REPORT ON EXPLORATION ACTIVITIES ON THE O'CONNER GOLD PROPERTY CLEAVER TWP. LARDER LAKE M.D., ONT.

DECEMBER 31, 1991

BY

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SUMMARY

A comprehensive exploration program was undertaken on the O'Conner gold property in Cleaver Twp. during the fall of 1991 with the financial help of the Ontatio Prospectors Assistance Program.

Linecutting, prospecting, geological mapping, magnetic and VLF-EM surveying, IP surveying, mechanical and hand trenching were all completed as part of the program designed to evaluate the known quartz carbonate shear hosted zones, to develop a geological synthesis of the property, and to outline new target areas on the claims.

Most of the work was completed by the claimholders, Bruce and Beth Durham. All phases of the program contributed to furthering the geological understanding of the property.

Little historical data was available for the property other than a one paragraph description in a 1923 Ontario Department of Mines Report and a report by C. Morgan, engineer, dated July 1924.

No record exists of the shaft that is present on the property and no map previously existed to show the extent of the numerous trenches that were established at that time more or less along the trace of the vein system for at least 800m.

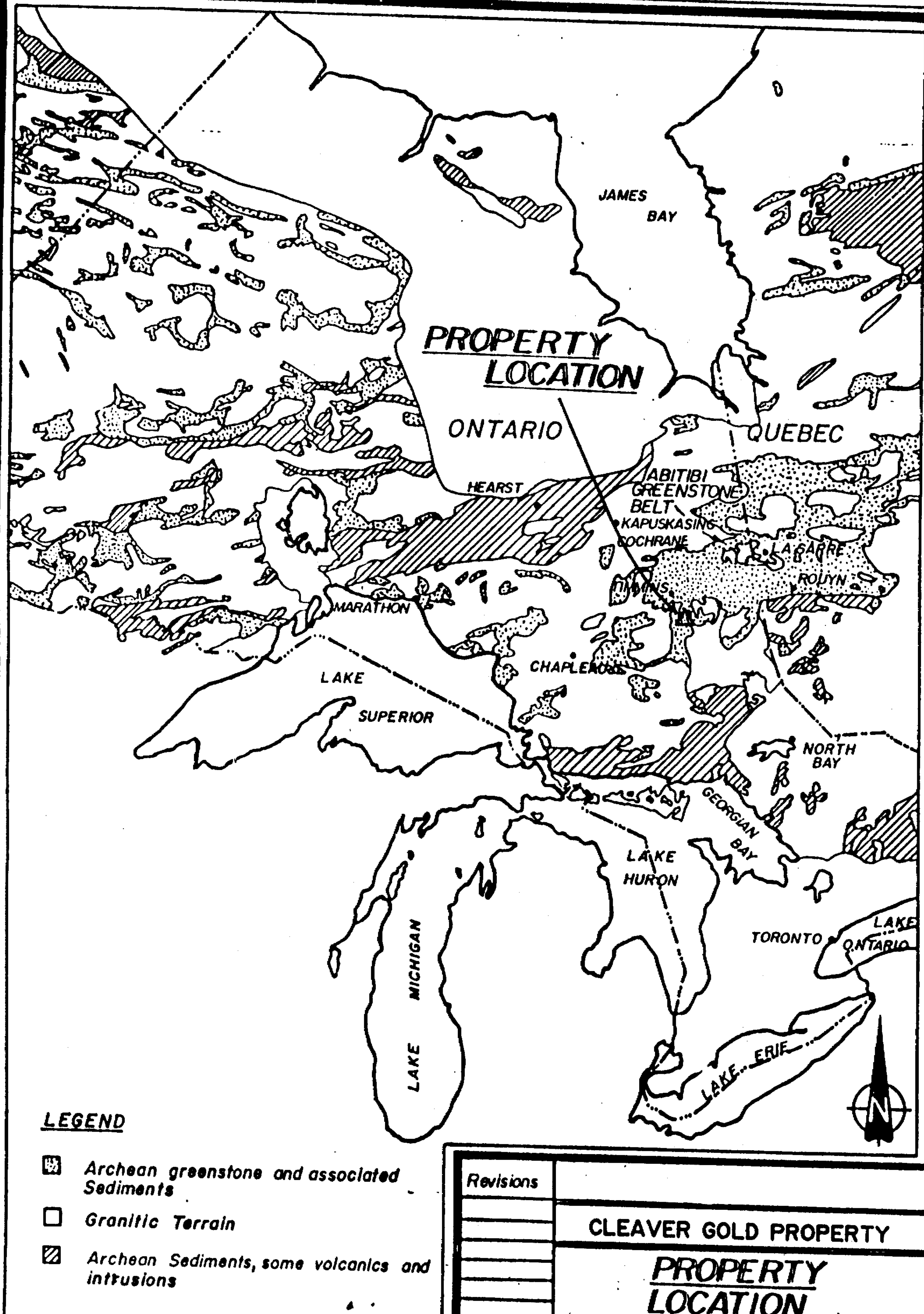
In spite of the rather intense exploration that was carried out on the claims at one time, only one of the 38 rock samples that were submitted for assay returned a gold content of more than 100 ppb. At the same time, however, only one sample returned a gold content of less than 10 ppb. The highest gold assay obtained was from a sample of hematite bearing, reddish altered chloritic shear material near the northeast corner of the south lake as shown on the accompanying maps. The easterly extension of this shear zone is overburden covered and the westerly extension of the shear is covered by the lake.

The geophysical surveys failed to delineate the location of the extensions of this hematitic, chloritic shear.

INTRODUCTION

A comprehensive exploration program was completed on a 12 unit, three claim group covering the historical gold occurence referred to as the O'Conner claim in a 1923 Ontario Department of Mines report. The claims, which are registered in the name of Bruce Durham are located approximately 40 km southeast of Timmins, Ontario.

A comprehensive exploration program was proposed for the property since there was no data on the area save a couple of 1920's reports. The exploration program consisted of linecutting, prospecting, geological mapping, magnetic and VLF-EM surveying, Induced Polarization surveying, mechanical and hand trenching. This report outlines the work completed, provides a geological synthesis based on the results, and indicates possibilities for additional work.



Revisions	
	CLEAVER GOLD PROPERTY
	PROPERTY LOCATION

Date:	Drawn	Scale 1:7,603,200
Job No.	Approved	Figure 1

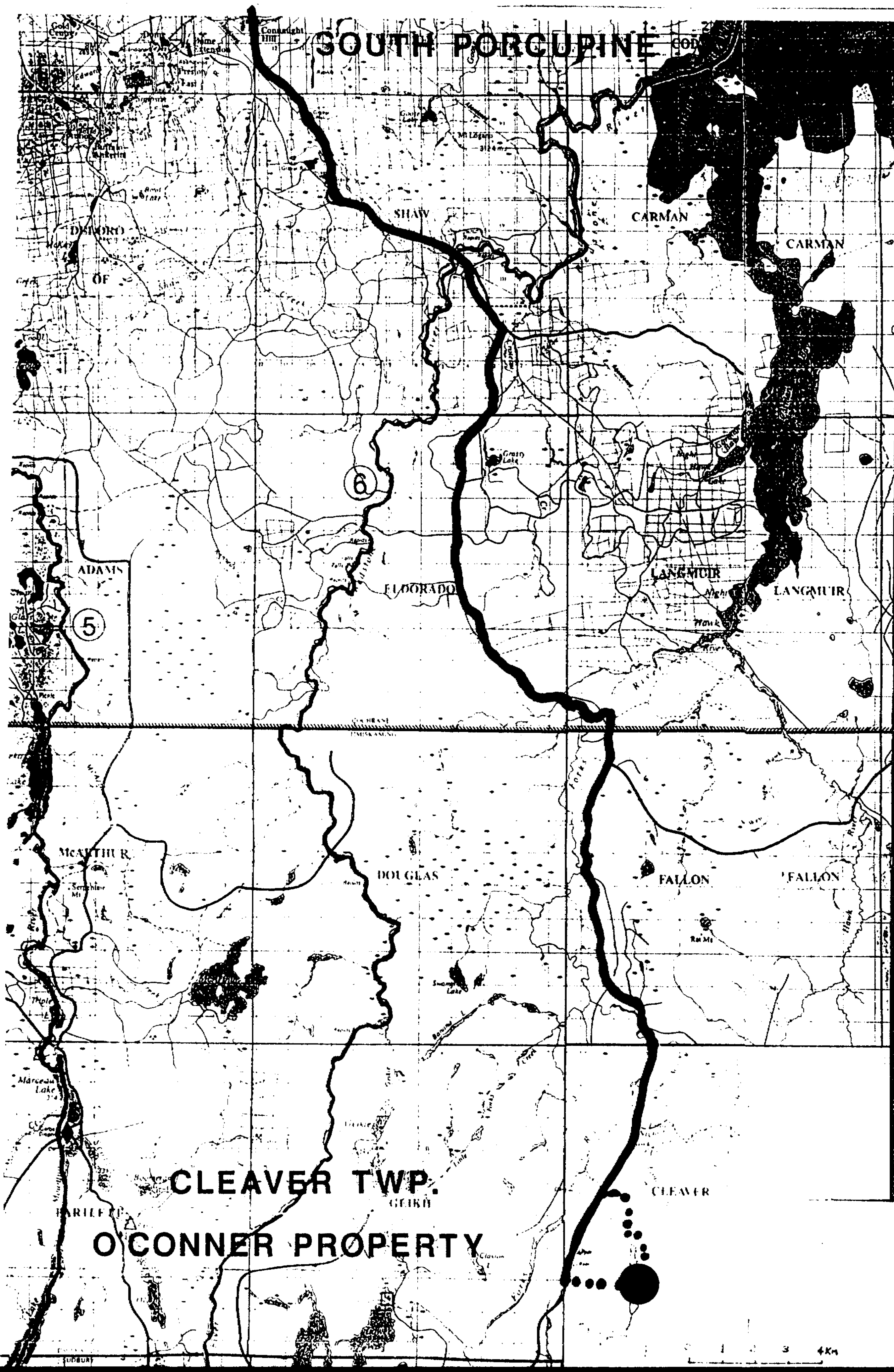
PROPERTY DESCRIPTION, LOCATION AND ACCESS

The property was originally comprised of 10 unpatented mining claims staked to cover a reported gold occurence in the southwest part of Cleaver Township, in the extreme northern part of the Larder Lake Mining Division. The exploration program was initiated in August of 1991, however insufficient assessment work was available to keep the claims in good standing and the property was subsequently restaked as three claims totalling 12 units as shown in figure 3. The claims are numbered 1181792, 1181791, and 1181787.

The claims are registered in the name of Robert Bruce Durham and are owned jointly by Bruce and Beth Durham.

The property is located in the southwest part of Cleaver Township, approximately 40 km southeast of Timmins, Ontario. The property is reached via the Langmuir and Nighthawk Timber road network as shown in figure 2. Logging operations have extended to within 1 km of the centre part of the property on the north side.

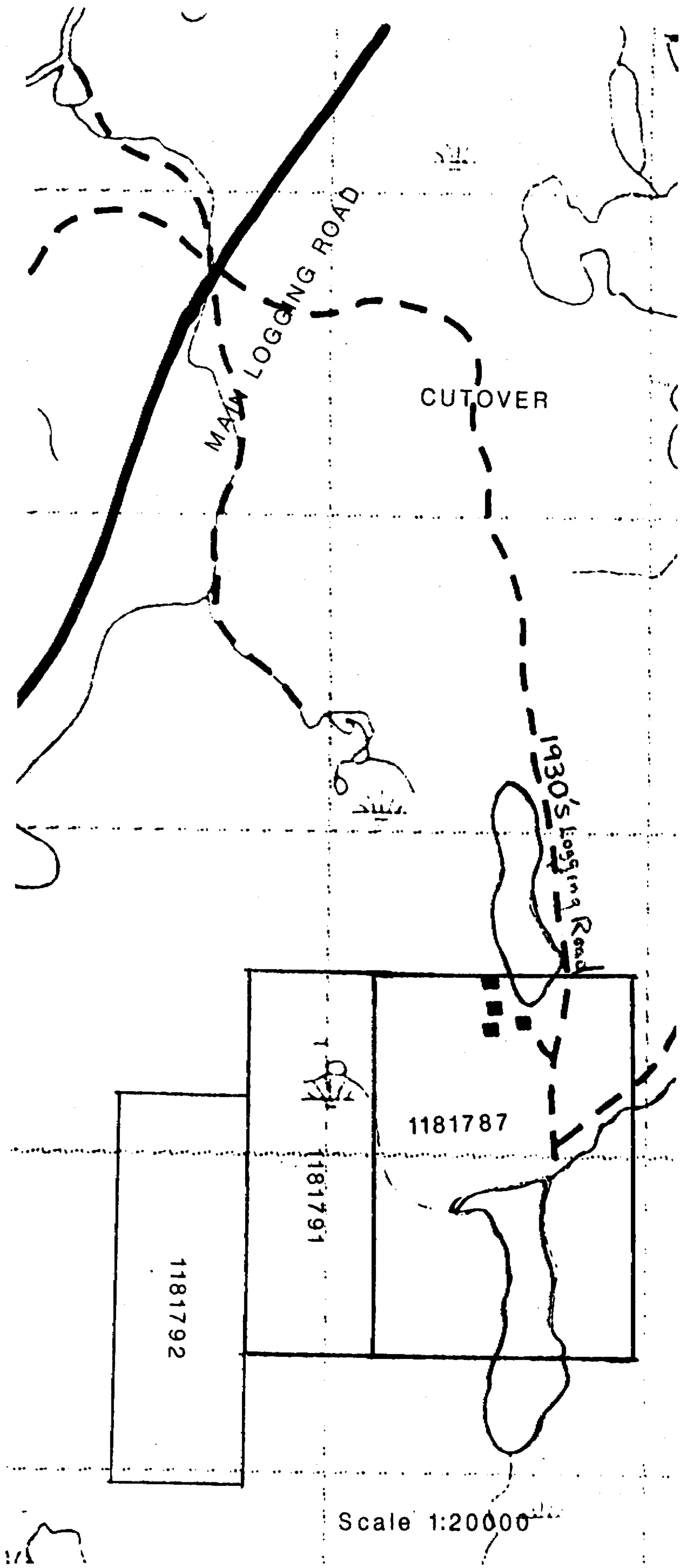
For the first part of the exploration program access was gained by walking over a series of northerly ridges from the logging road west of the property. In the course of the work program the old logging road from 40 years ago or so was located near the south end of the north lake and this provided access to the property for


SOUTH PORCUPINE
SHAW
CARMAN
CARMAN
OF
6
ADAMS
5
ELDORADO
LANGMUIR
LANGMUIR
McARTHUR
DOUGLAS
FALLON
FALLON
Grassy Lake
Night Hawk Lake
Swamp Lake
Marceau Lake
CLEAVER
CLEAVER TWP.
O'CONNER PROPERTY
GEIKIE
BARTLETT
0 1 2 3 4Km

much of the work once the trail was made passible.

The only buildings located on the property are the largely fallen down log structures used in a logging operation at least some 40 years ago.

At, and around the shaft in the central part of the claims some steel, fire brick, water tower hoops, and steel track attest to the amount of serious work carried out on the property in the 1920's.



CLEAVER TWP. O'CONNER PROPERTY

fig. 3

PREVIOUS WORK

Little mineral exploration has been reported in the western part of Cleaver Township in spite of its location, not far from the Porcupine, Mattachewan, and Shining Tree gold areas. Preliminary exploration was carried out on a basemetal bearing quartz calcite vein system a few km. north of the subject property.

The only exploration data regarding the subject property is a July, 1924 report by Chas. Morgan in which he speaks most favorably of the property. Among other things he refers to wide quartz veins and schists heavily impregnated with pyrite, pyrrhotite, and arsenopyrite and indicates that he was able to pan 'colours' in several locations. Morgan also reports observing visible gold in quartz stringers. He states that at least two main vein systems cross the property in a N35E direction. Morgan recomends that work continue on the property although no further records of such work are available.

A 1923 Ontario Department of Mines report on properties in the area reports as follows on the O'Conner claim:

"On O'Conner claim 10247, running across the claim in a N30W direction, is a basalt schist zone containing large lenses of quartz and dikelets of syenite, felsite, pegmatite, and porphyry, pointing to a genetic relationship between the veins and the granite. Gold was observed in quartz veinlets cutting a narrow syenite dike in this shear zone. Much iron pyrites is disseminated throughout the entire deposit."

The next available government investigation in the area is a 1972 regional reconnaissance geological survey carried out by D. R. Pyke. The O'Conner property is not mentioned in that report and there is no indication of any alteration or mineralization in the vicinity of the property.

H. Hutteri carried out a geological mapping program on one claim covering the O'Conner showing in 1989.

REGIONAL GEOLOGY

The property is located within the Abitibi Greenstone Belt of the Superior Province of the Precambrian Shield. The southwestern part of Cleaver Township is underlain predominantly by Archean pillowed to massive basalts probably of tholeiitic affinity. Volcanic rocks examined in the vicinity of the property are fresh to epidotized and only mildly deformed. Where top determinations could be made it appears that the volcanic rocks face easterly and strike northerly to northeasterly. Epidotization and a mild hornfelsic texture in some areas are thought to be related to the emplacement of the Geike Pluton, a large granodioritic intrusion, and other, smaller intrusions of similar composition.

While felsic volcanic rocks have been reported from the area, none were observed on or in the vicinity of the property. Diabase dikes cut all volcanic and plutonic rocks of the area. Sub horizontal Cobalt series sediments overly all Precambrian rocks some distance to the north of the property and form a high, south trending ridge through the area.

Overburden, while relatively thin for the Timmins area, is extensive, with outcrop forming less than 10% of the surface area.

The overburden in the area is predominantly comprised of boulder outwash till, and in some areas extensive boulders account for most of the surface area. While most of the boulders appear to have been transported quite some distance, local litholgical units are also present and the overburden was prospected carefully for the occurence of quartz, quartz carbonate, and shists of various compositions.

PROPERTY GEOLOGY

The area of interest on the claims, as determined by prospecting prior to the linecutting program, was covered by a control grid with lines at 100m. intervals on a bearing of 122 degrees. The baseline was established at an angle of 032 degrees, roughly parallel to the trend of the quartz carbonate sericite chlorite alteration zones.

The Quaternary geology is dominated by an extensive boulder rich outwash till that extends from the north boundary of the claims to the south boundary of the claims, particularly in the area from 200m. west of the baseline to the eastern boundary of the claims. It was found to be quite difficult to distinguish between frost heaved broken bedrock and boulders that range from 0.5m. to more than 5m. in diameter. In several instances what was thought to be frost heaved bedrock consisting of quartz or chlorite-sericite schist was found to be only boulders when tested with the backhoe. Even what Morgan referred to as the "Little Dome" may actually be a collection of boulder material scraped off the main trenched area or broken off a separate vein system.

Numerous large quartz boulders were located southeast of the baseline from line 0 to line 300S, however investigation of most of these occurences failed to indicate a bedrock source for these boulders. While considerable effort was spent looking for concentrations of local, altered boulders, no other areas indicated more than rare occurences of altered boulders. While it is still thought that the favorably altered boulders are locally derrived, their source remains unknown. The broken nature of the bedrock in the vicinity of the altered zones makes the solution of the problem more complex.

Geological mapping was completed over the entire grid. More than 70% of all outcrops located in the course of the survey were basaltic in composition. The volcanics are comprised of massive and pillowed varieties. Outcrops of chlorite schist, chlorite-carbonate schist, sericite-carbonate schist, felsite, granodiorite, and diabase were also observed on the claims.

The massive mafic volcanic rocks that underly much of the grid area vary from medium green, aphanitic, chloritic, and slightly soft (1a) to dark green-black fine to medium grained, slightly silicified to amphibolitized (1c,1d).

Relatively undeformed pillow structures were frequently observed in outcrops. The pillows averaged approximately 30cm thick by 60-80cm in length. Pillow shapes indicate a north to northeast strike direction with tops facing consistantly to the southeast.

Alteration within the mafic volcanic rocks appears to be confined to north-northeast trending zones several meters wide and several hundred meters long. These zones consist of i) massive, moderate to strongly carbonatized (1g) with local silicification, dissiminated pyrite mineralization, minor green mica, frequent quartz stringers and rare quartz veins up to 1.5m in width, and ii) sheared zones with carbonate,chlorite, sericite, abundant dissiminated pyrite, (1f) minor green mica and, subparallel quartz veins and lenses that swell to widths of several meters in places. The veins, for the most part are milky white, massive to weakly sheared, with minor rusty carbonate and trace amounts of pyrite and rarely chalcopyrite.

The length of these altered, and veined zones, and the relationship between adjacent zones is still not well understood due to the overburden in the area and the broken nature of the bedrock.

The mafic volcanic rocks which comprise the oldest group of rocks observed on the property are intruded by a variety of felsic intrusives and late diabase dikes. While not observed in solid outcrop, it is apparent that a sericitized quartz porphyry or quartz sericite schist alteration zone occurs within the volcanics in the vicinity of the "Big Dome" near 105m east between line 0 and line 100S.

Felsite dikes (2a) and syenitic intrusives were also recognized on the property. The occurences of felsite dikes were not well exposed but it appears that the dikes generally trend in a northeasterly direction. They weather a pinish-tan color and are fine grained, hematite stained, massive, and contain considerable fine chlorite. The dikes, where fully exposed, appear to be less than 0.5m. in width.

In the northwest corner of the grid a few large bedrock exposures suggest the presence of a syenitic intrusive plug and attendant dikes. These exposures are pinkish-white weathering, massive medium grained and are comprised of mainly pinkish-white euhedral to subhedral feldspar with little or no recognizable quartz. Up to 20% anhedral hornblende is present along the contacts of the intrusive, and in intrusive dikes marginal to the plug.

Diabase dikes cut all other rock types on the property.

There was no indication of any local fold structures encountered in the course of the geological mapping program. All carbonate and related altered zones as previowly described strike between N20E and N40E and dip subvertically to as shallow as -55 degrees east. While local faulting is suspected, the broken nature of most sheared, altered and veined zones precludes accurate structural determinations.

GEOPHYSICAL SURVEYS

MAGNETIC SURVEY

An EDA Omni Plus Proton Precession magnetometer was used to carry out the magnetic survey of the gridded area. The time was recorded at regular intervals and the diurnal deviations were corrected for using the EDA OMNI basestation recorder. An accuracy of 1 nT. is estimated using this method. A total of 10 km of surveying was completed by operator R. Meikle.

The Proton Precession method of measuring magnetic field involves energizing a wire coil immersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess, simulating magnetic dipoles. When the current is removed, the protons precess about the direction of the earth's magnetic field, generating a signal in the coil which is proportional to the total field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form. Areas of equal magnetic intensity are then joined to produce a contour map of the magnetic field.

This data can then be used to try to delineate various lithological units of varying magnetic signatures in order to aid in the geological synthesis of the property or area.

This survey was carried outusing the following parameters:

Instrument; EDA OMNI Plus Proton Precession
    Magnetometer

Station Interval; 25m

Line Interval; 100m

Diurnal Correction Method; EDA Recording Basestation

Data Presentation; Plan Map, contoured, fig.6,
    scale 1:2500 contour interval
    20nT

RESULTS

The main features outlined by the magnetic data are a northeast trending diabase dike that was located in only a few outcrops and a couple of narrow grid north trending weak mag trends one of which more or less follows the trend of the known mineralized zones.

The magnetic high features in the western part of the grid area appear to be related to the location of felsic intrusive rocks. The cause of the magnetic high near 400 east on lines 100 to 700 south is unknown however it may mark the location of more felsic intrusive rocks.

VLF-EM SURVEY

A Geonics EM-16 VLF instrument was used to survey the entire grid. Both the In-phase (dip angle) and the quadrature values were recorded at each station (25m).

While VLF stands for Very Low Frequency, the frequencies employed are actually very high for mineral exploration purposes. The frequencies used for VLF-EM survey are generally 18-22khz. The VLF-EM technique uses primary signals emitted by fixed transmitter stations located around the world. These transmitter stations are actually part of a military navigation system. As such the military controls all aspects of frequency, location, and hours of operation.

For the purposes of this property no ideal transmitter is available to provide maximum coupling with the local shear direction of N30E. The Annapolis Maryland USA transmitter station whose operating frequency is 21.4khz was selected. The direction to the transmitter station roughly 140 degrees. Thus, any conductive zones having a general northeast trend would be intersected by the transmitter signal. This induces a signal in the conductor which in turn opposes the primary signal from the transmitter station. This eliptically polarizes the resultant field enabling detection of the conductive source using a receiver coil to determine the attitude of the resultant field at various points along the grid lines.

The resultant field dips away from the conductor axis on both sides of the conductor producing a crossover at the conductor axis. For a north-south trending conductor a true crossover would occurwhere the field dips south and changes to a north dip as readings are taken from south to north. For the survey a +/- was used where a + dip angle means the field is dippiing to the south (indicating that the conductor is to the north) and a - dip angle means the field is dipping to the north (indicating that the conductor is located to the south). This system assumes all readings are taken facing east.

The quadrature values can help diltinguish between bedrock conductors, which generally have a smaller out of phase response. The polarity of the quadrature readings is diagnostic. If the polarity follows or is the same sense as the In phase, it gives more credibility to the conductor. Reverse quadrature profiles often indicate overburden responses.

The following parameters were employed for the survey:

Instrument; EDA Omni Plus
Transmitter station; Annapolis Ma. USA
Frequency; 21.4 khz (NAA)
Azimuth to station; 140 degrees
Line interval; 100m
Station interval; 25m
Data presentation; Plan, profiled, fig. 7
Scale 1:2500, profile scale 1cm=10%

RESULTS

The survey failed to delineate any conducors on the property other than the conductive overburden associated with the shorelines of the lakes and some of the swampy areas.

INDUCED POLARIZATION SURVEY

The IP method involves applying voltage across two electrodes in a pulsed manner i.e. 2 seconds on, 2 seconds off. A second "dipole" or electrode pair measures the residual potential or voltage between them after the voltage is turned off, or during the shut off of the pulse.

If, for example there is sulfide mineralization within the area between the measuring dipoles, the sulfide particles will be charged or polarized. This polarization gives them a capacitor quality, thereby allowing the particles to retain the charge for a slightly longer time than the surrounding rocks that are not sulfide bearing. When the current is turned off and the residual charge is measured, the "chargeability" of that location can then be compared to the chargeability of other areas.

In many instances, in Archean greenstone terrain, many gold bearing zones have a geophysical signature typified by combined chargeability highs, restivity lows, and magnetic lows. Many of these zones also have associated VLF-EM conductors due to the weakly conductive nature of the shear zones. These auriferous zones are often comprised of sheared, carbonate altered, silicified, and pyritized zones and are complex in their geometry. Because of their complex mineralogy, structure, and geometry a comprehensive exploration is almost always the best approach.

The electrode array used for the survey was the dipole-dipole array. In this array two current electrodes (C1,C2) and two receiver or potential electrodes are moved down a line as a unit.

In this case the "a" spacing or the distance between each dipole was fixed at 25m. For a n=1 reading, the closest C1 and P1 were25m apart. The C1,C2 dipole remain in the same place while the potential dipole (P1-P2) moves ahead 25m and the array is ready for a n=2 reading.

The IP survey was carried out using the following parameters;

Method; Time Domain
Electrode array; Dipole-dipole
"a" spacing; 25m
no. of dipoles read; __
Pulse duration; 2 seconds on 2 seconds off
Delay time; 500 ms.
Integration time; 420 ms.
Receiver; EDA IP-2
Transmitter; Scintrex IPC-9 250 watt

Data Presentation; Pseudosection form
Scale 1:1250

RESULTS

IP surveying was completed over all or part of lines 4N,3N,1N,0,1S, and 3S. Pseudosection are presented for all lines except for line 3S. Severe contact problems were encountered on this line in the boulder field and only one reading was obrained in spite of a considerable effort to overcome the problem. This line was deemed important to attempt to trace the mineralized zone southward across the creek, the diabase dike and to attempt to delineate the southwest extension of the hematized zone located near the northeast corner of the south lake.

Moderate to strong IP anomalies were outlined associated with the known mineralized zone on lines 4N, 3N,1N, 0, and 1S (all lines that were read across the zone. A less obvious zone was outlined from line 3N to at least line 0 approximately 100 to 200 meters east of the baseline. One of the main reasons for waiting for freeze-up to carry out the IP survey was to enable surveying of the northern part of the south lake, however it was found that the bottom of the lake was quite conductive and no reliable reading were possible.

The survey was however highly successful in delineating the pyritized zone associated with the quartz carbonate alteration zone.

SYNTHESIS AND RECOMMENDATIONS

The exploration program completed on the O'Conner property was highly successful in delineating the location of an extensive zone of quartz-carbonate-pyrite -chlorite-sericite material that was located by prospectors in the early 1920's and appears to have been largely overlooked since. In spite of reports of visible gold by other persons no visible gold was located in the course of the present program and the assay results were quite low in spite of the well altered nature of many of the samples assayed. Other targets were outlined, in particular the IP anomaly located east of the trenched area, and soil geochemistry should be completed to attempt to see if there are any indications of gold mineralization along this trend, or the magnetic trend just east of the baseline from line 3S. to 7S as a followup to the work that was recently completed. The success of the tecnique used on this property provides further proof that this type of integrated exploration program should be utilised on a regular basis to outline mineralization of this type.

BELL - WHITE ANALYTICAL LABORATORIES LTD.
P.O. BOX 187, POJ 1KO
HAILEYBURY, ONTARIO
TEL: 672-3107
FAX: (705) 672-5843

Certificate of Analysis

1

NO. 0617

DATE: December 31, 1991

SAMPLE(S) OF: Rock (38)

RECEIVED: December 1991

SAMPLE(S) FROM: Mr. Bruce Durham

38 Au @ 6.50 24[illegible]
38 Sample prep @ 1.50 57[illegible]
GST 39 82.5[illegible]
Total 336.53

Sample #	Au ppb	Oz. Gold
OP-1	38	
OP-2	30	
OP-3	19	
OP-4	23	
OP-5	29	
OP-6	22	
OP-7	55	
OP-8	15	
OP-9	26	
OP-10	15	
OP-11	11	
OP-12	14	
OP-13	23	
OP-14	18	
OP-15		0.046**
OP-16	51	
T1-1	38	
T1-2	23	
T1-3	29	
T1-4	10	
T2-1	12	
T3-1	22	
T3-2	25	
T3-3	22	
T4-1	22	
T4-2	21	
T4-3	10	
T4-4	8	
T5-1	10	
T5-2	15	
T5-3	15	
T5-4	14	
T5-5	14	

NOTE: ** denotes checked.

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PER

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FAX: (705) 672-5843

Certificate of Analysis

NO. 0617

DATE: December 31, 1991

SAMPLE(S) OF: Rock (38)

RECEIVED: December 1991

SAMPLE(S) FROM: Mr. Bruce Durham

Sample #	Au ppb	Oz. Gold
T6-1	33	
T6-2	66	
T6-3	30	
T6-4	40	
T6-5	25	

NOTE: ** denotes checked.

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PER ____

CLEAVER TWP. O'CONNER PROPERTY

Company:

Property:

Twp./Area:

Sample Type:

No. of Samples:

Shipped to:

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASSAYS Au	Ag	As	Cu	Zn	Pb
OP-1	see map	qtz-carb vein material, 1% py, malachite stain, blast rock	38					
OP-2		silicified chl schist, 5% py, hem	30					
OP-3		< 30cm qtz-carb vein, tr. py, possible float	19					
OP-4		15cm qtz vein zone, 15-20% py, minor ser	23					
OP-5		silicified carb zone, massive, 15-20% py	29					
OP-6		chl-carb-ser schist, qs, 5% py	22					
OP-7		narrow qv-qs in massive silicified carb zone, <1% py, blast rock	55					
OP-8		massive, silicified carb zone, few qs, 5% py	15					
OP-9		chl-carb-green mica schist, 5-10% py, blast rock	26					
OP-10		massive to weakly sheared carb rock, qs, 5-10% py	15					
OP-11		qtz vein float with pyritic chl-carb-ser inclusions - blast rock	11					
OP-12		same as OP-11, some green mica	14					
OP-13		qtz vein material with green mica - blast rock	23					
OP-14		breccia zone with hem + epidote, possibly silicified	18					
OP-15		chl schist with hem staining	0.046 OPT.					
OP-16		chl + ser schist, 5-10% py few qs	51					

CLEAVER TWP. O'CONNER PROPERTY

Company: ______________ Sample Type: ______________

Property: ______________ No. of Samples: ______________

Twp./Area: ______________ Shipped to: ______________

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASSAYS Au	Ag	As	Cu	Zn	Pb
T1-1	Trench #1	carb-chl-ser schist float with 3-5% py, qs	38					
T1-2	"	silicified carb-chl schist float with 5-10% py, few qtz blebs	23					
T1-3	"	sheared qtz-carb vein, float, 10% py	29					
T1-4	"	qtz-carb float vein, tr. py	10					
T2-1	Trench #2	qtz-carb vein, float, tr py	12					
T3-1	Trench #3	ser-chl schist, 5-10% py, qs	22					
T3-2	"	silicified massive mafic volcanics with weak to med. carb, 5% py	25					
T3-3	"	chl-carb schist, few qs+qv, 5% py	22					
T4-1	Trench #4	carb. zone, 10% py, tr. qtz	22					
T4-2	"	weakly sheared carb zone, 5-10% py, 2cm coarse calcite vein	21					
T4-3	"	6 inch qtz vein, tr. py in carb zone	10					
T4-4	"	30cm qtz-carb vein, tr. py	8					
T5-1	Trench #5	qtz-carb stringers in silicified carb. rock with 5% py	10					
T5-2	"	qtz-carb stringers + veinlets, tr. py	15					
T5-3	"	carb zone, tr. green mica, 10% py	15					
T5-4	"	carb zone with qs, 15% py	14					
T5-5	"	1.5 m qv, tr. py, inclusions of carb-chl schist w abundant py	14					
T6-1	Trench #6	carb-chl schist, qs, 3-5% py	33					
T6-2	"	massive silicified carb rock, 20% py, carb stringers	66					
T6-3	"	carb-chl schist, 5% py	30					

CLEAVER TWP. O'CONNER PROPERTY

Company:

Property:

Twp./Area:

Sample Type:

No. of Samples:

Shipped to:

SAMPLE NUMBER	LOCATION	DESCRIPTION	ASSAYS					
			Au	Ag	As	Cu	Zn	Pb
T6-4	Trench #6	silicified, pinkish, massive carb zone, 10-15% py	40					
T6-5	"	chl-carb schist, 5% py, carb stringers	25					

REFERENCES

Hopkins, P.E.
1924: Notes on Gold in McNeil and Other Townships; Ont. Dept. Mines, Vol. 33, pt. 3, p.37-40. Accompanied by Sketch Map

Pyke, D.R.
1978: Geology of the Peterlong Lake Area, Districts of Timiskaming and Sudbury, OGS Report 171. Accompanied by Map 2345, scale : 1:50000.

Ministry of Northern Development and Mines Assessment Files Office, Kirkland Lake, Ontario.

Prospecting log Bruce Durham

O'Conner property

Aug/1 prospecting western part of what is now 1181791

Aug/2 prospected shaft and trench area as shown on sketch

Aug/3 prospected east side of south lake.

Prospecting log   Beth Durham
O'Conner property

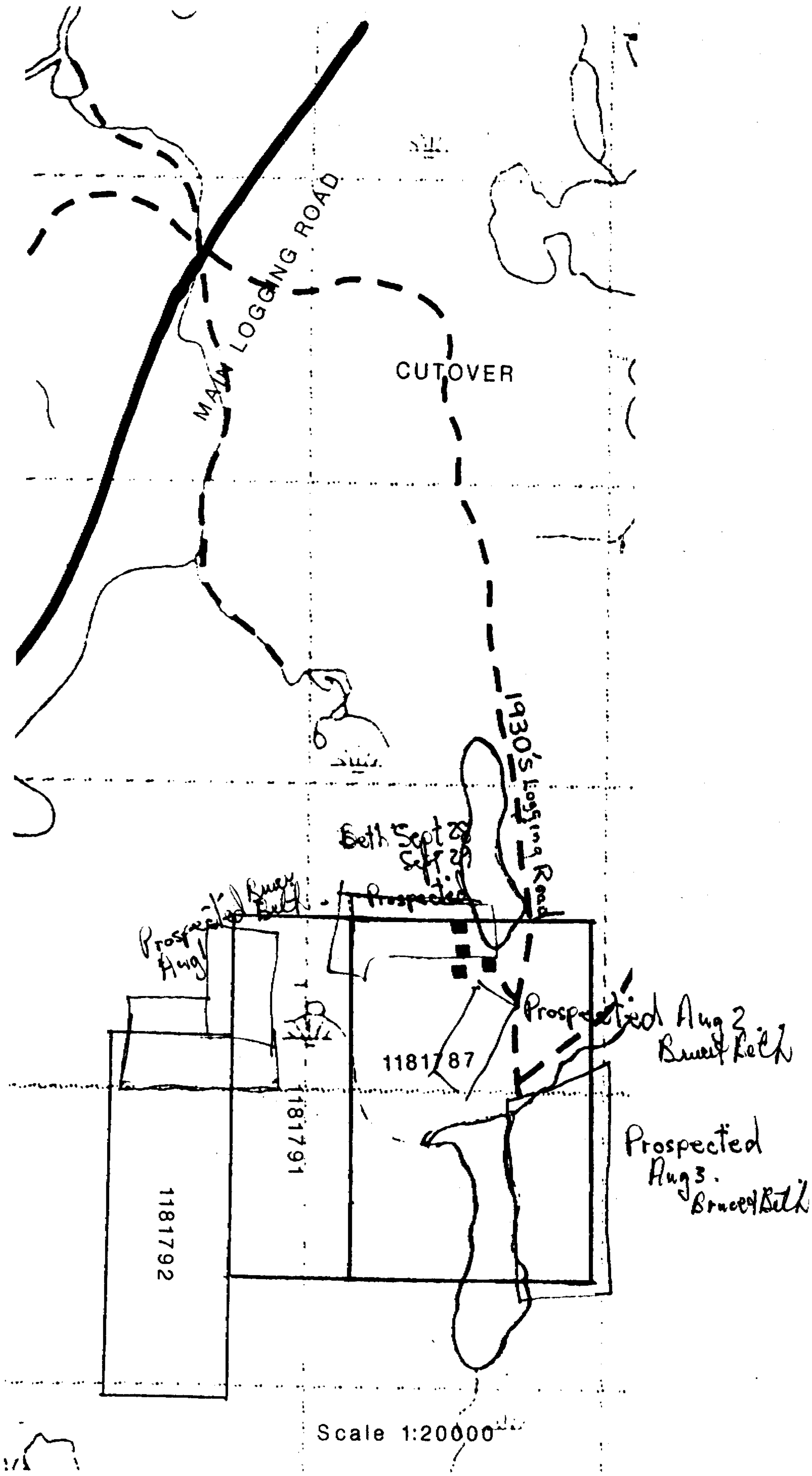
Aug/1 prospected western part of what is now claim 1181791

Aug/2 prospected shaft and trench area as shown on sketch

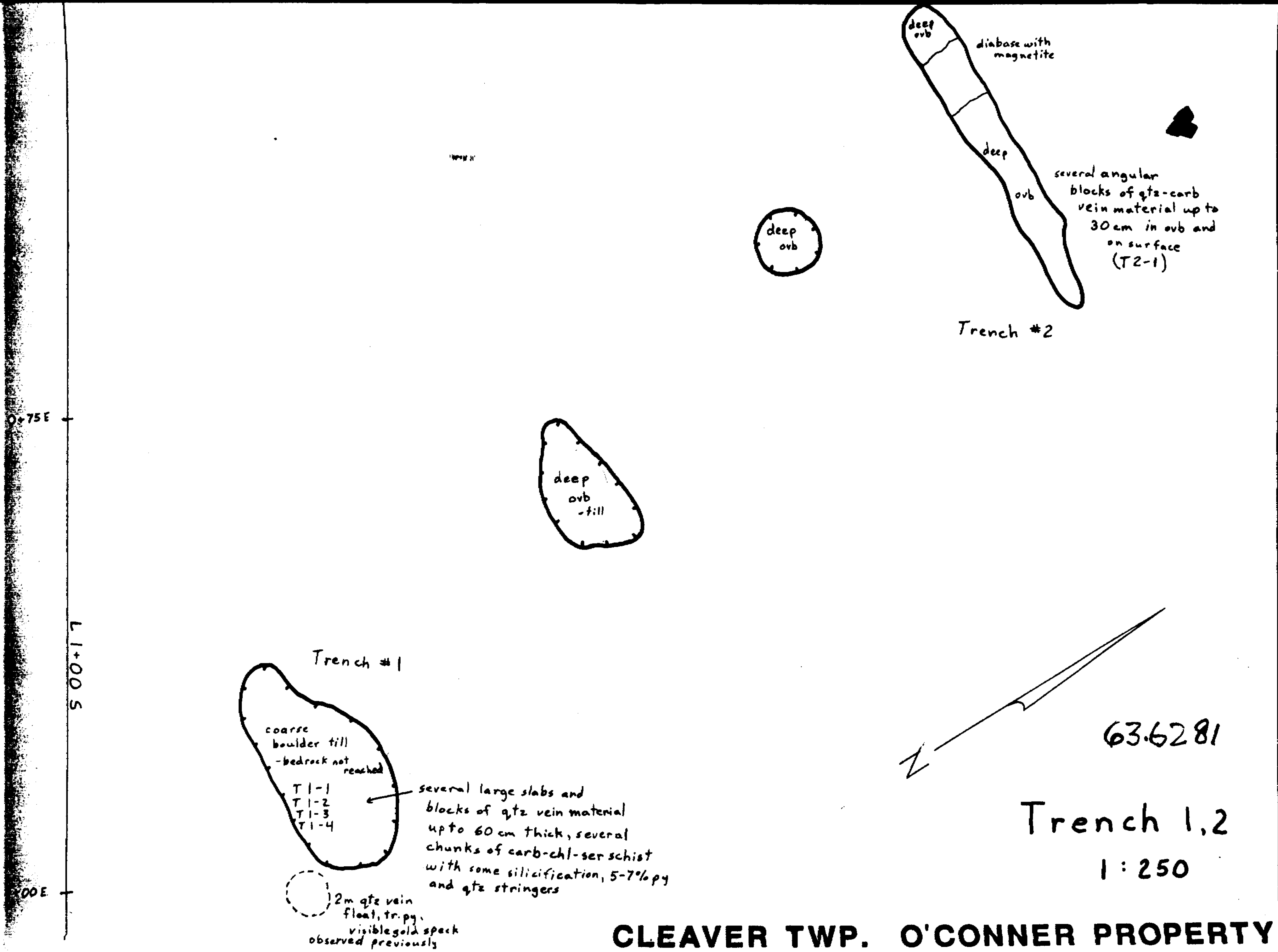
Aug/3 prospected east side of south lake.

Sept/28 prospected north boundary of 1181797 west of lake.

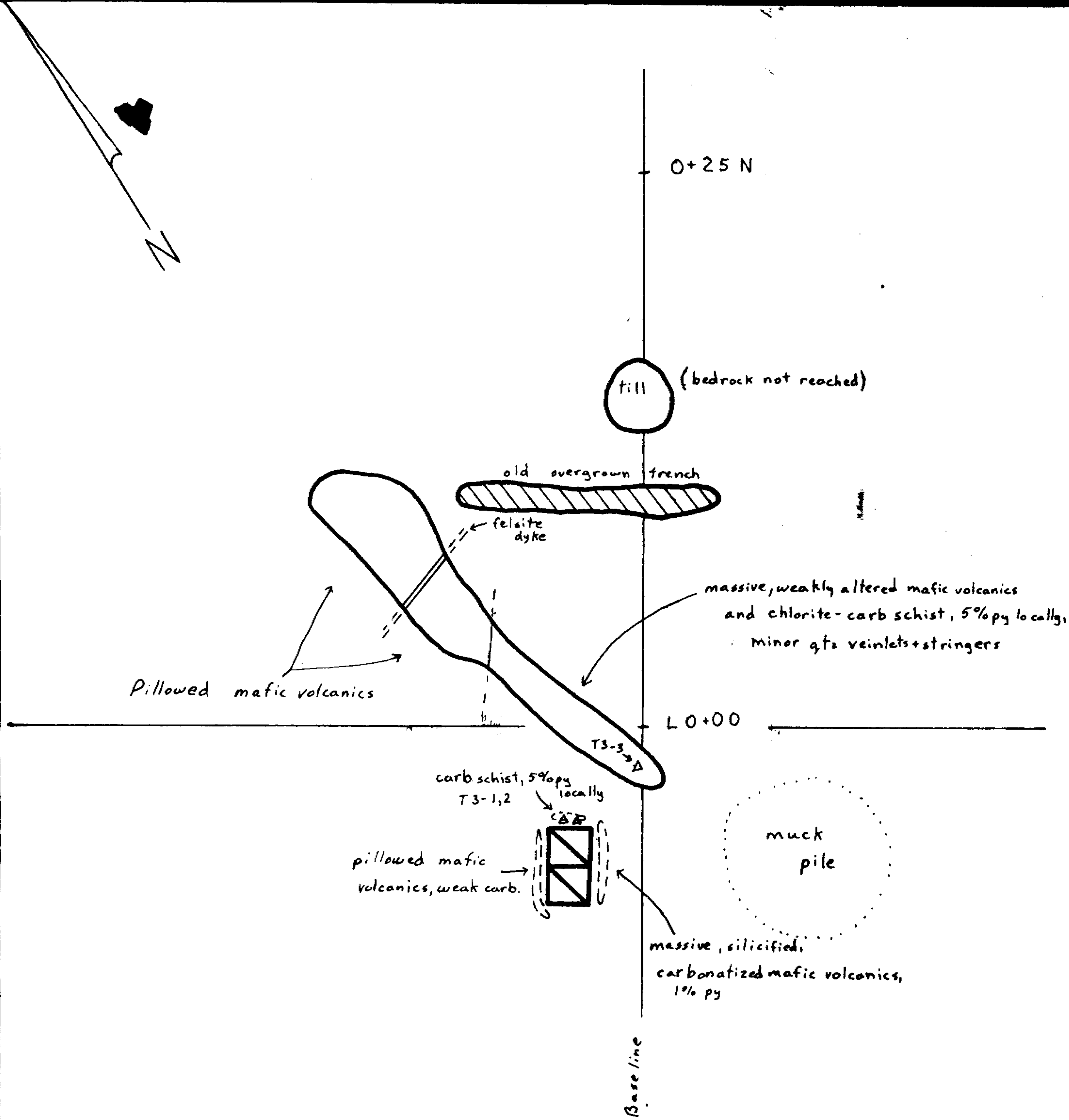
Sept/29 prospected north boundary of 1181787



CLEAVER TWP. O'CONNER PROPERTY



CLEAVER TWP. O'CONNER PROPERTY

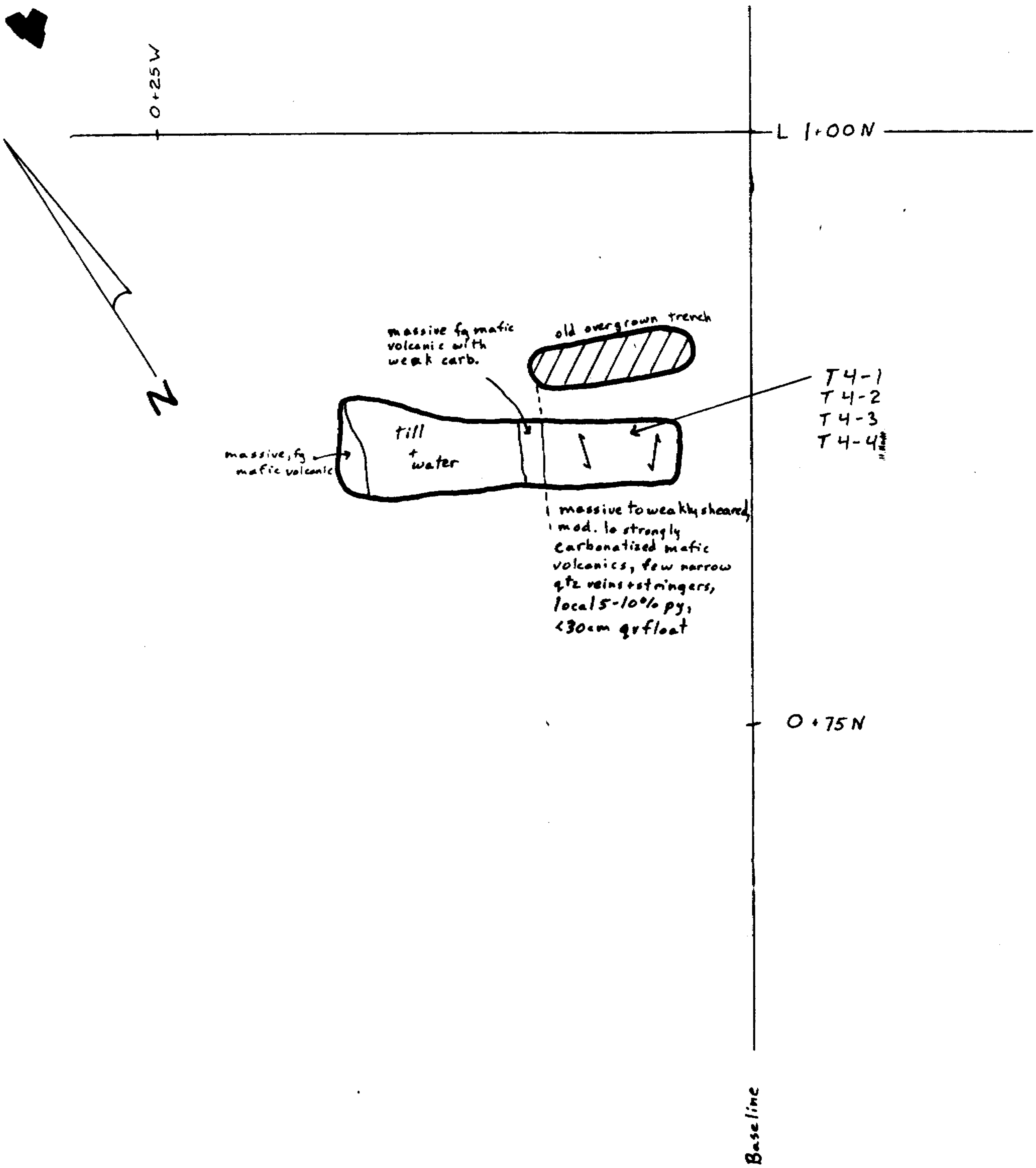


Trench 3

1:250

63.6281

CLEAVER TWP. O'CONNER PROPERTY

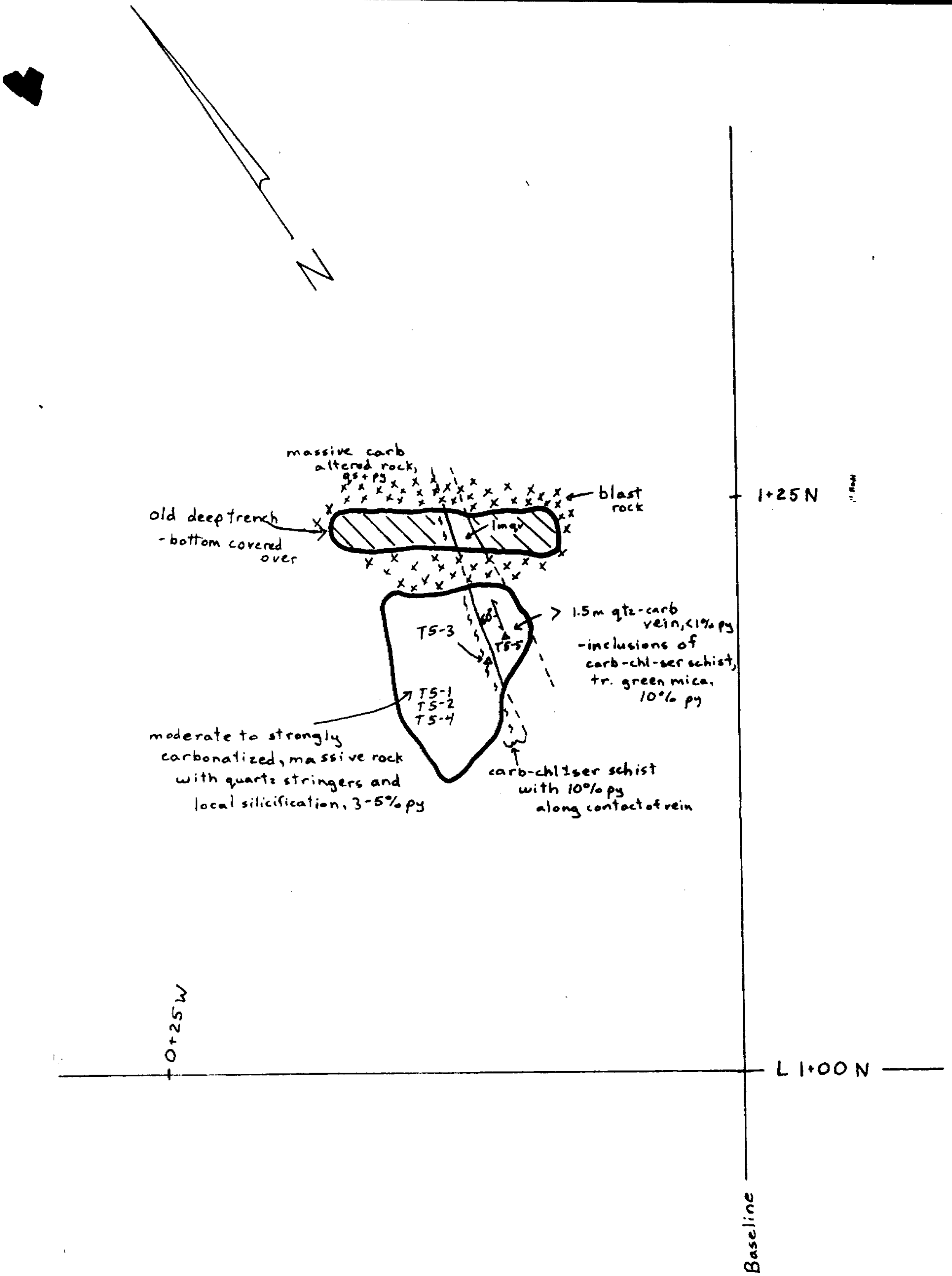


Trench 4

1:250

63.6281

CLEAVER TWP. O'CONNER PROPERTY

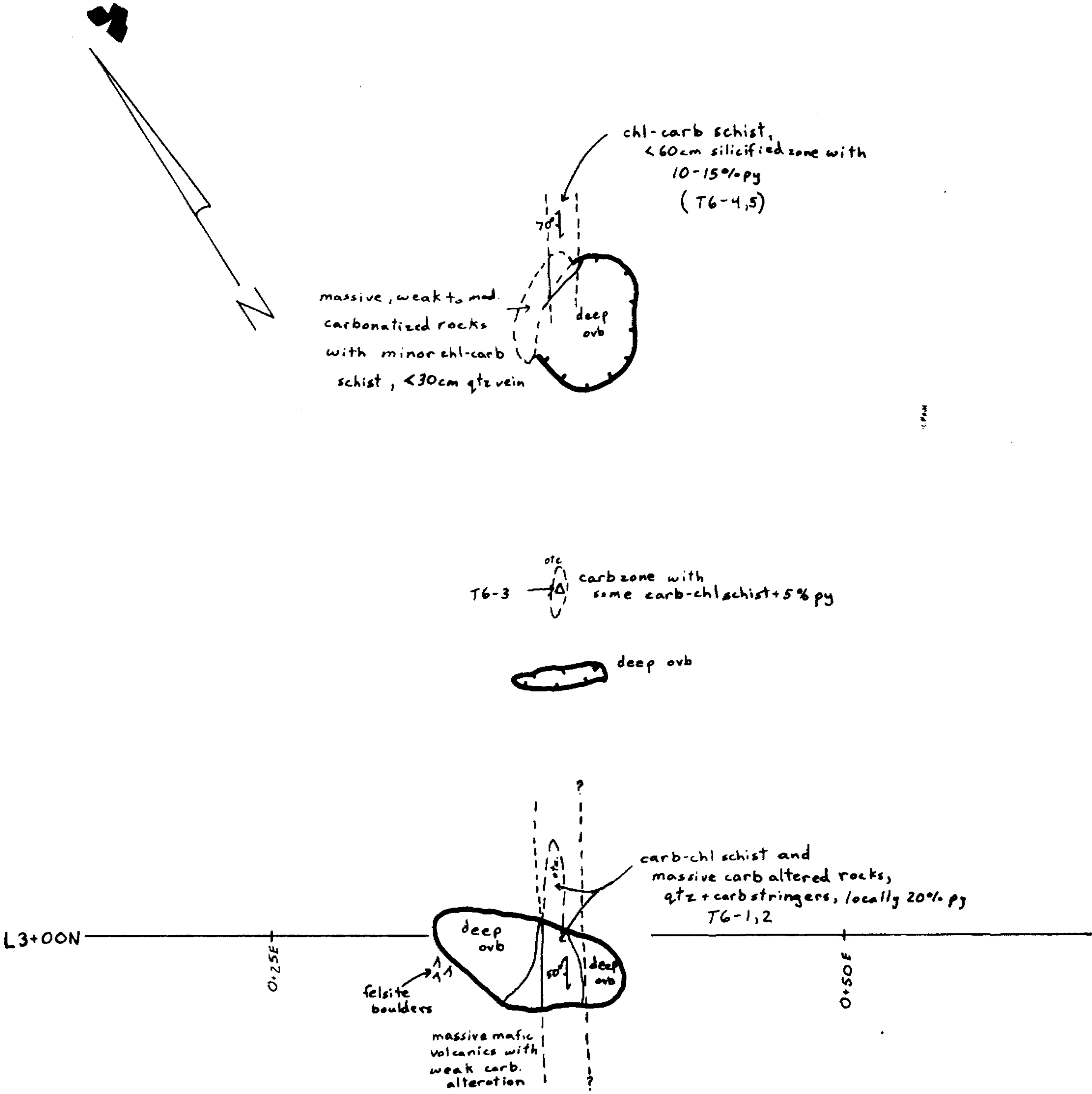


Trench 5

63.6281

1 : 250

CLEAVER TWP. O'CONNER PROPERTY

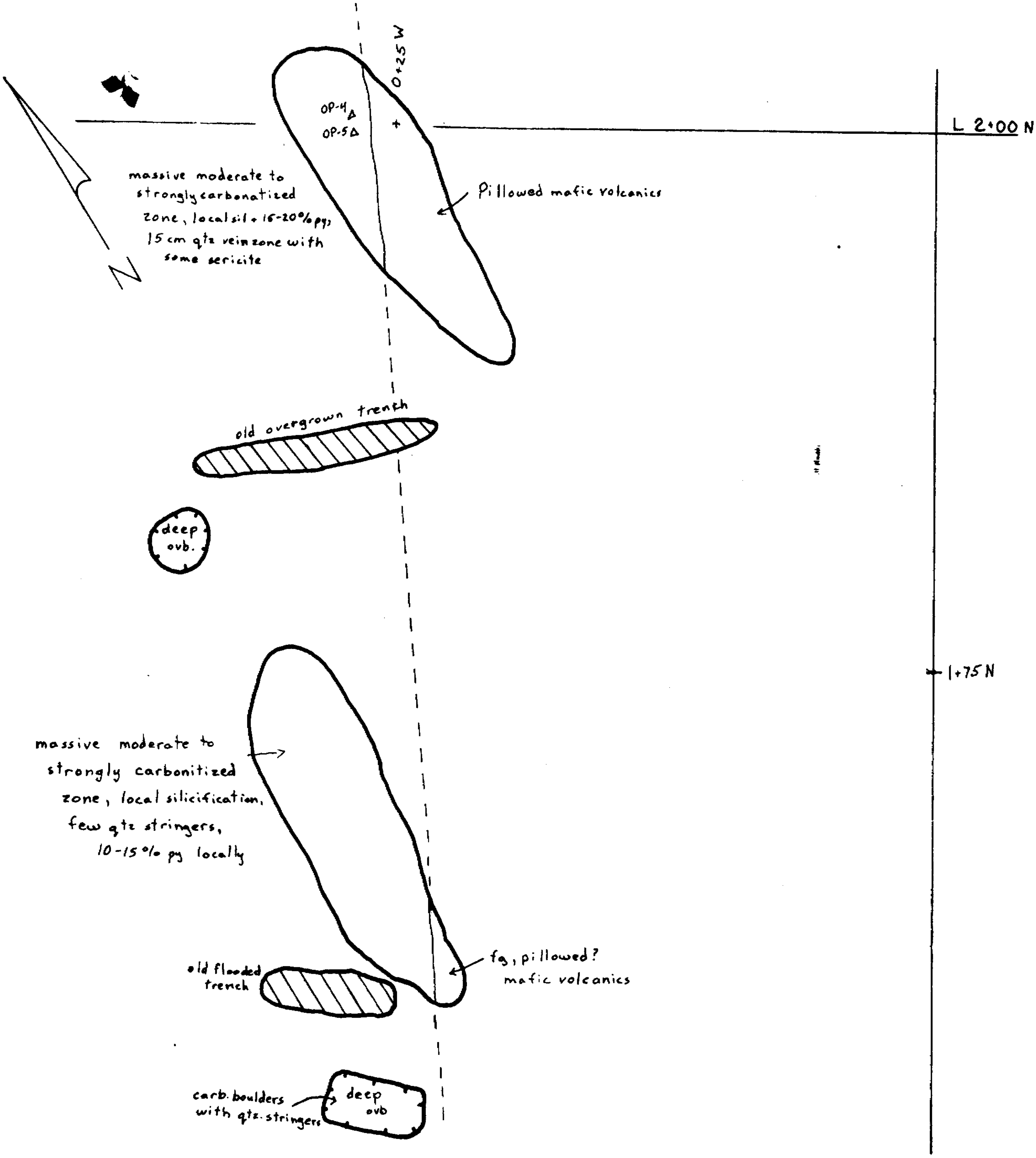


Trench 6

1:250

63.6281

CLEAVER TWP. O'CONNER PROPERTY



Trench 7

1 : 250

63.6281

CLEAVER TWP. O'CONNER PROPERTY

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SUPPLEMETARY INFORMATION RELATING TO THE 1991 EXPLORATION PROGRAM COMPLETED ON THE O'CONNER GOLD PROPERTY, CLEAVER TWP.

OPAP APPLICANTS: R.BRUCE DURHAM OP-91-700
C. BETH DURHAM OP-91-701

Changes to the proposed project:

Modifications were made to the program as more knowledge was gained as to what exploration techniques and how much of each was best suited to the conditions on the property. Some areas received more attention than was originally planned and other areas were found to be of little interest.

In the original proposal the applicants had proposed to carry out the magnetic and VLF-EM surveys themselves, however it was found that the survey could be completed by a local contractor for less than the cost for the applicants to complete the survey. The contractor used better equipment than the applicants could have procured for a reasonable rate.

The applicants had proposed to help with the IP survey, however the applicants were unable to work in the field on the days that the IP equipment and operator were available.

Where the altered zones came in close proximity to the two lakes no mechanical trenching could be carried out and some hand stripping and trenching was completed.

WORK DONE

Linecutting: The applicants cut approximately 12 km of baseline and cross lines, as shown on the accompanying maps. Magnetic, VLF-EM, IP, and geological mapping/prospecting surveys were carried out using the grid for control.

The lines were established using chainsaw, axe and machete, and were chained and labelled with aluminum dymo tape. While this process takes more time and effort it ensures that data points can be re-established for years to come.

The baseline and crossline directions are 032 and 112 degrees respectively. The azimuth and lengths of most lines were checked using a Pronav 100 GPS receiver.

GEOLOGICAL SURVEY: see accompanying comprehensive report

MAGNETIC SURVEY: see accompanying comprehensive report

VLF-EM SURVEY: see accompanying comprehensive report

IP SURVEYING: IP surveying was carried out to attempt to locate zones of sulfide mineralization. More detail on the survey is presented in the accompanying report. The survey was delayed until late in the year so that some surveying could be carried over the hematized shear-fault zone discovered in and near the north end of the south lake. A combination of a very silty bottom and very boulder rich overburden resulted in quite slow progress mainly due to contact problems.

STRIPPING AND TRENCHING

It was originally planned to complete mechanical trenching in all areas of significant areas of mineralization. Some of these areas were too close to the two lakes to carry out mechanical trenching and some hand stripping was substituted.

The mechanical stripping program was completed over a 4 day period from October 12 to 15 incl. using a John Deere 450 track mounted backhoe. The machine was operated by Marcel Couture of Connaught. Areas were selected on the basis of favorable boulders, known alteration and to search for extensions of known altered zones.

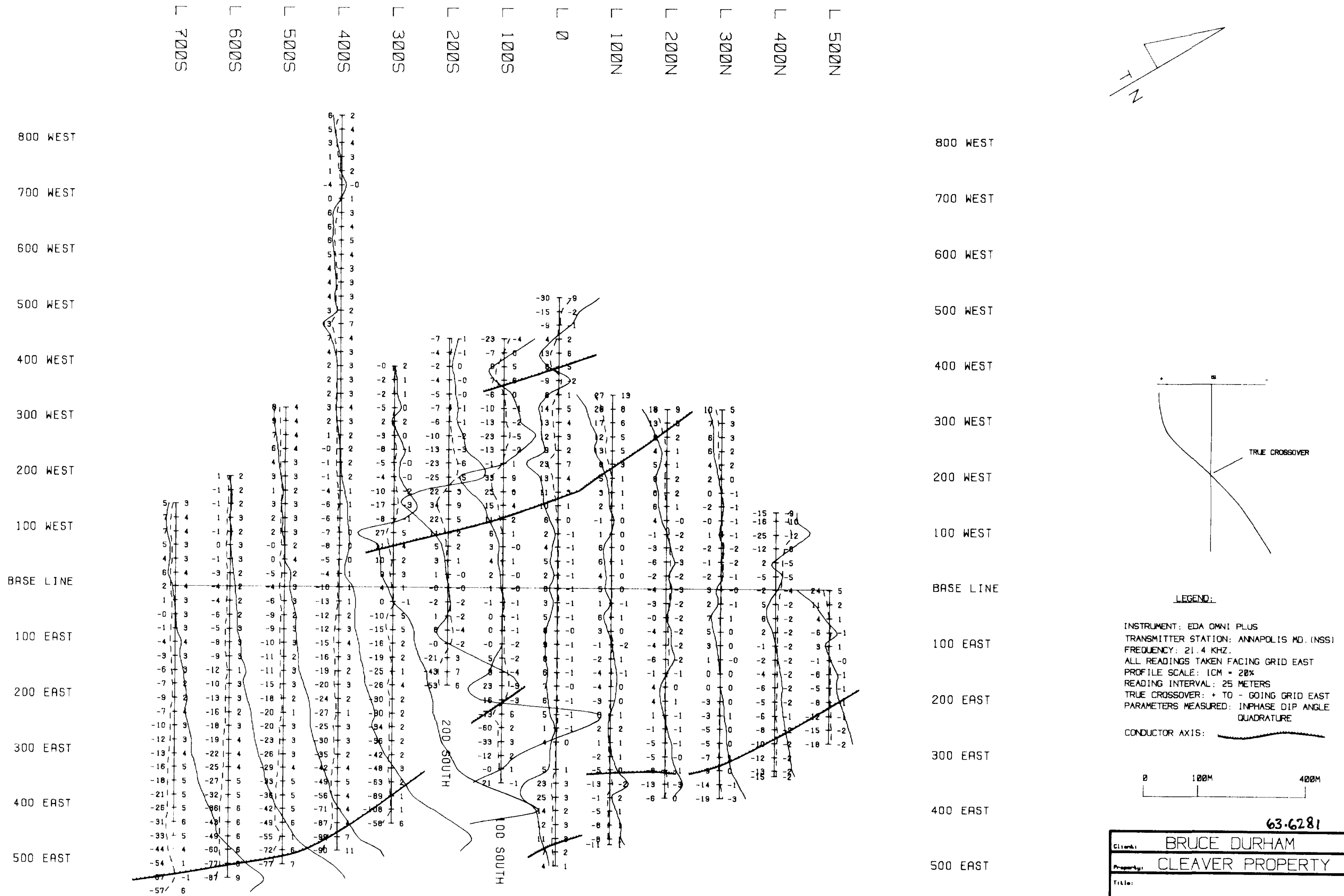
While the equipment was adequate for the program it was found that the overburden deepened quickly away from some outcrops. While numerous quartz and schist boulders were found between the shaft and the south lake very little good outcrop was found despite repeated digging.

Even what Morgan referred to as the "Little Dome" may actually be a collection of local boulders but not outcrop.

Most of the areas of alteration and mineralization were quite broken and fractured and of only limited use for determining structural relationships.

Many of the areas where trenching was planned were abandoned when the overburden was found to be more than 2m.

The shaft was pumped down about 2m so the geology in the vicinity of the shaft could be examined. The timbers in the shaft and the overburden began to fall in and no further work was completed in the shaft opening.



63.6281

Client:	BRUCE DURHAM
Property:	CLEAVER PROPERTY
Title:	VLF SURVEY

Processed:	RJM	Checked:	RJM
Date:	DEC/91	Township:	CLEAVER
Province:	ONT.	N.T.S.:	
Scale:	1:5000	Drawing:	FIG.7

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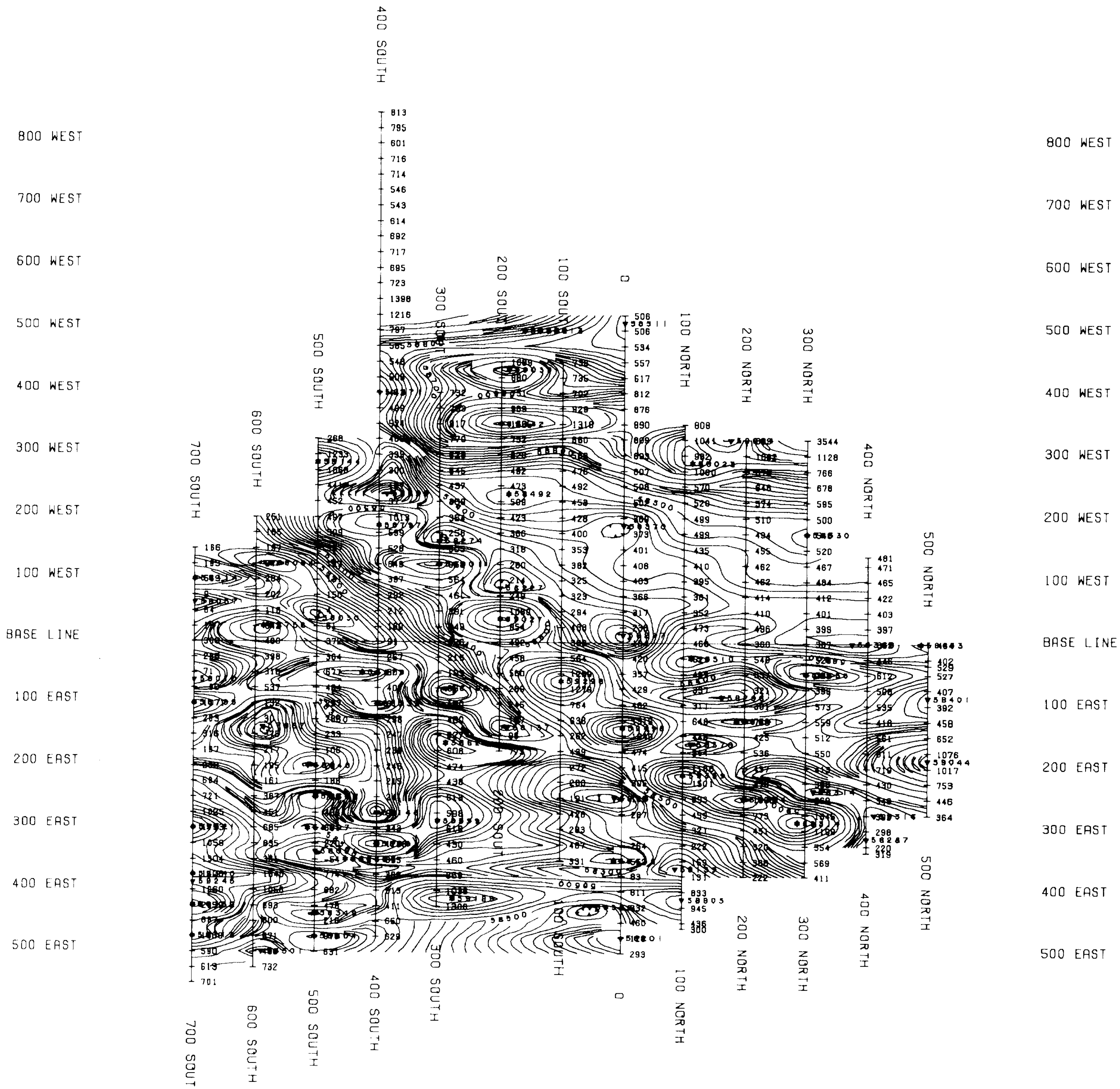
42A03NE8452 63.6281 CLEAVER



LEGEND

INSTRUMENT- EDA OMNI

PARAMETERS MEASURED-EARTHS TOTAL MAGNETIC FIELD

DIURNALS CORRECTED BY EDA BASE STATION

CONTOUR INTERVAL- 20 NANO TESLAS

DATUM SUBTRACTED- 58000 nT

63.6281

Client:	BRUCE DURHAM
Property:	CLEAVER PROPERTY
Title:	TOTAL FIELD MAGNETOMETER SURVEY
Processed: RJM	Checked: RJM
Date: DEC/91	Township: CLEAVER
Province: ONT.	N.T.S.:
Scale: 1:5000	Drawing: FIG 6

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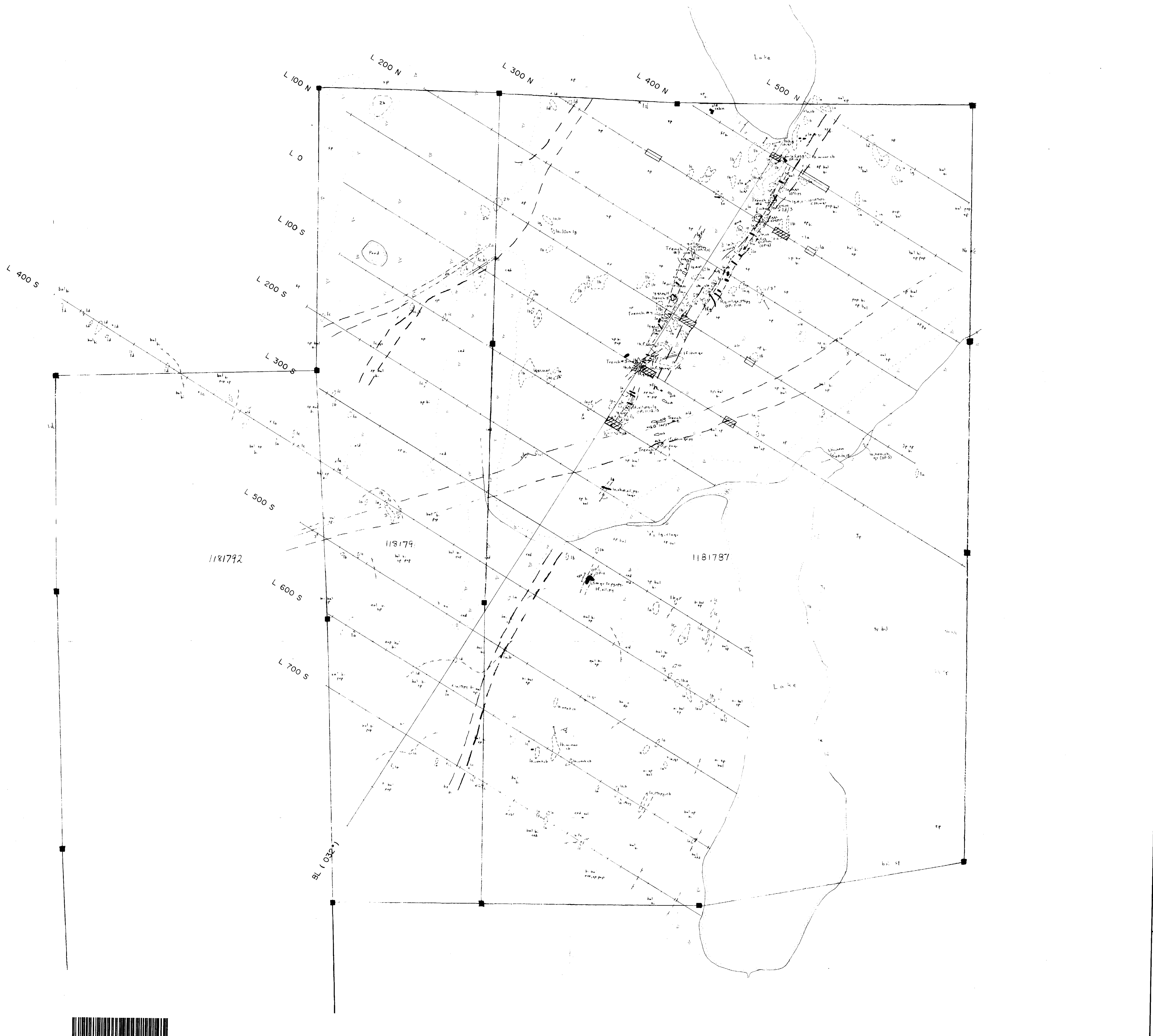
210



LEGEND

1 Mafic Volcanic Rocks
1a Fg, massive, chloritic mafic volcanics
1b Pillowed mafic volcanics
1c Fg, massive, amphibolitized mafic volcanics
1d Mg, massive, amphibolitized mafic volcanics
1e Chlorite Schist
1f Carb-Chl-Ser Schist
1g Massive Carb zone

2 Felsic Intrusive Rocks
2a Felsite Dyke
2b Syenitic Intrusives

3 Mafic Intrusive Rocks
3a Diabase Dyke

SYMBOLS

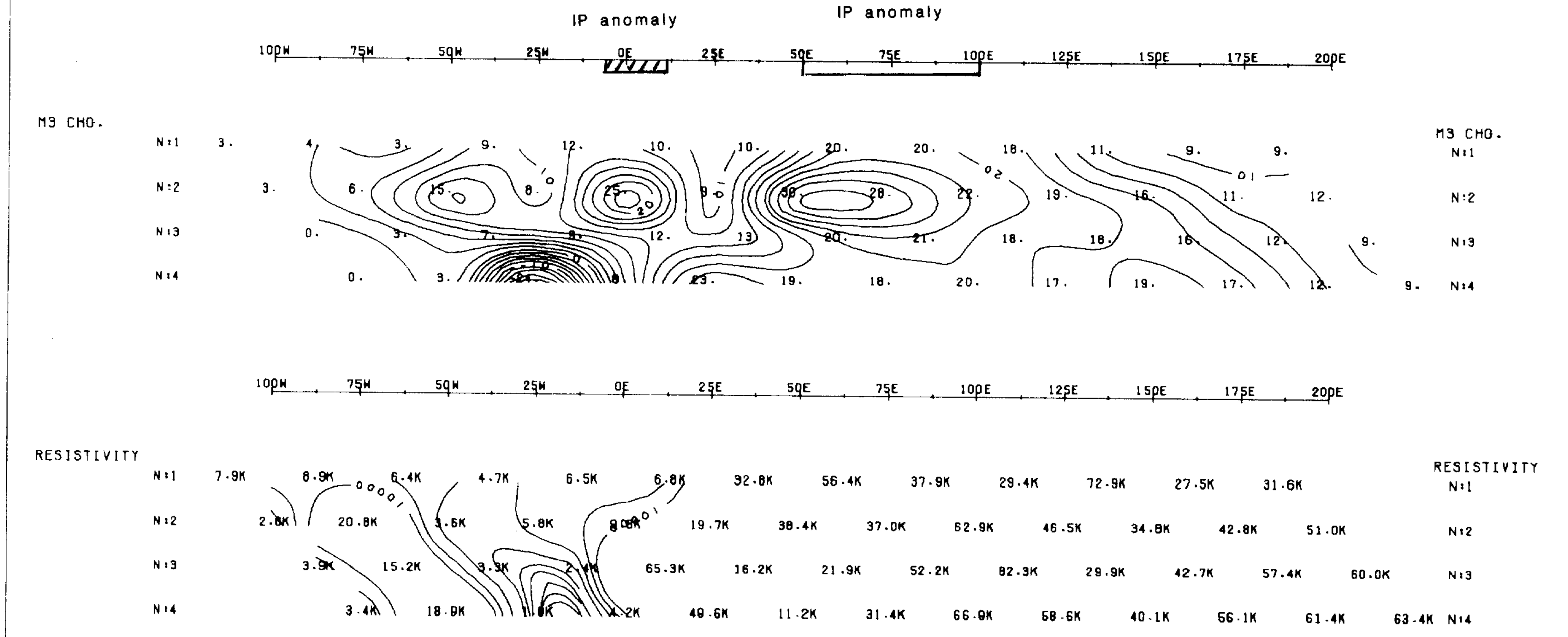
qv quartz vein
swamp
outcrop
geological contact
strike and dip of schistosity
joint direction
new trench
old overgrown trench
float
OP-4 sample no.
steep slope
bal balsam
bi birch
sp spruce
jp jackpine
pop poplar
ald alder
ovb overburden

63-6281

O'CONNER GOLD PROJECT
CLEAVER TWP.

GEOLOGY MAP
Scale 1 : 2500

220



LINE : 400 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

A NA A

DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES

63.6281

BRUCE DURHAM

CLEAVER OPAP

CLEAVER TWP., ONTARIO

DATE : DEC.1991	REF fig.8

SCALE = 1:1250.0

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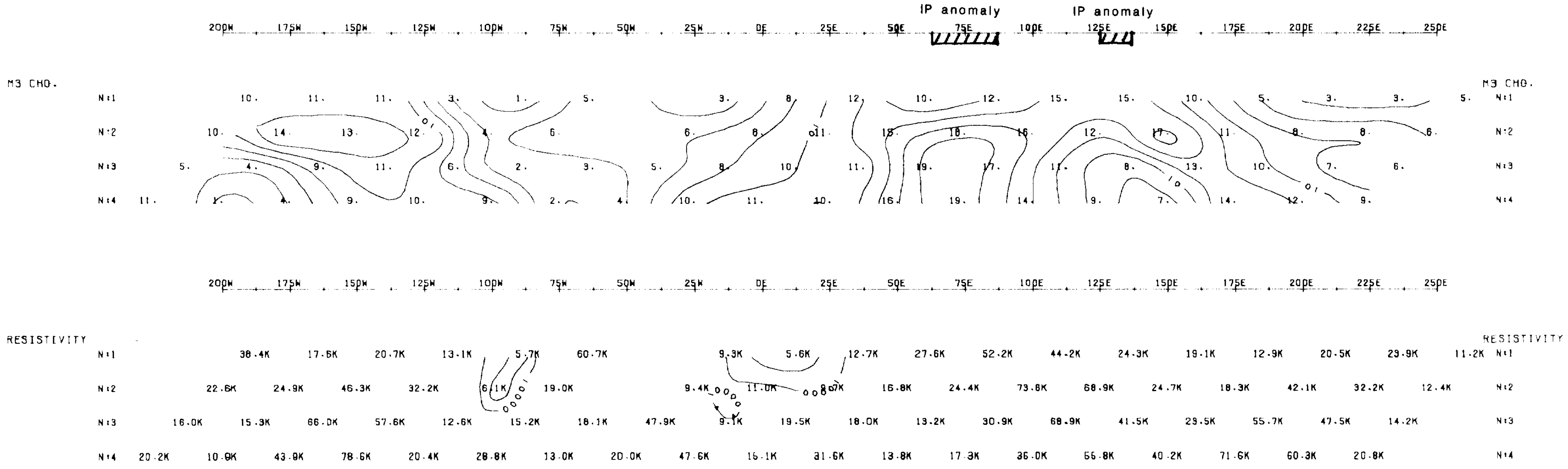
42A03NE8452 63.6281 CLEAVER

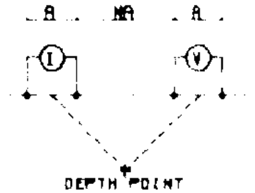
230



LINE : 300 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY



N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

63.6281

BRUCE DURHAM

CLEAVER OPAP

CLEAVER TWP., ONTARIO

DATE : DEC.1991 REF : fig.8

SCALE = 1:1250.0

RAYAN EXPLORATION LTD.

LINE : 100 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT

N = 1, 2, 3, 4, ...

"A" SPACING = 25.0 METRES

63.6281

BRUCE DURHAM

CLEAVER OPAP

CLEAVER TWP., ONTARIO

DATE : DEC.1991 REF : fig.8

SCALE = 1:1250.0

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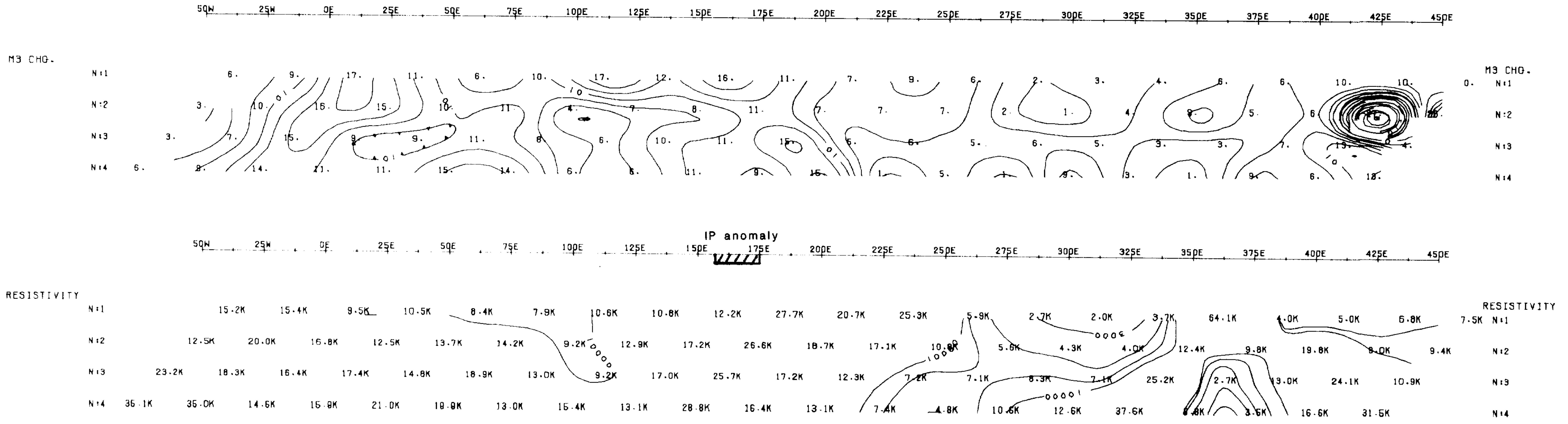
250



LINE : 0 N

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

DEPTH POINT
N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

63.6281

BRUCE DURHAM

DURHAM OPAP

CLEAVER TWP., ONTARIO

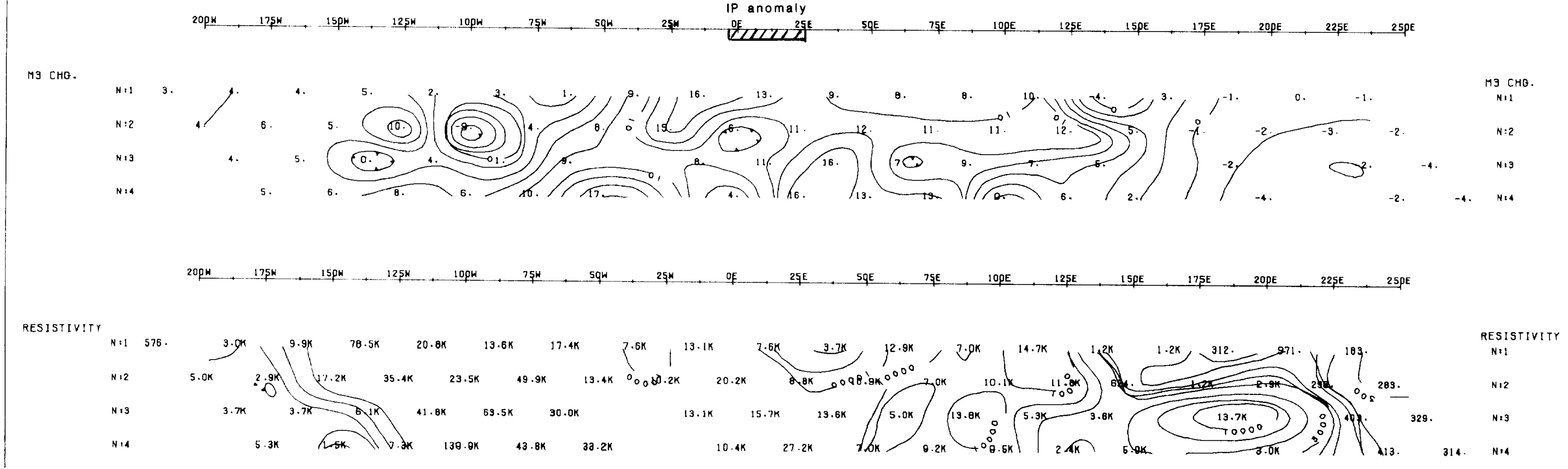
DATE : DEC. 1991 REF : fig.8

SCALE = 1:1250.0

RAYAN EXPLORATION LTD.

42A03NE8452 63.6281 CLEAVER

260



LINE : 100 S

INDUCED POLARIZATION SURVEY

DIPOLE-DIPOLE ARRAY

N = 1, 2, 3, 4, ...
"A" SPACING = 25.0 METRES

63.6281

BRUCE DURHAM

CLEAVER OPAP

CLEAVER TWP., ONTARIO

DATE : DEC.1991 REF : fig.8

SCALE = 1:1250.0

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42A03NE8452 63.6281 CLEAVER

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