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**GEOLOGICAL AND ECONOMICAL COMPILATION REPORT**

**OF THE**

**DIPAULO PROPERTY**

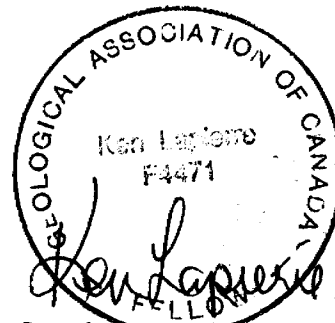
**TURNBULL TOWNSHIP, TIMMINS, ONTARIO**

**PORCUPINE MINING DIVISION**

**OPAP GRANT PROGRAM 1991**

**OP 91-086, OP 91-088, 91-089**

October 1, 1991



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42A05NE8516 63.6220 TURNBULL

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TABLE of CONTENTS

	<u>PAGE</u>
Introduction.....	1
Property: Location and Description.....	2
Accessibilty, Climate, Local Resources.....	5
Regional Geology.....	6
Local Geology.....	7
General History of Claim Group.....	9
Property Highlights.....	12
Conclusions Leading to OPAP Study.....	18
OPAP PROGRAM:	
Purpose of OPAP Study.....	19
Property Prospecting & Points of Interest.....	19
Stripping/Washing/Mapping/Sampling Program....	20
Assay Results.....	22
Work Schedules and Dates, etc.....	25
Conclusions and Observations.....	26
Recommendations.....	28
Bibliography.....	29
Declaration.....	30
FIGURES/TABLES/APPENDIX	
Figure 1-Property Location.....	3
Figure 2-Claim Map.....	4
Figure 3-Surface Plan View.....	15
Figure 4-Surface Conductors.....	17
Table 1-Assay Results.....	23
Appendix I---Pyrotex drill logs	
Appendix II--Assay Certificates	
Appendix III-Work Schedules/dates etc.	

## INTRODUCTION

At the request of the Turnbull Township Syndicate this report was prepared for the purpose of:

- 1) Satisfying all OPAP regulations and requirements.
- 2) Highlighting the historical and geological setting of the claim group.
- 3) Determining if any anomalous areas can be defined within the claim group.
- 4) Determining if the results and observations justify continued exploration of the property.

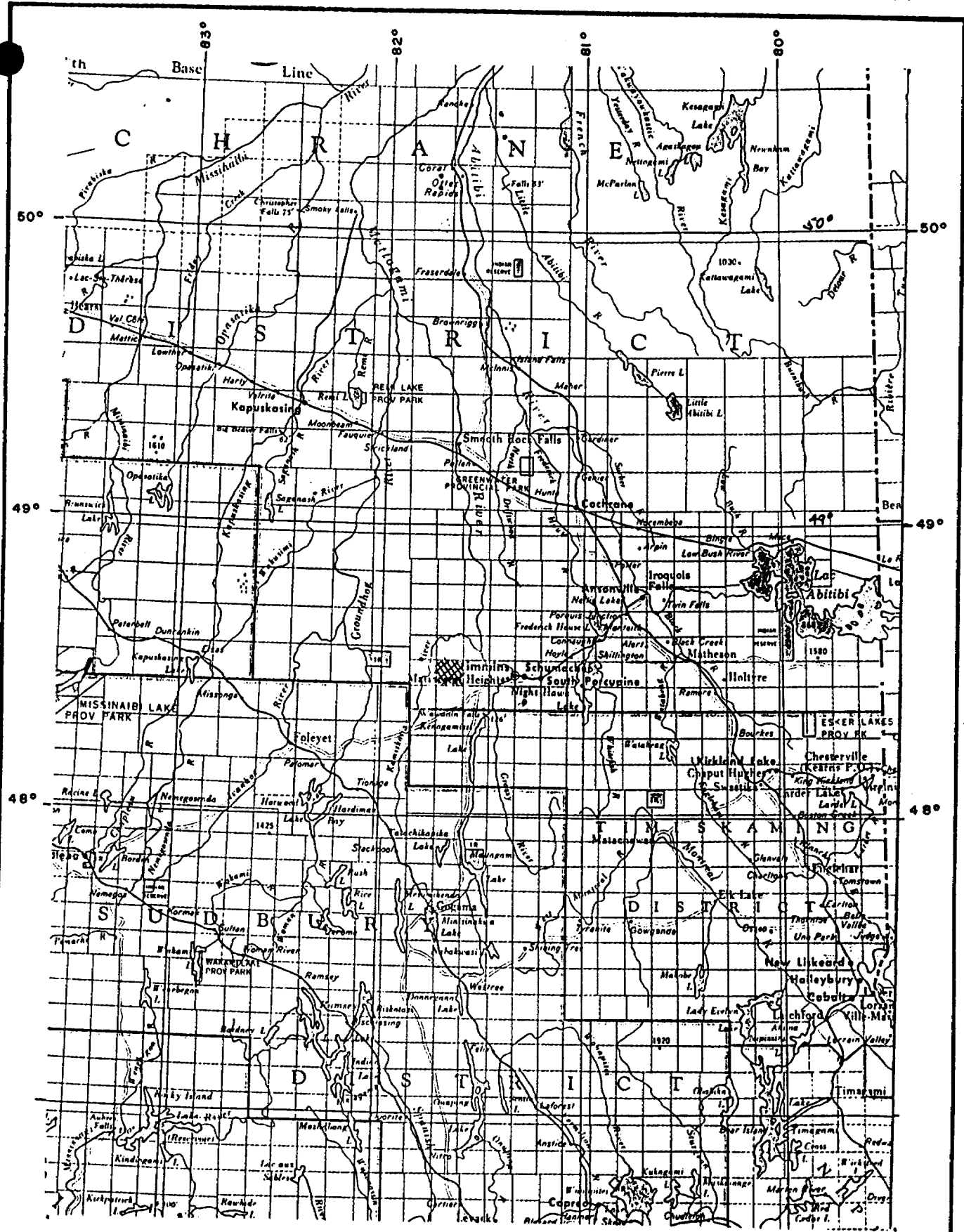
Sources of information contained in this report were obtained from Ministry of Northern Development and Mines assessment files, consultants reports and supervision, mapping and sampling of the stripped/washed areas of the 1991 OPAP study.

**PROPERTY: LOCATION AND DESCRIPTION**

The property is comprised of 8 unpatented mining claims located in the east-central portion of Turnbull Township, Porcupine Mining Division, District of Cochrane, Ontario, Canada (figure 1).

The claim numbers of the claim block are outlined below, (figure 2):

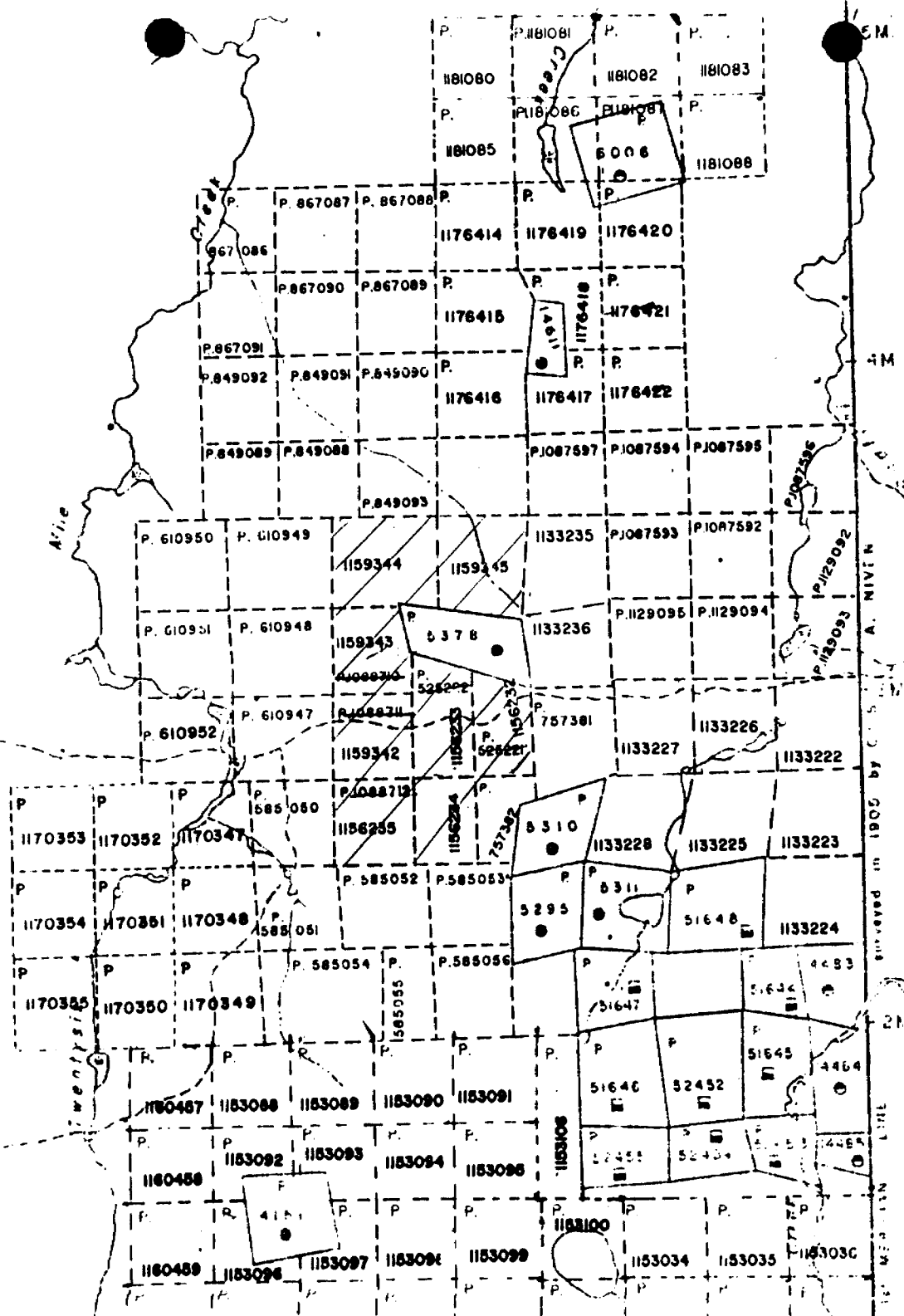
<u>Claim Number</u>	<u>Staking Date</u>	<u>Recording Date</u>
1156232	Aug. 31/90	Sept. 4/90
1156233	"	"
1156234	"	"
1156235	"	"
1159342	Sept. 1/90	"
1159343	"	"
1159344	"	"
1159345	"	"



PROPERTY LOCATION

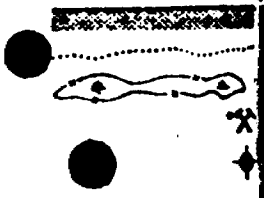
Scale 1"=32 miles

FIGURE 1



Godfrey Tr.

RESERVATIONS  
 ORIGINAL SHORELINE  
 MARSH OR MUSKEG  
 MINES  
 TRAVERSE MONUMENT



## 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	○
RESERVATION	○
CANCELLED	○
SAND & GRAVEL	○

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

SCALE: 1 INCH = 40 CHAINS

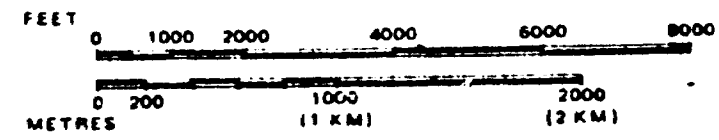


FIGURE 2: CLAIM LOCATION

TOWNSHIP

# TURNBULL

ADMINISTRATIVE DISTRICT

**ACCESSIBILITY, CLIMATE, LOCAL RESOURCES**

Access to the property is by means of Highway 101 west from Timmins, then north on Highway 576 just before the Kamiskotia Ski Hill, then west on the gravel road to the Genex Mine turnoff in Godfrey Township. At this point the old Lally bush road continues west a distance of approximately 3 miles. Continued access to the property is then by foot a distance of approximately 1 mile west.

Climatic conditions are typical for this part of Northern Ontario. Temperatures range from -45 degrees celsius to +35 degrees celsius.

Water resources are available within the property. Mining supplies and manpower are located in Timmins and South Porcupine.

**REGIONAL GEOLOGY**

The geology of the Timmins area consists predominantly of Precambrian (Archean and Proterozoic) metavolcanics and metasediments. The Precambrian rocks were later covered partially by unconsolidated Cenozoic deposits. The Precambrian rocks represent a 40,000 foot thick sequence of lower to middle greenschist facies volcanics and sediments that are divided into three groups. From oldest to youngest the three groups are known as the Deloro, Tisdale and Porcupine Groups. The Deloro Group is a 16,000 foot thick sequence composed of basal ultramafics, andesites and basalt flows followed by dacite flows, calc-alkaline rhyolite and dacite pyroclastic rocks and oxide to sulphide facies iron formations. The Tisdale Group is a 14,000 foot thick sequence composed of basal ultramafic volcanics and komatiites followed by tholeiitic basalts and calc-alkaline pyroclastic rocks. The Porcupine Group is a 10,000 foot thick sequence composed of interlayered wacke, siltstone and conglomerate.

The rocks of the Timmins area were then intruded by rocks of granitic to gabbroic compositions.

Stratigraphic displacement of rock types range from tens of feet to thousands of feet. The most prominent fault in



the Timmins area is known as the Destor-Porcupine Fault. This major structural break trends northeast, dips steeply north and has a width in excess of 400 feet. Other younger fault systems traversing the Timmins area are known as the Montreal River Fault System and the Burrows Benedict Fault System. North of the Destor-Porcupine Fault, 2 major series of deformational-metamorphic events altered the rocks in the region. First, an initial north trending series of folds were subsequently refolded about an east-northeast trending series of folds. South of the Destor-Porcupine Fault, an east-west trending series of folds produced a major structural domain known as the Shaw Dome.

#### LOCAL GEOLOGY

Mr. R.J. Graham, P.Eng. in a report for Galore Gold Resources Inc., dated December 10, 1983, describes the geology of the claim group as follows, "From west to east, the claims are underlain by massive archean felsic flows, interfingered with pyroclastics. Within 1500 feet of the east boundary, intermediate andesitic metavolcanics strike north in contact with the felsics, and are locally irregularly intruded by gabbro and quartz-diorite near the contact between the felsic and intermediate volcanics. Stockworks, individual quartz and quartz-carbonate veins

8.

occur in this vicinity, together with concentrations of pyrite, pyrrhotite, chalcopyrite and sphalerite in decreasing order."

GENERAL HISTORY OF CLAIM GROUP

- Pre 1949 - Shaft claim(P.28213) recorded by Ralph Dipaolo of Timmins.
- 30 foot 2 compartment vertical shaft sunk on a highly oxidized greenstone with brassy pyrite in massive and disseminated form.
  - small 5 foot deep pit was sunk on an 8 foot wide quartz vein located approximately 100 feet south of the main Dipaolo shaft. Vein reported to contain "pockets of chalcopyrite and patches of malachite and azurite staining."(N. Hogg, 1950).
- 1949-52? - Mr. Martel restaked old shaft claim (claim number changed to P.35785). Geological mapping completed (assessment file T-246).
- pre-1959 - Prospectors John P. Larche and Alfred Rousseau restaked Dipaolo shaft claim (claim number changed to P.94462 and P.94464).
- 1960 - Chipman Lake Mines completed 2 diamond drill holes on old claim number 48076 totalling 92.5 feet (assessment file T-1451)(claim location not known).
- 1963 - Mespi Mines carried out several geophysical surveys (assessment file T-788).

- 1967/68 - Pyrotex Mining carried out geophysics and completed several diamond drill holes in the vicinity of the old Dipaolo shaft (assessment file T-1417).
- 1968/70 - Noranda Exploration controlled western portion of property. Noranda carried out geophysics and completed 2 diamond drill holes totalling 822 feet on old claim P.95386 (located slightly west of present claim P.1156235)(assessment file T-1451).
- 1980 - Mr. John P. Larche carried out rock trenching in shaft area (assessment file T-1996).
- 1982 - Cortex Resources Inc. carried out rock blasting in shaft area.
- 1983 - 546577 Ontario Ltd. completed pulse EM survey. Property optioned to Galore Resources Inc.
- 1984 - Galore Resources Inc. completed geophysics and 6 NQ diamond drill holes totalling 2,134 feet. Drill holes located near Dipaolo Shaft (assessment file T-2874)(core still located at property-1991).
- 1986? - 546577 Ontario Inc. changed name to Golden Trio Minerals Ltd.?
- 1986/87 - Golden Trio Minerals Ltd. completed Mag., MaxMin and I.P. geophysical surveys over entire claim block (assessment file T-3116).

- 1990 - Portion of Golden Trio's land package allowed to lapse, including Dipaolo shaft claims.
- 1990 - Turnbull Township Syndicate, by restaking, acquired 100% interest in 8 unpatented mining claims, including the main Dipaolo shaft claim.
- 1991 - OPAP grant money awarded to Turnbull Township Syndicate for surface exploration program. Refer to OPAP program section in this report for details.

**PROPERTY HIGHLIGHTS**

- 1) The property is considered to be in a very favourable location for the deposition of sulphide base metal deposits (felsic fragmentals) and gold deposits (felsic intrusives and quartz stockworks) as the geological environment is very similar to the geological environment of deposits such as the Hollinger and McIntyre gold deposits and the Kam-Kotia, Canadian-Jamieson and Genex Cu-Zn-Ag basemetal deposits.
- 2) Early prospector(s) discovered several zones of massive to disseminated pyrite on the property. A 30 foot shaft and several pits were developed. In 1950, Nelson Hogg, Resident Geologist of Timmins in a report to Dr. M.E. Hurst, Provincial Geologist of the Ontario Department of Mines, described one of these 'pits' as follows: "One hundred feet south of the timbered shaft, a pit 5 deep deep has been sunk on a quartz vein which is 8 feet wide in the pit. This vein strikes 100 degrees and dips vertically, and has been traced for 50 feet to the east as a zone of quartz stringers in sheared, chloritic andesite. To the west, two pits in the sand failed to locate the vein. In the main pit, the quartz forms a lenticular expansion but includes several bands of

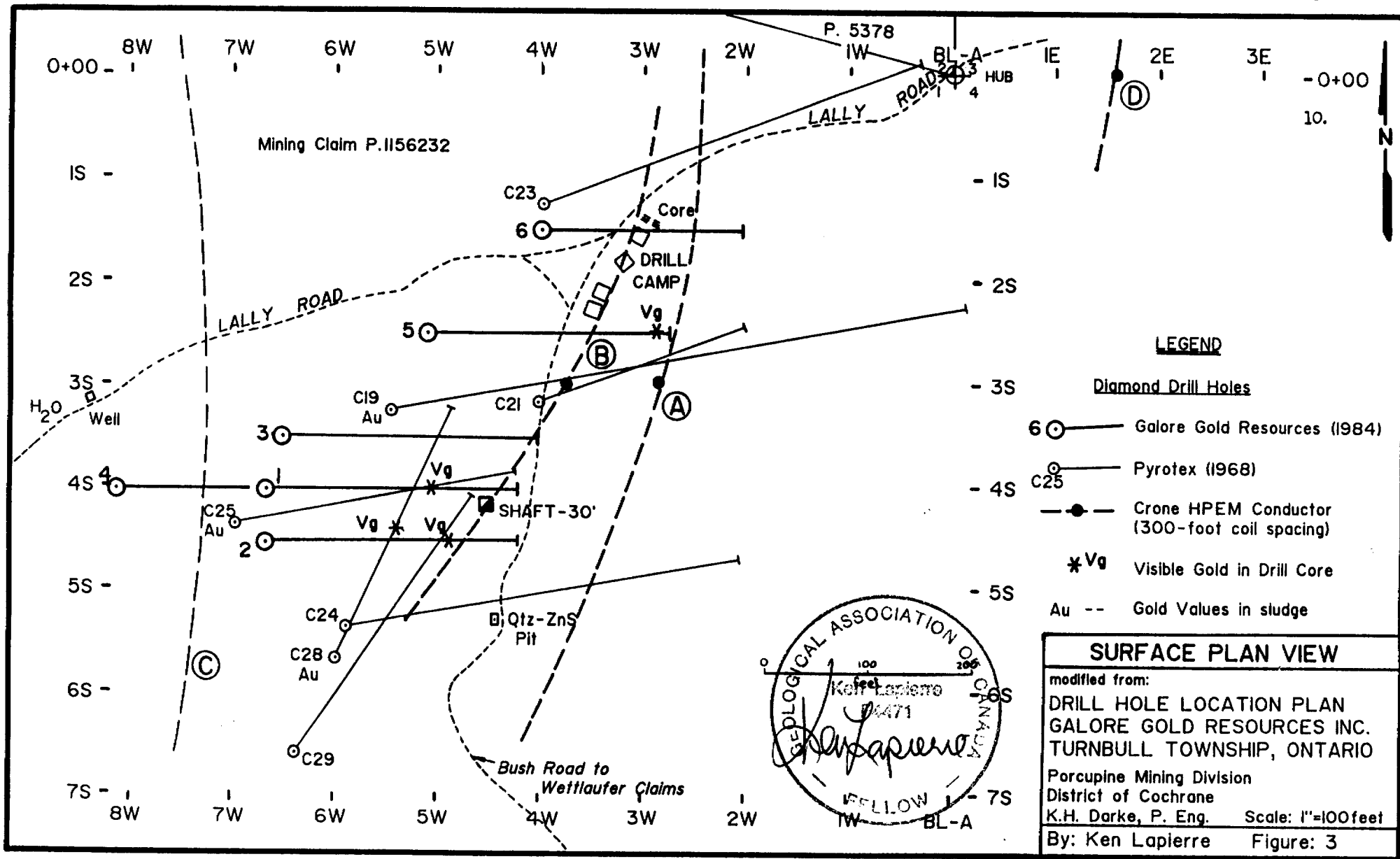
chloritic wall rock. The quartz is largely barren, but **pockets of chalcopyrite mineralization** were observed along the north margin of one of the greenstone bands. The chalcopyrite occurs in fine, branching fractures in the quartz. On the dump, the presence of chalcopyrite in the quartz is indicated by **patches of malachite and azurite staining**. A character sample of well-mineralized quartz taken by the writer assayed only a trace in gold." (Hogg, 1950). There is no recorded evidence of any sample ever evaluated for it's base metal content...even though "pockets of chalcopyrite mineralization" and "patches of malachite and azurite staining" were reported.

- 3) The purpose of the Pyrotex drilling in 1968 was to evaluate the precious metal potential of the claim group. The drilling detected numerous zones of quartz veining, silicification, pyrite, chalcopyrite and sphalerite in drill core. However, simply by chance, Hole # C24 and Hole # C28 were collared approximately 150 feet west of the 5 foot deep pit which contained the chalcopyrite mineralization associated within the east-west trending 8 foot wide quartz vein (a third drill hole, C29 was collared approximately 100 feet behind C28 but no logs were present in the assessment report). Although hole #

C28 did intersect a 3 inch section of core that contained visible gold at 182.5', both holes intersected what the author believes is the down dip and on strike continuation of the mineralized quartz rich shear zone on surface which had yet to be examined for it's base metal potential. Hole # C24 intersected an andesite unit which contained a quartz/carbonate rich zone from 155 feet to 197 feet. This zone was reported to contain areas of chalcopyrite, sphalerite, pyrite and pyrrhotite mineralization. The majority of this zone was not assayed. The best assays of the material sampled returned values of 1.32% copper, 0.01 opt. gold and 0.37 opt. silver over 2.5 feet. No assays for zinc were recorded. Hole # C28 intersected intermediate to acidic fragmental material which contained a quartz/carbonate vein from 58 feet to 62 feet. This vein was reported to contain light chalcopyrite and from 61.25 feet to 62 feet was estimated to contain approximately 2.5% copper. No assays of this vein was recorded (figure 3)(appendix 1).

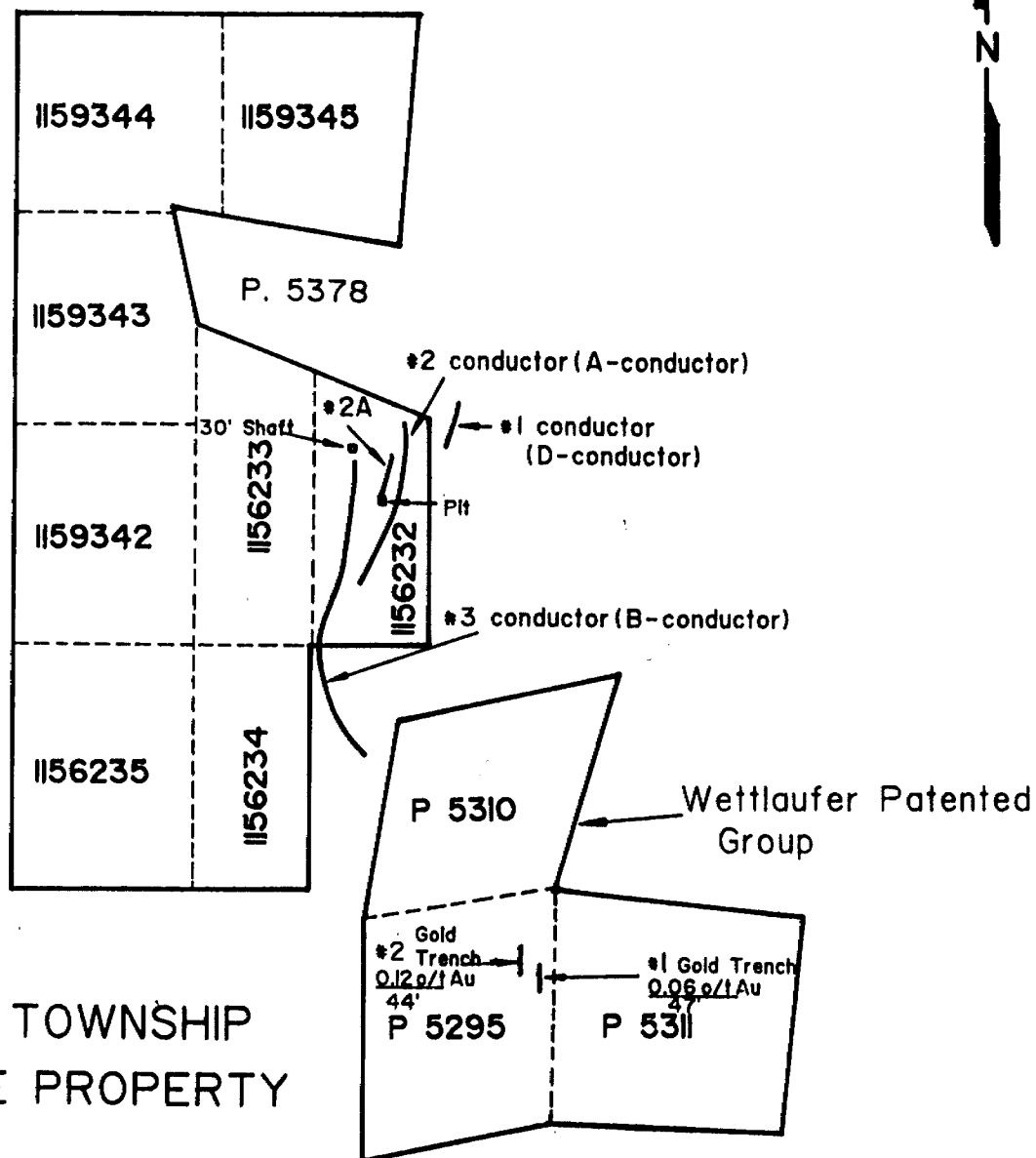
- 4) Mr. John P. Larche, a number of years after the Pyrotex drilling, stated that he found 2 pieces of drill core from the Pyrotex drilling which he located in the vandalized pile of drill core near the shaft that carried "coarse spectacular gold" and that some of the gold was



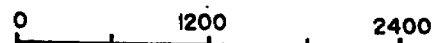


"smeared around the core" (Graham, 1983).

- 5) Drill sludge from the collars of C-29, C-25 and C-28 returned low but anomalous gold values (Graham, 1983).
- 6) A geophysical survey conducted by 546577 Ontario Inc, in 1983 outlined 3 surface bedrock PEM conductors on the property in the vicinity of the main shaft. Of importance is that all 3 conductors strike southwards towards the Wettlaufer patented claims which hosts 2 gold trenches. Trench 1 reportedly contained 0.06 opt gold over 47 feet, including 0.625 opt gold over 2.5 feet. Trench 2 reportedly contained 0.12 opt gold over 44 feet, including 0.66 opt gold over 3.4 feet (Graham, 1983), (figure 4).
- 7) The purpose of Galore's diamond drilling program in 1984 was to evaluate the north-south trending PEM conductors for their precious metal potential. Of the 6 drill holes completed by Galore, 3 holes (G-1, G-2, G-5) were reported to have intersected visible gold (Darke, 1984). All 6 holes intersected several massive to semi-massive sulphide zones which yielded low but anomalous gold values. Additional sampling was strongly recommended by consultant Mr. Ken Darke, but never completed (figure 3).



TURNBULL TOWNSHIP  
SYNDICATE PROPERTY



LEGEND

#2

P.E.M. conductor

**SURFACE CONDUCTORS**

modified from:  
546577 ONTARIO LTD.  
PLAN SHOWING BEDROCK P.E.M.  
ANOMALIES, ALSO GOLD IN  
SULPHIDE  
TRENCHES ON WETTLAUFER  
CLAIMS  
R.J.G. December 1983 Scale: 1"=200'

By: Ken Lapierre Figure: 4  
Drawn by: P.G.

## CONCLUSIONS LEADING TO OPAP STUDY

### Precious Metal Potential

Although limited rock trenching was completed by John P. Larche in 1980 and 1982, the majority of all north-south trending geophysical bedrock conductors have not been exposed on surface. Furthermore, visible gold, reported from 2 different drill programs, a favourable geological environment and the 2 north trending gold bearing sulphide zones on the Wettlaufer claims all coincide with the north-south trending bedrock conductors located on the property by Golden Trio Minerals Ltd.

### Base Metal Potential

A 5 foot deep pit, sunk on an 8 foot wide mineralized quartz vein, was last developed and evaluated prior to 1949. Pyrotex in 1968, intersected in 2 holes, a zone with base metal potential (figure 3). The possibility exists that the base metal mineralization that was intersected in the drilling is the on strike and down dip continuation of the mineralization intersected in the pit. This would represent a strike length of approximately 150 feet (trending 110 degrees) and a dip length of approximately 100 feet (dipping vertical).

**OPAP PROGRAM****Purpose of OPAP Study**

The major purpose of the OPAP study was to remove the overburden from the north-south conductors associated with precious metal potential near the shaft area and to expose, if present, the strike continuation of the theorized base metal zone associated with the mineralized quartz rich material in the 5 foot deep pit located approximately 100 feet south of the main Dipaolo shaft.

**Property Prospecting & Points of Interest**

Prospecting of the property verified the geological parameters discussed by Graham, 1983. The majority of Galore's drill casings were located as well as John Larche's overgrown trenches. Although Pyrotex's drill core could not be found, Galore's drill core is located beside the bush road near their old drill camp on claim # 1156232. Only a small portion of the core (NQ) has been vandalized. Drill box markings are still legible although deterioration is evident. All six drill holes are present. The main Dipaolo shaft is water filled and 'sluffing' of the shaft muck into the shaft has occurred.

### Stripping/Washing/Mapping/Sampling Program

The back pocket in this report contains 1 completed map of the geology of the stripped areas, sample locations, assay results and the location of the work area in relation to the # 1 post of claim # 1156232 and the main Dipaolo shaft.

Excessive overburden depths were not encountered in any of the 6 trenches, however, 'hardpan' overtop the north-south trending sulphide zones created great difficulty in reaching these zones. A considerable amount of extra time and effort on the hardpan layers were required to reach bedrock. Subsequently, all but one of the sulphide zones were completed exposed in the trenches.

The geology of the stripped areas north of the shaft are associated with NNE trending volcanics of intermediate to mafic composition as well as NNE trending zones of pyrite rich mineralization. The mineralization of the sulphide zones along the wall rock contacts generally forms semi-massive to massive pyrite concentrations. These sulphide zones have been defined by Mr. N. Hogg as 'replacement sulphides', however, some areas within the zones show evidence of brecciation and secondary disseminated pyrite mineralization. Pillowed basalts represent the most eastern rock types within the trench area north of the shaft. Pillow selvages are generally chloritic in composition and are

locally enriched with approximately 1-2% pyrite. Evidence suggests that tops are to the east.

A fault zone is located in the trench just north of the Dipaolo shaft. This fault strikes at approximately 110 degrees, dips vertically, has a 75 foot right-lateral strike-slip displacement and appears at the apex of a major strike change in geology. This fault is chloritized, brecciated and soft gouge is present.

The geology south of the fault (south of the shaft) is apparently associated with east-west trending volcanics of mafic to intermediate composition. The main Dipaolo shaft was sunk on an arcuate trending sulphide rich zone. This zone abuts and is offset by the fault located in the trench immediately north of the shaft. At this point the pyrite mineralization is semi-massive to massive in nature. No other types of sulphides were observed.

The most southerly trench of the work area has exposed volcanics of mafic to intermediate composition. Of importance is the discovery of a significant mineralized shear zone within the volcanics. This mineralized shear zone strikes approximately 110 degrees, dips vertically and has a thickness of approximately 8 feet. The mineralized shear zone is composed of a matrix of chlorite rich volcanic material (75%) and quartz veinlets, stringers and lenses

(25%). The quartz widths range up to 2 feet and are generally concentrated along both wall rock contacts. The quartz material is almost always associated with concentrations of chalcopyrite, sphalerite and silver (refer to map and next section for assay results). Other isolated quartz veins, in the trench south of the mineralized shear zone, have the same attitude and dip as the shear zone, are up to 12 inches thick and also contain chalcopyrite, sphalerite and silver mineralization.

Of importance is that the attitude of the mineralized quartz rich shear zone in the trench strikes into the quartz sulphide rich pit that was sunk prior to 1949. Furthermore, the attitude of both showings line up with the quartz/carbonate sulphide rich zone intersected in the Pyrotex drilling (drill hole C24 & C28). This would give the mineralized quartz rich shear zone a strike length of over 200 feet, still open along strike at both ends and open at depth.

### Assay Results

A total of 36 randomly selected grab samples were analyzed at Swastika Laboratories. Gold samples were analyzed by using conventional fire assay techniques using a 1/2 assay ton weight. Copper, zinc and silver samples were analyzed using geochemical analysis for low grade ore and



rock samples. Multi-element samples were analyzed using inductively coupled argon plasma (I.C.P. analysis). Please refer to appendix II and Table 1 for all assay results.

**Table 1: Assay Results**

<u>Sample #</u>	<u>Au-opt</u>	<u>Ag-ppm</u>	<u>Cu-ppm</u>	<u>Zn-ppm</u>	
2501	0.002	0.4	92	153	
2502	0.015	14.5	10500	9780	
2503	0.007	37.9	38500	9260	
2504	0.001	4.6	4390	2720	
2505	0.003	33.9	28500	14100	
2506	0.002	0.2	258	1950	
2507	0.002	6.0	876	934	
2508	nil	4.2	2490	533	
2509	0.002	0.9	159	646	
2510	0.003	14.6	8120	4980	
2511	0.004	24.2	23700	5520	
2512	0.002	0.3	210	479	
2513	0.008	8.9	5400	1250	
2514	nil	5.1	2030	1250	
2515	nil	0.1	81	248	
2516	0.003	39.8	28700	852	
2517	0.003	4.6	4760	316	
2518	nil	0.7	511	3540	
2519	nil	1.0	489	265	
2520	0.005	19.2	19200	643	
2521	0.002	6.3	2000	178000	
2522	0.002	-	-	-	
2523	nil	-	-	-	
2524	nil	-	-	-	
2525	nil	-	-	-	
2526	nil	-	-	-	
2527	nil	-	-	-	
2528	nil	-	-	-	
2529	nil	-	-	-	
2530	nil	-	-	-	
2531	nil	-	-	-	
2532	nil	-	-	-	
2533	nil	-	-	-	
2534	0.002	-	-	-	
2535	nil	-	-	-	(Multi-elem)
2536	nil	-	-	-	(multi-elem)

The sulphide zones associated within the Dipaolo shaft

and north of the 110 degree trending fault, all returned negligible gold values (sample #'s 2501, 2522 to 2536). Sample #2501 was taken in the massive sulphide mineralization just north of the Dipaolo shaft. This sample returned low but anomalous values in silver, copper and zinc.

The mineralized quartz rich shear zone uncovered in the trench and located in the old pit, south of the 110 degree trending fault, was sampled for gold, silver, copper and zinc (sample #'s 2502 to 2512, #'s 2516 to 2518 and #'s 2520 to 2521). These grab samples and/or muck samples from this new zone returned appreciable quantities of copper, zinc and silver. **Samples yielded up to 38500 ppm(3.85%) copper, 178000 ppm(17.8%) zinc and 39.8 ppm(1.33opt) silver.** These significant values are associated with the quartz veining within the mineralized shear zone. **Values within the chloritic volcanic matrix yielded values up to 2490 ppm copper, 1950 ppm zinc and 6.0 ppm silver.** All gold values from this zone were negligible.

The 2 isolated quartz veins south of the mineralized quartz rich shear zone were sampled for gold, silver, copper and zinc (sample #'s 2513 and 2514). **These samples yielded values up to 5400 ppm copper, 1250 ppm zinc, 8.9 ppm silver and 0.008 opt gold.**

Sample #'s 2512, 2515 and 2519 were taken in barren

looking country rock proximal to the mineralized quartz rich shear zone. These samples yielded values up to 489 ppm copper, 479 ppm zinc, 1.0 ppm silver and 0.002 opt gold.

**Work Schedules and Dates, etc.**

Appendix III outlines the dates all work was carried out, the names of all persons who performed the work and the equipment used.

**CONCLUSIONS AND OBSERVATIONS**

1. Since the 1940's several geophysical, geological and diamond drilling programs on the claim block have identified north-south trending sulphide rich zones. The Dipaolo shaft was sunk on one of these zones prior to 1949. Pyrotex in 1968 and Galore in 1984 detected visible gold in their diamond drill core. The visible gold was reported to be associated with these north-south trending sulphide zones.
2. Part of the 1991 OPAP program exposed 2 north-south trending sulphide zones. No visible gold was detected in these zones. No significant amounts of gold were detected in the samples that were assayed. Of importance was the low but anomalous values in copper, zinc and silver that were detected.
3. A 110 degree trending fault, located just north of the Dipaolo shaft, is interpreted to be a right lateral strike slip fault. The fault itself is chloritized, brecciated and soft gouge is common. The potential exists that a major strike change occurred at this fault. North of the fault, the geology apparently trends north-northeast while south of the fault the geology apparently trends east-west.

The change in strike simply may be a function of fault drag.

4. A significant new discovery was exposed in the southern most trench during the OPAP program. A mineralized quartz rich shear zone was exposed within the trench and was rediscovered in an old pit and in previous drilling. The zone strikes 110 degrees, averages 7.0 feet wide and dips vertical. The mineralization within the zone has yielded up to 3.85% copper, 17.8% zinc, 1.33 opt silver and 0.015 opt gold. The mineralized quartz rich shear zone has been followed for over 200 feet and is open along strike and at depth.

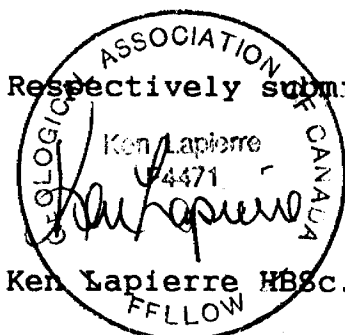
**RECOMMENDATIONS**

Based on the successful completion of this OPAP study, a follow-up exploration program is justified and strongly recommended. The multi-phase program should consist of:

- 1) Line cutting over the entire claim block.
- 2) A detailed Induced Polarization survey paying special attention to east-west trending structures.
- 3) Geological mapping of the property.
- 4) A major stripping/washing/detailed mapping/sampling program exposing all bedrock in the Dipaolo shaft area, as well as any new untested targets within the claim block.
- 5) Compilation of all data from the program.

The successful completion of this program would locate, if present, any previously untested precious or base metal zones as well as exposing new mineralization along the strike of the mineralized quartz rich shear zone that was discovered in the present OPAP study.

Respectively submitted,



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Timmins Ontario Branch:

assessment file #:

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T-1417-Pyrotex Mining & Exploration-Turnbull Twp.  
T-1451-Noranda Exploration Co. Ltd.-Turnbull Twp.  
T-1996-Larche, J. Property-Turnbull Twp.  
T-2874-Galore Gold Resources Inc.-Turnbull Twp.  
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the Turnbull TWP Syndicate Property Turnbull  
Township Timmins, Ontario Porcupine Mining  
Division. 17 p. unpublished report

Pyke, D.R.


1982: Geology of the Timmins Area, District of  
Cochrane; Ontario Geological Survey Report 219,  
141 p. Accompanied by Map 2455, Scale 1:50 000, 3  
Charts, and 1 Sheet Microfiche.

DECLARATION

I, Kenneth Lapierre, of the City of Timmins, Province of Ontario, Canada, do state:

- 1) That I am a practising Consultant Geologist with an office at Suite 17 - Hollinger Building, 637 Algonquinn Blvd. E., Timmins, Ontario, and that my mailing address is P.O. Box 1021, Timmins, Ontario, P4N 7H6.
- 2) That I am a graduate with the degree of Honours Bachelor of Science majoring in Geology from The University of Western Ontario, London, Ontario, Canada
- 3) That I have practised my profession as Consultant Geologist since my graduation from The University of Western Ontario in 1983.
- 4) That I am a Fellow of The Geological Association of Canada, and member of the Prospectors and Developers Association of Canada.
- 5) That I am familiar with the material in this report, having examined the material myself.
- 6) That I do have an interest in the property in this report, and that I do expect to have an interest in the property in the future.

Dated this 1st day of October 1991, Timmins, Ontario.

  
Ken Lapierre HBSc. FGAC.  
Geologist



# DIAMOND DRILL HOLE RECORD, DDH No

C-24

GROUP

PROPERTY Republic Group III

CLAIM 9262

SHEET No. 1

LATITUDE line 12 south

BEARING Grid E

STARTED June 25/65

DEPARTURE 6.00 E

DIP. -45°

COMPLETED July 7, 1965

ELEVATION \_\_\_\_\_

HORIZ. \_\_\_\_\_ VERT. \_\_\_\_\_

DEPTH 547

DRILLED BY \_\_\_\_\_

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-12	Casing.									
12-98	Intermediate to acid fragmentals, highly carbonitized, stained with brown weathering carbonate.									
98-131	Andesite? maybe dike? dark green, medium grained, lightly porphyritic laced with narrow quartz-carbonate veins, mottled with brown weathering carbonate.									
131-141	Interbedded acidic and intermediate fragmentals bedded 30° core axis.									

APPENDIX I

E. D. Blyth

ENGINEER K. V. ...

# DIAMOND DRILL HOLE RECORD, DDH No

E-24

PROPERTY \_\_\_\_\_

CLAIM \_\_\_\_\_

SHEET No. 2

LATITUDE \_\_\_\_\_

BEARING \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP. \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

HORIZ. \_\_\_\_\_

VERT. \_\_\_\_\_

DEPTH \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES			ECONOMIC GEOLOGY MINERALIZATION
						C <sub>1</sub>	Alc <sub>2</sub>	A <sub>g</sub>	
141-196.5	Andesite, fine grained chlorite, laced with quartz carbonate veinlets								
155-197	heavy quartz carbonate veining with some chalcopyrite	1611	171	173.5	2.5	1.32	0.01	0.37	
156-159	cut 1% Cu. @ 163 3" Leap Py & Cp.	1612	173.8	185	11.5	0.13	nil	Tr.	
168-171	heavy Py & Po with trace Cp & Sp parallel to core	1613	185	190	5.0	Tr.	nil	nil	
171-173.5	heavy Py & Po with trace Cp & Sp parallel to core	1614	190	197	7.0	0.04	nil	nil	
171-173.5	continued quartz carbonate laced with 4/8 198 with irregular distribution of Py with some Cp.								

ENGINEER *[Signature]*

LATITUDE ..... BEARING ..... STARTED .....

DIPURE ..... DIP. .... COMPLETED .....

ELEVATION ..... HORIZ. .... VERT. .... DEPTH .....

DRILLED BY .....

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
	194-196.5 gtz vein with Cp.									
194-217	Andesite: fragmental, chilled locally, may be flow structure core angles 15 to 60° irregular patchy Py distribution, average approx 15%									
	290-291 mass. Po.									
217-549	Andesite flows, chloritic locally chilled, very hard, carbonatized - flow may be prelawed. minor splashes Py & Fe with traces Cp.									

549 end.

ENGINEER: J. Steets.

# DIAMOND DRILL HOLE RECORD, DDH No

C-28

PROPERTY Syrotek Group III

CLAIM P-94462

SHEET No. 1

LATITUDE 12+30 South

BEARING C25

STARTED July 23/68

DEPARTURE 6+00 E

DIP. -45°

COMPLETED July 23/68

ELEVATION \_\_\_\_\_

HORIZ. \_\_\_\_\_ VERT. \_\_\_\_\_

DEPTH 376

DRILLED BY Bradley Bros.

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-8	Casing									
9-249	Intermediate to acidic fragmental rocks, light green to greyish green, carbonitized, highly fractured 58-62 quartz carbonate vein with light chalcopryite 61.25-62.00 int. 2.5% Cu. Heavy to mass pyrite { 129-152 { 182-194 15% py 206-213 @ 182.5 - 3" section carrying free gold.									
249-283.5	Andalite: fine to medium grained, medium green, highly carbonitized									

ENGINEER [Signature]

PROPERTY \_\_\_\_\_

CLAIM \_\_\_\_\_

SHEET No. 2

LATITUDE \_\_\_\_\_

BEARING \_\_\_\_\_

STARTED \_\_\_\_\_

DEPARTURE \_\_\_\_\_

DIP. \_\_\_\_\_

COMPLETED \_\_\_\_\_

ELEVATION \_\_\_\_\_

HORIZ. \_\_\_\_\_ VERT. \_\_\_\_\_

DEPTH \_\_\_\_\_

DRILLED BY \_\_\_\_\_

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
283.5-376	Intermediate volcanic rocks, locally fragmental with porphyritic and amygdalate phases local concentrations of pyrite and pyrrhotite to 10%  376 end									

ENGINEER: J. Steers



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

APPENDIX II

## Assay Certificate

1W-3893-RA1

Company: **KEN LAPIERRE**  
Project: **TURNBULL TWP.**  
Attn:

Date: **SEP-11-91**  
Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

We hereby certify the following Assay of 5 grab samples submitted SEP-05-91 by .

Sample Number	Au g/tonne	Au check g/tonne	Ag PPM	Cu PPM	Zn PPM
2501	0.08		0.4	92	153
2502	0.53	0.51	14.5	10500	9780
2503	0.26		37.9	38500	9260
2504	0.04		4.6	4390	2720
2505	0.13		33.9	28500	14100

Certified by Donna Gardner



Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Assay Certificate

1W-4040-RA1

Company: **KEN LAPIERRE**  
 Project: **DIPAULO-TURNBULL TWP.**  
 Attn: **KEN LAPIERRE**

Date: **SEP-27-91**

Copy 1. P.O. BOX 1021, TIMMINS, ONT. P4N 7H6

We hereby certify the following Assay of 16 GRAB samples  
 submitted SEP-23-91 by KEN LAPIERRE.

Sample Number	Au oz/ton	Au check oz/ton	Ag ppm	Cu ppm	Zn ppm
2506	0.002		0.2	258	1950
2507	0.002		6.0	876	934
2508	Nil		4.2	2490	533
2509	0.002		0.9	159	646
2510	0.003	0.003	14.6	8120	4980
2511	0.004		24.2	23700	5520
2512	0.002		0.3	210	479
2513	0.008	0.008	8.9	5400	1250
2514	Nil		5.1	2030	1250
2515	Nil		0.1	81	248
2516	0.003		39.8	28700	852
2517	0.002		4.6	4760	316
2518	Nil		0.7	551	3540
2519	Nil		1.0	489	265
2520	0.005		19.2	19200	643
2521	0.002		6.3	2000	178000

Certified by Donna Gardner

APPENDIX II



Established 1928

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Assay Certificate

1W-4041-RA1

Company: **KEN LAPIERRE**  
 Project: **DIPAULO-TURNBULL TWP.**  
 Attn:

Date: **SEP-27-91**  
 Copy 1. P.O.Box 1021, Timmins, Ont. P4N 7H6

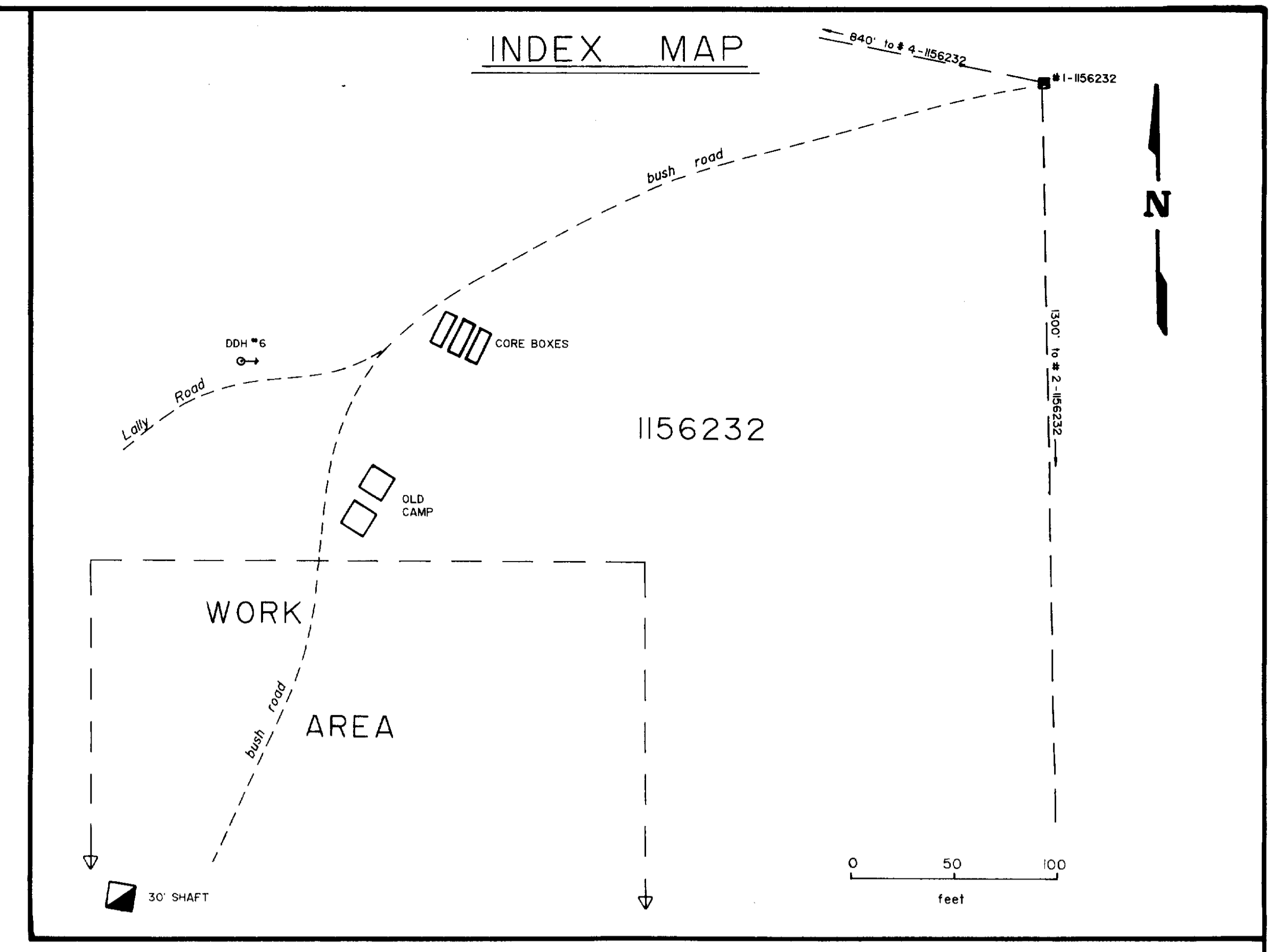
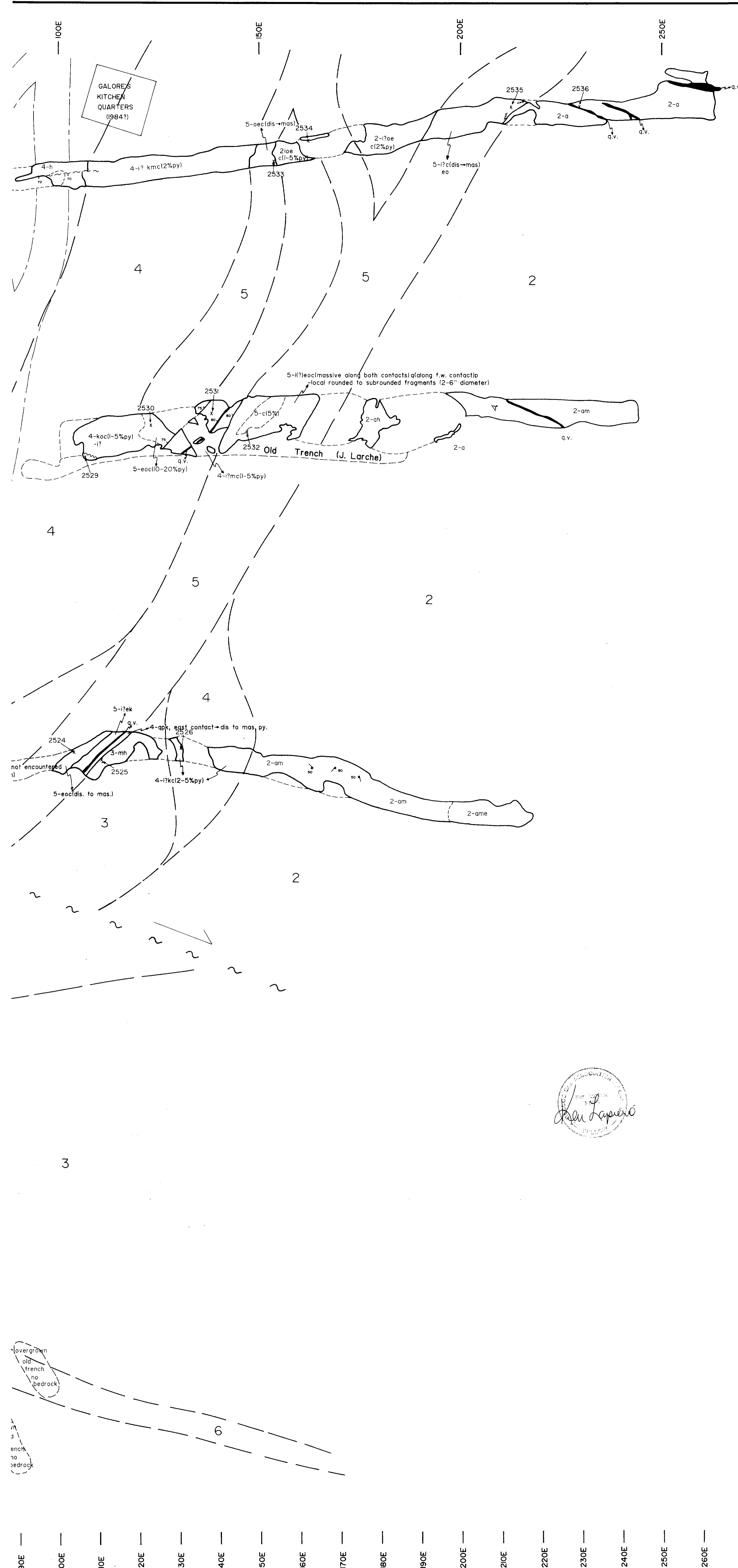
We hereby certify the following Assay of 15 grab samples submitted SEP-23-91 by .

Sample Number	Au oz/ton	Au check oz/ton	total ID basic
2522	0.002	Nil	
2523	Nil		
2524	Nil		
2525	Nil		
2526	Nil		
2527	Nil		
2528	Nil		
2529	Nil		
2530	Nil		
2531	Nil		
2532	Nil		
2533	Nil		
2534	0.002		
2535	Nil		
2536	Nil		

Certified by Donna Gardner





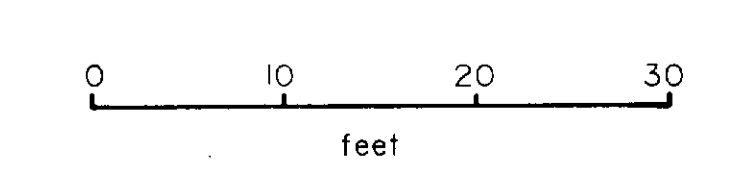


**LEGEND**

- 1 — ULTRAMAFIC VOLCANIC
  - 2 — MAFIC VOLCANIC
  - 3 — MAFIC to INTERMEDIATE VOLCANIC
  - 4 — INTERMEDIATE VOLCANIC
  - 5 — SULPHIDE ZONE
  - 6 — MINERALIZED QUARTZ RICH SHEAR ZONE
- a — pillowed.
  - b — breccia
  - c — sulphides
  - d — quartz stringers
  - e — oxidized
  - f — sheared
  - g — chlorite
  - h — massive
  - i — tuffaceous
  - j — xenolith
  - k — silicified
  - l — replacement
  - m — blocky
  - n — foliated
  - o — weathered
  - p — banded
  - q — cherty appearance
- ▽ — top-pillowed
  - ↖ — shearing
  - — drill hole
  - — fault
  - - - - - apparent fault
  - ? — questionable
  - x — selective grab sample location

Sample #	Au (ppt)	Ag (ppm)	Cu (ppm)	Zn (ppm)
2501	0.002	0.4	92	153
2502	0.015	14.5	10500	9780
2503	0.007	37.9	38500	9260
2504	0.001	4.6	4390	2720
2505	0.003	33.9	28500	14100
2506	0.002	0.2	253	1950
2507	0.002	6.0	776	934
2508	NIL	4.2	2490	533
2509	0.002	0.9	159	646
2510	0.003	14.6	8120	4980
2511	0.004	24.2	23700	5520
2512	0.002	0.3	710	472
2513	0.008	8.9	5400	1250
2514	NIL	5.1	2030	1250
2515	NIL	0.1	81	248
2516	0.003	39.8	28700	852
2517	0.003	4.6	4760	316
2518	NIL	0.7	511	3540
2519	NIL	10	489	265
2520	0.005	19.2	19200	643
2521	0.002	6.3	2000	178000
2522	0.002			
2523	NIL			
2524				
2525				
2526				
2527				
2528				
2529				
2530				
2531				
2532				
2533				
2534	0.002			
2535	NIL			
2536				

*Karl Lapierre*



13.6220

CLIENT: TURNBULL TWP. SYNDICATE  
 PROPERTY: DIPALDO PROPERTY  
 OPAP GRANT PROGRAM  
 TURNBULL TWP.  
 GEOLOGY MAP

DATE: Sept. 1991 DRAWN: P.G. INTERP: K. Lapierre