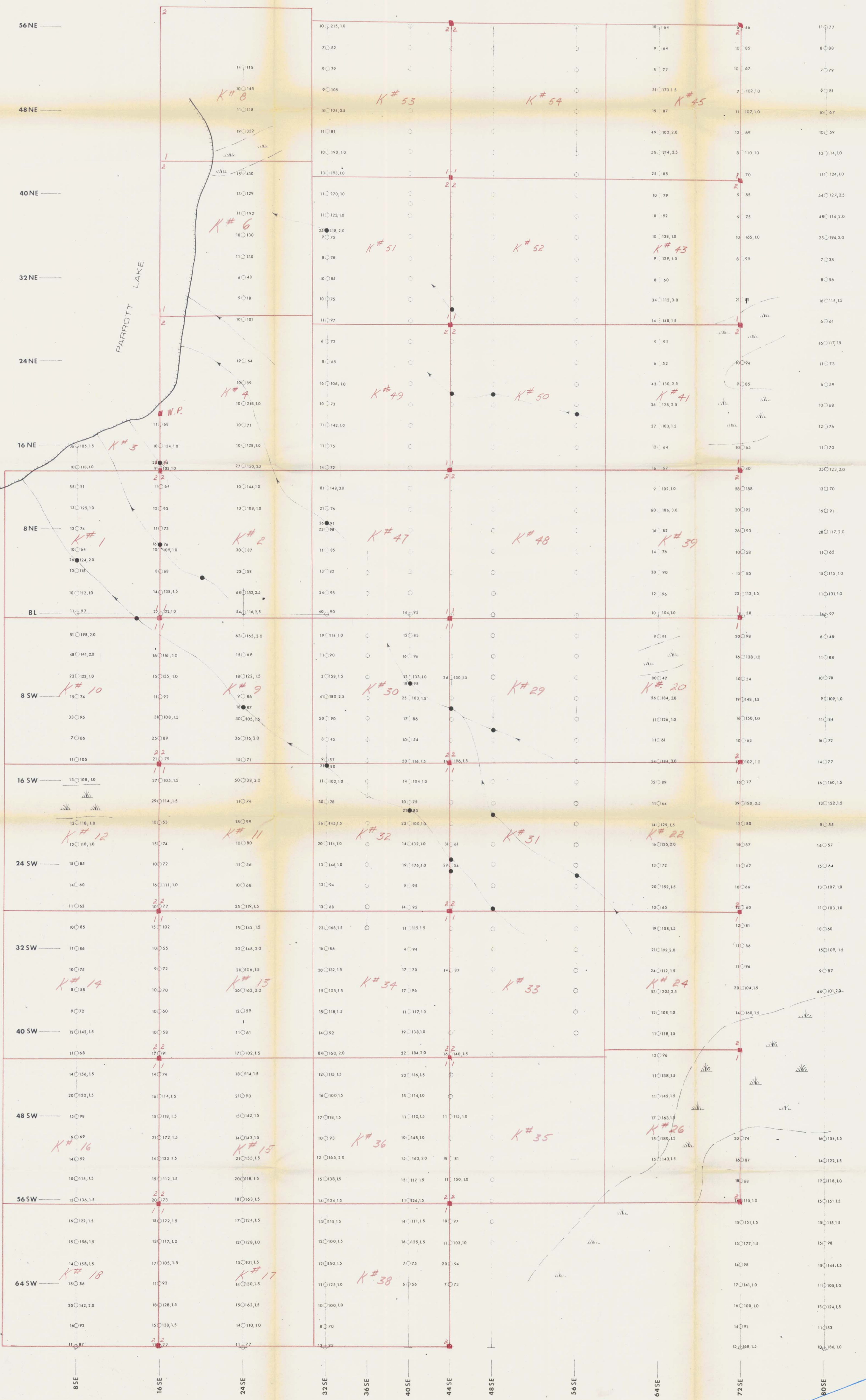
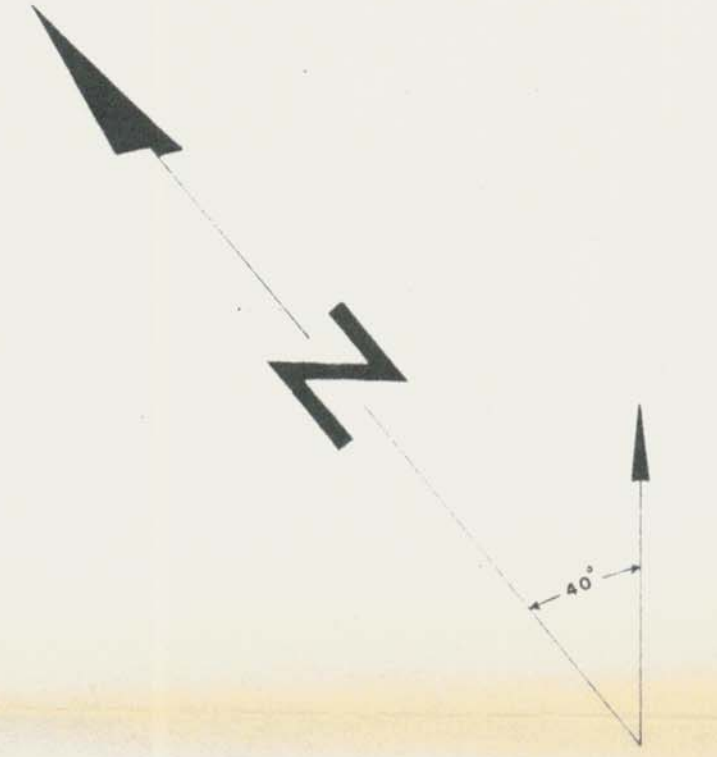
R.W. Livingstone
J.R. Woodcock

JOREX LIMITED
 PARROTT LAKES PROJECT
SAMPLE NUMBERS MAP
 Scale: 1" = 400'
 PARROTT LAKE PROPERTY
 J.R. WOODCOCK CONSULTANTS LTD.

3486 M-3

Department of
 Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. 3486 MAP # 3

2873



LEGEND

14089.15 = CuO Zn₂Ag Soil sample station

14089.15 = Cu Zn₂Ag Silt sample station

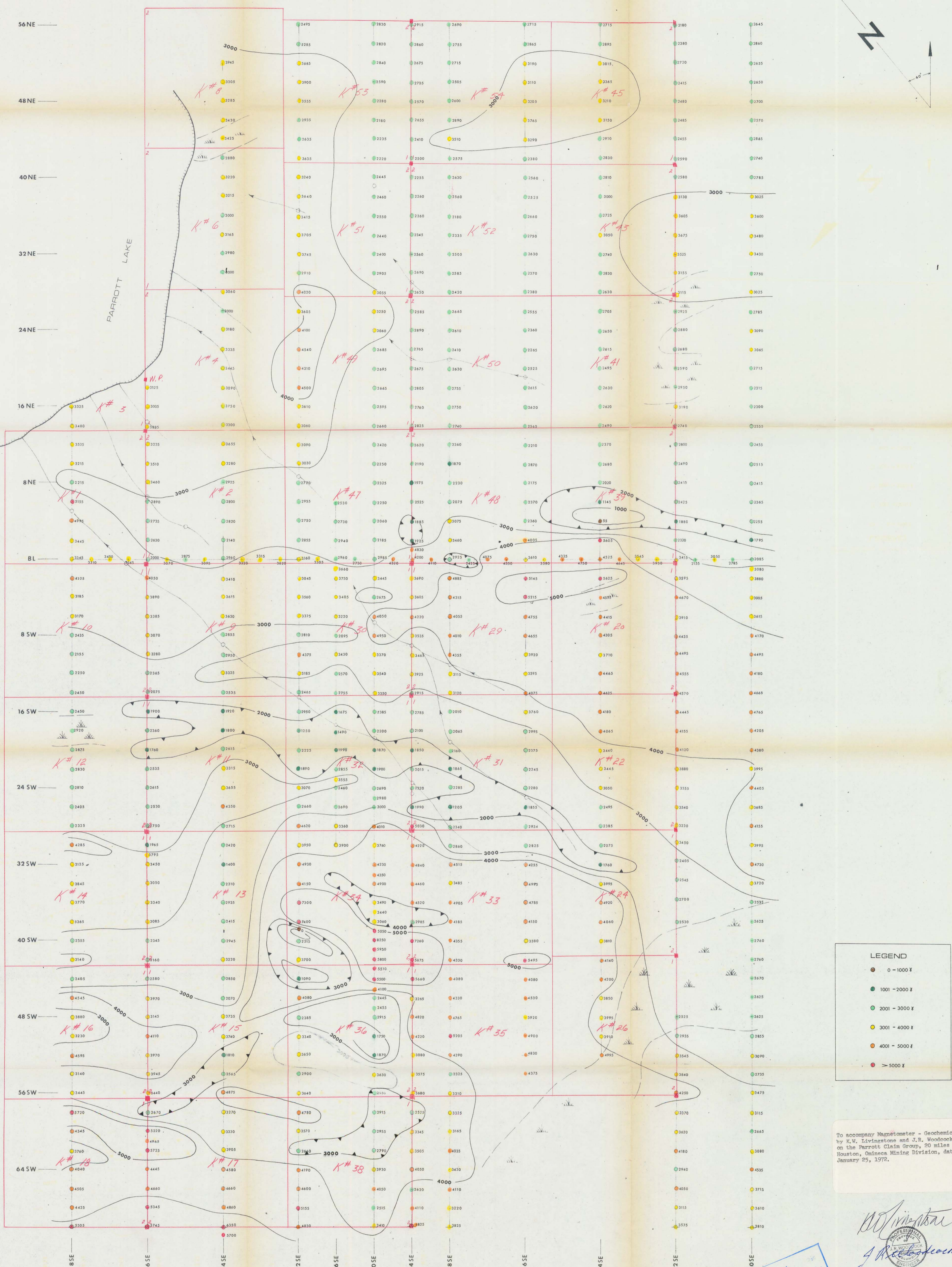
To accompany Magnetometer - Geochemical Report by K.W. Livingstone and J.R. Woodcock, P. Eng. on the Parrott Claim Group, 20 miles south of Houston, Quebec Mining Division, dated January 25, 1972.

K.W. Livingstone
J.R. Woodcock

PROFESSIONAL ENGINEER
 JOREX LIMITED

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3486 MAP #4

PARROTT LAKES PROJECT
GEOCHEMICAL SURVEY MAP
 Scale: 1" = 400'
 PARROTT LAKE PROPERTY
 J.R. WOODCOCK CONSULTANTS LTD.



LEGEND	
●	0 - 1000 f
●	1001 - 2000 f
●	2001 - 3000 f
●	3001 - 4000 f
●	4001 - 5000 f
●	> 5000 f

To accompany Magnetometer - Geochemical Report by K.W. Livinstone and J.R. Woodcock, P. Eng. on the Parrott Claim Group, 20 miles south of Houston, Onseca Mining Division, dated January 25, 1972.

K.W. Livinstone
J.R. Woodcock
 JOREX LIMITED

Department of
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 ASSESSMENT REPORT
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Note - Base Station is BL 16SE
 Absolute Reading 43,500 Gauss
 Add 39,000 Gauss to All Readings

PARROTT LAKES PROJECT
 MAGNETOMETER SURVEY
 Sintrex MS-1
 Scale: 1"=400'
 PARROTT LAKE PROPERTY
 J.R. WOODCOCK CONSULTANTS LTD.