



41J08NE0006 63.5696 BOON

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REPORT
ON
1990 PROSPECTING PROGRAM

AUX SABLES PROJECT
BOON AND SHIBANANING TWPS.
SUDBURY MINING DIVISION

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January, 1991

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INTRODUCTION

M. Hauseux, E. Gallo, and S. Surmacz jointly hold a large number of claims on a Pt-Pd-Ni-Cu prospect in Boon and Shibananing Townships, between Elliot Lake and Sudbury. The property has been termed the Aux Sables Prospect. The property covers the eastern portion of an Archean layered gabbroic intrusive complex known as the East Bull Lake pluton. Sulphides occur at several sites on the Aux Sables Prospect. These sulphides consist predominantly of pyrrhotite and chalcopyrite, and occur disseminated within the rock, and as massive and semi-massive lenses. Interesting values in Pt, Pd, Ni, and Cu have been obtained from samples of this sulphide mineralization.

Hauseux, Gallo, and Surmacz each applied for and were granted financial assistance under the 1990 Ontario Prospectors Assistance Program to further prospect this property. The planned Prospecting Program for 1990 consisted of basic prospecting, overburden stripping by hand and by mechanical equipment, rock trenching, detailed geological mapping, and sampling.

The Prospecting Program as completed did not deviate in content from what was planned, however it was decided to enlarge the over-all program, due entirely to the nature of the results obtained. Consequently, total costs were higher than originally planned.

This Report discusses each segment of the Prospecting Program in detail, describes the technical results, draws conclusions from these results, and makes recommendations regarding additional work.



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1990 PROSPECTING PROGRAM

AUX SABLES PROSPECT
BOON AND SHIBANANING
SUDBURY MINING DIVISION

M. Hauseux OPAP #OP90-062
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LOCATION AND ACCESS

The Aux Sables Prospect is in Boon and Shibananing Townships, Sudbury Mining Division, Ontario. The property is situated 30 kms (19 miles) north of Massey, 38 kms (24 miles) east of Elliot Lake, and 85 kms (53 miles) west of Sudbury. Figure I shows the general location of the property.

The west part of the property is easily reached by foot along a trail leading directly east from Highway 553, or by a network of old pulp haulage roads which also connect to Highway 553. Highway 553 intersects Trans Canada Highway 17 at Massey.

The east part of the property is best reached by float- or ski-equipped aircraft, landing on any of the large lakes such as Novick Lake

CLAIMS DATA

At the start of the 1990 Prospecting Program, the Aux Sables Prospect consisted of 115 contiguous mining claims numbered:

S 997234 - 83, inclusive
S 997299 - 323, inclusive
S 1016926 - 60, inclusive
S 1016981 - 85, inclusive
S 1091835 - 38, inclusive

During the course of the project work, 20 additional claims were staked, tied onto the west end. These claims are numbered:

S 1134473 - 90, inclusive
S 1162192 - 93, inclusive

The property now consists of 135 contiguous mining claims. These claims are shown on Figures II and III, OMNR Claim Plans G-3180 and G-2866, respectively.

FIGURE I



LOCATION SKETCH

AUX SABLES Pt-Pd-Ni-Cu PROSPECT

BOON AND SHIBANANING TOWNSHIPS
SUDBURY MINING DIVISION, ONTARIO

Scale: 1" = Approx. 167 Miles
Date: NOV., 1989

Drawn By: EAG
N.T.S. No. 41J/8

GENERAL GEOLOGY

The Aux Sables Prospect covers the east part of the East Bull Lake layered mafic intrusive complex. This complex is Archean in age, and is comprised mainly of massive and rhythmically-layered gabbroic-anorthositic rocks. Norites and troctolites are also present, but in lesser quantities. The layers vary in thickness from a few centimeters to several meters, and are defined both texturally and compositionally. The layers generally parallel the margins of the intrusive, and dip gently towards the centre. Anorthositic rocks predominate along the margins of the intrusive, while gabbroic rocks are more abundant in the centre. Both the anorthosite and the gabbro display primary textures that are characteristic of cumulates. Primary minerals consist of calcic plagioclase, clinopyroxene, orthopyroxene, titanomagnetite, olivine, pyrrhotite, chalcopyrite, and rare quartz. Mineral composition varies systematically with stratigraphic elevation, indicating that the intrusion was emplaced by 2 or 3 separate pulses of a tholeiitic magma, and suggesting that the intrusion formed under an open-system condition. Such open-system conditions are characteristic of mafic-ultramafic plutons containing stratiform PGE deposits.

The East Bull Lake intrusion has been subjected to several periods of metamorphism since its emplacement, and consequently, most rocks display some sausseritization of plagioclase, and recrystallization of pyroxene to calcic amphibole.

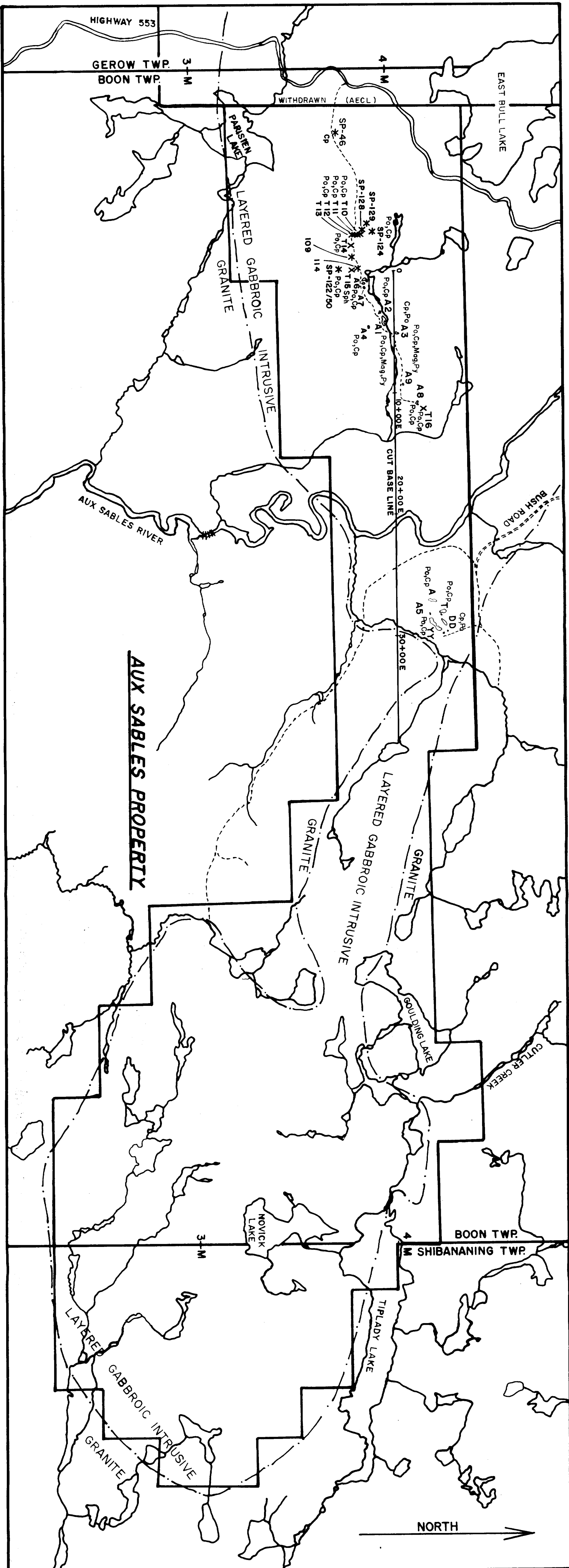
Several faults dissect the intrusion. The most prominent of these faults is a major ENE-WSW trending shear zone. Several distinct alteration styles occur within this shear, indicating that it has undergone several episodes of hydrothermal activity, and is probably therefore a long-lived structure. This shear appears to have remobilized and concentrated a portion of the primary magmatic sulfides, and also to have introduced hydrothermal sulfide mineralization. Figure IV shows the general geology of the property.

OVERBURDEN STRIPPING

Overburden was stripped to enlarge bedrock exposures in 8 areas, specifically: Area 1, Area 2, Area 5, Area 6, Area 7, Area 8, and Area 9.

Areas 1, 2, and 5 were hydraulically stripped of overburden using a high-pressure water pump. Areas 6, 7, 8, and 9 were mechanically stripped with an excavator.

The hydraulic stripping utilized a Honda high pressure water pump, model WH20X. This pump has a 3.5 horsepower motor, and is capable of drawing 500 litres (106 Imperial gallons) of water per minute. The intake port is 5.08 cm (2 inches) in diameter. The discharge



SITE	MINERALIZATION				
	Pt	Pd	Ni	Cu	Au
A1	480	3900	14600	67500	680
A2	100	230	908	4440	110
A3	870	4200	2470	4840	250
A4	340	2800	730	6100	140
A5A	20	100	-	-	-
A5T	290	1200	-	-	14
ASBD	290	1200	-	-	15
AS7Y	430	2200	-	-	2
A7	-	-	-	-	-
A8	110	240	346	2290	44
A9	340	520	6610	10900	140
T10	30	480	15100	8760	22
T11	100	940	11900	4320	36
T12	210	730	11400	6170	15
T13	-	-	-	-	17
T14	890	1430	50300	17000	41
T15	<10	2	55	124	2
T16	440	2100	2310	4600	140
109	220	980	572	1670	41
SP-46	280	1300	1220	5950	89
SP-124	40	1400	300	94000	99
SP-128	120	600	522	4950	67
SP-129	150	270	1240	4500	57
SP-129	590	1200	671	4920	350
SP-122/50	1300	2700	893	12100	190

SYMBOLS
 GEOLOGICAL CONTACT
 STRIPPED AREA
 ROCK TRENCH
 SAMPLED OUTCROP
 ACCESS TRAIL

MINERALIZATION
 Cp CHALCOPYRITE
 Mg MAGNETITE
 Po PYRRHOTITE
 Py PYRITE
 Sph SPHALERITE

NOTES: 10,000ppm = 1%
 10ppm = 0.291oz./ton
 1,000ppb = 0.029oz./ton

FIGURE IV

GENERAL GEOLOGY
AUX SABLES Pt-Pd-Ni-Cu PROSPECT
 SHOWING STRIPPING, TRENCHING, and SELECTED ASSAYS
 BOON and SHIBANANING TOWNSHIPS
 SUDBURY MINING DIVISION, ONTARIO

SCALE: 1:20,000 DATE: NOV., 1990

port is the same size, however it was reduced to 3.75 cm (1½ inches) to provide additional pressure, and to facilitate fast, efficient coupling with standard 3.75 cm (1½ inches) diameter fire hose. Normally, 1-2 hoses of standard 30.5 meter (100 feet) length were adequate, however up to 4 hoses were required to reach some stripping sites. In conjunction with the hydraulic stripping, some pick, shovel and wheelbarrow work was necessary.

Twenty-two man-days were spent hydraulically stripping Area 1, one man-day on Area 2, and 7 man-days on Area 5. During these periods, approximately 550 m³ (720 yd³) of material were removed from Area 1, 60 m³ (80 yd³) from Area 2, and 110 m³ (140 yd³) from Area 5. The extent of stripping in Areas 1 and 2 is shown on Figure V, and in Area 5 on Figure VI.

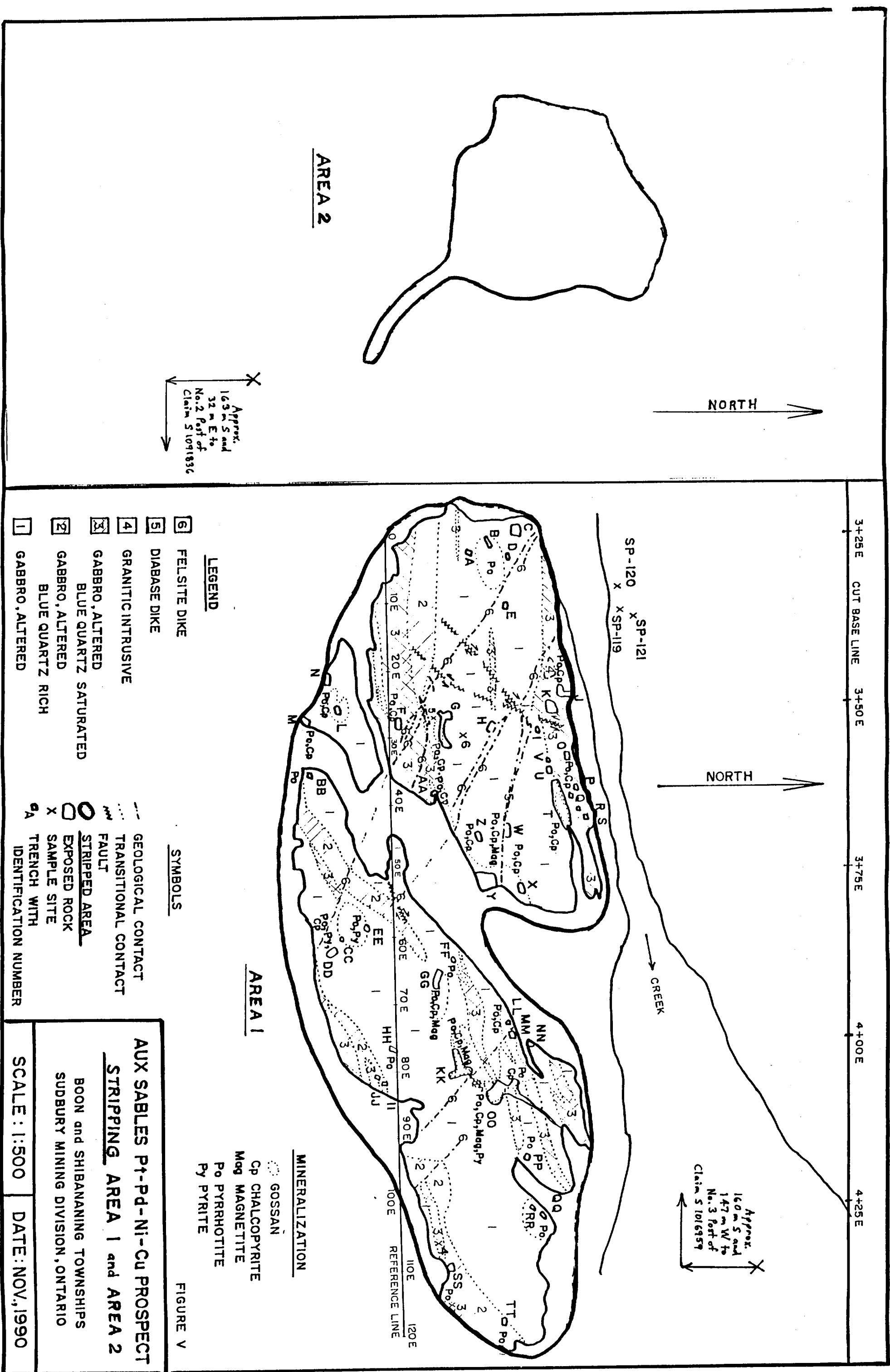
The mechanical stripping was performed with a Case 125 B excavator, fitted with a 1 cubic meter (1.3 ft³) bucket. The excavator was transported on a flat bed to the nearest access point, and walked in to the various stripping sites. The equipment was in good working order, and this, combined with an experienced operator, and favourable weather conditions, resulted in an extremely cost-efficient operation.

A total of 4 days were spent mechanically stripping Areas 6, 7, 8, and 9. Approximately 3,000 m³ (4,000 yd³) of material were removed from Area 6, 150 m³ (200 yd³) from Area 7, 750 m³ (980 yd³) from Area 8, and 150 m³ (200 yd³) from Area 9. The extent of stripping in Areas 6, 7, 8, and 9 is shown on Figure VIII.

ROCK TRENCHING

A total of 115 rock trenches were drilled and blasted on the Aux Sables Project. Most of the trenches were sunk in Areas 1 and 5. A Pionjar combination drill-breaker, Model 120, was used to drill the blast holes. This model is capable of drilling holes to depths of up to 6 meters (20 feet). The majority of holes drilled on the Aux Sables Prospect were to depths of less than 0.6 meter (2 feet). In the course of the drilling, two 0.6 m (2 foot) drill steels were broken, and 10 star-nose bits were consumed. Hole diameters averaged about 3.8 cm (1½"). The holes were loaded with 20 cm (8 inches) long sticks of either 40% or 75% forcite, and detonated by non-electric, pre-assembled detonators. Reinforced primacord was used extensively, to speed the blasting operation, and to minimize costs by reducing the number of detonators required. Three cases of forcite (approx. 600 sticks) were used.

Forty-six rock trenches were sunk in Area 1, for a combined total volume of approximately 30 m³ (40 yd³). To sink these trenches, approximately 350 holes were drilled, for a combined total depth of about 170 m (560 feet). Fifty-two man-days were spent trenching Area 1. The rock trenches in Area 1 are shown on Figure VIII.



- LEGEND**
- 6 FEL SITE DIKE
 - 5 DIABASE DIKE
 - 4 GRANITIC INTRUSIVE
 - 3 GABBRO, ALTERED
 - 2 GABBRO, ALTERED
 - 1 GABBRO, ALTERED

- SYMBOLS**
- GEOLGICAL CONTACT
 - TRANSITIONAL CONTACT
 - FAULT
 - STRIPPED AREA
 - EXPOSED ROCK
 - x SAMPLE SITE
 - ea TRENCH WITH IDENTIFICATION NUMBER

- MINERALIZATION**
- GOSSAN
 - CP CHALCOPYRITE
 - MOG MAGNETITE
 - PO PYRRHOTITE
 - PY PYRITITE

FIGURE V

AUX SABLES Pt-Pd-Ni-Cu PROSPECT
STRIPPING AREA 1 and AREA 2

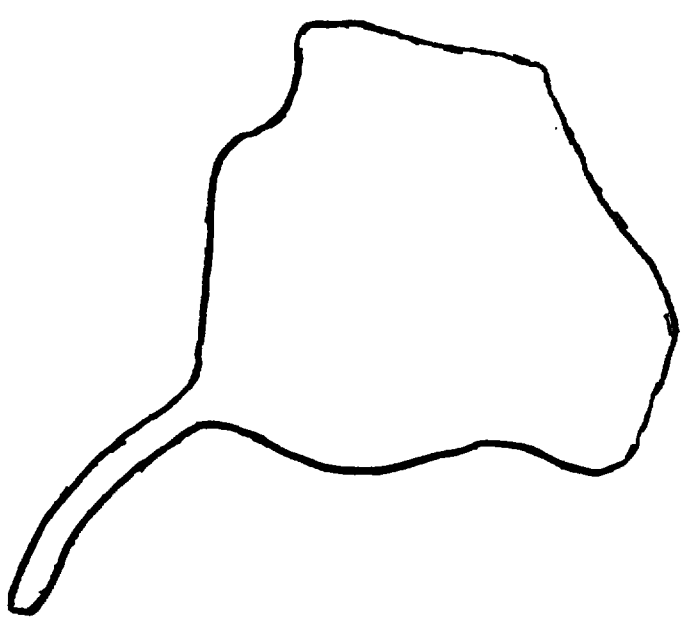
BOON and SHIBANANING TOWNSHIPS
 SUDBURY MINING DIVISION, ONTARIO

SCALE: 1:500 DATE: NOV, 1990

Approx.
 163 m S and
 32 m E to
 No. 2 Post of
 Claim S 1091836

Approx.
 160 m S and
 147 m W to
 No. 3 Post of
 Claim S 1016959

AREA 2



NORTH

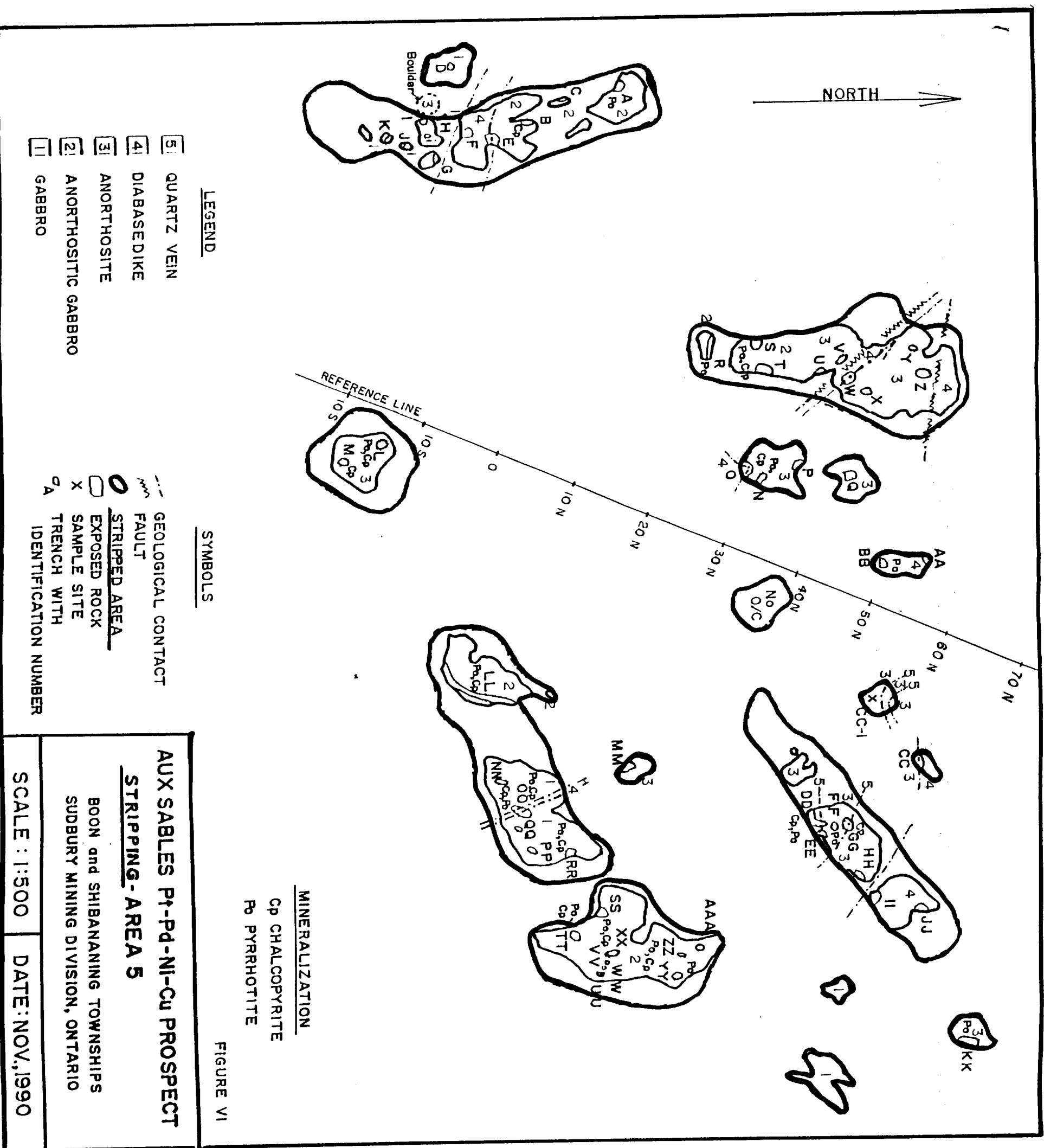
NORTH

3+25E CUT BASE LINE 3+50E 3+75E 4+00E 4+25E

SP-120 X SP-121
 X X SP-119

CREEK

110E 120E
 REFERENCE LINE



Fifty-three rock trenches were sunk in Area 5, for a combined total volume of approximately 12 m^3 (16 yd^3). To sink these trenches, approximately 180 holes were drilled, for a cumulative total footage of about 60 meters (200 feet). A total of $11\frac{1}{2}$ man-days were spent trenching Area 5. The rock trenches in Area 5 are shown on Figure IX.

One rock trench was blasted in Area 6. It has a volume of approx. 1 m^3 (1.3 yd^3). Four holes were drilled for a combined total footage of 1.2 meters (4 feet). Five man-days were spent trenching Area 6.

Four rock trenches were sunk in Area 8, for a combined volume of about 3 m^3 (4 yd^3). Seventeen holes were drilled, for a combined total footage of 12 meters (40 feet). One man-day was spent trenching Area 8.

Two trenches were sunk in Area 9, for a combined volume of about 3 m^3 (4 yd^3). Nine holes were drilled, for a total combined footage of 9 meters (30 feet). Two man-days were spent trenching Area 9.

Seven other rock trenches were sunk, termed Trench 10, Trench 11, Trench 12, Trench 13, Trench 14, Trench 15, and Trench 16. These seven trenches have a combined volume of about 10 m^3 (13 yd^3). In all, 37 holes were drilled to produce these 7 trenches, for a combined total footage of about 23 meters (75 feet). A total of $14\frac{1}{2}$ man-days were spent sinking these trenches.

The rock trenches in Area 6, Area 8, Area 9, Trench 10, Trench 11, Trench 12, Trench 13, Trench 14, Trench 15, and Trench 16 are all shown on Figure X.

PROSPECTING

The prospecting was conducted by pace and compass, and outcrops were generally tied in to the nearest claim post. In some cases outcrops were tied in to 1 of 2 Base Lines previously cut for that purpose. All of the outcrops examined form part of the East Bull Lake intrusive complex, and were classified as a gabbro or an anorthosite. Occasionally, outcrop areas were found to contain narrow intrusive dikes of felsite, but these were always very minor. Outcrops in general were well-rounded and hard, necessitating greater-than-average effort to obtain a fresh surface for examination, and to obtain a suitable sample. To facilitate this, it became standard practise to include a grub hoe and sledge hammer as part of the prospecting equipment. A total of 105 samples were collected while prospecting, none of which were submitted for assaying. Table I lists and describes the prospecting samples. The locations of these samples, and the area prospected are shown on Figures XI and XII. A total of 101 man-days were spent prospecting.

TABLE I
ROCK SAMPLES - PROSPECTING

AUX SABLES Pt-Pd-Ni-Cu PROSPECT

All Samples are Grab Samples. None of these samples were sent for Assay. cg - coarse grained, mg - medium grained, fg - fine grained.

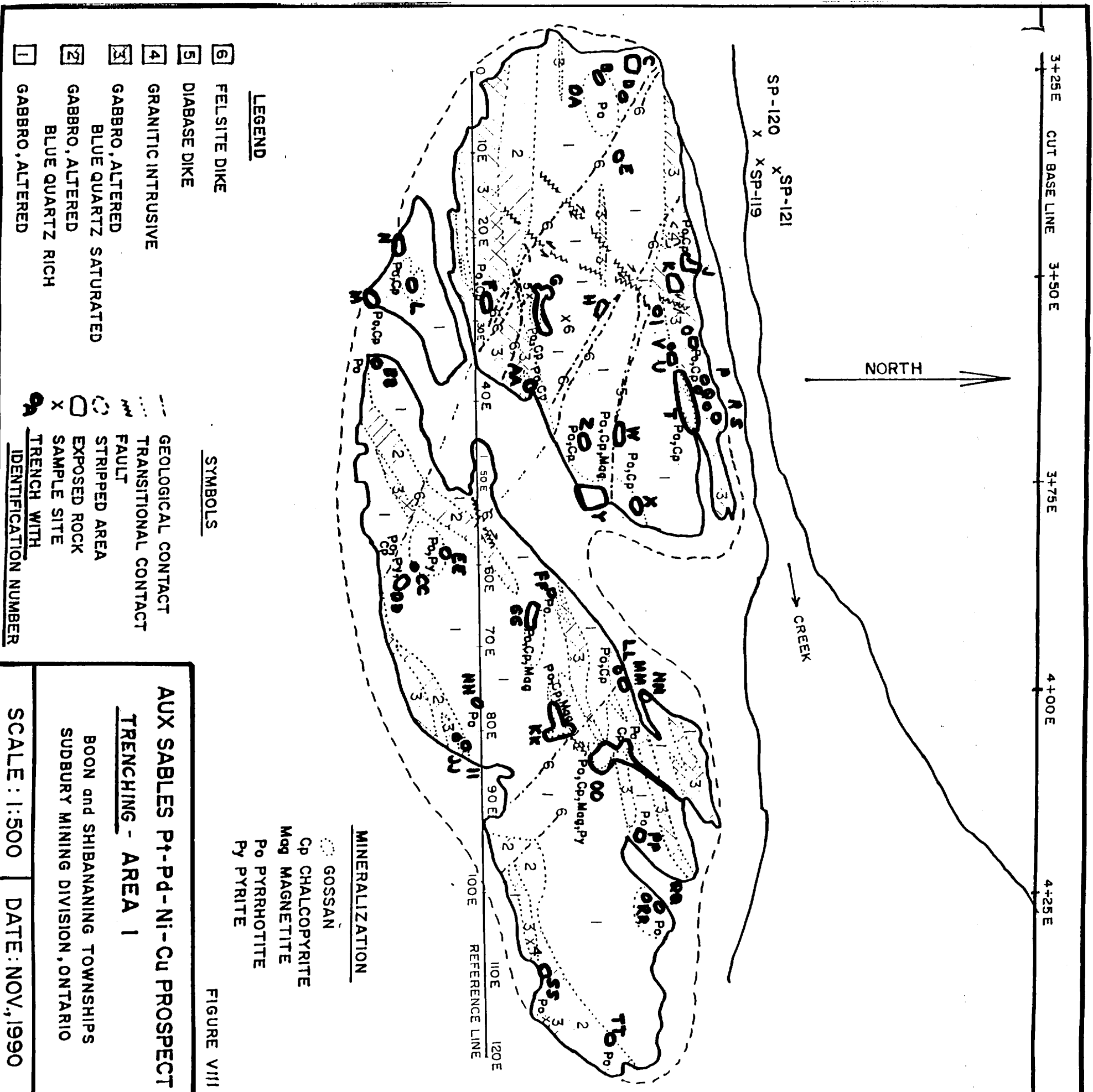
SAMPLE NO.	LOCATION: CLAIM S	DESCRIPTION	MINERALIZATION	
			Po%	Cp%
1	1016939	Anorthosite, very cg	<1	<1
2	1016932	Altered gabbro, cg	tr	-
3	"	" " mg	-	-
4	1016933	Granite, mg, pink.	-	-
5	"	Quartz, white.	-	-
6	1016934	Granite, cg, pink	-	-
7	"	Quartz, white	-	-
8	"	Granite, cg, pink	-	-
9	1016935	Granite/syenite, mg, red.	-	-
10	"	Gabbro, altered, mg	tr	-
11	1016938	" " "	-	-
12	"	" " "	-	-
13	1016939	Gabbro, anorthositic, cg	1	tr
14	"	Gabbro, mg	<1	-
15	1016940	Diabase, fg (boulder?)	-	-
16	1016941	Gabbro, altered, mg	-	-
17	"	" " "	-	-
18	1016944	" " "	2	-
19	"	" " "	tr	tr
20	"	Gabbro, cg	tr	-
21	1016945	Gabbro, mg	2	<1
22	"	" "	1	tr
23	"	Granite, pink, mg	-	-
24	1016946	Gabbro, altered, mg. Boulder	1	-
25	"	Quartz, white. Boulder.	-	-
26	1016947	Gabbro, altered, mg	tr	-
27	"	Quartz, white	-	-
28	1016951	Gabbro, altered, mg	<1	tr
29	1016951	Gabbro, altered, mg	1	1
30	1016952	" " "	2	1
31	"	" " "	2	1
32	"	" " "	1	tr
33	1016953	" " "	3	1
34	"	" " "	2	1
35	1016954	" " "	tr	1
36	1016959	" " "	tr	tr
37	"	" " "	tr	tr
38	"	" " "	<1	tr
39	"	" " "	tr	-
40	"	" " "	tr	-

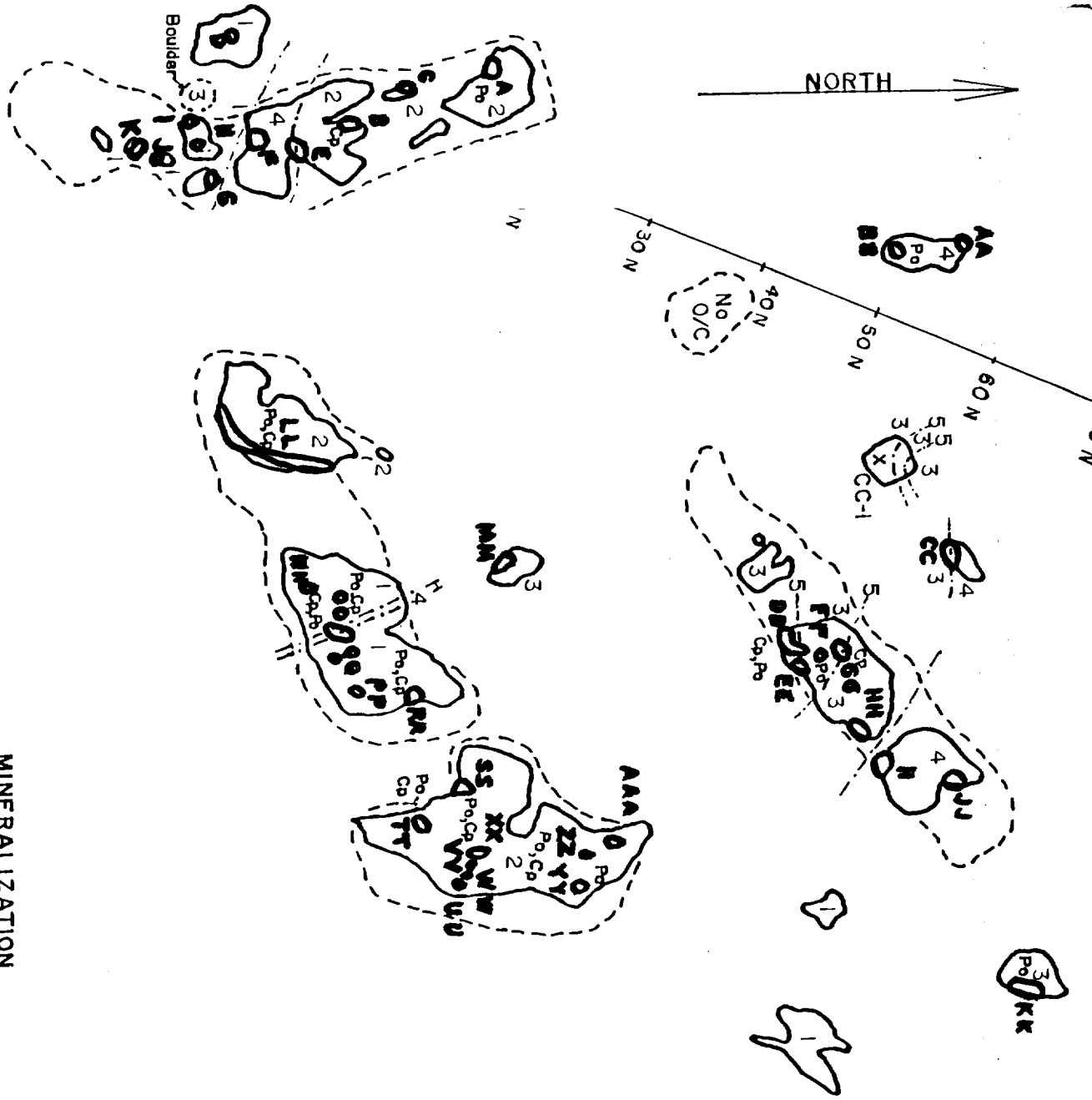
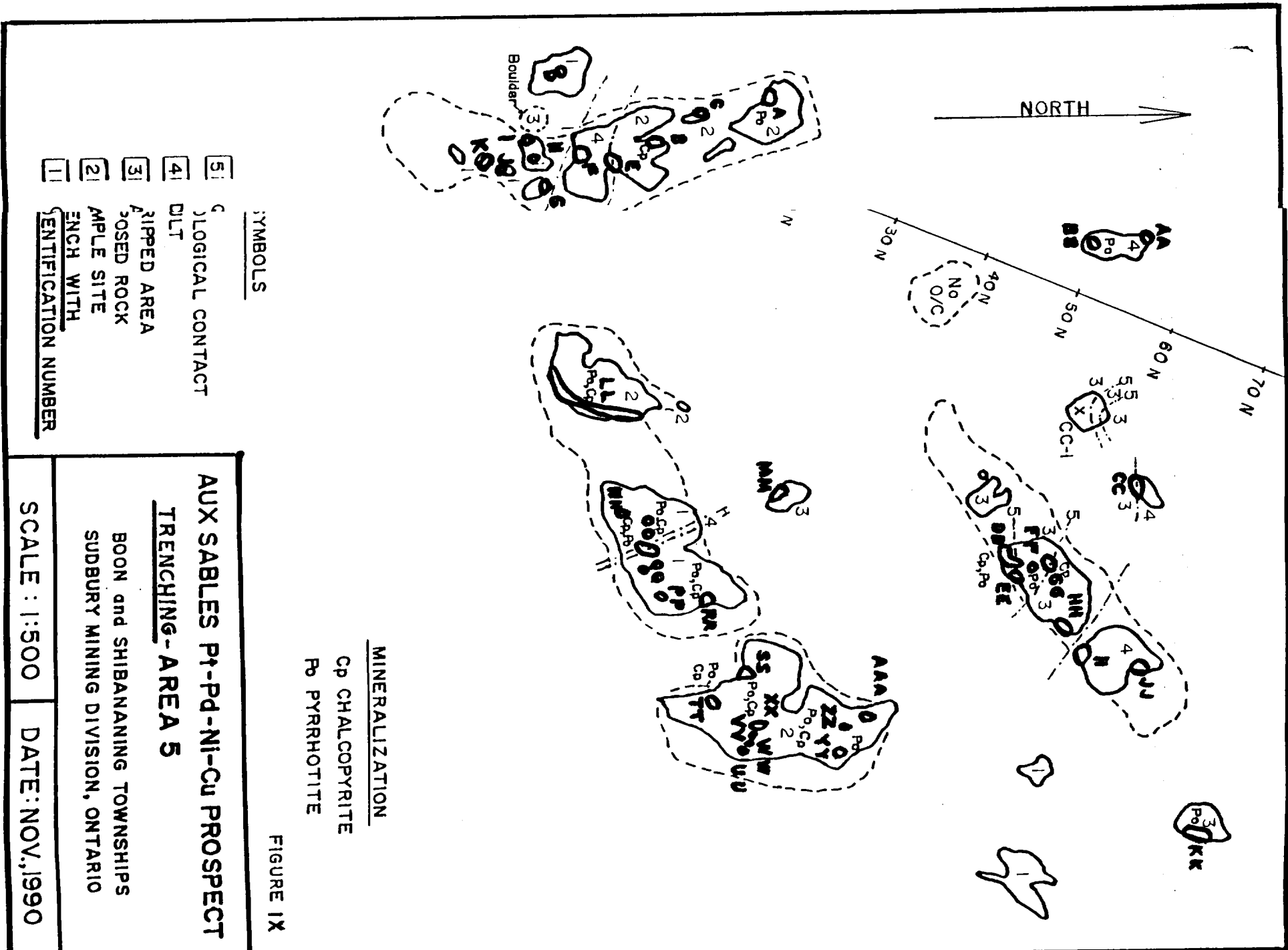
TABLE I (cont'd)

SAMPLE NO.	LOCATION: CLAIM S	DESCRIPTION	MINERALIZATION	
			Po%	Cp%
41	1016959	Gabbro, anorthositic, cg	1	1
42	"	Gabbro, mg	tr	tr
43	"	" "	tr	tr
44	"	" "	1	-
45	1091836	Gabbro, altered, mg	1	tr
46	"	Gabbro, mg	2	-
47	"	Gabbro, altered, cg	2	1
48	1091837	" " "	<1	-
49	"	Gabbro, altered, mg, blue quartz rich.	tr	tr
50	"	Gabbro, altered, granitized	-	-
51	1016954	Gabbro, altered, mg	tr	-
52	"	" " "	tr	-
53	1134473	" " "	1	tr
54	"	" " "	3	1
55	"	" " "	2	tr
56	"	Gabbro, mg	2	<1
57	"	Gabbro, cg	1	tr
58	"	Gabbro, altered, mg	2	tr
59	"	" " "	tr	tr
60	"	" " "	1	tr
61	1134480	" " "	1	1
62	1134475	" " cg	3	tr
63	"	" " mg	2	tr
64	1162192	" cg	3	1
65	"	" altered, mg	tr	-
66	"	" " "	tr	-
67	"	" " "	tr	-
68	"	" " "	-	-
69	"	" mg	<1	-
70	"	Quartz, greyish-white	-	-
71	"	Gabbro, altered, mg	-	-
72	"	" " "	-	-
73	"	" " "	2	tr
100	1016952	Gabbro, cg	<1	<1
101	"	" mg, cg	<1	<1
102	1016954	" cg	<1	<1
103	"	" mg, cg	<1	<1
104	"	" mg, cg	40	40
105	"	" fg	40	20
106	1016959	Gabbroic Anorthosite	<1	<1
107	1162192	Gabbro, sheared, blue quartz	?tr	?tr
108	"	" mg	?tr	?tr
109	"	" mg, cg	<1	<1

TABLE I (cont'd)

SAMPLE NO.	LOCATION: CLAIM S	DESCRIPTION	MINERALIZATION	
			Po%	Cp%
110	1162192	Gabbro, mg-cg	<1	<1
111	1091837	" mg-cg	<1	?tr
112	"	Peridotite	?tr	?tr
113	1162192	Anorthosite, cg	<1	<1
114	1091837	Gabbro, fg, blue quartz	1	<1
115	1016952	Anorthosite, cg	<1	<1
119	1016959	Gabbro, mg	2	<1
120	"	" sheared, chloritic, blue quartz	<1	<1
121	"	Gabbro, sheared, chloritic, blue quartz	<1	<1
122	1162192	Anorthosite, mg-cg	<1	1
123	1091836	Gabbro, mg, hematite	2	2
124	1134475	Gabbro, sheared, blue quartz	1	1
126	1091836	Massive sulfide	60	40
127	"	" "	60	40
128	"	Gabbro, mg-cg	2	2
129	"	" , sheared	<1	<1
130	1091837	Massive sulfide	60	40
131	1091836	Quartz vein, with po,py,cp	<1-tr	<1-tr
132	1091837	Quartz-carbonate vein with cp, po, sph	<1-tr	<1-tr
133	"	Gabbro, altered	5	5
134	1016959	Anorthosite, cg	1	1
135	1016954	Anorthosite, cg	<1	<1





DETAILED GEOLOGICAL MAPPING

Detailed geological mapping was undertaken at Area 1 and Area 5. Cloth tapes were used to establish a grid of lines, and all pertinent geological features were tied in to these grids. The grid over Area 1 was tied in to a cut base line, and the grid over Area 5 to the nearest claim post.

Four main rock units were encountered in the detailed mapping. They have been termed anorthosite, gabbro, anorthositic gabbro, and altered gabbro. Altered gabbro underlies all of Area 1. The three remaining units underlie Area 5.

Three minor units intrude the main units - diabase, granite (?), and felsite. Diabase dikes occur in both Areas. A small granitic body and several felsite dikes intrude the altered gabbro in Area 1.

Table II lists the lithologic units.

The anorthosite unit is pale grey coloured on the weathered surface, and greyish-white on the fresh surface. The rock is coarse grained, often very coarse grained, giving it a nodular, pegmatite-like appearance. Plagioclase feldspar is the predominant mineral in the anorthosite, accounting for about 90% of its volume. Ferromagnesian minerals (up to 10% by volume) are commonly present as large segregated crystals. The mafic minerals are clinopyroxenes which have been generally replaced by actinolitic hornblende, and less commonly by blue-green hornblende. Plagioclase is generally altered to epidote, clinozoisite, carbonate, and chlorite. Unaltered plagioclase displays the characteristic polysynthetic twin lamellae. Sphene, titanomagnetite, and blue quartz are common accessory minerals. Up to 3% combined pyrrhotite and chalcopyrite may also be present.

The gabbro unit is dark grey on the weathered surface, and various shades of black on the fresh surface. The gabbro is coarse to medium grained. Plagioclase and altered pyroxene are the dominant minerals. The plagioclase occurs as irregular prisms and irregular grains. It is polysynthetically twinned, and generally is fractured. Blue-green hornblende and lesser actinolitic hornblende replace the pyroxene. Titanomagnetite, chlorite, epidote, and carbonate are secondary minerals. The titanomagnetite is commonly replaced by sphene and biotite. Up to 3% pyrrhotite and chalcopyrite may be present as disseminated grains.

The anorthositic gabbro unit is grey coloured on the weathered surface, and greyish-black on the fresh surface. The rock is generally coarse grained in texture. Plagioclase and amphibole occur in about equal proportions. The amphiboles are alteration products of pyroxenes which crystallized first. A thin rim of blue-green hornblende is commonly present around the altered pyroxene grains. The plagioclase grains are generally fractured. Minor amounts of biotite, sphene, magnetite, calcite, pyrrhotite, and chalcopyrite are found throughout this unit.

TABLE IITABLE OF LITHOLOGIC UNITS

PHANEROZOIC

Cenozoic

Quaternary

Pleistocene and Recent

Gravel, sand, clay.

UNCONFORMITY

PRECAMBRIAN

Late Precambrian

Late Mafic Intrusive Rocks

Diabase

INTRUSIVE CONTACT

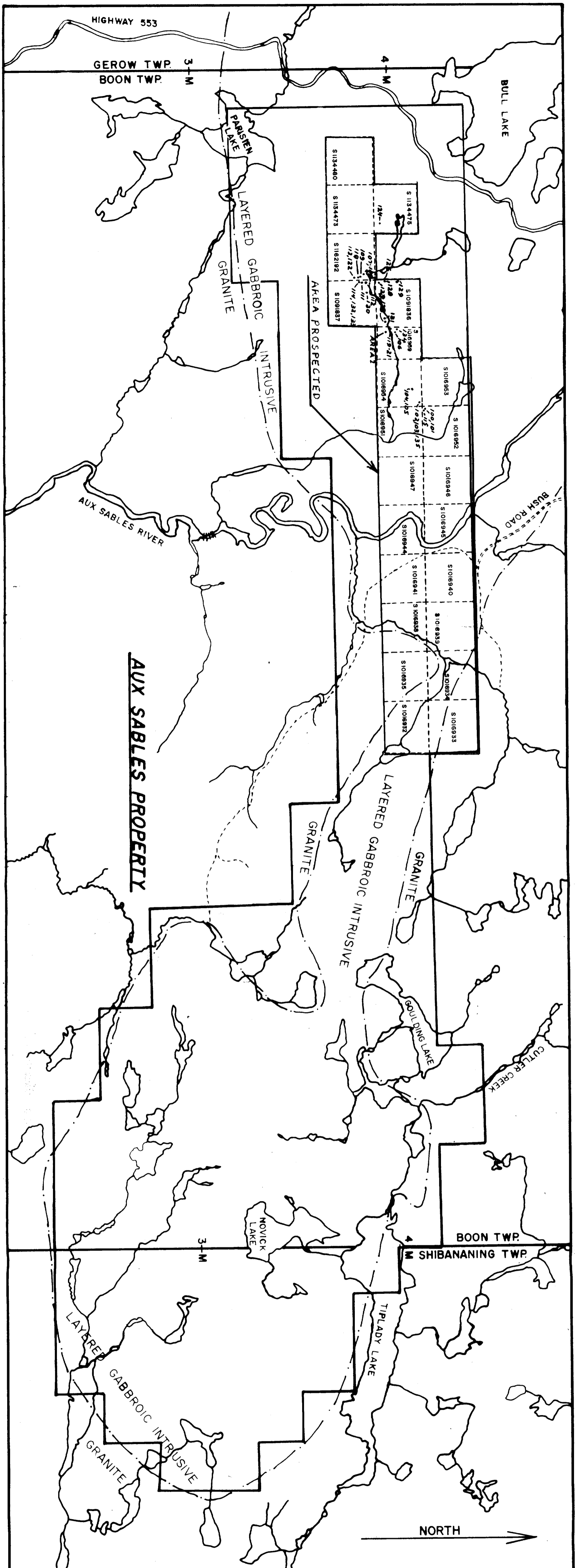
Felsic Intrusive Rocks

Felsite, granite (?)

INTRUSIVE CONTACT

Early Mafic Intrusive Rocks

Anorthosite, gabbro, anorthositic gabbro, altered gabbro.



AREA PROSPECTED AND SAMPLE LOCATIONS
 AUX SABLES Pt-Pd-Ni-Cu PROSPECT
 BOON and SHIBANANING TOWNSHIPS
 SUDBURY MINING DIVISION, ONTARIO
 SCALE: 1:20,000 DATE: NOV., 1990

FIGURE XII
 X123 - SAMPLE SITE and IDENTIFICATION NUMBER
 (Mauseux and Surmacez)

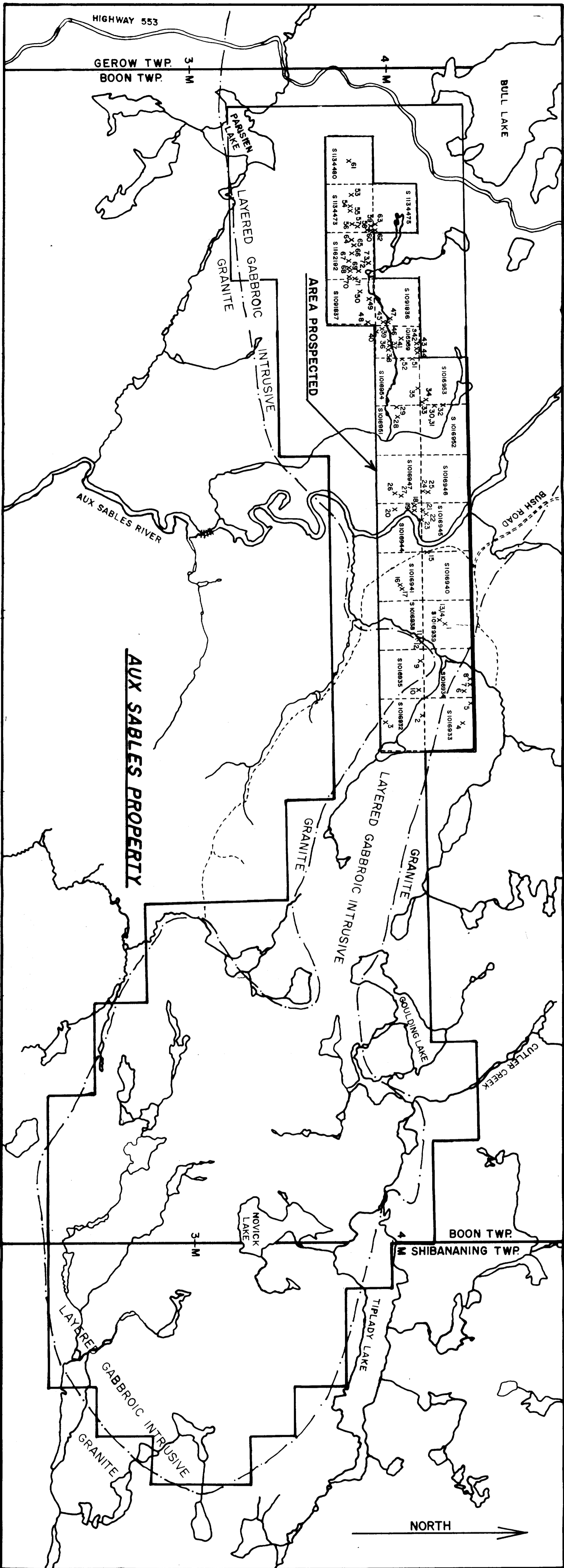


FIGURE XI

AREA PROSPECTED AND SAMPLE LOCATIONS

AUX SABLES Pt-Pd-Ni-Cu PROSPECT

X 23 - SAMPLE SITE AND IDENTIFICATION NUMBER (Call)

The altered gabbro unit is comprised of potassic feldspar, plagioclase, calcic amphibole, blue quartz, biotite, magnetite, and sphene. Minor amounts of epidote, carbonate, pyrrhotite and chalcopryrite are also present. The rock is generally coarse grained, and displays gabbroic or granophyric textures. The weathered surface is various shades of grey, while the fresh surface is greyish-black.

Diabase occurs as irregular dikes, 0.6-2+ meters (2-6+ feet) wide. They strike in an irregular NW-SE direction. The diabase is brownish-grey on the weathered surface, and dark greyish-black on the fresh surface. The texture is fine to medium grained. The diabase may be dense and massive, or it may display an ophitic texture. Plagioclase and amphibole are the predominant minerals. Titanomagnetite and rare sulphides are also present.

Both the granite (?) and the felsite are fine grained. They are various shades of pinkish-white on both the weathered and fresh surfaces. Quartz and feldspar are the predominant minerals, with minor amounts of amphibole or biotite. The felsite dikes strike in a general NW-SE direction.

Area 1 appears to lie entirely within a broad shear zone. This is indicated by several features, including the general altered nature of the gabbro, the locally intense silicification, brecciation, crenulations, fracturing, slickensides, and mylonite. The blue colour of the quartz may be due to strain, and therefore may also be indicative. The shear appears to have a general E-W strike.

Concentrations of sulphides appear to be associated with the shear. The sulphides consist mainly of pyrrhotite and chalcopryrite, and form massive and semi-massive lenses and patches up to 2 meters (6 feet) in size.

The results of the detailed geological mapping of Area 1 and Area 5 are shown on Figures XIII and XIV, respectively. A total of 18½ man-days were spent in detailed geological mapping.

SAMPLING

Samples were taken from all the rock trenches on the Aux Sables property. This sampling was not undertaken as part of the OPAP Prospecting Program because time and costs had exceeded the OPAP Grant before this segment of the Program was started. However, the sampling was originally planned to be a part of the Program, and for this reason, and for the sake of completeness, the sampling results are herewith included.

The samples collected from the trenches in Area 1 and Area 5 were muck composites of representative mineralization from each individual trench. Samples from the rock trenches in Area 6,

Area 8, Area 9, Trench 10, Trench 11, Trench 12, Trench 13, Trench 14, Trench 15, and Trench 16 were all grabs of the best mineralization exposed. All of the trenching samples were submitted for assaying.

The assay results for the trenching samples from Area 1 are shown on Figure XIII. The assay results for the trenching samples from Area 5 are shown on Figure XIV. The assay results for the trenching samples from Areas 6, 8, and 9, and from Trenches 10, 11, 12, 13, 14, 15, and 16 are shown on Figure IV.

In Area 1, 61 trenching samples were collected. Fifty-nine of these samples were analysed for Pt and Pd. The highest, lowest, and average values obtained for Pt are 480 ppb (0.014 oz/ton), 10 ppb, and 152 ppb (0.004 oz/ton), respectively. The highest, lowest, and average values for Pd are 3,900 ppb (0.113 oz/ton), 1 ppb, and 634 ppb (0.018 oz/ton) respectively. Thirty-five of the samples were analysed for Ni and Cu. The highest, lowest, and average values for Ni are 14,600 ppm (1.46%), 41 ppm, and 4,238 ppm (0.42%), respectively. For Cu, the highest, lowest, and average values are 67,500 ppm (6.75%), 140 ppm, and 14,798 ppm (1.48%), respectively. Fifty-six of the samples were analysed for Au. They returned values ranging from 680 ppb (0.012 oz/ton) to 1 ppb. The average was 95.6 ppb (0.003 oz/ton). Forty-six samples were analysed for Ag. One sample returned a value of 33,900 ppm (986.49 oz/ton). Excluding this one high value, the sample results ranged between 11 (3.20 oz/ton) and 0.5 ppm, and averaged 2 ppm (0.58 oz/ton).

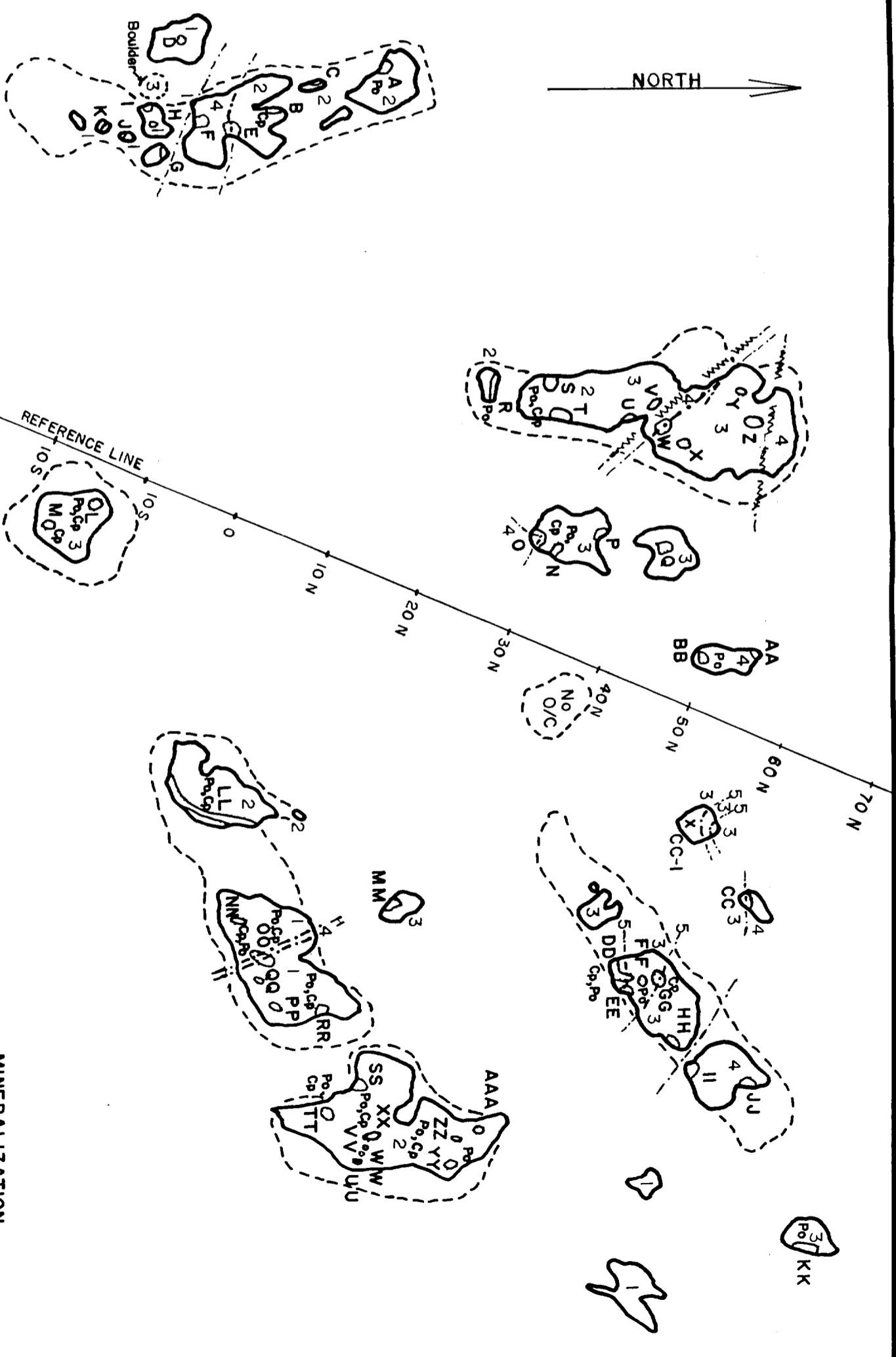
Fifty trenching samples were collected from Area 5. All were analysed for Pt and Pd. The highest, lowest, and average values obtained for Pt are 430 ppb (0.012 oz/ton), 10 ppb, and 66.3 ppb (0.002 oz/ton), respectively. For Pd, the highest, lowest, and average values are 2,200 ppb (0.064 oz/ton), 2 ppb, and 293.2 ppb (0.009 oz/ton), respectively. Five of the trench samples from Area 5 were analysed for Au. The values ranged from 17 ppb to 1 ppb, and averaged 10 ppb.

Twenty-one samples were collected from 21 other sites. They returned values ranging from 1,300 ppb (0.034 oz/ton) - 10 ppb Pt, 4,200 ppb (0.122 oz/ton) - 2 ppb Pd, 50,300 ppm (5.03%) - 55 ppm Ni, 94,000 ppm (9.40%) - 124 ppm Cu, 350 ppb (0.01 oz/ton) - 2 ppb Au and 3.5 ppm (1.02 oz/ton) - 0.5 ppm Ag.

CONCLUSIONS

A comprehensive prospecting program was completed on the Aux Sables Property during the 1990 field season. The program consisted of basic prospecting, stripping of overburden, rock trenching, detailed geological mapping, and sampling. Encouraging results were obtained,

SAMPLE NO.	TRENCH NO.	Pt ppb	Pd ppb	Au ppb
5A	A	20	100	-
5B	B	10	50	-
5E	E	10	15	-
5F	F	<10	8	3
5I	I	10	20	-
5L	L	20	79	-
5N	N	180	1000	-
5O	O	110	510	-
5R	R	50	92	-
5S	S	60	150	-
5T	T	290	1200	-
5T-1	T	60	230	14
5T-2	T	150	850	-
5U	U	20	120	-
5V	V	70	670	-
5W	W	<10	33	-
5W-1	W	<10	4	-
5AA	AA	10	9	-
5BB	BB	10	10	-
5CC	CC	10	11	-
5CC-1	CC	60	510	17
5DD	DD	290	1200	-
5EE	EE	10	240	1
5FF	FF	10	220	-
5GG	GG	10	5	-
5GG-1	GG	20	450	15
5HH	HH	80	400	-
5II	II	10	13	-
5JJ	JJ	10	11	-
5KK	KK	10	2	-
5LL	LL	70	160	-
5LL-1	LL	50	180	-
5LL-2	LL	20	50	-
5MM	MM	80	350	-
5NN	NN	<10	21	-
5OO	OO	60	220	-
5OO-1	OO	80	220	-
5PP	PP	230	640	-
5RR	RR	30	80	-
5SS	SS	60	270	-
5TT	TT	90	340	-
5UU	UU	60	160	-
5VV	VV	20	23	-
5WW	WW	10	18	-
5XX	XX	200	890	-
5XX-1	XX	30	85	-
5XX-2	XX	120	370	-
5YY	YY	430	2200	-
5ZZ	ZZ	40	160	-
5AAA	AAA	13	12	-



- LEGEND**
- 5 QUARTZ VEIN
 - 4 DIABASE DIKE
 - 3 ANORTHOSITE
 - 2 ANORTHOSITIC GABBRO
 - 1 GABBRO

- SYMBOLS**
- GEOLOGICAL CONTACT
 - FAULT
 - /// STRIPPED AREA
 - EXPOSED ROCK
 - X SAMPLE SITE
 - TRENCH WITH IDENTIFICATION NUMBER

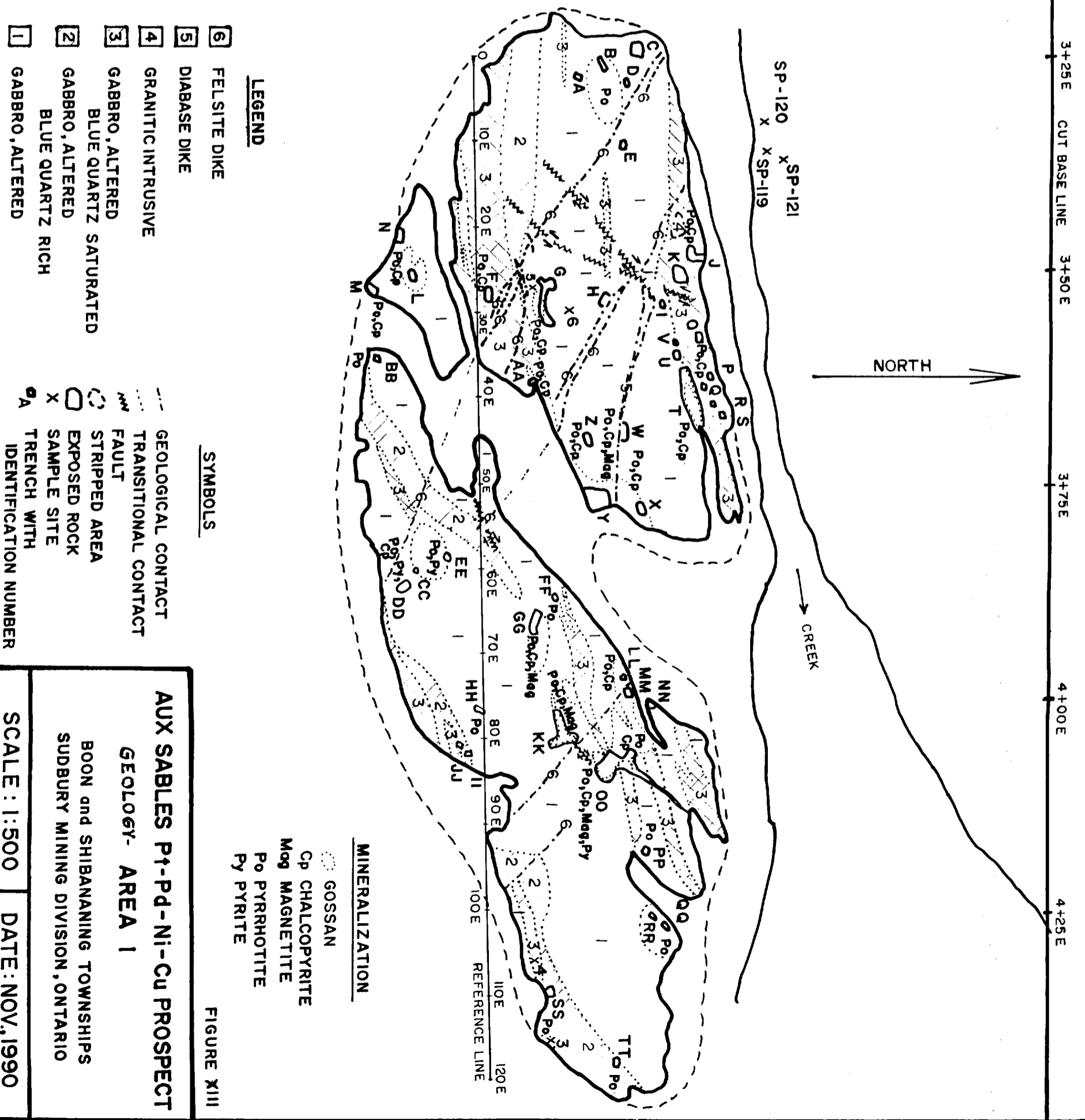
MINERALIZATION
 Cp CHALCOPYRITE
 Po PYRRHOTITE

FIGURE XIV

AUX SABLES Pt-Pd-Ni-Cu PROSPECT
 GEOLOGY - AREA 5
 BOON and SHIBANANING TOWNSHIPS
 SUDBURY MINING DIVISION, ONTARIO

SCALE : 1:500 DATE: NOV., 1990

SAMPLE NO.	TRENCH NO.	Pt ppb	Pd ppb	Ni ppm	Cu ppm	Au ppb	Ag ppm
3	-	<10	4	41	140	<1	-
4	-	-	-	-	-	1	-
5	-	-	-	-	-	-	-
6	-	220	3900	1100	9900	330	-
7	00	170	1100	5700	7700	100	-
8	00	230	1200	8000	25000	110	-
9	T	220	1300	7600	5100	99	-
10	T	480	1300	2900	1300	65	-
11	T	340	1700	8100	3000	100	-
SP-55	T	170	830	2600	37000	-	-
SP-56	T	150	760	3500	37000	-	-
SP-57	T	150	1200	5400	22000	-	-
SP-58	T	180	980	5800	23000	120	-
SP-59	T	250	820	730	31000	110	-
SP-60	T	230	1100	5900	8200	-	-
SP-119	-	70	230	653	4030	90	1.5
SP-120	-	150	850	983	8150	59	2.0
SP-121	-	80	120	649	2180	79	1.5
IA1	A	<10	1	-	-	<1	<0.5
IB1	B	<10	5	-	-	130	<0.5
IC1	C	<10	5	-	-	1	<0.5
ID1	D	10	20	-	-	4	<0.5
IE1	E	100	260	-	-	6	<0.5
IF1	F	230	560	1260	19200	140	4.0
IG1	G	460	970	-	-	59	2.0
IH1	H	140	240	959	1960	29	1.5
II1	I	70	260	1600	470	12	0.5
IJ1	J	260	580	4110	28300	490	5.0
IK1	K	240	540	2060	12800	210	3.5
IL1	L	90	150	6160	12200	120	4.0
IP1	P	30	22	-	-	40	<0.5
IQ1	Q	10	7	-	-	18	<0.5
IR1	R	20	110	-	-	30	<0.5
IS1	S	<10	3	-	-	2	<0.5
IT1	T	160	790	6230	9910	150	2.5
IU1	U	<10	17	-	-	35	<0.5
IV1	V	400	740	-	-	130	3.0
IW1	W	210	670	3330	7680	160	2.0
IX1	X	10	8	-	-	4	<0.5
IY1	Y	290	1500	5350	28000	320	11.0
IZ1	Z	130	320	1630	1770	18	<0.5
IAA1	AA	90	180	3600	19800	380	2.5
IBB1	BB	10	4	-	-	4	<0.5
ICC1	CC	210	1200	-	-	75	2.5
IDD1	DD	390	960	1330	9150	150	6.5
IEE1	EE	80	170	-	-	47	<0.5
IEFF1	FF	50	410	-	-	56	1.0
IGG1	GG	420	2000	14600	16400	140	5.0
IHH1	HH	370	1200	-	-	680	6.5
IIII1	II	10	52	-	-	50	0.5
IJJ1	JJ	<10	11	-	-	7	<0.5
IKK1	KK	230	1100	8470	7530	94	3.5
ILL1	LL	280	1200	7610	30300	94	7.0
IMM1	MM	320	1300	6640	16700	48	5.0
INN1	NN	40	220	-	-	18	<0.5
IOO1	OO	320	1800	10900	67500	57	33900
IOPP1	PP	10	74	-	-	8	<0.5
IQQ1	QQ	110	310	2850	3560	61	2.0
IRR1	RR	<10	11	-	-	3	<0.5
ISS1	SS	<10	13	-	-	7	<0.5
ITTT1	TT	20	4	-	-	2	<0.5



in the form of additional sulphide occurrences located, and potentially-economic values in Pt, Pd, Ni, and Cu obtained in preliminary rock samples. As well, the layered gabbroic intrusive body, considered to be a favourable geologic environment, was verified as being present on much of the property, and to extend off the property to the west. Consequently, 20 additional claims were staked to cover this extension.

RECOMMENDATIONS

Additional prospecting work is needed and justified to better evaluate the economic potential of the Aux Sables Prospect. This additional work should consist of linecutting, further basic prospecting, overburden stripping, rock trenching, lithogeochemical surveys, test geophysical traverses, geological mapping, and diamond drilling.



January, 1991

E. A. Gallo

INDEX TO LAND DISPOSITION

PLAN
 G-3180
 TOWNSHIP

M.N.R. ADMINISTRATIVE DISTRICT
 ESPANOLA
 MINING DIVISION
 SUDBURY
 LAND TITLES/REGISTRY DIVISION
 ALGOMA

BOON
 63.5696
 OP910-062/063/064

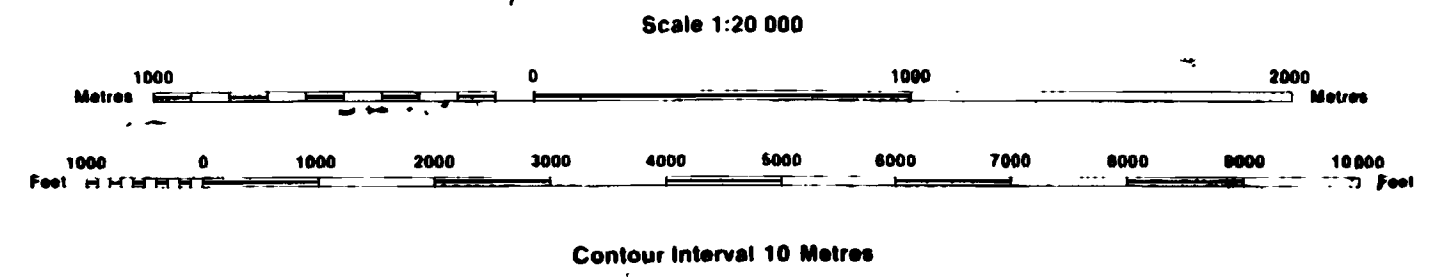


FIGURE II

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
 SRO - Surface Rights Only
 M + S - Mining and Surface Rights

Description	Order No	Date	Disposition	File
SEC 36/80	W 2/83	3/3/83	S.R.O.	77084

SYMBOLS

- Boundary
- Township, Meridian, Baseline
- Road allowance, surveyed shoreline
- Lot/Concession, surveyed unsurveyed
- Parcel, surveyed unsurveyed
- Right-of-way, road railway utility
- Reservation
- Cliff, Pit, Pile
- Contour
- Interpolated
- Approximate
- Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway, single track double track abandoned
- Road, highway, county, township access trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

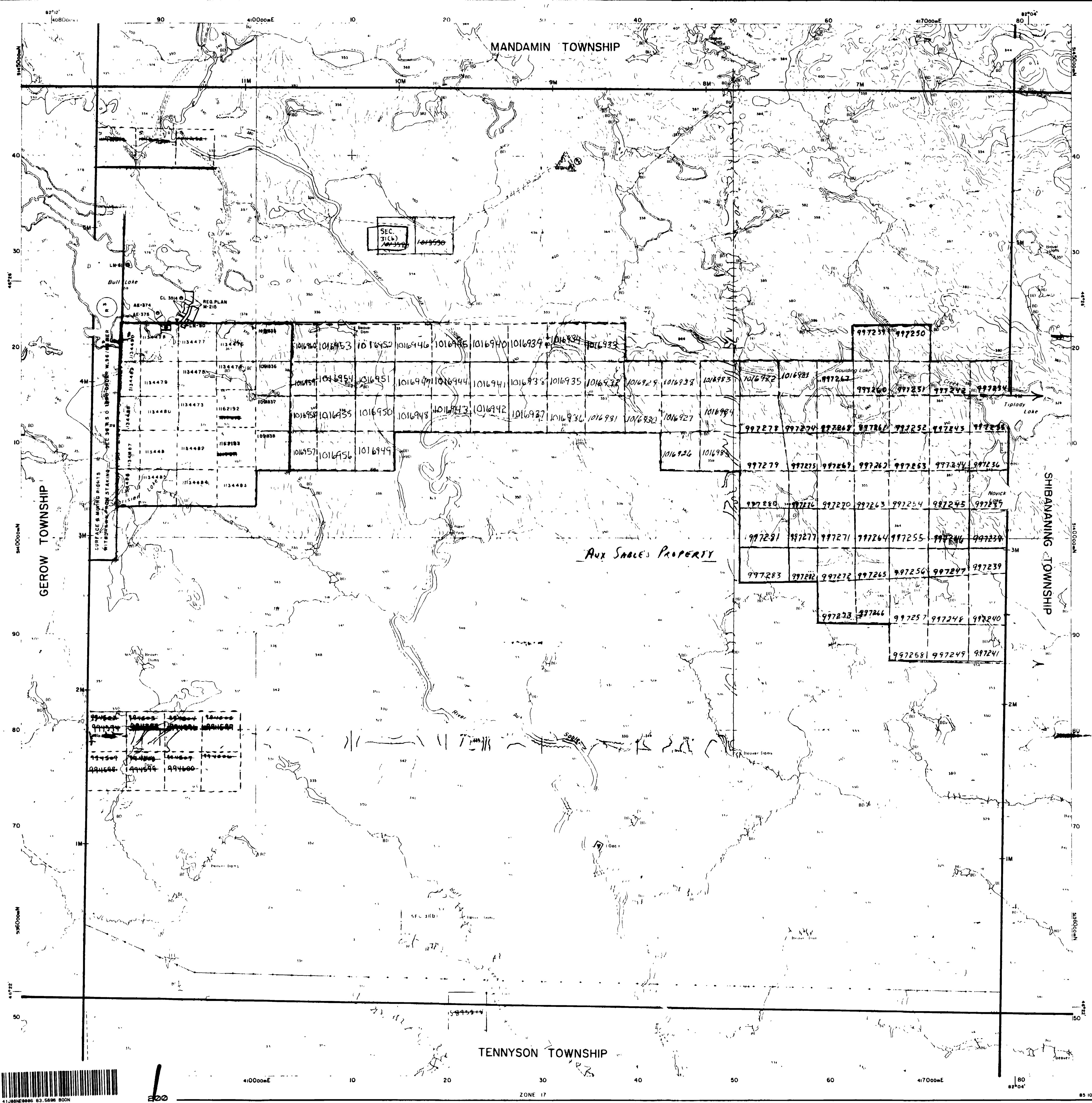
DISPOSITION OF CROWN LANDS

- Patent
 - Surface & Mining Rights
 - Surface Rights Only
 - Mining Rights Only
- Lease
 - Surface & Mining Rights
 - Surface Rights Only
 - Mining Rights Only
- Licence of Occupation
- Order-in-Council
- Cancelled
- Reservation
- Sand & Gravel

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

DATE OF ISSUE
 1986 JAN 15
 SUDBURY
 MINING REGISTRAR'S OFFICE

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



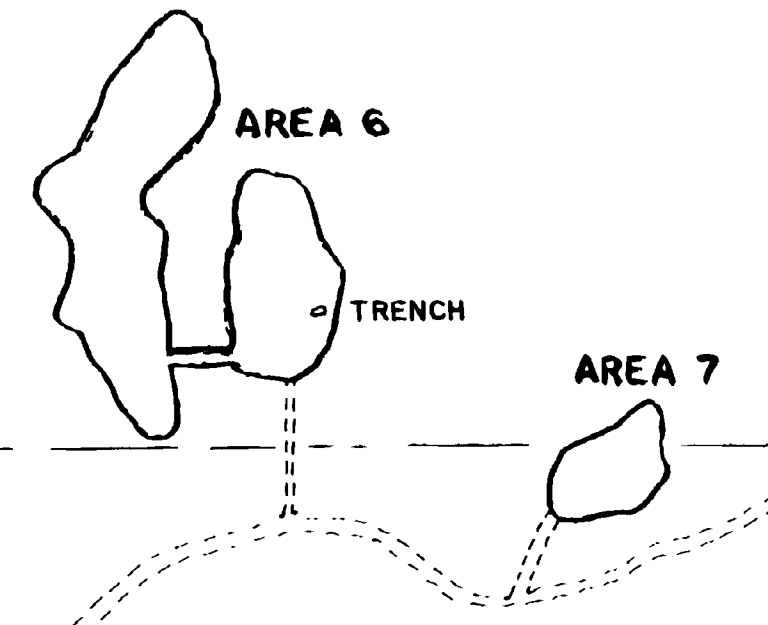
G-3180 BOON TMB

No.2 Post S 1134475
No.1 Post S 1134473

No.3 Post S 1134474
No.4 Post S 1162192

No.2 Post S 1134474
No.1 Post S 1162192

No.3 Post S 1091836
No.4 Post S 1091837



TRENCH 10

TRENCH 11

TRENCH 12

TRENCH 13

TRENCH 14

BASE LINE 2
AZ 90°

TRENCH 15

BUSH ROAD

No.2 Post S 1134473
No.1 Post S 1134482

No.3 Post S 1162192
No.4 Post S 1162193

No.2 Post S 1162192
No.1 Post S 1162193

No.3 Post S 1091837
No.4 Post S 1091838

AREA 8



No.2 Post S 1016953
No.1 Post S 1016954

No.3 Post S 1016952
No.4 Post S 1016951

TRENCH 16

TRENCHES

AREA 9

BUSH ROAD

NORTH

OP90-062
063
064
63.5696

FIGURE VII

STRIPPING AND TRENCHING
AUX SABLES Pt-Pd-Ni-Cu PROSPECT
STRIPPING - AREAS 6, 7, 8, and 9
BOON and SHIBANANING TOWNSHIPS
SUDBURY MINING DIVISION, ONTARIO

SCALE: 1:1,250

DATE: NOV., 1990

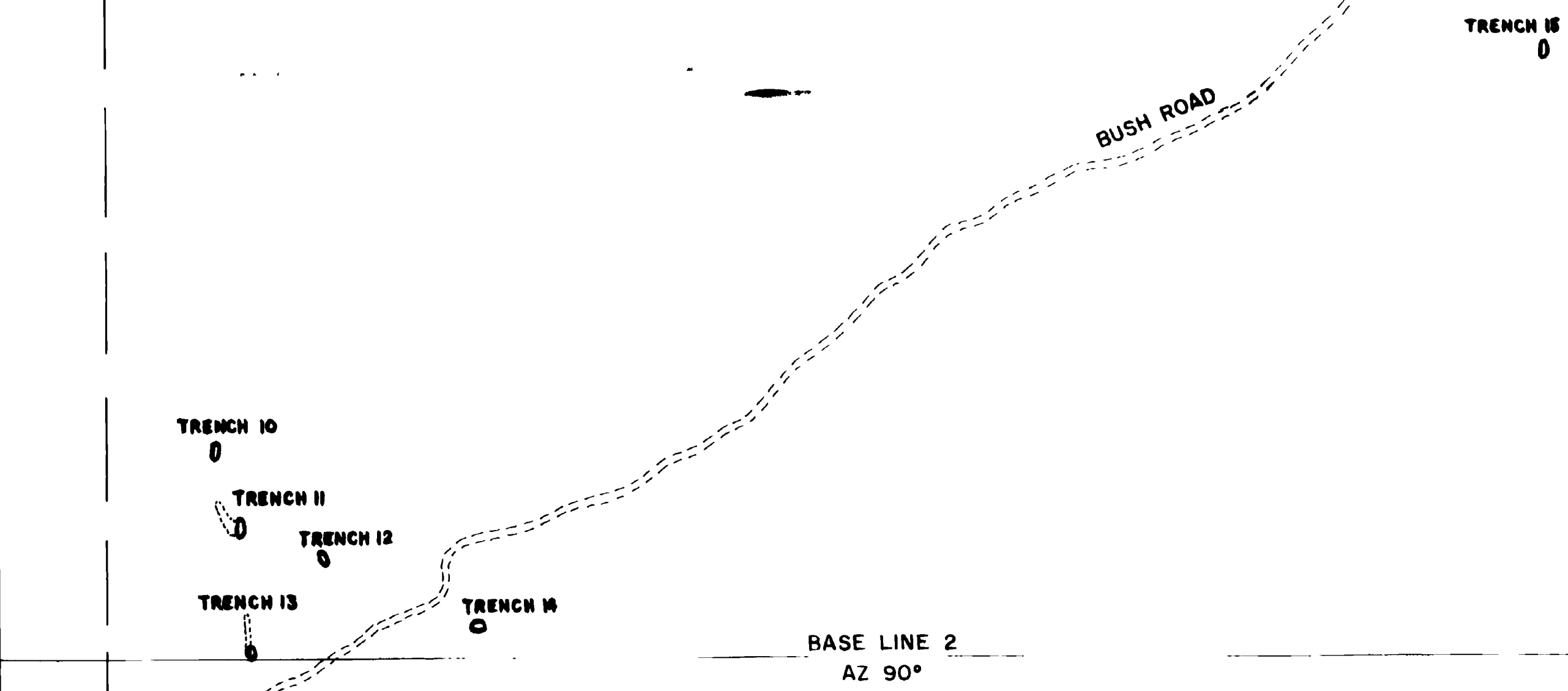
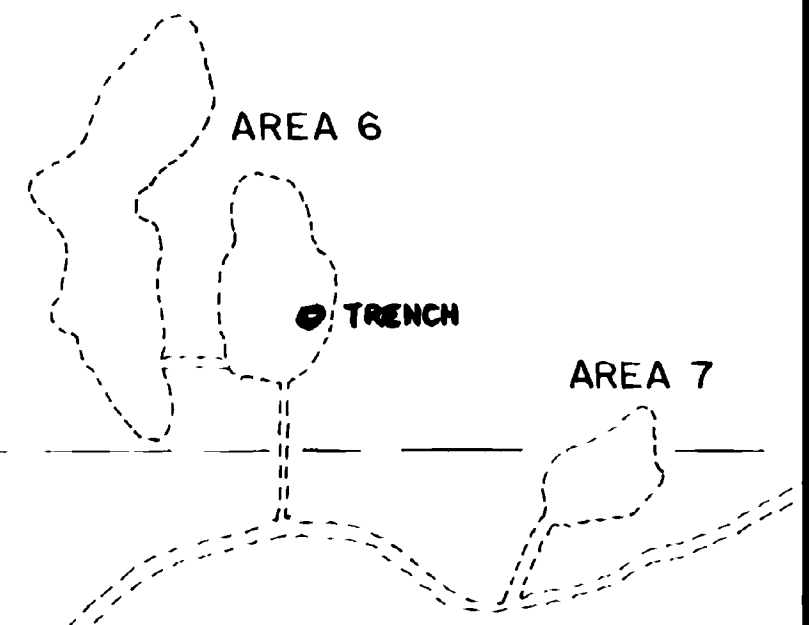


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S 1134473
No.1 Post

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No.1 Post

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S 1091837
No.4 Post

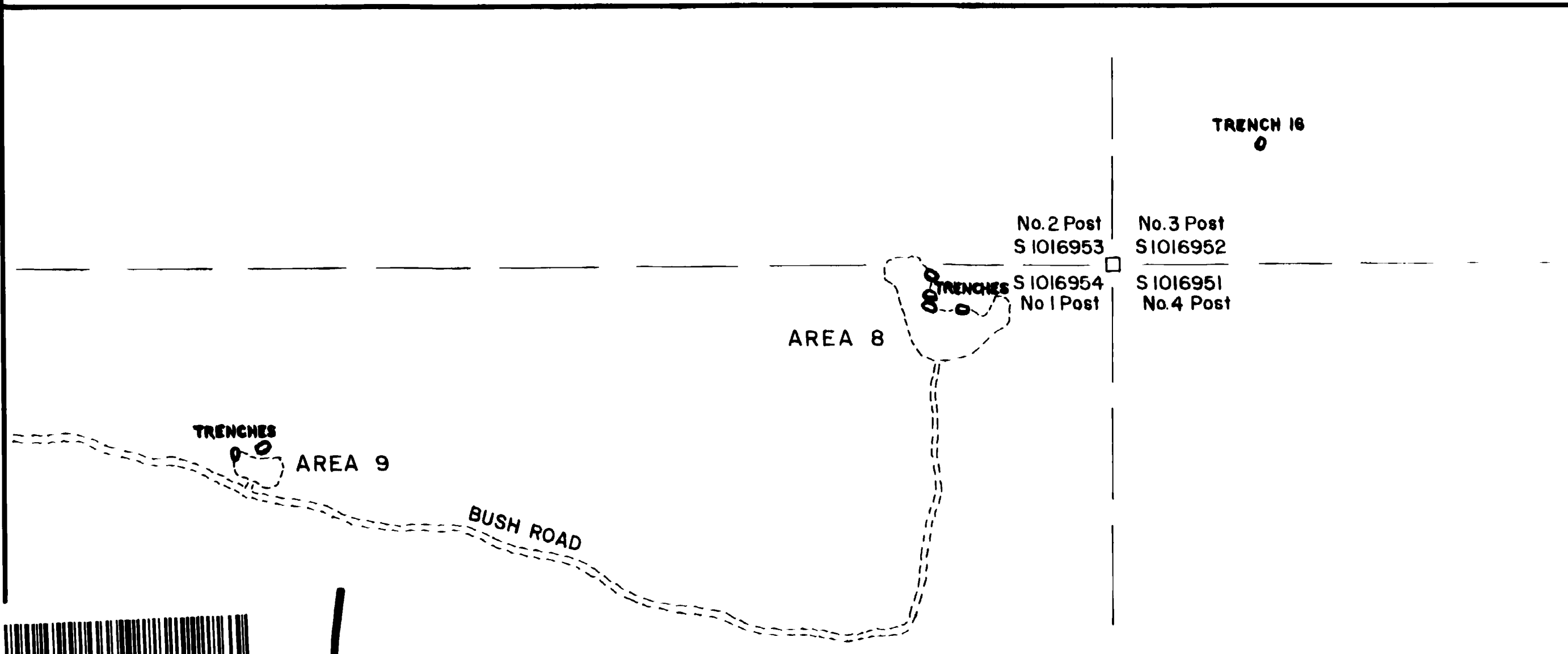


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S 1134482
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S 1162192
S 1162193
No.1 Post

No.3 Post
S 1091837
S 1091838
No.4 Post



TRENCH 16

No.2 Post
S 1016953
S 1016954
No.1 Post

No.3 Post
S 1016952
S 1016951
No.4 Post



OP90-062
063
064
63.5696

FIGURE X

STRIPPING AND TRENCHING
AUX SABLES Pt-Pd-Ni-Cu PROSPECT
TRENCHING - OTHER SITES
BOON and SHIBANANING TOWNSHIPS
SUDBURY MINING DIVISION, ONTARIO

SCALE : 1:1,250

DATE : NOV., 1990



41J08E9998 83.5696 BOON