PROSPECTING FOR GOLD AND BASE METALS ON THE NAMEIGOS PROPERTY NAMEIGOS TOWNSHIP, WHITE RIVER AREA SAULT STE. MARIE MINING DISTRICT

LLOYD HALVERSON
OPAP FILE NO. OP99-121

sda geological services limited
215 Van Norman Street
Thunder Bay, Ontario
P7A-4B6
(807) 345-3330

January 28,2000

TABLE OF CONTENTS

LIST OF TABLES/FIGURES

LIST OF APPENDICES

Summary

A traditional prospecting and rock sampling program was carried out by Lloyd Halverson, White River, Ontario under OPAP File No. OP99-121. The commodity of interest initially was gold in the 1935 Stenabaugh Occurrence with reported values up to .24 oz/t Au over 2 ft, grading .072 oz/t (2.45 g/T) Au over 33 ft, in a pyritic, silicified zone hosted by mafic volcanics.

The analytical suite was expanded from the standard gold, silver assay to include copper and zinc due to the recognition of chalcopyrite and sphalerite within tuffaceous to pyroclastic felsic metavolcanic and volcaniclastic lithologies and an alteration assemblage and style of mineralization consistent with exhalitive processes and possibly volcanogenic massive sulphide deposition.

The property under investigation, called the *Nameigos Property*, is located 35km by air northeast of White River, Ontario and consists of two block claims (1218138, 1218139) totalling 28 claim units, staked by Lloyd Halverson. The property is adjacent to various other mining claims held by other interests. The gold and base metal mineral occurrences are developed on the northern edge of the Nameigos-Simpson greenstone belt in Nameigos Township, at the extreme southwest end of the Kabinakagami greenstone belt.

A suite of 165 rock samples were taken at a total of 11 sample sites on the property, all characterized to some degree by silicate or sulphide alteration or the occurrence of sulphide mineralization. Assay values of up to 1 g/tonne gold, 0.45% copper and 0.5% zinc mark the discovery of new gold and base metal occurrences on the Nameigos Property. Petrographic evidence from a surface channel sample however indicates significant low temperature oxidation/replacement by colloform pyrite and limonite of an original high temperature assemblage of pyrrhotite, sphalerite and chalcopyrite.

Further work is recommended in the areas of elevated zinc and copper mineralization. Airborne magnetic data confirms complex folding and structural deformation underlying the property and surrounding claims. Based on field observations, a hitherto unmapped rhyodacitic volcanic dome and derived volcaniclastics is felt to underlie the Nameigos Property and surrounding claims. Airborne electromagnetic data indicates excellent correlation of base metal occurrence No. 7 (Main Zone) with a prominent, as yet untested, bedrock EM conductor, which lends itself to immediate reconnaissance drilling.

Installation of a survey grid, ground geophysics, prospecting, geological mapping, lithogeochemistry for sodium depletion and mechanical stripping of promising occurrences followed by diamond drilling would be prudent follow-up activities.

1.0 Introduction

A traditional prospecting and rock sampling program was carried out by Lloyd Halverson, White River, Ontario under OPAP File No.OP99-121. The commodity of interest initially was gold in the 1935 Stenabaugh Occurrence with historical values up to .24 oz/t Au over 2 ft, grading .072 oz/t (2.45 g/T) Au over 33 ft, in a pyritic, silicified zone hosted by mafic volcanics (Siragusa, 1978). The analytical suite was expanded from the standard gold, silver assay to include copper and zinc due to the recognition of chalcopyrite and sphalerite within felsic metavolcanic lithologies and an alteration assemblage and style of mineralization consistent with volcanogenic massive sulphide deposition.

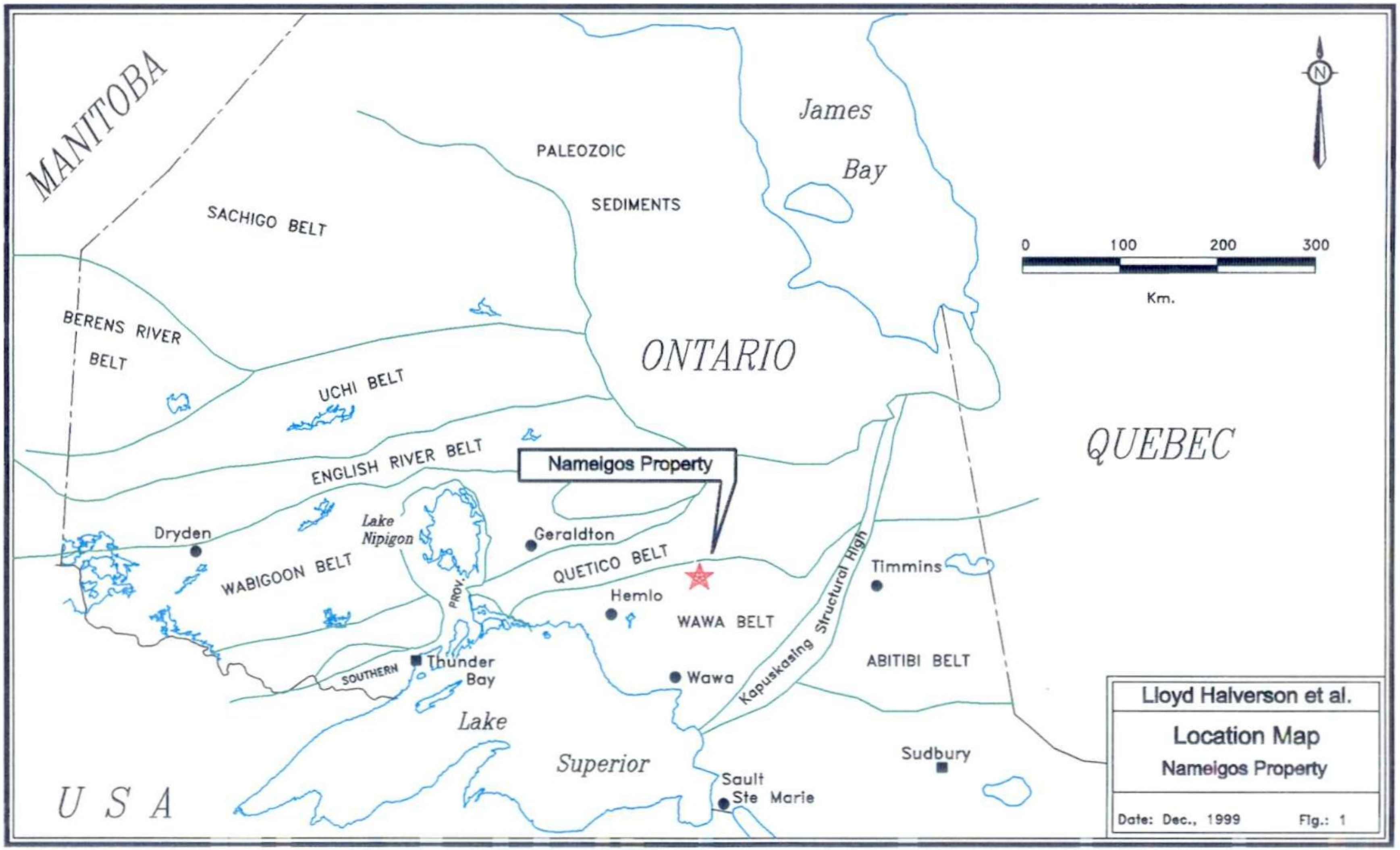
The work program was carried out between July 27,1999 - November 26, 1999, on the *Nameigos Property*, located 35km northeast of White River, Ontario. The property consists of two unpatented block claims (1218138, 1218139) totalling 28 claim units, staked by Lloyd Halverson. Work initially consisted of a series of prospecting traverses marked by flagged survey lines and rock sampling of prospective outcrop and stripped areas, with rock sample station locations marked by flagging tape and magic marker. Work was carried out by Lloyd Halverson and assisted by Larry Cox, Chapleau, Ontario, Terry Halverson, White River, Ontario and Carl Halverson, White River, Ontario. A series of eleven (11) outcrop sketches showing outcrop outlines, areas of stripping and rock sample locations generated as a result of these activities.

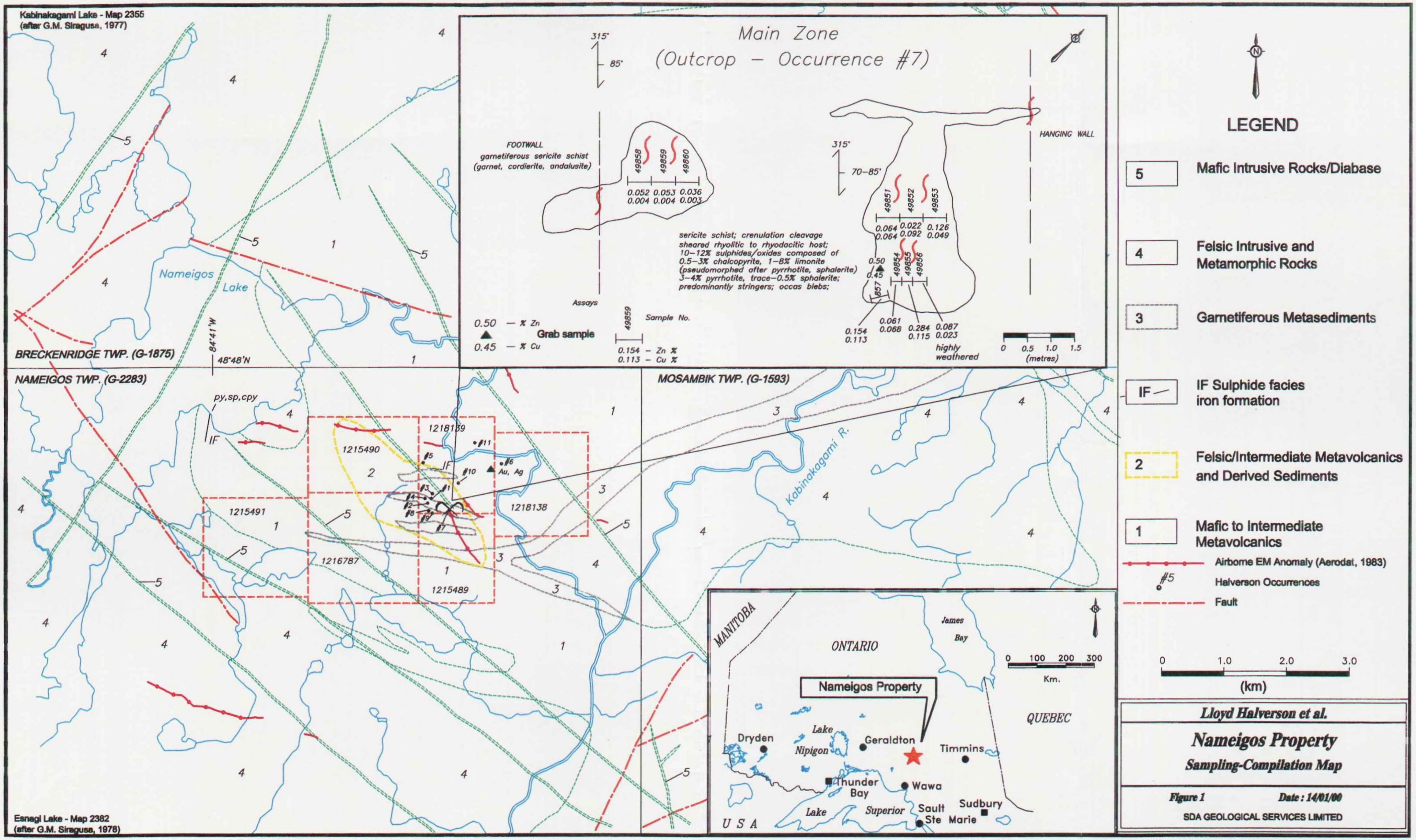
The Nameigos Property was visited on November 26, 1999 by Abraham Drost, Consulting Geologist, Thunder Bay in the company of Lloyd Halverson and John Ternowesky. The primary purpose of the visit was to characterize, map and channel sample Outcrop No. 7 due to elevated zinc values up to 0.5% Zn in well mineralized sericite schist. In addition, the intent was to visit other occurrences as time permitted.

A total of 165 rock samples, including 17 samples generated on November 27, 1999, were submitted to Accurassay Laboratories, Thunder Bay for analysis of gold and silver by fire assay-atomic absorption (AA) and copper and zinc by AA.

2.0 Location

The Nameigos Property is located 35km by air northeast of White River, Ontario in the northeast corner of Nameigos Township, Ontario at 84°39' W longitude, 48°47'N latitude (NTS 42/C) (Figure 1). Access is achieved by Highway 631, 90km northeast of White River to Breckenridge Road. One then proceeds east 7km to the Haavaldsruud logging road and then proceeds 28km south along the logging road to the Nameigos Property. All work has been conducted on unpatented mining Claims 1218138, 1218139, consisting of 28 claim units held by Lloyd Halverson, Ontario (Figure 2).


MANITOBA
SACHIGO BELT
PALEOZOIC
SEDIMENTS
James
Bay
0
100
200
300
Km.
BERENS RIVER
BELT
UCHI BELT
ONTARIO
QUEBEC
ENGLISH RIVER BELT
Nameigos Property
Dryden
Lake
Nipigon
Geraldton
QUETICO BELT
WABIGOON BELT
PROV.
Hemlo
WAWA BELT
Kapuskasing Structural High
Timmins
ABITIBI BELT
SOUTHERN
Thunder
Bay
Wawa
Lake
Superior
Sault
Ste Marie
Sudbury
U S A
Lloyd Halverson et al.
Location Map
Nameigos Property
Date: Dec., 1999
Fig.: 1



Kabinakagami Lake - Map 2355
(after G.M. Siragusa, 1977)
Main Zone
(Outcrop – Occurrence #7)
315°
85°
FOOTWALL
garnetiferous sericite schist
(garnet, cordierite, andalusite)
49858
49859
49860
0.052 0.053 0.036
0.004 0.004 0.003
sericite schist; crenulation cleavage
sheared rhyolitic to rhyodacitic host;
10–12% sulphides/oxides composed of
0.5–3% chalcopyrite, 1–8% limonite
(pseudomorphed after pyrrhotite, sphalerite)
3–4% pyrrhotite, trace–0.5% sphalerite;
predominantly stringers; occas blebs;
315°
70–85°
49851
49852
49853
0.064 0.022 0.126
0.064 0.092 0.049
0.50
0.45
49854
49855
49856
0.154
0.113
0.061
0.068
0.284
0.115
0.087
0.023
highly
weathered
HANGING WALL
Assays
0.50 — % Zn
Grab sample
0.45 — % Cu
49859
Sample No.
0.154 – Zn %
0.113 – Cu %
0 0.5 1.0 1.5
(metres)
Nameigos Lake
BRECKENRIDGE TWP. (G-1875)
NAMEIGOS TWP. (G-2283)
MOSAMBIK TWP. (G-1593)
84°41'W
48°48'N
py,sp,cpy
IF
1215490
1218139
1218138
1215491
1216787
1215489
Au, Ag
Kabinakagami R.
Esnagi Lake - Map 2382
(after G.M. Siragusa, 1978)
MANITOBA
ONTARIO
James Bay
QUEBEC
0 100 200 300
Km.
Nameigos Property
Dryden
Lake Nipigon
Geraldton
Timmins
Thunder Bay
Wawa
Sudbury
Sault Ste Marie
Lake Superior
U S A
LEGEND
5 Mafic Intrusive Rocks/Diabase
4 Felsic Intrusive and Metamorphic Rocks
3 Garnetiferous Metasediments
IF IF Sulphide facies iron formation
2 Felsic/Intermediate Metavolcanics and Derived Sediments
1 Mafic to Intermediate Metavolcanics
Airborne EM Anomaly (Aerodat, 1983)
#5 Halverson Occurrences
Fault
0 1.0 2.0 3.0
(km)
Lloyd Halverson et al.
Nameigos Property
Sampling-Compilation Map
Figure 1
Date : 14/01/00
SDA GEOLOGICAL SERVICES LIMITED

3.0 History of Exploration

An area specific assessment search of the Nameigos Township area was conducted using the ERLIS system in Thunder Bay. An 'Assessment File Index Summary Report' was produced (Table 1).

The Nameigos Property received some exploration attention including diamond drilling from 1935-1937 by Cominco on the old Stenabaugh Occurrence. After a hiatus of close to 50 years, the area received some additional attention for gold commencing in 1983, motivated in part by the discovery of the Hemlo gold deposit 70km west.

Two airborne surveys were flown in 1983 and 1984 by Pryme Energy Resources Ltd. and Noranda Exploration Company Limited respectively. No followup work from these surveys was filed. Ground geophysics and geological mapping were carried out by Caddington Resources Limited in 1988 and 1989. Unfortunately, a survey line orientation of 310° azimuth provided poor coupling with the dominant airborne EM bedrock conductors in the area. Similarly, the westernmost boundary of the geological mapping and sampling survey by Caddington terminated just east of Outcrop No. 7 of the present survey.

With the exception of an extremely useful airborne geophysical database, there is no record of followup ground exploration whatsoever on any of the new occurrences identified by Lloyd Halverson in the present work program.

4.0 Geological Setting

Regional

The Nameigos Township area and the Nameigos Property are underlain by Precambrian metavolcanics and igneous intrusives, within the extreme northern portion of the Nameigos-Simpson greenstone belt at the transition with and the southwest portion of the Kabinakagami greenstone belt, Wawa Subprovince, within the Superior Structural Province (Figures 1,2; Appendix 1). A folded sequence of massive to pillowed mafic lavas and related breccias are interbedded with thin units of felsic metavolcanics and clastic metasediments. The latter may occupy basinal synclinal fold axes within the complexly folded belt.

The mafic metavolcanic rocks of Nameigos Township are intruded by early Precambrian stocks of trondhjemite and a host of minor intrusions ranging from granitic to lamprophyric in composition. All rocks are altered by upper greenschist to amphibolite facies metamorphism and are intruded by Late-Precambrian northwest-trending diabase dykes (after Siragusa, 1978).

Ontario Ministry of Northern Development and Mines
Earth Resources and Land Information System (ERLIS)
ASSESSMENT FILE INDEX SUMMARY REPORT

AFRI FILE	Township/Area Name	Work Type Group	Performed For	Year	Maps	Pages
42C15SE0003	BRECKENRIDGE LIZAR MOSAMBIK NAMEIGOS	AIRBORNE GEOPHYSICS	NORANDA EXPL CO LTD	1984	1	37
42C15SE0006	BRECKENRIDGE LIZAR MOSAMBIK NAMEIGOS	AIRBORNE GEOPHYSICS	PRYME ENERGY RESC	1983	2	49
42C15SE0010	MOSAMBIK NAMEIGOS	GROUND GEOPHYSICS	CADINGTON RESC LTD	1988	11	32
42C15SE0013	LIZAR NAMEIGOS	GEOCHEMISTRY GEOLOGY GROUND GEOPHYSICS	CADINGTON RESC LTD	1989	10	40
42C15SE0014	NAMEIGOS	GEOCHEMISTRY GEOLOGY	G PRIOR	1988	3	24
42C15SE8765	NAMEIGOS	GEOLOGY PHYSICAL	COMINCO LTD	1937		7

Total Assessment Files : 6

Property

The Nameigos Property is covered by abundant glacial till and swamp making previous efforts at geological mapping a challenge. The area was recently logged, greatly improving access since the 70's vintage government mapping in Nameigos and surrounding township areas (Siragusa, 1977, 1978). Patches of higher ground are present locally in the southwestern portion of the property, coincident with the 11 altered/mineralized outcrop occurrences discovered by Lloyd Halverson et al during the present work program.

The government geological map covering the property (Esnagi Lake, Map 2382) shows mafic volcanics intruded by trondhjemitic granitoid rocks and discrete lenses of 'garnetiferous sandstone'. Siragusa (1978; P.5) indicates that portions of the survey area were inaccessible and mapped by helicopter; "...when ground conditions did not permit landing, but the rocks could be examined at hovering distance, they were coded with the symbol of the pertinent unsubdivided rock unit..." .

Observations by the author during the present work program indicate the presence of a hitherto unmapped rhyodacitic, tuffaceous to pyroclastic volcanic to volcaniclastic sequence underlying the property in the northeast corner of Nameigos Township. The evidence is mainly textural and includes the presence of fragments with vesicular pumiceous textures locally and a siliceous nature with pervasive sericitic overprint. As detailed below, the hostrocks for Main Zone Occurrence No. 7 are within a structure marked by strongly foliated and crenulated, bright-white to greyish sericite schist within weakly biotitic, garnetiferous sericite schists. Siragusa's 'garnetiferous sandstones' may be recrystallized felsic metavolcanics and derived volcaniclastics, misidentified as a result of coarsening due to the elevated grade of metamorphism.

The presence of large (7-9mm) dark purple dodecahedral garnets in the footwall rocks and rare euhedral andalusite and cordierite in sericite folia within the mineralized structure indicates that the assemblage did indeed have a pelitic composition prior to regional metamorphism at upper greenschist to amphibolite facies. The style of mineralization and hostrocks of Main Zone -Occurrence No. 7 however indicate that this may be due to an exhalitive alteration process, perhaps associated with volcanogenic massive sulphide deposition, rather than metamorphism of a purely clastic sedimentary depositional environment. The sericite schist hangingwall rocks are in sharp contact with garnetiferous pillowed mafic flows approximately 150m east of the Main Zone No.7. Garnets contained therein are a bright red variety, 2-3mm in diameter.

Cryptic indications gleaned from the old government mapping (Siragusa, 1978) indicate that there is a significant component of structural complexity and folding in the area of the Nameigos Property. These include map references to iron formation at different strike orientations, multiple foliation orientations, a synclinal 'trough' marked by clastic sediments which wrap about a granitoid intrusion at the east boundary of the property and odd terminations in stratigraphy locally.

Geophysically, the airborne magnetic data confirms complex folding and structural deformation underlying the property and surrounding claims (Aerodat, 1983; Appendix 2). Airborne electromagnetic data indicates excellent correlation of base metal Occurrence No. 7 (Main Zone) with a prominent, as yet untested, bedrock EM conductor, which lends itself to immediate reconnaissance drilling (Aerodat, 1983; Appendix 2). Several other less prominent EM conductors are also observed on and off the present property boundaries at varying orientations to the Main Zone conductor (Figure 2; Appendix 2).

The Nameigos Property also contains the 1935 *Stenabaugh Occurrence* with values up to .24 oz/t Au over 2 ft, grading .072 oz/t (2.45 g/T) Au over 33 ft, in a pyritic, silicified zone hosted by mafic volcanics. The Stenabaugh Occurrence trends northwest at 310°/ 70-75°E in a structure that is apparently discordant with stratigraphy (Siragusa, 1978).

Pyrite with traces of sphalerite and chalcopyrite were discovered by the OGS mapping crew, outcropping on the north shore of Nameigos Lake just west of the Halvorsen property. The *Nameigos Lake Occurrence* occurs in a pyritized biotite, chlorite schist, 3m wide in mafic volcanics, trending at 040° azimuth. It contains massive pyrite stringers up to 1.2cm wide and specks of sphalerite and chalcopyrite. Samples ran 0.25% Zn and 0.05% Cu (Siragusa, 1978).

5.0 Description of Work under OPAP grant OP99-121

The work program was carried out between July 27, 1999 - November 26, 1999, on the *Nameigos Property*, located 35km northeast of White River, Ontario. Work was carried out by Lloyd Halverson and assisted by Larry Cox, Chapleau, Ontario, Terry Halverson, White River, Ontario and Carl Halverson, White River, Ontario.

The property consists of two unpatented block claims (1218138, 1218139) totalling 28 claim units, staked by Lloyd Halverson. Work initially consisted of a series of prospecting traverses marked by flagged survey lines (Appendix 3) and rock sampling of prospective outcrop and stripped areas, with rock sample station locations marked by flagging tape and magic marker. A series of eleven (11) outcrop sketches showing outcrop outlines, areas of stripping and rock sample locations and assays generated as a result of these activities (Appendix 4).

A suite of 165 rock samples were taken at a total of 11 sample sites on the property, all characterized to some degree by silicate or sulphide alteration or the occurrence of sulphide mineralization. The analytical suite was expanded from the standard gold, silver assay to include copper and zinc due to the recognition of chalcopyrite and sphalerite within felsic metavolcanic lithologies and an alteration assemblage and style of mineralization consistent with exhalitive processes and possibly, volcanogenic massive sulphide deposition. Several significant assay values in gold, copper and zinc mark the discovery of several new base metal occurrences on the Nameigos Property.

The Nameigos Property was visited by helicopter on November 26, 1999 by Abraham Drost, Consulting Geologist, Thunder Bay in the company of Lloyd Halverson and John Ternowesky, Thunder Bay. The purpose was an independent property visit on behalf of a public mining company, to characterize and channel sample Outcrop No. 7 due to elevated zinc values obtained by Halverson et al of up to 0.45% Cu and 0.5% Zn in well mineralized sericite schist. Other rock exposures in the immediate vicinity of Outcrop Occurrence No. 7 (Main Zone) were also visited in addition to Outcrops No. 2, 4, 5, and 8, which are included in a suite of sample sketches prepared by Lloyd Halverson (Appendix 4).

6.0 Halverson Rock Sampling/Analysis; Outcrops 1 - 11

Assay sheets contain analytical results (variously for Au, Ag, Cu and Zn), for 165 samples taken from Outcrops No. 1-11 on the Nameigos Property Appendix 5).

Widely anomalous assay results were obtained from the various exposures on the property. Outcrops 2, 9b, 10 and the road between 3 and 4, produced scattered base metal values in zinc and copper (up to 0.10% Cu and 0.19% Zn) from discrete occurrences of oxidized sericite schists. Best values of 0.45% Cu (Sample 34679/ Outcrop # 7c Sample 124) and 0.5% Zn (averaged value from 2 assays of 34689/ Outcrop # 7c Sample 134) were obtained in grab samples taken from Outcrop No. 7.

Interestingly, only low values in gold were obtained from the old Stenabaugh Occurrence (Outcrop No. 6). Old trenches were located and partially resampled. Additional sampling was not encouraging as most assays returned only trace in gold. The best gold value (1091 ppb Au) was taken from Outcrop No. 1 from an altered felsic volcanic fragmental with a patchy, oxidized and hematitic alteration assemblage and 1-2% pyrite.

7.0 Main Zone / Halverson Outcrop No.7

Halverson Outcrop No. 7 (Main Zone) was further stripped and channel sampled on November 26, 1999 based on prior grab sample results obtained by Halverson et al. The zone was sporadically exposed by handstripping along both the footwall and hangingwall contact of a structure, striking at 315° az. and dipping 70-85° east, defined by intense foliation and crenulation cleavage in sericite schist. Total width of the structure is interpreted to be 12m with the intervening area of the structure covered by trees and overburden.

Host rocks for Main Zone Occurrence No. 7 are marked by intensely deformed bright-white to grey-buff sericite schist within weakly biotitic, garnetiferous sericite schists. The presence of large (7-9mm) dark purple dodecahedral garnets in the footwall rocks and rare euhedral andalusite and cordierite in sericite folia within the mineralized structure indicates that the assemblage did indeed have a high-alumina pelitic composition prior to regional metamorphism at upper greenschist to amphibolite facies. The style of mineralization and hostrocks of Main Zone -Occurrence No. 7 however indicate that this may be due to an exhalitive alteration process, perhaps associated with volcanogenic massive sulphide deposition, rather than metamorphism of a clay-rich clastic sedimentary depositional environment. Absence of extensive biotite enrichment would seem to indicate that although aluminous, the pre-metamorphic protolith was not clay mineral rich.

The sericite schist hangingwall rocks are in sharp contact with garnetiferous pillowed mafic flows approximately 150m east of the Main Zone No.7. Garnets contained therein are a bright red euhedral variety, 2-3mm in diameter. The presence of submarine mafic pillowed lavas in the structural hangingwall i.e. overlying the felsics, may indicate the likelihood of a submarine depositional environment for the felsic volcanic sequence. This does not however account for an apparent time-stratigraphic discontinuity between the bimodal mafic-felsic volcanic sequence during which time submergence/emergence of the local depositional environment may have taken place.

Significant drag folding of sericite folia in hand specimen and the outcrop scale in other nearby rock exposures, with a stratigraphic trend of 275°/75°N. Structural orientation of a discrete band of mineralized sericite schist at Outcrop No. 8, 300m west trended at 295°/75°NE.

Mineralization at Outcrop No. 7 may be described as visually impressive, stratiform stringer sulphides in an intensely altered felsic pyroclastic host rock (Figure 3). Assays from the channel samples taken on November 26, 1999 were disappointingly lower than visual estimates of sulphide mineralization made at the outcrop (Appendix 6). Original visual estimates of sulphide content included: 3-5% pyrrhotite, 2-3% pyrite, 1-4% sphalerite and 0.5-3% chalcopyrite, predominantly as stringers, but also commonly as blebs and disseminations.

A petrographic analysis and SEM of prominent sulphide stringer mineralization was commissioned to Dr. A. Chakhmouradian, Lakehead University, Thunder Bay, Ontario. Petrographic evidence from surface channel samples indicates significant low temperature oxidation/replacement by colloform pyrite and limonite of an original high temperature assemblage of pyrrhotite, sphalerite and chalcopyrite (Appendix 7). Instead of 3-5% pyrrhotite and 1-4% sphalerite, the petrographic analysis observes the presence approximately 10% limonite as a replacement mineral phase. Limonite exhibits physical mineral properties very similar to sphalerite which in part explains the

Photo: Main Zone Outcrop # 7 Grab Sample 34689

Photo: Main Zone Outcrop # 7 Footwall Rock

Photo: Main Zone Outcrop # 7 Channel Sample 49853

Photo: Main Zone Outcrop # 7 Channel Sample 49854 confusion in the field and initial heart-stopping level of excitement. The indication of a predominant oxide mineral in the Main Zone raises interesting questions from the perspective of mineral deposit modelling and further exploration as discussed below.

8.0 Discussion of Results

The Nameigos Lake Occurrence is a pyritized biotite, chlorite schist, 3m wide in mafic volcanics, trending at 040° azimuth. It contains massive pyrite stringers up to 1.2cm wide and specks of sphalerite and chalcopyrite. Samples ran 0.25% Zn and 0.05% Cu (Siragusa, 1978). It is interpreted by Siragusa (1978) as a sulphide facies iron formation. Notably, in spite of the presence of massive pyrite stringers, the occurrence is not a conductor as detected in the Aerodat, 1983 survey. The Nameigos Occurrence is interpreted as a different unit and distal to that hosting Main Zone mineralization in Outcrop # 7, but perhaps confirming the presence of base metals within in a system that is as yet poorly understood.

The geology of Main Zone Outcrop No. 7, including stratiform style of mineralization, felsic pyroclastic host rocks, structure and wallrock metamorphism, are consistent with an exhalitive mineral deposit model. Best values of 0.45% Cu (Sample 34679/ Outcrop # 7c Sample 124) and 0.5% Zn (averaged value from 2 assays of 34689/ Outcrop # 7c Sample 134) were obtained in grab samples taken from Outcrop No. 7.

In terms of two exhalitive mineral deposit end members, the Main Zone is either a barren exhalitive sulphide system with sniffs of base metals, or a zinc/copper-rich VMS system with limonitic surface oxidation /replacement of the original high temperature base metal suite and pyrrhotite. Reference to no less an authority than McKinstry (in Mining Geology, 1948) is a compelling indication that limonitic oxidation of sphalerite in particular, is an expected result within some base metal mineral deposits (Appendix 8).

With the serendipitous presence of an extremely useful airborne geophysical database, there is no record of followup ground exploration whatsoever on any of the new occurrences discovered by Lloyd Halverson in the present work program. The airborne magnetic data confirms complex folding and structural deformation underlying the property and surrounding claims. Airborne electromagnetic data indicates excellent correlation of base metal Occurrence No. 7 (Main Zone) with a prominent, as yet untested, bedrock EM conductor (Aerodat, 1983; Appendix 2; Figure 2) which extends 800m to the southeast. Fenton Scott (Aerodat, 1983) states that the Main Zone Outcrop No. 7 conductor (Aerodat # 1) is a "definite bedrock conductor" with greatest conductivity in the centre of the anomaly (Appendix 2), at a point 300-400m southeast of the Main Zone outcrop.

Features of the geological environment hosting Main Zone Outcrop No. 7 mineralization, display certain analogies with the Geco Deposit at Manitouwadge in terms of host lithologies, base metal assemblage and wallrock metamorphism. Notably, a portion of the zinc ore resource at Geco is derived from iron formation (Appendix 9).

Recommendations

Given the relative paucity of outcrop on the property in general, installation of a survey grid, followed up by ground geophysics, prospecting, geological mapping, lithogeochemistry for sodium depletion and other oxide ratios, mechanical stripping of promising occurrences and diamond drilling would be prudent follow-up activities.

Zinc is on the verge of becoming a strategic metal as existing deposits are mined out. The coincidence of elevated zinc values associated with Main Zone Outcrop No. 7 and a prominent geophysical conductor, presents a compelling target for drill testing.

Ultimately the issue of limonitic oxidation in relation to bulk zinc content can only be resolved by diamond drilling. Given the indications elucidated in this report, discovery potential for significant accumulations of base metals is considered high.

9.0 References

Aerodat, 1983 — Report on Combined Helicopter-borne Magnetic, Electromagnetic and VLF-EM Survey on Nameigos River Claims; Author: Fenton Scott, July, 1983

McKinstry, H.E., 1948 — Mining Geology with sections by Tyler, S.A, Pennebaker, E.N. and Kenyon, R.E.; Prentice-Hall Inc.

Siragusa, G.M. 1977 — Geology of the Kabinakagami Lake Area, District of Algoma; Geological Report 159, Ontario Geological Survey with colored Map 2355

Siragusa, G.M. 1978 — Geology of the Esnagi Lake Area, District of Algoma; Geological Report 176, Ontario Geological Survey with colored Map 2382

Certificate

NAMEIGOS PROPERTY
LLOYD HALVERSON

I, Abraham Drost, of the City of Thunder Bay, District of Thunder Bay, do certify that:

1) I am a professional geologist, having graduated in 1984 from the University of Waterloo with the Honours B.Sc. degree and from Queen's University, 1987 with the M.Sc. degree in Geological Sciences with specialization in Mineral Exploration;

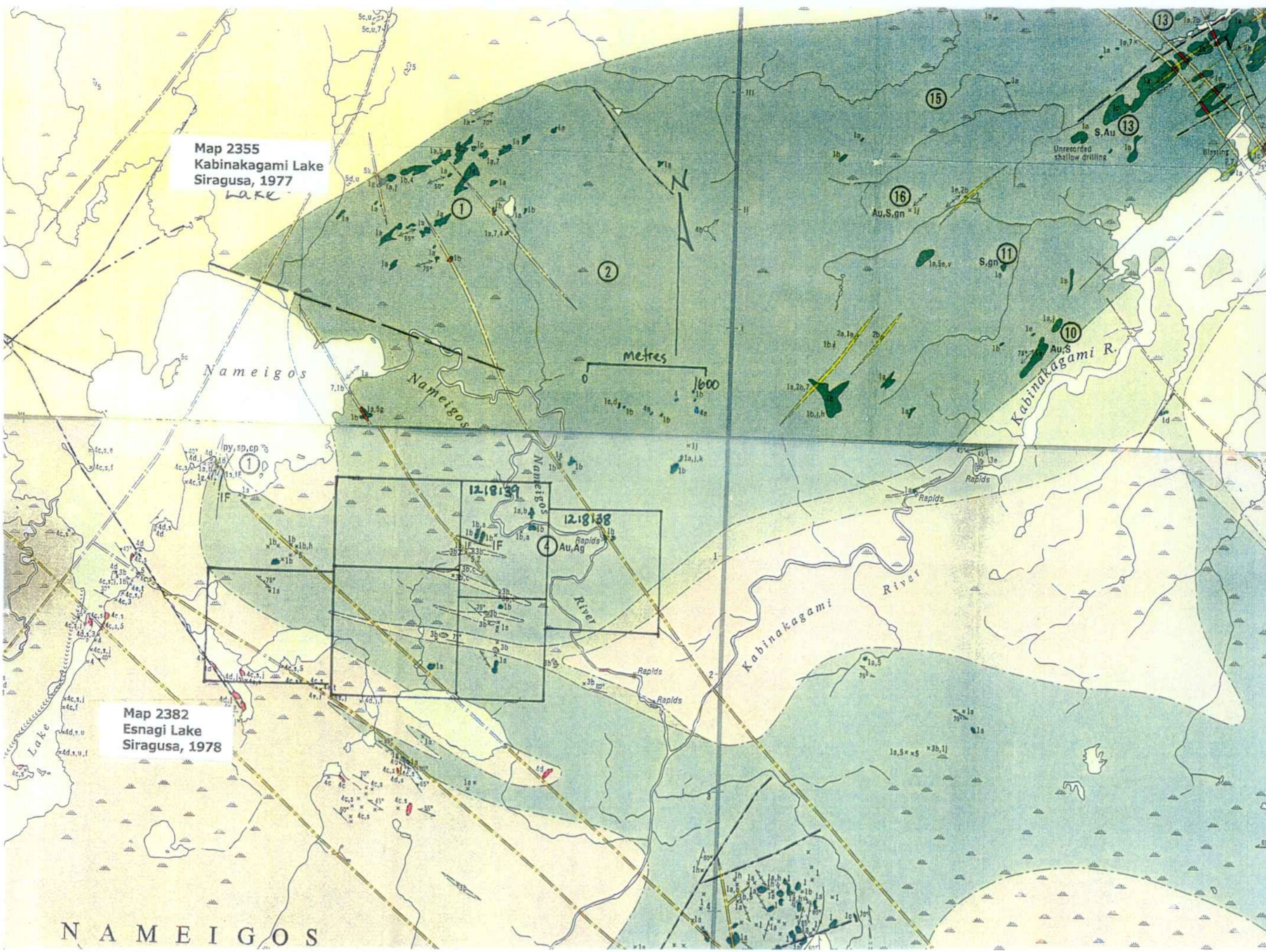
2) I am a Fellow of the Geological Association of Canada (F4075), member of the Association of Geoscientists of Ontario, Canadian Institute of Mining and Metallurgy and Prospectors and Developers Association and have practised my profession continuously since 1984;

3) This report is based upon my property visit, rock sampling and literature review of data from the Nameigos Property of Lloyd Halverson;

4) That I have no beneficial interest express or implied in the Property under review in this report.

Abraham P. Drost, M.Sc. FGAC
January 29, 2000

Appendix 1 Geology Base Map


Map 2355
Kabinakagami Lake
Siragusa, 1977
Map 2382
Esnagi Lake
Siragusa, 1978
Nameigos
Nameigos
Nameigos
River
metres
0
1600
1218139
1218138
Au,Ag
Kabinakagami R.
Kabinakagami
River
Unrecorded
shallow drilling
S,Au
Au,S,gn
S,gn
Au,S
py,sp,cp
Rapids
Rapids
Rapids
Rapids
Lake
NAMEIGOS

LEGEND

CENOZOIC[a]

QUATERNARY

PLEISTOCENE AND RECENT

Sand, silty sand, gravel, clay.

UNCONFORMITY

PRECAMBRIAN[b]

MIDDLE TO LATE PRECAMBRIAN (PROTEROZOIC)

MAFIC INTRUSIVE ROCKS

5 Diabase dikes.
5a Porphyritic diabase dikes.

INTRUSIVE CONTACT

EARLY PRECAMBRIAN (ARCHEAN)

FELSIC INTRUSIVE AND METAMORPHIC ROCKS[c]

4 Unsubdivided.
4a Hornblende diorite, biotite-hornblende diorite.[d]
4b Biotite-hornblende quartz diorite.[d]
4c Trondhjemite.
4d Granodiorite, trondhjemite.
4e Quartz monzonite.
4f Microcline-quartz pegmatite.
4g Biotite pegmatite.
4h Muscovite pegmatite.
4j Hornblende-rich xenoliths.
4k Biotite-rich xenoliths.
4m Aplite.
4n Quartz veins.
4p Porphyritic; feldspar phenocrysts.
4q Porphyritic; quartz phenocrysts.
4r Porphyritic; mafic phenocrysts.
4s Foliated.
4t Massive.
4u Lit-par-lit gneiss.
4v Sheared.

INTRUSIVE CONTACT

METASEDIMENTS

3 Unsubdivided.
3a Biotite-rich schist, paragneiss.[e]
3b Finely foliated to submassive sandstone.
3c Garnetiferous metasediments.
3d Metasediments with amphibolite layers.
3e Conglomeratic sandstone, conglomerate.

IF — *IF Sulphide facies iron formation.*

METAVOLCANICS

FELSIC METAVOLCANICS

2 Unsubdivided.
2a Fine-grained to aphanitic flows.
2b Tuff.

MAFIC TO INTERMEDIATE METAVOLCANICS

1 Unsubdivided.
1a Fine-to-medium-grained foliated to submassive amphibolite.
1b Medium-grained, foliated to massive amphibolite.
1c Felsic metavolcanic interbeds 3 feet (0.9 metres) or less in thickness.
1d Metasedimentary interbeds.
1e Pillowed flows.
1g Migmatitic metavolcanics.
1h Quartz veins, sheeted quartz veins, quartz pods.
1j Porphyritic flows.
1k Fragmental metavolcanics.
1m Granitic veining.
1n Tuff.
1p Agglomerate.
1q Volcanic breccia.

Appendix 2 Geophysical Data (Magnetics/EM)

REPORT ON COMBINED HELICOPTER-BORNE MAGNETIC, ELECTROMAGNETIC, AND VLF-EM SURVEY ON NAMEIGOS RIVER CLAIMS

for

PRYME ENERGY RESOURCES

by

AERODAT LIMITED

July 1983

4.6 INTERPRETATION MAPS

The conductive trends are shown and discriminated for descriptive purposes.

These conductors are described below.

X ⇒ 1 Definite bedrock conductor flanking magnetic feature, best conductivity at centre.

2 Questionable response in area of conductive overburden.

3 Possible bedrock response with magnetic coincidence.

4 Weak linear conductor appears to be in bedrock.

5 High amplitude poor conductivity parallel to magnetic features, possibly bedrock.

6 Poor conductor parallel to magnetic high. Probably overburden.

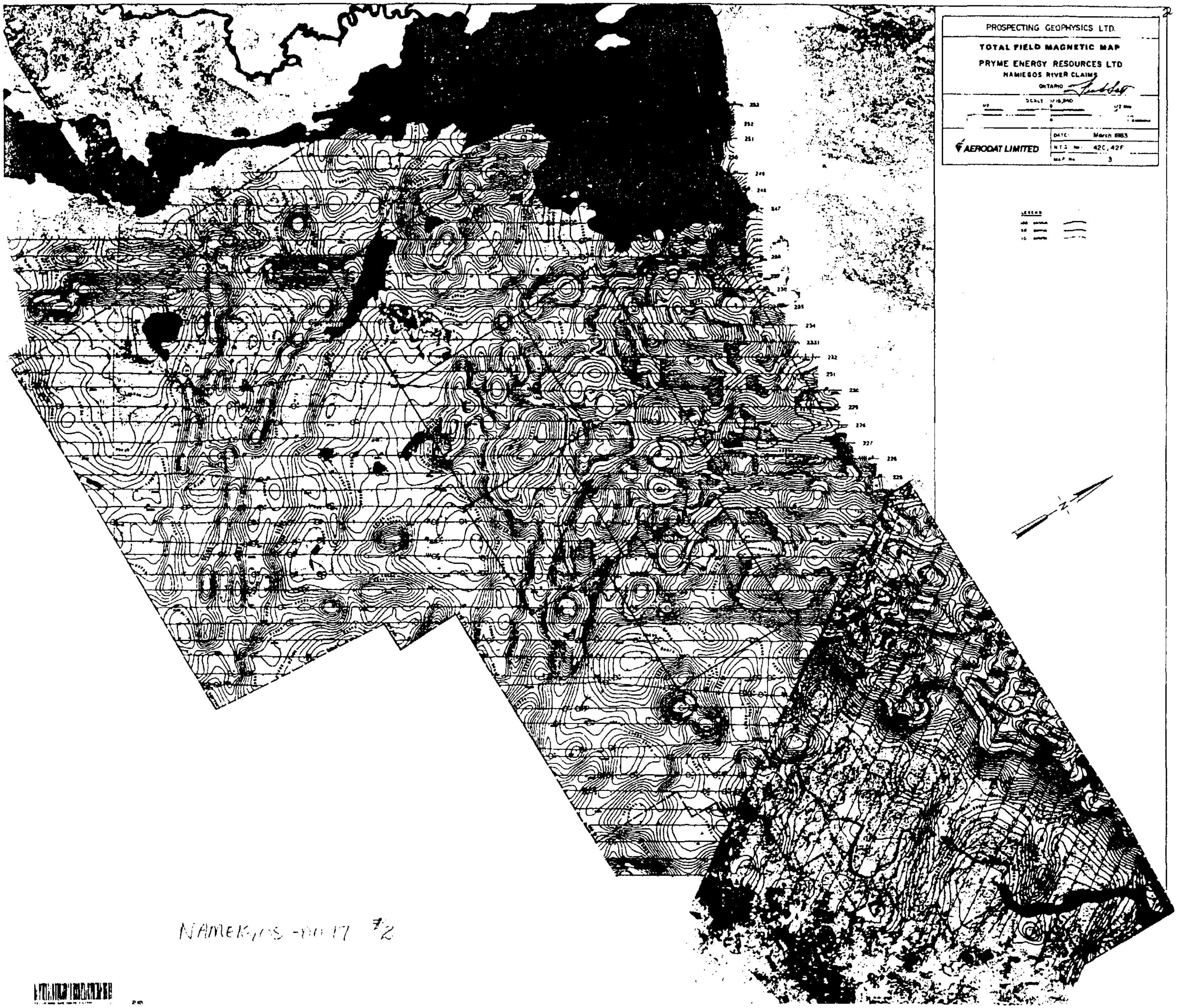
7 Possible short bedrock (?) conductor with magnetic coincidence.

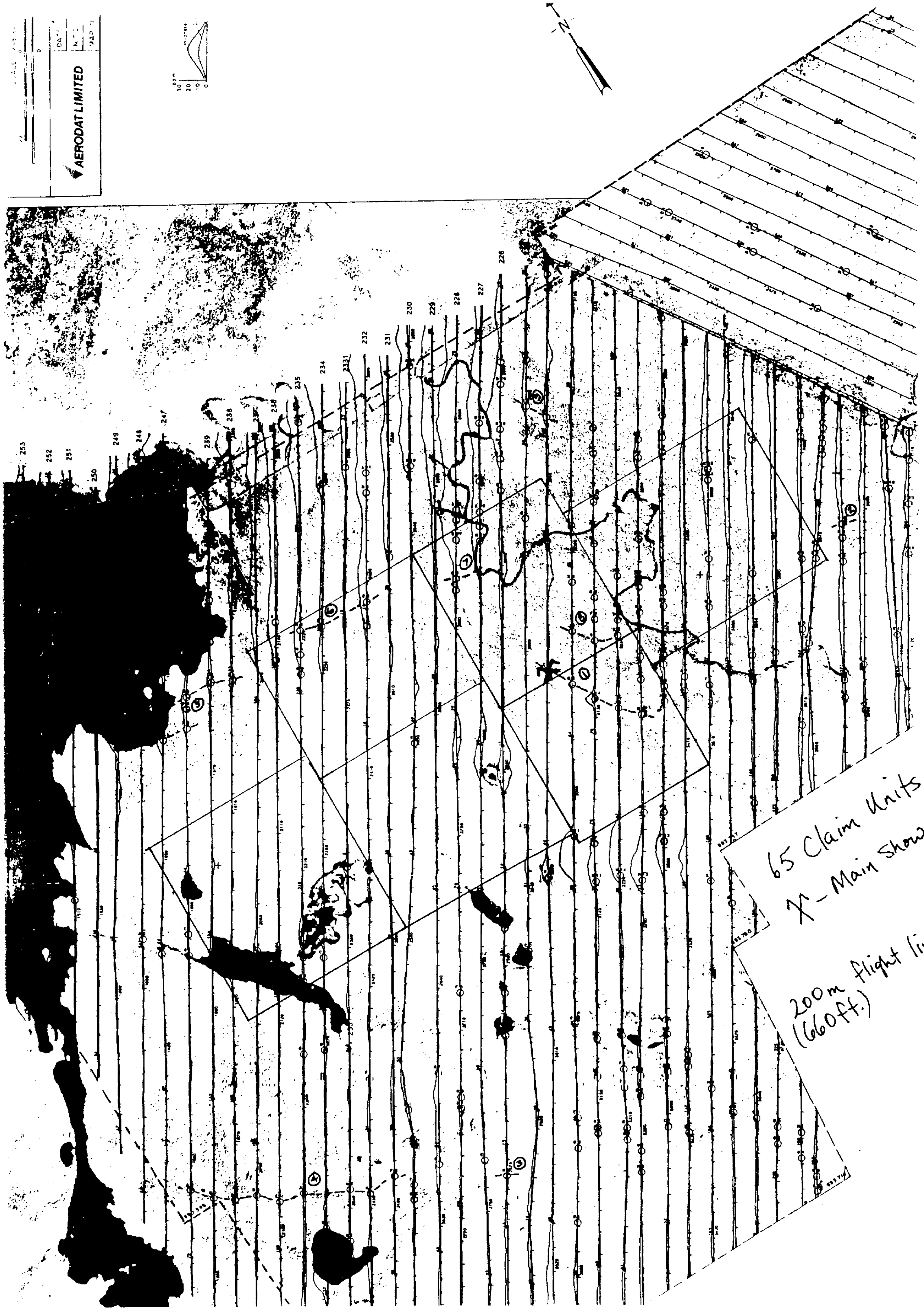
8 Questionable conductor on magnetic high.

9 Questionable unit at edge of overburden response.

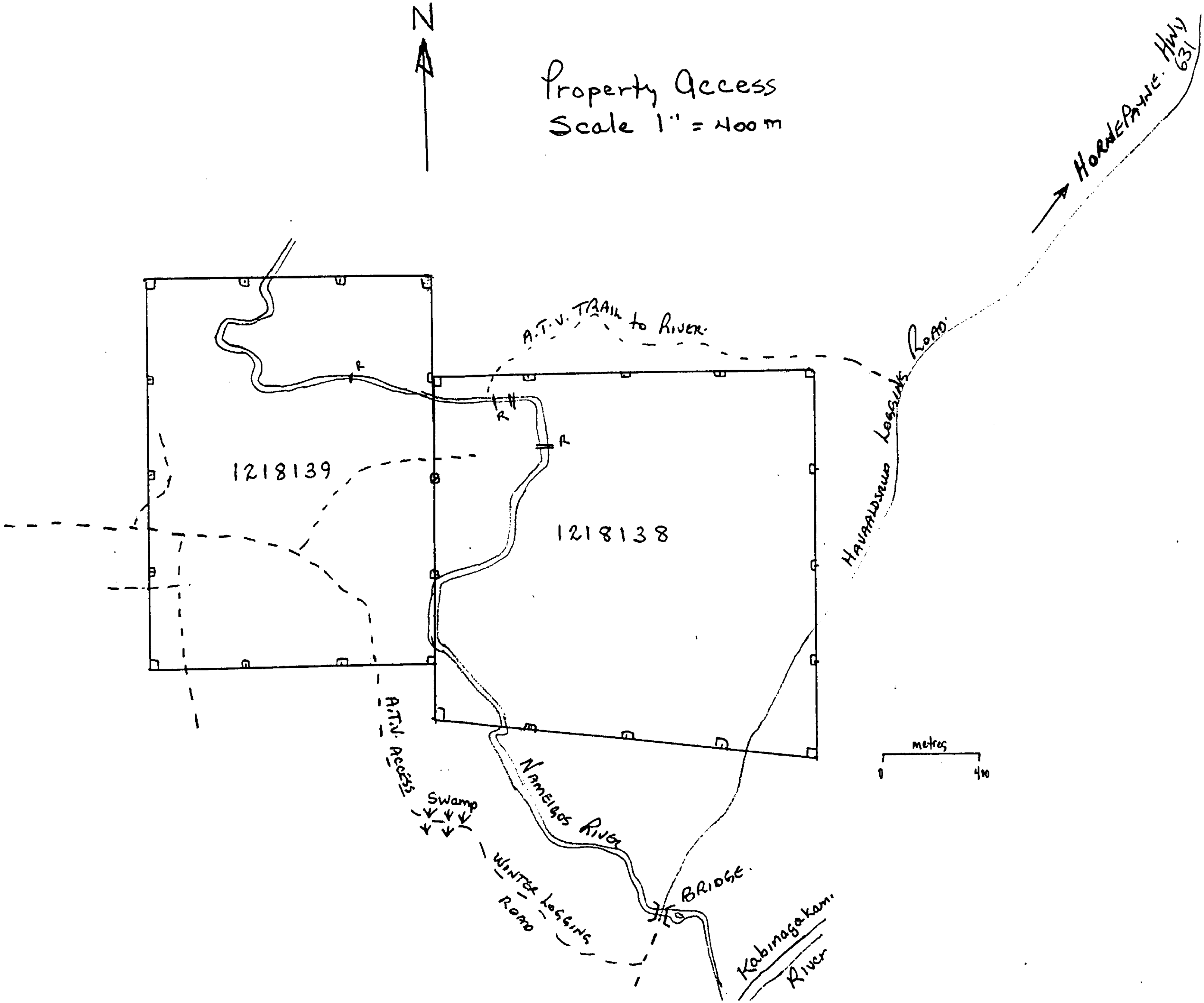
Respectfully submitted,

August 8, 1983. Fenton Scott, P.Eng.

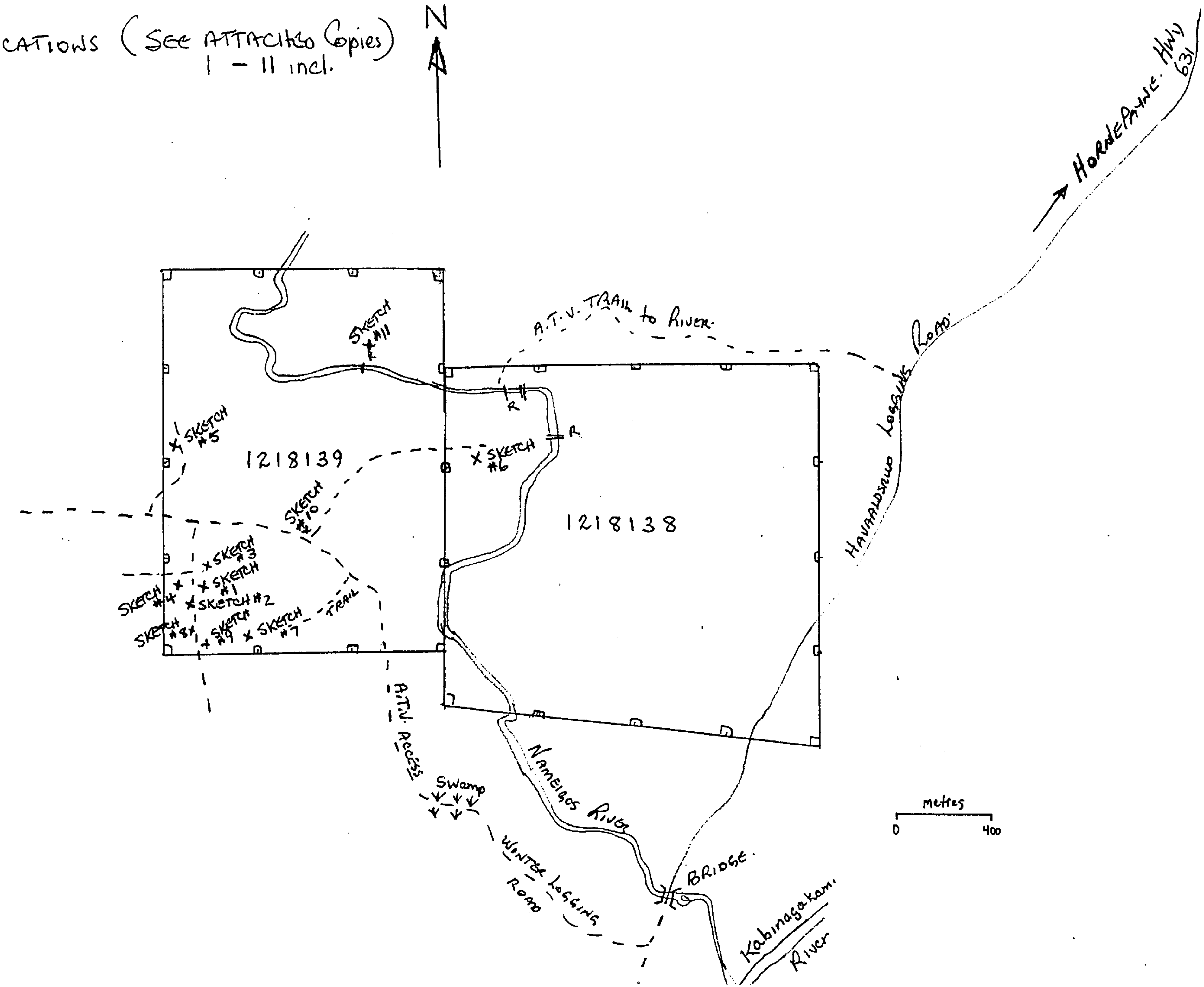

PROSPECTING GEOPHYSICS LTD.
TOTAL FIELD MAGNETIC MAP
PRYME ENERGY RESOURCES LTD
NAMIEGOS RIVER CLAIMS
ONTARIO
DATE: March 1983
AERODAT LIMITED
N.T.S. No. 42C, 42F
MAP No. 3
NAMEKOS -0017 #2


AERODAT LIMITED
N
253
252
251
250
249
248
247
239
238
236
235
234
2331
232
231
230
229
228
227
226
65 Claim Units
X - Main Showing
200 m flight line spacing
(660 ft.)

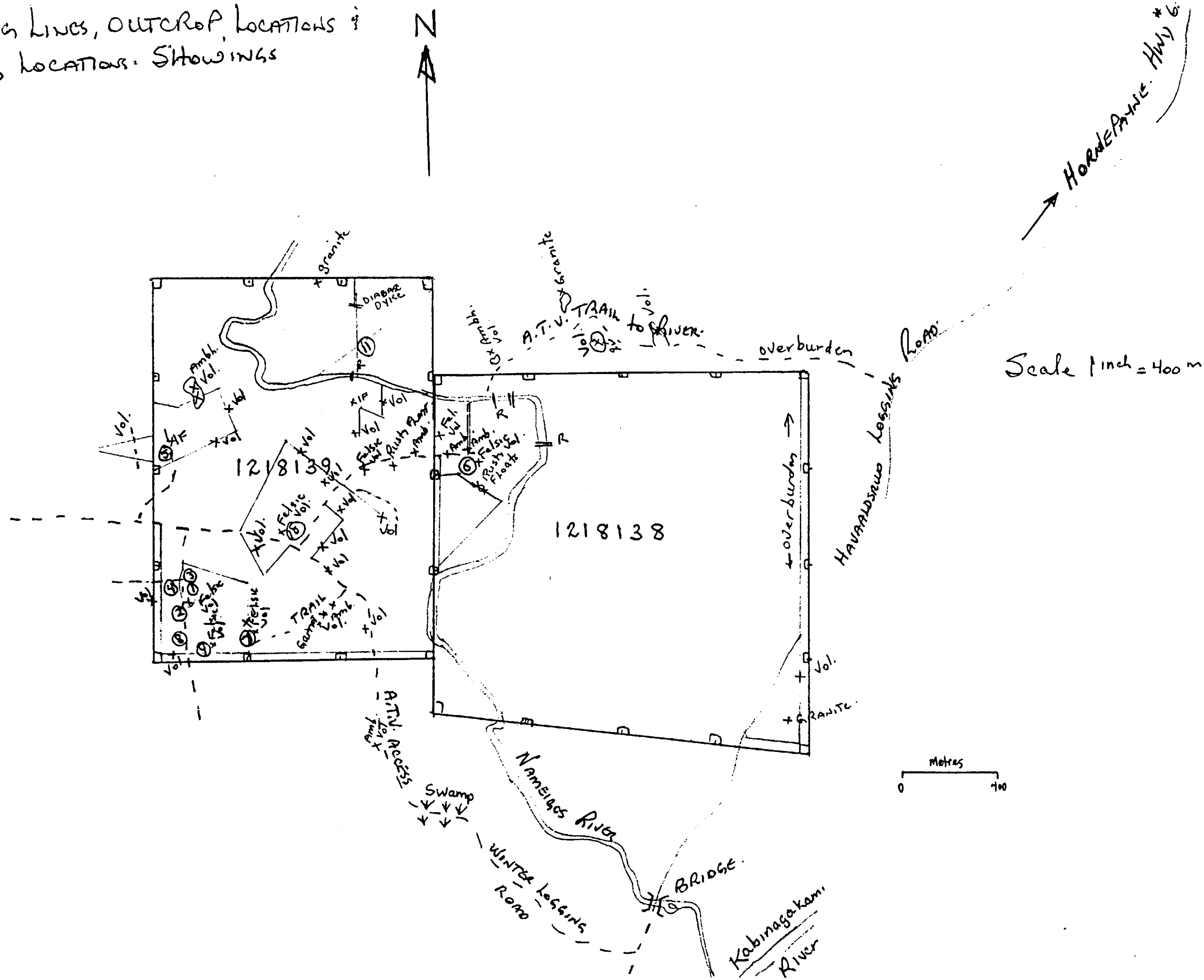
Appendix 3 Prospecting Base Maps/Traverses


N
Property Access
Scale 1" = 400 m
HORNEPAYNE HWY 631
A.T.V. TRAIL to RIVER
HAVAALDSRUD LOGGING ROAD
R
R
R
1218139
1218138
A.T.V. ACCESS
Swamp
WINTER LOGGING ROAD
NAMEIGOS RIVER
BRIDGE
Kabinagakami River
metres
0
400

LOCATIONS (SEE ATTACHED Copies) 1 - 11 incl.



ERSING LINES, OUTCROP LOCATIONS &
PLING LOCATIONS: SHOWINGS



Appendix 4 Sample Locations; Outcrops # 1-11

Page # 1

(Lab/Sketch) SAMPLE NO-	(Outcrop #) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
/Composite 1-7 197403	GRAB (#1)	Felsic Vol., Siliceous, Minor Pyrite	Au 13 PPb, Cu 38 PPm, Ag 2 P
/Composite 1-7 197404	↓	Felsic Vol, Rusty, Fine Grained Sericite, Fine Pyrite	Au 7 PPb, Ag < 1 PPm
/1 86301	↓	Fine Grained Serecite schist, Minor Pyrite	Au 427 PPb, Ag < 1 PPm
/2 86302	↓	Fine Grained Sericite schist, minor Pyrite	Au 481 PPb, Ag < 1 PPm
/3 86303	↓	Fine Grained Sericite Schist, minor Pyrite	Au 474 PPb, Ag < 1 PPm
/4 86304	↓	Rusty, Fine Grained Sericite Schist, MINOR Pyrite	Au 303 PPb, Ag < 1 PPm
/5 86305	↓	Rusty, Weathered Mica Schist, 1% Pyrite	Au 1091 PPb, Ag < 1 PPm
/6 86306	↓	Felsic, Siliceous, Grey Quartz Eyes, Heavy	Au 410 PPb, Ag < 1 PPm
/7 86307	(#1)	Rusty, Fine Grained Sericite, Minor Sulfides	Au 370 PPb, Ag < 1 PPm.
/8 86308	(#2)	Felsic Vol. (Ryholite)? Siliceous, Minor Pyrite	Au 10 PPb, Ag < 1 PPm
2/9 86309	↓	Rusty, Fine Grained Sericite, 1% Pyrite	Au 25 PPb, Ag 2 PPm, Cu 2193 P, ZN 82 PPm, NI, 24 P
3/10 86310	↓	Siliceous, Sericite, 1% Pyrite	Au 18 PPb, Ag < 1 PPm
/11 86311	↓	Felsic Vol, Quartz, 2% Pyrite	Au 7 PPb, Ag 2 PPm, Cu 518 P, ZN 38 PPm
2/12 86312	↓	Rusty Felsic Vol. Siliceous, 2% Pyrite	Au < 5 PPb, Ag < 1 PPm, Cu 57 P, ZN 31 PPm
3/13 86313	(#2)	Grey, Felsic Vol, Diseminated Pyrite	Au < 5 PPb, Ag < 1 PPm, Cu 84 P, ZN 22 PPm
1/14 86314	(#1)	Siliceous Felsic Vol. Very Heavy 3% Pyrite	Au 170 PPb, Ag < 1 PPm, Pb 2 P
4/15 86315	↓	Quartz, minor Biotite, Diseminated Pyrite	Au 58 PPb, Ag 2 PPm, Pb 1 P, ZN 32 PPm
/16 86316	↓	Quartz eye, Fine Serecite schist, MINOR Pyrite	Au 18 PPb, Ag < 1 PPm
10/17 86317	(#1)	Fine Grained Serecite, 1% Pyrite	Au 12 PPb, Ag < 1 PPm
/18 86318	#4	Rusty Weathered (Sediment?) Quartz eyes.	Au 11 PPb, Ag < 1 PPm
2/19 86319	#4	Rusty Weathered Sediments. Minor Pyrite	Au 7 PPb, Ag < 1 PPm
4/20 86320	#4	Rusty, Weathered Sediments MINOR Pyrite	Au 20 PPb, Ag < 1 PPm
/21 86321	#3	Felsic, Rusty Quartz, minor Pyrite	Au < 5 PPb, Ag < 1 PPm
1/22 86322	#3	Rusty Quartz, Biotite Schist? Minor Pyrite	Au < 5 PPb, Ag < 1 PPm
1/23 86323	#5	Rusty Quartz. (IRON FORMATION?) 1% Pyrite	Au < 5 PPb, Ag < 1 PPm
/24 86324	↓	Quartz, Biotite, (IRON FORMATION) 2% Pyrite	Au < 5 PPb, Ag < 1 PPm
9/25 86325	↓	Rusty IRON FORMATION. 5% Pyrite, Heavy	Au < 5 PPb, Ag < 1 PPm
/26 86326	↓	Rusty IRON FORMATION, Quartz, Biotitic	Au < 5 PPb, Ag < 1 PPm

(Lab/Sketch) SAMPLE NO-	(Outcrop#) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
1/27 86327	GRAB (#5)	Rusty, Iron Formation, minor Pyrite	Au <5 PPb, Ag 1 PPm
1/28 86328	#6	Silicified Quartz Felspars, 1% Pyrite	Au <5 PPb, Ag 1 PPm
1/29 86329		Rusty, Quartz eye Porphyry, 1% Pyrite	Au <5 PPb, Ag 1 PPm,
1/30 86330		Rusty, Quartz eyes, Siliceous, 1% Pyrite.	Au <5 PPb, Ag 1 PPm.
1/31 86331		Siliceous, Pyritic, minor chalcopyrite	Au <5 PPb, Ag 1 PPm, Pb 9 PPm
1/32 86332		Silicified Vol., Quartz Eyes, minor Sulphide	Au <5 PPb, Ag <1 PPm
1/33 86333		Quartz eyes, Mica schist, Pyrite Stringers	Au <5 PPb, Ag 1 PPm, Cu 10 PPm
1/34 86334		Quartz eyes, Silicified Vol. Minor Pyrite	Au <5 PPb, Ag <1 PPm
1/35 86335	↓	Rusty, Fine Grained Serecite, 1% Pyrite	Au <5 PPb, Ag 1 PPm
1/36 86336	#6	Fine Grained Serecite, Quartz, 2% Pyrite	Au <5 PPb, Ag 1 PPm, Pb 52 PPm
1/37 86337	#3	Fine Grained Serecite, Siliceous, Minor Pyrite	Au 66 PPb, Ag 1 PPm, Zn 21 PPm
1/38 86338	#3	Rusty Mica Schist, Patchy Pyrite.	Au 17 PPb, Ag <1 PPm,
42 86342	Road between #3 + #4	Rusty Mica Schist, Minor Sulfides, Chalcopyrite	Au 56 PPb, Ag 3 PPm, Cu 1148 PPm, Zn 20 PPm
1/45 86345	↓	Rusty mica schist, minor Sulfides, chalcopyrite	Au 90 PPb, Cu 806 PPm, Zn 19 PPm, Ag 2 PPm
161 86346	Float #11	Rusty Silicified Mica schist, Quartz eyes (Float)	Au <5 PPb, Ag 3 PPm.
1/71 86347	N. side of rapids on river	Rusty Silicified Mica schist (Float) Minor Pyrite	Au <5 PPb, Ag 1 PPm
481 86348		Weathered Felsic Vol. Minor Pyrite (Float)	Au <5 PPb, Ag 2 PPm.
91 86349		Rusty; Amphibolite, 2% sulfides	Au <5 PPb, Ag 2 PPm, Fe >10000 PPm
1/451 86350	↓ #11	Rusty Float, Felsic Vol, Silicified, Minor sulfide	Au <5 PPb, Ag 1 PPm
16 34501	Between #1 + #2	Rusty, Micaceous, minor sulfides.	Au 12 PPb, Ag <1 PPm
7 34502	#1	Fine Grained Serecite, siliceous, Minor Pyrite	Au 26 PPb, Ag <1 PPm
2/48 34503		Weathered mica schist, no Sulfides	Au <5 PPb, Ag <1 PPm
1/49 34504	↓	Rusty, Silicified Felsic Vol. Pyrite Stringers	Au 24 PPb, Ag 1 PPm.
5/50 34505	#1	Grey, Siliceous, Fine mica, Minor Pyrite	Au 17 PPb, Ag 2 PPm.
1/51 34506	#7	Fine grained serecite, minor Pyrite	Au <5 PPb, Ag <1 PPm
1/52 34507		Quartz eyes, Coarse mica (muscovite) minor Pyrite	Au 34 PPb, Ag 4 PPm.
0/53 34508		Rusty Silicified Vol. 1% sulfides.	Au <5 PPb, Ag <1 PPm
1/54 34509	↓	Coarse mica schist, Weathered, Minor Sulfides	Au 23 PPb, Ag 1 PPm

(Lab/Sketch) SAMPLE NO-	(Outcrop#) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
10/55 34510	GRAB #7	Siliceous, Felsic Vol. Pyrite Stringers	Au 7ppb, Ag 1Ppm
2/56 34511	↓	Rusty, Silicified Felsic Vol 1% Pyrite	Au 7ppb; Ag 1Ppm
3/57 34512	#7	Silicified Felsic Vol. 1% Pyrite	Au <5ppb, Ag 2Ppm
4/58 34513	Old Trenches #6	Felsic Vol, Heavey, 2% Pyrite	Au <5ppb, Ag <1Ppm
5/59 34514		Siliceous, Felsic Vol. thin Pyrite Stringers	Au <5ppb, Ag 1Ppm
6/60 34515		Quartz Eyes, Siliceous, Pyrite Stringers	Au <5ppb, Ag <1Ppm
7/61 34516		Fine Mica Schist, 2% Pyrite	Au <5ppb; Ag <1Ppm
8/62 34517		Quartz Eye Phorphry; Pyrite Patches	Au <5ppb; Ag 1Ppm
9/63 34518		Quartz eye Phorphyry, Pyrite Stringers	Au <5ppb. Ag <1Ppm
/64 34519		Siliceous, Felsic Vol. Fine Mica, 1% Pyrite	Au <5Ppb. Ag 2Ppm
2/65 34520		Siliceous, Felsic Vol, minor Sulphide	Au <5Ppb, Ag <1Ppm
3/66 34521		Rusty, Siliceous, Pyrite Stringers.	Au <5Ppb, Ag <1Ppm
1/67 34522		Siliceous Felsic Vol. 2% Pyrite Stringers	Au <5Ppb, Ag 1Ppm
35/68 34523		Siliceous Felsic Vol 2% Pyrite Stringers	Au <5Ppb, Ag <1Ppm
/69 34524		Siliceous, Massive Pyrite Stringers 5%	Au <5Ppb, Ag 1Ppm
7/70 34525		Siliceous Felsic Vol, minor Sulphide	Au <5Ppb. Ag <1Ppm
8/71 34526	↓	Siliceous, Quartz Pods, Pyrite Stringers	Au <5Ppb Ag <1Ppm
9/72 34527	#6	Siliceous, Fine Sericite, Green mica, Float	Au 40Ppb, Ag <1Ppm
40/73 34528	Float on trail from #6	Rusty Float, Fine grained Sericite	Au <5Ppb, Ag 2Ppm
1/74 34529	Westside of Rd. #2	Quartz Blowout, 1% Pyrite	Au <5Ppb. Ag <1Ppm
13/75 34530	#9-A	Buff Colored Felsic Vol, Fine Grained Sericite	Au <5Ppb. Ag <1Ppm
44/76 34531		Sericite Schist, minor Pyrite	Au <5Ppb. Ag <1Ppm
5/77 34532		Felsic Vol. Fine Sericite, No Sulfides	Au <5Ppb, Ag <1Ppm
46/78 34533		Rusty, Fine Grained Serecite 1% Pyrite	Au <5Ppb, Ag 1Ppm
7/79 34534		Rusty, Grey. Fine grained Serecite, 1% Pyrite	Au <5Ppb, Ag <1Ppm
8/80 34535		Rusty Weathered, Felsic Vol.	Au <5Ppb. Ag 3Ppm
9/81 34536		Rusty, Weathered, Sericite, minor Sulphide	Au <5Ppb Ag <1Ppm
/82 34537	↓	Rusty weathered, Fine grained Serecite, 1% Pyrite	Au <5Ppb. Ag <1Ppm

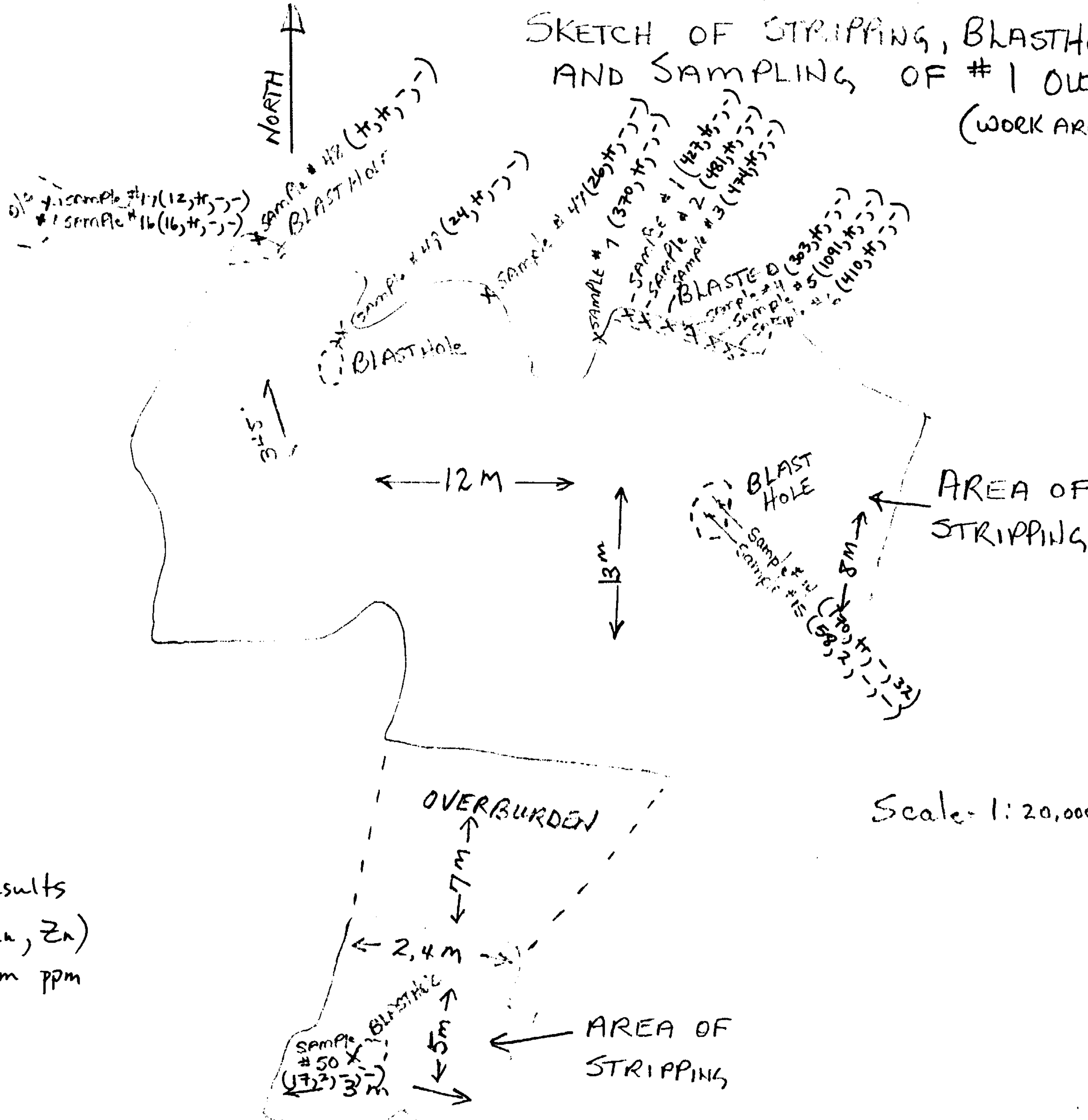
SAMPLE NO-	(Outcrop#) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
2/83 34538	GRAB #9-A	Rusty, Weathered, mica Schist, minor Pyrite	Au <5 PPb, Ag <1 PPb
1/84 34539	↓	Rusty, weathered, mica schist, minor Pyrite	Au <5 PPb, Ag <1 PPb
1/85 34540		Fine Grained Sericite, Heavey, 1% Pyrite	Au <5 PPb, Ag <1 PPb
?/86 34541		Rusty, Weathered, micaceous, minor Pyrite	Au <5 PPb, Ag <1 PPb
/87 34542		Rusty, Mica Schist, Biotite? minor Pyrite	Au <5 PPb, Ag <1 PPb
7/88 34543		Siliceous, Fine Grained Sericite, minor Pyrite.	Au <5 PPb, Ag <1 PPb
/89 34544		Finegrained Sericite, Coarse Pyrite.	Au <5 PPb, Ag <1 PPb.
1/90 34545	↓	Rusty, weathered mica Schist, Minor Pyrite	Au <5 PPb, Ag <1 PPb
c/91 34546	#9-A	Siliceous, Fine Grained Sericite, Minor Pyrite	Au <5 PPb, Ag <1 PPb
/92 34547	#9-B	Quartz eyes, Fine Grained Sericite, minor Pyrite	Au <5 PPb, Ag <1 PPb
/93 34548		Rusty, Quartz eyes, Silicious, minor Pyrite	Au <5 PPb, Ag <1 PPb
/94 34549		Rusty, Quartz eyes, Silicious, minor Pyrite	Au <5 PPb, Ag 1 PPb.
/95 34550		Rusty, Quartz eyes, Fine mica, minor Pyrite	Au <5 PPb, Ag 2 PPb.
4/96 34651		Rusty, Weathered, Quartz eyes, Minor Pyrite	Au <5 PPb, Ag 2 PPb
/97 34652		Rusty, Quartz eyes, Fine Sericite, 1% Pyrite	Au <5 PPb, Ag 2 PPb.
4/98 34653		Rusty, Siliceous, Felsic Vol, Patchy Pyrite	Au <5 PPb, Ag 1 PPb
/99 34654		Rusty, Quartz eye Porphory (Tuff?) Minor Pyrite	Au <5 PPb, Ag 1 PPb
/00 34655		Fine Grained Sericite, Quartz eyes, 1% Pyrite	Au <5 PPb, Ag 1 PPb
2/99/100 Composite 34612		Quartz eyes, Sericite, Minor Pyrite	Au 18 PPb, Ag 1 PPb, Cu 794 PPm
101 34656		Grey Quartz eyed, Silicified Vol. minor Pyrite	Au <5 PPb; Ag <1 PPb,
/2 34657		Quartz eye Schist, Pyrite Stringers,	Au <5 PPb, Ag <1 PPm.
/103 34658		Quartz eyes, Fine Sericite, Minor Pyrite	Au <5 PPb, Ag <1 PPm
/4 34659		Silicified, Mica Schist, Minor Sulphides	Au <5 PPb, Ag <1 PPm, Cu 173 PPm, Zn 19 PPm
/105 34660		Grey Quartz eyes - Siliceous, Minor Pyrite	Au <5 PPb, Ag <1 PPm
/106 34661		Heavy, Light Grey Sediment. 1% Pyrite	Au <5 PPb, Ag <1 PPm, Cu 257 PPm, Zn 30 PPm
/7 34662		Quartz eyes, Coarse Mica, 1% Pyrite	Au <5 PPb, Ag <1 PPm, Cu 869 PPm, Zn 19 PPm
3/108 34663		Quartz eyes, Silicified, minor Pyrite	Au <5 PPb, Ag <1 PPm.
/9 34664	↓	Grey Quartz eyes, Siliceous, 1% Pyrite	Au <5 PPb, Ag <1 PPm.

SAMPLE NO-	(Outcrop#) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
2/110 34665	GRAB #9-B	Grey Quartz eyes, Sericitic, Chalcopyrite, minor Pyrite	CHECK 7 PPb, Au <5 PPb, Ag <1 PPm, cu 741 PP, ZN 20 P
/111 34666	↓	Silicified Vol, Grey Quartz eyes, 1% Sulphide	Au <5 PPb, Ag <1 PPm, cu 518 PP, ZN 42
3/112 34667		Rusty, Grey, Sericitic, 2% Sulphides	Au <5 PPb, Ag <1 PPm,
4/113 34668		Grey, Quartz, Mica Schist, Minor Sulphide	Au <5 PPb, Ag <1 PPm, cu 62 PP, ZN 455 P
/114 34669		Rusty Grey Quartz Eyes, Heavey, Minor Sulph	Au <5 PPb, Ag <1 PPm, cu 316 PP, ZN 39 P
6/115 34770		Rusty, Grey Quartz eyes, 1% Sulphides.	Au <5 PPb, Ag <1 PPm, cu 135 PP, ZN 24 P
/116 34671		Fine Sericite, Chalcopyrite, ..	Au, 42 PPb, Ag <1 PPm, cu 704 P, ZN 1939 P
/117 34672	↓	Fine grained Sericite, Rusty, 1% Sulphide	Au <5 PPb, Ag <1 PPm, cu 237 PP, ZN 23 P
4/118 34673	#9-B	Fine grained Sericite, Pyrite Stringers.	Au <5 PPb, Ag 2 PPm, cu 106 PP, ZN 41 P
/119 34674	#10	Felsic Vol, Finegrained Sericite 1% Sulphides Chalcopyrite	CHECK 11 PPb - Au 9 PPb, Ag <1 PPm, cu 1006 PP, ZN 15 P
7/120 34675		Grey, Fine grained Sericite, Minor Pyrite	Au 5 PPb, Ag <1 PPm, cu 507 PP, ZN 12 P
3/121 34676	↓	Grey colored, Fine grained Sericite, Chalcopyrite	Au 11 PPb, Ag <1 PPm, cu 951 PP, ZN 17 P
/122 34677	#10	Grey Colored, Siliceous, Sericite, 1% Sulphide	Au 12 PPb, Ag <1 PPm, cu 709 PPm, ZN 16 P
5/123 34678	#7-C	Rusty, Weathered, Sphalerite, Chalcopyrite	Au 25 PPb. Ag <1 PPm, cu 598 PPm, ZN 508 P
/124 34679		Fine Grained Sericite, Siliceous, Chalcopyrite	Au 15 PPb, Ag <1 PPm, cu 4533 PP, ZN 2497 P
7/125 34680		Fine Grained Sericita (schist?) specks of Sphalerite	Au 9 PPb, Ag <1 PPm, cu 666 PP, ZN 1485
0/126 34681		Fine Grained Sericite, minor Sulphide	Au 5 PPb, Ag <1 PPm
/127 34682		Fine Grained Sericite (Schistose) 2% Sulphides	Au 50 PPb, Ag + PPm, cu 1942 PP, ZN 3412 P
0/128 34683		Rusty, Weathered Sericite Schist. Minor Sulphide	Au <5 PPb, Ag <1 PPm.
2/129 34684		Rusty Weathered, Quartz. Minor Sulphide	Au 7 PPb, Ag <1 PPm, ZN 289
3/130 34685		Rusty, Mica Schist, Heavey, minor Sulphide	Au 6 PPb, Ag <1 PPm
4/131 34686		Rusty, Weathered Mica Schist, minor Sulphide	Au 11 PPb, Ag <1 PPm
32 34687		Rusty, Silicified Vol, Pyrite Stringers, Chalcopyrite Pyrite	Au 8 PPb, cu 1096 PPm, ZN 1922 P
/133 34688		Rusty, Muscovite Schist?, minor Pyrite.	Au 24 PPb, Ag 2 PPm, cu 552 PP, ZN 3754 P
/134 34689		Fine Grained Sericite, 2% sulphides	Au 57 PPb, cu 646 PPm, ZN 4625 P
135 34690		Fine Grained Sericite, minor Chalcopyrite, Pyrite	Au 30 PPb, cu 1576 PPm, ZN 990 P
/136 34691		Rusty, Weathered Schist, minor Sulphides.	Au 24 PPb, cu 1303 PPm, AG 2 PPm, ZN 2526 P
137 34692	↓ ↓	Fine Grained Sericite Schist, 2% pyrite Stringers	Au 11 PPb, cu 298 PPm, ZN 98 P

SAMPLE NO-	(Outcrop#) TYPE OF SAMPLE	ROCK TYPE - MINERALIZATION	ASSAY RESULTS
138 34693	GRAB #7-C	Small Pieces, Rusty Quartz, minor Pyrite	Au 36 PPb, Ag 1 PPm, Cu 670 PPm, Zn 1414 PPm
139 34694	#7-C	Felsic Vol, malachite Staining, Chalcopyrite.	Au 58 PPb, Cu 2147 PPm, Zn 1222 PPm
Composite 137, 138, 139 197405	#7-C	Rusty, Quartz Vein, 1% Pyrite	Au 134 PPb, Ag 3 PPm, Cu 2542 PPm, Zn 4186, Pb <1 PPm
39 86339	E. bdry W. of 800m post	Rusty, Weathered Mica Schist. Minor Pyrite	Au 13 PPb, Ag <1 PPm
40 86340		Rusty, Silicified Vol, minor Sulphide	Au 8 PPb, Ag 1 PPm
41 86341		Weathered, crumbly (Sediment?)	Au 6 PPb, Ag <1 PPm
43 86343	#4	Rusty, Fine grained Sericite, minor Pyrite	Au 8 PPb, Ag <1 PPm
44 86344	#4	Rusty, Fine grained Sericite, minor Pyrite	Au 13 PPb, Ag <1 PPm

SKETCH #1

SKETCH OF STRIPPING, BLASTHOLES, AND SAMPLING OF #1 OUTCROP (WORK AREA)

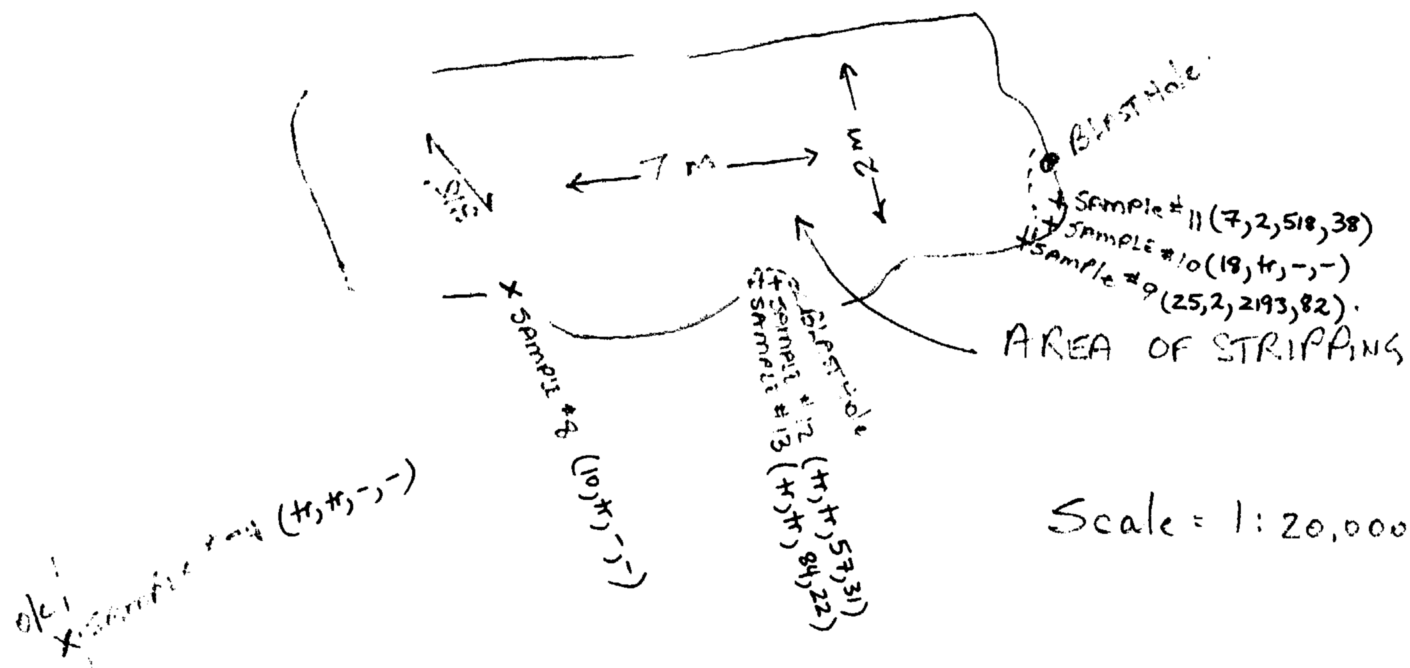


Scale - 1:20,000

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH #

SKETCH OF STRIPPING, BLASTING, AND SAMPLING OF #2 OUTCROP (WORK AREA)

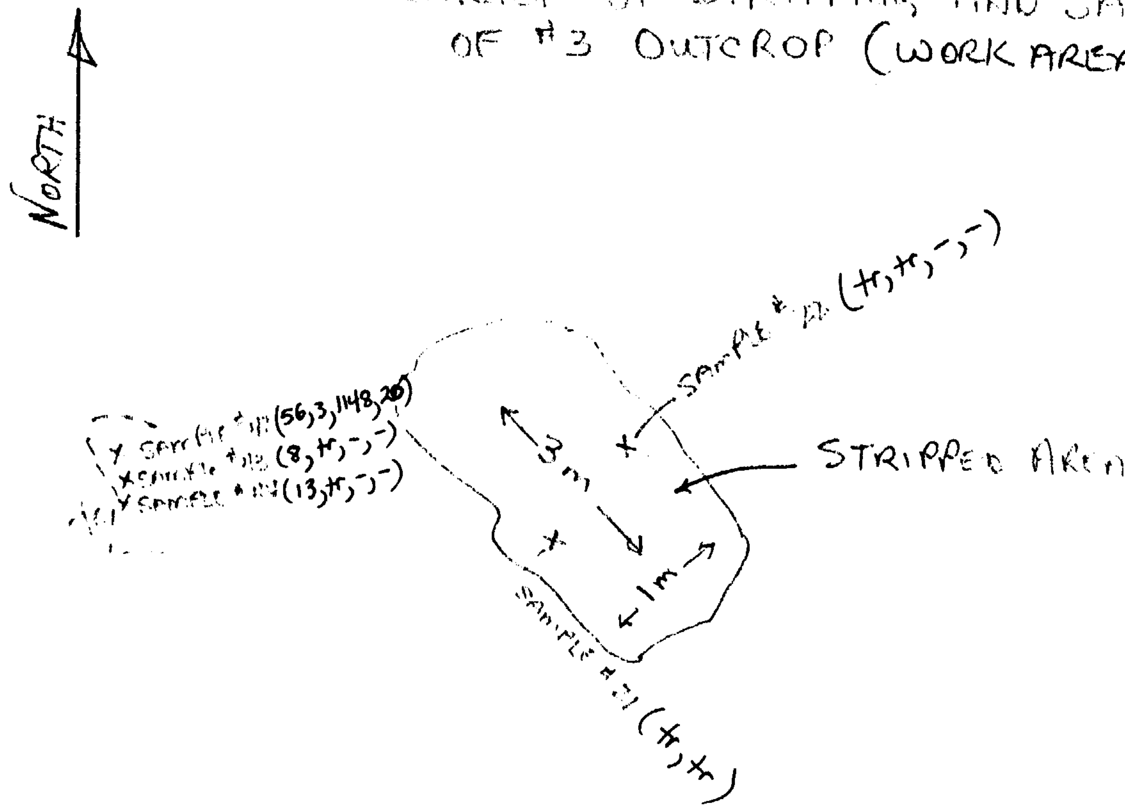


Scale = 1:20,000

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH #3

SKETCH OF STRIPPING AND SAMPLING OF #3 OUTCROP (WORK AREA)

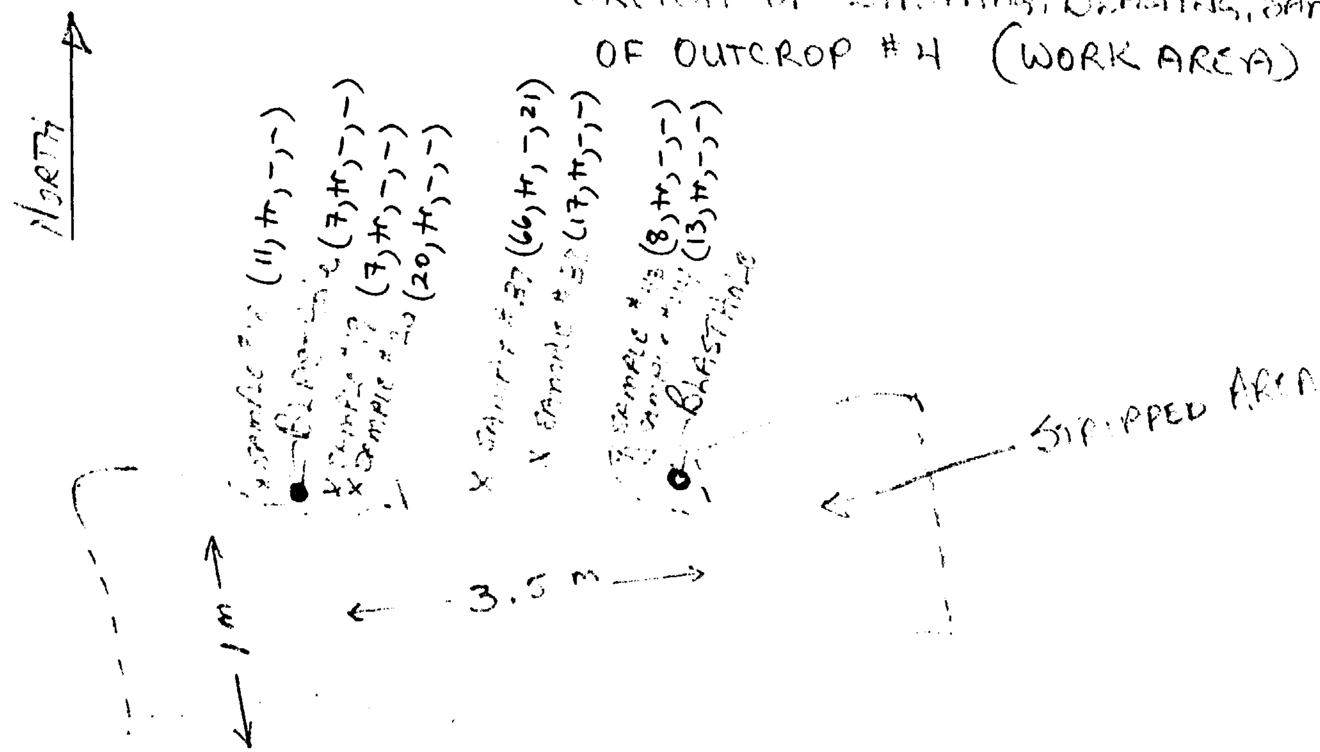


Scale: 1:20,000

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH # 4

SKETCH OF STRIPPING, BLASTING, SAMPLING OF OUTCROP # 4 (WORK AREA)



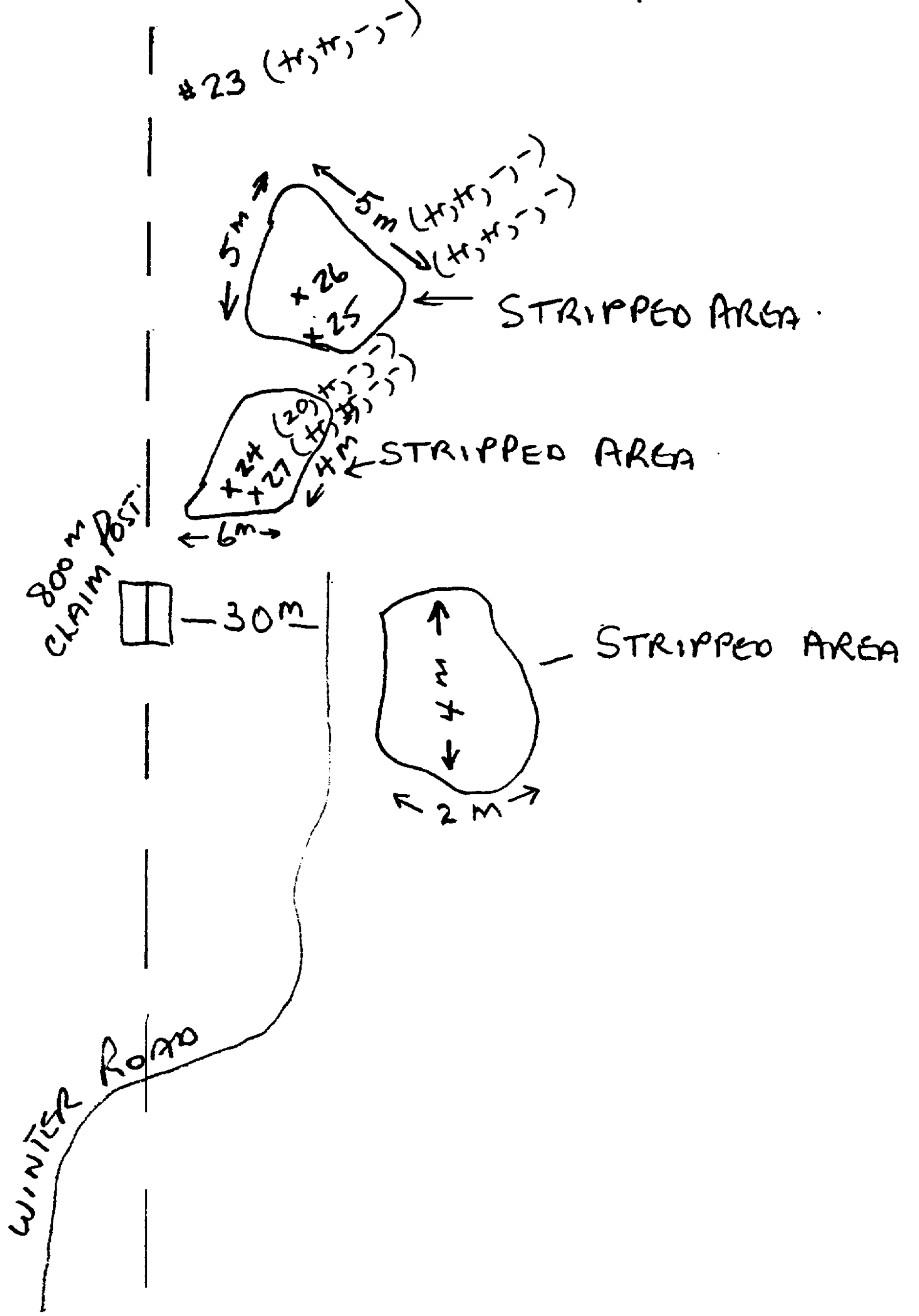
Scale: 1:20,000

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm.

SKETCH #5

NORTH

SKETCH OF STRIPPING, SAMPLING OF #5 WORK AREA.

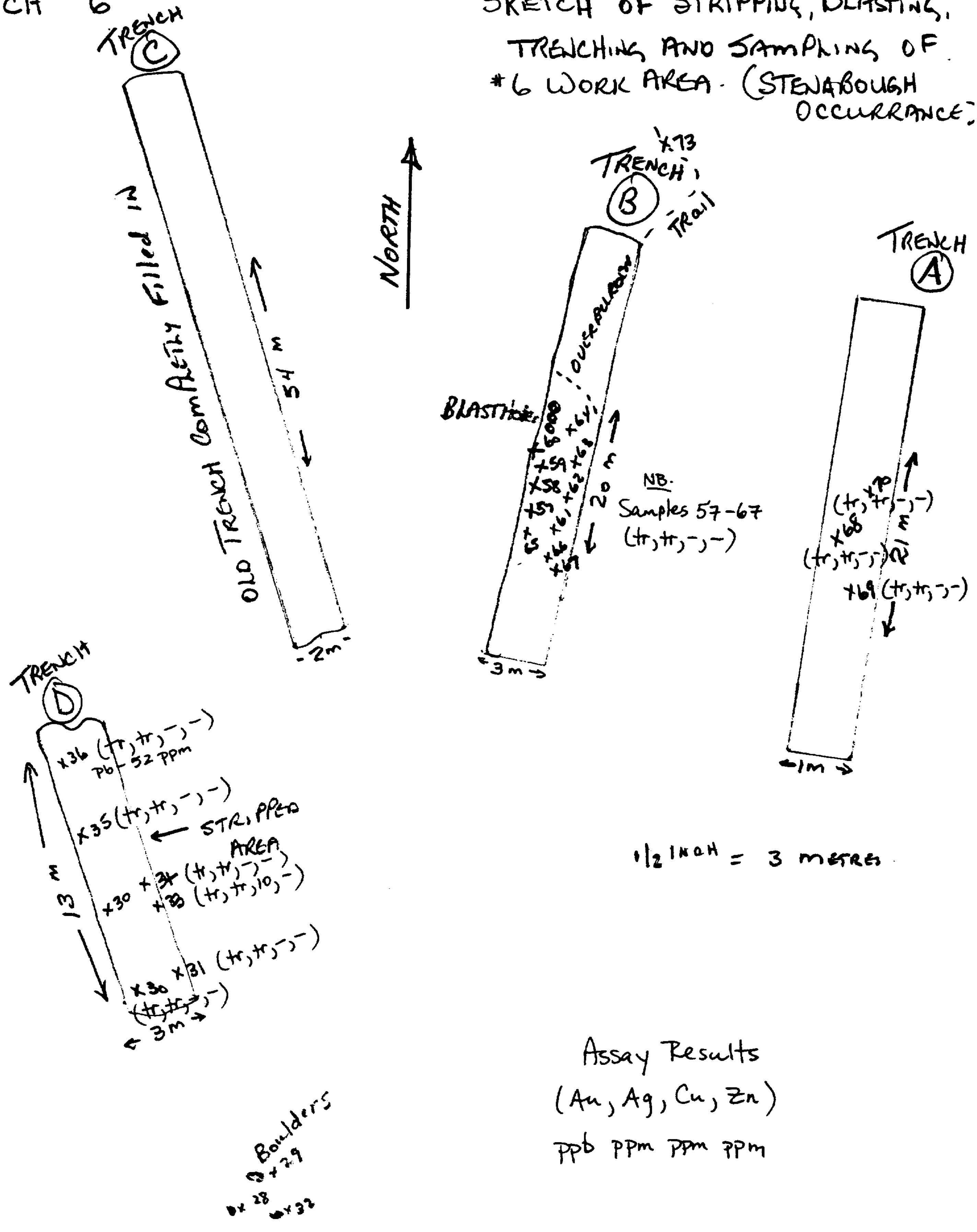


Scale = 1:20,000

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH #6

SKETCH OF STRIPPING, BLASTING, TRENCHING AND SAMPLING OF #6 WORK AREA. (STENABOUGH OCCURRANCE)

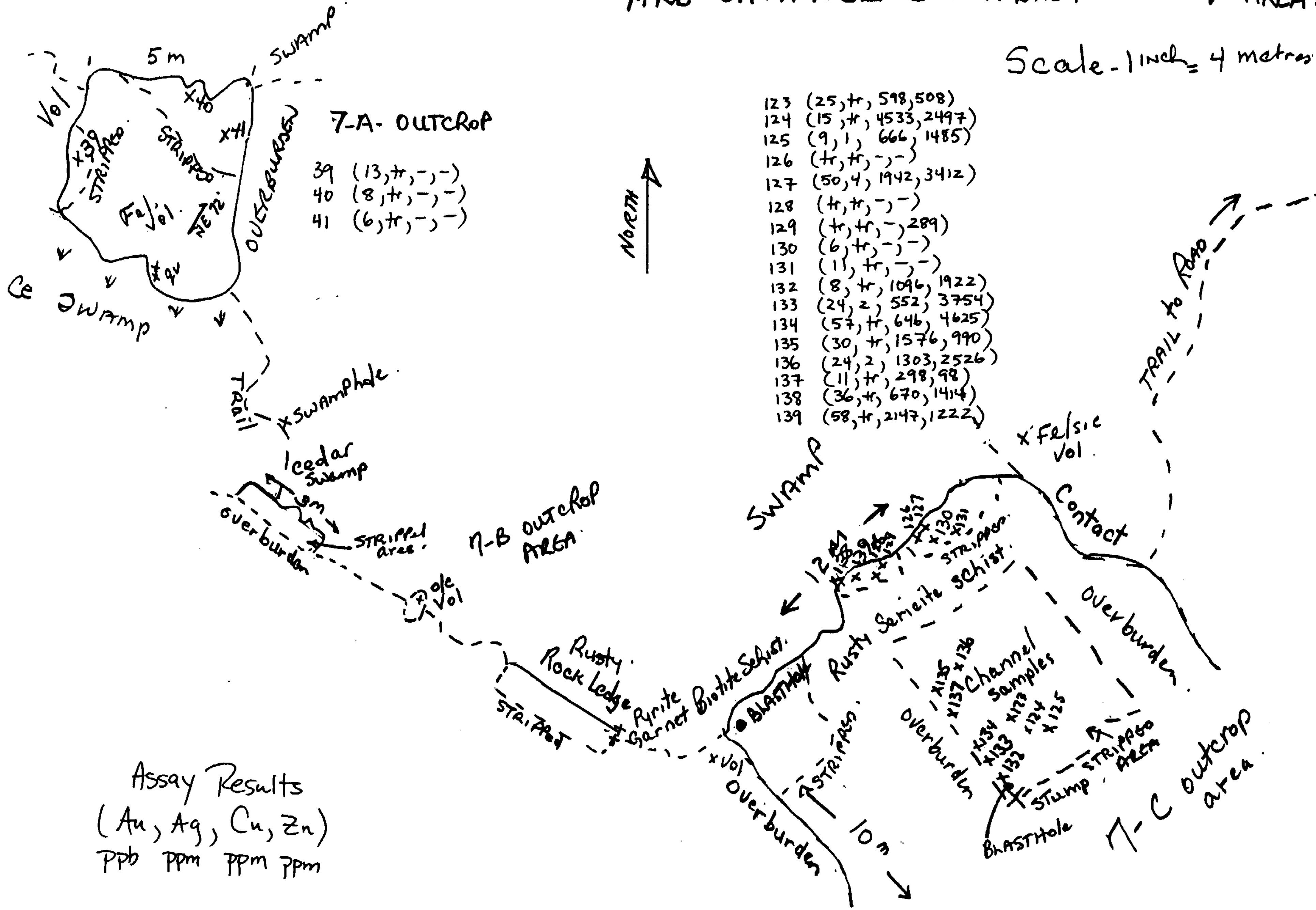


1/2 INCH = 3 METRES

Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

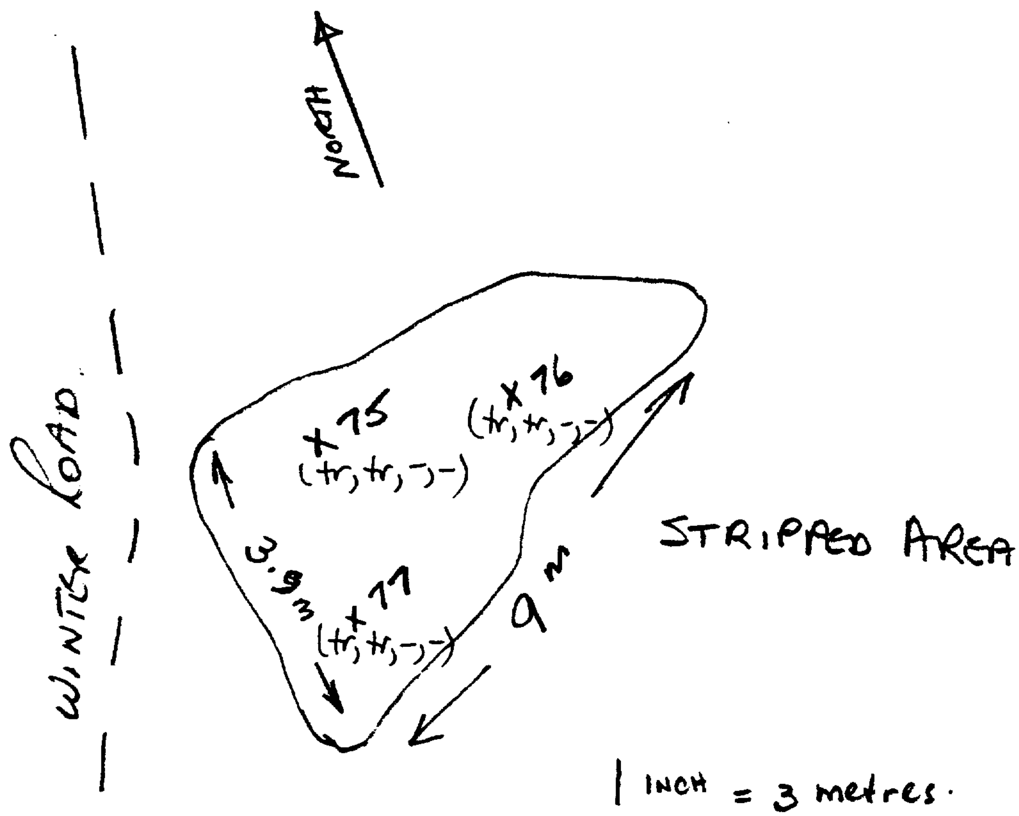
SKETCH 7

SKETCH OF STRIPPING, BLASTING, GRAB AND CHANNEL SAMPLING IN # 7 AREA.



SKETCH # 8

SKETCH OF STRIPPING & SAMPLING OF # 8 OUTCROP AREA.



Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

Sketch #9

Sketch of Stripping, Blasting, Sampling of 9 A, B and C Area

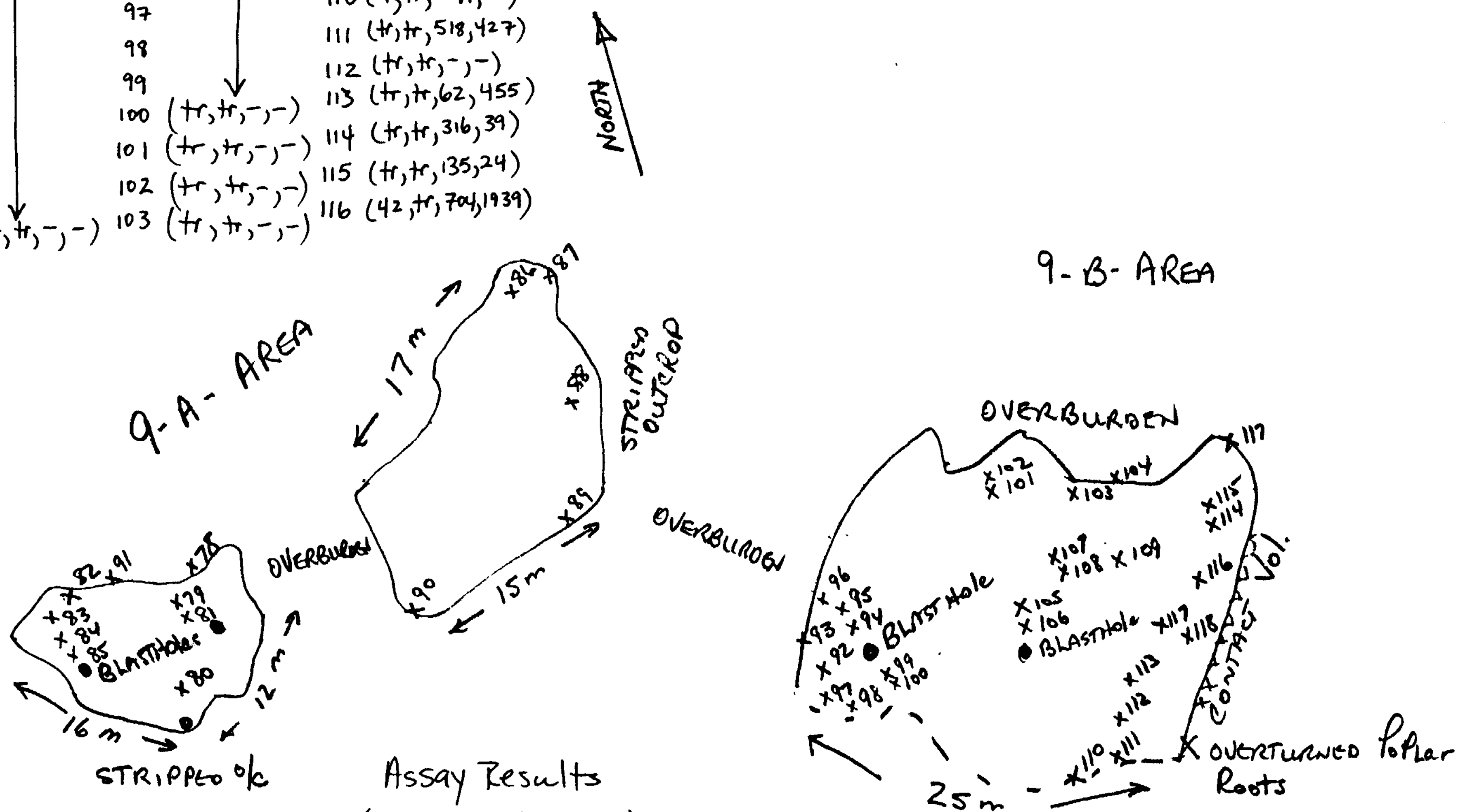
1/2" = 5 metres.

78 (tr,tr,-,-)
79 (tr,tr,-,-)
80 (tr,3,-,-)
81 (tr,tr,-,-)
82 (tr,tr,-,-)
83
84
85
86
87
88
89
90 (tr,tr,-,-)

91 (tr,tr,-,-)
92
93
94
95
96
97
98
99
100 (tr,tr,-,-)
101 (tr,tr,-,-)
102 (tr,tr,-,-)
103 (tr,tr,-,-)

104 (tr,tr,19,173)
105 (tr,tr,-,-)
106 (tr,tr,257,30)
107 (tr,tr,869,19)
108 (tr,tr,-,-)
109 (tr,tr,-,-)
110 (7,tr,741,20)
111 (tr,tr,518,427)
112 (tr,tr,-,-)
113 (tr,tr,62,455)
114 (tr,tr,316,39)
115 (tr,tr,135,24)
116 (42,tr,704,1939)

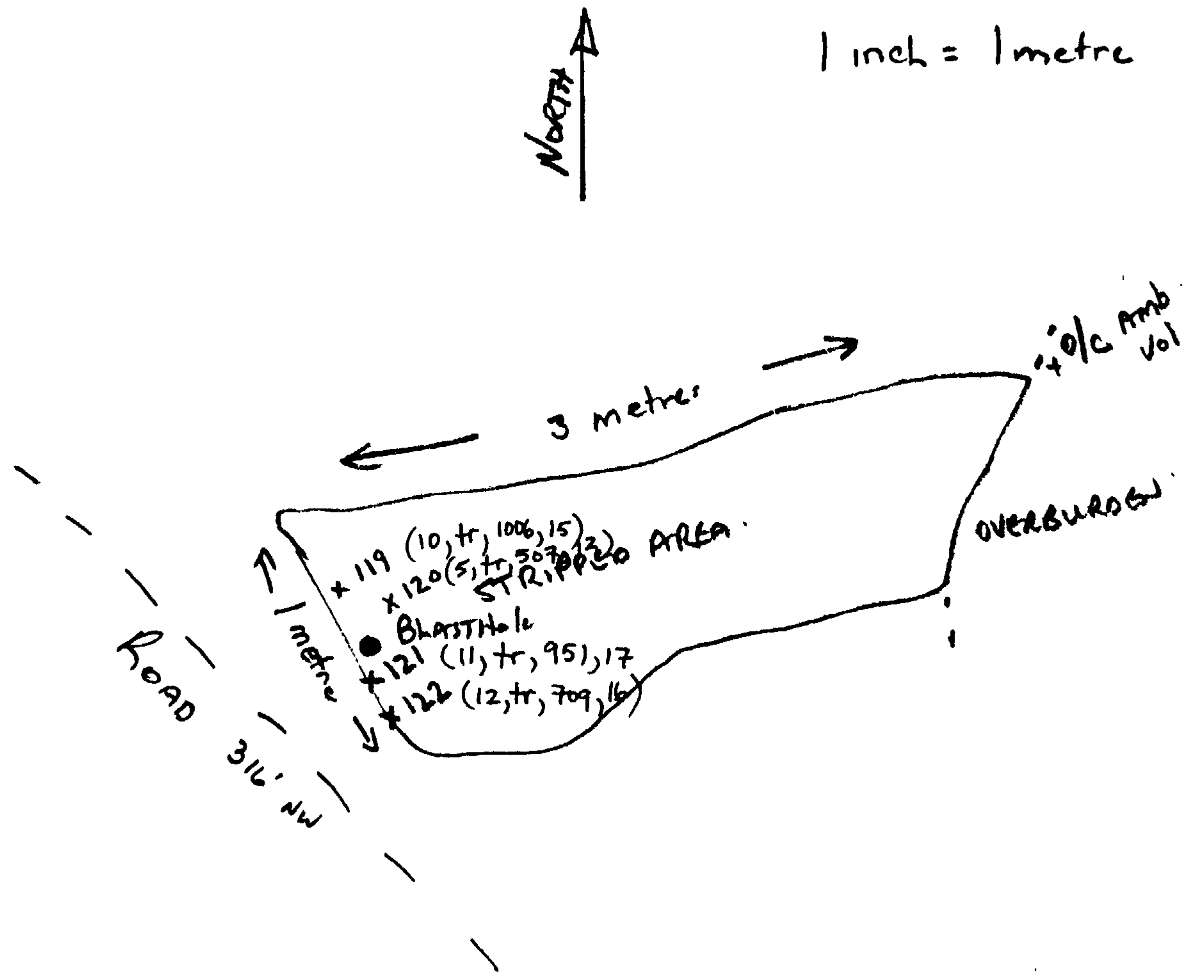
117 (tr,tr,237,23)
118 (tr,2,106,41)



Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH #10

SKETCH OF STRIPPING, BLASTING, SAMPLING OF #10 OUTCROP AREA

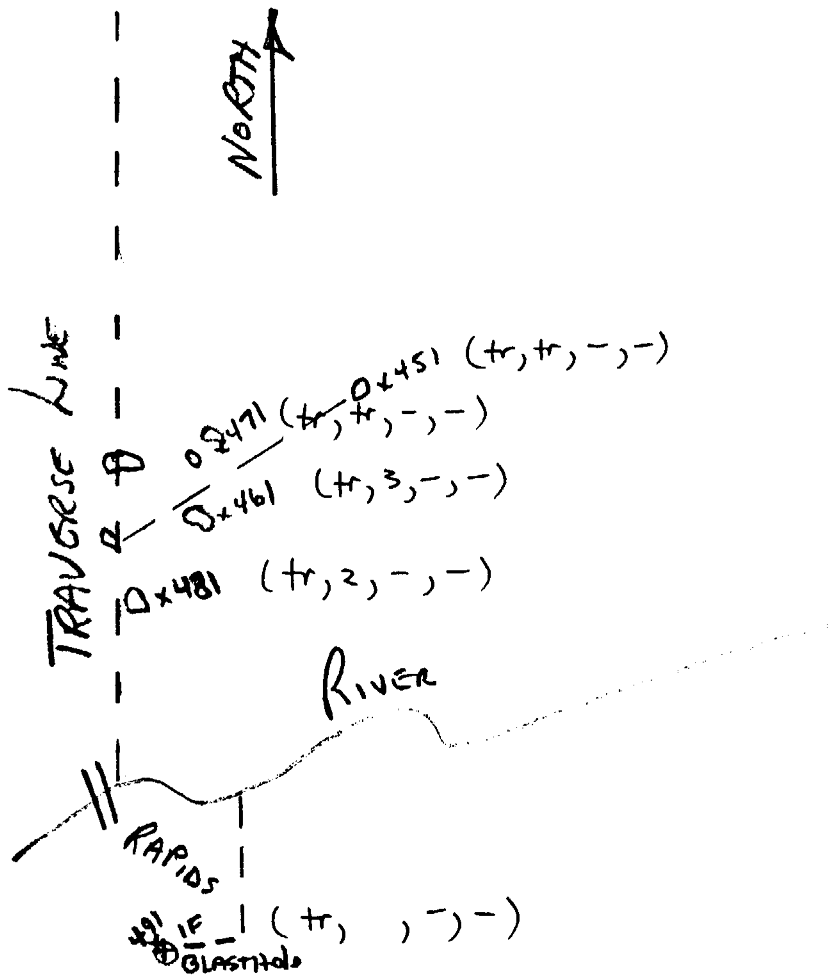


Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

SKETCH #11

SAMPLING TRAVERSE LINE (FELSIC FLOATS)

1/2" = 50 m



Assay Results
(Au, Ag, Cu, Zn)
ppb ppm ppm ppm

Appendix 5 Assay Certificates; Outcrops # 1-11

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Aug 27, 1999

Job# 9940885

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	197403	13	<0.001
2	197404	7	<0.001
3	86301	427	0.012
4	86302	481	0.014
5	86303	474	0.014
6	86304	303	0.009
7	86305	1091	0.032
8	86306	410	0.012
9	86307	370	0.011
10	86308	10	<0.001
11 Check	86308	<5	<0.001
12	86309	25	<0.001
13	86310	18	<0.001
14	86311	7	<0.001
15	86312	<5	<0.001
16	86313	<5	<0.001
17	86314	170	0.005
18	86315	58	0.002
19	86316	18	<0.001
20	86317	12	<0.001
21 Check	86317	12	<0.001
22	86318	11	<0.001
23	86319	7	<0.001
24	86320	20	<0.001
25	86321	<5	<0.001
26	86322	<5	<0.001
27	86323	<5	<0.001
28	86324	<5	<0.001
29	86325	<5	<0.001

Certified By: ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Aug 27, 1999

Job# 9940885

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
30	86326	<5	<0.001
31 Check	86326	<5	<0.001
32	86327	<5	<0.001
33	86328	<5	<0.001
34	86329	<5	<0.001
35	86330	<5	<0.001
36	86331	<5	<0.001
37	86332	<5	<0.001
38	86333	<5	<0.001
39	86334	<5	<0.001
40	86335	<5	<0.001
41 Check	86335	<5	<0.001
42	86336	<5	<0.001

Certified By ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Aug 27, 1999

Job# 9940885

SAMPLE # Accurassay	Customer	Zinc ppm	Copper ppm	Nickel ppm	Silver ppm	Lead ppm
1	197403		38		2	
2	197404				<1	
3	86301				<1	
4	86302				<1	
5	86303				<1	
6	86304				<1	
7	86305				<1	
8	86306				<1	
9	86307				<1	
10	86308				<1	
11 Check	86308				<1	
12	86309	82	2193	24	2	
13	86310				<1	
14	86311	38	518		2	
15	86312	31	57		<1	
16	86313	22	84		<1	
17	86314				<1	2
18	86315	32			2	1
19	86316				<1	
20	86317				<1	
21 Check	86317				<1	
22	86318				<1	
23	86319				<1	
24	86320				<1	
25	86321				<1	
26	86322				<1	
27	86323				<1	
28	86324				<1	
29	86325				<1	

Certified By: ________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Aug 27, 1999

Job# 9940885

SAMPLE # Accurassay	Customer	Zinc ppm	Copper ppm	Nickel ppm	Silver ppm	Lead ppm
30	86326				<1	
31 Check	86326				<1	
32	86327				1	
33	86328				<1	
34	86329				<1	
35	86330				<1	
36	86331				<1	9
37	86332				<1	
38	86333		10		1	
39	86334				<1	
40	86335				1	
41 Check	86335				1	
42	86336				1	52

Certified By: [signature]

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Sep 7, 1999

Job# 9940911

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	86339	13	<0.001
2	86340	8	<0.001
3	86341	6	<0.001
4	86343	8	<0.001
5	86344	13	<0.001
6 Check	86344	17	<0.001

Certified By:

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Sep 7, 1999

Job# 9940911

SAMPLE #		Silver
Accurassay	Customer	ppm
1	86339	<1
2	86340	1
3	86341	<1
4	86343	<1
5	86344	<1

Certified By: ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	86337	66	0.002
2	86338	17	<0.001
3	86342	56	0.002
4	86345	90	0.003
5	86346	<5	<0.001
6	86347	<5	<0.001
7	86348	<5	<0.001
8	86349	<5	<0.001
9	86350	<5	<0.001
10	34501	12	<0.001
11 Check	34501	15	<0.001
12	34502	28	<0.001
13	34503	<5	<0.001
14	34504	27	<0.001
15	34505	17	<0.001
16	34506	<5	<0.001
17	34507	34	<0.001
18	34508	<5	<0.001
19	34509	23	<0.001
20	34510	7	<0.001
21 Check	34510	6	<0.001
22	34511	7	<0.001
23	34512	<5	<0.001
24	34513	<5	<0.001
25	34514	<5	<0.001
26	34515	<5	<0.001
27	34516	<5	<0.001
28	34517	<5	<0.001
29	34518	<5	<0.001

Certified By: ____________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
30	34519	<5	<0.001
31 Check	34519	<5	<0.001
32	34520	<5	<0.001
33	34521	<5	<0.001
34	34522	<5	<0.001
35	34523	<5	<0.001
36	34524	<5	<0.001
37	34525	<5	<0.001
38	34526	<5	<0.001
39	34527	<5	<0.001
40	34528	42	0.001
41 Check	34528	40	0.001
42	34529	<5	<0.001
43	34530	<5	<0.001
44	34531	<5	<0.001
45	34532	<5	<0.001
46	34533	<5	<0.001
47	34534	<5	<0.001
48	34535	<5	<0.001
49	34536	<5	<0.001
50	34537	<5	<0.001
51 Check	34537	<5	<0.001
52	34538	<5	<0.001
53	34539	<5	<0.001
54	34540	<5	<0.001
55	34541	<5	<0.001
56	34542	<5	<0.001
57	34543	<5	<0.001
58	34544	<5	<0.001
59	34545	<5	<0.001

Certified By: ________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
60	34546	<5	<0.001
61 Check	34546	<5	<0.001
62	34547	<5	<0.001
63	34548	<5	<0.001
64	34549	<5	<0.001
65	34550	<5	<0.001
66	34651	<5	<0.001
67	34652	<5	<0.001
68	34653	<5	<0.001
69	34654	<5	<0.001
70	34655	<5	<0.001
71 Check	34655	<5	<0.001
72	34612	18	<0.001

Certified By: ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Iron ppm	Copper ppm	Zinc ppm	Silver ppm
1	86337			21	1
2	86338				<1
3	86342		1148	20	3
4	86345		805	19	2
5	86346				3
6	86347				1
7	86348				2
8	86349	>10,000			2
9	86350				1
10	34501				<1
11 Check	34501				1
12	34502				<1
13	34503				<1
14	34504				1
15	34505				2
16	34506				<1
17	34507				4
18	34508				<1
19	34509				1
20	34510				1
21 Check	34510				3
22	34511				1
23	34512				2
24	34513				<1
25	34514				1
26	34515				<1
27	34516				<1
28	34517				1
29	34518				<1

Certified By: ____________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Copper ppm	Nickel ppm	Silver ppm
30	34519			2
31 Check	34519			<1
32	34520			<1
33	34521			<1
34	34522			1
35	34523			<1
36	34524			1
37	34525			<1
38	34526			<1
39	34527			<1
40	34528			2
41 Check	34528			2
42	34529			<1
43	34530			<1
44	34531			<1
45	34532			<1
46	34533			1
47	34534			<1
48	34535			3
49	34536			<1
50	34537			<1
51 Check	34537			<1
52	34538			<1
53	34539			<1
54	34540			<1
55	34541			<1
56	34542			<1
57	34543			<1
58	34544			<1
59	34545			<1

Certified By: ________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

October 12, 1999

Job# 9941024

SAMPLE # Accurassay	Customer	Copper ppm	Nickel ppm	Silver ppm
60	34546			<1
61 Check	34546			<1
62	34547			<1
63	34548			<1
64	34549			1
65	34550			2
66	34651			2
67	34652			2
68	34653			1
69	34654			1
70	34655			1
71 Check	34655			<1
72	34612	794		1

Certified By: ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Oct 18, 1999

Job# 9941048

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	34656	<5	<0.001
2	34657	<5	<0.001
3	34658	<5	<0.001
4	34659	<5	<0.001
5	34660	<5	<0.001
6	34661	<5	<0.001
7	34662	<5	<0.001
8	34663	<5	<0.001
9	34664	<5	<0.001
10	34665	<5	<0.001
11 Check	34665	7	<0.001
12	34666	<5	<0.001
13	34667	<5	<0.001
14	34668	<5	<0.001
15	34669	<5	<0.001
16	34670	<5	<0.001
17	34671	42	0.001
18	34672	<5	<0.001
19	34673	<5	<0.001
20	34674	9	<0.001
21 Check	34674	11	<0.001
22	34675	5	<0.001
23	34676	11	<0.001
24	34677	12	<0.001
25	34678	25	<0.001
26	34679	15	<0.001
27	34680	9	<0.001
28	34681	6	<0.001
29	34682	50	0.001

Certified By: ________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Oct 18, 1999

Job# 9941048

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
30	34683	<5	<0.001
31 Check	34683	<5	<0.001
32	34684	7	<0.001
33	34685	6	<0.001
34	34686	11	<0.001

Certified By: ____________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Oct 18, 1999

Job# 9941048

SAMPLE # Accurassay	SAMPLE # Customer	Copper ppm	Zinc ppm	Silver ppm
1	34656			<1
2	34657			<1
3	34658			<1
4	34659	173	19	<1
5	34660			<1
6	34661	257	30	<1
7	34662	269	19	<1
8	34663			<1
9	34664			<1
10	34665	741	20	<1
11 Check	34665	726	19	<1
12	34666			<1
13	34667	518	427	<1
14	34668	62	455	<1
15	34669	316	39	<1
16	34670	135	24	<1
17	34671	704	1939	<1
18	34672	237	23	<1
19	34673	106	41	2
20	34674	1006	15	<1
21 Check	34674	945	15	<1
22	34675	507	12	<1
23	34676	951	17	<1
24	34677	709	16	<1
25	34678	598	508	<1
26	34679	4533	2497	<1
27	34680	666	1485	<1
28	34681			<1
29	34682	1942	3412	1

Certified By: ____________

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Oct 18, 1999

Job# 9941048

SAMPLE # Accurassay	Customer	Copper ppm	Zinc ppm	Silver ppm
30	34683			<1
31 Check	34683			<1
32	34684		289	<1
33	34685			<1
34	34686			<1

Certified By:

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Nov 25, 1999

Job# 9941173

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	34687	8	<0.001
2	34688	24	<0.001
3	34689	57	0.002
4	34690	30	<0.001
5	34691	24	<0.001
6	34692	11	<0.001
7	34693	36	0.001
8	34694	58	0.002
9	197405	134	0.004
10 Check	197405	121	0.004

Certified By: [signature]

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Nov 25, 1999

Job# 9941173

SAMPLE # Accurassay	Customer	Lead ppm	Copper ppm	Zinc ppm	Silver ppm
1	34687		1096	1922	
2	34688		552	3754	2
3	34689		646	4625	
4	34690		1576	990	
5	34691		1303	2526	2
6	34692		298	98	
7	34693		670	1414	1
8	34694		2147	1222	
9	197405	<1	2542	4186	3

Certified By: [signature]

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Lloyd Halverson
P.O. Box 99
530 Superior St.
White River, Ontario
P0M 3G0
Fax (807) 767-1528

Nov 25, 1999

Job# 9941173

SAMPLE #		Zinc
Accurassay	Customer	ppm
1	34687	0.22%
2	34688	0.44%
3	34689	0.54%
4	34690	0.12%
5	34691	0.30%
6	34692	0.01%
7	34693	0.17%
8	34694	0.14%
9	197405	0.52%

Certified By: ____________

Appendix 6 Main Zone/Outcrop No. 7 Channels

ACCURASSAY LABORATORIES
A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Corona Gold Corporation
2200 Yonge St., Suite 905
Toronto, Ontario
M4S 2C6

Nov 29, 1999

Job# 9941184
Pro: SDA

Full Assay's (2.5g)

SAMPLE # Accurassay	Customer	Lead %	Copper %	Zinc %	Silver ppm
1	49851	<0.001	0.057	0.070	<1
1 Check	49851	<0.001	0.060	0.064	<1
1 Check	49851	<0.001	0.075	0.058	<1
2	49852	<0.001	0.089	0.023	<1
2 Check	49852	<0.001	0.093	0.025	<1
2 Check	49852	<0.001	0.094	0.017	<1
3	49853	<0.001	0.048	0.123	<1
3 Check	49853	<0.001	0.049	0.129	<1
3 Check	49853	<0.001	0.051	0.125	2
4	49854	<0.001	0.069	0.058	1
4 Check	49854	<0.001	0.067	0.061	2
4 Check	49854	<0.001	0.068	0.064	3
5	49855	<0.001	0.089	0.305	4
5 Check	49855	<0.001	0.130	0.286	4
5 Check	49855	<0.001	0.127	0.262	5
6	49856	<0.001	0.027	0.093	3
6 Check	49856	<0.001	0.026	0.106	3
6 Check	49856	<0.001	0.017	0.072	5
7	49857	<0.001	0.124	0.178	4
7 Check	49857	<0.001	0.094	0.153	5
7 Check	49857	<0.001	0.122	0.131	4
8	49858	<0.001	0.004	0.048	4
8 Check	49858	<0.001	0.004	0.053	4
8 Check	49858	<0.001	0.004	0.056	4
9	49859	<0.001	0.004	0.053	5
10	49860	<0.001	0.003	0.036	4
11	49861	<0.001	0.113	0.331	6
12	49862	<0.001	0.007	0.002	6
13	49863	<0.001	0.408	0.007	8
14	49864	<0.001	0.006	0.002	10
15	49865	<0.001	0.006	0.003	6
16	49866	<0.001	0.035	0.001	8
17	49853 B	<0.001	0.034	0.311	9
18 Check	49853 B	<0.001	0.032	0.312	9

Certified By: ____________

ACCURASSAY LABORATORIES

A DIVISION OF ASSAY LABORATORY SERVICES INC.

1070 LITHIUM DRIVE, UNIT 2
THUNDER BAY, ONTARIO P7B 6G3
PHONE (807) 623-6448
FAX (807) 623-6820

Corona Gold Corporation
2200 Yonge St., Suite 905
Toronto, Ontario
M4S 2C6

Nov 29, 1999

Job# 9941184
Pro: SDA

SAMPLE # Accurassay	Customer	Gold ppb	Gold Oz/t
1	49851	20	<0.001
2	49852	12	<0.001
3	49853	27	<0.001
4	49854	6	<0.001
5	49855	<5	<0.001
6	49856	<5	<0.001
7	49857	17	<0.001
8	49858	10	<0.001
9	49859	<5	<0.001
10	49860	<5	<0.001
11 Check	49860	6	<0.001
12	49861	8	<0.001
13	49862	<5	<0.001
14	49863	19	<0.001
15	49864	11	<0.001
16	49865	31	<0.001
17	49866	87	0.003

Certified By: [signature]

Appendix 7 Petrographic Analysis (Main Zone/Outcrop No. 7)

Mr. Abraham P. Drost
SDA Geological Services Ltd
215 Van Norman Street
Thunder Bay, ON P7A 4B6

THIN SECTION
PETROGRAPHIC/MINERALOGICAL DESCRIPTION

 # 49853 The sample represents a friable material, partly disintegrated. The macroscopic color is dark brown, characteristic of "limonitization" processes. Microscopic examination shows that the rock consists of altered iron-sulfide ore. The sample is composed of pyrrhotite fragments from 50 μm to 2 mm across (33 vol.%) in a mesostasis of pyrite (ca. 25 vol.%) and limonite (ca. 10 vol.%) (Fig. 1). Non-opaque material (32 vol.%) is represented by rounded grains of quartz and anhedral-to-subhedral crystals of silicate minerals, *i.e.* muscovite, plagioclase (~An_{21-27}) and chlorite of pycnochloritic composition. The chlorite is typically developed at the contact between quartz and pyrite.

The pyrrhotite fragments clearly represent fragments of the early sulfide paragenesis. Pyrite is developed as rims on pyrrhotite with a characteristic colloform (botryoidal) texture (Fig. 2-3). The mineral is further replaced by limonite, hence the macroscopic color of the sample. Locally, the pyrite-limonite aggregate encloses anhedral crystals of ferrous sphalerite up to 100 μm across (Fig. 4). Sphalerite also occurs as anhedral interstitial grains in the quartz-silicate segregations. Chalcopyrite is very rare and occurs in the same assemblage as sphalerite. The high Fe contents in the examined sphalerite clearly indicate that this mineral crystallized at relatively high temperatures and, therefore, cannot be a part of the late alteration assemblage. The pyrrhotite, sphalerite, and chalcopyrite probably crystallized simultaneously, during the same hydrothermal event.

The sample also contains numerous grains of relatively late-stage rare-earth-bearing minerals, predominantly bastnäsite (*REE*CO_3F) and monazite (*REE*PO_4). These are developed interstitially, and tend to occur in the vicinity of quartz.

Dr. A.R.Chakhmouradian

Lakehead University Centre for
Analytical Services
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1

Fig 1. Pyrrhotite (light gray) replaced by pyrite and limonite (gray). Black - quartz and silicates. FOW ~ 1m

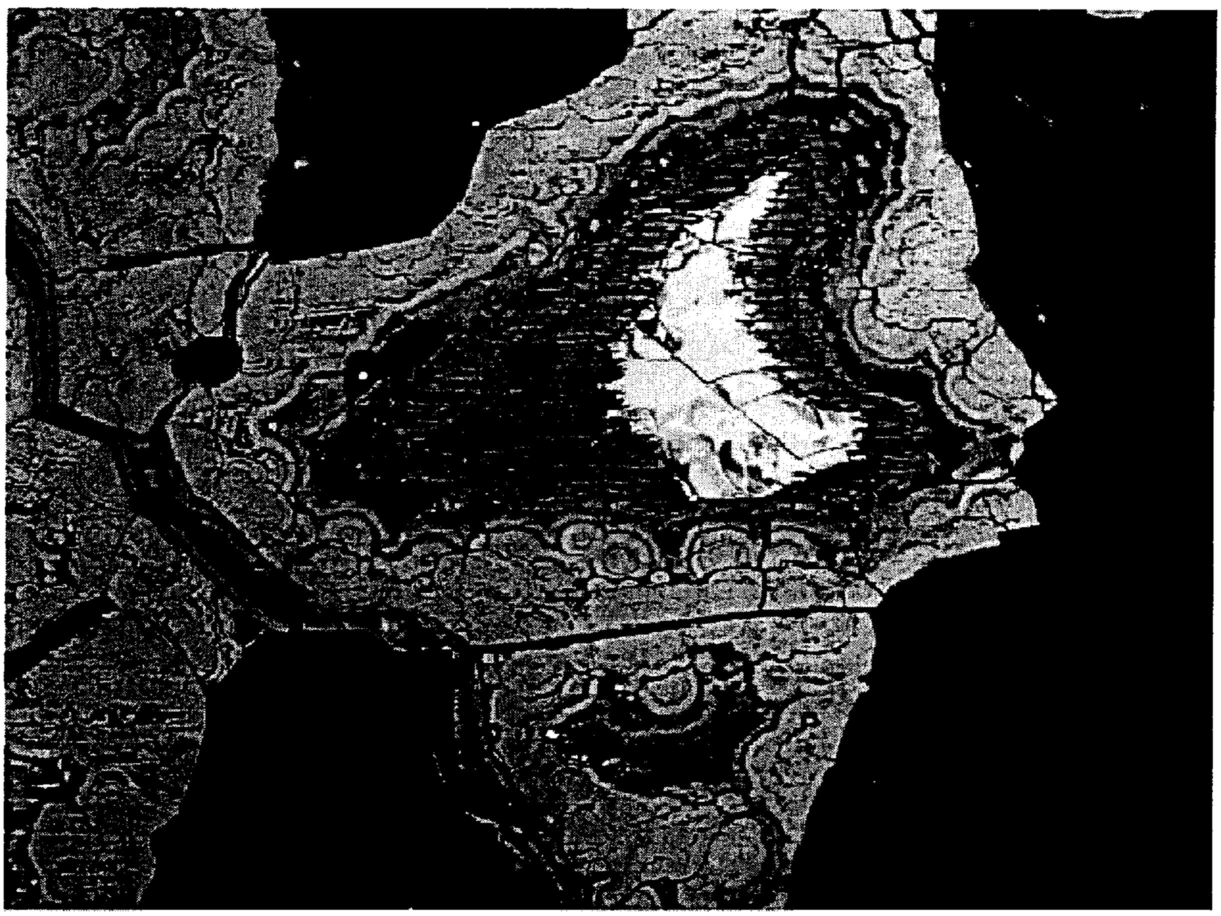


Fig.2. Fragment of pyrrhotite (white) replaced by pyrite (gray). Black - quartz. FOW ~ 300 μm.

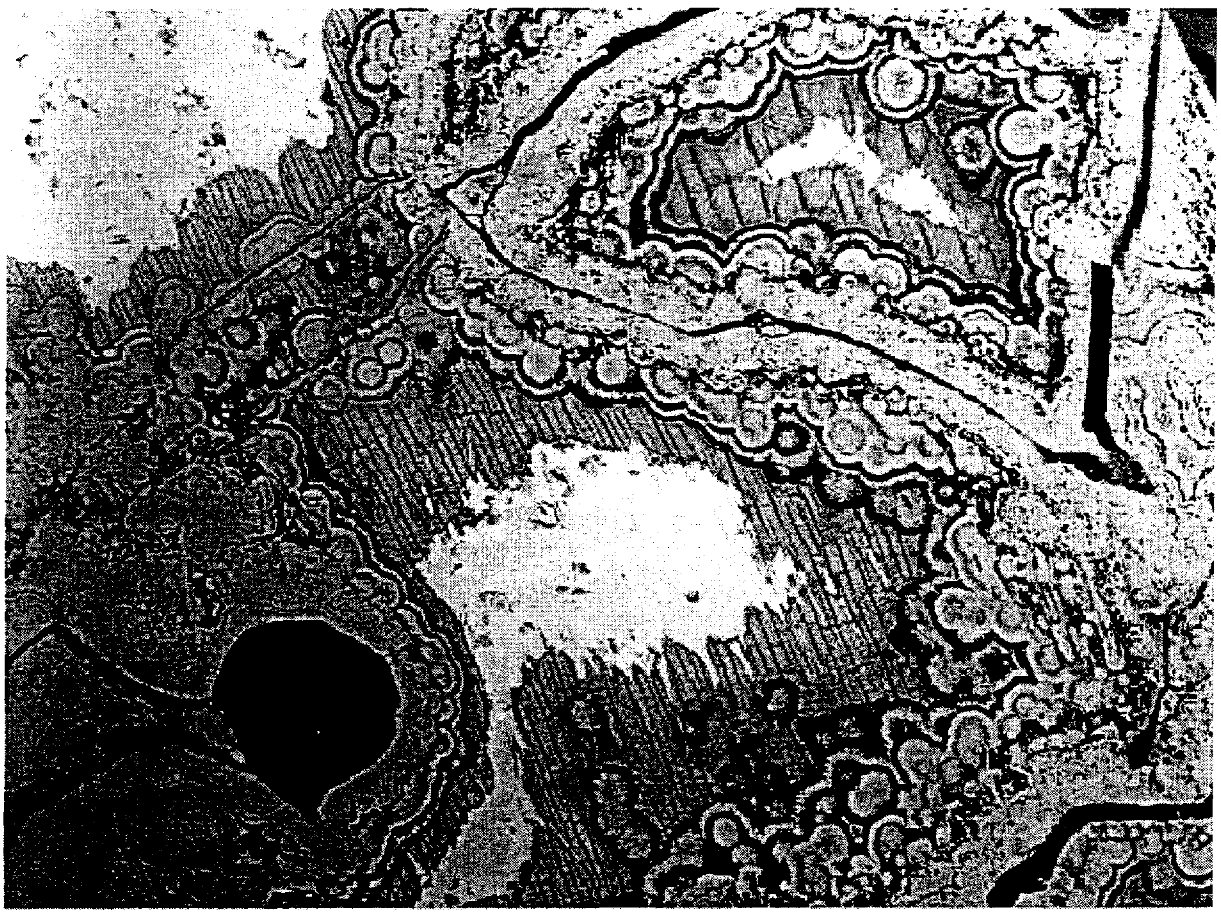


Fig. 3. Fragment of pyrrhotite (white) replaced by pyrite (gray). Black rounded grain – quartz. FOW ~ 300 μm.

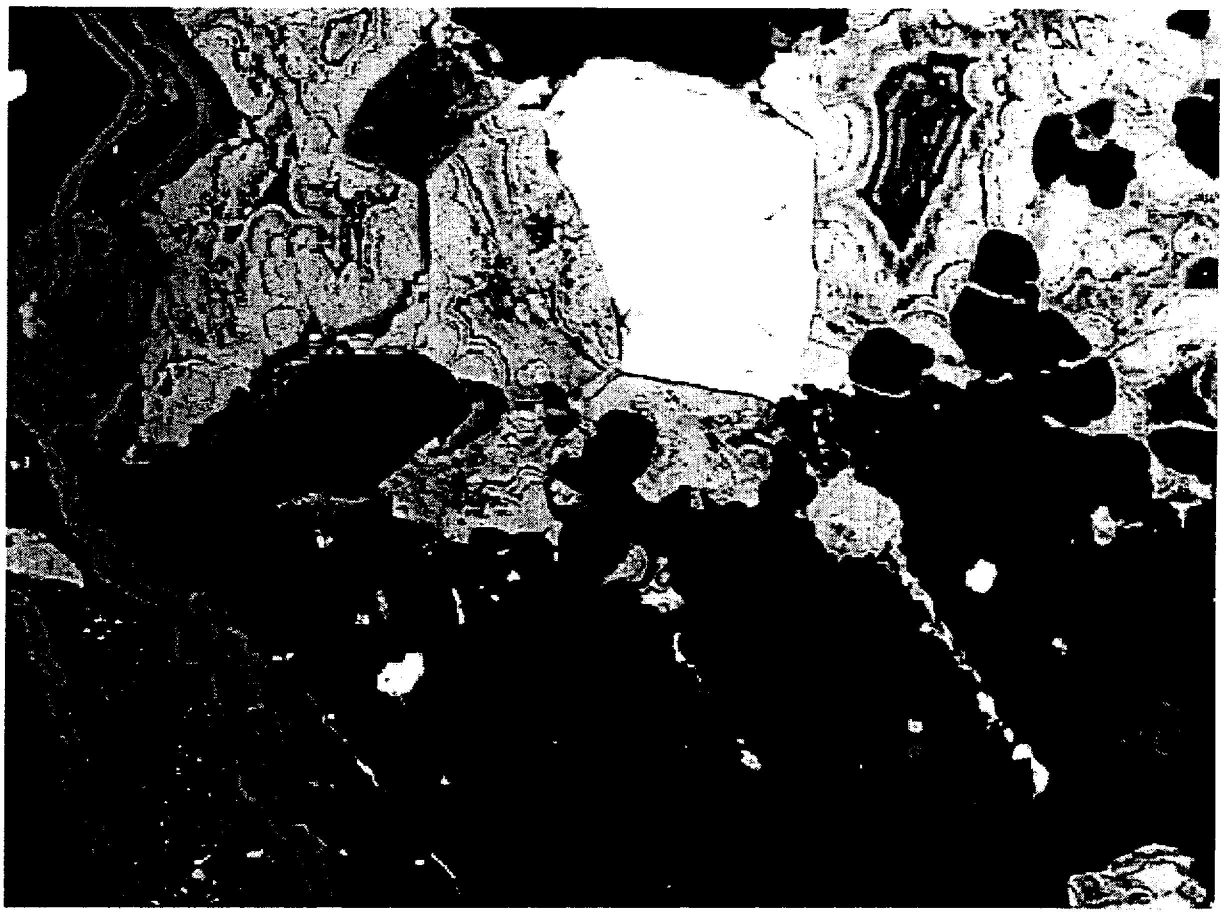


Fig. 4. Crystal of sphalerite embedded on pyrite (white and gray, respectively). Black - quart and silicates. FOW ~ 200 μm.

APPENDIX 18 MINING GEOLOGY after McKINSTRY, 1948

[illegible] of physical Geology. Arthur [illegible].
crustal rocks known by the mneimonic
term (Sial) meaning Light

MINING GEOLOGY

by

Hugh Exton McKinstry

Professor of Geology, Harvard University

with sections by

Stanley A. Tyler

Professor of Geology, University of Wisconsin

and by

E. N. Pennebaker

Consulting Geologist, Consolidated Coppermines Corporation

and

Kenyon E. Richard

Geologist, American Smelting and Refining Company

Englewood Cliffs, N. J.

PRENTICE-HALL, INC.

Zinc

Zinc is one of the most soluble of the common metals. Even though its carbonate and silicate are quite stable, its sulphate is so soluble that oxidized zinc minerals rarely if ever appear at the surface; only in carbonate rocks do they form in any quantity and then usually at considerable depth in the zone of oxidation or even below it. Therefore, absence of zinc in the gossan does not indicate its absence in the sulphide ore; in fact, if lead is present in the gossan, zinc may normally be expected at depth.

In some districts the lead-zinc-silver ratio in the sulphide ore is reasonably constant from one orebody to another, so that composition of the gossan can serve as the basis for a rough estimate of the metal content of the sulphides. Such a calculation is based on the assumption that the quantity of lead and also of silica in a cubic foot of sulphide ore is the same as in a cubic foot of leached ore. The lead is recalculated as galena, sphalerite is added in accordance with the lead-zinc ratio of the district, iron is calculated as pyrite, and soluble components (characteristically calcite or dolomite) added to make up the necessary volume. It is necessary of course to make appropriate allowance for migration of iron and for compaction of the gossan and slumping of walls in accordance with local conditions. Naturally, no great precision can be claimed for such an estimate, but it may be helpful in arriving at a decision as to whether or not a lead-bearing outcrop is worth developing.

The former presence of lead and zinc sulphides is often attested by residual types of "limonite,"[24] in spite of the fact that galena and sphalerite (if in its pure form) contain no iron and therefore do not in themselves produce "limonite," and that in inert gangue (*e.g.*, quartz) sphalerite leaves clean voids and galena leaves cavities containing cerussite and other oxidized lead minerals. But when the gangue is moderately reactive, iron derived from pyrite, which is usually present, deposits as limonite in the spaces formerly occupied by the sulphides. Boswell and Blanchard[25] believe that the limonite is not deposited until the sulphides have been completely oxidized and that it therefore replaces metallic carbonates (and lead sulphate) rather than the sulphides themselves. Nevertheless, enough of the original texture of the sulphide is often inherited to influence the texture of the limonite. Characteristics

[24] For the connotation of limonite see footnote 55, p. 261.

[25] Boswell, P. F., and Blanchard, Roland, Oxidation products derived from sphalerite and galena: *Econ. Geol.*, vol. 22, 1927, p. 419.

Boswell, P. F., and Blanchard, Roland, Cellular structure in limonite: *Econ. Geol.*, vol. 24, 1929, p. 791–796.

of the boxworks derived from each of the sulphides will be found in a later section.

Copper

Copper is readily leached. Where pyrite is available to furnish abundant sulphuric acid, and where the gangue or wall-rock is not too strong a neutralizer, most of the copper is removed. Nevertheless, traces usually remain. Locke[26] finds that in croppings overlying disseminated copper bodies "if [no copper] occurs in the capping, experience suggests that none existed in the sulphide from which it was derived." This does not mean that copper occurs in every hand specimen, but that out of several specimens there is usually one that shows at least a trace. Where the rock contains a mineral that can neutralize sulphuric acid, as, for example, a carbonate gangue or a limestone wall-rock, copper may survive at shallow depth in the form of malachite with subordinate azurite and chrysacolla. It is well known that spectacular copper showings in limestone may give an exaggerated impression of the amount of copper below, and that limestone wall-rocks and carbonate gangue are not favorable to supergene sulphide enrichment.

For judging the outcrops of copper deposits of the "porphyry" type, Locke and his associates have worked out a technique based on their study of thousands of samples from oxidized croppings derived from ore of known composition. The technique, as originally developed, was not intended to apply to aggregated ores (massive sulphides) since they oxidize with widespread migration of iron and usually with important change of volume, forming a gossan that may bear little textural relation to the original sulphides. But disseminated ores, defined as those which contain not more than 20% of sulphide, oxidize with little change of aggregate volume and their textures retain evidence which is helpful in reconstructing the mineralogy of the now-departed sulphides.

The aim of the croppings technique is to distinguish between croppings derived from the oxidation of copper ore and croppings derived from the oxidation of pyritic waste, thereby outlining the most promising areas for later exploration by drilling or other means. Such a distinction calls for an estimate of the approximate percentage of copper that the material contained before it experienced oxidation, an estimate which involves (1) the percentage of total sulphides and (2) the ratio of copper-bearing sulphide to total sulphide—usually, in practice, the relative quantities of pyrite and chalcocite.

[26] Locke, Augustus, *Leached Outcrops as Guides to Copper Ore*, p. 87. Baltimore: Williams and Wilkins Co., 1926, p. 87.

APPENDIX 9 Data, Statistics on Geco

MINING ACTIVITY

Geco Division (Noranda Incorporated)

Production from Geco Division Mine, Manitouwadge from January 1987 until October 31, 1987, included milling of 1 172 083 tons (short) at a grade of 1.75 percent copper, 4.92 percent zinc, and 1.77 ounces silver per ton.

Reserve estimates as of December 31st, 1987 are listed below.

	Tons	Cu (%)	Zn (%)	Ag (oz/t)
Main Orebody				
Proven	9 952 332	2.03	3.65	1.49
8-2 (Zinc)				
Proven	104 601	0.19	7.75	1.37
Possible	432 318	0.15	6.89	1.58
4-2 (Copper)				
Proven and possible	2 183 180	2.51	0.80	0.81
Zinc in Iron Formation	278 352	0.05	8.06	1.44

(T. Madill, Geologist, Geco Division, Manitouwadge, personal communication, 1987)

from: Franklin, J.M., Lydon, J.W. + Sangster, D.F., 1981
Economic Geology
75th Anniv. Volume

sericite schist 5-10m wide at surface.

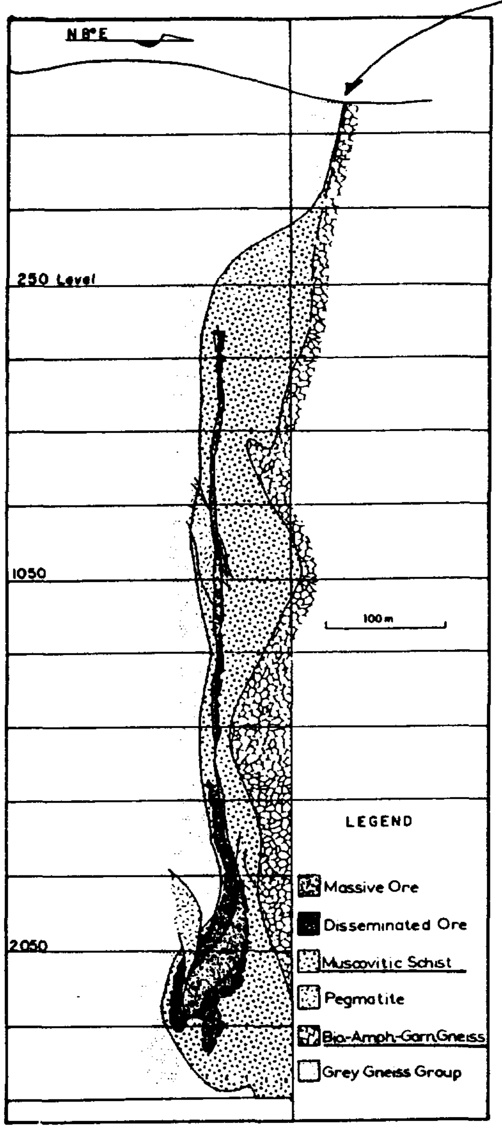


FIG. 10. Cross section of the Geco mine, Manitouwadge district, Ontario; abbreviations as in Figure 9. (After Milne, V., written commun., 1969.)

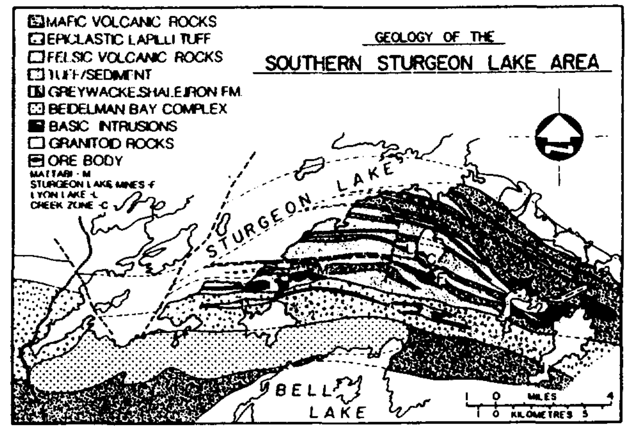


FIG. 11. Geologic map of the southern Sturgeon Lake area, Ontario; the sequence is homoclinal to the north. (After Franklin et al., 1977.)

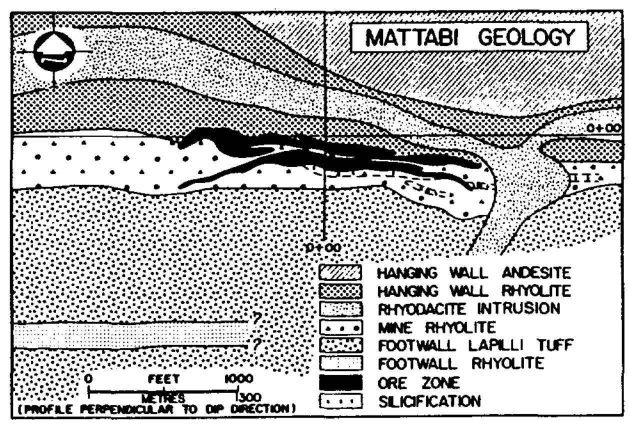


FIG. 12. Map of the Mattabi mine, Sturgeon Lake area, Ontario. (After Franklin et al., 1977.)

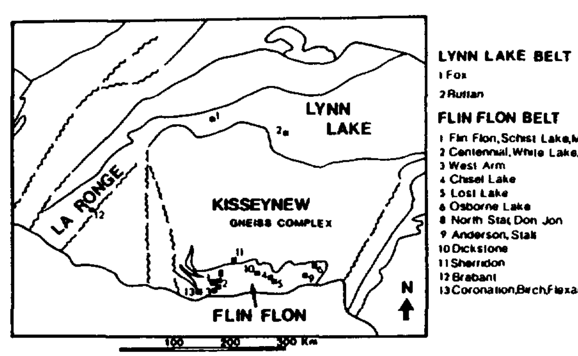


FIG. 13. Location of principal middle Precambrian volcanic belts in northwestern Manitoba, showing the locations of massive sulfide deposits (H. Zwanzig, pers. commun.).

northern Wisconsin and Jerome, Arizona, but quite different from those of the Fennoscandian Shield. The first three districts are dominated by volcanic rocks, whereas the fourth has a smaller volcanic component and contains a large amount of highly metamorphosed sedimentary rocks.

Churchill province: The Churchill province (Fig. 2) was metamorphosed and deformed during the Hudsonian orogeny (1,850 m.y.; Stockwell, 1972). It contains both Archean and Proterozoic volcanic belts, but only a few massive sulfide occurrences have been described in the former. The Proterozoic greenstone area consists of three belts, the Flin Flon–Snow Lake, Lynn Lake–Rusty Lake, and LaRonge belts (Fig. 13). Although massive sulfide deposits occur in all three, the LaRonge belt has only a few potentially productive occurrences. The Flin Flon–Snow Lake belt contains at least 26 deposits, the largest of which, the Flin Flon mine, contained over 60 million metric tons. The Lynn Lake–Rusty Lake belt contains fewer occurrences and only two producers, the Fox Lake (12 million metric tons) and Ruttan (60 million metric tons).

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W0050.00069

Assessment Files Research Imaging

...y of subsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, ...he assessment work and correspond with the mining land holder. Questions about this ...f Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury.

* final revised *

42C15SE2002 2.20513 NAMEIGOS 900

...recording a claim, use form 0240.

...Please type or print...

1. Recorded holder(s) (Attach a list if necessary)

Name: Lloyd J HALVERSON	Client Number: 140913
Address: 530 SUPERIOR ST. Box 99,	Telephone Number: 807-822-2352
WHITE RIVER ONT. P0M 3G0	Fax Number: 807-822-1862
Name: WILLIAM L. COX	Client Number: 121969
Address: 13 QUEEN ST. APT. 3 BOX 1723,	Telephone Number: 705-864-0167
CHAPLEAU, ONT. P0M 1K0	Fax Number:

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

X Geotechnical: prospecting, surveys, assays and work under section 18 (regs) — Physical: drilling stripping, trenching and associated assays — Rehabilitation

Work Type: PROSPECTING, ASSAYS	Office Use
	Commodity
	Total $ Value of Work Claimed: $7,377
Dates Work Performed From: 27 Day 07 Month 1999 Year To: 26 Day 11 Month 1999 Year	NTS Reference
Global Positioning System Data (if available): LONG: 84 39' 000 LAT: 48 46' 500 — Township/Area: NAMEIGOS; M or G-Plan Number: G-2283	Mining Division: Sault Ste. Marie
	Resident Geologist District: Timmins

Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

2.20513

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: ABRAHAM DROST, SDA GEOLOGICAL SERVICE LTD.	Telephone Number: (807) 345-3330
Address: 215 VAN NORMAN ST. THUNDER BAY ONT. P7A 4E6	Fax Number: (807) 345-1177
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, Lloyd HALVERSON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [signature]		Date: Aug 25/00
Agent's Address: 530 SUPERIOR ST. WHITE RIVER ONT. P0M 3G0	Telephone Number: 807-822-2352	Fax Number: 807-822-1862

0241 (03/97)

RECEIVED AUG 29 2000 GEOSCIENCE ASSESSMENT OFFICE

AUG 29 '00 10:10 PAGE.02

I, Lloyd HALVERSON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [signature]		Date: Aug. 24/00
Agent's Address: 530 SUPERIOR ST. WHITE RIVER ONT. P0M 3G0	Telephone Number: 807-822-2352	Fax Number: 807-822-1862

0241 (03/97)

RECEIVED AUG 29 2000

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

600052 . 600069

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of work to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1218139	12	$7377.30	$4800.00		$2577.30
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
	Column Totals					

2.20513

I, Lloyd J Halverson (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
Lloyd Halverson	Aug. 24/00

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

RECEIVED
AUG 29 2000
GEOSCIENCE ASSESSMENT OFFICE

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use) W0050.00009

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
PROSPECTING	19 DAYS	$150.00/DAY	$2850.00
ASSAYS	55 SAMPLES	$19.37/sample	$1065.35
Associated Costs (e.g. supplies, mobilization and demobilization).			
CHANTREK (RIBBONS, BAGS etc)			$235.45
TECHNICAL REPORTS			1200.00
DIGITIZING, COMPILATION, MAPPING			418.62
2.20518			
Transportation Costs			
ROAD (3293 Kms)		.30/Km	$987.90
Food and Lodging Costs			
19 DAYS		$30.00/DAY	$570.00
		Total Value of Assessment Work	$7377.30

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total $ value of worked claimed.

Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, LLOYD HALVERSON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as RECORDED CLAIM HOLDER 34 % (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature: Lloyd Halverson Date: Aug-24/00

0212 (03/97)

RECEIVED
AUG 29 2000
GEOSCIENCE ASSESSMENT OFFICE

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use): W0050.00070

Assessment Files Research Imaging

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assesmant work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

* final revised *

Instructions: - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name: LLOYD J. HALVERSON	Client Number: 140913
Address: 530 SUPERIOR ST. BOX 99,	Telephone Number: 807-822-2352.
WHITE RIVER ONT. POM 3G0	Fax Number: 807-822-1862
Name: WILLIAM L. COX	Client Number: 121969
Address: 13 QUEEN ST. APT. 3, BOX 1723	Telephone Number: 705-864-0167
CHAPLEAU, ONT. POM 1KO	Fax Number:

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) | X Physical: drilling stripping, trenching and associated assays | Rehabilitation

Work Type: STRIPPING. TRENCHING. ASSAYS.	**Office Use**
	Commodity
	Total $ Value of Work Claimed: 9.426
Dates Work Performed: From Day 27 Month 07 Year 1999 To Day 26 Month 11 Year 1999	NTS Reference
Global Positioning System Data (if available): Long. 84° 39', 000 LAT: 45° 46' 500 / Township/Area: NAMEGOS	Mining Division: Sault Ste. Marie
M or G-Plan Number: G-2283	Resident Geologist District: Timmins

2.20514

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: ABRAHAM DROST, SDA GEOLOGICAL SERVICES LTD	Telephone Number: (807) 345-3330
Address: 215 VAN NORMAN ST. THUNDER BAY, ONT. P7A-4B6	Fax Number: (807) 345-1177
Name:	Telephone Number:
Address:	Fax Number:
Name:	Telephone Number:
Address:	Fax Number:

4. Certification by Recorded Holder or Agent

I, LLOYD HALVERSON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [signature]	Date: Aug 25/00
Agent's Address: 530 SUPERIOR ST. WHITE RIVER ONT POM 3G0	Telephone Number: 807-822-2352 / Fax Number: 807-822-1862

0241 (03/97)

RECEIVED AUG 29 2000 GEOSCIENCE ASSESSMENT OFFICE

AUG 29 '00 10:09 PAGE.01

4. Certification by Recorded Holder or Agent

I, LLOYD HALVERSON (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [signature]	Date: Aug. 24/00
Agent's Address: 530 SUPERIOR ST. WHITE RIVER ONT POM 3G0	Telephone Number: 807-822-2352 / Fax Number: 807-822-1862

0241 (03/97)

RECEIVED AUG 29 2000 GEOSCIENCE ASSESSMENT OFFICE

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W0050.00070

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of work to be distributed at a future date
eg	TB 7827	16 ha	$26,825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8,892	$ 4,000	0	$4,892
1	1218138	16	$9426.36	$6,400.00		$3,026.36
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12					2.20514	
13						
14						
15						
	Column Totals					

I, Lloyd J. Halverson (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
[signature]	Aug. 24/00

6. Instruction for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

RECEIVED
AUG 28 2000
GEOSCIENCE ASSESSMENT OFFICE

Ontario | Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W0050.00070

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
STRIPPING	12 DAYS	$150.00/DAY	$1800.00
TRENCHING	17 DAYS	$150.00/DAY	$2550.00
ASSAYS	93 SAMPLES	$19.37/SAMPLE	$1801.41
		2.205	14
Associated Costs (e.g. supplies, mobilization and demobilization).			
DYNAMITE/FUSES/CAPS			$656.98
WASH-UP RENTAL			240.75
Transportation Costs			
ROAD (5,027 Kms.)		.30/Km	$1507.97
Food and Lodging Costs			
29 DAYS.		$30.00/DAY	870.00
		Total Value of Assessment Work	$9426.36

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, LLOYD HALVERSON (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as RECORDED CLAIM HOLDER 34% (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

RECEIVED
AUG 29 2000
GEOSCIENCE ASSESSMENT OFFICE

Signature | Date

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

November 30, 2000

LLOYD JOSEPH HALVERSON
530 SUPERIOR ST.
WHITE RIVER, Ontario
P0M-3G0

Submission Number: 2.20513

Dear Sir or Madam:

Subject: Transaction Number(s):		**Status**
	W0050.00069	Approval After Notice
	W0050.00070	Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact BRUCE GATES by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

Lucille Jerome

ORIGINAL SIGNED BY
Lucille Jerome
Acting Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 15459
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.20513

Date Correspondence Sent: November 30, 2000 **Assessor:** BRUCE GATES

General Comment:

NOTE: Transaction W0050.00070 has been amalgamated to Submission # 2.20513 as only 1 duplicate set of reports has been submitted to address the deficiencies.

As a result of the centralization of assessment work, on future submissions you may report both physical and geotechnical (prospecting) work together on only one form.

Duplicate copies of the Declaration of Assessment Work forms are no longer required.

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0050.00069	1218139	NAMEIGOS	Approval After Notice	November 30, 2000

Section:
9 Prospecting PROSP

The revisions outlined in the Notice dated November 4, 2000 have been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission.

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0050.00070	1218138	NAMEIGOS	Approval After Notice	November 30, 2000

Section:
10 Physical PSTRIP
10 Physical PTRNCH

The revisions outlined in the Notice dated November 4, 2000 have been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission.

Work Report Assessment Results

Submission Number: 2.20513

Correspondence to:
Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
LLOYD JOSEPH HALVERSON
WHITE RIVER, Ontario

WILLIAM LAWRENCE COX
CHAPLEAU, Ontario

JOHN EDWARD TERNOWESKY
THUNDER BAY, ONTARIO

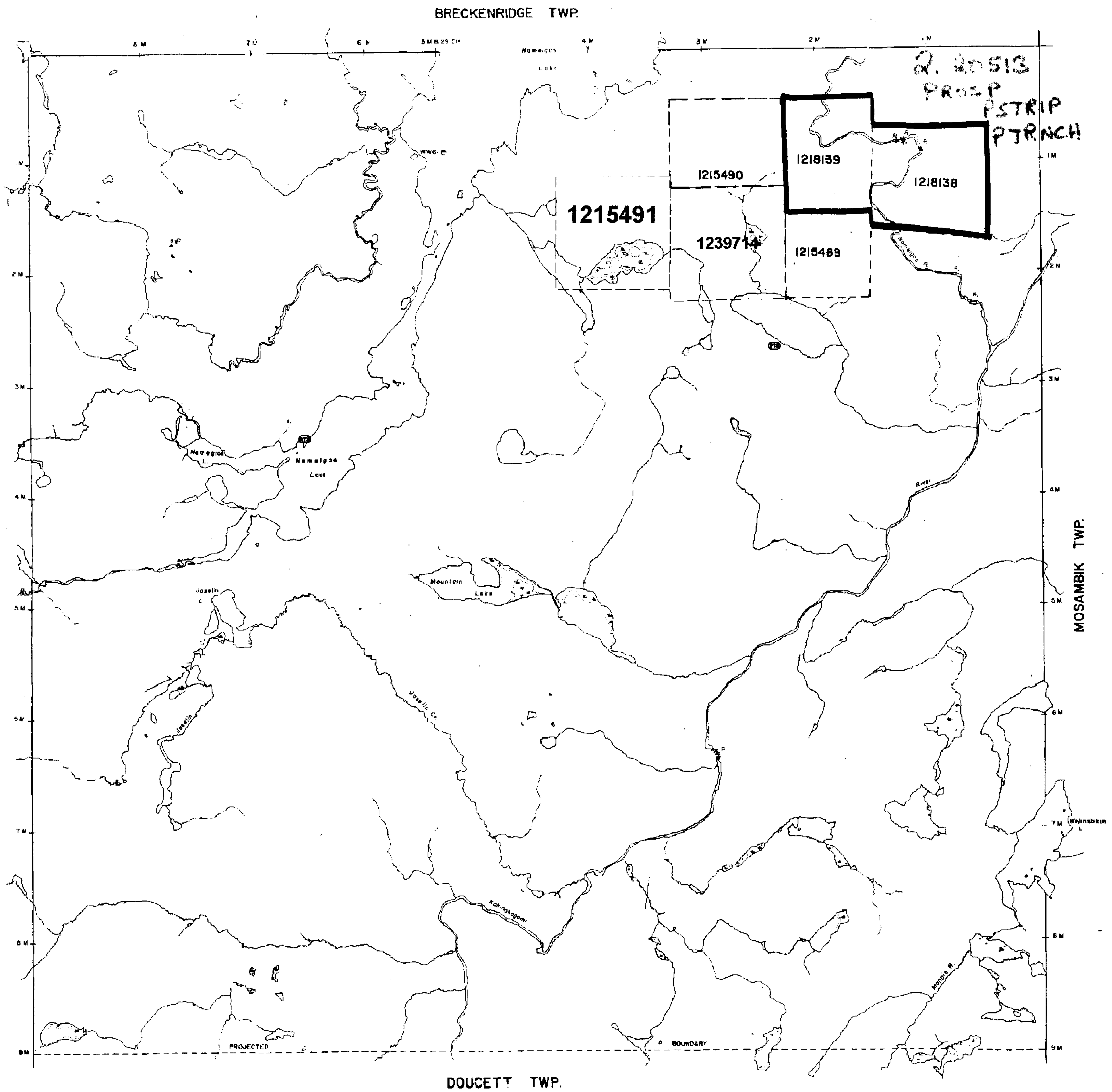
Correspondence ID: 15459

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File



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.

42C15SE2002 2.20513 NAMEIGOS 200

REFERENCES

The 19 83 Magnetic Bearing Approx. 7° W Annual Change Increasing 10'

LEGEND

- HIGHWAY AND ROUTE No
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC
  - LOTS, MINING CLAIMS, PARCELS, ETC
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT
- LAND USE PERMIT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
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	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	◐

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP
NAMEIGOS

M.N.R. ADMINISTRATIVE DISTRICT
WAWA

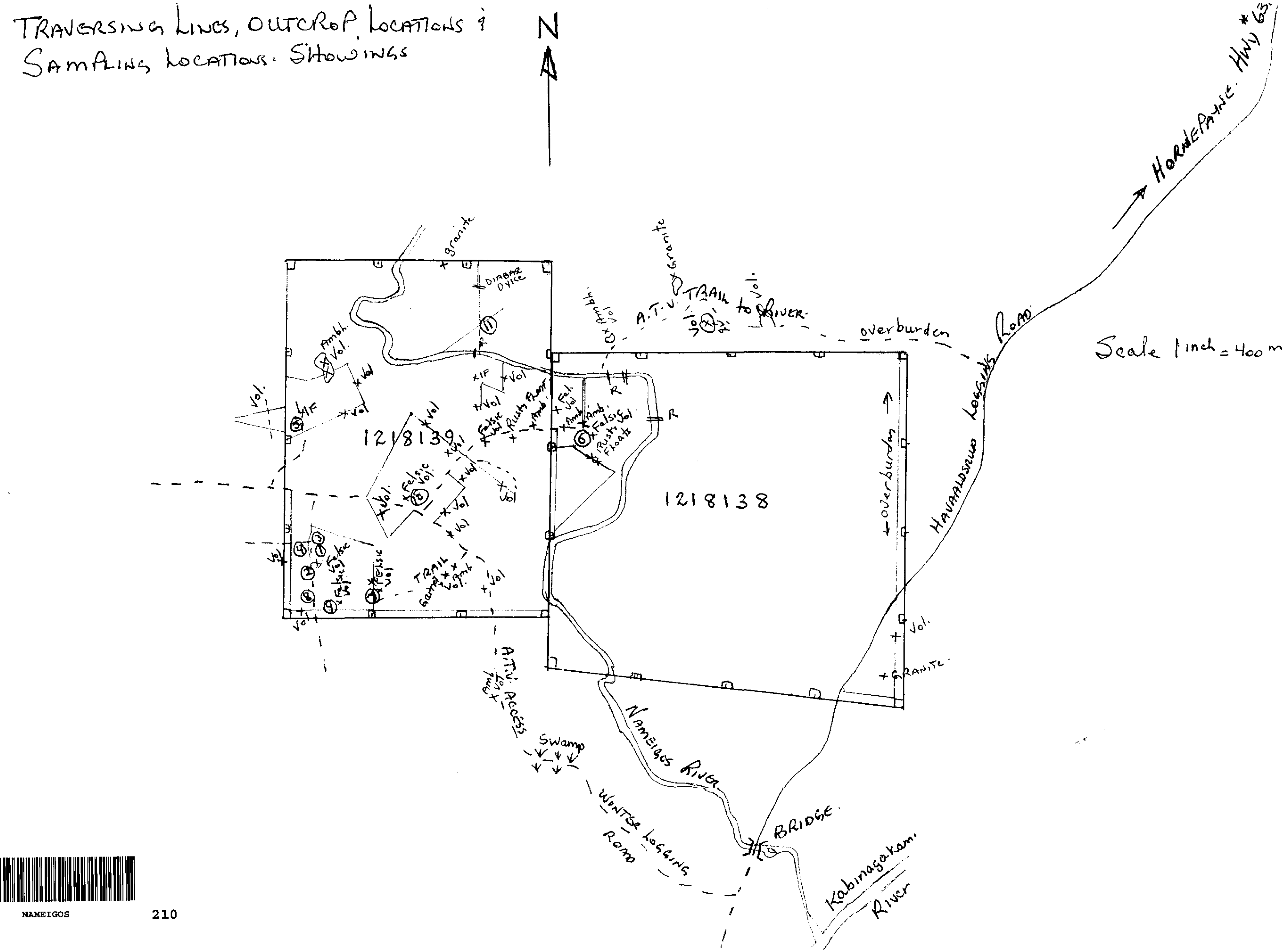
MINING DIVISION
SAULT STE. MARIE

LAND TITLES / REGISTRY DIVISION
ALGOMA

Ministry of Natural Resources
Ontario
Land Management Branch

Date DECEMBER, 1982

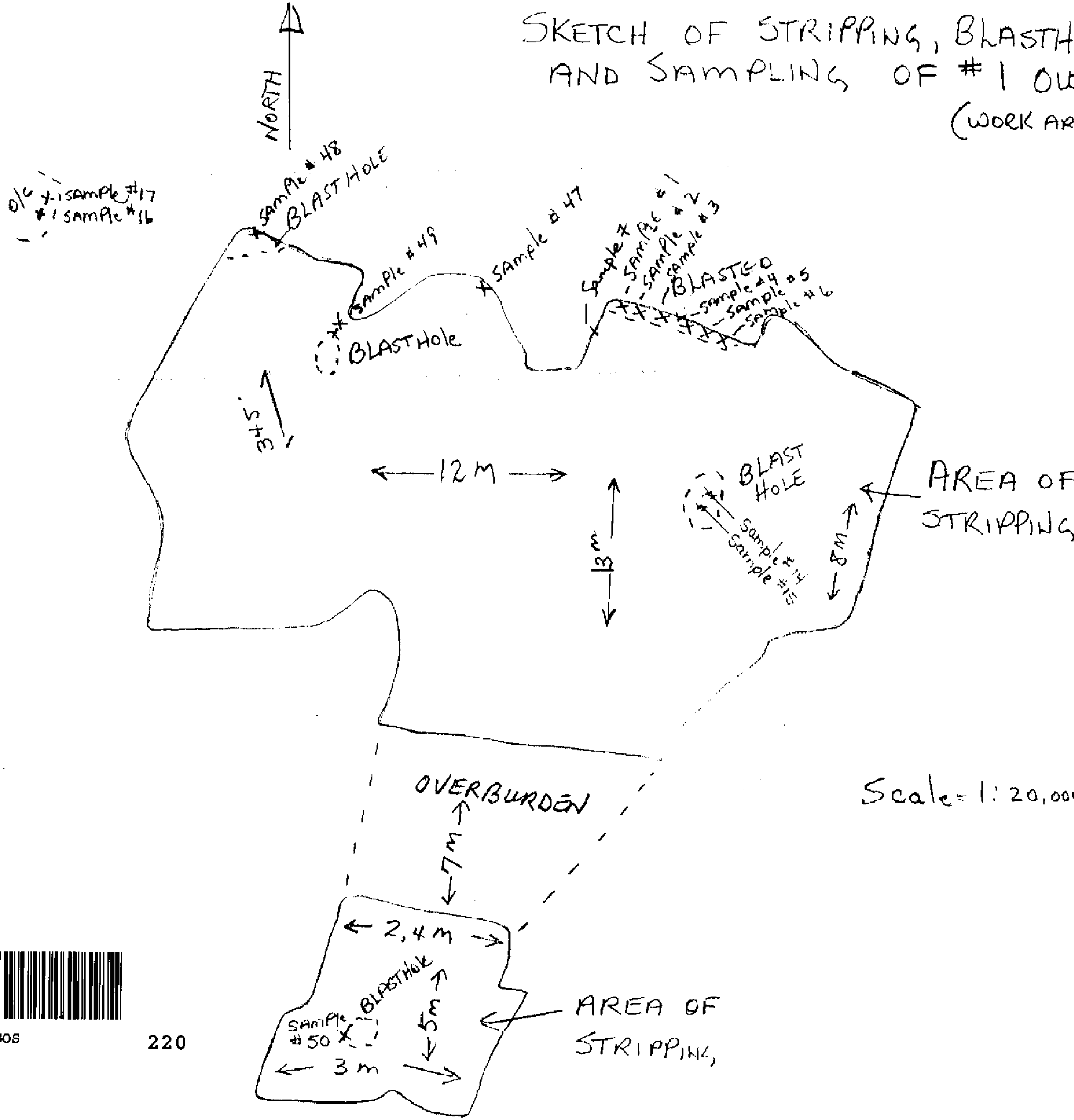
Number G-2283



TRAVERSING LINES, OUTCROP LOCATIONS &
SAMPLING LOCATIONS. SHOWINGS
N
Scale 1 inch = 400 m
HORNEPAYNE HWY #631
HAVAALDSRUD LOGGING ROAD
A.T.V. TRAIL to RIVER
overburden
1218139
1218138
NAMEIGOS RIVER
BRIDGE
Kabinagakami River
WINTER LOGGING ROAD
A.T.V. ACCESS
Swamp
DIABASE DYKE
granite
GRANITE
TRAIL

SKETCH #1

SKETCH OF STRIPPING, BLASTHOLES, AND SAMPLING OF #1 OUTCROP (WORK AREA)



Scale = 1: 20,000

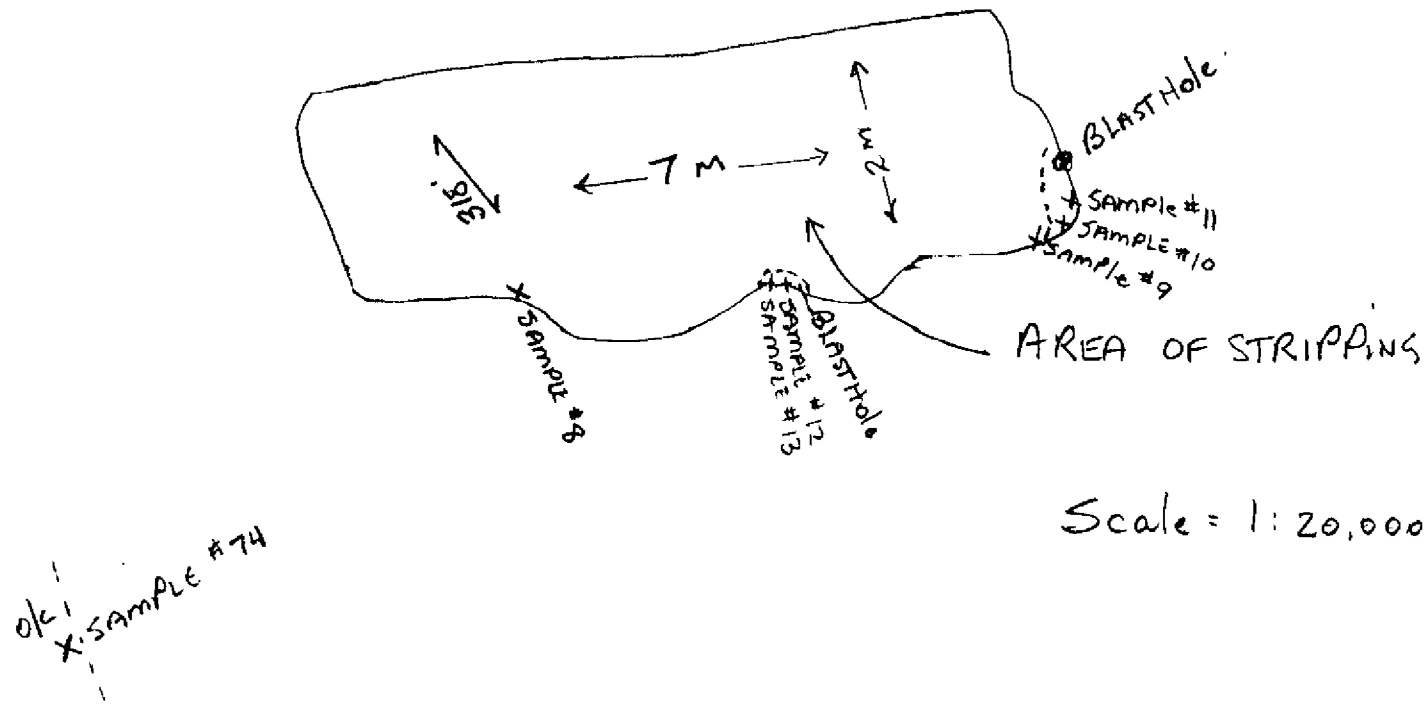
42C15SE2002 2.20513 NAMEIGOS

220

SKETCH #2

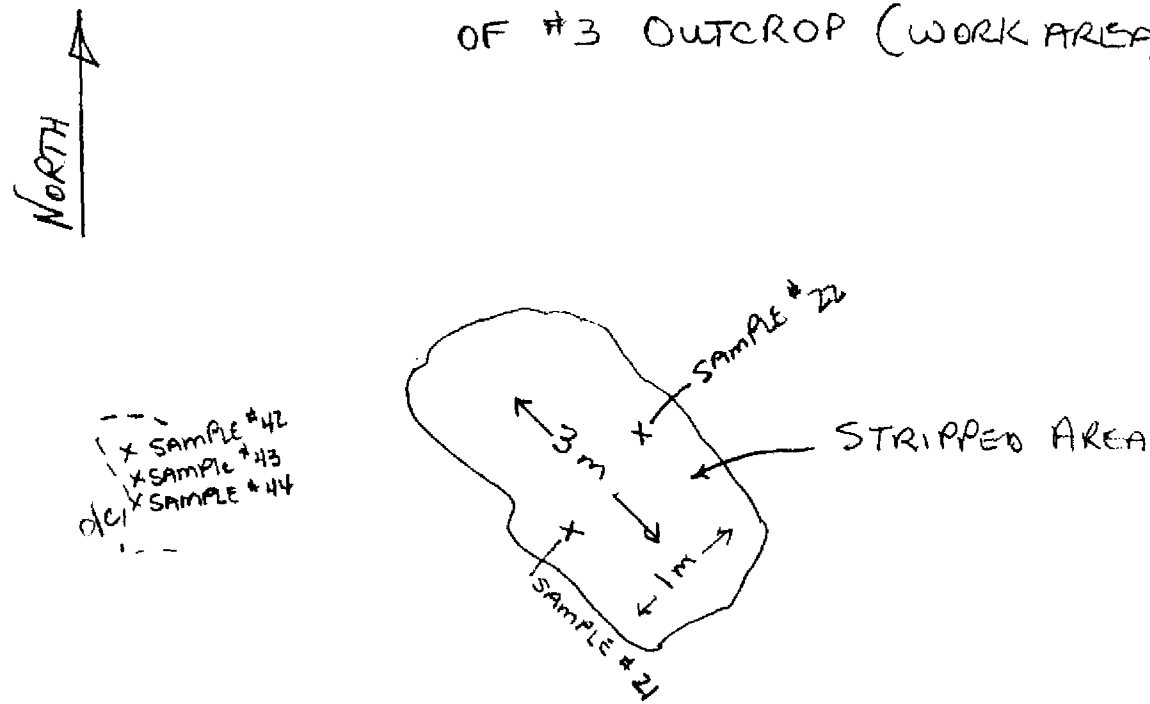
NORTH

SKETCH OF STRIPPING, BLASTING, AND SAMPLING OF #2 OUTCROP (WORK AREA)



SKETCH #3

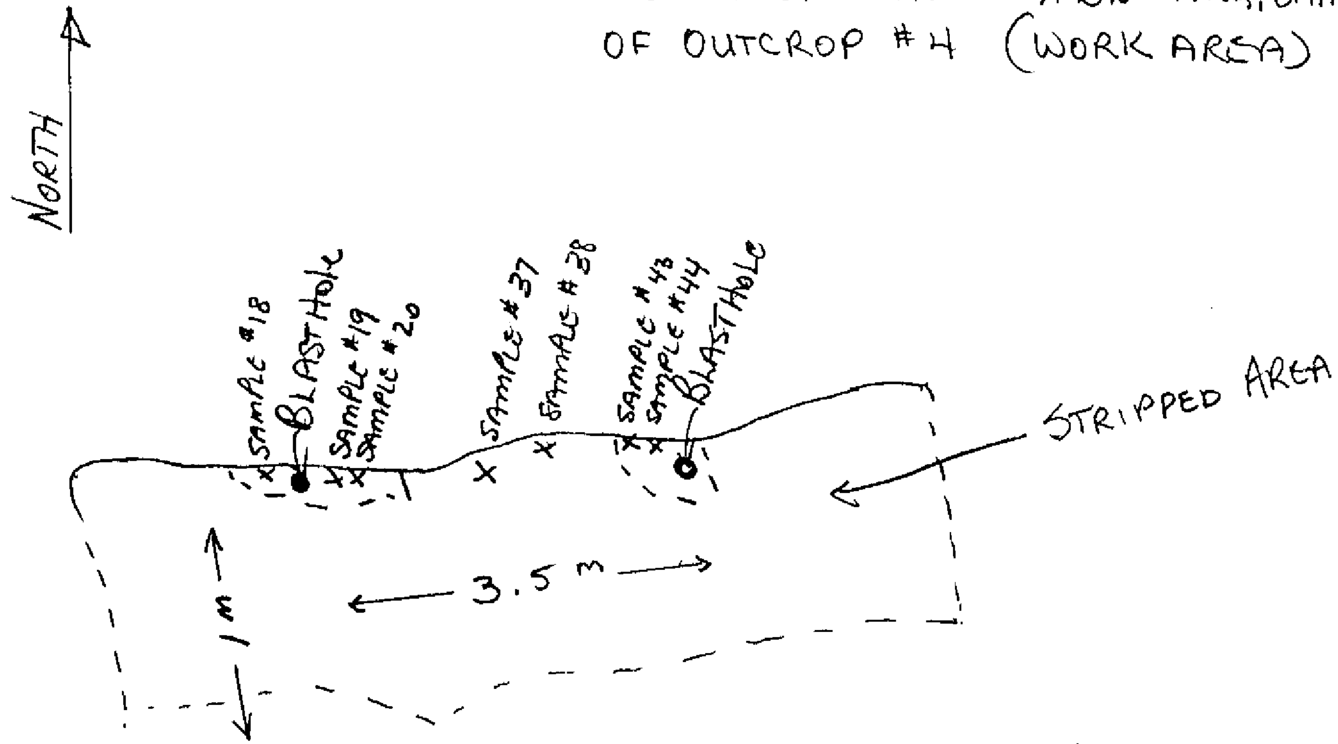
SKETCH OF STRIPPING AND SAMPLING OF #3 OUTCROP (WORK AREA)



Scale = 1:20,000

SKETCH #4

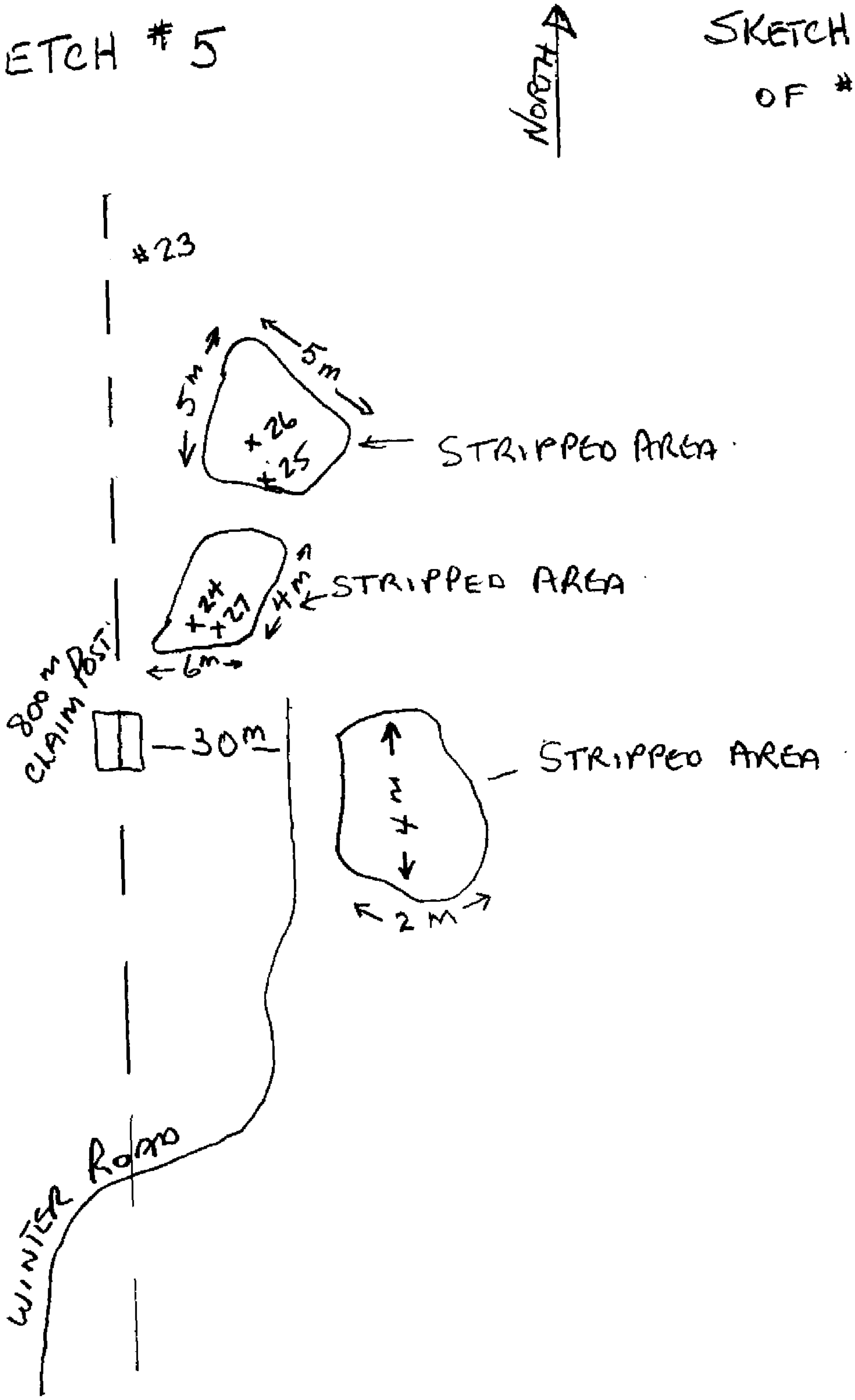
SKETCH OF STRIPPING, BLASTING, SAMPLING OF OUTCROP #4 (WORK AREA)



Scale: 1:20,000

SKETCH # 5

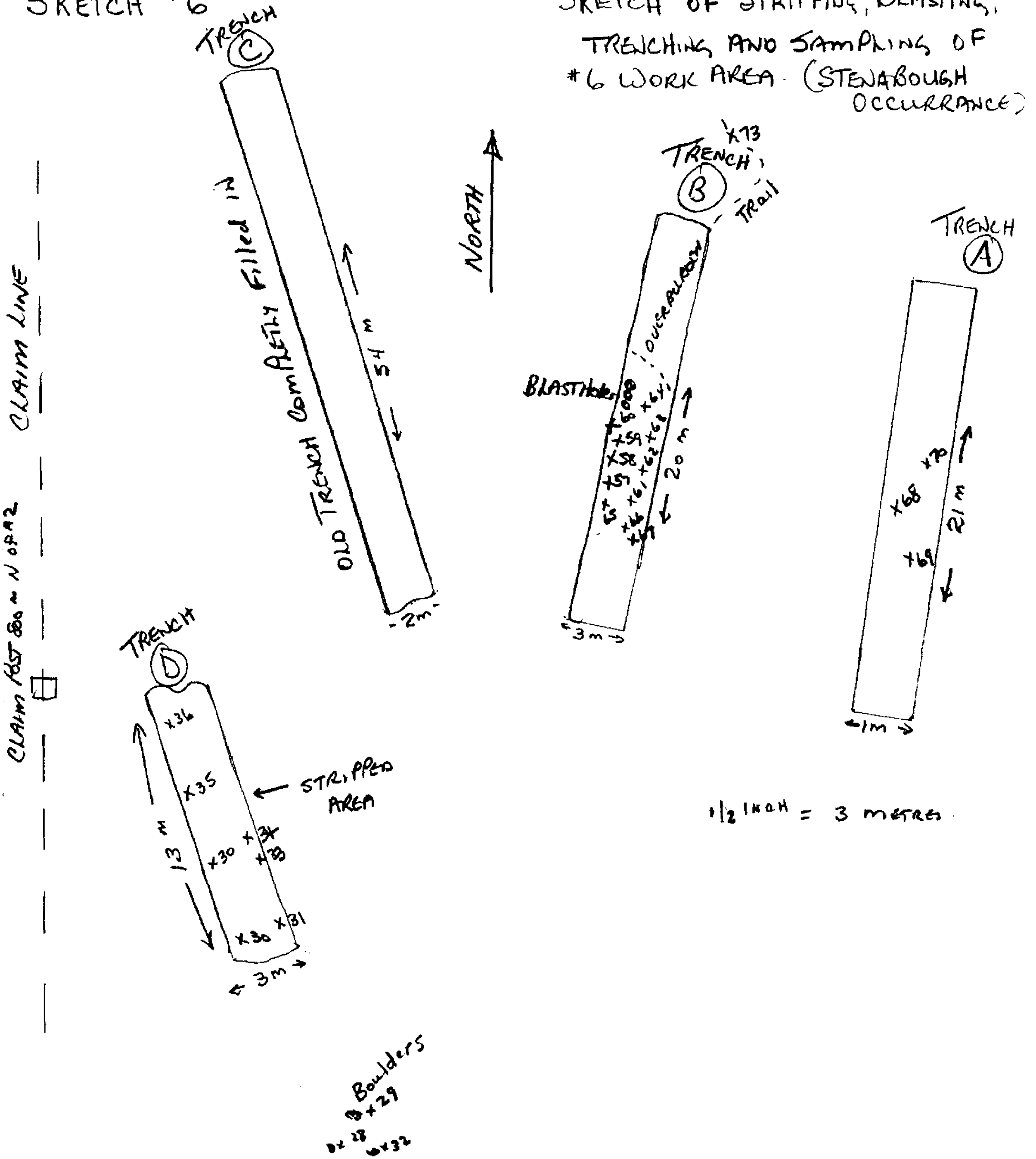
SKETCH OF STRIPPING, SAMPLING OF # 5 WORK AREA



Scale = 1:20,000

SKETCH #6

SKETCH OF STRIPPING, BLASTING, TRENCHING AND SAMPLING OF #6 WORK AREA. (STENABOUGH OCCURRANCE)



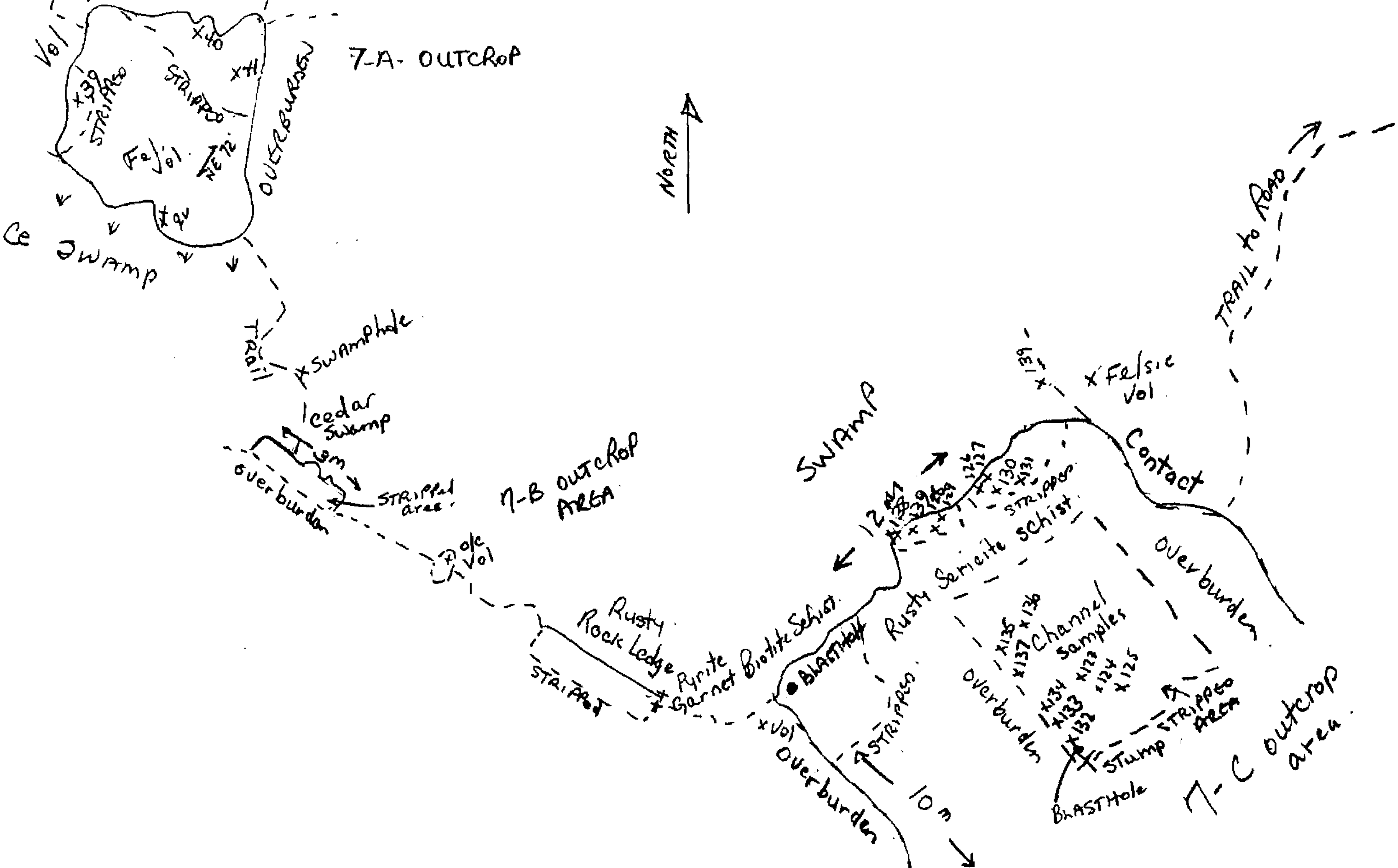
1/2 INCH = 3 METRES

42C15SE2002 2.20513 NAMEIGOS 270

SKETCH # 7

SKETCH OF STRIPPING, BLASTING, GRAB AND CHANNEL SAMPLING IN # 7 AREA.

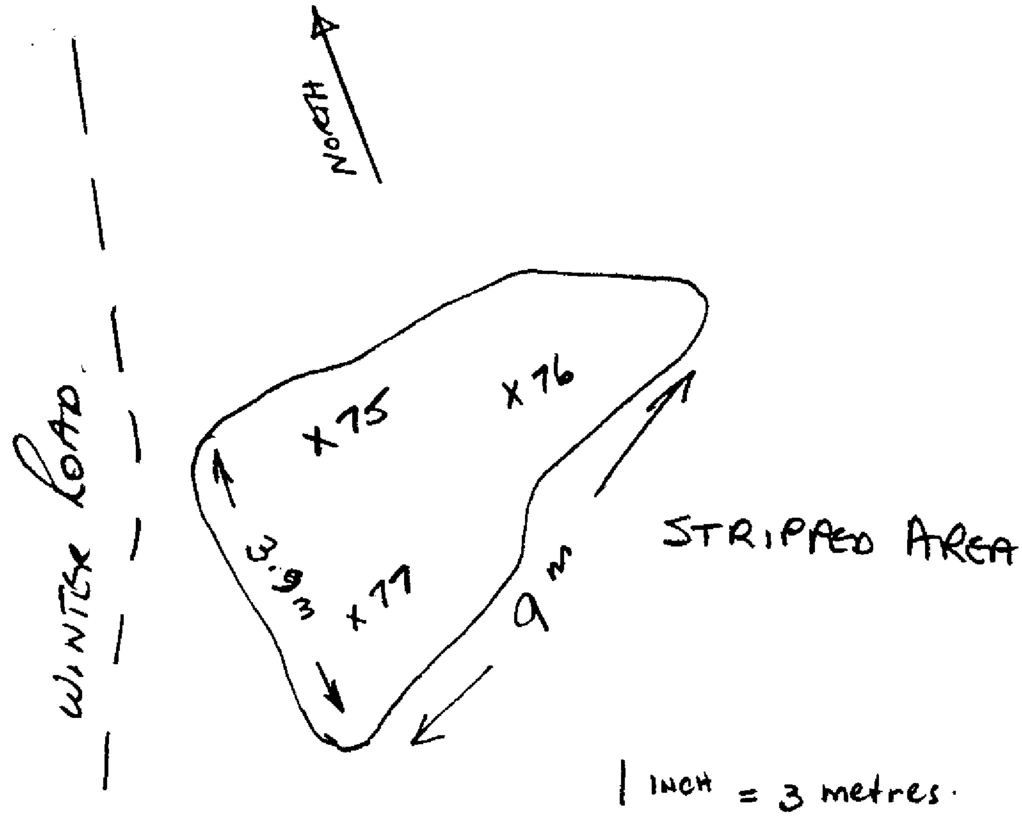
Scale - 1 inch = 4 metres



42C15SE2002 2.20513 NAMEIGOS 280

SKETCH # 8

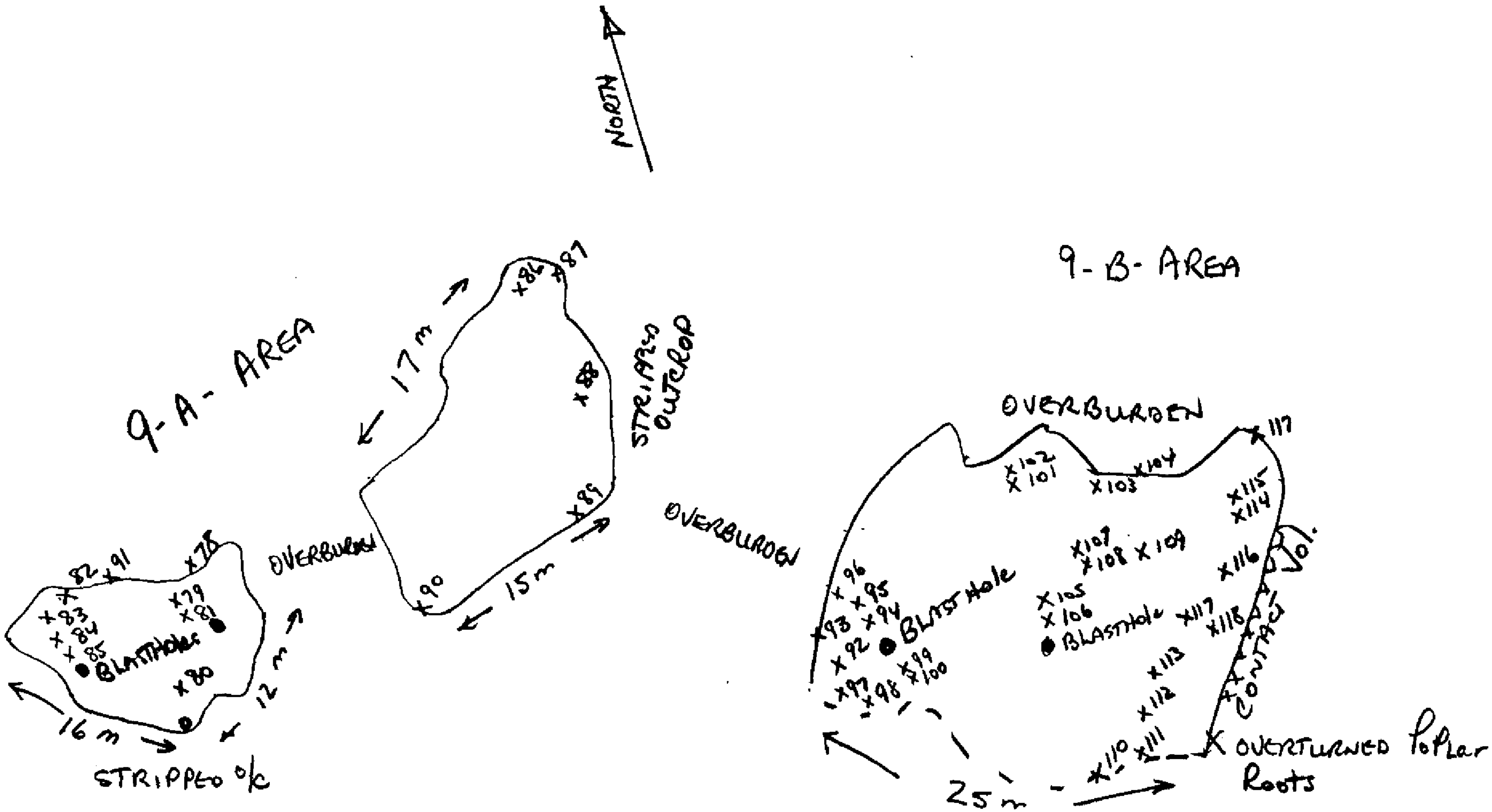
SKETCH OF STRIPPING & SAMPLING OF # 8 OUTCROP AREA.



SKETCH # 9

Sketch of Stripping, Blasting, Sampling OF 9 A, B and C AREA.

1/2" = 5 metres.



42C15SE2002 2.20513 NAMEIGOS 300

SKETCH #10

SKETCH OF STRIPPING, BLASTING, SAMPLING OF #10 OUTCROP AREA