OPAP 95 Joint Venture, J. Ward & D. Ward Diamond Drilling and IP Prospecting for NORLISK'SK Type Mineralization Along the Footwall Contact of a 5 Mile Long Peridotite Intrusive.

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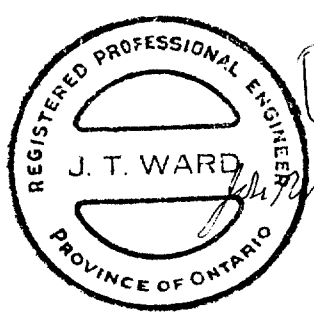

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OPAP 95 Joint Venture, J. Ward & D. Ward Magnetic, Vertical Coil EM and IP, Prospecting for NORLISK'SK Type Mineralization Along the Footwall Contact of a 5 Mile Long Peridotite Intrusive.

Location and Access Project area consists of 18 claim units staked in 1993 to cover the footwall contact of an eastwest trending peridotite intrusive, in the southern half of concession 6, lots 4 through 9, Mann Twp.. These claims were jointly recorded in the name of John Ward and David Ward and consist of: claim nos P1180028 - 30, P1186760, P1186762, P1200683 - 4. The claim group can be reached by driving southward from the community of Cochrane, Ont., 25 kilometres on highway 11, thence westward 12 kilometres on gravel road along concession 5/6 line in Newmarket and Mann Twp. The NTS sheet # 42A/14, latitude 48 degrees 52 minutes north and longitude 81 degrees 2 minutes west.

Project Summary. It was proposed to test an airborne INPUT anomaly by a 150 metre vertical diamond drill hole in lot 9, concession 6 Mann Twp.. This INPUT anomaly was geophysically detailed by ground magnetics, gravity, vertical coil EM, and induced polarization, supported by OPAP joint ventures 1993 & 1994. The source of the INPUT anomaly was interpreted by the applicants to lie 80 metres subsurface immediately below a shallow dipping peridotite intrusive. This geological interpretation was verified by the 150 metre drill hole completed in June 1995, however the sulphides encountered were too sparse to form economic mineralization. It was further proposed to test the footwall of the peridotite in lots 6, 7, and 8 by two weeks of induced polarization detail. The 2 weeks of IP detail completed in Sept 1995 verified that the continuity of minor sulphide mineralization lying along the footwall contact of the peridotite in lots 6, 7 and 8.

Geology and History of Project. The property straddles the central 4 kilometres of an 8 kilometre long peridotite footwall contact. The peridotite is terminated on the west by the Frederickhouse River Timiskaming (rift related) Fault and on the east by a 400 square kilometre area of megacrystic potash granodiorite / syentitic-monzonite. The peridotite, age 2710 MY (Neoarchean) as indicated in MNDM map# 2577, intrudes mafic volcanics, and in some places volcanic sediments.

The Zevely showing, which lies in lot 11 south half concession 6, Mann Twp. and is located 2 kilometres west of the 1995 OPAP project property, is a nickeliferous pyrrhotite-chalcopyrite mineralized zone, exposed for a width of 20 metres and a length of approximately 100 metres along the south contact of the same east-west trending serpentinized peridotite.

The Zevely mineralization lies entirely in pillowed andesites and within 30 metres of the peridotite contact exhibiting considerable similarity to the Alexo mine in Dundonald Twp. 30 kilometres to the southeast. In 1949,

following an electrical resistivity survey, the Zevely zone was tested by 20,000 feet of diamond drilling (Timmins file T-173). Grab samples of the showing assayed between 1% and 6% copper and 2% and 5% nickel (reference Northern Miner Nov. 18, 1948). Nickeliferous pyrrhotite, pentlandite and massive stringers along with irregular patches of chalcopyrite were encountered in andesite pillow lavas within 30 metres of the southern peridotite contact.

Sulphurization may be responsible for mineralization. In CIM bulletin (1966) vol.59 pp 489-497 A.J.Naldrett suggests sulphurization as being responsible for the formation of the Alexo mine. Sulphurization may therefore also be responsible for the mineralization of the Zevely showing and other nickel-copper mineralization to be found along the south contact of the peridotite. The Alexo mine and Zevely deposit both lie close to the Frederickhouse river Timiskiming rift fault and are therefore probably classifiable as Norlisk 'sk type Cu-Ni deposits.

Discovered peridotite thought associated with copper/nickel mineralization. In 1993 as part of J. Ward's and D. Ward's OPAP funded project a peridotite outcrop was discovered near the lot 6-7 boundary approx 600 metres north of the concession 6 line. A grid was cut and chained on lot 6 and magnetic and vertical coil EM surveys were completed. The peridotite extending eastwesterly was indicated by magnetic field strengths as great as 69000 gammas. Three vertical coil EM traverses indicated a moderately weak conductor lying parallel to and immediately south of the magnetically interpreted peridotite contact. The vertical coil EM conductor coincided with three weak airborne INPUT survey anomalies indicated on OGS map #81049. In the opinion of J. Ward and D. Ward that due to its indicated geological location this conductor on lot 6 is probably associated with copper-nickel mineralization.

Ground electromagnetic surveys not successful in detecting potential sulphide drill targets underlying the peridotites From 1948 to 1978 ground electromagnetic and magnetic surveys were carried out in Range VI by several companies covering the east-west trending peridotite from lot 12 thru lot 7 (Noranda file T-152, INCO file T-266, Rosario Resources file T-1827, and in lot 4 by Hollinger Gold Mines Ltd.. T-1656). The ground electromagnetic surveys failed to indicate anomolous electrical conductivity underlying the peridotite, however they did indicate a broad 100 metre wide zone of very weakly anomalous conductivity in the mafic volcanics immediately south of the peridotite.

Airborne electromagnetic surveys detect potntial sulphide drill targets underlying the peridotite. Airborne INPUT electromagnetic surveying (OGS Map 81049) flown in 1987 did not show response to the

Zevely showing or other sulfide mineralization lying along the south contact of the peridotite, except in lot 6 and at the OPAP 1995 recommended drill site in lot 9.

An airborne VLF and magnetometer survey was carried out by Shield Platinum in 1987 covering lots 10, 11, and 12 (file T-3147). No VLF response was attributable to the sulfide mineralization lying along the south contact of the Peridotite, however, eddy current crowding could be identified within the serpentinized peridotite approximately 100 metres north of the contact.

Diamond Drill report did not identify sulphides. In 1965 INCO tested the south contact of the peridotite by diamond drilling in lot 9 at 400 metres west of the OPAP95 proposed drill hole. In the same year INCO tested the south contact of the peridotite by diamond drilling in lot 7. Logs of both holes by INCO simply indicated serpentine at the beginning of the holes and mafic volcanics at the end of the holes. As was the custom with INCO, drill logs did not indicate the presence of sulphide mineralization even when pervasive massive sulphides were present. These two holes by INCO were setup to test Bouguer gravity highs for which the only plausible explanation in the opinion of J. Ward would be the presence of heavy sulphide mineralization.

In 1965 INCO drilled 2 holes in the peridotite 100 to 300 metres north of the contact in lot 7 and encountered serpentinized peridotite and talc magnesite.

Humus samples anomalous in nickel, copper, gold & chromium. In 1993 as part of J.Ward's and D.Ward's OPAP supported prospecting programme humus samples were collected at 130 sites and multi-element assayed. 20 of these samples were gathered for background control purposes at accessible points throughout Newmarket, Mann, Duff, Reaume and Hanna Twp.. It was expected that the area was overlain by the Abitibi clay belt, however clear evidence in the assay results indicate the area is overlain by a fine sandy till with glacial movement south 20 degrees east.

> Nickel, copper, gold and chromium assays were in general 4 times greater than background assays for humus in the Abitibi greenstone belt region, and reached assays of 10 times background in the humus geochemistry detail areas in lots 4, 7, 8 and 9 in the south half of concession 6.

Relocated gravity highs similar to sulphide indications. A gravity survey (assessment file T-152) was completed by INCO in 1948 covering lot 7, 8 & 9, south half of concession 6. Anomaly locations of this gravity survey were redetermined by matching magnetic features of INCO's concomitant 1948 magnetic survey (which used the same grid as the 1948 Gravity survey), and matching magnetic anomalies with the present magnetic surveying. The magnetically relocated INCO Bouguer gravity highs are shown in figure 1. as

lying along the south contact of the peridotite approximately 50 metres south of the contact.

The location of these Bouguer gravity highs is similar to that of the sulphides encountered at the Zevely showing lying in mafic volcanics 30 metres south of the peridotite contact. It is anticipated by the writer J. Ward that the indicated strong gravity anomaly straddling the lot 7/8 lot line and 50 metres south of the indicated peridotite mafic volcanic contact is only explainable by the presence of heavy sulphides even though no mention of sulphides is made in INCO drill core logs.

The 1993 OPAP programme using induced polarization by J. Ward and D. Ward demonstrated that the gravity high central to lot 9 and 50 metres south of the peridotite contact had a chargeability indicating the presence of minor sulphides using an "a" spacing of 25 metres. However, when an "a" spacing of 50 metres was used anomalous chargeability probably indicating the presence of heavy sulphides 100 metres further north and underlying 70 metres of peridotite was indicated. This more northerly location is coincident with the airborne INPUT anomaly indicated on OGS map 81049 (The OPAP 1995 proposed drill hole test site).

The 1994 OPAP programme consisted of line cutting in lots 7 & 8 south half of concession 6 Mann Twp. followed by total field magnetic and vertical coil EM surveying including detail humus geochemistry.

Magnetic surveys and results.7.7 kilometres of total field magnetics were read in lots 7 & 8 south half of concession 6 Mann Twp. for a total of 442 stations. Results are shown in figure 1. and are plotted at a scale of 1 to 2500 and contoured at 1000 gamma intervals. Rosario Resources Canada Ltd. completed total field magnetic surveying the west half of lot 7and all of lot 8 & 9 the contours of which are shown in figure 1. Also incorporated in figure 1. are the magnetic survey results for OPAP 1993 covering lot 6 Mann Twp..

Drill hole short of footwall contact. The south contact of the peridotite centrally traverses the length of the property lying along the 59000 to 60000 gamma contour. The highly magnetic zone associated with the peridotite varies between 300 metres north/south to 800 metres north/south in width. Airborne INPUT anomalies indicated to lie along the south contact of the peridotite are interpreted by J. Ward to dip shallowly northward at 30 degrees from the horizontal. At 75 metres north of the number 4 post of claim P1180028 a vertical drill hole by INCO in 1951reached 135 metres depth in peridotite without reaching the base contact. Probable thickness of the peridotite is 200 to 400 metres.

Vertical coil EM survey. 9 kilometres of vertical coil EM traverses was completed Sept. 26 to 30, 1994 using a 1000 hertz unit readable up to 800 metres transmitter to receiver separation. With the expectation that the survey was locating the axis of 5 mho conductivity thickness conductors, a transmitter-receiver spacing of at least 200 metres was employed. A total of 263 dip angles were recorded and are shown in Fig 2 at a scale of 1:2500 and profiled at a scale of 1. cm. equals 5 degrees tilt angle.

Weak conductivity locations. Weak conductivity is indicated at gravity highs 50 metres south of the contact central to lot 9 and straddling the lot 7/8 lot line. A slightly stronger conductivity conductor axis also follows the south contact of the peridotite across the property and lies 100 metres south of the contact as indicated by Rosario Resources horizontal loop EM MAX-MIN survey in 1978. The present VCEM survey verifies the presence of this weakly conductive horizon 100 metres south of the peridotite contact. The weak Rosario HLEM and weak VCEM interpreted conductive axes identified in fig.2 are for the most part exactly coincident.

Humus sampling. In August 1994 J. Ward collected 41 humus samples from lot 7 & 8 south half concession 6 Mann Twp. to compliment humus sampling started in 1993. Samples were assayed for 31 elements by inductively coupled plasma mass spectrometry for 31 elements following nitric acid regia digestion. Data showing Ni, Cu, Zn, & Pb assays are plotted in figure #2. For the other 27 elements anomalous assays only are plotted.

Humus could indicate mineralization 275 metres subsurface. It is apparent that humus copper assays 20 PPM or greater predominate or appear to swarm around the centre of the west half of lot 7, south half of concession 6. This swarming of higher copper in humus assays also occurs for J. Wards and D. Wards 1993 OPAP programme in lot 9 and lot 4 Mann Twp. and lot 12 Newmarket Twp., all in the south half of concession 6. A glacial train southward from the lot 7 swarm can be traced for at least a kilometre southwards as indicated by the 1993 OPAP humus geochemistry reconnaissance. Glacial train direction for the area determined by OPAP reconnaissance humus geochemistry by J. Ward and D. Ward in 1993 is 170 degrees azimuth. Copper and nickel anomalous assays in humus cut off 800 metres north of the 5/6 concession line. Recent humus studies suggest that metals trapped in humus may rise hundreds of metres vertically through the bedrock from deep bedrock sources. The anomalous humus geochemical copper anomalies 800 metres north of the concession 5/6 line may therefore have risen from mineralization underlying the footwall of the peridotite some 275 metres subsurface.

PROPOSAL FOR 1995 OPAP PROGRAMME. The several Inco gravity anomalies in lots 7, 8 and 9 were noted to be in similar geological setting to the Zevely deposit, namely in mafic volcanics within 50 metres of the peridotite south contact and were concluded to be due to similar mineralization, ie, sulphide mineralization containing chalcopyrite, millerite, palladium and minor platinum. In addition it was concluded that weak electrical conductivity associated with these gravity highs enhances the probability that they are sulphide mineralization related. It was also concluded from the swarming of humus geochemical assays of 20 ppm copper or greater in the area surrounding the gravity anomalies suggested that they are chalcopyrite mineralization related.

It was also the opinion of the applicants that INPUT, gravity, and Induced Polarization were the only methods which satisfactorily detected suspected sulphide mineralization underlying 70 metres of peridotite, whereas VCEM and HEM electromagnetic surveys were effective in identifying subcropping mineralization in the mafic volcanics immediately south of the peridotite.

It was proposed that the airborne INPUT anomaly location in the south half of lot 9 concession 6 Mann Twp. be tested for nickel-copper PGE sulphides by a 150 metre vertical diamond drill hole. It was also proposed to further detail the footwall contact of the peridotite with two weeks of Induced Polarization surveying in lots 6, 7, 8 and 9, in order to detect possible economic sulphides underlying the peridotite.

OPAP 1995 DIAMOND DRILL Road Cutting.

From June 3rd to June 11th, 8 man days and 3 skidder days were required to cut a drill road 7 metres wide for 200 metres northward from the concession line gravel road. The drill area was cleared for 15 metres radius around the drill site, altogether requiring the cutting, limbing, skidding and stacking at the concession line roadside some 300 trees. Since the mix of trees was 50% hardwood and 50% conifers there were not enough logs of either to constitute commercial truck loads. It was therefore recommended by the MNR that the stacked logs be offered to local farmers to be disposed of as fuel wood.

After drilling was completed it required 5 man days, June 16, 17, Sept. 9th and Sept 23rd, with Sept 9 a 2 man day, to dispose of all the slash remaining in the drill road area as ordered by the MNR.

OPAP 1995 DIAMOND DRILLING.

On June 12th J. Ward spent a supervisory trip to South Porcupine in search of a diamond drill contractor. It was determined that Dominik Division of MAJOR DRILLING GROUP INTERNATIONAL INC. was immediately available provided J. Ward would pay $12,000 by certified cheque in advance by Tues June 13th noon. On the morning of June 13th J. Ward returned to South Porcupine with the certified cheque and signed the drilling contract. On the afternoon of June 12th J.

Ward walked the Mann Twp drill road and drill site with Dominik's drilling supervisor.The diamond drill was moved to the sitethe afternoon of June 13 and commenced drilling the same afternoon. By noon June 16th 152 metres of wire line BQ core drilling including 9 metres of casing were completed and the hole stopped. The drill was demobilized back to South Porcupine the afternoon of June 16th. Total final cost of Dominik's Division drilling - 152 metres of wire line BQ drilling including mob and demob was $9,201.98.

The drill core was transported in 2 vehicles by J. Ward and D. Ward to the residence of F. Ellgring, Sept. 21, for drill core logging. See Appendix for F. Ellgrings drill core log.

A contracted summary of the logs is as follows:
9 metres clay overburden
17 metres peridotite
3 metres talc-carbonate
8 metres mafic tuff
20 metres dacite flows
36 metres andesite flows, 5% Po stringers
17 metres graphitic, mafic tuff
8 metres graphitic argillite, 3% Po stringers
34 metres massive andesite

See figure 3 for diamond drill section plot.

OPAP95 ASSAYING.
6 character samples were selected by John Ward for multi element assays for a total of 56 elements. The only quasi economical assays of interest were 0.145 % Ni for sample #1 and 0.11% Zn for sample #5.

There was ample pyrite and graphite in the drill core to explain the airborne INPUT anomaly tested, therefore no follow up assaying was done. See Xral Labs report # 2911 in the Appendix.

Sample descriptions are as follows:

1. Serpentinized peridotite at 25.9 metres
2. Fine grained dacite, 3% pyrite at 38.3 metres
3. Dacite, 4% of 1 mm disseminated pyrite crystals at 47 metres
4. Andesite flow, 5% Po stringers (chloritic) 91 metres
5. Argillite 3% Po stringer with graphite at 116 metres
6. Massive andesite fine grained at 127 metres.

Precious metal assays for gold (15PPB) and Palladium (20PPB) were geochemically high for sample 6 massive andesite, especially considering the absence of visible sulphides

OPAP95 Line Cutting.

July 31st, Aug 2nd and Aug 3rd, for a total of 3 man days 800 metres of survey line extensions were cut, picketed and later chained in preparation for the IP survey in Sept. 1995.

Line Cutting is as follows:

Line 200 west - 100 metres from 600 north to 700 north
Line 00 west - 100 metres from 500 north to 600 north
Line 200 east - 400 metres from 200 north to 600 north
Baseline 400 north - 200 metres from 100 west to 100 east

OPAP95 INDUCED POLARIZATION SURVEY.

7 Induced polarization pseudo section IP spreads were read Sept. 6 to Sept. ~~19th~~ 20th J.P.W. inclusive using "a" spacings of 25 metres and 50 metres.

The IP survey was carried out using a Huntec 2.5 kilowatt system using a 428 millisecond delayed start of M1 integration. This along with dipole - dipole configuration, and overburden resistivities of the order of 40 ohm metres guaranteed electromagnetic coupling would be minimized. Note that this resulted in background Newmont IP chargeability units of the order of less than 0.1 units as opposed to the usual background of 1 or 2 units for the customary 50 milliseconds delay to start of M1 integration.

Minor chargeabilities were encountered in all 7 IP traverses indicating continuity of minor mineralization along the full length of the southern contact of the peridotite.

Listed anomalous chargeabilities are as follows:

Line 9 west: 8 milliseconds at 245 north.
Line 8 west: 4 milliseconds at 260 north.
Line 8 west: 7 milliseconds at 325 north.
Line 2 west: 3 milliseconds at 400 north.
Line 1 west: 6 milliseconds at 440 north.
Line 0 west: 5 milliseconds at 440 north.
Line 2 east: 14 milliseconds at 440 north.
Line 4 east: 12 milliseconds at 450 north.

Induced Polarization and resistivity pseudo section are shown in figures: 5a, b, c, d, e, f, and g.

CONCLUSION & RECOMMENDATIONS

It is concluded that ample graphite and pyrrhotite were encountered in the OPAP95 drill hole to explain the OGS INPUT anomaly in the south half of lot 9 concession 6 Mann Twp.. It is further concluded that the induced polarization surveying in 1993 and 1995 OPAP programmes demonstrated continuity of minor

sulphide and graphite mineralization along the whole length of the southern contact of the peridotite and further that the mineralization did not return assays of economic interest.

It is therefore recommended that the only hope for this Mann Twp. property lies very far down-dip northward on the footwall contact of the peridotite. In this respect it is the opinion of the writers that continued development of the property will require geophysical and geochemical methods capable of probing in excess of 100 metres subsurface.

Respectfully submitted,

MAY 21/97

John Ward, PE

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO

John Ward
MAY 21/97

David Ward

CERTIFICATION

I hereby certify that I hold a 50 % interest in the property covered by this Report of Work and that I personaly performed this work with the assistance of David Ward, holder of 50% interest. I further certify that the field work described was completed between June 8 and Dec. 31st 1995. I further certify that I have been engaged in Geophysical mineral exploration in Canada for most of the last 35 years as a geophysicist, geophysical survey contractor and consulting engineer.

Former employment includes the positions of senior geophysicist at Barringer Research Ltd.; geophysicist, Derry Michener and Booth, consulting geologists; geophysicist, Patino Mining Ltd.; staff-geophysicist Urangesellschaft Canada Ltd.; and from 1974 to present as a self employed consulting engineer.

I further certify that my assistant in performing this work and 50% owner of the claims, David Ward , has 14 years experience as a geophysicist employed in Canada by St. Josephs Exploration Co.; Sulpetro Canada Ltd; and Bridgewater Resources Ltd.; and then as a self employed prospector 1990 to 1994

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO

J. T. Ward
May 11/97

John T Ward, P.E.

REFERENCES

1. OGS Map 2205: Timmins, Kirkland Lake Geological Compilation
2. OGS Preliminary Map P755res Mann Twp. Geological Compilation
3. MNDM Map # 2577
4. OGS Timmins Area Airborne Electromagnetic Survey, Map 81049
5. OGS Map # 2594, Bouguer Gravity of Ontario East Central Sheet
6. OGS-NODA Summary Report 1995-96 pages 44-49.
7. OGS Study # 20, Nickel Sulfide Deposits Associated with Ultramafic Rocks of the Abitibi Belt -- Author: Paul A. Coad, 1979.
8. OPAP 93,94,95,96, Reports by J. Ward and D. Ward, Mann Twp.
9. T3740, Timmins Assesment File, Falconbridge (Mann Belt) 1995-7
10. T152, Noranda File, Timmins, Mann Twp.
11. T266, INCO File, Timmins, Mann Twp.
12. T1827, Rosario Resources File, Timmins, Mann Twp.
13. T1656, Hollinger, Timmins File, Mann Twp.
14. T3147, Shield Platinum, Timmins File, Mann Twp.
15. T-173 ZEVELY SHOWING TIMMINS FILE MANN TWP.
16. NORTHERN MINER NOV 18, 1948 ZEVELY SHOWING.
17. T3961 WARD OPAP GROUP OP93, OP94 MANN TWP.

Prospecting Experience & Training of IP SURVEY CREW J. Ward & D. Ward + T. WARD
OPAPA 93
MANN TWP

(1) J.Ward: 9 WILLAMERE DRIVE SCARBOROUGH ONT. M1M-1W5
IP TRANSMITTER OPERATOR SEPT 6-20, 1995
SUPERVISING GEOPHYSICIST

Academic: 1946 - 53 Engineering geophysics U of T, many seminars 1957 - 1994, CIMM, Prospector & Developers Association, Geological Association of Canada, OGS seminars, Society of Exploration Geophysicists seminars.

Experience: Gravity meter operator 1948-1950 for Radar Exploration, Thunder Bay and Southern Saskatchewan, and for Iron Ore Co. of Canada 1950 in Labrador. Vertical Coil EM operator Inco 1951,2, Thompson Manitoba and in NWT.

Geophysicist 1953 to 1974 H.O. Seigel and Associates, Patino, Noranda, Derry Michener & Booth, & Barringer Research using all types of ground and Airborne electromagnetic prospecting, magnetics and induced polarization.

Consultant geophysicist and engineer 1974 to present.

Member of Society of Exploration Geophysicists. Fellow of the Geological Asssociation of Canada.

(2) David Ward: Academic: Attended numerous OGS seminars
1985 to present: 152 OAKRIDGE DRIVE SCARBOROUGH ONT M1M-2A8
IP RECEIVER OPERATOR SEPT 6-20, 1995
Geophysical Operator, St. Joseph's Exploration 1980 to 1985, Sulpetro and Breakwater Resources 1985 to 1992 operating gravity meter, Max-Min HLEM, IP, and UTEM in Quebec, Swayze, Thunder Bay, Red Lake, Lynn Lake, Yukon & BC.

Specific experience with IP surveying: Rundle Mine Swayze 1980, Belleterre 1975, Rouyn-Noranda to Malartic Quebec for St. Josephs Explorations and Sulpetro 1981 to 1986. Red Lake, Ont. and Cadieux Mine, Renfrew Ont. for St Joseph's Exploration and Sulpetro 1981 to 1886.

(3) THORAN WARD 152 OAKRIDGE DRIVE SCARBOROUGH ONT. M1M-2A8
IP SURVEY ASSISTANT SEPT 6-21, 1995

OPAP95 MANN TWP. VERTICAL DRILLHOLE SECTION FACING EAST

FIG. #3

GPS 5413040N 497400E
LOCATION 180 METRES NORTH OF CONCESSION LINE 5/6 ALSO 257 METRES WEST OF LOT LINE 8/9

Z ASTRONOMIC

SURFACE — 200N — HIGH MAGNETICS — MAGNETIC SURVEY CONTACT — LOW MAGNETICS — BOUGUER GRAVITY MAXIMUM — 100N — VCEM CROSSOVER — 000N

SEE SECTION FIGURE 3A FOR GEOPHYSICAL PROFILES

SCALE 1:1000
0 10 20 30 40
METRES

OVERBURDEN — OVERBURDEN 9 METRES — OVERBURDEN

ASSAYED SAMPLES ARE ALL 0.1 METRE CORE LENGTH

VCEM CONDUCTOR AXIS

SAMPLE #1 PERIDOTITE 0.145% Ni 0.18% Cr 32.2% MgO 45ppb B

SAMPLE #2 DACITIC FLOW 3% Pyrite 13.3% CaO

SAMPLE #3 DACITIC FLOW 4% FINE Pyrite Crystals SELECT SAMPLE 25.0% CaO

2.17406

CLAIM P1180028 CONCESSION LINE 6 — CONCESSION LINE 5 CLAIM P1180030

PERIDOTITE
TALC CARBONATE SHEAR
MAFIC TUFF
DACITIC FLOW
ANDESITIC FLOW
INTERMEDIATE VOLCANIC TUFF
ARGILLITE
GRAPHITIC SEDIMENT
MASSIVE ANDESITE

① ② ③ ④ ⑤ ⑥

SAMPLE #4 ANDESITE FLOW 10% Pyrrhotite Stringers 13.2% CaO 1.4 ppm Ag 17ppm Sn

SAMPLE #5 GRAPHITIC ARGILLITE 3% Pyrrhotite stringers 0.11% Zn 16 ppm Sn 1.2 ppm Ag.

SAMPLE #6 MASSIVE ANDESITE NO VISIBLE SULPHIDES 15ppb Au, 22ppb Pd, 11ppm Sn, 9.6% CaO

END OF HOLE 152 METRES

KEY MAP DDH LOCATION

HANNA TWP.
MANN TWP.
SCALE 1:20,000
0 100 200 300 400 METRES

1200927
LOT 9
LOT 8
MANN TWP (6 UNITS)
1200926
1186760
1186762
1180028 2 UNITS
DDH LOCATION
CONCESSION 6
CONCESSION 5
1180030
1200911
ASTRO 2
ASTRO 1
CONCESSION 6 MANN TWP.
ROAD
GRAVEL ROAD
CREEK
RIVER

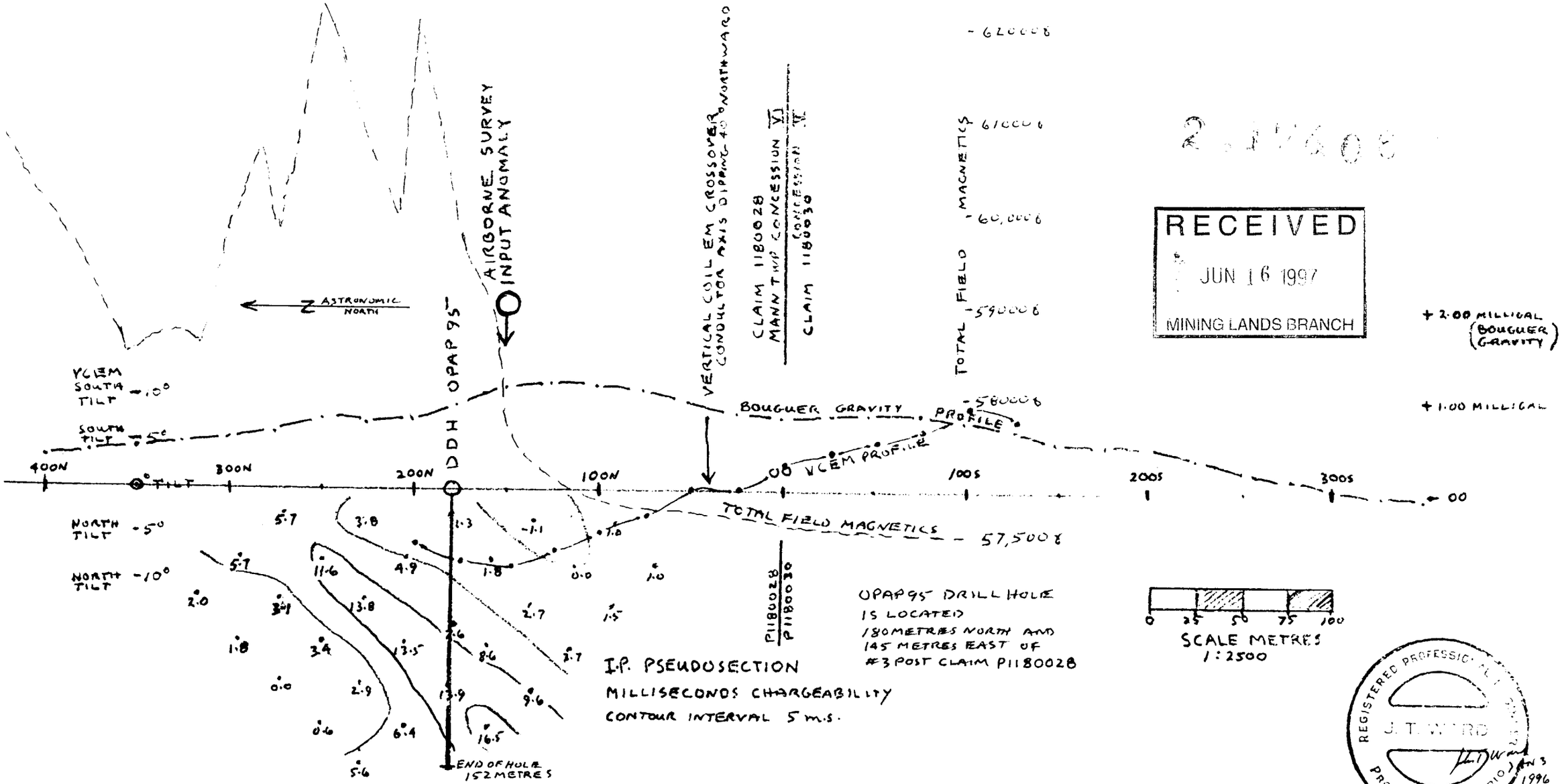
RECEIVED
JUN 16 1997
MINING LANDS BRANCH

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO

June 24/97

OPAP 1995 DIAMOND DRILL HOLE FACING EAST

Fig. # 4
SHOWING GEOPHYSICS



SEPT. 6 to SEPT 20 1995 INCLUSIVE

OPAP 95 PROJECT MANN TWP J. WARD + D. WARD

IP SURVEY LOG 10 DAYS SURVEYING

IP. Σ DAYS			
(1)	SEPT 6	SET UP L 2W READ NORTH HALF OF SPREAD	(P1186760)
(2)	SEPT 7	READ SOUTH HALF OF L2W SPREAD MOVED TO L 1W	(P1186760)
(3)	SEPT 8	READ ALL OF LINE 1W	(P1186760)
	SEPT 9	RAIN	
(4)	SEPT 10	MOVED TO L00 / READ SOUTH HALF OF L00	(P1180029)
(5)	SEPT 11	READ NORTH HALF OF L00 / MOVED TO LINE 2E	(P1180029)
(6)	SEPT 12	READ NORTH HALF AND SOUTH HALF LINE 2E	(P1180029)
	SEPT 13	RAIN	
(7)	SEPT 14	MOVED TO L4E / READ NORTH HALF L4E	(P1180029)
(8)	SEPT 15	READ SOUTH HALF L 4E MOVED TO L9W	(P1180029 / P1186760)
	SEPT 16	RAIN	
(9)	SEPT 17	READ ALL OF LINE 9W MOVED TO L 8W	(P1186760)
(9½)	SEPT 18	(½ DAY) READING NORTH HALF OF L 8W	(P1186760)
	SEPT 19	RAIN	
(10)	SEPT 20	(½ DAY) READING L 8W SOUTH HALF OF SPREAD / MOVING OUT IP GEAR	(P1186760)

Σ 10 DAYS IP SURVEYING

5½ DAYS IP SURVEYING CLAIM P1186760 (55%)
4½ DAYS IP SURVEYING CLAIM P1180029 (45%)

MAY 4/97

2.17406

FIG. 5A

2.17406

N

1+00 N 1+25 1+50 1+75 2+00 2+25 2+50 2+75 3+00 N 3+25 3+50 3+75 4+00 4+25 4+50 4+75 5+00 N

CONTOUR INTERVAL: LOGARITHMIC

n1 n2 n3 n4 n5 n6

127 115 109 183 385 766 1896 1439
-77 126 123 (209) 177 474 797 1094 1609 3168
156 154 140 208 533 793 1123 791 3130 2557
159 180 243 595 808 1112 731 1389 2052
172 283 653 988 1148 708 1258 1074

1+00 N 1+25 1+50 1+75 2+00 2+25 2+50 2+75 3+00 3+25 3+50 3+75 4+00 4+25 4+50 4+75 5+00 N

CONTOUR INTERVAL: 5 msec.

n1 n2 n3 n4 n5 n6 n7 n8

-0 1.2 0.4 -0 -0 0.4 1.2 1.6
-0 2.4 4.1 (1.2) 0.4 0.4 0 1.2 1.2 1.6
-0 2.4 4.1 2.4 1.6 0.4 1.2 0 1.2 0
1.5 4.9 8.9 4.1 3.6 1.2 0 0 0 1.2
0.4 3.9 6.1 0.4 3.6 0.4 -0 1.2
1.6 2.8
4.1 1.2

Apparent Resistivity (ohm-m)

Chargeability (m-sec)

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO

J.T. Ward 11/21/97

DATE SEPT 15-17/1995
LINE 9+00 W BEARING N-S
DIPOLE-DIPOLE SPREAD 25 m

PROJECT MANN TWP. LOT 7 (P1186760)

FIG. 5B

2.17406

0+50 N 0+75 1+00 1+25 1+50 1+75 2+00 2+25 2+50N 2+75 3+00 3+25 3+50 3+75 4+00 4+25 4+50 N

CONTOUR INTERVAL: LOGARITHMIC

Apparent Resistivity (ohm-m)

n1 107 104 110 108 126 213 436 871
n2 111 113 119 (107) 112 131 214 419 731 987
n3 139 132 132 126 161 248 402 538 600 1938
n4 158 152 148 202 304 448 490 426 983 2470
n5 178 161 234 387 570 536 370 666 1182 3086

0+50 N 0+75 1+00 1+25 1+50 1+75 2+00 2+25 2+50 C 2+75 3+00 3+25 3+50 3+75 4+00 4+25 4+50 N

CONTOUR INTERVAL: 5 msec.

Chargeability (m-sec)

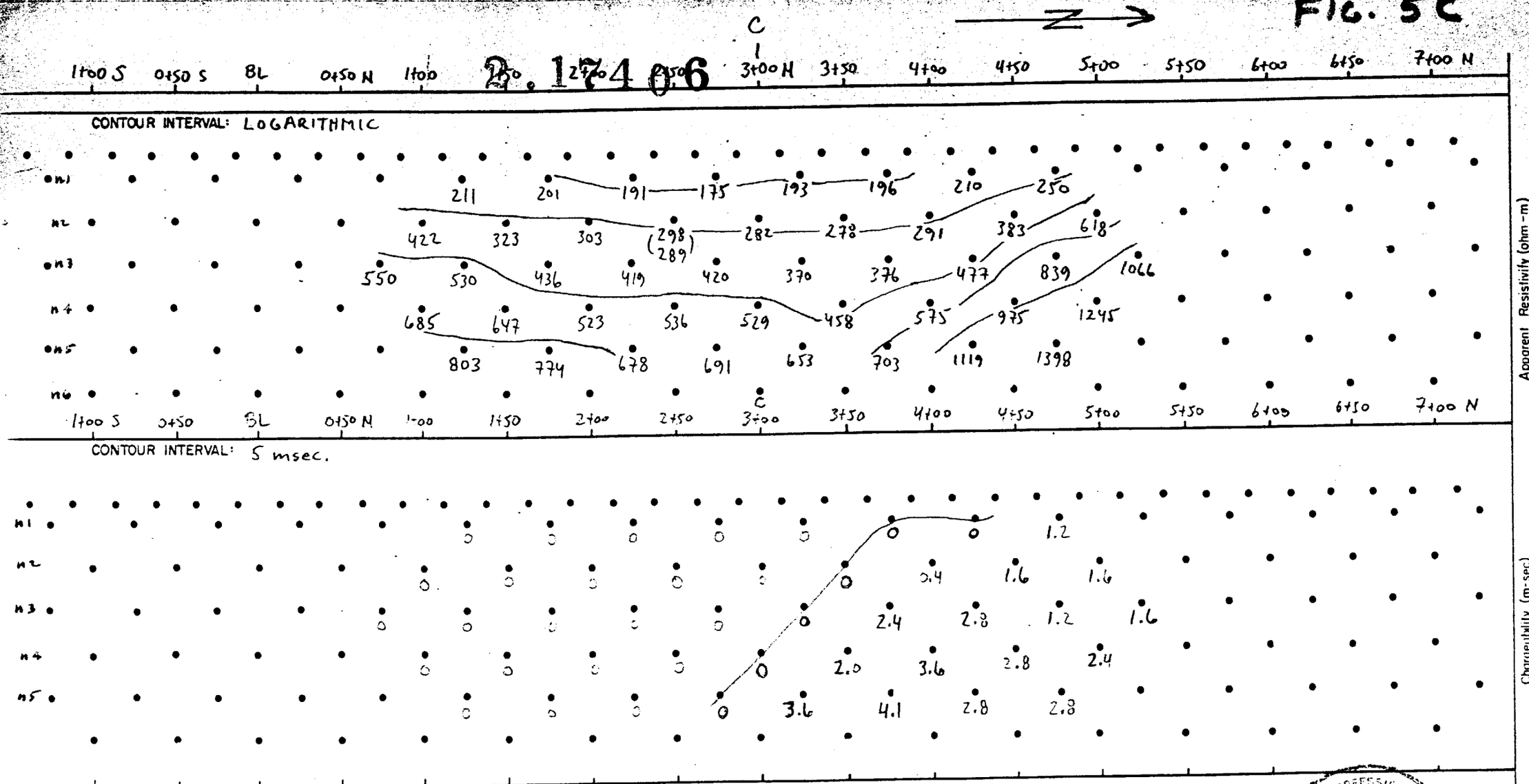
n1 -0 -0 -0 -0 0 -0 -0 0.4
n2 -0 -0 -0 -0 1.6 0 -0 0.4
n3 -0 -0 -1.2 -0 2.4 2.4 1.6 -0 -0 1.2
n4 -1.2 -2.4 -1.2 1.2 0.8 2.8 1.2 0 0 1.2
n5 -1.2 -0 2.8 3.2 2.8 1.6 1.2 0 1.2
n6 -0 0.8 2.8 0.8 1.6 2.4 0 0
n7 1.6 3.6 2.8 1.6
n8 2.8 1.6
n9 0.4 4.1

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO
J. T. Ward May 2/97

DATE SEPT 17-20/1995
LINE 8+00 W BEARING N-S
DIPOLE-DIPOLE SPREAD 25 m

MANN TWP
LOT 7 (PI186760)

FIG. 5C



Apparent Resistivity (ohm-m)

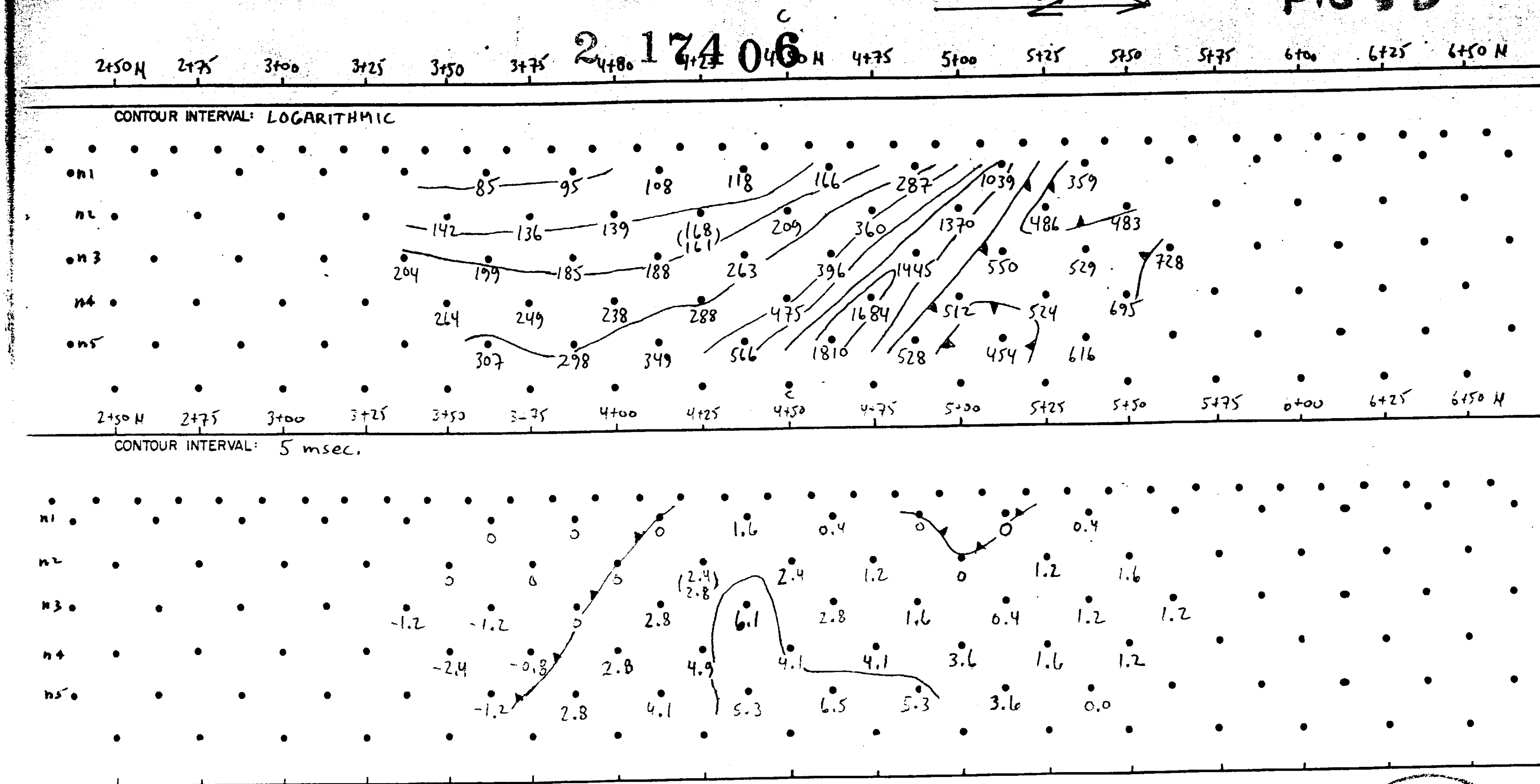
Chargeability (m-sec)

DATE SEPT 6-7/1995
LINE 2+00 W BEARING N-S
DIPOLE-DIPOLE SPREAD 50 m

PROJECT MANN TWP.
LOT 7 (P1186760)

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO
May 21/97

FIG 5D



DATE SEPT. 7-8/1995
LINE 1+00 W
DIPOLE-DIPOLE SPREAD 25m
BEARING N-S

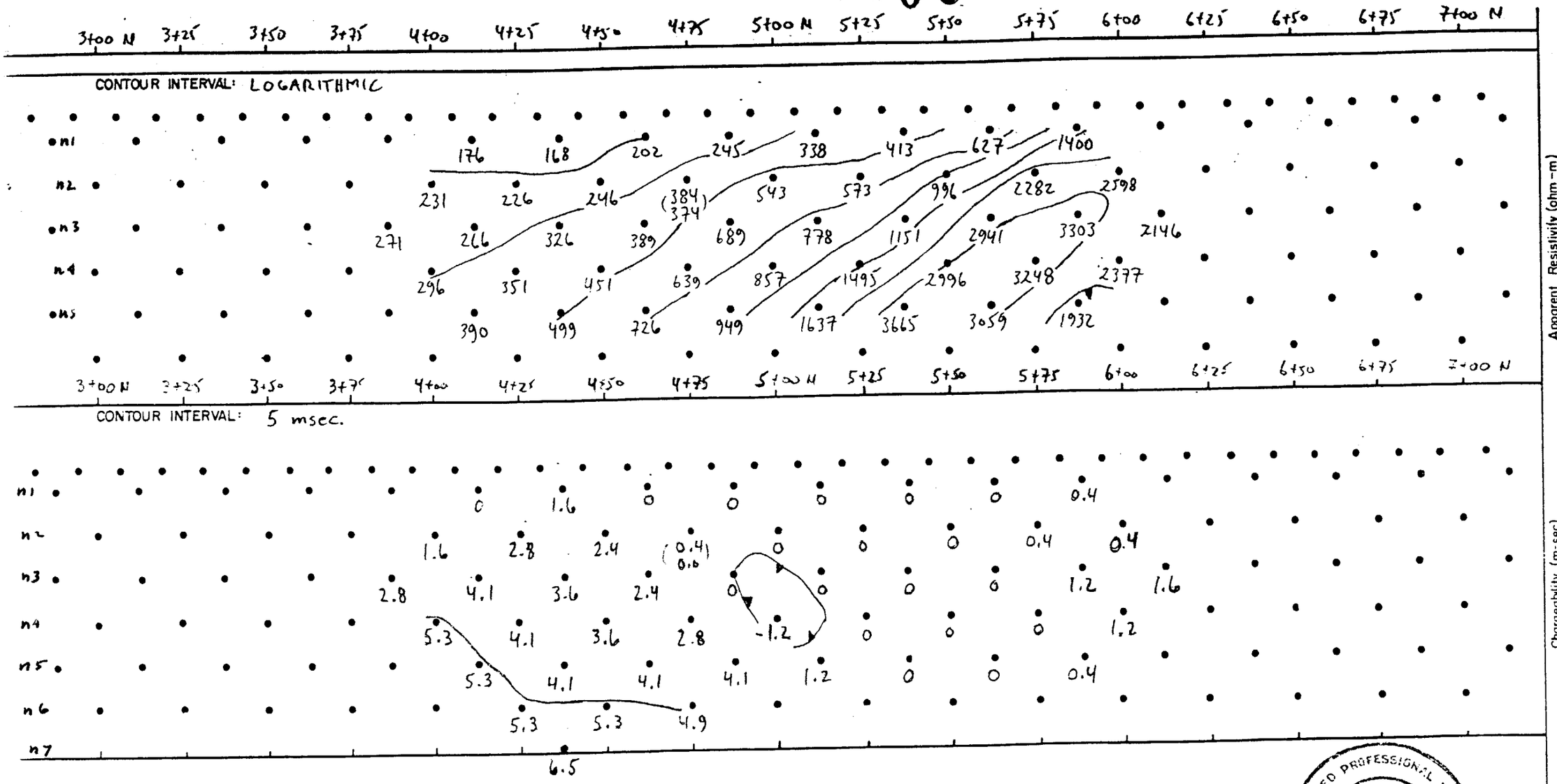
MANN TWP
LOT 7 (P1186760)

REGISTERED PROFESSIONAL ENGINEER
J. T. WARD
PROVINCE OF ONTARIO

J. T. Ward
May 21/97

2.17406

FIG 5E



Apparent Resistivity (ohm-m)

Chargeability (m-sec)

DATE SEPT 10-11/1995

LINE 0+00 BEARING N-S

DIPOLE-DIPOLE SPREAD 25 m

REGISTERED PROFESSIONAL ENGINEER J. T. WARD PROVINCE OF ONTARIO

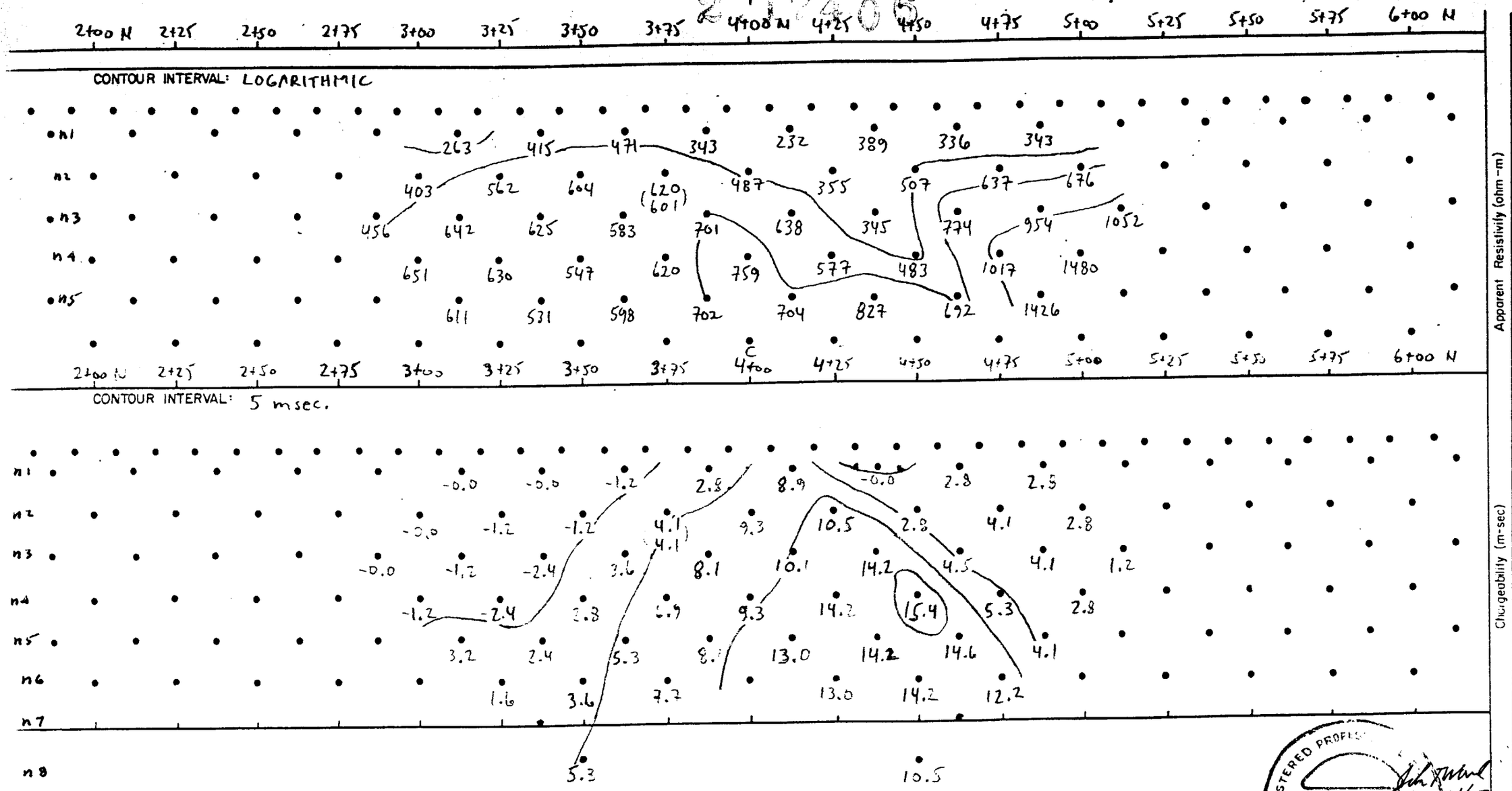
Mar 21/97

PROJECT MANN TWP. 107 (P1180029)

FIG. 5F

2117408

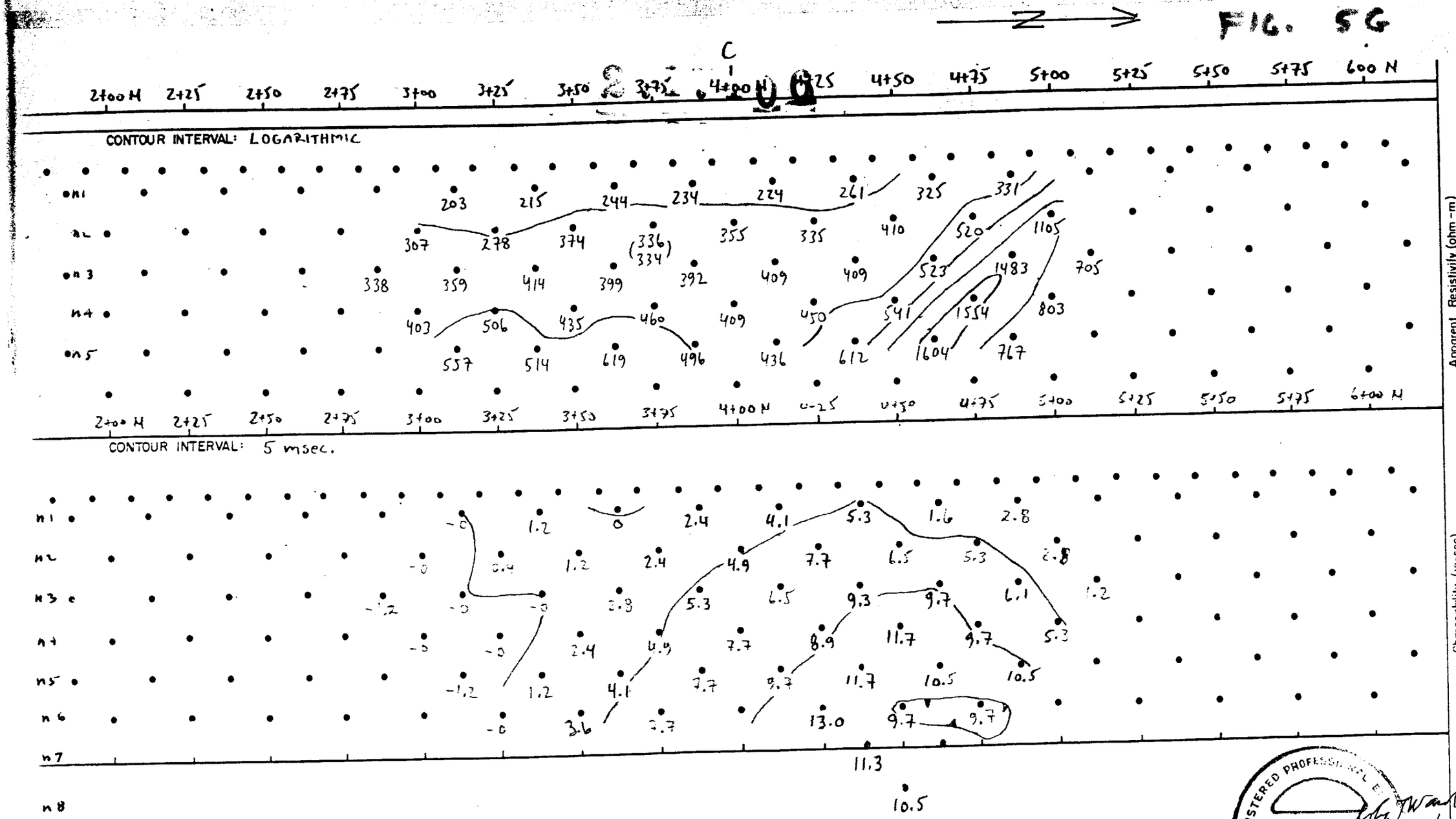
DATE SEPT. 11-12/1995
LINE 2+00 E BEARING N-S
DIPOLE-DIPOLE SPACING 25m



REGISTERED PROFESSIONAL ENGINEER J. T. WARD PROVINCE OF ONTARIO
May 21/97

TWP. MANN TWP.
LOT 6 (P1180029)

FIG. 5G



Apparent Resistivity (ohm-m)

Chargeability (m-sec)

DATE SEPT 14-15/1995

LINE 4+00 E BEARING N-S

DIPOLE-DIPOLE SPREAD 25 m

PROJECT MANN TWP. LOT Lr (P1180029)

REGISTERED PROFESSIONAL ENGINEER J. T. WARD PROVINCE OF ONTARIO

May 21/97

XRAL Laboratories
A Division of SGS Canada Inc.

1885 Leslie Street
Don Mills, Ont.
Canada M3B 3J4
Telephone (416) 445-5755
Fax (416) 445-4152

CERTIFICATE OF ANALYSIS
REPORT 2911

TO: JOHN T. WARD
9 WILLAMERE DRIVE
SCARBOROUGH, ONTARIO
M1M 1W5

CUSTOMER No. 40

DATE SUBMITTED
31-Aug-95

2.17406

WORKORDER 5104-Q5

TOTAL PAGES 7

6 ROCKS

	METHOD	DETECTION LIMIT	METHOD CODE
AU PPB	FADCP	1.	
BE PPM	ICP	1.	
B PPM	ICP	10.	
C %	LECO	.01	
WRMAJ %	XRF-F	.01	
S %	LECO	.01	
CL %	WET	.005	
SC PPM	NA	.5	
V PPM	ICP	10.	
CR PPM	NA	2.	
CO PPM	ICP	1.	
NI PPM	ICP	1.	
CU PPM	ICP	.5	
ZN PPM	ICP	.5	
GE PPM	ICP	10.	
AS PPM	NA	1.	
SE PPM	NA	3.	
BR PPM	NA	1.	
WRMIN PPM	XRF-F	10.	
MO PPM	ICP	1.	
PD PPB	FADCP	1.	

	METHOD	DETECTION LIMIT	METHOD CODE
AG PPM	ICP	.5	
CD PPM	ICP	1.	
SN PPM	XRF	10.	
SB PPM	NA	.2	
CS PPM	NA	1.	
LA PPM	NA	.5	
CE PPM	NA	3.	
ND PPM	NA	5.	
SM PPM	NA	.1	
EU PPM	NA	.2	
TB PPM	NA	.5	
YB PPM	NA	.2	
LU PPM	NA	.05	
HF PPM	NA	1.	
TA PPM	NA	1.	
W PPM	NA	3.	
PT PPB	FADCP	10.	
PB PPM	ICP	2.	
BI PPM	ICP	3.	
TH PPM	NA	1.	
U PPM	NA	.5	

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

DATE 21-SEP-95

CERTIFIED BY

Jean H. Opdebeeck, General Manager

XRAL

21-SEP-95 REPORT 2911 WORKORDER 5104-Q5

	SAMPLE	AU PPB FADCP	BE PPM ICP	B PPM ICP	C % LECO	S % LECO	CL % WET	SC PPM NA	V PPM ICP
	1	<1	<1	45	2.97	.07	.005	6.1	27
	2	<1	2	<10	2.45	.62	<.005	32.3	216
	3	<1	1	<10	4.51	2.37	<.005	18.2	108
	4	<1	3	<10	2.79	.76	.007	32.3	244
	5	10	<1	12	3.57	3.56	.009	4.4	33
	6	15	2	<10	.04	.13	.005	42.3	306
D	1	<1	<1	42	--	--	--	6.1	27

D - QUALITY CONTROL DUPLICATE

XRAL

21-SEP-95 REPORT 2911 WORKORDER 5104-Q5

	SAMPLE	CR PPM NA	CO PPM ICP	NI PPM ICP	CU PPM ICP	ZN PPM ICP	GE PPM ICP	AS PPM NA	SE PPM NA
	1	1800	78	1450	43.6	30.8	<10	1	<3
	2	230	33	101	134	77.5	<10	1	<3
	3	170	36	66	186	37.7	<10	6	<3
	4	94	37	41	144	87.3	<10	<1	<3
	5	20	57	66	217	1100	<10	50	<3
	6	150	41	62	98.0	89.7	<10	1	<3
D	1	1800	79	1460	43.9	28.0	<10	1	<3

D - QUALITY CONTROL DUPLICATE

XRAL

21-SEP-95 REPORT 2911 WORKORDER 5104-Q5

	SAMPLE	BR PPM NA	MO PPM ICP	PD PPB FADCP	AG PPM ICP	CD PPM ICP	SN PPM XRF	SB PPM NA	CS PPM NA
	1	4	<1	<1	.9	<1	<10	.3	<1
	2	2	<1	<1	.7	<1	<10	<.2	<1
	3	3	<1	4	.7	<1	<10	.2	1
	4	2	<1	<1	1.4	<1	17	<.2	<1
	5	4	4	5	1.2	<1	16	.5	<1
	6	2	<1	22	<.5	<1	11	.2	<1
D	1	3	<1	<1	1.0	<1	<10	.4	1

D - QUALITY CONTROL DUPLICATE

XRAL

21-SEP-95 REPORT 2911 WORKORDER 5104-Q5

	SAMPLE	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM
		NA	NA	NA	NA	NA	NA	NA	NA
	1	.7	<3	<5	.1	<.2	<.5	<.2	<.05
	2	8.2	19	10	2.1	.6	<.5	1.4	.22
	3	3.7	8	5	1.3	.6	<.5	1.2	.18
	4	4.1	11	7	1.9	.8	<.5	2.0	.30
	5	5.4	12	7	1.6	.6	<.5	.8	.11
	6	3.5	10	6	2.3	1.1	<.5	2.4	.36
D	1	.6	<3	<5	.1	<.2	<.5	<.2	<.05

D - QUALITY CONTROL DUPLICATE

XRAL

21-SEP-95 REPORT 2911 WORKORDER 5104-Q5

	SAMPLE	HF PPM NA	TA PPM NA	W PPM NA	PT PPB FADCP	PB PPM ICP	BI PPM ICP	TH PPM NA	U PPM NA
	1	<1	<1	<3	<10	2	<3	<1	<.5
	2	<1	<1	<3	<10	<2	<3	1	<.5
	3	<1	<1	<3	<10	4	<3	<1	<.5
	4	1	<1	<3	<10	<2	4	<1	.5
	5	2	<1	<3	<10	16	<3	1	<.5
	6	2	<1	<3	<10	<2	<3	<1	<.5
D	1	<1	<1	<3	<10	<2	<3	<1	<.5

D - QUALITY CONTROL DUPLICATE

XRAL XRF - WHOLE ROCK ANALYSIS 21-SEP-95 REPORT 2911 WORKORDER 5104

SAMPLE \ %	SIO2	AL2O3	CAO	MGO	NA2O	K2O	FE2O3	MNO	TIO2	P2O5	LOI	SUM
1	32.2	.85	7.12	32.2	.06	<.01	7.60	.42	.047	<.01	19.8	100.3
2	42.5	12.2	13.3	4.14	2.83	.08	13.2	.23	.711	.07	10.7	100.0
3	37.9	6.73	25.0	3.05	.08	.07	9.50	.28	.380	.04	15.2	98.3
4	34.4	11.0	13.2	4.56	.12	<.01	23.1	.48	.915	.06	12.3	100.2
5	76.8	4.31	2.94	.60	.32	1.31	8.41	.06	.176	.06	4.65	99.7
6	47.2	14.0	9.60	6.65	2.08	.22	15.5	.22	1.13	.08	2.15	98.9

*** XRF W.R.A. SUMS INCLUDE ALL ELEMENTS DETERMINED. FOR SUMMATION, ELEMENTS ARE CALCULATED AS OXIDES ***

XRAL XRF - WHOLE ROCK ANALYSIS 21-SEP-95 REPORT 2911 WORKORDER 5104

SAMPLE \ PPM	RB	SR	Y	ZR	NB	BA
1	<10	92	<10	<10	<10	131
2	<10	510	15	55	<10	114
3	<10	307	19	36	<10	92
4	<10	43	18	59	<10	<50
5	33	30	<10	65	<10	79
6	<10	140	22	72	<10	<50

D - QUALITY CONTROL DUPLICATE

2.17406

FIG. #1A

John T. Ward
MAY 21/97

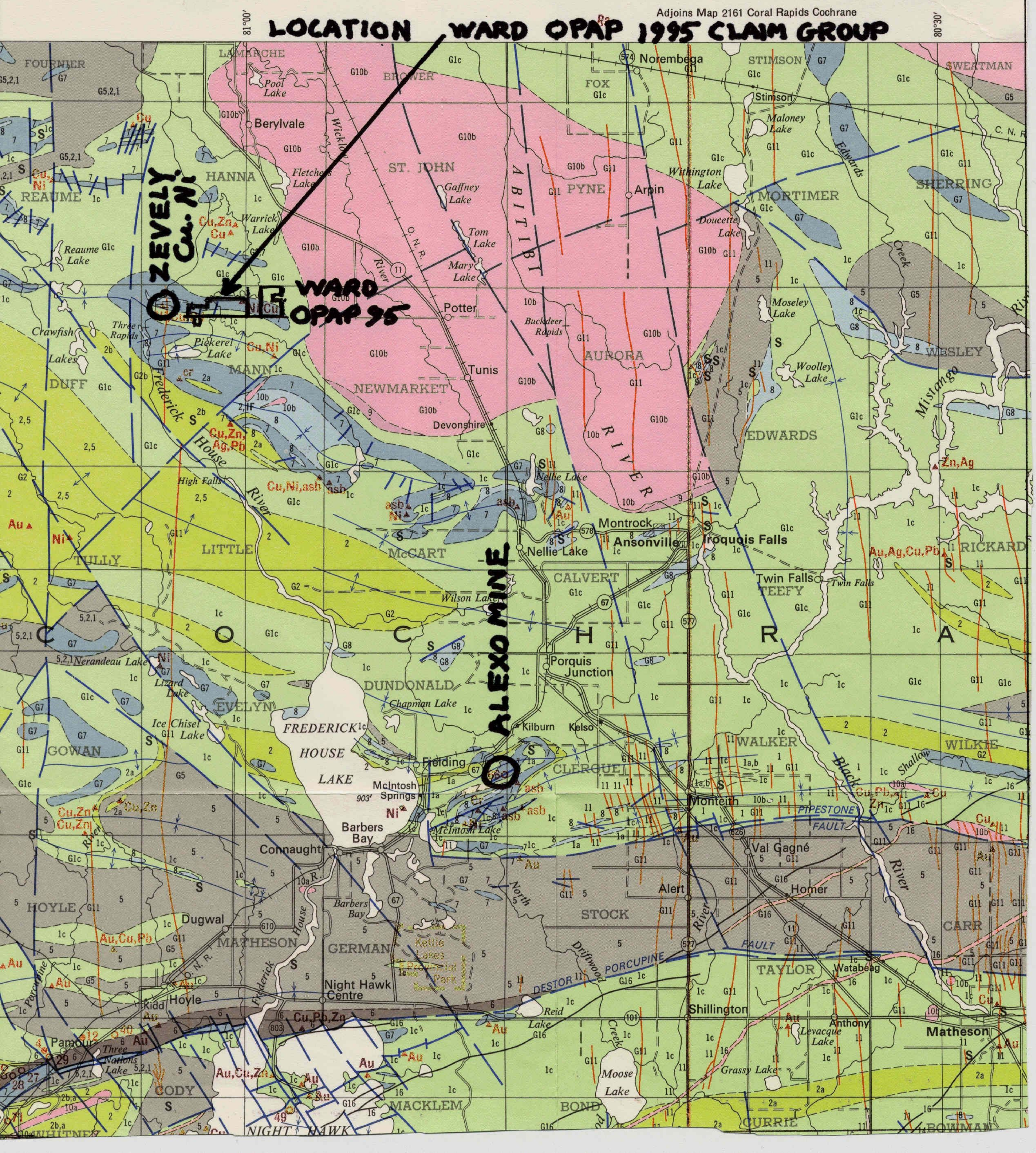
ASTRO N

10 KILOMETRES
SCALE 1:253440

ONTARIO
DIVISION OF MINES

HONOURABLE LEO BERNIER, *Minister of Natural Resources*
W. Q. MACNEE, *Deputy Minister of Natural Resources*
G. A. Jewett, *Executive Director, Division of Mines* E. G. Pye, *Director, Geological Branch*

MAP#2205 TIMMINS-KIRKLAND LAKE


81°00'
Adjoins Map 2161 Coral Rapids Cochrane
80°30'
LOCATION WARD OPAP 1995 CLAIM GROUP
ZEVELY Cu. Ni
WARD OPAP 95
ALEXO MINE
LAMARCHE
FOURNIER
BROWER
FOX
STIMSON
SWEATMAN
Norembega
Stimson
Pool Lake
Berylvale
Maloney Lake
HANNA
ST. JOHN
ABITIBI
PYNE
Arpin
Withington Lake
MORTIMER
SHERRING
REAUME
Fletchers Lake
Gaffney Lake
Warrick Lake
Tom Lake
Mary Lake
Doucette Lake
Reaume Lake
Moseley Lake
Potter
Three Rapids
Crawfish Lakes
Pickerel Lake
Buckdeer Rapids
WESLEY
MANN
AURORA
Woolley Lake
DUFF
Tunis
NEWMARKET
Devonshire
EDWARDS
Mistango
Frederick House River
High Falls
Nellie Lake
Montrock
Ansonville
Iroquois Falls
McCART
LITTLE
TULLY
RICKARD
Twin Falls
TEEFY
CALVERT
Wilson Lake
COCHRANE
Nerandeau Lake
Lizard Lake
DUNDONALD
Porquis Junction
Chapman Lake
Ice Chisel Lake
EVELYN
FREDERICK HOUSE LAKE
Kilburn
Kelso
WALKER
WILKIE
GOWAN
Fielding
CLERGUE
McIntosh Springs
Monteith
PIPESTONE FAULT
Barbers Bay
McIntosh Lake
Connaught
Val Gagné
Alert
Homer
HOYLE
Dugwal
MATHESON
GERMAN
STOCK
CARR
Kettle Lakes Provincial Park
PORCUPINE DESTOR FAULT
TAYLOR
Watabeag
Night Hawk Centre
Kidd
Hoyle
Reid Lake
Shillington
Anthony
Matheson
Pamour
Three Nations Lake
Levacque Lake
Moose Lake
Grassy Lake
CODY
MACKLEM
BOND
CURRIE
BOWMAN
NIGHT HAWK
Driftwood Creek
Black River
Shallow
Porcupine
North

Ministry of Northern Development and Mines / Ministère du Développement du Nord et des Mines — Ontario

Diamond Drilling Log / Journal de forage au diamant

42A15NW0025 2.17406 MANN

020

n and duplicate. / exemplaires la et le croquis annexé

Fill in on every page / Remplir ces cases à chaque page

Hole No. / Forage nº: OPAP -I995 — Page No. / Page nº: 1

Field	Value
Drilling Company / Compagnie de forage	DOMINIK DRILLING (I98I) INC.
Collar Elevation / Élévation du collier	
Bearing of hole from true North / Position du forage par rapport au nord vrai	
Total Footage / Avancement total du forage	152 METRES
Dip of Hole at / Inclinaison du forage au — Collar/collier	90°
Ft./Pi	
Address/Location where core stored / Adresse/endroit où la carotte est stockée	9 Willamere Drive Scarborough Ont.
Map Reference No. / Nº de référence sur la carte	G 3537
Claim No. / Nº de concession minière	P·II80028
Date Hole Started / Date de commencement du forage	JUNE I4 I995
Date Completed / Date d'achèvement	June I6 I995
Date Logged / Date d'inscription au journal	'95/10/06
Logged by / Inscrit par	F.H. ELLGRING
Location (Twp. Lot, Con. or Lat. and Long.) / Emplacement (canton, lot, concession, ou latitude et longitude)	SE¼ SOUTH ½ Lot 9 Concession 6 MANN TOWNSHIP GPS. 5413040N, 497400E.
Exploration Co., Owner or Optionee / Compagnie d'exploration, propriétaire ou titulaire d'option	John Ward & David Ward
Date Submitted / Date de dépôt	May 21/97
Submitted by (Signature) / Déposé par (signature)	John T. Ward
Property Name / Nom de la propriété	J.Ward & D.Ward MANN TWP.Property

Footage/Avancement From/De	To/À	Rock Type / Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle* / Angle des caractéristiques planes	Core Specimen Footage / Longueur en pieds des carottes prélevées	Your Sample No. / Nº d'échantillon du prospecteur	Sample Footage From/De	Sample Footage To/À	Sample Length / Longueur de l'échantillon	Assays † / Analyses minéralurgiques
0 m	9.14m	CLAY	OVERBURDEN, LACUSTRINE CLAY							
9.14	10.97	ULTRA MAFIC	PERIDOTITE, PARTLY SERP'D, MASSIVE, RELICT FELDSPARS, 1 mm. BLACK PHENOCRYSTS. THINLY SERP'D FRACTURES SHOWING ½ mm. CROSS FIBRE. BLOCKY FRAGMENTAL SECTION WITH CALCITE HEALING. MODERATELY MAGNETIC. BLACK WITH BLUEISH HUE							
10.97	17.07	ULTRA MAFIC	PERIDOTITE, SIMILAR TO ABOVE, LESS SERP. INCREASINGLY FRACTURED AND CARBONATE HEALED. FRACTURES AT 20° TO 80° TO CORE MODERATELY MAGNETIC.							
17.07	26.21	ULTRA MAFIC	PERIDOTITE, ALTERED SHEAR ZONE, HIGHLY FOLIATED AT 45°, CARBONATE AND SERP'D SLIPPAGE PLANES WITH PARALLEL SLIP-FIBRE. INCOMPETENT BROKEN SECTIONS. QTZ.-CARB GASH VEINS. BRECCIATED. MODERATELY MAGNETIC. BLACK WITH NO BLUE HUE.	serpentinized peridotite		I	25.8	25.9	0.I	(0.I45% Ni) (0.I8% Cr) (32.2% MgO) (45 ppb B)
26.21	29.5	MAFIC	TALC-CARBONATE HIGHLY SHEAR ZONE, CHLORITIC AND DUCTILE. CRUMBLY, INCOMPETENT, MYLONITIC. DECREASE IN MAGNETISM.							
29.5	29.5		CONTACT, SHARP, AT 40° TO CORE.							
29.5	32.5	FLOW	TUFF. MAFIC LAPILLI (BLACK) ELONGATED. INTENSE SHEARING GREEN. RARE CPY. SPECKS. SCHISTOSITY AT 40° TO CORE. NON MAGNETIC.							
32.5	32.5		CONTACT, SHARP, AT 40° TO CORE.							

2.17406

C204 (03/91)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.
* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.

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

Ministry of Northern Development and Mines — Ontario

Ministère du Développement du Nord et des Mines

Diamond Drilling Log — Journal de forage au diamant

Complete this form and related sketch in duplicate.
Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page
Remplir ces cases à chaque page

Hole No. Forage n° OPAP -I995 | Page No. Page n° 2

Drilling Company / Compagnie de forage: DOMINIK DRILLING (I98I) INC.	Collar Elevation / Elévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage / Avancement total du forage: 152 METRES	Dip of Hole at / Inclinaison du forage au: Collar/collier 90°	Address/Location where core stored / Adresse/endroit où la carotte est stockée: 9 Willamere Drive Scarborough Ont.
Date Hole Started / Date de commencement du forage: JUNE I4 I995	Date Completed / Date d'achèvement: June I6 I995	Date Logged / Date d'inscription au journal: '95/10/06	Logged by / Inscrit par: F.H. ELLGRING	Ft./Pi.	
Exploration Co., Owner or Optionee / Compagnie d'exploration, propriétaire ou titulaire d'option: John Ward & David Ward		Date Submitted / Date de dépôt	Submitted by (Signature) / Déposé par (signature)	Ft./Pi.	
				Ft./Pi.	
				Ft./Pi.	

Map Reference No. / N° de référence sur la carte: G 3537

Claim No. / N° de concession minière: P II80028

Location (Twp. Lot, Con. or Lat. and Long.) / Emplacement (canton, lot, concession, ou latitude et longitude): SE¼ SOUTH ½ Lot 9 Concession 6 MANN TOWNSHIP

Property Name / Nom de la propriété: J.Ward & D.Ward MANN TWP.Property

Footage/Avancement From/De	To/A	Rock Type / Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle* / Angle des caractéristiques planes	Core Specimen Footage † / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage / Niveau de prélèvement de l'échantillon (en pieds) From/De	To/A	Sample Length / Longueur de l'échantillon	Assays † / Analyses minéralurgiques	
32.5	33.6	DIKE	DIABASIC TEXTURE, GREY F.G.. FLATTENED QTZ.-CARB. INCLUSIONS PARALLEL TO CONTACT WITH WEAK FOLIATION.								
33.6	33.62	VEIN	CONTACT. QTZ.-CARB. STRINGER AT 43° TO CORE.								
33.62	36.9	FLOW	TUFF. f.g. INTERMEDIATE VOLCANIC, FELSPATHIC-SERICITIC. FOLIATION PRIMARILY AT 30° TO CORE, GREEN. FLATTENED THIN DARK LAPILLI.								
36.9	37.6	FLOW	TUFF. PALE GREEN. LAPILLI UP TO 5 CM. IN LENGTH. HIGHLY ALTERED SERICITIC-CARBONATED WITH ABOUT 1% SPECKS PY.								
37.6	37.6		CONTACT. SHARP AT 40° TO CORE								
37.6	57.2	FLOW	DACITE. VOLCANO-CLASTIC, INTERMEDIATE FLOW UNITS. REWORKED, SHATTERED HIGHLY FOLIATED AT 40° TO CORE. INCLUDES SOME MINOR MAFIC FLOW UNITS WITH LAPILLI. SUBTLE COLOUR CHANGE FROM GREEN TO PALE BROWN. MYLONITIC AND BRECCIATED.	3% pyrite		2	38.2	38.3	0.I	CaO	I3.3%
				4% pyrite Xls.		3	47.0	47.I	0.I	CaO	25.0%
57.2	57.8	FLOW	INCREASED SHEARING, AT 40° TO CORE. WEAKLY GRAPHITIC. PO. BLEBS AND SEVERAL THIN PO. SEAMS IRREGULARLY DISPERSED. QTZ. CARBONATE CEMENTED FRACTURES. DARK GREEN. CONDUCTIVE PO. STRINGERS.								

0204 (03/91)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.
* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.
Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Ministry of Northern Development and Mines — Ministère du Développement du Nord et des Mines — Ontario

Diamond Drilling Log — Journal de forage au diamant

Complete this form and related sketch in duplicate. Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page. Remplir ces cases à chaque page

Hole No. Forage n° OPAP -I995 | Page No. Page n° 3

Drilling Company / Compagnie de forage	Collar Elevation / Elévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage / Avancement total du forage	Dip of Hole at / Inclinaison du forage au
DOMINIK DRILLING (I98I) INC.			152 METRES	Collar/collier 90°

Date Hole Started / Date de commencement du forage	Date Completed / Date d'achèvement	Date Logged / Date d'inscription au journal	Logged by / Inscrit par
JUNE I4 I995	June I6 I995	'95/10/06	F.H. ELLGRING

Exploration Co., Owner or Optionee / Compagnie d'exploration, propriétaire ou titulaire d'option	Date Submitted / Date de dépôt	Submitted by (Signature) / Déposé par (signature)
John Ward & David Ward		

Address/Location where core stored / Adresse/endroit où la carotte est stockée: 9 Willamere Drive Scarborough Ont.

Map Reference No. / N° de référence sur la carte: G 3537

Claim No. / N° de concession minière: P II80028

Location (Twp. Lot, Con. or Lat. and Long.) / Emplacement (canton, lot, concession, ou latitude et longitude): SE¼ SOUTH ½ Lot 9 Concession 6 MANN TOWNSHIP

Property Name / Nom de la propriété: J.Ward & D.Ward MANN TWP.Property

Footage/Avancement From/De	To/A	Rock Type / Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar Feature Angle/Angle des caractéristiques planes	Core Specimen Position † / Longueur en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds) From/De	To/A	Sample Length / Longueur de l'échantillon	Assays † / Analyses minéralurgiques	
57.8	87.2	FLOW	ANDESITE. PALE GREEN INTERMEDIATE INTRUSIVE WITH VERY WEAK FOLIATION. BECOMING MASSIVE f.g. ANDESITE. COARSELY FRACRURED WITH MULTI DIRECTIONAL QTZ. CEMENTING.								
87.2	93.4	FLOW	DARK GREEN INTERMEDIATE FLOW SHOWING WEAKLY GRAPHITIC DARK BANDS IRREGULARLY WITHIN CARBONATE CEMENTED FRACTURES. INCLUDES BLEBS AND THIN DISCONTINOUS SEAMS OF PO.+1% PO.	10% pyrite stringers		4	9I.0	9I.I	o.I	CaO Ag Sn	I3.2% I.4 ppm I7.6 ppm
93.4	93.41	SED.	1 cm. BAND ARGILLITE, GRAPHITIC WITH ½ mm SEAM OF PO. AT 50° TO CORE BOTH BEING SEPARATELY ELECTRICALLY CONDUCTIVE. NO REACTION TO DIMETHYL GLYOXIME FOR NICKEL. BLACK, THINLY LAMELLAR.								
93.41	108.	FLOW	TUFF. VOLCANO-CLASTIC, PALE GREEN LAPILLI. QTZ-CARB. STRINGERS. FOLIATED AT 40°-50° TO CORE. INTERMEDIATE COMPOSITION.								
108	108.4	FLOW	TUFFACEOUS AND BRECCIATED FLOW UNIT WITH IRREGULAR PATCHES OF CONTORTED GRAPHITE BANDS. NODULAR PO. AND PY. ALSO PO. IN THIN SEAMS. ELECTRICALLY CONDUCTIVE OVER NARROW WIDTHS OF SEVERAL mm.. NO DIMETHYL REACTION. DARK GREEN TO BLACK FOLIATED AT 40° TO CORE								

0204 (03/91)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.
* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.

Ministry of Northern Development and Mines — Ministère du Développement du Nord et des Mines — Ontario

Diamond Drilling Log — Journal de forage au diamant

Complete this form and related sketch in duplicate. Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page. Remplir ces cases à chaque page

Hole No. Forage n° OPAP -I995 | Page No. Page n° 4

Drilling Company / Compagnie de forage	Collar Elevation / Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage / Avancement total du forage	Dip of Hole at / Inclinaison du forage au
DOMINIK DRILLING (I98I) INC.			152 METRES	Collar/collier 90°

Address/Location where core stored / Adresse/endroit où la carotte est stockée: 9 Willamere Drive Scarborough Ont.

Map Reference No. / N° de référence sur la carte: G 3537

Claim No. / N° de concession minière: P II80028

Date Hole Started / Date de commencement du forage	Date Completed / Date d'achèvement	Date Logged / Date d'inscription au journal	Logged by / Inscrit par
JUNE I4 I995	June I6 I995	'95/10/06	F.H. ELLGRING

Location (Twp. Lot, Con. or Lat. and Long.) / Emplacement (canton, lot, concession, ou latitude et longitude): SE¼ SOUTH ½ Lot 9 Concession 6 MANN TOWNSHIP

Exploration Co., Owner or Optionee / Compagnie d'exploration, propriétaire ou titulaire d'option: John Ward & David Ward

Date Submitted / Date de dépôt:

Submitted by (Signature) / Déposé par (signature):

Property Name / Nom de la propriété: J.Ward & D.Ward MANN TWP.Property

Footage/Avancement From/De	To/À	Rock Type / Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Primary Feature Angle* / Angle des caractéristiques planes*	Core Specimen Footage † / Longueur† en pieds des carottes prélevées	Your Sample No. / N° d'échantillon du prospecteur	Sample Footage/Niveau de prélèvement de l'échantillon (en pieds) From/De	To/À	Sample Length / Longueur de l'échantillon	Assays † / Analyses minéralurgiques
108.4	108.6	SED.	ARGILLITE. GRAPHITIC, BLACK, LAMELLAR AT 40° TO CORE. 5%							
			PO. NODULES AND ALSO THIN SEAMS. MINOR CPY. BASAL TO THE							
			PO. DIMETHYL NEGATIVE FOR NICKEL. CONDUCTIVE .							
108.6	110.	FLOW-SED.	TUFF. FOLIATED AT 40° TO CORE.							
110.	110.		CONTACT. SHARP AT 45° TO CORE.							
110.	118	SED.	ARGILLITE WITH THIN FLOW SEQUENCES. PRIMARILY A GRAPHITE		10% pyrite stringers	5	II6.6	II6.I	0.I	(0.II% Zn)
			ZONE. NODULAR AND LAMELLAR PO. BANDS. VY. MINOR CPY.							(I6 ppm Sn)
			QTZ.-CARB. FILLINGS THROUGHOUT. ENTIRE ZONE RUNS 60%							(I.2 ppm Ag)
			GRAPHITE WITH 3% PO. MOST PO. ASSOCIATED WITH QTZ.-CARB.-							
			BANDS. DIMETHYL NEGATIVE. GOOD CONDUCTIVITY. BANDED AT 40°							
118.	118.		CONTACT. AT 60° TO CORE.		no visible sulphides	6	I27.0	I27.I	0.I	(I5 ppb Au)
118.	137.4	INTRUSIVE	ANDESITE. MASSIVE, f.g. INTERMEDIATE. PREDOMINANTLY							(20 ppb Pd)
			FELSPATHIC. FELTED CRYSTALLINE FORMS.							(II ppm Sn)
137.4	138.1	INTRUSIVE	DITTO ABOVE BUT EXHIBITS CEMENTED SHEARING AND MYLONIT-							(CaO 9.6%)
			IZATION . TOP CONTACT AT 25° BUT BOTTOM CONTACT AT 40°.							
138.1	143.5	INTRUSIVE	ANDESITE. GREEN WITH SEVERAL 3 cm. PALE GREEN HEALED							
			MYLONITIC SHEARED ZONES.							

0204 (03/91)

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

*Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.

† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.

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

Ministry of Northern Development and Mines
Ontario

Ministère du Développement du Nord et des Mines

Diamond Drilling Log

Journal de forage au diamant

Complete this form and related sketch in duplicate.
Remplir en deux exemplaires la présente formule et le croquis annexé

Fill in on every page
Remplir ces cases à chaque page

Hole No. / Forage n° UPAP -1995
Page No. / Page n° 5.

Drilling Company / Compagnie de forage: DOMINIK DRILLING (I98I) INC.	Collar Elevation / Élévation du collier	Bearing of hole from true North/Position du forage par rapport au nord vrai	Total Footage / Avancement total du forage: 152 METRES	Dip of Hole at / Inclinaison du forage au: Collar/collier 90°	Address/Location where core stored / Adresse/endroit où la carotte est stockée: 9 Willamere Drive Scarborough Ont.
Date Hole Started / Date de commencement du forage: JUNE I4 I995	Date Completed / Date d'achèvement: JUNE I6 I995	Date Logged / Date d'inscription au journal: '95/10/06	Logged by / Inscrit par: F.H. ELLGRING	Ft./Pi	
Exploration Co., Owner or Optionee / Compagnie d'exploration, propriétaire ou titulaire d'option: John Ward & David Ward		Date Submitted / Date de dépôt	Submitted by (Signature) / Dépose par (signature)	Ft./Pi	
				Ft./Pi	
				Ft./Pi	

Map Reference No. / N° de référence sur la carte	Claim No. / N° de concession minière
G 3537	P II80028

Location (Twp. Lot, Con. or Lat. and Long.) / Emplacement (canton, lot, concession, ou latitude et longitude)
SE ¼ SOUTH ½ Lot 9 Concession 6 MANN TOWNSHIP

Property Name / Nom de la propriété: J.Ward & D.Ward MANN TWP.Proper

Footage/Avancement From/De	To/A	Rock Type / Type de roche	Description (Colour, grain size, texture, minerals, alteration, etc.) / Description (Couleur, granulométrie, texture, minéraux, transformation, etc.)	Planar feature Angle* / Angle des caractéristiques planes*	Core Sampling Footage / Longueur en pieds des carottes prélevées	Your Sample No / N° d'échantillon du prospecteur	Sample Footage / Niveau de prélèvement de l'échantillon (en pieds) From/De	To/A	Sample Length / Longueur de l'échantillon	Assays † / Analyses minéralurgiques
143.5	144.	SHEAR	MYLONITE AND BRECCIA. PALE GREEN.							
144.	152.	INTRUSIVE	ANDESITE. MASSIVE, INTERMEDIATE, IRREGULARLY FRACTURED							
			QTZ. HEALED STRINGERS. INDISTINCT CHLORITIC INCLUSIONS.							
			FELSPAR LATHS AND QTZ. NODULES OF 1 mm. VY. MINOR PO							
			END OF HOLE 152 METRES.							

F. H. Ellgring

REGISTERED PROFESSIONAL ENGINEER
F. H. ELLGRING
PROVINCE OF ONTARIO

0204 (03/91)

* For features such as foliation, bedding, schistosity, measured from the long axis of the core.
* Exemples de caractéristiques : foliation, schistosité, stratification. L'angle est mesuré par rapport à l'axe longitudinal de la carotte.

† Additional credit available. See Assessment Work Regulation.
† Des crédits supplémentaires sont offerts. Consulter les règlements relatifs aux travaux d'évaluation.
Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Ontario

Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W9760.00128
Assessment Files Research Imaging

Personal information collected ... Mining Act, the information is a ... Questions about this collecti... 933 Ramsey Lake Road, Sudb...

42A15NW0025 2.17406 MANN

900

... the Mining Act. Under section 8 of the ... correspond with the mining land holder. ... Development and Mines, 6th Floor,

Instructions: - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

2.17406

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
JOHN T. WARD	206725
Address: 9 WILLAMERE DRIVE	Telephone Number: 416-261-8477
SCARBOROUGH ONT. M1M-1W5	Fax Number
Name: DAVID A. WARD	Client Number: 206686
Address: 152 OAKRIDGE DRIVE	Telephone Number: 416-267-6855
SCARBOROUGH ONT. M1M-2A8	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling, stripping, trenching and associated assays ☐ Rehabilitation

Work Type	Office Use
INDUCED POLARIZATION SURVEY 10 SURVEY DAYS	Commodity
	Total $ Value of Work Claimed: 13,200.00
Dates Work Performed From: 6 Day / 9 Month / 1995 Year To: 20 Day / 9 Month / 1995 Year	NTS Reference
Global Positioning System Data (if available) — Township/Area: MANN TWP	Mining Division: Porcupine
M or G-Plan Number: G-3537	Resident Geologist District: Timmins

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number
JOHN T. WARD	416-261-8477
Address: 9 WILLAMERE DRIVE SCARBOROUGH ONT	Fax Number
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

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JUN 16 1997
MINING LANDS BRANCH

RECEIVED (C)
JUN 2 1997
TR 3:30
PORCUPINE MINING DIVISION

4. Certification by Recorded Holder or Agent

I, JOHN T. WARD (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent	Date
John T. Ward	MAY 21/1997
Agent's Address: 9 WILLAMERE DRIVE SCARBOROUGH ONT — Telephone Number: 416-261-8477	Fax Number

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	P1186760	6	7260	—	—	7260
2	P1180029	4	5940	—	—	5940
3						
4						
5				2.1740 6		
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
		Column Totals	13,200			13,200

I, _____ (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
John T. Ward	MAY 21/1997

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

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JUN 16 1997
MINING LANDS BRANCH

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp: RECEIVED (c) JUN 2 1997 TB

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

2.17408

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

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

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type 10 FIELD DAYS INDUCED POLARIZATION SURVEYING @ 1100/day	11,000	
			11,000
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
	Total Direct Costs Total des coûts directs		11,000

2. Indirect Costs/Coûts indirects

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

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type 3175 Km @ 30¢/Km AUTOMOBILE	952	
	2035 Km @ 30¢/Km 4X4 JIMMY MUCK	610	
			1562
Food and Lodging Nourriture et hébergement	3 MAN CREW @ TW [redacted] SEPT 6 to 21, 1995	1800	1800
Mobilization and Demobilization Mobilisation et démobilisation	1100 TORONTO — IROQUOIS FALLS	1100	1100
	Sub Total of Indirect Costs Total partiel des coûts indirects		4462
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		2200
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / **Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)**		13,200

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

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

Filing Discounts

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

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

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

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

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

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

RECEIVED (c) JUN 2 1997 3:30 PORCUPINE MINING DIVISION

RECEIVED JUN 16 1997 MINING LANDS BRANCH

Certification Verifying Statement of Costs

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

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

to make this certification

Attestation de l'état des coûts

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

Et que j'ai titre de je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature	Date
John F. Ward	MAY 21/1997

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W.9760.00129
Assessment Files Research Imaging

Personal information collected on this form is obtained under the authority of subsections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Instructions: - For work performed on Crown Lands before **recording** a claim, use form 0240.
- Please type or print in ink.

2.17406

1. Recorded holder(s) (Attach a list if necessary)

Name	Client Number
JOHN T. WARD	206725
Address: 9 WILLAMBEE DRIVE	Telephone Number: (416) 261-8477
SCARBOROUGH ONT. M1M-1W5	Fax Number
Name: DAVID A. WARD	Client Number: 206686
Address: 152 OAKRIDGE DRIVE	Telephone Number: (416) 267-6855
SCARBOROUGH ONT M1M-2A8	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☐ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☑ Physical: drilling, stripping, trenching and associated assays ☐ Rehabilitation

Work Type	Office Use
DIAMOND DRILLING CORE LOGGING ASSAYING	Commodity
	Total $ Value of Work Claimed: 15,311.00
Dates Work Performed — From: 4 Day / 6 Month / 1995 Year — To: 6 Day / 10 Month / 1995 Year	NTS Reference
Global Positioning System Data (if available) — Township/Area: MANN TWP	Mining Division: PORCUPINE ~~TIMMINS~~
M or G-Plan Number: G 3537	Resident Geologist District: TIMMINS

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	Telephone Number
JOHN T. WARD	(416) 261-8477
Address: 9 WILLAMBEE DRIVE SCARBOROUGH ONT. M1M-1W5	Fax Number
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

RECEIVED
JUN 16 1997
MINING LANDS BRANCH

RECEIVED (c)
JUN 2 1997
TB 3:30
PORCUPINE MINING DIVISION

4. Certification by Recorded Holder or Agent

I, JOHN T. WARD (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent	Date
John T. Ward	May 21/1997
Agent's Address	Telephone Number: (416) 261 8477 — Fax Number

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	**Number of Claim Units.** For other mining land, list hectares.	**Value of work performed** on this claim or other mining land.	**Value of work applied** to this claim.	**Value of work assigned** to other mining claims.	**Bank.** Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	1180028	2	~~15,911~~ 15 311 JTW	1600	8340	~~5971~~ 5371 JTW
2	1186760	6		4800		
3	1180029	4		2840		
4	1180030	1		300		
5	1186762	1		400		
6				2.174 ∩ 6		
7						
8						
9						
10						
11						
12						
13						
14						
15						
		Column Totals	~~15,911~~ 15,311 JTW	9940	8340	~~5971~~ 5371 JTW

I, JOHN T. WARD (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
John T. Ward	May 21/1997

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☒ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

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JUN 16 1997
MINING LANDS BRANCH

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
RECEIVED (c) JUN 2 1997	Date Approved	Total Value of Credit Approved

Ministry of Northern Development and Mines

Ontario

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Transaction No./N° de transaction

Mining Act/Loi sur les mines 2.17406

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

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

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain	9 DAYS @ $300 2700	2700
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type BQ DIAMOND DRILLING 500 FEET	8110	
	CORE LOGGING	600	
	ASSAYING	750	9460
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type TIMBERJACK SKIDDER 4 DAYS	1100	
			1100
	Total Direct Costs Total des coûts directs		13,260

2. Indirect Costs/Coûts indirects

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

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type AUTOMOBILE 1700 Km @ 30¢/km	510	
			510
Food and Lodging Nourriture et hébergement	JUNE 9–17 INCLUSIVE 9 DAYS @ $50/DAY	450	450
Mobilization and Demobilization Mobilisation et démobilisation	DIAMOND DRILL MOBILIZATION AND DEMOBILIZATION DOMINION	1091	1091
	Sub Total of Indirect Costs Total partiel des coûts indirects		2051
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			2051
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs)	**Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles**		15,311

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

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

Filing Discounts

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

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

Total Value of Assessment Credit	Total Assessment Claimed
× 0.50 =	

Remises pour dépôt

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

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

Valeur totale du crédit d'évaluation	Évaluation totale demandée
× 0.50 =	

RECEIVED
JUN 16 1997
MINING LANDS BRANCH

RECEIVED
(C)
JUN 2 1997
3:30
PORQUOINE

Certification Verifying Statement of Costs

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

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

to make this certification John T. Ward

Attestation de l'état des coûts

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

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

à faire cette attestation.

Signature	Date
John T. Ward	MAY 21/1997

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (705) 670-5863

August 27, 1997

JOHN TREMAINE WARD
9 WILLAMERE DRIVE
SCARBOROUGH, Ontario
M1M-1W5

Dear Sir or Madam:

Submission Number: 2.17406

		Status
Subject: Transaction Number(s):	W9760.00128	Approval
	W9760.00129	Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 11279
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17406

Date Correspondence Sent: August 27, 1997 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00128	1186760	MANN	Approval	August 26, 1997

Section:
14 Geophysical IP

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00129	1180028	MANN	Approval	August 26, 1997

Section:
16 Drilling PDRILL

Correspondence to:

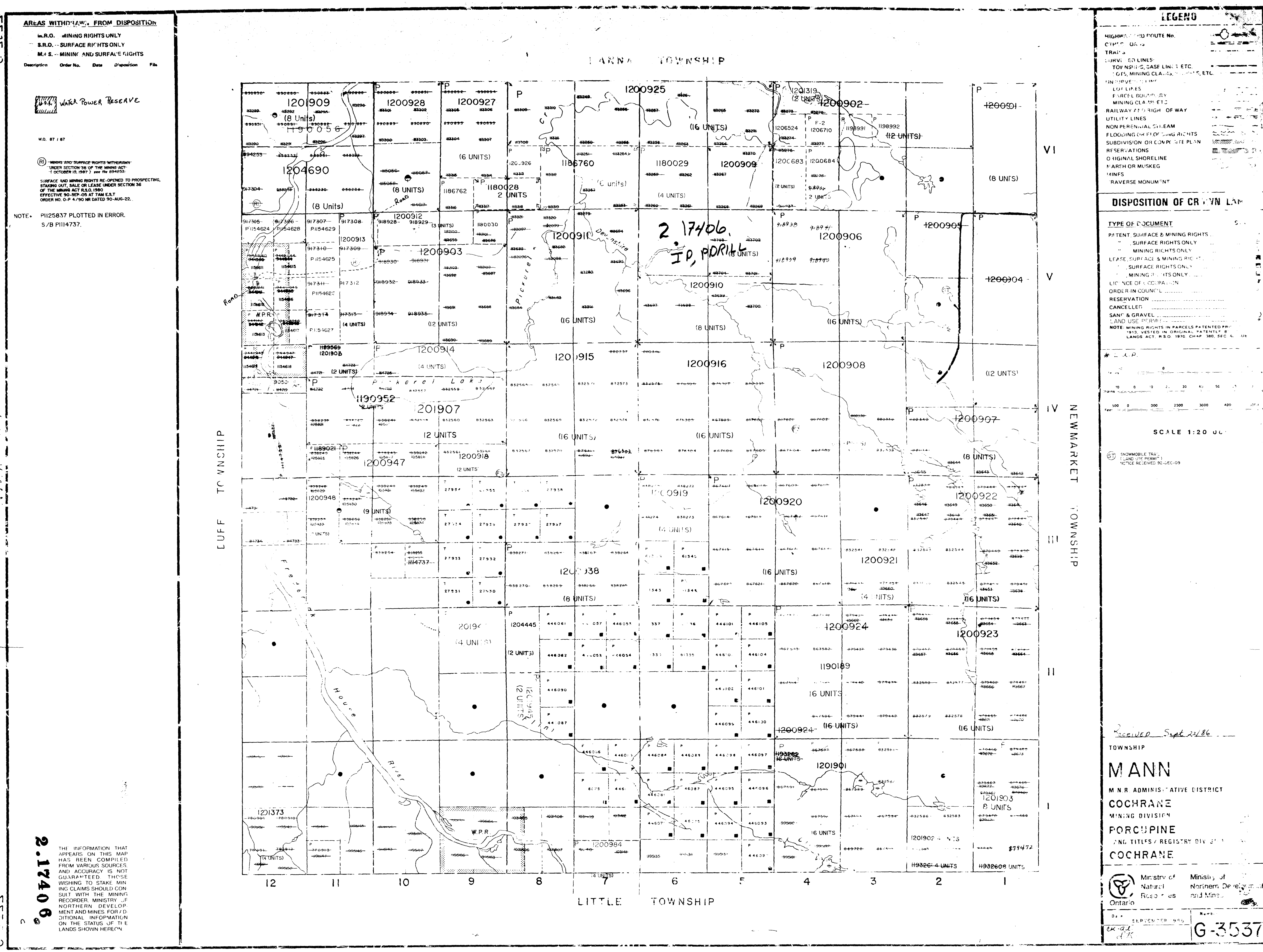
Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

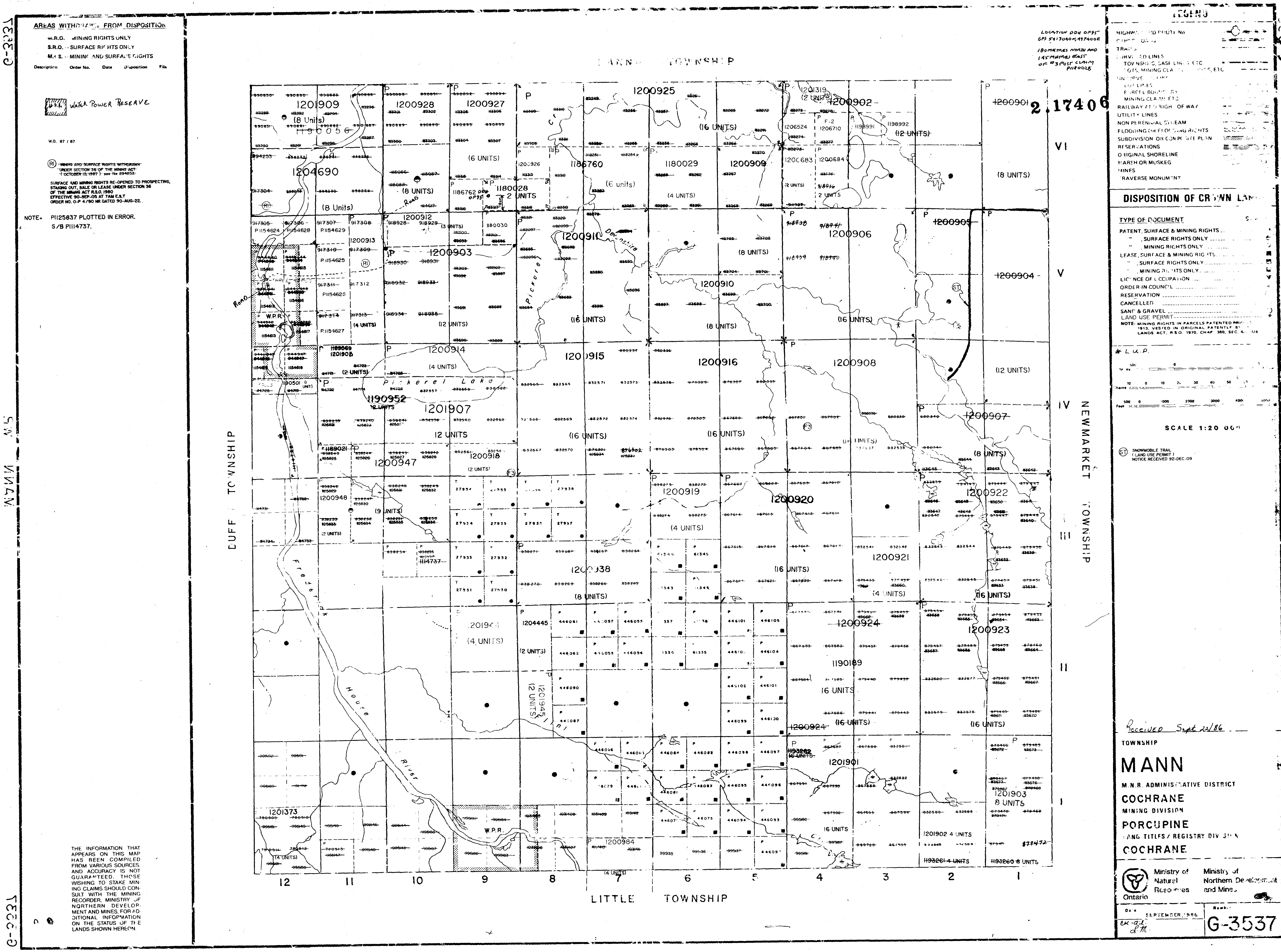
JOHN TREMAINE WARD
SCARBOROUGH, Ontario

DAVID ANDREW WARD
SCARBOROUGH, Ontario

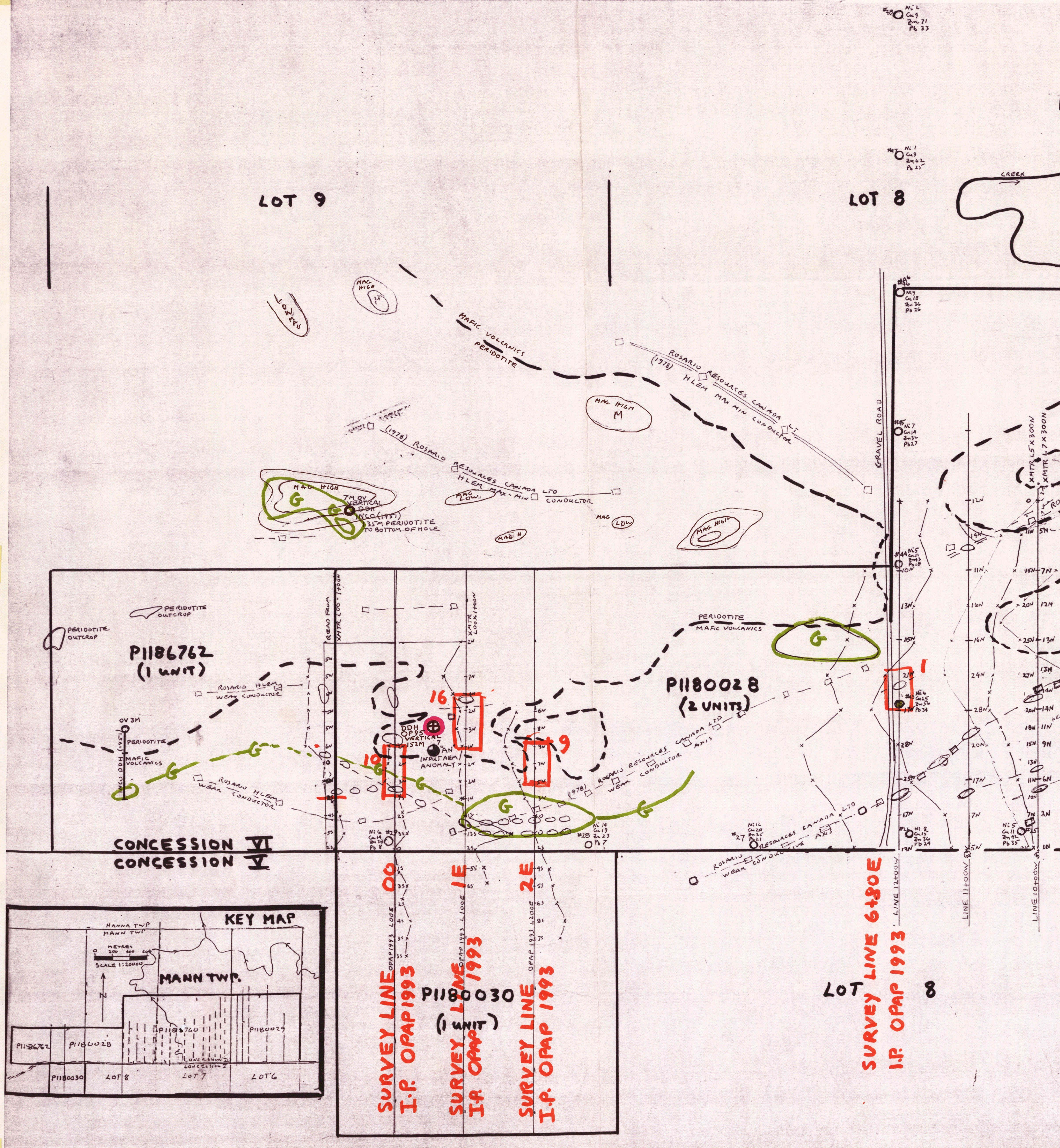


42A15NW0025 2.17406 MANN

200



AREAS WITHDRAWN FROM DISPOSITION
M.R.O. - MINING RIGHTS ONLY
S.R.O. - SURFACE RIGHTS ONLY
M.+S. - MINING AND SURFACE RIGHTS
Description Order No. Date Disposition File
W.P.R. WATER POWER RESERVE
W.O. 87 / 87
SURFACE AND MINING RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT R.S.O. 1980 EFFECTIVE 90-SEP-05 AT 7AM E.S.T ORDER NO. O-P 4/90 MR DATED 90-AUG-22.
NOTE: P1125837 PLOTTED IN ERROR. S/B P1114737.
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.
TOWNSHIP
DUFF TOWNSHIP
NEWMARKET TOWNSHIP
LITTLE TOWNSHIP
Pickerel Lake
Frederick House River
W.P.R.
1201909
1200928
1200927
1200925
1200902
1204690
1186760
1180029
1200909
1200906
1200905
1200904
1200903
1200910
1200914
1200915
1200916
1200908
1201907
1190952
1200947
1200918
1200907
1200948
1200919
1200920
1200922
1200938
1200921
1200923
1200924
1190189
1201901
1201903 8 UNITS
1201902 4 UNITS
1201373
1200984
1204445
12 11 10 9 8 7 6 5 4 3 2 1
VI V IV III II I
2.17406
LEGEND
DISPOSITION OF CROWN LANDS
TYPE OF DOCUMENT
PATENT, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LEASE, SURFACE & MINING RIGHTS
SURFACE RIGHTS ONLY
MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ORDER-IN-COUNCIL
RESERVATION
CANCELLED
SAND & GRAVEL
LAND USE PERMIT
SCALE 1:20 000
SNOWMOBILE TRAIL (LAND USE PERMIT) NOTICE RECEIVED 92-DEC-09
Received Sept 22/86
TOWNSHIP
MANN
M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE
Ministry of Natural Resources
Ministry of Northern Development and Mines
Ontario
SEPTEMBER, 1986
G-3537



LOT 9
LOT 8
CREEK
MAG HIGH
MAFIC VOLCANICS
PERIDOTITE
ROSARIO RESOURCES CANADA LTD (1978) HLEM MAX-MIN CONDUCTOR
MAG HIGH M
(1978) ROSARIO RESOURCES CANADA LTD HLEM MAX-MIN CONDUCTOR
MAG LOW
MAG HIGH
MAG LOW
GRAVEL ROAD
PERIDOTITE OUTCROP
P1186762 (1 UNIT)
ROSARIO HLEM WEAK CONDUCTOR
PERIDOTITE
MAFIC VOLCANICS
P1180028 (2 UNITS)
ROSARIO RESOURCES CANADA LTD (1978) WEAK CONDUCTOR AXIS
ROSARIO RESOURCES CANADA LTD WEAK CONDUCTOR AXIS
DDH OP95-7 VERTICAL 152M
INPUT ANOMALY
16
10
9
1
CONCESSION VI
CONCESSION V
KEY MAP
MANN TWP.
SCALE 1:20000
P1180030 (1 UNIT)
SURVEY LINE 00 I.P. OPAP 1993
SURVEY LINE 1E I.P. OPAP 1993
SURVEY LINE 2E I.P. OPAP 1993
SURVEY LINE 6+80E I.P. OPAP 1993
LOT 8
LINE 12+00W
LINE 11+00W
LINE 10+00W

FIG. #2

OPAP 1994 PROJECT #2
MANN Twp., Ontario
John T. Ward

Vertical Coil EM and Humus Geochemistry

OPAP 95 I.P.
ANOMALY LOCATIONS
AND
LOCATION MAP D.D.H OP95

2.17406

P1186760 (6 UNITS)

P1180029 (4 UNITS)

LOT 6

LOT 7

GRAVITY COVERAGE (1948)

EAST LIMIT INCO 3

SURVEY LINE 9W I.P. OPAP 1995

SURVEY LINE 8W I.P. OPAP 1995

SURVEY LINE 2W I.P. OPAP 1995

SURVEY LINE 1W I.P. OPAP 1995

SURVEY LINE 00 I.P. OPAP 1995

SURVEY LINE 2E I.P. OPAP 1995

SURVEY LINE 4E I.P. OPAP 1995

DDH INCO (1965) TALC MAGSEDITE

FOOTWALL PERIDOTITE MAFIC VOLCANICS

HANGING WALL PERIDOTITE MAFIC VOLCANICS

INPUT AEM ANOMALY

GRAVEL ROAD

BASE LINE 4+00N

CREEK

LINE 9+00W LINE 8+00W LINE 7+00W LINE 6+00W LINE 5+00W LINE 4+00W LINE 3+00W LINE 2+00W LINE 1+00W LINE 0+00 LINE 2+00E LINE 4+00E LINE 6+00E

J. T. WARD — REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO — MAY 21 1997

LEGEND

SCALE 1:2500 METRES (0 25 50 75 100 125 150)

#176 Ni12 Cu17 Zn57 Pb23 — SAMPLE NUMBER AT HUMUS SAMPLE SITE WITH HUMUS ASSAYS IN ppm: Ni Cu Zn Pb

SAMPLE NUMBERS 166–206 OPAP 1994; 1–165 OPAP 1993

#85 Cu32 — HUMUS SAMPLE ASSAY Cu 20ppm OR GREATER (HIGHER ASSAY OR OTHER ELEMENTS ALSO SHOWN)

METHOD → ICP Spectrometry after Nitric Aqua Regia DIGESTION

VCEM OPAP 1994 AND 1993 CONDUCTOR AXIS

VCEM 1000 Hz. PROFILE SCALE 1cm = 5 DEGREES DIP ANGLE IN DEGREES

ROSARIO RESOURCES CANADA LTD - 1978 MAX-MIN HLEM CONDUCTOR AXIS

OGS AIRBORNE INPUT SURVEY ANOMALY LOCATIONS MAP #81049

INCO 1948 GRAVITY ANOMALY

MAGNETICALY INTERPRETED PERIDOTITE CONTACT

PERIDOTITE MAFIC VOLCANICS — PERIDOTITE OUTCROPPING — DDH DIAMOND DRILL HOLE PERIDOTITE MAFIC VOLCANICS

8 — OPAP 1995 I.P. CHARGEABILITY ANOMALY (MILLISECONDS)

DDH LOCATION OP-95
CLAIM P1180028
1993 GRID COORDINATES 180N, 055E
G.P.S. 5413040N, 497400E