010

SUMMARY REPORT ON THE EXPLORATION OF THE WHITE RIVER Au PROPERTY WHITE RIVER, ONTARIO

FOR

AKIKO GOLD RESOURCES LIMITED

NTS 42C / 10, 11, 14, 15

A.C.A. HOWE INTERNATIONAL LIMITED
Daniel Leroux, BSc.
Report # 692
November 15, 1993

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SUMMARY

A.C.A. Howe International Limited ("Howe") has been retained by Akiko Gold Resources Limited ("Akiko Gold") to conduct a grass-roots exploration program consisting of geological mapping, prospecting and sampling, geochemical humus sampling and a ground MAG-VLF survey of Akiko Gold's claim block situated approximately 40 kilometres northeast of White River Ontario. This assessment report summarizes the geological, geochemical and geophysical work performed on the property from September 1 to 30, 1993.

The Dayohessarah Lake Greenstone Belt is a 30 km by 6 km arcuate shaped belt that trends in a north-northwest direction. The greenstone belt is composed of Archean metavolcanic and metasedimentary rocks that have been intruded by felsic and mafic-ultramafic dykes, sills and stocks and is surrounded by granitic to intermediate stocks and batholiths. The belt is located approximately 40 kms northeast of White River Ontario and is situated between the gold producing Hemlo greenstone belt to the west and the Kabinakagami greenstone belt to the northeast.

A 66.0 line km grid was cut in order for Howe's personnel to carry out the various geotechnical surveys and sampling programs. Geochemical humus sampling, ground MAG-VLF EM surveying and geological mapping and sampling was completed on the property. The geological mapping and sampling program has outlined a 500 metre wide, moderately to strongly foliated "deformation zone" with a strike length of approximately 5.0km. Within this zone a well foliated and/or sheared debris flow-agglomerate unit, trending, 160 degrees can be traced for approximately 4.5 km. This weakly magnetic unit is dextrally offset (NE-SW) near L 18S and locally contains sporadic quartz veins/veinlets. Also within this zone, intrusions of quartz-feldspar porphyries, granites, gabbros and felsic pegmatites occur throughout this zone and are generally parallel to the foliation. Ninety-eight rock samples were taken on the property and 15 samples assayed > 10 ppb Au. The highest gold assay was 35 ppb Au and was obtained from a well foliated and/or sheared porphyry. Two thousand and three (2003) humus samples were collected on the property, with 25 samples assaying > 10 ppb Au. The highest value obtained was 25 ppb Au which is located at L 30 S/ 550 W.

A two phase exploration program, consisting of a first phase horizontal loop EM or induced polarization (IP) survey over the deformation zone is recommended. Follow-up stripping, geological mapping and sampling program should focus on any geophysical anomalies. Reconnaissance geological mapping along the northeastern portion of the claim boundary is recommended in order to determine whether Noranda's "Sugar Vein" gold occurrence strikes onto Akiko's claim block. Based on the results obtained from the phase I program, phase II would consist of a diamond drill program to evaluate any geophysical targets.

1.0 INTRODUCTION

At the request of Akiko Gold Resources Limited ("Akiko"), A.C.A. Howe International Limited ("Howe") has undertaken to prepare a report summarizing the exploration work recently completed on Akiko's White River property. The main focus of the exploration program was to determine if the deformation zone hosting the "Sugar Vein" Au occurrence located within Noranda Exploration's claim block, 5.6 km north of Akiko's claim boundary, was present on Akiko's property. Preliminary geological reconnaissance work was conducted by R. Irwin, on behalf of Akiko Gold. Geochemical rock samples representative of the various lithologies found on the property were taken in order to locate zones of possible mineralization. More extensive exploration work was conducted during September 1 to 30, 1993 and included a 66.0 line km grid where a detailed geophysical survey (ie: MAG and VLF) and a geochemical humus survey were conducted to determine possible Au anomalies. Detailed geological mapping and sampling at a scale of 1 : 5000 was conducted within the grid area and a 1:15000 reconnaissance road mapping program was completed to establish the location and trend of the contact between the mafic volcanic - metasedimentary rocks on the eastern section of the greenstone belt. With the permission of Noranda Exploration, geochemical, geophysical and geological orientation surveys were conducted on the "Sugar Vein" Au occurrence. Results of these surveys are not included in this report.

2.0 LOCATION, ACCESS AND PROPERTY DESCRIPTION

2.1 Location

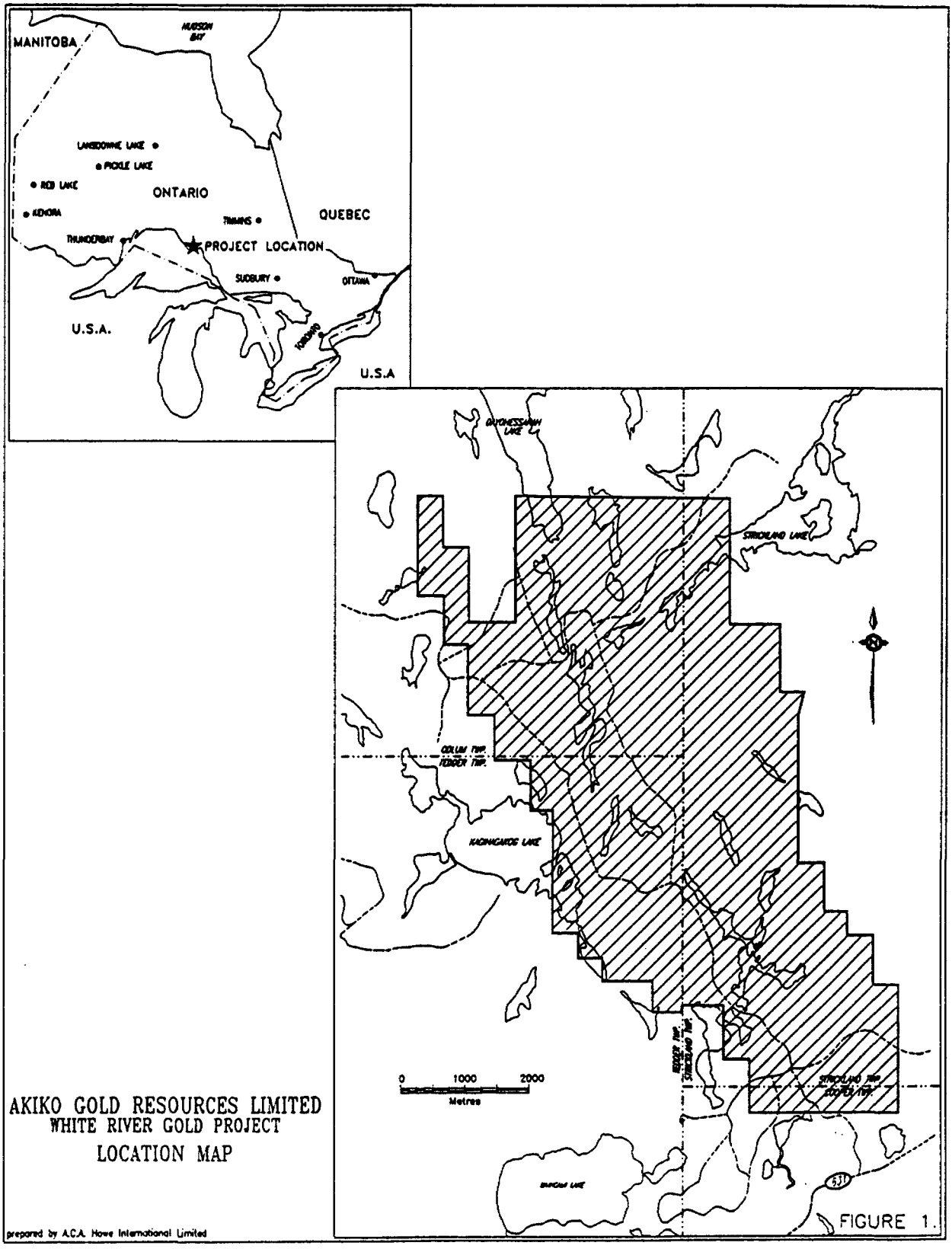
Akiko Gold's White River property is located approximately 40 km northeast of the town of White River, Ontario (figure 1) between Dayohessarah Lake to the north and Hwy. 631 to the south. The claim block is located within Odlum, Tedder, Strickland and Cooper townships.

2.2 Access

The property is easily accessible from White River, Ontario via Domtar gravel logging roads (road 100 and 200). Numerous secondary logging roads (ie: roads 206, 213, 207 D and B) extend within the property and grid area provide further local access.

2.3 Property Description

The White River property is dominated by a number of N-S trending lakes and ponds with numerous alder, cedar swamps and wetlands also present. The area is considered


MANITOBA
HUDSON BAY
LANSDOWNE LAKE
PICKLE LAKE
RED LAKE
ONTARIO
KENORA
TIMMINS
QUEBEC
THUNDER BAY
PROJECT LOCATION
SUDBURY
OTTAWA
U.S.A.
TORONTO
U.S.A
0
1000
2000
Metres
AKIKO GOLD RESOURCES LIMITED
WHITE RIVER GOLD PROJECT
LOCATION MAP
prepared by A.C.A. Howe International Limited
FIGURE 1.

somewhat rugged with numerous hills and cliffs 10-15m in height. Wind and/or deadfall is widespread throughout the grid area making traversing locally difficult. The area has been logged by Domtar during the late 1980's and large cut-over areas now exist along the secondary logging roads.

3.0 PERSONNEL

The following personnel were involved in the geological mapping and sampling, and the geophysical and geochemical surveys performed on the property.

Dr. Wayne D. Ewert	Geologist
Daniel C. Leroux	Geologist
Michael C. Wilson	Geophysical Operator
Harry Claridge	Geochemical Technician
Christopher Keith	Geochemical Technician
Ray Irwin	Geologist

4.0 PREVIOUS WORK

Since 1958, the Dayohessarah Greenstone Belt has seen numerous exploration companies conduct work in the area. Various companies such as Canadian Pacific Railway (1958), Canex Aerial Exploration Limited (1969), and Shell Canada (1975) conducted various geotechnical surveys on portions of the greenstone belt.

Between 1983 - 1986, Pezamerica Resources Corporation subcontracted Dighem Surveys and Processing Ltd. to conduct airborne EM and MAG surveys over the entire Dayohessarah Greenstone Belt. The airborne surveys outlined thirty-one airborne anomalies. A follow up two phase work program conducted at the request of Teck Exploration Ltd. consisted of regional mapping, soil sampling, and detailed airborne anomaly follow-up. The geochemical survey obtained 35 anomalous samples that were > 26ppb Au and outlined a large soil gold geochem anomaly on the west side of Dayohessarah Lake. This exploration work was followed up by a diamond drill program which tested nine of the airborne geophysical anomalies. Drilling indicated that these anomalies were related to substantial amounts of pyrite and pyrrhotite within a sequence of felsic volcanic rocks. None of the drill holes intercepted any gold anomalies. Hole PZ-6 intersected a zone of stratiform pyrite and pyrrhotite with minor amounts of sphalerite. This intersection returned an assay of 0.47% Zn over 2.8 feet.

In 1988, United Reef Petroleums Ltd. subcontracted Stratigraphic Research to conduct a total field magnetic survey of the greenstone belt. The survey outlined linear NW-

trending magnetic highs on the western shore of Dayohessarah Lake. No further follow-up work was reported.

In 1989, Terraquest Ltd. at the request of Broad Horizons conducted an airborne MAG and VLF-EM geophysical survey over the central and southern portion of the greenstone belt. This airborne survey duplicated the geophysical anomalies detected by the Pezamerica Dighem surveys of 1983.

In 1990, Hemlo Gold Mines Inc. in conjunction with Noranda Exploration Company Ltd. conducted a reconnaissance geological mapping and prospecting program along the eastern shore of Dayohessarah Lake which outlined sulphide-rich quartz veins within a deformation zone approximately 200m wide and trending 320 to 335 degrees along a strike length of 600m. This work program was successful in outlining the "Sugar Vein" which is a 25-30m wide zone of quartz veining containing polymetallic sulphide and gold mineralization occuring within this deformation zone. Visible gold has been noted in some samples.

Between 1990 and 1993, a legal dispute took place between Broad Horizons and the claim holders. During this period, all work was suspended pending a settlement of the case.

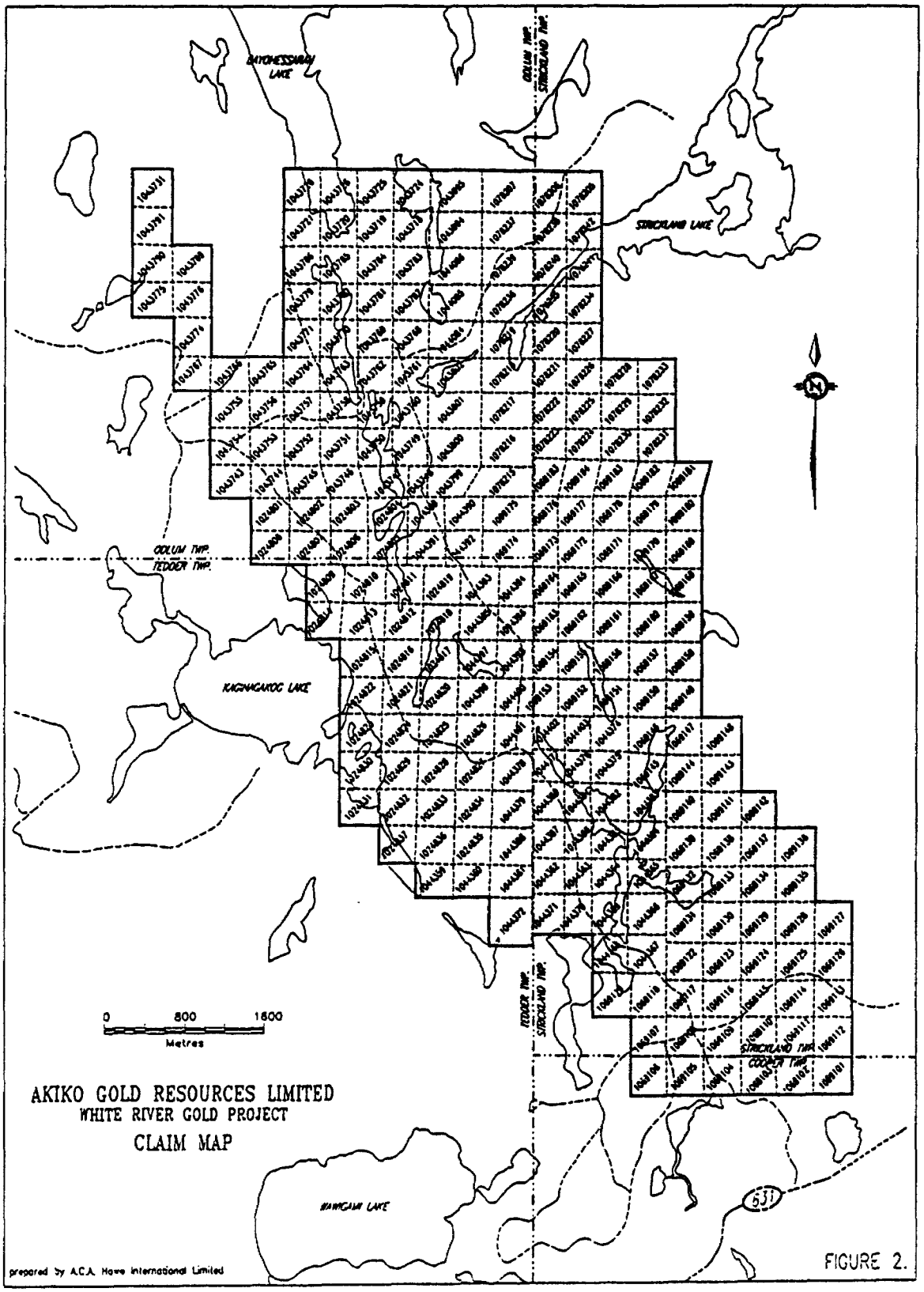
In 1992, at the request of Gold Giant Limited, Orequest Consultants Ltd. conducted a regional geological appraisal of Gold Giant's claims in the White River area. It was recommended that a two phase exploration program be recommended to further evaluate the property.

5.0 LAND STATUS

Appendix D is a list of claim holdings (256 contiguous claims) defining Akiko Gold Resources Limited White River property upon which the exploration work was performed. These claims are located within Odlum, Tedder, Strickland and Cooper Townships (figure 2). All of the claims lie within the Sault-Ste-Marie mining division. The claim block was staked by a prospecting syndicate (ie: J. Ternowesky and P. Nabigon) in 1987-88. An option agreement covering these claims exists between the staking syndicate and Akiko Gold and Gold Giant Minerals Ltd..

6.0 PROGRAM DESCRIPTION

A line cutting company was subcontracted by Howe to cut a 66.0 line km, non-surveyed, grid on the claim group. The 0+00 base station was established 25 m east of a N-S linear lake situated 1.0 km east of Dayohessarah Lake (Figure 4). A 5.6 km non-transited baseline


BATCHEWANA LAKE
ODLUM TWP.
STRICKLAND TWP.
STRICKLAND LAKE
ODLUM TWP.
TEDDER TWP.
KAGNAGAKOG LAKE
TEDDER TWP.
STRICKLAND TWP.
STRICKLAND TWP.
COOPER TWP.
WAWCAIM LAKE
631
0
800
1600
Metres
AKIKO GOLD RESOURCES LIMITED
WHITE RIVER GOLD PROJECT
CLAIM MAP
prepared by A.C.A. Howe International Limited
FIGURE 2.

at an azimuth of 160 degrees was established with 29 cross-lines trending at 250 degrees cut every 200 metres. West of the baseline, cross-lines were cut to 800 metres whereas cross-lines east of the baseline were cut to 1200 metres. Two tie lines at 160 degrees were cut for grid control purposes. Picket spacing was established at 25 metre intervals on all of the cut lines.

Detailed and reconnaissance geological mapping, prospecting and sampling at 1:5000 and 1:15000 scale was conducted on and off of the grid area. The reconnaissance road mapping program was concentrated towards the western portion of the property. Geochemical humus sampling was conducted at 25 metre sampling interval east of the baseline and at a 50 metre sampling interval west of the baseline. A ground MAG-VLF survey, utilizing an EDA OMNI PLUS magnetometer/VLF-EM receiver and base station system, was completed on the grid.

7.0 GEOLOGY

7.1 REGIONAL GEOLOGY

The rocks located around Dayohessarah Lake are part of the Dayohessarah Lake greenstone belt an arcuate shaped, north-northwest trending belt of rocks that is approximately 32 km long by 6 km wide. The belt is situated between the gold producing Hemlo greenstone belt to the southwest and the Kabinakagami greenstone belt to the northeast and consists of a central zone of metasedimentary rocks which is flanked and underlain to the east and west by mafic volcanic flows and tuffs. The Dayohessarah greenstone belt is flanked and intruded by a series of felsic igneous intrusions and/or batholiths (ie: granites, granodiorites, etc.). Minor mafic to ultramafic stocks occur along the north shore of Dayohessarah Lake and in the southern portion of the belt. Diabase dykes cross-cut the belt along NE-SW and NW-SE directions.

7.2 PROPERTY GEOLOGY

Geological mapping and regional road mapping and prospecting was conducted on Akiko Gold's claim block situated approximately 2 km south of Dayohessarah Lake (figure 3). A cut grid was established southeast of Dayohessarah Lake and is oriented at an azimuth of 160 degrees (figure 4). The rocks underlying the grid are predominantly foliated and/or massive mafic volcanics (amphibolite - 1b) with metasediments identified to the west and granitic rocks to the east. These rocks have subsequently been locally intruded by a series of dioritic-gabbroic and hornblendite stocks, quartz-feldspar porphyries, granites, pegmatites and diabase dykes. Within the mafic volcanic sequence, a unit of moderate to strongly foliated and/or stretched, multi-lithic debris flow / agglomerate has been identified

and can be traced for a strike length of approximately 6 kms. This unit is generally in contact with the fragmental amphibolite (1b - frgm) or with the foliated amphibolite (1b). Occassionally quartz veins, veinlets, and sweats are present in the mafic volcanics. Structurally, the debris flow / agglomerate unit has been extremely sheared and contains numerous micro structures such as flexure slip folding and brittle/ductile fracturing. Local oxidized/limonitic patches occur but no visible sulphide mineralization was noted.

The metavolcanic rocks represent a mix of massive and pillowed mafic flows which have been metamorphosed to upper greenschist - lower amphibolite facies. Locally, mid- to upper amphibolite facies occur with most of these rocks converted to moderately to well foliated amphibolite rich equivalents.

The metasedimentary rocks within the property were probably derived from the local meta volcanic suite of rocks. At the contact between the central metasediments and metavolcanics to the east, the metasediments grade from a narrow garnet-rich schistose biotite metasediment to an interbedded siliceous wacke/greywacke to the west. These rocks have been metamorphosed to lower amphibolite facies.

The intrusive rocks on the property are predominantly medium to coarse grained granites and granodiorites with pegmatitic dykes and sills intruding the sequence locally. To the east, granitic rocks of various compositions intrude the metavolcanics stoping out portions of these mafic volcanics as xenoliths of amphibolite which often retain their original orientations (foliation at 160 deg.). Northeast - southwest trending diabase dykes cross-cut the metavolcanic/metasedimentary package. These dykes are off-set in a NW-SE direction (dextral).

The following section is a summary of lithological units observed on the property with a general description of each unit.

7.21 Table 1: Table of Lithological Units

1. MAFIC METAVOLCANIC ROCKS

1a) Massive amphibolite (mafic flows)

Green to dark green-black, massive, very fine to fine grained, weakly to moderately foliated, with approximately 45% hornblende, 25% quartz, 10% plagioclase, 10% biotite, and 10% accessory minerals (ie: epidote, apatite, etc.). Biotite books and trace sulphides occur locally.

1b) Foliated amphibolite

Green to dark green-black, fine to medium grained, moderately to well foliated, weakly to moderately sheared locally, with approximately 35-40% hornblende, 20-25% quartz, 15% plagioclase, 15-20% biotite, and < 2-5% accessory minerals present in unit. The fragmental variety of the foliated amphibolite (ie: 1b-frgm) contains wisps of stretched and/or boudinaged felsic veinlets which are parallel to the foliation of the unit.

1c) Pillowed amphibolite (pillowed mafic flows)

Dark green to black, fine to medium grained, homogeneous, weakly chloritic, with remnant amygdules and pillow selvages structurally elongated and distorted at 160 degrees. Local elongated epidote blebs/clots trend at 160 degrees.

1d,e) Debris flow/agglomerate and/or an epiclastic interflow metasediment/tuff

Multi-lithic debris flow/agglomerate with well foliated and elongated fragments of felsic and mafic material. This unit has same foliation as the mafic volcanics. Locally, the unit is either mafic or felsic rich in fragments. Overall, the mafic fragments have a maximum stretch ratio of 50:1 whereas the felsic fragments have a maximum ratio of 25:1. Few random oxidized-limonitic spots present but no visible sulphide mineralization noted.

2. METASEDIMENTARY ROCKS

2a,b,c) Siliceous wackes/greywackes (2a), sandstone/siltstones (2b) and rusty siltstone/wackes (2c)

These rocks are light grey to grey in colour, very fine to fine grained, moderately to well bedded quartz-rich wackes/greywackes/siltstones which are moderately to strongly foliated at @ 160 deg.. Locally, the matrix can be moderately to strongly siliceous.

2d) Amphibolite metasediment with garnets

Light brown to moderately limonitic, very fine to fine grained, moderately to strongly foliated and/or schistose, biotite-rich (35-40%) metasediment with clots of disseminated, anhedral to subhedral garnets ranging in size from 1mm to 5 mm in diameter.

3. MAFIC INTRUSIVE ROCKS

3a) Gabbro / gabbro porphyry

Green to dark green, medium to coarse grained, massive, homogeneous, anhedral hornblende-rich gabbro with fine to medium grained Ca-plagioclase present. These rocks occur either as plugs or stocks and have locally intruded the mafic volcanics.

3b) Hornblendite

Green to dark green, medium to very coarse grained, massive, homogeneous, anhedral to subhedral hornblende - rich (70%) hornblendite with 20% Ca-plagioclase and trace sulphides (ie: pyrrhotite, pyrite, magnetite) present. Generally, unit is slightly magnetic.

3c) Diorite

Green to dark green, medium to coarse grained, massive, hornblende - rich (50%) diorite with 30% plagioclase and 20% quartz present. Locally, the diorite appears to become porphyritic as the hornblende becomes coarser grained (type of enrichment ?). Diorite dykes and plugs seem to intrude only the pillowed flows (1c).

4. GRANITIC INTRUSIVE ROCKS

4a) Granite

Light to moderately pinkish in color, massive, heterogeneous, equigranular and moderately to strongly foliated locally. Mineralogically, the unit is generally composed of quartz (40%), K-feldspar (20%), biotite (20%), plagioclase (15%) and accessory minerals (5%). These rocks occur as stocks, and/or dykes within the mafic volcanic - metasediment package. A large intrusive body is also in contact with the mafic volcanics to the east.

4b) Granodiorite

Light grey to moderately grey/black (color index - 25), medium to coarse grained, equigranular, massive granodiorite and is moderately to strongly foliated locally. Mineralogically, the unit is composed of biotite (30%), quartz (25%), plagioclase (20%), hornblende (15%), and accessory minerals (<5%). These rocks occur as dykes, sills or stocks and occur with or in contact with the granitic phases throughout the property.

4c) Pegmatite

Pinkish white, very coarse grained, massive, heterogeneous, quartz-rich (40%) pegmatite with anhedral to subhedral K-feldspar (35%), and fine to medium grained plagioclase (25%) present. This unit occurs as dykes, sills and/or stocks and intrude both the metavolcanics

and metasediments on the property at random orientations.

5. LATE FELSIC INTRUSIVE ROCKS

5a) Quartz-feldspar porphyry

Light grey to dark grey, slightly pinkish locally and porphyritic where the phenocrysts are moderately to strongly foliated and/or stretched locally. Phenocrysts are dominantly composed of quartz that are elongated locally to form quartz - eyes and K-feldspar crystals being less competent than quartz, are extremely elongated (up to 50:1). In some areas, the K-feldspar are so stretched that they can be mistaken for layering or banding. The matrix is aphanitic and is composed of quartz, plagioclase and occassionally biotite. Trace to < 2% disseminated pyrite and chalcopyrite occurs locally in these rocks.

6. PROTEROZOIC INTRUSIVE ROCKS

6a,b) Diabase / porphyritic diabase

Green to dark green, light brown on weathered surface, fine to medium grained, slightly to moderately magnetic, massive, equigranular diabase with 'felty' feldspar laths present. The porphyritic equivalent has the same mineralogy except for very coarse grained anhedral phenocrysts of plagioclase (from 1cm to 5cm in diameter). Visible fine grained anhedral magnetite crystals (< 1%) are present locally.

7.22 STRUCTURE

The Dayohessarah Lake greenstone belt is arcuate in shape and is approximately 32 km long by 6 km wide. The belt is clearly defined as a symmetrical syncline which appears to plunge southward and the fold hinge trends approximately 335 - 340 degrees. The hinge is located within the metasediments which are positioned centrally to Dayohessarah Lake. Regional foliations and bedding trend at 320 to 340 degrees but dip steeply to the west along the eastern limb and steeply to the east on the western limb of the syncline.

Within the property, foliation measurements within the mafic volcanics and bedding features in the metasediments are generally 160 degrees and steeply dip to the west from 70 to 90 degrees. A deformation zone, approximately 300m wide and in excess of 4.5 km

long occurs near the metavolcanic-metasedimentary contact. This deformation zone is characterized by moderately to strongly foliated and/or sheared amphibolites, extremely stretched debris flows and major intrusive activity. The multi-lithic debris flow/agglomerate unit contains mafic and/or felsic rich fragments that has been stretched in accordance with their respective competencies in a south-east direction. Numerous generations of intrusive activity occur within this deformation zone. Quartz-feldspar porphyries, granites, pegmatites, gabbro-hornblendite, diorites and diabase all occur within the property. The porphyries show evidence of stretching and shearing within the bodies and along contact margins. Very few wide quartz veins were noted within the mafic volcanics or quartz-feldspar porphyries.

The metasediments are characterized as being well bedded units where local micro-structures such as S and Z folding, kink banding and stretching have occurred. Tension gashes and ptygmatic veinlets infilled with quartz (ie: quartz sweats) do occur but no visible mineralization has been found.

7.23 MINERALIZATION

Geological mapping of the grid area has resulted in the discovery of a 20cm wide oxidized-limonitic band trending at 160-165 degrees which can be traced for over 700m between lines 6+00 S and L 14+00S. This band contains trace to < 1% anhedral disseminated pyrite and chalcopyrite and is hosted by a foliated amphibolite unit (1b) that is weakly to moderately sheared. This shear cross-cuts the foliation and dips 50 degrees to the east. Within this horizon, a series of discontinuous quartz veins occur within a quartz-feldspar porphyry which intrudes the foliated amphibolite. These quartz veins vary in thickness and are generally oriented parallel to the porphyry. No visible mineralization was found.

Pyrite mineralization was found mostly in the foliated amphibolites and in the quartz-feldspar porphyries. The pyrite occurs along foliation planes or within micro-fracture patterns in the amphibolites whereas in the porphyries, it was mainly disseminated and fine grained.

A small, narrow altered felsic intrusive containing molybdenite rosettes up to 1cm in diameter was discovered between line 2+00 S and line 4+00S at 4+00E. The intrusive was adjacent to a quartz-feldspar porphyry which intruded the surrounding mafic volcanic package.

7.3 GEOCHEMICAL SURVEY

A total of 2003 humus samples were taken on the grid in order to aid in defining anomalous Au zones that could be investigated later by rock sampling or stripping. The sample site was prepared by utilizing a shovel to expose the humus/soil profile. The samples were then collected by hand and all roots or non-decomposed material discarded so that only a fresh, black, organic-rich material was placed into humus sample bags individually labeled with the grid coordinates of the sample site. These samples were then sent to XRAL Labs in Don Mills, Ontario for Au assay where they were oven dried (70 degrees C), blended and pressed to form a 4mm diameter by 4mm thick briquette (disc). Briquettes were bundled in lots of 38-40 in polyethylene wrap for irradiation. Irradiation is accomplished by placing the bundle into an irradiation cylinder which is lowered into a preselected site at the edge of the reactor core. After a one hour exposure the samples are removed and placed in storage for 8 to 9 days to allow undesirable background radiation to decay. After this cooling off period, the samples are analysed for the elements requested. The analytical instrument is a multi channel analyser connected to a pacified hyperpure germanium detector. Results of the geochemical survey are pending and will be submitted in its entirety in a follow-up report.

All geochemical rock samples were sent to XRAL Labs in Don Mills, Ontario for Au assay utilizing the fire assay method with direct current plasma finish after dissolution of the fire assay bead. The samples were assayed at 1 assay ton with detection limits of 1 ppb Au. Of the 147 rock samples, only 15 samples returned values > 10ppb Au. The highest value obtained was from sample 2329 which assayed at 35 ppb Au. This sample was obtained from a fine to medium grained, moderately to strongly foliated porphyry with numerous qtz veinlets present (see Appendix C). This sample is located at L 33+00 S, 8+05 W.

7.4 GEOPHYSICAL SURVEY

A 66.0 km ground MAG-VLF survey was conducted in order to define zones of possible deformation with mineralization that resembles the 'Sugar Vein' deformation zone located on Noranda's claim block to the north of Akiko Gold's claims. The results and interpretations of the geophysical survey are documented in Appendix D.

8.0 DISCUSSION OF RESULTS

The geological mapping and sampling program has been successful in outlining areas of interest within the property. Firstly, a debris-flow/agglomerate unit (1d,e) has been identified along a strike length of 5.0kms. This unit contains numerous mafic and/or felsic clasts which have been elongated or stretched at a ratio of 50:1. The rocks are strongly sheared locally and evidence of micro-folds and kink banding are present. This stratigraphic package is

considered similar to that hosting the "Sugar Vein" on Noranda's property along trend to the north. The highest Au assay obtained from this unit is 15 ppb Au. The geological contacts between the metasediments-metavolcanics and the metavolcanics-granitic rocks have been located on the property and are depicted on the geological map at 1:5000. Establishing the limits of the major lithologic units is considered important in outlining horizons similar to those hosting known mineralization on adjoining properties.

The highest gold rock assay on the property was obtained from sample 2329 which assayed at 35 ppb Au. It was sampled from a porphyritic unit located at L 33+00S; 8+25W. The MAG-VLF geophysical survey helped in delineating the geological units on the property. Numerous NW-SE and NE-SW diabase dykes have been identified via geophysics and correspond with the mapping of the property. The geochemical humus sampling program was successful in determining 50 anomalous Au targets. These anomalies are significant as they are oriented parallel (NW-SE) to the foliation of the regional geology of the area.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The exploration program has identified a major deformation zone of approximately 4.5-5.0 km long by 500 metres wide where the mafic volcanics are moderately to strongly foliated and/or sheared at 160 degrees. The deformation zone is characterized by a well foliated and/or elongated debris-flow/agglomerate that trends at 160 degrees and can be traced for approximately 4.5 kms. Within this deformation zone, felsic and mafic intrusive activity occurred and is comprised of quartz-feldspar porphyries, gabbros and granites. To date, only sporadic narrow quartz veins have been observed.

In order to explore this zone more thoroughly, a two phase program is recommended to further evaluate the White River property. Phase I will consist of either a horizontal loop EM or induced polarization survey in order to locate any conductive sulphide horizons within the deformation zone. If anomalous targets are located, a follow-up detailed stripping, mapping and sampling program is recommended in order to determine the source and type of mineralization. Further reconnaissance geological mapping and sampling along the northeastern portion of the claim boundary is recommended in order to determine if the "Sugar Vein" gold bearing deformation zone can be traced into Akiko's claim block. Based on the results of the above program, phase II would consist of a diamond drill program to evaluate any significant anomalies.

10.0 REFERENCES

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11.0 STATEMENT OF QUALIFICATIONS

I, Daniel Leroux, HEREBY CERTIFY THAT:

1. I am a practising geologist with A.C.A. Howe International Limited in Toronto, Ontario and reside at 326 Major MacKenzie Drive East, Unit # 122, Richmond Hill, Ontario.

2. I am a graduate of Laurentian University, June 1993 with a degree of Bachelor of Science in Geology.

3. I have practiced my profession for approximately 1 year since graduation and have been employed in the mineral exploration industry since 1988.

4. I hereby certify that I have personal and intimate knowledge of the facts set forth in this report, having performed the work or witnessed same during and/or after its completion and report it is true.

5. I have based conclusions and recommendations contained in this report on knowledge obtained from work conducted on the property between September 1, 1993 and September 30, 1993.

dated at Toronto, Ontario
November 15, 1993

Daniel Leroux

APPENDIX A - GEOCHEMICAL ROCK SAMPLING RESULTS

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24422 OCT - 5 1993

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
20-Sep-93

REF. FILE 16172-U6

Total Pages 1

13 ROCKS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU-1AT PPB	FADCP	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 01-Oct-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

XRAL

SAMPLE	AU-1AT PPB
2301	4
2302	2
2303	3
2304	3
2305	4
2306	27
2307	3
2308	<1
2309	4
2310	2
2311	9
2312	1
2313	2

AU-1AT PPB - ASSAY PERFORMED ON 30 GRAM ALIQUOT

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA

TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24469

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
24-Sep-93

REF. FILE 16198-RO

Total Pages 1

22 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FAAA	5.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 12-Oct-93

CERTIFIED BY .....
Jean H.L. Opdebeeck, General Manager

XRAL

SAMPLE	AU PPB
002314	5
002315	<5
002316	<5
002317	5
002318	5
002319	<5
002320	<5
002321	5
002322	6
002323	5
002324	7
002325	5
002326	13
002327	<5
002328	8
002329	35
002330	8
002331	15
002332	<5
002333	9
002334	<5
002335	<5
D 002314	<5
D 002326	16

D - QUALITY CONTROL DUPLICATE

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

	SAMPLE	AU-1AT PPB FAAA	CU % XRF	ZN % XRF	MO % XRF
	2336	20	--	--	--
	2337	18	--	--	--
	2338	16	--	--	--
	2339	15	--	--	--
	2340	6	--	--	--
	2341	14	--	--	--
	2342	<5	--	--	--
	2343	<5	--	--	--
	2344	10	--	--	--
	2345	<5	--	--	--
	2346	13	--	--	--
	2347	<5	--	--	--
	2348	<5	--	--	--
	2349	<5	--	--	--
	2350	17	--	--	--
	2351	29	--	--	--
	2352	<5	--	--	--
	2353	<5	--	--	--
	2354	<5	--	--	--
	2355	<5	--	--	--
	2356	<5	--	--	--
	2357	7	--	--	--
	2358	<5	--	--	--
	2359	<5	--	--	--
	2360	<5	--	--	--
	2361	<5	--	--	--
	2362	10	--	--	--
	2363	5	--	--	--
	2364	<5	--	--	--
	2365	<5	--	--	--
	2366	<5	--	--	--
	2367	<5	--	--	--
	2368	<5	--	--	--
	2369	<5	--	--	.56
	2370	<5	--	--	--
	2371	<5	--	--	--
	2372	<5	--	--	--
	2373	<5	--	--	--
	2374	<5	<.01	<.01	.15
	2375	<5	--	--	--
	2376	<5	--	--	--
	2377	<5	--	--	--
	2378	<5	--	--	--
	2379	<5	--	--	--
	2380	<5	--	--	--
	2381	<5	--	--	--
	2382	<5	--	--	--
	2383	<5	--	--	--
	2384	<5	--	--	--
	2385	<5	--	--	--
	2386	<5	--	--	--
	2387	<5	--	--	--
	2388	<5	--	--	--
	2389	<5	--	--	--
	2390	<5	--	--	--
	2391	30	--	--	--
	2392	<5	--	--	--
	2393	<5	--	--	--
	2394	2470	--	--	--
	2395	12	--	--	--
	2396	22	--	--	--
	2397	<5	--	--	--
	2398	>10000	--	--	--
D	2336	16	--	--	--
D	2348	<5	--	--	--
D	2360	<5	--	--	--
D	2372	<5	--	--	--
D	2384	<5	--	--	--
D	2396	18	--	--	--

Chemex Labs Inc.

Analytical Chemists * Geochemists * Registered Assayers
994 West Glendale Ave., Suite 7, Sparks,
Nevada, U.S.A. 89431
PHONE: 702-356-5395

To: AKIKO GOLD RESOURCES LTD.

709 - 700 W. PENDER ST.
VANCOUVER, BC
V6C 1G8

Project :
Comments: ATTN: CHRISTINE REYNOLDS CC: RAYMOND IRWIN

Page Number :1
Total Pages :1
Certificate Date: 15-JUN-93
Invoice No. [redacted]9315751
P.O. Number
Account :KXG

CERTIFICATE OF ANALYSIS A9315751

SAMPLE	PREP CODE		Au FA oz/T	Ag ppm Aqua R	As ppm	Cu ppm	Fe %	Hg ppb	Pb ppm	Sb ppm	Zn ppm	Mo ppm	Te ppm			
RB-1	205	274	< 0.002	< 0.2	2	111	0.60	10	< 1	< 0.2	9	-----	-----			
RB-2	205	274	< 0.002	< 0.2	2	76	3.40	10	< 1	< 0.2	105	-----	-----			
RB-3	205	274	< 0.002	0.3	2	50	2.60	10	< 1	< 0.2	51	-----	-----			
RB-4	205	274	< 0.002	< 0.2	2	58	2.40	10	< 1	< 0.2	33	-----	-----			
RB-5	205	274	< 0.002	0.3	2	295	7.10	10	8	< 0.2	112	-----	-----			
RB-6	205	274	< 0.002	0.2	2	85	5.80	10	< 1	< 0.2	305	-----	-----			
RD-1	205	274	< 0.002	0.2	2	115	2.90	10	< 1	< 0.2	245	2	0.3			
RD-2	205	274	< 0.002	1.0	2	26	5.50	10	< 1	< 0.2	41	15	< 0.1			
RD-3	205	274	0.006	1.2	2	99	4.50	10	147	< 0.2	200	1	0.3			
RD-4	205	274	< 0.002	0.6	2	125	3.30	10	11	< 0.2	21	1	0.4			
RD-5 SV	205	274	1.274	18.0	16	245	1.60	10	2050	1.0	750	1	19.0			
RD-6 SV	205	274	1.103	9.5	6	120	0.90	10	800	0.4	2450	1	3.4			
RD-7	205	274	0.101	0.5	2	45	2.50	10	23	< 0.2	66	1	0.5			
RF-01	205	274	0.055	8.1	90	80	2.80	50	1550	0.2	340	-----	-----			
RF-02	205	274	0.016	< 0.2	2	5	1.60	10	46	< 0.2	245	-----	-----			
RF-03	205	274	0.164	16.0	890	240	12.60	30	2400	1.4	200	-----	-----			
RF-04	205	274	0.044	4.6	74	125	2.50	70	2000	0.2	4250	-----	-----			
RF-05	205	274	< 0.002	0.2	2	52	2.50	20	6	< 0.2	17	-----	-----			
RF-06	205	274	< 0.002	< 0.2	2	1	1.20	10	1	< 0.2	12	-----	-----			
RF-07	205	274	< 0.002	< 0.2	2	< 1	0.65	10	2	< 0.2	15	-----	-----			
RF-08	205	274	0.006	0.3	2	< 1	1.70	10	< 1	< 0.2	4	-----	-----			
RF-09	205	274	< 0.002	< 0.2	2	2	1.80	10	< 1	< 0.2	25	-----	-----			
RF-10	205	274	< 0.002	< 0.2	2	< 1	0.90	10	< 1	< 0.2	5	-----	-----			
RH-1	205	274	< 0.002	1.5	2	350	12.80	10	50	< 0.2	108	-----	-----			
RH-2	205	274	< 0.002	2.8	2	1360	2.60	10	6	< 0.2	44	-----	-----			
RH-3	205	274	< 0.002	0.7	2	76	6.10	10	3	< 0.2	40	-----	-----			
RM-1	205	274	0.159	22.0	24	67	3.40	10	680	0.6	180	-----	-----			
RS-1	205	274	0.027	5.5	160	1710	16.60	10	< 1	< 0.2	40	-----	-----			

CERTIFICATION: DChristie

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

AKIKO GOLD RESOURCES LTD.
709-700 West Pender Street
Vancouver, British Columbia
V6C 1G8

August 24, 1993

Job #934346

Sample # Accurassay	Customer		Gold ppb	Gold Oz/t
1	RF-11		<5	<0.001
2	RF-12		6	<0.001
3	RF-13		6	<0.001
4	RF-14		673	0.020
5	RF-15		96	0.003
6	RF-16		<5	<0.001
7	RF-17		18	<0.001
8	RD-8		<5	<0.001
9	RD-9		8	<0.001
10	RD-10		1924	0.056
10	RD-10	Check	1788	0.052
11	RD-11		12	<0.001
12	RD-12		45	0.001
13	RD-13		50	0.001
14	RD-14		10	<0.001
14	RD-14	Check	9	<0.001
	QCS(MA-3)		7570	0.221

Certified By: Peter Beer

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

AKIKO GOLD RESOURCES LTD.
709-700 West Pender Street
Vancouver, British Columbia
V6C 1G8

September 20, 1993

Job #934346

Sample # Accurassay	Customer	Molybdenum ppm	Lead ppm	Zinc ppm	Silver ppm	Copper ppm
1	RF-11	1	31	48	<1	7
2	RF-12	1	35	54	<1	3
3	RF-13	1	20	56	<1	12
4	RF-14	1	715	768	3	72
5	RF-15	1	14	76	<1	16
6	RF-16	1	12	36	<1	5
7	RF-17	1	12	16	<1	4
8	RD-8		90	33	<1	37
9	RD-9		1	18	<1	30
10	RD-10		20	96	<1	13
11	RD-11		1	27	<1	8
12	RD-12		3	32	<1	6
13	RD-13		10	36	<1	19
14	RD-14		1	17	<1	39

Certified By: Chris Beier

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

MR. RAY IRWIN
AKIKO GOLD RESOURCES LTD.
P.O. Box 5472
Sparks, NV
89432

September 23, 1993

Job #934408

Sample # Accurassay	Customer	Gold ppb	Gold Oz/t
1	RD-15	<5	<0.001
2	RD-16	<5	0.000
3	RD-17	<5	0.000
4	RD-18	<5	0.000
5	RD-19	<5	0.000
6	RD-20	<5	0.000
7	RD-21	<5	0.000
8	RD-22	<5	0.000
9	RD-23	<5	0.000
9	RD-23 Check	<5	0.000
	QCS (Actual)	616	0.018
	QCS (Expected)	618	0.018
	Blank	<5	

Certified By: Chris Beier

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

AKIKO GOLD RESOURCES LTD
P.O. Box 5472
Sparks, NV
89432

Sugar Vein

September 23, 1993

Job #934346

Sample #	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	P2O5 %	TiO2 %	MnO %	BaO %	Cr2O3 %	SrO %	LOI %	Total %
RD-10	68.46	13.47	3.16	1.27	3.57	1.85	3.47	0.053	0.302	0.069	0.045	0.011	0.013	1.7	97.4
RD-11	70.32	13.71	2.36	0.79	3.08	4.55	1.25	0.060	0.247	0.042	0.063	0.008	0.020	1.0	97.5
RD-12	71.39	14.15	2.94	0.98	3.19	3.07	2.18	0.063	0.293	0.052	0.048	0.007	0.024	1.0	99.4
RD-13	71.57	13.83	2.74	0.89	3.54	2.89	2.30	0.085	0.270	0.053	0.048	0.009	0.017	0.6	98.8
RD-14	48.46	14.03	12.80	4.65	13.68	1.41	0.15	0.084	0.976	0.258	0.003	0.038	0.022	1.1	97.6

Certified By:

APPENDIX B - ROCK SAMPLE DESCRIPTIONS
WHITE RIVER PROJECT

Note: sample numbers in parentheses refer to XRAL Lab sample number booklets. AG, CK, HRC, and WDE prefixes refer to the field numbers used.

AG-1 (002301) - dark green to black, f.g.,foliated and/or sheared mafic volcanic (1b - amphibolite), visible oxidation is present (suphides ?). 35% hbl, 30% bio, 20% plag, 15% qtz. No visible mineralization. (4 ppb)

AG-2 (002302) - same as above (2 ppb)

AG-3 (2303) - v.c.g. qtz-felds porphyry; 30% qtz phenocrysts, 15% felds phenocrysts, 35% bio and 15% plag matrix. O/C has a rusty appearance. No vis min. (3 ppb)

AG-4 (2304) - dark green to black, f.g., well foliated amphibolite (1b); same mineralogy as 2301. O/C has a zoned rusty appearance. Few epidote-rich qtz veinlets present and trend // to foliation. No vis. sulphide min. (3 ppb)

AG-5 (2305) - dark green to black, f.g., well foliated to sheared amphibolite; same mineralogy as sample 2304. (4 ppb)

AG-6 (2306) - same as 2304 (27 ppb)

AG-7 (2307) - same as 2304; old sample site for former company (#88-02301). No vis. sul. min. (3 ppb)

AG-8 (2308) - med. to c.g., massive, well fol. qtz-felds porphyry. Elongated felds phenocrysts and qtz eyes are present. Bio. is present in matrix. Trace py. (< 1 ppb)

AG-9 (2309) - v.c.g. biotite-rich felsic intrusive. Sample has an almost 'porphyritic' appearance. 50% qtz, 35% bio, 15% plag. No vis. sulphide min. (4 ppb)

AG-10 (2310) - dark green to black, f.g. well foliated amphibolite (1b). Similar to 2304. No vis. sulphide min. (2 ppb)

AG-11 (2311) - brownish to grey, f.g., well fol. siliceous meta-sed with numerous diss. rusty spots (py ?). 55% qtz, 30% bio, 15% plag. Sample has 'sugary' texture. (9 ppb)

AG-12 (2312) - dark green to black, f.g. well fol., amphibolite (1b) which has an odidized zone // to foliation; @ 1.5 ft. wide and strikes for @ 15 ft. Trace to < 1% py., trace cpy. (1 ppb)

AG-13 (2313) - brownish to rusty, well fol. fine to med grained porphyry with < 3% py, po, trace cpy and galena. Sample is weakly to mod. magnetic. (2 ppb)

AG-14 (2314) - well fol. and/or sheared 1b. similar to 2312. tr. to < 1% py. O/C has an oxidized zone. (5 ppb)

AG-15 (2315) - same as above; some thin qtz veinlets. Shearing on the o/c seems to plunge at @ 50 deg. east. (<5 ppb)

AG-16 (2316) - F.g., well fol., 2a (siliceous meta-sediment) with a qtz rich (70%) sugary texture with 30% bio. present. Few bands of m.g. qtz grains, and fine laminae features present. No vis. min.. (<5ppb)

AG-17 (2317) - F.g., well fol./sheared, 2a (meta-sediment). o/c has few rusty spots scattered about. Possible slickensides present at the same fol. as shear (strike-slip movement ?). Weakly schistose. Trace py. (5ppb)

AG-18 (2318) - fine to m.g., massive, mod. to strongly fol/elongated, mod.to srongly silicified porphyry? Surface is bleached, grey in fresh sample. Numerous thin, discontinuous, greyish fracture filling veinlets(possibly v.f.g. moly.) which are randomly oriented. Trace to < 1% py,po. (5ppb)

AG-19 (2319) - f.g., well fol/sheared, 2a; rusty appearance. 35% bio, 45% qtz, 15% plag, 5% accessory min. Unit is thinly laminated. No vis min.. (<5ppb)

AG-20 (2320) - c.g. qtz vein/sweat with conchoidal fracturing. Vein cross-cuts o/c (2319) and is discontinuous. No vis. min.. (<5ppb)

AG-21 (2321) - qtz veinlet or sweat, @ 0.5 ft wide, in 1b o/c. No vis. min.. (5ppb)

AG-22 (2322) - f.g., well fol/sheared, 1b (fol. amphibolite) with @ 30% hbl. 25% qtz, 20% bio, 15% plag, 10% musc. No vis. min.. (6ppb)

AG-23 (2323) - f.g , well sheared, 1 d,e with 50% elongated felsic fragments trending at 162 deg. and dips at 90 deg. Matrix mineralogy consists of 60% hbl, 20% bio, and 20% qtz. (5ppb)

AG-24 (2324) - f.g., weakly to mod. sheared 1b in contact with 4a dyke. Shear strikes at 162 deg and plunges at 85 deg E. (7ppb)

AG-25 (2325) - fine to m.g., mod to well fol., qtz-felds. porphyry (5a). o/c/ is massive, qtz eyes and fol. lenticular bands of bio. are present and trend at 169 deg.. Tr. py.. (5ppb)

AG-26 (2326) - qtz sweat within 5a. No vis. min.. (13ppb) repeat (16ppb)

AG-27 (2327) - Massive, mod to well fol. bio crystals, f.g., qtz augen rich porphyry. o/c does have rusty blotches scattered about. No vis. min.. (<5ppb)

AG-28 (2328) - Well fol/sheared 1 d,e with elongated felsic and mafic fragments oriented at 162 deg. dip; vertical. Chip sample @ 3ft.. (8ppb)

AG-29 (2329) - fine to m.g., greyish, mod to strongly fol. crystals porphyry with numerous qtz vnlts and tension cracks which are cut by the fol. also. Few qtz sweats present. Trace to < 1% cpy. (35ppb)

AG-30 (2330) - well fol/elongated 1 d,e on o/c in island. Mafic clasts 45%, felsic frag. 30%, matrix 25% (felsic rich). chip sample @ 2ft. (8ppb)

AG-31 (2331) - extremely fol-schistose, bio rich altered porphyry with < 5% garnet present occuring either in disseminated or clustered. o/c is rusty. No vis. min.. (15ppb)

AG-32 (2332) - dark green to black, mod. fol., massive 1a. hbl 60%, bio 10%, qtz 20%, plag 10%. No vis. min.. (<5ppb)

AG-33 (2333) - o/c of massive 1a with few rusty discontinuous micro-fractures with odd subhedral py (< 1%). (9ppb)

AG-34 (2334) - o/c of massive to weakly fol. 1a, with few felsic bands. No vis. min.. (<5ppb)

AG-35 (2335) - o/c of weak to mod fol. with 0.5 ft. qtz-carb vein (@ 5ft. long), slightly rusted, no vis. min. o/c also has epidote sweats present. (<5ppb)

AG-36 (2336) - f.g., massive to weakly fol. 1 a,b with v. thin qtz vnlts. Fractures are oxidized. No vis. min..

AG-37 (2337) - Massive to weakly fol., f.g., 1a with numerous rusty (limonite) stains throughout o/c.. Very small, thin, discontinuous qtz vnlts occur and are // to fol.. Epidote clusters also occur but are minor (< 5% of o/c).

AG-38 (2338) - massive, f.g., poorly to mod. fol., 1a with qtz sweat. < 1% py present.

AG-39 (2339) - mod to well sheared/fol. 1a in contact with 4b with few qtz-rich vnlts // to fol. Limonite staining throughout. < or = 5% py, < or = 1% cpy.

AG-40 (2340) - f.g., mod. fol. 1b. No vis. min..

AG-41 (2341) - pinkish, slightly to mod. fol., 4a or 5a. Strained qtz eyes present. Tr. py..

AG-42 (2342) - qtz vein in qtz-felds porphyry. Vein is @ 8-10 ft. long, 0.8 ft. wide. No vis. min..

AG-43 (2343) - qtz vein in 5a. in an o/c of 1 a,b

AG-44 (2344) - Well fol./elongated and/or sheared 1d,e with 70% felsic frgms and 30% mafic frgms present and fol. at 170 deg. dipping at 67-70 deg.. Felsic frgms stretched up to 30:1 and 50:1 for mafic frgms. No vis min..

AG-45 (2345) - f.g., massive, mod. to strongly fol. porphyry?, fol. at 162 deg., dip 85-90 deg. W.. Visible elongated qtz. eyes present. No vis. qtz veins and min.

AG-46 (2346) - o/c of 1b frgm or 1d,e with mafic-rich matrix and @ 40% each of felsic and mafic frgms present. No vis. min..

AG-47 (2347) - o/c of 1b with qtz sweats present. No vis. min. in qtz sweats.

AG-48 (2348) - o/c of massive, well fol/elongated porphyry with stretched qtz eyes present. Fol.is 150 deg, dip 65 deg. E.. No vis. min..

AG-49 (2349) - fine to med. grained, mod. to well fol. porphyry with slightly elongated qtz-eyes present. < or = 1% py. present.

AG-50 (2350) - well fol/sheared to schistose, bio-rich altered 5 (prph) with musc. and qtz present. No vis. min..

AG-51 (2351) - sample of 1d,e (debris flow) with qtz sweat. Sample similar to one on L 22S 500W (2330).

AG-52 (2352) - qtz vein, @ 12-15" wide, strike length not determined. No vis. min.

AG-53 (2353) - o/c of 1b to 1d with numerous elongated felsic fragments (60%) and mafic fragments (40%) present and trending at 166 deg. & dipping 85 deg. W.

AG-54 (2354) - o/c of well fol./sheared, sil. qtz-feld. porphyry (5a) with visible qtz-eyes present. No vis min or qtz veining. Pegmatite (4c) dyke cuts o/c parallel to foliation.

AG-55 (2355) - med. to c.g., qtz phenocryst-rich porphyry (5a) with small, narrow, discontinuous qtz vein cross-cutting porphyry. No vis sulphide min..

AG-56 (2356) - o/c of well fol/elongated qtz-felds porphyry with qtz vein (@ 0.3 ft. wide). Vein is discontinuous (4 ft long). No vis min in 5a or qtz vein.

AG-57 (2357) - fine to med. grained, mod to strongly fol. 1b (frgm) with qtz sweats parallel to foliation of 170 deg. No vis min..

AG-58 (2358) - f.g., massive to mod. fol., homogeneous 1b with < or = 1% banded py present. No vis qtz veining present.

AG-59 (2359) - well sheared and/or fol. 1b with rusty (limonitic) zone present. trace to < 1% py present. Same o/c whrer samples 2314 and 2315 were taken. Channel sample - 0.50m.

AG-60 (2360) - same as 2359

AG-61 (2361) - sheared, silicified, epidotitized, slightly chloritic 1b (frgm). No vis sulphide min.. Channel sample - 0.50m.

AG-62 (2362) - fine to med. grained, mod to strongly sheared and/or foliated, qtz-felds porphyry. No vis. min.. Channel sample - 0.50m.

AG-63 (2363) - fine to med. grained, mod to strongly foliated, mod. to strongly silicified porphyry with 25 - 30% bio present. Foliation is 165 deg. No vis sulphide mineralization.

AG-64 (2364) - weakly to mod. oxidised, qtz vei of 0.5m in width, strike length traceable to 6 ft.. No vis sulphide min..

AG-66 (2366) - qtz vein in sheared 1b; same 1b as 2359.

AG-67 (2367) - qtz vein in sheared 1b; same as 2361

AG-68 (2368) - qtz vein in 5a; same as 2363

AG-65 (2365) - qtz vein in well deformed "pillowed" amphibolite (possible flow-top breccia). No vis. sulphide min.. sample located at L 4S/ 2+50 E.

AG-69 (2366) - altered felsic intrusive with < 5% Mo rosettes. Assayed for Au, Mo.

AG-70 (2370) - qtz vein (0.2 ft wide) in foliated amphibolite 1b. No vis. min.

AG-71 (2371) - discontinuous qtz vein in foliated amphibolite (1b). No vis. min.

AG-72 (2372) - 1.5 to 2 ft. wide, discontinuous qtz vein intruding into 1b. Tr.py..

AG-73 (2373) - qtz vein in a well foliated felsic intrusive. found @ 300m north of L 0S.

AG-74 (2374) - qtz vein within 5a that intrudes into 1a,c. < 1% Mo, < 1% sph present. Vein is @ 4m long, 0.3m wide and is trending at 270 deg.

HRC-1 (2375) - qtz vein, no vis. min. Located at @ 1700S, 375W.

HRC-2 (2376) - qtz vein or sweat, no vis. min., no location.

HRC-4 (2377) - qtz vein or sweat, no vis. min; located at 900S, 100E

CK-2 (2378) - qtz vein sampled from o/c., no vis. min.; located @ at 1710S, 450W

CK-4 (2379) - qtz vein from boulder, no vis. min., located @ at 1375S, 400W

CK-6 (2380) - qtz vein from boulder, no vis. min., located @ at 1160S, 350W

CK-7 (2381) - qtz vein float, no vis. min., located @ at 675S, 100E

CK-8 (2382) - qtz vein sampled from o/c., no vis. min., located @ at 525S, 100E

WDE-2 (2383) - 2 cm wide qtz vein from edge of o/c of c.g. gabbro, no visible sulphides.

WDE-3 (2384) - 40 cm wide qtz vein in large o/c of sheared mafic volcanic, no vis. sulphide min.

WDE-4 (2385) - 6 cm wide qtz vein in qtz monzonite, minor pyrite < 1%.

WDE-5 (2386) - 6 to 8 cm wide qtz vein in qtz monzonite, no vis. sulphides min..

WDE-6 (2387) - 10 cm wide qtz vein in pegmatite within qtz monzonite o/c.

WDE-7 (2388) - 5 cm wide qtz vein a;ong edge of amphibolite boulder, minor pyrite.

WDE-8 (2389) - 4 to 6 cm wide qtz vein hosted within a 10 cm wide feldspar porphyry dyke.

WDE-9 (2390) - > 30 cm wide qtz vein along edge of pegmatite intrusive into amphibolite boulder.

WDE-10 (2391) - qtz vein in amphibolite

CK-1 (2392) - qtz vein, no vis. min., located @ at 1650S, 450W

CK-5 (2393) - qtz vein, no vis. min., located @ at 1350S, 425W

SV-1 (2394) - well fol/sheared,metased or sheared intrusive with qtz stringers (max 40-60 cm wide) trending at 140 deg. Sample is from the Sugar Vein.

SV-2 (2395) - quartzo-feldspathic dyke (sheared porphyry).

SV-3 (2396) - pinch and swell qtz vein found in well foliated mafic volcanic (150 deg / dipping at 85 deg W). No vis. min..

SV-4 (2397) - qtz vein in contact with qtz-felds porphyry (Sugar Vein).

SV-5 (2398) - qtz vein cutting qtz-felds porphyry (Sugar Vein)

APPENDIX C - GEOCHEMICAL HUMUS SAMPLING RESULTS

XRAL

X-RAY ASSAY LABORATORIES
A DIVISION OF SGS CANADA INC.
1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24640

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
14-Sep-93

REF. FILE 16106-

Total Pages 3

93 HUMUS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 19-Oct-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
L128N-99+00E	<1
L128N-99+25E	4
L128N-99+50E	<1
L128N-99+75E	4
L128N-99+87.5E	<1
L128N-BL100E	<1
L128N-100+12.5E	<1
L128N-100+25E	<1
L128N-100+50E	<1
L128N-100+75E	1
L128N-101+00E	1
L127N-99+00E	1
L127N-99+25E	<1
L127N-99+50E	<1
L127N-99+75E	2
L127N-99+87.5E	<1
L127N-BL-100E	<1
L127N-100+12.5E	3
L127N-100+25E	3
L127N-100+50E	2
L127N-100+75E	<1
L127N-101+00E	<1
L126N-98+50E	4
L126N-98+75E	3
L126N-99+00E	4
L126N-99+25E	3
L126N-99+50E	3
L126N-99+75E	5
L126N-100+00E	70
L126N-10012.5E	4
L126N-100+25E	3
L126N-100+37.5E	7
L126N-100+50E	6
L126N-100+75E	<1
L126N-101+00E	3
L126N-101+25E	4
L126N-101+50E	7
L125N-98+50E	6
L125N-98+75E	5
L125N-99+00E	5
L125N-99+25E	3
L125N-99+50E	3
L125N-99+75E	5
L125N-100+00E	6
L125N-100+12.5E	4

SAMPLE	AU PPB
L125N-100+25E	7
L125N-100+37.5E	3
L125N-100+50E	5
L125N-100+75E	2
L125N-101+00E	2
L125N-101+25E	4
L125N-101+50E	4
L1200S-500W	9
L1200S-400W	8
L1200S-350W	2
L1200S-300W	6
L1200S-250W	6
L1200S-200W	5
L1200S-150W	6
L1200S-100W	6
L1200S-50W	4
L1200S-BL	5
L1200S-475E	5
L1200S-500E	8
L1200S-525E	8
L1200S-550E	6
L1200S-575E	10
L1200S-600E	8
L1200S-625E	8
L1200S-650E	10
L1200S-675E	13
L1200S-700E	8
L1200S-725E	7
L1200S-750E	8
L1200S-775E	12
L1200S-800E	3
L1200S-825E	9
L1200S-850E	11
L1200S-875E	3
L1200S-900E	7
L1200S-925E	6
L1200S-950E	11
L1200S-975E	5
L1200S-1000E	5
L1200S-1025E	4
L1200S-1050E	6
L1200S-1075E	5
L1200S-1100E	4
L1200S-1125E	3
L1200S-1150E	<1

SAMPLE	AU PPB
L1200S-1175E	6
L1200S-1200E	6
L1200S-450W	7
D L128N-99+00E	5
D L126N-99+00E	4
D L125N-100+75E	2
D L1200S-725E	6

D - QUALITY CONTROL DUPLICATE

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

XRAL

X-RAY ASSAY LABORATORIES

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CERTIFICATE OF ANALYSIS

REPORT 24937

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
29-Sep-93

REF. FILE 16295-

Total Pages 14

589 HUMUS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 10-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
TL800W-4650S	1
TL800W-4700S	<1
TL800W-4750S	<1
TL800W-4850S	<1
TL800W-4900S	2
TL800W-4950S	2
TL800W-5050S	<1
TL800W-5100S	<1
TL800W-5150S	2
TL800W-5200S	4
TL800W-5250S	<1
TL800W-5300S	1
TL800W-5350S	<1
TL800W-5450S	<1
TL800W-5500S	2
TL800W-5550S	2
TL800W-5600S	3
TL775W-4500S	3
TL775W-4550S	2
TL8W-3050S	<1
TL8W-3100S	<1
TL8W-3200S	<1
TL8W-3250S	2
TL8W-3300S	1
TL8W-3350S	<1
TL8W-3400S	<1
TL8W-3450S	2
TL8W-3500S	2
TL8W-3550S	2
TL8W-3600S	<1
TL8W-3650S	<1
TL8W-3700S	1
TL8W-3800S	<1
TL8W-3850S	<1
TL8W-3900S	2
TL8W-3950S	1
TL8W-4000S	3
TL8W-4050S	<1
TL8W-4100S	2
TL8W-4150S	<1
TL8W-4250S	2
TL8W-4300S	2
TL8W-4350S	<1
TL8W-4450S	<1
BL200W-44+75S	<1

SAMPLE	AU PPB
BL200W-45+25S	1
BL200W-45+75S	<1
BL200W-3550S	<1
BL200W-4675S	4
BL200W-4725S	3
BL200W-4775S	<1
BL200W-5075S	2
BL200W-5125S	20
BL200W-5175S	4
BL200W-5275S	4
BL200W-5325S	2
BL200W-5375S	4
BL200W-5425S	<1
BL200W-5475S	3
BL200W-5525S	2
BL200W-5575S	3
BL%2+50W-3450S	2
BL%S+50W-3500S	<1
BL%2+50W-3550S	1
BL2W-3650S	<1
BL2W-3700S	<1
BL2W-3750S	<1
L34S-850W	2
L34S-800W	1
L34S-750W	<1
L34S-700W	4
L34S-650W	<1
L34S-600W	<1
L34S-550W	1
L34S-500W	1
L34S-450W	<1
L34S-400W	<1
L34S-350W	<1
L36S-750W	<1
L36S-700W	<1
L36S-650W	1
L36S-600W	2
L36S-550W	<1
L36S-500W	1
L36S-450W	<1
L36S-400W	1
L36S-350W	<1
L38S-850W	<1
L38S-800W	<1
L38S-750W	<1

SAMPLE	AU PPB
L38S-700W	<1
L38S-650W	1
L38S-600W	<1
L38S-550W	3
L38S-500W	<1
L38S-450W	<1
L38S-400W	1
L38S-350W	1
L38S-300W	<1
L38S-250W	1
L40S-850W	1
L40S-800W	2
L40S-750W	<1
L40S-700W	<1
L40S-650W	<1
L40S-600W	2
L40S-500W	<1
L40S-450W	<1
L40S-400W	1
L40S-350W	2
L40S-300W	2
L40S-250W	1
L46S-900W	<1
L46S-850W	<1
L46S-800W	<1
L46S-750W	1
L46S-700W	1
L46S-650W	1
L46S-600W	1
L46S-550W	<1
L46S-500W	<1
L46S-450W	<1
L46S-400W	<1
L46S-350W	<1
L46S-300W	<1
L46S-250W	1
L46S-200W	<1
L46S-150W	<1
L46S-100W	2
L46S-50W	2
L46S-0+00	1
L46S-25E	<1
L46S-50E	1
L46S-75E	<1
L46S-100E	1

SAMPLE	AU PPB
L46S-125E	<1
L46S-150E	3
L46S-175E	<1
L46S-200E	1
L46S-225E	<1
L46S-250E	1
L46S-275E	1
L46S-300E	2
L46S-325E	<1
L46S-350E	2
L46S-375E	1
L46S-400E	1
L46S-425E	3
L46S-450E	1
L46S-550E	<1
L46S-575E	<1
L46S-600E	2
L46S-625E	<1
L46S-650E	2
L46S-675E	<1
L46S-700E	<1
L46S-725E	<1
L46S-750E	<1
L46S-775E	<1
L46S-800E	2
L46S-825E	<1
L46S-850E	<1
L46S-875E	1
L46S-900E	2
L46S-925E	1
L46S-950E	<1
L46S-975E	1
L46S-1000E	<1
L46S-1025E	<1
L46S-1050E	1
L46S-1075E	3
L46S-1100E	3
L46S-1125E	<1
L46S-1150E	1
L48S-550E	<1
L48S-575E	2
L48S-600E	<1
L48S-625E	<1
L48S-650E	<1
L48S-675E	<1

SAMPLE	AU PPB
L48S-700E	<1
L48S-725E	3
L48S-750E	<1
L48S-775E	1
L48S-800E	<1
L48S-825E	1
L48S-850E	<1
L48S-875E	1
L48S-900E	2
L48S-925E	<1
L48S-950E	<1
L48S-975E	<1
L48S-1000E	1
L48S-1025E	1
L48S-1050E	2
L48S-1075E	<1
L48S-1100E	<1
L50S-900W	<1
L50S-850W	<1
L50S-800W	<1
L50S-750W	<1
L50S-725E	2
L50S-700E	<1
L50S-300E	<1
L50S-325E	<1
L50S-350S	<1
L50S-375E	2
L50S-400E	<1
L50S-425E	3
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L50S-475E	<1
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L50S-775E	1
L50S-800E	1
L50S-825E	<1
L50S-850E	2
L50S-875E	1
L50S-900E	<1
L50S-925E	<1

SAMPLE	AU PPB
L50S-950E	<1
L50S-975E	2
L50S-1000E	<1
L50S-1025E	<1
L50S-1050E	1
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L50S-1100E	1
L50S-1125E	<1
L50S-1150E	3
L54S-950E	<1
L54S-975E	<1
L54S-1000E	1
L54S-1025E	<1
L54S-1050E	<1
L54S-1075E	<1
L54S-1100E	1
L54S-1125E	1
L54S-1150E	<1
L54S-1175E	<1
L54S-1200E	<1
L56S-1150E	<1
L56S-1175E	1
L56S-1200E	<1
L3200S-800E	2
L3200S-825E	1
L3200S-850E	1
L3200S-875E	1
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L3200S-1025E	<1
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L3200S-1125E	<1
L3200S-1150E	<1
L3200S-1175E	<1
L3200S-1200E	<1
L3600S-BL200W	2
L3600S-150W	<1
L3600S-100W	1
L3600S-50W	<1
L3600S-0+00	4

SAMPLE	AU PPB
L3600S-25E	6
L3600S-50E	<1
L3600S-75E	2
L3600S-100E	1
L3600S-125E	2
L3600S-150E	2
L3600S-175E	2
L3600S-200E	2
L3600S-225E	1
L3600S-250E	2
L3600S-275E	<1
L3600S-300E	1
L3600S-325E	2
L3600S-350E	<1
L3600S-375E	<1
L3600S-400E	<1
L3600S-425E	2
L3600S-450E	2
L3600S-475E	1
L3600S-500E	2
L3600S-525E	1
L3600S-550E	1
L3600S-575E	<1
L3600S-600E	<1
L3600S-625E	<1
L3600S-650E	1
L3600S-675E	2
L3600S-700E	2
L3600S-725E	<1
L3600S-750E	1
L3600S-775E	3
L3600S-800E	<1
L3600S-825E	3
L3600S-850E	1
L3600S-875E	2
L3600S-900E	<1
L3600S-925E	2
L3600S-950E	<1
L3600S-975E	2
L3600S-1000E	2
L3600S-1025E	2
L3600S-1050E	1
L3600S-1075E	2
L3600S-1100E	<1
L3600S-1125E	1

SAMPLE	AU PPB
L3600S-1140E	2
L4200S-900W	<1
L4200S-800W	<1
L4200S-750W	<1
L4200S-700W	1
L4200S-600W	2
L4200S-500W	1
L4200S-450W	2
L4200S-400W	2
L4200S-350W	6
L4200S-300W	3
L4200S-250W	2
L4825S-900W	<1
L4825S-850W	<1
L4825S-800W	3
L4825S-750W	4
L4825S-700W	3
L4825S-600W	1
L4825S-550W	2
L4825S-500W	3
L4825S-450W	3
L4825S-400W	4
L4825S-350W	2
L4825S-300W	1
L4825S-250W	4
L4825S-200W	3
L4825S-150W	6
L4825S-100W	1
L4825S-50W	3
L4825S-0+00	<1
L4825S-25E	2
L4825S-50E	2
L4825S-75E	3
L4825S-100E	<1
L4825S-125E	<1
L4825S-150E	1
L4825S-175E	2
L4825S-200E	3
L4825S-225E	2
L4825S-250E	<1
L4825S-275E	3
L4825S-300E	2
L4825S-325E	<1
L4825S-350E	<1
L4825S-375E	<1

SAMPLE	AU PPB
L4825S-400E	2
L4825S-425E	2
L4825S-450E	<1
L4825S-475E	3
L4825S-500E	<1
L5025S-700W	1
L5025S-650W	3
L5025S-600W	3
L5025S-550W	3
L5025S-450W	3
L5025S-400W	2
L5025S-350W	<1
L5025S-300W	<1
L5025S-250W	<1
L5025S-200W	<1
L5025S-150W	<1
L5025S-100W	<1
L5025S-50W	6
L5025S-0+00	3
L5025S-25E	<1
L5025S-50E	<1
L5025S-75E	<1
L5025S-100E	2
L5025S-125E	<1
L5025S-150E	<1
L5025S-175E	1
L5025S-200E	3
L5025S-225E	4
L5025S-250E	4
L5025S-275E	2
L5225S-900W	<1
L5225S-800W	2
L5225S-750W	4
L5225S-700W	2
L5225S-650W	4
L5225S-600W	<1
L5225S-550W	2
L5225S-500W	2
L5225S-500WA	<1
L5225S-450W	<1
L5225S-400W	2
L5225S-350W	4
L5225S-300W	<1
L5225S-250W	<1
L5225S-BL200W	4

SAMPLE	AU PPB
L5225S-150W	9
L5225S-100W	2
L5225S-50W	3
L5225S-0+00	3
L5225S-25E	1
L5225S-50E	4
L5225S-75E	<1
L5225S-100E	3
L5225S-125E	3
L5225S-150E	<1
L5225S-175E	<1
L5225S-200E	3
L5225S-225E	3
L5225S-250E	3
L5225S-275E	1
L5225S-300E	2
L5225S-325E	2
L5225S-350E	4
L5225S-375E	<1
L5225S-400E	2
L5225S-425E	3
L5225S-450E	<1
L5225S-475E	3
L5225S-500E	1
L5225S-525E	1
L5225S-550E	3
L5225S-575E	<1
L5225S-600E	1
L5225S-625E	2
L5225S-650E	1
L5225S-675E	2
L5225S-700E	2
L5225S-725E	2
L5225S-750E	1
L5225S-825E	4
L5225S-850E	<1
L5225S-875E	<1
L5225S-900E	2
L5225S-925E	5
L5225S-950E	1
L5225S-975E	3
L5225S-1000E	4
L5225S-1025E	2
L5225S-1050E	1
L5225S-1075E	2

SAMPLE	AU PPB
L5225S-1100E	<1
L5225S-1125E	<1
L5225S-1150E	<1
L5225S-1175E	<1
L5225S-1200E	1
L5425S-900W	<1
L5425S-850W	<1
L5425S-800W	3
L5425S-750W	2
L5425S-700W	2
L5425S-650W	2
L5425S-600W	2
L5425S-550W	3
L5425S-505W	5
L5425S-380W	6
L5425S-350W	2
L5425S-300W	2
L5425S-250W	5
L5425S-150W	3
L5425S-100W	3
L5425S-50W	4
L5425S-0+00	3
L5425S-25E	2
L5425S-50E	3
L5425S-75E	2
L5425S-100E	5
L5425S-125E	2
L5425S-150E	2
L5425S-175E	3
L5425S-200E	2
L5425S-225E	<1
L5425S-250E	1
L5425S-275E	1
L5425S-300E	2
L5425S-325E	1
L5425S-350E	2
L5425S-375E	1
L5425S-400E	<1
L5425S-425E	2
L5425S-450E	2
L5425S-475E	3
L5425S-500E	1
L5425S-525E	<1
L5425S-550E	2
L5425S-575E	2

SAMPLE	AU PPB
L5425S-600E	2
L5425S-625E	1
L5425S-650E	2
L5425S-675E	1
L5425S-700E	<1
L5425S-725E	<1
L5425S-750E	2
L5425S-775E	2
L5425S-800E	2
L5425S-825E	3
L5625S-900W	2
L5625S-850W	2
L5625S-750W	3
L5625S-700W	2
L5625S-650W	3
L5625S-600W	2
L5625S-550W	3
L5625S-400W	<1
L5625S-350W	<1
L5625S-300W	2
L5625S-250W	1
L5625S-BL200W	2
L5625S-150W	2
L5625S-100W	3
L5625S-50W	2
L5625S-0+00	<1
L5625S-25E	<1
L5625S-50E	2
L5625S-75E	<1
L5625S-100E	1
L5625S-125E	1
L5625S-150E	<1
L5625S-175E	2
L5625S-200E	1
L5625S-225E	2
L5625S-250E	8
L5625S-275E	2
L5625S-300E	2
L5625S-325E	2
L5625S-350E	<1
L5625S-375E	<1
L5625S-400E	<1
L5625S-425E	<1
L5625S-450E	1
L5625S-475E	1

SAMPLE	AU PPB
L5625S-500E	1
L5625S-525E	<1
L5625S-550E	<1
L5625S-575E	3
L5625S-600E	<1
L5625S-625E	2
L5625S-650E	3
L5625S-675E	<1
L5625S-700E	<1
L5625S-725E	1
L5625S-750E	2
TL12E-3650S	1
TL12E-3700S	1
TL12E-3750S	<1
TL12E-3800S	<1
TL12E-3900S	2
TL12E-3950S	<1
TL12E-4000S	2
TL12E-4050S	1
TL12E-4100S	<1
TL12E-4150S	2
TL12E-4200S	1
TL12E-4250S	2
TL12E-4300S	<1
TL12E-4350S	2
TL12E-4400S	<1
TL12E-4450S	<1
TL12E-4500S	<1
TL12E-4550S	<1
TL12E-4650S	1
TL12E-4700S	2
TL12E-4750S	2
TL12E-4800S	<1
TL12E-4850S	3
TL12E-4900S	2
TL12E-4950S	<1
TL12E-5050S	<1
TL12E-5100S	2
TL12E-5150S	2
TL12E-5250S	<1
TL12E-5300S	<1
TL12E-5350S	<1
TL12E-5450S	<1
TL12E-5500S	<1
TL12E-5550S	2

	SAMPLE	AU PPB
	TL12E-5600S	2
	TL1200E-3450S	<1
	TL1200E-3500S	1
	TL1200E-3550S	4
D	TL800W-4650S	1
D	TL8W-3350S	<1
D	BL200W-4675S	1
D	L34S-600W	1
D	L38S-400W	<1
D	L46S-500W	<1
D	L46S-350E	2
D	L46S-1025E	<1
D	L48S-1000E	2
D	L50S-625E	<1
D	L54S-1100E	<1
D	L3200S-1200E	3
D	L3600S-475E	<1
D	L3600S-1075E	2
D	L4825S-400W	<1
D	L4825S-400E	2
D	L5025S-150E	<1
D	L5225S-0+00	<1
D	L5225S-600E	1
D	L5425S-850W	1
D	L5425S-225E	1
D	L5425S-825E	4
D	L5625S-200E	2
D	TL12E-3700S	<1
D	TL12E-5050S	2

D - QUALITY CONTROL DUPLICATE

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24826

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
24-Sep-93

REF. FILE 16232-

Total Pages 7

287 PULPS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 08-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
BL200W-3850S	2
BL200W-3900S	2
BL200W-3950S	2
BL200W-4050S	4
BL200W-4100S	2
BL200W-4150S	1
BL200W-4250S	2
BL200W-4300S	<1
BL200W-4350S	<1
BL2+50W-33+50S	<1
BL2W-3250S	1
BL2W-3300S	1
BL2W-3350S	<1
L34S-250W	1
L34S-125W	1
L34S-75W	1
L34-0	1
L34S-25E	<1
L34S-50E	2
L34S-100E	3
L34S-125E	<1
L34S-150E	1
L34S-175E	<1
L34S-200E	2
L34S-225E	1
L34S-250E	<1
L34S-275E	1
L34S-300E	1
L34S-325E	<1
L34S-350E	<1
L34S-375E	1
L34S-400E	1
L34S-425E	1
L34S-450E	4
L34S-525E	<1
L34S-550E	1
L34S-575E	2
L34S-600E	3
L34S-625E	<1
L34S-650E	<1
L34S-675E	1
L34S-700E	1
L34S-725E	1
L34S-750E	3
L34S-775E	1

SAMPLE	AU PPB
L34S-800E	1
L34S-825E	2
L34S-850E	SMP MISS
L34S-875E	1
L34S-900E	2
L34S-925E	1
L34S-950E	3
L34S-975E	1
L34S-1000E	1
L34S-1025E	1
L34S-1050E	1
L34S-1075E	2
L34S-1100EA	2
L34S-1000EB	1
L34S-1125E	<1
L34S-1150E	<1
L38S-200W	3
L38S-150W	1
L38S-100W	<1
L38S-50W	1
L38S-0	<1
L38S-25E	3
L38S-50E	2
L38S-75E	1
L38S-100E	<1
L38S-125E	4
L38S-150E	1
L38S-175E	<1
L38S-200E	1
L38S-225E	<1
L38S-250E	<1
L38S-275E	1
L38S-300E	2
L38S-325E	1
L38S-350E	1
L38S-375E	<1
L38S-400E	<1
L38S-425E	2
L38S-450E	<1
L38S-475E	<1
L38S-500E	<1
L38S-525E	<1
L38S-550E	1
L38S-575E	2
L38S-600E	<1

SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAL

SAMPLE	AU PPB
L38S-625E	2
L38S-650E	<1
L38S-675E	2
L38S-700E	2
L38S-725E	<1
L38S-750E	<1
L38S-775E	2
L38S-800E	<1
L38S-825E	<1
L38S-850E	2
L38S-875E	2
L38S-900E	<1
L38S-925E	1
L38S-950E	<1
L38S-975E	1
L38S-1000E	<1
L38S-1025E	<1
L38S-1050E	<1
L38S-1075E	1
L38S-1100E	<1
L38S-1125E	<1
L38S-1150E	<1
L44S-600W	5
L44S-550W	1
L44S-500W	1
L44S-450W	2
L44S-400W	<1
L44S-350W	2
L44S-300W	1
L44S-250W	<1
L44S-200W	1
L44S-150W	1
L44S-100W	1
L44S-50W	1
L44S-0	<1
L44S-25E	<1
L44S-50E	1
L44S-75E	1
L44S-100E	<1
L44S-125E	1
L44S-150E	1
L44S-175E	2
L44S-200E	<1
L44S-225E	<1
L44S-250E	<1

SAMPLE	AU PPB
L44S-275E	<1
L44S-300E	1
L44S-325E	<1
L44S-350E	3
L44S-375E	<1
L44S-450E	<1
L44S-475E	2
L44S-500E	<1
L44S-525E	2
L44S-550E	<1
L44S-575E	3
L44S-600E	2
L44S-625E	<1
L44S-650E	3
L44S-675E	<1
L44S-700E	1
L44S-725E	<1
L44S-750E	<1
L44S-775E	<1
L44S-800E	<1
L44S-825E	<1
L44S-850E	<1
L44S-875E	<1
L44S-900E	2
L44S-925E	1
L44S-950E	2
L44S-975E	3
L44S-1000E	1
L44S-1025E	1
L44S-1050E	<1
L44S-1075E	<1
L44S-1100E	1
L44S-1125E	3
L4000S-BL200W	1
L4000S-150W	<1
L4000S-100W	2
L4000S-50W	2
L4000S-0+00	1
L4000S-25E	1
L4000S-50E	3
L4000S-75E	3
L4000S-100E	5
L4000S-125E	3
L4000S-150E	<1
L4000S-175E	2

SAMPLE	AU PPB
L4000S-200E	3
L4000S-225E	3
L4000S-250E	<1
L4000S-275E	<1
L4000S-300E	4
L4000S-325E	2
L4000S-350E	2
L4000S-375E	2
L4000S-400E	4
L4000S-425E	3
L4000S-450E	2
L4000S-475E	<1
L4000S-500E	<1
L4000S-525E	<1
L4000S-550E	1
L4000S-575E	4
L4000S-600E	5
L4000S-625E	3
L4000S-650E	<1
L4000S-675E	<1
L4000S-700E	2
L4000S-725E	3
L4000S-750E	<1
L4000S-775E	2
L4000S-800E	<1
L4000S-825E	<1
L4000S-850E	2
L4000S-875E	3
L4000S-900E	3
L4000S-925E	3
L4000S-950E	2
L4000S-975E	1
L4000S-1000E	2
L4000S-1025E	3
L4000S-1050E	<1
L4000S-1075E	2
L4000S-1100E	2
L4000S-1125E	1
L4000S-1150E	3
L4000S-1175E	1
L4000S-1200E	4
L4200S-BL200W	1
L4200S-150W	1
L4200S-100W	4
L4200S-50W	2

SAMPLE	AU PPB
L4200S-0+00	3
L4200S-25E	<1
L4200S-50E	2
L4200S-75E	2
L4200S-100E	1
L4200S-125E	<1
L4200S-150E	2
L4200S-175E	1
L4200S-200E	2
L4200S-225E	1
L4200S-250E	1
L4200S-275E	4
L4200S-300E	1
L4200S-325E	<1
L4200S-350E	<1
L4200S-375E	<1
L4200S-400E	4
L4200S-425E	2
L4200S-450E	<1
L4200S-475E	<1
L4200S-500E	4
L4200S-525E	1
L4200S-550E	1
L4200S-575E	2
L4200S-600E	1
L4200S-625E	4
L4200S-650E	2
L4200S-675E	1
L4200S-725E	<1
L4200S-750E	<1
L4200S-775E	<1
L4200S-800E	<1
L4200S-825E	2
L4200S-850E	2
L4200S-875E	3
L4200S-900E	2
L4200S-925E	2
L4200S-950E	2
L4200S-975E	3
L4200S-1000E	<1
L4200S-1025E	3
L4200S-1050E	1
L4200S-1075E	2
L4200S-1100E	<1
L4200S-1125E	<1

	SAMPLE	AU PPB
	L4200S-1150E	2
	L4200S-1175E	3
	L4200S-1200E	<1
	L4400S-850W	1
	L4400S-800W	1
	L4400S-750W	3
	L4400S-700W	<1
	L4400S-650W	1
	TL800W-4400S	<1
	TL12E-3050S	<1
	TL12E-3100S	<1
	TL12E-3150S	2
	TL12E-3200S	<1
	TL12E-3250S	1
	TL12E-3300S	<1
	TL12E-3350S	<1
	TL12E-3400S	<1
D	BL200W-3850S	1
D	L34S-225E	2
D	L34S-875E	<1
D	L38S-175E	<1
D	L38S-775E	2
D	L44S-200W	2
D	L44S-550E	3
D	L4000S-BL200W	2
D	L4000S-500E	<1
D	L4000S-1100E	3
D	L4200S-375E	<1
D	L4200S-1000E	3

D - QUALITY CONTROL DUPLICATE

X-RAY ASSAY LABORATORIES 1885 Leslie Street Don Mills Ontario M3B 3J4 (416)445-5755 Fax (416)445-4152 Tlx 06-986947
Member of the SGS Group (Société Générale de Surveillance)

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA

TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24839

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
24-Sep-93

REF. FILE 16199-

Total Pages 10

427 HUMUS

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 08-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
TL800W-1850S	5
TL800W-1900S	2
TL800W-1950S	7
TL800W-2050S	4
TL800W-2100S	4
TL800W-2150S	6
TL800W-2250S	<1
TL800W-2300S	1
TL800W-2350S	6
TL800W-2450S	<1
TL800W-2500S	16
TL800W-2550S	4
TL800W-2650S	4
TL800W-2700S	2
TL800W-2750S	6
TL800W-2800S	4
TL800W-2850S	7
TL800W-2900W	<1
TL800W-2950S	4
BL200W-1950S	4
BL200W-2050S	3
BL200W-2100S	2
BL200W-2150S	5
BL200W-2250S	3
BL200W-2300S	5
BL2W-2350S	3
BL2W-24+50S	2
BL2W-2500S	<1
BL2W-2550S	1
BL2W-2650S	2
BL2W-2700S	3
BL2W-2750S	2
BL2W-28+00S	<1
BL2W-2850S	<1
BL2W-2900S	1
BL2W-2950S	2
BL2W-3050S	2
BL2W-3100S	<1
BL2W-3150S	<1
L22S-800W	<1
L22S-750W	2
L22S-700W	<1
L22S-650W	<1
L22S-600W	<1
L22S-550W	1

SAMPLE	AU PPB
L22S-500W	<1
L22S-450W	<1
L22S-400W	<1
L22S-350W	<1
L22S-300W	1
L22S-250W	<1
L22S-200W	4
L22S-150W	<1
L22S-100W	<1
L22S-50W	<1
L22S-0+00	2
L22S-25E	2
L22S-50E	<1
L22S-75E	<1
L22S-100E	<1
L22S-125E	1
L22S-150E	2
L22S-175E	1
L22S-200E	<1
L22S-225E	2
L22S-250E	<1
L22S-275E	<1
L22S-300E	<1
L22S-325E	<1
L22S-350E	<1
L22S-375E	<1
L22S-400E	2
L22S-425E	<1
L22S-450E	3
L22S-475E	2
L22S-500E	<1
L22S-525E	3
L22S-550E	3
L22S-575E	4
L22S-600E	<1
L22S-625E	2
L22S-650E	1
L22S-675E	3
L22S-700E	<1
L22S-725E	<1
L22S-750E	4
L22S-775E	<1
L22S-800E	1
L22S-825E	2
L22S-850E	3

SAMPLE	AU PPB
L22S-875E	2
L22S-900E	3
L22S-925E	2
L26S-800W	2
L26S-750W	1
L26S-700W	1
L26S-650W	<1
L26S-600W	5
L26S-350W	<1
L26S-300W	1
L26S-250W	<1
L26S-200W	5
L26S-150W	<1
L26S-100W	<1
L26S-50W	<1
L26S-0	2
L26S-25E	2
L26S-50E	<1
L26S-75E	<1
L26S-100E	<1
L26S-125E	<1
L26S-150E	3
L26S-175E	2
L26S-200E	<1
L26S-225E	2
L26S-250E	2
L26S-275E	2
L26S-300E	2
L26S-325E	2
L26S-350E	2
L26S-375E	<1
L26S-400E	<1
L26S-425E	1
L26S-450E	1
L26S-475E	<1
L26S-500E	<1
L26S-525E	<1
L26S-550E	<1
L26S-575E	<1
L26S-600E	<1
L26S-625E	<1
L26S-650E	<1
L26S-675E	3
L26S-700E	<1
L26S-725E	<1

SAMPLE	AU PPB
L26S-750E	<1
L26S-775E	2
L26S-800E	<1
L26S-825E	<1
L26S-850E	2
L26S-875E	2
L26S-900E	<1
L26S-925E	2
L26S-950E	<1
L26S-975E	<1
L26S-1000E	<1
L26S-1025E	2
L26S-1050E	3
L26S-1075E	<1
L26S-1100E	<1
L26S-1125E	<1
L26S-1150E	1
L26S-1165E	2
L28S-450W	<1
L28S-400W	<1
L28S-350W	2
L28S-300W	2
L28S-250W	<1
L28S-150W	1
L28S-100W	<1
L28S-50W	3
L28S-0	3
L28S-25E	<1
L28S-50E	<1
L28S-75E	<1
L28S-100E	<1
L28S-125E	<1
L28S-150E	<1
L28S-175E	1
L28S-200E	<1
L28S-225E	2
L28S-250E	<1
L28S-275E	2
L28S-300E	2
L28S-325E	<1
L28S-350E	1
L28S-375E	<1
L28S-400E	1
L28S-425E	3
L28S-450E	2

SAMPLE	AU PPB
L28S-475E	1
L28S-500E	1
L28S-525E	2
L28S-550E	<1
L28S-575E	<1
L28S-600E	1
L28S-625E	3
L28S-650E	<1
L28S-675E	<1
L28S-700E	<1
L28S-725E	2
L28S-750E	<1
L28S-775E	2
L28S-800E	2
L28S-825E	<1
L28S-850E	2
L28S-875E	1
L28S-900E	2
L28S-925E	<1
L28S-950E	1
L28S-975E	<1
L28S-1000E	<1
L28S-1025E	4
L28S-1050E	<1
L28S-1075E	<1
L28S-1100E	2
L28S-1125E	1
L28S-1150E	1
L28S-1175E	2
L32S-150W	2
L32S-100W	1
L32S-50W	<1
L32S-0	1
L32S-25E	<1
L32S-50E	<1
L32S-75E	<1
L32S-100E	<1
L32S-125E	1
L32S-150E	<1
L32S-175E	2
L32S-200E	<1
L32S-225E	<1
L32S-250E	2
L32S-275E	<1
L32S-300E	<1

SAMPLE	AU PPB
L32S-325E	<1
L32S-350E	1
L32S-375E	1
L32S-400E	<1
L32S-425E	2
L32S-450E	1
L32S-475E	<1
L32S-500E	<1
L32S-525E	16
L32S-550E	1
L32S-575E	<1
L32S-600E	2
L32S-625E	<1
L32S-650E	<1
L32S-675E	2
L32S-700E	2
L32S-725E	<1
L32S-750E	2
L32S-775E	<1
TL12E-2650S	<1
TL12E-2700S	1
TL12E-2750S	<1
TL1200E-2050S	7
TL1200E-2100S	4
TL1200E-2150S	3
TL1200E-2250S	1
TL1200E-2300S	3
TL1200E-2350S	4
TL1200E-2400S	2
TL1200E-2450S	6
TL1200E-2500S	5
TL1200E-2550S	3
TL1200E-2850S	7
TL1200E-2900S	3
TL1200E-2950S	5
L2000S-50E	3
L2000S-75E	10
L2000S-100E	5
L2000S-125E	3
L2000S-150E	4
L2000S-175E	4
L2000S-200E	5
L2000S-225E	5
L2000S-250E	4
L2000S-275E	4

SAMPLE	AU PPB
L2000S-300E	3
L2000S-325E	3
L2000S-350E	8
L2000S-375E	8
L2000S-400E	3
L2000S-425E	3
L2000S-450E	4
L2000S-475E	1
L2000S-500E	3
L2000S-525E	3
L2000S-550E	2
L2000S-575E	3
L2000S-600E	1
L2000S-625E	3
L2000S-650E	8
L2000S-675E	5
L2000S-700E	3
L2000S-725E	4
L2000S-750E	4
L2000S-775E	4
L2000S-800E	5
L2000S-825E	7
L2000S-850E	6
L2000S-875E	5
L2000S-900E	4
L2000S-925E	6
L2000S-950E	5
L2000S-975E	4
L2000S-1000E	5
L2000S-1025E	5
L2000S-1050S	3
L2000S-1075S	6
L2000S-1100S	9
L2000S-1125S	6
L2000S-1150S	6
L2000S-1175S	8
L2000S-1200S	3
L2200S-950E	3
L2200S-975E	<1
L2200S-1000E	4
L2200S-1025E	2
L2200S-1050E	<1
L2200S-1075E	3
L2200S-1100E	2
L2200S-1125E	3

SAMPLE	AU PPB
L2200S-1150E	4
L2200S-1175E	4
L2200S-1200E	3
L2400S-625E	2
L2400S-650E	3
L2400S-675E	<1
L2400S-700E	4
L2400S-725E	3
L2400S-750E	2
L2400S-775E	4
L2400S-800E	4
L2400S-825E	3
L2400S-850E	3
L2400S-875E	1
L2400S-900E	4
L2400S-925E	2
L2400S-950E	5
L2400S-975E	3
L2400S-1000E	5
L2400S-1025E	1
L2400S-1050E	4
L2400S-1075E	<1
L2400S-1100E	4
L2400S-1125E	4
L2400S-1150E	2
L2400S-1175E	9
L2400S-1200E	13
L2800S-800W	3
L2800S-750W	5
L2800S-700W	2
L2800S-650W	4
L2800S-600W	3
L3000S-850W	4
L3000S-800W	4
L3000S-750W	2
L3000S-700W	3
L3000S-650W	<1
L3000S-600W	11
L3000S-550W	25
L3000S-500W	3
L3000S-450W	6
L3000S-400W	4
L3000S-350W	4
L3000S-300W	5
L3000S-250W	2

SAMPLE	AU PPB
L3000S-200W	9
L3000S-150W	<1
L3000S-100W	15
L3000S-50W	3
L3000S-0+00	2
L3000S-25E	6
L3000S-50E	15
L3000S-75E	2
L3000S-100E	3
L3000S-125E	2
L3000S-150E	2
L3000S-175E	2
L3000S-200E	5
L3000S-225E	4
L3000S-250E	2
L3000S-275E	3
L3000S-300E	9
L3000S-325E	10
L3000S-350E	4
L3000S-375E	3
L3000S-400E	4
L3000S-425E	5
L3000S-450E	5
L3000S-475E	1
L3000S-500E	3
L3000S-525E	5
L3000S-550E	2
L3000S-575E	3
L3000S-600E	3
L3000S-625E	3
L3000S-650E	2
L3000S-675E	3
L3000S-700E	3
L3000S-725E	11
L3000S-750E	3
L3000S-775E	7
L3000S-800E	3
L3000S-825E	3
L3000S-850E	4
L3000S-875E	4
L3000S-900E	6
L3000S-925E	5
L3000S-950E	7
L3000S-975E	6
L3000S-1000E	3

	SAMPLE	AU PPB
	L3000S-1025E	4
	L3000S-1050E	3
	L3000S-1075E	5
	L3000S-1100E	4
	L3000S-1125E	3
	L3000S-1150E	3
	L3000S-1175E	10
	L3000S-1200E	12
	L3200S-850W	4
	L3200S-800W	2
	L3200S-750W	4
	L3200S-700W	2
	L3200S-650W	2
	L3200S-600W	4
	L3200S-550W	<1
	L3200S-500W	3
	L3200S-450W	<1
	L3200S-400W	<1
	L3200S-350W	3
	L3200S-300W	2
	L3200S-250W	2
	L3200S-200W	2
D	TL800W-1850S	4
D	BL200W-2300S	3
D	L22S-350W	1
D	L22S-425E	<1
D	L26S-650W	<1
D	L26S-375E	<1
D	L26S-975E	<1
D	L28S-175E	<1
D	L28S-775E	<1
D	L32S-100E	<1
D	L32S-700E	3
D	L2000S-150E	5
D	L2000S-750E	5
D	L2200S-1075E	4
D	L2400S-1075E	1
D	L3000S-200W	4
D	L3000S-500E	9
D	L3000S-1100E	2

D - QUALITY CONTROL DUPLICATE

SAMPLE	AU PPB NA
B.L[redacted]00	1
B.L.50S	4
B.L.100S	3
B.L.150S	2
B.L.250S	6
BLO-300S	4
BLO-350S	4
BLO-450S	<1
BLO-500S	1
BLO-550S	6
BLO-650S	4
BLO-700S	2
BLO-750S	4
BLO-850S	4
BLO-900S	6
BLO-950S	4
BLO-1050S	2
BLO-1100S	4
BLO-1150S	8
BLO-1250S	7
BLO-1350S	3
BLO-1450S	5
BLO-1500S	3
BLO-1550S	3
LO-50W	2
LO-25E	2
LO-50E	1
LO-75E	2
LO-100E	3
L10S-300E	<1
L10S-325E	<1
L10S-350E	<1
L10S-375E	<1
L10S-400E	<1
L10S-425E	2
L10S-450E	2
L10S-475E	3
L10S-500E	<1
L10S-525E	<1
L10S-550E	<1
L10S-575E	3
L10S-600E	<1
L10S-625E	3
L10S-650E	1
L10S-675E	7
L10S-700E	<1
L10S-725E	3
L10S-750E	3
L10S-775E	<1
L10S-800E	3
L10S-825E	4
L10S-850E	<1
L10S-875E	<1
L10S-900E	1
L10S-925E	2
L10S-950E	1
L10S-975E	<1
L10S-1000E	<1
L10S-1025E	<1
L10S-1050E	<1
L10S-1075E	<1
L10S-1100E	<1
L10S-1125E	<1
L10S-1150E	1
L14S-750W	2
L14S-700W	3
L14S-650W	<1
L14S-600W	<1
L14S-550W	3
L14S-500W	<1
L14S-450W	2
L14S-400W	3
L14S-350W	<1
L14S-300W	<1
L14S-250W	<1
L14S-200W	<1
L14S-150W	1
L14S-100W	2
L14S-50W	<1
L16S-800W	<1
L16S-750W	2
L16S-700W	<1
L16S-650W	<1
L16S-600W	2
L16S-550W	3
L16S-500W	3
L16S-450W	2
L16S-400W	<1
L16S-350W	2
L16S-300W	2
L16S-250W	<1
L16S-200W	<1

SAMPLE	AU PPB FA
L16[redacted]0%	4
L16S-100%	1
L16S-50%	<1
L16S-BL0+00	3
L16S-25E	4
L16S-50E	<1
L16S-75E	<1
L16S-100E	<1
L16S-125E	3
L16S-540E	1
L16S-575E	1
L16S-600E	<1
L16S-625E	1
L16S-650E	2
L16S-675E	<1
L16S-700E	<1
L16S-725E	4
L16S-750E	2
L16S-775E	<1
L16S-800E	<1
L16S-825E	<1
L16S-850E	2
L16S-875E	<1
L16S-900E	2
L16S-925E	<1
L16S-950E	<1
L16S-975E	1
L16S-1000E	2
L16S-1025E	2
L16S-1050E	<1
L16S-1075E	<1
L16S-1100E	2
L16S-1125E	<1
L16S-1150E	<1
L16S-1175E	1
L18S-500%	<1
L18S-450%	3
L18S-400%	4
L18S-350%	3
L18S-300%	<1
L18S-2+50%	<1
L18S-1+75%	<1
18+00S-BL2%	2
L18S-400E	<1
L18S-425E	1
L18S-450E	<1
L18S-475E	<1
L18S-500E	2
L18S-525E	<1
L18S-550E	2
L18S-575E	<1
L18S-600E	<1
L18S-625E	2
L18S-650E	1
L18S-675E	1
L18S-700E	3
L18S-725E	<1
L18S-750E	1
L18S-775E	<1
L18S-800E	2
L18S-825E	<1
L18S-850E	<1
L18S-875E	2
L18S-900E	<1
L18S-925E	1
L18S-950E	2
L18S-975E	<1
L18S-1000E	<1
L18S-1025E	<1
L18S-1050E	2
L18S-1075E	<1
L18S-1100E	<1
L18S-1125E	<1
L18S-1150E	2
L18S-1175E	<1
L20S-7+80%	<1
L20S-750%	<1
L20S-700%	9
L20S-650%	<1
L20S-600%	8
L20S-550%	<1
L20S-500%	<1
L20S-450%	<1
L20S-400%	3
L20S-350%	<1
L20S-300%	<1
L20S-250%	<1
L20S-200%	3
L20S-150%	2
20+00S-BL2%-	1
L400S-750%	3
L400S-700%	7

SAMPLE	AU PPB FA
L400S-[redacted]0W	7
L400S-600W	8
L400S-550W	8
L400S-500W	7
L400S-450W	5
L400S-420W	3
L600S-750W	4
L600S-700W	5
L600S-650W	8
L600S-600W	7
L600S-550W	4
L600S-500W	6
L600S-470W	3
L800S-750W	2
L800S-700W	2
L800S-650W	2
L800S-600W	4
L800S-550W	1
L1000S-750W	2
L1200S-750W	4
L2400S-800W	8
L2400S-750W	3
L2400S-700W	11
L2400S-650W	3
L2400S-600W	7
L2400S-550W	4
L2400S-500W	6
L2400S-450W	7
L2400S-400W	6
L2400S-350W	5
L2400S-300W	6
L2400S-250W	4
L2400S-200W	4
L2400S-150W	3
L2400S-100W	9
L2400S-50W	4
L2400S-0+00	3
L2400S-25E	4
L2400S-50E	3
L2400S-75E	4
L2400S-100E	5
L2400S-125E	<1
L2400S-150E	3
L2400S-175E	6
L2400S-200E	5
L2400S-225E	5
L2400S-250E	<1
L2400S-275E	18
L2400S-300E	6
L2400S-325E	6
L2400S-350E	4
L2400S-375E	5
L2400S-400E	4
L2400S-425E	2
L2400S-450E	6
L2400S-475E	6
L2400S-500E	17
L2400S-525E	7
L2400S-550E	5
L2400S-575E	24
L2400S-600E	7
TL12E-1450S	2
TL12E-1500S	<1
TL12E-1550S	<1
TL12E-1600S	4
TL12E-1650S	<1
TL12E-1700S	1
TL12E-1750S	4
TL12E-1800S	1
TL12E-1850S	<1
TL12E-1900S	1
TL12E-1950S	3
TL800W-1450S	3
TL800W-1500S	5
TL800W-1550S	6
TL800W-1600S	4
TL800W-1650S	3
TL800W-1690S	<1
TL1200E-450S	2
TL1200E-500S	2
TL1200E-550S	14
TL1200E-600S	3
TL1200E-700S	2
TL1200E-750S	5
TL1200E-800S	SMP MISS
TL1200E-850S	5
TL1200E-900S	4
TL1200E-950S	4
TL1200E-1000S	SMP MISS
TL1200E-1050S	3
TL1200E-1100S	4
TL1200E-1150S	6

	SAMPLE	AU PPB NA
	TL1[redacted]1200S	4
	TL1200E-1250S	4
	TL1200E-1300S	4
	TL1200E-1350S	<1
	L20S-125W	2
D	B.L.-0+00	<1
D	L0-50W	3
D	L10S-775E	2
D	L14S-350W	2
D	L16S-25E	<1
D	L16S-1025E	2
D	L18S-625E	2
D	L20S-750W	1
D	L600S-650W	5
D	L2400S-200W	2
D	L2400S-500E	9
D	TL1200E-550S	14

Humus samples

SAMPLE	AU PPB FA
TL-[redacted]0	<1
TL-8Y-50S	2
TL-8Y-100S	3
TL-8Y-150S	<1
TL-8Y-200S	<1
TL-8Y-250S	<1
TL-8Y-300S	<1
TL-8Y-350S	<1
TL-8Y-400S	2
TL-8Y-450S	2
TL-8Y-500S	<1
TL-8Y-550S	<1
TL-8Y-600S	<1
TL-8Y-650S	<1
TL-8Y-700S	<1
TL-8Y-750S	<1
TL-8Y-800S	<1
TL-8Y-850S	<1
TL-8Y-900S	1
TL-8Y-950S	2
TL-8Y-100S	<1
TL-8Y-105S	<1
TL-8Y-1100S	<1
TL-8Y-1150S	1
TL-8Y-1200S	<1
TL-8Y-1250S	<1
TL-8Y-1300S	3
TL-8Y-1350S	2
TL-8Y-1400S	<1
L0-750Y	<1
L0-700Y	<1
L0-650Y	3
L0-600Y	1
L0-550Y	<1
L0-500Y	2
BL0-460Y	<1
BL0-0+00S	<1
L2S-750Y	<1
L2S-700Y	<1
L2S-650Y	3
L2S-600Y	<1
L2S-550Y	<1
L2S-500Y	3
L2S-445Y	<1
L2S-400Y	<1
L2S-350Y	3
L2S-300Y	<1
L2S-250Y	1
L2S-50Y	9
L2S-BL0	4
L2S-25E	2
L2S-50E	<1
L2S-75E	3
L2S-100E	<1
L2S-125E	<1
L2S-150E	<1
L2S-175E	6
L2S-200E	12
L2S-225E	3
L2S-250E	<1
L2S-275E	4
L2S-300E	<1
L2S-325E	<1
L2S-350E	4
L2S-375E	<1
L2S-400E	4
L2S-450E	5
L2S-475E	4
L2S-500E	7
L2S-525E	3
L2S-550E	<1
L2S-575E	4
L2S-600E	2
L2S-625E	<1
L2S-650E	3
L2S-675E	2
L2S-700E	3
L2S-725E	<1
L2S-750E	3
L2S-775E	<1
L2S-800E	<1
L4S-250Y	<1
L4S-200Y	<1
L4S-150Y	<1
L4S-100Y	<1
L4S-50Y	5
L4S-BL0	<1
L4S-10E	<1
L4S-10+25E	<1
L4S-10+50E	1
L4S-10+75E	2
L4S-11+00E	<1

SAMPLE	AU PPB NA
L4S-[illegible]+25E	<1
L4S-025E	2
L4S-075E	6
L4S-100E	<1
L4S-125E	<1
L4S-150E	2
L4S-175E	<1
L4S-200E	3
L4S-225E	5
L4S-250E	3
L4S-275E	<1
L4S-300E	<1
L4S-325E	<1
L4S-350E	2
L4S-375E	<1
L4S-400E	1
L4S-425E	<1
L4S-450E	<1
L4S-475E	<1
L4S-500E	<1
L4S-525E	<1
L4S-550E	<1
L4S-575E	<1
L4S-600E	<1
L4S-625E	<1
L4S-650E	2
L4S-675E	2
L4S-700E	<1
L4S-725E	<1
L4S-750E	<1
L4S-775E	6
L4S-800E	<1
L4S-825E	<1
L4S-850E	<1
L4S-875E	<1
L4S-900E	2
L4S-925E	2
L4S-950E	<1
L4S-975E	<1
L4S-1150E	1
L4S-1175E	<1
L4S-1200E	<1
L6S-300W	2
L6S-250W	3
L6S-200W	11
L6S-150W	5
L6S-100W	3
L6S-50W	<1
L6S-BLO	4
L6S-25E	5
L6S-50E	5
L6S-75E	4
L6S-100E	4
L6S-125E	2
L6S-150E	3
L6S-175E	4
L6S-200E	3
L6S-225E	<1
L6S-250E	<1
L6S-275E	10
L6S-300E	<1
L6S-325E	<1
L6S-350E	3
L6S-375E	5
L6S-400E	2
L6S-425E	2
L6S-450E	3
L6S-475E	<1
L6S-500E	1
L6S-525E	<1
L6S-550E	<1
L6S-575E	<1
L6S-600E	<1
L6S-625E	2
L6S-650E	<1
L6S-675E	<1
L6S-700E	3
L6S-725E	2
L6S-750E	4
L6S-775E	8
L6S-800E	<1
L6S-825E	2
L6S-850E	<1
L6S-875E	<1
L6S-900E	<1
L6S-925E	2
L6S-950E	3
L6S-975E	2
L6S-1000E	2
L6S-1025E	3
L6S-1050E	2
L6S-1075E	2

SAMPLE	AU PPB NA
L6S-1100E	2
L6S-1125E	3
L6S-1150E	<1
L6S-1175E	<1
L6S-1200E	<1
L8S-1150Z	<1
L8S-1125Z	<1
L8S-1100Z	<1
L8S-1075Z	<1
L8S-1050Z	<1
L8S-1025Z	<1
L8S-1000Z	<1
L8S-975Z	<1
L8S-950Z	<1
L8S-925Z	<1
L8S-900Z	<1
L8S-875Z	<1
L8S-850Z	<1
L8S-825Z	<1
L8S-800Z	<1
L8S-775Z	<1
L8S-750Z	3
L8S-725Z	<1
L8S-700Z	<1
L8S-675Z	--
L8S-650Z	--
L8S-625Z	--
L8S-600Z	--
L8S-575Z	--
L8S-550Z	--
L8S-525Z	--
L8S-500Z	--
L8S-475Z	--
L8S-450Z	<1
L8S-425Z	SMP MISS
L8S-400Z	13
L8S-375Z	SMP MISS
L8S-350Z	2
L8S-325Z	SMP MISS
L8S-300Z	3
L8S-250Z	2
L8S-200Z	<1
L8S-150Z	2
L8S-123Z	1
L8S-50Z	<1
L8S-BL0	<1
L8S-25E	2
L8S-50E	2
L8S-75E	1
L8S-100E	3
L8S-125E	<1
L8S-150E	<1
L8S-175E	<1
L8S-200E	<1
L8S-225E	<1
L8S-250E	1
L8S-275E	<1
L8S-300E	<1
L8S-325E	<1
L8S-350E	<1
L8S-375E	1
L8S-400E	2
L8S-425E	<1
L8S-450E	<1
L8S-475E	4
L8S-500E	<1
L8S-550E	<1
L8S-525E	4
L8S-550E	SMP MISS
L8S-575E	2
L8S-600E	<1
L8S-625E	<1
L8S-650E	<1
L8S-675E	1
L10S-550Z	<1
L10S-500Z	<1
L10S-450Z	1
L10S-400Z	<1
L10S-350Z	2
L10S-300Z	<1
L10S-265Z	<1
L10S-200Z	<1
L10S-150Z	<1
L10S-100Z	<1
L10S-50Z	<1
L10S-BL0	<1
L10S-25E	3
L10S-50E	<1
L10S-75E	4
L10S-100E	3
L10S-125E	<1
L10S-150E	<1

	SAMPLE	AU PPB FA
	L10S-175E	<1
	L10S-200E	<1
	L10S-225E	3
	L10S-250E	<1
	L10S-275E	<1
	L12S-50E	<1
	L12S-75E	<1
	L12S-100E	4
	L12S-125E	<1
	L12S-150E	6
	L12S-175E	<1
	L12S-200E	6
	L12S-225E	3
	L12S-250E	12
	L12S-275E	<1
	L12S-300E	4
	L12S-325E	<1
	L12S-350E	5
	L12S-375E	2
	L12S-400E	4
	L12S-425E	3
	L14S-025E	<1
	L14S-050E	2
	L14S-075E	<1
	L14S-100E	<1
	L14S-125E	<1
	L14S-150E	3
	L14S-175E	3
	L14S-200E	<1
	L14S-225E	2
	L14S-250E	2
	L14S-275E	<1
	L14S-300E	<1
	L14S-325E	<1
	L14S-350E	<1
	L14S-375E	<1
	L14S-400E	2
	L14S-425E	7
	L14S-450E	<1
	L14S-475E	<1
	L14S-500E	<1
	L14S-525E	1
	L14S-550E	<1
	L14S-575E	2
	L14S-600E	<1
	L14S-625E	2
	L14S-650E	<1
	L14S-675E	3
	L14S-700E	<1
	L14S-725E	<1
	L14S-750E	3
	L14S-775E	<1
	L14S-800E	<1
	BLQ-14+00S	3
	L2S-425E	<1
	L4S-050E	<1
	L12S-450E	4
D	TL-8Z-0	2
D	TL-8Z-1200S	<1
D	L2S-50Z	6
D	L2S-600E	4
D	L4S-125E	<1
D	L4S-725E	<1
D	L6S-100E	3
D	L6S-700E	5
D	L8S-1075Z	<1
D	L8S-200Z	<1
D	L8S-50Z	--
D	L8S-500E	<1
D	L8S-575E	--
D	L10S-100E	<1
D	L10S-200E	--
D	L14S-025E	2
D	L14S-125E	--
D	L14S-625E	3
D	L14S-725E	--

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA

TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24937

NOV 15 1993

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
29-Sep-93

REF. FILE 16295-

Total Pages 14

589 HUMUS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 10-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
TL800W-4650S	1
TL800W-4700S	<1
TL800W-4750S	<1
TL800W-4850S	<1
TL800W-4900S	2
TL800W-4950S	2
TL800W-5050S	<1
TL800W-5100S	<1
TL800W-5150S	2
TL800W-5200S	4
TL800W-5250S	<1
TL800W-5300S	1
TL800W-5350S	<1
TL800W-5450S	<1
TL800W-5500S	2
TL800W-5550S	2
TL800W-5600S	3
TL775W-4500S	3
TL775W-4550S	2
TL8W-3050S	<1
TL8W-3100S	<1
TL8W-3200S	<1
TL8W-3250S	2
TL8W-3300S	1
TL8W-3350S	<1
TL8W-3400S	<1
TL8W-3450S	2
TL8W-3500S	2
TL8W-3550S	2
TL8W-3600S	<1
TL8W-3650S	<1
TL8W-3700S	1
TL8W-3800S	<1
TL8W-3850S	<1
TL8W-3900S	2
TL8W-3950S	1
TL8W-4000S	3
TL8W-4050S	<1
TL8W-4100S	2
TL8W-4150S	<1
TL8W-4250S	2
TL8W-4300S	2
TL8W-4350S	<1
TL8W-4450S	<1
BL200W-44+75S	<1

SAMPLE	AU PPB
BL200W-45+25S	1
BL200W-45+75S	<1
BL200W-3550S	<1
BL200W-4675S	4
BL200W-4725S	3
BL200W-4775S	<1
BL200W-5075S	2
BL200W-5125S	20
BL200W-5175S	4
BL200W-5275S	4
BL200W-5325S	2
BL200W-5375S	4
BL200W-5425S	<1
BL200W-5475S	3
BL200W-5525S	2
BL200W-5575S	3
BL%2+50W-3450S	2
BL%S+50W-3500S	<1
BL%2+50W-3550S	1
BL2W-3650S	<1
BL2W-3700S	<1
BL2W-3750S	<1
L34S-850W	2
L34S-800W	1
L34S-750W	<1
L34S-700W	4
L34S-650W	<1
L34S-600W	<1
L34S-550W	1
L34S-500W	1
L34S-450W	<1
L34S-400W	<1
L34S-350W	<1
L36S-750W	<1
L36S-700W	<1
L36S-650W	1
L36S-600W	2
L36S-550W	<1
L36S-500W	1
L36S-450W	<1
L36S-400W	1
L36S-350W	<1
L38S-850W	<1
L38S-800W	<1
L38S-750W	<1

SAMPLE	AU PPB
L38S-700W	<1
L38S-650W	1
L38S-600W	<1
L38S-550W	3
L38S-500W	<1
L38S-450W	<1
L38S-400W	1
L38S-350W	1
L38S-300W	<1
L38S-250W	1
L40S-850W	1
L40S-800W	2
L40S-750W	<1
L40S-700W	<1
L40S-650W	<1
L40S-600W	2
L40S-500W	<1
L40S-450W	<1
L40S-400W	1
L40S-350W	2
L40S-300W	2
L40S-250W	1
L46S-900W	<1
L46S-850W	<1
L46S-800W	<1
L46S-750W	1
L46S-700W	1
L46S-650W	1
L46S-600W	1
L46S-550W	<1
L46S-500W	<1
L46S-450W	<1
L46S-400W	<1
L46S-350W	<1
L46S-300W	<1
L46S-250W	1
L46S-200W	<1
L46S-150W	<1
L46S-100W	2
L46S-50W	2
L46S-0+00	1
L46S-25E	<1
L46S-50E	1
L46S-75E	<1
L46S-100E	1

SAMPLE	AU PPB
L46S-125E	<1
L46S-150E	3
L46S-175E	<1
L46S-200E	1
L46S-225E	<1
L46S-250E	1
L46S-275E	1
L46S-300E	2
L46S-325E	<1
L46S-350E	2
L46S-375E	1
L46S-400E	1
L46S-425E	3
L46S-450E	1
L46S-550E	<1
L46S-575E	<1
L46S-600E	2
L46S-625E	<1
L46S-650E	2
L46S-675E	<1
L46S-700E	<1
L46S-725E	<1
L46S-750E	<1
L46S-775E	<1
L46S-800E	2
L46S-825E	<1
L46S-850E	<1
L46S-875E	1
L46S-900E	2
L46S-925E	1
L46S-950E	<1
L46S-975E	1
L46S-1000E	<1
L46S-1025E	<1
L46S-1050E	1
L46S-1075E	3
L46S-1100E	3
L46S-1125E	<1
L46S-1150E	1
L48S-550E	<1
L48S-575E	2
L48S-600E	<1
L48S-625E	<1
L48S-650E	<1
L48S-675E	<1

SAMPLE	AU PPB
L48S-700E	<1
L48S-725E	3
L48S-750E	<1
L48S-775E	1
L48S-800E	<1
L48S-825E	1
L48S-850E	<1
L48S-875E	1
L48S-900E	2
L48S-925E	<1
L48S-950E	<1
L48S-975E	<1
L48S-1000E	1
L48S-1025E	1
L48S-1050E	2
L48S-1075E	<1
L48S-1100E	<1
L50S-900W	<1
L50S-850W	<1
L50S-800W	<1
L50S-750W	<1
L50S-725E	2
L50S-700E	<1
L50S-300E	<1
L50S-325E	<1
L50S-350S	<1
L50S-375E	2
L50S-400E	<1
L50S-425E	3
L50S-450E	<1
L50S-475E	<1
L50S-500E	<1
L50S-525E	<1
L50S-550E	<1
L50S-575E	1
L50S-600E	<1
L50S-625E	<1
L50S-750E	<1
L50S-775E	1
L50S-800E	1
L50S-825E	<1
L50S-850E	2
L50S-875E	1
L50S-900E	<1
L50S-925E	<1

SAMPLE	AU PPB
L50S-950E	<1
L50S-975E	2
L50S-1000E	<1
L50S-1025E	<1
L50S-1050E	1
L50S-1075E	<1
L50S-1100E	1
L50S-1125E	<1
L50S-1150E	3
L54S-950E	<1
L54S-975E	<1
L54S-1000E	1
L54S-1025E	<1
L54S-1050E	<1
L54S-1075E	<1
L54S-1100E	1
L54S-1125E	1
L54S-1150E	<1
L54S-1175E	<1
L54S-1200E	<1
L56S-1150E	<1
L56S-1175E	1
L56S-1200E	<1
L3200S-800E	2
L3200S-825E	1
L3200S-850E	1
L3200S-875E	1
L3200S-900E	2
L3200S-925E	<1
L3200S-950E	2
L3200S-975E	1
L3200S-1000E	1
L3200S-1025E	<1
L3200S-1050E	1
L3200S-1075E	3
L3200S-1100E	<1
L3200S-1125E	<1
L3200S-1150E	<1
L3200S-1175E	<1
L3200S-1200E	<1
L3600S-BL200W	2
L3600S-150W	<1
L3600S-100W	1
L3600S-50W	<1
L3600S-0+00	4

SAMPLE	AU PPB
L3600S-25E	6
L3600S-50E	<1
L3600S-75E	2
L3600S-100E	1
L3600S-125E	2
L3600S-150E	2
L3600S-175E	2
L3600S-200E	2
L3600S-225E	1
L3600S-250E	2
L3600S-275E	<1
L3600S-300E	1
L3600S-325E	2
L3600S-350E	<1
L3600S-375E	<1
L3600S-400E	<1
L3600S-425E	2
L3600S-450E	2
L3600S-475E	1
L3600S-500E	2
L3600S-525E	1
L3600S-550E	1
L3600S-575E	<1
L3600S-600E	<1
L3600S-625E	<1
L3600S-650E	1
L3600S-675E	2
L3600S-700E	2
L3600S-725E	<1
L3600S-750E	1
L3600S-775E	3
L3600S-800E	<1
L3600S-825E	3
L3600S-850E	1
L3600S-875E	2
L3600S-900E	<1
L3600S-925E	2
L3600S-950E	<1
L3600S-975E	2
L3600S-1000E	2
L3600S-1025E	2
L3600S-1050E	1
L3600S-1075E	2
L3600S-1100E	<1
L3600S-1125E	1

SAMPLE	AU PPB
L3600S-1140E	2
L4200S-900W	<1
L4200S-800W	<1
L4200S-750W	<1
L4200S-700W	1
L4200S-600W	2
L4200S-500W	1
L4200S-450W	2
L4200S-400W	2
L4200S-350W	6
L4200S-300W	3
L4200S-250W	2
L4825S-900W	<1
L4825S-850W	<1
L4825S-800W	3
L4825S-750W	4
L4825S-700W	3
L4825S-600W	1
L4825S-550W	2
L4825S-500W	3
L4825S-450W	3
L4825S-400W	4
L4825S-350W	2
L4825S-300W	1
L4825S-250W	4
L4825S-200W	3
L4825S-150W	6
L4825S-100W	1
L4825S-50W	3
L4825S-0+00	<1
L4825S-25E	2
L4825S-50E	2
L4825S-75E	3
L4825S-100E	<1
L4825S-125E	<1
L4825S-150E	1
L4825S-175E	2
L4825S-200E	3
L4825S-225E	2
L4825S-250E	<1
L4825S-275E	3
L4825S-300E	2
L4825S-325E	<1
L4825S-350E	<1
L4825S-375E	<1

SAMPLE	AU PPB
L4825S-400E	2
L4825S-425E	2
L4825S-450E	<1
L4825S-475E	3
L4825S-500E	<1
L5025S-700W	1
L5025S-650W	3
L5025S-600W	3
L5025S-550W	3
L5025S-450W	3
L5025S-400W	2
L5025S-350W	<1
L5025S-300W	<1
L5025S-250W	<1
L5025S-200W	<1
L5025S-150W	<1
L5025S-100W	<1
L5025S-50W	6
L5025S-0+00	3
L5025S-25E	<1
L5025S-50E	<1
L5025S-75E	<1
L5025S-100E	2
L5025S-125E	<1
L5025S-150E	<1
L5025S-175E	1
L5025S-200E	3
L5025S-225E	4
L5025S-250E	4
L5025S-275E	2
L5225S-900W	<1
L5225S-800W	2
L5225S-750W	4
L5225S-700W	2
L5225S-650W	4
L5225S-600W	<1
L5225S-550W	2
L5225S-500W	2
L5225S-500WA	<1
L5225S-450W	<1
L5225S-400W	2
L5225S-350W	4
L5225S-300W	<1
L5225S-250W	<1
L5225S-BL200W	4

SAMPLE	AU PPB
L5225S-150W	9
L5225S-100W	2
L5225S-50W	3
L5225S-0+00	3
L5225S-25E	1
L5225S-50E	4
L5225S-75E	<1
L5225S-100E	3
L5225S-125E	3
L5225S-150E	<1
L5225S-175E	<1
L5225S-200E	3
L5225S-225E	3
L5225S-250E	3
L5225S-275E	1
L5225S-300E	2
L5225S-325E	2
L5225S-350E	4
L5225S-375E	<1
L5225S-400E	2
L5225S-425E	3
L5225S-450E	<1
L5225S-475E	3
L5225S-500E	1
L5225S-525E	1
L5225S-550E	3
L5225S-575E	<1
L5225S-600E	1
L5225S-625E	2
L5225S-650E	1
L5225S-675E	2
L5225S-700E	2
L5225S-725E	2
L5225S-750E	1
L5225S-825E	4
L5225S-850E	<1
L5225S-875E	<1
L5225S-900E	2
L5225S-925E	5
L5225S-950E	1
L5225S-975E	3
L5225S-1000E	4
L5225S-1025E	2
L5225S-1050E	1
L5225S-1075E	2

SAMPLE	AU PPB
L5225S-1100E	<1
L5225S-1125E	<1
L5225S-1150E	<1
L5225S-1175E	<1
L5225S-1200E	1
L5425S-900W	<1
L5425S-850W	<1
L5425S-800W	3
L5425S-750W	2
L5425S-700W	2
L5425S-650W	2
L5425S-600W	2
L5425S-550W	3
L5425S-505W	5
L5425S-380W	6
L5425S-350W	2
L5425S-300W	2
L5425S-250W	5
L5425S-150W	3
L5425S-100W	3
L5425S-50W	4
L5425S-0+00	3
L5425S-25E	2
L5425S-50E	3
L5425S-75E	2
L5425S-100E	5
L5425S-125E	2
L5425S-150E	2
L5425S-175E	3
L5425S-200E	2
L5425S-225E	<1
L5425S-250E	1
L5425S-275E	1
L5425S-300E	2
L5425S-325E	1
L5425S-350E	2
L5425S-375E	1
L5425S-400E	<1
L5425S-425E	2
L5425S-450E	2
L5425S-475E	3
L5425S-500E	1
L5425S-525E	<1
L5425S-550E	2
L5425S-575E	2

SAMPLE	AU PPB
L5425S-600E	2
L5425S-625E	1
L5425S-650E	2
L5425S-675E	1
L5425S-700E	<1
L5425S-725E	<1
L5425S-750E	2
L5425S-775E	2
L5425S-800E	2
L5425S-825E	3
L5625S-900W	2
L5625S-850W	2
L5625S-750W	3
L5625S-700W	2
L5625S-650W	3
L5625S-600W	2
L5625S-550W	3
L5625S-400W	<1
L5625S-350W	<1
L5625S-300W	2
L5625S-250W	1
L5625S-BL200W	2
L5625S-150W	2
L5625S-100W	3
L5625S-50W	2
L5625S-0+00	<1
L5625S-25E	<1
L5625S-50E	2
L5625S-75E	<1
L5625S-100E	1
L5625S-125E	1
L5625S-150E	<1
L5625S-175E	2
L5625S-200E	1
L5625S-225E	2
L5625S-250E	8
L5625S-275E	2
L5625S-300E	2
L5625S-325E	2
L5625S-350E	<1
L5625S-375E	<1
L5625S-400E	<1
L5625S-425E	<1
L5625S-450E	1
L5625S-475E	1

SAMPLE	AU PPB
L5625S-500E	1
L5625S-525E	<1
L5625S-550E	<1
L5625S-575E	3
L5625S-600E	<1
L5625S-625E	2
L5625S-650E	3
L5625S-675E	<1
L5625S-700E	<1
L5625S-725E	1
L5625S-750E	2
TL12E-3650S	1
TL12E-3700S	1
TL12E-3750S	<1
TL12E-3800S	<1
TL12E-3900S	2
TL12E-3950S	<1
TL12E-4000S	2
TL12E-4050S	1
TL12E-4100S	<1
TL12E-4150S	2
TL12E-4200S	1
TL12E-4250S	2
TL12E-4300S	<1
TL12E-4350S	2
TL12E-4400S	<1
TL12E-4450S	<1
TL12E-4500S	<1
TL12E-4550S	<1
TL12E-4650S	1
TL12E-4700S	2
TL12E-4750S	2
TL12E-4800S	<1
TL12E-4850S	3
TL12E-4900S	2
TL12E-4950S	<1
TL12E-5050S	<1
TL12E-5100S	2
TL12E-5150S	2
TL12E-5250S	<1
TL12E-5300S	<1
TL12E-5350S	<1
TL12E-5450S	<1
TL12E-5500S	<1
TL12E-5550S	2

	SAMPLE	AU PPB
	TL12E-5600S	2
	TL1200E-3450S	<1
	TL1200E-3500S	1
	TL1200E-3550S	4
D	TL800W-4650S	1
D	TL8W-3350S	<1
D	BL200W-4675S	1
D	L34S-600W	1
D	L38S-400W	<1
D	L46S-500W	<1
D	L46S-350E	2
D	L46S-1025E	<1
D	L48S-1000E	2
D	L50S-625E	<1
D	L54S-1100E	<1
D	L3200S-1200E	3
D	L3600S-475E	<1
D	L3600S-1075E	2
D	L4825S-400W	<1
D	L4825S-400E	2
D	L5025S-150E	<1
D	L5225S-0+00	<1
D	L5225S-600E	1
D	L5425S-850W	1
D	L5425S-225E	1
D	L5425S-825E	4
D	L5625S-200E	2
D	TL12E-3700S	<1
D	TL12E-5050S	2

D - QUALITY CONTROL DUPLICATE

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24839

NOV 1 5 1993

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
24-Sep-93

REF. FILE 16199-

Total Pages 10

427 HUMUS

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 08-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
TL800W-1850S	5
TL800W-1900S	2
TL800W-1950S	7
TL800W-2050S	4
TL800W-2100S	4
TL800W-2150S	6
TL800W-2250S	<1
TL800W-2300S	1
TL800W-2350S	6
TL800W-2450S	<1
TL800W-2500S	16
TL800W-2550S	4
TL800W-2650S	4
TL800W-2700S	2
TL800W-2750S	6
TL800W-2800S	4
TL800W-2850S	7
TL800W-2900W	<1
TL800W-2950S	4
BL200W-1950S	4
BL200W-2050S	3
BL200W-2100S	2
BL200W-2150S	5
BL200W-2250S	3
BL200W-2300S	5
BL2W-2350S	3
BL2W-24+50S	2
BL2W-2500S	<1
BL2W-2550S	1
BL2W-2650S	2
BL2W-2700S	3
BL2W-2750S	2
BL2W-28+00S	<1
BL2W-2850S	<1
BL2W-2900S	1
BL2W-2950S	2
BL2W-3050S	2
BL2W-3100S	<1
BL2W-3150S	<1
L22S-800W	<1
L22S-750W	2
L22S-700W	<1
L22S-650W	<1
L22S-600W	<1
L22S-550W	1

SAMPLE	AU PPB
L22S-500W	<1
L22S-450W	<1
L22S-400W	<1
L22S-350W	<1
L22S-300W	1
L22S-250W	<1
L22S-200W	4
L22S-150W	<1
L22S-100W	<1
L22S-50W	<1
L22S-0+00	2
L22S-25E	2
L22S-50E	<1
L22S-75E	<1
L22S-100E	<1
L22S-125E	1
L22S-150E	2
L22S-175E	1
L22S-200E	<1
L22S-225E	2
L22S-250E	<1
L22S-275E	<1
L22S-300E	<1
L22S-325E	<1
L22S-350E	<1
L22S-375E	<1
L22S-400E	2
L22S-425E	<1
L22S-450E	3
L22S-475E	2
L22S-500E	<1
L22S-525E	3
L22S-550E	3
L22S-575E	4
L22S-600E	<1
L22S-625E	2
L22S-650E	1
L22S-675E	3
L22S-700E	<1
L22S-725E	<1
L22S-750E	4
L22S-775E	<1
L22S-800E	1
L22S-825E	2
L22S-850E	3

SAMPLE	AU PPB
L22S-875E	2
L22S-900E	3
L22S-925E	2
L26S-800W	2
L26S-750W	1
L26S-700W	1
L26S-650W	<1
L26S-600W	5
L26S-350W	<1
L26S-300W	1
L26S-250W	<1
L26S-200W	5
L26S-150W	<1
L26S-100W	<1
L26S-50W	<1
L26S-0	2
L26S-25E	2
L26S-50E	<1
L26S-75E	<1
L26S-100E	<1
L26S-125E	<1
L26S-150E	3
L26S-175E	2
L26S-200E	<1
L26S-225E	2
L26S-250E	2
L26S-275E	2
L26S-300E	2
L26S-325E	2
L26S-350E	2
L26S-375E	<1
L26S-400E	<1
L26S-425E	1
L26S-450E	1
L26S-475E	<1
L26S-500E	<1
L26S-525E	<1
L26S-550E	<1
L26S-575E	<1
L26S-600E	<1
L26S-625E	<1
L26S-650E	<1
L26S-675E	3
L26S-700E	<1
L26S-725E	<1

SAMPLE	AU PPB
L26S-750E	<1
L26S-775E	2
L26S-800E	<1
L26S-825E	<1
L26S-850E	2
L26S-875E	2
L26S-900E	<1
L26S-925E	2
L26S-950E	<1
L26S-975E	<1
L26S-1000E	<1
L26S-1025E	2
L26S-1050E	3
L26S-1075E	<1
L26S-1100E	<1
L26S-1125E	<1
L26S-1150E	1
L26S-1165E	2
L28S-450W	<1
L28S-400W	<1
L28S-350W	2
L28S-300W	2
L28S-250W	<1
L28S-150W	1
L28S-100W	<1
L28S-50W	3
L28S-0	3
L28S-25E	<1
L28S-50E	<1
L28S-75E	<1
L28S-100E	<1
L28S-125E	<1
L28S-150E	<1
L28S-175E	1
L28S-200E	<1
L28S-225E	2
L28S-250E	<1
L28S-275E	2
L28S-300E	2
L28S-325E	<1
L28S-350E	1
L28S-375E	<1
L28S-400E	1
L28S-425E	3
L28S-450E	2

SAMPLE	AU PPB
L28S-475E	1
L28S-500E	1
L28S-525E	2
L28S-550E	<1
L28S-575E	<1
L28S-600E	1
L28S-625E	3
L28S-650E	<1
L28S-675E	<1
L28S-700E	<1
L28S-725E	2
L28S-750E	<1
L28S-775E	2
L28S-800E	2
L28S-825E	<1
L28S-850E	2
L28S-875E	1
L28S-900E	2
L28S-925E	<1
L28S-950E	1
L28S-975E	<1
L28S-1000E	<1
L28S-1025E	4
L28S-1050E	<1
L28S-1075E	<1
L28S-1100E	2
L28S-1125E	1
L28S-1150E	1
L28S-1175E	2
L32S-150W	2
L32S-100W	1
L32S-50W	<1
L32S-0	1
L32S-25E	<1
L32S-50E	<1
L32S-75E	<1
L32S-100E	<1
L32S-125E	1
L32S-150E	<1
L32S-175E	2
L32S-200E	<1
L32S-225E	<1
L32S-250E	2
L32S-275E	<1
L32S-300E	<1

SAMPLE	AU PPB
L32S-325E	<1
L32S-350E	1
L32S-375E	1
L32S-400E	<1
L32S-425E	2
L32S-450E	1
L32S-475E	<1
L32S-500E	<1
L32S-525E	16
L32S-550E	1
L32S-575E	<1
L32S-600E	2
L32S-625E	<1
L32S-650E	<1
L32S-675E	2
L32S-700E	2
L32S-725E	<1
L32S-750E	2
L32S-775E	<1
TL12E-2650S	<1
TL12E-2700S	1
TL12E-2750S	<1
TL1200E-2050S	7
TL1200E-2100S	4
TL1200E-2150S	3
TL1200E-2250S	1
TL1200E-2300S	3
TL1200E-2350S	4
TL1200E-2400S	2
TL1200E-2450S	6
TL1200E-2500S	5
TL1200E-2550S	3
TL1200E-2850S	7
TL1200E-2900S	3
TL1200E-2950S	5
L2000S-50E	3
L2000S-75E	10
L2000S-100E	5
L2000S-125E	3
L2000S-150E	4
L2000S-175E	4
L2000S-200E	5
L2000S-225E	5
L2000S-250E	4
L2000S-275E	4

SAMPLE	AU PPB
L2000S-300E	3
L2000S-325E	3
L2000S-350E	8
L2000S-375E	8
L2000S-400E	3
L2000S-425E	3
L2000S-450E	4
L2000S-475E	1
L2000S-500E	3
L2000S-525E	3
L2000S-550E	2
L2000S-575E	3
L2000S-600E	1
L2000S-625E	3
L2000S-650E	8
L2000S-675E	5
L2000S-700E	3
L2000S-725E	4
L2000S-750E	4
L2000S-775E	4
L2000S-800E	5
L2000S-825E	7
L2000S-850E	6
L2000S-875E	5
L2000S-900E	4
L2000S-925E	6
L2000S-950E	5
L2000S-975E	4
L2000S-1000E	5
L2000S-1025E	5
L2000S-1050S	3
L2000S-1075S	6
L2000S-1100S	9
L2000S-1125S	6
L2000S-1150S	6
L2000S-1175S	8
L2000S-1200S	3
L2200S-950E	3
L2200S-975E	<1
L2200S-1000E	4
L2200S-1025E	2
L2200S-1050E	<1
L2200S-1075E	3
L2200S-1100E	2
L2200S-1125E	3

SAMPLE	AU PPB
L2200S-1150E	4
L2200S-1175E	4
L2200S-1200E	3
L2400S-625E	2
L2400S-650E	3
L2400S-675E	<1
L2400S-700E	4
L2400S-725E	3
L2400S-750E	2
L2400S-775E	4
L2400S-800E	4
L2400S-825E	3
L2400S-850E	3
L2400S-875E	1
L2400S-900E	4
L2400S-925E	2
L2400S-950E	5
L2400S-975E	3
L2400S-1000E	5
L2400S-1025E	1
L2400S-1050E	4
L2400S-1075E	<1
L2400S-1100E	4
L2400S-1125E	4
L2400S-1150E	2
L2400S-1175E	9
L2400S-1200E	13
L2800S-800W	3
L2800S-750W	5
L2800S-700W	2
L2800S-650W	4
L2800S-600W	3
L3000S-850W	4
L3000S-800W	4
L3000S-750W	2
L3000S-700W	3
L3000S-650W	<1
L3000S-600W	11
L3000S-550W	25
L3000S-500W	3
L3000S-450W	6
L3000S-400W	4
L3000S-350W	4
L3000S-300W	5
L3000S-250W	2

SAMPLE	AU PPB
L3000S-200W	9
L3000S-150W	<1
L3000S-100W	15
L3000S-50W	3
L3000S-0+00	2
L3000S-25E	6
L3000S-50E	15
L3000S-75E	2
L3000S-100E	3
L3000S-125E	2
L3000S-150E	2
L3000S-175E	2
L3000S-200E	5
L3000S-225E	4
L3000S-250E	2
L3000S-275E	3
L3000S-300E	9
L3000S-325E	10
L3000S-350E	4
L3000S-375E	3
L3000S-400E	4
L3000S-425E	5
L3000S-450E	5
L3000S-475E	1
L3000S-500E	3
L3000S-525E	5
L3000S-550E	2
L3000S-575E	3
L3000S-600E	3
L3000S-625E	3
L3000S-650E	2
L3000S-675E	3
L3000S-700E	3
L3000S-725E	11
L3000S-750E	3
L3000S-775E	7
L3000S-800E	3
L3000S-825E	3
L3000S-850E	4
L3000S-875E	4
L3000S-900E	6
L3000S-925E	5
L3000S-950E	7
L3000S-975E	6
L3000S-1000E	3

SAMPLE	AU PPB
L3000S-1025E	4
L3000S-1050E	3
L3000S-1075E	5
L3000S-1100E	4
L3000S-1125E	3
L3000S-1150E	3
L3000S-1175E	10
L3000S-1200E	12
L3200S-850W	4
L3200S-800W	2
L3200S-750W	4
L3200S-700W	2
L3200S-650W	2
L3200S-600W	4
L3200S-550W	<1
L3200S-500W	3
L3200S-450W	<1
L3200S-400W	<1
L3200S-350W	3
L3200S-300W	2
L3200S-250W	2
L3200S-200W	2
D TL800W-1850S	4
D BL200W-2300S	3
D L22S-350W	1
D L22S-425E	<1
D L26S-650W	<1
D L26S-375E	<1
D L26S-975E	<1
D L28S-175E	<1
D L28S-775E	<1
D L32S-100E	<1
D L32S-700E	3
D L2000S-150E	5
D L2000S-750E	5
D L2200S-1075E	4
D L2400S-1075E	1
D L3000S-200W	4
D L3000S-500E	9
D L3000S-1100E	2

D - QUALITY CONTROL DUPLICATE

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS CANADA INC.

1885 LESLIE STREET • DON MILLS, ONTARIO M3B 3J4 • CANADA
TEL: (416)445-5755 TELEX: 06-986947 FAX: (416)445-4152

CERTIFICATE OF ANALYSIS

REPORT 24826

NOV 15 1993

TO: A.C.A. HOWE INTERNATIONAL LTD
ATTN: DINO TITARO
22 FRONT STREET WEST, SUITE 1400
TORONTO, ONTARIO
M5J 1C4

CUSTOMER No. 1943

DATE SUBMITTED
24-Sep-93

REF. FILE 16232-

Total Pages 7

287 PULPS Proj. WHITE RIVER

	METHOD	DETECTION LIMIT
AU PPB	NA	1.

*** UNLESS INSTRUCTED OTHERWISE WE WILL DISCARD PULPS IN 90 DAYS ***
AND REJECTS IN 30 DAYS FROM THE DATE OF THIS REPORT

DATE 08-Nov-93

CERTIFIED BY .....

Jean H.L. Opdebeeck, General Manager

SAMPLE	AU PPB
BL200W-3850S	2
BL200W-3900S	2
BL200W-3950S	2
BL200W-4050S	4
BL200W-4100S	2
BL200W-4150S	1
BL200W-4250S	2
BL200W-4300S	<1
BL200W-4350S	<1
BL2+50W-33+50S	<1
BL2W-3250S	1
BL2W-3300S	1
BL2W-3350S	<1
L34S-250W	1
L34S-125W	1
L34S-75W	1
L34-0	1
L34S-25E	<1
L34S-50E	2
L34S-100E	3
L34S-125E	<1
L34S-150E	1
L34S-175E	<1
L34S-200E	2
L34S-225E	1
L34S-250E	<1
L34S-275E	1
L34S-300E	1
L34S-325E	<1
L34S-350E	<1
L34S-375E	1
L34S-400E	1
L34S-425E	1
L34S-450E	4
L34S-525E	<1
L34S-550E	1
L34S-575E	2
L34S-600E	3
L34S-625E	<1
L34S-650E	<1
L34S-675E	1
L34S-700E	1
L34S-725E	1
L34S-750E	3
L34S-775E	1

SAMPLE	AU PPB
L34S-800E	1
L34S-825E	2
L34S-850E	SMP MISS
L34S-875E	1
L34S-900E	2
L34S-925E	1
L34S-950E	3
L34S-975E	1
L34S-1000E	1
L34S-1025E	1
L34S-1050E	1
L34S-1075E	2
L34S-1100EA	2
L34S-1000EB	1
L34S-1125E	<1
L34S-1150E	<1
L38S-200W	3
L38S-150W	1
L38S-100W	<1
L38S-50W	1
L38S-0	<1
L38S-25E	3
L38S-50E	2
L38S-75E	1
L38S-100E	<1
L38S-125E	4
L38S-150E	1
L38S-175E	<1
L38S-200E	1
L38S-225E	<1
L38S-250E	<1
L38S-275E	1
L38S-300E	2
L38S-325E	1
L38S-350E	1
L38S-375E	<1
L38S-400E	<1
L38S-425E	2
L38S-450E	<1
L38S-475E	<1
L38S-500E	<1
L38S-525E	<1
L38S-550E	1
L38S-575E	2
L38S-600E	<1

SMP.MISS. - SAMPLE WAS NOT RECEIVED AT XRAL

SAMPLE	AU PPB
L38S-625E	2
L38S-650E	<1
L38S-675E	2
L38S-700E	2
L38S-725E	<1
L38S-750E	<1
L38S-775E	2
L38S-800E	<1
L38S-825E	<1
L38S-850E	2
L38S-875E	2
L38S-900E	<1
L38S-925E	1
L38S-950E	<1
L38S-975E	1
L38S-1000E	<1
L38S-1025E	<1
L38S-1050E	<1
L38S-1075E	1
L38S-1100E	<1
L38S-1125E	<1
L38S-1150E	<1
L44S-600W	5
L44S-550W	1
L44S-500W	1
L44S-450W	2
L44S-400W	<1
L44S-350W	2
L44S-300W	1
L44S-250W	<1
L44S-200W	1
L44S-150W	1
L44S-100W	1
L44S-50W	1
L44S-0	<1
L44S-25E	<1
L44S-50E	1
L44S-75E	1
L44S-100E	<1
L44S-125E	1
L44S-150E	1
L44S-175E	2
L44S-200E	<1
L44S-225E	<1
L44S-250E	<1

SAMPLE	AU PPB
L44S-275E	<1
L44S-300E	1
L44S-325E	<1
L44S-350E	3
L44S-375E	<1
L44S-450E	<1
L44S-475E	2
L44S-500E	<1
L44S-525E	2
L44S-550E	<1
L44S-575E	3
L44S-600E	2
L44S-625E	<1
L44S-650E	3
L44S-675E	<1
L44S-700E	1
L44S-725E	<1
L44S-750E	<1
L44S-775E	<1
L44S-800E	<1
L44S-825E	<1
L44S-850E	<1
L44S-875E	<1
L44S-900E	2
L44S-925E	1
L44S-950E	2
L44S-975E	3
L44S-1000E	1
L44S-1025E	1
L44S-1050E	<1
L44S-1075E	<1
L44S-1100E	1
L44S-1125E	3
L4000S-BL200W	1
L4000S-150W	<1
L4000S-100W	2
L4000S-50W	2
L4000S-0+00	1
L4000S-25E	1
L4000S-50E	3
L4000S-75E	3
L4000S-100E	5
L4000S-125E	3
L4000S-150E	<1
L4000S-175E	2

SAMPLE	AU PPB
L4000S-200E	3
L4000S-225E	3
L4000S-250E	<1
L4000S-275E	<1
L4000S-300E	4
L4000S-325E	2
L4000S-350E	2
L4000S-375E	2
L4000S-400E	4
L4000S-425E	3
L4000S-450E	2
L4000S-475E	<1
L4000S-500E	<1
L4000S-525E	<1
L4000S-550E	1
L4000S-575E	4
L4000S-600E	5
L4000S-625E	3
L4000S-650E	<1
L4000S-675E	<1
L4000S-700E	2
L4000S-725E	3
L4000S-750E	<1
L4000S-775E	2
L4000S-800E	<1
L4000S-825E	<1
L4000S-850E	2
L4000S-875E	3
L4000S-900E	3
L4000S-925E	3
L4000S-950E	2
L4000S-975E	1
L4000S-1000E	2
L4000S-1025E	3
L4000S-1050E	<1
L4000S-1075E	2
L4000S-1100E	2
L4000S-1125E	1
L4000S-1150E	3
L4000S-1175E	1
L4000S-1200E	4
L4200S-BL200W	1
L4200S-150W	1
L4200S-100W	4
L4200S-50W	2

SAMPLE	AU PPB
L4200S-0+00	3
L4200S-25E	<1
L4200S-50E	2
L4200S-75E	2
L4200S-100E	1
L4200S-125E	<1
L4200S-150E	2
L4200S-175E	1
L4200S-200E	2
L4200S-225E	1
L4200S-250E	1
L4200S-275E	4
L4200S-300E	1
L4200S-325E	<1
L4200S-350E	<1
L4200S-375E	<1
L4200S-400E	4
L4200S-425E	2
L4200S-450E	<1
L4200S-475E	<1
L4200S-500E	4
L4200S-525E	1
L4200S-550E	1
L4200S-575E	2
L4200S-600E	1
L4200S-625E	4
L4200S-650E	2
L4200S-675E	1
L4200S-725E	<1
L4200S-750E	<1
L4200S-775E	<1
L4200S-800E	<1
L4200S-825E	2
L4200S-850E	2
L4200S-875E	3
L4200S-900E	2
L4200S-925E	2
L4200S-950E	2
L4200S-975E	3
L4200S-1000E	<1
L4200S-1025E	3
L4200S-1050E	1
L4200S-1075E	2
L4200S-1100E	<1
L4200S-1125E	<1

	SAMPLE	AU PPB
	L4200S-1150E	2
	L4200S-1175E	3
	L4200S-1200E	<1
	L4400S-850W	1
	L4400S-800W	1
	L4400S-750W	3
	L4400S-700W	<1
	L4400S-650W	1
	TL800W-4400S	<1
	TL12E-3050S	<1
	TL12E-3100S	<1
	TL12E-3150S	2
	TL12E-3200S	<1
	TL12E-3250S	1
	TL12E-3300S	<1
	TL12E-3350S	<1
	TL12E-3400S	<1
D	BL200W-3850S	1
D	L34S-225E	2
D	L34S-875E	<1
D	L38S-175E	<1
D	L38S-775E	2
D	L44S-200W	2
D	L44S-550E	3
D	L4000S-BL200W	2
D	L4000S-500E	<1
D	L4000S-1100E	3
D	L4200S-375E	<1
D	L4200S-1000E	3

D - QUALITY CONTROL DUPLICATE

APPENDIX D - CLAIM INFORMATION

CLAIM NUMBERS	NUMBER OF CLAIMS	TOWNSHIP	OWNER	EXPIRY DATE
1043731	1	Odlum	J. Ternowesky	Dec. 7/93
1043789-791	3	Odlum	J. Ternowesky	Dec. 7/93
1043774-776	3	Odlum	J. Ternowesky	Dec. 7/93
1043743-771	29	Odlum	J. Ternowesky	Dec. 7/93
1043718-721	4	Odlum	J. Ternowesky	Dec. 7/93
1043724-727	4	Odlum	J. Ternowesky	Dec. 7/93
1043779-786	8	Odlum	J. Ternowesky	Dec. 7/93
1043994-995	2	Odlum	J. Ternowesky	Dec. 7/93
1044084-086	3	Odlum	J. Ternowesky	Dec. 7/93
1043799-802	4	Odlum	J. Ternowesky	Dec. 7/93
1024801-808	8	Odlum	P. Nabigon	Nov. 23/93
1024809-837	29	Tedder	J. Ternowesky	Nov. 23/93
1044389-392	4	Odlum	J. Ternowesky	Dec. 15/93
1044393-401	9	Tedder	J. Ternowesky	Dec. 15/93
1044402-403	2	Strickland	J. Ternowesky	Dec. 15/93
1069122-185	64	Strickland	P. Nabigon	May 2/94
1069107-119	13	Strickland	P. Nabigon	May 2/94
1069101-106	6	Cooper	P. Nabigon	May 16/94
1044378-379	2	Tedder	J. Ternowesky	Dec. 15/93
1044359-361	3	Tedder	J. Ternowesky	Dec. 15/93
1044372	1	Strickland	J. Ternowesky	Dec. 15/93
1044374-377	4	Strickland	J. Ternowesky	Dec. 15/93
1044380-387	8	Strickland	J. Ternowesky	Dec. 15/93
1044388	1	Tedder	J. Ternowesky	Dec. 15/93
1044362-371	10	Strickland	J. Ternowesky	Dec. 15/93

1078215-219	5	Odlum	P. Nabigon	Mar. 10/94
1078220-235	16	Strickland	P. Nabigon	Mar. 10/94
1078236-237	2	Odlum	P. Nabigon	Mar. 10/94
1078238	1	Strickland	P. Nabigon	Mar. 10/94
1078239	1	Odlum	P. Nabigon	Mar. 10/94
1078240-242	3	Strickland	P. Nabigon	Mar. 10/94
1078305-306	2	Strickland	J. Ternowesky	Mar. 10/94
1078307	1	Odlum	J. Ternowesky	Mar. 10/94
TOTAL	256 claims			

APPENDIX E - GEOPHYSICAL REPORT

REPORT ON A GROUND MAGNETIC/VLF-EM SURVEY

STRICKLAND & ODLUM TOWNSHIPS

SAULT STE. MARIE MINING DIVISION

ONTARIO

FOR

AKIKO GOLD RESOURCES LTD.

TECHTERREX INCORPORATED
Oakville, Ontario
October 22, 1993

TABLE OF CONTENTS

TABLE OF CONTENTS (Cont'd)

1.0 Introduction

During the period of September 2, 1993 through to September 29, 1993 TechTerrex Inc. performed a ground magnetometer and VLF-EM survey over a portion of the mining claims held by Akiko Gold Resources Ltd. It was anticipated that these surveys would assist the geological mapping program that was being conducted concurrently in order to define lithological boundries as well as structural settings of the area under investigation. Exploration efforts were concentrated towards tracing the possible extention of a gold bearing deformation zone reported by Hemlo Gold Mines on the mining claims immediately to the north of the report area.

2.0 Property Location and Access

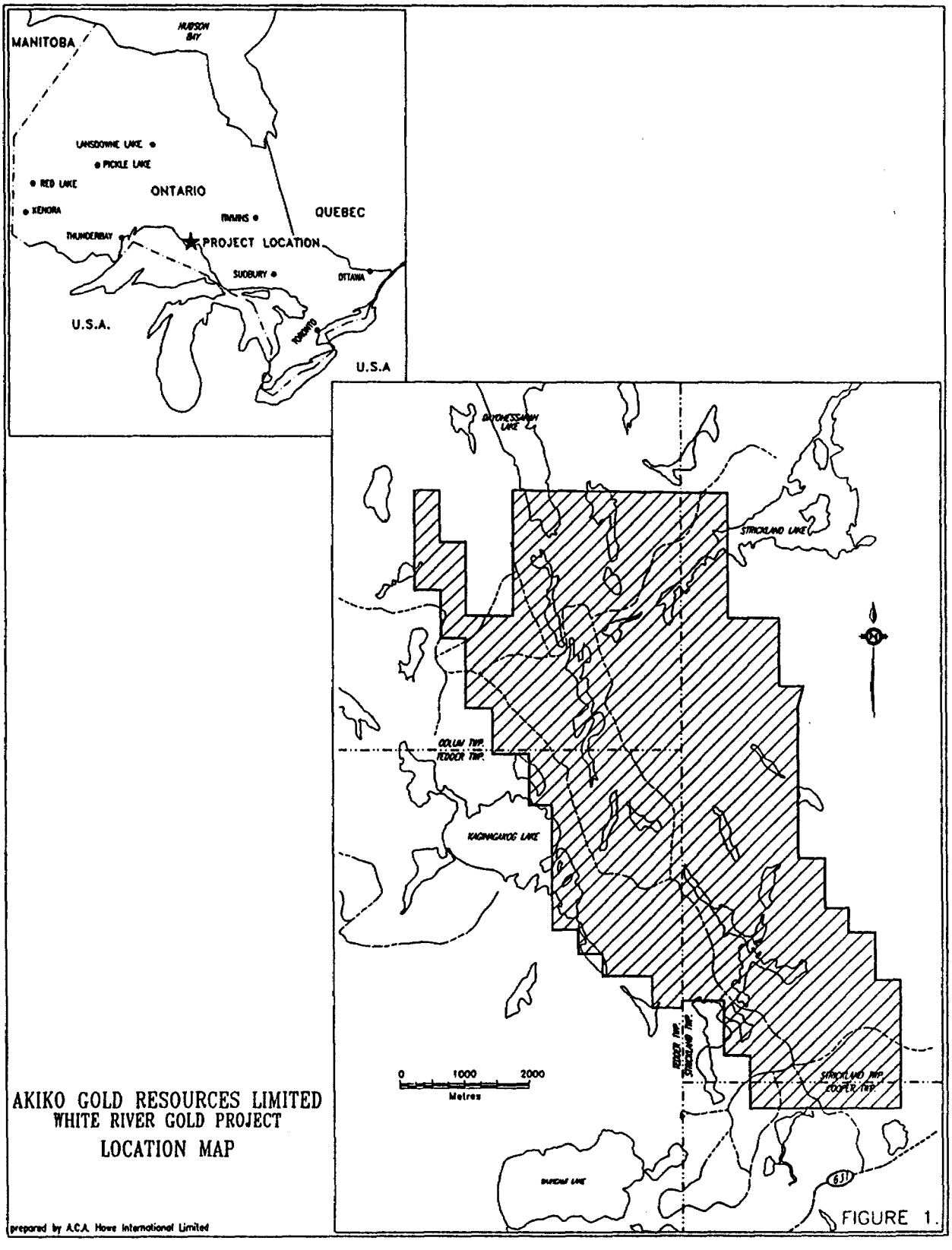
The mining claims reported herein are located in Strickland and Odlum townships in the Sault Ste. Marie Mining Division of Ontario. Refer to Table I for a listing of the claim numbers. Figure 1 illustrates the location of the property. Figure 2 shows the claim block covered by this report.

The property is accessible by either two or four-wheel drive vehicle from the village of White River located on the Trans Canada Highway (#17) approximately 315 kilometers northwest of Sault Ste. Marie, Ontario. A travel permit is required from the White River office of Domtar Ltd. in order to travel the logging roads that lead to the centre of the property; specifically, logging roads #200, 206 and 216. The exploration area is approximately 40 kilometers northeast of White River.

TABLE I

The following claims are located in Odlum and Strickland Townships:

1042761	1069161	1069182	1078232
1043718	1069162	1069183	1078234
1043768	1069163	1069184	1078235
1043782	1069164	1078185	1078236
1043783	1069165	1078215	1078237
1043800	1069166	1078216	1078238
1043801	1069167	1078217	1078239
1043802	1069168	1078218	1078240
1043994	1069169	1078219	1078241
1043995	1069170	1078220	1078242
1044080	1069171	1078221	1078305
1044085	1069172	1078222	1078306
1044394	1069173	1078223	1078307
1044396	1069174	1078224	
1044804	1069175	1078225	
1068159	1069176	1078226	
1069154	1069177	1078227	
1069155	1069178	1078228	
1069156	1069179	1078229	
1069157	1069180	1078230	
1069160	1069181	1078231	


MANITOBA
HUDSON BAY
LANSDOWNE LAKE
PICKLE LAKE
RED LAKE
ONTARIO
KENORA
TIMMINS
QUEBEC
THUNDERBAY
PROJECT LOCATION
SUDBURY
OTTAWA
U.S.A.
TORONTO
U.S.A
BATHURST LAKE
STRICKLAND LAKE
COLLIN TWP.
FOLDER TWP.
KAGNAGAMOG LAKE
0 1000 2000
Metres
STRICKLAND TWP.
COOPER TWP.
631
AKIKO GOLD RESOURCES LIMITED
WHITE RIVER GOLD PROJECT
LOCATION MAP
prepared by A.C.A. Howe International Limited
FIGURE 1.

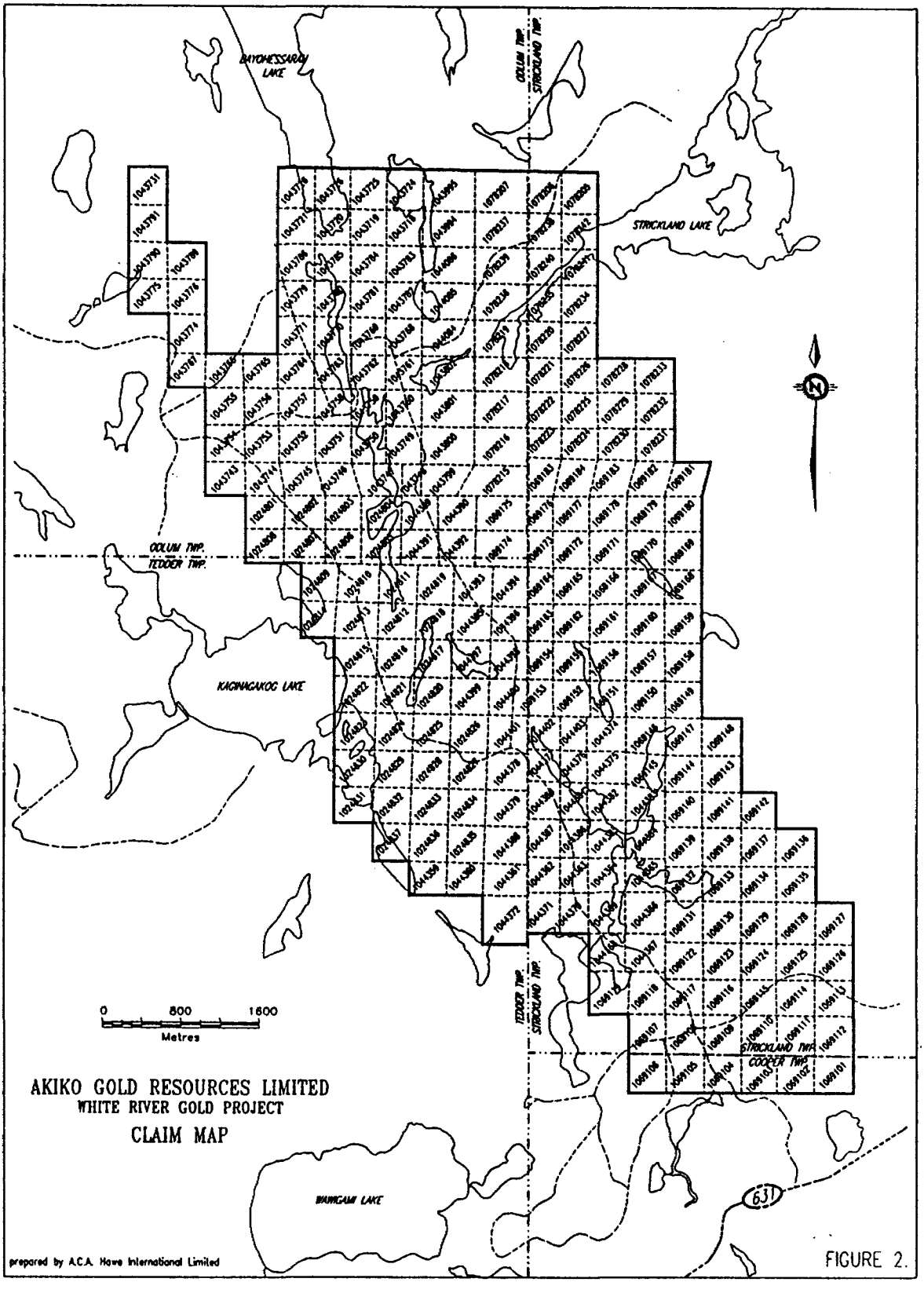

BAYONESSARAY LAKE
STRICKLAND LAKE
KAGINAGAKOG LAKE
WAWIGAM LAKE
COLLINS TWP.
TEDDER TWP.
STRICKLAND TWP.
COOPER TWP.
631
N
0
800
1600
Metres
AKIKO GOLD RESOURCES LIMITED
WHITE RIVER GOLD PROJECT
CLAIM MAP
prepared by A.C.A. Howe International Limited

FIGURE 2.

3.0 Grid Description

The Strickland Lake grid was prepared by Norman McBride Linecutting Services between August 23, 1993 and September 23, 1993. The grid consists of a series of baselines oriented at a 340 degree azimuth using a magnetic declination of 7 degrees west. Baseline 0 extends from 0 to 1625S while baseline 200W runs from 1600S to 5625S. Two tielines oriented parallel to the baselines were established at 800W and 1200E and stretch from 0 to 5600S. Perpendicular to the baseline, crosslines have been established at 200 metre intervals along the base line from 0S to 5625S. Station intervals along all cross, base and tie lines are at a nominal 25 metre separation. A total of approximately 66 line kilometres were cut out.

4.0 Geological Setting

The report area lies within the Dayohessarah Lake greenstone belt which is composed primarily of a metavolcanic and metasedimentary rock package surrounded by granitic rocks.

The metavolcanic rocks are primarily massive and schistose type amphibolites, basic to intermediate lava flows and volcanic fragmental rocks such as tuff and agglomerate.

The metasedimentary rocks consist of quartz-plagioclase-biotite schists and gneisses, garnetiferous biotite schists and conglomerate.

Basic intrusive rock types, such as gabbro and metagabbro are found within both the metavolcanics and metasediments and occur as dikes and small stocks. In some instances, the metavolcanics and metasediments have been intruded by sills, dikes and small stocks of granitic material.

Numerous diabase dikes intrude the other rock types and are oriented in either a northwest or northeast direction and can range in width from a few inches to hundreds of feet.

5.0 Previous Work

The Dayohessarah Lake metavolcanic-metasedimentaary belt has been subjected to numerous mineral exploration programs. Some of the more recent work includes:

-In 1975 Shell Canada Ltd. mapped the central part of the greenstone belt at a scale of 1"=1/4 mile.

-In 1983 Pezamerica Resources Corporation commissioned an electromagnetic/magnetic airborne survey over parts of

Hambleton Township. Pezamerica investigated the anomolous responses with limited geochemical, geological, and geophysical surveys. Geochemical results indicated that the eastern edge of the metasedimentary belt contained highly anomolous gold values.

-In 1985 the Pezim group conducted geological reconnaisance and geochemical ("B" horizon) surveys over 24 small grids in Odlum Township. The most promising geochemical result was a 690ppb gold anomoly on the northeast corner of claim #665317, located west of the southern part of Dayohessarah Lake.

-In 1990 Broad Horizons Inc. commissioned an airborne magnetic/VLF-EM survey over portions of Odlum, Strikland, Tedder and Hambleton Townships.

6.0 Ground Magnetic/VLF-EM Survey

6.1 Survey Instrumentation and Description

The total field magnetic and VLF-EM measurements made over the Strickland Lake grid were recorded at 12.5 metre intervals along

all base, tie and crosslines. In each instance, both the VLF-EM and total field magnetic measurements were collected simultaneously using the EDA Omni Plus magnetometer/VLF-EM receiver system manufactured by Scintrex Ltd. of Concord, Ontario.

The magnetic survey also used an EDA Omni IV base station magnetometer to monitor and record the diurnal fluctuations to the earth's magnetic field. These measurements, using a base station value of 58,750 nanoteslas were used to correct the field measurements for diurnal magnetic drift.

The VLF-EM survey conducted on all crosslines made use of the transmiter facility at Annapolis, Maryland which transmits at 21.4 kHz. For the base and tielines, measurements were taken using the Cutler, Maine transmitter station which operates at 24.0 kHz. In each instance, both the in-phase and quadrature components of the electromagnetic wave were recorded.

6.2 Data Presentation

The results of the survey are divided into North and South map sheets at a scale of 1:5000.

The total field magnetic data is presented in plan as postings and profiles (maps WRP-01 and WRP-02) and as contours (maps WRP-03 and WRP-04).

The VLF-EM measurements, i.e., in-phase and quadrature, are presented as postings and profiles on maps WRP-05 and WRP-06. A Fraser filter was applied to the in-phase data in order to transform the cross-overs over possible conductors into positive peak anomalies. These are presented in contour form on maps WRP-07 and WRP-08.

5.4 Discussion of Results

An interpretation of the lithological units and the underlying structure has been presented in plan on maps WRP-09 and WRP-10. The total field magnetic survey has outlined six possible geological units as follows:

Unit 1: broad, moderately magnetic high, dipping near vertical which correlates with possible mafic metavolcanic rocks such as amphibolites.

Unit 2: broad, weak magnetically, near vertical dip which corresponds to typical metasedimentary rocks such as siliceous wacke and sandstone.

Unit 3: broad, strong magnetic high which corresponds to mafic intrusive rocks such as gabbro.

Unit 4: broad, erratic magnetic high which corresponds to granitic rocks.

Unit 5: very weak magnetically, difficult to differentiate from Unit 1 other than by shape, possibly late felsic intrusive rocks.

Unit 6: outlines the strongest, positive magnetic anomalies ranging in widths from 20 metres to 100 metres correlating with diabase dikes. These dikes trend predominately northwest although others trend north-northeast.

Structurally, two systems of fault planes have been outlined from both the magnetic and VLF-EM data. The first set strikes predominately northwest while the second set strike north to northeast. These faults may contain conductive material.

6.0 Summary & Recommendations

The ground geophysical surveys have assisted in mapping the main geological units of the area. This first phase of geophysics should be followed with a second phase of exploration in order to pinpoint any possible extention to the mineralization found on the claims north of the property. Prior to undertaking any drilling program, the following is recommended:

1) obtain the airborne electromagnetic results of the 1983 Dighem survey in order to assess whether or not concentrations of sulphides exit which may be associated with possible gold mineralization.

2) undertake either a horizontal loop EM or induced polarization survey after considering the results from item 1 and bearing in mind that the interpreted faults may contain conductive sulphides. A diamond drill program would then test any favourable anomalies encountered.

3) complete magnetic and VLF-EM coverage over the various lakes and swamps prior to performing additional surveys.

Respectfully submitted,
TechTerrex Inc.

Michael C. Wilson,
President.

STATEMENT OF QUALIFICATIONS

The author of the report is Mr. Michael C. Wilson who resides at 199 Sheraton Court, Oakville, Ontario L6L 5N3. Mr. Wilson is a graduate of the Geology Technology Program, Cambrian College of Applied Arts & Technology, having graduated in 1974. Since that time he has been steadily employed as a geophysical consultant, namely as president of TechTerrex Inc. The report is based upon the survey results which were acquired by Mr. Wilson between September 2, 1993 and September 29, 1993.

TechTerrex Inc.

M.C. Wilson

Michael C. Wilson
President

SELECTED REFERENCES

Fenwick, K.G., Geology of the Dayohessarah Lake Area, Ontario.
Geological Report 49, Scale: 1 inch to 2 miles,
Accompanyed by Map 2129, 1967

APPENDIX A

SURVEY PERSONNEL

The following personnel provided data acquisition services for the duration of the surveys:

Michael C. Wilson
199 Sheraton Court
Oakville, Ontario
L6L 5N3

APPENDIX B

SURVEY INSTRUMENT SPECIFICATION

SCINTREX

EDA Omni Geophysical System

Brief Description

When you require more flexible geophysical techniques in order to find the increasingly more elusive anomalous targets, Scintrex offers you the EDA Omni System. This system enables you to design your own unique instrument whether it is for complete Magnetic surveys, VLF Electromagnetic surveys or a combination of these techniques.

At the heart of the Omni System is the Omni System Control Console which is common to all Omni System applications. This customized approach gives you the ability to select the following options for your instrument:

- Portable Field and Base Station Magnetometer
- True Simultaneous Gradiometer
- Portable Field and Base Station VLF Electromagnetic Receiver
- Two Probe, VLF Resistivity
- Non-Orientation, VLF Resistivity

Applications

Since the Omni System capabilities are so versatile, the data collected and recorded by the instrument can be applied to a variety of earth sciences including:

- mineral exploration
- geological mapping
- groundwater exploration
- groundwater contamination
- civil engineering
- geotechnical studies
- archaeology

Features

Omni System Features

Each Omni System incorporates the following features:

Flexibility of the Omni System

You can select your own options to customize your unit to suit your specific geophysical needs.

Microprocessor Controlled

Gives you a choice of three fully protected data storage modes:

- spot record, for readings without grid co-ordinates (random samples)
- multi-record, for multiple readings at one station
- auto-record, for automatic update of station position

Complete Data Protection

The internal lithium battery assures you of complete data protection for up to 5 years.

Measures and Records In Memory

Measurement and recording in memory of the following magnetic field data for each reading:

- total field magnitude
- true gradient of the total field
- applied base station value
- statistical error
- signal strength
- decay rate

Measurement and recording in memory of the following VLF data for each field reading:

- vertical in-phase
- vertical quadrature (out-of-phase)
- total field strength
- total dip angle
- primary field direction
- apparent resistivity
- phase angle
- signal-to-noise ratio
- operator quality

The OMNI system configured as a MAG/VLF simplifies geophysical surveys by combining Magnetic and VLF EM techniques.

Records Survey Data

Records the following survey data for each magnetic and/or VLF reading:

- time of measurement and date
- grid co-ordinates
- direction of travel along grid lines
- natural and cultural features

Measures up to 3 VLF Transmitting Stations

The Omni System can measure up to 3 VLF transmitting stations and provides more complete coverage of an anomaly regardless of the orientation of the transmitter with respect to the survey grid or the anomaly itself.

Electronic Notebook

The internal Electronic Notebook enables you to record natural and cultural features that are unique to each grid location. This feature eliminates the need for a field notebook and provides additional information that can assist in interpreting recorded data.

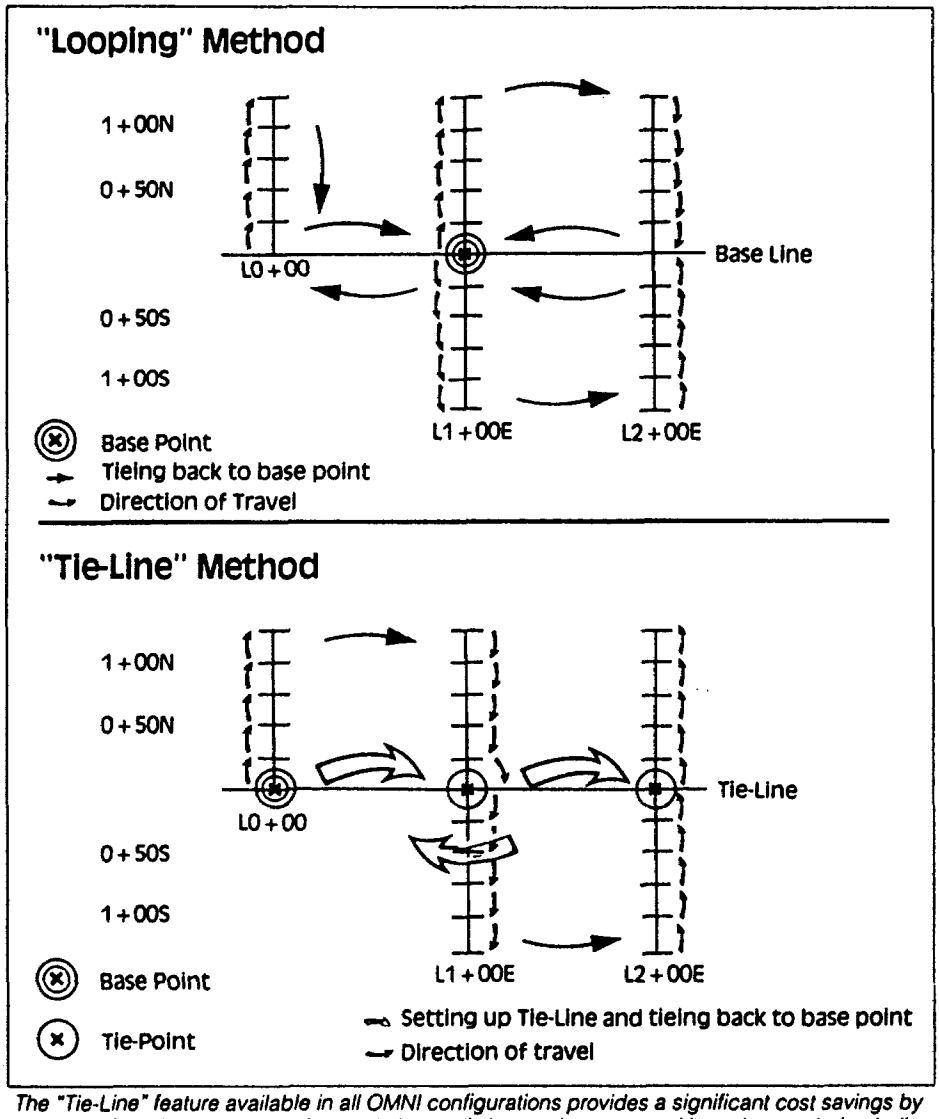
Automatic Correction Using The Omni System's Unique "Tie-Line" Technique

The "Tie-Line" algorithm used exclusively by the Omni System allows for the self correction of atmospheric magnetic variations and variations in the primary field from the VLF transmitter(s). The instrument is able to store 'looping' or 'tie line' data in a separate memory at the beginning of each survey and then subsequently stores total field readings in a second memory along with the field readings of the tie point(s). At the end of each survey day the Omni System will then merge these two memories to automatically correct the total field data for diurnal variations.

The Omni System in the "Tie-Line" mode can:

- Store looping or tie line data, 3 ways:
  1. Using one looping base point
  2. Using one "Tie-Line" comprising a number of tie points, or
  3. Using multiple tie lines.
- Store up to 100 tie points in one survey area or divide these points into extensions of survey areas as needed.
- Store tie points or tie lines for the duration of the survey.
- Calculate the drift between established tie points, to readily see variations in the Earth's magnetic field.

Features



The "Tie-Line" feature available in all OMNI configurations provides a significant cost savings by allowing diurnal corrections to be made internally by one instrument without the need of a dedicated base station instrument

Rapid Data Recall

With a few keystrokes, you can instantly recall data from memory to the digital display by record number or in sequence. Scanning through the memory of a particular parameter is also possible.

Wide Range of Data Output Capabilities

The ability to efficiently transfer and present data in an interpretable format is important to the success of any survey or project.

The Omni System accomodates a wide selection of data output options, from simple listings of data and profile plots on a printer, to integrated software programs for computer plotting and modelling. The Omni System can transfer uncorrected, corrected or filtered magnetic and VLF data to most computers and printers with a RS-232C serial port.

Two Types of Formats available - data can be output from the Omni System in two format types. For ready to use data, the columnarized data dump format is the most suitable for direct hard copy printer outputs. For data which is to be further used with computer plotting or analysis software packages, you can select the fixed ASCII CPU dump format.

Profile Plot Outputs - Since VLF as well as magnetic data is often easier to interpret as a profile plot, data that the Omni System collects, can be presented in this analog format at a vertical scale best suited for data presentation. You can selectively output in analog and/or digital format the following:

- the magnetic total field strength
- the magnetic vertical gradient
- the VLF in-phase
- the VLF out-of-phase (quadrature)
- the VLF total field strength

Data Presentation - The grid co-ordinates under which the Omni System collects the data can be output in the standard Carteslan format (using positive and negative signs) or with the more familiar N,S,E,W compass descriptors.

Editing Capabilities - Prior to data transfer, you can program your Omni System to transfer a designated block of data, denoted by start and end points. Data can be separated into files that are best suited for survey or plotting conditions.

Pause Feature - You may stop the transfer of data at any time and resume where it left off, when it is more convenient. The Omni System will continue to pause until you press any one of keys on the keypad.

Choice of Data Outputs - The Omni System outputs data in a choice of formats, depending on the operating mode:

- corrected magnetic total field data
- uncorrected magnetic total field data
- magnetic base station data
- magnetic gradient field data
- corrected VLF field strength data
- uncorrected VLF field strength data
- VLF base station data
- corrected "Tie-Line" data
- uncorrected "Tie-Line" data

The Omni System can also transfer VLF data from all 3 VLF frequencies simultaneously or sequentially.

Features

```
OMNI-PLUS  Tie-line MAG/VLF R22K  Ser #428150
TOTAL FIELD DATA (uncorrected)
& GRADIENT

Reference  field: 56000.0
Datum subtracted:      0.0Date 13 DEC 88
Operator:  5000
Records:  10
Bat:  17.5 Volt    Lithium:  3.48 Volt
Last time update: 12/13  9:50:00
Start  of  print: 12/13 14:34:01

Line  0+00 E  Date 13 DEC 88          #2
POSITION   FIELD  ERR    DRIFT    TIME    DS CULT   GRADIENT
  0+80 N 56779.9 .04       0.0 11:38:55 88              1.1
  0+90 N 56769.6 .04       0.0 11:39:33 88              1.2
  1+00 N 56747.1 .05       0.0 11:40:10 88              2.1
  1+10 N 56627.4 .05       0.0 11:41:47 88              1.7
  1+20 N 56418.6 .08       0.0 11:42:30 88PIPE        -13.8
  1+30 N 56616.1 .07       0.0 11:43:36 88            -41.0
  1+40 N 56733.7 .05       0.0 11:44:28 88              6.2
  1+50 N 56765.6 .04       0.0 11:45:08 88              1.9
  1+60 N 56764.9 .05       0.0 11:45:47 88              1.1
  1+70 N 56767.2 .04       0.0 11:46:26 88              0.7
```

```
OMNI-PLUS  Tie-line MAG/VLF R22K  Ser #428150
VLF TOTAL FIELD DATA (uncorrected)

Date 13 DEC 88
Operator:  5000
Records:  10
Bat:  17.5 Volt    Lithium:  3.48 Volt

Last time update: 12/13  9:50:00
Start  of  print: 12/13 14:35:51

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  1+70 N  -34.6  11.7 63.02  71.4 11:46:26     49 -16.9  12.5  13.4
```

Typical sample of data output from the OMNI system

Sealed, User Friendly Keypad

Protects your Omni System from water and dust and allows for easy operation and reliability.

Digital Display

Distinctly shows data which can sometimes be unclear with analog or audio-nulled systems.

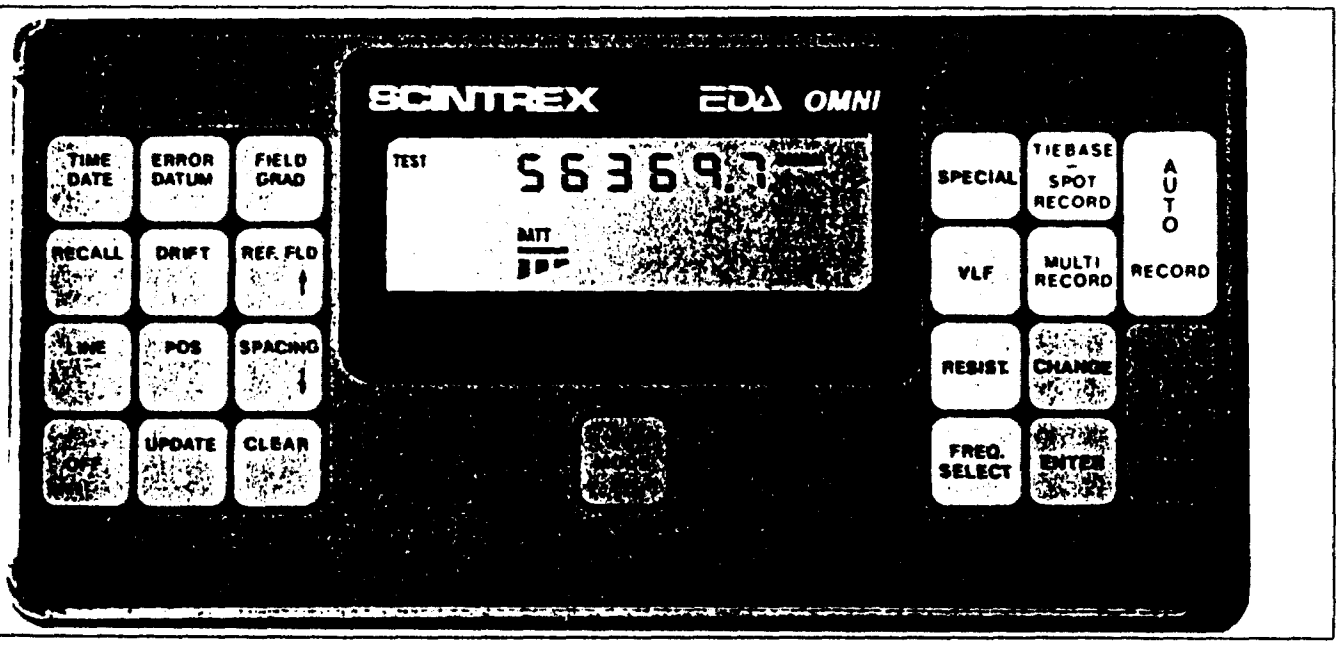
Display Descriptors

Monitor the signal strength and decay rate of the magnetic total field and/or the quality of all three VLF transmitter signals being measured.

Power Supply Options

You can choose from the following power supply options:

- Non-magnetic rechargeable sealed lead acid battery
- Non-magnetic rechargeable sealed lead acid battery belt
- Alkaline battery belt
- 12V DC power source for base station operation



Omni System Benefits

Only One Instrument Needed for Magnetometer, Gradiometer, VLF and VLF Resistivity Surveying

The Omni incorporates the capabilities of a "Tie-Line" magnetometer and simultaneous Gradiometer system with the ability to measure VLF magnetic and electric fields.

Only one complete Omni System is needed to record all of the following geophysical parameters:

1. The total magnetic field
2. The simultaneous gradient of the total magnetic field.
3. The VLF magnetic field including:
   - the vertical in-phase
   - the vertical quadrature
   - the total field strength
   - the total dip
4. The VLF electric field, including:
   - the phase angle
   - apparent resistivity

A complete Omni System can, at each location, calculate and record in less than 8 seconds, four VLF magnetic field parameters from three different transmitters, a magnetic total field reading and a simultaneous magnetic gradient reading. In addition, it can also measure and record two VLF electric field parameters from three different transmitters.

Upgrade your Unit at any Time

Since the Omni System is based on a modular design, you can upgrade your system at any time. This built-in flexibility allows you to purchase an Omni System with only the surveying equipment that you need for now but does not limit you to one application. When your surveying needs grow, so can your Omni System.

Saves you Time

The Omni System with the unique 3-coil VLF Sensor does not require orientation of the VLF Sensor head toward the transmitter station. This simplifies VLF field procedures and saves considerable survey time. The operator does not need to orient the sensor head toward the first, selected transmitting station and then re-orient towards the second or third transmitting station.

The non-orientation technique is the first of its kind, and this provides the Omni System with many additional benefits. These benefits include:

- When you use the Omni System as both a magnetometer and VLF base station, you only need one instrument instead of three, to record data automatically from 3 VLF transmitting stations.

- When you use the Omni System with the Non-orientation VLF-Resistivity option, you can record automatically from 3 different stations the phase angle and apparent resistivity without having to re-orient any of the three electrodes. You can also use the Omni System with the conventional, two electrode method.

The Omni System quickly responds with a one-key operation. For example, if you must complete a magnetometer/gradiometer and three frequency VLF survey using the Omni System, you automatically measure the magnetometer, simultaneous gradiometer and three VLF frequency data by pressing only one key. Using another combined system, up to 5 different steps may be required. Such as, the operator would have to take one magnetic reading; then another sequential magnetic reading to calculate the gradient; orient the VLF sensor to the first VLF transmitter and then take a reading; orient the VLF sensor to the second transmitter, take a new reading and then repeat the same procedure for the third frequency. The Omni System one-key operation takes less than 8 seconds; a significantly shorter time period than the 5 step operation of other combined systems.

Since the Omni System saves all of the field data in memory and has many output capabilities, the elimination of the field notebook and also the transciption errors that can occur saves you a considerable amount of time.

Diurnal corrections, using the time saving "tie-line" method, can be done automatically by the Omni System eliminating hours of manual and tedious calculations. You can then directly transfer the corrected data to a computer for further data processing.

Higher Productivity System

Combined Magnetometer/VLF systems are inherently faster than conventional methods whereby two different operators collected magnetometer and VLF data from separate instruments.

Because of its unique user-friendly design, the Omni System provides higher field productivity for the user. The increased productivity originates from its two-microprocessor approach which significantly reduces calculation time and also from the non-orientation VLF technique.

Sensitive to Weak VLF Signals

The Omni System's ability to obtain repeatable readings from weak signals offers a number of benefits:

- It extends the use of VLF on to countries where its use was previously marginal.
- It enables you to increase the number of frequencies with which you can operate.
- It reduces your need for portable VLF transmitters
- It improves the quality of your readings in rugged terrains, such as the deep valleys of the North American Rockies.

The Omni System's digital signal processing removes the modulation in the received signals. This technique helps stabilize too weak signals much greater than the conventional phase-locked loop method.

Ability to receive weaker signals (20nA/m) and a background noise reduction algorithm are among the reasons why the Omni System can obtain repeatable readings from signals which had previously been too weak to record.

Omni System Benefits

Excellent Data Quality and Repeatability

The Omni System provides users with unparalleled data quality and repeatability. The 3-orthogonal coil sensor that the Omni System uses improves the data reliability over the conventional two-coil method as it provides a more complete calculation of both the in-phase and out-of-phase parameters. This difference becomes even more important in measuring large anomalies.

The 3-coil sensor method provides consistently high data quality unrelated to the operator's ability to orient the sensor for optimum coupling with the transmitting station. The higher data quality that the Omni System obtains with weak signals is enhanced even further when signals are stronger. Additional features, such as greater channel selectivity, atmospheric noise reduction and better immunity to spikes, improve even more the Omni System's capability to obtain repeatable data.

No Need to Take Multiple Readings

The Omni System's magnetic component uses four leading-edge design features to eliminate the need to take multiple readings, these are:

- Signal Processing Technique
- Constant Energy Polarization that maintains equal energy to the sensor
- Processing Sensitivity to ± 0.02 gamma
- Automatic Fine Tuning which uses the previous reading as the base for the next reading.

The "Tie-Line" Advantage

Not only does the Omni System eliminate hours of manual correction of data, it also gives you the flexibility of choosing the most appropriate tie-line method best suited for the survey, depending on the size and character of the grid. You can choose from:

- a single base point,
- a single tie-line,
- multiple tie-lines, or
- a random scattering of tie-points.

The self-correcting "Tie-Line" feature can remove base station requirements from some surveys. The "Tie-Line" data can be recalled even if it was stored on different days.

You can program the Omni System to automatically remove a designated datum from field data and by removing this coarse, background value, plotting and interpreting the magnetic field data is made easier. The Omni System can also automatically calculate the desired diurnal drift measured between consecutive tie-point readings.

Environmentally sealed design of the OMNI permits use in all weather conditions

Operate Your Omni System in any Environment

The Omni System is completely water proof and dust proof. The fully sealed housing console ensures that you can perform your surveying needs during adverse weather conditions.

A Variety of Software Programs Available

Although the Omni System can transfer data directly to a serial printer, most computers require some initial handshaking prior to actual data transfer. Scintrex provides such handshaking programs for many computers including IBM PS-2/ IBM PC (AT and XT), Compaq, Macintosh and compatible systems.

In addition to handshaking software, we can provide you with plotting, profiling, contouring and modelling programs available from certain software houses. Packages for use with the Omni System include:

- Mapping systems that allow you to post and plot many of the geophysical parameters available, in a plan-profile or contoured format.

- Cartographic quality large-scale and real-location plan maps, complete with custom map surrounds, legends, scale bars, etc., that can be produced in a matter of minutes on most dot-matrix printers or small and larger-scale plotters. Standard graphics screen previewing is available prior to plotting.

- Software that allows you to present the data in 2 or 3-D perspective plots, through a full menu and/or command driven system interface in which you can select different colours, sizes, scales, angles etc. For example, you can create shaded relief maps and colour image plotting on common high resolution printers, including grey-scale support on laser printers.

- Interactive filtering and modelling programs that are used to determine the possible geometry and physical characteristics of the sources of magnetic anomalies, such as the MAGMOD program.

- Autocad and image-processing capabilities.

Through new software interface programs, you can use the Omni System as a field unit together with other integrated magnetometer/VLF systems (such as the Scintrex IGS-2) or with other microprocessor based base station magnetometers.

Omni System Benefits

More System Benefits

- Display descriptors monitor the status of the primary battery source used.
- Output of grid co-ordinates with the designated compass bearing, using N, S, E, W descriptors.
- Audio feedback to confirm every keystroke
- Decimal spacing of 12.5 (metres or feet) for intermediate station intervals
- The ability to clear an unwanted last reading
- Two keystrokes to record data in memory - the first verifies the grid co-ordinate; the second puts it into memory.

The Omni Magnetometer unit measures and stores in memory the Earth's magnetic field at the touch of a key. This precise instrument is able to do the following:

- identify and store the location and the time of each measurement
- compute the statistical error of the reading
- store the decay and strength of the signal that you are measuring

Provides Data-Protected Readings

The Omni Magnetometer is packaged in a compact, lightweight and rugged housing and is able to measure and store the following set of information:

- total field magnitude
- time of measurement
- grid co-ordinates
- direction of travel
- statistical error of readings
- signal strength and rate of decay

Increases Productivity

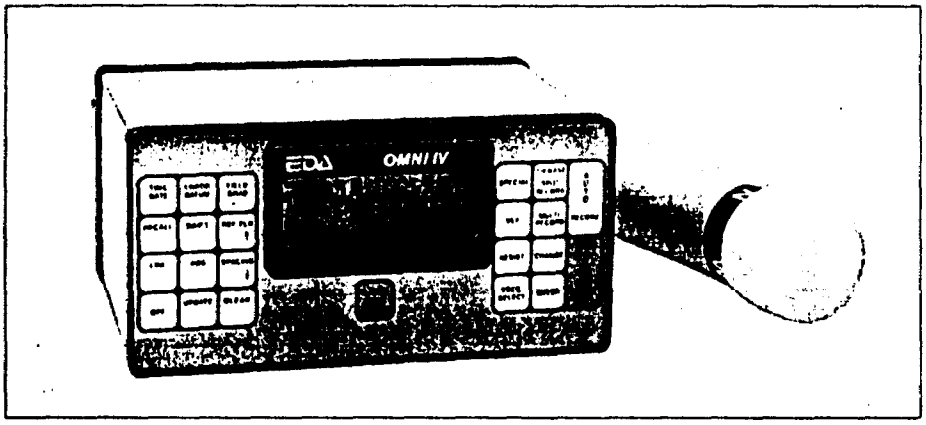
The Omni Magnetometer significantly increases survey productivity as:

- it can read and store a measurement in only 3 seconds.
- data is highly repeatable so a second measurement is usually not required.
- it calculates statistical error for each measurement which indicates whether an additional reading is required.

All of these benefits permit you to cover more ground and gather more data than would be otherwise possible.

OMNI MAG configuration used for measurement of total field magnetics

The Omni System as a Portable Field Magnetometer



OMNI MAG electronics console with total field magnetic sensor

Simplifies Fieldwork

The Omni makes surveys easier to conduct because:

- the electronic notepad eliminates the need to write down field data. The Omni simultaneously stores time, field measurements, grid co-ordinates when you press any one of the three record keys.
- you are able to clear the unwanted last reading.
- the Omni automatically calculates the difference between the current reading and previous one.
- you can remove the coarse magnetic field value or data from the field data to simplify plotting of the field results.
- the Omni automatically calculates diurnal corrections.

The flexibility of the Omni System offers the following choices:

- If you use the Omni as a field magnetometer or as a gradiometer, the total field data can be corrected using the unique "Tie-Line" or "Looping" method.
- If you use one Omni as a base station, it will correct the total field magnetic data in:
  - an Omni set-up as a field magnetometer
  - an Omni set-up as a gradiometer

Unparalled Repeatability of Data

The Omni provides you with unparallelled data repeatability. This is a result of four leading edge design features that eliminates the need for taking multiple readings:

- Signal Processing Technique
- Constant Energy Polarization that maintains equal energy to the sensor
- Processing sensitivity to ± 0.02 gamma
- Automatic Fine Tuning which uses the previous reading as the base for the next

Saves You Time

The error analysis feature is a great time saver as the calculation of the statistical error of each reading lets you make an on-the-spot decision whether or not you should store the reading.

The Omni System also saves you time-consuming steps as it can:

- automatically assign a record number which you can also use to identify readings measured off of the grid.
- take more than one reading at one point without updating the current station number.
- according to the programmed station interval, automatically update your station position without having to program each station coordinate. The Omni magnetometer also provides a decimal digit for intermediate station intervals of 12.5 metres.
- rapidly recall readings either by record number or in sequence.

Tolerates Higher Gradients

The ability to tolerate local higher gradients of up to 6000 gammas per metre (field proven), is possible due to a sophisticated signal processing method and to a miniature sensor design using a highly optimized sensor geometry.

A Variety of Power Supply Options

You can choose from the following power supply options:

- non-magnetic rechargeable sealed lead-acid battery or belt
- heavy duty rechargeable battery
- alkaline battery belt
- 12V DC power source

The Omni System as a Base Station Magnetometer

The Omni Base Station Magnetometer effectively measures and stores in its memory the daily fluctuations of the Earth's magnetic field. The Omni can automatically correct total field data of other Omni units in just a few minutes.

Records Magnetic Field Activity

The magnetic field activity is recorded in the following format:

- time of measurement
- magnitude of total field
- difference from the reference field value
- difference from the previous reading
- sequential record number

Automatically Corrects Data

The Omni in the base station mode can automatically correct magnetic field data for both diurnal variations and reference field values. It can also correct total field data stored in:

- another Omni System used as a field magnetometer
- another Omni System used as a field gradiometer

This is ideal when you want to remove diurnal errors sufficiently to make use of the full 0.1 gamma resolution of the Omni System.

Automatic Drift Calculations

The Omni automatically calculates the difference between each reading and its programmed reference field. If at the end of the survey day you find that the reference field is incorrect, you can re-select a new one and the Omni System can instantly re-calculate the drift. The drift calculation can be presented in either digital and/or profile plot format. It can also be simultaneously output to a compatible printer so you can visually verify the activity of the field.

Calculates Differential Field Variations

The Omni calculates the difference between the current reading and the previous one to a resolution of 0.1 gamma. This features assists you in ascertaining the degree of activity that is occurring such as a magnetic storm or active conditions.

Stores Approximately 55 Hours Of Continuous Unattended Monitoring

The Base Station mode enables you to store up to 20,000 sets of readings which is the equivalent to approximately 55 hours of unattended monitoring at a 10 second sampling interval. You can program the cycling time at any interval between 5 seconds and 60 minutes in 1 second increments.

Outputs and Stores Data At the Same Time

The Omni can simultaneously output data in digital or ASCII format to your choice of data collection units at the same time it stores the data in memory.

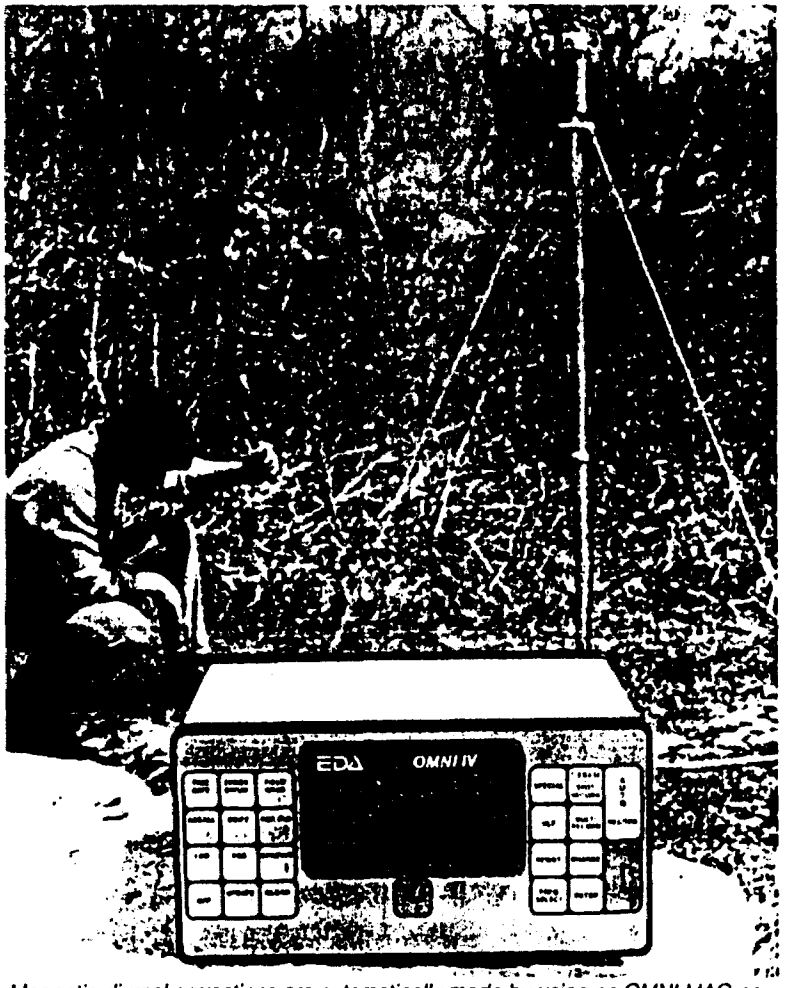
Synchronize Real Time Clocks

The Omni System real time clocks can be synchronized to the nearest second.

Magnetic Base Station Accessories Kit

Sensor Extension Cable - This 30 metre cable enables you to place the Omni in a sheltered environment such as a tent, and position the magnetic sensor up to 30 meters away. This capability aids in eliminating possible cultural interference.

Rope Joiner - The rope joiner enables the sensor staff to be supported by ropes when it is being used as a base station sensor.



Magnetic diurnal corrections are automatically made by using an OMNI MAG as a base station magnetometer

Omni System as a True Gradiometer

The Omni System provides you with an accurate means of measuring both the total field and the gradient of the total field. It reads and stores the measurements of both sensors simultaneously to calculate the true gradient measurement.

Displays and Stores Fully Protected Data

The Omni System provides the following information on screen and in memory:

- the gradient of the total magnetic field
- the total magnetic field magnitude of the upper sensor
- the time of measurement
- the grid co-ordinates where the measurement is taken
- the statistical error of total field reading of lower gradient sensor
- the signal strength and decay rate measurement of lower gradient sensor

No Lost Survey Time

The Omni enables you to conduct gradient surveys during magnetic storms resulting in no lost survey time. This is another benefit of the simultaneous measurement of both sensors.

Cancels the Effects of Diurnal Magnetic Variations

The technique of simultaneously measuring the two sensors cancels the effects of diurnal magnetic variations. The total field measurement of the top sensor can be self-corrected by the Omni when you use the "Tie-Line" feature or with another Omni System in the base station mode.

Increases Resolution of Total Field Anomalies

The Omni in the gradient mode more sharply defines the magnetic responses determined by total field data. It individually delineates closely spaced anomalies rather than collectively identifying them under one broad magnetic response.

Directly Delineates Vertical Contacts

The Omni is an ideal contact mapping tool especially in vertical to near-vertical contact or fault zones. These vertical contacts are expressed at the zero line of gradient contour or profile values. Vertical dyke-like bodies can also be mapped effectively.

Simultaneous vertical magnetic gradient measurements using the OMNI GRAD configuration

Provides On-The-Spot Approximate Depth of Anomalies

Shallow, near-surface sources (higher frequency anomalies) are emphasized relative to deeper responses (lower frequency anomalies). This can provide an on-the-spot approximation of the depth of the anomalous source.

Automatically Removes Regional Gradient

The gradient measurements ability to differentiate between higher and lower frequency responses effectively removes background regional gradients from anomalous residual responses.

Offers a Unique Alternative in the Interpretation of Magnetic Field Data

The Omni enhances data by simultaneously recording in memory both the gradient and total field measurements as well as the statistical error. Both types of data offer a unique alternative in interpreting the magnetic field data such as gradient vector diagrams, dip and strike length of body, etc.

Gradient-Base Station Operation

The Gradient Mode of the Omni System can cycle automatically every 5 seconds. This option can be used in stationary or mobile applications.

Emphasizes or Diminishes Near Surface Effects

The gradient sensor of the Omni is mounted onto a sectional aluminum staff in which you can add or subtract sections to achieve the desired height of sensors from the ground. This enables you to adapt the Omni to local ground noise conditions, terrain effects and survey logistics. In doing so, you can selectively emphasize or diminish near surface effects depending upon the survey target.

Choice of Sensor Separation

The choice of sensor separation provides unique interpretative information especially useful in near surface anomalous conditions such as determining if the field has curvature or if it is linear. You can choose the following sensor lengths and configurations:

- standard 0.5 metre sensor separation mounted on staff
- optional one metre sensor separation mounted on staff

The Omni System as a Portable VLF Unit

The Omni VLF unit allows you to do all of your surveying completely hands free and provides you with the ability to measure and record in a fully protected memory for each field reading the following information:

- vertical in-phase
- vertical quadrature (out-of-phase)
- total field strength
- dip angle
- primary field direction
- apparent resistivity
- phase angle
- time
- grid co-ordinates
- direction of travel along grid lines
- natural and cultural features

The field data is compensated for 180 degree difference in direction of travel up and down survey lines.

Requires No Orientation

The Omni does not require you to orient the VLF sensor head toward the VLF transmitter station. This simplifies field procedures as well as saves you considerable survey time. When you measure three VLF transmitters, the benefits of this time-saving feature automatically triple. You do not have to orient yourself and the sensor head toward the first selected transmitting station and then re-orient towards the second or third transmitting station.

The ability to obtain data from as many as three VLF transmitting stations provides complete coverage of an anomaly regardless of the orientation of the survey grid or of the anomaly itself.

The unique 3 coil design of the OMNI VLF allows reading of up to 3 separate frequencies without having to orient to each of the transmitting VLF stations

Saves You Time

The Omni can measure up to three VLF frequencies (transmitter stations) simultaneously, in as little as 8 seconds, or one VLF frequency in only 3 seconds, depending on the transmitter strength.

The Omni automatically tunes to the preprogrammed frequency(s) for each reading. Display descriptors indicating signal-to-noise ratio provide you with an immediate indication of how usable a frequency is. Using up to three frequencies optimizes conductor coupling, even in the most complex geologic environments.

Receives Very Weak or Too Strong Signals

Being able to select a transmitter station(s) best suited for the survey target and orientation is not always possible with conventional VLF systems. The ideal station(s) may be too weak or overwhelmed by the signal strength of a transmitter that is close in frequency proximity. Through digital signal processing, the Omni can receive signals as low as 20 nA/m from very weak stations, by removing the modulation in the received signal. Analog filtering of the Omni System offers an unparalleled 80 dB for a 600 Hz channel separation. In other words, the Omni can isolate and measure a 1000 times weaker signal from a distant station in lieu

The Omni System as a Portable VLF Unit

of the closer and subsequently more stronger station that is only 600 Hz apart in frequency.

Reduced Atmospheric Noise

Atmospherics such as thunderstorm activity, as well as the resultant interaction between the sun's rays and the ionosphere can drastically alter the wave guide in which the VLF wave travels from the transmitter station.

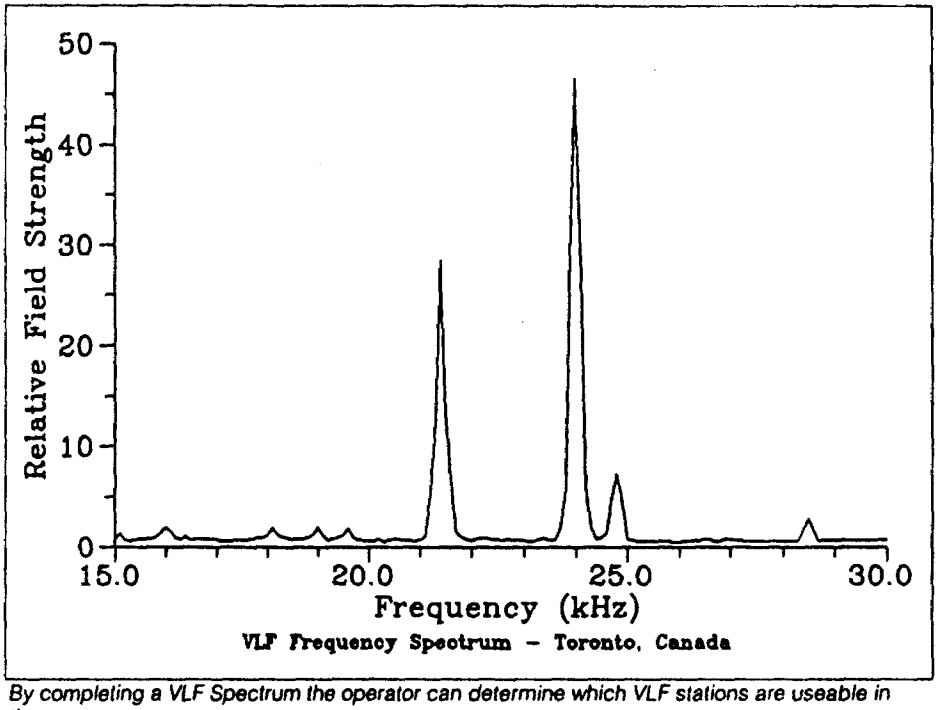
Through signal enhancement, the Omni is able to suppress the effects of these atmospheric and ionospheric phenomena, which are more predominant in the summer months, in order to pick up the weakest of transmitter stations. For example, Omni Systems used in Southern Africa have demonstrated the unparalleled ability to pick up 7 transmitter stations.

Provides More Complete, 3-Dimensional Description of Survey Area

The Omni can measure the total tilt or dip of the polarization ellipse from the vertical axis. Unlike conventional systems, where only the tilt of the major axis of the polarization ellipse is measured, the Omni is most sensitive to the horizontal components perpendicular to the primary field which can detect anomalies off to the side. This provides a more complete, three dimensional description of the survey area that can lead to the detection of anomalies between grid lines. The Omni's tilt transducers compensate for both tilt and roll position of the VLF sensors.

Scan For The Most Usable Station

The Omni enables you to automatically scan the entire VLF spectrum for the most usable stations between 15.0 kHz to 30.0 kHz in increments of 100 Hz. This is most desirable if you do not know first hand what stations are readable or what stations are available from your location. Unpublished or unknown stations now become accessible. You can then determine if a known station has changed frequency simply by the direction of transmission.



By completing a VLF Spectrum the operator can determine which VLF stations are useable in the survey area

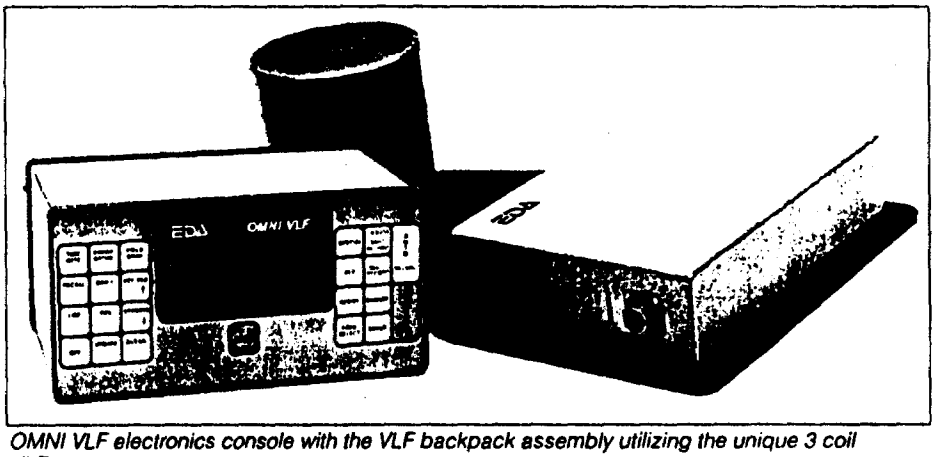
Automatically Calculates the Fraser Filter

The Omni automatically calculates the Fraser Filter from the dip angle data, regardless of the interval between the stations along the grid lines. You no longer have to manually perform this mathematical calculation thereby reducing the possibility of human error. The Fraser Filter algorithm follows established conventions.

The Fraser filtered data is output using both the 4 point and 5 point filter method. The latter method allows filtered data to be plotted easier, such as at the station interval instead of in-between stations.

Calculation of Ellipticity

As an option, the Omni can calculate the true ellipticity of the VLF magnetic field from the measurement of the in-phase and quadrature of all three components. The ellipticity provides more interpretive information about the anomaly than the dip angle and is less influenced by overburden shielding.



OMNI VLF electronics console with the VLF backpack assembly utilizing the unique 3 coil VLF sensor

The Omni System as a VLF Base Station

The Omni VLF Base Station monitors and records in protected memory, variations in the primary field strengths that can originate from the VLF transmitter itself or from atmospheric/ionospheric changes.

You Only Need One Omni System VLF Base Station for 3 Simultaneous Measurements

Like the Omni VLF Field unit, you only need one Omni VLF Base Station to simultaneously monitor up to 3 VLF transmitter stations, regardless of their field direction.

Conventional, "oriented" systems may require as many as 3 separate base stations for the same coverage offered by one Omni VLF Base Station.

In addition, the Omni Mag/VLF Base Station also monitors the Earth's magnetic field for diurnal variations, eliminating the need for a separate base station magnetometer.

The simultaneous measuring capability reduces the length of time the Omni System needs to be turned on. This, in turn, reduces the power consumption needed by the Omni System and lengthens the battery life. By being able to take three measurements in approximately the same amount of time as conventional sequential systems take one measurement, you can shorten the programmable sampling interval to attain better monitoring coverage of the field strengths from each of the VLF transmitters.

Both VLF and Magnetometer Base Stations in One Instrument

The Omni System eliminates the need to have two separate instruments to monitor the primary field strength of selected VLF transmitter(s) and the variations in magnitude of the Earth's magnetic field — one Omni Base Station does both. By combining both of these capabilities into one unit, it significantly reduces the cost of the survey. The Omni measures and stores these variations in protected memory.

Automatically Corrects VLF and Magnetic Field Data

The Omni base station can automatically correct the Omni System field units for the measured field strength variations from the VLF transmitter(s) and the Earth's magnetic field. Through linear interpolation, these corrections are applied at the time of data transfer. Unlike other integrated systems, the Omni does not alter the original field data during the correction process. The Omni base station correction and "Tie-Line" correction capabilities are applied at the time of each data transfer, therefore securing the integrity of the data collected during the survey.

Diurnal corrections for fluxuations of the VLF primary field are possible by using an OMNI VLF as a VLF base station

Obtain a Reading at the same time as the Base Station

The Omni has a unique countdown feature which can be activated in the field unit upon synchronization with the base station. The field unit then displays and decrements the remaining time, in seconds, until the base station is scheduled to take a measurement. You can obtain a field reading at exactly the same time as the base station. The simultaneous field and base station measurements significantly improves the accuracy of the automatic correction.

Synchronize the Real Time Clocks

Real time clocks among any number of Omni units can be synchronized to the second unit when using the Omni Base Station with another Omni portable field unit.

Monitor Rapid Variations of Primary Field

You can program your Omni base station to cycle at any interval, in one second increments, from 5 seconds to 60 minutes, to montior rapid variations of the primary field. The minimum cycling time for VLF Base Station use depends on the VLF Transmitter strength that the Omni receives.

Compatibility with Airborne Systems

The Omni is compatible with airborne VLF systems which also use 3 component sensors.

VLF Base Station Accessories Kit

VLF Sensor Extension Cable - This is a 10 metre cable which allows you to put the Omni console in a sheltered environment while placing the VLF sensor up to 10 meters away.

Rope Joiner - The rope joiner enables the sensor staff to be supported by ropes when it is being used as a base station sensor.

Mounting Bracket - This bracket is for mounting the VLF sensor to the staff.

The Omni System as a Portable VLF Resistivity System

The Omni VLF Resistivity unit can calculate and record the apparent resistivity and phase angle from the measurement of the VLF electric and magnetic fields.

Non-Orientation Resistivity Option

In addition to the standard resistivity option that uses 2 electrodes, the Omni also offers a non-orientation VLF resistivity option which includes a third electrode. This third electrode, with the standard resistivity unit, eliminates the need for you to orient toward the selected transmitter station(s).

This significantly improves survey production and reduces the time consuming logistics often associated with resistivity surveys.

Calculates the Vector Resistivity

The optional third electode in the Omni VLF Resistivity unit offers not only a non-orientation capability of the VLF electric field, but also measures the elements of tensor impedance necessary for the Omni to compute the two components of the apparent resistivity, or the vector resistivity.

This provides you with additional interpretive information of the survey target.

Select Your Own Type of Electrode

Survey conditions largely dictate the type of electrode you should use. The standard Omni resistivity electrode includes both capacitive plates and resistive probes so you can select the type of electrode that offers the best coupling capability for the survey conditions.

The unique threaded design permits you to easily exchange the choice of electrode in the field.

Flexible Probe Spacing

The Omni resistivity options offer a standard 10m cable assembly. However, you can program the console for a 5 or 10 metre separation.

The acquisition of VLF resistivity data using the 2 probe or the unique 3 Probe VLF resistivity option allows the operator to collect valuable additional information from the VLF method

Possible Configurations of the Omni Geophysical System

	Mag	Grad	VLF	Mag/VLF	Grad/VLF
System Control Console	*	*	*	*	*
Total Field and Base Station Mag Option	*	*		*	*
Magnetic Gradiometer Option		*			*
Magnetic Total Field Sensor	*	O		*	O
0.5m Magnetic Gradient Sensor		A			A
1.0m Magnetic Gradient Sensor		A			A
128K RAM extended Memory Option	O	O	(included in VLF configurations)		
VLF Electromagnetic Sensor Option			*	*	*
2 Probe VLF Resistivity Option			O	O	O
"Non-Orientation" VLF Resistivity Option			O	O	O
Non-Rechargeable Battery Belt	B	N/A	B	B	N/A
Rechargeable Battery Belt	B	B	B	B	B
Standard Rechargeable Battery Cartridge	B	B	B	B	B
Heavy Duty Rechargeable Batt. Cartridge	B	B	B	B	B
Battery Charger	C	C	C	C	C
RS-232C Kit	O	O	O	O	O
Mag Base Station Accessories Option	O	O		O	O
VLF Base Station Accessories Option			O	O	O
Transit Case (#1)	O	O	O	O	O
Transit Case (#2)	O	O	N/A	N/A	N/A
Transit Case (#3)	O	O	O	O	O
Magnetics Spare Parts Kit	O	O			
VLF Spare Parts Kit			O		
Magnetics/VLF Spare Parts Kit				O	O
Data Transfer Program	O	O	O	O	O

* Required in the configuration

A Selection of *one of* the A options required to complete configuration

B Selection of *one of* the B options required to complete configuration

C If a rechargeable battery option is required then the charger must also be included in the configuration

O Optional for configuration, see a sales representative for more details

N/A Not available for this configuration

Specifications

OMNI System Specifications

Operating Environment -40C to +55C; 0-100% relative humidity; weatherproof

Power Supply Non-magnetic rechargeable sealed lead-acid battery or belt; alkaline battery belt; or 12V DC power source option for base station operation.

Battery Life 1,700 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings.

Weights and Dimensions

Instrument Console
3.8 kg, 122 x 246 x 210 mm

VLF Sensor Head
0.9 kg, 140 dia. x 130 mm

VLF Electronics Module
1.7 kg, 280 x 190 x 75 mm

Standard Rechargeable Battery
1.8 kg, 138 x 95 x 75 mm

Standard Rechargeable Battery Belt
1.8 kg, 540 x 100 x 40 mm

Heavy Duty Rechargeable Battery
2.0 kg, 138 x 115 x 75 mm

Alkaline Battery Belt
1.2 kg, 540 x 100 x 40 mm

Magnetometer Sensor
1.2 kg, 56mm dia. x 200mm

Gradient Sensor
(0.5m separation - standard)
2.1 kg, 56mm dia. x 790mm

Gradient Sensor
(1.0m separation - optional)
2.2 kg, 56mm dia. x 1300mm

Display
Custom designed, rugged liquid crystal display with an operating temperature range from -40C to +55C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.

Magnetometer Component Specifications

Dynamic Range 18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.

Tuning Method Tuning value is calculated accurately using a specially developed tuning algorithm.

Automatic Fine Tuning ±15% relative to ambient field strength of last stored value

Display Resolution 0.1 gamma

Statistical Error Resolution
0.01 gamma

Absolute Accuracy ± 1 gamma at 50,000 gammas at 23C • ±2 gamma over total temperature range

Memory Capacity

Standard Memory Capacity 1300 data blocks (48K) or 5200 data blocks (128K)

Total Field or Gradient 100 data blocks

Base Station 4000 data blocks (48K) or 16,000 data blocks (128K)

RS-232C Serial I/O Interface Variable baud rate from 300 to 9600 baud, 8 data bits, 2 stop bits, no parity

Gradient Tolerance 6,000 gammas per metre (field proven)

Test Mode A. Diagnostic testing (data and programmable memory)
B. Self Test (hardware)

Sensor Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.

Gradient Sensors 0.5 metre sensor separation (standard) normalized to gammas/metre. Optional 1.0 metre sensor separation available.

Sensor Cable Remains flexible in temperature range specified including strain relief connector

Cycling Time (Base Station)
Programmable from 5 seconds up to 60 minutes in 1 second increments.

VLF Component Specifications

Frequency Tuning Range 15 to 30 kHz in 100 Hz increments with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz.

Transmitting Stations Up to 3 stations can be automatically measured at any given grid location within frequency tuning range.

Recorded VLF Magnetic Parameters
Vertical in-phase, vertical quadrature (out-of-phase), total field strength (or optional horizontal amplitude), dip angle

Channel Separation 80 dB at 600 Hz frequency separation

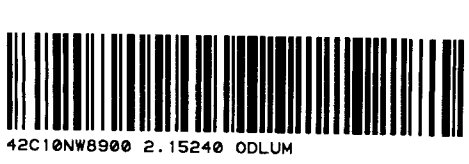
Standard Memory Capacity 1300 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings

SCINTREX

222 Snidercroft Road
Concord,Ontario,Canada
L4K 1B5

Telephone: (416) 669-2280
Telex: 06-964570
Telefax: (416) 669-6403
(416) 669-5132

Ontario



900

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

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

Telephone: (705) 670-5853
Fax: (705) 670-5863

March 22, 1994

Mining Recorder
Ministry of Northern Development
and Mines
60 Church Street
Sault Ste. Marie, Ontario
P6A 3H3

Our File: 2.15240
Transaction #: W.9350.00052

Dear Sir/Madam:

SUBJECT: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS 1078220 ET AL IN STRICKLAND, ODLUM AND TEDDER TOWNSHIPS.

The assessment work credits for Assays filed under Section 17 of the Mining Act Regulations have been approved as amended in the original submission.

The approval date is February 2, 1994.

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5855.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

LJ/jl
Enclosures:

cc: Resident Geologist
Sault Ste. Marie, Ontario

Assessment Files Library
Toronto, Ontario

Ontario Ministry of Northern Development and Mines

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number (Assigned) No. W9350.00052

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15240

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
John E. Ternowsky/Peter Nabigon c/o Akiko Gold Resources Ltd.		A200691 / 174431
Address		**Telephone No.**
709 - 700 West Pender Street, Vancouver, B.C. V6C 1G8		604-689-0988
Mining Division	**Township/Area**	**M or G Plan No.**
Sault Ste. Marie	Strickland, Odlum, Tedder, Cooper	
Dates Work Performed From: July 15, 1993	To: September 30, 1993	

Work Performed (Check One Work Group Only)

	Work Group	Type
	Geotechnical Survey	
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
x	Assays	Humus and rock samples (Au, Cu, Zn, Mo)
	Assignment from Reserve	

L25 1/2

RECEIVED
DEC 02 1993
MINING LANDS BRANCH

RECORDED
NOV 17 1993
Receipt

Total Assessment Work Claimed on the Attached Statement of Costs $ 27,988.~~12~~

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
A.C.A. Howe International Ltd.	22 Front Street West, Suite 1400, Toronto, Ontario M5J 1C4

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

	Date	Recorded Holder or Agent (Signature)
I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Nov. 15, 1993	

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.

Name and Address of Person Certifying		
Daniel Leroux, 326 Major MacKenzie Dr. East, #122, Richmond Hill, Ontario L4C8T4		
Telepone No.	**Date**	**Certified By (Signature)**
905-770-0293	Nov. 15, 1993	

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
$27,988.09 RESERVE $1024	Nov 17/93		SAULT STE. MARIE MINING DIVISION RECEIVED 29 NOV 1993 AM 7,8,9,10,11,12,1,2,3,4,5,6 PM
	Deemed Approval Date Feb 15/94	**Date Approved**	
	Date Notice for Amendments Sent First Rec. Nov 17/93		

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	✓1078220	1	363.00	363.00		13.00
	✓1078221	1	363.00	363.00		13.00
	✓1078222 ✓	1	363.00	363.00		13.00
	✓1078223	1	363.00	363.00		13.00
	✓1078224 ✓	1	363.00	363.00		13.00
	✓1078225 ✓	1	363.00	363.00		13.00
	✓1078226	1	363.00	363.00		13.00
	✓1078227	1	363.00	363.00		13.00
	✓1078228	1	363.00	363.00		13.00
	✓1078229 ✓	1	363.00	363.00		13.00
	✓1078230 ✓	1	363.00	363.00		13.00
	✓1078231 ✓	1	363.00	363.00		13.00
	✓1078232 ✓	1	363.00	363.00		13.00
	1078233	1	363.00	363.00		13.00
	1078234 ✓	1	363.00	363.00		13.00
	1078235 ✓	1	363.00	363.00		13.00
	1078236 ✓	1	363.00	363.00		13.00
	17		6,171.00	6,171.00		221
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☒ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☐ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date

1-5

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	1069174	1	363.00	363.00		13.00
	1069175	1	363.00	363.00		
	1069176	1	363.00	363.00		
	1069177	1	363.00	363.00		
	1069178	1	363.00	363.00		
	1069179	1	363.00	363.00		
	1069180	1	363.00	363.00		
	1069181	1	363.00	363.00		
	1069182	1	363.00	363.00		
	1069183	1	363.00	363.00		
	1069184	1	363.00	363.00		
	1069185	1	363.00	363.00		
	1078215	1	363.00	363.00		
	1078216	1	363.00	363.00		
	1078217	1	363.00	363.00		
	1078218	1	363.00	363.00		
	1078219	1	363.00	363.00		13.00
	17		6,171.00	6,171.00		492
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

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I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	1069156	1	363.00	363.00		13.
	1069157	1	363.00	363.00		
S	1069159	1	363.00	363.00		
	1069160	1	363.00	363.00		
	1069161	1	363.00	363.00		
	1069162	1	363.00	363.00		
	1069163	1	364.00	364.00		
	1069164	1	364.00	364.00		
	1069165	1	364.00	364.00		
	1069166	1	364.00	364.00		
	1069167	1	364.00	364.00		
	1069168	1	364.00	364.00		
	1069169	1	364.00	364.00		
	1069170	1	364.00	364.00		
	1069171	1	364.00	364.00		
	1069172	1	364.00	364.00		
	1069173	1	364.00	364.00		13.00
	17		6,182.00	6,182.00		663
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

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I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date

3-5

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	✓1043718	1	364.00	364.00		13.00
1	✓1043761	1	364.00	364.00		13.00
1.	✓1043768	1	364.00	364.00		13.00
1	✓1043782	1	364.00	364.00		14.00
	✓1043783	1	364.00	364.00		14.00
	✓1043801	1	364.00	364.00		14.00
	✓1043802	1	364.00	364.00		14.00
1	✓1043994	1	364.00	364.00		14.00
	✓1043995	1	364.00	364.00		14.00
	1044084	1	364.00	364.00		14.00
	✓1044085	1	364.00	364.00		14.00
	1044086✓	1	364.00	364.00		14.00
	1044394✓	1	364.00	364.00		14.00
	1044396✓	1	364.00	364.00		14.00
1	1044398✓	1	364.00	364.00		14.00
	✓1069154✓	1	364.00	364.00		14.00
	✓1069155✓	1	364.00	364.00		14.00
	17		6,188.00	6,188.00		898
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

4-5

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

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Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	✓1078237	1	364.00	364.00		14.00
	✓1078238	1	364.00	364.00		14.00
	✓1078239	1	364.00	364.00		14.00
	✓1078240	1	364.00	364.00		14.00
	✓1078244	1	364.00	364.00		14.00
	✓1078242	1	364.00	364.00		14.00
	✓1078305	1	364.00	364.00		14.00
	✓1078306	1	364.00	364.00		14.00
	✓1078307	1	364.00	364.00		14.00
	9		3,276.00	3,276.00		$ 1026
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

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I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date

0241 (03/91)

Ontario

Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction Number (W.N.) / Numéro de transaction

DOCUMENT NO.
W9350 . 00052

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	48,332.00	
	Field Supervision Supervision sur le terrain	9,400.00	57,732.00
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type Research and	9,095.00	
	Report Writing		
			9,095.00
Supplies Used Fournitures utilisées	Type Analytical Assays	24,176.75	
	Line Cutting	17,432.97	
	Helicopter	3,852.77	
			45,462.49
Equipment Rental Location de matériel	Type		
	Total Direct Costs Total des coûts directs		112,289.49

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Airfare-Vehicle	5,138.32	
			5,138.32
Food and Lodging Nourriture et hébergement	Field Supplies, Food, Accommodations	10,533.01	10,533.01
Mobilization and Demobilization Mobilisation et démobilisation	Rentals, camp, miscellaneous	6,027.30	6,027.30
	Sub Total of Indirect Costs Total partiel des coûts indirects		21,698.63
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		22,457.90
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)		33,988.12

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Agent (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé

à faire cette attestation.

Signature	Date
	Nov 16/93

0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre

GOURLAY TWP.

ODLUM TWP.

TEDDER TWP.

COOPER TWP.

NAMEIGOS TWP.

PROJECTED BOUNDARY

SAND and GRAVEL

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

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.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE
SS Marie Mining Division (Wawa District)
AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:

P.O. Box 1160
Highway 101
Wawa, Ontario P0S 1K0
(705) 856-2396
RE: Forest Management Activities

The 1984 Magnetic Bearing Approx. 7° W. Annual Change Increasing 12'

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 5000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

STRICKLAND

M.N.R. ADMINISTRATIVE DISTRICT

WAWA

MINING DIVISION

SAULT STE. MARIE

LAND TITLES / REGISTRY DIVISION

ALGOMA

Ministry of Natural Resources — Land Management Branch — Ontario

Date OCTOBER, 1984

Number G-2285

STRICKLAND TWP.

G-2285

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.

NOTES

400' Surface Rights Reservation around all lakes and rivers.

AREAS WITHDRAWN FROM DISPOSITION

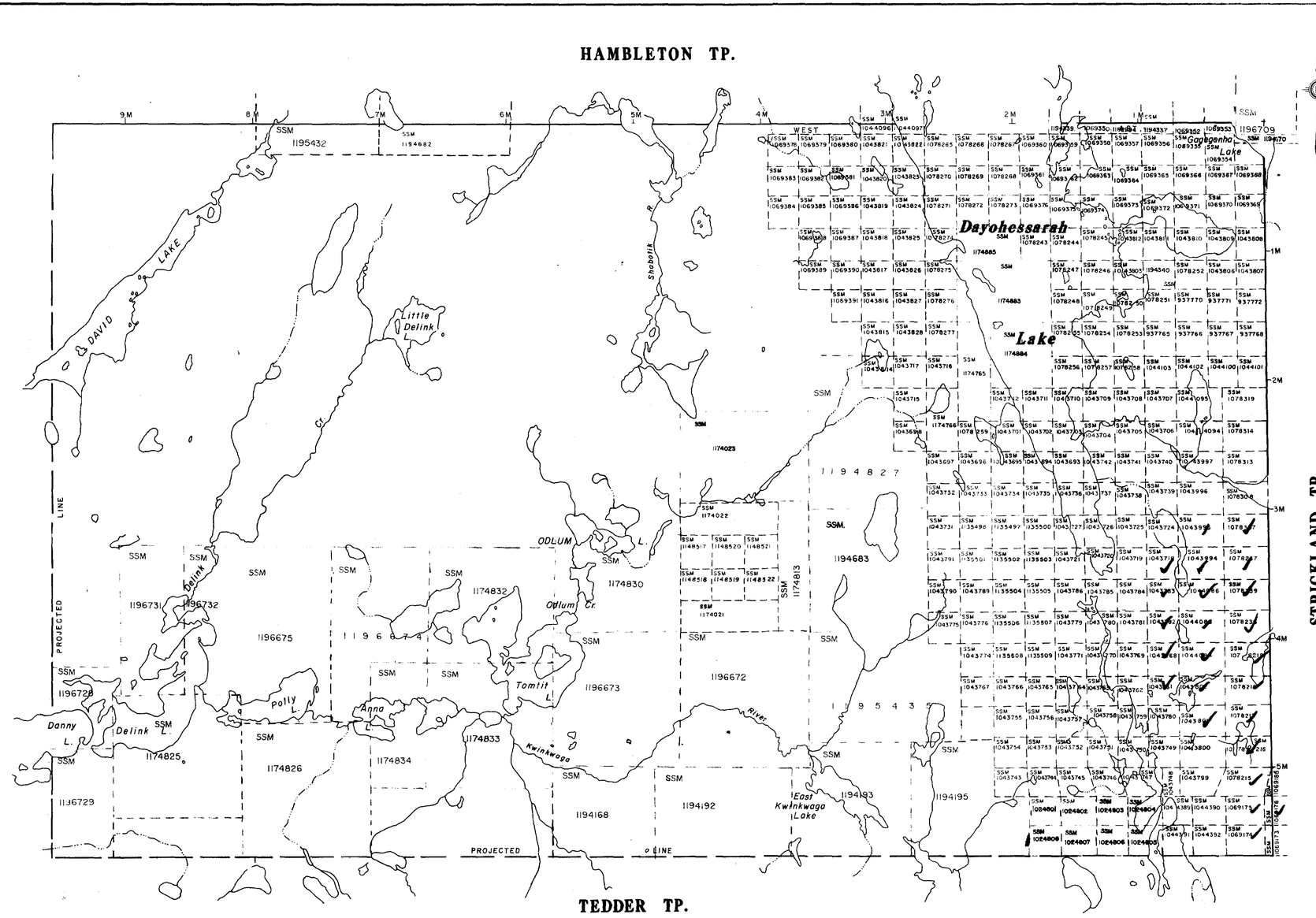
S.R. – SURFACE RIGHTS M.R. – MINING RIGHTS

Description	Order No.	Date	Disposition	File

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE Sault Ste Marie Mining Division (Wawa District)

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:
P.O. Box 3380
Highway 101
Wawa, Ontario P0S 1K0
(705) 856-2396
RE: Forest Management Activities



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

[redacted]

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.

SCALE: 1 INCH = 40 CHAINS

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

ACRES	HECTARES
40	16

TOWNSHIP

ODLUM

M.N.R. ADMINISTRATIVE DISTRICT
WAWA
MINING DIVISION
SAULT STE. MARIE
LAND TITLES / REGISTRY DIVISION
ALGOMA

Ontario Ministry of Natural Resources | Ministry of Northern Development and Mines

Date	Number
JULY, 1992	G-2805

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.

NOTES

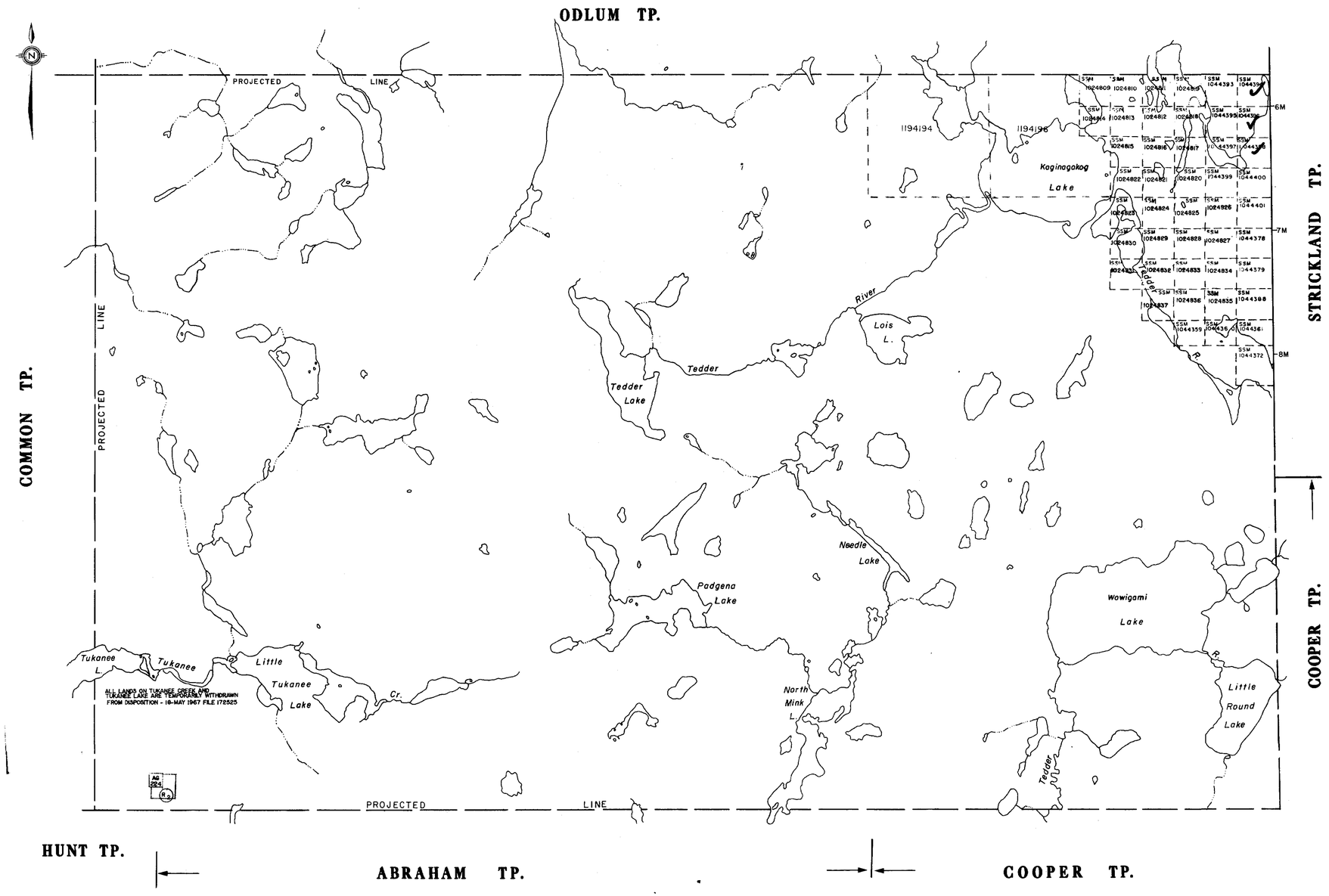
400' Surface Rights Reservation around all lakes and rivers.

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE SS Marie Mining Division (Wawa District)
AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:
P.O. Box 1160
Highway 101
Wawa, Ontario P0S 1K0
(705) 856-2396
RE: Forest Management Activities

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.



LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC.
- SURVEYED LINES: LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES
- UNSURVEYED LINES: PARCEL BOUNDARY
- UNSURVEYED LINES: 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

AREAS WITHDRAWN FROM DISPOSITION

S.R. – SURFACE RIGHTS M.R. – MINING RIGHTS

	Description	Order No.	Date	Disposition	File
2	SEC. 36 1980	W-64/86	13/08/86	WNR S.R. & M.R. Rsvn	VOL. 19 & 19 186054

SCALE: 1 INCH = 40 CHAINS

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

ACRES 40 HECTARES 16

TOWNSHIP

TEDDER

M.N.R. ADMINISTRATIVE DISTRICT
WAWA
MINING DIVISION
SAULT STE. MARIE
LAND TITLES / REGISTRY DIVISION
ALGOMA

Ontario Ministry of Natural Resources
Ministry of Northern Development and Mines

Date	Number
JULY, 1992	G-2825

JAYOH-ESSHAY LAKE

ODLUM TWP.
STRICKLAND TWP.

STRICKLAND LAKE

ODLUM TWP.
TEDDER TWP.

KAGINAGAKOG LAKE

TEDDER TWP.
STRICKLAND TWP.

STRICKLAND TWP.
COOPER TWP.

WAWIGAMI LAKE

0 800 1600
Metres

AKIKO GOLD RESOURCES LIMITED
WHITE RIVER GOLD PROJECT
CLAIM MAP

42C10NW8900 2.15240 ODLUM

230

Prepared by A.C.A. Howe International Limited

FIGURE 2.

HAMBLETON TOWNSHIP

ODLUM TOWNSHIP

GOURLEY TOWNSHIP

STRICKLAND TOWNSHIP

TERNOWESKY

DAYOHESSARAH

BLACK CLIFF

NABIGON

HEMLO

25 CLAIMS UNDER APPEAL TO MINING AND LANDS COMMISSIONER

SHABOTIK RIVER

LITTLE DELINK LAKE

LAKE

ODLUM LAKE

STRICKLAND RIVER

STRICKLAND LAKE

TOMTIT LAKE

KWINKWAGA RIVER

EAST KWINKWAGA LAKE

ODLUM TOWNSHIP

TEDDER TOWNSHIP

KAGINAGAKOG LAKE

HORNEPAYNE 50 miles

Akiko Gold Resources Property Outline

Akiko Gold Resources Ltd.

RIVER

LOIS LAKE

TEDDER

NEEBLE LAKE

WAWIGAMI LAKE

DEPEW RIVER

LITTLE ROUND LAKE

NORTH MINK LAKE

1/4 0 1/2 1

MILES

WHITE RIVER 15 miles

631

STRICKLAND TOWNSHIP

COOPER TOWNSHIP

TEDDER TOWNSHIP

COOPER TOWNSHIP

hemlo gold

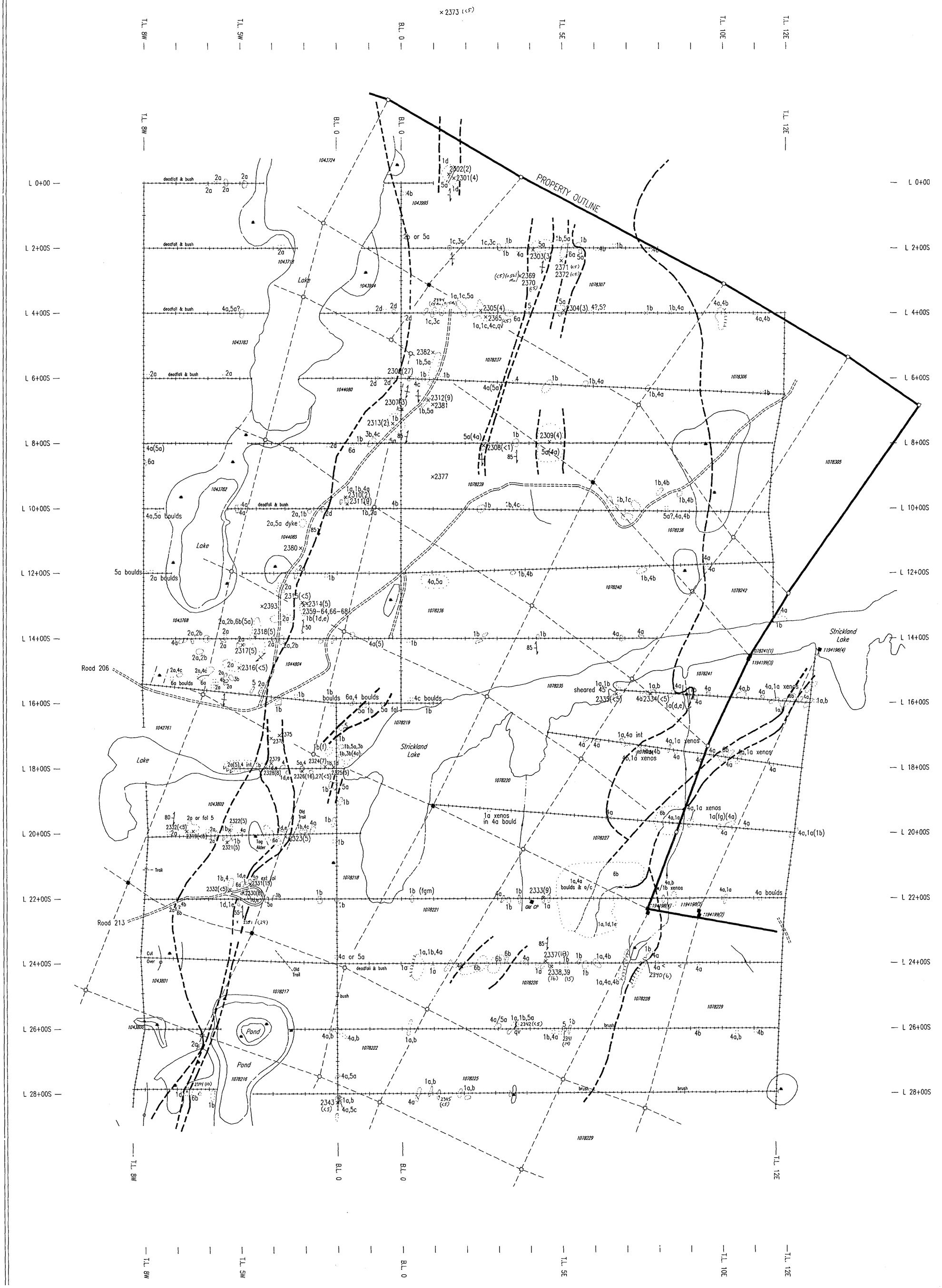
NORANDA EXPLORATION Co., LTD. – THUNDER BAY

DAYOHESSARAH PROJECT

CLAIM MAP

Interpreted by :	Scale : 1" = 1/2 mile
Drawn by : R. KRUSE	NTS number : 42C/14
Revised :	Project number : 1384
Date : MAY 1993	File number : REG-GEOL

42C10NW8900 2.15240 ODLUM



LEGEND

1. MAFIC METAVOLCANIC ROCKS
   - a) Massive Amphibolite (matic flows)
   - b) Foliated Amphibolite and/or fragmental (frg)
   - c) Pillowed Amphibolite
   - d) Debris Flow/ Agglomerate
   - e) Epiclastic Interflow Metasediment/ Tuff
2. METASEDIMENTARY ROCKS
   - a) Siliceous Wacke/ Greywacke
   - b) Sandstone/ Siltstone (Arenites)
   - c) Rusty Siltstone/ Wackes
   - d) Amphibolitic Metasediments +/- garnets
   - e) Conglomerate
   - f) Argillites
3. MAFIC INTRUSIVE ROCKS
   - a) Gabbro/ Gabbro Porphyry
   - b) Hornblendite
   - c) Diorite/ Porphyritic Diorite
4. GRANITIC INTRUSIVE ROCKS
   - c) Granite
   - b) Granodiorite
   - c) Pegmatite
   - d) Aplite
   - e) Migmatite
5. LATE FELSIC INTRUSIVE ROCKS
   - a) Quartz Feldspar Porphyry
   - b) Felsite
6. PROTEROZOIC INTRUSIVE ROCKS
   - a) Diabase
   - b) Porphyritic Diabase

Inferred outcrop

Defined geological contact

Assumed geological contact

2357(10) Geochemical rock sample location, sample number and Au ppb

80 Foliation with dip

Shearing with dip

Claim post (located, approximate location)

Claim line

Swamp

Road 207D Domtar logging roads

Old logging roads

Gentle slope

Moderate slope

Steep slope

Cliff

Stream (intermittent)

Cut over area

Scale = 1:5000

0 100 200 300 400 Metres

2.15240

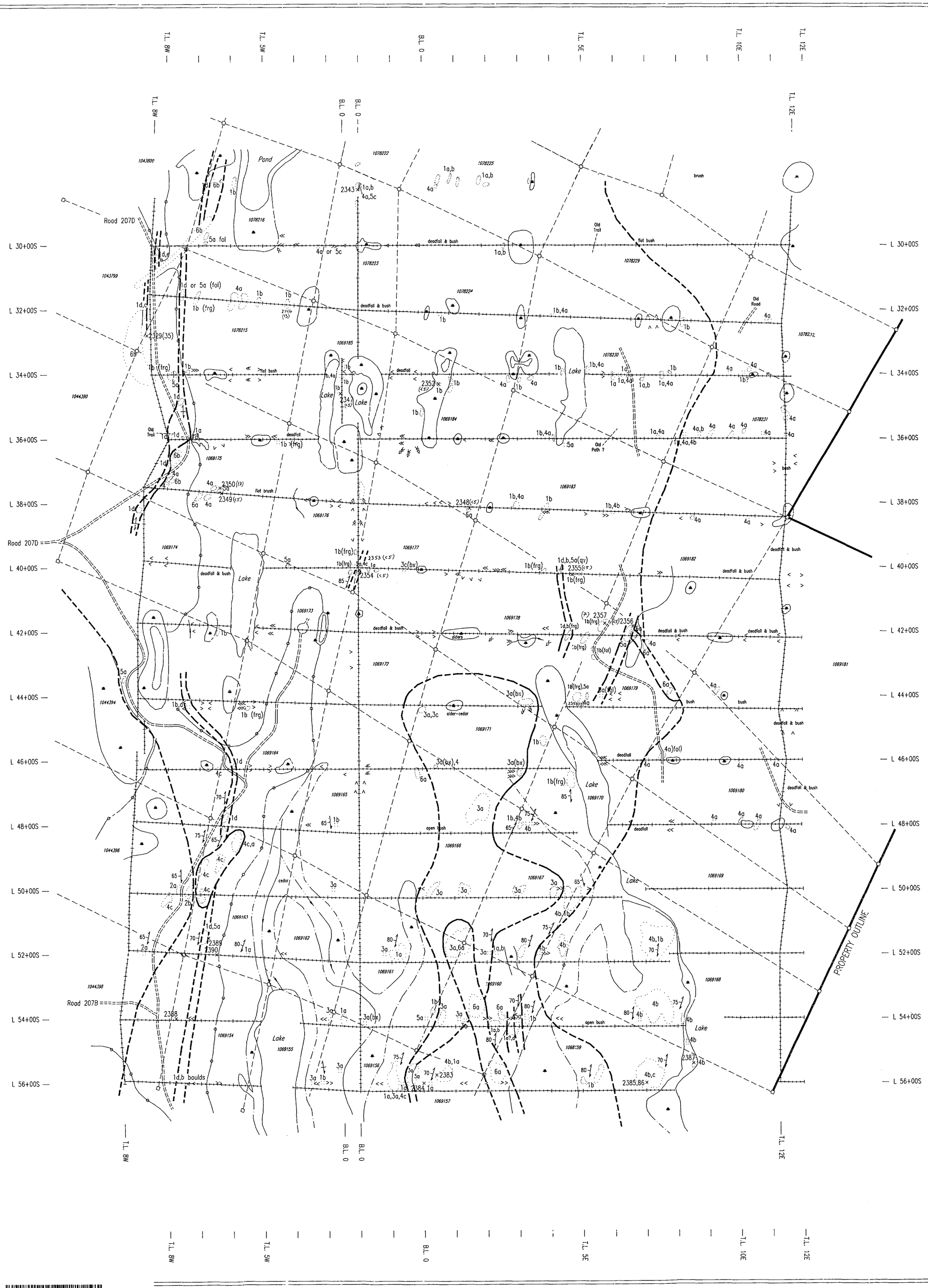
AKIKO GOLD RESOURCES LTD
White River Gold Project

Strickland Lake Grid (North Sheet)
GEOLOGICAL PLAN

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED



Declination: 7° W

LEGEND

1. MAFIC METAVOLCANIC ROCKS
   - a) Massive Amphibolite (mafic flows)
   - b) Foliated Amphibolite and/or fragmental (frg)
   - c) Pillowed Amphibolite
   - d) Debris Flow/ Agglomerate
   - e) Epiclastic Interflow Metasediment/ Tuff
2. METASEDIMENTARY ROCKS
   - a) Siliceous Wacke/ Greywacke
   - b) Sandstone/ Siltstone (Arenites)
   - c) Rusty Siltstone/ Wackes
   - d) Amphibolitic Metasediments +/- garnets
   - e) Conglomerate
   - f) Argillites
3. MAFIC INTRUSIVE ROCKS
   - a) Gabbro/ Gabbro Porphyry
   - b) Hornblendite
   - c) Diorite/ Porphyritic Diorite
4. GRANITIC INTRUSIVE ROCKS
   - a) Granite
   - b) Granodiorite
   - c) Pegmatite
   - d) Aplite
   - e) Migmatite
5. LATE FELSIC INTRUSIVE ROCKS
   - a) Quartz Feldspar Porphyry
   - b) Felsite
6. PROTEROZOIC INTRUSIVE ROCKS
   - a) Diabase
   - b) Porphyritic Diabase

Inferred outcrop

Defined geological contact

Assumed geological contact

2357(10) Geochemical rock sample location, sample number and Au ppb

80 Foliation with dip

Shearing with dip

Claim post (located, approximate location)

Claim line

Swamp

Road 207D Domtar logging roads

Old logging roads

> Gentle slope

≫ Moderate slope

⋙ Steep slope

Cliff

Stream (intermittent)

Cut over area

Scale = 1:5000

0 100 200 300 400

Metres

2.15

AKIKO GOLD RESOURCES LTD
White River Gold Project

Strickland Lake Grid (South Sheet)
GEOLOGICAL PLAN

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED

×LAST KNOWN OUTCROP OF SUGAR VEIN EXTENSION

Dayohessarah Lake

Strickland Lake

Kaginagakog Lake

Wawigami Lake

ODLUM TOWNSHIP / STRICKLAND TOWNSHIP

STRICKLAND LAKE GRID LINE 0+00

STRICKLAND LAKE 3RD TIE LINE 12+41.66E

STRICKLAND LAKE 3RD BASELINE 0

ODLUM TOWNSHIP / TEDDER TOWNSHIP

TEDDER TOWNSHIP / STRICKLAND TOWNSHIP

STRICKLAND TOWNSHIP / COOPER TOWNSHIP

PROPERTY OUTLINE

Road 2078

Road 2079

631

LEGEND

1. MAFIC METAVOLCANIC ROCKS
   - a) Massive Amphibolite (mafic flows)
   - b) Foliated Amphibolite and/or fragmental (frg)
   - c) Hillowed Amphibolite
   - d) Debris Flow/ Agglomerate
   - e) Epiclastic Interflow Metasediment/ Tuff

2. METASEDIMENTARY ROCKS
   - a) Siliceous Wacke/ Greywacke
   - b) Sandstone/ Siltstone (Arenites)
   - c) Rusty Siltstone/ Wackes
   - d) Amphibolitic Metasediments +/- garnets
   - e) Conglomerate
   - f) Argillites

3. MAFIC INTRUSIVE ROCKS
   - a) Gabbro/ Gabbro Porphyry
   - b) Hornblendite
   - c) Diorite/ Porphyritic Diorite

4. GRANITIC INTRUSIVE ROCKS
   - a) Granite
   - b) Granodiorite
   - c) Pegmatite
   - d) Aplite
   - e) Migmatite

5. LATE FELSIC INTRUSIVE ROCKS
   - a) Quartz Feldspar Porphyry
   - b) Felsite

6. PROTEROZOIC INTRUSIVE ROCKS
   - a) Diabase
   - b) Porphyritic Diabase

- Outcrop
- Assumed geological contact
- RD-16 Geochemical rock sample location
- 80 Foliation with dip
- Claim post
- Claim line
- Logging roads
- Stream

2.15240

Scale = 1:20,000

0 400 800
Metres

prepared by A.C.A HOWE INTERNATIONAL LIMITED

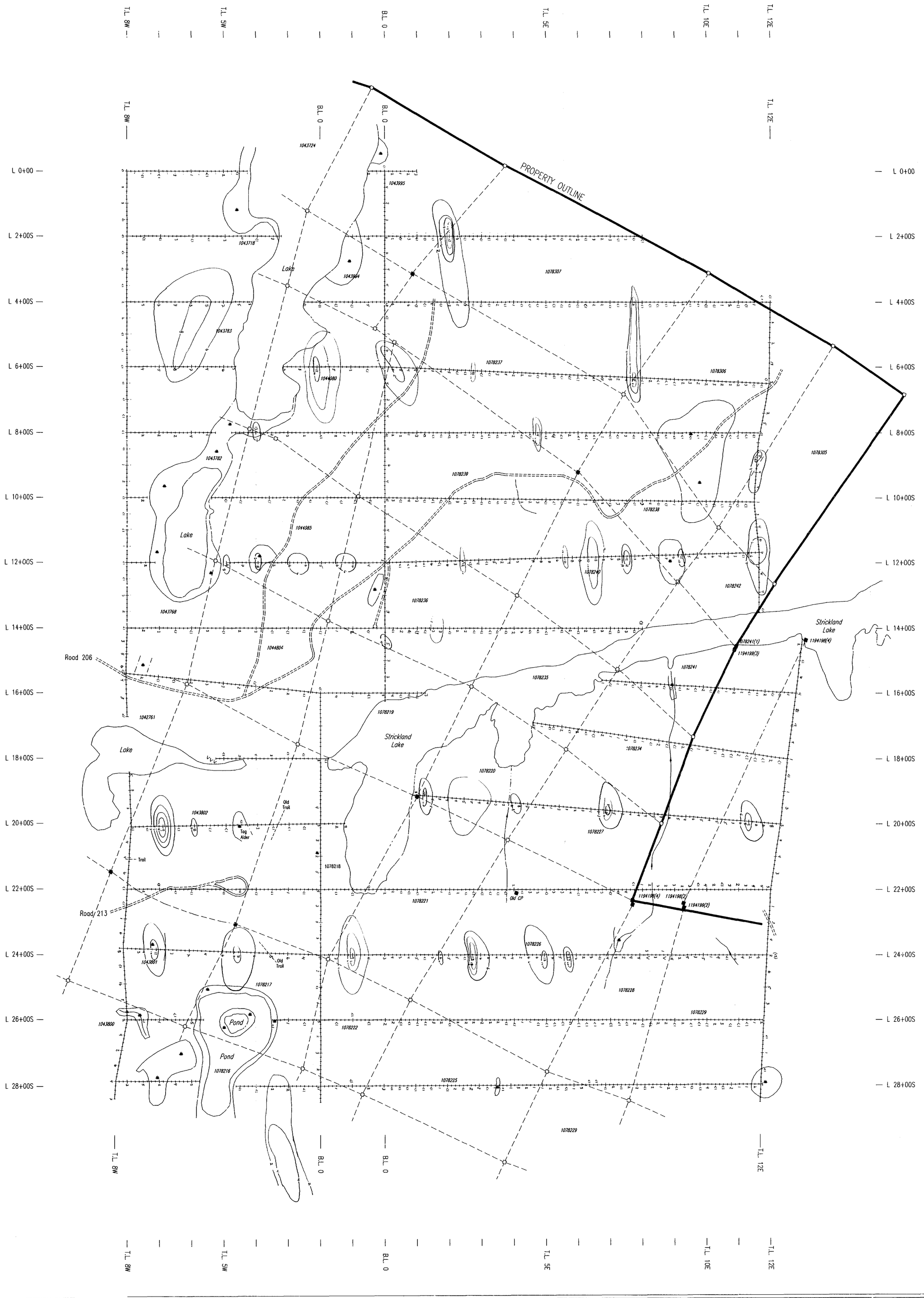
AKIKO GOLD RESOURCES LTD.
White River Gold Project

Strickland Lake Grid

RECONNAISSANCE GEOLOGICAL ROAD MAP

Strickland, Odlum, Tedder Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRV-10



Declination: 7° W

LEGEND

- Claim post (located, approximate location)
- Claim line
- Swamp
- Road 207D — Domtar logging roads
- Old logging roads
- Gentle slope
- Moderate slope
- Steep slope
- Cliff
- Stream (intermittent)
- Cut over area

Scale = 1:5000

0 100 200 300 400

Metres

2.15240

AKIKO GOLD RESOURCES LTD

White River Gold Project

Strickland Lake Grid (North Sheet)

GEOCHEMICAL HUMUS CONTOUR MAP

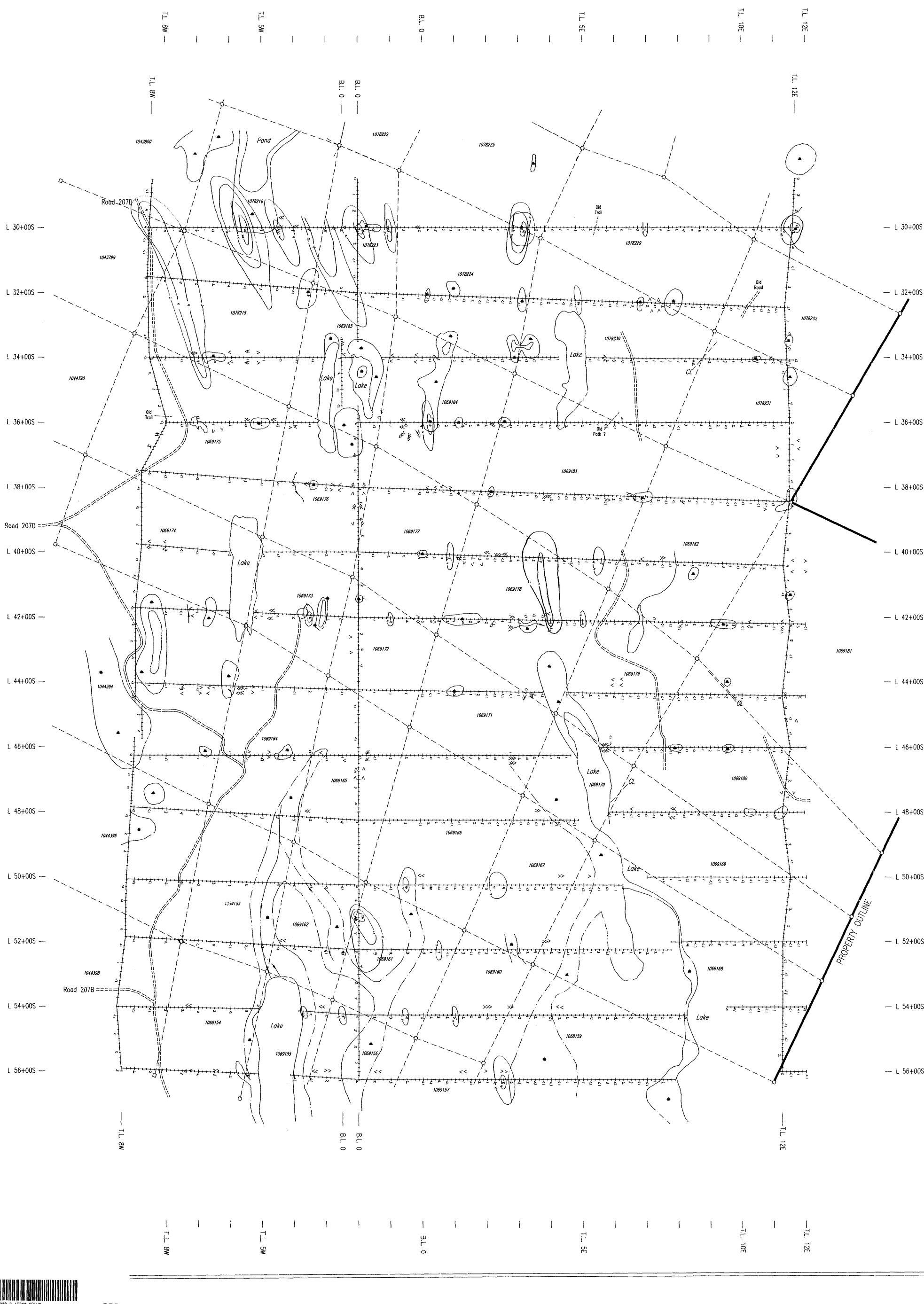
CONTOUR INTERVAL = 2 PPB

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED

42C10NW8900 2.15240 ODLUM



Declination: 7° W

LEGEND

- Claim post (located, approximate location)
- Claim line
- Swamp
- Road 207D — Domtar logging roads
- Old logging roads
- Gentle slope
- Moderate slope
- Steep slope
- Cliff
- Stream (intermittent)
- Cut over area

Scale = 1:5000

0 100 200 300 400

Metres

2.15

AKIKO GOLD RESOURCES LTD
White River Gold Project

Strickland Lake Grid (South Sheet)

GEOCHEMICAL HUMUS CONTOUR MAP
CONTOUR INTERVAL = 2 PPB

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED

T.L. 8W — T.L. 5W — B.L. 0 — T.L. 5E — T.L. 10E — T.L. 12E

L 0+00 — L 2+00S — L 4+00S — L 6+00S — L 8+00S — L 10+00S — L 12+00S — L 14+00S — L 16+00S — L 18+00S — L 20+00S — L 22+00S — L 24+00S — L 26+00S — L 28+00S

PROPERTY OUTLINE

1043724 1043995 1043718 1043994 1043783 1078307 1078237 1078306 1044080 1078305 1043782 1078239 1078238 1044085 1078240 1078242 1043768 1078236 1044804 1078241(1) 1194198(4) 1194199(3) 1078241 1078235 1042761 1078219 1078234 1078220 1043802 1078227 1078218 1078221 1194196(4) 1194198(2) 1194199(2) 1078226 1043801 1078217 1078228 1078229 1043800 1078222 1078216 1078225

Lake — Lake — Lake — Strickland Lake — Strickland Lake — Pond — Pond

Road 206 — Road 213 — Old Trail — Tag Alder — Trail — Old CP

T.L. 8W — B.L. 0 — B.L. 0 — T.L. 12E

T.L. 8W — T.L. 5W — B.L. 0 — T.L. 5E — T.L. 10E — T.L. 12E

Declination: 7° W

LEGEND

- Claim post (located, approximate location)
- Claim line
- Swamp
- Road 207D — Domtar logging roads
- Old logging roads
- > Gentle slope
- ≫ Moderate slope
- ⋙ Steep slope
- Cliff
- Stream (intermittent)
- Cut over area

- 1 Mafic Metavolcanic Rocks
- 2 Metasedimentary Rocks
- 3 Mafic Intrusive Rocks
- 4 Granitic Intrusive Rocks
- 5 Late Felsic Intrusive Rocks
- 6 Proterozoic Intrusive Rocks
- ~~ Fault and/or Shear Interpreted from Magnetics (M); VLF-EM (V)
- Projected Lithologic Contact

Scale = 1:5000

0 100 200 300 400 Metres

2.15240

AKIKO GOLD RESOURCES LTD
White River Gold Project

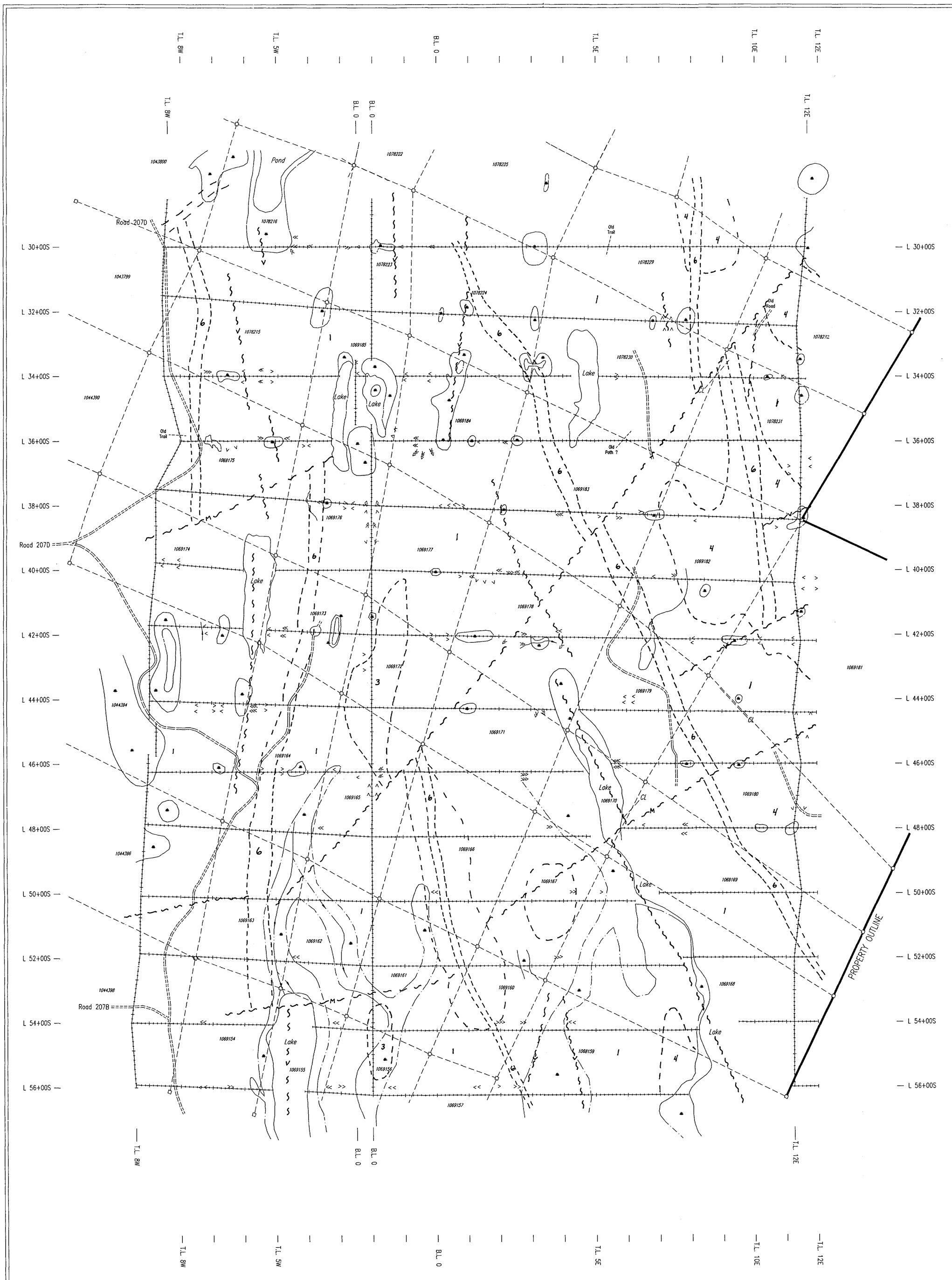
Strickland Lake Grid (North Sheet)

GEOPHYSICAL INTERPRETED GEOLOGY

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED



Declination: 7° W

LEGEND

- Claim post (located, approximate location)
- Claim line
- Swamp
- Road 207D — Domtar logging roads
- Old logging roads
- Gentle slope
- Moderate slope
- Steep slope
- Cliff
- Stream (intermittent)
- Cut over area

1 Mafic Metavolcanic Rocks
2 Metasedimentary Rocks
3 Mafic Intrusive Rocks
4 Granitic Intrusive Rocks
5 Late Felsic Intrusive Rocks
6 Proterozoic Intrusive

~~ Fault and/or Shear Interpreted from Magnetics (M); VLF-EM (V)

--- Projected Lithologic Contact

Scale = 1:5000
0 100 200 300 400
Metres

2.15240

AKIKO GOLD RESOURCES LTD
White River Gold Project

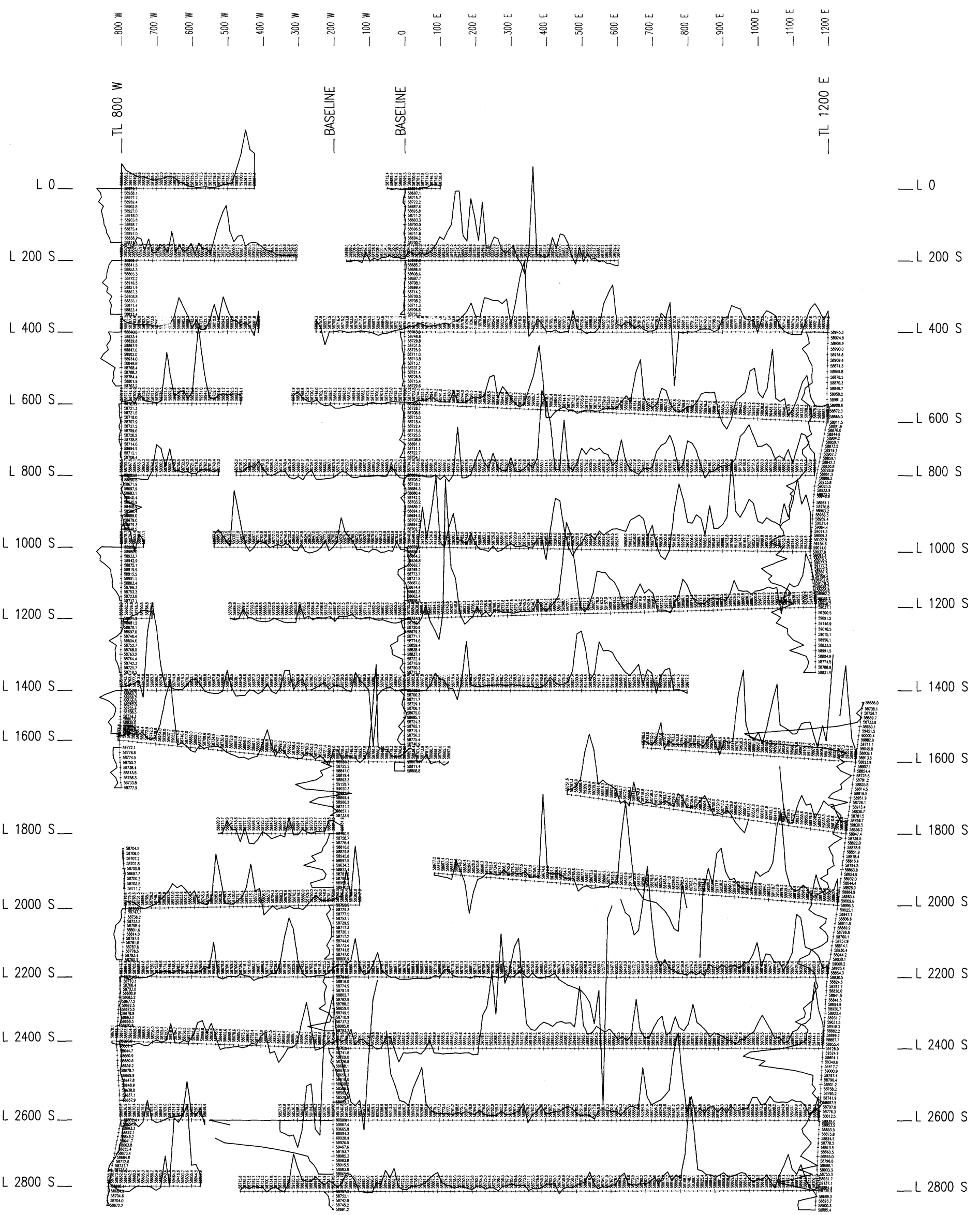
Strickland Lake Grid (South Sheet)

GEOPHYSICAL INTERPRETED GEOLOGY

Strickland & Odlum Townships
Sault Ste. Marie Mining District
Ontario

NTS: 42C/11,14 Map No. WRP-10

A.C.A. HOWE INTERNATIONAL LIMITED



Declination: 7° W.

LEGEND

Scale: 1:5000

Profile Scale: 200 nT/cm.

Profile Base Level: 58,700 nT

SURVEY SPECIFICATIONS

Instruments: EDA Omni IV Base Magnetometer
EDA Omni Plus Field Magnetometer

Base Station Location: Latitude 48-44-00
Longitude 85-10-00

Base Station Value: 58,975 nT.

Base Station Sample Interval: 15 sec.

Scale 1:5000

100 0 100 200 300

(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

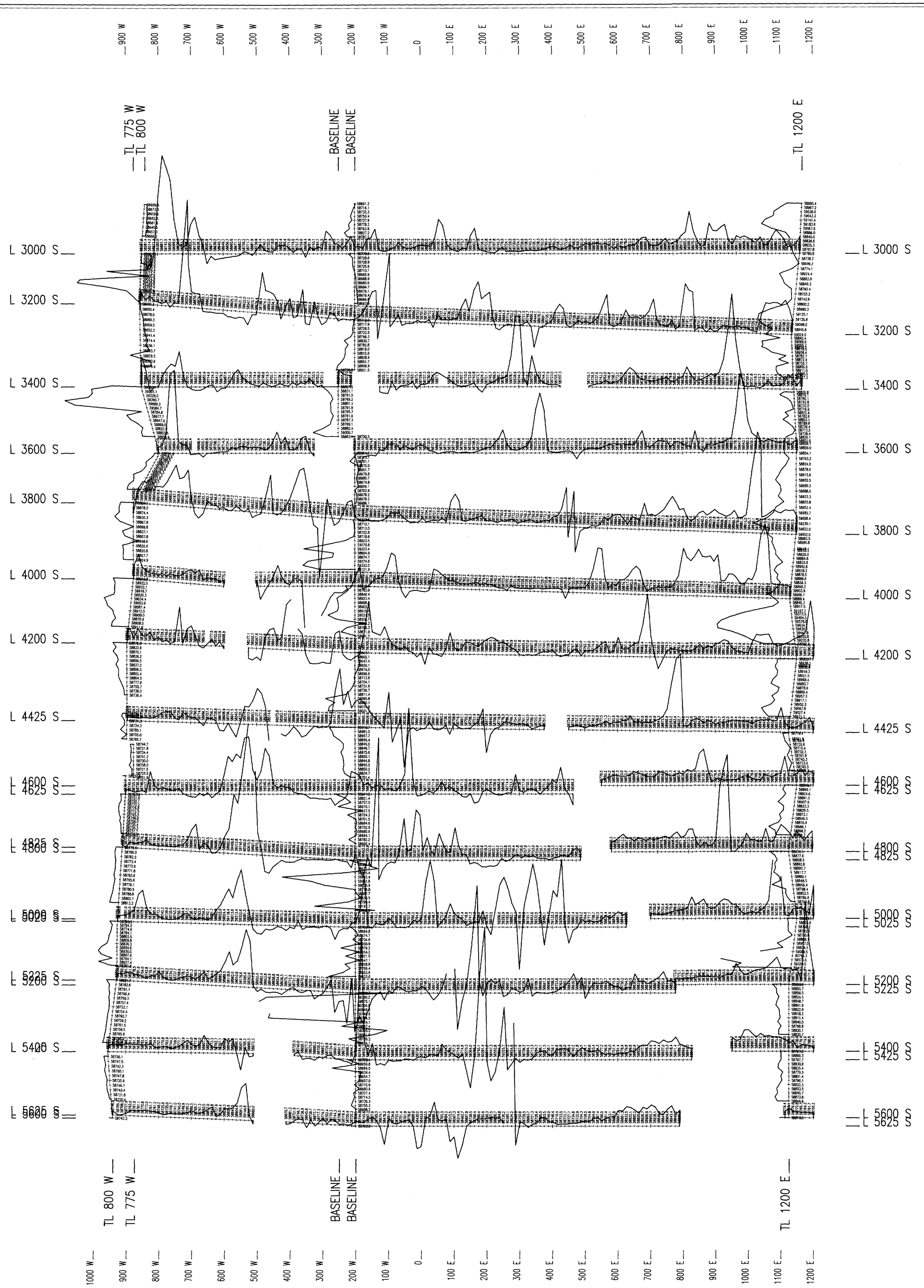
Strikland Lake Grid (North Sheet)

GROUND MAGNETOMETER SURVEY
Total Field Postings & Profiles

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-01

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Profile Scale: 200 nT/cm.

Profile Base Level: 58,700 nT

SURVEY SPECIFICATIONS

Instruments: EDA Omni IV Base Magnetometer
EDA Omni Plus Field Magnetometer

Base Station Location: Latitude 48-44-00
Longitude 85-10-00

Base Station Value: 58,975 nT.

Base Station Sample Interval: 15 sec.

Scale 1:5000

100 0 100 200 300
(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

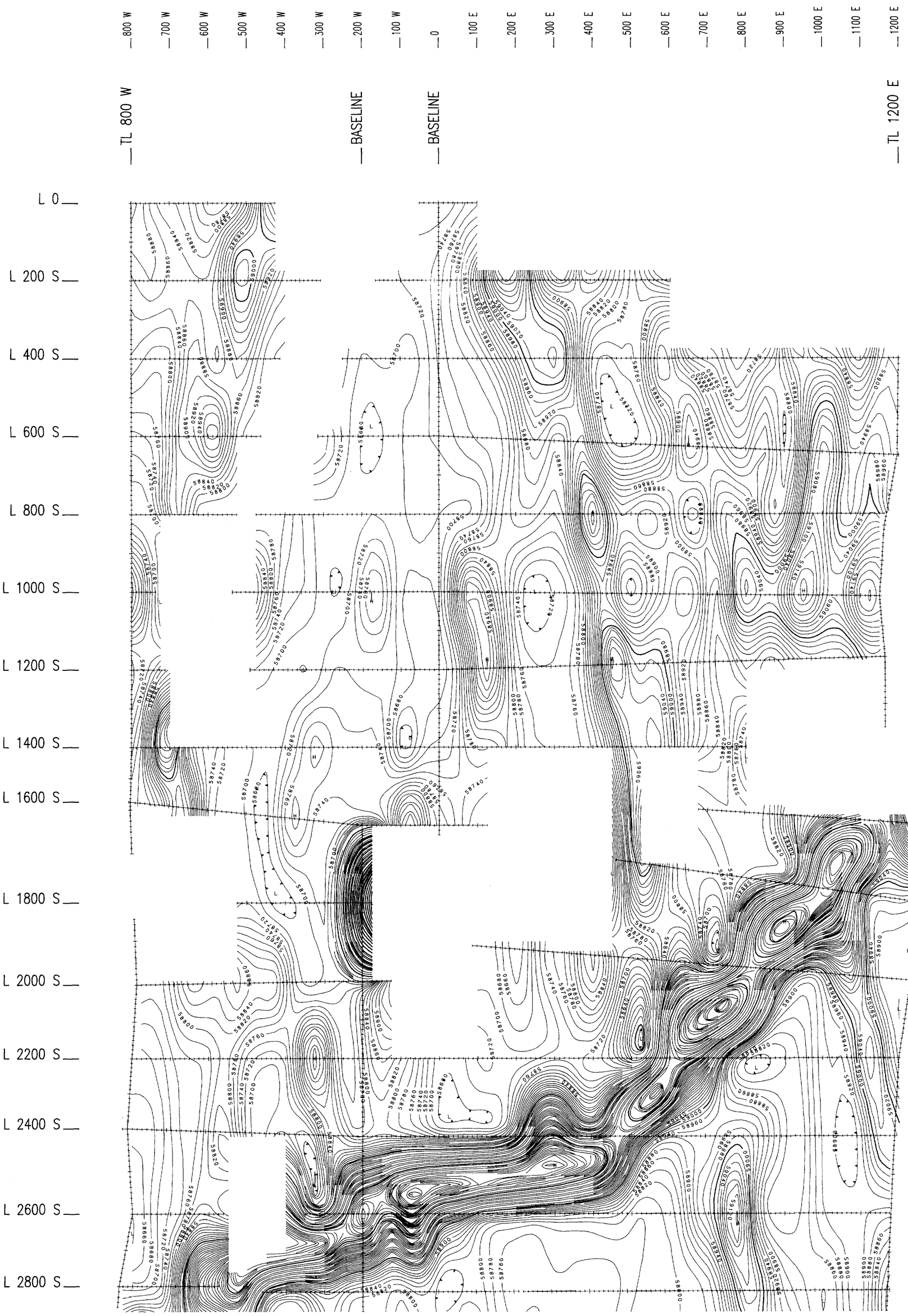
Strikland Lake Grid (South Sheet)

GROUND MAGNETOMETER SURVEY
Total Field Postings & Profiles

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-02

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Contour Interval: 20 nT.
100 nT.
500 nT.

SURVEY SPECIFICATIONS

Instruments: EDA Omni IV Base Magnetometer
EDA Omni Plus Field Magnetometer

Base Station Location: Latitude 48-44-00
Longitude 85-10-00

Base Station Value: 58,975 nT.

Base Station Sample Interval: 15 sec.

Scale 1:5000

100 0 100 200 300
(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

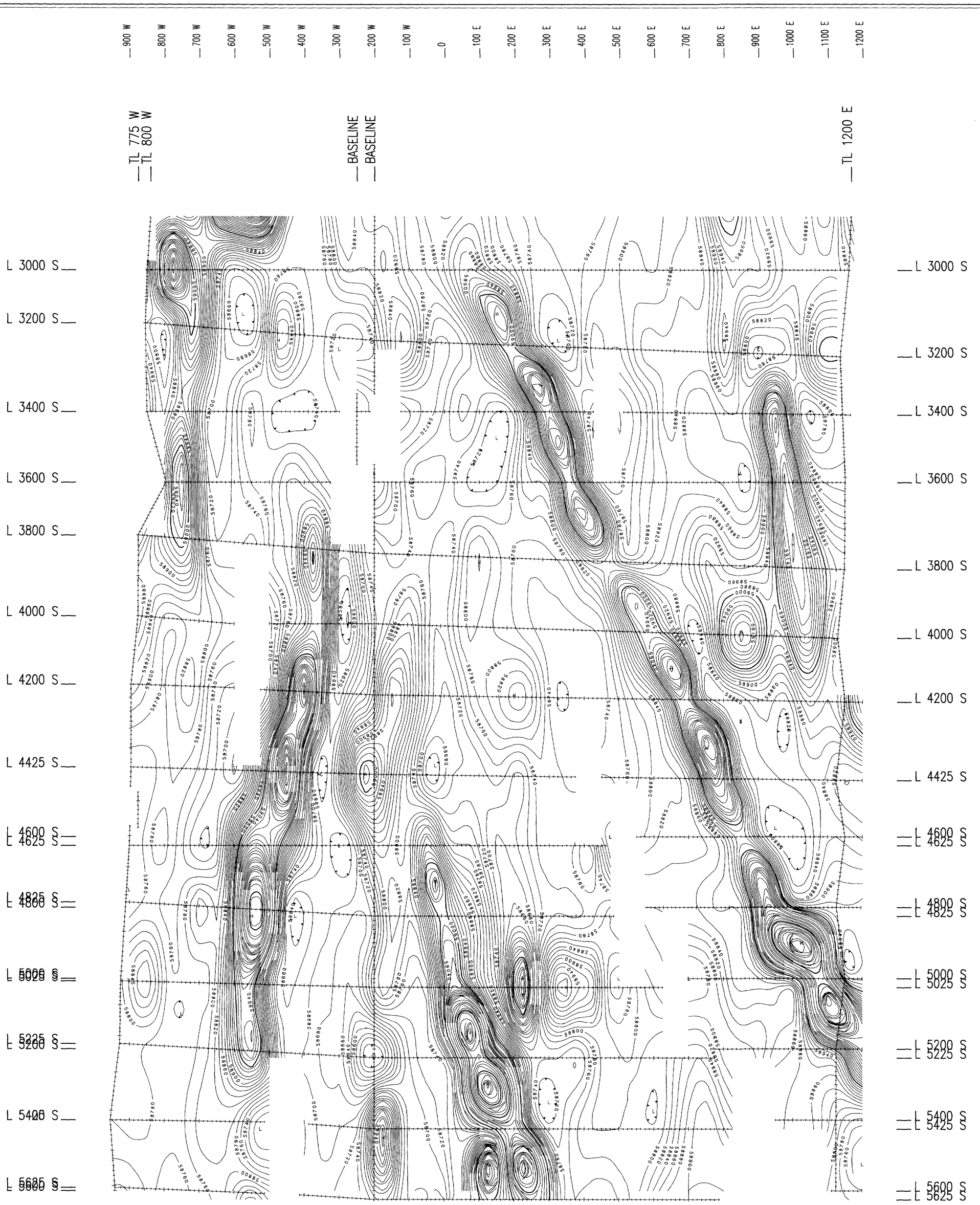
Strikland Lake Grid (North Sheet)

GROUND MAGNETOMETER SURVEY
Total Field Contours

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-03

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Contour Interval: 20 nT.
100 nT.
500 nT.

SURVEY SPECIFICATIONS

Instruments: EDA Omni IV Base Magnetometer
EDA Omni Plus Field Magnetometer

Base Station Location: Latitude 48-44-00
Longitude 85-10-00

Base Station Value: 58,975 nT.

Base Station Sample Interval: 15 sec.

Scale 1:5000

100 0 100 200 300
(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

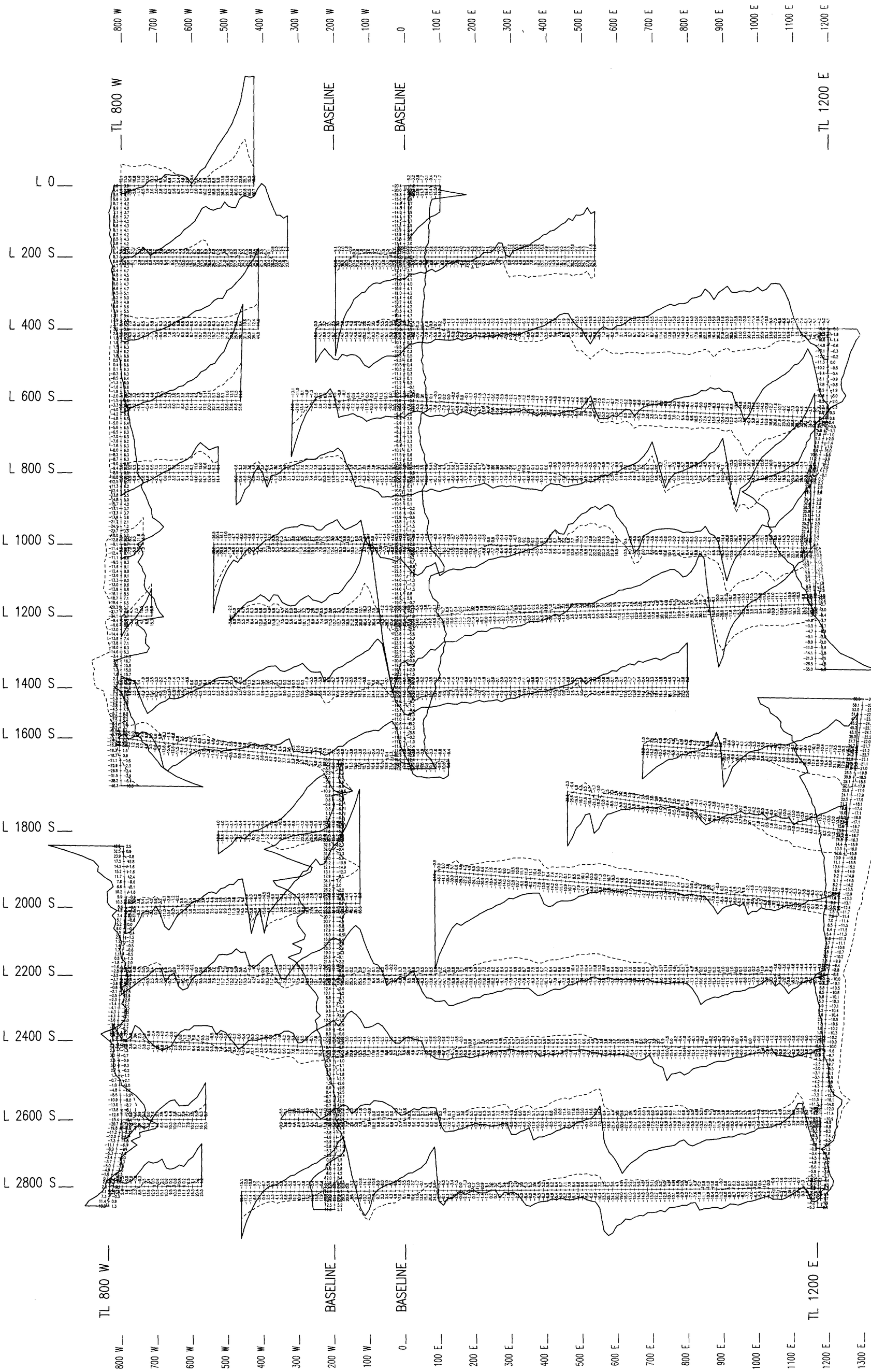
Strikland Lake Grid (South Sheet)

GROUND MAGNETOMETER SURVEY
Total Field Contours

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-04

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Profile Scale: 10 %/cm.

In-Phase Profiles:

Quadrature Profiles:

SURVEY SPECIFICATIONS

Instrument: EDA Instruments Omni Plus Mag/VLF receiver

Transmitter Station: Annapolis, Maryland

Transmitter Frequency: 21.4 kHz.

Transmitter Azimuth: Approx. 145 degrees

Initialization Direction: N-S Lines; Facing North
E-W Lines; Facing East

NOTE: Base & Tie lines surveyed with Cutler, Maine

Transmitter Frequency: 24.0 kHz.

Transmitter Azimuth: Approx. 95 degrees

Scale 1:5000

100 0 100 200 300

(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

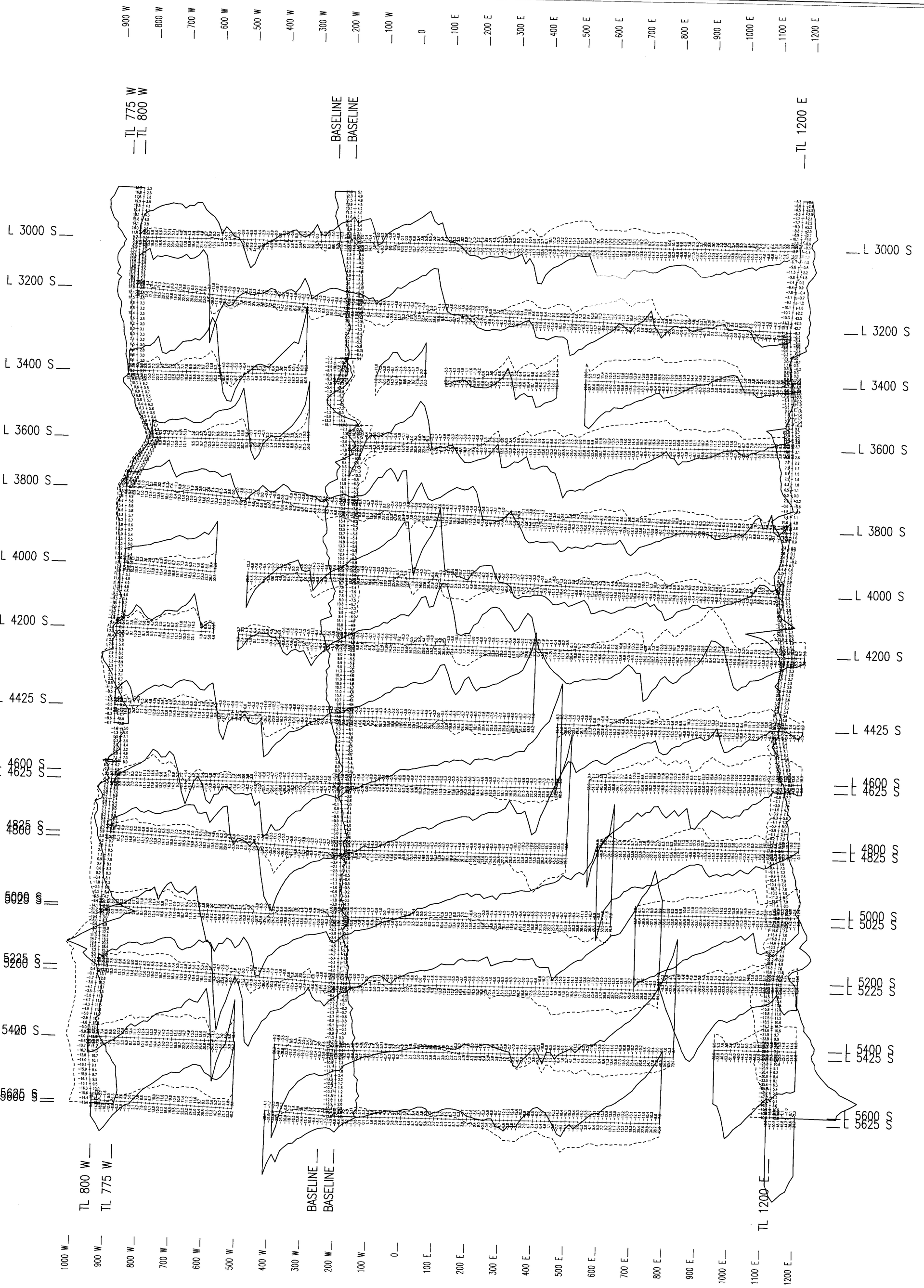
Strikland Lake Grid (North Sheet)

GROUND VLF-EM SURVEY
NSS Postings & Profiles

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-05

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Profile Scale: 10 %/cm.

In-Phase Profiles:

Quadrature Profiles:

SURVEY SPECIFICATIONS

Instrument: EDA Instruments Omni Plus Mag/VLF receiver

Transmitter Station: Annapolis, Maryland

Transmitter Frequency: 21.4 kHz.

Transmitter Azimuth: Approx. 145 degrees

Initialization Direction: N-S Lines; Facing North
E-W Lines; Facing East

NOTE: Base & Tie lines surveyed with Cutler, Maine

Transmitter Frequency: 24.0 kHz.

Transmitter Azimuth: Approx. 95 degrees

Scale 1:5000

100 0 100 200 300

(meters)

2.1524 0

AKIKO GOLD RESOURCES LTD.
White River Gold Project

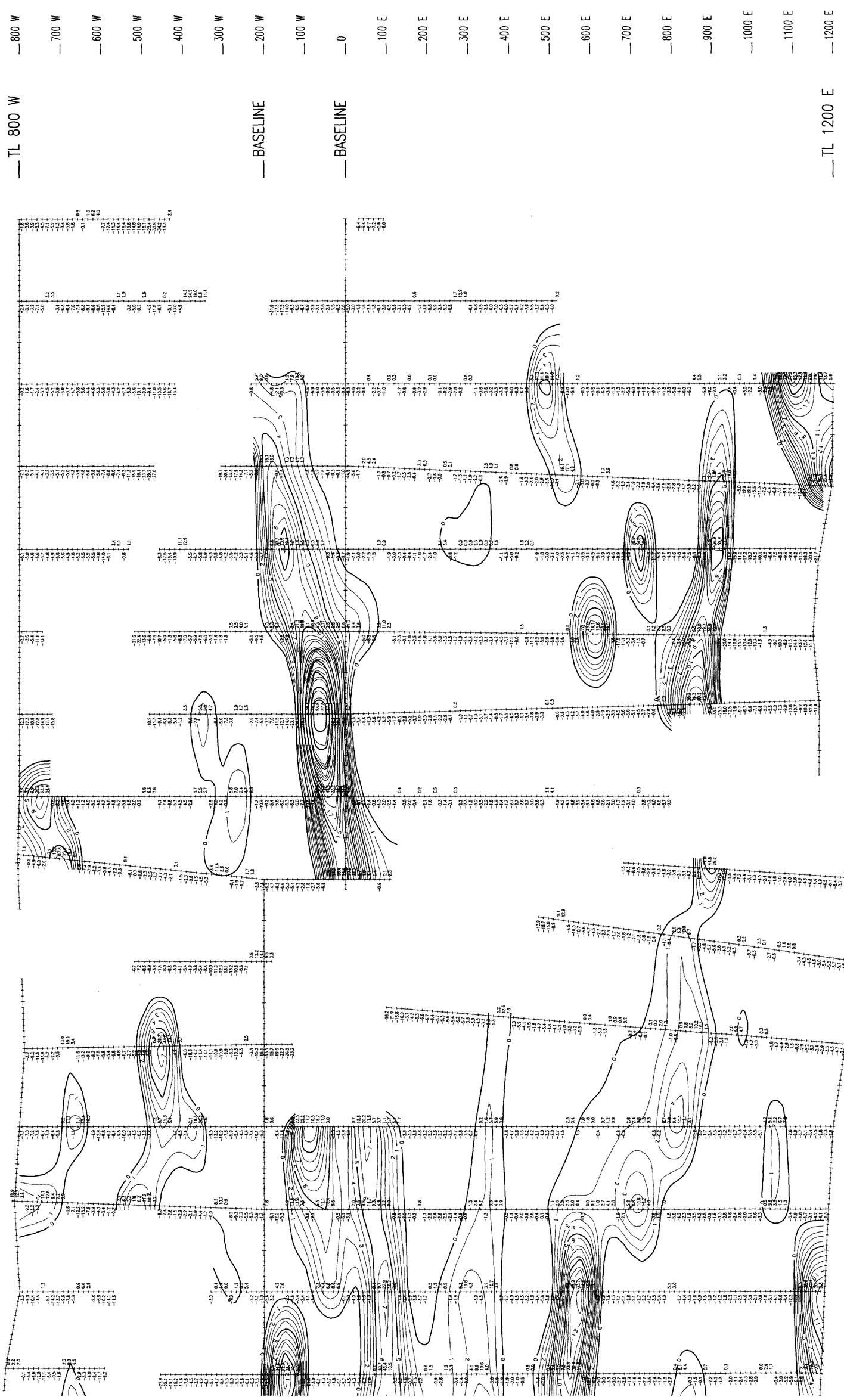
Strikland Lake Grid (South Sheet)

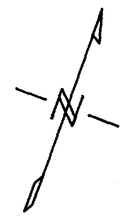
GROUND VLF-EM SURVEY
NSS Postings & Profiles

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-06

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993





Declination: 7° W.

LEGEND

Scale: 1:5000

Contour Interval: 1 nT.
5 nT.
20 nT.

SURVEY SPECIFICATIONS

Instrument: EDA Instruments Omni Plus Mag/VLF receiver

Transmitter Station: Annapolis, Maryland

Transmitter Frequency: 21.4 kHz.

Transmitter Azimuth: Approx. 145 degrees

Initialization Direction: N-S Lines; Facing North
E-W Lines; Facing East

NOTE: Base & Tie lines surveyed with Cutler, Maine

Transmitter Frequency: 24.0 kHz.

Transmitter Azimuth: Approx. 95 degrees

Scale 1:5000

100 0 100 200 300
(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

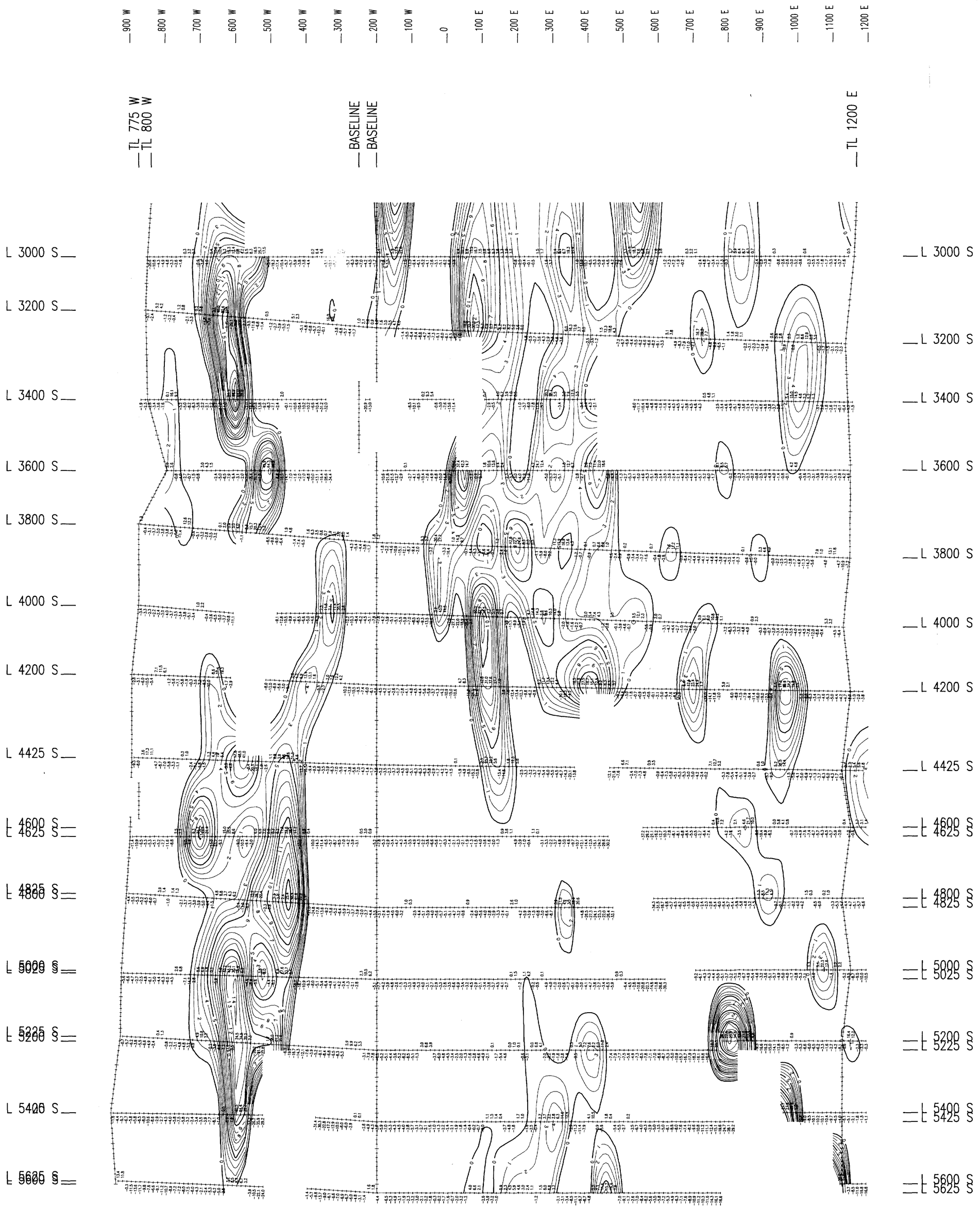
Strikland Lake Grid (North Sheet)

GROUND VLF-EM SURVEY
NSS Fraser Filter Contours

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-07

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993



Declination: 7° W.

LEGEND

Scale: 1:5000

Contour Interval: 1 nT.
5 nT.
20 nT.

SURVEY SPECIFICATIONS

Instrument: EDA Instruments Omni Plus Mag/VLF receiver

Transmitter Station: Annapolis, Maryland

Transmitter Frequency: 21.4 kHz.

Transmitter Azimuth: Approx. 145 degrees

Initialization Direction: N-S Lines; Facing North
E-W Lines; Facing East

NOTE: Base & Tie lines surveyed with Cutler, Maine

Transmitter Frequency: 24.0 kHz.

Transmitter Azimuth: Approx. 95 degrees

Scale 1:5000

100 0 100 200 300
(meters)

2.15240

AKIKO GOLD RESOURCES LTD.
White River Gold Project

Strikland Lake Grid (South Sheet)

GROUND VLF-EM SURVEY
NSS Fraser Filter Contours

Strikland & Odlum Townships
Sault Ste. Marie Mining Division
Ontario

NTS: 42 C/11,14 Map No. WRP-08

Survey & Presentation:
TechTerrex Inc.
Oakville, Ontario
September 1993