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010

AZA PROSPECT

McGARRY TOWNSHIP, ONTARIO

NTS 32 D/4

On behalf of

McGARRY GOLD PARTNERSHIP

by

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June 1983

OM83-6-P-166

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ILLUSTRATIONS

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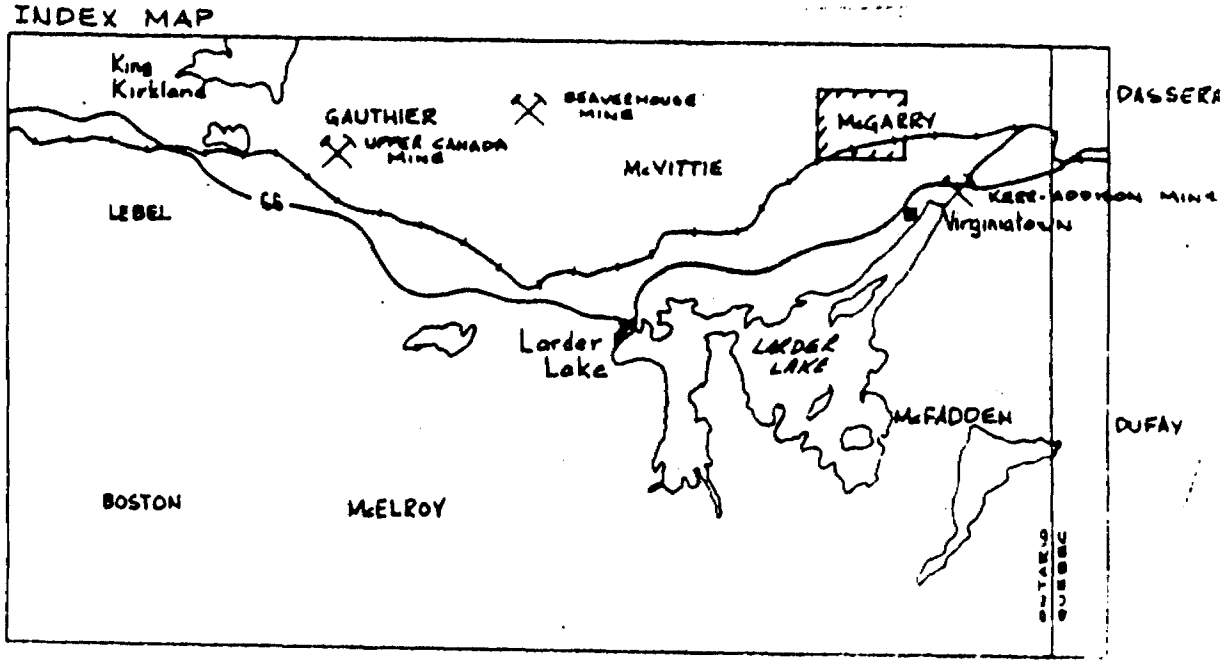
King
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5 MILES
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5 Kilometres

AZA PROSPECT

McGARRY TOWNSHIP, ONTARIO, NTS 32D/4

PROLOGUE

A sequential order of approximations is required to explore, to develop, to mine, to market at a profit a substance such as gold. In years gone by a considerable amount of early exploration had been done, was partly recorded, but follow-up work was abandoned generally because of poor financial backing and a fixed low market price for gold. These conditions in the middle seventies provided a backlog of early phase exploration available for relatively cheap pick-up. As a consequence the term "grass-roots" exploration, never well defined, became more commonly used in mining companies to mean the second phase of exploration ignoring the first already done. However, in the late seventies and early eighties this backlog of early phase exploration has dried-up and now companies will have to spend money and time, that is, they must pay for this early exploration phase in order to find new worthy target areas that have a good potential to become well paying mines.

The early exploration phase requires that through reconnaissance surveys gold can be found in the surface terrain and this most commonly is in Pleistocene drift. Then a selection must be made from the numerous gold occurrences those which are most worthy of follow-up. This selection will have to be based on three factors:

(1) the expected mine-making potential of the bedrock source which is being sought. To do this it is necessary to have collected from the drift information on associated rock types (favourable

host conditions), alteration pieces, pathfinder minerals and elements, and sulphide mineralization pieces.

(2) The expected ease or difficulty to establish the gold trail and to effectively trace it to bedrock source. To do this, it is necessary to have determined a knowledge of the Pleistocene stratigraphy and the process-layer portion in which the gold occurs.

(3) The ease or difficulty to obtain the mineral rights to the bedrock once there.

The next, but still relatively early exploration phase, requires that through SEMI-DETAILED surveys:

(1) The gold trails be developed and traced to the "up-ice" cut-off positions which will approximate bedrock source.

(2) The geology of this cut-off area be established for favourable environments of gold ore potential. This is done in terms of rock types and genesis, structure, alterations, and mineralizations and will generally require an input from ground magnetic and electromagnetic surveys as well as a certain amount of stripping and surface prospecting.

Only when the above is completed is the property properly ready for the late exploration stage which is drilling to establish the source of the gold trail in bedrock and once in bedrock to project its continuity through our established knowledge of geological environments.

The above prologue is given to the reader in order to place into context the steps ALREADY COMPLETED on the AZA prospect. In summary the first "A" of AZA is nearly completed but requires the diamond drilling outlined later in this report. This drilling is intended to bring the prospect to the second stage when gold is encountered in different parts of the structure in significant amounts, and then the prospect is ready for "Z" which is development drilling and feasibility, to take it to the last "A" which is mining marketing and profit-taking.

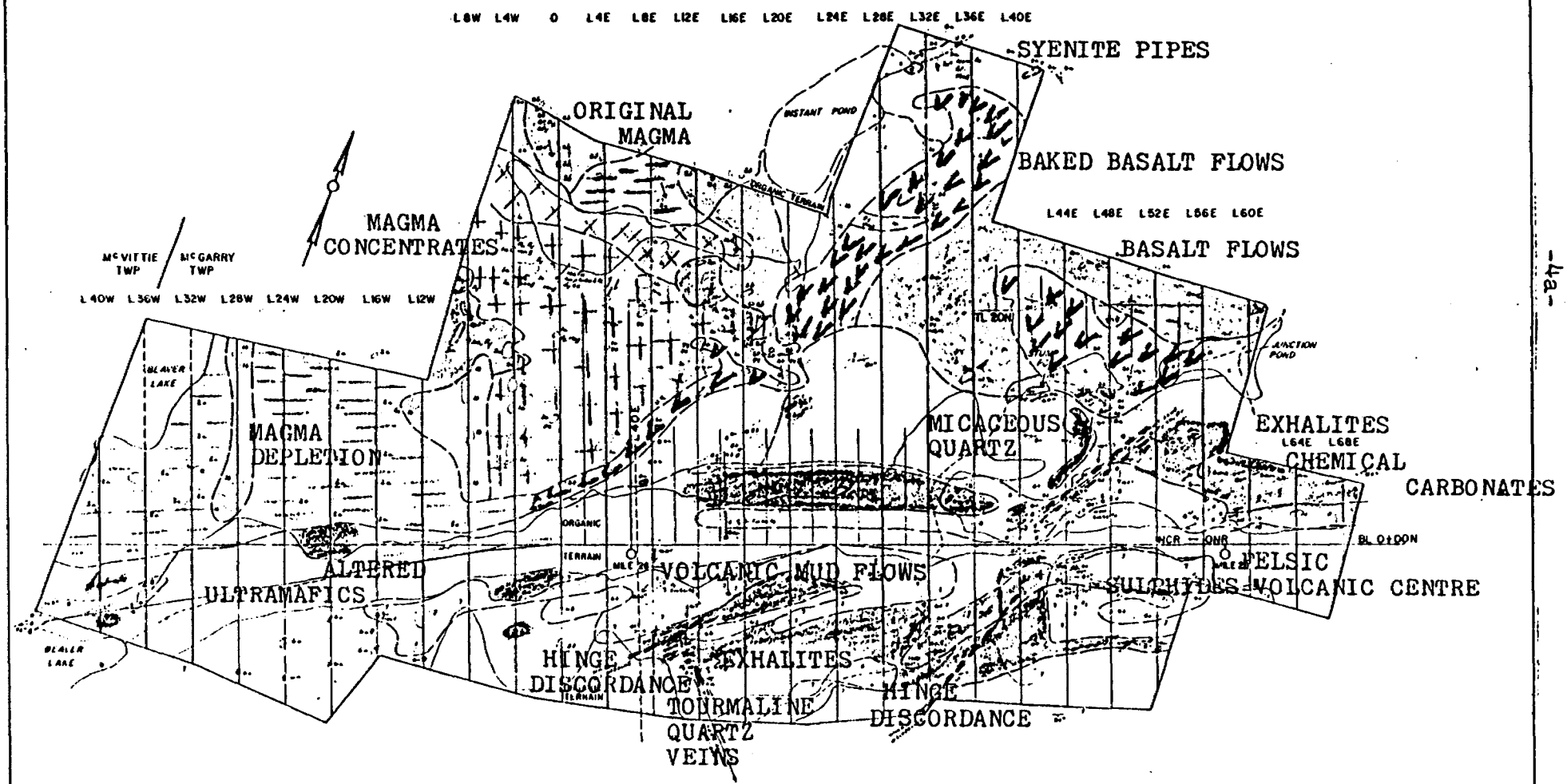
HISTORY

Reconnaissance exploration which eventually led to the ASA prospect began in 1974 and was financed and operated by Lee Geo-Indicators Limited. The innovative glaciofocus method for gold and gold-indicators was applied on basal lodgment till across a 300 square mile area around Kirkland Lake in search of new large gold belts. From the successful results attained about a dozen target areas were located. One of these target areas was in McGarry Township and the reconnaissance survey work revealed "boulders in basal till exposed by dynamite pits 10 ft. x 10 ft. x 4 ft. deep in which geo-indicator boulders assayed low gold values. One of these pits was bulk sampled and 2 gold clasts per cubic foot of basal till were recognized." This established a point on a gold trail, and in preparation for the next phase of exploration a few key claims were staked-out.

In the following year, 1975, a joint venture programme was put together by Dr. Hulbert A. Lee to develop the gold trails to cut-off position and then use vegetation-identified buried shear zones for an improvement on drilling targets. The LEE-CANICO-TG joint venture was financed jointly by CANICO LIMITED and TEXASGULF LIMITED and operated

by LEE GEO-INDICATORS LIMITED. The glaciofocus method outlined several gold trails which headed in the area now known as the AZA prospect. Interpretation of vegetation analysis showed a number of strong buried mineralized shears crossing near the head of the gold trails. A Winkie drill and crew of Canico Limited was between jobs and was brought in for a few short exploratory holes. Six holes were put in at a 45° angle to attempt a cross-section along the "up-ice" extension of one gold trail and across two vegetation indicated buried shears. The drilling intersected the edge of altered ultramafic (but not recognized until later when chemical and mineralogical work was done) with 0.01 oz. Au/ton over 6.3 feet at the contact with "feldspar porphypy" (more correctly called dacitic and trachytic volcanic ash). However the main part of the altered ultramafic was not drilled because the Winkie hole intended for it was abandoned in gravel. The first hole on the opposite side of the altered ultramafic picked up 0.002 oz. Au/ton across 5.0 feet in a dark grey rock with scattered pebbles and in the same hole 0.005 oz. Au/ton across 5.0 feet near a 5 mm band of heavily disseminated pyrite. As mentioned earlier no drill intersection was made across the 300 feet of intervening rock.

Meanwhile the general market for minerals had fallen drastically in 1975 and many of the companies engaged in mineral exploration with financing from the metals sector severely cut and some completely severed their exploration crews and projects for 1976. In addition to this, the price of gold fell from about $180 an ounce to about $130. One of the main financing partners for this joint venture CANICO was caught in a major loss of earnings and responded by a drop of exploration projects. The joint venture ceased to exist and under the Agreement the claims were transferred back to Lee Geo-Indicators Limited.



WORKING HYPOTHESIS FOR GOLD CONCENTRATIONS, SEPTEMBER 1980, McGARRY PROPERTY OF LEE GEO-INDICATORS LIMITED

Believing in the ultimate future of the property Lee Geo-Indicators Limited invested profits from consulting work into a reduced portion of the claims, carried out required assessment work and added new claims to bring the block to the 26 claim block held in 1980.

In 1979, Lee Geo-Indicators as financers and operators carried out geophysical (magnetic and VLF) and geological surveys across the claims. These led to a considerably better understanding of the geology and how it might better reflect gold mineralization.

In 1980, fill-in glaciofocus completed over the "up-ice" extensions of the gold trails and fill-in geophysics and geology not only brought most of the claims with 200 days of approved work ready for legal survey and lease but also prepared the property ready for a meaningful diamond drilling programme.

CONCLUSIONS REACHED

Gold Trails

Four trails of gold clasts, two of them 5,000 feet long and two others about 1,000 feet long, begin at the "down-ice" end with 2 clasts of gold in a cubic-foot and increase at the "up-ice" end within the AZA prospect to as high as 109 clasts of gold in a cubic-foot sample, and from these further "up-ice" there is a rapid fall off to background. Because the local transport-layer of basal lodgment till was used for the trails of gold, it can be confidently said that the bedrock source is closed to the cut-off position which has been firmly established. The several parallel trails of gold mean a gold-bearing structure of considerable extent (6,500 feet) or several separate gold bearing structures.

Favourable Bedrock Environments

The bedrock is favourable for gold mineralization on the AZA prospect, most of the elements are present which host gold bodies in producing mines. The oldest rocks are basaltic flow volcanics. These have been intruded by a main plug of diorite which in itself is differentiated to contain normal diorite as well as bleached and leached diorite on the one side and a sink of magnetite and pyrrhotite concentrates adjacent to it. As off-shoots to the main plug are feldspar porphyry dykes, stocks, and sills which surface on the AZA claims. And from deeper depths, a sequence of three ultramafic structures (green carbonates) also surface and these are strongly altered along their length to carbonates of magnesite, dolomite and contain the mineral fuschsite while grading farther east to talcose, chloritic, and micaceous zones which in places, the development of considerable quartz ladder veining and pyrite. This type of altered ultramafic carries gold on at the nearby (1.5 miles) Kerr-Addison Mine at Virginiatown, and the same type passes between the two porphpy stocks of Dome Mines and Paymaster Mines at Timmins. Fuchsite, the green chromium mica, occurs associated with gold at the Lamaque Mine in N.W. Quebec and the nearby Kerr-Addison Mine.

A former felsic volcanic centre situated in the eastern sector of the AZA prospect has brought in agglomerates, volcanic bombs, and volcanic ash of dacitic composition with considerable disseminated primary pyrite and chlorite alteration, and the volcanic material is added to and locally intermixed in an undersea environment with chemical sediments (EXHALITES) which in turn carry considerable primary pyrite. These are prime conditions for avenues and emplacement of gold concentrations.

Discontinuities

That gold concentrations occur most commonly along major discontinuities, is a theory evolved from observation, that best fits most gold producing camps (Larder Lake - Cadillac Break, Kirkland Lake Break, Porcupine-Dastor Break, etc.). Furthermore the best site for ore is usually where alteration (carbonate, potassium, chrome mica, pyrite, tourmaline, arsenopyrite) is most intense along the discontinuity. On the AZA prospect two discontinuities have been identified and mapped from opposing plunge axes of synclines which meet head-on. Significantly these discordances are in the same general position as the heads of the trails of gold. They represent ideal channelways essential for gold introduction into the rocks.

Alterations

Alteration is most intense in and near the ultramafic rocks and the exhalites. As mentioned earlier the ultramafic rocks are extensively altered to the carbonates of magnesite, dolomite, ankerite and lesser fuchsite. Strong pale yellowish alteration of very fine grained mica and quartz follows faulted and fractured rock. Ladder quartz carbonate veining with pyrite occupies parts of ultramafic alteration and spreads outwards into the country rock locally with seams of heavily disseminated pyrite. It is along the edge of these altered ultramafics that Winkie drilling picked up gold intersections. The exhalite rocks on the AZA claims are the next most highly altered rocks carrying moderate primary pyrite, locally extensive chlorite, and low gold requiring only a concentration factor of 100 to produce ore. The faults and discontinuities could provide channelways and the intrusives could act as thermal sources to make the necessary concentration.

Main Plug

The main plug is of original dioritic composition but much of it is bleached and leached with a differentiated sink portion composed of concentrates of magnetite and more erratic, but abundant, pyrrhotite and/or pyrite and much lesser gold. An irregular chimney like body identified by ground magnetics only (does not outcrop) lies off the main mass and has dimensions of 600 ft. x 800 ft. It is reminiscent in size and location of the porphyry bodies of Dome, Paymaster and Lamaque mines lying as it does off the altered ultramafic carbonates.

Fault Zone

A strong vein system of quartz-carbonate-lesser pyrite-low gold, with widths of 4 inches to 12 inches common and in stringers over a 10-foot zone occupy a NE trending fault system as an extension of the previously mentioned disconformities. An 800 foot length of this veining has been trenched. The wall rocks adjacent to the veins are altered to yellow carbonates, carry come fuchsite, some chlorite, and disseminated pyrite, and rarely chalcopyrite. The veins grade longitudinally into very fine grained micaceous and talcose zones. Everywhere the quartz veining, altered wall rock, and micaceous rock was sampled low values were found. This means, that here is a bedrock structure ready for testing by drilling.

Tourmaline-quartz Veining

Tourmaline-quartz-veining outcrops in the south central part of the AZA prospect in the region where the trails of gold head and counts of 109 gold clasts in a cubic foot of till are recorded. Quartz-tourmaline is the main ore association for gold in the Sigma Mine and Lamaque Mine of northwestern Quebec and is near the one in the Kerr-Addison Mine of nearby Virginiatown, Ontario. The positioning of

the tourmaline-quartz-veining with the extremely high gold counts in the basal lodgment till and both near the zones of altered ultramafics and broad areas of low-angle quartz veining is exciting.

Sulphides

The sulphides of pyrite, pyrrhotite, and chalcopyrite are scattered throughout the AZA prospects. These are teasers, but those of main signficance are the heavily disseminated pyrite veins adjacent to the altered ultramafic carbonates within the faults and discordances, and at the heads of the trails of gold. The geo-indicator rocks sampled as part of the glaciofocus method have delimited a zone of pyritic sulphides which now has been traced to and identified in a bedrock exposure. A westward projection of the sulphide seams from outcrop would place the sulphide seams under the heads of strong trails of gold. This projection is justified by observations of a higher content of sulphide cobbles in the basal lodgment till down-ice from the area of projection. The significance of the pyrite is that gold in producing mines occurs both as native gold and as gold blebs within pyrite, and this dual nature of gold is clearly recognized in the gold clasts that make up the trails of gold in the basal lodgment till over the AZA prospect.

Summary

In summary, encouraging glaciofocus, geological and geophysical targets for gold are well delineated for diamond drilling. The mine making potential for the prospect at this stage of exploration is considered high.

Terrain Conditions and Infrastructure

The terrain conditions are shown on a surficial geology map of the AZA prospect. The areas of interest for drilling are chiefly a rolling, elevated, dry, bedrock complex with syn-

clines forming elongated ridges and with about 20 feet of washed till between the ridges. Overlying the altered ultramafic structure is a flat valley floored by organic peat for a depth of about 5 feet then at the northern side clay to a depth of 80 feet before bedrock is reached and at the southern side gravel and sand below the peat to a depth of about 80 feet before bedrock is reached. These terrain conditions will affect mobility and use of casing during drilling and will require a set-back for collaring holes in the flat area of deeper overburden to ensure a continuity of bedrock cross-section drilling.

Rail transportation is excellent with a line of Nippising Central Railway -- Ontario Northland Railway passing through the AZA prospect. Ore concentrates are already carried on this line coming from the concentrate plant for Kidd Creek mine at Timmins and going to the smelter at Noranda. Road transportation is good. A maintained logging road at the northern edge of the property, in less than four miles leads to a mill for gold at the Kerr-Addison Mine. Electrical power lines are located within a mile, and a natural gas line is within twenty miles.

RECOMMENDATIONS AND COSTS FOR FURTHER WORK

A diamond drilling programme of 52,000 total footage at a total estimated project cost of $1.25 million is recommended for the AZA prospect. The proposed drilling is shown on the accompanying map "Drilling Programme 1980" and reference is now made to this map. In addition to the drilling a small amount of prior surface exploration could be done to possibly improve the drilling targets. The drilling can be assigned priorities and these are listed below with costs, what is being tested, to reach the hoped for results.

Priority 1

Seven lines of holes are proposed to cross-section drill at 100-foot centres the target area of priority 1. The favourable environments for drilling include: (1) the head of a major trail of gold clasts, (2) tourmaline-quartz veining, (3) a structural hinge discontinuity, (4) highly altered ultramafic structure, (5) pyrite zones in bedrock including two picked up by VLF noise through clay, (6) known gold in bedrock, (7) exhalative bedrock, and (8) low angle quartz veining.

The total drilling footage at 45° is 14,200 feet at an estimated cost of $284,000 for drilling, and when including geologist and helper, assaying, consumables, camp a combined project cost of $325,000. Prior work should be limited to local detailed geology and prospecting only along the two northernmost lines with an additional estimated cost of $3,000.

Priority 2

Seven lines of holes are proposed to cross-section drill at 100-foot centres the target area of priority 2. The favourable environments for drilling include: (1) the head of a major gold trail, (2) across a structural hinge discordance, (3) known exhalite rocks, (4) projected extension of altered ultramafic structures, (5) a VLF pyrite noise leakage through clay.

The total drilling footage at 45° is 14,300 feet at an estimated cost of $286,000 for drilling, and when including geologist and helper, assaying, consumables, and camp a combined project cost of $325,000. No prior exploration work is envisaged.

Priority 3

Fifteen lines of holes are proposed to cross-section drill at 100-foot centres the target area of priority 3. The favourable environments for drilling are: (1) quartz-carbonate veining known to carry gold, (2) fault structure in which the quartz-carbonate veining occurs and in which there is strong chloritization and potash alteration, (3) a small trail of gold clasts in basal lodgment till and (4) a structural hinge disconformity.

The total drilling footage at 45° is 11,800 at an estimated cost of $236,000 for drilling, and when including geologist and helper, assaying, consumables, and camp a combined project cost of $300,000. No prior exploration work is envisaged.

Priority 4

Three lines of holes are proposed to cross-section drill at 100-foot centres the target area of priority 4. The favourable environments for drilling are: (1) the head of short but strong trails of gold, (2) sulphide seams in bedrock, (3) a likely E.W. fault, and (4) a felsic volcanic centre.

The total drilling footage at 45° is 6,100 feet at an estimated cost of $122,000 for drilling, and when including geologist and helper, assaying, consumables, and camp a combined project cost of $130,000. A prior small IP survey involving 4,000 line-feet would be expected to improve drill targets. The additional cost is estimated at $5,000.

Priority 5

Three lines of holes are proposed to drill target areas of priority 5. The favourable environments are: (1) a chimney-like structure off the main diorite body adjacent to the altered ultramafic structure, (2) pyrite gold-bearing

seams in intrusive diorite-sink facies, (3) across the extension of the ultramafic structure, and (4) "up-ice" of strong but short trails of gold clasts.

The total drilling footage at 45° is 3,725 feet at an estimated cost of $75,000 for drilling, and when including geologist and helper, assaying, consumables, and camp a combined cost of $90,000. A small amount of prior detailed geology and prospecting is expected to improve drill targets at an additional estimated cost of $5,000.

Priority 6

Two lines of holes are proposed to cross-section drill targets at 100-foot centres the target area of priority 6. The favourable environments are: (1) a strong pyrite-arsenopyrite vein described by former Ontario Department of Mines resident geologist Dr. W. Savage, (2) to cross a likely E.W. fault structure, (3) to cross the head of a short moderate strength trail of gold clasts.

A total drilling footage at 45° is 2,850 feet at an estimated cost of $57,000 for drilling, and when including geologist and helper, assaying, consumables, and camp a combined project cost of $65,000. Prior survey work should include an accurate ground location for this vein system relative to the grid and a short IP survey to extend it. The cost is estimated at an additional $5,000

RESPECTFULLY SUBMITTED
LEE GEO-INDICATORS LIMITED

Hulbert A. Lee

Hulbert A. Lee, Ph.D., P.Eng.
Consulting Geologist
1983

TECHNICAL REPORTS AND MAPS ON AZA PROSPECT

Lee, H.A. (1974)
Basal till gold explorations in Larder Lake Mining Region, Ontario (42A/1, 32D/4), on behalf of Lee Geo-Indicators Limited

_____ (1975)
Geo-indicators for gold and gold clasts within McGarry Township, Ontario (32D/4), on behalf of Lee-Canico-TG Joint Venture. Accompanied by 2 maps: (a) Map 1"=400' Gold clasts in basal till, McGarry Township, Ontario 32D/4, and (b) Map 1"=400' Geo-indicators for gold in basal till, McGarry Township, Ontario, 32D/4.

Scott, S.A. (1975)
Biogeochemical survey over shear zones McGarry Township, Ontario 32D/4. On behalf of Lee-Canico-TG Joint Venture. Accompanied by Map: Gold in basal till, vegetation and bedrock, McGarry Township, Ontario (32D/4) 1"-400'.

Perry, J. (1975)
Lee-Canico-Texasgulf Joint Venture McGarry Township Diamond Drill Program, August, September, 1975. Accompanied by Map Section 4800E 1"=100'.

Lee, H.A. (1975)
The second basal till search for gold within McGarry Township, Ontario (32D/4). On behalf of Lee-Canico-TG Joint Venture. Accompanied by Map 1"=400'. Also section on thin section petrographic studies and re-logging of drill holes.

Lee, H.A. (1979)
Stripping by mechanical equipment. Wajax Mark 3 Fire Pump, McGarry Township, Ontario. On behalf of Lee Geo-Indicators Limited.

_____
Bedrock geological survey. McGarry Township, Ontario. On behalf of Lee Geo-Indicators Limited. Accompanied by map 1"=400'.

_____
VLF EM16 Electromagnetic survey, McGarry Township, Ontario. On behalf of Lee Geo-Indicators Limited. Accompanied by map 1"=400'.

_____ Magnetic Survey, McGarry Township, Ontario, 32D/4. On behalf of Lee Geo-Indicators Limited. Accompanied by map 1"=400'.

Lee, H.A. (1980)
Plugger drilling, 1980 Claims L428754 and L422254. On behalf of Lee Geo-Indicators Limited.

_____ (1980)
Manual labour Claims L428754 and L441498, McGarry Township. On behalf of Lee Geo-Indicators Limited.

_____ Magnetic survey, 1980, McGarry Township, Ontario. On behalf of Lee Geo-Indicators Limited. Accompanied by Map 1"=400'.

_____ VLF EM16 Electromagnetic survey, 1980, McGarry Township, Ontario. On behalf of Lee Geo-Indicators Limited. Accompanied by Map 1"=400'.

_____ Bedrock geological survey, 1980, McGarry Township Ontario, NTS 32D/4. On behalf of Lee Geo-Indicators Limited. Accompanied by Map 1"=400'.

_____ "Aurum" Property, McGarry Township, Ontario NTS 32D/4. On behalf of Lee Geo-Indicators Limited.

DRAWINGS (Maps are at a scale of 1"=400')

79-1: Development Work. Revised 1979, 1980.

79-2: Large gold clasts in basal till. Revised 1979, 1980.

79-3: Bedrock geology. Revised 1979, 1980

79-4: Small gold clasts in basal till. Revised 1979, 1980.

79-5: EM-VLE Conductors. Revised 1979, 1980.

79-6: Contoured magnetic survey. Revised 1979, 1980.

79-7: Biogeochemical survey over shear zones.

79-8: Surficial geology. Revised 1980.

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

2) I am a graduate of Queen's University with a BSc. in Geology (1949) and a graduate of the University of Chicago with a Ph.D. in Geology (1952).

3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on reports referenced in the text and from my visit to the Property.

Stittsville, Ontario
June, 1983.

Hulbert A. Lee
Hulbert A. Lee

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LOGISTICS REPORT

FOR

AN INDUCED POLARIZATION SURVEY

AT

McGARRY TOWNSHIP, ONTARIO

ON BEHALF OF

MCGARRY (ATKA) RESOURCES INC.

by

GEOTERREX LIMITED

(Project No. 85-938)

OTTAWA, CANADA

OCTOBER 1983

geoterrex ltd.

32D04NE0423 63.4352 MCGARRY

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geoterrex ltd.

I. INTRODUCTION

During the period July 21, 1983 through July 29, 1983 and August 12,1983 through August 17, 1983, Geoterrex Limited of 2060 Walkley Road, Ottawa, Ontario conducted an Induced Polarization Survey on behalf of Atka Resources Inc. of suite 607, 386 Broadway Avenue, Winnipeg, Manitoba.

The objective of the survey was to map the sub-surface distribution of polarizable material and thereby, hopefully, outline any localized concentrations of pyrite as an indicator of gold mineralization.

The survey was conducted on a property located within McGarry Township, Ontario.

II. PERSONNEL AND EQUIPMENT

A. Personnel

Geoterrex Limited provided the following personnel during the survey:

P. Prevedoros	Geophysicist/Party Chief
P. Beingessner	Geophysicist
R. Partner	Geophysical Technician
R. Largaespada	Operator
R. Braden	Operator

B. Equipment

Geoterrex Limited provided the following equipment for the survey:

1- Huntec Mark IV I.P. Receiver
2- Scintrex I.P.R.7., I.P. Receivers
1- Elliot 1.5 KVA I.P. Transmitter
1- Allegany Motor Generator

All ancillary equipment to perform the survey.

Specifications for the equipment are provided in Appendix A to this report.

III. SURVEY PROCEDURES

A. Theory

The induced polarization method (IP) is based on the electrochemical phenomenon of "over-voltage", that is; on the establishment and detection of double layers of electrical charge at the interface between ionic and electronic conducting material when electrical current is caused to pass across the interface.

All naturally occurring sulphides of metallic lustre, some oxides and graphite give marked induced polarization responses when present in sufficient volume even when such materials occur in low concentrations and in the form of discrete unconnected particles. Thus, induced polarization has general application to the direct detection of disseminated sulphide deposits. Each rock and soil type also exhibits an induced polarization response, usually confined to a relatively low amplitude range, which is characteristic of the mineral or soil. However, certain clays and "laminar" minerals including serpentine, sericite and chlorite may give rise to an anomalous response. These effects are attributed largely to "membrane" polarization.

In order to measure IP effects in a volume of rock, a current is caused to flow through it via two current electrode contact points and the resulting potential differences are measured across two potential electrode contact points.

In practice, two different techniques are used, namely "Time Domain" and "Frequency Domain". For the Time Domain technique, which was used for this survey, a direct current is allowed to flow for several seconds and then cut off. The decay of the polarization voltages built up during the passage of the current is studied during the time after the current is switched off. In the Frequency Domain technique, a Sine wave current waveform of two low, but well separated frequencies, is used. The presence of polarization effects causes an apparent increase in measured resistivity and since these polarization effects take an appreciable time to build up, the measured apparent resistivities will be greater for the lower frequency and this difference is the measured polarization effect.

The field measurements taken with the Time Domain technique are as follows:

1. the applied current, Ia, flowing through the two current electrodes;

2. the difference in potential, Vp, existing between the potential electrodes while the current is flowing;

3. the apparent chargeability, Ma, which is the IP effect for one current pulse.

The IP effect measured for the present survey is the normalized integrated decay voltage between 0.12 seconds and 1.77 seconds following the current shut off time (Figure 2). The transmitted current cycle timing was 2 seconds on (positive), 2 seconds off, 2 seconds on (negative), 2 seconds off.

B. Field Operations

Initially the survey employed the gradient array with a 200 foot potential electrode separation over the following area.

Line	Station	to	Station
8E	7S		33N
10E	7S		1S
12E	7S		33N
14E	7S		9N
18E	7S		1S
20E	7S		29N
22E	7S		10N
24E	6S		28N
26E	4S		11N
28E	4S		38N
32E	4S		42N
36E	4S		8N
38E	0		12N
40E	4S		15N
42E	0		13N
44E	4S		13N
46E	0		12N
48E	4S		13N
50E	0		14N
52E	0		15N
56E	4S		15N
60E	4S		8N

From the data (gradient array) obtained, a number of areas displaying some potential, albeit poor, were re-surveyed using the dipole-dipole technique as follows:

Line	Spread Centre	Dipole Length	N Spacings
8E	0+00	100 ft	1-6
12E	14+00N	300 ft	1-4
28E	14+00N	300 ft	1-6
48E	1+00N	200 ft	1-6

C. Data Reduction and Presentation

1. Data Reduction

The apparent chargeability, Ma, in milliseconds or millivolt seconds per volt is read directly on the IP receiver used.

From observations of the difference in potential and the applied current, the apparent resistivity may be calculated at each station as follows:

$$a = \frac{Vp}{Ia}$$

where: Vp = the difference in potential in volts;

Ia = applied current in amperes;

K = constant depending on array geometry and is calculated as shown in Figure 2.

The apparent resistivity, xa, is presented in ohm-metres.

2. Data Presentation

The Dipole-Dipole data are presented as contoured pseudosections at a scale of 1:2400 (1 inch = 200 ft). The apparent chargeability data are contoured at 2 millisecond intervals while the apparent resistivities are contoured at decade cycles of 10, 15, 20, 25, 32,

40, 50, 65, 80, 100.

The gradient array data are presented as contoured plan maps at a scale of 1:4800. The contour intervals are the same as the dipole-dipole data.

IV. DISCUSSION OF RESULTS

The gradient array apparent chargeability results showed relative highs almost the entire length of the base line. The railway which formed the baseline, was suspected as the source of these enhanced responses. As a check however, lines 8E and 48E were resurveyed using the dipole-dipole technique. The results again showed apparent chargeability highs centered on and, in our opinion, emanating from the railway line. Certainly, there is no strong evidence to suggest the presence of a chargeable source other than the cultural response of the railway track.

The gradient data also outlined an area of weakly enhanced chargeability on Lines 28E and 32E, centered on station 20N. The dipole-dipole data across this section showed very similar results from 17N to 22N. Unfortunately however, the enhanced I.P. values correlate very well with an area of increased apparent resistivity and is thus unlikely to hold much potential. Certainly on the basis of the geophysics alone further work at this particular local is not warranted.

The gradient data partially outlined two seemingly isolated, apparent chargeability highs on Line 12E at 21N and 25N. However, both responses correlate with a localized increase in the apparent resistivity and thus, should be downgraded. Additionally, both anomalies are conspicuously absent from the dipole-dipole data,

although this could well be a result of using a rather large dipole length (300 feet). If real, both these anomalies must emanate from sources having extremely limited strike, width and depth extent. On the basis of the geophysics alone neither zone can be given a high rating. If however, there is any supportive geological or geochemical evidence of mineralization then further investigation of these zones is warranted.

V. CONCLUSIONS

The purpose of the survey was to map the subsurface distribution of polarizable material in the hope of outlining any zones of increased pyrite content. To this end, the results have yielded only two anomalies on Line 12E; both of which are considered to be of poor potential. Further work on these possible targets (stations 21N and 25N) is recommended only if there exist corroborative geological or geochemical evidence of mineralization.

Respectfully submitted,

K.R. Keeler
Geophysicist

APPENDIX A

EQUIPMENT SPECIFICATIONS

SPECIFICATIONS

HUNTEC MARK IV

INDUCED POLARIZATION RECEIVER

A.1 GENERAL SPECIFICATIONS

A.1.1 Inputs

Signal Channel

Range	5 x 10 -5 to 10 volts. Automatic gain ranging. Overload indication above 10 volts.
Resistance	Greater than 10 9 ohms differential (ie between + and - terminals).
Capacitance	Less than 3 x 10 -11 Farads
Bias Current	Less than 10 -8 Amperes
Bandwidth	Basic bandwidth is 100 Hz. A 12 hz digital lowpass filter is selectable via a switch on the programming panel.
SP Cancellation Range	-5 to +5 volts (automatic)
Protection	Low leakage diode clamps, gas discharge surge arresters, field replaceable fuses.
Terminals	Two colour-coded (red and black) signal inputs plain chassis ground terminal. Push posts: 120 volt insulation, accepts maximum 1.5 mm diameter wire.

Reference Channel

Maximum	5 volts peak
Overload Indication	Operates above approximately 5 volts peak
Resistance	2 x 10 5 ohms differential
Capacitance	Less than 3 x 10 -11 Farads
Input Connector	Four pin female (includes battery and ground, for operating reference isolatin amplifiers)

A.1.2 Battery

10 Nickel-Cadmium "F" cells in series. Nominal 12.5 volts. 8 hours continuous operation in RUN or STANDBY mode. LOW BATTERY indicator operates at nominal 11.5 volts. Automatic shut-down occurs at approximately 10 volts to prevent battery damage and/or bad data. Battery voltage is available on

digital display via keypad.

A.1.3 Functional Specifications

Electrical

Memory

Random Access

Memory (RAM)	4k, expandable to 8k
Erasable Programmable Read Only memory (EPROM)	6k, expandable to 8k

Signal Channel

Automatic Gain Ranging Amplifier	x1 to 4096 in increments of 2 n
Aliasing Filter	100 Hz low pass fourth order HURROMAF polynomial 24 db/octave roll off
Sample & Hold A/D Converter	12-bit, signal aperture 125 x 10 -9 seconds
Sampling Rate	Frequency domain mode 512 Hz Time domain mode 256 Hz
Synchronization	Determined by phase locked loop. Frequency of input signal should be within 0.01% of frequency setting on sub-panel for minimum synchronization delay.
Rejection Filters	Greater than 40 db at rejection frequency, auto tuned at start of reading.
Self Calibration	Compensates for drift in analogue circuitry to improve accuracy of amplitude and phase measurements

Mechanical

M-4 Receiver with Battery Pack	45 cm x 33 cm x 14 cm, 9.1 kg
M-4 Receiver (with battery pack and cassette Datalogger)	Same dimensions, 10.1 kg

Replacement

Battery Pack	3.3 cm x 11 cm x 45 cm, kg

Environmental

Temperature	Operation: -20C to +55C Storage: -40C to +70C
Humidity	Moisture proof, operable in light drizzle. Splash proof switches, keypad protected by rubber boots gasket seals on programming panel cover, main chassis and cassette loader.
Altitude	-1525 m to +4775m
Shock and Vibration	Suitable for transport in bush vehicles

SPECIFICATIONS

ELLIOT 1.5 KVA

INDUCED POLARIZATION TRANSMITTER

B.1 SPECIFICATIONS

B.1.1 Electrical Specifications

Input Power:	Phase:	single
	Frequency:	350 to 450 Hertz
	Power Level:	2000 VA nominally
	Voltage:	100 to 130 volts
Output:	Power 1500 watts instantaneous power during one part of cycle	
	Load impedance:	40 to 10,000 ohms and 60 to 6000 ohms for full power output when properly match to the load.
	Voltage:	200 volts to 3000 volts in 12 taps
	Output voltage accuracy:	+/- 10% at full load
	Current:	5 amperes maximum
	Voltage/ampere characteristics as follows:	

Tap Number	Voltage	Maximum Current
1	200	5.0
2	250	5.0
3	300	5.0
4	350	4.3
5	400	3.7
6	500	3.0
7	600	2.5
8	800	1.9
9	1100	1.4
10	1500	1.0
11	2000	0.7
12	3000	0.5

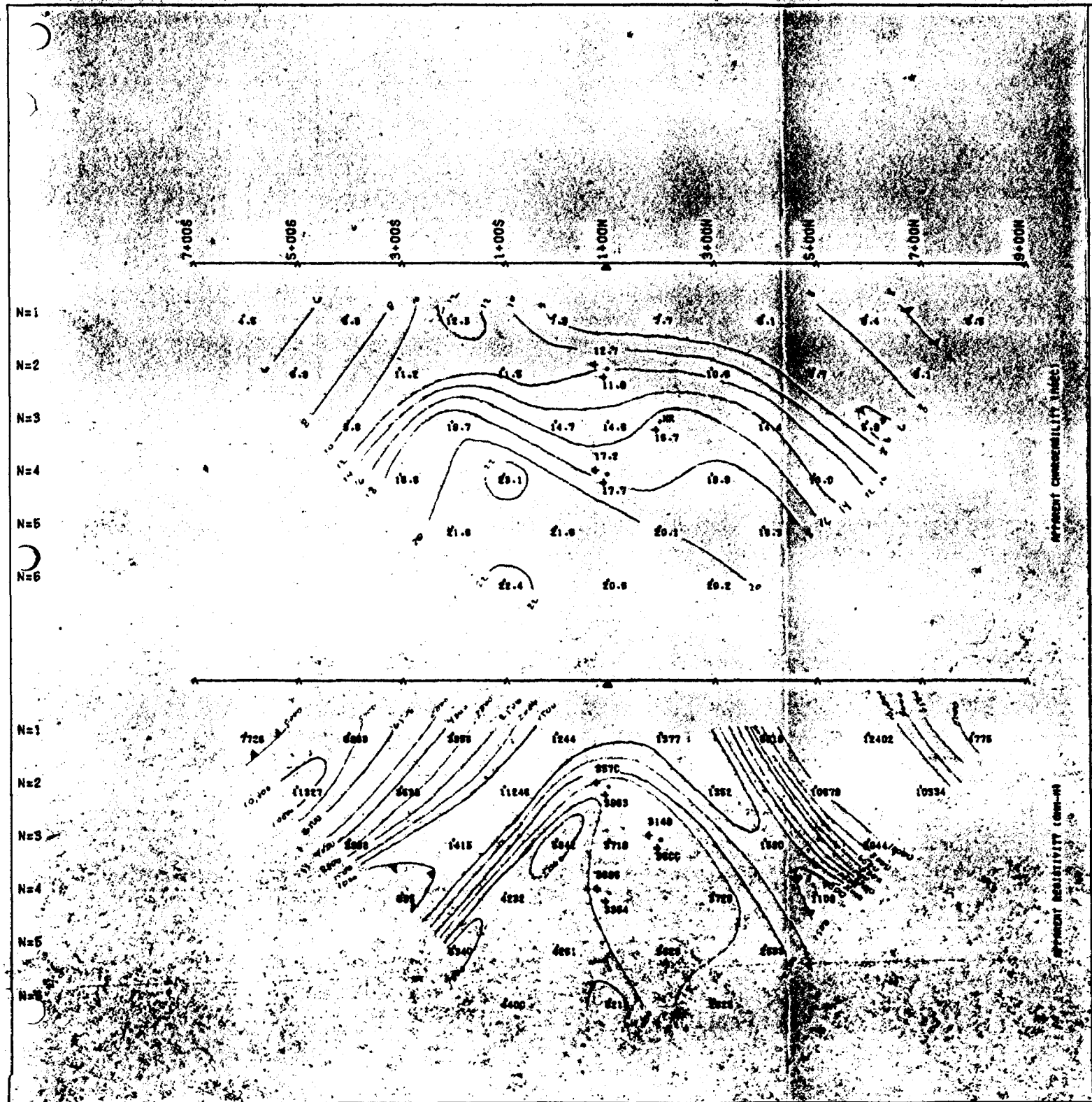
Current Measurement:	Analog meter, accuracy +/- 3%
Output phase:	Polarity of output indicated on front panel
Operating temperature:	Ambient -15 degree C to +60 degrees C (+5 degree F to +140 degree F)
Time cycle:	symmetrical period, range of quarter period, 0.5 to 10 seconds +/-2% over temperature range factory adjustable.
Fuse data:	Low voltage circuits type 3AG 0.5 A SB High voltage circuits type 3AB ceramic 20A Fan type 3AG 0.2 A SB

B.1.2 Mechanical Specifications

Construction:	Epoxy painted aluminum
Ventilation:	Forced air internal fan
Connectors:	Input MS3102E-18-3P

Output Supercon RS25GR

Dimensions: Case height 26.7 cm (10.5 inches)
Case width 40.6 cm (16 inches)
Case depth 29.2 cm (11.5 inches)
Weight without case 13.6 km (30 pounds)
Complete with case 20.4 kg (45 pounds)

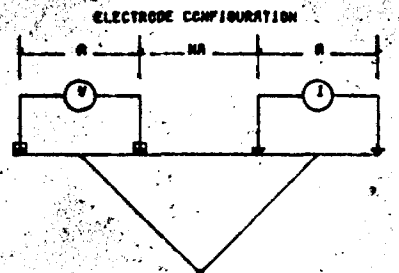


INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE

ELECTRODE CONFIGURATION



PLOTTING POINT

CHARGEABILITY CONTOUR INTERVAL

2 MSEC

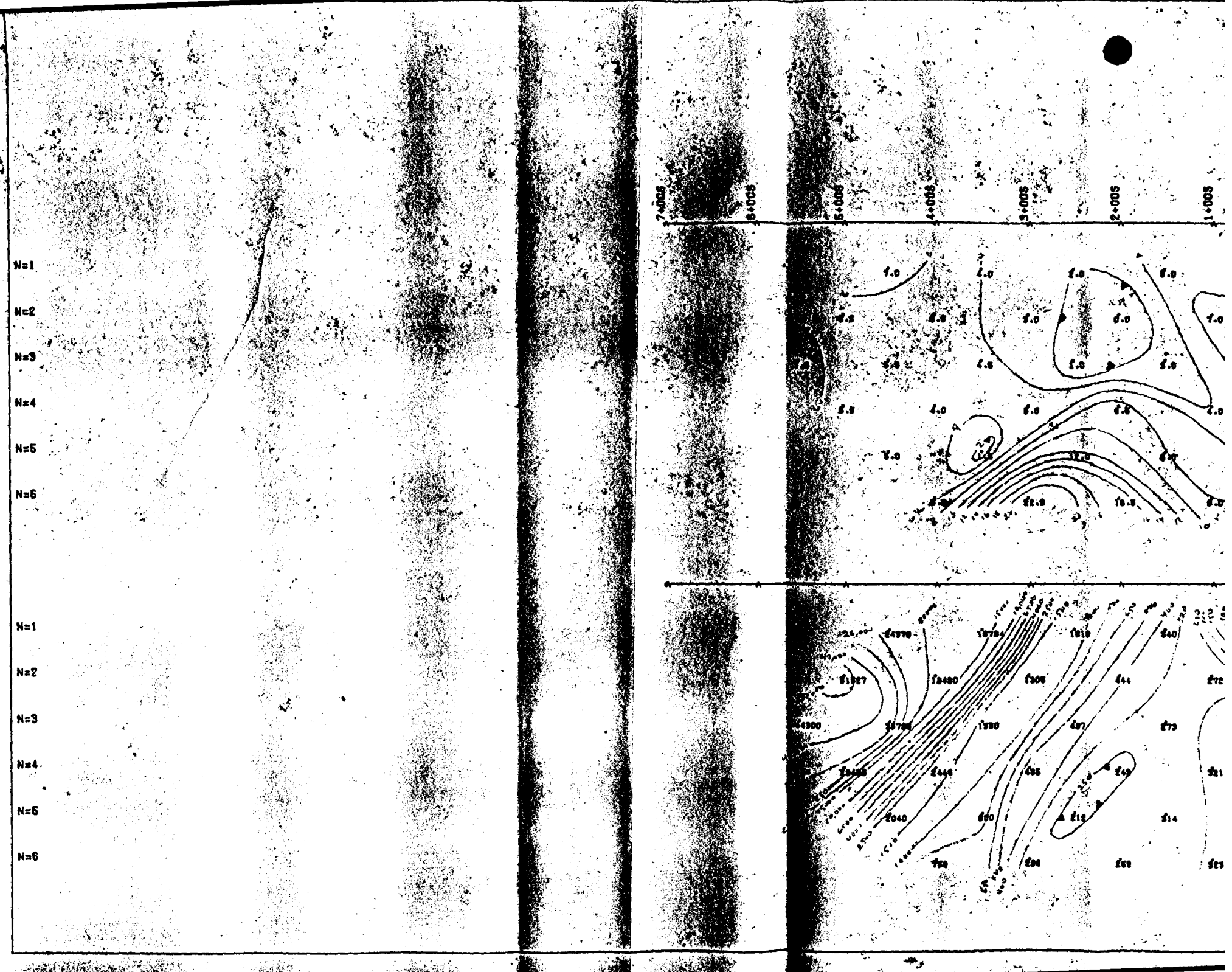
RESISTIVITY CONTOUR INTERVAL

10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH	: 200F
TIME SEQUENCE	: 2SECS ON/2SECS OFF
INTEGRATION TIME	: 470 TO 11000MSECS
TRANSMITTER TYPE	: ELLIOT 1.5KVA
RECEIVER TYPE	: HUNTEC M-4
HORIZONTAL SCALE	: 1:2400
VERTICAL SCALE	: 1:2400
SURVEYED BY	: PAP
DATE	: AUGUST 16 / 193

SURVEYED & COMPILED BY GEOTERREX LTD.	PROJECT NO. 85-838

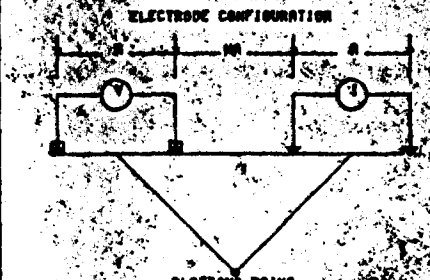
CLIENT	: MCDARRY GOLD RESOURCES
PROJECT	: MCDARRY PROPERTY
AREA	: KEARNS ONT.
GRID	: MCDARRY TOWNSHIP
LINE	: 48+00E


7+005
6+005
5+005
4+005
3+005
2+005
1+005
N=1
N=2
N=3
N=4
N=5
N=6
N=1
N=2
N=3
N=4
N=5
N=6

INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE



CHARGEABILITY CONTOUR INTERVAL
2 MSEC

RESISTIVITY CONTOUR INTERVAL
10, 15, 20, 25, 30, 40, 50, 65, 80, 100

DIPOLE LENGTH	: 100F
TIME SEQUENCE	: 2SECS ON/2SECS OFF
INTEGRATION TIME	: 470 TO 1100MSECS
TRANSMITTER TYPE	: ELLIOT 1.5KVA
RECEIVER TYPE	: SCINTREX IPR-7
HORIZONTAL SCALE	: 1:1200
VERTICAL SCALE	: 1:1200
SURVEYED BY	: PAP
DATE	: JULY 28 / 193

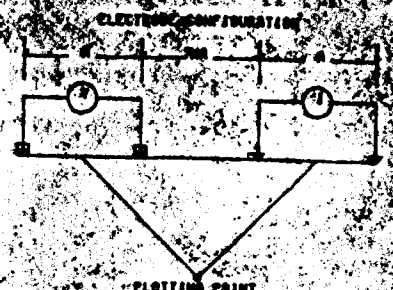
SURVEYED & COMPILED BY GEOTERREX LTD.	PROJECT NO. 85-938

CLIENT	: MCDARRY GOLD RESOURCES
PROJECT	: MCDARRY PROPERTY
AREA	: KEARNS ONT.
GRID	: MCDARRY TOWNSHIP
LINE	: 6+00E

INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE



PLOTTING POINT

CHARGEABILITY CONTOUR INTERVAL

2 MSEC

RESISTIVITY CONTOUR INTERVAL

10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH	: 300F
TIME SEQUENCE	: 2SECS ON/2SECS OFF
INTEGRATION TIME	: 470 TO 1100MSECS
TRANSMITTER TYPE	: ELLIOT 1.5KVA
RECEIVER TYPE	: SCINTREX IPR-7
HORIZONTAL SCALE	: 1:3600
VERTICAL SCALE	: 1:3600
SURVEYED BY	:
DATE	: AUGUST 13 / 198

SURVEYED & COMPILED BY GEOTERREX LTD.

PROJECT NO. 85-838

CLIENT : MCDARRY GOLD RESOURCES

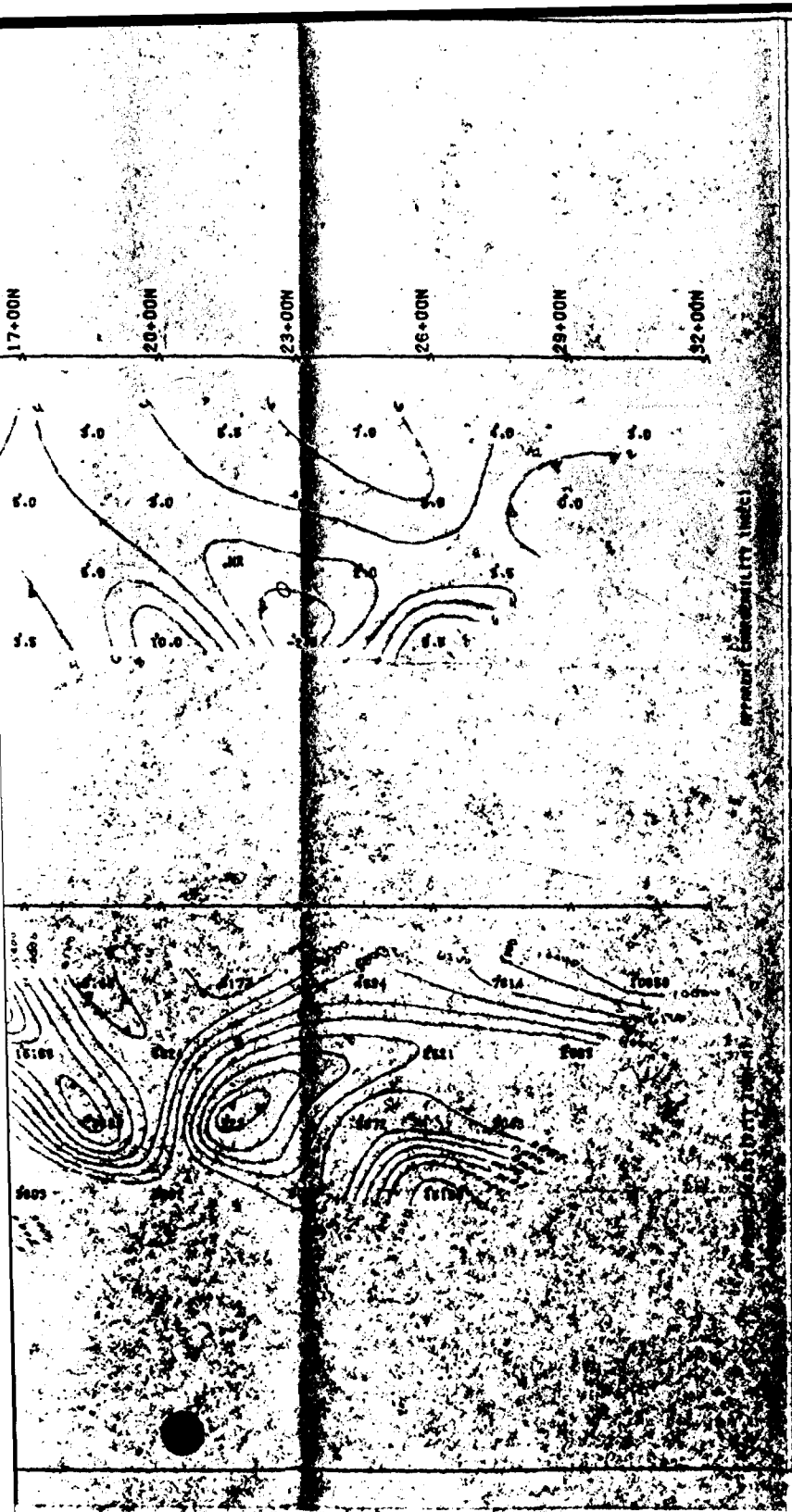
PROJECT : MCDARRY PROPERTY

AREA : KEARNS ONT.

GRID : MCDARRY TOWNSHIP

LINE : 8+00E

23·00N
20·00N
17·00N
14·00N
11·00N
8·00N
5·00N
2·00N
1·00S
4·00S
7·00S

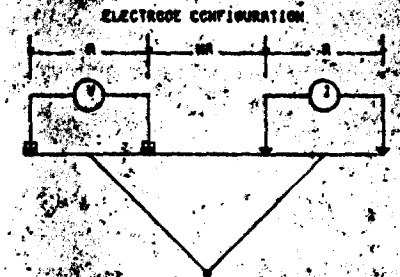


INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE

ELECTRODE CONFIGURATION



PLOTTING POINT

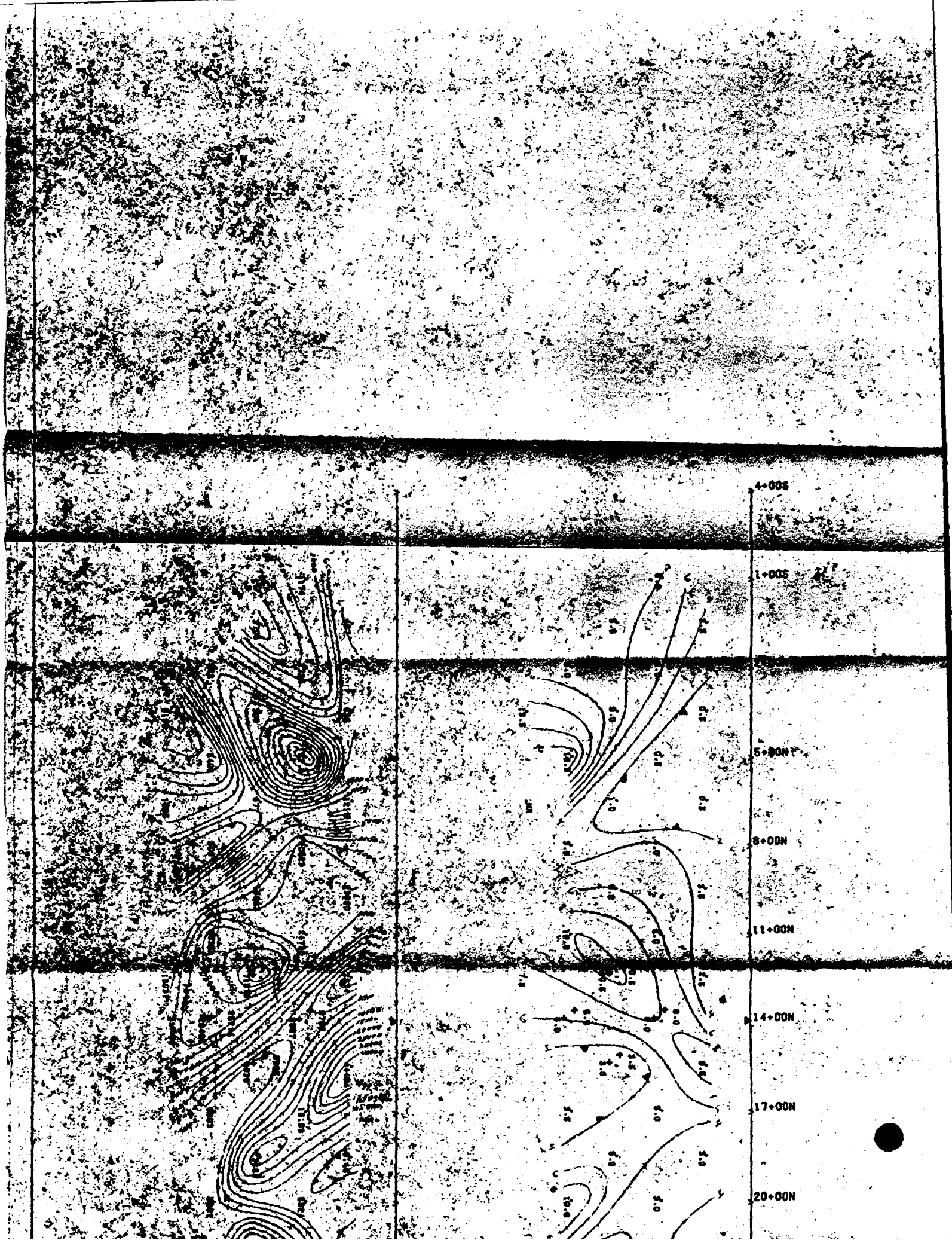
CHARGEABILITY CONTOUR INTERVAL

2 MSEC

RESISTIVITY CONTOUR INTERVAL

10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH	200M
TIME SEQUENCE	2SEC ON/2SEC OFF
INTEGRATION TIME	470 TO 1100MSECS
TRANSMITTER TYPE	ELLIOT 1.5KVA
RECEIVER TYPE	SCINTREX IPR-7
HORIZONTAL SCALE	1:2500
VERTICAL SCALE	1:1250
SURVEYED BY	PRP
DATE	AUGUST 14, 198
SURVEYED & COMPILED BY	GEOTERREX LTD.
PROJECT NO	85-208
CLIENT	MCCORRY-DOLD RESOURCES
PROPERTY	MCCORRY PROPERTY
AREA	BEARDS CRT
GRID	MCCORRY TOWNSHIP
LINE	12500E


4+00S
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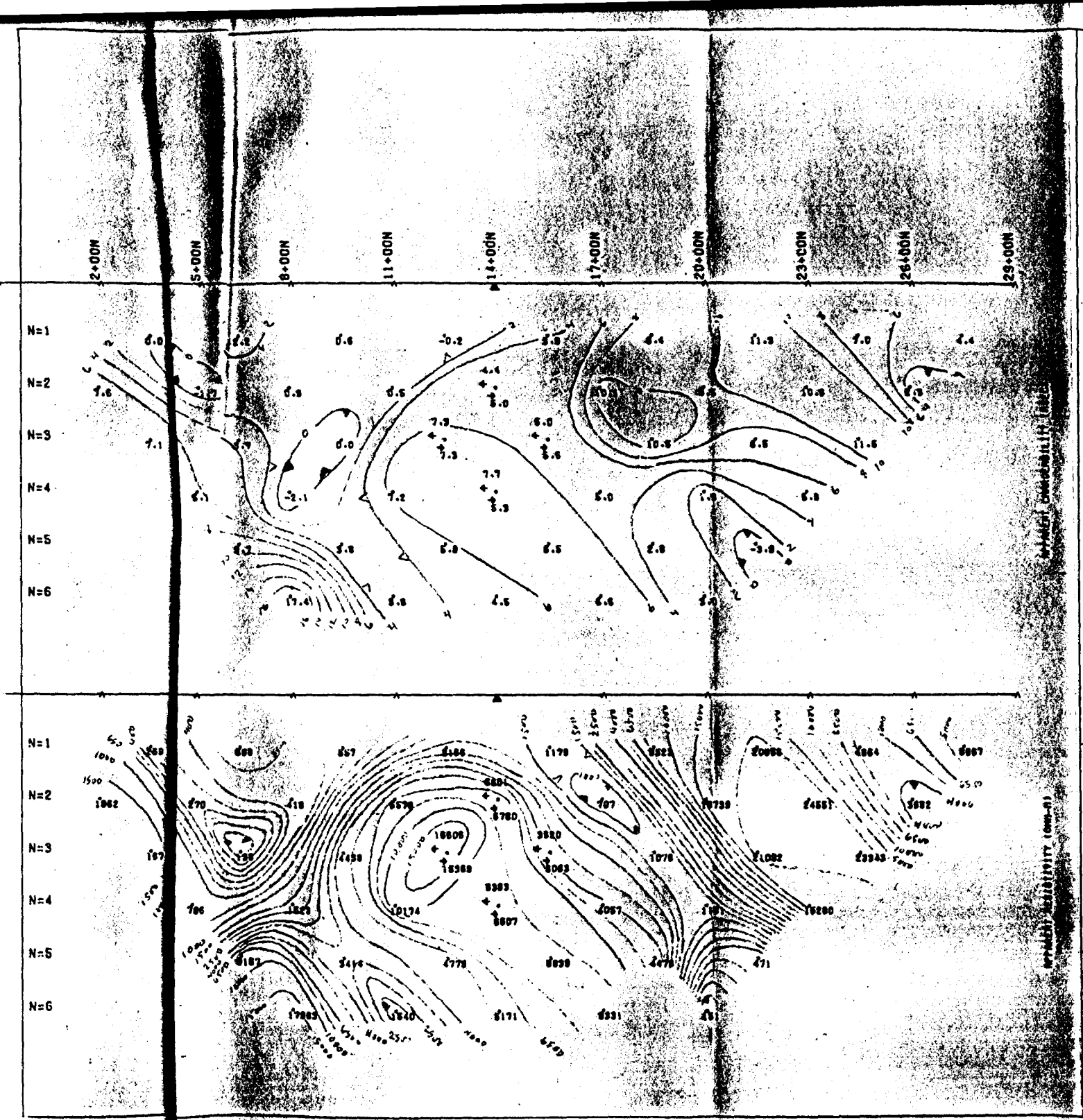
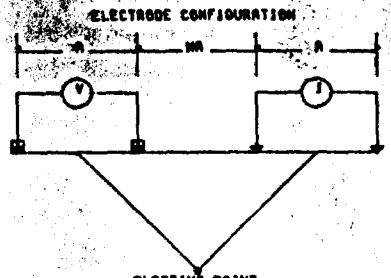
8+00N
11+00N
14+00N
17+00N
20+00N



INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE

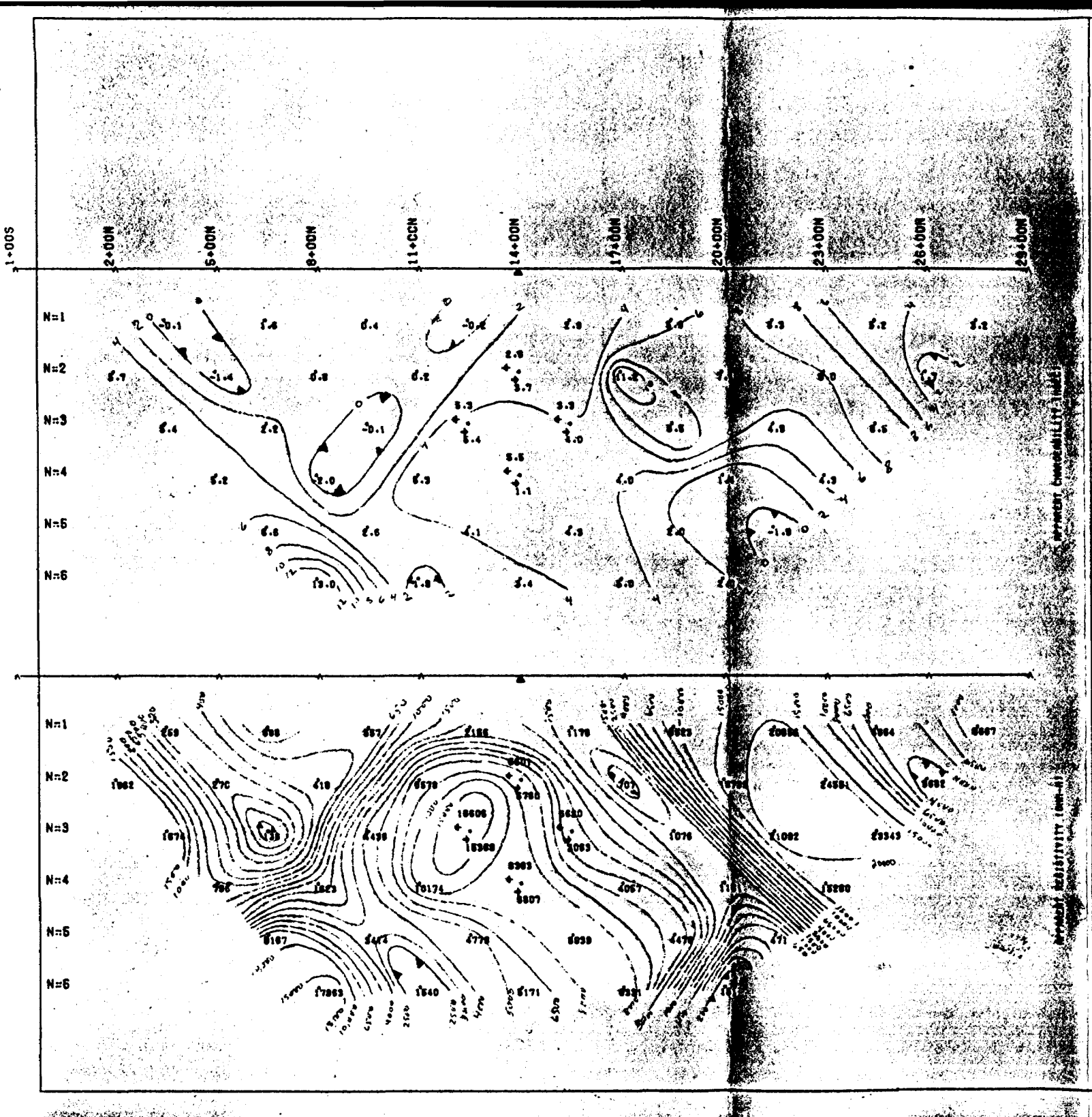


CHARGEABILITY CONTOUR INTERVAL
2 MSEC
RESISTIVITY CONTOUR INTERVAL
10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH	: 300F
TIME SEQUENCE	: 2SECS ON/2SECS OFF
INTEGRATION TIME	: 470 TO 1100MSECS
TRANSMITTER TYPE	: ELLIOT 1.5KVA
RECEIVER TYPE	: HUNTEC M-4
HORIZONTAL SCALE	: 1:3600
VERTICAL SCALE	: 1:3600
SURVEYED BY	: PAP
DATE	: AUGUST 15 / 193

SURVEYED & COMPILED BY GEOTERREX LTD.	PROJECT NO. 85-938

CLIENT	: MCDARRY GOLD RESOURCES
PROJECT	: MCDARRY PROPERTY
AREA	: KEARNS ONT.
GRID	: MCDARRY TOWNSHIP
LINE	: 26+00E

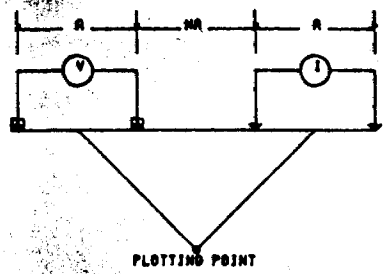


INDUCED POLARIZATION SURVEY

DIPOLE - DIPOLE ARRAY

CHARGEABILITY MEASURED PER PULSE

ELECTRODE CONFIGURATION



PLOTTING POINT

CHARGEABILITY CONTOUR INTERVAL

2 MSEC

RESISTIVITY CONTOUR INTERVAL

10, 15, 20, 25, 32, 40, 50, 65, 80, 100

DIPOLE LENGTH	:	300F
TIME SEQUENCE	:	2SECS ON/2SECS OFF
INTEGRATION TIME	:	470 TO 1100MSECS
TRANSMITTER TYPE	:	ELLIOT 1.5KVA
RECEIVER TYPE	:	HUNTEC M-4(IPR-7
HORIZONTAL SCALE	:	1:3600
VERTICAL SCALE	:	1:3600
SURVEYED BY	:	PAP
DATE	:	AUGUST 15 / 193

SURVEYED & COMPILED BY	PROJECT NO.
GEOTERREX LTD.	85-938

CLIENT	:	MCDARRY GOLD RESOURCES
PROJECT	:	MCDARRY PROPERTY
AREA	:	KEARNS ONT.
GRID	:	MCDARRY TOWNSHIP
LINE	:	28+00E

32D04NE0423 63.4352 MCGARRY

030

DETAILED GEOLOGY MAPPING 1983

over portion of

AZA PROPERTY OF McGARRY RESOURCES INC

by

Hulbert A. Lee, Ph.D., P.Eng.
Exploration Systems
February, 1984

DETAILED GEOLOGY MAPPING 1983

over portion of the

AZA PROPERTY OF McGARRY RESOURCES INC.

INTRODUCTION

The writer in July of 1983 did detailed geological mapping at a scale of 1 inch to 100 feet over the areas shown on the enclosed map. This mapping was followed by detailed magnetics, then surface diamond drilling. The Report will make use of all of this work in describing the geology.

Earlier mapping that includes this area has been done at a scale of 1 inch to 1000 feet by Thompson (ODM Map 50a, 1941), and 1 inch to 400 feet remapping by Lee (OMNR Assessment files, Kirkland Lake, Geology, Lee Geo-Indicators, 1979 and 1980). Some structural work was done immediately south of the locale by Downes (OGS, 1980, Open File Rept. 5293). General regional stratigraphy is given by Jensen (O.G.S. Miscellaneous Paper 96, 1980).

Certain definitions will be used throughout this Report. Magnetic means the rock pulls a suspended pencil magnet, called a Magna-Tool, towards it. Calcareous means a fizz reaction when a 10% HCl solution is applied to fresh rock, normally drill core. Conglomerate means 50 to 100% content of pebbles and larger pieces. Conglomeratic sandstone means 25 to 50% of pebbles or larger.

AGE RELATIONS

The oldest known rocks in this locale are the basalts situated just north of the detailed map-area. They have been placed in the Archean Kinojevis Group by Jensen.

A sedimentary basin, south of the basalts but still north of the RR Baseline includes sediments and pyroclastics (Units 3 to 5). These form a relatively thin cover over gabbroic masses. They show strong NNE trending cleavages, our S1 structure.

They have been intruded by gabbroic sills shown by contained xenoliths and by silicification and pyritization close to the sills.

Although the contact has not been seen, the gabbroic sills seem to change into syenite pipes and vents which produced plumes of volcanic ash and lapilli pyroclastics. Some contemporaneity between the sills, the vents, the ash and the sediments is indicated by intercalation of tuff with sediments, and late quartz-feldspar gash veins in the syenite, and late silification throughout all. This means late phase tectonic activity.

South of sediments of Unit 5, are the quiet-water, calcareous sediments of siltstone (Unit 8) and limestone (Unit 9), the latter is found only in drill core of hole 83-2.

Along the RR Baseline in subcrop and just south of it in outcrop is the top portion of the "Larder Group" (Unit 11) with its angular, gritty, quartz and felspar. Included with

it are occasional coarser pebbles of jasper from older sediments of Unit 5. The beds are largely fluvial that show easterly cross-bedding with tops to the south.

Nearing the surface at the RR Baseline and with a fault-dip south is a striking structural rock, here called tectonite, because of its extreme compression and uncertain origin. In drill core it is adjacent to a thrust-fault zone in which the rocks are highly altered to talc.

Above the "Larder Group" and south of the RR Baseline is a single high hill composed of Temiskaming Group rocks. These are chiefly conglomerates, well-bedded steeply-dipping to overturned and form the nose of a major thrust fold. Cross-joints are well-developed in the fold with a strike of 300 to 340 degrees. In some joints there is an infilling of cocks-comb quartz, calcite, and blue tourmaline. These cross-joints are mapped as S3 structures.

LITHOLOGIES

Unit 1 - Basalt Tholeiite

(Note: Unit 3a on map 1" = 400')

Fine to medium-grained, dark green rock except where epidote alteration lightens the colour. Pillow-structures and/or flow breccia are common. They outline the nose of a northeasterly trending fold with tops to the north at Instant Pond and tops to the south at Stump Pond.

Near faults, as at Instant Pond, strong alteration to epidote, specularite, and arsenopyrite is common for the basalts.

The basalt is intruded by a syenite to gabbroic plug near Instant Pond where the plug contains numerous large inclusions, and the alteration has spread into the basalts.

A chemical analysis of the basalt at L48+75E 12+80N is given in Table 1. The rock falls into Jensen's volcanic classification as a THOLEIITE BASALT.

Table 1. Chemical Analysis of Basalt

AT L48+75E 12+80N. Sample MC23

Oxides	Percent	Element	
SiO_2	45.4	Cr	260 ppm
Al_2O_3	15.2	Rb	Nil
CaO	5.21	Sr	80
MgO	9.11	Zr	10
Na_2O	2.42	Au	Nil PPB
K_2O	0.07	As	1 <ppm
Fe_2O_3	13.8		
MnO	0.11		
TiO_2	1.23		
P2O5	0.09		
LOI	7.46		
TOTAL	100.1		

Unit 2 - Gabbroic Differentiate

This is a highly differentiated gabbroic mass outcropping chiefly to the west and having its top face easterly.

Unit 2a - Diorite

Towards the central part of the gabbroic mass are the diorites. These rocks are medium to coarse-textured, pale whitish green in colour, and generally are fresh-looking with only a very thin rind of weathering.

The primary minerals from hand specimen are estimated at 60% plagioclase and 40% pyroxene. The feldspars are 3 to 5 mm in length, pale green in colour, and have a waxy appearance. The pyroxenes are ½ to 1 mm in length and they too are moderately fresh in appearance. A low mafic content, low sulphide content allows these diorites to weather into higher hills. The rocks are generally non-magnetic. They are cut, or show, occasional quartz segregations.

Interpretation:

The diorite represents a residue left in the magma after the sulphides, and more basic components were driven-off. Not considered of economic interest.

Unit 2b - Pegmatite Gabbro

This formation forms a narrow ridge with steep sides straddling L28W on the map of 1" = 400'. As such it is a zone within the larger gabbro mass.

The rock is distinctive and blackish because of its elongated, curved plagioclase crystals. It carries some pyrite and pyrrhotite.

The curved plagioclase and the sill-like geometry suggest an interior part of a gabbroic mass before extensive differentiation had a chance to take place.

It has no known economic significance.

Unit 2c - Carbonate Gabbro

Exposed in stripped zone at 20+50N 13+80E and in drill core, this rock forms an alteration band of a gabbro body. It is dark, non-magnetic rock characterized by whitish spots and blebs that are strongly calcareous. In the stripped outcrop the carbonate gabbro grades, over a few inches, into strongly magnetic gabbro and on its other side into emerald-green alteration.

The interpretation is the top of a gabbroic mass with basic carbonate zones driven from the magma rather than the earlier phase magnetic oxides. Such late alteration could mean pathways for sulphides.

Unit 2d - Non-magnetic Gabbro

Equigranular, medium to fine-grained rock composed essentially of plagioclase and hornblende. It is non-calcareous, and non-magnetic.

Unit 2e - Magnetite Gabbro

Situated north of the RR Baseline forming an eastern rim or near top to the main gabbro formation. The rock is dark black, heavy, and very strongly magnetic. It is composed of plagioclase and magnetite. The feldspars show some layering. Pyrrhotite, pyrite, and minor chalcopyrite are common constituents. Locally the rock carries hornblende, pyroxene and quartz. It may locally grade into gabbro pegmatite but this is not common. The rocks show strong interval jointing at 290° at closely-spaced intervals from 4 to 12 inches. Some of the jointed edges show slickensides.

Mineralogical Studies on a Sample BL X-2-82

Larder Lake was made by R. Barager. His description by written communication is as follows:

Minerals

Primary	Plagioclase	40-50%
	Augite	40-50%
	Quartz	5%
	Magnetite	12-13%
Secondary	Chlorite-extensive	
	Clay minerals	
	Epidote	
	Sphene	
	Amphibole-minor	

Alteration

Extensive. Plagioclase 30-40% to clays and epidote. Pyroxene. 20-30% to chlorite mainly, plus actinolite. Magnetite. 15-20% to sphene.

Description

Medium-grained (0.25-1.0 mm) mafic igneous rock in which the original igneous texture is obscured by abundant secondary replacement. Magnetite is more abundant than in most gabbroic rocks and its texture which is blocky and of uniform size rather than skeletal or pockalitic is suggestive of early rather than late crystallization. Quartz is uniformally distributed and invariably in the interstices - its crystallization is late in the sequence but undoubtedly primary.

Interpretation

High magnetite content with early crystallization plus quartz in interstices suggests a fairly advanced stage of differentiation when the melt has been enriched in iron and sufficiently depleted in olivine as to give excess quartz. Probably upper part of a large gabbroic mass.

A chemical analysis of this magnetite gabbro is given in Table 2. from L0+00E 5+20N.

Table 2. Chemical Analysis of Magnetite Gabbro, Sample MC11

Oxides	Percent	Element	
SiO_2	44.7	Cr	180 ppm
Al_2O_3	11.7	Rb	30 ppm
CaO	7.64	Sr	120 ppm
MgO	6.64	Zr	10 ppm
Na_2O	2.13	Au	nil ppm
K_2O	0.14	As	1 ppm

Table 2 (continued)

Oxides	Percent
Fe_2O_3	20.7
MnO	0.26
TiO_2	2.33
P_2O_5	0.09
LOI	3.39
TOTAL	99.5

Unit 2f - Leucoxene Gabbro

(Note: Unit 3b on map 1" = 400')

This forms a marginal zone around the eastern edge of the gabbroic mass. The rock is medium to coarse-grained. It is medium grey coloured but distinctive with hexagonal skeletal flesh brown patterns of leucoxene after titaniferous magnetite. The rock is not as heavy as the magnetite gabbro. All variations of leucoxene, skeletals to complete titaniferous magnetite show in drill core and along with this the rocks vary from non-magnetic to strongly magnetic. Locally they are calcareous and may show high silica giving the impression of bleaching. Locally some epidote and considerable pyrite, pyrrhotite, silicification and some gold accompany the feldspars and magnetite. It is not uncommon in core to see thin quartz stringers, bounded by parallel lines of leucoxene gabbro, suggesting late mineral pathways.

Mineralogic studies by Barager (written communication) describes sample BL X-1-82 as follows:

Minerals

Primary	Plagioclase (replaced)
	Quartz
	Magnetite (replaced)
	Apatite
Secondary	Chlorite
	Montmorillonite
	Leucoxene

Description

Medium to coarse-grained (1-2 mm grain size). Leucocratic rock, much shattered and net veined with clay minerals. Very little of primary igneous texture recognizable from coarse-grain size and some suggestion of blocky to elongate plagioclase crystals. Also coarse skeletal opaque crystals (1-3 mm across) intact as to shape, but totally replaced by leucoxene. Primary minerals except quartz entirely replaced: feldspar by clouded mosaic of recrystallized feldspar and intercalated chlorite and clay minerals; magnetite by leucoxene (sphene) and whatever dark minerals originally present (probably scarce) by chlorite. Even quartz generally much clouded with inclusions of fine opaques and chlorite. Some rods of apatite survives.

Interpretation

Coarse-grained size of plagioclase and opaques plus the presence of much coarse interstital quartz and some apatite together with a scarcity of ferromagnesium minerals indicates that the original rock was an extreme differentiate of a mafic body - a granophyre or pegmatite. Not impossibly it could also be a mafic body contaminated by salic material such as a granitoid rock through which it may have intruded. Definitely not a volcanic as interpreted by Lee in earlier mapping 1" = 400' as a porphyritic and recrystallized basalt.

Economic

This mass provides a host alteration potential for gold and in places becomes a brittle shattered rock.

2g - Granodiorite and Magnetic Diorite

Situated about 18+00N and Line 16 to 20E is a medium to coarse-grained intrusive of dark to pinkish colour. The pinkish colour appears to be due to the feldspars. The rock is magnetic.

2h - Metamorphic Contacts

These rocks are variable and their field relationships are not yet clear. They include serpentinite bodies, spinifex textured rocks, a jade-like green rock, and fine textured hard hornfels some of which carry arsenopyrite and some with epidote alteration.

3 - Green Carbonate Alteration

The two outcrops of this unit are small. The rocks are dolomitic, carry emerald-green patches, and extensive quartz ladder-veining. At L42E the rock is in contact with leucoxene gabbro of Unit 2f.

4 - Yellow Claystone (Sericite and Chert)

This yellowish formation is distinct, appearing to represent broken thin layers. The "yellow chips" show green-stick fracture. By X-ray Diffraction they are composed of (sericite) mica and quartz (chert). In places the chert is concretionary. Fine-grained pyrite is a common constituent. The rock varies from soft to brittle.

5 - Sandstone (jasper)

In drill core, this rock is a fine to medium-grained grey sandstone with only the occasional yet distinctive small grain of reddish jasper or iron formation. Pyrite is disseminated to about 1% but also is concentrated in layers, as if bedded. The quartz grains are clear to glassy, usually angular and the feldspars are also angular to subangular.

The matrix seen in drill core has very fine flecks of ferrodolomite. In outcrop, the ferrodolomite weathers and permits the rock to be subdivided into Unit 5a with moderately high carbonate (6 to 30%) or into Unit 5b with very high carbonate of over 40%.

Mineralogical studies on a specimen of the jasper sandstone from L14E 9+50N were done by S.A. Scott (written communication) and are given below:

Minerals

Primary	Quartz 50%
	Plagioclase 40%
	Ankerite 5-30%
	Pyrite 1%
Secondary	Marcasite
	Sericite

Description

Colour is grey to greenish. Medium grain size of about 0.5 mm is predominent with only a few fine sizes and the occasional pebble. The glassy angular quartz shows slight layering of the more elongated fragments. The feldspars are whitish and sericitized. Pyrite in the form of marcasite is common with uniformally distributed rounded grains. On rare occasions there is a clast of jasper or one of graphite.

Chemical analysis is given in Table 3 for the sandstone at L14E 9+50N.

Table 3. Chemical Analysis of Jasper Sandstone

Oxides	Percent	Element	
SiO_2	70.1	Cr	184 ppm
Al_2O_3	12.4	Cu	140 ppm
Fe_2O_3	5.79	Ni	72 ppm
Fe	0.0	Zn	86 ppm
MgO	2.81		
CaO	1.03		
Na_2O	2.95		
K_2O	1.39		
TiO_2	0.60		
P_2O_5	0.13		
S	0.00		
MnO	0.03		
CO_2	0.0		
H_2O+	2.7		
H_2O	0.0		
TOTAL	99.9		

6 - Syenite

The syenites are pinkish coloured intrusive rocks. All are magnetic. Several varities are mapped.

The pyroxene syenite of Unit 6a is distinguished by its content of pale green blocky pyroxenes and pinkish fledspars. On occasion the rock is grey rather than pink.

The green mica syenite of Unit 6b carries coarse-grained emerald-green mica as fuchsite along with pinkish feldspars.

A syenite porphyry (6c) is distinguished by large euhedral reddish brown feldspars in a fine-grained matrix of the same composition. The rocks appear to represent vents and dykes. In the dykes, the feldspars show absorbed edges with extensive carbonate alteration. They include xenoliths of country rock and caused silicification, a bleaching effect, into the country rock.

All the syenites are brittle and where shattered produce avenues for gold solution pathways and deposition.

7 - Volcanic Tuff

The volcanic tuff of Unit 7a, unlike syenite, is non-magnetic. The tuff is thinly interlayered with jasper sandstone of Unit 5. As mentioned earlier it forms plumes off the syenite vents. Chemically, where checked, the tuff is dacite, although earlier 1" = 1000' mapping by Thomson has called it trachyte. On weathered surfaces, the lithic nature and flattened triangular-shaped green clasts of collapsed shards and vesicles are clearly shown. The larger crystals are feldspar phenocrysts which amount to 15 to 30 percent of the whole rock and which impart that porphyritic-look. These feldspars

are pale in colour, subhedral, and commonly of oval to irregular shape. Their boundaries with the matrix is diffuse. A dark green mica is occasionally seen in hand specimen. The matrix of the rock is dark green to pinkish in colour and is composed of very fine-grained angular quartz and feldspar with specks of chlorite and abundant lines of sericite. Anhedral pyrite grains are a common accessory. As mentioned earlier this rock has a strong northeasterly cleavage, which on the maps of Thomson were shown as bedding.

Chemical analyses of the volcanic tuff is given in Table 4.

Table 4. Chemical Analyses of Volcanic Tuff

Analysis (wt. %)			Traces (ppm)		
Oxides	Site 1	Site 2		Site 1	Site 2
SiO_2	61.6	61.4			
Al_2O_3	15.3	14.7	Cr	102	90
Fe_2O_3	4.21	3.83	Cu	18	8
FeO	0.0	0.0	Ni	25	19
MgO	2.48	2.46	Zn	65	45
CaO	3.39	3.76			
Na_2O	4.99	3.72			
K_2O	2.25	3.20			
TiO_2	0.42	0.4			
P_2O_5	0.21	0.23			
S	0.0	0.0			
MnO	0.08	0.08			

Site 1 is from diamond drill core adjacent to outcrop at L14+50E 9+00N.

Site 2 is at L41E and 0+20N.

Table 4 (continued)

Analysis (wt. %)

Oxides	Site 1	Site 2
CO_2	0.0	0.0
H_2O+	5.11	6.75
H_2O	0.0	0.0
TOTAL	100.0	100.5

Chemical analysis of a well chloritized lapilli tuff is given in Table 5.

Table 5. Chemical Analysis of Chloritized "Lapilli Tuff" Sample MC37

L58E 1+10N

Oxides	Percent	Element	
SiO_2	49.2	Cr	1240 ppm
Al_2O_3	10.2	Rb	80
Ca	6.64	Sr	200
MgO	2.03	Zr	70
K_2O	2.41	Au	10 PPB
Fe_2O_3	10.9	As	< 1 ppm
MnO	0.19		
TiO_2	0.63		
P_2O_5	0.36		
LOI	3.85		
	99.7		

This gives a cation plot of Jensen as

MgO	38%
Al_2O_3	29%
Fe_2O_3+TiO_2	33%
	100%

It fits a basaltic komatiite chemically on Jensen's chart.

These felsic tuffs and lapilli tuff are competent, brittle rocks, and where shattered produced avenues for gold solutions to pass and to deposit.

Unit 8 - Siltstone

This formation is composed of fine-grained rocks that vary in colour from grey to black to greenish black. They locally are calcareous and usually are non-magnetic.

In outcrop, thick beds can be seen, but in drill core it is possible to mistake the siltstone with a fine-grained massive altered gabbro.

Unit 9 - Limestone

Seen only in drill core of hole 83-2, the limestone is weakly bedded dark green, strongly calcareous, and non-magnetic.

Unit 10 - Chlorite, Tectonite

This rock is so strongly compressed that the grains of quartz and carbonate are squeezed into augen ovals, and the

chlorite resulting from chloritic pressure solution residues form crinkly membranes in closely-spaced successive layers, a Z type folding. The rock is cross-cut with quartz carbonate veining.

Chemically the tectonites as given in Table 6 fit Jensen's 1974 classification of komatiite basalts. They match the highly altered grey-brown quartz carbonate schists of the famous alteration zones of the Chesterville - Kerr Addison orebody as given by Buffam and Allen (CIM Symposium, Structural Geology of Canadian Ore Deposits, 1948).

Table 6. Chemical Analyses of Tectonites

By weight percent

Oxides	Site 51513	Site MC50 (drill core 51513)	Site MC51 (drill core 51513)
SiO_2	42.6	43.7	42.9
Al_2O_3	7.54	7.12	7.89
Fe_2O_3	10.4	11.2	11.0
FeO	0.0	-	-
MgO	19.5	19.3	17.7
CaO	6.44	5.09	5.61
Na_2O	0.50	0.38	0.97
K_2O	0.41	0.52	1.09
TiO_2	0.49	0.51	0.56
P_2O_5	0.22	0.22	0.23
S	0.00	-	-

Table 6. (continued)

By weight percent

Oxides	Site 51513	Site MC50 (drill core 51513)	Site MC51 (drill core 51513)
MnO	0.20	0.13	0.15
CO_2	0.0	-	-
H_2O+	13.8	-	-
H_2O-	0.0	-	-
LOI	-	12.3	12.4
TOTALS	102.1	100.5	100.5
	TRACES		
Cr	1260 ppm	-	-
Cu	22 ppm	-	-
Ni	560 ppm	-	-
Zn	91 ppm	-	-
Au	-	2 ppm	2 PPB
Rb	-	0 ppm	70 ppm
As	-	2 ppm	3 ppm
Zr	-	50 ppm	60 ppm
	CATION PLOT (JENSEN)		
	%	%	%
MgO	19.95	18.69	21.24
Al_2O_3	51.59	50.66	47.58
$Fe_2O_3+TiO_2$	28.57	30.70	31.18
	100.1	100.1	100.1

If volcanic, plots as Basaltic Komatiite.

The high magnesia, high water, and high chromium along with the evidence of quartz carbonate veining, some fuchsite show this rock to be a suitable conduit for gold bearing solutions. All shattered brittle zones adjacent to it should be closely prospected for gold.

Unit 11 - Chert Conglomeratic Sandstone

A grey sandstone matrix is prevalent in rocks of Unit 11. The composition of a sample from L8E 7+50S includes porcelanic feldspar 60%, glassy quartz 30%, carbonate 10%, locally pyrite, minor pyroxene. It forms the sandstone of Unit 11b. Whereas in Unit 11a, pebbles are common and are composed of dark and white chert and yellow chips of sericite-chert.

The chert pebbles are generally rounded but the yellow chips are from broken layers and appear to have been ripped off, folded with abundant green-stick fractures.

The pebbles in Unit 11c are composed of chert and a porphyry having euhedral feldspars.

Unit 12 - Green Competent Sandstone

This strongly siliceous rock, difficult to break, is composed of rounded and angular fragments and grains of quartz and feldspar.

Unit 13 - Slate

Slate or phyllite outcrops in a vertical section at L20+20E 1+00S. In the exposures, it has a buff yellowish colour where it occurs in a bed about two to four feet wide. It is strongly cross-fractured.

Grey slate is in thin discontinuous beds as part of Unit 11.

Unit 14 - Grey Grit Sandstone

A medium-grained grey sandstone composed of angular to sub-angular quartz and feldspar and having the occasional pebble. It is coarser grained than the sandstone of Unit 5 and has very few fines in the matrix. Normally its non-calcareous, and non-magnetic.

Unit 15a - Conglomerate, Conglomeratic Sandstone, Sandstone

The conglomerate (15c) 50 to 100% pebbles, is grey, carries cobbles and pebbles composed of creamy white and black chert, moderate amounts of vein quartz, some reddish jasper, some syenite porphyry, and the occasional fine-grained mafic - a broad assemblage.

The cobbles and pebbles are rounded. Some of the chert pebbles are shattered and the cracks are infilled with the matrix of grey sandstone of Unit 11. Later quartz veining cuts Unit 15.

The conglomeratic sandstone of Unit 15b has 25 to 50 percent pebbles and cobbles. It is grey with whitish pebbles.

The sandstone of Unit 15a is grey, with coarse-grained white chert, feldspathic chert, occasional mafic. It is non-calcareous, non-magnetic. The mineral grains are subrounded.

Respectively submitted,
EXPLORATION SYSTEMS

Hulbert A. Lee

Hulbert A. Lee, Ph.D., P.Eng.
February, 1984.

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

2) I am a graduate of Queen's University with a BSc. in Geology (1949) and a graduate of the University of Chicago with a Ph.D. in Geology (1952).

3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on data collected while I was mapping, unless otherwise referenced in the text.

Stittsville, Ontario
February, 1984

Hulbert A. Lee

Hulbert A. Lee

32D04NE0423 63.4352 MCGARRY

040

PROSPECTING
OVER A PORTION OF
AZA PROPERTY, McGARRY RESOURCES INC.
McGARRY TOWNSHIP, ONTARIO

by

Theodore Miron and H.A. Lee

February, 1984

PROSPECTING OVER A PORTION OF AZA PROPERTY, McGARRY RESOURCES INCORPORATED, McGARRY TOWNSHIP, ONTARIO

INTRODUCTION

Prospecting was done prior to surface drilling over selected portions of the Aza Property. The work was carried out by prospector Theodore Miron of Sudbury in July of 1983 on behalf of McGarry Gold Partnership and its general agent McGarry Resources Incorporated.

The area covered and lines traversed are shown on the enclosed Map in the Pocket. Grab samples taken for assay are shown on the map, described in Table 1, and marked on the ground by red flagging tape with sample number.

Most samples were examined by a geologist before being sent for assay to help in the description given in Table 1.

RESULTS

Table 1. Descriptions of Samples with Assays

Sample No.		Description of Sample Assayed	Fire Assay Gold PPB
M1	16+00E/17+00N	Pyritized diorite	Nil
M2	16+00E/16+50N	Pyritized diorite	Nil
M3	14+40E/21+30N	Carbonated gabbro	10
M4	14+40E/21+30N	Apple green alteration next to gabbro. East side of pit of Dobrijevich	Nil
M5	14+40E/21+30N	West side of above pit as above	Nil

Table 1. (continued)

Sample No.		Description of Sample Assayed	Fire Assay Gold PPB
M6	14+00E/7+50N	Junction of tractor roads. Pyrite beds in sandstone of map unit 5	540 PPB
M7	14+00E/7+25N	Near junction of two roads. Pink feldspar, pyroxene, minor quartz and pyrite - syenite	1280 PPB
M8	14+00E/7+50N	Pink syenite porphyry composed of pink feldspar and pyroxene.	20
M9	14+00E/7+50N	Claim L428752. Grey syenite porphyry composed of pink feldspars with chalcopyrite on slip planes second pulp	20710 20160 13370 14400
M10		Float from creek at Campsite Mining Claim L721126.	110
M11	13+90E/4+15S	Siltstone with vfg pyrite, possibly gold. Map unit 8.	60
M12	14+00E/8+00N	At road intersection. Same as M6. Disseminated pyrite in jasper sandstone of map unit 5.	110
M13	12+00E/9+00S	Fine-grained sandstone with small specks of pyrite disseminated throughout.	Nil
M14	12+00E/10+75S	Tourmaline and quartz veins	Nil
M15	10+00E/6+80S	Stringers of pyrite in fine grey siltstone. Map unit 8.	30
M16	10+00E/6+00S	Disseminated pyrite in conglomerate with chert fragments.	10

Table 1. (continued)

Sample No.	Description of Sample Assayed	Fire Assay Gold PPB
M17 12+00E/4+00N	Carbonated siltstone with small veinlets of quartz.	Nil
M18 16+50E/4+00S	Mud chip pebbles, quartz stringers	Nil
M19 14+50E/5+00S	Quartz stringers in pebble conglomerate	Nil
M20 14+00E/4+00S	Claystone with chert pebbles, pyrite	10
M21 14+50E/4+00S	Quartz stringers in syenite	Nil
M22 17+00E/6+00S	Siltstone with cubes of pyrite	Nil
M23 17+90E/7+00S	Medium-grained light grey sandstone with quartz stringers	Nil
M24 18+00E/6+50S	Quartz stringer chips with very fine pyrite and some medium-grained sandstone	Nil
M25 18+00E/6+80S	Light grey medium-grained sandstone with disseminated pyrite	Nil
M26 17+90E/4+00S	Unusual float, black and white coarse crystal porphyry?	Nil
M27 20+60E/3+00S	Light grey medium-grained sandstone with black pebbles and fine-grained pyrite	Nil
M28 19+35E/5+00S	Grey sediment with black chert and fine specks of pyrite.	Nil

Table 1. (continued)

Sample No.	Description of Sample Assayed	Fire Assay Gold PPB
M29 20+00E/6+10S	Green and grey sediment with more than usual pyrite. Some specks of chalcopyrite.	Nil
M30 20+00E/6+50S	Quartz veinlets, grey and black sandstone with very fine pyrite.	Nil
M31 50+00E/12+00N	Sheared schist at shore of Beaver Pond.	Nil
M32 47+50E/12+00N	Quartz vein and schist	Nil
M33 47+80E/11+10N	Pit south of stump pond	Nil
M34 43+50E/12+00N	West side of south wall of large pit. Chalcopyrite, pyrite, yellow claystone of unit 4.	Nil
M35 43+50E/12+00N	East side of same pit as M34. Chalcopyrite, quartz vein ½ wide, running through light grey sediment	20 10
M36 9+60E/6+10S	Rusty platy sheared pebble from lodgment till.	Nil
M37 22+00E/4+10N	Pink porphyritic syenite with feldspathic matrix. Chloritized, strongly magnetic. Slickensides sparse pyrite.	Nil
M38 14+20E/6+90N	At Pit. Syenite with chalcopyrite on shear	50 60
M39 14+10E/6+80N	West side of pit. Chalcopyrite and syenite.	30
M40 14+50E/5+80N	Hard platy black brittle ¼" vein. X-rays as hematite and silica.	Nil
M41 14+60E/5+65N	Syenite shear zone. Sample from east side of pit.	30

Table 1. (continued)

Sample No.	Description of Sample Assayed	Fire Assay Gold PPB
M42 14+80E/7+10N	Grey jasper sandstone, pyrite.	Nil
M43 14+10E/7+50N	Grey jasper sandstone with seams of pyrite.	30
M44 12+67E/5+78N	Syenite from shear with pyrite.	Nil
M45 12+22E/5+00N	Grey jasper sandstone with pyrite.	560 350
M46 44+50E/9+30N	Old pit. Quartz with disseminated pyrite.	Nil
M47 44+70E/9+30N	Carbon, quartz, chalcopyrite and fine grey sediment.	Nil
M48 45+10E/10+10N	Pit. Grey sediments. Lots of chalcopyrite and pyrite.	10
M49 47+90E/6+00N	Quartz vein, some grey sediment.	40
M50 48+30E/7+30N	Quartz vein, chalcopyrite, pyrite.	50
M51 50+50E/14+20N	Small bay at Stump Pond shore. Chalcopyrite in calcite vein.	10
M52 47+00E/6+70N	Small pit. Light grey siliceous sediment with chalcopyrite.	30
M53 46+10E/6+15N	Very fine-grained sediment with chert, quartz, chalcopyrite and massive pyrite.	Nil

Table 1. (continued)

Sample No.	Description of Sample Assayed	Fire Assay Gold PPB
M54 44+00E/7+10N	Sheared syenite with black vein of speculate	Nil
M55 42+00E/2+00N	Large float of grey sediment with quartz veins and massive chalcopyrite.	1720 820
M56 40+60E/1+80N	Shear zone, chalcopyrite and yellow quartzite(?).	20
M57 48+55E/6+70N	Yellow tuff, emerald-green fuchsite, specularite.	Nil
M58 50+50E/9+00N	Old pit. Shearing along quartz vein. Some chalcopyrite.	40
M59 33+00E/9+00S	Chert sample from bulldozer road.	lost

CONCLUSIONS

The best rocks from prospecting are north of the RR Baseline. The most interesting showing is in Claim No. L428752 at about 14+00E 7+50N where grab samples from syenite bedrock, M9, assayed gold at 0.3 to 0.6 ounces/ton in two separate pulps for four runs. Other grab samples from the same outcrop area include M6 in sandstone at 540 PPB, M7 in syenite at 1280 PPB, and M8 in syenite at 20 PPB. That is all grab samples taken showed gold.

Another interesting find is a large piece of float, M55, with 1720 PPB gold.

A showing in Claim L720959 is of interest because of the highly favoured blue-black quartz vein and chert layers in outcrop.

The earlier showing of Ivan Dobrijevich, M3-M5, was power stripped and exposed the pyrite and arsenopyrite veins and the emerald-green carbonated gabbro. However the gold results from these three samples are disappointing.

Respectively Submitted

H A Lee

H.A. Lee

February 29, 1984.

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

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3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on prospecting by Theodore Miron while I supervised the project on site.

Stittsville, Ontario
February, 1984

Hulbert A. Lee

Hulbert A. Lee

32D04NE0423 63.4352 MCGARRY

050

POWER STRIPPING ON AZA PROPERTY

OF

McGARRY RESOURCES INCORPORATED

McGARRY TOWNSHIP, ONT.

by

H.A. Lee

February, 1984

POWER STRIPPING

Power stripping was carried out between July 25th and August 3rd, 1983 on Mining Claims L422250, L428750, L428751, L428752, and L531699 held by McGarry Resources Incorporated, licence T1524.

A large 1HC500 Bulldozer of Cheminis Lumber Co. Kearns, Ontario was used on July 27 for 4.5 hours, and a Hy-Hoe Backhoe of A.W. MacIntryre and Associates of Kirkland Lake was used on July 25 for 6 hours, July 26 for 5.5 hours, August 1 for 7.5 hours and August 3 for 11 hours.

Location and size of areas stripped are shown in Figure 1.

The work was supervised on site by Theodore Miron and H.A. Lee.

Respectively submitted,
LEE GEO-INDICATORS LIMITED
Hulbert A. Lee
Hulbert A. Lee

Attached : Claims Map of Property
Sketch Map of Stripping

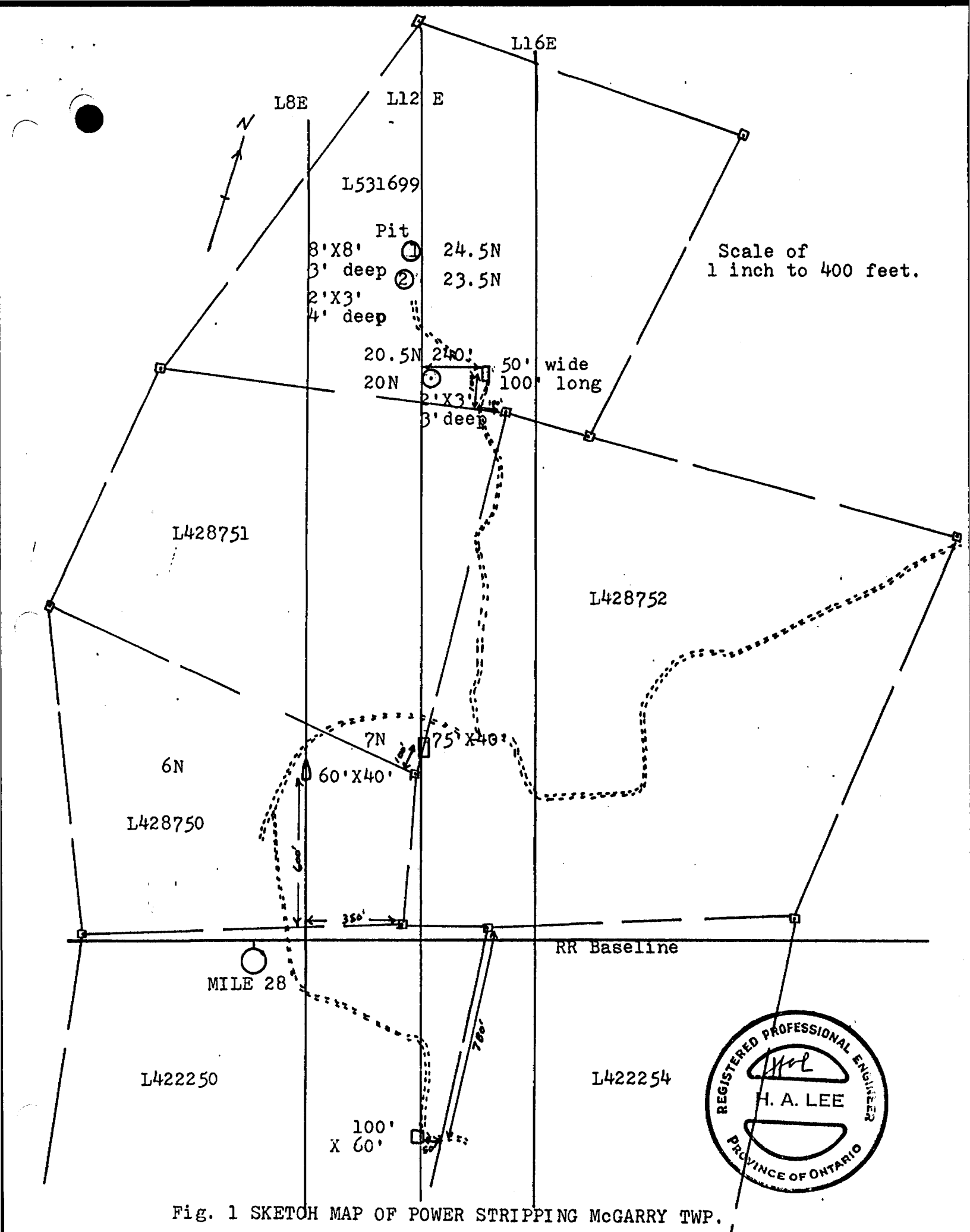

Fig. 1 SKETCH MAP OF POWER STRIPPING McGARRY TWP.

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4) The statements made in this report are based on power stripping that Theodore Miron and I supervised.

Stittsville, Ontario
February , 1984

Hulbert A. Lee
Hulbert A. Lee

32D04NE0423 63.4352 MCGARRY

060

BASAL LODGMENT TILL IN 1983

over the

McGARRY RESOURCES INCORPORATED

AZA PROPERTY,

McGARRY TOWNSHIP, ONTARIO

by

Hulbert A. Lee

Exploration Systems

February, 1984

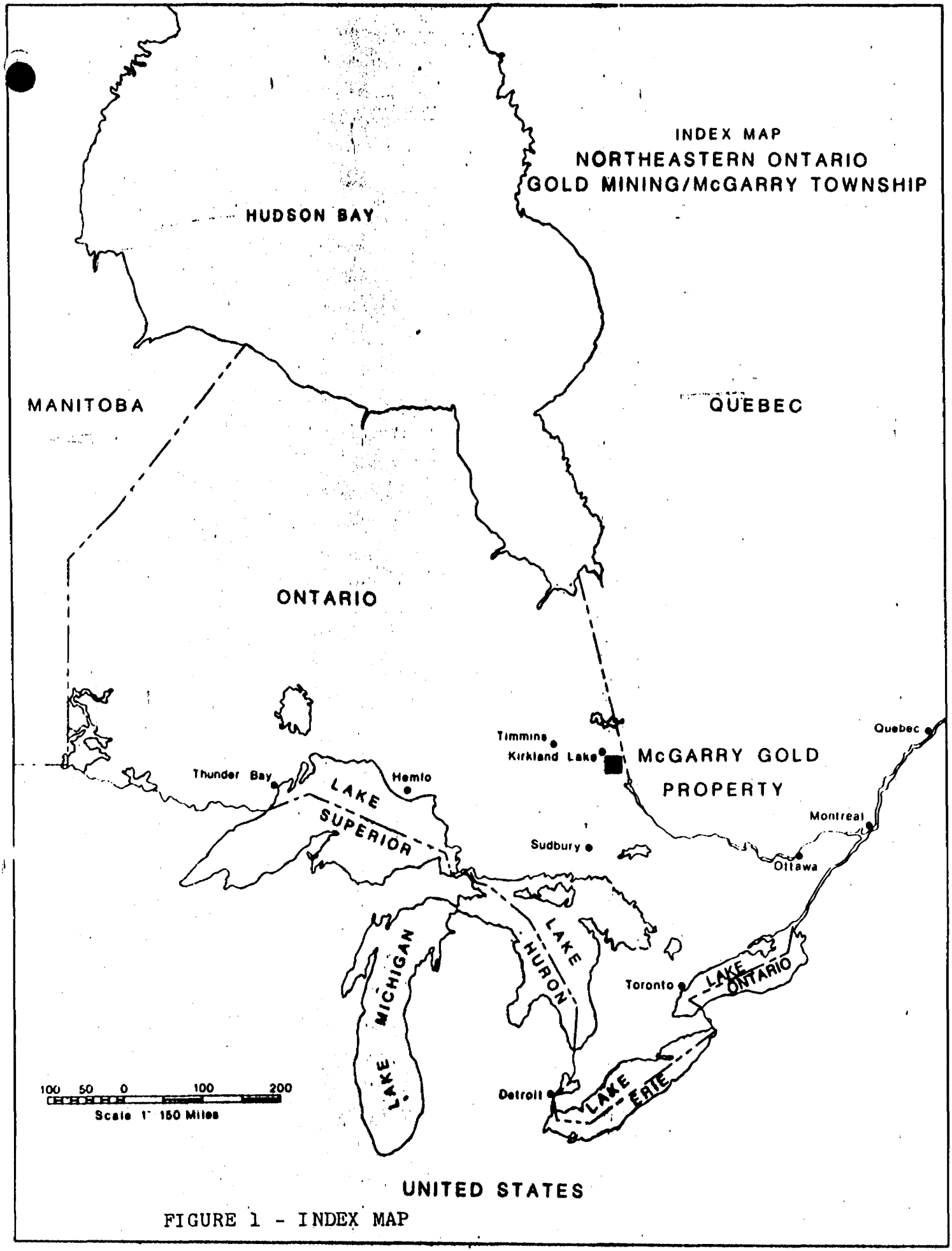
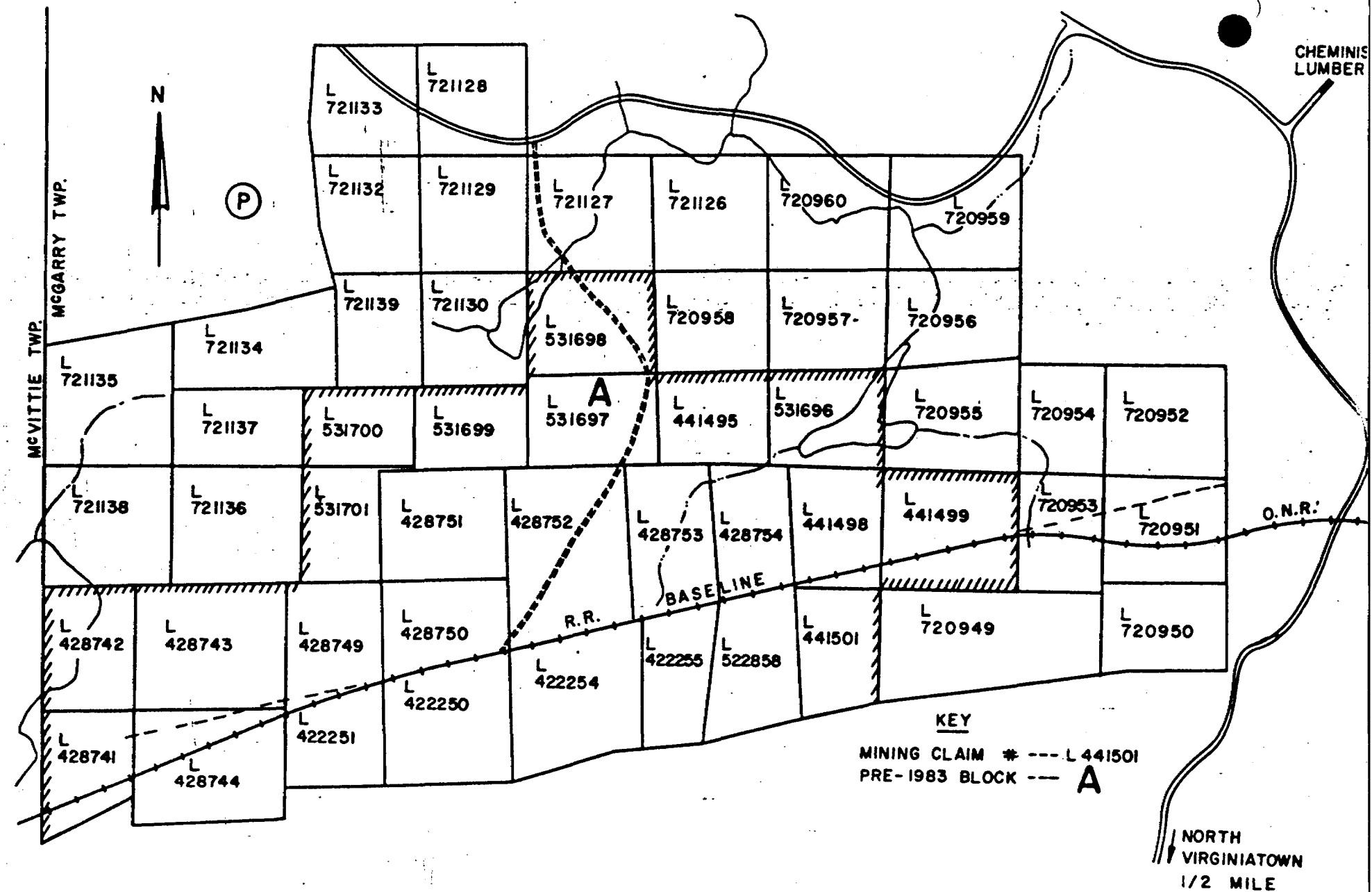
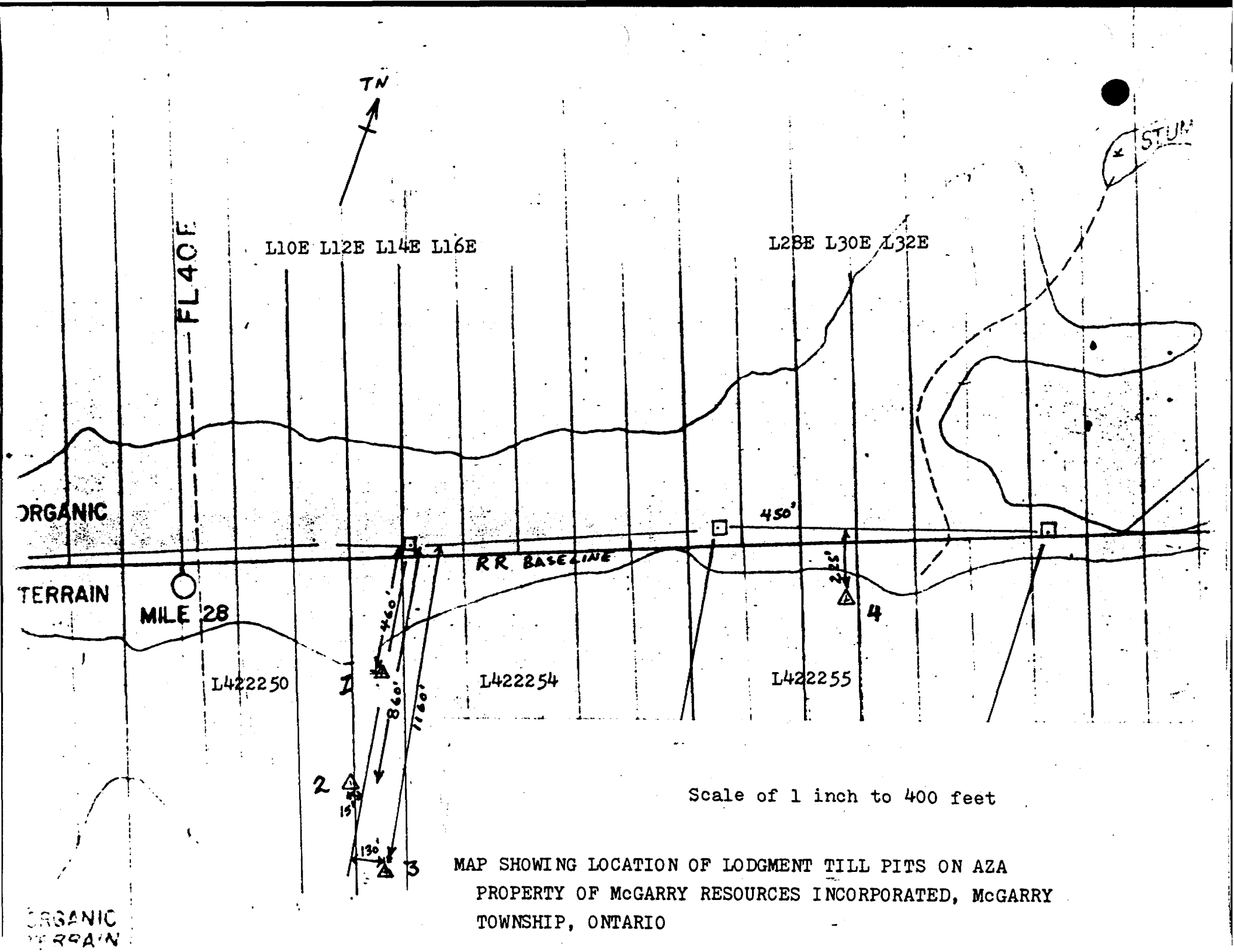


FIGURE 1 - INDEX MAP



MINING CLAIMS MAP OF AZA PROPERTY OF McGARRY RESOURCES INC.



MAP SHOWING LOCATION OF LODGMENT TILL PITS ON AZA PROPERTY OF McGARRY RESOURCES INCORPORATED, McGARRY TOWNSHIP, ONTARIO

BASAL LODGMENT TILL IN 1983

INTRODUCTION

Major encouragement for exploration on the Aza property has come from the strong gold trains in basal lodgment till which led to a cut-off up-transport at/or near the Railway Baseline (Lee, 1974).

The 1983 basal till survey was designed to do detailed work over this up-transport end of the gold trains. Gold orebodies are known to be small in size hence difficult to hit with a thin probe of the diamond drill. Therefore, narrowing the main gold trains into single lines would be of tremendous assistance. The designed approach was to use several large pieces of excavating equipment to get down and expose the desired sampling layer of lodgment till. However, this approach was thwarted by a narrow floating bog across which trafficability was not possible with the 35-ton bull-dozer, the Timberjack, nor the backhoe.

Failing mechanization, some hand pitting was done. It too was locally strongly impeded by an overlying cover of large quarried blocks and by talus cover on the decline towards the escarpment edge, both overlying the sampling layer. Faced with these difficulties and the tight time-frame, the emphasis of the program was switched to a search for path-finders at the sites of the previously determined high gold counts in lodgment till and to obtain a direction for former transport by fabrics of that till.

Table 1. Rock Types in Lodgment Till at Sites of High Gold Counts

Map-Unit	Lithology	Percentages at sites 1	2	3	4
1	Tholeiitic Basalt	15	21	29	14
2	Gabbro	19	27	40	5
2f	Leucoxene Gabbro	6	3	4	5
4	Yellow Claystone	1	0	0	4
5a,c	Sandstone, Med. to Low Fe Carb.	4	5	4	10
5b	Sandstone, High Carbonate	6	11	2	8
6	Syenite	20	6	5	33
7	Syenite-derived Tuff	10	6	10	5
10	Tectonite, Chloritic cb. Green Mud	0	12	0	2
11a	Pebbly Grit Conglomerate	16	0	6	12
	Granite	0	3	0	0
	Vein quartz-carbonate	0	0.5	0.5	0
	Spinifex rock	1	0	0	0
	Dolomite	0.5	0	0	0
	Mica Schist	0	0	0.5	0
	Black Chert	0	0	0	2
		100	101	101.5	100

Sites: 1. L13+00E/3+95S formerly D705
2. L11+85E/7+80S formerly D616A
3. L13+00E/11+00S formerly D616
4. L29+30E/2+00S formerly D630

The four important sites chosen for study are now described.

SITE 1. L13+00E/3+95S

The Purpose

Site 1 is located at L13+00E, 3+95S on a north-facing slope of about 20 degrees situated on a plateau top above the escarpment that faces north towards the RR Baseline.

The site formerly D705 has a high gold particle content in the lodgment till at 14 coarser gold particles (0.1 to 0.4mm) and 34 smaller particles (under 0.1mm) determined from a one-cubic foot sample (Lee, 1980).

The old sample pit of D705 was refound, cleaned-out, and made ready for the petrology and fabric studies. The purposes were to find out what rock conditions carry gold in the clasts and to determine the local direction of the former transport.

The Stratigraphy

The stratigraphy in the pit is shown in Figure 1. The terrain surface has a few large diameter blocks, about 6 feet

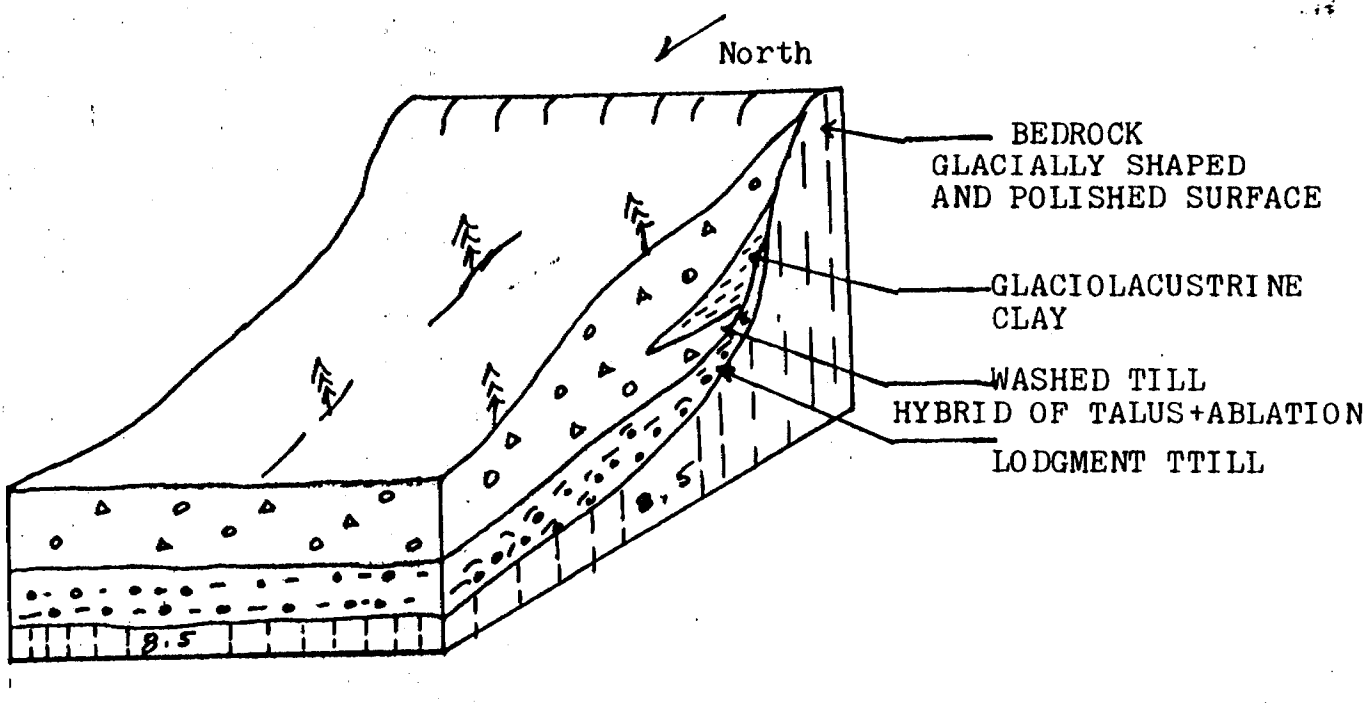


FIGURE 1.- SKETCH SHOWING STRATIGRAPHY AT SITE 1

across, composed of syenite-derived tuff that were quarried by the ice-sheet from a narrow ridge located 1000 feet to the north. These blocks are angular and preserve perfectly the jointed edges of the quarried bedrock as it is seen in place. In other words, these blocks were carried above the bedrock floor without undergoing any erosion of their edges during transport.

Below and around these quarried blocks is the typical hybrid formation we call "washed till". The formation overlies and interfingers with glacial lake clay near to where it laps onto bare bedrock. The washed till contains both angular and subrounded stones, tend to be sandy to gravelly sand, and has been oxidized to a yellow-brown colour. The pebble clasts have had late secondary transport as talus-colluvium, downslope wash, and current transport from former wave-pounding. Two sources of primary transport are known for the washed till. One component was by glacier as ablation material and the other component is from frost-shattered, decomposed bedrock. Needless to say, such a polygenetic unit is complex hence of little use in detailed drift exploration.

Below the washed till, and very local clay lenses, lies the lodgment till formation. It rests directly on the bedrock surface where it is glacially shaped, striated, and slopes northward up-former ice transport. The till has the six characteristics of lodgment till: (1) Pebbles are subrounded; (2) The till breaks along sub-horizontaly parting

planes - fissility; (3) The pebbles break-clean of the matrix leaving a perfect cast; (4) The pebbles are of local rock types; (5) The till has a sand-silt matrix, usually fresh; (6) The till is on a glacially-shaped surface which is polished and striated.

Because of its high content of locally derived bedrock, this lodgment till is the favoured formation for detailed use in exploration.

The colour of the till at this site is dark brownish to reddish brown reflecting its derivation from magnesium-carbonate clasts weathering to reds and green muds, and from the dark reddish syenite clasts.

The bottom of the section below lodgment till is bedrock of map-unit 5, a quartz-feldspar sandstone with minor pyrite. The rock is locally folded and plunges 5° easterly. Along the fold axis there is minor infilling of siltstone and vein quartz.

Lithologies

A sample of 200 pebbles in the size range of 4 to 8mm was used for determination of the rock types shown in Table 1. The rocks of local origin are to be expected in drill core under the swamp just north of the RR Baseline. The abundance of gabbro, basalt, and syenite is higher than expected from surface outcropping for that region, and are therefore to be expected in subcrop below the swamp.

The leucoxene gabbro is of probable economic significance because it preserves the ilmenite lamella from once titaniferous magnetite. This means a late regeneration of the magma with inherent late tectonic effects useful for shattering rocks and readying them for gold retention.

Selected Specimen Examined for Gold

A specimen, 5cm x 5cm x 2cm, of yellow-brown ochre was examined under binocular microscope, and then superpanned before re-examination. The composition is about 90% yellow limonitic ochre after carbonates and 10% vein quartz. The quartz is whitish, has cockscomb growth, and has been fractured by late tectonics to produce a weak breccia. This vein material could come from our S3 cross-joints. The superpan concentrate shows the matrix to carry pyrite - as cubes and pyritohedrons - thin magnetite veinlets, few spinels, occasional garnet, and occasional epidote. This assemblage is more typical of the gabbro-hornfels-epidote bedrock contact about L16E/15+00N than under the swamp near the RR Baseline. The specimen does not carry gold, but does carry a piece of chalcopyrite.

Till Fabric

The till fabrics (Figure 2) determined on 100 elongated rock clasts in lodgment till shows the dominant former transport direction to lie between 140° and 179°. Diamond drilling should be done on the reciprocal of this direction.

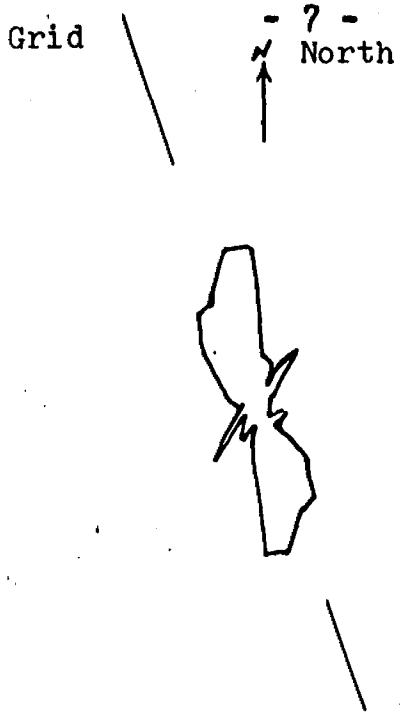


FIGURE 2. - TILL FABRIC OF ELONGATED PEBBLES IN LODGMENT TILL AT SITE 1

SITE 2. L11+85E/7+80S

The Purpose

Site 2 is located at L11+85E/7+80S on a plateau surface. It is the site of former D616 having a high gold particle count in the lodgment till with 13 coarser particles of gold (0.4-0.1mm) and 29 smaller particles (under 0.1mm) per cubic foot of sample.

The old sample pit was refound and readied for studies on petrology and fabrics in order to determine the host conditions for gold and former transport direction.

The Stratigraphy

Stratigraphy in the pit is represented by surface to 10cm of brown washed till, then from depth 10cm to 20cm brownish grey oxidized lodgment till which in turn rests directly on bedrock shaped into roches moutonées and glacially polished. The bedrock is of map-unit 12, a green competent sandstone.

Lithologies

The lithology distribution of lodgment till at Site 2 comes from identification of 204 pebbles in the size range of 4 to 8 mm. The large amounts of tectonite map-unit 10, at 12% is of special interest for it represents an intensely folded altered rock similar to the "carbonate schists" of the Chesterville - Kerr Addison orebody. At site 2 it consists of "pads of sheets" with wisps of chloritic material around magnesium and calcium carbonates. The rock is green to pale yellow in colour. Although not showing gold in the 1974 drilling of DDH 51513, this tectonite is adjacent to rock carrying gold, hence like the Chesterville - Kerr Addison orebody it likely represents the pathway for it.

Of additional interest is the high content of the tectonite in the lodgment till here at site 2, but not to the north at site 1. The explanation lies in the topography which controlled former ice-flow. Directly NNW of this site 2 is a ramp along L12E which leads to the RR Baseline and served as an avenue for glacier flow. Whereas at site 1 a steep-escarpment

of about 75 feet separates that site from the RR Baseline and as such deflected the ice-flow. Accordingly this local ice deviation at this site must be taken into account when spotting drill holes.

Selected Specimen Examined For Gold

A rock fragment 10cm x 8cm of vein material from the washed till is found to be composed of vein quartz with ferro-dolomite and chalcopyrite. The rock is foliated with an aureol along the edge of the vein. The quartz and carbonate show interlocking and some cockscomb structure. Mid position in the vein is an internal seam of chalcopyrite that is about 2cm wide. A crushed sample of the specimen when superpanned did not produce gold. Nevertheless, this test can not be considered conclusive because the sample was incompletely pulverized.

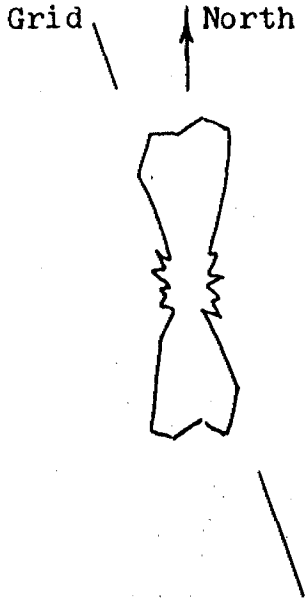


FIGURE 3. - TILL FABRIC OF ELONGATED PEBBLES IN LODGMENT TILL AT SITE 2

Till Fabric

The dominant orientation of the elongated pebble axes in the lodgment till shown in Figure 3 lies between 169° and 179°.

SITE 3, L13+30E/10+30S

The Purpose

Site 3 is located at L13+30E/10+30S just off the northern edge of an outcrop hill. It is the re-opened pit of former D616 which is the site of abundant gold particles in lodgment till at 13 coarser particles (0.4 to 0.1mm) and 29 smaller particles (under 0.1mm) per cubic foot. Two subsamples were taken from this pit with each subsample being of 0.5 cubic-foot. Sample A gives coarse gold at 4 and fine gold at 8, while Sample B gives coarse gold at 9 and fine gold at 8.

The old pit D616 was re-opened and selected specimens were taken for gold studies.

The Stratigraphy

The pit at site 3 is located about 50 feet north of an outcrop of siltstone of map-unit 8 which carries quartz-veining in an S3 structure. The terrain slopes gently northward at the pit.

From surface to depth 3½ feet is a washed till under which from 3½ to 4 feet is lodgment till which in turn directly rests on glacially polished bedrock.

Lithologies

The lithologies for site 3 listed in Table 1 are determined from a sample of 90 clasts ranging in size between 4 and 8mm.

It is noteworthy that the gabbro at 40% is much higher than expected and this means considerable subcrop of gabbro should be anticipated just north of the RR Baseline.

The syenites in this sample shows an interresting gradation between granodiorite and feldspar porphyries which is a link between the gabbro bodies and the syenite vents and their intrusive alteration zones.

Of interest is a grey "volcanic tuff" which constitutes 7% of the total tuff, the remainder being syenite-derived. This rock has been tentatively grouped with the tuff of map-unit 7 but its source is as yet unknown.

Selected Specimen for Gold

A rock fragment measuring 6cm x 6cm x 4cm is composed of vein quartz stringers and brown iron carbonates. Megascopic components as seen under a binocular microscope gives the composition as 60% vein quartz, 35% yellow carbonate, 5% pink non-calcareous mineral, and minor yellow flakes.

When pulverized, superpanned and examined under a microscope the heavies are seen to be minor pyrite, epidote, sericite, magnetite, but no free gold.

SITE 4, L29+30E/2+00S

Purpose

Site 4 is located at L29+30E 2+00S on a north facing bedrock slope of about 30°. This is former site of D630 with 6 particles of coarser gold (0.4 to 0.1mm) and 6 particles of smaller size (under 0.1mm). Two subsamples were taken each of 0.5 cubic-foot volume. Sample A gives coarser gold at 2 particles and finer gold at 1 particle. Sample B gives coarse gold at 4 particles and fine gold at 5 particles.

The pit was readied for lithology counts and till fabrics to isolate the rock conditions carrying gold and to determine their direction of former transport.

The Stratigraphy

The section from surface to 6 inches is washed till, then from 6 inches to 12 inches is lodgment till, which in turn rests directly on polished bedrock.

The bedrock is conglomerate of map-unit 11b. The surface is striated at 165° and slopes northward at 30°.

Lithologies

The syenite rock clasts show gradation from coarse-grained syenite porphyry into fine-grained felsic rocks with epidote alteration.

The highly favoured blue-black vein quartz occurs in clasts of both pebbly grit of map-unit 11, and pink tuff of map-unit 7.

Tholeiite basalts carry considerable epidote alteration.

Selected Specimens Examined For Gold

A specimen measuring 8cm x 4cm x 4cm with angular edges is composed of white vuggy quartz with iron carbonate. The host rock is composed of 15% quartz, 50% feldspar, 30% carbonate, and 5% pyrite. The specimen when pulverized and superpanned showed no gold.

A second specimen composed of 60% feldspar, 10% quartz, 28% carbonate, and 2% pyrite has a reddish brown cast which reflects hematite staining on the quartz.

Other clasts of interest include: (a) silicified brecciated volcanic, and (b) clasts of hematite.

Till Fabrics

Measurements were made on 45 elongated clasts (see Figure 4) in lodgment till and shows the dominant trend to be between 170° and 219°. The reciprical direction represents the up-transport for stones at this site.

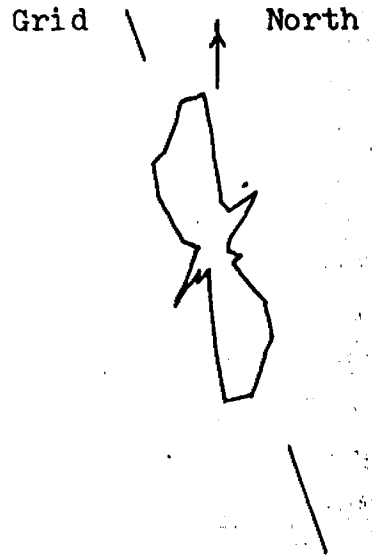


FIGURE 4.- TILL FABRIC OF ELONGATED PEBBLES IN LODGMENT TILL AT SITE 3

RECOMMENDATIONS

Sampling the lodgment till for gold in the area immediately south of the RR Baseline is highly desirable. To do this will require a new access tractor road from the south leaving the Cheminis Lumber Road near the flowing spring north of Bear Creek. The excavation approach to open up the lodgment till sections will need a combination of a large 35-ton bulldozer and explosives. The sampling, panning, and superpanning will require well-qualified, highly trained people and strict adherence to soaking and transfer treatments set-out in our gold recovery procedures.

Respectively submitted
Exploration Systems

Hulbert A. Lee

per Hulbert A. Lee, Ph.D., P. Eng.
February 29, 1984

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

2) I am a graduate of Queen's University with a BSc. in Geology (1949) and a graduate of the University of Chicago with a Ph.D. in Geology (1952).

3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on data that I collected.

Stittsville, Ontario
February, 1984

Hulbert A. Lee

Hulbert A. Lee

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070

MAGNETIC FILL-IN SURVEY
OVER A PORTION OF
AZA PROPERTY OF McGARRY RESOURCES INCORPORATED
McGARRY TOWNSHIP, ONTARIO

by

Robert Anderson and H.A. Lee

February, 1984

MAGNETIC FILL-IN SURVEY

AZA PROPERTY OF McGARRY RESOURCES INC.

A magnetic fill-in survey was carried out by Robert Anderson in August of 1983 in hopes of extending magnetic and geologic data gained from drill core and surface geological mapping.

The results are given on the attached Map, 1" = 100', in the Pocket.

This area had previously been covered at a scale of 1 inch to 400 feet with readings taken at 100-foot invervals. (OMNR Assessment Files, Kirkland Lake, H.A. Lee and A Mathias, Lee Geo-Indicators Limited, 1979, 1980, McGarry Township).

In the present survey, the same type instrument, a McPhar M700 Fluxgate Magnetometer was used. Readings were taken at 50-foot centres and tied-in to the earlier readings, some newly cut lines were also covered with tie-in after about every 4 readings.

Respectfully Submitted

H A Lee

H.A. Lee,
February 29, 1984

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

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3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on data given to me by R.A. Anderson who did the survey while I supervised the project on site.

Stittsville, Ontario
February, 1984

Hulbert A. Lee

32D04NE0423 63.4352 MCGARRY

080

SURFACE DRILLING IN 1983

over the

AZA PROPERTY OF McGARRY GOLD PARTNERSHIP

and its general partner

McGARRY RESOURCES INCORPORATED

McGARRY TOWNSHIP, ONTARIO

by

Hulbert A. Lee, Ph.D., P.Eng.

LEE GEO-INDICATORS LIMITED

94 Alexander Street

Stittsville, Ontario

K0A 3G0

Tel. 1-613-836-1419

February, 1984

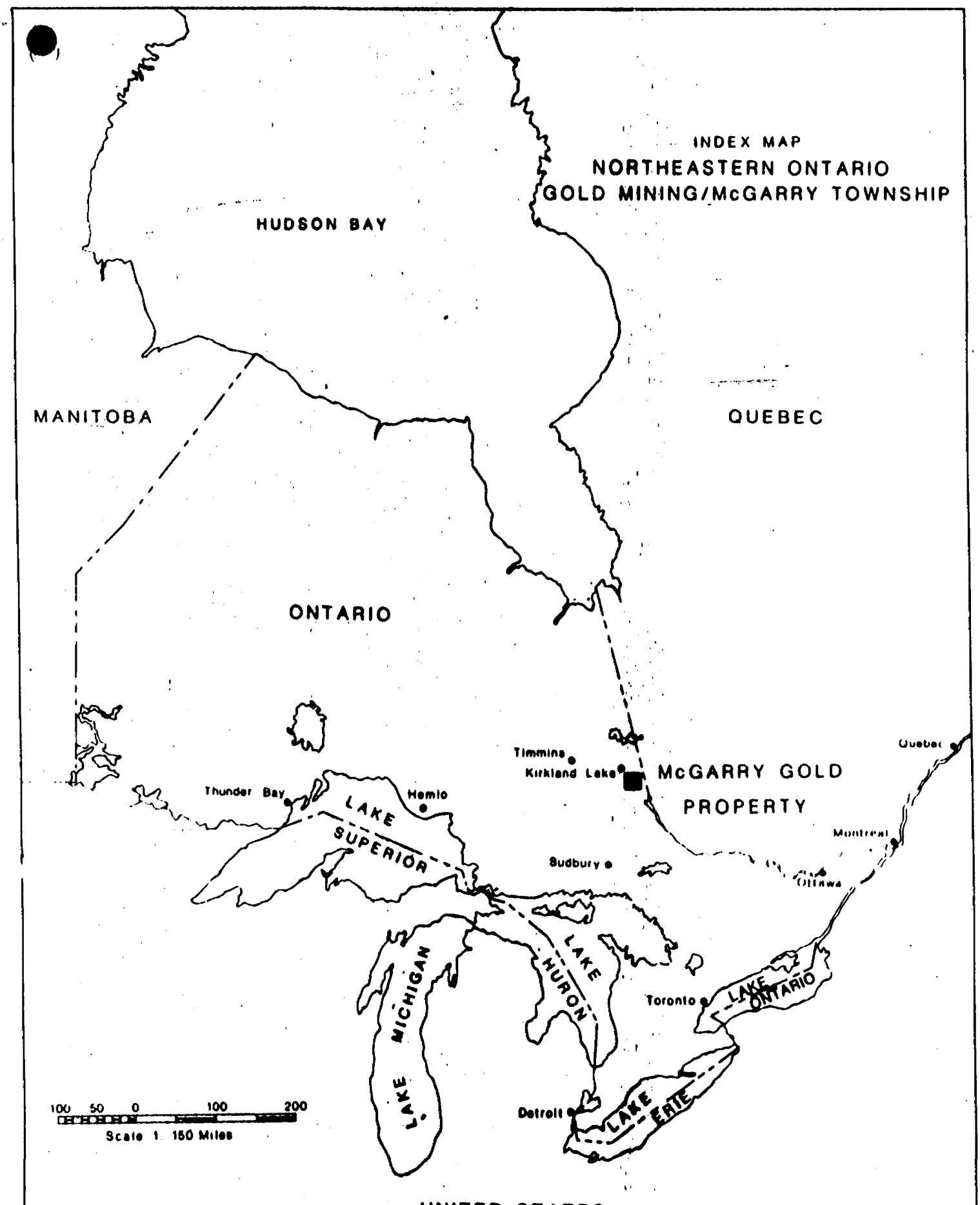


FIGURE 1 - INDEX MAP

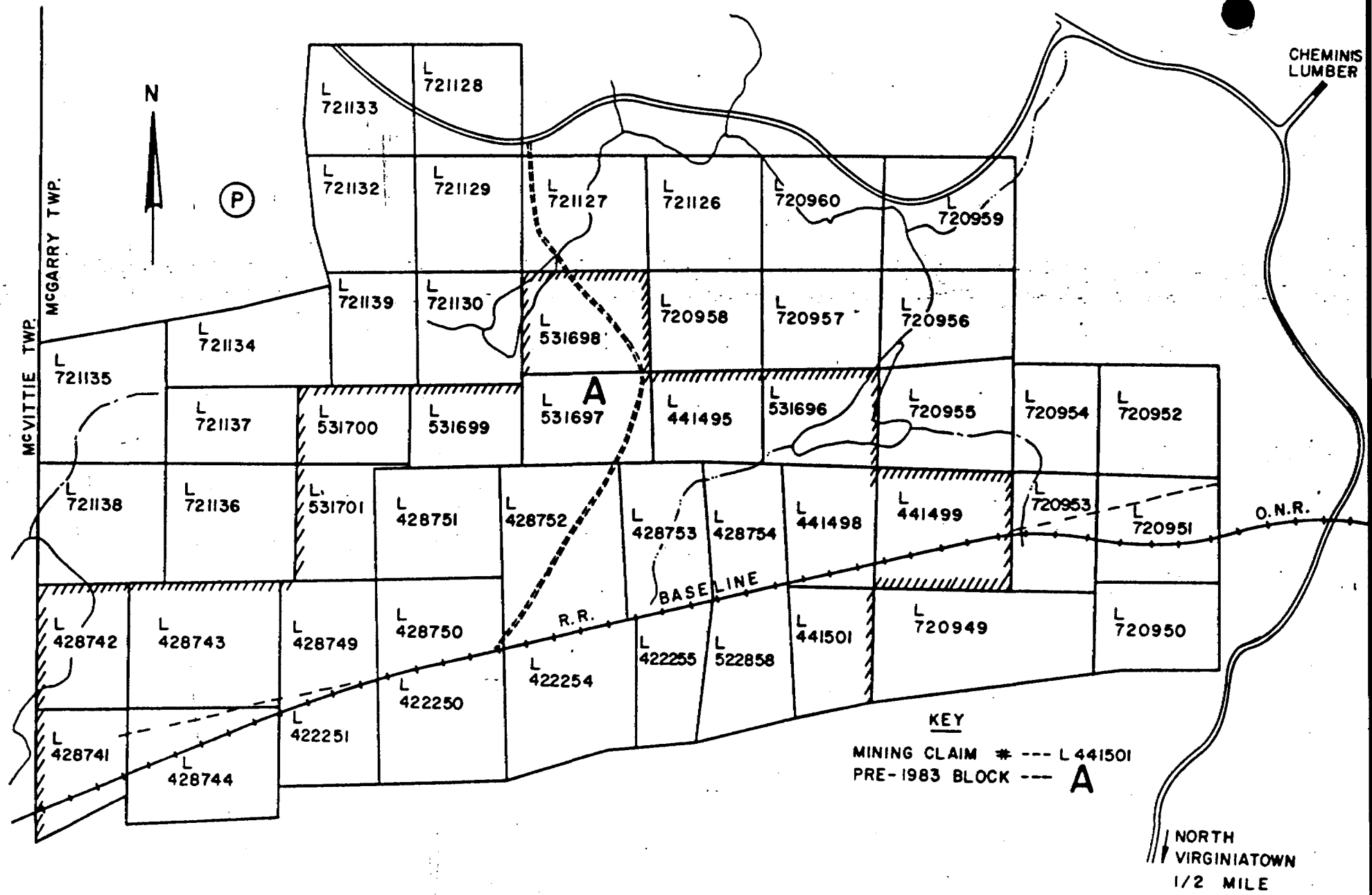


FIG. 2. MINING CLAIMS MAP OF AZA PROPERTY OF McGARRY RESOURCES INC.

SURFACE DRILLING IN 1983
over the
AZA PROPERTY OF McGARRY GOLD PARTNERSHIP
McGARRY TOWNSHIP, ONTARIO

SURFACE DIAMOND DRILLING AND TESTING THE EXPLORATION TARGETS

Due to late financing, the 1983 field program was squeezed between late July and mid-November during which period the geotechnical surveys to improve drill targets and the subsequent drilling and testings were done. A total of 19 drill holes were completed for a footage of 10,339 feet. The holes ranged in footages from 244 to 900, with an average of about 540 feet. Core recovery was excellent with only a minor loss totalling 10 feet from three drill holes, this in spite of considerable blocky ground and extensive fault gouge. Most holes were at 45° angle to provide maximum horizontal coverage, but some were placed at 60° to reach bedrock quicker and less expensively where overburden was suspected of being difficult to penetrate.

Sludge cuttings were saved from the drilling and assayed across suspected shear or fault zones. The sludge proved to

be the best way of obtaining a good representation of profiles along the drill hole. Hence in the future, a sludge technician should be employed to improve its collection at each hole and to have all samples readied for assay.

The drill core was professionally logged daily by geologists H.A. Lee and R.A. Anderson. Selected sections were split with one-half going to assay and the other to core storage in Virginiatown for later use as reference, relogging, splitting, and assaying other portions.

TARGET GROUP A

Diamond Drilling Hole 83-1, Mining Claim L441498

Conditions Tested

DDH83-1 was drilled to test three co-incident anomalies.

(a) An IP (induced polarization) conductor in hopes of reaching an auriferous pyrite zone.

(b) A magnetic depletion zone which had resulted from strong ore-solution alterations.

(c) The up-transport head of the easternmost gold train in lodgment till for bedrock source.

The hole was spotted to intersect the IP target at 1+00N at a vertical depth of 350 feet on the recommendation of the geophysicist on the site. Water supply and trafficability dictated that it be drilled southward at a 60° angle.

Core recovery was 100% and sludge was recovered in 10-foot runs. In this hole the sludge was panned prior to assay, a

TABLE 1. ROCK FORMATIONS

BLAKE RIVER SERIES

TEMISKAMING GROUP

15a- SANDSTONE
15b- CONGLOMERATIC SANDSTONE
15c- CONGLOMERATE; GREY, COBBLES OF WHITE QUARTZ, BLACK CHERT, GREEN MAFICS, JASPER

14 - GREY GRIT SANDSTONE

13 - SLATE

"LARDER GROUP"

12- GREEN COMPETENT SANDSTONE

11a-CHERT AND YELLOW CHIP PEBBLES IN GREY SANDSTONE
11b-GREY SANDSTONE
11c-CHERT AND PORPHYRY PEBBLES IN GREY SANDSTONE

10 -CHLORITE, TECTONITE,

9 -LIMESTONE

8 -SILTSTONE

7a-SYENITE-DERIVED TUFF; 7b-SYENITE-DERIVED LAPILLI
7c-AGGLOMERATE

6a-PYROXENE SYENITE; 6b-GREEN MICA SYENITE; 6c-SYENITE PORPHYRY. ALL ARE MAGNETIC

5a-SANDSTONE WITH FERRO-DOLOMITE 6-30% ; 5b-WITH +40%;

5c- SANDSTONE JASPER, PYRITIC, YELLOW FLICKS OF FERRO-DOLOMITE

4 -YELLOW CLAY STONE (SERICITE PLUS CHERT)

3 -GREEN CARBONATE ALTERATION (LADDER QUARTZ VEINING)

INTRUSIVE ROCKS *

2a-DIORITE; 2b-PEGMATITE GABBRO; 2c-CARBONATE GABBRO; 2d-GABBRO; 2e-MAGNETITE GABBRO; 2f-LEUCOXENE GABBRO; 2g-GRANODIORITE AND MAGNETIC DIORITE; 2h-METAMORPHIC CONTACT WITH HORNFELS, EPIDOTE, CHROMITE, SERPENTNE

KINOJEVIS GROUP

1 -THOLEIITIC BASALT

* Unit 2 is intrusive through the rocks of both the Kinojevis and the "Larder" Groups.

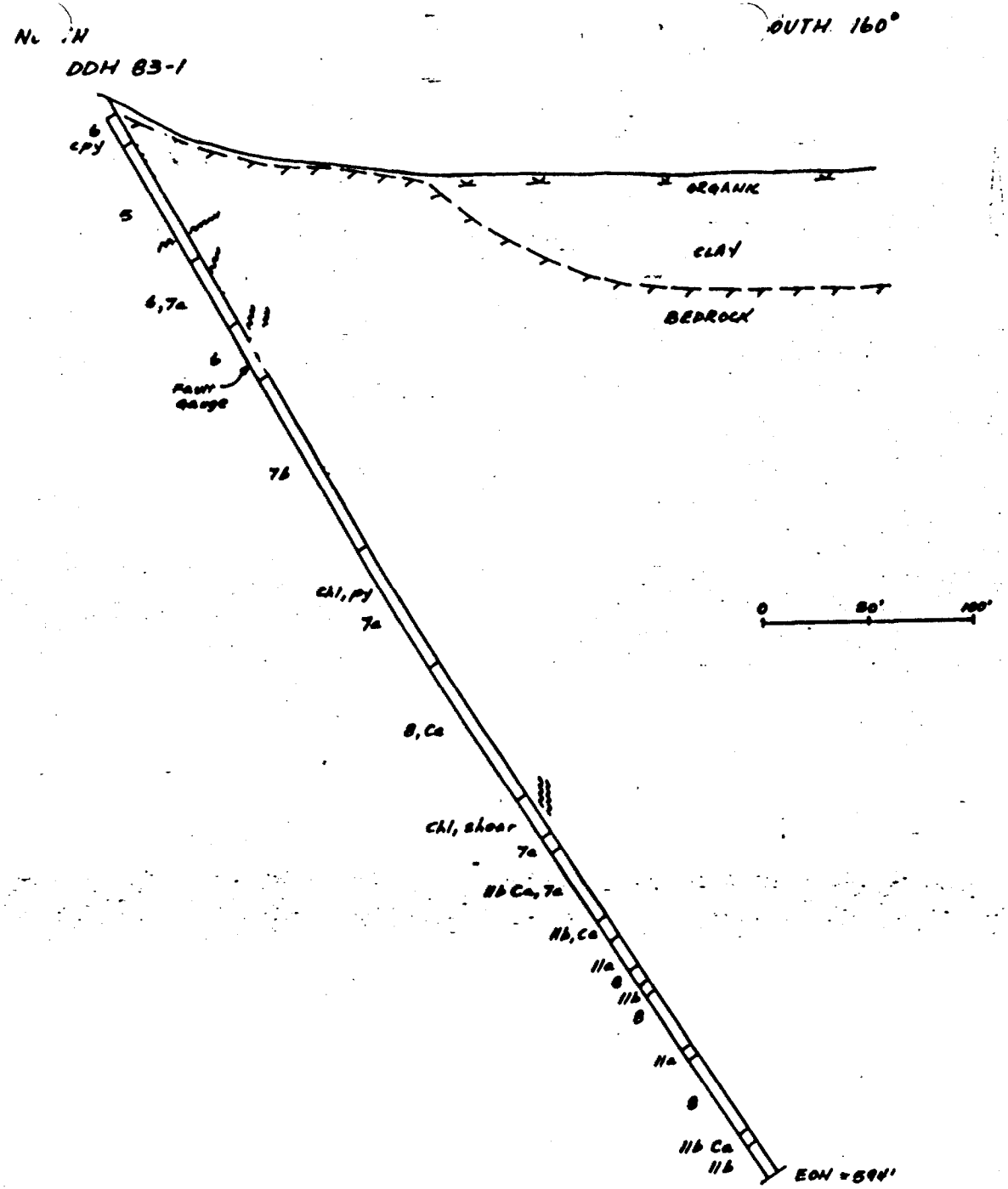
procedure that was discontinued after the first few holes. Longitudinal splitting of the core presented some problems as the strong chlorite alteration was extensively sheared with closely spaced shear planes at 45°. The core was professionally logged by H.A. Lee, Ph.D., P. Eng. and the logs are attached.

Data Extracted

The cause of the IP conductor has yet to be determined. Many slip planes and joints in the drill core are smeared with hematite, lesser pyrite and chalcopyrite, and there are some seams of hematite. These latter may account for a small component of the conductor, but its unlikely to be the main cause. It is possible that the drilling heeled above or below the conductor. Downhole geophysics could answer this. But it is also possible that the conductor could be due to the acid effect of the railway ballast getting into groundwater along the strong shear zone.

The magnetic low seems to be due to a thicker cover of low magnetic sediments. Only an 8-foot magnetic section was drilled and this was down deep, at a footage of 410 feet.

The rocks intersected at the head of the gold train includes the volcanoclastic sediments of map-units 5, 8 and 11, the volcanic tuffs of 7a and 7b, and the felsic intrusives rocks of unit 6.



SECTION FROM 98+00E/3+06N AT 160°

DDH	83-1
COLLAR	98+00 E / 3+06 N
AZIMUTH	160°
DIP	-60°
EOH	594'

Alterations are extensive as chlorite, carbonate, hematite, and minor chalcopyrite, in as much abundance as seen around many major orebodies. The full cause, and significance, of this alteration is not yet determined but it may be equivalent to the major regional alteration that passes through the Chesterville - Kerr Addison orebody.

Conclusions and Recommendations

An east-west sheared chlorite zone is established which carries minor gold. Because of the intensity of alteration, the structure needs further evaluation. Downhole geophysics are needed to search for sulphides and if results warrant it this should be followed by diamond drilling.

Closely spaced spruce needle duff sampling for gold over the chlorite shear and adjacent tuff should be done, and if results warrant, this should be followed by diamond drilling.

Future drilling should pay increased attention to collection and handle of sludge cuttings because this type of sample gives more indications of the profile than the selected core sections analyzed. A trained technician should be used to control sludge recovery, sampling, and handling the samples.

Diamond Drill Hole 83-2, Mining Claim L428754

Conditions Tested

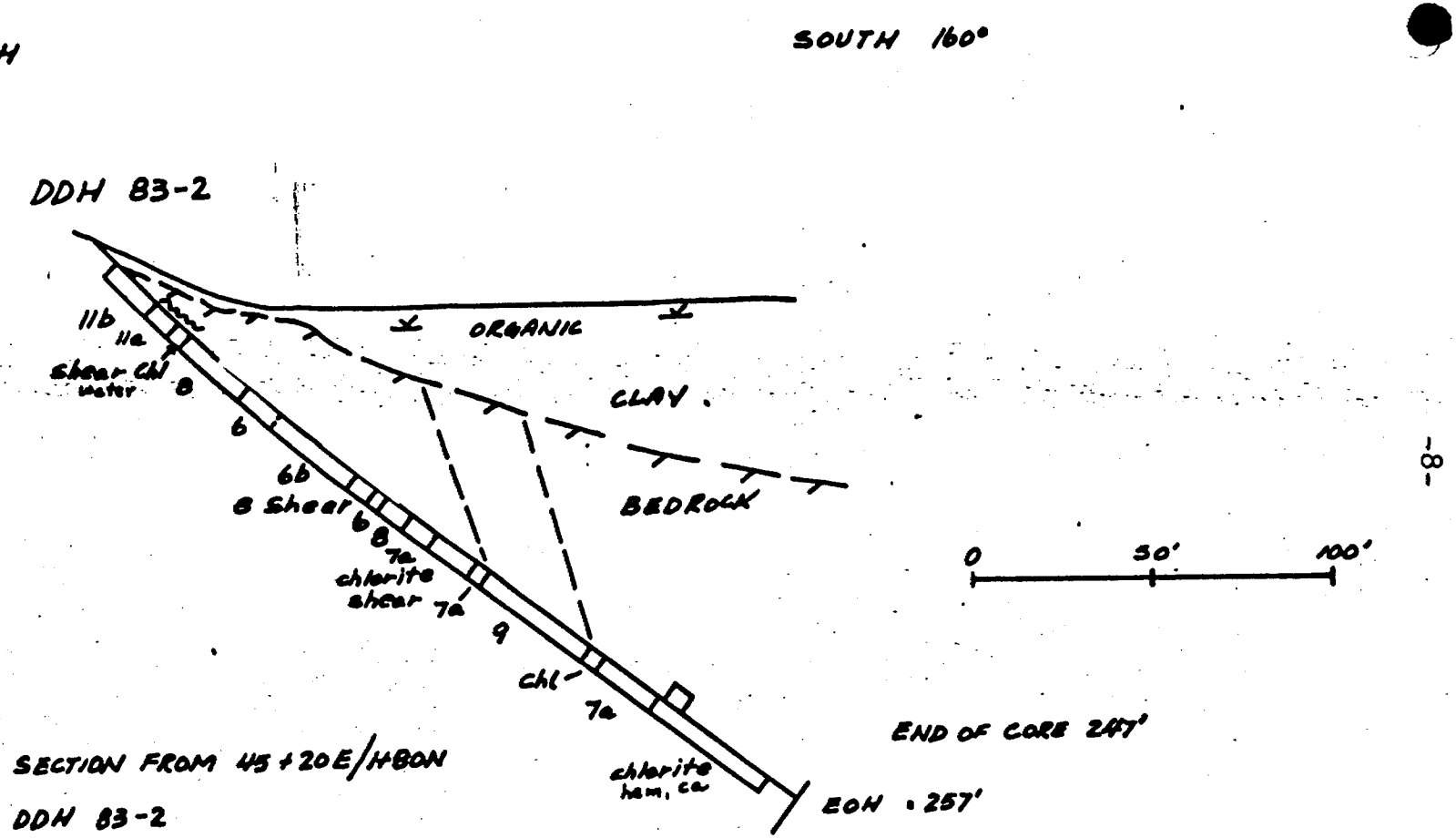
Drilling was done (a) to provide a second intersection across the extensively chloritized wide shear that was intersected in DDH 83-1; (b) to cross-section up-transport of the gold train in lodgment till; and (c) to test the cause of a magnetic decrease.

Data Extracted

The BQ core recovery was 100%. Sludge recovery was made in 10-foot runs, and was gold panned prior to assay. The hole is making water and can be used as a future source of water for further drilling.

Several strong chlorite shear zones were intersected, the first one probably corresponds with the faulted shear of DDH 83-1, and it was intersected at footage 15 to 19 feet which brought a flow of water into the hole and the core showed oxidation. Other shear zones were intersected at footages of 130 to 144, 184 to 189, and 208 to 247. The strong chloritization shear at the top of this hole and the matching chloritic shear in hole 83-11 do not show significant gold increase, and because of this further exploration of the fault-shear does not seem warranted.

The magnetic decrease known from the surface survey is noted from the cores to be due to thicker generally non-magnetic cover rocks. Two magnetic sections only were mapped, from 63 to 102, and from 208 to 212. These are of insufficient mass and magnetism to give high magnetic surface readings.



SECTION FROM 45+20E/1+80N

DDH 83-2

COLLAR 45+20E/1+80N
AZIMUTH 160°
DIP -45°
EOH 257'

FIG. 4 - PROFILE ALONG DRILL HOLE 83-2

Up-transport of the gold train in lodgment till, the drilling intersected very strong chloritic alteration across 50 feet, from 208 to 247 feet and the hole when stopped was still in it.

The rock in the core described as a "greenish-black rock, hematite on shears, locally calcareous, locally magnetic" is of undertermined origin. This rock was mapped as chlorite but it resembles what later became known as altered gabbro. This core from footage 208 to 247 should be re-examined with this in mind as it could be a continuation of the mineralized sill. If so, it could be reached again by a vertical hole to a depth of 100 to 150 feet below the swamp surface. Further follow-up work is recommended.

Conclusions and Recommendations

Follow-up drilling should be done on the mineralized chlorite zone which is lying 100 to 150 feet vertical below the swamp surface. This should be preceded by close-spaced spruce needle duff sampling for gold, downhole geophysics, and close-spaced lodgment till sampling for gold down-transport.

Sludge recovery should be closely controlled and assays should be done on all sludges.

TARGET GROUP B

Diamond Drill Hole 83-3, Mining Claim L441498

Conditions Tested

DDH 83-3 was drilled to test:

(1) A showing of pyrite bearing quartz vein with bleaching and some emerald-green wall rock alteration. Gold levels in the showing were low but consistent at 35 to 50 PPB.

(2) A fault that was inferred from geology and from induced polarization having low conductance and high resistivity.

(3) Up-transport head of gold train in lodgment till.

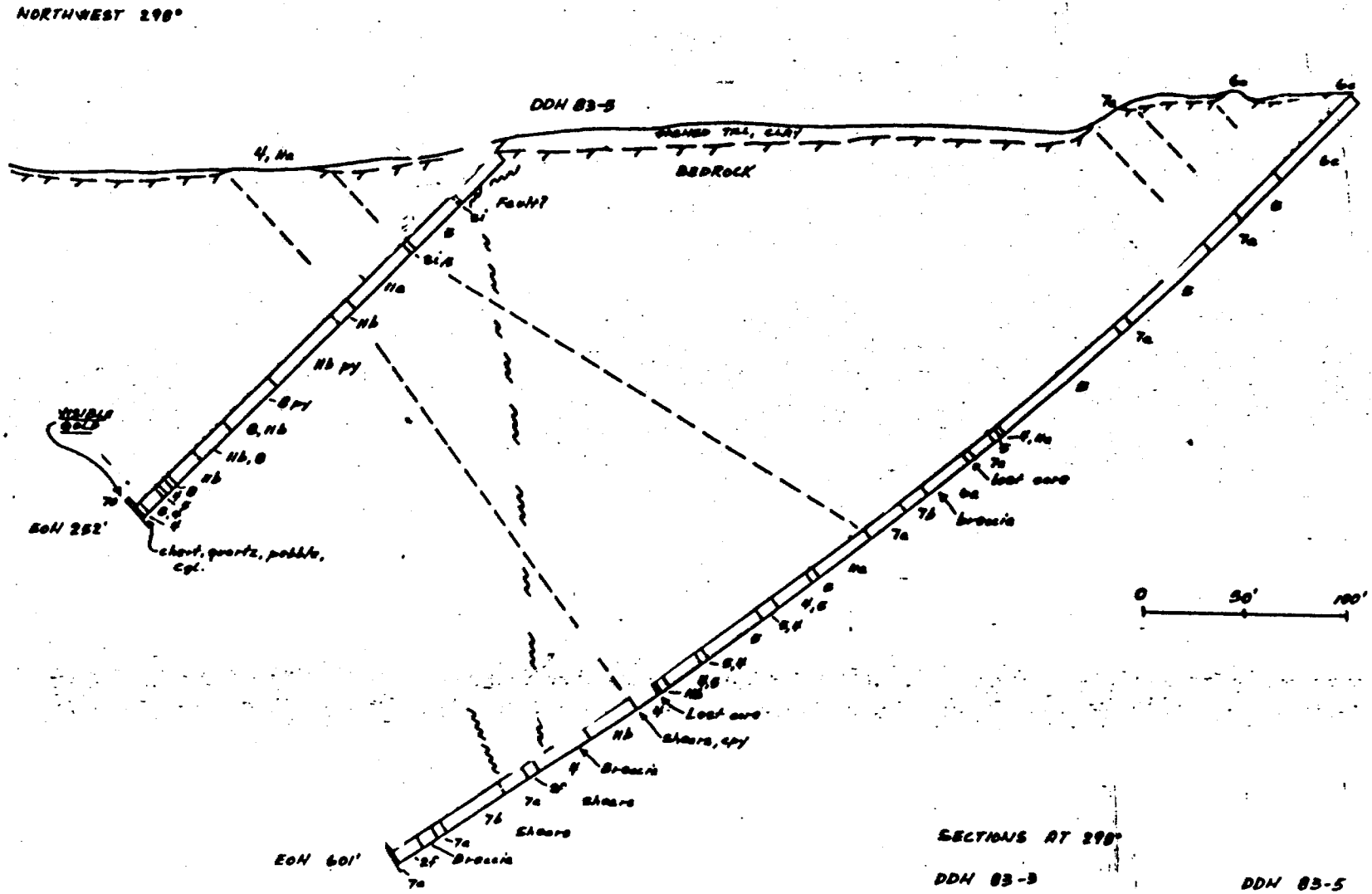
Data Extracted

Core recovery was good, except for a 4-foot loss of ground-up core in the range between footages of 255 to 291 feet, and a 3-foot loss between 448 and 451 feet. Sludge recovery was made at 10-foot intervals.

The downward projection of the quartz vein showing was intersected at footage of 172 to 175 feet. There is a splash of pyrite, and along the vein edges the wall rock is bleached.

Deeper down the hole, at footages of 448 to 490, the fault came in as predicted from earlier surface geology and induced polarization. The core is heavily brecciated and sheared. Minor chalcopyrite occurs in the fault

occur. Short intersections of gabbroic rock, highly altered, may be blocks of drag-folded masses, or possibly narrow dykes.



SECTIONS AT 298°

DDH 83-3		DDH 83-5	
COLLAR	48+75E/6+35N	COLLAR	45+30E/8+50N
AZIMUTH	298°	AZIMUTH	298°
DIP	-45°	DIP	-45°
EOH	601'	EOH	252'

The subparallel, nearly vertical arrangement of fault and pyrite bearing-quartz vein is similar in many respects to what is found about five miles east of the Aza property at the El Cola Mine in Quebec.

Extended by induced polarization from the drill intersection, the fault is long in both directions and gold levels are expected to change along it. The prospector found a good piece of gold mineralized float just down-transport from this site, and later drill holes 83-4 and 83-5 show gold values bearing on its importance.

Rocks in the drill-core of 83-3 are mainly sediments with only narrow occasional intersections of altered gabbro, hence do not represent the source of gold in the lodgment till.

Diamond Drill Hole 83-4, Mining Claim L428754

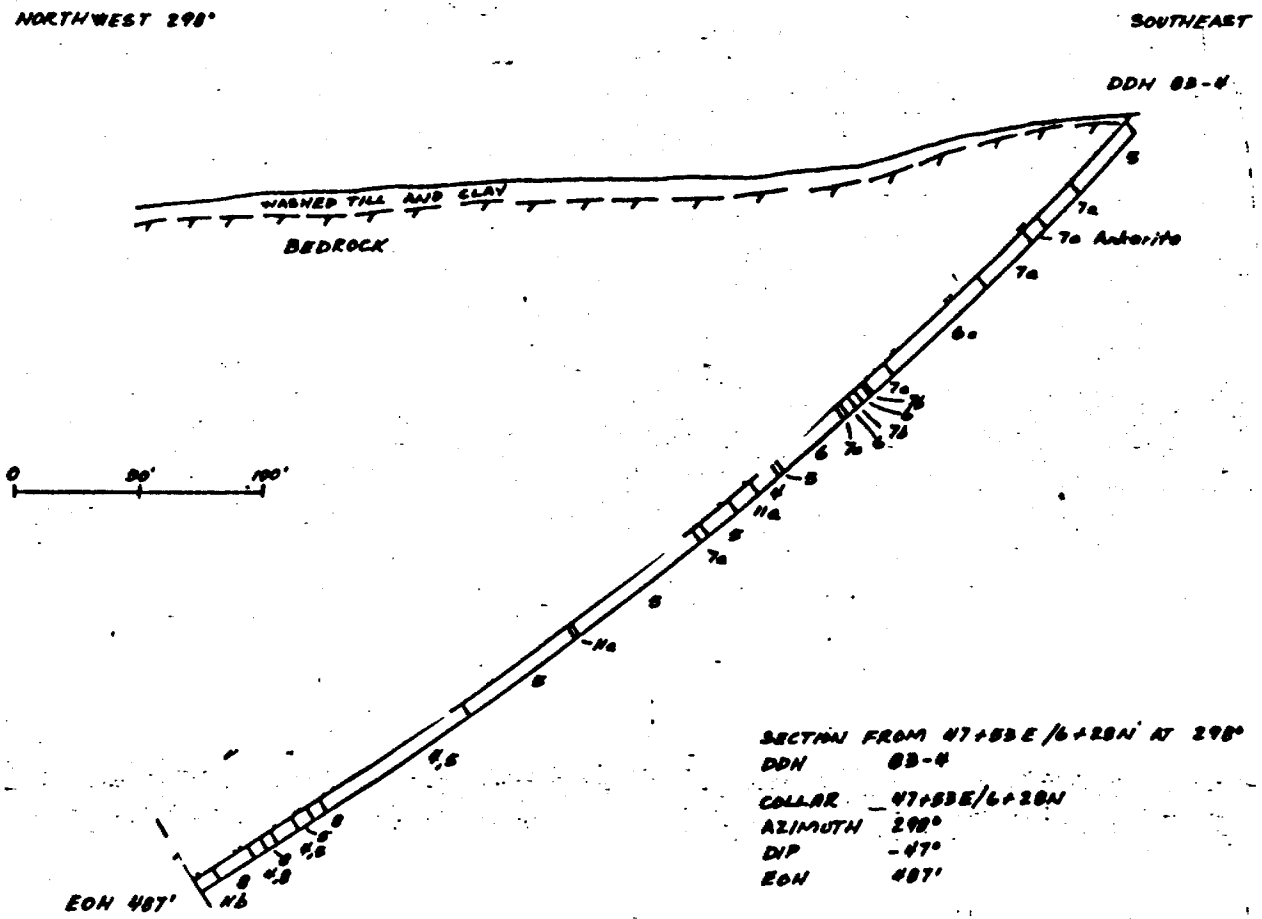
Conditions Tested

Drilling was done:

(1) To test at depth the extension of the quartz vein showing. The drill collar was placed 40 feet horizontal away from the showing. The quartz in the showing carries pyrite and has low consistent gold values of 35 to 50 PPB. The wall-rock is bleached and has emerald-green mica.

(2) To locate and test the fault inferred from geology and induced polarization.

(3) To obtain data up-transport of the head of gold trains in lodgment till.


NORTHWEST 298°
SOUTHEAST
DDH 83-4
WASHED TILL AND CLAY
BEDROCK
7a Anorthite
0
50'
100'
EOH 487'
SECTION FROM 47+83E/6+28N AT 298°
DDH 83-4
COLLAR 47+83E/6+28N
AZIMUTH 298°
DIP -47°
EOH 487'

Data Extracted

The extension of the quartz vein showing was intersected at footage of 50 to 60 feet. It is marbled, brecciated with quartz and pink tuff and carries an orange carbonate (ankerite?).

The inferred fault was intersected as predicted at footages of 405 to 407 feet where it is represented in the core by fault gouge, a ground-up infilling of contorted quartz, pyrite and unidentified black carbon or chlorite layers.

Conclusions and Recommendations

The fault zone has now been located in bedrock by DDH 83-3, 83-4 and later by 83-5. With extensions by induced polarization, there is a good potential for localizing gold chutes. Further drilling should be done preceded by spruce needle duff analysis for gold.

Diamond Drill Hole 83-5, Mining Claim L428754

Conditions Tested

Drill hole 83-5 provides with DDH 83-3 a cross-section for testing:

(1) The downward extension of a calcite-chalcopyrite-quartz vein showing exposed in a deep wide trench.

(2) Mineral relations of the showing to yellow chert-mica rock of map-unit 4.

(3) Up-transport end of gold trains in lodgment till.

Data Extracted

Extension of the calcite zone is enveloped in a sandstone at footage 63 to 65, and the yellow chert-mica was reached at 71 to 108 feet.

On the other hand, the core displays a wide strong fault zone, strongest near the collar, but its effect shows throughout the length of the hole. Considerable vein quartz is within sheared rock and bleaching of the host rock along the edges of quartz veins are good signs. Gold levels are raised both in sludge and core. Then at the foot of the hole the core is a striking quartz-pebble conglomerate seen here for the first time and it carried a piece of malleable gold. This is significant.

Conclusions and Recommendations

Further exploration is warranted both over the fault zone and the quartz-pebble conglomerate. Spruce needle duff sampling for gold should be done over both zones. The hole should be extended. Although re-occupation of the old hole may be difficult because the casing was pulled. Dynamite stripping and bulldozer trenching is recommended to expose the fault near the drill hole collar.

TARGET GROUP C

Diamond Drill Hole 83-6, Mining Claim L428752

Conditions Tested

Drill hole 83-6 was laid out:

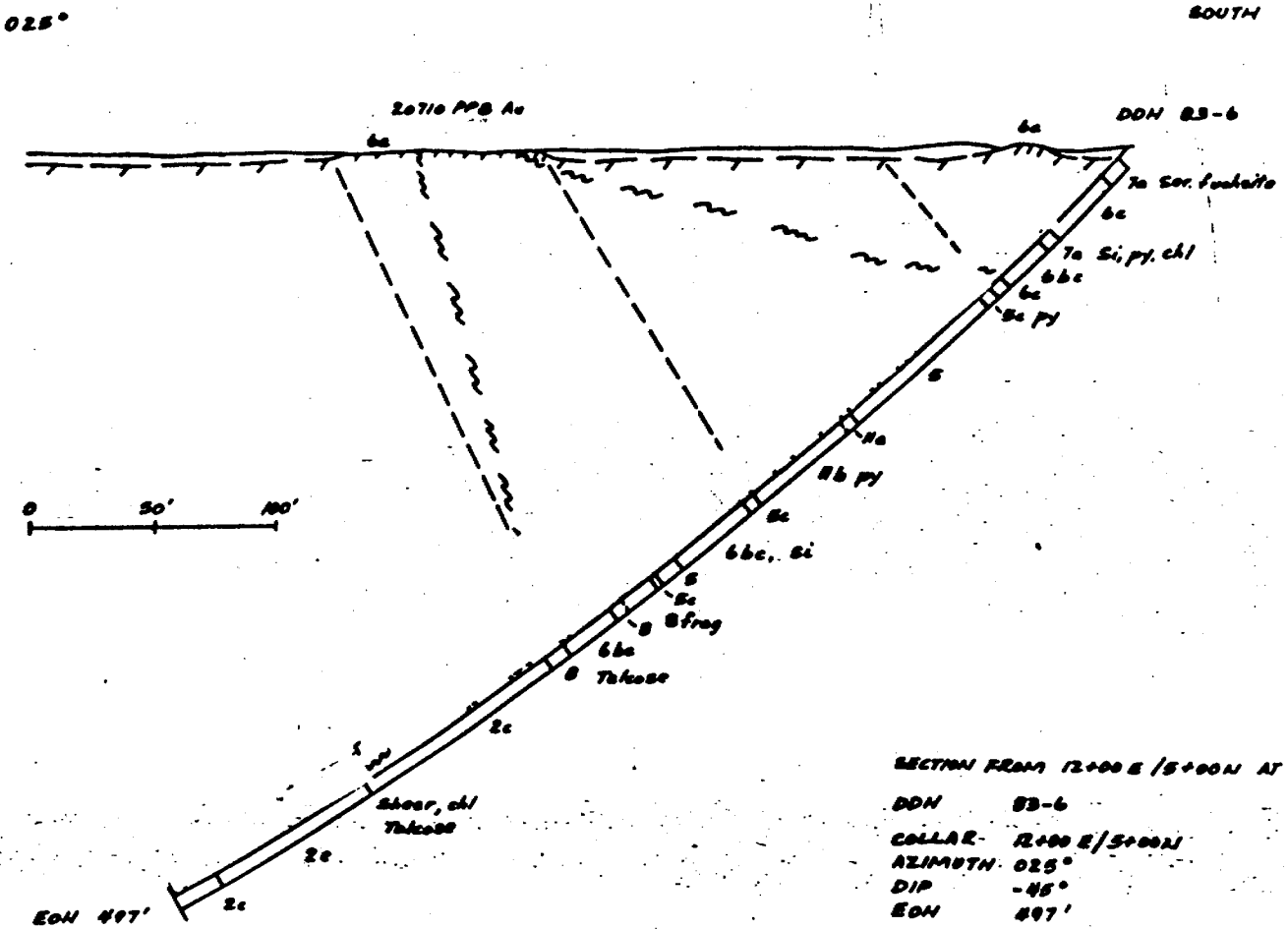
(1) To intersect the downward extension of a strong gold showing in a north-south shear. Bedrock grab samples assayed 20710, 20160, 13370, and 14400 PPB in a syenite. The hole was placed to give a long shallow sampling of the syenite body.

(2) To test the up-transport end of gold trains in lodgment till.

Data Extracted

The core was professionally logged by H.A. Lee, Ph.D., P.Eng. and R. Anderson, B.Sc.

The shear was intersected from footage of 295 to 318 feet, thus revealing it to be wider than what was expected from the surface exposure. The shear is nearly vertical and while a small part of it is in syenite most of it is in an altered gabbro, and it is in the latter where gold levels are raised



SECTION FROM 12+00 E / 5+00 N AT 025°

DDH	83-6
COLLAR	12+00 E / 5+00 N
AZIMUTH	025°
DIP	-45°
EOH	497'

The syenite was intersected several times in drill core meaning an irregular edge to the syenite or that what appears at surface as one zone would with more stripping turn out to be two. The syenite is intrusive into the sandstone containing pieces of it as xenoliths and causing a bleaching due to silicification at the contact. The gabbro, too is intrusive into the sandstone with xenoliths of enclosed sediments. Close to the contact, the sandstones are pyrite rich. Near the syenite, volcanic explosives as coarse lapilli tuff show in the core.

From these considerations the picture depicted in Figure is beginning to emerge in which a series of sills and vents

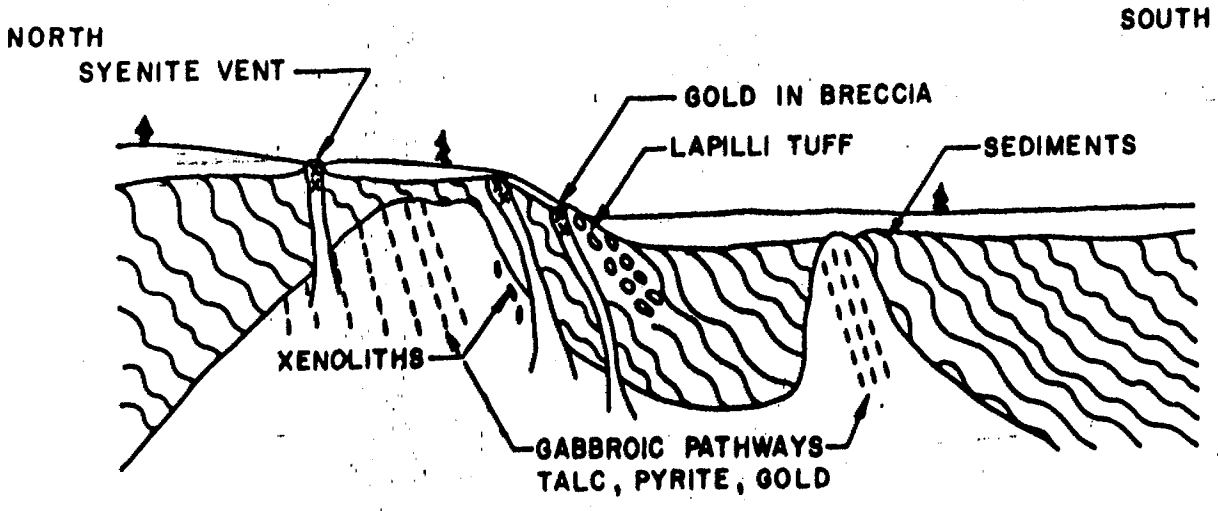


FIG. SCHEMATIC VERTICAL PROFILE FROM DRILLING NEAR GOLD SHOWING, MINING CLAIM L428752

rising from the top of a differentiated gabbroic magma are pushing upwards, through pre-existing sandstones and siltstones, with the more mobile talc, pyrite, pyrrhotite and gold. The syenitic phases of the sills are brittle and fracture at the vents where they became explosive to give off the syenite-derived lapilli tuff. Gold moved through, and was deposited in these brittle fractured rocks while in the sills it remained with the pyrite.

The model needs testing for gold deposits by drilling down the vents, surface stripping by heavy bulldozer for contact zones, airline plugger breaking and bulk sampling for gold, and spruce needle duff sampling for gold over the locale.

Drill Hole 83-7, Mining Claim L428752

Conditions Tested

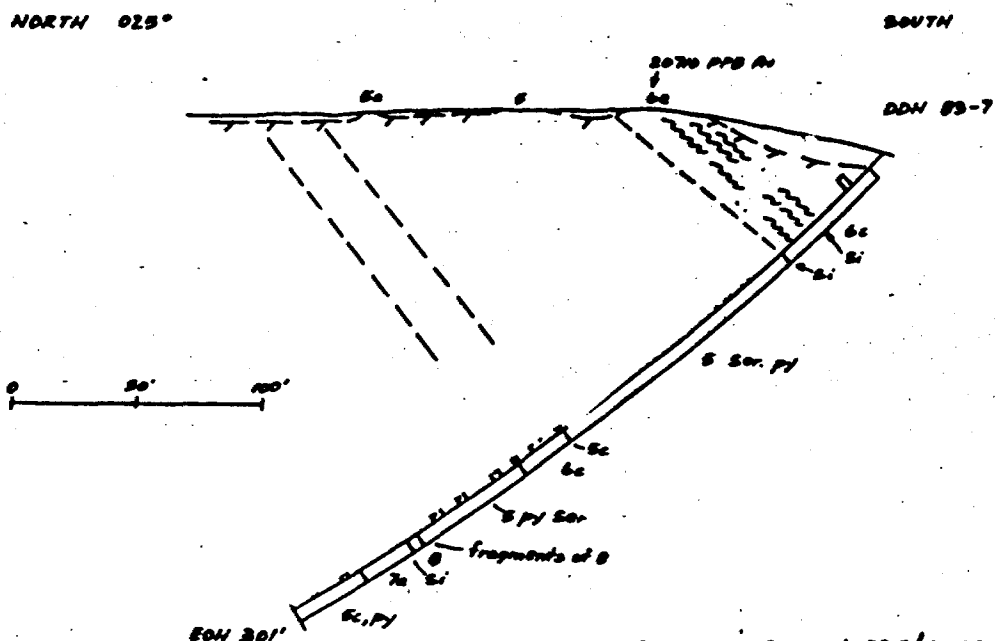
DDH 83-7 was placed:

(1) To intersect this time the E-W shear at the syenite gold showing where grab samples give 20710, 20160, 13370 and 14400 PPB gold.

(2) To test the up-transport head of gold trains in lodgment till.

Data Extracted

The E-W shear zone was intersected at footage of 18 to 54 which gives it a southerly fault dip. Quartz veining is in the shear.



SECTION FROM 14+52E/6+00N AT 025°

DDH	83-7
COLLAR	14+52E/6+00N
AZIMUTH	025°
DIP	-45°
EOH	301'

The gold is elevated in the core, not in the shear, but deeper where along a 100-foot section the sandstone is pyritized and sericitized between two syenite vent rocks. The syenite has undergone later re-activation shown by fresher quartz-feldspar segregations and quartz veining next to the highly altered sandstone with gold.

Conclusions and Recommendations

The model of late sills and venting off a differentiated gabbroic magma provides a working hypothesis for detailed testing for more gold pockets.

The general area should be covered by close grid sampling of spruce needle duff for gold, by heavy bulldozer stripping, airtrack plugger blasting and sampling, followed by close grid, near-vertical, drilling.

TARGET GROUP D

A group of drill holes (83-8, 83-9, 83-10, 83-11, 83-12, 83-13, 83-16, 83-19, 51513) were placed to primarily cross-section the up-transport end of gold trains in lodgment till.

The Chesterville - Kerr Addison orebody type of alteration was intersected early, near the base of a major overthrust fold, and subsequent holes were placed to develop a 3-dimensional picture.

Diamond Drill Hole 83-8, Mining Claim L422254

Conditions Tested

DDH 83-8 was placed to test:

(1) A fault inferred from an escarpment linear, and from detailed mapping, to be at the southern edge of the Railway Baseline.

(2) An induced potential conductor between baseline and 2+00N.

(3) Up-transport end of gold trains in lodgment till.

Data Extracted

High costs in drilling this hole were encountered because of extensive, deep distribution of very large boulder blocks over the bedrock. Extensive use was made of drilling muds, concrete cementing, and broken casing had to be left in the hole. In spite of these difficulties core recovery was 100% and sludge returns were recovered at 10-foot runs. However further collaring of holes in this difficult environment at the base of the escarpment was avoided.

A rock given here the structural name tectonite was intersected between footages of 140 to 360. The rock in core is typically blackish green with closely-spaced crinkly chlorite membranes and with whitish peppered-like enclosures of quartz and calcite. Locally the rock is magnetic and locally has hematite on slip planes. The rock is intensely squeezed and folded into tight Z folds. It could also be called a chlorite schist, or chloritite, or the grey and brown quartz-carbonate schist of the Chesterville - Kerr Addison orebody

Further drilling by a close-spaced rectangular grid pattern of vertical holes should concentrate along the edges of the tectonite in search of brittle, hence fractured rocks, to locate gold pockets. This should be preceded by detailed close-sampling of spruce needle duff for gold. Downhole geophysics may be of some help.

More splitting and analysis of the core should also be done.

Diamond Drill Hole 83-9, Mining Claim L422254

Conditions Tested

DDH 83-9 was laid out to give with DDH 83-8 a cross-section and it was to test:

(1) The base of the Temiskaming group of rocks into the fault zone.

(2) The up-transport head of gold trains in lodgment till.

Data Extracted

Core recovery was 99% due to a three-foot loss of core between footages of 563.5 and 566.5. Sludge was recovered at 10-foot runs. The core was professionally logged by R.A. Anderson, B.Sc. geology.

Talc and shear zones of the thrust fault belt were penetrated between footages of 402 to 448. Quartz and calcite veins in the zone are disturbed, distorted by later phases of deformation. Chlorizitation is present. Although the tectonite unit was not mapped separately it may lie between footages 417 to 448, hence this section of core should be re-examined.

Gold levels are elevated to 100 PPB where pyrite bands constitute 2% of the rock. At the base of the shear zone core was lost.

The talc-fault zone intersected in DDH 83-8 and 83-9 gives a southeasterly fault dip which if projected as a plane would reach the ore zone of the Kerr Addison mine at a depth of 3000 feet. Some continuity in this direction can be determined at the surface from cross-joints in the overthrust fold.

During the next phase of work surveying in the elevation of the drill hole collars will be necessary.

Drill Hole 83-10, Mining Claim L428752

Conditions Tested

DDH 83-10 was laid out to test:

(1) The talc-fault thrust zone and tectonite found earlier in DDH 83-8 and 83-9.

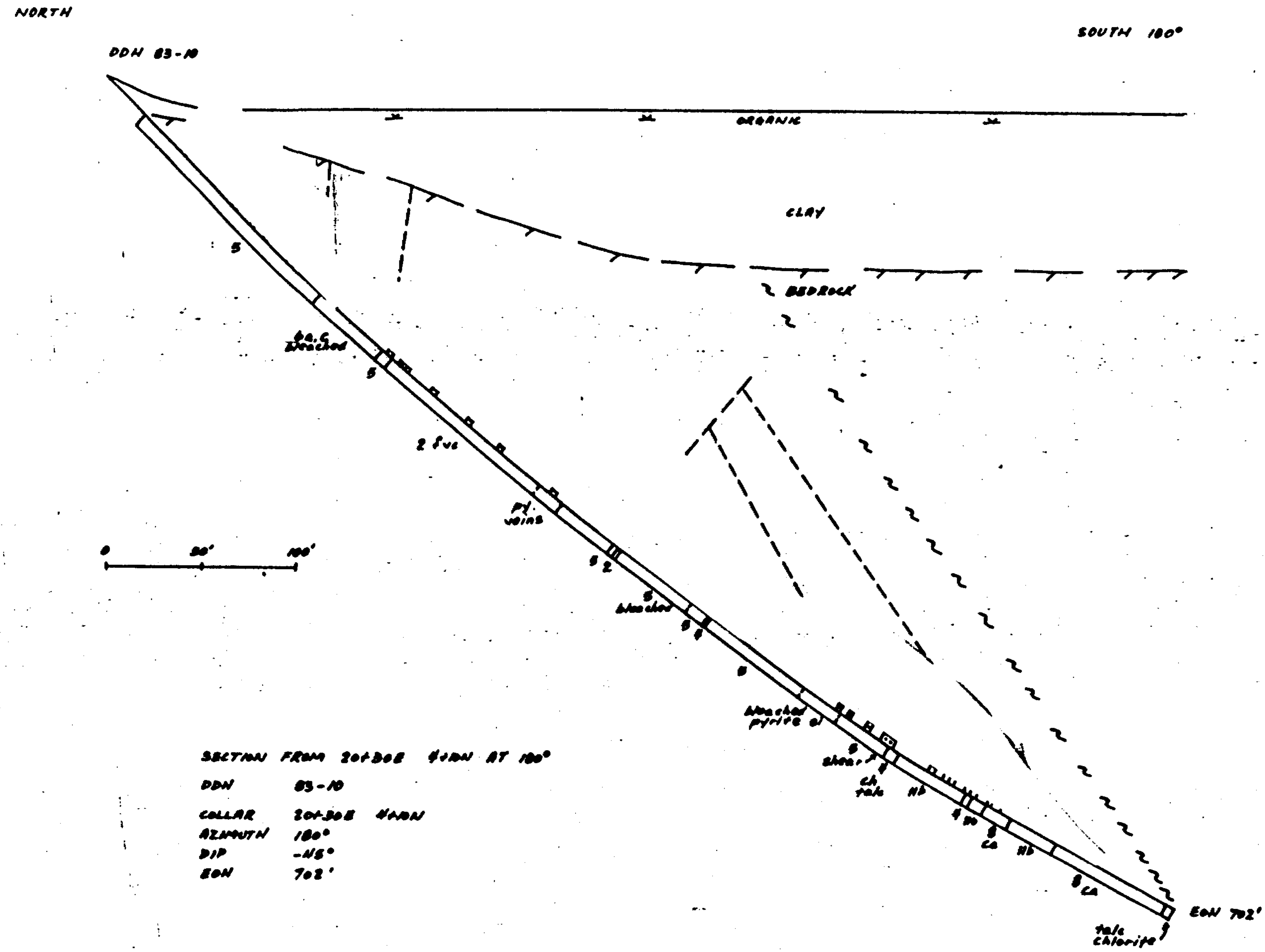
(2) The up-transport end of gold trains in lodgment till.

(3) The base of the Temiskaming sediments.

(4) The cause of the Induced Polarization conductor at about 1+00N.

Data Extracted

The talc-fault thrust zone was first entered at about 605 feet where it is represented by abundant close-spaced calcite-quartz veinlets. It came in strong at the bottom of the hole at footage 695 with extensive chlorite-talc shears.


NORTH
SOUTH 180°
DDH 83-10
ORGANIC
CLAY
BEDROCK
bleached
Py. veins
bleached
bleached pyrite
shear
talc
talc chlorite
EOH 702'
0
50'
100'
SECTION FROM 20+30E 4+00N AT 180°
DDH 83-10
COLLAR 20+30E 4+00N
AZIMUTH 180°
DIP -45°
EOH 702'

The projection of the talc zone to the subcrop surface is the approximate position of the induced polarization conductor, hence explains it.

The core is in Temiskaming or Larder Group sediments, map-units 11b and 8 at the bottom of the drill hole.

Dark green gabbroic sills intrude the sandstone of map-unit 5 and yellow chert-mica of unit 4. Xenoliths of both these rocks are caught up in the sill and silicification from the sill has moved into the sediments causing a bleaching effect in them.

The gabbro is dark green, medium grained and pocked with whitish leucoxene pseudomorphs after titaniferous magnetite. It is now calcareous and ranges from very slightly to strongly magnetic.

This drill hole makes a moderate supply of water and was used as a water source for some of the more northerly holes.

Conclusions and Recommendations

Two structures, the young gabbroic sill and the talc zone have provided avenues for gold-bearing solutions to move and to deposit, hence merit follow-up exploration. A set of drill holes should be placed to run-down the sill while covering the zone between the talc thrust fault and the mineralized

sill. Before drilling, close-spaced spruce needle duff collections for gold would be useful over the subcropping position of the talc thrust fault. Downhole geophysics could assist in locating increased pyrite which could be auriferous.

Diamond Drill Hole 83-11, Mining Claim L428752

Conditions Tested

DDH 83-11 was laid out to test:

(1) The talc-chlorite fault thrust zone.

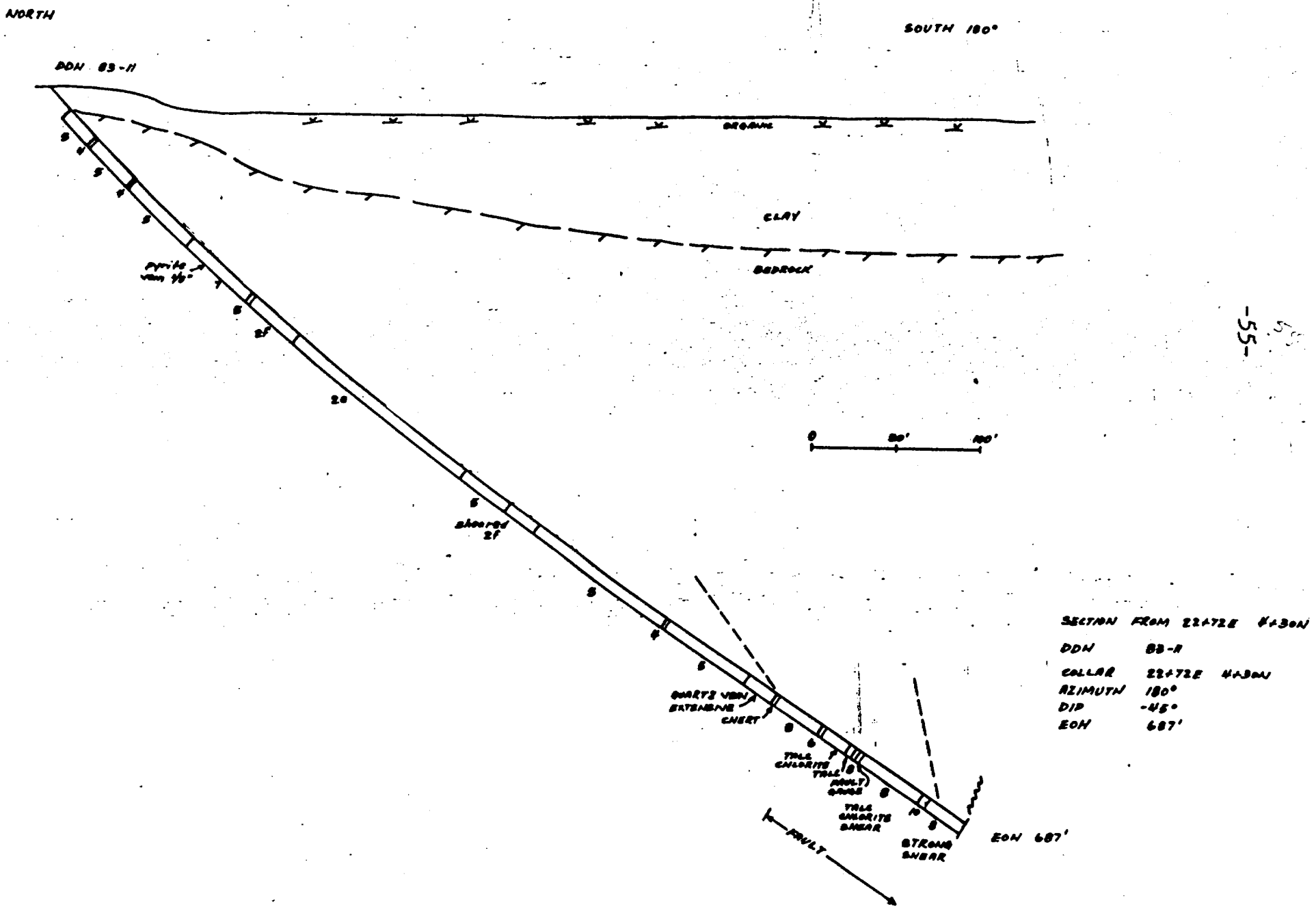
(2) The up-transport end of the gold trains in lodgment till.

(3) The induced polorization anomaly at about 1+00N.

Data Extracted

The talc-chlorite fault zone, represented by narrow, sharp, fault-gouge zones, was intersected at footage 590. No significant increase in gold levels shows in the core across the fault zone. The extension of the fault zone to the subcrop surface is the location of the induced polarization conductor.

The mineralized gabbroic sill was intersected at footage 168 where it is in contact with sandstone and volcanic tuff. A vein of arsenopyrite, or possibly pyrite, is in the gabbro at the contact and is enriched in gold to 275 PPB. One-quarter inch wide pyrite veins extend from the gabbro into the tuff. Near its southern contact, the sill encloses intersections of sandstones. The sill is in contact with the main body of



SECTION FROM 22+72E 4+30N

DDH	83-11
COLLAR	22+72E 4+30N
AZIMUTH	180°
DIP	-45°
EOH	687'

sandstone at footage 380 where the sandstone is sheared and mineralized with disseminated pyrite, chalcopyrite, and quartz veining.

Between the talc-chlorite fault zone and the gabbroic sill, the rocks are chiefly sandstone which nearing the fault have become silicified marked by extensive quartz veining and chert zones.

Conclusions and Recommendations

A 3-dimensional picture is emerging that positions the subcrop area for the mineralized sill and the talc-chlorite fault zone. Detailed close spaced needle duff for gold should be done to cover this area prior to further drilling.

Diamond Drill Hole 83-12, Mining Claim L422254

Conditions Tested

Drill hole 83-12 was laid out to test:

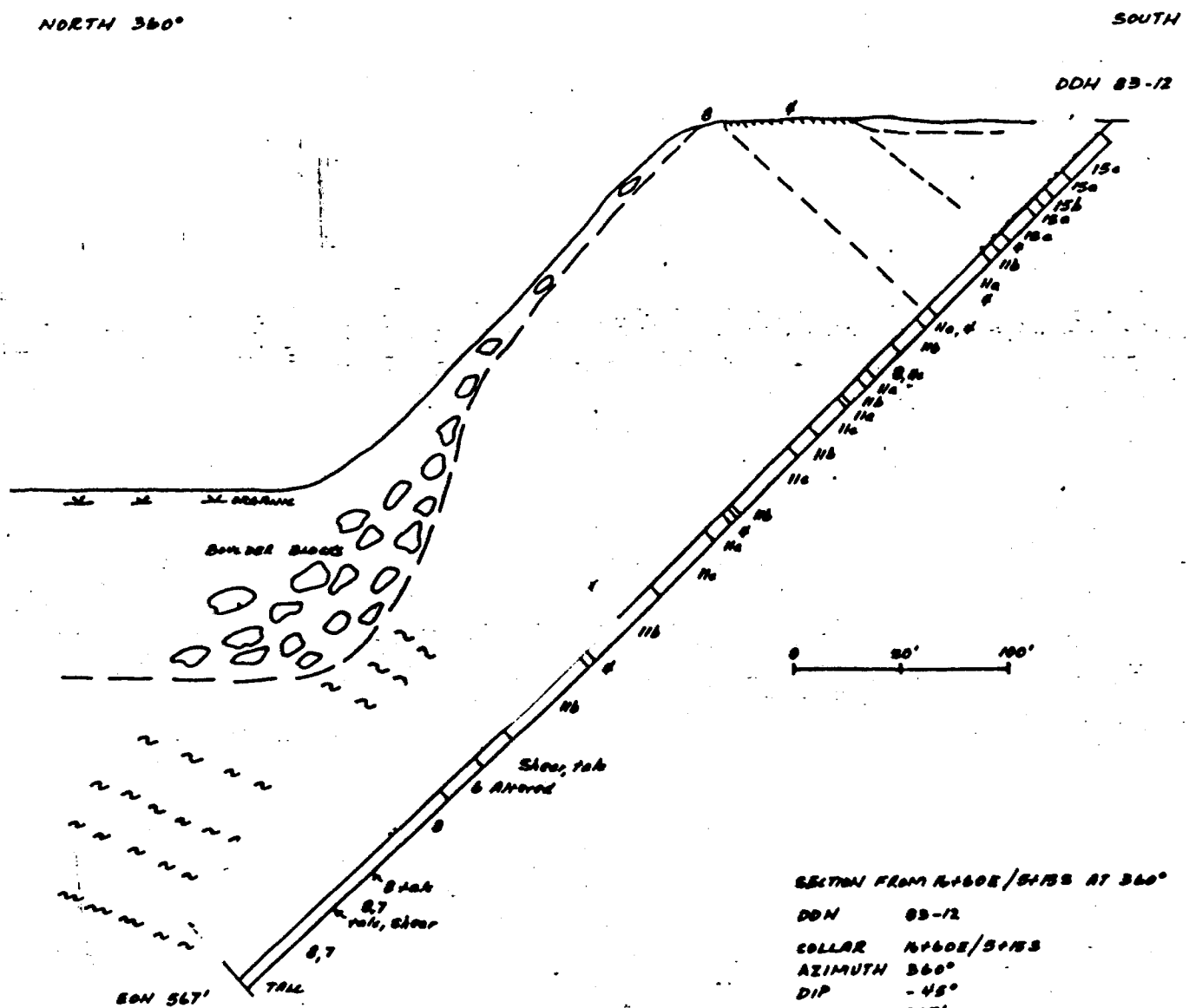
(1) The talc-chlorite fault zone.

(2) The up-transport end of gold trains in lodgment till.

(3) The base of the Temiskaming sediments.

Data Extracted

The talc-chlorite zone is in the core between footages of 398 and the end of the hole at 567. It is positioned at the base of the overlying Temiskaming sediments and as such represents the dragged alteration zone at the base of this


NORTH 360°
SOUTH
DDH 83-12
Boulder Blocks
Shear, talc & Alteration
Talc
Talc, Shear
TALL
EOH 567'
0
50'
100'
SECTION FROM N+60E/S+15S AT 360°
DDH 83-12
COLLAR N+60E/S+15S
AZIMUTH 360°
DIP -45°
EOH 567'

major overthrust. It compares closely to the strong alteration and the drag in the Chesterville - Kerr Addison orebody to the south, a zone along which gold solutions moved and were deposited in brittle fractured rock. The DDH 83-12 core intersection did not give significant increase in gold.

Drill Hole 83-13, Mining Claim L428752

Conditions Tested

DDH 83-13 was laid-out to test:

(1) Talc-chlorite fault thrust zone.

(2) Mineralized gabbro sill.

(3) Up-transport end of gold trains in lodgment till.

(4) Base of Temiskaming rocks.

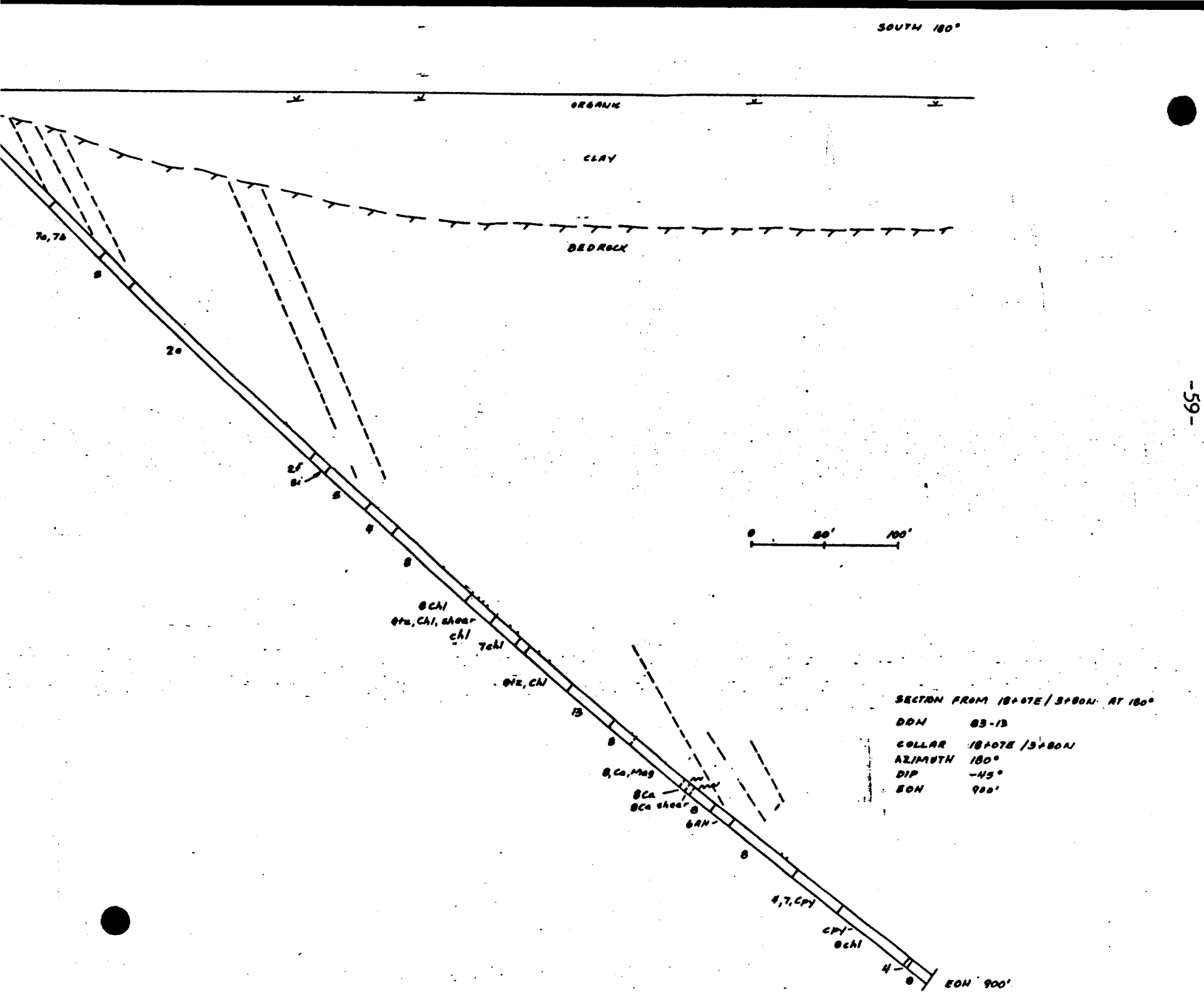
(5) Induced polarization conductor.

The drill core was professionally logged by H.A. Lee, Ph.D., P.Eng. and R. Anderson, B.Sc.

Data Extracted

A shear zone was intersected at footage 490 with strong chloritization but lower in talc than in other holes. Reactivation along the shears are represented by slips and offsets of contained quartz veinlets and by a moderate increase in gold.

The mineralized gabbro sill was intersected between footages of 181 to 362. The sill is silicified near its margin due likely to digestion of sandstone, but possibly


SOUTH 180°
ORGANIC
CLAY
BEDROCK
7a, 7b
8
2a
2f
8
4
8
8 Chl
8tz, Chl, shear
chl
7chl
8tz, Chl
13
8
8, Ca, Mag
8Ca
8Ca shear
8
6AH
8
4, 7, Cpy
Cpy
8chl
4
8
EOH 900'
0
50'
100'
SECTION FROM 18+07E / 3+80N AT 180°
DDH 83-13
COLLAR 18+07E / 3+80N
AZIMUTH 180°
DIP -45°
EOH 900'

from within the sill.

Conclusions and Recommendations

The gabbro sill and its associations are undoubtedly part of the cause of the gold trains in lodgment till. The nearby chlorite-talc zones are avenues for gold-bearing solutions.

Further splitting of the core and assaying it across the gabbro sill should be done. The importance of the sludge is demonstrated in this hole, accordingly emphasis should be made to employ a technician for controlling its collection and to insure that all sludge runs are assayed.

Diamond Drill Hole 83-16, Mining Claim L422254

Conditions Tested

DDH 83-16 was laid-out to test the near edge of the up-transport end of gold trains in lodgment till.

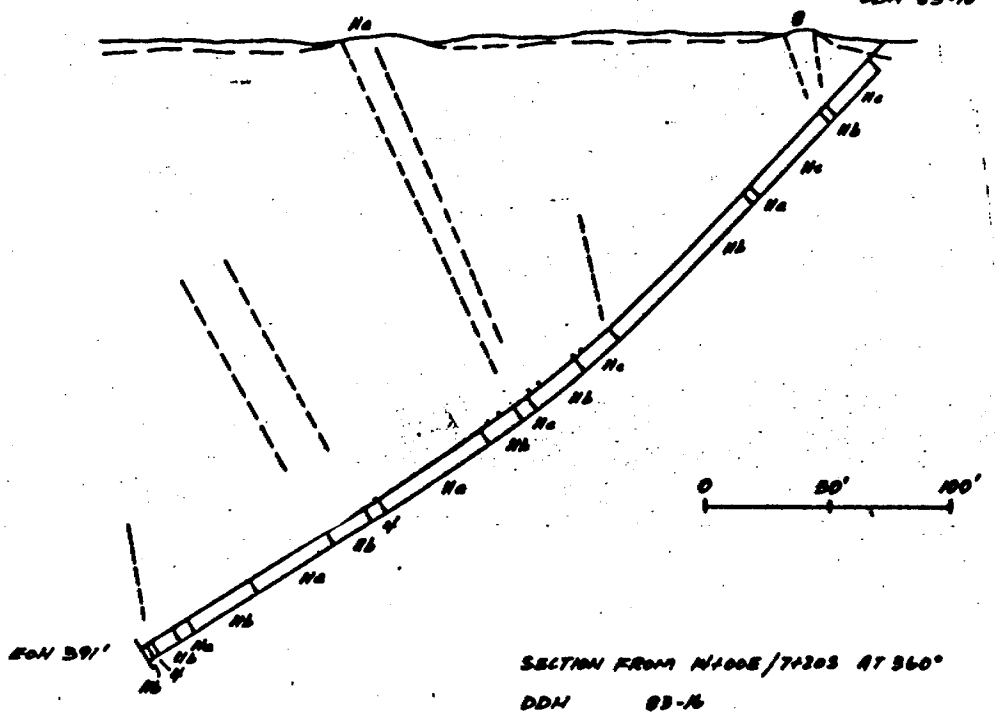
Data Extracted

The hole intersected rocks of the Temiskaming and Larder Groups, chiefly sandstone and conglomerates.

NORTH 360°

SOUTH

DDH 83-16



SECTION FROM N1+00E/7+20S AT 360°

DDH	83-16
COLLAR	1N+00E/7+20S
AZIMUTH	360°
DIP	-48°
EOH	391'

Diamond Drill Hole 83-19, Mining Claim L422250

Conditions Tested

DDH 83-19 was placed:

(1) To give maximum length along the talc-chlorite fault.

(2) Section <u>across</u> the head of the gold trains in lodgment till.

(3) Intersect the cross-joints of the major thrust fold along the position of extension to quartz-tourmaline veins.

Sample Treatment

Core from the talc-chlorite zone was analyzed by several techniques in order to resolve the problem of why native gold visible in the core did not translate into gold values in the assay.

The "pulp-metallic" sample preparation method was given to Swastika Laboratories and to Bondar Clegg Laboratories. Immediately differences appeared in available techniques.

Swastika Laboratories long-used to emphasis on gold used plates for pulverizing the core. The product produced contained considerable 150 mesh oversize which in turn was exceedingly difficult to and costly to pass through the 150 mesh screen. Considerable +150 mesh oversize resulted, enough for a fire assay. The gold levels on both coarse and fine were low, except for the rare sample where equivalent results

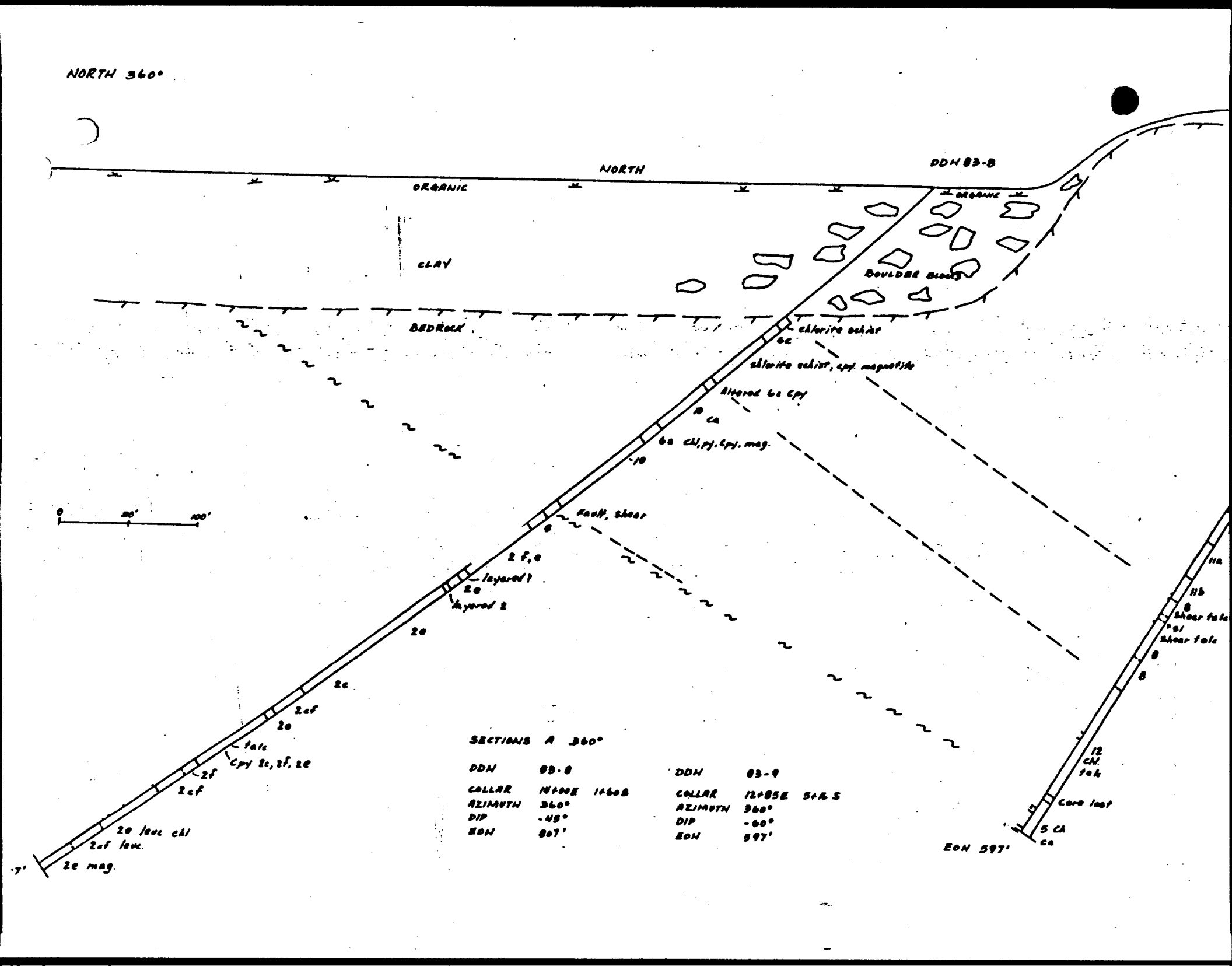
appeared in both sizes. It must be remembered that native gold was not visible in the samples submitted to Swastika Laboratories.

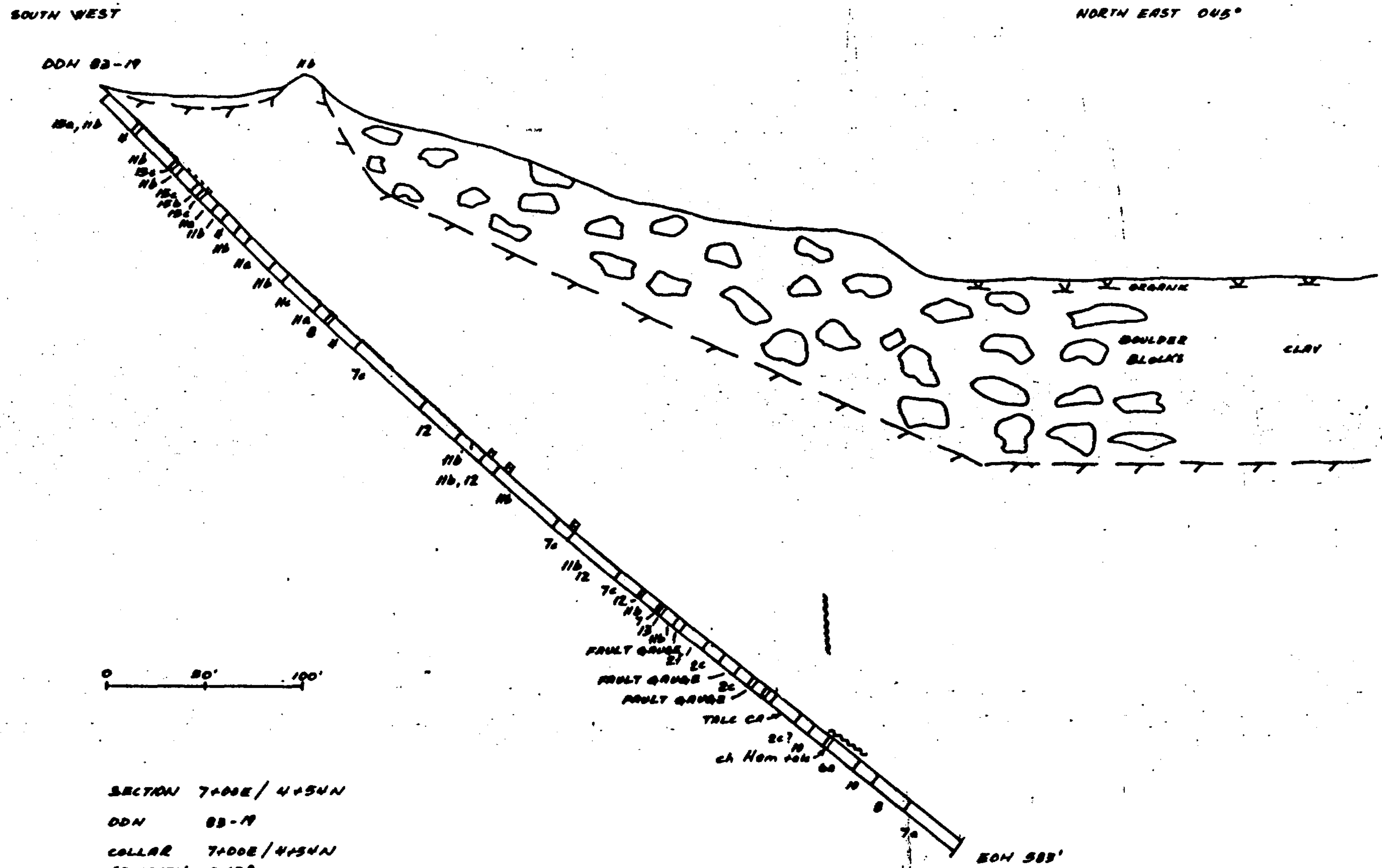
Bondar-Clegg Laboratories long-used to uranium and base metals used a shatter pulverizer which reduced the total sample but is difficult to clean in between samples. They did not report difficulty in sieving. But they were unable to fuse a one ton assay for sample of 35 grams and had to revert to smaller samples of 15 grams or less. Because of small oversize samples (+150 mesh) on the screens they were unable to report from the sensitivity of their instruments gold values below in some cases 1000 PPB. In some instances where coarser material was sufficient and gold values were higher, gold showed on the +150 mesh size and interestingly matched the samples where native gold had been seen on the core. Hence this approach to "metallic and pulp" analyses showed the presence of gold which under routine analysis does not find its way into the normal assay.

This brief test shows some of the major difficulties that laboratories have in assaying for gold.

Data Extracted

The talc-chlorite fault was intersected between footages 397 and 456 where it is represented by six sharp, narrow zones of intensive fault gouge (footages 396, 400, 430, 437,


NORTH 360°
NORTH
DDH 83-8
ORGANIC
ORGANIC
CLAY
BOULDER BLOCKS
BEDROCK
chlorite schist
6c
chlorite schist, cpy magnetite
Altered 6c cpy
10 ca
6a chl, py, cpy, mag.
10
0
20'
100'
Fault, shear
8
2 f, e
layered?
2e
layered 2
2e
2c
2cf
2e
talc
cpy 2c, 2f, 2e
2f
2cf
2e leuc chl
2cf leuc.
2e mag.
7'
11a
11b
8
Shear talc
°el
Shear talc
8
8
12
chl.
talc
Core lost
5 ca
ca
EOH 597'
SECTIONS A 360°
DDH 83-8
COLLAR 1N+00E 1+60S
AZIMUTH 360°
DIP -45°
EOH 867'
DDH 83-9
COLLAR 12+85E 5+85S
AZIMUTH 360°
DIP -60°
EOH 597'



SECTION 7+00E / 4+54N

DDH 83-19

COLLAR 7+00E / 4+54N

AZIMUTH 045°

DIP -45°

EOH 583'

446, 455). Locally they carry talc, carbonate, chlorite, emerald-green fuchsite, vein quartz, and visible gold. In the fault zone at footage 402 a quartz stockwork is developed accompanied by 10 to 20% pyrite.

The native gold is malleable and forms flattened scales when it is rolled under a needle. It has a slight copperish tinge, hence called pink gold.

Offsets and foldings of the calcite and talc replacements represent considerable late tectonic movements.

At footage 396 there is blue-black vein quartz in the core, a common association in gold orebodies, and at footage 390 there is silicification.

Closer to the drill collar at footages 183 to 229 agglomerate beds represented by mixed angular pyroclastic and rounded water-worn pebbles include black limestone, red iron formation with up to 30% pyrite, and locally pyrite to 10%.

Conclusions and Recommendations

In this drill section, the talc fault zone cuts through the mineralized gabbro sill. Later tectonic events have offset the cross-joints - those fillings of quartz, calcite, and farther south tourmaline - and has brought in gold solutions and gases. A high gold potential is indicated by blue-black

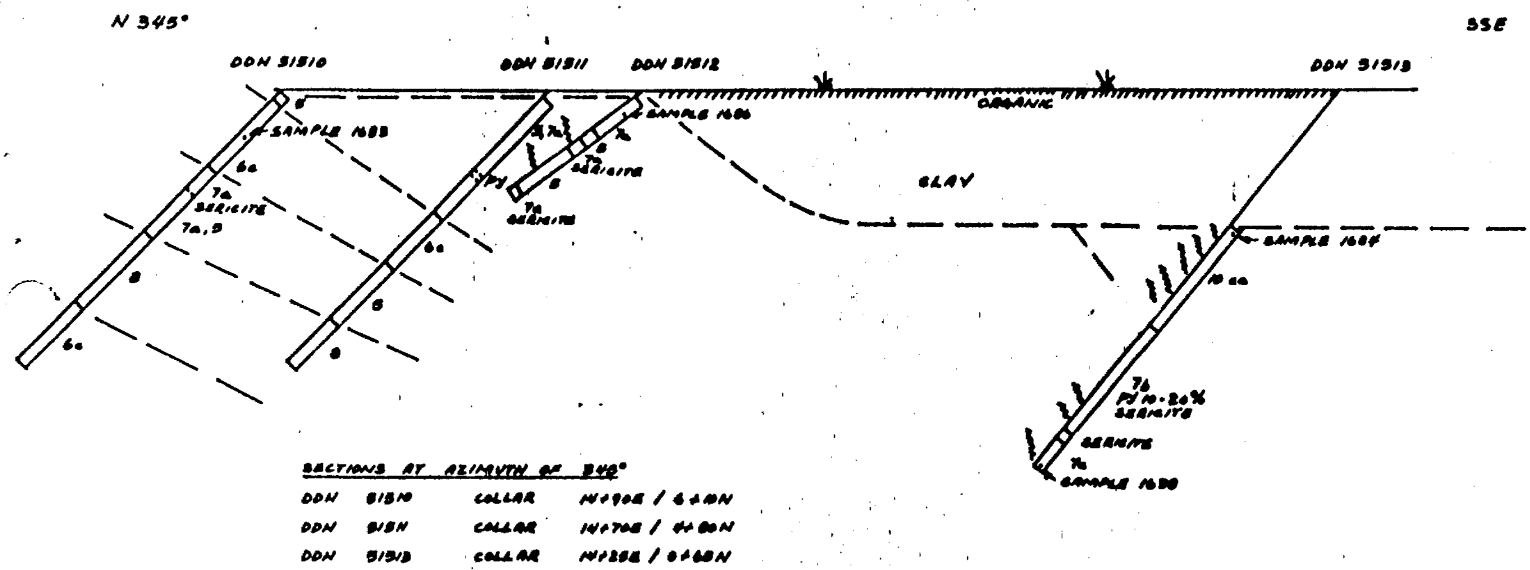


FIG. - PROFILES ALONG DRILL HOLES DDH 51510, 51511, 51512, AND 51513

quartz, quartz stockwork with pyrite of 10 to 20%, visible gold at two places, and very strong fault structures as gouge in five places.

A series of sections of steep holes should be placed to follow the mineralized gabbro sill and the base of the thrust fault zone southwards as far as the quartz tourmaline veins.

Diamond Drill Hole 51513, Mining Claim L428752

Conditions Tested

This earlier Winky drill hole was made under the Lee-Canico-TG Joint Venture in 1975 as one of a few shallow holes to test the up-transport end of gold trains in lodgment till.

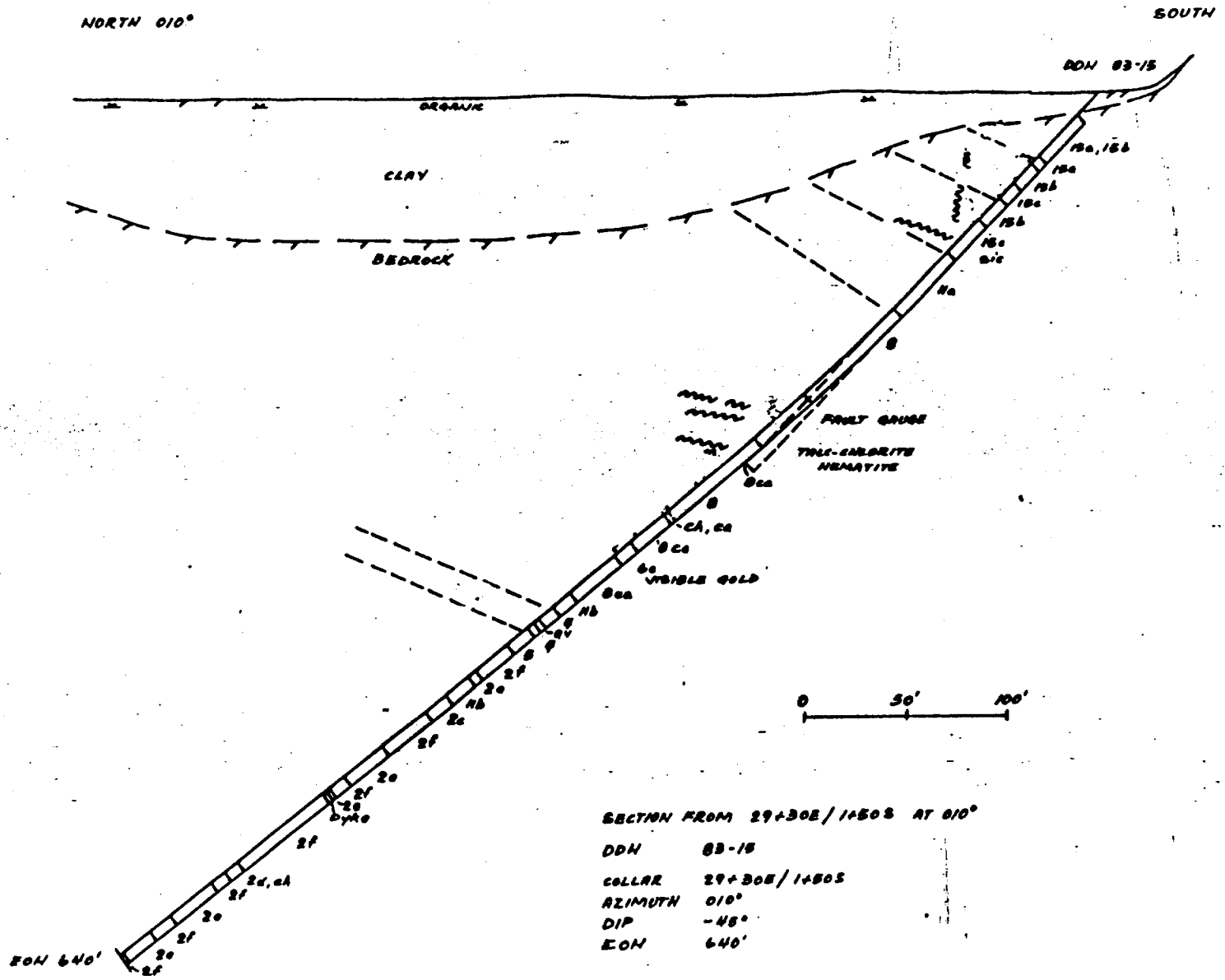
Data Extracted

The drill hole entered the subcrop in tectonite of map-unit 10 where it is tightly Z folded, squeezed, and contains quartz veins.

Adjacent to the tectonite is a brittle lapilli tuff which has gold levels to 340 PPB across 6.3 feet. The tuff carries in addition to gold pyrite to 10 and 20%, and it is highly sericitized and sheared.

Recommendations

Association of gold to brittle zones next to the thrust fault is the same as in DDH 83-8, hence warrants follow-up exploration.



SECTION FROM 29+30E / 14+50S AT 010°

DDH	83-15
COLLAR	29+30E / 14+50S
AZIMUTH	010°
DIP	-48°
EOH	640'

Normally geophysics would be useful with so much sulphides, but too much interference is expected from the railway and its ballast. The successful spruce needle duff measurement for gold should be done in detail over these zones to assist in defining better drilling sites. The rocks here are generally flat, although locally closely folded hence vertical drilling should be done except for under the railway where angled holes will be required.

Diamond Drill Hole 83-15, Mining Claim L422255

Conditions Tested

DDH 83-15 was laid out to test: (a) The intersection of the east-west fault along the RR Baseline with the northeast trending fault. (b) The up-transport end of gold trains in lodgment till.

The hole was logged by H.A. Lee and R.A. Anderson.

Data Extracted

A north trending shear zone was intersected near the top of the hole, then at footage of 137 to 258 the strong talc fault zone was penetrated where it is represented by considerable fault gouge, talc, chlorite, and hematite. Also there is a flow of water and caving of the hole which required cementing and redrilling.

One piece of possible gold was seen in the core just below the fault but it was lost before the malleability test could be completed for a positive identification.

TARGET GROUP E

Diamond Drill Hole 83-14, Mining Claim L428752

Conditions Tested

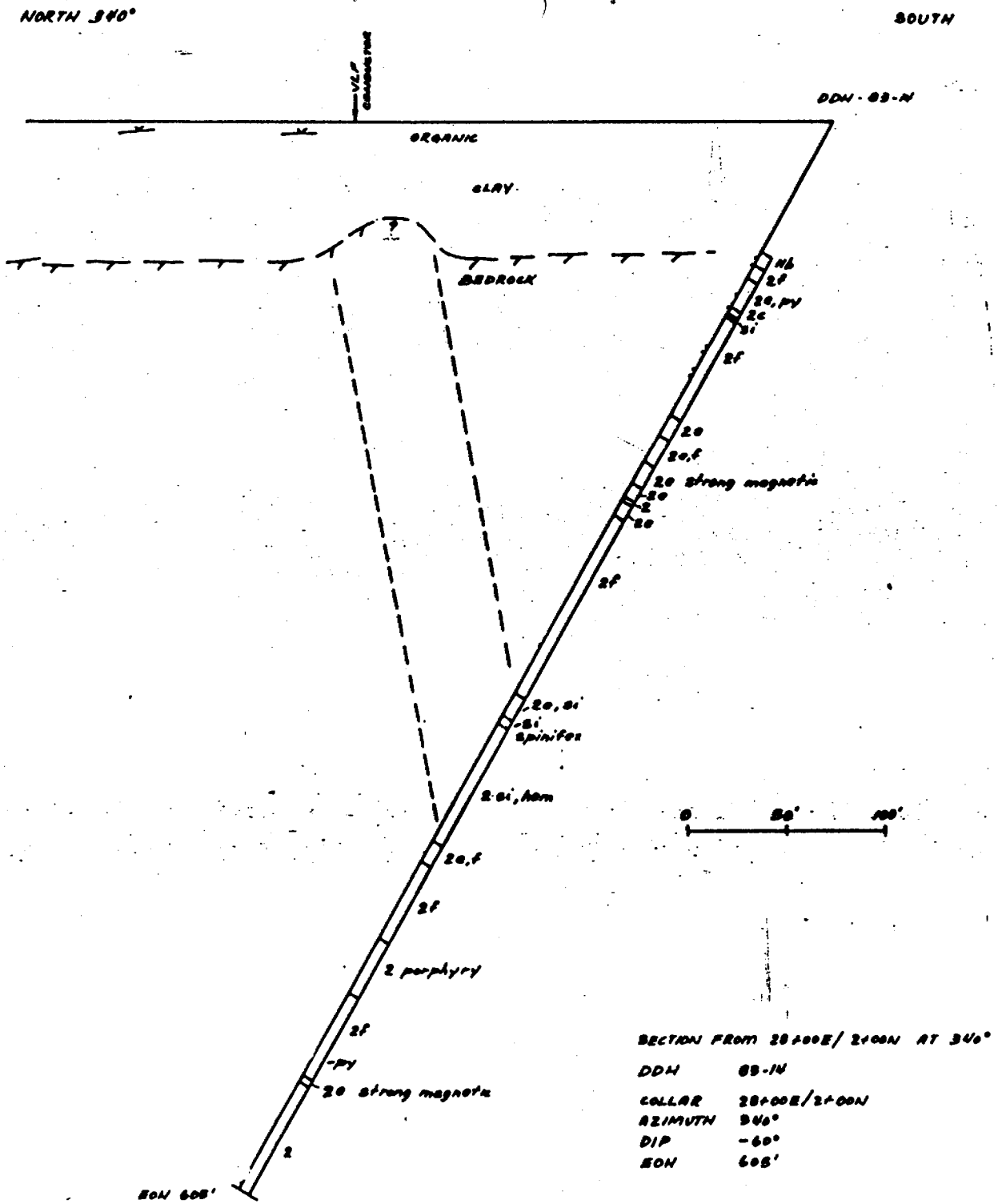
DDH 83-14 was placed to evaluate two co-incident geophysical surveys, an isolated magnetic high along with a VLF conductor. Erratic noise on the VLF conductor was interpreted by the instrument operator as due to pyrite, which is of interest because pyrite sometimes carried trapped gold.

Data Extracted

The rock is gabbro throughout the length of the core. Some of it is strongly magnetic which accounts for the magnetic high. The cause of the VLF conductor as seen in the core is due to either:

(1) The zones of increased silica encountered in the core which deflected radio waves.

(2) Or the zone of exidote alteration which gave a more resistant structure to wave penetration. The erratic noise could be due possibly to a topographic hill of silica rich erosion resistant rock nearing the surface.


NORTH 340°
SOUTH
VLF CROSSOVER
DDH - 89-N
ORGANIC
CLAY
BEDROCK
Nb
2f
2e, py
2c
2i
2f
2e
2e,f
2e strong magnetic
2e
2
2e
2f
2e, 2i
-2i
spinifex
2 ci, hem
2e,f
2f
2 porphyry
2f
-py
2e strong magnetic
2
EOH 608'
0
50'
100'
SECTION FROM 28+00E/ 2+00N AT 340°
DDH 89-N
COLLAR 28+00E/2+00N
AZIMUTH 340°
DIP -60°
EOH 608'

TARGET GROUP F

Diamond Drill Hole 83-17, Mining Claim L531699

Conditions Tested

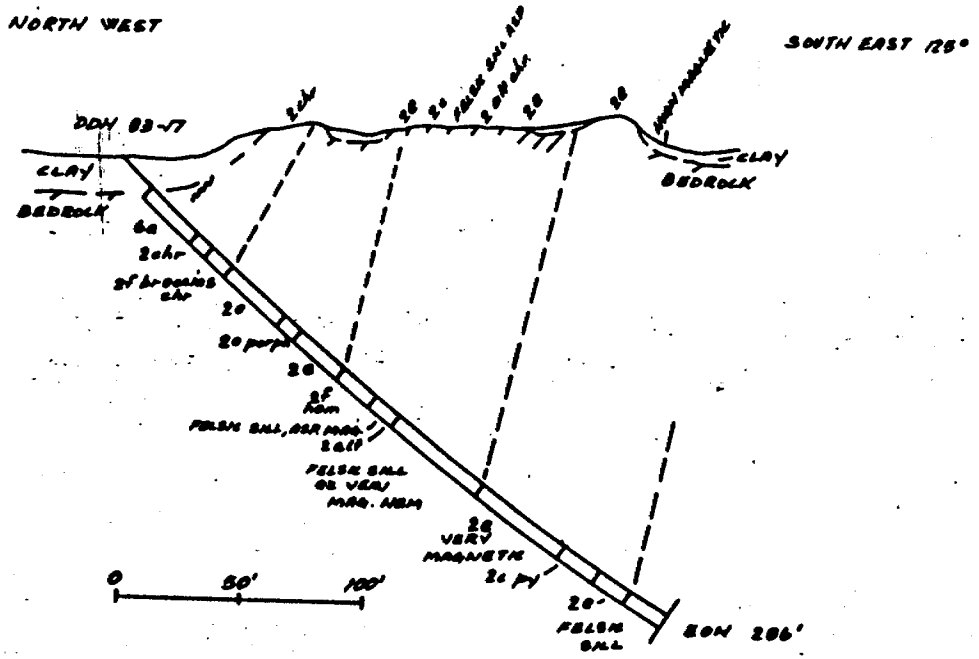
An early showing of prospector Ivan Dobrevitch was described by W. Savage (1948). It was refound in 1983, power stripped, and tested by drill hole 83-17. A small induced potential anomaly is near this showing.

The showing is a gabbro body cut or interlayered by grey felsic sills. Along the boundaries of the sill is a distinctive emerald-green alteration zone, and adjacent to the alteration are grey zones carrying heavily disseminated arsenopyrite and some pyrite, a situation which geochemists would consider as strongly favourable for gold. Nevertheless gold values in the showing are low and not encouraging.

Data Extracted

The felsic sill in gabbro is in the drill core at footages of 140 to 149. It is composed of euhedral feldspar laths in a fine-grained grey matrix. The feldspars are large, pinkish, and the rock is strongly magnetic. Quartz veinlets are numerous.

These sills likely represent transition zones from the top of the gabbroic sills, an explanation which is consistent with the late shallow intrusions of gabbroic to dioritic to ultramafic flows in the locale.



SECTION FROM 13+00E/ 21+34N AT 128°

DDH	83-17
COLLAR	13+00E / 21+34N
AZIMUTH	128°
DIP	-45°
EOH	286'

Drill Hole 83-18, Mining Claim L428751

Conditions Tested

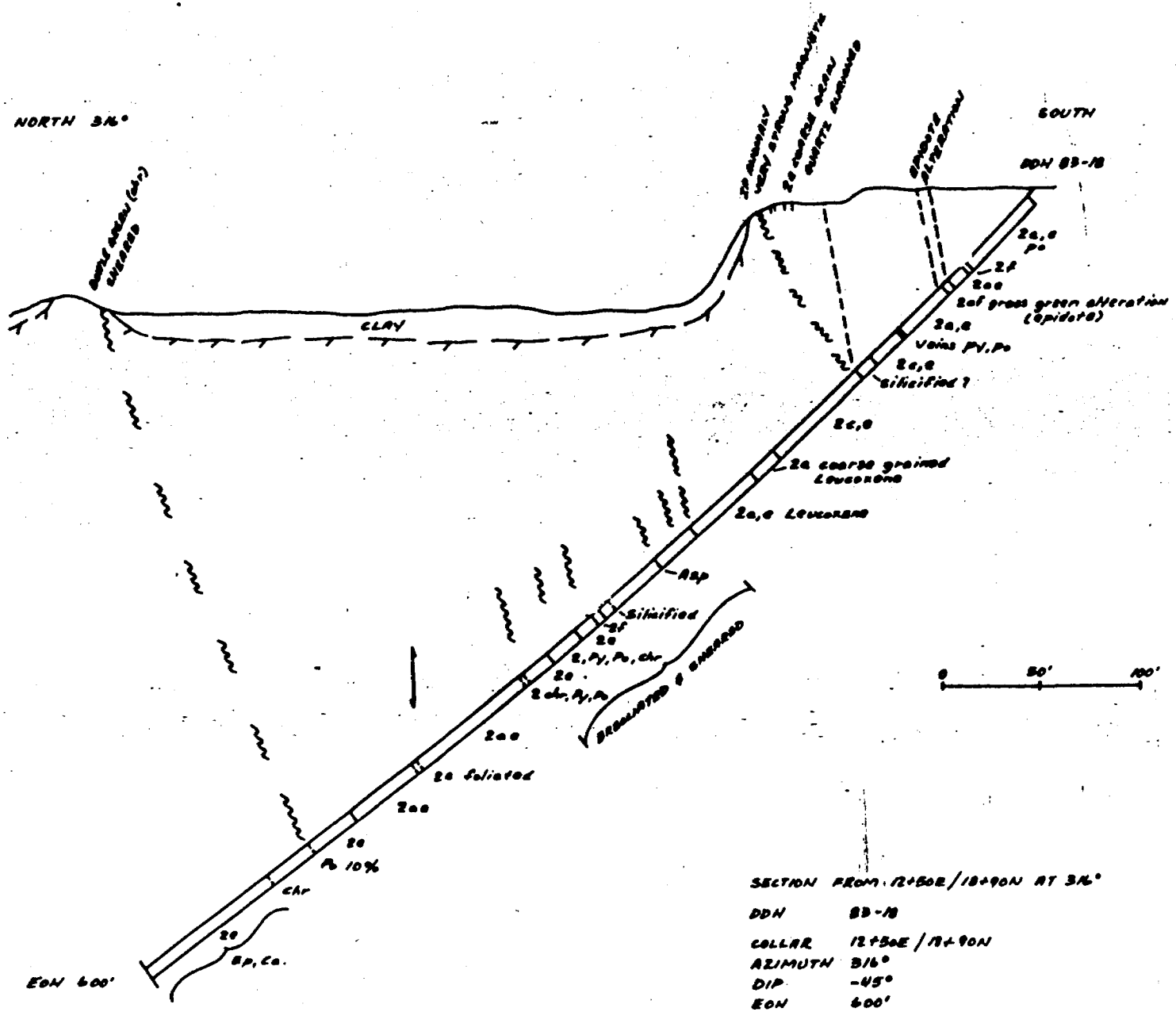
DDH 83-18 was laid-out to test an induced polarization anomaly close to the surface showing with arsenopyrite, and close to an exceptionally high magnetic anomaly.

Data Extracted

The cause of the magnetic anomaly shows in outcrop to be due to concentrations of very coarse-grained magnetite in gabbro.

The cause of the induced polarization anomaly was intersected at footage 103 and was seen to be due to veins one-quarter inch across of massive pyrite and pyrrhotite.

A brecciated shear zone extends from 249 to 342 and locally carries up to 30% pyrite. Other alterations are talc, carbonate, chlorite, and hematite. A whole rock analysis is necessary and should be done on the brecciated zone, and if there are positive economic indicators then mineralogic work should follow. The same should be done for the emerald-green alteration and the spinifex rocks. Additional detailed mapping is necessary to unravel the effects of rapidly changing facies and border conditions around the probable ultramafic flows. Consideration should also be given to possible nickel content of the pyrrhotite and gem interest of the green rock.


NORTH 316°
SOUTH
DDH 83-18
CLAY
2a,e Po
2f
2aa
2af green green alteration (epidote)
2a,e
Veins Py, Po
2a,e
silicified ?
2c,e
2a coarse grained Leucocene
2a,e Leucocene
Asp
Silicified
2f
2a
2, Py, Po, chr
2a
2 chr, Py, Po
2aa
2a foliated
2aa
2a
Po 10%
chr
2a
Sp, Ca.
EON 600'
0
50'
100'
SECTION FROM: 12+50E / 18+90N AT 316°
DDH 83-18
COLLAR 12+50E / 18+90N
AZIMUTH 316°
DIP -45°
EON 600'

Respectfully submitted,
LEE GEO-INDICATORS LIMITED
Hulbert A. Lee
Hulbert A. Lee, Ph.D., P.Eng.

Stittsville, Ontario
February, 1984

CERTIFICATE

I, Hulbert A. Lee of Ottawa-Carleton regional municipality, province of Ontario, do hereby certify that:-

1) I am a geologist residing at 94 Alexander Street, Stittsville, Ontario K0A 3G0.

2) I am a graduate of Queen's University with a BSc. in Geology (1949) and a graduate of the University of Chicago with a Ph.D. in Geology (1952).

3) I am a member of the Professional Engineers of Ontario, the Canadian Institute of Mining and Metallurgy, the Association of Prospectors and Developers, and a fellow of the Geological Society of America. I have been practicing my profession continuously since graduation.

4) The statements made in this report are based on data collected by R.A. Anderson and myself while I was on site supervising the project.

Stittsville, Ontario
February, 1984

Hulbert A. Lee

Hulbert A. Lee, P.Eng.

Ministry of Natural Resources

Diamond Drilling Log

Fill in on every page

Hole No. 12 | Page No. 1

Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 360	Total Footage: 567	Dip of Hole at: -45	Location of hole in relation to a fixed point on the claim: L16+60E 5+15S
Hole Started: 83-10-21	Date Completed: 83-10-24	Date Logged: 83-10-25 to 26	Logged by: H.A. Lee	567 Ft: -41	Map Reference No:
Operation Co. / Owner or Optionee: McGarry Resources Inc.		Date Submitted: 83-12-31	Submitted by (Signature):	Ft:	Claim No.: L 422254
				Ft: BQ Core	Location (Twp. Lot. Con or Lat. and Long.): Mc GARRY TOWNSHIP
				Ft:	Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	8	Washed till								
8	33	Temiskaming conglomerate	Pebbles 70% size range ¼" to 3". Composed of cream, white and black chert, moderate amounts of quartz pebbles and some syenite porphyry pebbles, occasional fg mafic possibly ultramafic. Pebbles rounded. Pyrite is in quartz pebbles and in matrix. Some chert pebbles are broken and joints are infilled with matrix of grey sandstone.							
			14, 17, 19 Are quartz veins 2-3" wide at 20°.	20°						
33	44	Temisk. grey siltstone	Occasional pebbles. Grey, coarse grained, non calcareous. 35 Quartz vein ½" wide.							
44	50	Temisk. grey ss cgl.	Pebbles 25%.							
50	56	Temisk. grey siltstone	Grey, coarse grained quartz and feldspar. 53 Conglomerate beds 4 feet wide.							80 2 1
56	66	Temisk. cgl	Grey with whitish pebbles. Pebbles 60% composition, grey chert,							
66	76	Temisk. grey sandstone	(White chert, feldspathic chert, occasional mafic)							
76	80	Cherty claystone	Black, finely layered at 90° with infilling of grey ss	90°						
80	86	Grey ss								
86	102	Cgl ss								
102	121	Grey siltstone	Medium to fg.							
121	129	Sandstone cgl	Grey angular chert pebbles 15-20%.							
129	145	Grey siltstone	Medium grained. Composed of 30% quartz, 70% feldspar, 1% pyrite. Carries minor chert claystone chips.							
145	148	Conglomerate	Grey rounded chert pebbles, grey sandstone matrix.							
148	162	Conglomerate	Composed of pebbles of jasper sandstone, chert. Hence younger than jasper sandstone, siltstone matrix.							

82 1

* Angle of foliation, bedding, schistosity, measured from the long axis of the core

† Additional credit available. See Assessment Work Regulations

Ministry of Natural Resources — Ontario

Diamond Drilling Log

Fill in on every page

Hole No. 83-12 | Page No. 2

Drilling Company	Collar Elevation	Bearing of hole from true North / Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No / Claim No.
Date Hole Started / Date Completed	Date Logged	Logged by	F:	Location (Twp., Lot, Con or Lat. and Long.)
Exploration Co. Owner or Optionee	Date Submitted	Submitted by (Signature)	F: / F: / F:	Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
162	167	Sandstone cgl	Grey, medium grained matrix. Pebbles to 25% composed of yellow chert matrix of sandstone.							
167	177	Grey sandstone	170-171 Qtz vein 2" wide at 20°.							
177	180	ss conglomerate	Pebbles 25% of chert from broken layer.							
180	182	Conglomerate	Pebbles 25%.							
182	199	Conglomerate	Rounded pebbles of chert, syenite porphyry, grey with white and cream coloured pebbles.							
199	212	Grey ss	Medium grained, composed of feldspar and quartz.							
212	220	Conglomerate	Pebbles of chert and a few porphyry.							
220	238	Conglomerate ss	Pebbles of chert and a few porphyry.							
238	250	Conglomerate	Pebbles of both grey and white chert, feldspar porphyry. Siliceous. 242 Pebble of greenish ultramafic.							
250	252	Conglomeratic ss	Grey.							
252	254	Conglomerate								
254	255	Sandstone								
255	255.5	Yellow chert								
255.5	257	Chert and ss								
257	263	Conglomerate								
263	266	Calc. sandstone								
266	303	Conglomerate	Pebbles of chert, feldspathic chert, feldspar porphyry. Contact to sandstone, bed at 90°	90°						
303	345	Grey sandstone	Sandstone with a few chips of yellow chert claystone.							
345	346	Chert	Grey chert layer.							
346	349	Conglomerate-chert	Conglomerate with chert pebbles.							
349	398	Grey sandstone	Coarse grained, few pebbles.							
398	417	Very strong shear (fault)	Calcite veinlets, talc rock, possibly sheared slate. Shear 45° 406-407 Brownish orange fault gouge, talc.							

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations

Ministry of Natural Resources — Ontario

Diamond - Drilling Log

Fill in on every page

Hole No. 83-

Page No. 3

...ng Company	Collar Elevation	Bearing of hole from true North / Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No. / Claim No.
...ate Hole Started / Date Completed	Date Logged	Logged by	Ft.	Location (Twp. Lot. Con or Lat. and Long.)
Exploration Co. Owner or Optionee	Date Submitted	Submitted by (Signature)	Ft. / Ft. / Ft.	Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
417	420	Altered syen-ite? in fault	Black with pinkish streaks strongly foliated, stretched and augen development of pink feldspars? Strongly magnetic, non calcareous.							
420	439	Syenite? tec-tonite	Foliation very strong, closed spaced stretched augen feldspars? Talc on slip planes. Black rock with pink augen, calcareous, non magnetic.	40°						
439	466	Siltstone sheared	Fg black, abundant calcite and quartz stringers. Talc and hematite on slip plains, magnetic. 445 Talc chlorite on shear across 4".							
466	469	Sheared chlor-ite siltstone	Shear at 40°.	40°						
469	471	Quartz vein	Vein 16" wide with infillings of chlorite, white to pinkish.							
471	472	Talc, sheared chlorite.								
472	473	Quartz vein	4							
473	486	Siltstone	Black hematite on slip planes, calcareous, magnetic. 482 Green chert layer broken.	60°						
486	487.5	Siltstone-tuff	Pebbles of augite feldspathic dyke, calcareous, non magnetic.							
487.5	490	Talc								
490	492	Siltstone	Occ chert chips, Strong foliation, beds 50°, non mag-netic, non calcareous	50°						
492	511	Siltstone-tuff	Greenish black, Minor pink elongated grains, Hematite on slip planes, beds at 50°	50°						
511	513	Talc siltstone	shear							
513	567	Siltstone-tuff	Dark green with stretched pink (feldspars?). Talc on slip planes along with hematite. Occ chert claystone. 565 Silicified zone with chalcopyrite.							
567		End of hole								

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations

Ministry of Natural Resources — Ontario

Diamond Drilling Log

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Fill in on every page → Hole No. 13 (83-12) | Page No. 1

Drilling Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 180°	Total Footage: 900	Dip of Hole at: 45 Collar -45	Location of hole in relation to a fixed point on the claim: L18+07E 3+80N
Date Hole Started: 83-10-23	Date Completed: 83-10-30	Date Logged: 83-10-24 to 11-3	Logged by: H.A. Lee	900 Ft -37	Map Reference No.
Exploration Co. Owner or Optionee: Mc Garry Resources Inc.		Date Submitted: 83-12-31	Submitted by (Signature)	Ft.	Claim No.: L428752
				Ft.	Location (Twp., Lot, Con. or Lat. and Long.): McGarry Twp
				Ft. BQ core	Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	18	Boulders								
18	105	Sandstone (jasper)	Fg. Very rare jasper grain. Composed feldspar, quartz, Fe-carbonate flecks, 1% pyrite. Occasional ¼" qtz veins lined on edges by chlorite, non calcareous, non magnetic.							
			54-56 Narrow qtz veins 1/8 to 2" with chlorite edges.							
			69-70 Thin beds of pyrite over length of sample. Beds at 15°.	15°						
			93-95 Very thin pyrite beds (seams).							
			Contact of sandstone with tuff is irregular.							
105	141	Tuff	Pale whitish with green specks.							
141	151	Tuff, lapilli	Pinkish with large absorbed feldspar, non magnetic, non calcareous.							
151	153	Tuff, sandstone	Bleached, non magnetic, non calcareous.							
153	181	Sandstone (jasper)	Greenish feldspar quartz, 1% pyrite. Only occasional jasper, non magnetic, non calcareous.							
			156-158 A few yellow chert claystone flares.							
			179 A ½" quartz vein with pyrite and wall rock.							
181	348	Gabbro, magnetite	Black, speckled white after minor leucoxene. Most of the leucoxene borders edge of quartz veinlets in gabbro. Magnetic to partly magnetic.							
			245-246 1" of silicified zone with 3% pyrrhotite.							
			247-249 10% pyrrhotite in large blobs.							
348	359	Gabbro, leucoxene	Speckles white on black, non calcareous, non magnetic.							
359	362	Gabbro	Leucoxene and silicified, contact 45° with sandstone.							
362	397	Sandstone (jasper)	Grey, qtz feldspar, yellow Fe carbonate flecks. Pyrite 2%, jasper rare.							
			362 Bedded pyrite.							
397	413	Chert claystone	Yellow.							
413	422	Chert claystone	"Flames", 5% fine pyrite, matrix is jasper sandstone.							
422	490	Siltstone	Grey, non magnetic, non calcareous, beds at 20°	20°						
			450-481 Quartz vein 6" wide.							

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations

Ministry of Natural Resources
Ontario

Diamond Drilling Log

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Fill in on every page

Hole No. 83-13 | Page No. 2

Drilling Company	Collar Elevation	Bearing of hole from true North / Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.
Date Hole Started / Date Completed	Date Logged	Logged by	Ft:
Exploration Co. Owner or Optionee	Date Submitted	Submitted by (Signature)	Ft: / Ft: / Ft:

Map Reference No.

Claim No. L428752

Location (Twp., Lot, Con. or Lat. and Long.)

Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
490	495	Chloritic siltstone	Chloritic, sheared 45°, dark green, chlorite extensive on shears, also quartz veinlets	45°						
495	513	Quartz-chlorite shear	Extensive. Hematite on some slip surfaces. Vein quartz 30%, chlorite 70%. Main shear at 45° offset qtz	45°						
513	536	chloritic sandstone	stringers at 90° Dark green, non magnetic, chlorite 70-90%. Qtz vein 10-30%							
536	544	Green tuff	Chloritic, silicified, magnetic, beds at 20°.	20°						
			525-529 Vein quartz content increases.							
544	583	Chlorite-vein quartz	Dark green rock, non calcareous, non magnetic.							
			556-557 Vein quartz ext. 564-567 Vein quartz extensive							
			560-563 Vein quartz ext. 571-572 Vein quartz extensive							
583	621	Slate, chloritic	Greenish black, non calcareous, non magnetic.							
			604 Quartz-calcite vein across 8".							1
621	640	Grey siltstone	Beds at 30°.	30°						~0
640	684	Calc. siltstone	Black, chloritic, fine grained, magnetic.							—
684	689	Calc. siltstone	Black, chloritic, fine grained, non magnetic.							1
689	694	Sheared calc. siltstone	Slips at 20° with hairline calcite quartz along slips.							
694	711	Siltstone	Chloritized, sheared at 30°, non magnetic.	30°						
711	727	Altered syenite	Dark reddish black. Carries pyrrhotite and minor quartz veins. White spotted rimmed with reddish probably amygdules or absorbed feldspars. These spots are sulphide bearing. Occ green qtz cpy.							
727	782	Siltstone	With occasional chert claystone chips. Slips at 10° with hematite-calcite-pyrite on shears.	10°						
			781-782 Broken chert layer at 20°.	20°						
782	817	Chert and tuff	Broken chert layer across 6", beds at 20°. Tuff is fg, pinkish with stretched chert claystone pebbles. Hematite, calcite, and chalcopyrite on slips. Cpy about 3%.							
817	822	Tuff and chert	Closely spaced layers of pink and black beds, beds at 40°, minor cpy.	40°						
822	880	Chloritic siltstone	Dark black, chloritic with fragments of pink tuff, non calcareous, non magnetic.							

82 (82/11)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation:

Ministry of Natural Resources

Ontario

Diamond - Drilling Log

Fill in on every page

Hole No. 13 (83-[illegible]) | Page No. 3

Drilling Company	Collar Elevation	Bearing of hole from true North / Total Footage / Dip of Hole at: Collar	Location of hole in relation to a fixed point on the claim	Map Reference No. / Claim No. L428752
Date Hole Started / Date Completed	Date Logged	Logged by — Ft:		Location (Twp., Lot, Con. or Lat. and Long.)
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature) — Ft: / Ft: / Ft:		Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
880	881	Chert claystone	Chips from broken layer at 45°	45°						
881	900	Siltstone	Slips common at 30°, hematite-calcite on slips.	30°						
900		End of hole.								

83-1821

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation

Ministry of Natural Resources - 128 - Ontario

Diamond Drilling Log

Fill in on every page

Hole No. 83-14 | Page No. 1

Drilling Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 340°	Total Footage: 605	Dip of Hole at Collar: -60°	Location of hole in relation to a fixed point on the claim: L 28+00E 2+00N BQ Core
Date Hole Started: 83-10-27 / Date Completed: 83-11-1	Date Logged: 83-11-1	Logged by: H.A. Lee		595 Ft.: -58°	Map Reference No. / Claim No.: L428752
Exploration Co., Owner or Optionee: McGarry Resources Inc.	Date Submitted: 83-12-31	Submitted by (Signature)		Ft.: / Ft.: / Ft.:	Location (Twp., Lot, Con. or Lat. and Long.): McGarry Twp / Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	74	Organic/clay/wet sand								
74	81	Grey sandstone	Fg quartz veining silica enriched.							
			76 Quartz vein, white, across 4".							
81	88	Leucoxene gabbro	Greenish alteration.							
88	105	Gabbro	Dark green. Occ qtz vein. Occ veinlet of silvery pyrite, magnetic.							
105	109	Carbonated gabbro	Medium green, non magnetic, calcareous							
109	111	Silicified gabbro	Quartz veins 1/8" across.							
111	117	Leucoxene gabbro	Greenish, sheared at 60°, quartz enriched.	60°						
117	166	Leucoxene gabbro	Strong leucoxene and strong grass green alteration							
			128-129 Pyrite increases.							
166	178	Gabbro	Minor leucoxene after magnetite. Grass green alteration, magnetic.							
178	193	Leucoxene gabbro	Greenish alteration, spotted, magnetic.							
			191 Chloritic slips at 30°.	30°						
193	205	Gabbro	Strongly magnetic. Probable cause of mag. high.							
205	213	Gabbro	Magnetic.							
213	215	Gabbro	Non magnetic.							
215	223	Gabbro	Magnetic.							
223	325	Leucoxene gabbro	Black with white leucoxene specks, minor pyrite, non magnetic.							
			237 Chloritic slips at 30°.	30°						
325	326	Gabbro	Silica rich, magnetic.							
326	339	Gabbro	Magnetic.							
339	342	Gabbro	Siliceous							
342	343	Gabbro	Silica rich with radiating crystals, spinifex type.							
			346 Chlorite slips at 40°.	40°						
343	409	Gabbro	Silicified. Feldspars hematized and chloritic, non magnetic.							
			408-409 Quartz segregations.							
409	420	Gabbro, magnetic	Some alteration of magnetite to leucoxene and hematite.							
420	464	Leucoxene gabbro	With hematite, non magnetic.							
			452-455 Quartz gabbro with leucoxene alteration, zoned feldspars.							

783 (82/1)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations.

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Ontario

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Diamond Drilling Log

Fill in on every page

Hole No. 83-1 | Page No. 2

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar
Date Hole Started	Date Completed	Date Logged	Logged by		Ft. °
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft. °
					Ft. °
					Ft. °

Location of hole in relation to a fixed point on the claim.

Map Reference No.

Claim No. L428752

Location (Twp., Lot, Con. or Lat. and Long.)

Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
464	485	Gabbro porphry	Non magnetic. Abundant coarse feldspars which are zoned and have strongly altered rims. Some leucoxene.							
485	542	Leucoxene gabbro	Medium grained. Dark greenish black, non magnetic, grass green alterations. 527-528 Pyrite is 3%. 535 Chloritic shear is at 005°.							
542	545	Magnetic gabbro	Strongly magnetic with abundant medium-sized magnetite in grass-green fine feldspathic matrix.							
545	605	Altered gabbro	567-577 Vein ½" across of zoned quartz, epidote & pyrite. 590-591 Pyrite 3%. 595-596 Layered quartz-epidote-pyrite.							
605		End of hole.								

1
101
107
1

783 (82/1)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations.

Ministry of Natural Resources

Diamond Drilling Log

Fill in on every page

Hole No. 83-15 (83-17) | Page No. 1

ng Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 010	Total Footage: 668 (637+31)	Dip of Hole at Collar: -45	Location of hole in relation to a fixed point on the claim: 29+30E 1+50S
e Hole Started: 83-11-5	Date Completed: 83-11-14	Date Logged: 83-11-15	Logged by: R. Anderson, H. Lee	637 Ft: -38	Map Reference No.
loration Co. Owner or Optionee: McGarry Resources Inc		Date Submitted: 83-12-31	Submitted by (Signature)	Ft:	Claim No. 422255
				Ft:	Location (Twp., Lot, Con. or Lat. and Long.): McGarry Twp
				Ft: BQ core	Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	17	Casing	Clay, washed till and boulders.							
17	45	Temiskaming sandstone to conglomeratic sandstone 15a,b	Grey, medium grained; 5% sub-angular to sub-rounded grey and white chert, quartz pebbles. Finely disseminated pyrite 2-5%. Beds at 65°, non calcareous, non magnetic.	65°						
			27 2" of dark grey fine grained slate.							
45	50	T. sandstone 15e	Fine to medium grained. Grey, angular quartz feldspar and chert. Up to 15% finely disseminated pyrite. Beds at 65-70°.	65-70°						
50	63	T. conglomeratic sandstone 15b	Higher pebble fraction that 17-45. Pebbles more rounded. Pyrite 5%. Beds at 60°. Calcite filled fractures at 40°, 20° Core is broken up.	60°						
63	73	T. conglomerate	Sub-rounded to rounded pebbles. Pyrite is finely disseminated in matrix and variety of pebbles 5%.							1
73	88	T. conglomeratic sandstone 15b	Grey, crisscrossed by calcareous veinlets.							0
			85 Shearing, slightly talcose; calcareous, silica veining.							3
			Well foliated at 50°, core broken up, disseminated pyrite 2-3%.	50°						1
88	110.5	Silicified T. conglomerate 15c	Pale yellow tinge due to silification. Calcite veining and quartz veining. Rounded pebbles sheared at 55-60°	55-60°						
			105-110.5 Calcareous.							
			107-110.5 Magnetic, slightly hematized in places.							
110.5	147	Conglomerate grading to sandstone	Flattened pebble conglomerate, grading into grey green, fine grained sandstone.							
			Calcareous							
			110.5-118 Magnetic. A lot of irregular crosscutting calcareous veins. Chloritic slightly talcose.							
			137 Becomes non calcareous.							
147	233	Siltstone	Fine grained, green-grey, very chloritic, talcose down to 174, non magnetic, non calcareous. Pyrite is less than 5%.							

82 11

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations.

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Ontario

Diamond -Drilling Log

Fill in on every page

Hole No. 83-15 | Page No. 2

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No. 422255
Date Hole Started / Date Completed	Date Logged	Logged by		Ft		Location (Twp., Lot, Con or Lat. and Long.)	
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)		Ft		Property Name	

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
			151 5" quartz-feldspar vein.							
			174 Core is broken up and in poor condition. Crosscutting calcareous veinlets are common. Beds at 40°. Slightly calcareous patches.	40°						
			180-187 Calcareous.							
			233 Becomes calcareous continuously.							
			207 214 219 225 } Shearing, rock is weathered to clay. 237 240 254							
			See also 83-15 B for cementing and redrilling from 166' to 255'.							1
			255 Caving, hole lost, cemented.							46
166	255	Redrilled after cementing.								1
223	224	Talcose chloritic shear	Pyrite and smeared pyrite on slip faces along with quartz-carbonate-veining. Strongly calcareous.							
224	235	Siltstone 8	Chloritic, sheared at 45°	45°						
235	236	Strong chlorite talc shear	With calcite, minor hematite. A strong shear.							
236	274	Siltstone Ca8	Sheared calcareous.							
			245 Increase in quartz veining.							
			257-276 Talc, chlorite, greenish, spinifex texture.							
			274-276 Calcareous finely bedded siltstone, beds at 50° Diagonal seams of calcite.	50°						
274	296	Calc. siltstone	Grey, strongly calcareous with small fragments.							
296	297	Calc. siltstone	Bottle green, chloritic.							
297	318	Calc. siltstone	305-309 White speckled with coarser green micas, calcareous.							
			307-309 Quartz veins in brecciated rock.							
			309-318 With small angular pieces of broken chert, sericitic.							

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations

Ministry of Natural Resources

Ontario

Diamond Drilling Log

83-15

Fill in on every page

Hole No. 83-: ● | Page No. 3

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No	Claim No. 422255
Date Hole Started / Date Completed	Date Logged	Logged by		Ft / Ft / Ft / Ft		Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)				Property Name	

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
			316-318 Pyrite increases.							
318	328	Feldspar porphyry	White feldspar in pink matrix of fg chloritic with dissem 2% pyrite. Calcareous, non magnetic.							
		gold ?	319 Possible gold specks, but may be cpy, appears malleable.							
328	356	Calcareous siltstone 8	Grey, sericitic seams with minor fg pyrite. Occ greenish chert fragment. Strongly calcareous.							
356	367	Grey sandstone	Fg with yellow flicks. Pyrite 3% with bedded seams. non calcareous, non magnetic.							
		11b	350 A 2" quartz-calcite-cpy vein.							
367	376	Chert 4	Broken grey pieces from bed at 90°. Fg pyrite and sericitic seams common.							
376	378.2	Vein quartz	Broken, marbled with sericitic and pyrite 2% seams.							1
378.2	382	Chert claystone	Yellowish clay bands at 60°.	60°						6
382	396	Sandstone, 5 jasper								5
			With clay wisps							1
			388-389 Increase in quartz veining and chloritic shear carrying pyrite. Shear at 45°.	45°						
396	416	Leucoxene gabbro 2f	Carbonated. Sheared at 60°, chlorite on shear.	60°						
		2e	403 Chloritic shear.							
416	420	Magnetic gabbro	Partly altered to leucoxene.							
420	434	Grey sandstone	11b Non calcareous, non magnetic.							
434	447	Carbonated gabbro 2c	Medium grained. Green mica, whitish calcic spots with tinges of red after calcic feldspars. weakly magnetic. calcareous.							
			440 Sulphides smeared on slip face.							
447	475	Leucoxene gabbro 2f	Bottle green alteration. Colour generally black with whitish leucoxene spots. Silica is increased, non magnetic, non calcareous.							
			454-457 1" quartz vein with pyrite.							
475	498	Magnetic gabbro 2e	Black, strongly magnetic.							
498	506	Leucoxene gabbro 2f								
506	508	Magnetic gabbro 2e								

783 (82/1)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulatio

Ministry of Natural Resources

Ontario

Diamond - Drilling Log

Fill in on every page

Hole No. 83-15 | Page No. 4

Drilling Company	Collar Elevation	Bearing of hole from true North / Total Footage / Dip of Hole at: Collar	Location of hole in relation to a fixed point on the claim.
Date Hole Started / Date Completed	Date Logged	Logged by	Ft
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)	Ft / Ft / Ft

Map Reference No.

Claim No. 422255

Location (Twp., Lot, Con or Lat. and Long.)

Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
508	511	Dark dyke	or bleached gabbro.							
511	563	Leucoxene gabbro	Grassy green alteration, non magnetic. 537-559 Silicified with white quartz veins.							
563	572	Chloritized gabbro	Fg dark black, disseminated pyrite 2%.							
572	580	Leucoxene gabbro 2f								
580	604	Magnetic gabbro 2e	Whitish pink feldspar in fg matrix. Diagonal (cross) calcite veinlets, hematite staining, pyrite, quartz, magnetic.							
604	606	Leucoxene gabbro 2f	Non magnetic.							
606	607	Magnetic gabbro 2e								
607	617	Leucoxene gabbro 2f	Non magnetic.							
617	635	Magnetic gabbro 2e	Marbled appearance. Hematite-specularite veins, common with qtz veins. Also epidote alteration.							
			630 Hematite seams across 1/8".							1
			634 Quartz hematite seams.							0
635	637	Leucoxene gabbro 2f								9
637		End of hole								1
			Note: additional 31' of core from redrilling after cementing.							

(83-82-1)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation

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Diamond Drilling Log

Hole No 85-16 Page 1

Drilling Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 360	Total Footage: 391	Dip of Hole at: -45	Location of hole in relation to a fixed point on the claim: 14E 7+20S
Date Hole Started: 83-10-12	Date Completed: 83-10-18	Date Logged: 83-10-19 to 20	Logged by: R. Anderson	390 Ft -31	Map Reference No.
Exploration Co., Owner or Optionee: McGarry Resources Inc.		Date Submitted: 83-12-31	Submitted by (Signature):		Claim No: L422254
				BQ Core	Location (Twp. or Lot, Con. or Lat. and Long.): McGarry Twp
					Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	11	Washed till and boulders								
11	37	Conglomeratic sandstone 11c 15b	Grey. Less than 25% fragments of grey chert, sandstone black volcanics, porphyry. Subangular to rounded fragments. Matrix is grey sandstone of angular quartz and feldspar. Trace disseminated pyrite. Beds at 50-60°.	50-60°						
37	40.5	Grey sandstone	11b, 15a Matrix of above unit, non magnetic, non calcareous, beds at 40°.	40°						
40.5	82	Conglomeratic	sandstone 11c, 15b As previous. 58-60 Core is gouged, sheared, poor condition.							
82	85	Conglomerate 11a, 15c	Grey round chert and mudstone. Disseminated pyrite 2-3% in matrix and fragments. Beds at 60-70°.	60-70°						9
85	137	Conglomeratic sandstone 11b, 15b	Beds at 70°. Disseminated pyrite 1-2% minor calcite veinlets. 135 Core slightly bleached.	70°						7
137	147	Sandstone 11b	Grey, medium grained, pyrite 2-3%, beds at 55°, non magnetic, non calcareous.	55°						
147	161	Conglomeratic sandstone 11b	Minor conglomeratic sections disseminated pyrite. Beds at 50°, non magnetic, non calcareous.	50°						
161	178	Conglomerate 11c	Slightly calcareous. Fragments up to 2", rounded.							
178	204	Conglomeratic sandstone 11b	Beds at 65-70. Disseminated pyrite <1%, non calcareous, non magnetic.	65-70°						
204	209.5	Conglomerate 11c	Maximum 1" fragments <1% pyrite, non magnetic, non calcareous.							
209.5	228	Sandstone 11b	Grey, uniform, beds at 65 70°, minor pebbles, pyrite.							
228	257	Conglomeratic sandstone	Pyrite 2-3%, beds at 80°	80°						
257	277	Sandstone								
272	283	Conglomeratic sandstone	Grey angular claystone, with chert fragments up to 4".							
283	320	Sandstone 11b	Grey, medium grained beds at 80°, disseminated pyrite 2%, same with all following units:	80°						

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Diamond Drilling Log

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83-16

Fill in on every page

Hole No 83-3 | Page No. 2

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.
Date Hole Started / Date Completed	Date Logged	Logged by		Ft °		Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)		Ft °		Property Name	
				Ft °			
				Ft °			

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
320	339	Conglomeratic sandstone 11a	Relatively massive. 333.5 2" quartz-calcite vein, white, banded.							
339	344.5	Sandstone 11b	Grey, massive.							
344.5	368.5	Conglomeratic sandstone 11b	Massive, uniform.							
368.5	375	Conglomerate 11a								
375	382	Conglomeratic sandstone 11a	Last 6" are conglomeratic.							
382	385	Sandstone 11b	Grey, uniform.							
385	387	Conglomerate 11a	Grey angular siltstone fragments.							
387	391	Conglomeratic sandstone 11b	Beds at 60°.	60°						
391		End of hole.								

83-82-11

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulation

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Ontario

Diamond - Drilling Log

Hole No 83-17 Page 1

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of hole at	Location of hole in relation to a fixed point on the claim.	Map Reference No	Claim No
Heath and Sherwood		1250	286	-45	13+00E 21+34N		1531699

Date Hole Started	Date Completed	Date Logged	Logged by	Location of Township or Co. or Lat. and Long.
			H.A. Lee	McGarry Twp

Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)	Property Name
McGarry Resources Inc.	83-12-31		AZA

BQ core

Footage From	Footage To	Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	16	Clay, washed till								
16	42	Syenite porphyry	Euhedral white feldspars rimmed with pink. Chloritized pyroxene in fg reddish-chocolate coloured matrix, non cal, non magnetic.							
			32 Chloritic shear at 90°.	90°						
42	51	Chromium gabbro	Strongly altered, marbled, silica bands. Quartz enrichment. Splashes of chromium green, non calcareous, non magnetic. Similar to Kerr Addison Mine fuchsite.							
51	60	Brecciated gabbro	Resealed. Green chromium bands with silica layering leucoxene alteration, non magnetic, qtz seams at 45°.							
60	90	Gabbro magnetic	Black with large hornblende and magnetite crystals. Large greenish white feldspar, grass-green alteration.							
90	100	Porphyritic gabbro	Magnetic.							
100	123	Magnetic gabbro	Coarse grained, greenish feldspars.							
123	140	Leucoxene gabbro	With hematite alteration of vein quartz. Veins ¼" wide.							
140	149	Mafic dyke	Fg grey composed of feldspar and hornblende needles. With minor arseno pyrite. Qtz vein with magnetitie across 2", magnetic.							
149	152	Altered gabbro	Grey to pinkish.							
152	181	Felsic dyke	Euhedral feldspar paths in fg matrix. Many quartz veinlets.							
181	195	Felsic dyke	Magnetite and coarse hematite 192-195 A border phase							
195	236	Magnetic diorite	Large feldspars, pinkish greenish. Euhedral with cg magnetite.							
236	253	Carbonated gabbro	Fg, non magnetic. 236-238 Pyrite increases to 3%.							

Ministry of Natural Resources

Diamond Drilling Log

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Hole No. 83-17 Page 2

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No.
							I531699

Date Hole Started	Date Completed	Date Logged	Logged by		Location (Tag Post, Corr or Lat and Long)
				Ft	

Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)		
			Ft	
			Ft	
			Ft	

Property Name

Footage From	Footage To	Rock Type	Description Colour, grain size, texture, minerals, alteration, etc.	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
253	268	Magnetic diorite	Feldspars Pinkish (has been surface mapped as granodiorite).							
268	286	Dyke rock	Pink blebs with hornblende needles. Calcic white blebs rimmed with pinkish (hematite), non magnetic.							
286		End of hole.								

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Ontario

Fill in on every page → Hole No. 83-16 | Page No. 1

Drilling Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 316°	Total Footage: 600	Dip of Hole at Collar: -45	Location of hole in relation to a fixed point on the claim: 12+50E 18+90N
Hole Started	Date Completed	Date Logged	Logged by: R. Anderson	600 Ft. -35 °	Map Reference No.
Exploration Co., Owner or Optionee: McGarry Resources Inc.		Date Submitted: 83-12-31	Submitted by (Signature)	Ft. ° / Ft. ° / Ft. °	Claim No.: 428751
				BQ core	Location (Twp., Lot, Con. or Lat. and Long.): McGarry Twp
					Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	4	Boulders and washed till.								
4	51	Diorite	Coarse grained, green and white, magnetic varying epidote, non calcareous, massive pyrrhotite < 5%.							
			42 4" of epidote alteration.							
51	54.5	Gabbro	Leucoxene alteration, non magnetic, slightly calcareous, medium grained.							
			51 Irregular pyritic contact.							
			54.5 Gradational contact.							
51	120	Diorite	As at 4-51.							
			64-69 Calcareous, leucoxene alteration, non magnetic, calcareous veinlets at 30°, 60°.	30° 60°						
			64-70 Grass green alteration.							
			78 / 91 / 94.5 } Quartz, hematite veinlets at 20°	20°						
			102-105 / 108-111 } Fine grained.							
			103, 104, 105.5 ¼" thick pyrite pyrrhotite. Veins at 90°	90°						
			103 ¼" calcite vein at 30°.	30°						
120	130	Carbonatized gabbro-diorite	Dark green, fine grained, calcareous, irregular calcite veins.							
			120-126 Magnetic.							
			126-130 Magnetite altered to calcite, non magnetic.							
130	245	Diorite	Medium to coarse grained, massive, magnetic, slightly calcareous, pyrrhotite < 5%.							
			130-140 Crystal margins poorly defined, silicified?							
			Calcite veinlets common at 30°, 10°.	30+10°						
			160.5 Irregular calcitic, hematitic, fractures.							
			Patches of "grass-green" alteration start at 182'.							
			184 Calcite vein with 6" of leucoxene alteration on both sides.							
			189-204.5 Non magnetic, fine calcitic fractures, chlorite.							
			Patches of leucoxene alteration.							

783 (82/11)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.

† Additional credit available. See Assessment Work Regulations

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Ontario

Fill in on every page → Hole No. 83-18 | Page No. 2

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.
Date Hole Started	Date Completed	Date Logged	Logged by	Ft. °	Map Reference No. / Claim No. 428751
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)	Ft. ° / Ft. ° / Ft. °	Location (Twp., Lot, Con. or Lat. and Long.) / Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
245	324	Gabbro	Medium grained, dark green, massive pyritic, pyrrhotitic.							
			245-267.5 Leucoxene alteration, non magnetic.							
			245-270.5 Calcareous							
			249-264 Distorted, brecciated, irregular calcareous veins.							
			269 Chloritic, slightly calcareous, silicification begins, very intense in places with silvery pyrite, non magnetic.							
			301 Calcareous brecciated sheared at 55°.	55°						
			308 Silification ends, calcareous.							
			308-313 Leucoxene alteration, magnetic below 313.							
			319 Becomes non calcareous.							
			325 Becomes progressively more calcareous.							1
324	342	Chromium gabbro	As previous but with irregular patches and stringers green-grey chromium carbonate with up to 30% pyrite.							1
			White crosscutting veinlets common, magnetic, chloritic.							1
342	358	Gabbro	Medium grained, magnetic, slightly calcareous. White calcite veins common.							4
			344-367 Calcite, chlorite, hematite vein at 0°, slightly 0° talcose, slickensides.							1
			346 Core is brecciated, sheared, weathered.							
358	360.5	Chromium gabbro	As at 324 to 342 but with less sulphides.							
360.5	428	Diorite	Medium to coarse grained, magnetic, slightly calcareous. Calcitic veins. Varying amounts of epidotization, chloritic. < 5% pyrite, pyrrhotite.							
			365 Brecciated sheared.							
			375-377.5 Very calcareous, dark green.							
			382 Becomes non calcareous, progressively finer grained down hole.							
428	431	Sheared gabbro diorite	Well foliated at 55°, competent, slightly calcareous, magnetic, grey-green.	55°						
431	470	Diorite	Coarse grained, magnetic.							
			445 Very calcareous							
			448.5-449 Core is distorted, fractured, pyritic.							

7B3 (82 1)

† Additional credit available - see Assessment Work Regulations

Ministry of Natural Resources

Ontario

Diamond Drilling Log

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Fill in on every page

Hole No. 83-18

Page No. 3

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No.	Claim No. 428751
Date Hole Started / Date Completed	Date Logged	Logged by		Ft. °		Location (Twp., Lot, Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee	Date Submitted	Submitted by (Signature)		Ft. °		Property Name	
				Ft. °			
				Ft. °			

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †	
			455 Becomes non calcareous.								
			Grades into gabbro.								
470	600	Gabbro	Medium to fine grained. Few calcite veinlets non calcareous, magnetic.								
			498 Core broken up, pyrrhotite up to 10%.								
			521 Chromium carbonate vein 2" thick at 20".								
			527-531 } 1" thick zones of epidote and calcite at								
			556-560 } 60°, core fractured slightly.	60°							
			587-600 Difuse zones of calcite, epidote.								
			Gabbro increasing calcareous.								1
600		End of hole.									1
											9
											1

7853 (R4/ 71)

Ministry of Natural Resources
Ontario

Diamond Drilling Log

Hole No 83-19 Page 1

Drilling Company: Heath and Sherwood	Collar Elevation	Bearing of hole from true North: 045°	Total Footage: 583
Date Hole Started: 83-11-9	Date Completed: 83-11-14	Date Logged: 83-11-16 to 19	Logged by: H.A. Lee
Exploration Co., Owner or Optionee: McGarry Resources Inc.		Date Submitted	Submitted by (Signature)

Dip of Hole at Collar: -45

583 Ft -38

Ft

Ft

Ft

Location of hole in relation to a fixed point on the claim: L7+00E 4+45S

BQ core

Map Reference No

Claim No: L422250

Location (Twp. Lot Con. or Lat. and Long.): McGarry Township

Property Name: AZA

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
0	4	Washed till								
4	25	Grey sandstone	Fg angular quartz and feldspar and 1 to 3% pyrite, non calcareous, non magnetic.							
25	27	Chert with chert clay stone chips	Pyrite to 3%. 30 A layer 6" wide of chert pebbles.							
27	43	Grey sandstone	A few pebbles.							
43	45	Conglomerate	Pebbles of white chert, feldspathic chert.							
45	51	Grey sandstone								
51	53	T. conglomerate	Pebbles of white chert, feldspathic chert, mafic . Carries sulphides of pyrite and chalcopyrite.							
53	57	Grey sandstone								
57	69	T. conglomerate	Pebbles of white chert, feldspathic chert, mafic. Sulphides as pyrite and minor cpy in pebbles.							
69	72	Cgl sandstone	Pebbles of chert, mafics, and jasper Fe Fm. Pebbles subrounded, about 30% pebbles. Matrix is coarse sandstone grit.							
72	73	T. conglomerate Larder group.								
73	83	Cgl sandstone	Flame shapes of yellow chert claystone and occ. red jasper pebble.							
83	90	Grey sandstone								
90	100	Cgl sandstone	Pebbles of yellow chert and chert claystone.							
100	103	Sandstone	Grey							
103	106	Cgl sandstone	Pebbles to 25% composed of yellow chert and occ mafics.							
106	124	Sandstone	Grey composed of angular grains of feldspar to 70% and angular quartz to 30%. Pyrite to 10%, non calc, non magnetic.							
124	134	Cgl ss	Rounded chert pebbles and some yellow chert claystone.							
134	155	T. type cgl	Grey. Composed of rounded pebbles closely packed of white and black chert, feldspathic chert, perthite (zoned) euhedral porpnyry. Matrix is grey grit of same composition.							

Ministry of Natural Resources
Ontario

Diamond Drilling Log

Hole No 83-19 Page 2

Drilling Company	Collar Elevation / Bearing of hole from true North / Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No / Claim No L422250
Date Hole Started / Date Completed	Date Logged / Logged by		Location (Twp. Lot Con. or Lat. and Long.)
Exploration Co., Owner or Optionee	Date Submitted / Submitted by (Signature)		Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc)	Planar Feature Angle *	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
155	161	Cgl ss								
161	162	Siltstone	Black. Cpy on slip surfaces, non calc, non magnetic.							
162	163	Cgl	With pyrite around pebbles.							
163	183	Sandstone	With flame shapes of yellow chert claystone.							
183	229	Cgl	Pebbles rounded to angular. A possible agglomerate. Pebbles composed of black calcareous, also red iron formation which are slightly magnetic. 189 10% pyrite. 192 Red jasper iron formation pebbles with 30% pyrite.							
229	253	Cgl with black	slate slabs and large rounded felsic cobbles embedded in grey sandstone, non calcareous, non magnetic. 233 Vfg pyrite. 240 Bedded seam of pyrite. 249 Bedded seam of pyrite across 1 inch. 250 Bedded seam of pyrite.							
253	270	Grey sandstone	Occ black slate fragment. Pyrite to 1%, non calcareous, non magnetic.							
270	279	Grey sandstone	With slate slabs. 270-272 Pyrite at 3%.							
279	302	Grey sandstone	Non calcareous, non magnetic.							
302	324	Cgl ss	With 2% pyrite.							
324	330	Conglomerate	Pebbles are rounded to angular composed of chert, feldspathic chert, and slate. Pebbles to 70% of rock.							
330	334	Sandstone	Blackish grey.							
334	365	Conglomerate	Grey, pebbles to 70%. Composed of chert and black slate, non calcareous, non magnetic.							
365	376	Cgl sandstone	Possibly agglomerate. Pebbles of chert and slate, non magnetic, non calcareous.							
376	377	Black slate	In sandstone matrix. Pebbles are angular.							
377	387	Grey sandstone	Composed of fg angular quartz and feldspar and 2% pyrite blebs, non calcareous, non magnetic.							

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Ontario

Diamond Drilling Log

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Hole No 83-19 Page 3

Drilling Company		Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No	Claim No L422250
Date Hole Started	Date Completed	Date Logged	Logged by		Ft		Location (Twp Lot Con or Lat and Long)	
Exploration Co., Owner or Optionee		Date Submitted	Submitted by (Signature)		Ft		Property Name	

Footage From	Footage To	Rock Type	Description Colour, grain size, texture, minerals, alteration, etc	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
387	389	Silicified Cgl sandstone	Pebbles of angular chert with free silica drops and many black fragments. Beginning of alteration from major fault. Looks like "flat pebble conglomerate" of Kerr Addison mine. 388 Vfg sulphides slightly pinkish. Qtz veinlet silicification becomes abundant.							
389	390	Phyllite	Vfg black rock of medium hardness, non calcareous, non magnetic. Joint face carries calcite and rosette growths of pyrite.							
390	395	Silicified cgl sandstone	Abundant narrow quartz veinlets criss-crossing and discontinuous. Pyrite about 3%. At 394 strongly bleached to greenish white.							1
395	399	Fault gouge	Strongly brecciated with rock mud matrix. Brecciated blue-black vein quartz carrying extremely fine grained yellow pyrite?							— 0
399	402	Sheared high silica	Brecciated quartz with 5% vfg sulphides. Replacement flames at 80° and z shearing at 10°-20°. Changes to quartz stockwork and pyrite 10-20%	80° 20°						1
402	403	Brecciated	Carries bronzy pyrrhotite.							
403	417	Leucoxene gabbro to "limestone"	Black. With silica blebs and droplets and 2% pyrite and pyrrhotite. Replacement qtz-calcite veinlets at 80° and Z folding at 20°. With vfg sulphides, bronzy sulphides. 411 Chalcopyrite 417 Orange brown calcareous (hematitic) band.							
417	418	Carbonate gabbro	Black, chloritic, white streaks of calcite. Strongly calc, non magnetic.							
418	427	Carbonate gabbro?	Orange brown to white. Replacement calcite veinlets and flames at 80°. Offset structures at 20°, magnetic.							
427	439	Fault gouge	Rock is brecciated and altered to clay, chlorite, and talc. Calcareous, non magnetic.							

Ministry of Natural Resources
Ontario

Diamond Drilling Log

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Fill in on every page

Hole No 83-19 Page 4

Drilling Company	Collar Elevation / Bearing of hole from true North / Total Footage / Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No / Claim No. L422250
Date Hole Started / Date Completed	Date Logged / Logged by	Ft:	Location (Twp., Lot, Con. or Lat. and Long.)
Exploration Co., Owner or Optionee	Date Submitted / Submitted by (Signature)	Ft: / Ft: / Ft:	Property Name

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
			435-436 The gouge and shear zones are filled and sealed							
			436-439 with calcic replacements along 80° and with	80°						
			offsets along 20°.	20°						
439	444	Carbonate gabbro?	Black rock, extensively carbonate altered with criss-crossing flame-like replacement zones of calcic-talcose, magnetic.							
444	446	As above	But non magnetic.							
446	447	Fault gouge	Strongly talcose, non magnetic.							
447	455	Carbonate gabbro?	Black rock, extensively carbonated with flame replacement zones and veinlets of talc-calcite-chlorite, non magnetic.							1 0 2 1
455	456	Fault gouge	Talcose, non magnetic.							
456	458	Carbonated gabbro?	Black rock, calcareous, with veins of chloritic-talcose-quartz across 2 inches and carrying fg sulphides.							
457		Visible gold	Gold is malleable. It has a slightly pinkish copper colour. It is loosely attached to a break in the core and would be easily lost. Watch that sludge!							
458	460	Carbonate talc gabbro?	A black rock with replacement flames of calcic-talcose material at 80° and off set folding at 5 to 20°, magnetic.	80° 20°						
460	468	Same	But non magnetic.							
468	469	Talc								
469	472	Carbonate gabbro?	With flame replacements of calcic-talcose material at about 80°, magnetic.							
472	480	Tectonite	Crinkly Z fold structures. Talcose-chloritic-calcareous at 0 to 15°. Also flame replacements locally of calcic-talcose material at 80°. Some vein quartz replacement, non magnetic, non calc.							
			478 Chloritic hematite slip at 45°.							
480	483	Carbonate shear	Brownish (hematitic) zones with green fuchsite. Stretched at about 10°to 30°.							

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Diamond Drilling Log

Footage on every page → Hole No 83-19 Page 5

Drilling Company	Collar Elevation	Bearing of hole from true North	Total Footage	Dip of Hole at Collar	Location of hole in relation to a fixed point on the claim.	Map Reference No	Claim No. L422250
Date Hole Started / Date Completed	Date Logged / Logged by			Ft.		Location (Twp. Lot Con. or Lat. and Long.)	
Exploration Co., Owner or Optionee	Date Submitted / Submitted by (Signature)			Ft.		Property Name	
				Ft.			
				Ft.			

Footage From	Footage To	Rock Type	Description (Colour, grain size, texture, minerals, alteration, etc.)	Planar Feature Angle °	Core Specimen Footage †	Your Sample No.	Sample Footage From	Sample Footage To	Sample Length	Assays †
483	490	Shear	Chlorite hematite schist at 50°, non magnetic.							
490	490.5	Talc								
490.5	493	Shear	Chlorite-talc shear at 10°, non magnetic.							
493	495	Chlorite-talc-hematite	Sheared, some tight replacements at 50°, non magnetic.							
495	501	Tuff	Possible syenite. Bluish-green rock. Chloritic-hematitic with bands of green mica. Slightly calcareous. Few replacement flames by talcose-calcic material at 80°.	80°						
			Also Z folds at 20°, non magnetic.	20°						
			499 Green mica layers in Z folding. Slip planes 45°.							
501	513	Syenite	Pinkish with green mica layers. Replacement flames of quartz veining at 80°. Some additional stretching at 10°, magnetic.							
514	514.5	Talc								
514.5	525	Tectonite	Chloritic-talcose-hematitic. Somewhat pinkish cast. Abundant thin quartz, quartz-calcite stringers from pinkish to greenish blue.							
525	543	Siltstone 8	With occasional pink calcic patches. Generally non calcareous. Beds at 5 to 45°, non magnetic.							
			532 Talcose hematitic slip at 20°.	20°						
543	560	Tuff 7a	With spots of greenish pink calcic material, non magnetic.							
			557 Beds at 15°.	15°						
560	574	Same 7a	Dark rock with reddish jasper zones carrying hornblende? crystals, non calcareous, magnetic. Possible dyke rock.							
574	579	Tuff 7a	Non magnetic							
579	583	Tuff(?) 7a	Calcic-quartz veinlets bordered by blue (tourmaline?).							
581		Visible gold								
583		End of hole								

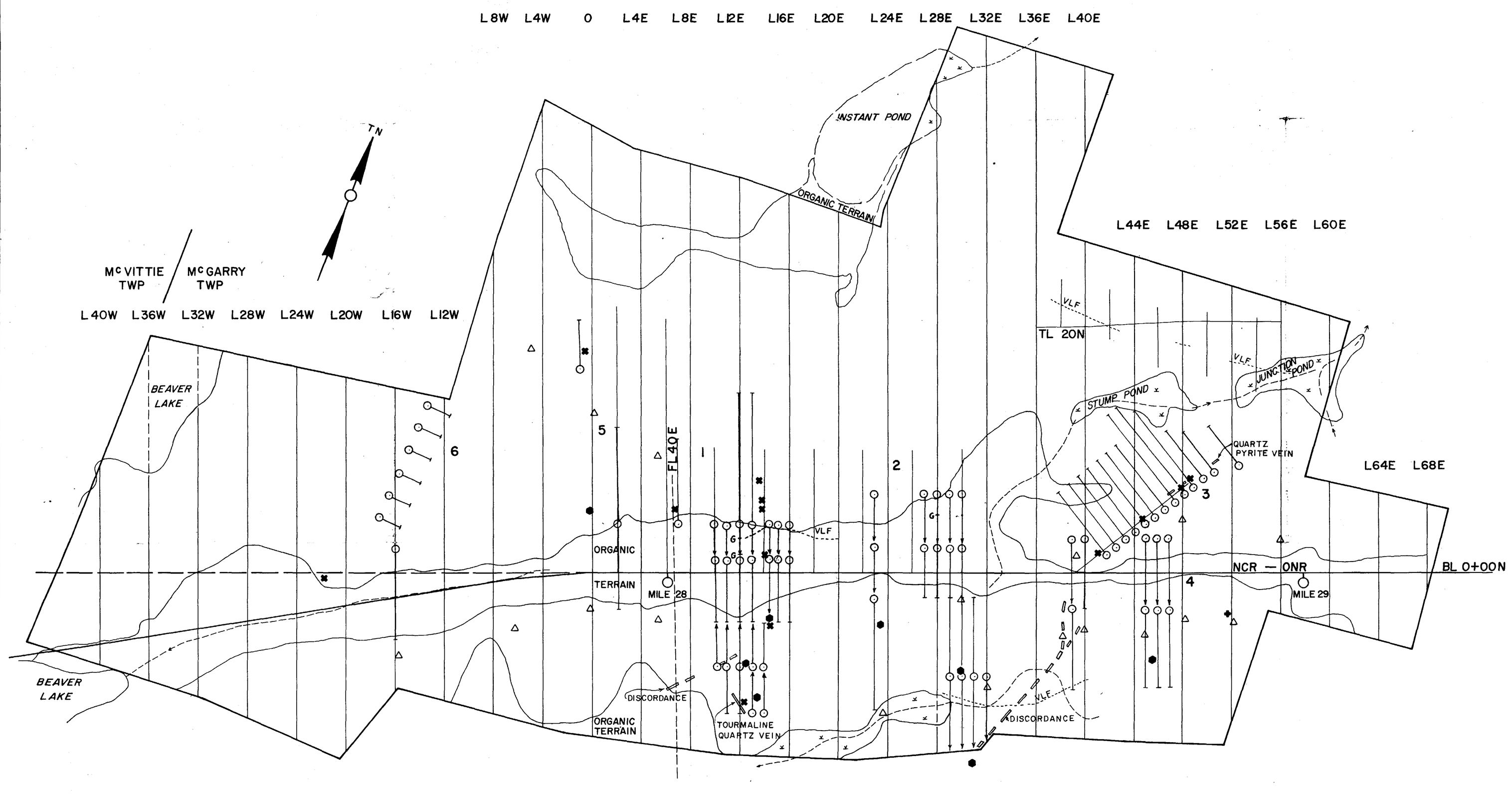
63.4352

900

OM 83-6-P-166

THIS SUBMITTAL CONSISTED OF VARIOUS REPORTS, SOME OF WHICH HAVE BEEN CULLED FROM THIS FILE. THE CULLED MATERIAL HAD BEEN PREVIOUSLY SUBMITTED UNDER THE FOLLOWING RECORD SERIES (THE DOCUMENTS CAN BE VIEWED IN THESE SERIES):

① Drill Holes # 83-1 to 83-11, McGARRY RESOURCES INC., AUG-OCT./83 → See McGARRY TP. DDR's # 27 + # 28



LEGEND

- PROPOSED DIAMOND DRILL HOLES AT 45° ---------- ⊙—
- GOLD IN BEDROCK ---------- ✖
- SULPHIDE SEAM IN BEDROCK ---------- ✚
- PYRITE GEOPHYSICAL NOISE THROUGH CLAY ---------- ✡
- EXTREMELY ABUNDANT GOLD IN LODGMENT TILL ---------- ⬢
- ABUNDANT GOLD IN LODGMENT TILL ---------- △
- TARGET PRIORITY ---------- 3

63.4352

LEE GEO-INDICATORS LIMITED

DRILLING PROGRAMME 1980

PROPOSED

McGARRY TOWNSHIP CLAIMS

NTS 32D/4

LARDER LAKE MINING DIVISION, ONTARIO

0 100 200 300 400 500 METRES

0 400 800 1200 1600 FEET

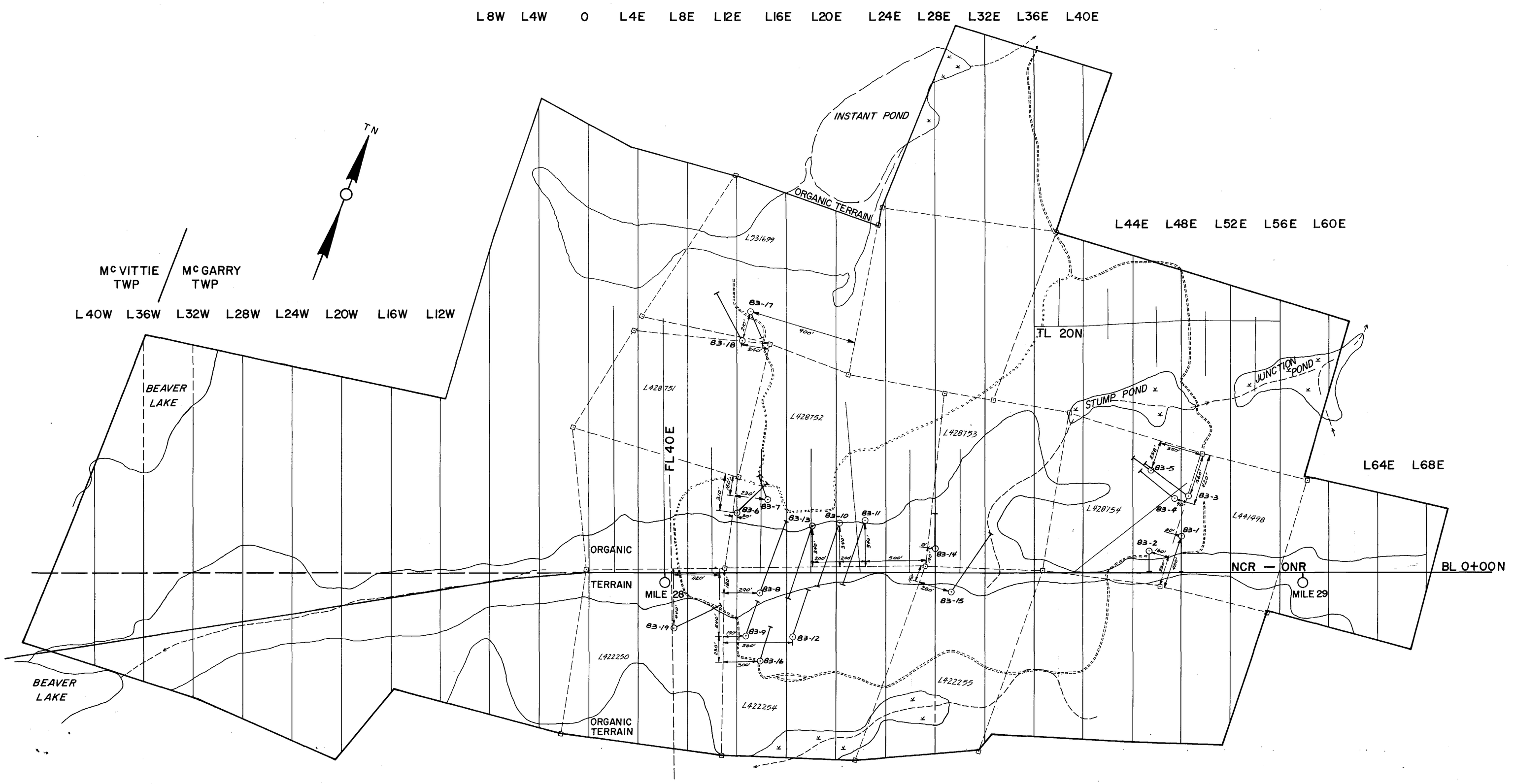
Declination 12°W

LEE GEO-INDICATORS LIMITED

STITTSVILLE, ONT. REVISED: 1983

DWG. From

32D9NE8423 63.4352 MCGARRY



63.4352

LEE GEO-INDICATORS LIMITED

McGARRY RESOURCES INC

DIAMOND DRILLING IN 1983

McGARRY TOWNSHIP CLAIMS
NTS 32D/4
LARDER LAKE MINING DIVISION, ONTARIO

0 100 200 300 400 500 METRES
0 400 800 1200 1600 FEET

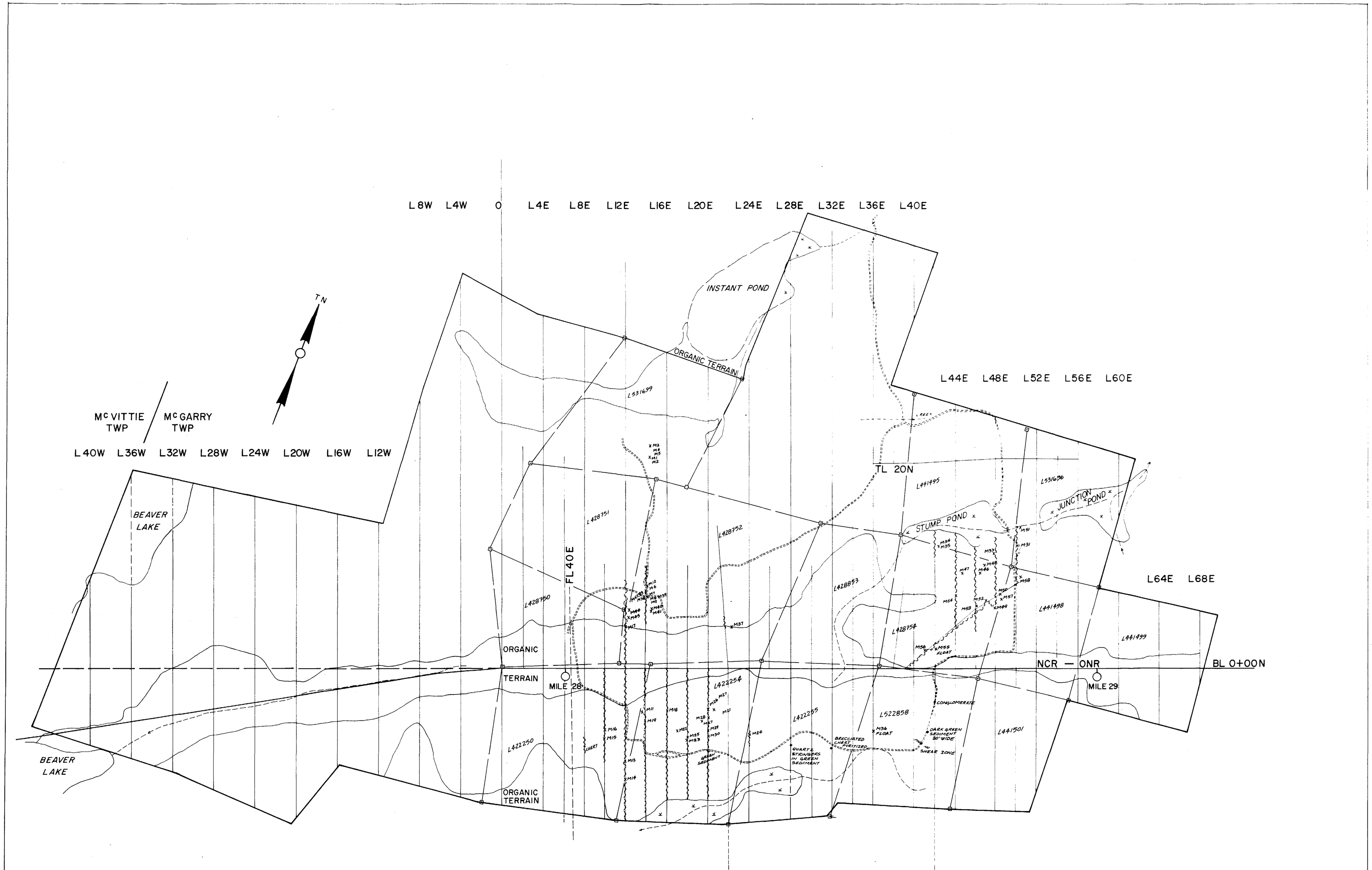
Declination 12°W
LEE GEO-INDICATORS LIMITED

STITTSVILLE, ONT. REVISED:

DWG. From H.A.LEE DEC. 1983

REGISTERED PROFESSIONAL ENGINEER H.A.L.E. H. A. LEE PROVINCE OF ONTARIO

32D4NE0423 63.4352 MCGARRY



LEGEND

LINES TRAVERSED ~~~~~

SAMPLE SITES (SEE REPORT) X M95

CLAIM POST ⊞

BY : THEODORE MIRON

63.4352

McGARRY GOLD PARTNERSHIP

PROSPECTING

McGARRY TOWNSHIP CLAIMS
NTS 32D/4
LARDER LAKE MINING DIVISION , ONTARIO

0 100 200 300 400 500 METRES
0 400 800 1200 1600 FEET

Declination 12°W
LEE GEO-INDICATORS LIMITED
STITTSVILLE, ONT. REVISED:
DWG. From NOV. 1983

REGISTERED PROFESSIONAL ENGINEER H. A. LEE PROVINCE OF ONTARIO

52084NE8423 63.4352 MCGARRY

220

L6E
L8E
L10E
L12E
L14E
L16E
L18E
L20E
L22E
L24E
L26E
L28E
L30E
L32E
L34E
L36E
20+00 N
00+0
14+00S
TN
battlegreen chromite
2h sheared
2h
N W
85°
83-17
2e chromite
2e
2e silica
silica
2e epidote
epidote silica stringers
83-18
Py bullb green chromite
Arsenopyrite Py black
2h
2h Hornfels? magnetic
Smaritex bottle green 2h epidote
2h Py hornfels
2f
2a?
otc? BOUNDARY
GEOLOGICAL
6a
5
5a
otc?
83-7
6a
6
7
83-6
5b
3
QV
83-10
83-11
83-13
83-14
83-15
83-8
83-9
83-12
83-16
83-19
11a
11b
POND
MEADOW
Py
53
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L 8E

L 12E

L 16E

L 20E

L6E

20+00 N

TN

L 24E

L 28E

L 32E

L 34E

L

L 22E

L10E

L14E

L18E

L 26E

L30E

00+0

28

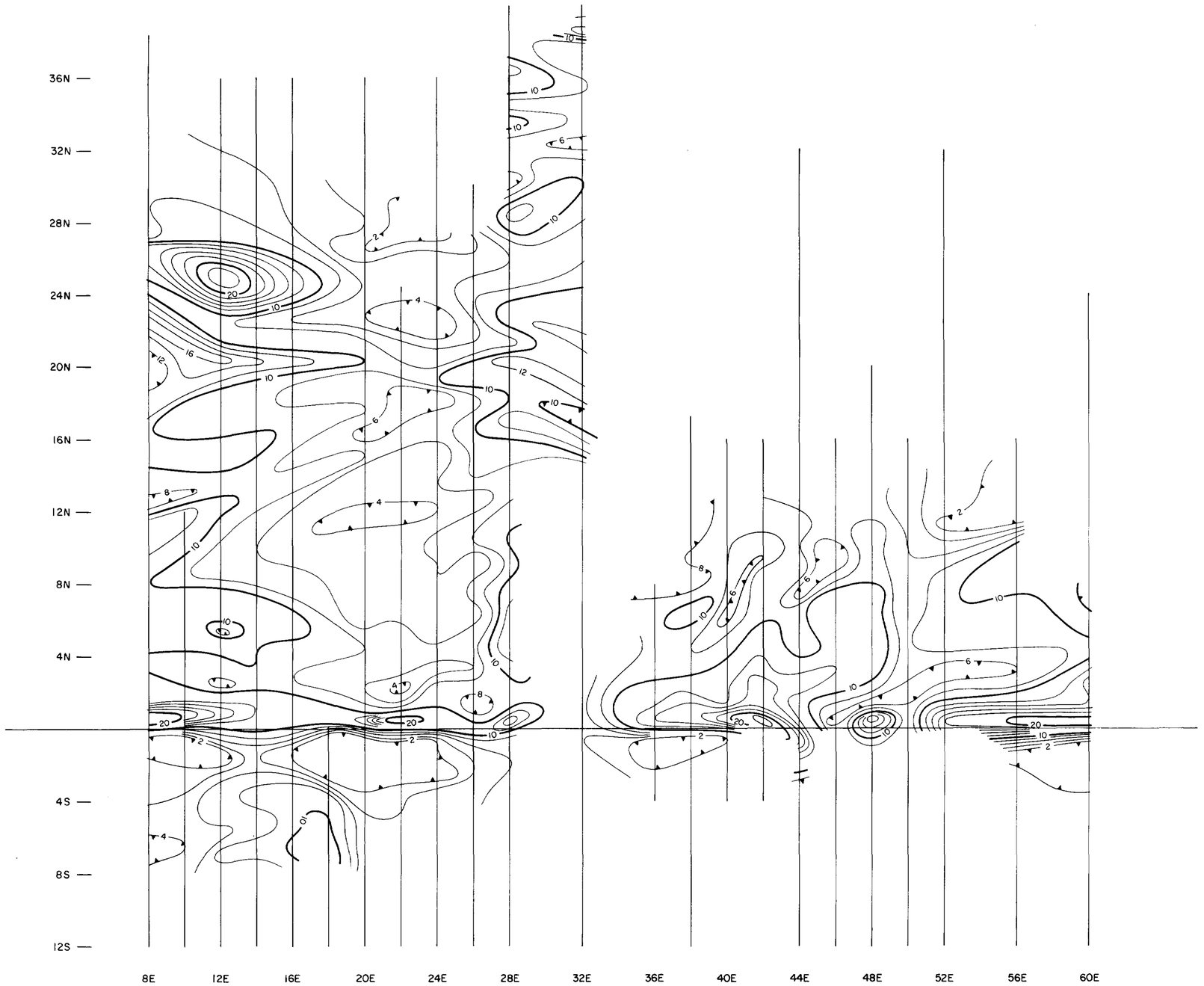
POND

MEADOW

240

14+00S

32084NE8423 63.4352 MCGARRY



SCALE : 1" = 400'

CONTOUR INTERVAL : 2 MSEC

DIPOLE LENGTH : 200 FT.

TIME SEQ. : 2 SECS ON/2 SECS OFF

INTEGRATION TIME : 470 TO 1100 MSECS.

TX TYPE : ELLIOT 1.5 KVA

RX TYPE : SCINTREX IPR7

SURVEYED BY : P.A.P.

63.4352

INDUCED POLARIZATION RESISTIVITY SURVEY

GRADIENT ARRAY

APPARENT CHARGEAB!LITY

CHARGEABILITY MEASURED PER PULSE

SURVEYED AND COMPILED BY GEOTERREX LTD.

PROJECT 85-938

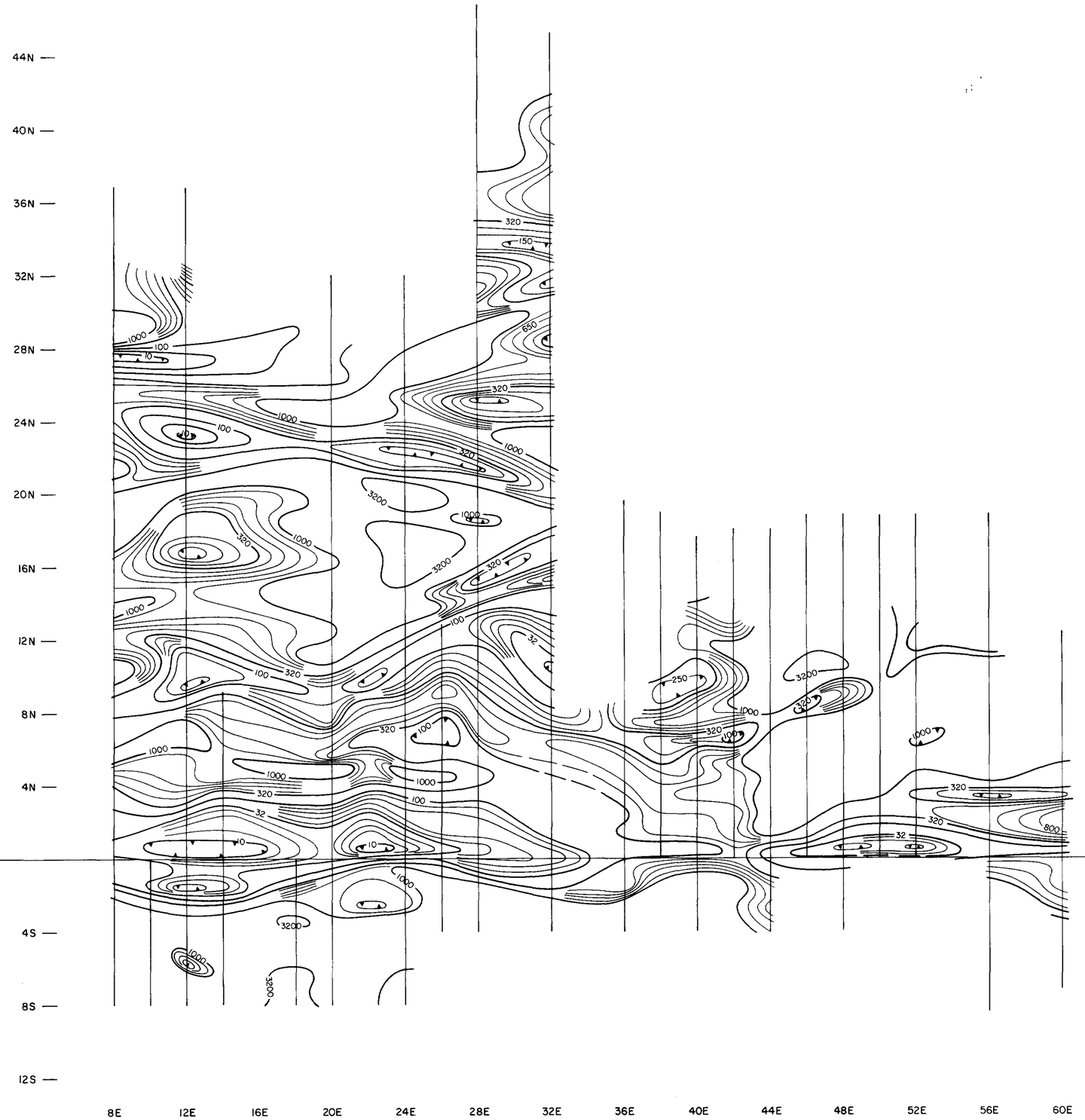
CLIENT : McGARRY GOLD RESOURCES

PROJECT: McGARRY PROPERTY

AREA : KEARNS ONTARIO

GRID : McGARRY TOWNSHIP

32D04NE0423 63.4352 MCGARRY



SCALE : 1" = 400'

CONTOUR INTERVAL : 10,15,20,25,32,40,50,65,80,100 OHM-METRES

DIPOLE LENGTH : 200 FT.

TIME SEQ. : 2 SECS ON/2 SECS OFF

INTEGRATION TIME : 470 TO 1100 MSECS

TX TYPE : ELLIOT 1.5 KVA

RX TYPE : SCINTREX IPR7

SURVEYED BY : P.A.P.

63.4352

INDUCED POLARIZATION RESISTIVITY SURVEY

GRADIENT ARRAY

APPARENT RESISTIVITY

SURVEYED AND COMPILED BY GEOTERREX LTD.

PROJECT 85-938

CLIENT : McGARRY GOLD RESOURCES

PROJECT: McGARRY PROPERTY

AREA : KEARNS ONTARIO

GRID : McGARRY TOWNSHIP

32084NE0423 63.4352 MCGARRY

L34E L36E L38E L40E L42E L44E L46E L48E L50E L52E

STUMP POND MEADOW

CREEK

EPIDOTE HEMATITE

2d

2a

2f

chloritic cpy 2f

65°

3

4

qv chloritic cpy calcite

qv chloritic

BLEACHED

5b,7

2a CHLORITIC

15?

4,8

8

8,11b

11b

11a

5

83-5

13 qv

11a

STUMP POND BASELINE

7

qv

5b

qv fuchsite

6c

83-3

83-4

5a

6a

6b

10

12

83-1

85°

BOULDERS

CPY qtz

6,7a

7b

7a

83-2

11b

11a

sheared 8

8 SHEAR

8 Ca

7a

11a Ca 7a

11b 8

11a

11b Ca

chloritic

axial plunge 50°

LEGEND

BLAKE RIVER SERIES

TEMISKAMING GROUP

15 — 15a SANDSTONE; 15b CONGLOMERATIC SANDSTONE; 15c CONGLOMERATE; GREY COBBLES OF WHITE QUARTZ, BLACK CHERT, GREEN MAFICS, JASPER.

14 — GREY GRIT SANDSTONE

13 — SLATE

"LARDER GROUP"

12 — GREEN COMPETENT SANDSTONE

11 — 11a CHERT AND YELLOW CHIP PEBBLES IN GREY SANDSTONE; 11b GREY SANDSTONE; 11c CHERT AND PORPHYRY PEBBLES IN GREY SANDSTONE

10 — CHLORITE TECTONITE, HEMATITE

9 — LIMESTONE

8 — SILTSTONE

7 — 7a SYENITE DERIVED TUFF; 7b SYENITE DERIVED LAPILLI; 7c AGGLOMERATE

6 — 6a PYROXENE SYENITE; 6b GREEN MICA SYENITE; 6c SYENITE PORPHYRY; ALL ARE MAGNETIC

5 — 5a IRON CARBONATE 6-30%; 5b +40%; 5c SANDSTONE JASPER, PYRITIC, YELLOW FLICKS OF FERRODOLOMITE

4 — YELLOW CLAY STONE (SERICITE AND CHERT)

3 — GREEN CARBONATE ALTERATION (LADDER QUARTZ VEINING)

2 — 2a DIORITE; 2b PEGMATITE GABBRO; 2c CARBONATE GABBRO; 2d GABBRO; 2e MAGNETITE GABBRO; 2f LEUCOXENE GABBRO; 2g GRANODIORITE AND MAGNETIC DIORITE; 2h METAMORPHIC CONTACTS WITH HORNFELS, EPIDOTE, CHROMITE, SERPENTINE

KINOJEVIS GROUP

1 — THOLEIITIC BASALT

OUTCROP .....

GEOLOGICAL BOUNDARY...

SHEAR FAULT.....

DIAMOND DRILL HOLE.....

SEE SECTIONS IN REPORT FOR GEOLOGY ALONG DRILL HOLES

GEOLOGY BY HULBERT A. LEE, 1983

63.4352

REGISTERED PROFESSIONAL ENGINEER — H. A. LEE — PROVINCE OF ONTARIO

McGARRY GOLD PARTNERSHIP

DETAILED GEOLOGY

0 50 100 METRES

0 100 200 300 400 FEET

LEE GEO-INDICATORS LIMITED

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L 32E
L 34E
L36E
L 40E
L 44E
L 48E
L 52E
L50E
L42E
L 46E
L38E
L30E
STUMP POND MEADOW
STUMP POND BASELINE
1000
850
750
500
1500
10000

LEGEND

READINGS IN GAMMAS 525

MAGNETIC DEPRESSION .....

MAGNETIC CONTOURS IN GAMMAS 750

INSTRUMENT USED : MºPHAR M700 FLUXGATE MAGNETOMETER

SURVEYS BY A. MATHIAS, 1979, 1980 AND
R. ANDERSON, 1983

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REGISTERED PROFESSIONAL ENGINEER
H. A. LEE
PROVINCE OF ONTARIO

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DETAILED MAGNETIC SURVEY

0 50 100 METRES

0 100 200 300 400 FEET

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