1991/1992 EXPLORATION PROGRAM RESULTS

SHININGTREE PROPERTY

NATAL TOWNSHIP, ONTARIO

Qual. 2.10900.

March 21, 1993

Submitted by: M. Perkins

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MAPS (attached)

INTRODUCTION

In 1990 a reconnaissance mapping and sampling survey discovered a felsic volcanic quartz breccia unit (called Zone 1), on claim 1134040, that assayed up to 5588 ppb gold. During 1991 and 1992 four mining claims, including claim 1134040, in southeast Natal Township were examined in more detail.

In 1991 detailed geological mapping, humus sampling, magnetometer and VLF surveys were conducted on a grid with 50 metre line spacings on claims 1134040 and 1134042. Zone 1 was stripped of overburden; then mapped and sampled in detail. Geologic mapping on 100 metre spaced grid lines was completed over claims 1134039 and 1134041. Geologic mapping and geophysics indicate the property is underlain by a package of volcanic flows and tuffs striking 160°. A sample taken during the mapping program, of an oxidized intermediate volcanic flow with 10% massive pyrite (called Zone 3), assayed 13,029 ppb gold. Results from humus sampling were inconclusive but suggest two weak geochemical trends.

In 1992 four diamond drill holes totalling 388 ft (118.26 metres) were cored on Zone 1. Three of the four drill holes intercepted a felsic lapilli tuff/breccia unit believed to represent the down dip extension of Zone 1. The highest assay result for gold obtained was 411 ppb. The fourth hole, targeting a magnetic low south of Zone 1, failed to locate anomalous gold mineralization.

Zone 3 was re-sampled, returning assays of 11,657 and 7748 ppb gold.

LOCATION AND ACCESS

The Shiningtree Project area is located in southeastern Natal Township, 18 kilometres northeast of the town of Shining Tree, 160 kilometres north of Sudbury, Ontario, as shown in Figure 1.

Access from Shining Tree, or from Gowganda to the east, as shown in Figure 2, is by gravel road (Highway 560) to a point approximately 2 kilometres south of the property. From here, hydro maintenance and logging roads, suitable for two-wheel drive vehicles, provide access to the claims.

CLAIMS

The Shiningtree Project property is composed of eight mining claims as shown in Figure 3. This report covers work completed over claims 1134039 to 1134042 inclusive.

All claims covered by this report are the property of J.Clark, 218 Wright Ave, Toronto, Ontario.

PREVIOUS WORK

Completed by Owner

In 1990 a geological mapping survey was conducted over claims 1134040 and 1134042 which led to the discovery of two zones containing anomalous concentrations of gold. Grab samples of bedrock from Zone 1 (at 9+50N, 95+50W) and Zone 2 (at 7+00N, 98+00W) were assayed. Zone 1 samples assayed

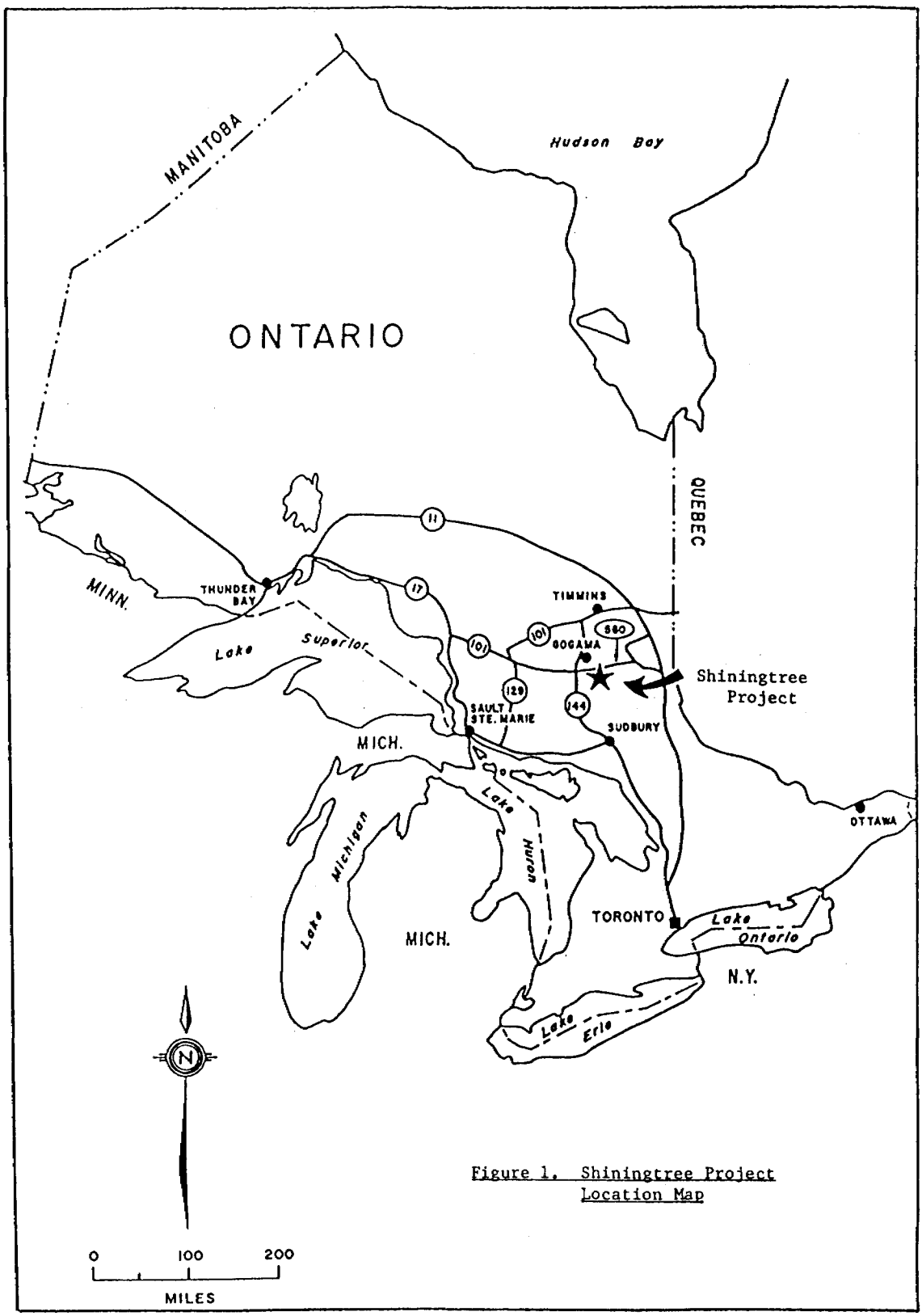


Figure 1. Shiningtree Project Location Map

Figure 2. Property Access

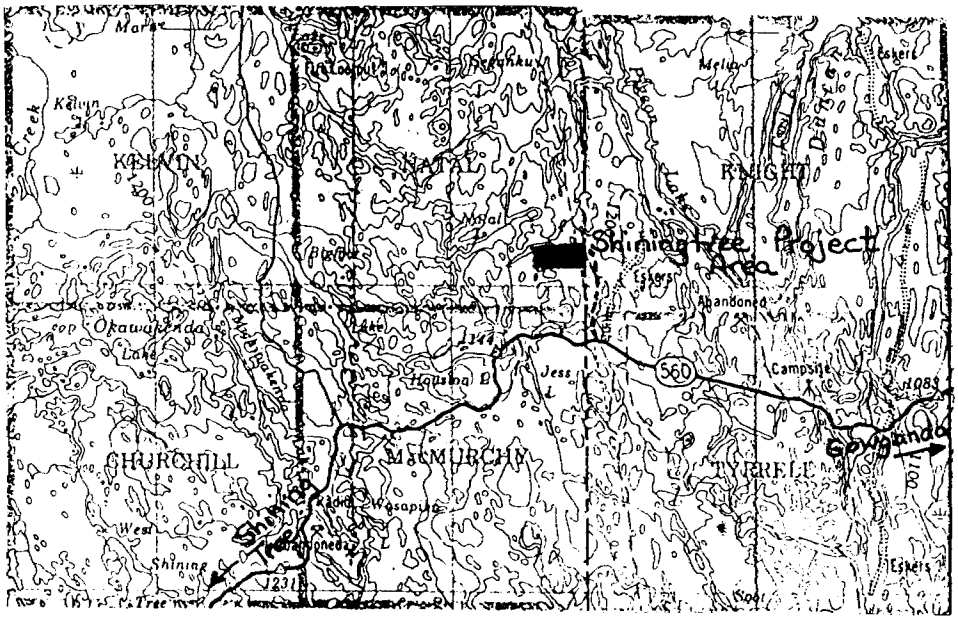
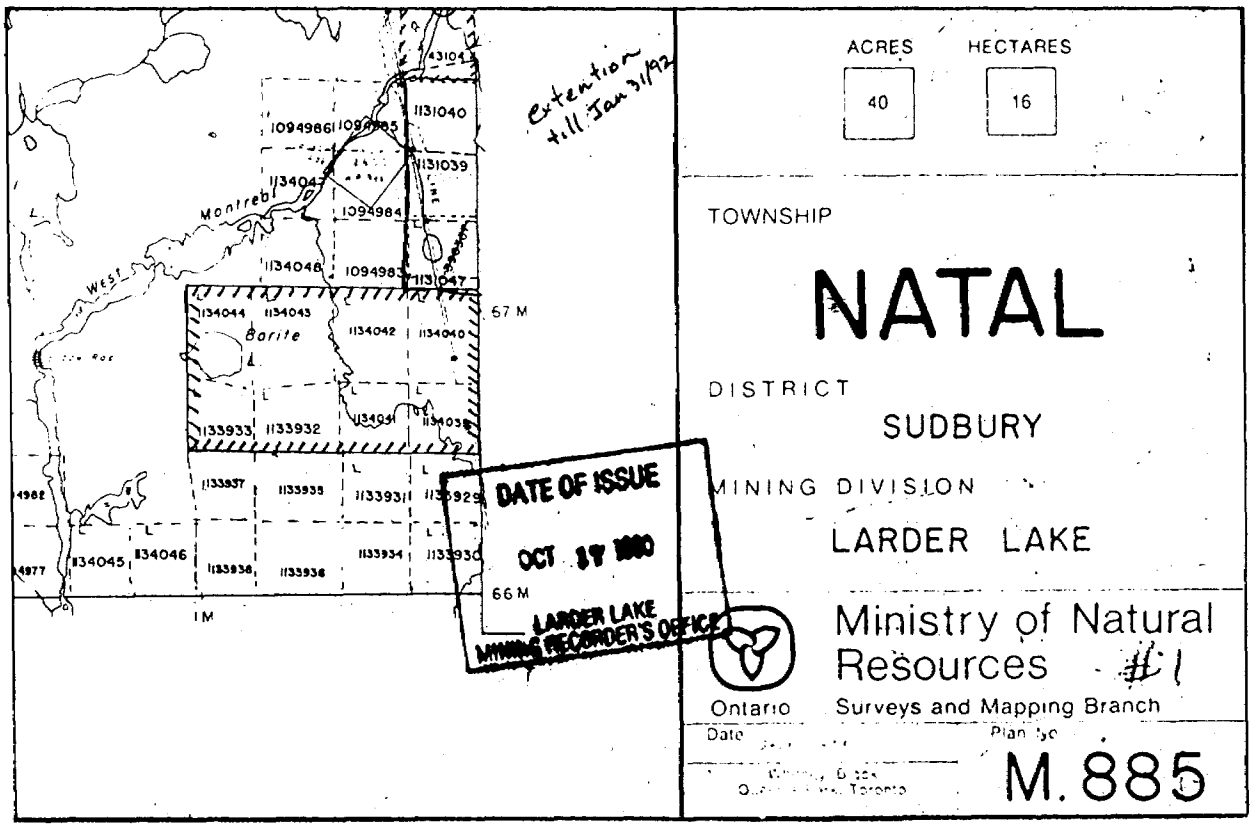


Figure 3. Shiningtree Property Claims



up to 5588 ppb gold and Zone 2 samples assayed up to 45 ppb gold. A sample of humus obtained from Zone 1 assayed 255 ppb gold. A VLF survey was conducted in the same year on claims 1134039 and 1134041.

In 1991 a number of old trenches were discovered near Zone 1. An old core shack, in an advanced state of decay with up to forty boxes of drill core, was found on claim 1134039 (shown on the Geology Map). The source of the core is unknown and no record of this work has been found in assessment files.

Completed by Other Groups/Government

The first recorded geologic investigation of the area was in 1897 when E.M. Burwash, a geologist with the Ontario Bureau of Mines (OBM) surveyed the Nipissing-Algoma Line which runs along the Natal-Knight Township Boundary.

The history of exploration in the Shining Tree Mining Camp dates back to 1908. A prospector discovered gold in MacMurchy Township prompting a gold rush which continued until 1929. In 1925 and 1931 reconnaissance mapping programs were carried out by the Ontario Department of Mines (ODM).

In 1973 the ODM, Geological Division conducted geochemical and Quaternary geology surveys over six townships including Natal Township.

From 1973 to April 1990 Natal Township was withdrawn from staking by the provincial government and little exploration work was carried out.

In 1974 M.W. Carter of the Ontario Geological Survey (OGS) completed geological mapping of Natal and Knight Townships and airborne magnetics and E-M surveys were flown by Timiskaming Nickel Limited.

In 1976 Getty Mines, Limited conducted exploration in and east of the current project area. Getty completed ground geophysics, geochemistry, geologic mapping and one diamond drill hole. The hole was drilled on what is now claim 1134041 and the core left at their former camp site, a few kilometres to the east.

An airborne magnetics and EM survey completed by the Ministry of Northern Development and Mines was released in January 1991.

WORK DONE

1991 Programs

Six kilometres of grid were established on claims 1134040 and 1134042 (28-29 July). The grid was utilized for control for geological mapping (completed 7-16 August), geochemical (humus) sampling (7-16 August), ground VLF-EM (31 July-6 August) and magnetometer surveys (30 July-11 August). The grid on claims 1134040 and 1134042 was established using the 360° baseline L95+00W cut in 1990. Lines were oriented 090° at 50 metre intervals with stations every 25 metres.

Mapping was also conducted on claims numbered 1134039 and 1134041 using the flagged grid established in 1990 using the L95+00W baseline. Line spacing on this grid is 100 metres. On both grids, distance was measured using Field Ranger 6000 hip chains. All survey co-ordinates and sample sites are located by reference to the grids.

An area of approximately 400 square metres over Zone 1 was stripped of overburden (23 August) and sampled (27-28 August) to a depth of 60 cm with the aid of an Atlas-Copco drill.

Results of this work are tabulated on the Geology Map, Geochemistry Map, VLF Map, Magnetics Map and the Zone 1 Geology, Magnetics and DDH Horizontal Projection Map accompanying this report.

The mapping and VLF surveys were conducted and interpreted by M.J.Perkins, 514 Crawford St., Toronto, Ontario, the magnetics and humus surveys were conducted and interpreted by E.J. Clark, 218 Wright Ave, Toronto, Ontario.

1992 Programs

Four diamond drill holes totalling 388 ft (118.26 metres) were targeted on Zone 1 in the northwest corner of claim 1134040 and 74 core samples sent to Swastika Laboratories for assaying (15-30 August). Drill records and sample results are included as appendices to this report and on the accompanying Geology, Magnetics and DDH Horizontal Projections Map.

A small trench was excavated in the area of Zone 3 (95+50W;5+60N), on claim 1134040, and four grab samples taken.

The drilling was completed by Hiltz Bros. Prospecting Services, General Delivery, Shining Tree using a BQ coring Winkie drill and supervised by M.J.Perkins.

GEOLOGY

Regional Geology

The bedrock in the area has been dated by the Ontario Geologic Survey as Early (Archean) and Middle Precambrian. Metamorphosed extrusive and intrusive rocks ranging in composition from ultramafic through to felsic comprise the Archean suite. These are interbedded with subordinate metasediments and diabase dikes. The metavolcanics belong to the subalkalic and alkalic suites and together with the metasediments are folded about a north-westerly trending synclinal fold axis located in central Natal and southwestern Knight Townships. Intrusive rocks are composed of altered massive to porphyritic granitoid rocks with Nipissing type diabase dikes forming northwesterly trending swarms.

The Middle Precambrian is represented by diabase dikes and the clastic rocks belonging to the Gowganda Formation of the Huronian Super Group. Gowganda Formation rocks are not found on the property but are located to the north and east.

Northwesterly trending faults appear to have a large dip slip component to their movement. In eastern Natal Township the downthrow component is believed to be to the east. Mineralization in the area consists of gold, copper, silver, cobalt and asbestos as vein type deposits, and nickel as stratabound deposits associated with ultramafic, komatiitic rocks (Carter, 1983).

Property Geology

In 1991 a follow-up geological mapping survey was conducted on the new grid established on claims 1134040 and 1134042 to enhance the detail of the geology map produced in 1990. A mapping survey was also conducted on the 1990 grid on claims 1134039 and 1134041.

The geology of claims 1133932, 1133933, 1134043, and 1133044 is discussed in detail in the 1990 Report on the Geology and Geophysics of the Shining Tree Property, Natal Township. The geology underlying the western portion of the Shining Tree Property is composed of various intermediate pyroclastics and flows striking 070° and dipping steeply north.

The eastern half of the property is underlain by intermediate to mafic pyroclastic units and flows generally striking 160° and dipping nearly vertical as illustrated on the accompanying Geology Map. Individual pyroclastic beds and flows vary from less than a metre in thickness to greater than 10 metres. It is difficult to isolate specific beds when correlating units from outcrop to outcrop. For this reason, broad groupings of units based on the most prevalent types of rocks have been delineated.

A regional fault trends 170° along the western edge of claims 1134041 and 1134042. The displacement along the fault has not been determined. Adjacent to the fault, the western third of the 1991 mapped area is underlain by a strongly foliated to schistose chlorite-calcite breccia. Locally this unit contains up to 5% disseminated pyrite. Much of the area directly east of the fault is obscured by a sand plain. A wedge of grey-green, massive, aphanitic, intermediate flows occurs within the chlorite-calcite breccia in the northwestern corner of claim 1134042. Straddling the boundary between claims 1134042 and 1134041 are outcroppings of chlorite-calcite schist, locally containing up to 20% ankerite. This unit is cut by a 5 metre thick diabase dike, extending sporadically across the claims at 010°, to the east of the intermediate volcanic flows.

East of the chlorite-calcite breccia the property is underlain by a 200 metre thick sequence of intermediate volcanic flows and ash tuffs in the south, grading into and interbedded with, a sequence of intermediate lapilli tuff and volcanic flows 200-400 m thick in the north. The lapilli tuff and volcanic flow sequence extends southward, east of the previously mentioned ash tuff and flow unit. A 100 to 200 metre thick lens of intermediate crystal tuffs, agglomerates and mafic volcanic flows is present in this sequence. The flows and lapilli tuff sequence in the north contains a 25 metre thick lens of intermediate volcanic flows and crystal tuffs. A 5 metre thick diabase dike, striking 160°, is sporadically exposed through the centre of this sequence.

Under the Ontario Hydro power line, the property is underlain by intermediate crystal tuffs and flows interbedded with mafic flows. To the east of this 10 - 100 metre thick sequence, most of the bedrock is covered by overburden. However, the few outcrops observed are of intermediate lapilli tuff.

Fifty rock samples were obtained of which 41 were submitted for gold analysis in 1991. Sample locations are noted on the Geology Map and assay results and descriptions are tabulated in Appendix 1. Samples were assayed at Swastika Labs, Swastika, Ontario and at XRAL Assay Labs, Don Mills, Ontario. All samples were fire assayed for gold using 1 assay ton fusions. One sample (J9117) from an oxidized intermediate volcanic flow with 10% massive pyrite (Zone 3), located at 5+60N, 95+50 W, assayed 13,029 ppb gold. Numerous boulders of oxidized intermediate volcanic flows are found on the property. Six boulders of this type were assayed, two of which returned 422 ppb and 199 ppb gold.

GEOPHYSICS

Magnetometer Survey

A magnetometer survey was conducted over claims 1134040 and 1134042 in July and August 1991. The instrument used was a Barringer Research GM-122, with sensitivity of 1 gamma and the results are illustrated on the Magnetometer Survey Map accompanying this report. Approximately 6 line kilometres were surveyed, resulting in 240 stations read.

The base magnetic intensity used for drafting this survey is 57500 gammas. Total change of magnetic intensity across the survey area is 1464 gammas. The lowest intensity of +99 gammas (or 57599 gammas) is observed over the sand plain covering the western third of the survey area, the highest intensity, +1563 gammas (or 59063 gammas), is observed 150 metres southwest of Zone 1, at 8+50N, 96+50W.

Four broad zones of different magnetic intensities, trending 180°, are observed. A zone of moderate magnetic intensity (between +400 and +600 gammas) coincides with a sand plain on the west side of the survey area. To the east of the sand plain is a 75 to 100 metre wide zone of low magnetic intensity (+200 to +400 gammas), roughly coincident with a sequence of interbedded intermediate flows and ash tuffs. The centre of the survey area shows the greatest magnetic intensity (+600 to +1563 gammas). This zone roughly corresponds to an area of thin overburden and abundant outcrop exposures of intermediate lapilli tuff, crystal tuff and mafic flows. Within this broad zone are small areas with intensities as low as +131 gammas.

The area adjacent to the Ontario Hydro power line in the east has low magnetic intensity (+200 to +400 gammas). Due to interference from the Ontario Hydro power line, the survey was not conducted over the eastern part of claim 1134040.

VLF-EM Survey

A VLF-EM survey was conducted over claims 1134040 and 1134042 along 090° oriented lines spaced 50 m. apart, with 25 m. station separation. The instrument used for the survey was a Crone Geophysics Limited Radem VLF-EM Receiver set to 21.4 KHz, Annapolis, Maryland. Specifications for the instrument are included in Appendix 2. Two hundred and twenty stations were surveyed over 5.5 line kilometres.

Six VLF conductors were located on claim 1134042, one unlabelled, one labelled S4, one S5, and a group of three, S6, indicated on the accompanying VLF-EM Map.

Conductor S4 is the continuation of the major north trending S4 conductor delineated on claim 1134041 in 1990. It is roughly coincident with the contact between the chlorite-calcite breccia and the intermediate tuffs and flows and the +400 gamma contour on the Magnetometer Survey Map. It is also coincident with Zone 2.

In 1976, Getty Minerals, Ltd. cored a diamond drill hole, possibly to investigate conductor S4, on claim 1134041. Their drill log reports graphite in the core, but no mineralization similar to that of Zone 2 was noted. Conductor S4 was also located by a government Airborne Electromagnetic Survey flown in 1990.

Three weak conductors, labelled S6, are also coincident with the chlorite-calcite breccia/intermediate tuff lithologic contact and the +400 gamma magnetic contour. The two single station conductors forming the eastern portion of S6 coincide with a diabase dike bisecting the chlorite-calcite breccia.

Conductor S5 is unexplained by lithology or by the results of the magnetometer survey, as the area is covered by an extensive sandy plain and exhibits a consistently low magnetic response. It may delineate the western contact between the intermediate flows and the chlorite-calcite breccia or may be related to a conductive horizon in the overburden.

Insufficient data is available to interpret the one line conductor on line 8+00N at 100+00W. It may be related to the regional fault coincident with Hydro Creek.

Interference from the Ontario Hydro power line, which extends north-northwest across the eastern edge of the survey area, completely masks any response from the overburden or underlying bedrock for at least 200 metres on either side of the line. Due to the interference the survey was not conducted over the area of the claim 1134040 east of the power line.

SOIL (HUMUS) GEOCHEMISTRY

In 1990 a humus sample obtained near Zone 1 assayed 255 ppb. gold. This result prompted the 1991 humus survey over claims 1134040 and 1134042, west of the Ontario Hydro power line.

Very thin layers of humus and very dry conditions made sampling extremely difficult. One hundred and eighty-three samples were assayed from selected lines as shown on the accompanying Geochemistry (Humus) Survey Map. Samples were sent to Swastika Laboratories, Swastika, Ontario for analysis. Assay certificates are included in Appendix 3. The detection limit for gold in humus is 1 ppb.

Most of the samples taken did not have any measurable amount of gold in the humus and the 1990 sample result was not repeated. The sample containing the highest concentration of gold (12 ppb) was obtained at 9+00N, 96+00W, 50 metres southwest of Zone 1, adjacent to a 5 ppb gold in humus sample.

A series of samples assaying 3 to 5 ppb gold in humus roughly parallels the contact between the chlorite-calcite breccia and the intermediate tuffs and flows and is also coincident with Zone 2. Another series of samples yielding 2 to 5 ppb gold is found on the east side of the surveyed area, within the easternmost sequence of lapilli tuffs. A cluster of 3 to 10 ppb gold in humus samples were obtained from lines 8+00N and 8+50N between 99+75W and 100+50W. Another cluster of samples containing 2 to 5 ppb gold is found on the north claim line, centred around 98+00W.

The two northerly trending anomalies are weak and discontinuous. Confirmation of these trends may be obtained by conducting a "B" horizon geochemical survey over the property. Results of a "B" horizon survey completed on a property to the south were much more positive in delineating gold trends (private correspondence).

AREAS OF INTEREST

Zone 1

Geology, Magnetics, and Geochemistry

In 1991 an area located between approximately 9+60W;95+55N and 9+25N;95+25W was stripped of overburden to expose Zone 1 and the surrounding bedrock. The area was excavated by a 912 Liebherr Litronic excavator with a 1.25 cubic yard bucket. Parts of the stripped area were further cleared manually.

The detailed geology and magnetics of the stripped area are illustrated in the Zone 1 Geology, Magnetics and DDH Horizontal Projection Map. Zone 1 is an approximately 30 square metre lens of brecciated, oxidized, intermediate tuff containing fine grained, lensoid clots of pyrite between 1 cm and 7.5 cm in the long dimension. Grab samples of bedrock obtained in 1990 assayed 5588 ppb gold. The pyrite clots are surrounded by white, massive and "dog-tooth" quartz and a carbonate mineral (possibly ankerite). Near the centre of the zone, the quartz matrix comprises 30-50% of the breccia with up to 40% pyrite. Along the margins of the zone the quartz matrix is reduced to 10-20% of the rock. Although the contact between the mineralized breccia and the surrounding lapilli tuff is sharp, the surface oxidation extends for 3 metres around the zone. The rock in this 3 metre wide zone is homogeneous, grading away from the breccia into unoxidized lapilli tuff. Locally it contains anomalous concentrations of gold (237 ppb). Two zones of weaker oxidation and brecciation are located six and ten metres to the east of Zone 1. One grab sample was assayed from the small zone six metres to the east, yielding 34 ppb.

In addition to grab samples, samples of non-weathered rock were obtained using a Atlas Copco gasoline powered rotary percussion drill. Using a 2 foot, 1.5 inch diameter steel, samples were taken of the rock chips during the first half of drilling the hole and then after the last half had been drilled. Seven of the deeper samples were assayed. Sample locations and results are shown on the Zone 1 Geology, Magnetics and DDH Horizontal Projection Map and are tabulated in Appendix 1. Assays results up to 3000 ppb Au were obtained from the non-weathered samples.

Zone 1 lies within a broad band of relatively high magnetic intensity trending roughly north-south over the property. A detailed magnetometer survey was conducted over the Zone. Results from this survey indicate a discrete zone of low magnetic intensity within the broad magnetic high, coincident with Zone 1. The low is open to the north and extends southeast through the stripped area.

Humus samples taken directly above the mineralized zone in 1990 contained 255 ppb gold. Samples taken near Zone 1 during the humus sampling survey in 1991 did not show anomalous concentrations of gold.

Diamond Drilling 1992

Four holes totalling 388 ft (118.26 metres) were drilledon claim 1134040. Three of the holes were drilled into the felsic volcanic breccia of Zone 1. The fourth hole was drilled to the south to investigate a magnetic low, a possible extension of Zone 1. Collar location and horizontal projections can be found on Zone 1 Geology, Magnetics and DDH Horizontal Projections map attached. The diamond drill records, sections and assay certificates are included in Appendix 4.

Note: 1992 assay results were reported in ounces per ton but have been converted to parts per billion using a conversion of 34285.714 ppb/oz/t.

The three Zone 1 holes intersected the down dip extension of the surface showing. Examination of the core revealed a felsic lapilli tuff / breccia with sericitic alteration and localized disseminated pyrite zones, dipping -53°N and -70°W. The highest assay result was 411 ppb Au over 0.76 metres.

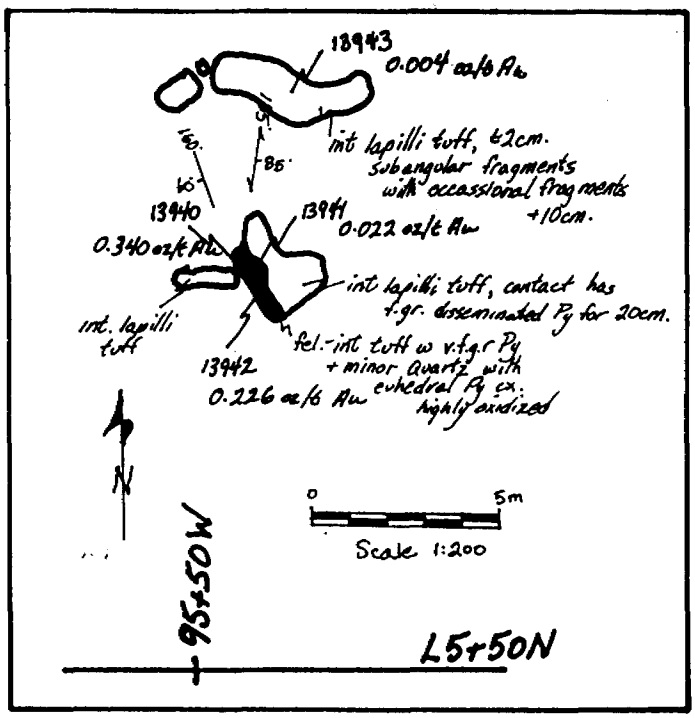
A felsic lapilli tuff/breccia unit between 9.50 - 12.78 metres in DDHJ9202 assayed 274 ppb Au in two samples over 0.46 and 0.59 metres. The up dip extension of this unit is a intermediate lapilli tuff with quartz and amphibole (tourmaline?) veins.

DDHJ9204, investigated the magnetic low area extending south of Zone 1. The hole intersected a variety of intermediate and mafic lapilli tuffs. An intermediate crystal tuff unit, massive and equigranular, with trace very fine grained pyrite was intersected in the bottom of the hole but did not return any significant assays.

Zone 3

Geology

Figure 4. Zone 3 Geology and Sampling



In 1992 the overburden was removed from Zone 3, L95+50W;5+60N, exposing a 1.8 m by 0.25 m lens of felsic to intermediate tuff enclosed by intermediate lapilli tuff. In 1991 a grab sample of Zone 3 assayed 13,092 ppb Au.

Zone 3 consists of oxidized sheared felsic to intermediate tuff containing 10-20% fine grained pyrite. Occasional small quartz veins (5 mm thick) containing euhedral pyrite crystals crosscut the tuff. The surrounding lapilli tuff contains oxidized subangular fragments up to 2 cm in length with the occasional fragment up to 10 cm in length. (See Figure 4).

Grab samples from the felsic to intermediate tuff returned assays of 11657, 7748, and 754 ppb Au. Assays from grab samples of lapilli tuff indicated concentrations of gold up to 137 ppb.

Investigation of the area revealed several oxidized lenses presumably caused by the presence of some form of iron carbonate. This oxidation feature has been noted previously in areas of anomalous gold mineralization, such as Zone 1.

Further trenching and sampling is required to determine the extent of mineralization in Zone 3 and the surrounding area.

CONCLUSIONS

Results of grab samples and of non-weathered rock chips obtained from percussion drilling in 1991 confirmed that Zone 1 contains anomalous concentrations of gold (up to 2983 ppb). The extent of the zone on surface has been delineated, surrounded by a strongly oxidized zone, locally anomalous in gold (up to 237 ppb). Other areas of similar alteration in the vicinity of Zone 1 returned weakly anomalous concentrations of gold.

Results of assaying of the 74 samples taken during the 1992 diamond drilling program indicate anomalous gold concentrations in the felsic lapilli tuff/breccia unit of Zone 1. The highest assay indicated gold concentrations of 411 ppb. Investigation of a zone with a magnetic response similar to that of Zone 1 did not discover another mineralized zone.

Anomalous gold concentrations in humus sampled directly over Zone 1 in 1990 were not repeated in humus samples obtained near the zone during the grid based survey in 1991. Poor local conditions (thin, dry humus) may have proved detrimental to this survey and may have contributed to the very low assays obtained.

Results of the geophysical surveys concur with the results of the mapping survey indicating that the bedrock units strike 360° on claims 1134040 and 1134042. The surveys defined several new conductors.

Zone 3, discovered in 1991 (13,029 ppb Au), returned three significant gold assays of 11657, 7748, and 754 ppb. These results appear to originate in a sheared felsic to intermediate tuff containing 10-20% very fine grained pyrite.

Grab samples from other areas on the property had anomalous gold concentrations when assayed: in bedrock, at 9+40N, 98+70W (477 ppb); and in boulders, at 5+96N, 98+40W (422 ppb) and 5+87N, 94+95W (199 ppb).

RECOMMENDATIONS

The trench over Zone 1 should be cleaned off to assist in determining the structure and contacts in the felsic lapilli tuff/breccia unit. A detailed sampling project to determine the source of gold mineralization, epigenetic quartz veining or syngenetic deposition, should be undertaken.

Zone 3 should be stripped, cleaned and sampled to delineate its size, structure and extent of gold mineralization. Areas of iron oxidation near Zone 3 should also be stripped to determine if mineralization is present as the source of alteration.

VLF conductor S4 should be stripped to determine its source.

The single station VLF-EM conductor and humus geochemical anomaly at 8+00N;100+00W should be investigated further.

The magnetic survey should be extended over claims 1134041 and 1134039.

A "B" horizon soil survey should be completed over claims 1134039 to 1134042 inclusive.

Permission should be obtained to review the Getty Mines Limited core from the drill hole on claim 1134041. The core found on claim 1134039 should be examined and the location of the collar determined.

CERTIFICATE of QUALIFICATION

I, Michael James Perkins, currently living at 514 Crawford Street, Toronto, Ontario, certify the following:

1. I currently hold two diplomas in Exploration Geology obtained in 1982 and 1983 at Sir Sandford Fleming College.

2. I have completed almost three years towards a B.Sc. in Geology at the University of Toronto.

3. I have been employed as geological technologist and geologist for ten years.

4. I was present on the property during the periods covered by this report

Date: March 23, 1993 Signature: [signature]

REFERENCES

Bryant, Gary.
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Clark, Jennifer A.
1990: Report on the Geology and Geophysics of the Shining Tree Property, Natal Township, Ontario.

Clark, Jennifer A.
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Perkins, M.J.
1992: Shiningtree Project 1992 Diamond Drilling Report.

APPENDIX 1

Rock Sample Locations, Descriptions, Results and Certificates 1991

APPENDIX I. SAMPLE LOCATIONS, DESCRIPTIONS AND ASSAY RESULTS.

SAMPLE NO.	NORTH	WEST	DESCRIPTION	GOLD (ppb)
J9101	955	9550	Red-brown stained soil with many rock fragments, from Zone 1	6
J9102	957	9550	As per J9101	82
J9104	860	9423	1b/2g unit, altered, brecciated wth 2% v.fn.grnd. py in fractures	Nil
J9105	910	9450	bldr. v. angular and oxidized basal crete from bulldozer scrape	Nil
J9106	895	9600	2e,a with specular hem. and tr. cpy assoc. with qz-cb str. along fracture planes	Nil
J9107	735	9710	bldr. of 2g/1c with highly pyritized matrix	Nil
J9108	725	9780	rusty 2d, 2% diss. 2mm euhed. py.	Nil
J9109	718	9778	As per J9108	Nil
J9110	705	9775	oxidized bldr. with 10-20% py (poss. in place)	10
J9111	940	9870	2a, resample of 1990 sample with 480 ppb Au	477
J9112	645	9830	2d/1d sheared with qz lenses	14
J9113	640	9800	rusty 2a with concen. of anhed to euhed. py (similar to Zone 2)	21
J9114	485	9850	oxidized 1d,e banded qz-cb-ank(?) veining in chl schist, near VLF conductor	17
J9115	596	9840	oxidized bldr. with 2-5% fn. grn. euhed-anhed py in 2a,d	422
J9116	565	9575	oxidized 2g/1c with ank?, minor epidote, tr euhed. py, 1-2 mm size	34
J9117	560	9550	oxidized 2d,g with locallized conc. of up to 10% massive py	12892*
J9118	587	9495	oxidized 2g bldrs., mod. schistose, tr py; resamp of 1990 500 ppb Au	199
J9119	560	9496	As per J9118, with magnetite grains, minor cb, oxidized	14
J9120	535	9450	As per J9119, with drusy qz vn 1 cm wide	27
J9121	430	9385	massive 1a, 2-5% euhed. xl 1-2 mm py, conc. along fractures	Nil
J9122	248	9504	oxidized 2e, py along fractures, and as clasts?	Nil
J9123	215	9235	fn. grn. 3/2a with 1% fn. grn. diss. py, remnant amph xls, silicified	Nil
J9124	440	9840	1d,f bx, minor qz infilling, minor ank	Nil
J9125	400	9815	1d,2g with arseno in clasts, 2% fn. grn. euhed py	10
J9126	385	9815	As per J9125, bx with cb-qz, <1% py & arseno	10
J9127	410	9915	1d bx with cb-qz infilling, v. schistose, no oxidation	Nil
J9128	955	9450	background 2a, g sample	Nil
J9129	931	9531	basal crete located along outcrop	Nil
J9130	951	9534	2a v.fn. grn., qz-tour. stringers, minor ank, 1% euhed-anhed py	34
J9131	957	9546	from bx zone, mostly py, some qz	2983*
J9132	958	9545	from bx zone, mostly qz, wallrock of zone	345
J9133	955	9547	20-50 cm outside bx zone in oxidized 2a with minor qz str.	237

SAMPLE NO.	NORTH	WEST	DESCRIPTION	GOLD (ppb)
J9134	959	9547	rep sample of bx, 20% qz vn, 3mm wide, v.fn. grn. py, conc. in fragments	747
J9135	956	9541	2d, qz, ank, bx. Qz <=2mm wide	65
J9136	956	9545	Plugger hole, lower 12", Zone 1**	1509
J9137	956	9543	As J9136	137
J9138	956	9541	As J9136	31
J9139	958	9545	As J9136	93
J9140	958	9545	As J9136	1265
J9141	956	9549	As J9136	45
J9142	954	9545	As J9136	n/a
J9143	956	9551	As J9136	n/a
J9144	956	9551	As J9136	n/a
J9145	954	9539	As J9136	n/a
J9146	952	9535	As J9136	n/a
J9147	953	9530	As J9136	n/a
J9148	951	9530	As J9136	n/a
J9149	947	9531	As J9136	n/a
J9150	959	9544	As J9136	339
J9151	951	9545	As J9136	n/a

* Average value of original and check assay.

** As the intent was to test the non-weathered rock in Zone 1, only the lower 12" of rock chips were sent for assay.

n/a Not assayed.

XRAL

X-RAY ASSAY LABORATORIES

A DIVISION OF SGS SUPERVISION SERVICES 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 16367

TO: ED CLARK
345 DUFFERIN STREET, #705
TORONTO, ONTARIO
M6K 3G1

CUSTOMER No. 2158

DATE SUBMITTED
26-Jul-91

REF. FILE 10454-C3

Total Pages 1

35 ROCKS

	METHOD	DETECTION LIMIT
AU PPB	FADCP	1.
NI PPM	DCP	1.
CU PPM	DCP	.5
ZN PPM	DCP	.5
PB PPM	DCP	2.

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

DATE 14-AUG-91

CERTIFIED BY .....
Philip Boctor, Laboratory Manager

SAMPLE	AU PPB	NI PPM	CU PPM	ZN PPM	PB PPM
J9101	6	--	--	--	--
J9102	82	--	--	--	--

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)

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-3866-RG1

Company: **M. PERKINS**

Date: SEP-09-91

Project:

Copy 1. 514 CRAWFORD ST.,TORONTO,ONT. M6G 3J8

Attn:

2. PH# 416-534-6940

We hereby certify the following Geochemical Analysis of 53 ROCK samples submitted SEP-03-91 by M. PERKINS.

Sample Number	Au ppb	Au check ppb
J-9104	Nil	
J-9105	Nil	Nil
J-9106	Nil	
J-9107	Nil	
J-9108	Nil	
J-9109	Nil	
J-9110	10	
J-9111	477	
J-9112	14	
J-9113	21	
J-9114	17	
J-9115	422	
J-9116	34	
J-9117	13029	12754
J-9118	199	
J-9119	14	
J-9120	27	
J-9121	Nil	
J-9122	Nil	
J-9123	Nil	
J-9124	Nil	
J-9125	10	
J-9126	10	
J-9127	Nil	
J-9128	Nil	
J-9129	Nil	
J-9130	34	
J-9131	2949	3017
J-9132	345	
J-9133	237	

Certified by Donna Hardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705)642-3300

Swastika Laboratories

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Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-3866-RG1

Company: **M. PERKINS**

Date: SEP-09-91

Project:

Copy 1. 514 CRAWFORD ST.,TORONTO,ONT. M6G 3J8

Attn:

2. PH# 416-534-6940

We hereby certify the following Geochemical Analysis of 53 ROCK samples submitted SEP-03-91 by M. PERKINS.

Sample Number	Au ppb	Au check ppb
J-9134	747	
J-9135	65	
J-9136	1509	
J-9137	137	
J-9138	31	
J-9139	93	
J-9140	1296	1234
J-9141	45	
J-9150	339	

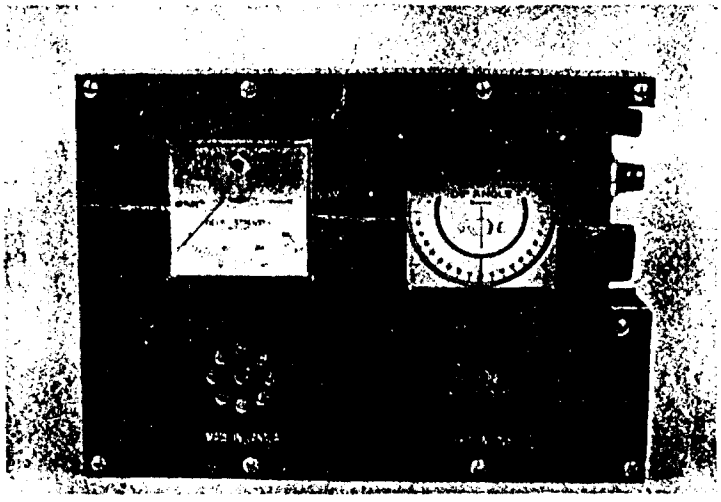
Certified by Donna Hardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

APPENDIX 2
VLF-EM Specifications

CRONE GEOPHYSICS LIMITED
RADEM VLF EM RECEIVER



An EM receiver measuring the FIELD STRENGTH, DIP ANGLE and QUADRATURE components of the VLF communications stations.

This is a rugged, simple to operate, ONE MAN EM unit. It can be used without line cutting and is thus ideally suited for GROUND LOCATION OF AIRBORNE CONDUCTORS and RECONNAISANCE SURVEYS of MINERAL SHOWINGS. This instrument utilizes higher than normal EM frequencies and is capable of detecting poorly conductive sulphide deposits and fault zones. It accurately isolates BANDED CONDUCTORS and operates through areas of HIGH POWERLINE NOISE. The method is capable of deep penetration but due to the high frequency used its penetration is limited in areas of clay and conductive overburden.

The DIP ANGLE measurement detects a conductor from a considerable distance and is used primarily for locating conductors. The FIELD STRENGTH measurement is used to define the shape and attitude of the conductor.

Shiningtree Project, 1993

SPECIFICATIONS*

SOURCE OF PRIMARY FIELD: VLF Communications Stations 1 to 25 KHz

NUMBER OF STATIONS: 7 Switch Selectable

STATIONS AVAILABLE: The Seven Stations May Be Selected From:

	CODE	STATION & LOCATION	CALL SIGN	FREQUENCY
Standard	CM	Cutler, Maine	NAA	24.0 KHz
"	SW	Seattle, Washington	NLK	24.8 KHz
"	AM	Annapolis, Maryland	NSS	21.4 KHz
"	H	Laulualei, Hawaii	NPM	23.4 KHz
"	BOF	Bordeaux, Frace	NWU	15.1 KHz
"	E	Rugby, England	GBR	16.0 KHz
Optional	MS	Moscow, Russia	UMS	17.1 KHz
"	OD	Odessa (Black Sea)	EWB	15.6 KHz
"	NC	Exmouth, Australia	NWC	22.3 KHz
"	HN	Helgelend, Norway	JXZ	17.6 KHz
"	YJ	Yosamai, Japan	NDT	17.4 KHz
"	TJ	Tokyo, Japan	JG2AR	20.0 KHz
"	BA	Buenos Aires, Argentina		23.6 KHz

CHECK THAT STATION IS TRANSMITTING: Audible signal from speaker.

PARAMETERS MEASURED:

(1) DIP ANGLE in degrees of the magnetic field component, from the horizontal, of the major axis of the polarization ellipse. Detected by a minimum on the field strength meter and read from an inclinometer with a range of ±½°.

(2) FIELD STRENGTH (total or horizontal) of the magnetic component of the VLF field, (amplitude of the major axis of the polarization ellipse). Measured as a percent of normal field strength established at a base station. Accuracy ±2% dependent on signal. Meter has two ranges: 0-300% and 0-600%.

(3) QUADRATURE component of the magnetic field, perpendicular in direction to the resultant field, as a percent of the normal field strength, (amplitude of the minor axis of the polarization ellipse). This is the minimum reading of the Field Strength meter obtained when measuring the dip angle. Accuracy ±2%.

OPERATING TEMPERATURE RANGE: −40°C to 50°C (−40°F to 120°F)

DIMENSIONS: 9 cm x 19 cm x 27 cm (3½" x 7½" x 10½")

SHIPPING DIMENSIONS: 30 cm x 14 cm x 36 cm (11⅞" x 5½" x 14")

WEIGHT: 2.7 kg (6 lbs)

SHIPPING WEIGHT: 6.0 kg (13 lbs)

BATTERIES: 2 of 9 volt
Average Life Expectancy
20 Hours for Continuous Operation

Specifications subject to change without notice

APPENDIX 3

Humus Survey Assay Certificates 1991

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-3939-SG1

Company: M.J.PERKINS

Date: SEP-19-91

Project:

Attn:

Copy 1. 514 Crawford St.Toronto,Ont.M6G 3J8
2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 83 humus samples submitted SEP-03-91 by .

Sample Number	Au ppb	Au check ppb
L800N 9400W	5	
L800N 9425W	3	
L800N 9450W	Nil	
L800N 9475W	2	
L800N 9500W-A	3	
L800N 9500W	Nil	
L800N 9525W	3	Nil
L800N 9550W	Nil	
L800N 9575W	Nil	
L800N 9600W	Nil	
L800N 9625W	Nil	
L800N 9650W	Nil	
L800N 9675W	Nil	
L800N 9700W	Nil	
L800N 9725W	Nil	
L800N 9750W	Nil	
L800N 9775W	Nil	
L800N 9800W	2	
L800N 9825W	3	
L800N 9850W	2	
L800N 9875W	Nil	
L800N 9900W	Nil	
L800N 9925W	Nil	
L800N 9950W	3	
L800N 9975W	1.0	5
L800N 10000W	5	
L800N 10025W	Nil	
L850N 9850W	Nil	
L850N 9875W	Nil	
L850N 9900W	Nil	

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

Swastika Laboratories

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Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-3939-SG1

Company: **M.J.PERKINS**

Date: SEP-19-91

Project:

Attn:

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2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 83 humus samples submitted SEP-03-91 by .

Sample Number	Au ppb	Au check ppb
L850N 9925W	3	
L850N 9950W	Nil	
L850N 9975W	Nil	
L850N 10000W	Nil	
L850N 10025W	Nil	
L850N 10050W	10	
L900N 9500W	2	
L900N 9525W	3	
L900N 9550W	Nil	
L900N 9575W	Nil	
L900N 9600W	12	9
L900N 9625W	5	
L900N 9650W	Nil	
L900N 9675W	Nil	
L900N 9700W	Nil	
L900N 9725W	Nil	
L900N 9750W	Nil	
L900N 9775W	Nil	
L900N 9800W	Nil	
L900N 9825W	Nil	
L900N 9850W	Nil	
L900N 9875W	5	
L900N 9900W	Nil	
L900N 9925W	Nil	
L900N 9950W	Nil	
L900N 9975W	Nil	
L900N 10000W	Nil	
L900N 10025W	Nil	
L900N 10050W	Nil	
L962N 9500W	Nil	

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705)642-3300

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2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 83 humus samples submitted SEP-03-91 by .

Sample Number	Au ppb	Au check ppb
L962N 9525W	Nil	
L962N 9575W	Nil	
L962N 9600W	Nil	
L962N 9625W	Nil	
L962N 9650W	Nil	
L962N 9675W	Nil	
L962N 9700W	Nil	
L962N 9725W	Nil	
L962N 9750W	Nil	
L962N 9775W	5	
L962N 9800W	3	Nil
L962N 9825W	5	
L962N 9850W	2	
L962N 9875W	Nil	
L962N 9900W	Nil	
L962N 9925W	Nil	
L962N 9950W	5	
L962N 9975W	Nil	
L962N 10000W	Nil	
L962N 10025W	Nil	
L962N 10050W	Nil	
L962N 10075W	5	
L962N 10100W	5	Nil

Certified by Donna Gardner

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Telephone (705) 642-3244 FAX (705)642-3300

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Established 1928

Geochemical Analysis Certificate

1W-3938-SG1

Company: M.J.PERKINS

Date: SEP-20-91

Project:

Attn:

Copy 1. 514 Crawford St.Toronto,Ont. M6G 3J8
2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 82 humus samples submitted SEP-03-91 by .

Sample Number	Au PPB
L500N 9350W	Nil
L500N 9375W	Nil
L500N 9400W	Nil
L500N 9425W	Nil
L500N 9450W	Nil
L500N 9475W	Nil
L500N 9500W	Nil
L500N 9525W	Nil
L500N 9550W	3
L500N 9575W	Nil
L500N 9600W	Nil
L500N 9625W	3
L500N 9650W	Nil
L500N 9675W	Nil
L500N 9700W	Nil
L500N 9725W	Nil
L500N 9750W	Nil
L500N 9775W	Nil
L500N 9800W	Nil
L500N 9825W	Nil
L500N 9850W	Nil
L500N 9875W	Nil
L500N 9900W	Nil
L500N 9925W	Nil
L600N 9375W	Nil
L600N 9400W	Nil
L600N 9425W	Nil
L600N 9450W	Nil
L600N 9475W	5
L600N 9500W	Nil

Certified by Donna Gardner

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Established 1928

Geochemical Analysis Certificate

1W-3938-SG1

Company: **M.J.PERKINS**

Date: SEP-20-91

Project:

Attn:

Copy 1. 514 Crawford St.Toronto,Ont. M6G 3J8
2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 82 humus samples submitted SEP-03-91 by .

Sample Number	Au PPB
L600N 9525W	Nil
L600N 9550W	Nil
L600N 9575W	Nil
L600N 9600W	Nil
L600N 9625W	Nil
L600N 9650W	Nil
L600N 9675W	Nil
L600N 9700W	Nil
L600N 9725W	Nil
L600N 9750W	3
L600N 9800W	Nil
L600N 9825W	Nil
L600N 9850W	Nil
L600N 9875W	Nil
L600N 9900W	Nil
L600N 9925W	Nil
L600N 9950W	Nil
L700N 9370W	Nil
L700N 9400W	Nil
L700N 9425W	Nil
L700N 9450W	Nil
L700N 9475W	Nil
L700N 9500W	3
L700N 9525W	Nil
L700N 9550W	Nil
L700N 9575W	Nil
L700N 9600W	Nil
L700N 9625W	Nil
L700N 9650W	Nil
L700N 9675W	Nil

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705)642-3300

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Assaying - Consulting - Representation

Geochemical Analysis Certificate

1W-3938-SG1

Company: M.J.PERKINS

Date: SEP-20-91

Project:

Attn:

Copy 1. 514 Crawford St.Toronto,Ont. M6G 3J8
2. Telephone:416-534-6940
3. Invoice to Jennifer Clark

We hereby certify the following Geochemical Analysis of 82 humus samples submitted SEP-03-91 by .

Sample Number	Au PPB
L700N 9700W	Nil
L700N 9725W	Nil
L700N 9750W	Nil
L700N 9775W	Nil
L700N 9800W	3
L700N 9825W	Nil
L700N 9850W	Nil
L700N 9875W	Nil
L700N 9925W	Nil
L700N 9975W	Nil
L700N 9900W	Nil
L700N 9950W	Nil
L700N 10000W	Nil
L700N 10023W	Nil
L750N 9800W	Nil
L750N 9825W	Nil
L750N 9850W	Nil
L750N 9875W	Nil
L750N 9900W	Nil
L750N 9925W	Nil
L750N 9950W	Nil
L750N 9975W	Nil

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705)642-3300

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

1W-4002-SG1

Company: M.J. PERKINS

Project:

Attn:

Date: SEP-24-91

Copy 1. 514 CRAWFORD ST.,TORONTO,ONT. M6G 3J8

2. PH# 416-534-6940

We hereby certify the following Geochemical Analysis of 18 HUMUS samples submitted SEP-03-91 by M.J. PERKINS.

Sample Number	Au ppb
L850N 9400W	Nil
L850N 9425W	Nil
L850N 9450W	Nil
L850N 9475W	Nil
L850N 9500W	Nil
L850N 9525W	Nil
L850N 9550W	Nil
L850N 9575W	Nil
L850N 9600W	Nil
L850N 9625W	Nil
L850N 9650W	Nil
L850N 9675W	Nil
L850N 9700W	Nil
L850N 9725W	Nil
L850N 9750W	Nil
L850N 9775W	Nil
L850N 9800W	Nil
L850N 9825W	Nil

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705)642-3300

APPENDIX 4

Diamond Drill Records and Sample Certificates 1992

J9201 Loc: 9+55N; 95+66W Dir: 090 Dip:-45E Dates:17-19Aug 92 Logged by:M.J.Perkins Core:IAX 1 7/16"

FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
0.00	1.83	CASING		0.00	0.00	0.00	
1.83	4.27	CAVING Broken core, 50% missing, mottled purple and green intermediate lapilli tuff identical to below.		0.00	0.00	0.00	
4.27	16.59	INTERMEDIATE LAPILLI TUFF/DEBRIS FLOW Mottled purple green sub-angular 3 mm. to 100 mm. sized fragments of intermediate crystal (cx) tuff. 1-3 mm. acicular, sub-euhedral amphibole cx throughout, carbonate infilling of hairline fractures.		0.00	0.00	0.00	
		Rare hematite staining and specular hematite associated with carbonate fracture fillings, CA<=40.		0.00	0.00	0.00	
		Occassional zones, upto 15 cm., of light green mineralization presumed to be epidote.		0.00	0.00	0.00	
		10.72-16.59 Mottled purple green tends to shade to gray down hole, shallow CA fractures filled with carbonate.		0.00	0.00	0.00	
		12.09-12.19 Purple red hematite rich bed/lapilli fragment with 1%, <=1 mm., euhedral pyrite cx.	13901	11.89	12.19	0.30	nil
		12.80-21.95 Carbonate present disseminated throughout core (alteration feature?).		0.00	0.00	0.00	
		15.54-16.00 Zone of increased hairline fracturing (20%) with carbonate infilling.		0.00	0.00	0.00	
		NOTE: Rare thin laminations of brassy sulphide occur in amphibole quartz filled straight fractures, non-magnetic, possibly pentlandite.		0.00	0.00	0.00	
16.59	17.73	INTERMEDIATE LAPILLI TUFF Tan to pink with rare red quartz carbonate infilling fractures (hematite?). Fragments sub-angular, gen <=5 mm., with diffuse contacts and trace fgr pyrite.		0.00	0.00	0.00	
		17.14-17.47 5% fgr pyrite with occassional 1 mm. euhedral cx.	13902	17.14	17.68	0.53	0.001
17.73	32.31	FELSIC LAPILLI TUFF/BRECCIA WITH SERICITE Grey to tan, fragments sub-angular to rounded with diffuse contacts. Generally 1-2% pyrite, irregular zones 20 cm. wide of 5-20% disseminated fgr. pyrite.	13903	17.68	18.44	0.76	nil
		Occassional 1-5 mm. emerald green fragments/cx possibly fuchsite. Tan colouring increases proximal to quartz carbonate veining and may represent sericitic alteration. Veining gen <30 cm. with irregular brecciated contacts and angular fragments.	13904	18.44	19.20	0.76	0.003
		Throughout cx tuff texture is visible with rare sharply defined fragments. 5%, 0.1mm white to yellow clay like mineral found disseminated throughout possibly ankerite. White quartz carbonate veining represents 10% of core. Fabic/schistosity CA50.	13905	19.20	19.96	0.76	nil
		Amphibole filling common in fractures <3 mm. and CA45. Larger quartz carbonate veins may contain an-subhedral amphibole cx upto 1 cm.	13906	19.96	20.73	0.76	0.001
		19.07-19.53 Quartz carb veins, irregular brecciated contacts and fragments caught up. Veins gen 10 cm. with brecciation of contacts a further 20cm. Occasional amphibole cx & rimming of fragments and green vfgr silica bands with carbonate contacts.	13907	20.73	21.95	1.22	0.001
		20.73-21.49 Quartz carbonate vein, as per 19.07-19.53	13908	21.95	22.71	0.76	nil
		21.95-22.43 Quartz carbonate vein, as per 19.07-19.53.	13909	22.71	23.47	0.76	0.001
		23.85-24.26 Quartz carbonate vein, as per 19.07-19.53.	13910	23.47	24.23	0.76	0.002
		24.26-32.31 Disseminated trace pyrite as broken, an-euhedral cx <1 mm.	13911	24.23	24.99	0.76	0.001
		24.61-25.30 10-20% fgr pyrite as disseminated anhedral cx.	13912	24.99	25.76	0.76	nil

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services

FROM	M.	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
		25.91-26.21 10-20% fgr pyrite as disseminated anhedral cx.	13913	25.76	26.52	0.76	0.006
		25.96-26.06 Two yellow, 2 mm., dull cx, probably ankerite.		0.00	0.00	0.00	
		26.47-26.72 Quartz carbonate vein	13914	26.52	27.28	0.76	0.007
		26.80-27.74 10-20% fgr pyrite as disseminated anhedral cx.	13915	27.28	28.04	0.76	0.007
		29.34-29.36 Quartz carbonate amphibole vein, 2cm, sharp contacts, CA49.	13916	28.04	28.80	0.76	0.001
		29.85-29.89 Green vfgr siliceous vein, 2.5 cm. with quartz carbonate contacts and 4 mm. band of grey vfgr pyrite/sulphide. This form of vfgr silica is found as a fracture filling from 28.34 m. to end of hole associated with quartz carbonate veining.	13917	28.80	29.57	0.76	nil
		30.40-30.43 Fgr, 1 cm. silica vein with a 1 cm. round concentration of 70% vfgr pyrite with diffuse contacts. Remainder of hole pyrite is vfgr, 2% and appears associated with veining and fracture fillings.	13918	29.57	30.33	0.76	nil
		30.84-30.86 Trace chalcopyrite in a quartz breccia vein.	13919	30.33	31.09	0.76	0.001
32.31	32.31	END OF HOLE	13920	31.09	31.85	0.76	nil
			13921	31.85	32.31	0.46	nil
		Total Samples	21			15.47	

30 Aug 92

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services

J9202 Loc: 9+55N; 95+24.7W Dir:270 Dip:-45W Dates:20-21Aug 92 Logged by:M.J.Perkins Core:IAX 1 7/16"

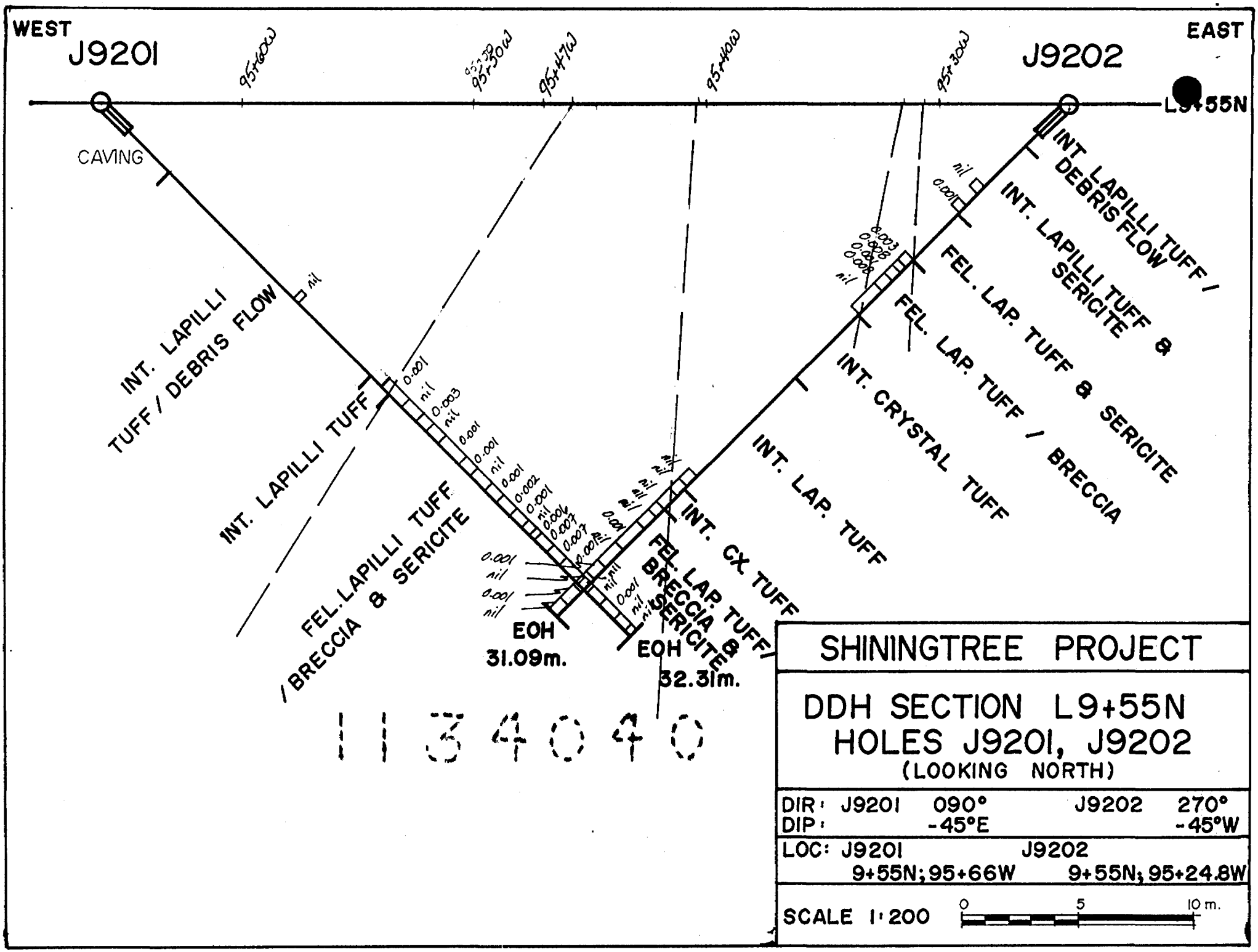
FROM	TO	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
		Amphibole rare except as fracture filling and as acicular cx in narrow bands.		0.00	0.00	0.00	
0.00	1.83	CASING		0.00	0.00	0.00	
1.83	2.59	INTERMEDIATE LAPILLI TUFF/DEBRIS FLOW Mottled purple green, 2-3 cm. angular to sub-anguler fragments. Hematite(?) staining and several rusty oxidized fractures, presumably ankerite, near lower contact.		0.00	0.00	0.00	
		2.08-2.12 Trace crushed euhedral pyrite cx over 5 cm.		0.00	0.00	0.00	
2.59	6.68	INTERMEDIATE LAPILLI TUFF WITH SERICITE Tan with grey zones, grades into above unit. Zones gen <15 cm. of brecciation with quartz carbonate amphibole (tourmaline?) infilling.	13922	5.11	5.49	0.38	nil
		Units upto 61 cm. of crystal tuff, gen aphanitic with 1-2 mm. amphibole cx, sharp bed contact at 3.43 m. CA37.	13923	6.25	6.71	0.46	0.001
6.68	9.50	FELSIC LAPILLI TUFF WITH SERICITE Fine grained cx tuff with sericite containing <5 cm. coarser grained grey green fragments. Upper contact is gradational, fragments upto 8 cm. near oxidized lower contact.	13924	9.45	9.75	0.30	0.003
		NOTE: Areas of sericitic alteration react weakly while more mafic areas do not react to HCl..	13925	9.75	10.21	0.46	0.008
		NOTE: It generally appears that there is more than one fragment type. This is difficult to ascertain due to alteration but tends to indicate debris flow or fragmental origins.	13926	10.21	10.69	0.48	0.001
9.50	12.78	FELSIC LAPILLI TUFF/BRECCIA Tan, angular, 2-6 cm. fragments that appear refactured with white to grey quartz infilling. Fracture infilling approximately 10% of core with no distinct direction. Lower contact CA30.	13927	10.69	11.28	0.59	0.008
		10.11-10.21 Irregular quartz carbonate vein with vfgr. green silica and 25% dark green amphibole (chlorite).	13928	11.28	12.78	1.50	nil
		10.21-10.69 Green massive intermediate cx tuff with equant <=4 mm. amphibole cx with trace pyrite disseminated throughout and trace chalcopyrite associated with quartz fracture fillings.	13929	22.56	23.16	0.61	nil
		10.69-12.78 Minor zones of epidote alteration.	13930	23.16	23.77	0.61	nil
		11.05-11.06 Grey vfgr silica in a minor quartz breccia fracture infill with vfgr green silica. Grey colour caused by vfgr pyrite, also trace chalcopyrite.	13931	23.77	24.54	0.76	nil
12.78	16.61	INTERMEDIATE CRYSTAL TUFF Green, massive, homogranular, amphibole 20%, similiar to unit at 10.21-10.69, with rare 2-3 cm fragment, trace fgr pyrite disseminated and bronze coloured sulphide, possibly pentlandite, along fracture planes. Fracture CA60.	13932	24.54	24.99	0.46	nil
16.61	23.32	INTERMEDIATE LAPILLI TUFF Grey purple-red, altered, less mafic than above composed of a mix of cx and lapilli tuffs. Large number of hairline fractures filled with quartz carbonate, trace fgr., 2-3 mm. euhedral pyrite cx throughout.	13933	24.99	25.76	0.76	nil
23.32	24.55	INTERMEDIATE CRYSTAL TUFF As per 12.78-16.61 but finer grained, 10-15% amphibole, trace fgr pyrite and pentlandite, reacts with HCl, upper contact CA55, lower contact CA70.	13934	25.76	27.13	1.37	0.001
24.55	31.09	FELSIC LAPILLI TUFF/BRECCIA WITH SERICITE Tan to light brown, <=4 cm. fragments with diffuse boundaries, pyrite rare but locally 2% vfgr, sericitic alteration increases near fracturing.	13935	27.13	28.04	0.91	nil
		28.40-28.59 0.5 cm. amphibole quartz vein, CA21	13936	28.04	28.80	0.76	0.001
		28.80-28.83 0.3 cm. quartz vein with vfgr disseminated grey pyrite.	13937	28.80	29.57	0.76	nil

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services

FROM	M.	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
		30.00-31.09 Increased quartz breccia infilling with occassional <1 cm. emerald green cx probably fuchsite present, low CAs.	13938	29.57	30.33	0.76	0.001
31.09	31.09	END OF HOLE	13939	30.33	31.09	0.76	nil
		Total Samples	18			12.70	

30 Aug 92

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services


WEST
J9201
EAST
J9202
L9+55N
CAVING
INT. LAPILLI TUFF / DEBRIS FLOW
INT. LAPILLI TUFF
FEL. LAPILLI TUFF / BRECCIA & SERICITE
EOH 31.09m.
INT. CX TUFF
FEL. LAP. TUFF / BRECCIA & SERICITE
EOH 32.31m.
INT. LAP. TUFF
INT. CRYSTAL TUFF
FEL. LAP. TUFF / BRECCIA
FEL. LAP. TUFF & SERICITE
INT. LAPILLI TUFF & SERICITE
INT. LAPILLI TUFF / DEBRIS FLOW
SHININGTREE PROJECT
DDH SECTION L9+55N
HOLES J9201, J9202
(LOOKING NORTH)
DIR: J9201 090° J9202 270°
DIP: -45°E -45°W
LOC: J9201 9+55N; 95+66W
J9202 9+55N; 95+24.8W
SCALE 1:200
0 5 10 m.

J9203 Loc: 9+47.7N; 95+47W Dir: 360 Dip:-65N Date:22-23Aug92 Logged by:M.J.Perkins Core:IAX 1 7/16"

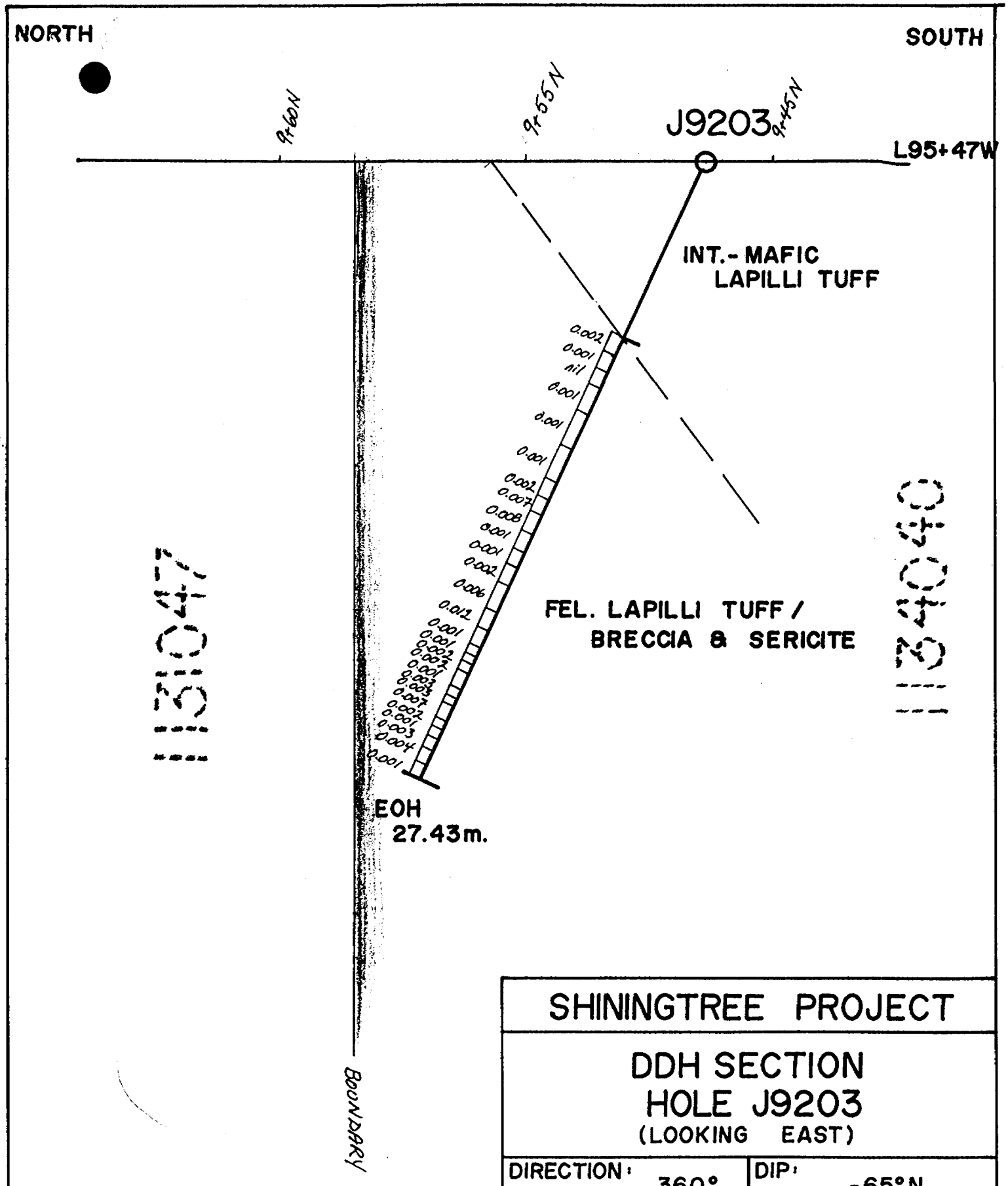
FROM	M.	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
0.00	0.30	CASING		0.00	0.00	0.00	
0.30	7.90	INTERMEDIATE TO MAFIC LAPILLI TUFF Grey green, 3-5 cm. sub-angular to round cx tuff fragments with diffuse contacts and occassional redish staining in top 3 m. Many hairline fractures with quartz carbonate infilling, CA20 to sub parallel.		0.00	0.00	0.00	
		Rare <=2 mm. chalcopyrite cx associated with quartz veining. Lower contact a 1 cm. quartz carbonate vein with pyrite, CA74.	13944	7.90	8.69	0.79	0.002
		3.12-4.44 More mafic unit with disseminated, <=1%, 4 mm., euhedral pyrite cx and rare chalcopyrite associated with quartz veining.	13945	8.69	9.37	0.69	0.001
		6.40-7.90 As per 3.12-4.44 with upper contact CA70	13946	9.37	10.06	0.69	nil
7.90	27.43	FELSIC LAPILLI TUFF/BRECCIA WITH SERICITE Tan with mafic fragments partially altered to sericite near upper contact. Several types of fragments gen <=5 cm. as detailed below:	13947	10.06	11.28	1.22	0.001
		1. Tan, aphanitic, <=5 cm. felsic fragments with parallel micro-fractures approx 1mm. spaced and quartz filled.	13948	11.28	12.80	1.52	0.001
		2. Grey fgr, upto 10-15 cm. fragments with aphanitic ground mass and containing 10% euhedral amphibole cx and smaller more mafic 3mm fragments.	13949	12.80	14.33	1.52	0.001
		3. Grey to dark grey intermediate cx tuff fragments, <=2 cm. with angular sharp contacts, fgr, anhedral amphibole	13950	14.33	15.09	0.76	0.002
		4. Rare emerald green fragments presumed to be fuchsite, <=2 mm. at top of unit increasing in size to 1 cm. near bottom.	13951	15.09	15.85	0.76	0.007
		7.90-8.69 1% 1-3 mm. euhedral pyrite	13952	15.85	16.61	0.76	0.008
		9.22-11.28 1% vfgr pyrite disseminated and occassionaly in 1 cm. grey massive concentrations, rare chalcopoyrite associated with quartz veining.	13953	16.61	17.37	0.76	0.001
		10.82 Rusty weathered zone of oxidation.	13954	17.37	18.14	0.76	0.001
		11.28-11.96 Irregular quartz carbonate amphibole veins/breccia 20% of core with green vfgr silica containing grey vfgr pyrite. Dark green amphibole constitutes 25% of veining.	13955	18.14	18.90	0.76	0.002
		12.73 As per 11.28-11.96, vein approximately 5 cm. with rare chalcopyrite.	13956	18.90	20.12	1.22	0.006
		12.77-12.80 <1% 3mm. euhedral pyrite.	13957	20.12	20.88	0.76	0.012
		12.88 As per 11.28-11.96, vein approximately 5 cm.	13958	20.88	21.64	0.76	0.001
		12.88-27.43 Brecciated with quartz carbonate and vfgr green silica infilling, 5-20% veining with occassional zones of 20% fgr anhedral pyrite.	13959	21.64	22.02	0.38	0.001
		13.20 As per 11.28-11.96, vein approximately 5 cm. with rare chalcopyrite.	13960	22.02	22.40	0.38	0.002
		14.02 Below this point amphibole associated with veining becomes rare.	13961	22.40	22.78	0.38	0.002
		14.60 Rusty weathered zone of oxidation.	13962	22.78	23.47	0.69	0.001
		14.94 Vfgr. green silica associated with vfgr grey pyrite fills many fractures below this point.	13963	23.47	23.85	0.38	0.003
		14.94-16.54 Pyrite fgr, 1-2% with occassional concentrations of 20%+, gen <=1 cm. Start getting quartz veining with straight contacts containing minor pyrite and chalcopyrite. CA20.	13964	23.85	24.23	0.38	0.003
		15.42 Rusty weathered zone of oxidation.	13965	24.23	24.92	0.69	0.007
		19.81 Rusty weathered zone of oxidation.	13966	24.92	25.30	0.38	0.002
		20.10-20.85 20% fgr pyrite.	13967	25.30	25.68	0.38	0.001
		20.85-26.67 2% fgr pyrite	13968	25.68	26.21	0.53	0.003

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services

FROM	M.	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
		23.53-24.17 10% vfgr-fgr disseminated pyrite	13969	26.21	26.82	0.61	0.004
		24.87-24.99 10% vfgr-fgr disseminated pyrite	13970	26.82	27.43	0.61	0.001
		25.76-25.91 10% vfgr-fgr disseminated pyrite		0.00	0.00	0.00	
27.43	27.43	END OF HOLE		0.00	0.00	0.00	
		Total Samples	27			19.53	

30 Aug 92

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services

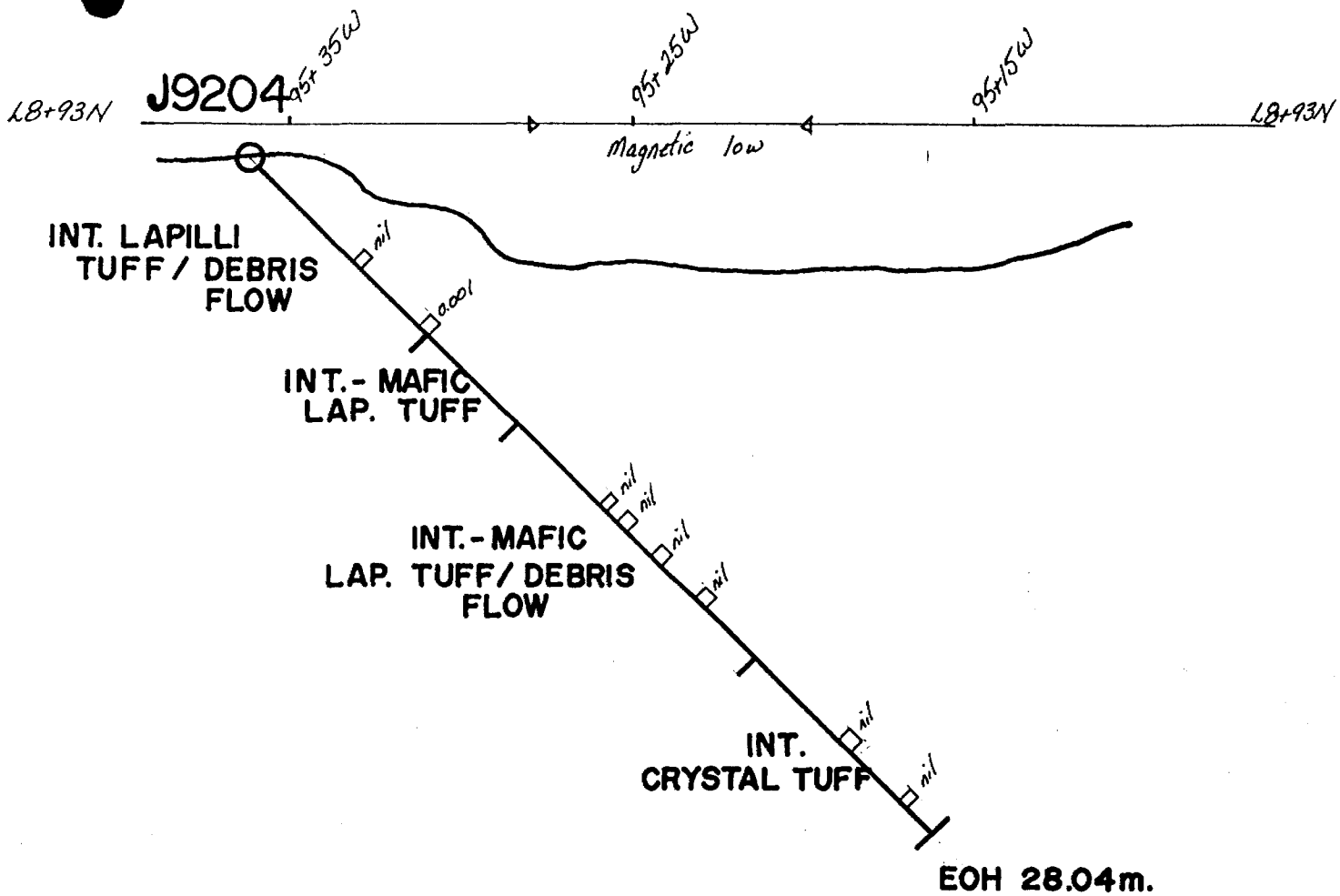

NORTH
SOUTH
9+60N
9+55N
J9203
9+45N
L95+47W
INT.- MAFIC
LAPILLI TUFF
0.002
0.001
nil
0.001
0.001
0.001
0.002
0.007
0.008
0.001
0.001
0.002
0.006
0.012
0.001
0.001
0.002
0.002
0.001
0.003
0.003
0.007
0.002
0.001
0.003
0.004
0.001
FEL. LAPILLI TUFF /
BRECCIA & SERICITE
EOH
27.43m.
BOUNDARY
SHININGTREE PROJECT
DDH SECTION
HOLE J9203
(LOOKING EAST)
DIRECTION: 360°
DIP: -65°N
LOCATION: 9+47.7N
95+47W
LENGTH: 27.43
SCALE 1:200
0
5
10m.

J9204 Loc: 8+93N; 95+36W Dir: 090 Dip:-45E Dates:24-26Aug 92 Logged by:M.J.Perkins Core:IAX 1 7/16"

FROM	[redacted].	DESCRIPTION	SAMPLE	FROM	TO	TOTAL	Au oz\t
0.00	0.30	CASING		0.00	0.00	0.00	
0.30	7.28	INTERMEDIATE LAPILLI TUFF/DEBRIS FLOW Grey green mottled purple fragments gen <5 cm., aphanitic, with diffuse contacts. Zones of trace euhedral 3mm pyrite, minor epidote alteration, quartz pink carbonate fracture filling. Lower contact brecciated.	13971	4.34	4.65	0.30	nil
7.28	10.97	INTERMEDIATE TO MAFIC LAPPILLI TUFFS This unit appears to be composed of layers of graded bedding, with finer cx tuffs grading into gradually larger fragments down hole and a sharp lower contact.	13972	7.01	7.39	0.38	0.001
		Fragments of several types, gen <=3 cm. with rare 8 cm. localized trace, 2 mm., euhedral pyrite.		0.00	0.00	0.00	
		7.28-7.86 Graded bedding, upper contact CA43, lower contact CA70.		0.00	0.00	0.00	
		7.86-8.63 Graded bedding, lower contact CA65.		0.00	0.00	0.00	
		8.63-9.20 Graded bedding.		0.00	0.00	0.00	
		9.20-10.13 Graded bedding, lower contact CA62.		0.00	0.00	0.00	
		10.13-10.64 Graded bedding.		0.00	0.00	0.00	
		10.64-10.97 Graded bedding, lower contact CA80.		0.00	0.00	0.00	
10.97	20.79	INTERMEDIATE TO MAFIC LAPILLI TUFF/DEBRIS FLOW Green, fragments upto 10 cm. increased pyrite but it appears associated with individual frags, several lithologies represented in fragments, no bedding visible.	13973	14.40	14.71	0.30	nil
		1. Most abundant fragments, dark green mafic lapilli tuff, <=3 cm., sharp contacts, and euhedral, acicular cx of light green mineral, 20%, possibly altered amphibole.	13974	15.16	15.54	0.38	nil
		2. Light green aphanitic fragments with mottled more mafic areas.	13975	16.54	16.99	0.46	nil
		3. Light red aphanitic felsic fragments, internally fractured, minor chlorite concentrations, angular, with sharp boundaries.	13976	18.29	18.75	0.46	nil
		Minor quartz carbonate veining, weak inter-flow contact at 17.63 m. that shows reversed bedding than 7.28-10.97. Weak colour changes from green to gray appear caused by fragment composition. Minor zones of <=1% pyrite sampled.		0.00	0.00	0.00	
20.79	28.04	INTERMEDIATE CRYSTAL TUFF Grey, massive texture, homogeneous and equigranular, top 3.05 m. mottled purple with occassional <=5 cm. fragments and 5 mm. amphibole (chlorite) fragments.	13977	24.23	24.69	0.46	nil
		23.55-27.74 Grey, f-mgr, massive, equigranular, no foliation, trace vfgr pyrite and occassionally associated with rare quartz veining. Tends to become coarser grained towards center of unit. Contacts are indistinct.	13978	26.67	26.97	0.30	nil
		27.74-28.04 As per 20.79-27.74, visible fragments, weak mottled purple colouring.		0.00	0.00	0.00	
28.04	28.04	END OF HOLE		0.00	0.00	0.00	
		Total Samples	8			3.05	

30 Aug 92

Claim #: L1134040. Drilling Contractor: Hiltz Brothers Prospecting Services



1134040

SHININGTREE PROJECT	
DDH SECTION HOLE J9204 (LOOKING NORTH)	
DIRECTION: 090°	DIP: -45°
LOCATION: 8+93N 95+36W	LENGTH: 28.04
SCALE 1:200	0 5 10m.

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

2W-0965-RA1

Assay Certificate

Date: SEP-03-92

Company: M.PERKINS/J.CLARK
Project:
Attn:

Copy 1. GEN.DEL. SHININGTREE POM 2X0
2. FAX TO 263-2032
3. INV J. CLARK

We hereby certify the following Assay of 57 DRILL AND GRAB samples submitted AUG-28-92 by .

Sample Number	Au oz/ton	Au check oz/ton
13901	Nil	Nil
13902	0.001	
13903	Nil	
13904	0.003	
13905	Nil	
13906	0.001	
13907	0.001	
13908	Nil	
13909	0.001	
13910	0.002	
13911	0.001	
13912	Nil	
13913	0.006	
13914	0.007	
13915	0.007	
13916	0.001	
13917	Nil	
13918	Nil	
13919	0.001	
13920	Nil	
13921	Nil	
13922	Nil	
13923	0.001	0.001
13924	0.003	
13925	0.008	
13926	0.001	
13927	0.008	
13928	Nil	
13929	Nil	
13930	Nil	

Certified by Donna Hardman

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244. FAX (705) 642-3300

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Assay Certificate

2W-0965-RA1

Company: M.PERKINS/J.CLARK

Project:

Attn:

Date: SEP-03-92

Copy 1. GEN.DEL. SHININGTREE POM 2X0
2. FAX TO 263-2032
3. INV J. CLARK

We hereby certify the following Assay of 57 DRILL AND GRAB samples submitted AUG-28-92 by .

Sample Number	Au oz/ton	Au check oz/ton
13931	Nil	
13932	Nil	
13933	Nil	
13934	0.001	
13935	Nil	
13936	0.001	
13937	Nil	
13938	0.001	
13939	Nil	
13940	0.340	0.326
13941	0.022	
13942	0.226	0.228
13943	0.004	
13944	0.002	
13945	0.001	
13946	Nil	
13947	0.001	
13948	0.001	
13949	0.001	
13950	0.002	
13951	0.007	
13952	0.008	0.008
13953	0.001	
13954	0.001	
13955	0.002	
13956	0.006	
13957	0.012	

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244, FAX (705) 642-3300

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Assay Certificate

2W-0971-RA1

Company: M.PERKINS/J.CLARK
Project: OPJ92
Attn:

Date: SEP-03-92

We hereby certify the following Assay of 21 SPLIT CORE samples submitted SEP-01-92 by .

Sample Number	Au oz/ton	Au check oz/ton
13958	0.001	
13959	0.001	
13960	0.002	
13961	0.002	
13962	0.001	
13963	0.003	0.003
13964	0.003	
13965	0.007	
13966	0.002	
13967	0.001	
13968	0.003	
13969	0.004	
13970	0.001	
13971	Nil	Nil
13972	0.001	
13973	Nil	
13974	Nil	
13975	Nil	
13976	Nil	
13977	Nil	
13978	Nil	

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

Ontario

41P11NE8418 2.15070 NATAL

900

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

Mining and Land Management Branch
Geoscience Approvals Section
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

July 13, 1993

Our File: 2.15070
Transaction #: W9380.00085

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

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

Dear Sir/Madam:

Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS L.1134039 ET AL IN NATAL TOWNSHIP

The assessment work credits for the Geophysical, Geological and Geochemical Surveys filed under Sections 14, 12 and 13 of the Mining Act Regulations have been approved as originally filed.

The approval date is June 30, 1993.

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

Yours sincerely,

Ron C. Gashinski

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

LJ/jl
Enclosures:

cc: Resident Geologist
Cobalt, Ontario

Assessment Files Library
Toronto, Ontario

Ministry of Northern Development and Mines
Ontario

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number: W9380.000 ~~[illegible]~~85

2.15070

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.

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): JENNIFER CLARK	Client No.: 118596
Address: 218 WRIGHT AVENUE, TORONTO, ONTARIO M6R 1L3	Telephone No.: (416) 531-0974
Mining Division: ~~SUDBURY~~ Larder Lake; Township/Area: NATAL TWP	M or G Plan No.: M885
Dates Work Performed: From: 28 JULY 1991	To: 28 AUGUST 1991

Work Performed (Check One Work Group Only)

	Work Group	Type
✓	Geotechnical Survey	MAGNETOMETER, VLF, MAPPING, SOIL SURVEY
	Physical Work, Including Drilling	
	Rehabilitation	
	Other Authorized Work	
	Assays	
	Assignment from Reserve	

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JUN 16 1993
MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs $ 14,054

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
MICHAEL PERKINS	514 CRAWFORD ST. TORONTO, ONTARIO
EDWARD CLARK	218 WRIGHT AVE, TORONTO, ONT, M6R 1L3.

(attach a schedule if necessary)

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

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.	Date: March 30/93	Recorded Holder or Agent (Signature): Jennifer A. Clark

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: MICHAEL JAMES PERKINS, 514 Crawford Street, Toronto, Ont. M6G 3J8, (416) 534-8651 or 534-6940

Telepone No.	Date: March 30/93	Certified By (Signature):

For Office Use Only

Total Value Cr. Recorded: Applied $6400. Reserve #7654	Date Recorded: April 5/93	Mining Recorder:	Received Stamp: RECEIVED LARDER LAKE MINING DIVISION APR 5 1993 TIME 8:45 Sam
	Deemed Approval Date: July 5/93	Date Approved	
	Date Notice for Amendments Sent		

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
15020	1134039	1	1058	800		258
	1134040	1	5728	800	1600	3328
	1134041	1	1058	800		258
	1134042	1	6210	800	1600	3810
	1134043	1		800		
	1134044	1		800		
	1133932	1		800		
	1133933	1		800		
	8		14054	6400	3200	7654
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

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JUN 16 1993
MINING LANDS BRANCH

Please remove reserve from reserve P.

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

0241 (03/91)

Ministry of Northern Development and Mines
Ontario

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 No./N° de transaction
DOCUMENT No.
W 9330 00085
2.15070

GEOTECH.

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 quesiton sur la collece 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	9.00	
	Field Supervision Supervision sur le terrain		9100
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type		
Supplies Used Fournitures utilisées	Type Flagging tape, topo'il, batteries, hardware	113.63	
	Copy mags, office materials	54.93	
Assays	Rock	519.08	
	Humus	1919.30	2612
Equipment Rental Location de matériel	Type		
		Total Direct Costs Total des coûts directs	11712

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 MILEAGE	611	
	UPS	60	
			671
Food and Lodging Nourriture et hébergement		1957	1957
Mobilization and Demobilization Mobilisation et démobilisation	WAGES	600	600
		Sub Total of Indirect Costs Total partiel des coûts indirects	3228
		Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)	2342
		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	14,054

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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 Recorded Holder (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
Jennifer A Clark	March 30/93

0212 (04/91)

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

2.15070 MAG

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Part of
Township closed to staking effective May 8/78, Section 38(f) of the Mining Act.

(R) Surface and Mining Rights on all Crown Land in this township Withdrawn from prospecting, staking out, sale or lease Section 36 R.S.O. 1980, The Mining Act. Order NRM 14 / 82 effective October 21, 1982 at 1:42 pm.

*** Part of order NRM 14/82 RE-OPENED by order O-NL01-90 NER effective April 3, 1990 at 7:00 AM E.S.T.

(R1) Surface and Mining Rights Withdrawn from staking section 36 of the Mining Act R.S.O. 1980. Order W-L2-90 NER effective on April 3, 1990 at 7:01 E.S.T.

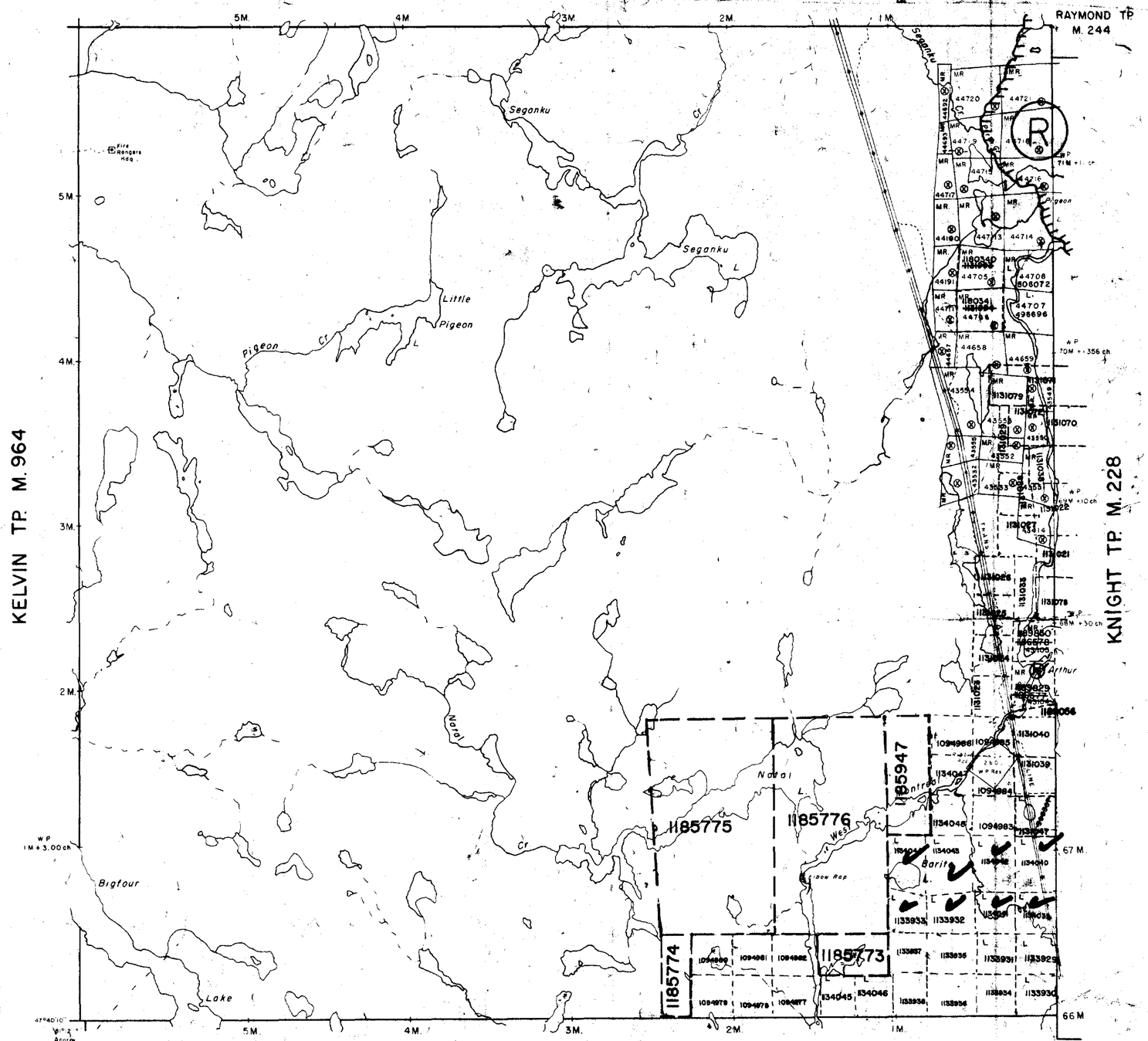
>>>> Part of order W-L2-90 NER REOPENED by order O-ONT-06/92 NER/CR effective March 16 1992 at 4:15 pm E.S.T.

>>>> Part of order W-L2-90 NER REOPENED by order O-ONT-07/92 NER/CR dated March 23 1992 at 8:45 am E.S.T. This Order comes into effect at 7:00 AM E.S.T on JUNE 1, 1992.

DATE OF ISSUE
APR 22 1993
LARDER LAKE
MINING RECORDER'S OFFICE

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

geology reference-COBALT
RESIDENT GEO.



"THIS MAP SHOWS THE APPROXIMATE LOCATION OF THE BOUNDARIES OF THE AREA WHICH IS THE SUBJECT OF CURRENT LITIGATION. THE EXACT LOCATION WILL BE SHOWN FOLLOWING CONFIRMATION BY THE PARTIES TO THE ACTION."

COPY OF THIS M-PLAN ARCHIVED ON MARCH 25/92 (T)

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
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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	▼
CROWN LAND SALE	C.S.
ORDER-IN-COUNCIL	OC
RESERVATION	⊗
CANCELLED	⊗
SAND & GRAVEL	⊗

2.150.70

SCALE: 1 INCH 40 CHAINS
FEET 0 500 1000 2000 4000 6000 8000
METRES 100 200 300 400 500 600 1 KM 2 KM

ACRES	HECTARES
40	16

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TOWNSHIP
NATAL

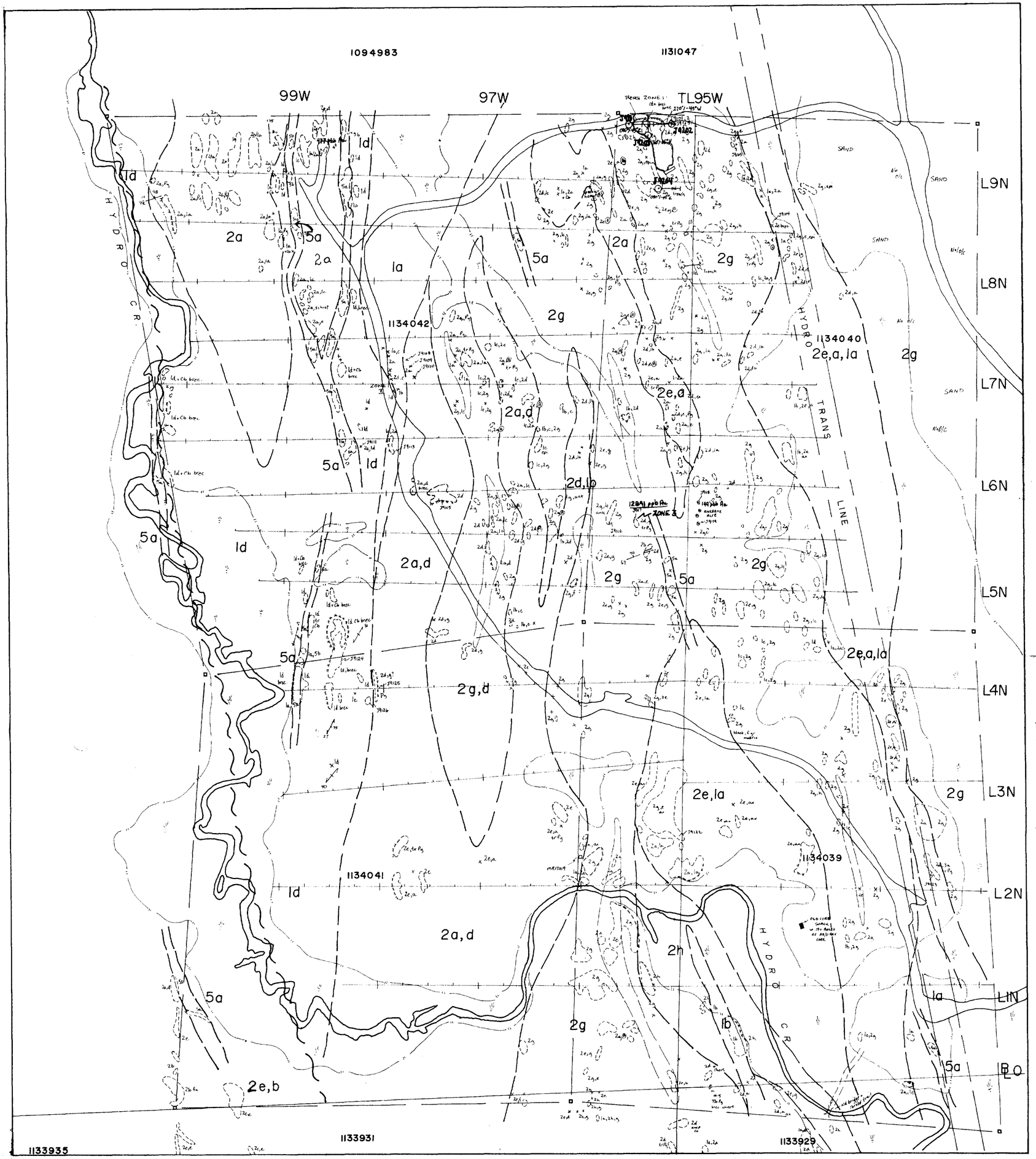
DISTRICT
SUDBURY

MINING DIVISION
LARDER LAKE

Ontario Ministry of Natural Resources
Surveys and Mapping Branch
Date Sept 1973
Whitney Block Queen's Park, Toronto
Plan No. M.885

41P11NE8418 2.15070 NATAL

200



LEGEND

5. Mafic and Ultramafic Intrusions
5a. Diabase
5b. Gabbro

4. Metasedimentary Rocks
4a. Conglomerate:
Fine to medium grained, grey-green and brownish purple matrix containing subrounded to subangular pebble to boulder sized clasts of variable composition.

3. Felsic Metavolcanics
3a Felsic Flows:
As per 2a with increased quartz content and bleached appearance.

2. Intermediate Metavolcanics
2a. Flows:
Aphanitic and homogranular, massive, gray green.
2b. Porphyritic Flows:
As per 2a. with easily visible feldspar and/or amphibole phenocrysts.
2c. Feldspar-Quartz Porphyritic Flow:
As per 2b. with 15% to 20% feldspar phenocrysts and 10% to 15% transparent quartz phenocrysts.
2d. Tuff:
Fine grained, grey to grey-green, exibits bedding (occassionally graded), and interbedded chert bands.
2e. Crystal Tuff:
Brown, purple-brown and grey in colour, medium grained with amphibole and/or feldspar crystals.
2f. Lapilli Tuff with Aphanitic Clasts:
Grey green aphanitic to medium grained matrix with 50% to 75% sub angular to subrounded aphanitic clasts.
2g. Lapilli Tuff with Phaneritic Clasts:
As per 2f. but clasts are phaneritic.
2h. Agglomerate:
As per 2f. and 2g. but clasts are bomb to block sized.

1. Mafic Metavolcanics
1a. Flows:
Aphanitic, dark green, purple green, massive to weakly foliated.
1b. Tuff:
Fine to medium grained, dark green to black, massive to weakly foliated with prominent amphibole crystals.
1c. Lapilli Tuff:
As per 1b. but containing lapilli sized fragments of mafic to intermediate composition.

1d-h Altered Ultramafic Metavolcanics
1d Chlorite Carbonate Schist:
Light green to white, chlorite fragments up to 10cm in length enclosed in a fine grained white calcium carbonate matrix.
1e Oxidized Chlorite-Carbonate (Ankerite?) Schist
As per 1d with 5% to 20% carbonate (ankerite?)
1f Chlorite Carbonate Quartz Schist:
As per 1e with minor foliated quartz veining present.

A: Distinctive purple brown and green mottled fine grained to aphanitic mafic and intermediate to mafic rocks often containing amphibole crystals.

SYMBOLS

- Direction of bedding with dip direction
- Direction of jointing and veining with dip direction
- Direction of foliation with dip direction
- Dir. of schistosity with dip direction (vertial)
- Direction of glacial flow based on striations
- Rock outcrop
- Geologic contact
- Geologic contact (sub-units)
- Fault/Shear
- Boulder
- Trench (old)
- Claim post and claim lines
- Trench (new)

qv. Quartz vein
ep. Epidote
ga. Galena
py. Pyrite
cpy. Chalcopyrite
cb. Carbonate
ax. amph amp cx. Amphibolecystals
asb. Asbestos
ank. Ankerite
brec. Breccia

GEOPHYSICS GRID OUTLINE

N2.15070

SHININGTREE PROJECT

GEOLOGY

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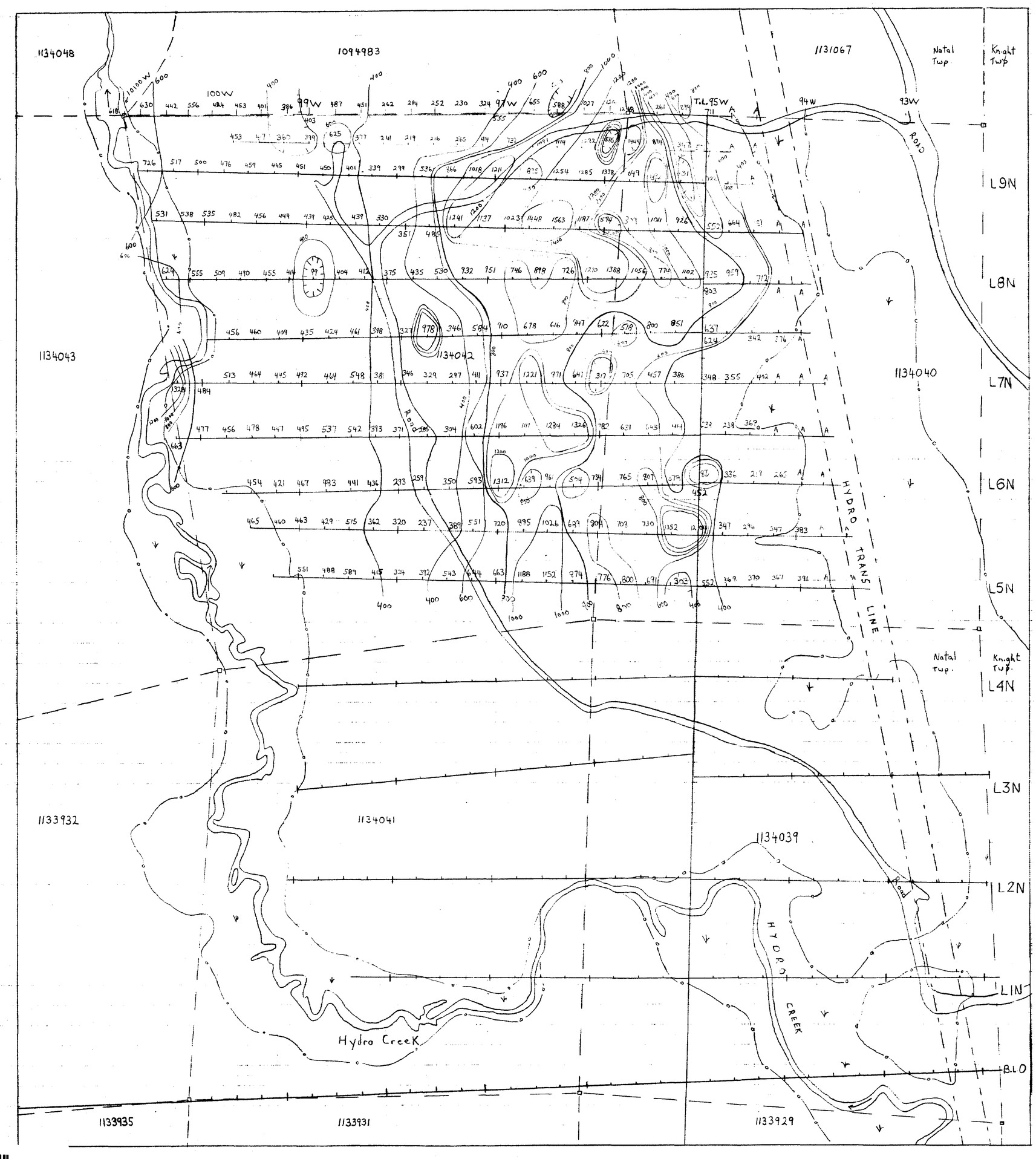
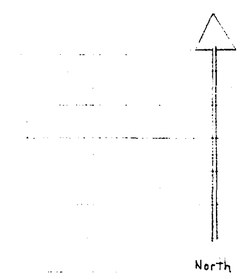
MINING LANDS BRANCH

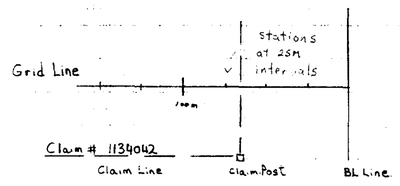
SCALE: 1:2000 (0 50 100m)

N.T.S 41-P-11 TOWNSHIP: NATAL

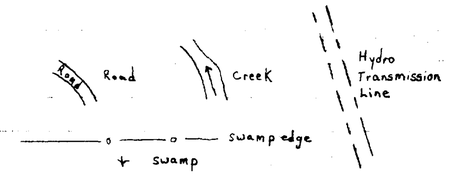
DATE: JUL - AUG 1991 April 23, 93



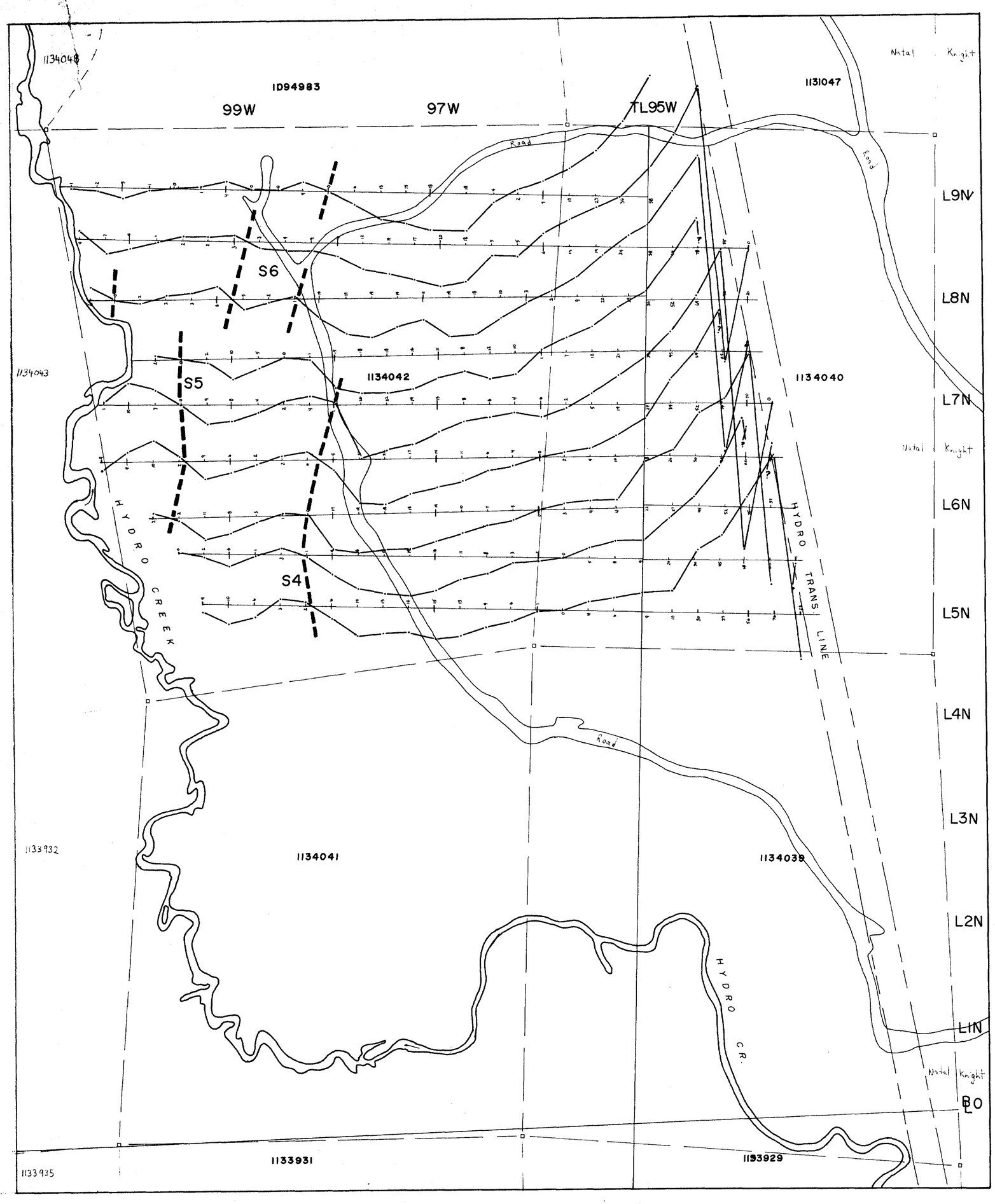


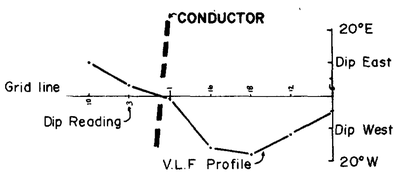


contour interval 200 gammas



SHININGTREE PROJECT	
Magnetometer Survey Map instrument: Barringer Research GM-122 corrected values equal data plotted plus 57500 (1 gamma sensitivity)	
SCALE: 1:2000	0 50 100m
N.T.S. 41-P-11	TOWNSHIP: NATAL
DATE: JUL - AUG 1991	23 March 93





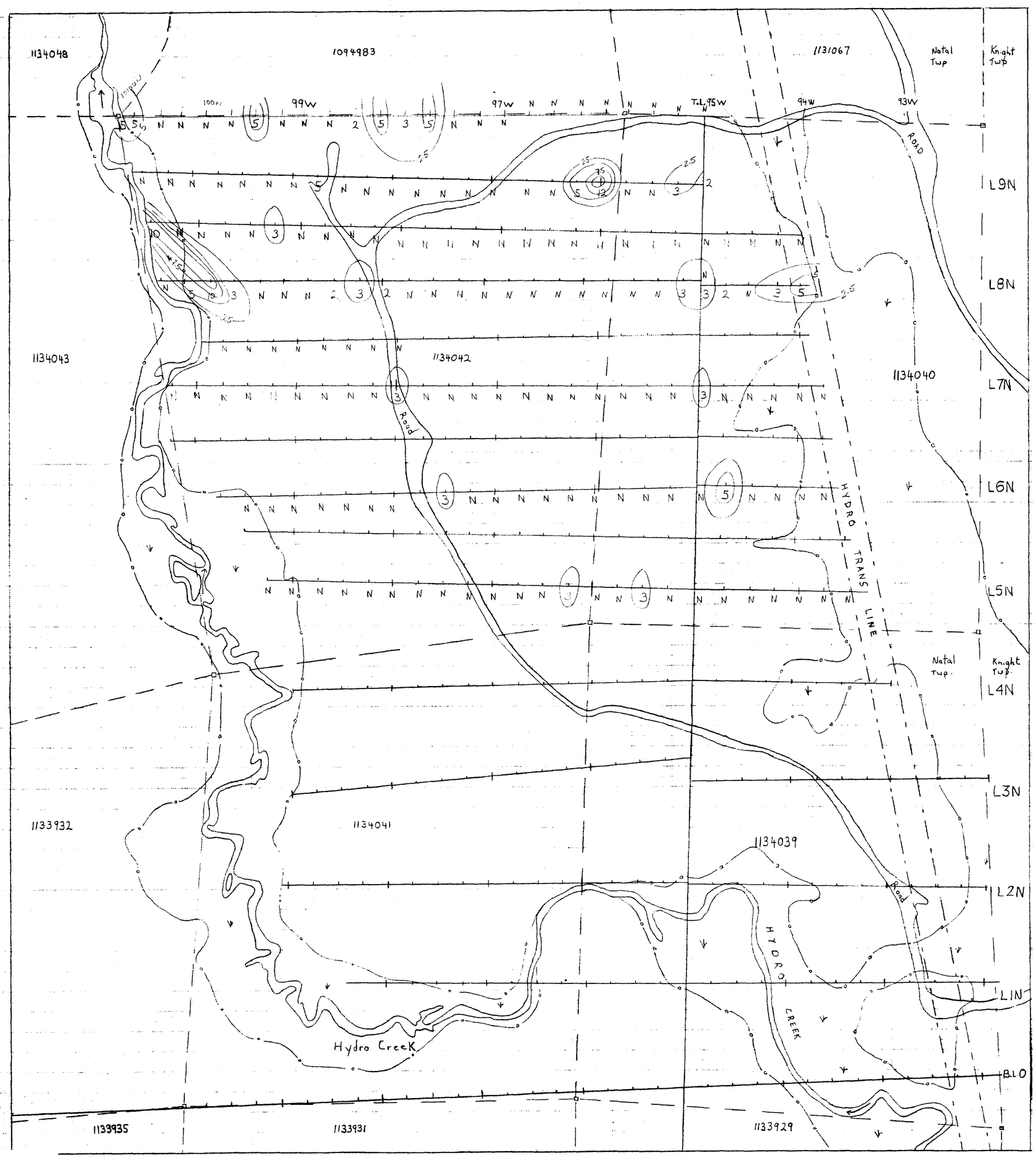
STATION: East-West lines – Annapolis, Maryland
North-South lines – Cutler, Maine

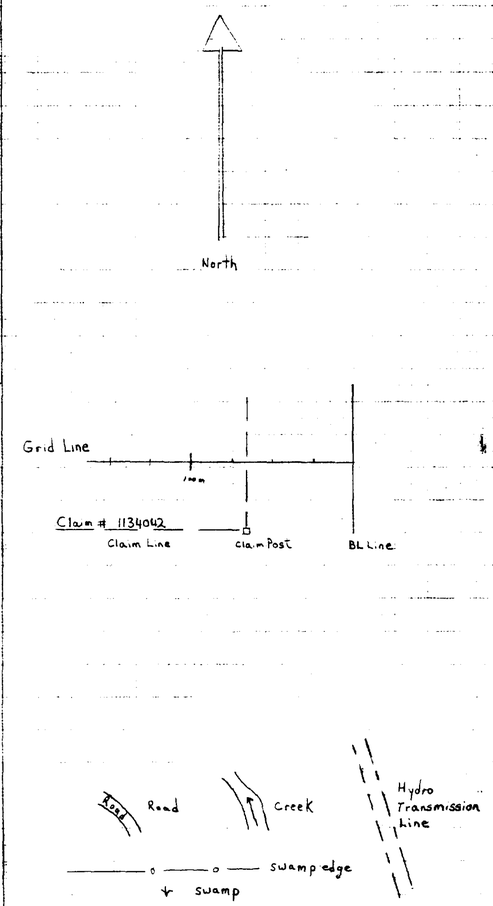
INSTRUMENT: CRONE RADEM EM RECEIVER

Claim post and lines

Road

SHININGTREE PROJECT	
V.L.F. – E.M.	
SCALE: 1:2000	0 50 100m.
N.T.S. 41·P·11	TOWNSHIP: NATAL
DATE: JUL – AUG 1991	April 23, 1993





SHININGTREE PROJECT

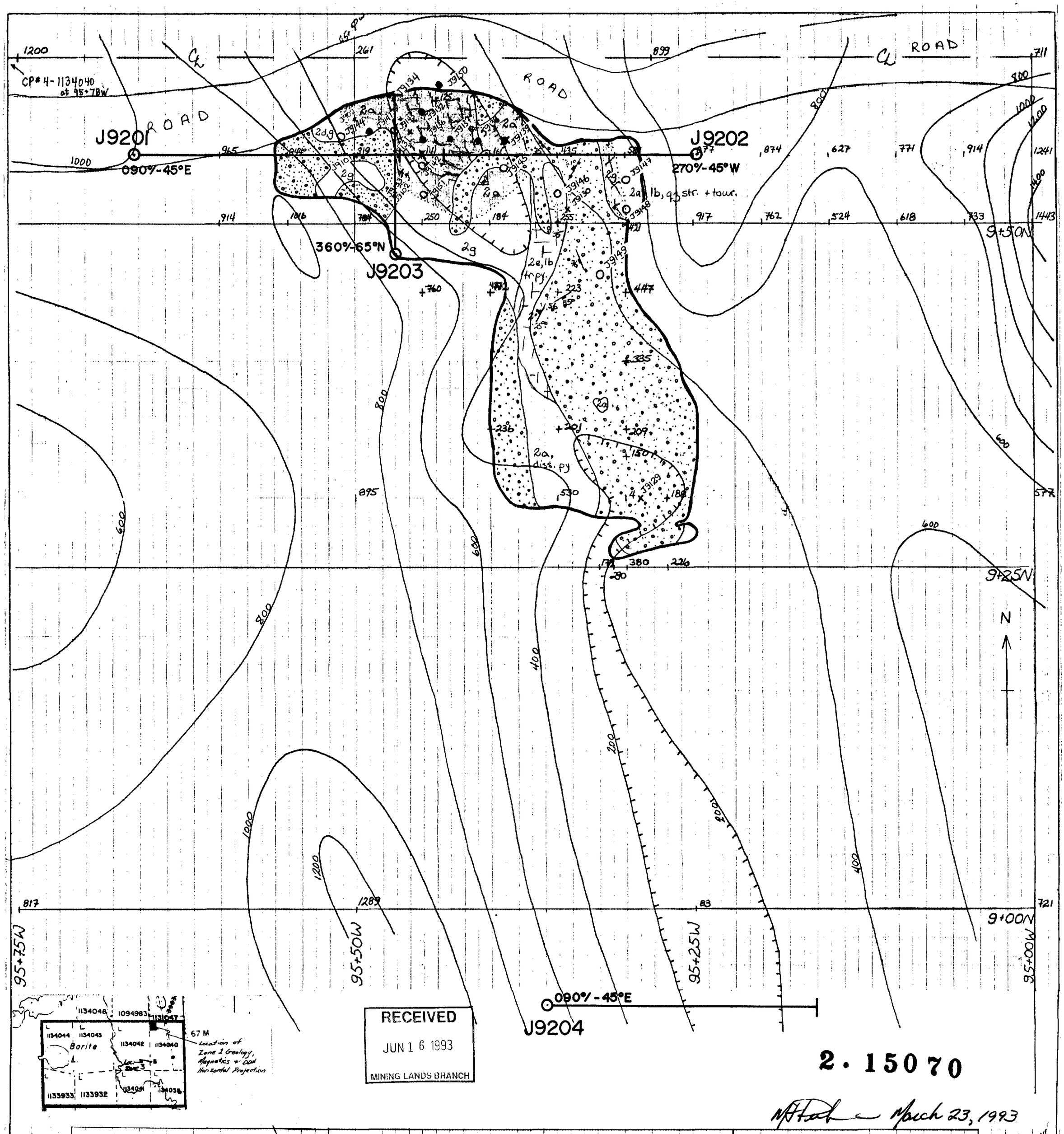
GEOCHEMISTRY (Humus) SURVEY MAP

Contour Interval: 2.5 ppb

SCALE: 1:2000 (0 – 50 – 100m)

N.T.S. 41-P-11 TOWNSHIP: NATAL

DATE: JUL - AUG 1991



2.15070

March 23, 1993

ASSAY RESULTS			
Sample No.	Gold (ppb)	Sample No.	Gold (ppb)
J9101	6	J9137	137
J9102	82	J9138	31
J9128	Nil	J9139	93
J9129	Nil	J9140	1265
J9130	34	J9141	45
J9131	2983	J9150	339
J9132	345		
J9133	237		
J9134	747		
J9135	65		
J9136	1509		

LEGEND

- lb Mafic Ash Tuff
- 2a Intermediate Flow
- d " Ash Tuff
- e " Crystal Tuff
- g " Lapilli Tuff
- x Grab Sample
- J91xx Sample No.
- o Plugger Hole
- ● With Assay
- Brecciated (Zone 1)
- Fractured
- Mag. Contour (corrected)
- Outline of stripped Area
- Overburden
- Oxidized Zone
- ℄ Claim Line

SHININGTREE PROJECT

ZONE 1
GEOLOGY, MAGNETICS
and
DDH HORIZONTAL PROJECTIONS

Scale 1:200 (0 2 4 m)

N.T.S. 41·P·11 Township: Natal

Date: July-Aug '91 Work By: E.J. Clark, M.J. Perkins