EXPLORATION UNDER OPAP GRANT OP91 -402

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TOWNSHIPS:

BAYLY, MULLIGAN, INGRAM AND PENSE.

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REPORTS AND MAPS

4 CLAIM MAP ENCLOSURES SEE FRONTISPIECE

FINAL SUBMISSION FORM UNDER SEPARATE COVER

INTRODUCTION:

OUR APPLICATION FOR AN OPAP GRANT WAS MADE TO THE ONTARIO MNR. IN MARCH 1991 AND APPROVED WITH NUMBER OP91-402 ASSIGNED TO US.

ACCOMPANYING OUR APPLICATION WAS A PROGRAM RATHER SPECIFIC IN OBJECTIVES: WE PLANNED TO CONCENTRATE ON SEVERAL AREAS WHICH WE DESIGNATED AS PLAN(a), PLAN(b) AND PLAN(c) ALL WITHIN PENSE TOWNSHIP, WITH A POSSIBLE SPILL OVER INTO INGRAM TOWNSHIP TO THE WEST. WE ALSO PLANNED TO COVER TWO AREAS IN MULLIGAN TOWNSHIP, NORTH OF PENSE TWP., BY MEANS OF PLAN (d) AND PLAN(e). SEE TOWNSHIP MAP INSERTS, AND MAP#2.

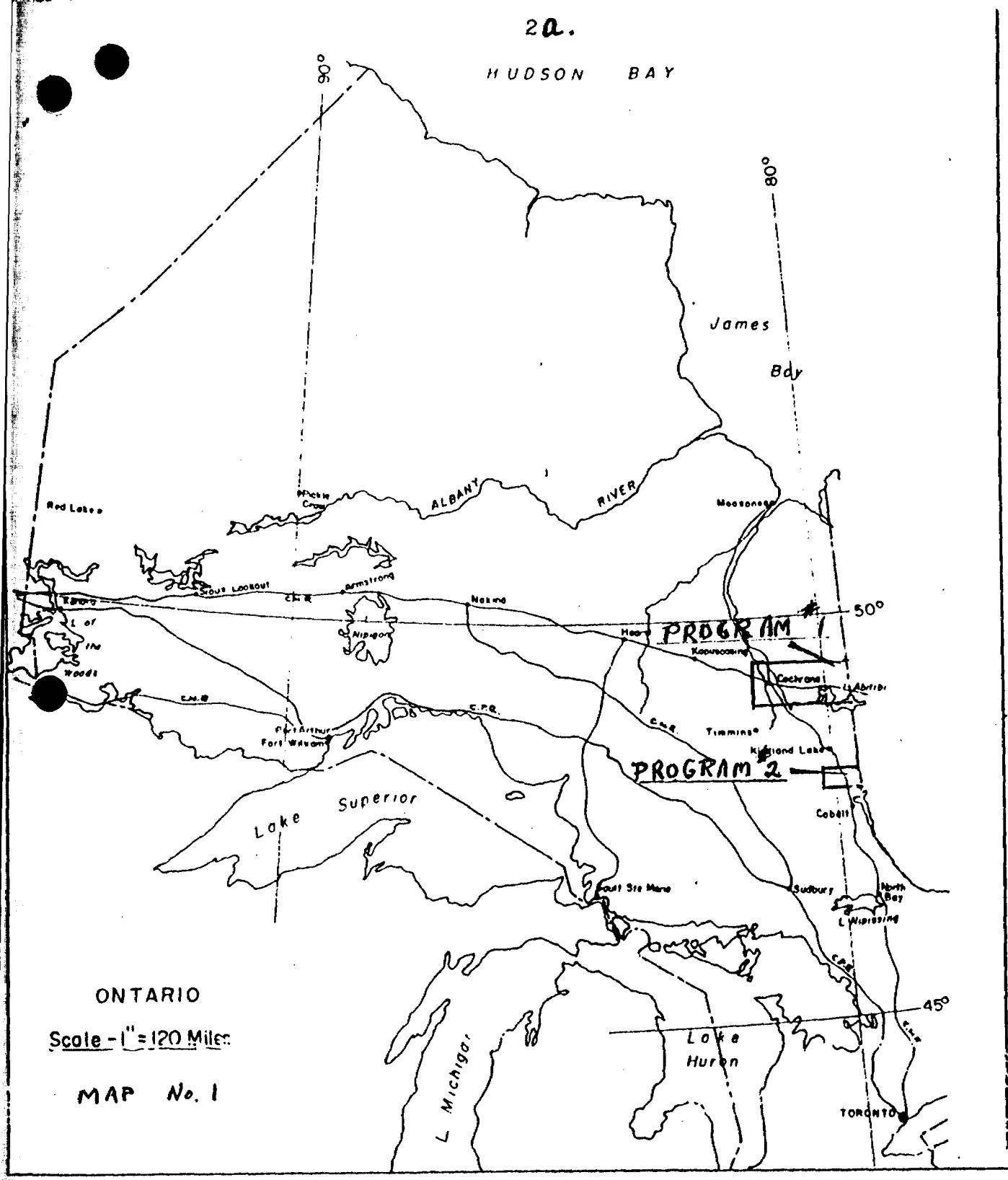
OUR METHOD OF APPROACH WOULD BE TO INVESTIGATE CERTAIN AEROMAGNETIC ANOMALIES OR PORTIONS THEREOF BY MEANS OF LARGE-COIL VERTICAL-LOOP EM. AT MAXIMUM LINE SPACINGS IN ORDER TO GET DEEP EM. PENETRATION RESPONSES. FROM PREVIOUS WORK AND ASSESSMENT FILES IT APPEARED THAT THIS HAD NEVER BEEN DONE BEFORE.

IN ADDITION TO THIS WE WOULD DO WATER SAMPLING OF STREAMS FOR TOTAL HEAVY METAL CONTENT, ALSO GENERAL PROSPECTING AND GEOLOGY OVER THE DESIGNATED AREAS AND OTHER ADJACENT AREAS AS INTEREST DICTATED AS WELL AS TOPOGRAPHIC HIGHS REVEALED BY STEREOSCOPIC ANALYSIS OF AERIAL PHOTOGRAPHS.

WE WERE ALSO PREPARED TO DO FURTHER WORK IN THE COCHRANE-LAKE ABITIBI REGION TO ADD-ON TO THE WORK WE DID THERE IN 1990.

TO BETTER ILLUSTRATE THESE TWO SEPARATE REGIONS, IN OUR APPLICATION WE CALLED THE COCHRANE-LAKE ABITIBI REGION PROGRAM #1, AND THE PENSE TWP. etc. REGION PROGRAM # 2. THE GENERAL LOCATION OF THESE PROGRAMS ARE SHOWN ON MAP #1,INSERT.

UNFORTUNATELY MY PARTNERS WERE NOT APPROVED FORTHE OPAP GRANT AND SO I PROCEEDED WITH A REDUCED PROGRAM AND CONFINED MY ACTIVITIES TO PROGRAM #2 ONLY, SHOWN IN GREATER DETAIL ON MAP # 2.



ONTARIO

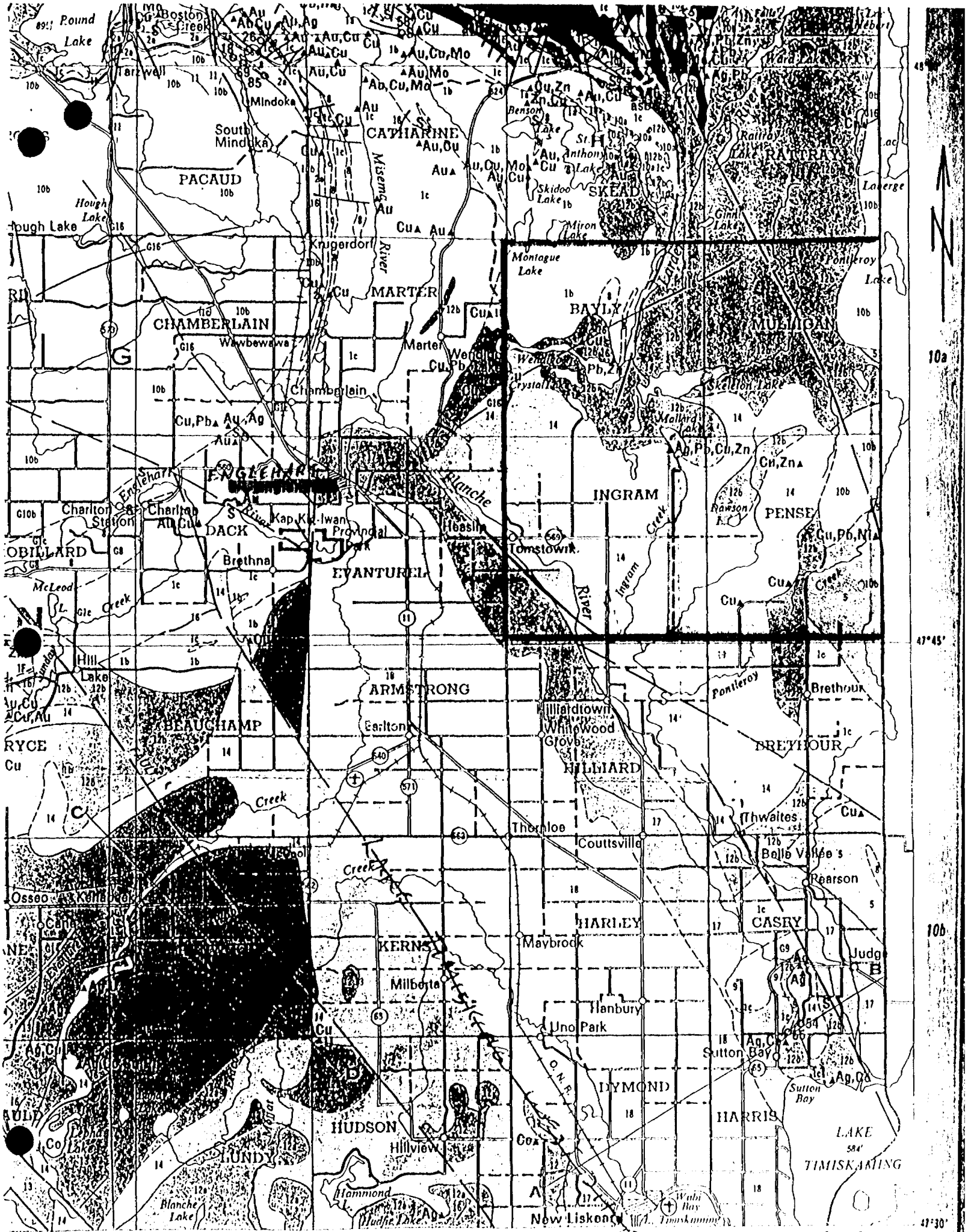
Scale - 1" = 120 Miles

MAP No. 1

LOCATIONS FOR PROGRAMS PLANNED UNDER OPAP GRANT:

PROGRAM #1 ~~Named "Ward - Ellgring"~~

PROGRAM #2 ~~Named "Ellgring - Ismaily"~~



MAP No. 2

PROGRAM # 2

PROJECT AREA

SCALE 1 : 100,000

GENERAL REVIEW OF THIS YEAR'S WORK (1991):

WATER SAMPLING: THE HYDROGEOCHEMISTRY WATER SAMPLING PROGRAM HAD TO BE REPEATED SEVERAL TIMES BECAUSE OF VERY LOW THM. VALUES, AS WELL AS VARIATIONS PRODUCED BY RAIN WHILE SAMPLING, AND ALSO BY CONTAMINATION OF SOME OF OUR PREPARED SOLUTIONS. WE FOUND THE MONTH OF AUGUST 1991 TO BE AN INAUSPICIOUS TIME FOR SUCH A SURVEY BECAUSE OF DROUGHT CONDITIONS THIS YEAR.

BY DOING THE WATER SAMPLING FIRST WE WERE ABLE TO RELEGATE CERTAIN AREAS WE HAD CONSIDERED OF PRIME IMPORTANCE TO A LOWER PRIORITY. IT ALSO ALLOWED US TO BECOME THOROUGHLY FAMILIAR WITH ALL TRAILS AND ROADS THAT COULD BE USEFUL FOR OUR LATER ACTIVITIES.

CASUAL LABOUR: HIRING ASSISTANTS LOCALLY HAD DISADVANTAGES: SECURITY OF INFORMATION WAS COMPROMISED AND PRIVACY IN OUR WORK WAS DISTURBED. IN ADDITION THIS HELP WAS NOT TECHNICALLY ADVANCED ENOUGH TO APPRECIATE WHAT WE WERE ATTEMPTING TO DO BY EM., AND DID NOT FEEL INCLINED TO PRODUCE CAREFUL WORK WHEN WE ENCOUNTERED SPURIOUS RESPONSES DUE TO CONDUCTIVE OVERBURDEN. WITH A LOCAL ASSISTANT WE OBTAINED CROSSOVERS DUE TO TRANSMITTER MISORIENTATION THAT DISAPPEARED COMPLETELY WHEN THE WORK WAS REPEATED.

THIS PROBLEM WAS RESOLVED WHEN WE HIRED JOHN T. WARD P.Eng., WHO WAS MY PARTNER LAST YEAR. WITH HIS ASSISTANCE WE WERE ABLE TO PRODUCE A QUALITY PRODUCT.

EM. ORIENTATION: FORTUNATELY WE HAD ANTICIPATED ORIENTATION PROBLEMS AND CAME PREPARED TO DEAL WITH THIS. WE INTENDED TO COVER AREAS OF INTEREST WITH LINES OF 400metre (1300 ft.) SPACING AND 200 metre (650 ft.) SPACING AWAY FROM THE TRANSMITTER. AT THESE GREAT DISTANCES COMMUNICATION BETWEEN THE TRANSMITTER OPERATOR AND THE RECEIVER OPERATOR BECOME VIRTUALLY IMPOSSIBLE BY THE CONVENTIAL METHOD OF SOUND OR VOCAL SIGNALING. TO OVERCOME THIS PROBLEM WE WERE EQUIPPED WITH FM. WALKIE-TALKIES, AND THE RECEIVER OPERATOR WAS THUS ABLE TO MOVE ABOUT AT WILL OVER ANY CUT AND CHAINED GRID SYSTEM AND STILL HAVE THE TRANSMITTER ORIENTED ON HIM EXACTLY. OUR RADIO COMMUNICATION WAS EXCELLENT AND PREVENTED MANY HOURS OF FRUSTRATION AND UNCERTAINTY.

CONDUCTIVE OVERBURDEN: IT WAS SOON DISCOVERED THAT DIP ANGLES WERE MUCH AFFECTED BY TRANSMITTER ORIENTATION, ABOVE AND BEYOND WHAT WOULD BE NORMALLY ANTICIPATED. WE FOUND THAT THE USUAL METHOD OF RUNNING SEARCH SQUARES WITH UNCERTAIN VOCAL COMMUNICATION BETWEEN TRANSMITTER AND RECEIVER PRODUCED UNREPEATABLE RESULTS WHICH WE ATTRIBUTED TO CONDUCTIVE OVERBURDEN.

SUBSEQUENT EXTRA CAREFUL COMMUNICATION USING WALKIE-TALKIES, A CUT AND CHAINED GRID SYSTEM IN CONJUNCTION WITH A MINIATURE GRID SYSTEM DISPLAYED IN FRONT OF THE TRANSMITTER FOR ORIENTA TION, PRODUCED REPEATABLE READINGS AS EXPECTED, BUT EM. CROSSOVERS OR HIGH READINGS VANISHED AS THE TRANSMITTER LOCATION WAS CHANGED WITHIN THE GRID. THIS GAVE THE IMPRESSION

THAT WE WERE DEALING WITH SHORT CONDUCTORS OF VARIED STRIKE DIRECTION WHEN IN FACT IT WAS DUE TO CONDUCTIVE CLAYS.

OTHER READINGS WE OBTAINED IN CERTAIN AREAS WERE INDICATIVE OF A FLAT LYING CONDUCTIVE SHEET, AGAIN SUGGESTING CONDUCTIVE OVERBURDEN.

LATER CHECKING WITH VLF EQUIPMENT, BECAUSE OF ITS PROPENSITY TO RESPOND TO SUCH OVERBURDEN,REVEALED OFF-SCALE CONDUCTIVITY READINGS AND SPURIOUS CROSSOVERS VERY CLOSE TO SURFACE IN AN AREA OF DEEP OVERBURDEN WHERE OUR LARGE COIL 1000 HERTZ EQUIPMENT ONLY OBTAINED INDICATIONS OF A SHEET CONDUCTOR LYING HORIZONTALLY. IN BOTH CASES CONDUCTIVE OVERBURDEN IS INDICATED.

IN RETROSPECT, ONE CAN RESOLVE THESE PROBLEMS BUT SINCE THEIR OCCURENCE WAS TOTALLY UNEXPECTED IT CAN BE UNDERSTOOD WHY WE WERE PERPLEXED FOR SO LONG. FOR FURTHER DETAILED COMMENTS SEE THE APPROPRIATE EM. REPORTS.

NEIGHBOURING PROSPECTORS: WE MADE THE ACQUAINTANCE OF MR. FOSTER MARSHALL WHO HAS AN ADJOINING PROPERTY, AT THE SOUTH END OF MALLARD LAKE IN INGRAM TWP. HE ALLOWED US TO SET UP OUR TRANSMITTER ON HIS SHOWING TO SEE IF THE SULFIDES THERE MIGHT CONTINUE IN THE DIRECTION OF OUR GROUP #1 CLAIM BLOCK. HE WAS MOST HELPFUL AND WE HOPE THIS RELATIONSHIP WILL CONTINUE. HE DRILLED THIS SHOWING UNDER AN OPAP GRANT WHILE WE WERE THERE AND ALLOWED US TO SEE THE DRILL CORE.

PROSPECTING: PROSPECTING WAS NOT UNDERTAKEN AS A MAJOR EVENT, BUT WAS ON-GOING THROUGHOUT ALL OUR ACTIVITIES. WE VISITED MANY OGS. MAPPED OUTCROPS TO GET THE FEEL OF THE VARIOUS ROCK UNITS. IN THE EXTENT OF OUR TRAVELS WE UNCOVERED SOME DIABASE IN INGRAM TWP. NOT PREVIOUSLY MAPPED (SEE CLAIM MAPS), SOME DIABASE IN PENSE TWP. NOT PREVIOUSLY MAPPED, AND CONSIDERABLE OUTCROP IN MULLIGAN TWP. INVOLVING DIABASE, CONGLOMERATE, AND GRANITE NOT DIRECTLY EVIDENT ON EXISTING GEOLOGICAL MAPS.

GEOPHYSICAL INFORMATION: GSC. AEROMAGNETIC MAP 1494G ENGLEHART AREA, A PORTION OF WHICH IS OUR MAP #3, DIRECTED OUR ATTENTION TO LOCATIONS WE DESIGNATED AS PLAN (a), PLAN(b) etc. WE INVESTIGATED PORTIONS OF THESE MAGNETIC ANOMALIES, AS TIME WOULD ALLOW, INVOLVING THE CENTRE, THE FLANKS, AND THE IN-BETWEEN NON-MAGNETIC AREAS.

WE WERE ALSO LED TO INVESTIGATE A GRAVITY CONTOUR FLUCTUATION THAT SEEMED TO INDICATE A MINOR LOCAL GRAVITY HIGH IN INGRAM TWP.,THAT WAS IN CLOSE PROXIMITY TO A MINERALIZED OUTCROP BEING DRILLED BY OTHER INTERESTS. SEE OGS. MAP #P 2296, 1980, A PORTION OF WHICH IS OUR MAP #4,ALSO SEE OUR REPORT ON THIS.

SUMMARY:

FOR DETAILS SEE THE INDIVIDUAL REPORTS, AND CLAIM MAPS.

1. WATER SAMPLING:

HYDROGEOCHEMISTRY OF STREAMS AND LAKES TURNED OUT TO BE UNREVEALING. ANOMOLOUS CONDITIONS OF TOTAL HEAVY METAL PRESENCE WERE NOT DISCOVERED.

2. EM SURVEYS FOR CONDUCTORS:

PLAN (a) AND PLAN (b) COULD NOT BE ATTEMPTED THIS YEAR BECAUSE OF LACK OF TIME AND INACCESIBILITY DUE TO FLOODING.

PLAN (c) WAS CAREFULLY UNDERTAKEN IN THE PRESENCE OF CONDUCTIVE OVERBURDEN, EMPLOYING THREE SEPARATE BASELINE CONTROLS. NO CONDUCTORS WERE FOUND PERHAPS DUE TO THE MASKING EFFECT OF CONDUCTIVE CLAYS.

PLAN(d) IN AN AREA OF GREAT DIABASE EXPOSURES GAVE NO CONDUCTIVE RESPONSE.

PLAN(e) WAS NOT UNDERTAKEN AS ORIGINALLY PLANNED BUT A CONDUCTOR OF 1 Km. STRIKE LENGTH, OPEN AT BOTH ENDS, WAS LOCATED AND STAKED, IN MULLIGAN TWP.

ANOTHER GROUP OF CLAIMS WERE STAKED IN INGRAM TWP. TO COVER CONDUCTIVE ZONES THAT DEFY DEFINITION AT THIS TIME.

A WEAKLY MINERALIZED DIABASE OUTCROP IN PENSE TWP. SHOWS VLF. CONDUCTORS, AND GOOD 1000HERTZ VERTICAL COIL EM. DIP ANGLES, BUT NEEDS MORE WORK TO CLARIFY.

3. GEOLOGY:

SMALL UNMAPPED OCCURENCES OF DIABASE WERE DISCOVERED IN PENSE TWP. AND INGRAM TWP. THE ONE IN PENSE TWP. SHOWS NARROW RUSTY SEAMS OF SHORT STRIKE LENGTH AND IRREGULAR PATTERN SOMEWHAT SIMILAR TO THE FOSTER MARSHALL SHOWING NEARBY IN INGRAM TWP.

LARGE OUTCROP EXPOSURES WERE TRAVERSED IN MULLIGAN TWP. PARTICULARLY AROUND OUR #2 CLAIM GROUP, BUT NO GOSSANS OR SULFIDES OF QUANTITY WERE SEEN.

REGISTERED PROFESSIONAL ENGINEER F. H. ELLGRING PROVINCE OF ONTARIO

IN CONCLUSION:

WE HAVE DISCOVERED A 1 Km. LONG CONDUCTOR, TWO OTHER AREAS SHOWING EM CONDUCTIVE RESPONSES OF DUBIOUS VALUE, AND SOME OUTCROP NOT PREVIOUSLY REPORTED.

WE READ 487 EM STATIONS AT 35metre INTERVALS MAKING 17045 metres IN TRAVERSE LINES, MOST OF WHICH WERE CUT, CHAINED AND PICKETTED OR FLAGGED. OUR OBJECTIVE WAS TO COVER A LOT OF GROUND THIS YEAR AND FILL IN THE DETAILS ON INTERESTING FINDINGS NEXT YEAR.

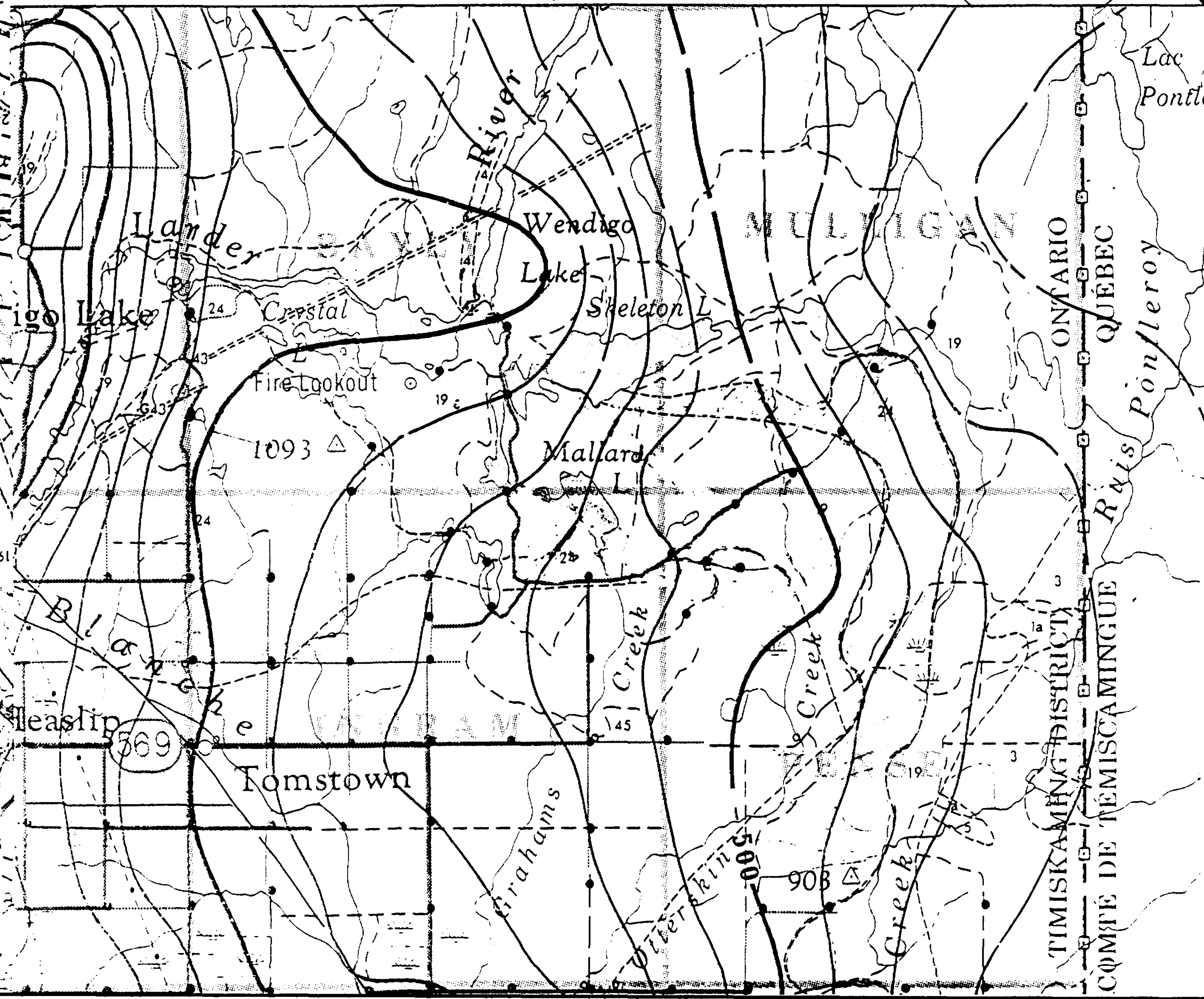
MORE WORK IS RECOMMENDED ON OUR TWO CLAIM GROUPS, AND ON THE MINERALIZED DIABASE OUTCROP IN PENSE TWP.

F. H. Ellgring

PORTION OF 1494G COVERING PENSE TWP. MAP #3

SCALE 1:100,000 FROM OGS MAP # P2296 (1980)

BOUGUER GRAVITY 2 milligal contours (GRAVITY STATION •)



(GRAVITY MAP) MAP # 4

FROM OGS MAP P2296 BOUGUER GRAVITY 2 milligal contours

INGRAM TWP

p. 7

REPORT
ON
SAMPLING OF STREAM WATERS

HYDROGEOCHEMISTRY:

INTRODUCTION:

" A SEMIQUANTITAVE COLORIMETRIC ANALYTICAL METHOD USING DITHIZONE TO DETECT TRACES OF HEAVY METALS IN NATURAL WATERS..." IS DESCRIBED BY LYMAN C. HUFF, 1948, AND PUBLISHED BY PERMISSION OF THE DIRECTOR U.S. GEOLOGICAL SURVEYS. "THE TEST IS VERY SENSITIVE; AS LITTLE AS 0.01 PARTS PER MILLION OF EITHER COPPER, LEAD, ZINC OR ANY COMBINATION OF THE THREE METALS CAN BE DETECTED READILY. AS ORDINARILY USED, A GREEN SOLUTION OF DITHIZONE IN CARBON TETRACHLORIDE IS SHAKEN WITH AN AQUEOUS SOLUTION CONTAINING THE UNKNOWN"... AS FOLLOWS "5.0 mL. OF DITHIZONE SOLUTION, 5 DROPS OF BUFFER SOLUTION AND 50 mL. OF THE WATER SAMPLE ARE SHAKEN VIGOROUSLY FOR ONE MINUTE. A CHANGE IN COLOR OF THE DITHIZONE SOLUTION INDICATES THAT HEAVY METALS ARE PRESENT." HUFF GOES ON TO DESCRIBE METHODS OF INCREASING THE SENSITIVITY.

WE HAD THE NOVA SCOTIA RESEARCH FOUNDATION CORPORATION PREPARE THE NECESSARY VIALS OF DITHIZONE AND BUFFER SOLUTIONS IN APRIL OF THIS YEAR. WITH THIS KIT WE PROCEEDED TO TEST THE STREAMS WITHIN OUR OPAP GRANT AREA.

THE SUMMER HAD BEEN VERY DRY WITH MANY STREAMS BEING STAGNANT OR CONTAMINATED WITH ORGANIC MATERIAL BECAUSE OF BEAVER ACTIVITIES. THIS MEANT THE SURVEY COULD NOT BE VERY REVEALING BECAUSE THERE WAS NOT ENOUGH GROUND WATER MOVEMENT TO MAKE CONTACT WITH BEDROCK SULFIDES TO HIGHLIGHT ANOMALOUS ZONES. IN ADDITION CHEMICAL SENSITIVITIES WERE LOST BECAUSE GREATER AMOUNTS OF DITHIZONE SOLUTION HAD TO BE USED WHEN IT WAS DISCOVERED THAT ORGANIC MATERIALS IN THE STREAM WATERS CAUSED THE CARBON TETRACHLORIDE ORGANIC SOLVENT TO FOAM UP AS A SURFACE LAYER RATHER THAN TO REMAIN AS A BOTTOM RESIDUAL LAYER IN THE SAMPLE BOTTLE.

WE WERE ALSO AFFECTED BY DEEP OVERBURDEN; FOR EXAMPLE AT LOCATION #27 IN PENSE TWP.PONTLEROY CREEK, IT WAS NECESSARY TO CLIMB DOWNWARD 45 VERTICAL metres (150 ft.) FROM THE TABLELAND ABOVE TO THE STREAM BELOW. IT MUST BE CONCEDED THAT 150 ft. OF CLAY OVERBURDEN DOES NOT MAKE A GOOD MEDIUM FOR ION MIGRATION.

PROCEDURE:

OUR INITIAL SAMPLING INVOLVED 50 mL. SAMPLES OF STREAM OR LAKE WATER IN THE MANNER PRESCRIBED. THE RESULTS WERE ESSENTIALLY NEGATIVE WITH PERHAPS 2 OR 3 GLOBULES OF COLOURED DITHIZONATE RESTING ON TOP OF THE REMAINING UNREACTED LAYER.

WE REPEATED THE SAMPLING USING ONLY 1 mL. OF DITHIZONE RATHER THAN THE 5 mL. RECOMMENDED. THIS WOULD HAVE THE EFFECT OF INCREASING THE SENSITIVITY. HOWEVER THIS PROCEDURE RAN INTO DIFFICULTY BECAUSE ORGANIC MATERIAL DISSOLVED IN THE STAGNANT STREAM WATERS PRODUCED FROTHING THAT ALMOST ENTIRELY CONSUMED THE 1 mL. OF DITHIZONE SOLUTION USED.

IT WAS FOUND THAT BY SHAKING VIGOROUSLY ENOUGH, THE DITHIZONE SOLUTION WOULD BE BROKEN UP INTO MINUTE DROPLETS RATHER THAN GLOBULES. THESE FINE DROPLETS WOULD MAKE BETTER CONTACT WITH DISSOLVED IONS AND FINALLY COALESCE TO FORM A MONO COLOURED SOLUTION. THIS TECHNIQUE WAS THEREFORE USED THROUGHOUT OUR EXPERIMENTATION. IT WAS REALIZED THAT SOME SENSITIVITY WAS LOST THIS WAY BUT COULD BE RE-ESTABLISHED BY USING LARGER QUANTITIES OF WATER SAMPLE. CONSEQUENTLY WE REPEATED THE SAMPLING USING 5.0 mL. OF DITHIZONE SOLUTION BUT INSTEAD OF 50 mL.OF WATER SAMPLE WE USED 300 mL., THUS PROVIDING 6X THE AMOUNT OF WATER AND HEAVY METAL TO REACT WITH THE DITHIZONE, AND INCREASED THE SENSITIVITY THIS WAY. FOR STANDARDS OF COMPARISON WE USED A 2.0 PPM. ZINC SOLUTION PREPARED FOR US BY SWASTIKA LABORATORIES, AS WELL AS BOTTLED WATER ANALYZED TO CONTAIN 0.022 PPM ZINC.

IT WAS DETERMINED AFTER MUCH TESTING THAT A 300 mL. WATER SAMPLE PLUS 5.0 mL.DITHIZONE SOLUTION WOULD ONLY JUST CHANGE THE DITHIZONE TO FAINT PINK IN THE PRESENCE OF 0.04 PPM ZINC. WITH THIS KNOWLEDGE IT WAS NOW POSSIBLE TO USE A VARIETY OF WATER AMOUNTS AND LOOK FOR THE COLOUR CHANGE THAT WOULD PRODUCE LIGHT PINK.

FOR EXAMPLE, IF IT TOOK 2 BOTTLES OF WATER OF 300 mL. EACH TO CREATE A LIGHT PINK HEAVY ORGANIC LAYER IN THE BOTTOM OF THE BOTTLE, THEN THE THM. PRESENT WOULD HAVE A CONCENTRATION OF 0.04/2 = 0.02 PPM. SIMILARILY IF IT TOOK 3 BOTTLES THEN THE CONCENTRATION WOULD BE 0.04/3 = 0.01 PPM.

ATTACHED IS A LIST BRIEFLY IDENTIFYING THE WATER SAMPLE LOCATIONS. THESE LOCATIONS HAVE ALSO BEEN MARKED WITHIN A BOX ON THE ACCOMPANYING CLAIM MAPS.

CONCLUSIONS:

DROUGHT CONDITIONS ADVERSELY AFFECTED THE SIGNIFICANCE OF THE READINGS TAKEN. THE AREA IN GENERAL IS NOT CONDUCIVE TO A SATISFACTORY SURVEY OF THIS NATURE BECAUSE OF THE DEPTH OF OVERBURDEN AND THE GENERAL ABSCENCE OF FLOWING STREAMS IN CONTACT WITH BEDROCK.

IT IS SUGGESTED THAT THIS EXPLORATION TOOL BE ABANDONED IN THIS AREA OR USED WITH LIMITED APPLICATION WHEN THE WATER TABLE IS MUCH HIGHER.

OUR RESULTS IN GENERAL INDICATED THM. CONCENTRATIONS OF < 0.01 PPM WITH A FEW THAT RAN 0.01PPM AND THE BLANCHE RIVER ITSELF WHICH SHOWED 0.02 PPM.

NO FOLLOW-UP OF THESE VALUES ARE CONTEMPLATED.

SAMPLE NUMBER, LOCATION AND ppm. OF THM. PRESENT:

BAYLY TWP.

01 WEST END OF WENDIGO LAKE, BELOW THE FALLS. A 300 mL. BOTTLE OF WATER SHOWED NO CHANGE IN COLOUR AFTER SHAKING WITH 5.0 mL. OF DITHIZONE SOLUTION. 900 mL. OF WATER WAS REQUIRED TO BRING ABOUT ENOUGH CHANGE TO PINK TO INDICATE A THM. CONCENTRATION OF 0.01 ppm.

02 EAST END OF WENDIGO LAKE

03 CREEK FLOWING OUT OF SKELETON LAKE TOWARDS WENDIGO L.

04 WEST END OF SKELETON LAKE WHERE PORTAGE GOES TO WENDIGO.

05 WEST END OF SKELETON L. WHERE PORTAGE GOES TO CLEAR L.

06 NORTH END OF CLEAR LAKE

07 SOUTH END OF CLEAR LAKE.

INGRAM TWP.

08 SOUTH END OF MALLARD LAKE 0.01 ppm.

09 CREEK FLOWING OUT OF MALLARD LAKE 0.01ppm.

10 INGRAM CREEK LOT 11 CONC. IV

11. INGRAM CREEK LOT 8 CONC.I

12. LITTLE OTTERSKIN CREEK LOT 11 CONC. I

13 CREEK LOT 8 CONC. IV.

14 SOUTH END SHERRIFFS LAKE or SHEPPARDS L.

15 SMALL LAKE LOT 7 CONC. VI 0.01 ppm.

16 NORTH END SHERRIFFS LAKE

17 TAYLOR CREEK LOT 4 CONC. V. 0.01 ppm.

18 DRAINAGE DITCH LOT 4 CONC. V

19 CREEK LOT 5 CONC.V

20 CREEK LOT 1 CONC. V.

21 BLANCHE RIVER LOT 1 CONC. III. 0.02 ppm.

22 CREEK LOT 4 CONC. III.

PENSE TWP.

23 DAWSON LAKE LOT 2 CONC. IV.

24 LITTLE OTTERSKIN CREEK LOT 3 CONC. IV.

25 PONTLEROY CREEK LOT 4 CONC.I.

26 CREEK LOT 7 CONC. I

27 PONTLEROY CREEK LOT 6 CONC. II.

28 JULIAN CREEK LOT 10 CONC. I.

MULLIGAN TWP.

29 CREEK INTO IRON LAKE (JENROWER LAKE)

30 SKELETON CREEK AT ROAD

31 CREEK DRAINING OUR #2 CLAIM GROUP

NOTE:

ALL OF THE ABOVE FOR WHICH THERE ARE NO SPECIFIC CONCENTRATION VALUES SHOWN ARE < 0.01 ppm.

REPORT
ON
EM. SURVEY OVER PLAN (c) PENSE TWP.

PLAN (c) PENSE TWP.

FOR LOCATION OF GRID SYSTEMS SEE OUR MAP #5, WHICH ALSO SHOWS CONTOURING TAKEN FROM AEROMAGNETIC MAP 1494G.

BASELINE (iii):

THIS CUT AND CHAINED BASELINE IS 1200 metres LONG AND IS LOCATED A CHAINED DISTANCE OF 300 metres SOUTH OF THE CONC. III - CONC. IV MUTUAL BOUNDARY ROAD. CROSSLINES ARE ALSO CUT AND CHAINED.CONSIDERABLE TIME WAS DOING THIS BECAUSE THE BUSH WAS THICK AND IMPENETRABLE IN THIS LOW LYING AREA. ALSO WE BEGAN GETTING INCONSISTENT EM. DIP ANGLES THAT ALERTED US TO THE FACT THAT THERE WAS CONDUCTIVE OVERBURDEN PRESENT.

OUR WORK HERE WAS TO CHECK TWO MAGNETIC HIGH ZONES AND THE ZONE IN BETWEEN THEM. WE RAN TRAVERSE LINES 200 metres (650 ft.) AND 400 metres (1300 ft.) FROM THE TRANSMITTER IN ORDER TO GET RESPONSES FROM DEEP LYING CONDUCTORS.

THE EM. DIP ANGLES WERE ALL ESSENTIALLY ZEROES WITH A FEW ONE OR TWO DEGREE DIP ANGLES THROWN IN FOR VARIETY, WITHOUT ANY CROSSOVERS OR HINT THEREOF BEING OBTAINED.

BASELINE (i):

THIS CUT AND CHAINED BASELINE IS 600 metres LONG IN A SANDY AREA,OVERLYING DEEPER CLAYS,THAT IS PERHAPS 6 OR 8ft. IN HEIGHT. BECAUSE THE TRAVEL THROUGH THIS AREA WAS SO EASY TO DO CROSSLINES BY COMPASS AND PACING, USING VOCAL CONTACT TO SIGNAL THE LOCATION OF THE RECEIVER OPERATOR, WAS EMPLOYED. WE OBTAINED SMALL CROSSOVERS THAT MADE US DECIDE TO CUT AND CHAIN THE CROSSLINES FOR BETTER CONTROL.

WHEN THIS WAS DONE AND THE WORK REPEATED THE PREVIOUS READINGS DISAPPEARED TO GIVE ALL ZEROES. THIS MADE US VERY MUCH AWARE OF THE EFFECT OF CONDUCTIVE OVERBURDEN AND ENCOURAGED US TO USE GREATER CARE.

AN INTERESTING BUT UNIMPORTANT DISCOVERY HERE WAS THAT WE EXPERIENCED A COMPASS DEFLECTION WHEN PUTTING IN THE NORTH HALF OF OUR 200 metre WEST LINE.

TO THE NORTH OF THE ABOVE BASELINE WE PUT IN A SHORT 200 metre BASELINE AS SHOWN AND RAN ONE TRAVERSE LINE OVER THE CENTRE OF THE AEROMAGNETIC ANOMALY, BUT ONLY GOT ZEROES.

SUMMARY: SINCE ALL EM. READINGS WERE ESSENTIALLY ZEROES WE CONCLUDED THAT THERE WERE NO EM. CONDUCTORS OF INTEREST TO US SO WE ABANDONED THE AREA. NO PLOTTING IS INCLUDED TO SHOW THIS LACK OF RESPONSE.

REGISTERED PROFESSIONAL ENGINEER
F. H. ELLGRING
PROVINCE OF ONTARIO

MAP #5

LOCATION MAP FOR EM WORK OVER PLAN (c) AREA

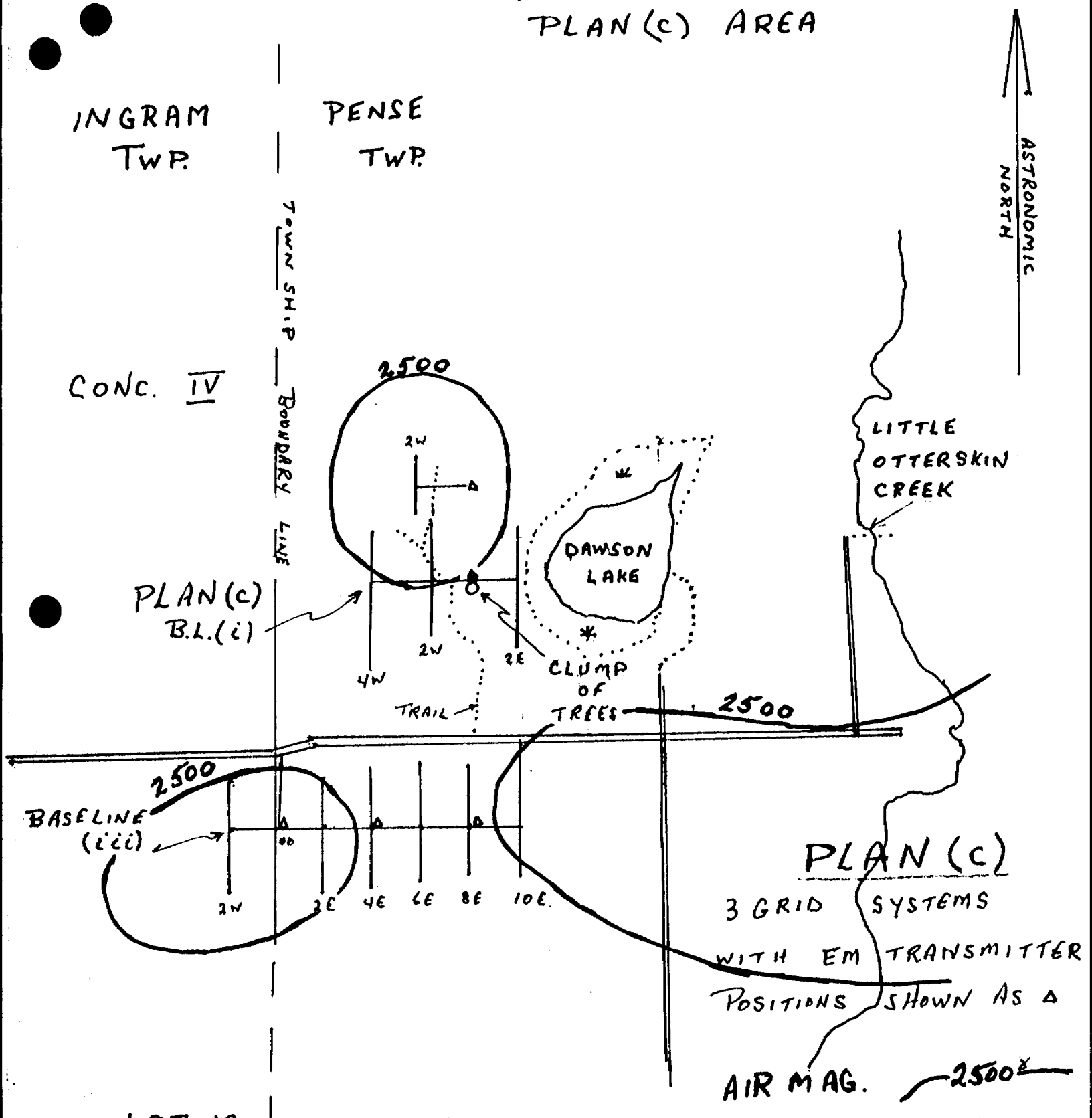


PHOTO
86-4727
16-121

Scale:
1 cm. to 205 m.
1 : 20,000

REPORT
ON
PLAN(d) MULLIGAN TWP.

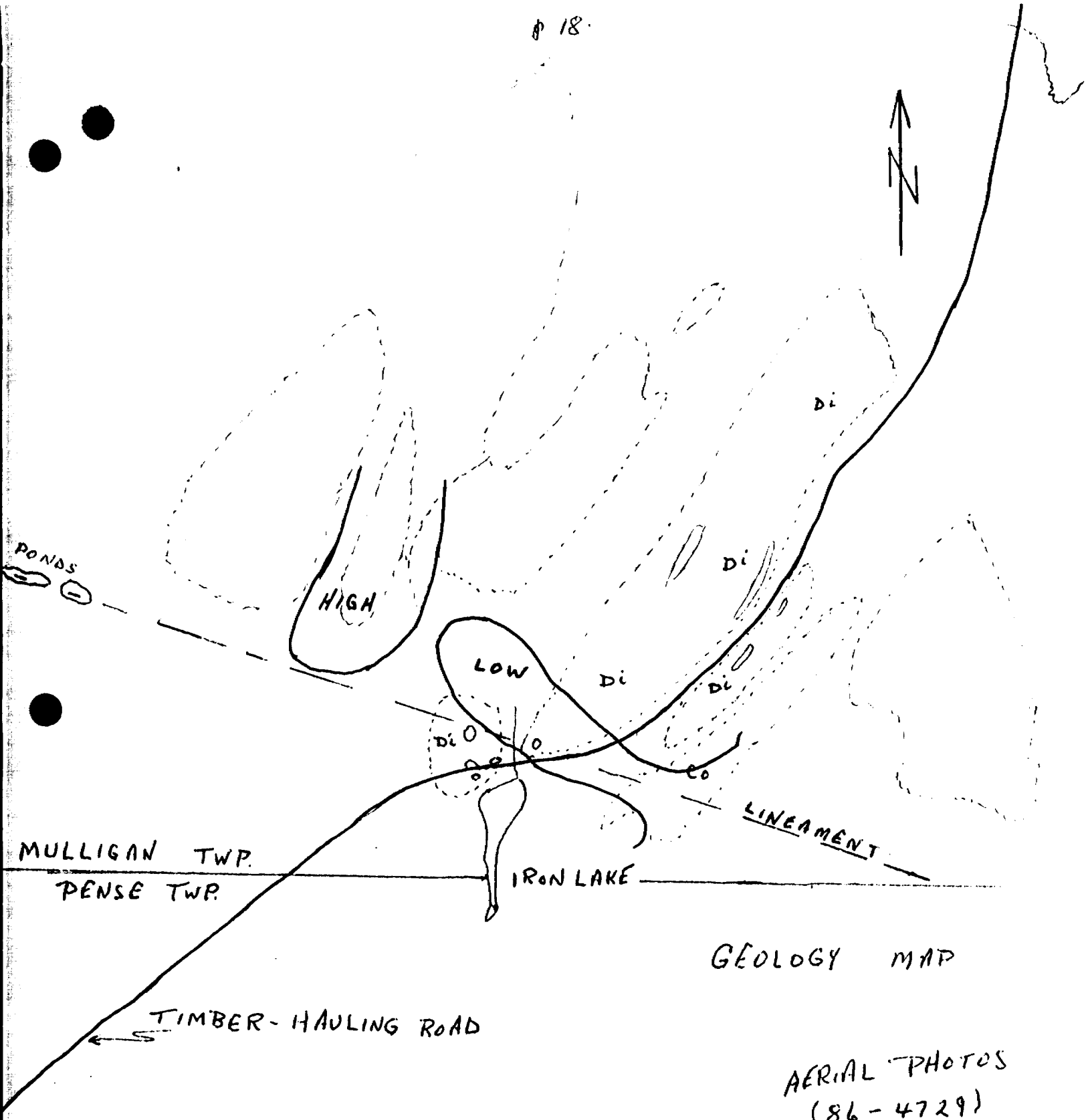
PLAN (d) MULLIGAN TWP.

MULLIGAN TWP. AROUND IRON LAKE ALSO KNOWN AS JENROWER LAKE, CONTAINS MUCH OUTCROP. SEE OUR MAP #6, MOST OF WHICH APPEARS TO BE DIABASE. WE HAVE SHOWN DIABASE OUTCROP THAT WE HAVE INSPECTED WITH THE SYMBOL "Di".

SUPERIMPOSED ON THIS WE HAVE TRANSCRIBED FROM AEROMAGNETIC MAP 1494G A MAG HIGH AND A MAG LOW ADJACENT TO WHAT APPEARS TO BE A TOPOGRAPHIC LINEAMENT. NOT SHOWN IS THE LOCATION OF WORK BEING DONE BY OTHER INTERESTS IN THE VICINITY OF THE PONDS SHOWN AT THE WEST BOUNDARY OF MAP# 6. DRILLING AND BLASTING SEEMS TO BE GOING ON HERE AT AN OLD COBALT SHOWING.

MAP # 7 SHOWS THE LOCATION OF OUR EM. TRANSMITTER SET-up ON DIABASE OUTCROP ADJACENT TO THE LINEAMENT. DIP ANGLES OBTAINED HERE WERE ESSENTIALLY ALL ZEROES ON A LINE TO THE WEST OF THE TRANSMITTER AND TO THE EAST. THIS PROVED DISCOURAGING TO US SO WE DISCONTINUED WORKING HERE AND MOVED ON TO OTHER HIGHER PRIORITIES.

WE WOULD LIKE TO RETURN HERE AND TAKE THE TIME TO PROSPECT THE MAGNETIC HIGH AND DO SOME MORE EXPLORATORY EM. ESPECIALLY AT THE CONTACT BETWEEN THE DIABASE AND THE HURONIAN CONGLOMERATE JUST TO THE EAST OF WHERE WE SET-UP, SEE MAP # 6.



GEOLOGY MAP

AERIAL PHOTOS
(86-4729)
24-62
24-63

(86-4728)
16-215

SCALE ≅ 1:20.000

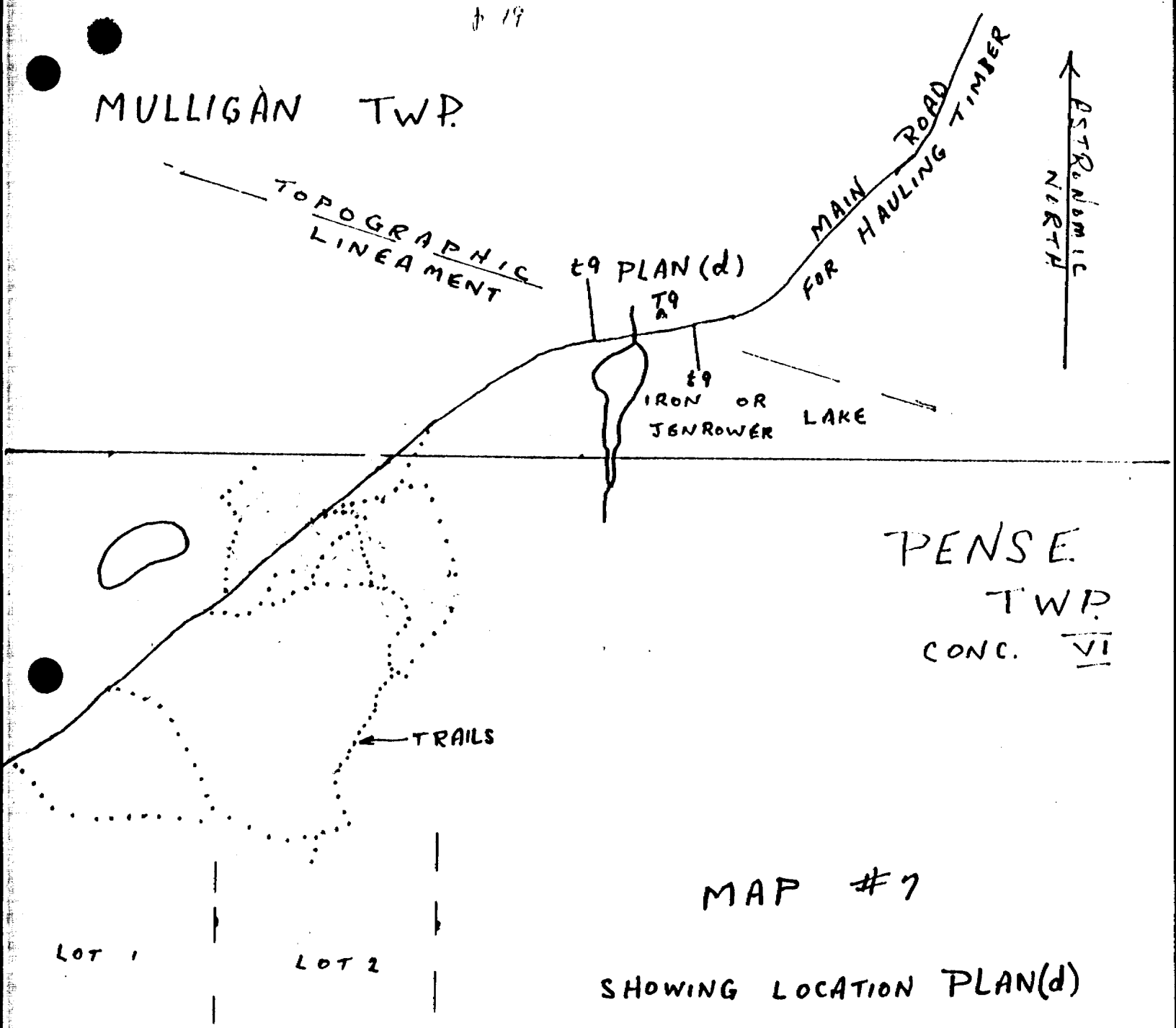
HILLS OF OUTCROP WITH

AREAS INSPECTED

Di = DIABASE

Co = CONGLOMERATE

MAP #6



MAP #7

SHOWING LOCATION PLAN(d)

T9Δ EM. TRANSMITTER SET-UP
t9 TRAVERSE LINES READ FROM T9Δ

REPORT
ON
PLAN (e) MULLIGAN TWP.

PLAN (e) MULLIGAN TWP.

INTRODUCTION:

OUR INTEREST WAS ORIGINALLY DIRECTED TO THIS AREA BECAUSE OF THE MAGNETIC ANOMALY LYING WITHIN THE TOPOGRAPHIC DEPRESSION KNOWN AS MULLIGAN LAKE. SEE OUR MAP # 8 WHICH IS A PORTION OF THE ENGLEHART AEROMAGNETIC MAP 1494G. IMMEDIATELY TO THE SSE.OF MULLIGAN LAKE IS ANOTHER SMALL MAGNETIC HIGH THAT SEEMS TO LINK UP WITH THE MAG. HIGH UNDER MULLIGAN LAKE.

SINCE THE MAGNETIC ANOMALY LIES WITHIN A TOPOGRAPHIC LINEAMENT THAT APPEARS TO HAVE SOME AEROMAGNETIC CORRELATION WE THOUGHT THIS MIGHT BE A HIDDEN DIKE THAT SHOULD BE INVESTIGATED. IT STRIKES NNW. INTO A CLAIM GROUP STAKED BY SUDBURY CONTACT MINES. WE HAD PLANNED ON FOLLOWING BUSH ROADS INTO MULLIGAN LAKE AND EXPLORING THAT AREA THOROUGHLY. THIS PROVED TO BE IMPRACTICAL BECAUSE THE BUSH ROADS BECAME NON-EXISTENT AND THE DISTANCE INVOLVED BECAME A MAJOR DETERRENT.

DURING THE SUMMER WE LEARNT THAT SUDBURY CONTACT MINES HAD UNDERTAKEN AN AIRBORNE MAG AND EM. SURVEY IN 1990 of the ENTIRE AREA WHERE WE WERE WORKING, THAT IS BAYLY, MULLIGAN, INGRAM AND PENSE TWPS., WITH FLIGHT LINES IN AN E-W DIRECTION. WE WERE SOMEWHAT DISCOURAGED BY THIS NEWS, BUT HEARTENED BY THE THOUGHT THAT THEY MIGHT HAVE MISSED E-W STRIKING CONDUCTORS, SINCE THEIR FLIGHT LINES WERE PARALLEL TO THEM.

FROM KIRKLAND LAKE MNR. ASSESSMENT RECORDS WE OBTAINED A COPY OF THE WORK SUBMITTED OVER THEIR MULLIGAN TWP. CLAIMS SEE OUR MAP 8 FOR LOCATION, MAP #9 AND #10 FOR THEIR AIR MAG. RESULTS. BY STRAIGHT LINE PROJECTION TO THE SSE. FROM MAP #9 TO MAP #10 IT WOULD APPEAR THAT THEY HAVE LOCATED THE MAGNETIC DIKE RUNNING THROUGH MULLIGAN LAKE THAT WE HAD ORIGINALLY INTERPRETED FROM AEROMAG SHEET 1494G,(BEING OUR MAP #8).

EXPLORATION:

NOW THAT WE HAD ACTUAL CONFIRMATION THAT A MAGNETIC DIKE EXISTED, WE HAD TO CHOOSE A LOCATION IN WHICH TO INVESTIGATE IT. MULLIGAN LAKE WAS OUT OF THE QUESTION BECAUSE IT WAS TOO FAR INLAND WITHOUT THE USE OF ATV. VEHICLES DAILY.

WE CHOSE A GRASSY MEADOW THAT WAS EXACTLY ON STRIKE WITH THE AIRMAG. ANOMALY LOCATED BY SUDBURY CONTACT MINES, BECAUSE OF ITS EASY ACCESSIBILITY. ANOTHER FEATURE VERY MUCH IN FAVOUR OF THIS LOCATION WAS THEVERY RUGGED TOPOGRAPHY ON EITHER SIDE. THE ELEVATION OF THE MEADOW WAS ABOUT 265 METRES ABOVE SEA LEVEL WHEREAS WITHIN ABOUT 1/4 CLAIM LENGTH THE OUTCROP SOARED TO 345 METRES. A CHANGE OF ABOUT 80 METRES (250 ft.)IN SEVERAL VERTICAL STEPS. THIS MEANT THAT AN AIRBORNE SURVEY WOULD HAVE TO BE FLOWN AT A CONSIDERABLE HEIGHT ABOVE THE MEADOW OTHERWISE THE TRAILING EM. EQUIPMENT OR THE AIRCRAFT ITSELF WOULD MAKE CONTACT WITH THE CLIFF. SEE MAP #11 FOR TOPOGRAPHY.

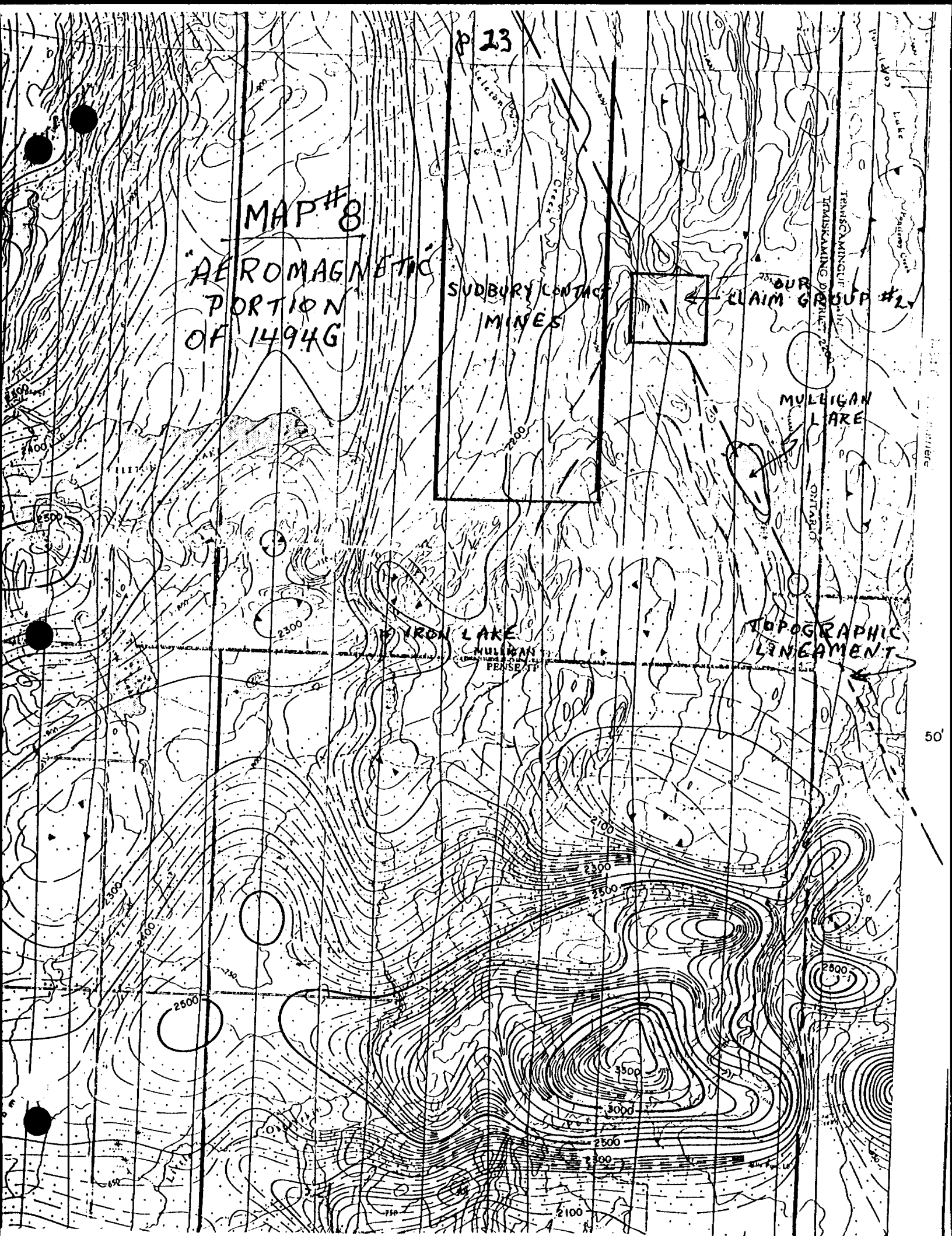
OUR FIRST TRANSMITTER SET-UP AT T1 LOCATED A GOOD CROSS-OVER. WE MOVED OUR TRANSMITTER TO THAT LOCATION, T2, AND READ LINES TO THE SOUTH AND NORTH, OBTAINING CROSSOVERS ON EVERY LINE. SEE MAP #12 AND THE PLOTTING OF THE DIP ANGLES, MAP #13.

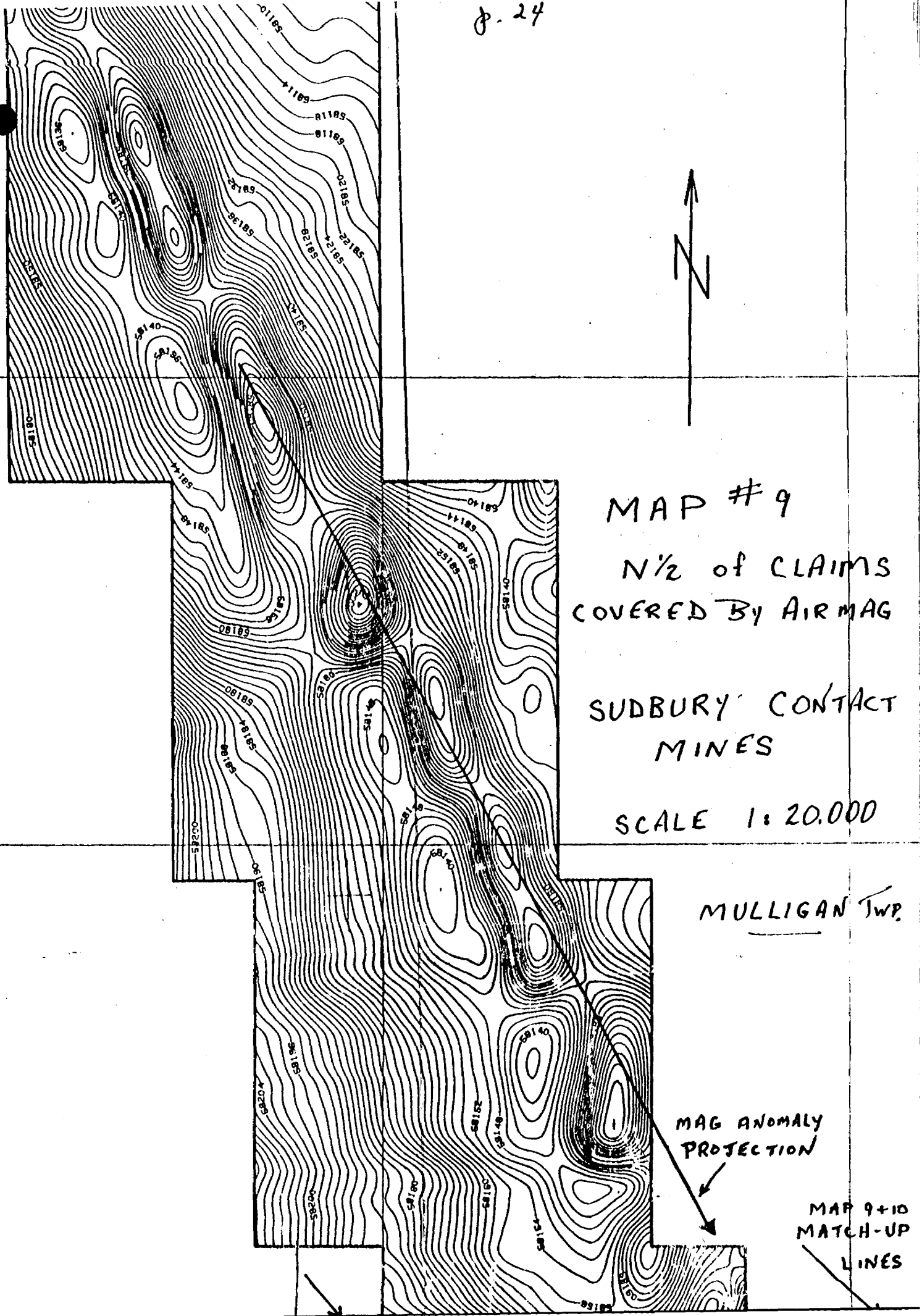
WE STAKED A 4 CLAIM BLOCK WHICH WE CALLED OUR GROUP #2, THE EXACT LOCATION OF WHICH IS SHOWN ON MAP #8, MAP#10, MAP #11 AND MAP #12.

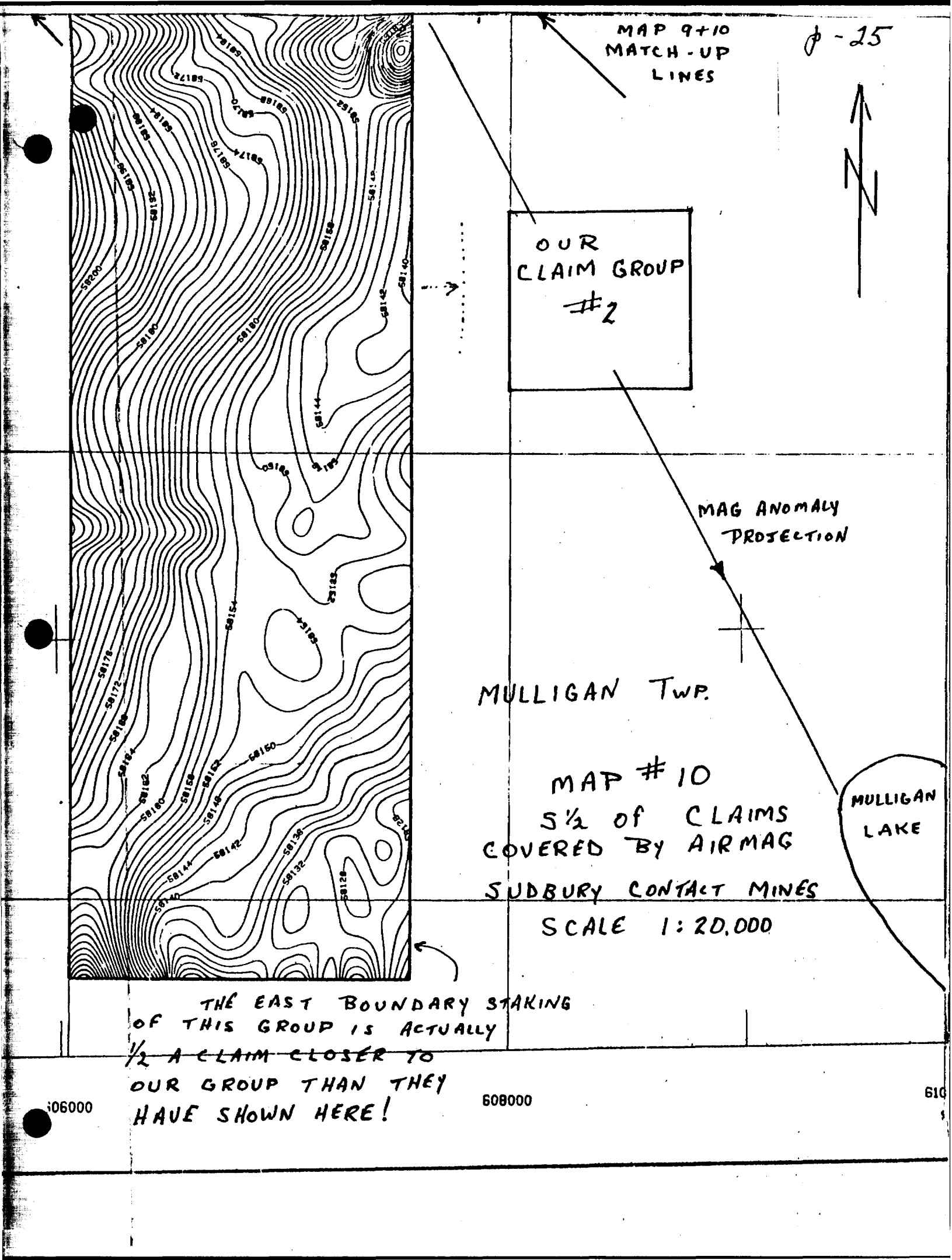
GEOLOGY:

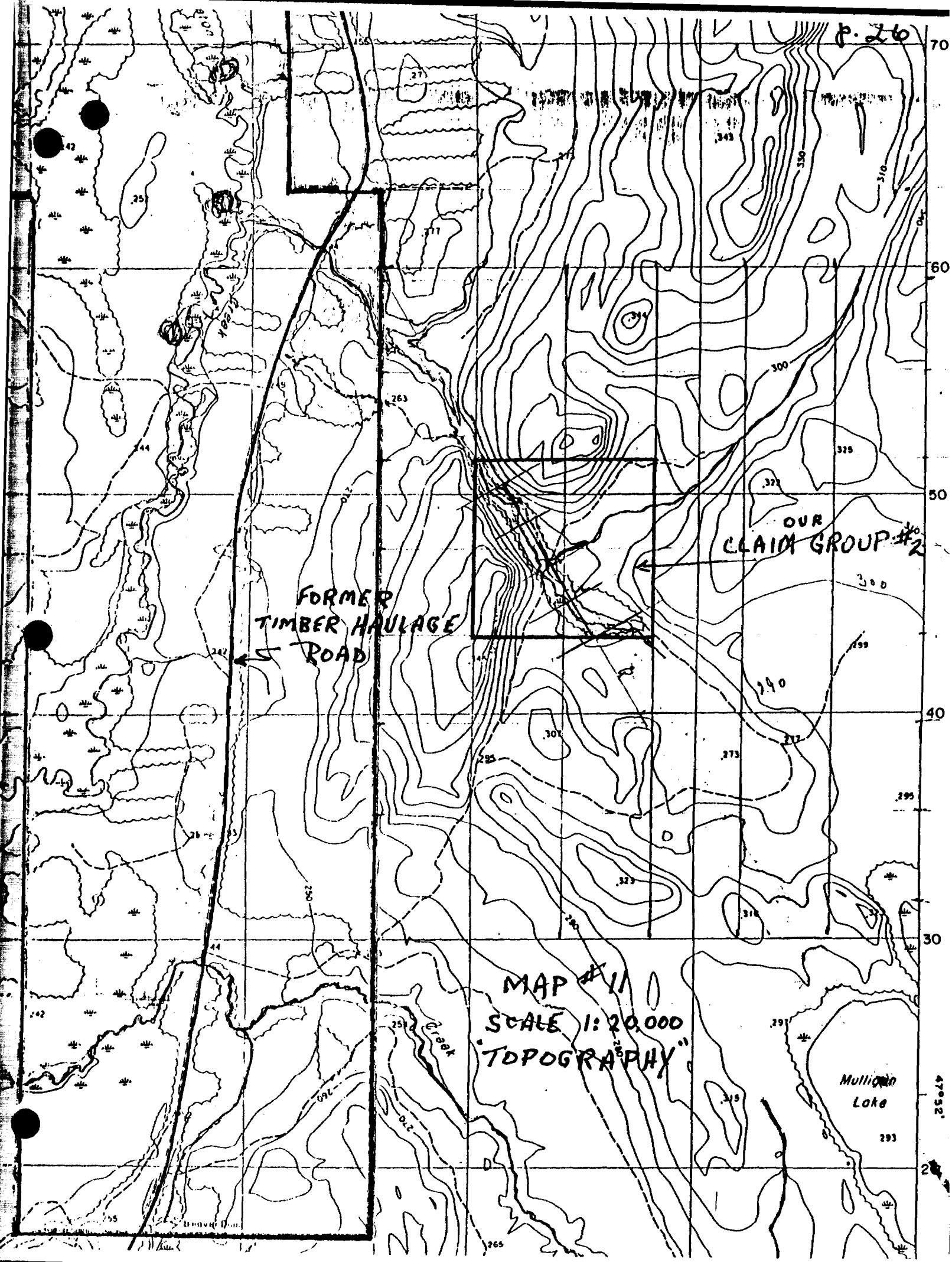
WHILE DOING THE EM. AND THE STAKING WE OBSERVED OUTCROP WHICH WE DID NOT ACTUALLY MAP OR EXPLORE AT THIS TIME, BECAUSE WE HAD OTHER PRIORITIES. HOWEVER REFER TO MAP #11 SHOWING THE TOPOGRAPHY..... THE ENTIRE WESTERN BOUNDARY OF OUR CLAIM GROUP APPEARS TO BE HURONIAN SEDIMENTS, ARKOSE AND CONGLOMORATE. THE SAME CAN BE SAID FOR THE NORTH BOUNDARY EXCEPT FOR THE NE. CORNER (POST #1) WHERE WE ENCOUNTERED A SMALL OUTCROP OF GRANITE WITH QUARTZ VEINS. THE EAST BOUNDARY HAS A PORPHYRITIC GRANITE HILL IN THE SE. CORNER. THE SOUTH BOUNDARY HAS GRANITE OUTCROPPING BELOW THE MIDDLE OF THE CLAIM LINE. SEE MAP #13 FOR THE PHYSICAL FEATURES.

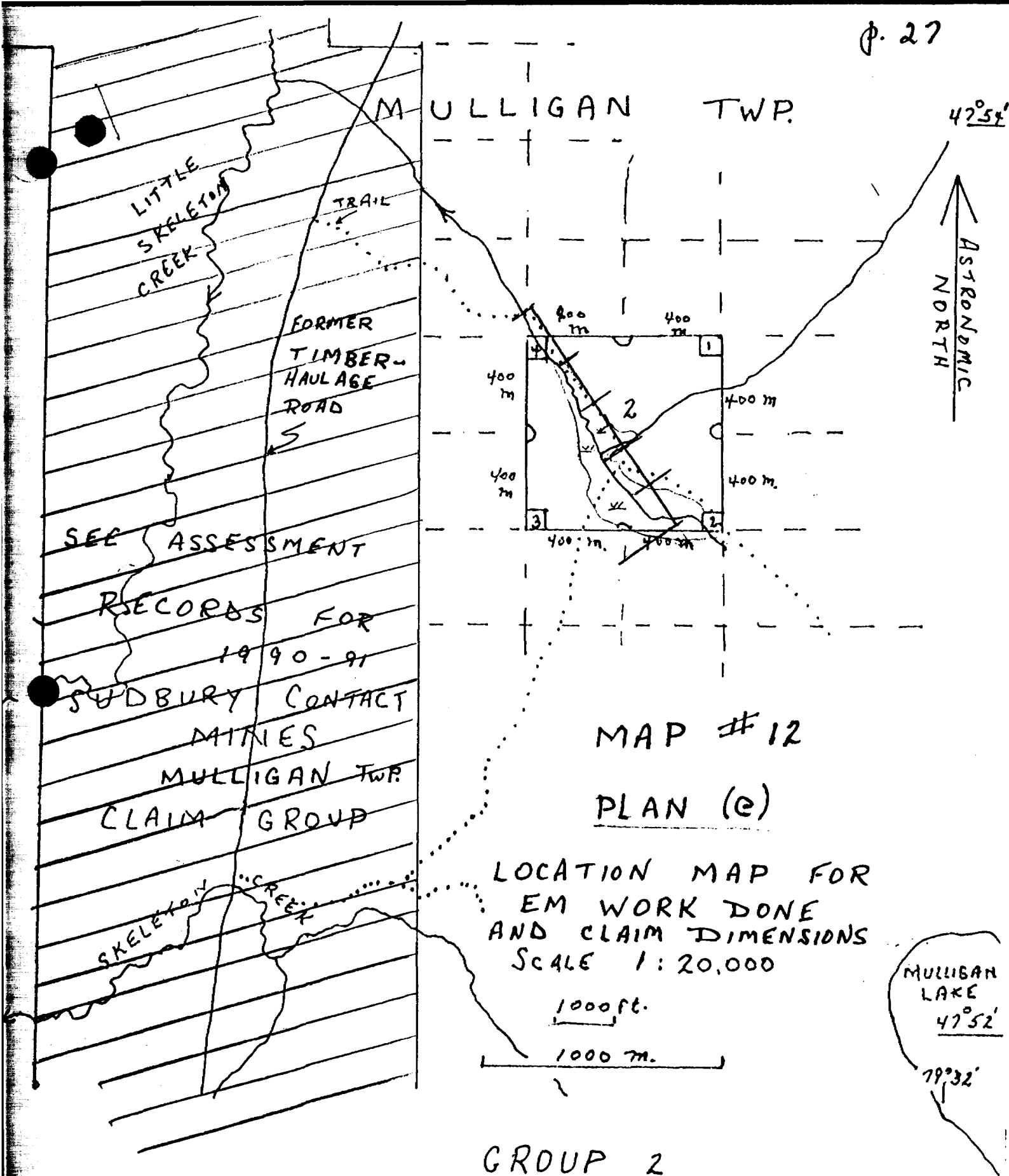
DIAGONALLY THROUGH THIS RUNS OUR EM. CONDUCTOR WHICH WE BELIEVE TO BE RELATED TO A MAGNETIC DIKE STRIKING SSE. FROM THE SUDBURY CONTACT MINES PROPERTY, (SEE MAP #10), into the LARGER MAGNETIC HIGH UNDERLYING MULLIGAN LAKE. AND MAP #14.


p 23
MAP #8
"AEROMAGNETIC
PORTION
OF 1494G
SUDBURY CONTACT
MINES
OUR CLAIM GROUP #2
MULLIGAN
LAKE
IRON LAKE
MULLIGAN
PENSETT
TOPOGRAPHIC
LINEAMENT
50'


N
MAP #9
N½ of CLAIMS
COVERED By AIRMAG
SUDBURY CONTACT
MINES
SCALE 1:20,000
MULLIGAN Twp.
MAG ANOMALY
PROJECTION
MAP 9+10
MATCH-UP
LINES


MAP 9+10
MATCH-UP
LINES
OUR
CLAIM GROUP
#2
MAG ANOMALY
PROJECTION
MULLIGAN TWP.
MAP #10
5½ of CLAIMS
COVERED BY AIRMAG
SUDBURY CONTACT MINES
SCALE 1:20,000
MULLIGAN
LAKE
THE EAST BOUNDARY STAKING
OF THIS GROUP IS ACTUALLY
½ A CLAIM CLOSER TO
OUR GROUP THAN THEY
HAVE SHOWN HERE!
606000
608000
610


OUR
CLAIM GROUP #2
FORMER
TIMBER HAULAGE
ROAD
MAP #11
SCALE 1:20,000
"TOPOGRAPHY"
Mulligan
Lake
Creek
70
60
50
40
30
20
47°52'

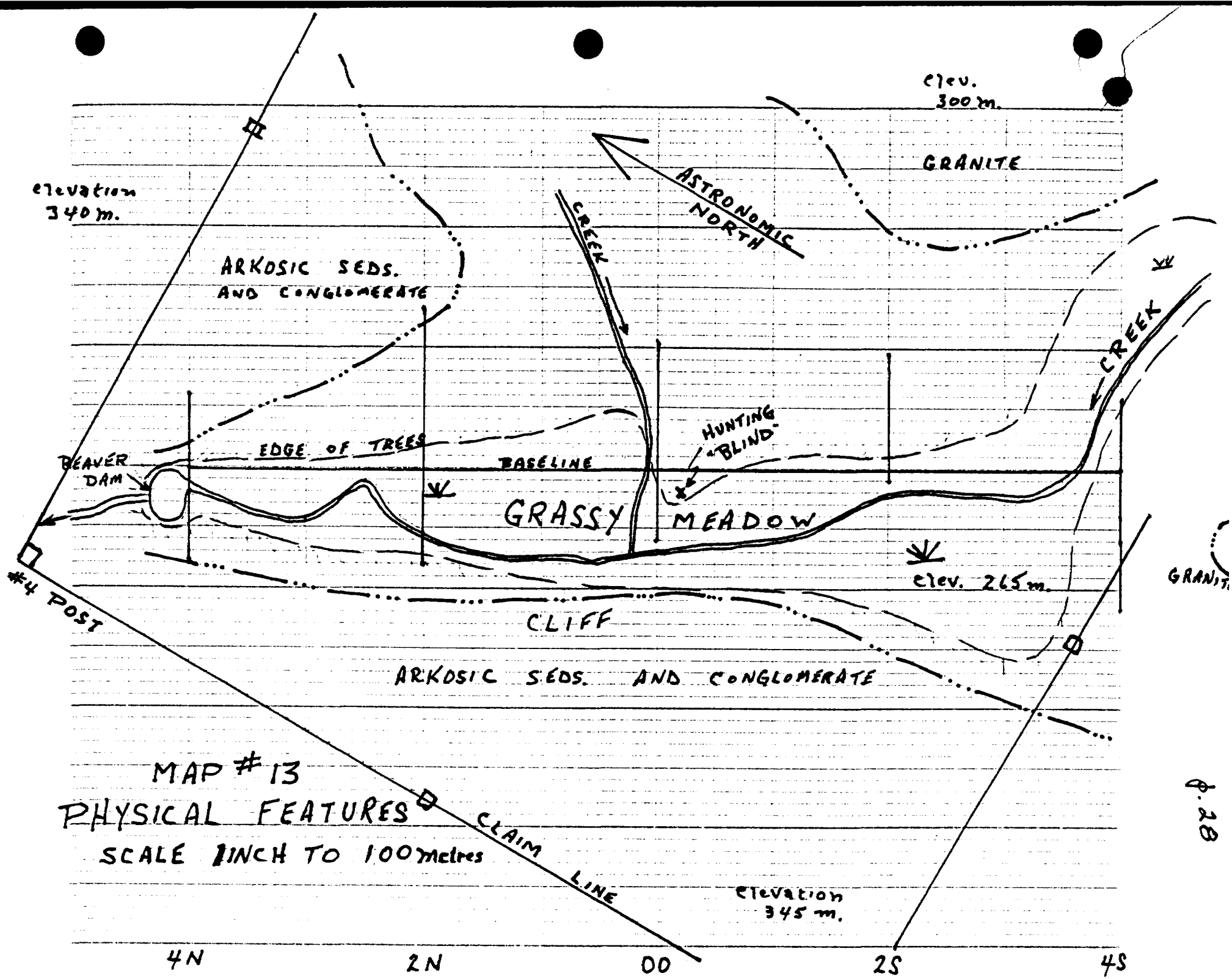


GROUP 2

CLAIM No. 1150621

STAKED BY FRED ELLGRING

SEPT 14 1991

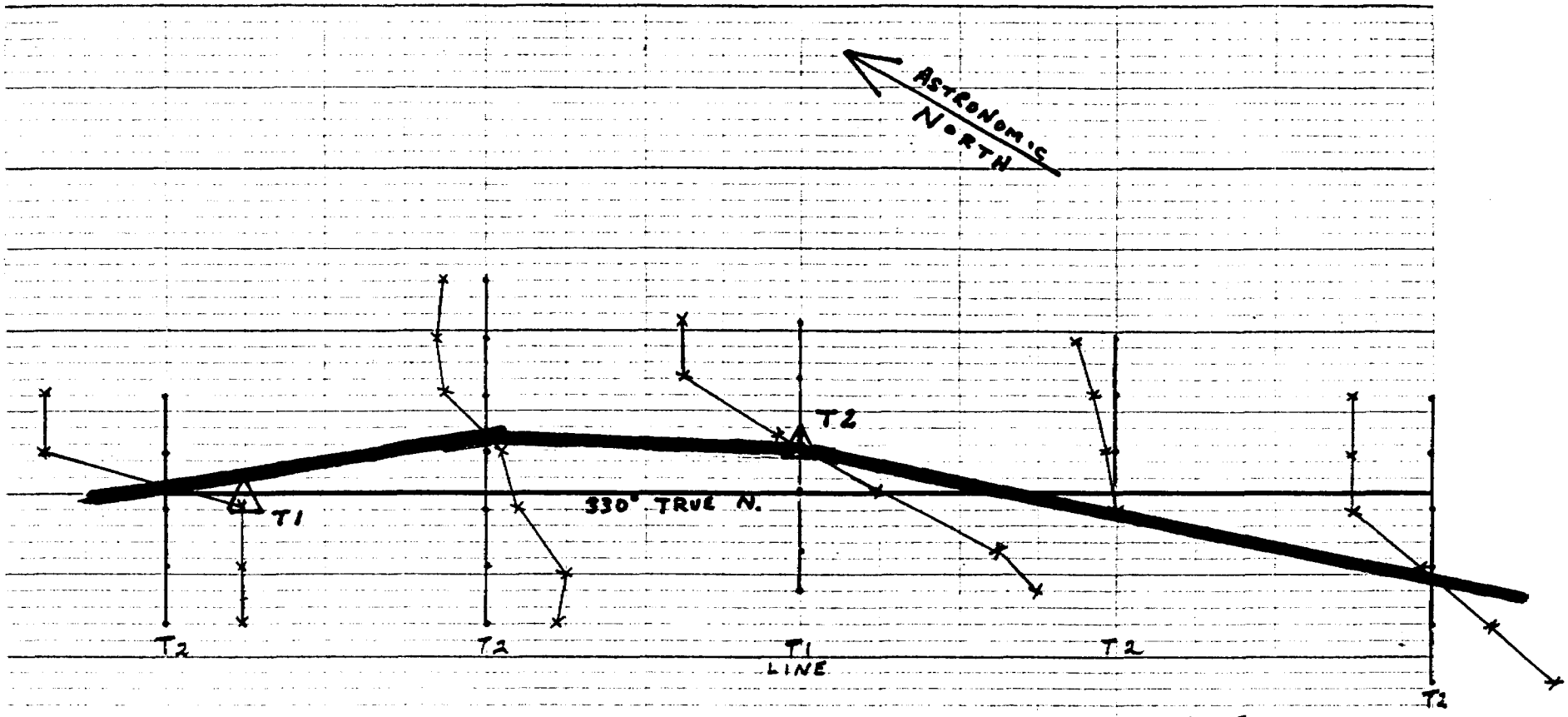


MAP #13

PHYSICAL FEATURES

SCALE 1 INCH TO 100 metres

p. 28



EM. SURVEY
MULLIGAN TWP.
CLAIM GROUP #2
SCALE 1 INCH TO 200 metres
PROFILE OF DIP ANGLES SCALE 1 IN. TO 20 deg.
CONDUCTOR

MAP #14 INEO MARK III V.L.EM. UNIT #19
RANGE 600 metres

AUG-SEPT. 1991

4N (400 m. N.) 2N 00 2S 4S (400 m. S)

p. 29

GEOPHYSICS:

THE EM. CONDUCTOR IS OVER A KILOMETRE IN LENGTH AND STILL OPEN AT BOTH ENDS. THE DISCOVERY WAS MADE FROM T1 GIVING LARGE DIP ANGLES AS SHOWN ON LINE 00, SEE MAP # 14. AT THIS CROSSOVER LOCATION WE SET UP T2 FROM WHICH ALL OTHER READINGS WERE DETERMINED.

REFERENCE TO MAP # 13, WHICH SHOWS THE PHYSICAL FEATURES OF THE AREA, HELPS TO EXPLAIN WHY SUCH SHORT LINES WERE READ. THE MEANDERING CREEK AND FLOODING WAS SOMEWHAT OF A DETERENT, BUT THE PRECIPITOUS CLIFFS AND STEEP ROCK OUTCROP ON EITHER SIDE OF THE MEADOW MADE EM. READINGS INADVISABLE AND UNINTERPRETABLE.

RECOMMENDATIONS:

WE DO NOT LOOK UPON THIS AS AN EM. SURVEY, BUT AS A PRELIMINARY INVESTIGATION. MORE EM. MUST BE DONE WITH LONGER LINES WHERE POSSIBLE BECAUSE THERE IS AN INDICATIONTHAT PARALLEL CONDUCTORS MIGHT BE PRESENT, SO MORE IN-BETWEEN LINES ARE REQUIRED. IN ADDITION, SOME ATTENTION SHOULD BE PAID TO THE GEOLOGIC CONTACT IN THE NE. PORTION OF THE CLAIM GROUP AND TO THE SOUTH OF THE CLAIM BOUNDARY, EVEN THOUGH THIS IS AN UNFAVOURABLE CONTACT BECAUSE OF THE OLDER AGE OF THIS FELSIC INTRUSIVE. WE MUST ALSO DETERMINE THE RELATIONSHIP BETWEEN THE MAGNETIC DIKE AND THE CONDUCTOR, WHICH MEANS A MAGNETOMETRE SURVEY. STILL UNANSWERED IS WHY IS THE MAGNETIC ANOMALY HIGHER AT MULLIGAN LAKE AND ARE THERE ANY MORE CONDUCTORS PRESENT IN THAT DIRECTION?

THE STRIKE DIRECTION OF THIS MAGNETIC DIKE SUGGESTS THAT IT MAY BE AN EARLY-PRECAMBRIAN MATACHEWAN DIABASE DIKE. THIS WOULD BE DISAPPOINTING BECAUSE THIS TYPE OF INTRUSIVE DOES NOT PRODUCE ORE. ON THE OTHER HAND IT MAY BE A LATE-PRE CAMBRIAN DIABASE DIKE SIMILAR TO THAT SEEN IN BAYLY TOWNSHIP AND RATTRAY TOWNSHIP WITH ASSOCIATED SULFIDES.

REPORT ON

INGRAM TOWNSHIP S½ LOT 11 CONC. VI

CLAIM GROUP # 1

INTRODUCTION:

IN THE S½ LOT 11 CONC. VI, INGRAM TOWNSHIP, MR FOSTER MARSHALL HAS A MINERALIZED SHOWING THAT HAS BEEN DRILLED A NUMBER OF TIMES, AND AS RECENTLY AS SEPTEMBER OF THIS YEAR. AEROMAGNETIC MAP 1491G SHOWS NOTHING OF INTEREST HERE OR EVEN NEARBY.

GRAVITY MAP OGS. P 2296, A PORTION OF WHICH IS INCLUDED AT THE BEGINNING OF THIS REPORT AS MAP # 4, SEE PAGE 7, SHOWS DISTURBED CONTOURING IN THIS PART OF THE TOWNSHIP. THE CONTOURING HAS BEEN "GENERALIZED" BECAUSE OF LACK OF GRAVITY STATION DETAILING, AND SO SOME OF THE CURVATURE SHOWN MIGHT BE DUE TO ARTISTIC LICENCE, OR IT MIGHT ACTUALLY REFLECT THE PRESENCE OF GRAVITY ANOMALIES.

WE HAVE CONSIDERED THE LATTER ASPECT AND REDRAWN THE CONTOURING IN THE VICINITY OF THE MINERALIZED OUTCROP, SEE MAP # 15.

IN MAP # 15 WE HAVE SMOOTHED OUT SOME OF THE RAPID CONTOUR CHANGES AND REDRAWN A PORTION OF THESE LINES THUS ELIMINATING THE EFFECT OF ANY SMALL LOCAL GRAVITY HIGHS. THE ORIGINAL CONTOUR LINES ARE SHOWN UNCHANGED BUT THE SMOOTHED-OUT LINES HAVE BEEN DOTTED-IN AND SUPERIMPOSED. MAP # 15 ALSO SHOWS A LINE A-B RUNNING E-W OVER THESE CONTOURS AND DIRECTLY OVER THE MARSHALL SHOWING.

MAP # 16 IS A GRAPH OF THE GRAVITY CONTOURS APPEARING ALONG SECTION A-B. THE SOLID CURVE IS THE GRAPHING OF THE OGS. GRAVITY CONTOURS, AND THE DOTTED CURVE IS THE GRAPH OF THE SMOOTHED OUT GRAVITY CONTOURS SUGGESTED BY US.

IT CAN BE SEEN FROM COMPARING THESE TWO GRAPHS THAT THERE APPEARS TO BE A SMALL GRAVITY HIGH TO THE EAST OF THE SHOWING. THAT IS, THE GRAPHING OF THE ACTUAL CONTOURS PRODUCES A CURVE HIGHER THAN THE CURVE PRODUCED FROM THE GRAPHING OF THE SMOOTHED OUT CONTOURS. SINCE THE SMOOTHED OUT CONTOURS ARE EXPECTED TO ELIMINATE LOCAL GRAVITY FLUCTUATIONS THEN THE ACTUAL ORIGINAL CONTOURS SHOULD SHOW UP ANY GRAVITY ANOMALIES, WHICH IT DOES AS A "HIGH" ON THE GRAPH.

LET ME POINT OUT THAT WE ARE KNOWINGLY SKEPTICAL OF THIS "HIGH" BECAUSE THIS TECHNIQUE IS DESIGNED TO OBTAIN FINE DETAIL FROM A COARSE REGIONAL GRAVITY MAP, WHICH IS SOMETHING THAT CANNOT BE DONE LEGITIMATELY. HOWEVER IT IS DIVERTING AND MADE US DECIDE TO TRY AN EM. SET-UP OVER THISSPECULATIVE "HIGH" WHICH LIES IN THE S½ OF LOT 12 CONC. VI INGRAM TWP.

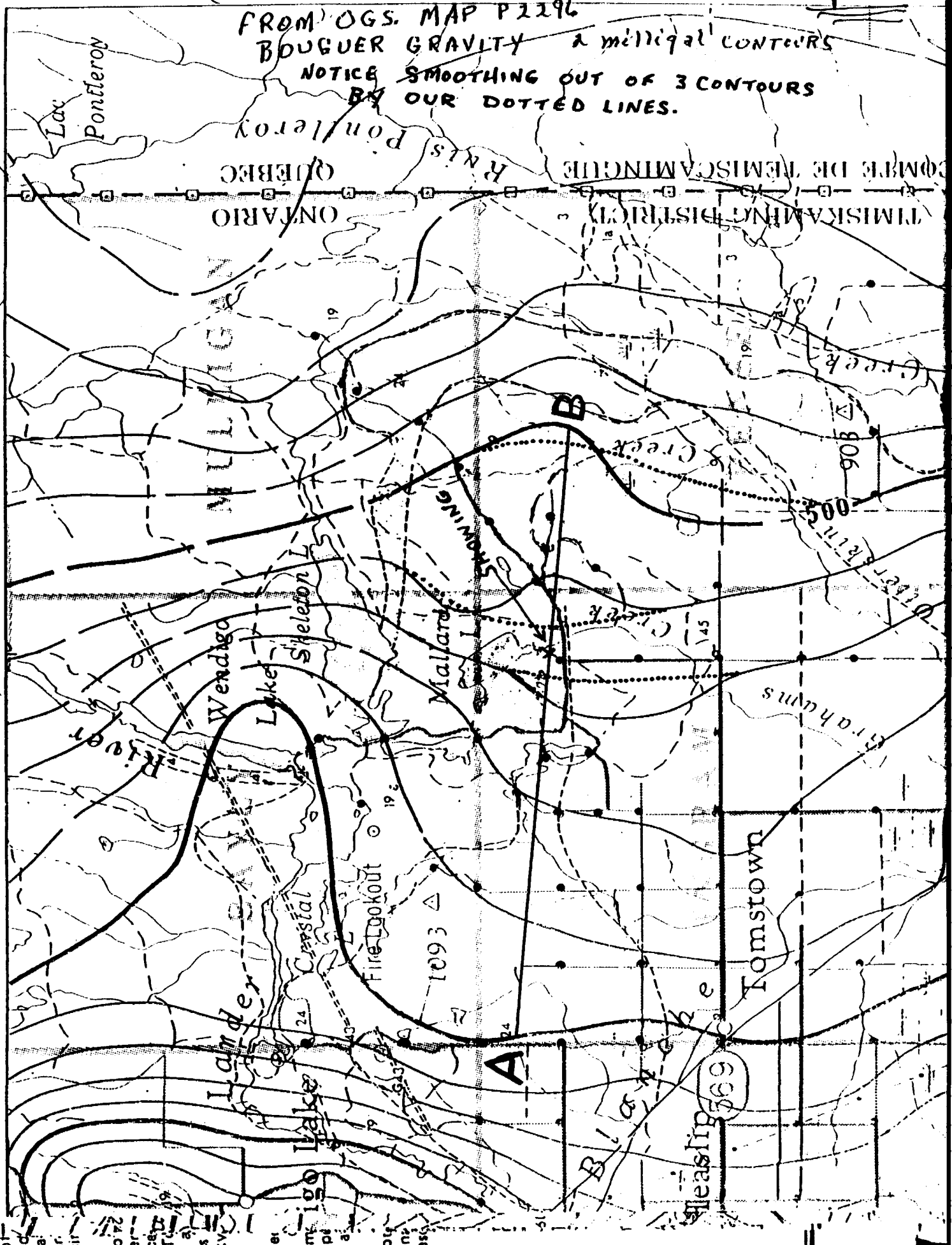
(GRAVITY MAP) MAP #15 INGRAM TWP.

p33

FROM OGS. MAP P2296

BOUGUER GRAVITY 2 milligal CONTOURS

NOTICE SMOOTHING OUT OF 3 CONTOURS BY OUR DOTTED LINES.

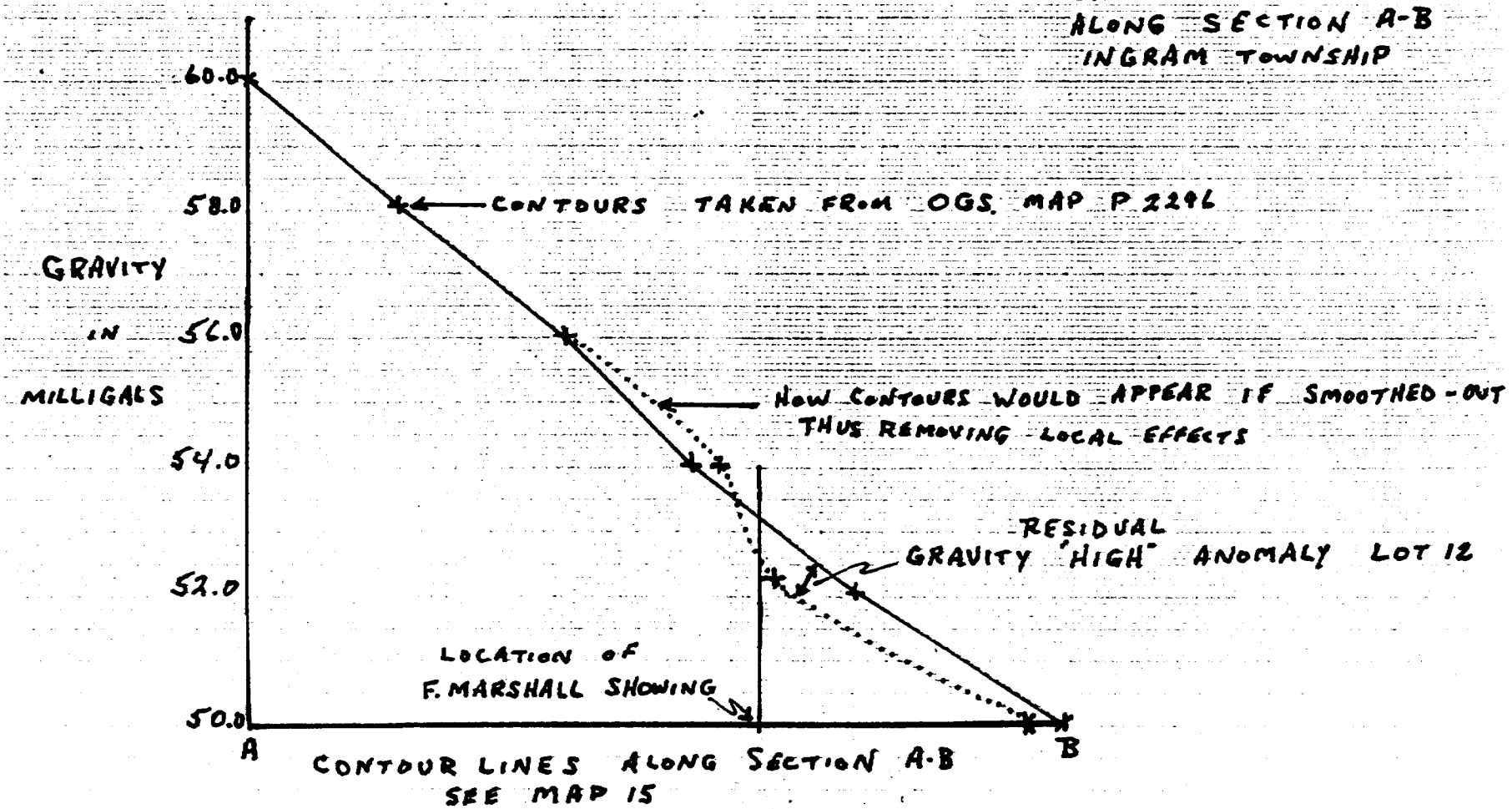


SCALE 1:100,000 FROM OGS MAP # P2296 (1990)

BOUGUER GRAVITY 2 milligal contours

GRAVITY STATION

MAP # 16
GRAPH of CONTOURS
ALONG SECTION A-B
INGRAM TOWNSHIP



Please Complete Sket[illegible]nk

Part D

Group Sketch of claims listed on Part A.
Sketch or plan of the mining claim(s) must show the corner posts, witness posts, and line posts and the distances between the posts in metres.

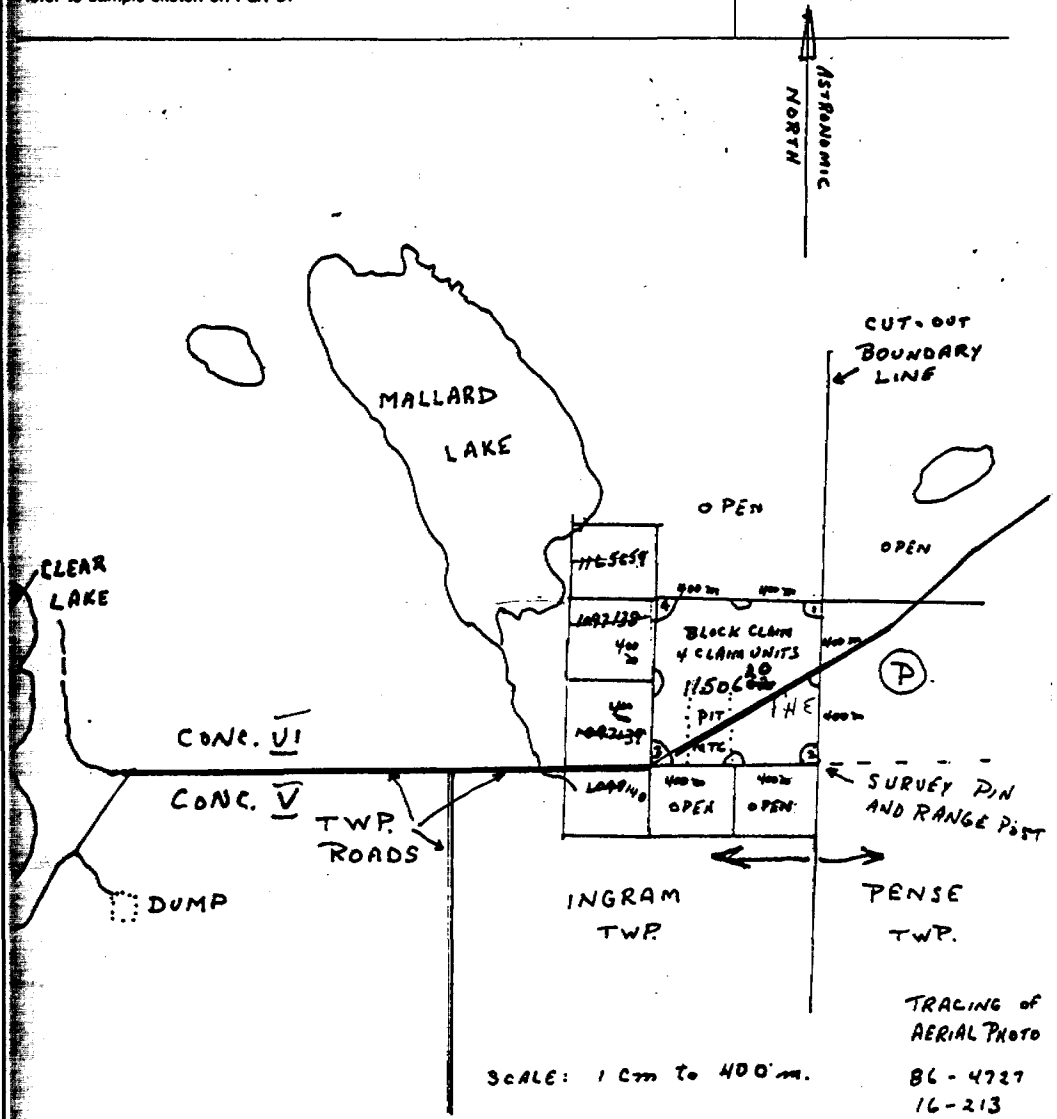
Include topographic features such as lakes, rivers, creeks, ponds, etc. and developments such as hydro lines, highways, railways, pipelines, buildings, etc.

Refer to sample sketch on Part C.

Magnetic Declination Used.

Scale:

10° W



CLAIM GROUP 1

1150620

Ministry of Northern Development and Mines
Ontario

Application to Record Staked Mining Claim(s)

Mining Act

Part A

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 will be used for serving notices. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar St., Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

Please Print Using Ink or Type

Name of Applicant: FRED H. ELLGRING

Transaction No.:

Address: Street, City/Town/Village, Province, Postal Code: 28 HICKORY LANE DARTMOUTH N.S. B2V 2A2

Licence No.: A50897

Telephone No.: 1 902 435 1953

Name and Address for Service in Ontario: (Required if Applicant Resides Outside of Ontario) 9 WILLAMERE DRIVE SCARBOROUGH ON M1M 1W5

Name of Recorded Holder: same as above on:

Telephone No.: 1 902 435 1953

Client No.: 129312

Address: Street, City/Town/Village, Province, Postal Code

Name and Address for Service in Ontario: (Required if Recorded Holder Resides Outside of Ontario)

Mining Division: LARDER LAKE

Township(s) or Area(s) (Show Plan No.): INGRAM M511

Group Claim Number	Tag Number	No. of 16 Ha. Units Per Claim	Description if Staking in Subdivided Township (Lot No., Concession No., Section of Lot)	Staking	Post No.	Date	Time	Office Use
1	1150620	4	S½ LOT 12 CON VI	Commenced	ONE	SEPT. 10/91	3:00 PM	
				Completed	FOUR	SEPT 10/91	7:50 PM	
				Commenced				
				Completed				
				Commenced				
				Completed				
				Commenced				
				Completed				
				Commenced				
				Completed				
				Commenced				
				Completed				

Office Use Only:

09-11-91 4CL0952 CHECK 40.00

0223 (03/91)

MAP #17

$.35

PROCEDURE:

WE BEGAN DOING AN EM. SEARCH AT THE EAST BOUNDARY OF LOT 12 AND MOVED WESTWARD TOWARD THE MARSHALL SHOWING. OUR WORK WAS INTERRUPTED BY CURIOUS PASSERSBY SO WE DECIDED TO STAKE, SEE MAP # 17 FOR THE LOCATION OF OUR CLAIM BLOCK # 1, which TAKES IN ALL OF THE S½ LOT 12 CONC. VI.

OUR CONDUCTOR-SEARCH PRODUCED A NUMBER OF PUZZLING CROSS-OVERS RELATED TO MAN'S DISTURBANCE OF THE UPPER SOIL LAYER. EVENTUALLY WE GAVE UP TRYING TO CONNECT THE CROSSOVERS AS A SINGLE DEEP LYING CONDUCTOR AND RECROSSED THE PROPERTY WITH A SERIES OF PARALLEL LINES FROM WHICH TO MAKE AN INTERPRETATION. WE COVERED 1800 METRES THIS WAY.

THE TOPOGRAPHY WAS GENERALLY FLAT, BEING A SANDY PLAIN WITH A GENTLE ROLL. UNDERLYING THE SAND AND GRAVEL WERE LACUSTRINE CLAYS THAT RESULTED IN CEDAR SWAMPS WITH A WIDE HORIZONTAL DRAINAGE OF SURFACE WATER WHERE THE SANDS AND GRAVELS TERMINATED. EM. DIP ANGLES WERE RELATED TO THE EDGES OF THE SWAMPS IN SOME INSTANCES BUT MOSTLY TO THE MAIN GRAVEL ROAD CROSSING THE PROPERTY AND TO OTHER MAN-MADE TOPOGRAPHIC DISTURBANCES SUCH AS GRAVEL PITS.

AFTER HAVING COVERED THE PROPERTY WITH LARGE-LOOP VERTICAL COIL EM. WE BRIEFLY MADE USE OF A VLF UNIT WHICH CONFIRMED OUR SUSPICIONS OF CONDUCTIVE OVERBURDEN. THIS UNIT IMMEDIATELY REALIZED OFF-SCALE CONDUCTIVITY READINGS, AND OTHER READINGS IN DISAGREEMENT WITH THOSE OF THE VERTICAL COIL, ALSO LEADING TO INTERPRETATIVE UNCERTAINTY.

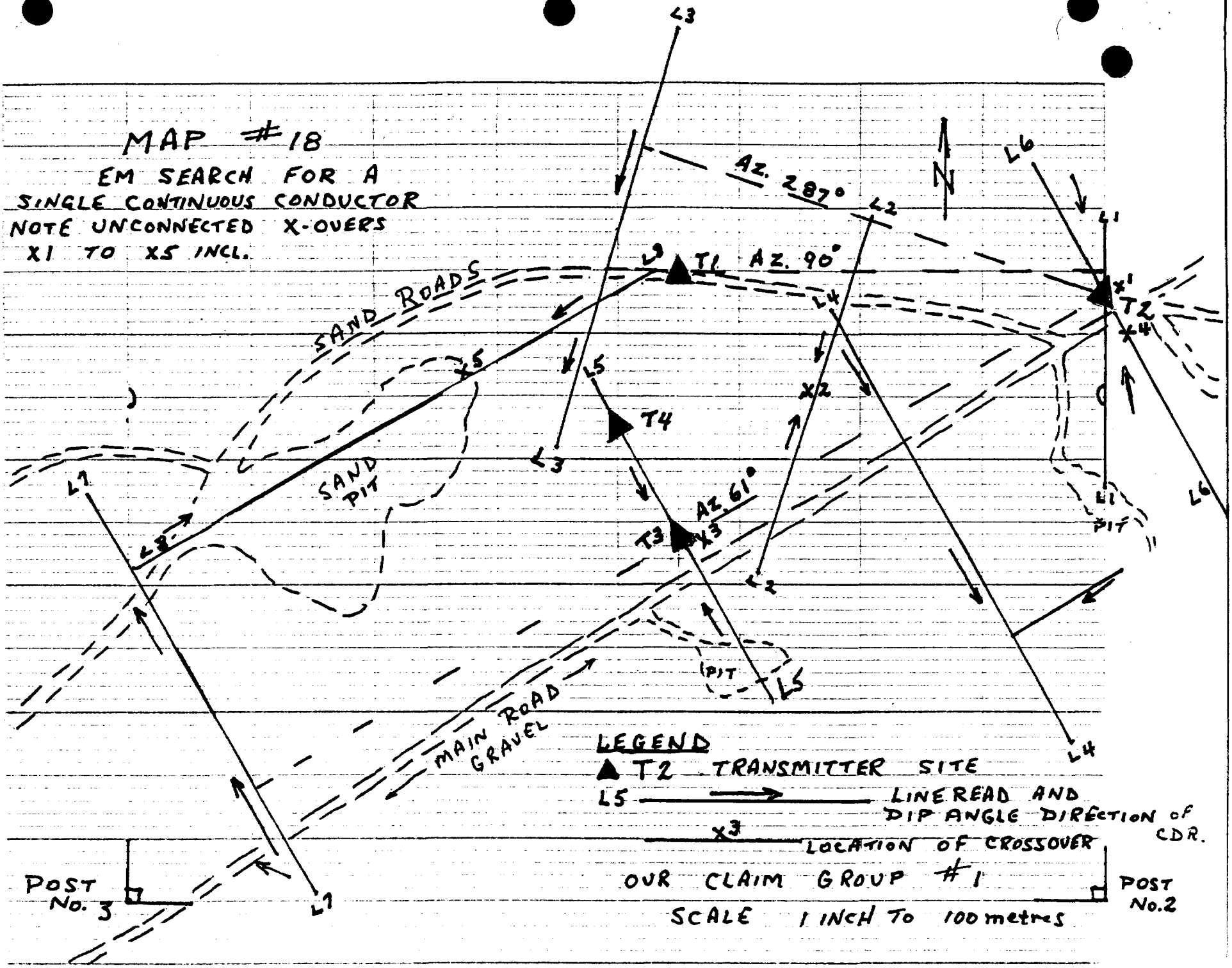
INTERPRETATION OF EM CONDUCTOR-SEARCH:

MAP # 18 SHOWS THE LOCATION OF POSTS 2 AND 3 OF OUR FOUR-CLAIM BLOCK # 1, AND THE MAIN GRAVEL ROAD CROSSING THE PROPERTY. NOTE THAT OUR INITIAL TRANSMITTER T1 LOCATED A CROSSOVER SHOWN AS X1 ON LINE L1.

FROM T2 PLACED ON CROSSOVER X1 WE LOCATED A CROSSOVER X2 ON LINE L2 BUT ONLY DIP ANGLES POINTING SOUTH ON LINE L3.

WE CHANGED THE AZIMUTH OF THE BASELINE FROM T2 AND READ LINE L5 OBTAINING CROSSOVER X3, APPARENTLY INDICATING A CONDUCTOR LINKING UP X1 TO X2 TO X3.

WE SET UP TRANSMITTER T3 ON CROSSOVER X3 AND READ LINE L4 BUT INEXPLICABLY CROSSOVER X2 NOW VANISHED COMPLETELY. WE THEN READ LINE L6 AND FOUND THAT CROSSOVER X1 SHIFTED TO THE NEW POSITION X4 ABOUT 75 METRES FURTHER SOUTH. THIS WAS DISTURBING!


MAP #18
EM SEARCH FOR A
SINGLE CONTINUOUS CONDUCTOR
NOTE UNCONNECTED X-OVERS
X1 TO X5 INCL.
Az. 287°
Az. 90°
Az. 61°
T1
T2
T3
T4
L1
L2
L3
L4
L5
L6
L7
L8
L9
X1
X2
X3
X4
X5
SAND ROADS
SAND PIT
MAIN ROAD GRAVEL
PIT
LEGEND
T2 TRANSMITTER SITE
L5 LINEREAD AND DIP ANGLE DIRECTION of CDR.
X3 LOCATION OF CROSSOVER
OUR CLAIM GROUP #1
SCALE 1 INCH TO 100 metres
POST No. 3
POST No. 2

ALL THE DIP ANGLES WERE SMALL INDICATING A WEAK CONDUCTOR OR POSSIBLY ONE AT GREAT DEPTH, BUT THERE SHOULD BE NO SHIFTING ABOUT IF SULFIDES WERE THE CAUSE !

TO GET GOOD DEPTH PENETRATION, FROM T3 WE READ LINE L7 WHICH PRODUCED READINGS INDICATING CONDUCTIVITY TO THE NORTH. WE THEN READ LINE L8 TO TRY TO BOX-IN ANY CONDUCTOR TRAVELLING IN THAT DIRECTION, OBTAINING VERY WEAK DIP ANGLES WITH A CROSSOVER THAT HAD ZEROES SPREAD OVER A DISTANCE OF 175 METRES AT X5. CERTAINLY NOT VERY ENCOURAGING.

IT WILL BE NOTICED THAT X1 IS LOCATED JUST TO THE NORTH OF THE MAIN GRAVEL ROAD AND X4JUST TO THE SOUTH.SIMILARLY X3 IS JUST TO THE NORTH OF THIS ROAD AND STRANGELY X2 AND X5 ARE CLOSE TO GRAVEL EXCAVATIONS. WE CONSIDER THIS TO BE MORE THAN COINCIDENCE, AND NOT BEDROCK RELATED!

THIS CONDUCTOR-SEARCH PROVED TO BE INCONCLUSIVE AND FRUSTRATING BECAUSE OF THE INCONSISTENCIES IT CREATED. WE THEN DECIDED TO RENEW OUR ATTACK BY USING A GRID SYSTEM OF N-S LINES ACROSS THE PROPERTY USING A LARGER SPACING TO ENHANCE DEEP BEDROCK RESPONSES AND DIMINISH SURFICIAL RESPONSES. SEE MAP # 19 FOR THE LOCATION OF THESE FINAL LINES.

<u>INTERPRETATION OF EM. ON PARALLEL LINE GRID SYSTEM</u>:

FROM THE NUMBERING OF THE TRANSMITTER SET-UPS IT WILL BE NOTICED THAT WE CHANGED OUR TACTICS: INSTEAD OF MOVING FROM EAST TO WEST OVER THE PROPERTY AS WE DID IN OUR CONDUCTOR-SEARCH WE NOW MOVED FROM WEST TO EAST.

WE BEGAN BY MOVING 600 METRES (2000 ft.)OFF THE PROPERTY AND PLACING TRANSMITTER T5 ON THE MARSHALL SHOWING TO THE WEST. THIS WOULD BE ON LINE 1400 W (in metres) OF OUR EAST PROPERTY BOUNDARY CALLED 00. FOR THIS SEE MAP #20A. NOTICE THAT LINE 1000 W READ FROM T5 INDICATED CONDUCTIVITY TO THE NORTH BUT NO ACTUAL CROSSOVERS WERE OBTAINED.

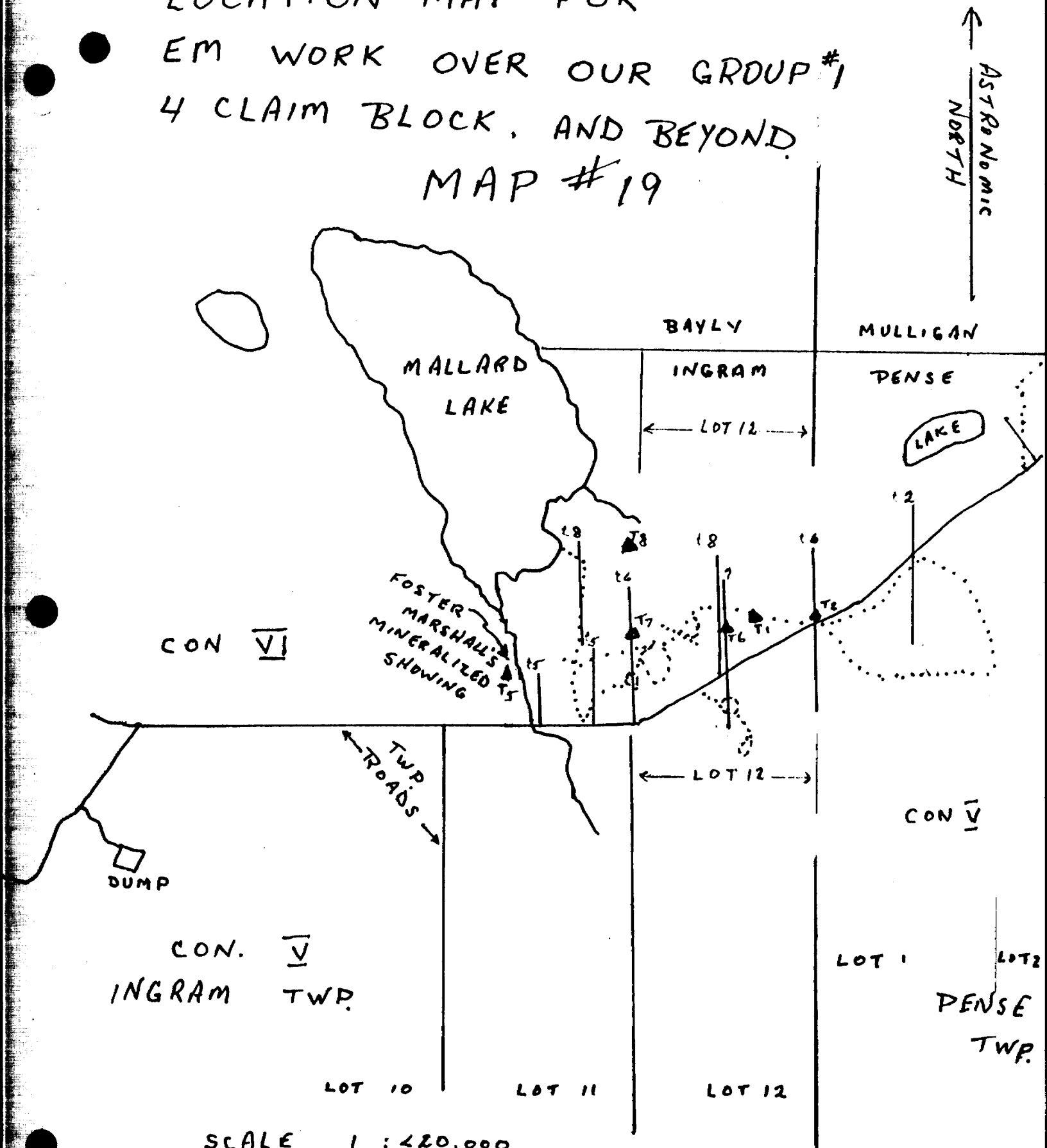
FROM T6 WE OBTAINED A VERY WEAK CROSSOVER X6 ON THE 800 W LINE, AGAIN ON A GRAVEL ROAD!

FROM T7 WE OBTAINED A VERY WEAK CROSSOVER X7, ONCE MORE ON A GRAVEL ROAD.

MAP # 20 B,OVERLAPS MAP # 20 A,HAVING LINE 400 W IN COMMON.

LOCATION MAP FOR EM WORK OVER OUR GROUP #1 4 CLAIM BLOCK. AND BEYOND.

MAP #19

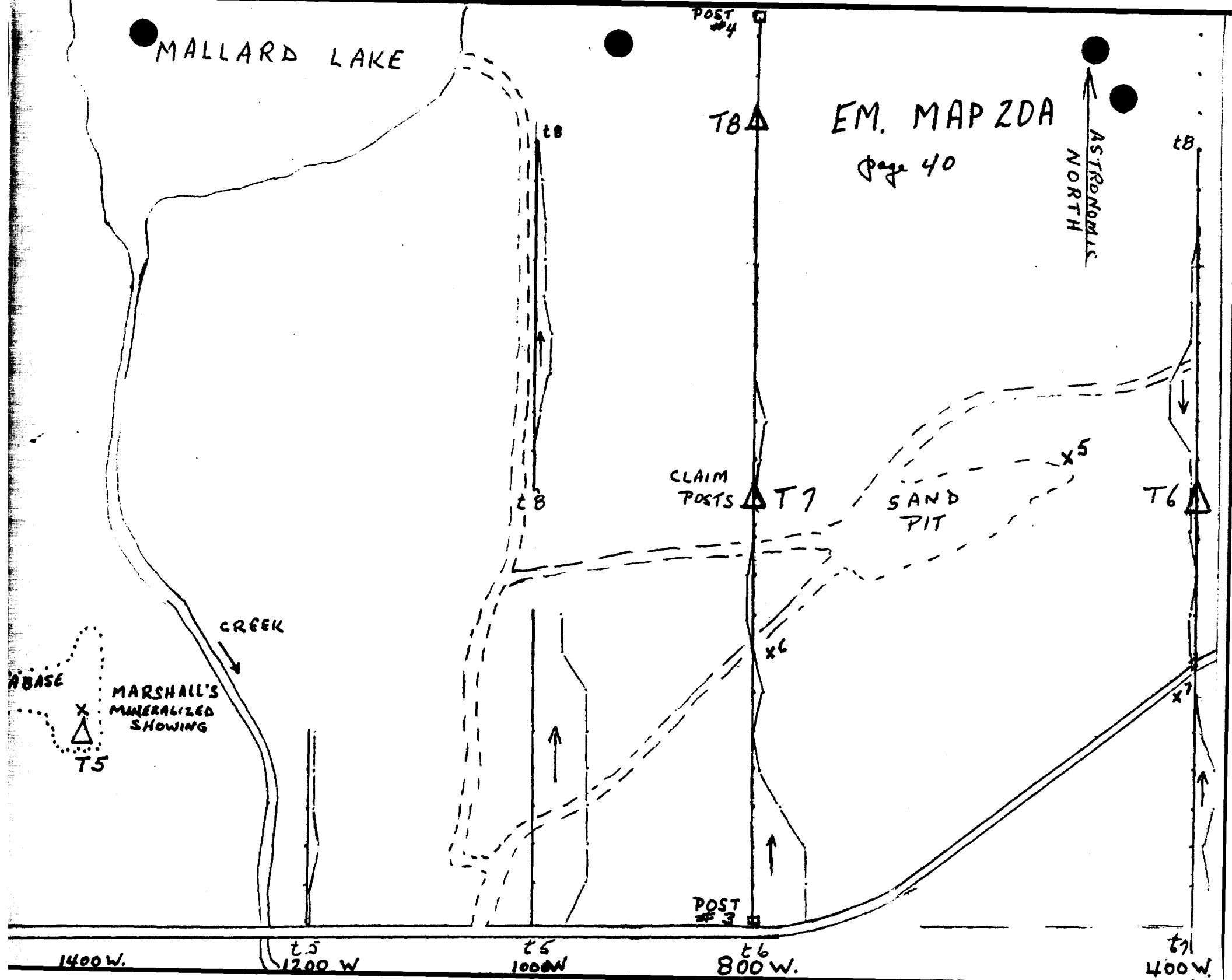


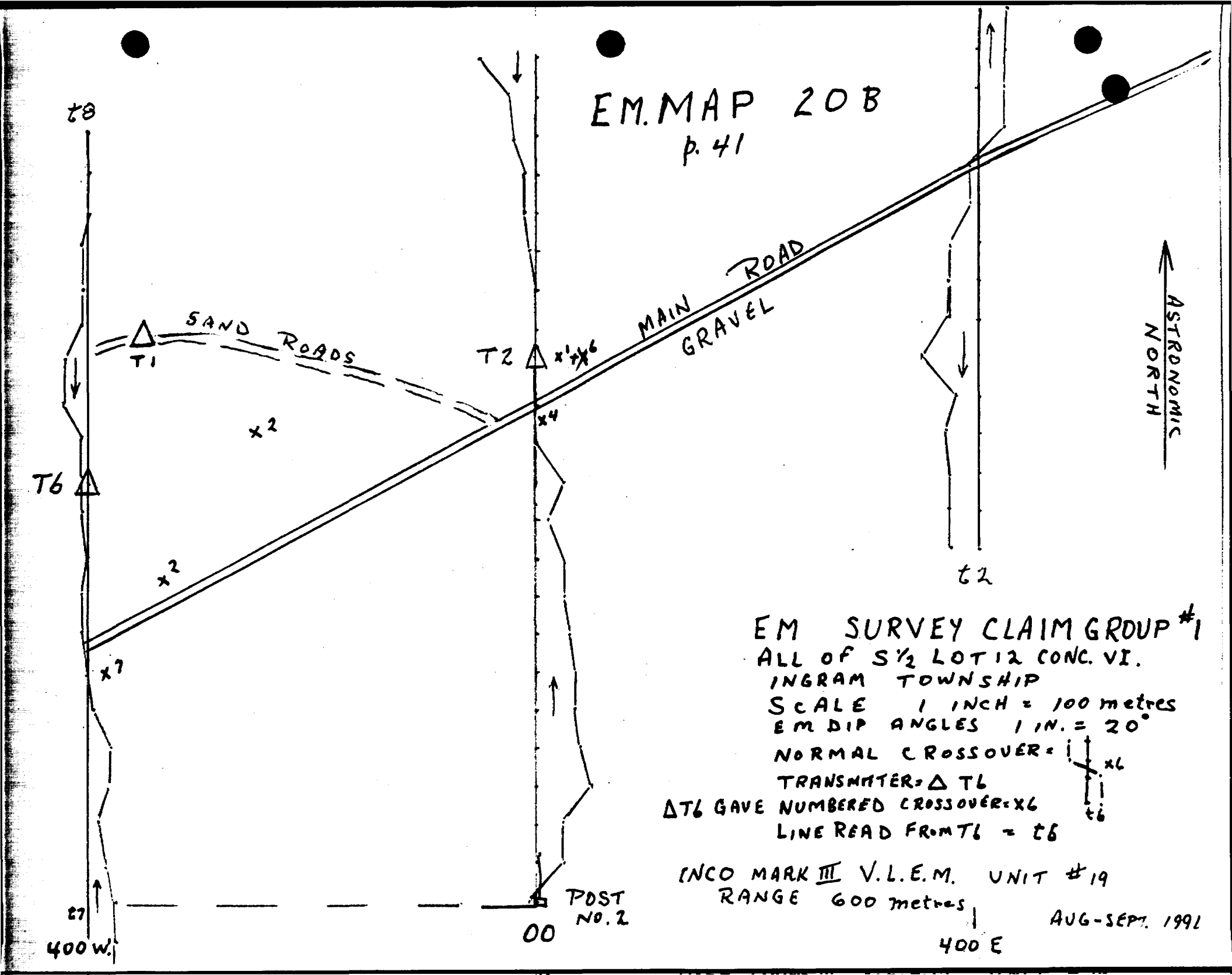
SCALE 1 : 20,000

TRAILS TO SAND PITS .....

T_2 ▲ EM VERT. LOOP SET-UPS AND LINES READ =

AIR PHOTO
86-4728
16-213


MALLARD LAKE
POST #4
T8
EM. MAP 2DA
Page 40
ASTRONOMIC NORTH
t8
t8
t8
CLAIM POSTS
T7
SAND PIT
x5
T6
CREEK
x6
x7
ABASE
MARSHALL'S MINERALIZED SHOWING
T5
POST #3
1400 W.
t5
1200 W
t5
1000W
t6
800 W.
t7
400 W.


EM. MAP 20B
p. 41
t8
T1
SAND ROADS
T2
MAIN ROAD
GRAVEL
T6
x2
x4
x2
x7
t2
ASTRONOMIC NORTH
t7
400 W.
POST NO. 2
00
400 E
EM SURVEY CLAIM GROUP #1
ALL OF S½ LOT 12 CONC. VI.
INGRAM TOWNSHIP
SCALE 1 INCH = 100 metres
EM DIP ANGLES 1 IN. = 20°
NORMAL CROSSOVER = x6
TRANSMITTER = Δ T6
ΔT6 GAVE NUMBERED CROSSOVER = X6
LINE READ FROM T6 = t6
INCO MARK III V.L.E.M. UNIT #19
RANGE 600 metres
AUG-SEPT. 1991

MAP # 20 B SHOWS THAT TRANSMITTER T6 OBTAINED A CROSSOVER X6 IN THE VICINITY OF X1 AND X4 ON LINE 00, PREVIOUSLY DESCRIBED, BUT NOW IT IS MARKED BY A SERIES OF ZEROES SPREAD OVER 200 METRES! LINE 400 E SHOWS THERE IS NO CONDUCTOR GOIN THROUGH THAT LINE.

ALL OF THIS WORK PROVED DISAPPOINTING AND INCONCLUSIVE. WE HAVE REPEATED INDICATIONS THAT THE CROSSOVERS ARE REFLECTIONS OF CONDUCTIVE SOILS. THERE IS A FAINT POSSIBILITY THAT SOME OF THE CROSSOVERS ARE DUE TO VERY DEEP CONDUCTORS MOST OF WHOSE READINGS ARE MASKED BY THE CONDUCTIVE OVERBURDEN.

IT IS NOT VERY LIKELY THAT WE ARE DEALING WITH SHORT CONDUCTORS AT DEPTH. IF THIS WERE THE CASE CROSSOVERS WOULD APPEAR ON MORE THAN ONE LINE IF THE LINE SPACING IS LESS THAN THE CONDUCTOR DEPTH.

RECOMMENDATIONS:

THIS PROPERTY SHOULD NOT BE ABANDONED JUST YET. VLF SHOULD BE AVOIDED, VERTICAL LOOP 1000 HERTZ HAS PROVEN INCONCLUSIVE, SO IT IS SUGGESTED THAT ANOTHER EM. SURVEY BE UNDERTAKEN USING A 300 or 400 HERTZ FREQUENCY, WHICH IS MUCH LESS AFFECTED BY THE CLAYS THAT UNDERLY THIS AREA.

FOR PURPOSES OF COMPARISON ONE EM. LINE SHOULD BE READ DIRECTLY OVER THE MARSHALL SHOWING.

REPORT ON

N½ LOT 2 CONC VI PENSE TWP.

EM. INVESTIGATION N½ LOT 2 CONC. VI PENSE TWP.

TWO DIABASE OUTCROPS HERE ARE NOT SHOWN ON GEOLOGIC MAPS. WE DECIDED TO CHECK THEM OUT WITH EM. BECAUSE ONE OF THEM SHOWED A RUSTY SEAM WITH ACCESSORY CHALCOPYRITE, AT ABOUT 100 W ON OUR GRID SYSTEM.

MAP # 21 SHOWS THE LOCATION OF OUR WORK.

MAP # 22 SHOWS THE GRID SYSTEM WITH EM DIP ANGLES PLOTTED.

INTERPRETATION:

TRANSMITTER T10 WAS PLACED AT A CONVENIENT LOCATION ON STRIKE WITH THE TWO OUTCROPS. OUR FIRST LINE WAS READ IN-BETWEEN THEM AND AT RIGHT TO THEIR STRIKE. NO CROSSOVER OR SIGNIFICANT DIP ANGLES WERE OBTAINED, HOWEVER THERE WERE STRONG INDICATIONS OF A CONDUCTOR TOWARDS THE NORTH. WE MOVED OUR TRANSMITTER IN THAT DIRECTION TO POSITION T11 AT THE EDGE OF THE MAIN ROAD.

FROM T11, USING THE MAIN ROAD AS OUR BASELINE WE READ A LINE 200 METRES TO THE WEST AND OBTAINED A CROSSOVER ON THE ROAD. THIS CROSSOVER COULD NOT BE REPEATED EITHER TO THE EAST OR THE WEST BY READING LINES 100 W., OR 250 W., or 300 W., OR 400 W. OR 200 N. lines. IT APPEARS THAT THERE MAY BE A "U" SHAPED CONDUCTOR TOUCHING THE ROAD WITH LINE 200 W. BISECTING THE TWO ARMS OF THE "U". WE HAVE GOOD REASON TO SUSPECT THAT THE READINGS INDICATE CONDUCTIVE OVERBURDEN SIMILAR TO THAT OF THE OTHER SANDY PLAIN AREAS WE INVESTIGATED.

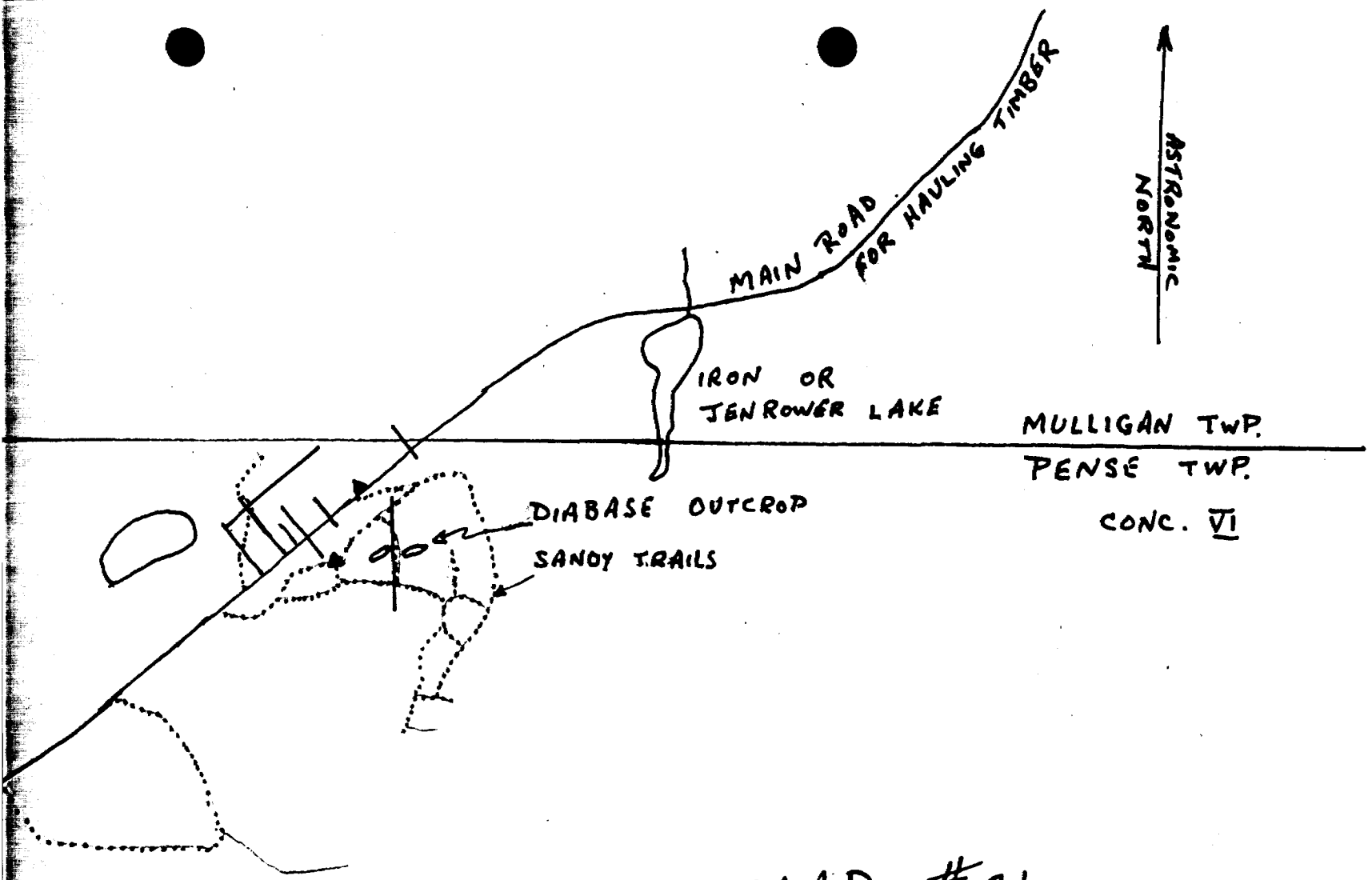
VLF. EM.

VLF READINGS TAKEN OVER THE DIABASE GAVE US CROSSOVERS A, B, C AND D NOT SUBSTANTIATED BY VERTICAL COIL EM. NOTE THAT A,B,AND C PARALLEL ONE OF THE SANDY TRAILS OR ROADS! 'B' STARTING AT THE DIABASE OUTCROP GAVE DIP ANGLES OF 30 DEGREES ONE WAY TO 3 DEGREES THE OTHER WAY ON THE OTHER SIDE OF THE ROAD.

CROSSOVER D GOES FROM 16 DEGREES ON THE NORTH TO 3 DEGREES ON THE SOUTH OF THE CROSSOVER ALL WITHIN A DISTANCE OF ABOUT 15 METRES, INDICATING A SURFACE EFFECT AND NOT A BURIED BED-ROCK CONDUCTOR.

RECOMMENDATIONS:

TO BE CERTAIN THAT THESES CONDUCTIVE RESPONSES ARE NOT DUE TO CONDUCTIVE CLAYS OR SOILS, WE SHOULD REDO THE SURVEY USING 300 OR 400 HERTZ EM EQUIPMENT ON A CUT AND CHAINED GRID.



MAP #21

SHOWING LOCATION OF DIABASE

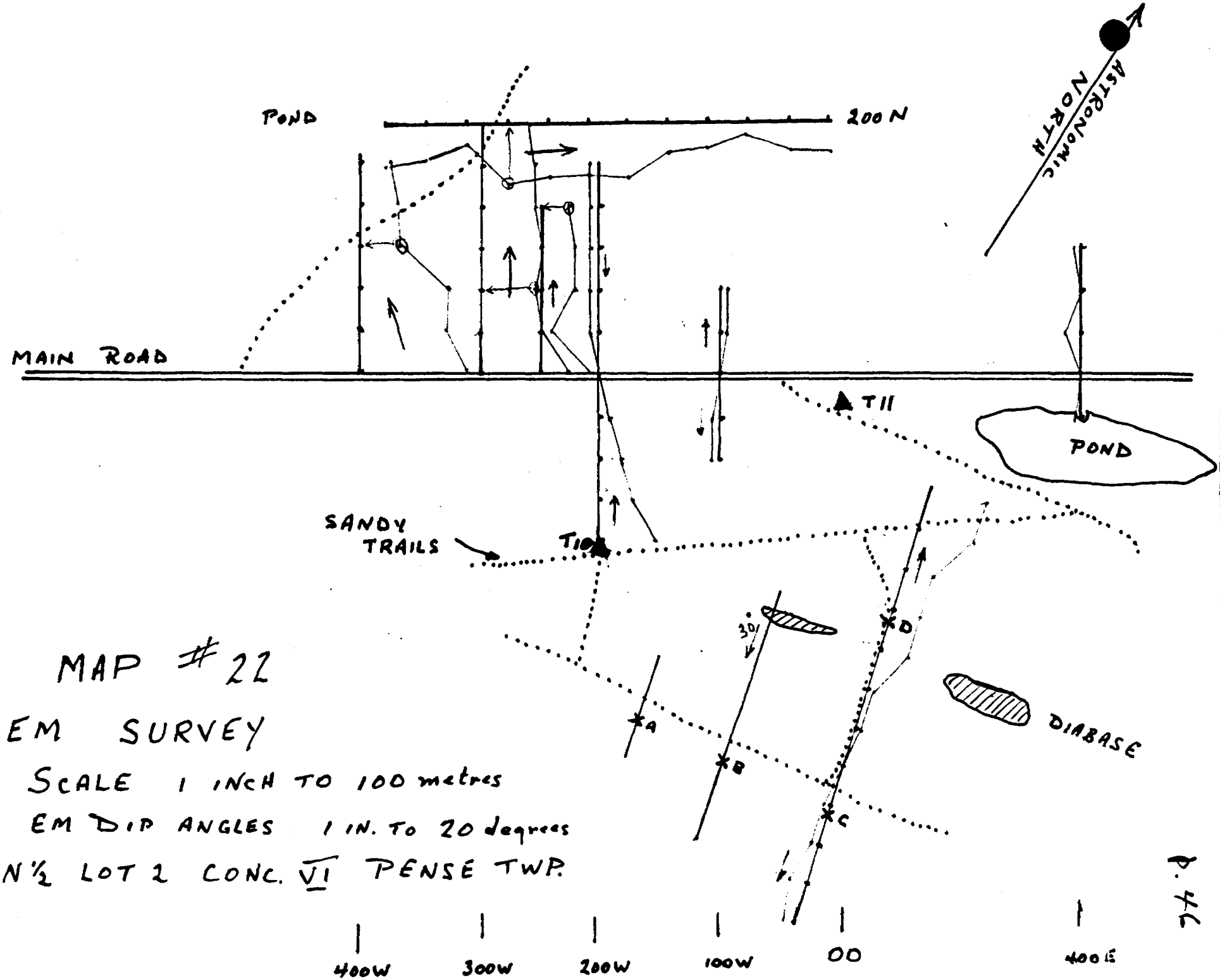
WITH EM TRAVERSE LINES

▲ EM TRANSMITTER SET-UP

SCALE 1:20.000

AERIAL PHOTO
82-4728
16-215

54.D



MAP #22

EM SURVEY

SCALE 1 INCH TO 100 metres

EM DIP ANGLES 1 IN. TO 20 degrees

N½ LOT 2 CONC. VI PENSE TWP.

P. 74

8.47

Nova Scotia Research Foundation Corporation

P.O. Box 790
Dartmouth, Nova Scotia
Canada B2Y 3Z7
(902) 424-8670
Fax (902) 465-7384

APPLIED SCIENCE DIVISION

ANALYTICAL CHEMISTRY LABORATORY REPORT

CLIENT: Fred Ellgring

DATE SUBMITTED: Apr. 24, 1991
Attn:

MATERIAL: Dithizone Reagents

DATE REPORTED: Apr.24, 1991

LAB. NO. **DESCRIPTION**

The following solutions have been made up for the two dithizone test methods requested:

1.0 litre of 1.0 normal citrate buffer pH 8.5
2.0 litres of 2.0 normal acetate buffer pH 5.5 and
50 ml of 2.0 normal ammonium hydroxide

Five vials containing dithizone have been made up for each method. Each vial contains enough dithizone so that dilution to 250 ml using the appropriate solvent produces the correct concentration of dithizone. Use toluene for the vials marked toluene and carbon tetrachloride for the vials marked CCl4, this can be accomplished by emptying the contents of each vial into a clean, dry flask and rinsing the container five times with the suitable solvent. After dilution to 250 ml the solutions should be kept in the dark.

Both test methods were performed on solutions containing 0.2 and 2.0 ppm of copper, zinc and lead. The results are shown on the following page.

..../2

M. Robicheau, M.A.Sc.
Lab Manager

J.W. Thorpe, Ph. D., M.B.A.
Director, Laboratory Services

Nova Scotia Research Foundation Corporation

P.O. Box 790
Dartmouth, Nova Scotia
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(902) 424-8670
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APPLIED SCIENCE DIVISION

ANALYTICAL CHEMISTRY LABORATORY REPORT

CLIENT: Fred Ellgring

DATE SUBMITTED: Apr.24, 1991

Attn:

MATERIAL: Dithizone Field Test

DATE REPORTED: Apr.24, 1991

LAB. NO.	DESCRIPTION	Blank	Cu	Zn	Pb
91-129/1		Green			
Toluene	0.2 ppm		Light Green	Green	Blue Green Grey
Method	2.0 ppm		Blue Grey	Blue Grey	Purple
CCl4	0.2 ppm		Light Blue Green	Grey Green	Light Purple
Method	2.0 ppm		Purple Red	Purple Grey	Dark Green

M. Robicheau, M.A.Sc.
Lab Manager

J.W. Thorpe, Ph. D., M.B.A.
Director, Laboratory Services

p. 49

INCO Limited

Ontario Division, Copper Cliff, Ontario P0M 1N0

G.S.T. Reg. No. R 102475084

Invoice No. SS0891-026

Date: August 15, 1991

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28 HICKORY LANE,
DARTMOUTH,N.S.
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D:REC.DBF

FORESTRY OPERATIONS

AUG 28 1980

LARDER LAKE MINING RECORDER'S OFFICE

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

THE TOWNSHIP OF 63.6276

BAYLY

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

Skead Twp.

Marter Twp.

Mulligan Twp.

Ingram Twp.

VI

V

IV

III

II

I

1 2 3 4 5 6 7 8 9 10 11 12

Mirror Lake

Skead Lake

Wendigo Lake

Crystal Lake

Larder River Park Reserve

Skeleton Lake

Clear Lake

Mulligan Lake

CONGLOMERATE
PEBBLY MUDSTONE
APLITE DIKES

S.R.O. Withdrawn fr Staking Sec 42 of the Mg Act File: 31283

shaft sinking work by MNR Oct 31/78

01 02 03 04 05 06 07

LEGEND

WATER SAMPLE LOCATIONS	06
PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M R O
SURFACE RIGHTS ONLY	S R O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

NOTES

400 Surface rights reservation around all lakes & rivers

Areas withdrawn from staking under Section 43 of the Mining Act, R S O 1970

Order No	File	Date	Disposition
W 64/77	72880 x 2	16/6/77	S R O
W 63/83		2/12/80	S R O
R W 16/80	31283	15/12/80	S R O

(G) QUARRY PERMIT

(Rs) Surface and Mining Rights Withdrawn from Staking, section 36/80 order No. W 63/80

...Ut. Lot 3, Con 3 No 104645, No 104656

STREAM WATER SAMPLING 01 TO 07

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE _____ TIMISKAMING MANAGEMENT UNIT

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129, SWASTIKA, ONT. POK ITO, 705-642-3222

PLAN NO. M.323

ONTARIO

MINISTRY OF NATURAL RESOURCES

LAND MANAGEMENT BRANCH

31M13NE9681 63.6276 MULLIGAN

200

Rattray Twp.

Bayly Twp.

Pense Twp.

QUEBEC

PROVINCE OF

CLAIMS SUDBURY CONTACT MINES

MEADOW

TOPOGRAPHIC AND MAGNETIC LINEAMENT

MULLIGAN LAKE

MAGNETIC ANOMALY

AREA of PLAN (e)

MAG.

MAG HIGH

LINEAMENT

AREA of PLAN (d)

LOW

Little Skeleton L.

Skeleton L.

Skeleton Cr.

Yenrowe L.

31

30

29

25M

24M

23M

22M

21M

20M

THE TOWNSHIP OF 63.6276

MULLIGAN

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L O
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
KING'S HIGHWAY	
MINES	
MARSH OR MUSKEG	
CANCELLED	C
PATENTED S.R.O	

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

NOTES

400 Surface rights reservation around all lakes and rivers

STREAM WATER SAMPLING

29 TO 31

NOTE LOCATIONS OF PLAN (d) (e)

DATE OF ISSUE

AUG 19 1991

LARDER LAKE MINING RECORDER'S OFFICE

PLAN NO. - M-373

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

31M13NE9681 63.6276 MULLIGAN

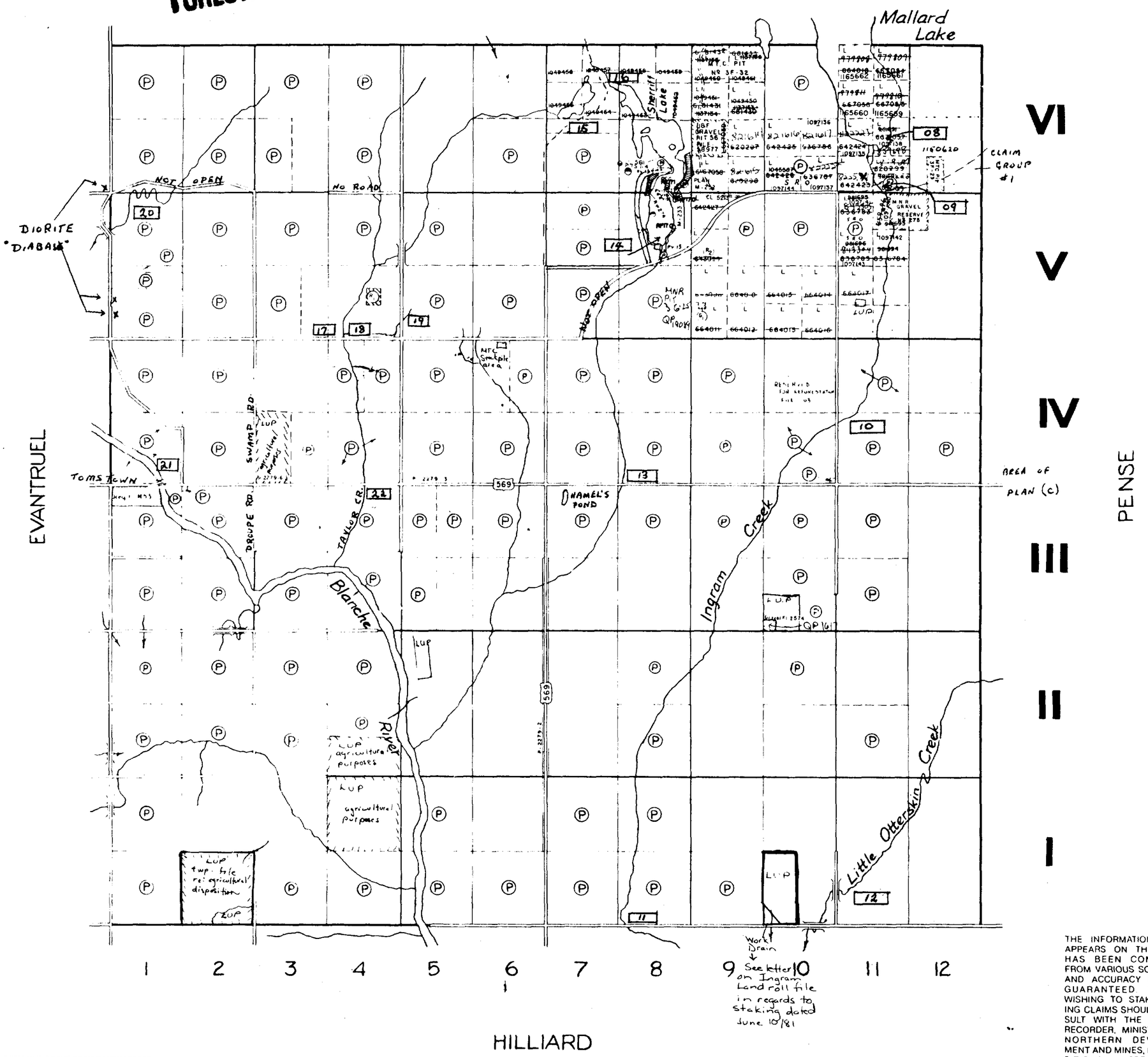
63.6276

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

geology reference-COBALT

RESIDENT GEO.

BAYLY



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THE TOWNSHIP OF

INGRAM

DISTRICT OF TIMISKAMING
LARDER LAKE MINING DIVISION

SCALE: 1 INCH TO 40 CHAINS

LEGEND

WATER SAMPLE LOCATIONS	10
PATENTED LAND	(P)
CROWN LAND SALE	C.S.O. (S)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
IMPROVED ROADS	
ROADS	
RESERVED FOR GRAVEL	RES (L)
LEASES	
MINING RIGHTS ONLY	MRO
SURFACE RIGHTS ONLY	SRO
CANCELLED	C

LUP Land Use Permit

NOTES

400' Surface Rights Reservation around all Lakes and Rivers.

Areas withdrawn from staking under Section 43 of the Mining Act. (R.S.O. 1970)

Order No.	File	Date	Disposition
(M)		370	SRO
(R2) NRW 18/79	23162	20/2/79	SRO

STREAM WATER SAMPLING
08 TO 22

SAND and GRAVEL

NHR GRAVEL RESERVE 30.25

DATE OF ISSUE
AUG 18 1981
LARDER LAKE MINING RECORDER'S OFFICE

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE TIMISKAMING MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT:
P.O. BOX 129
SWASTIKA, ONT.
POK 1TO
705-642-3222

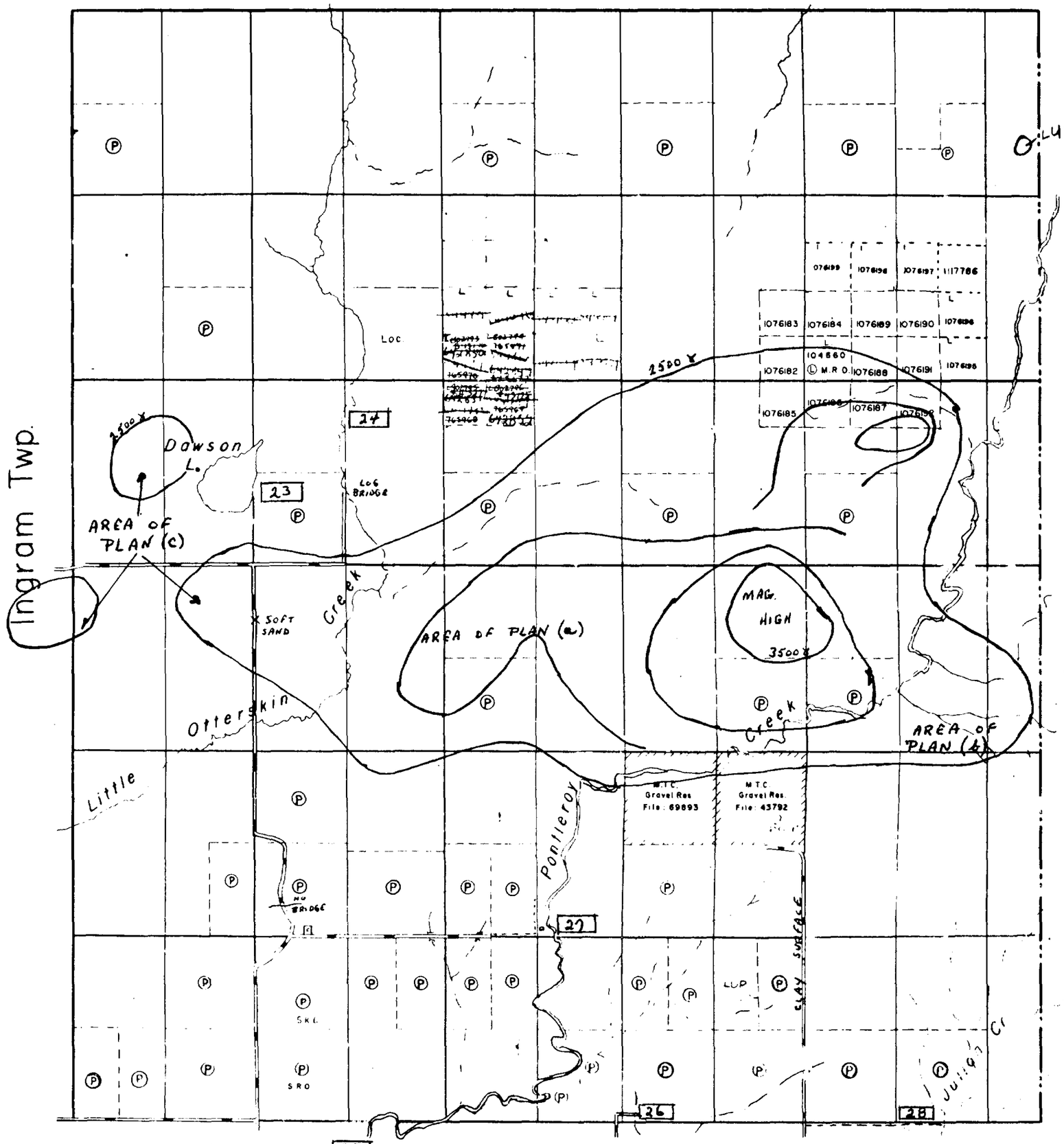
M.511

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

geology reference-COBALT

RESIDENT GEO.

Mulligan Twp.



THE TOWNSHIP OF 63.6276

PENSE

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

WATER SAMPLE LOCATIONS	25
PATENTED LAND	(P)
CROWN LAND SALE	CS or (S)
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	LO
ROADS	
IMPROVED ROADS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINING RIGHTS ONLY	MRO
SURFACE RIGHTS ONLY	SRO
CANCELLED	C

STREAM WATER SAMPLING 23 TO 28

NOTE LOCATIONS OF PLAN (a), (b) (c)

NOTES

LAND RESERVED FOR GRAVEL PURPOSES SHOWN THUS:

400' Surface Rights Reservation around all Lakes and Rivers.

TOWNSHIP SUBJECT TO FORESTRY OPERATIONS

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE ____ TIMISKAMING MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
P0K 1T0
705-642-3222

DATE OF ISSUE
AUG 12 1991
LARDER LAKE MINING RECORDER'S OFFICE

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PLAN NO — M-566

ONTARIO
MINISTRY OF NATURAL RESOURCES
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