

ROK GRID
(SEE ROK GRID MAPS FOR DETAILS)

ROK FR.
ROK
NORTH ZONE
MAIN ZONE
SOUTH ZONE

- LEGEND**
- 14c Tuff
 - 14b Upper Cretaceous to Lower Tertiary(?)
 - 14a Post Ore, Post Upper Triassic(?)
 - 12 Andesite Dyke
 - 11 Porphyritic Quartz Monzonite
 - 10 Lower Jurassic
 - 9 Upper Triassic to Lower Jurassic
 - 8 Syenite
 - 7 Monzonite
 - 6 Marakelvitite
 - 5a Relatively fresh to weakly altered, a trace sulphide
 - 5b Moderately altered (variable chlorite after hornblende, sericite and/or epidote after plagioclase); <0.5% pyrite and <0.2% chloropyrite
 - 5c Strongly altered (chlorite + magnetite after hornblende, variable sericite after plagioclase) pyrite, dolomite, 1-1% pyrite
 - 5d Altered and mineralized, sericite after plagioclase; locally strong K-feldspar blebbing and quartz veining (where K-feldspar is the strongest, rock resembles late porphyry); 20-30% chloropyrite
 - 4a Diorite: Medium to coarse grained
 - 4b Andesite
 - 4c Andesite flows and dikes
 - 4d Upper andesite lapilli-tuff to locally tuff breccia: includes minor tuff and siliceous lenticles; porphyritic andesite fragments common; minor pyrite conglomerates
 - 4e Andesite tuff, crystal-rich tuff and ash tuff; minor siliceous
 - 4f Lower andesite lapilli tuff to locally tuff breccia and crystal-rich tuff: porphyritic andesite, trachyte and late porphyry fragments common; minor conglomerates including siliceous cobbles
 - 4g Trachyte Flow/Dike
 - 4h Latic Flow
 - 4i Limestone
 - 4j Siliceous bedded to finely laminated

- SYMBOLS**
- Outcrop
 - Geological Contact: Defined, assumed
 - Fault - showing down dropped side: Defined, assumed
 - △ Elevation station
 - Bedding
 - Vein
 - Filonite
 - Joint/Fracture
 - Scar
 - Snowing
 - City
 - Hill
 - Cu
 - Mo
 - Py
 - Mag
 - QV
 - An
 - Kl
 - Kf
 - Ep
 - Ca
 - Hm
 - Ch
 - quartz vein
 - andesite
 - K-feldspar
 - epidote
 - calcite
 - hematite
 - chlorite

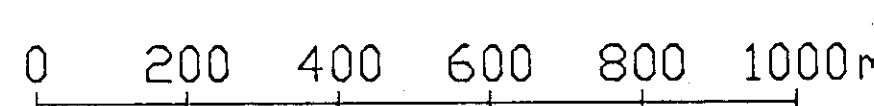


MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.

ROK PROPERTY - EALUE LAKE

GEOLOGY

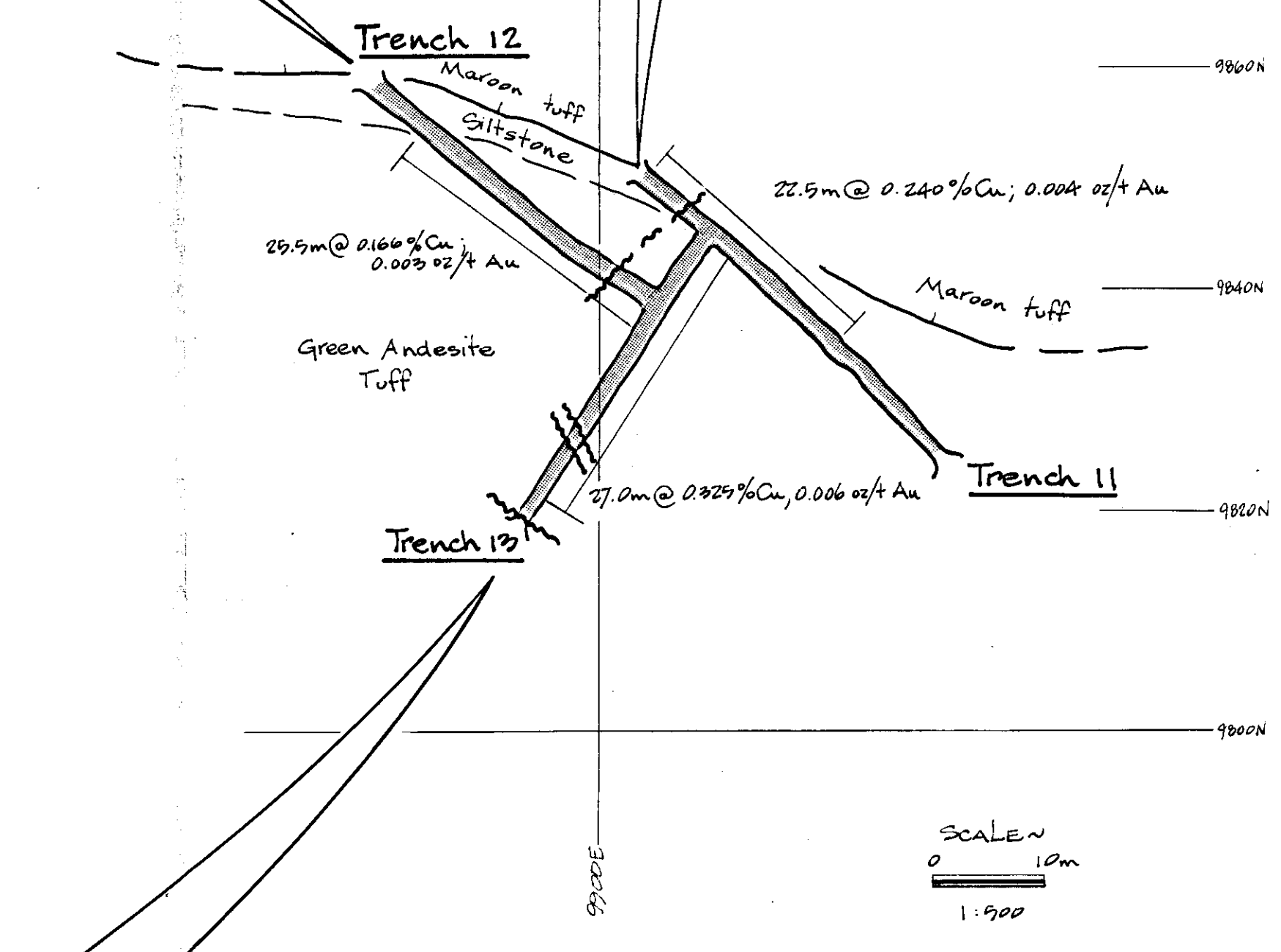
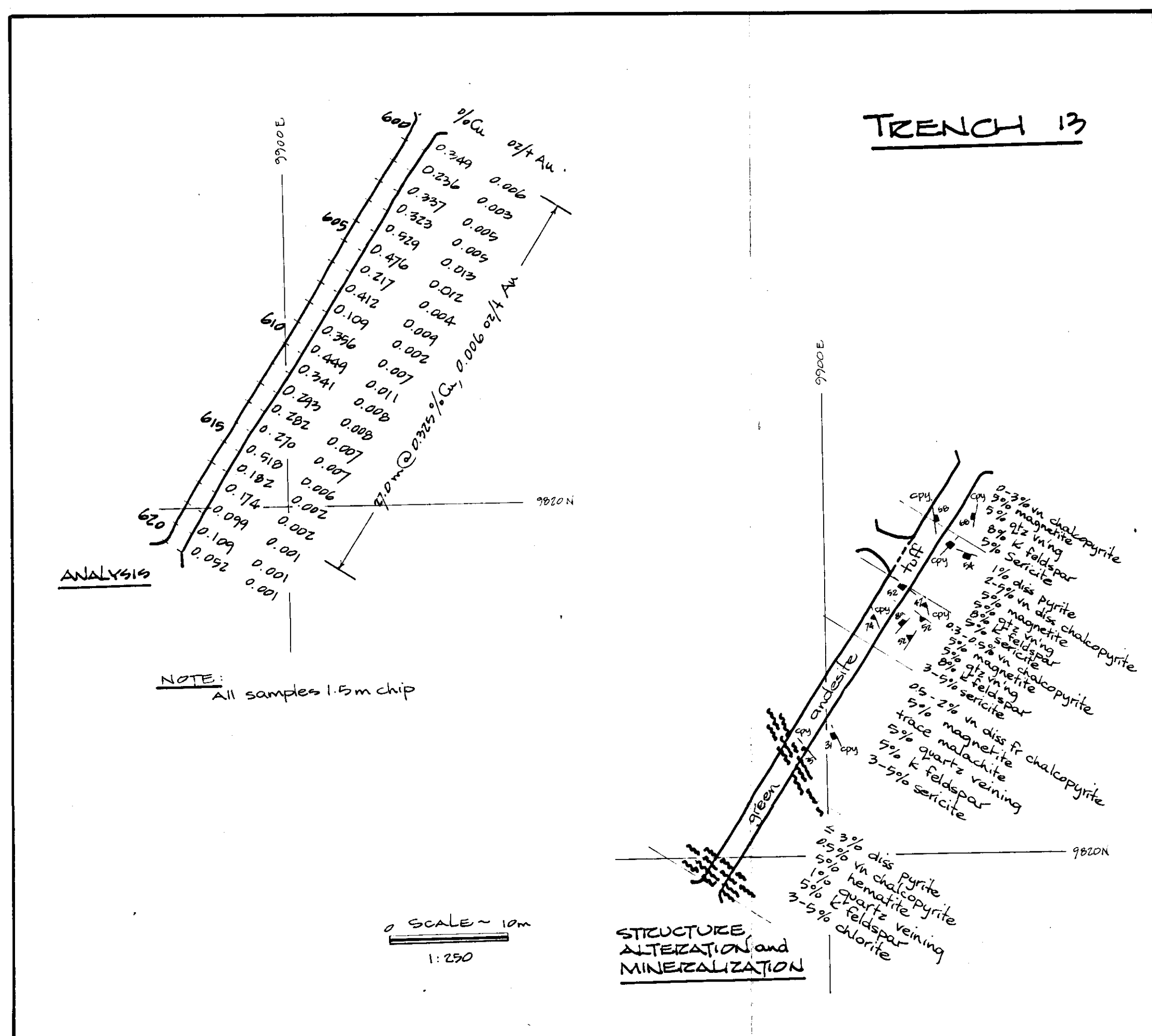
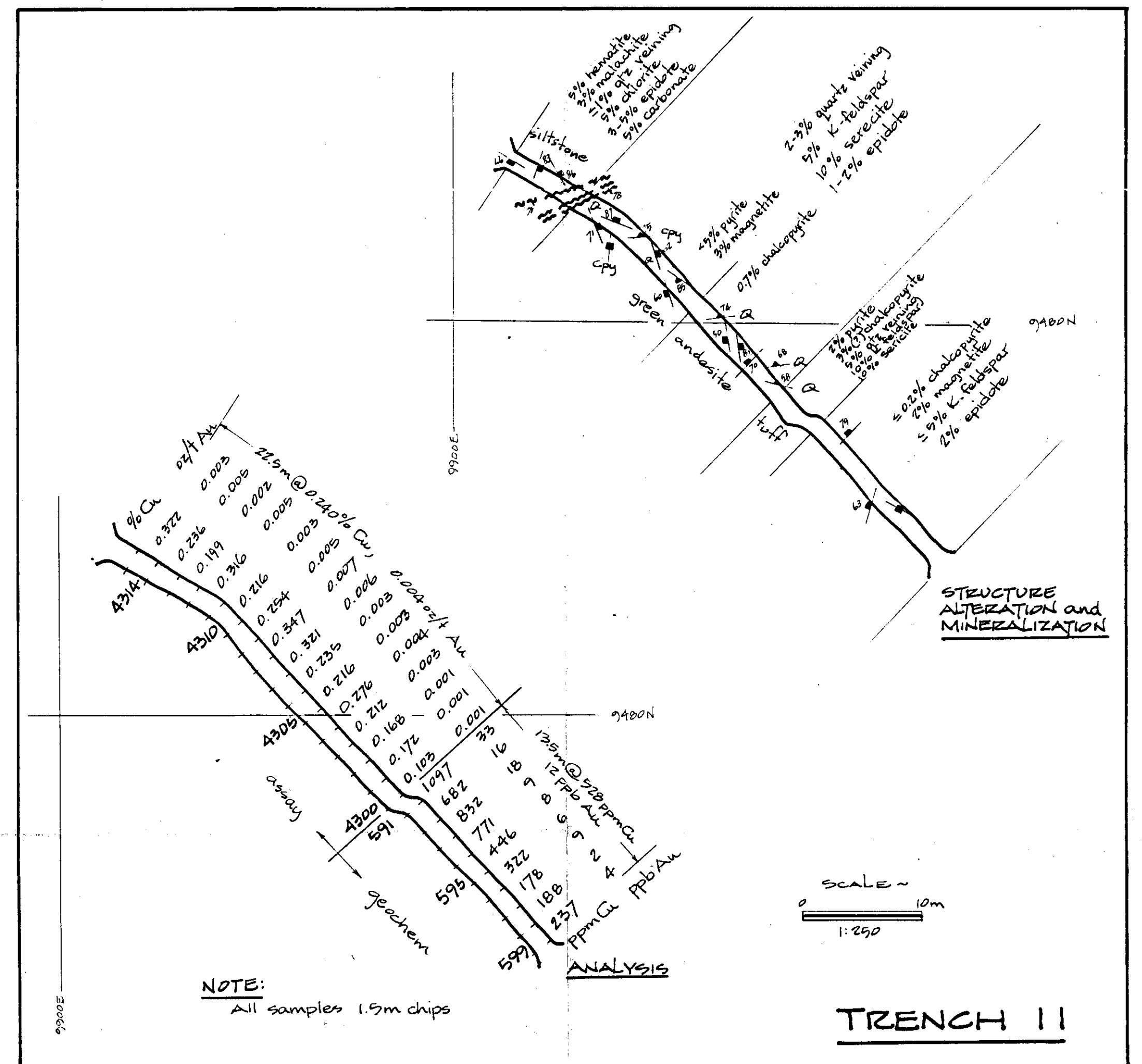
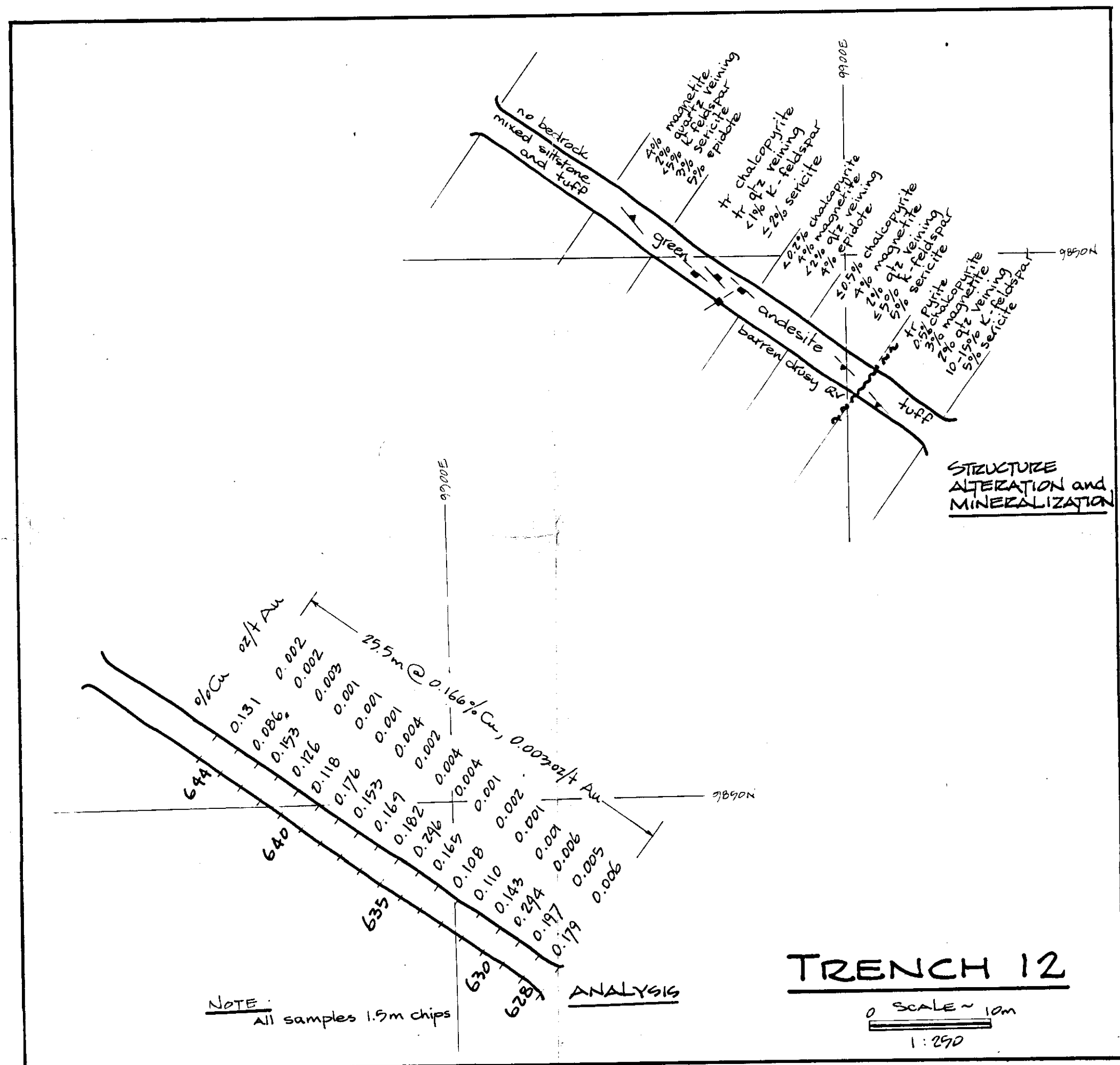
DATE: DEC. 1991 NTS: 104H/13W,12W
PROJECT: ROK BY: D.T. MEHNER
SCALE: 1:10,000
Keewatin Engineering Inc. MAP No. 1



NOTE: Base map is blow-up of 1:50,000 Government topo map. Ground control by topographic compass and altimeter.

NOTE: The EDDON 8 LOP is 1000 metres south of the EDDON 7 LOP. The EDDON 8 claim is 2W47N. EDDON 8 (25x50)

EDDON 7 (25x50)



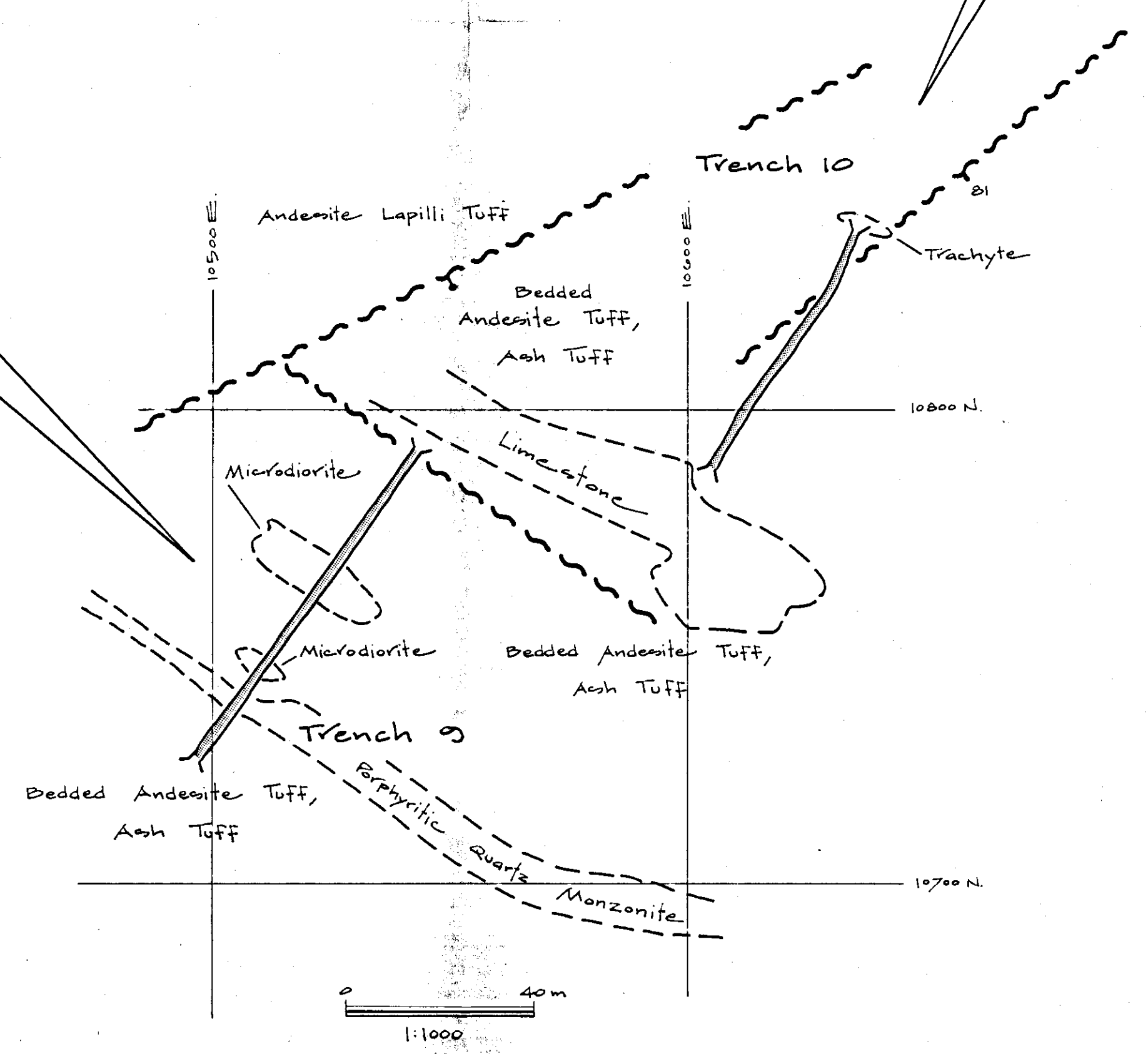
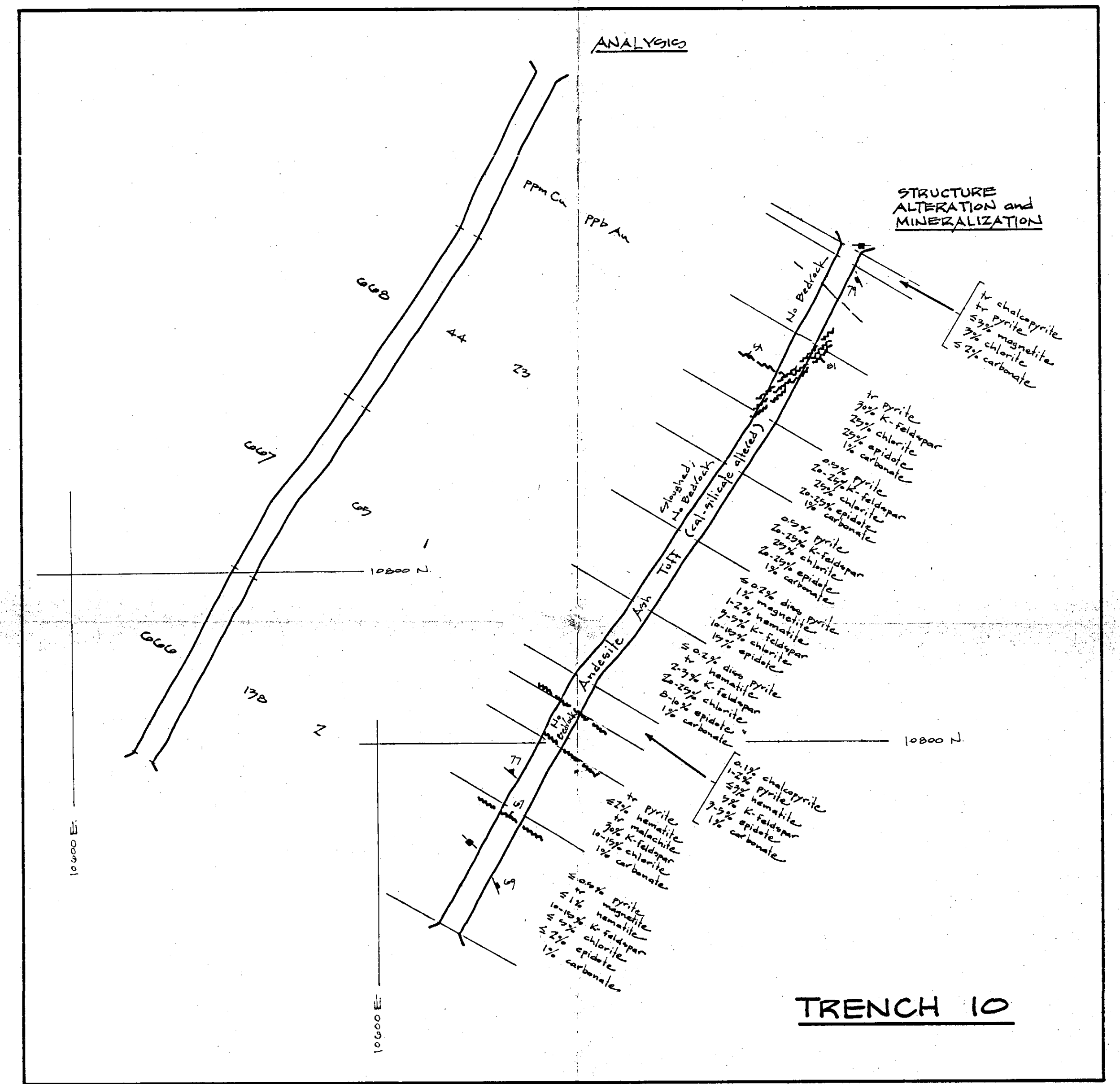
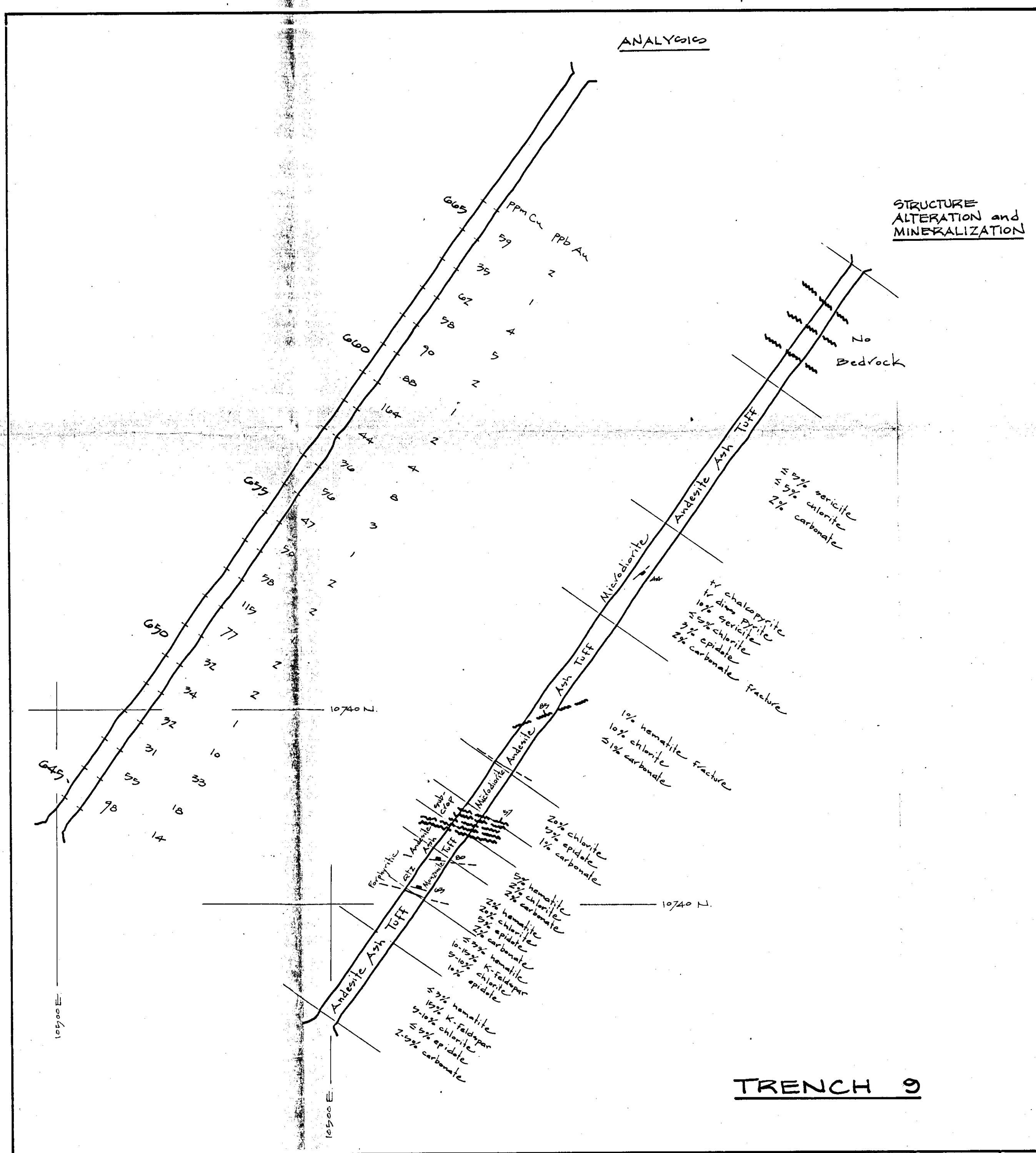
GEOLOGICAL BRANCH
 ASSESSMENT REPORT
21,901

- LEGEND**
- +— Bedding
 - +— Joint/Fracture
 - +— Vein
 - - - Geological Contact known, inferred
 - ~ Fault known, inferred
 - ~ Downdrop side of fault



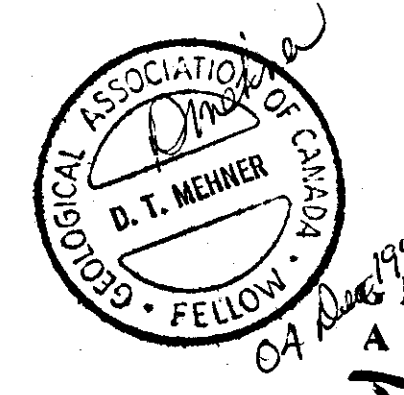
MANCHESTER RESOURCES CORP CONS. CARINA RESOURCES CORP	
ROK PROPERTY	
1991 BACKHOE TRENCHES MINERALIZATION & GEOLOGY OF SOUTH AREA TRENCHES 11-12-13	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	PRJ. GEOL. D.T. MEHNER
SCALE: See drawings	
Keewatin Engineering Inc. MAP No. 30	

Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.



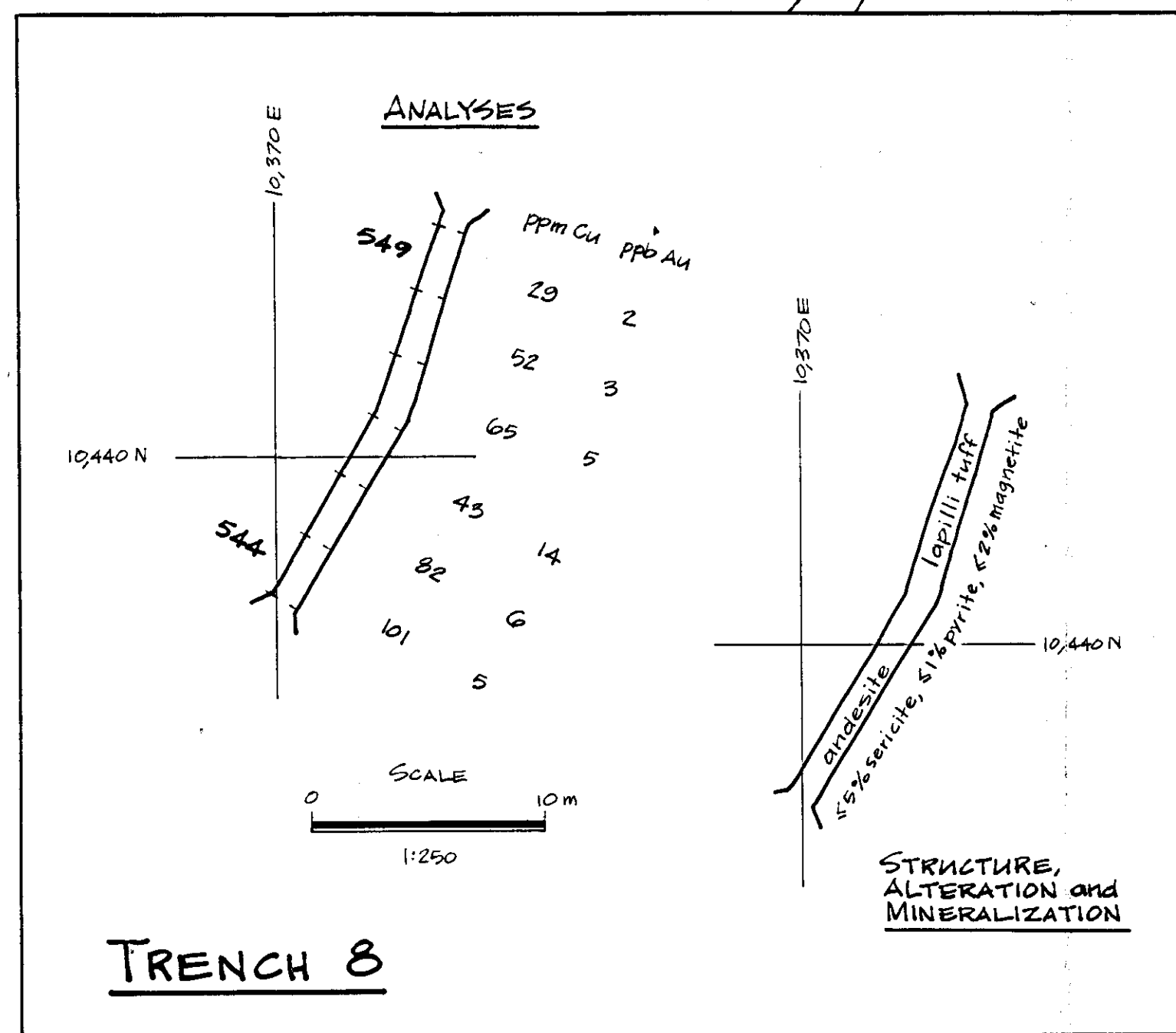
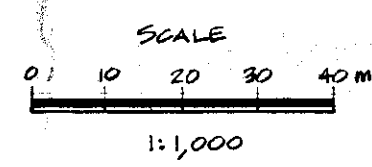
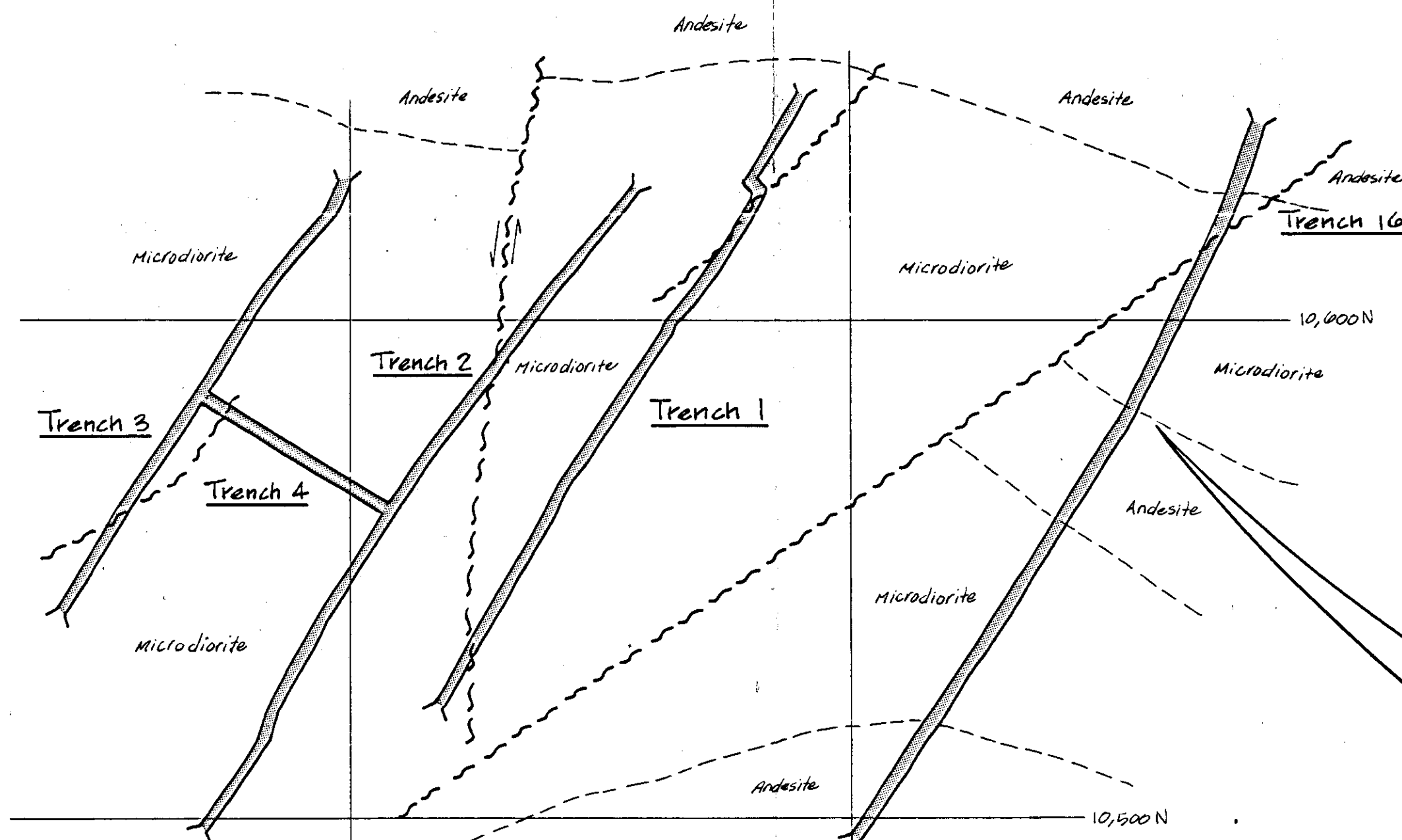
- LEGEND**
- Bedding
 - - - Joint/Fracture
 - Vein
 - - - Geological Contact
Known, inferred
 - - - Fault
Known, inferred
 - ⊥ Downdrop side of fault

NOTE: "Plan Views" of geology on trench floor.
 Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.



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MANCHESTER RESOURCES CORP.
CONS. CARINA RESOURCES CORP.
ROK PROPERTY
1991 BACKHOE TRENCHES
MINERALIZATION & GEOLOGY
OF NORTH ZONE TRENCHES 9-10

DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	PRD: GEDL DT-MENNER
SCALE: See drawings	
Koevatin Engineering Inc. MAP No. 29	

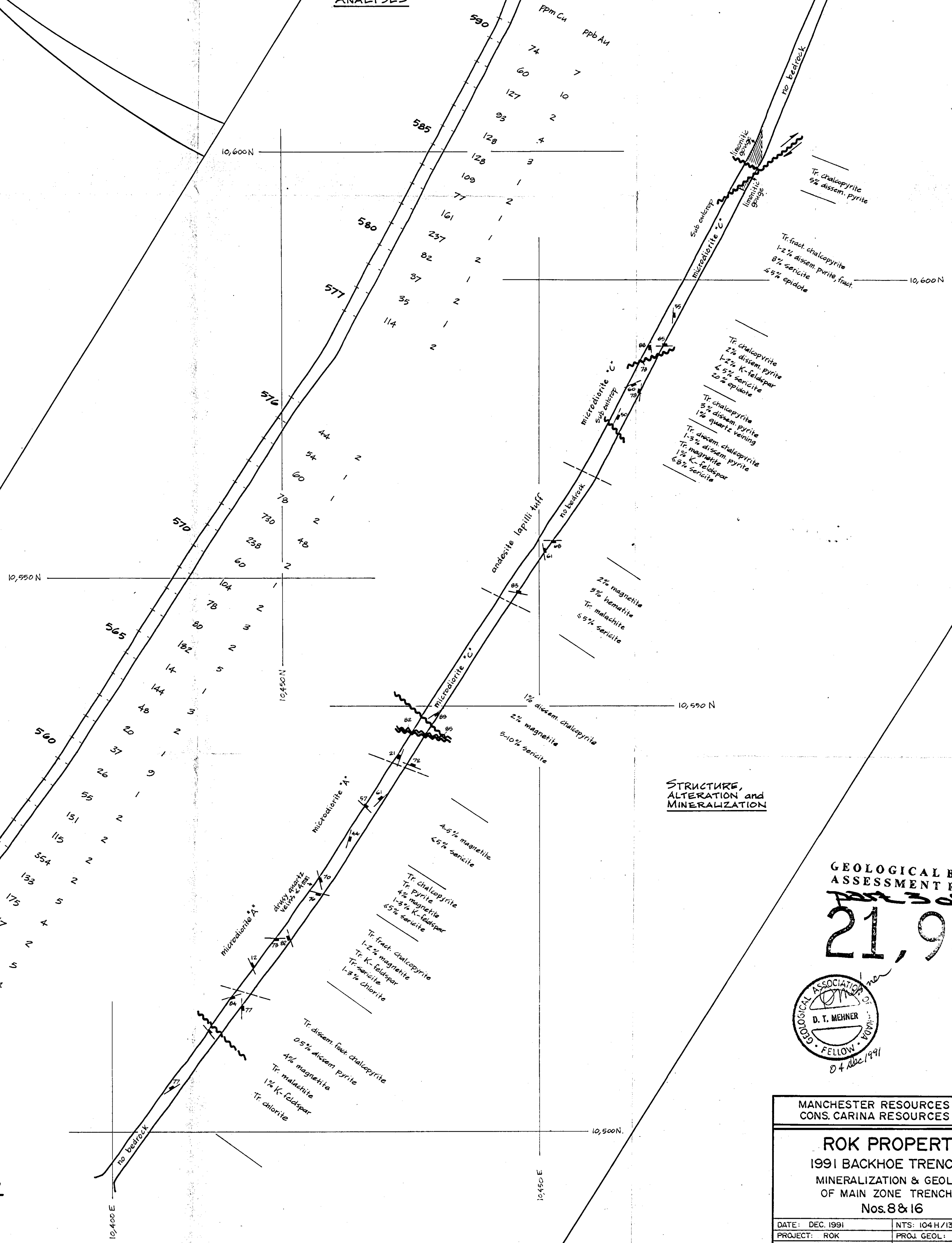


- LEGEND**
- Bedding
 - - - Joint/Fracture
 - Vein
 - - - Geological Contact known, inferred
 - ~ Fault known, inferred
 - ⊥ Downdrop side of fault

NOTE: "Plan Views" of geology on trench floor.

Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.

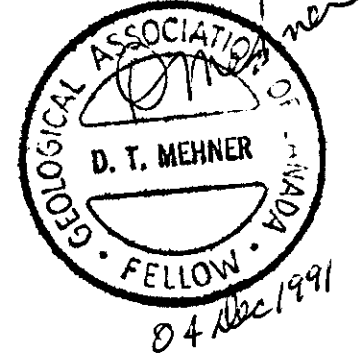
ANALYSES



STRUCTURE, ALTERATION and MINERALIZATION

GEOLOGICAL BRANCH ASSESSMENT REPORT

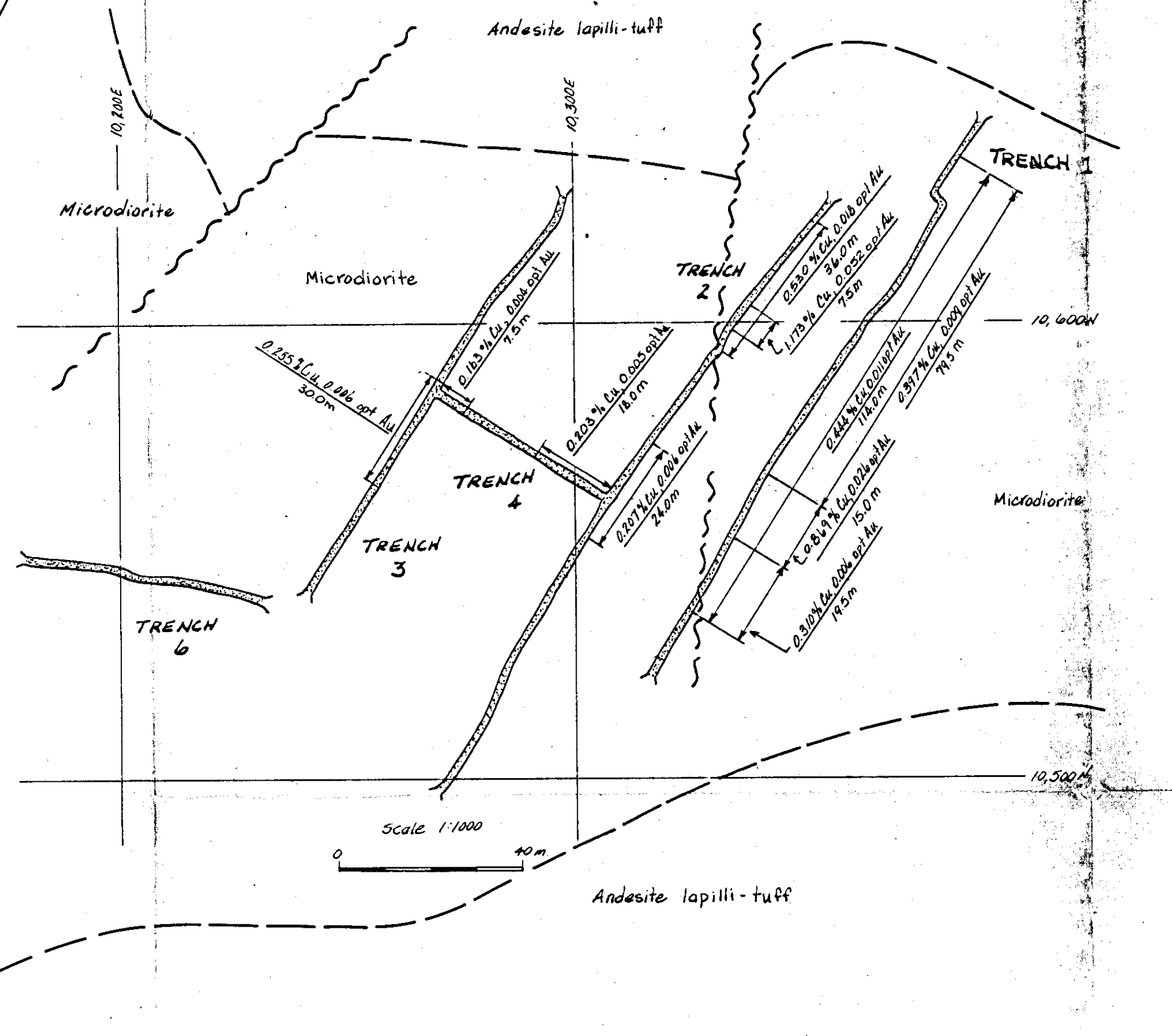
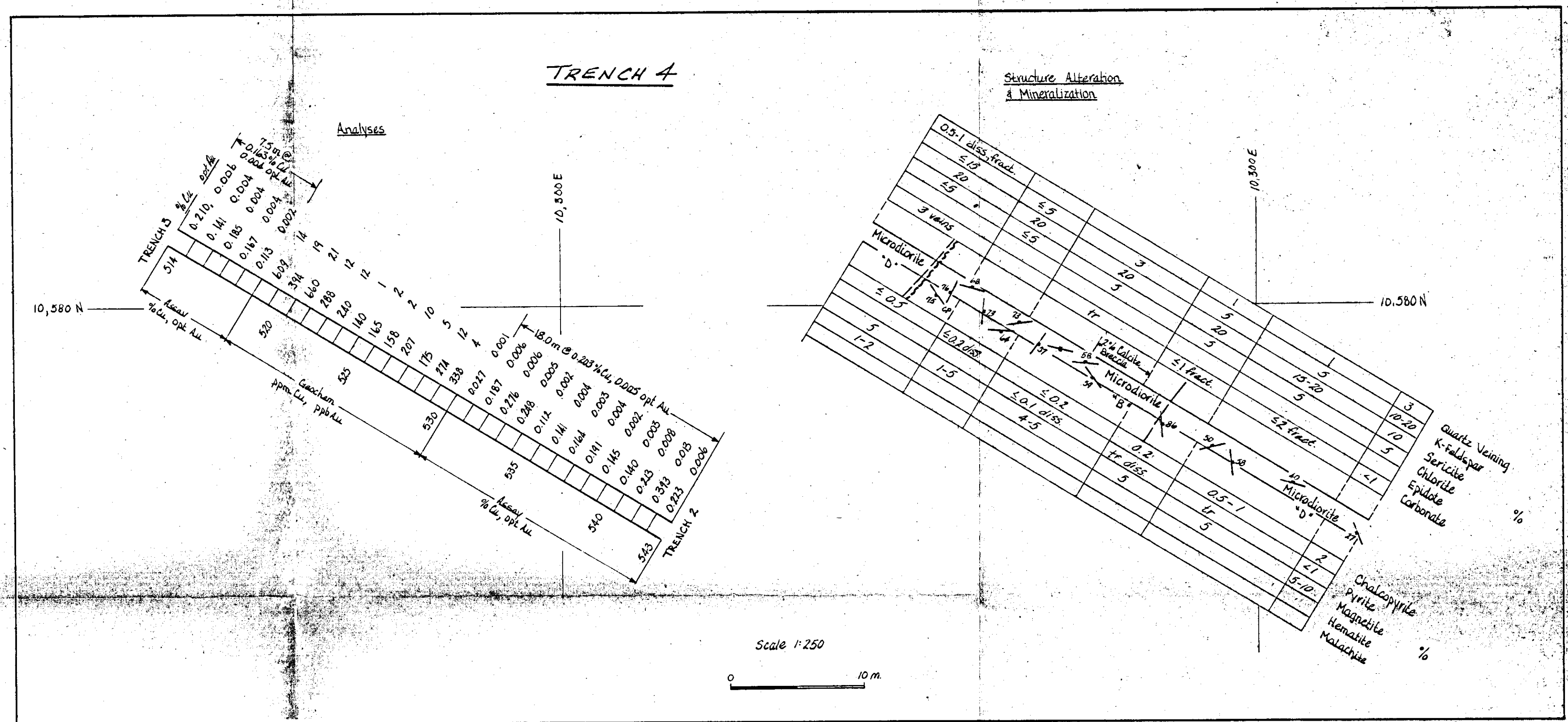
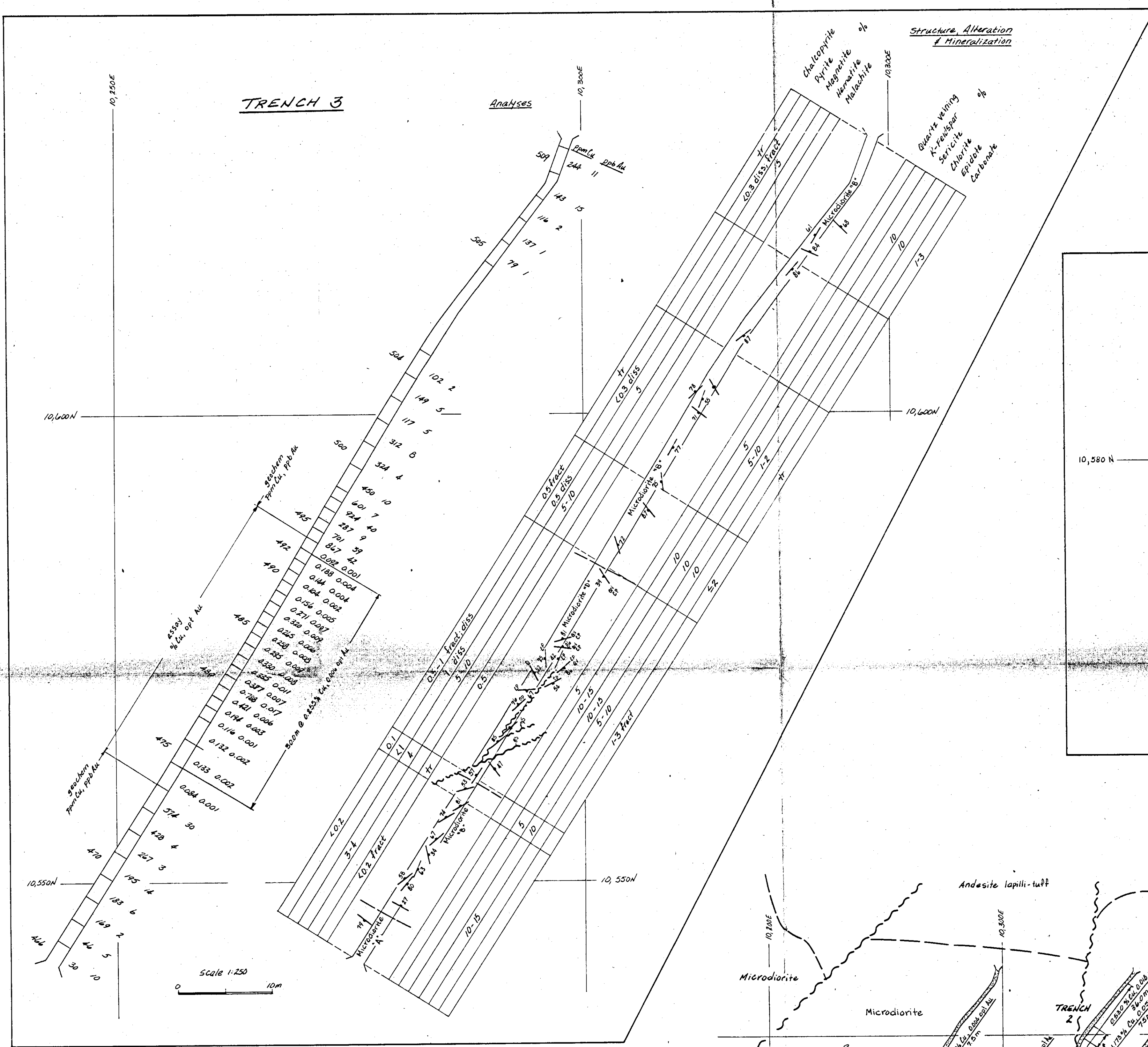
21,901



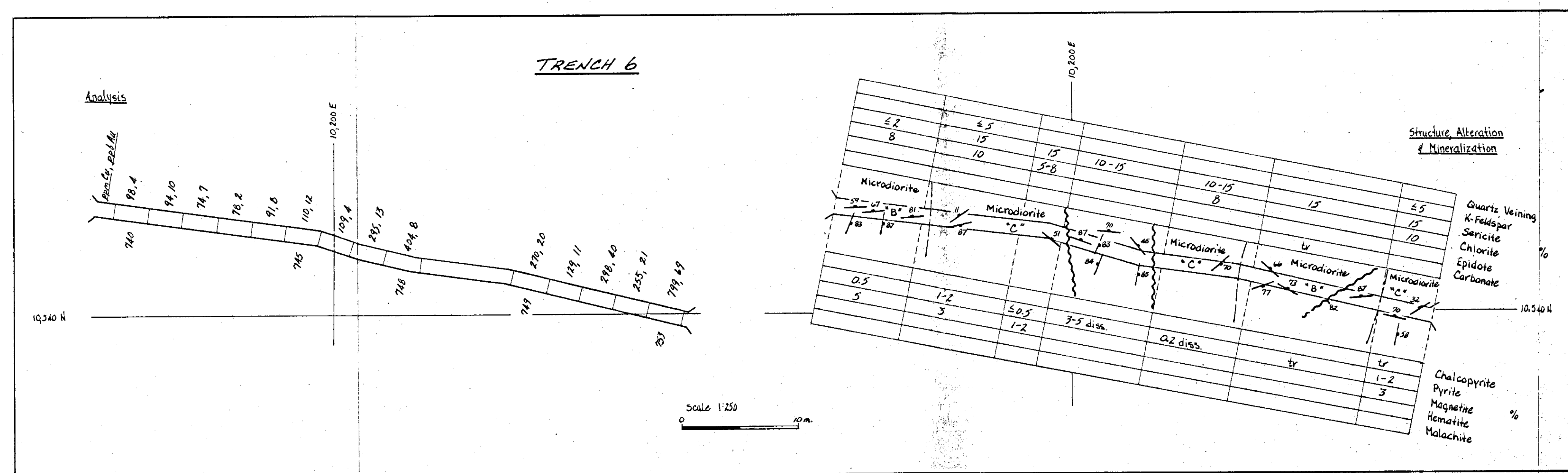
MANCHESTER RESOURCES CORP
CONS. CARINA RESOURCES CORP.

ROK PROPERTY
1991 BACKHOE TRENCHES
MINERALIZATION & GEOLOGY
OF MAIN ZONE TRENCHES
Nos. 8 & 16

DATE: DEC. 1991 NTS: 104H/13W
PROJECT: ROK PROJ. GEOL: J.MILLER
SCALE: See drawings
Keewatin Engineering Inc. MAP No. 28



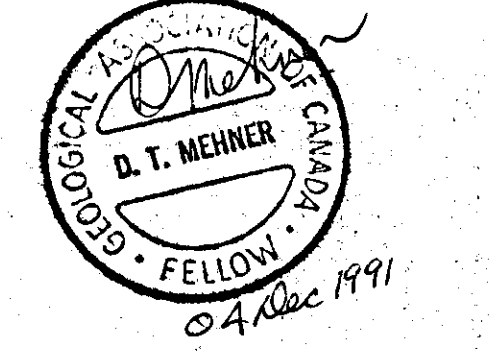
- LEGEND**
- Bedding
 - - - Joint/Fracture
 - Vein
 - - - Geological Contact known, inferred
 - Fault known, inferred
 - Downdrop side of fault



Note: "Plan Views" of geology on trench floor.

Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.

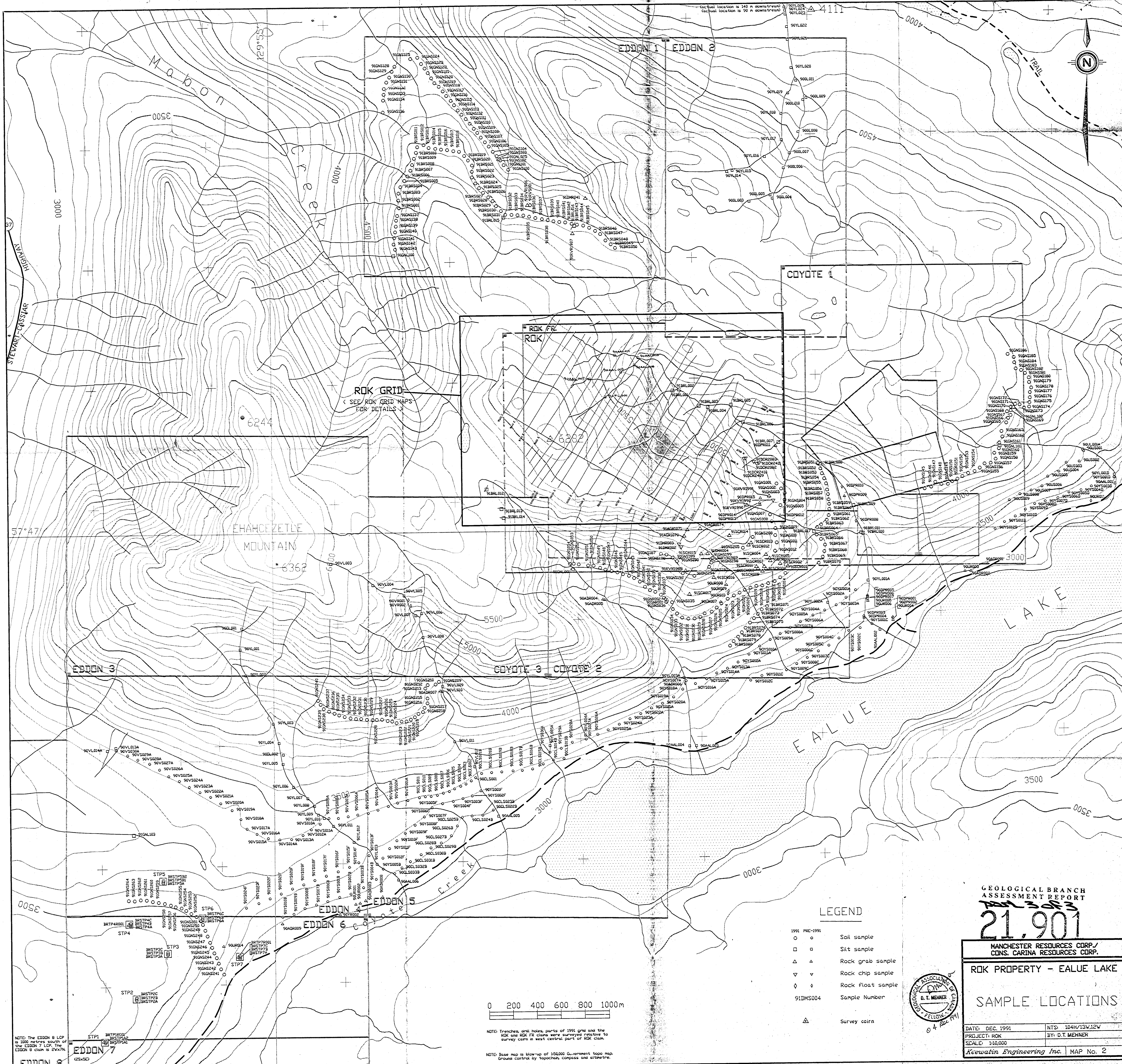
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ASSESSMENT REPORT
21,901



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CONS. CARINA RESOURCES CORP.**

ROK PROPERTY
1991 BACKHOE TRENCHES
MINERALIZATION & GEOLOGY
OF MAIN ZONE TRENCHES 3,4&6

DATE: DEC 1991 INTD: 10/4/13/91
PROJECT: ROK PROJ: GEDL - D.T. MEMNER
SCALE: See drawings
Korwin Engineering Inc. MAP No. 26



ROK GRID
 (SEE ROK GRID MAPS
 FOR DETAILS)

LEGEND

- 1991 PRE-1991
- Soil sample
- Silt sample
- ▲ Rock grab sample
- ▼ Rock chip sample
- ◇ Rock float sample
- ◇ 91DMS004 Sample Number
- ▲ Survey cairn

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

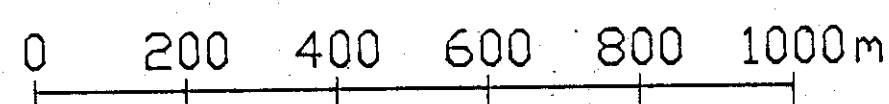
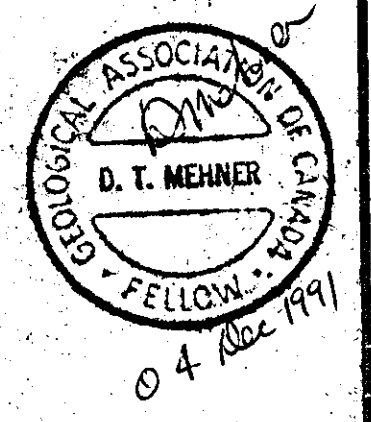
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ROK PROPERTY - EALUE LAKE

SAMPLE LOCATIONS

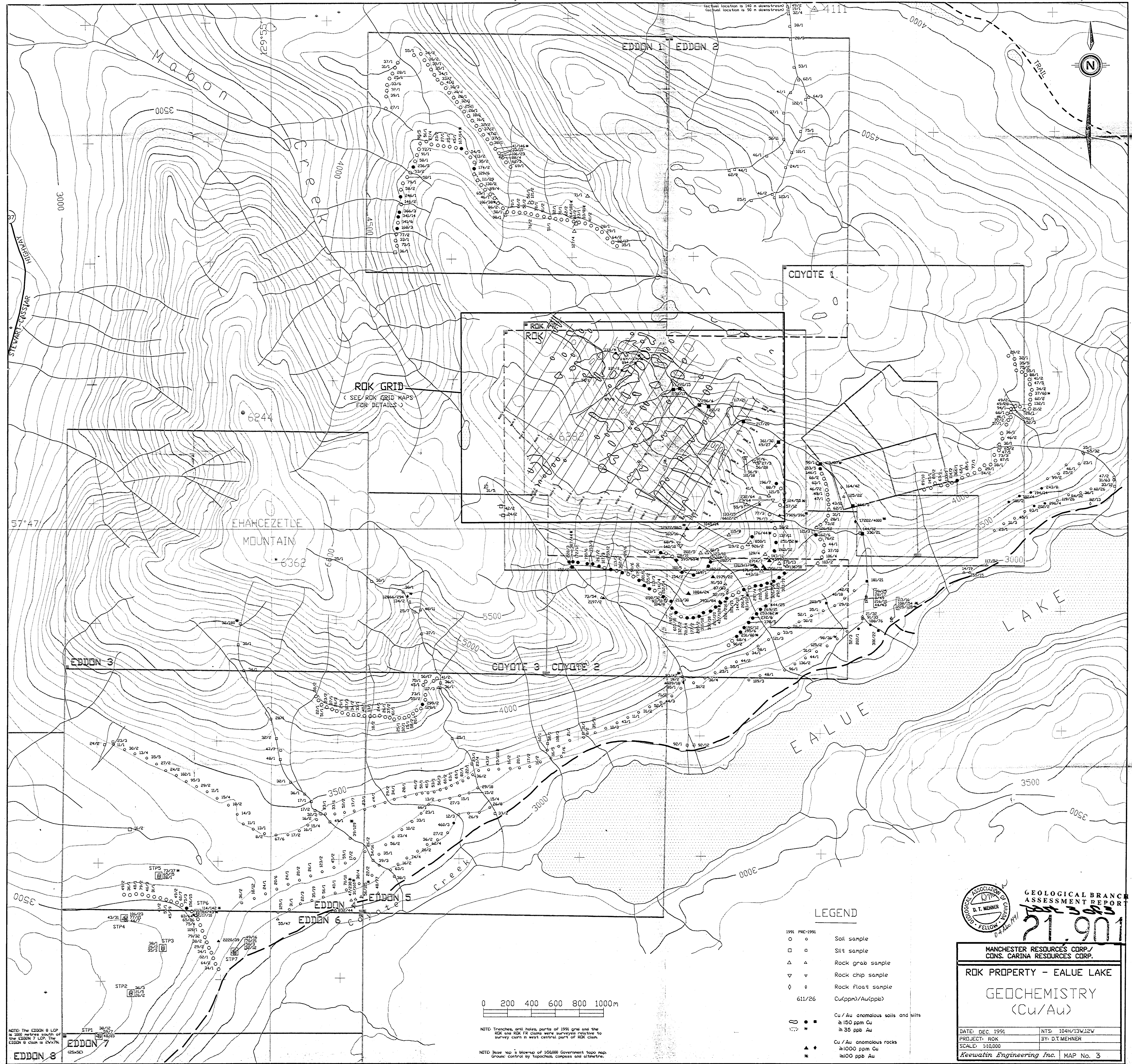
DATE: DEC. 1991	NTS: 104H/13V,12W
PROJECT: ROK	BY: D.T. MENNER
SCALE: 1/10,000	
Keewatin Engineering Inc. MAP No. 2	



NOTE: Trenches, drill holes, parts of 1991 grid and the ROK and ROK FR claims were surveyed relative to survey cairn at west central part of ROK claim.
 NOTE: Base map is blow-up of 1:50,000 Government topo map. Ground control by topographic compass and altimetry.

NOTE: The EDDON 8 LCP is 1000 metres south of the EDDON 7 LCP. The EDDON 8 claim is 2V47N.

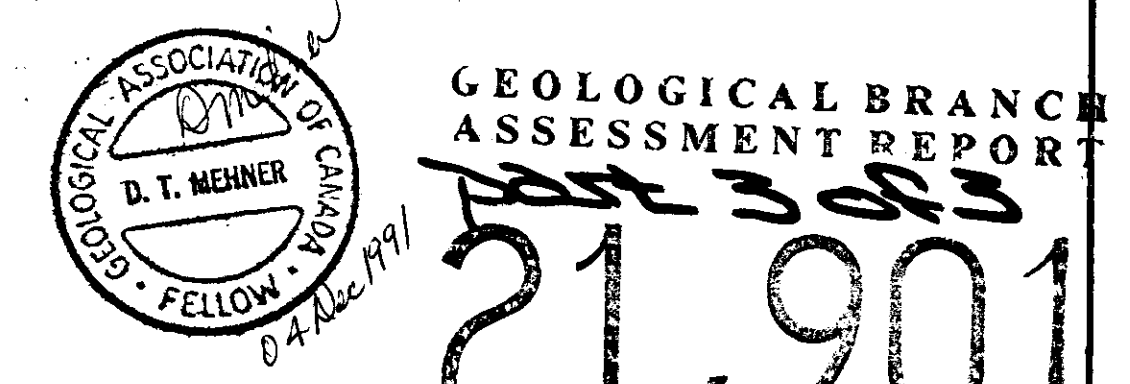
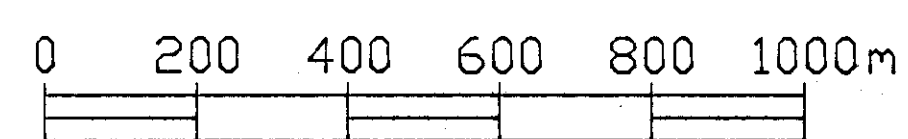
EDDON 7
 EDDON 8



ROK GRID
 (SEE ROK GRID MAPS
 FOR DETAILS)

LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- ▽ ▽ Rock chip sample
- ◇ ◇ Rock float sample
- 611/26 Cu(ppm)/Au(ppb)
- ● Cu / Au anomalous soils and silts
 ≥ 150 ppm Cu
 ≥ 35 ppb Au
- ▲ ▲ Cu / Au anomalous rocks
 ≥ 1000 ppm Cu
 ≥ 100 ppb Au



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ROK PROPERTY - EALUE LAKE

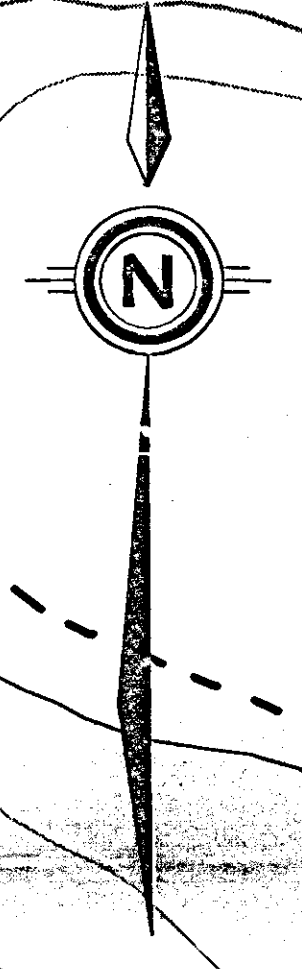
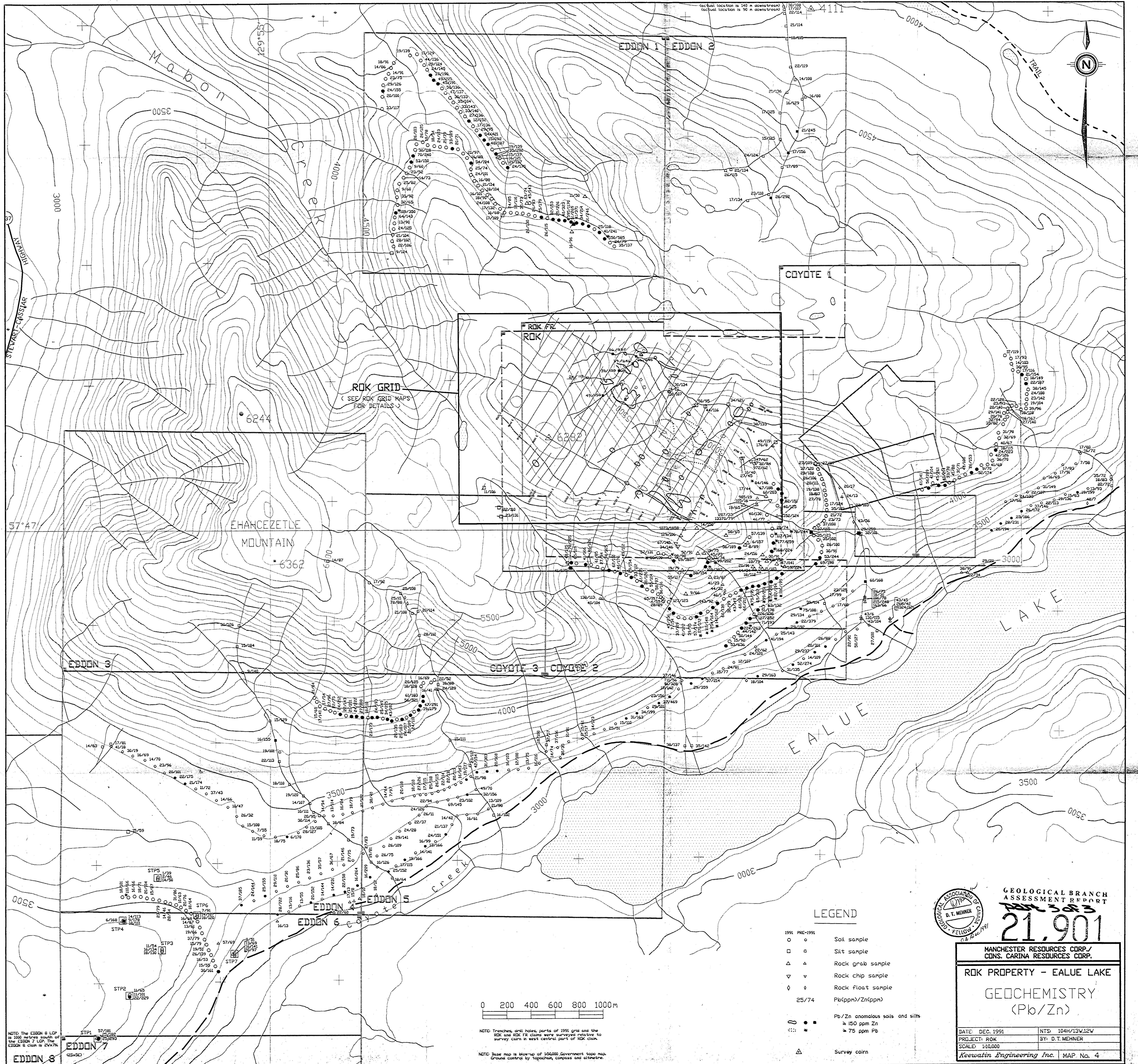
GEOCHEMISTRY
 (Cu/Au)

DATE: DEC. 1991 NTS: 104H/13W,12W
 PROJECT: ROK BY: D.T.MEHNER
 SCALE: 1:10,000
 Keewatin Engineering Inc. MAP No. 3

NOTE: THE EDDON 8 LCP IS 1000 METRES SOUTH OF THE EDDON 7 LCP. THE EDDON 8 CLAIM IS 24.7N.

NOTE: TRENCHES, DRILL HOLES, PARTS OF 1991 GRID AND THE ROK AND ROK FR CLAIMS WERE SURVEYED RELATIVE TO SURVEY CLAIM IN WEST CENTRAL PART OF ROK CLAIM.

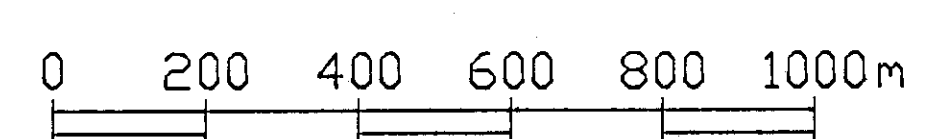
NOTE: BASE MAP IS BLOW-UP OF 1:50,000 GOVERNMENT TOPOGRAPHIC MAP. GROUND CONTROL BY TOPOGRAPHIC COMPASS AND ALTIMETER.



ROK GRID
(SEE ROK GRID MAPS FOR DETAILS)

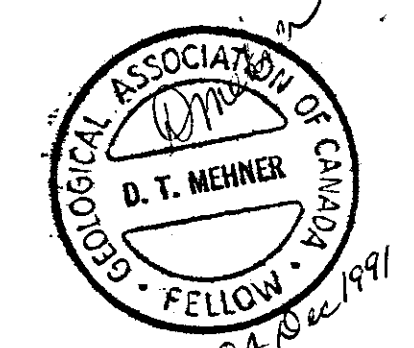
LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- ▽ ▽ Rock chip sample
- ◇ ◇ Rock float sample
- 25/74 Pb(ppm)/Zn(ppm)
- ● Pb/Zn anomalous soils and silts
○ ≥ 150 ppm Zn
● ≥ 75 ppm Pb
- △ Survey cairn



NOTE: Trenches, drill holes, parts of 1991 grid and the ROK and ROK FR claims were surveyed relative to survey cairn in west central part of ROK claim.

NOTE: Base map is blow-up of 1:50,000 Government topographic map. Ground control by topographic compass and altimeter.



GEOLOGICAL BRANCH ASSESSMENT REPORT

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ROK PROPERTY - EALUE LAKE

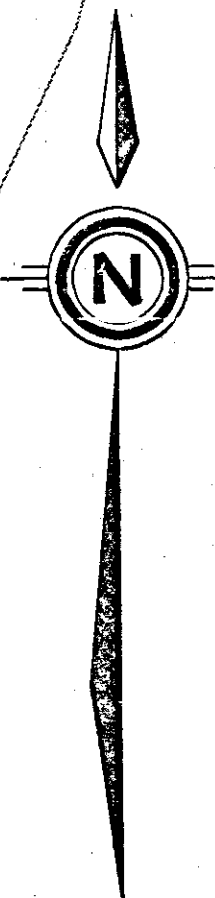
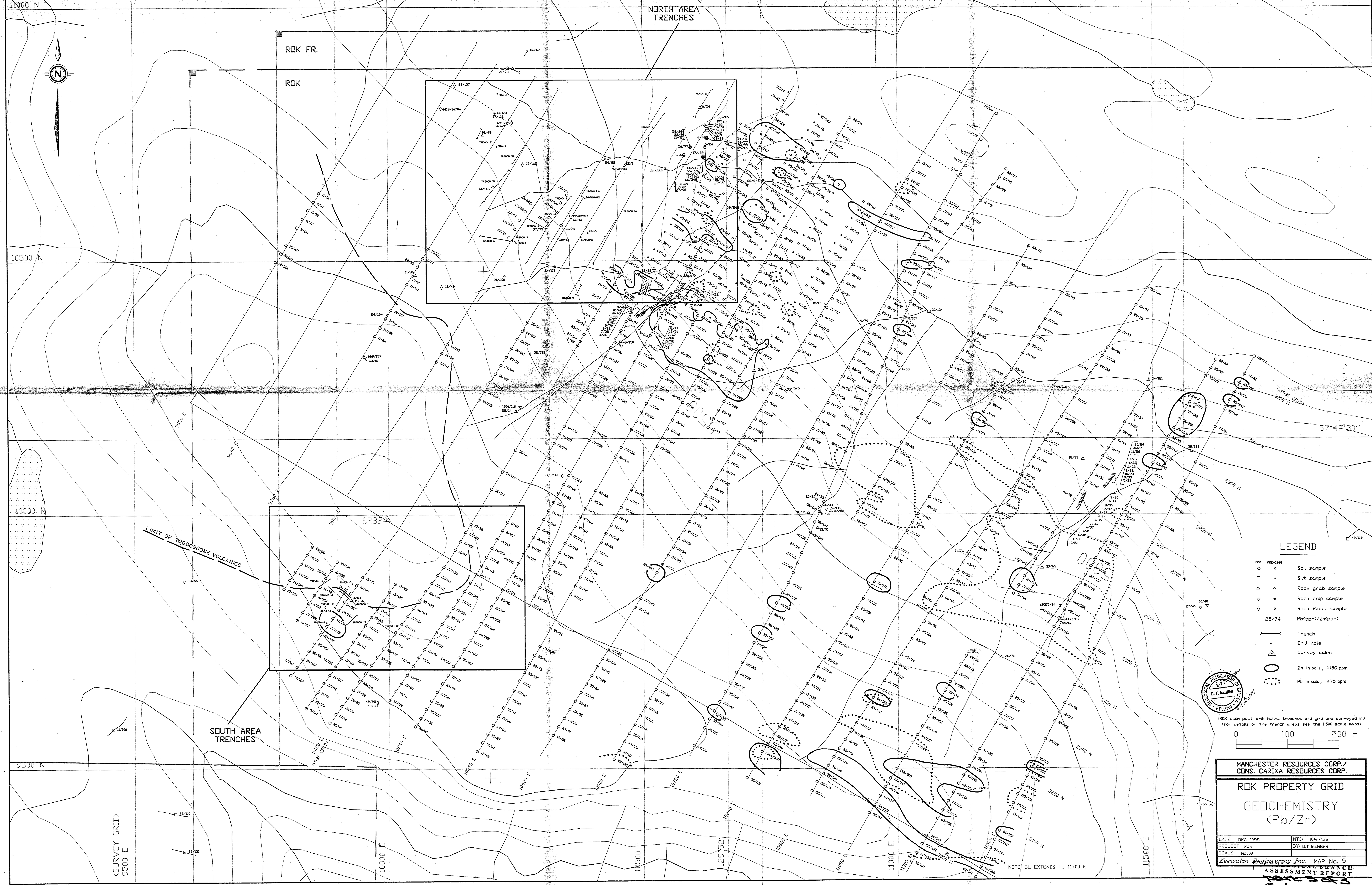
GEOCHEMISTRY (Pb/Zn)

DATE: DEC. 1991	NTS: 104H/13W.12W
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1:10,000	
Keewatin Engineering Inc. MAP No. 4	

NOTE: The EDDON 8 LCP is 1000 metres south of the EDDON 7 LCP. The EDDON 8 claim is 24/97N.

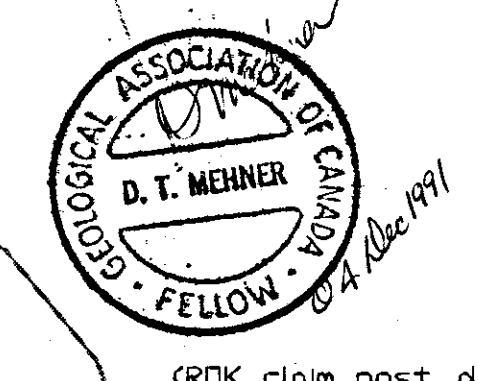
EDDON 7

EDDON 8

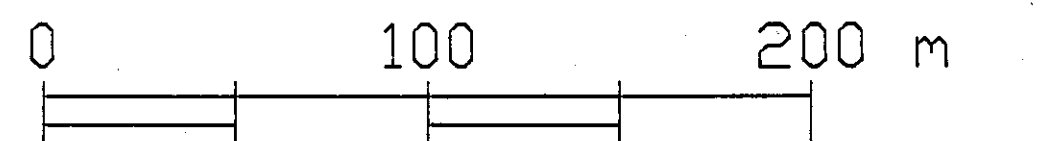


LEGEND

- PRE-1991 Soil sample
- Silt sample
- △ Rock grab sample
- ▽ Rock chip sample
- ◇ Rock float sample
- ◇ 25/74 Pb(ppm)/Zn(ppm)
- Trench
- Drill hole
- △ Survey cairn
- Zn in soils, ≥150 ppm
- Pb in soils, ≥75 ppm

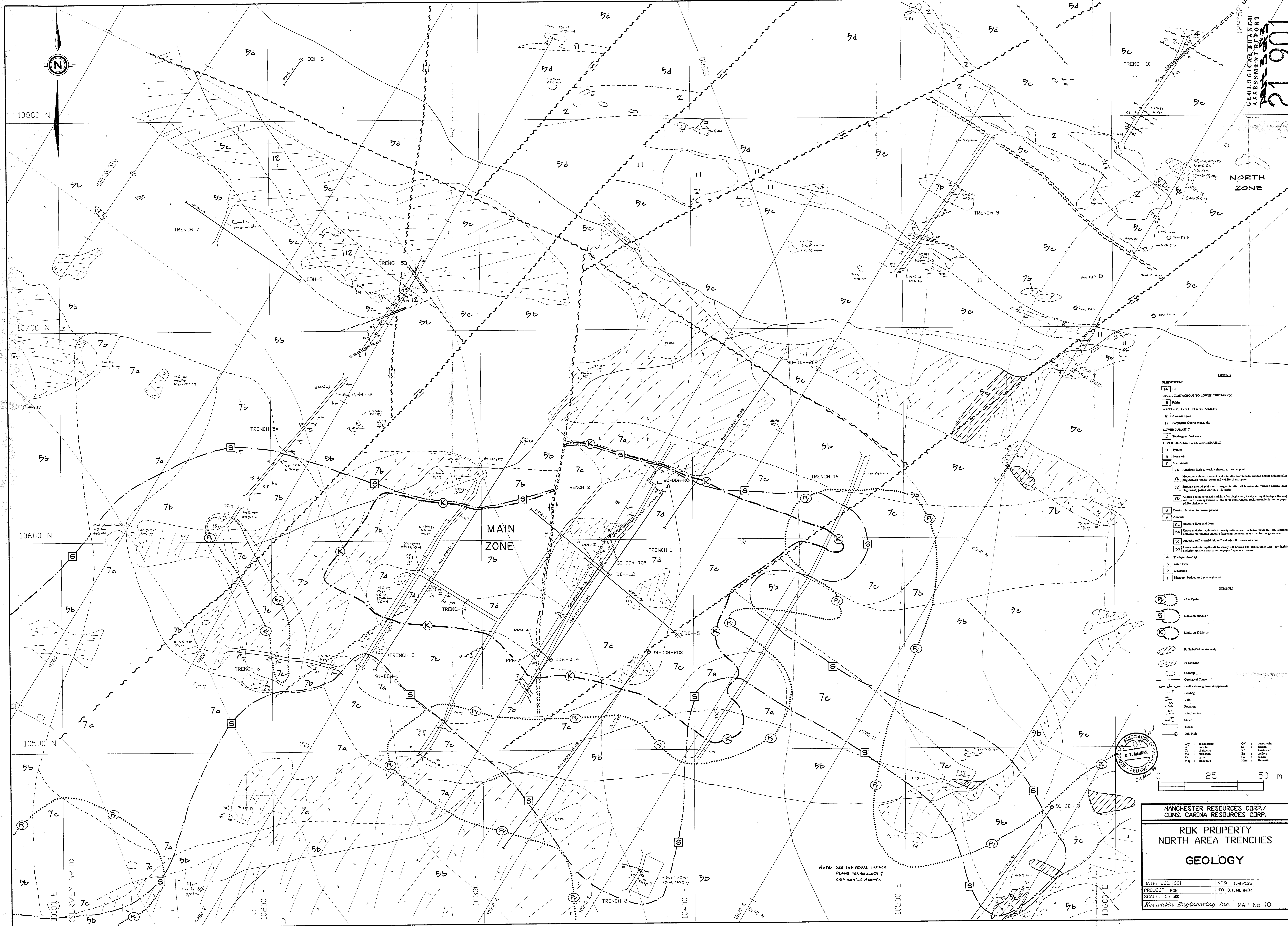


ROK claim post, drill holes, trenches and grid are surveyed in 1:5000 scale maps. (For details of the trench areas see the 1:500 scale maps)



MANCHESTER RESOURCES CORP./ CONS. CARINA RESOURCES CORP.	
ROK PROPERTY GRID	
GEOCHEMISTRY (Pb/Zn)	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1:2,000	
Keewatin Engineering Inc. MAP No. 9	
ASSESSMENT REPORT	

21.901



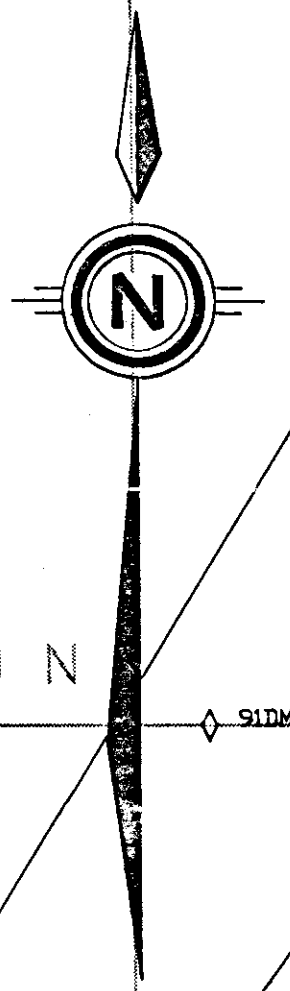
- LEGEND**
- PLEISTOCENE**
- 14 TH UPPER CRETACEOUS TO LOWER TERTIARY(?)
 - 13 Fluvial
 - POST ORIF. POST UPPER TRIASSIC(?)
 - 12 Andesitic Dyke
 - 11 Porphyritic Quartz Monzonite
- LOWER JURASSIC**
- 10 Tronkagan Volcanics
- UPPER TRIASSIC TO LOWER JURASSIC**
- 9 System
 - 8 Monzonite
 - 7 Andesite
- 7a** Moderately altered (variable silicification, sericitic and/or epidotic after plagioclase), 0.15% pyrite and 0.2% chloropyrite
- 7b** Strongly altered (chlorite + magnetite after all hornblende, variable sericitic after plagioclase) pyrite, chlorite, + 1% pyrite
- 7c** Altered and mineralized, sericitic after plagioclase; locally strong K-feldspar blebbing and coarse grained; where K-feldspar is the matrix, rock resembles lower porphyry; 0.5% chloropyrite
- 6 Diolite: Medium to coarse grained
 - 5 Andesite
 - 5a Andesitic flows and dykes
 - 5b Upper andesite (epidote) to locally sulfidated; includes minor sulf and alluvium; includes porphyritic andesite (fragments common); minor plagioclase conglomerate
 - 5c Andesite (alt. rhyolitic) with sulf and silic. minor alluvium
 - 5d Lower andesite (epidote) to locally sulfidated and sericitic (sulf. porphyry); includes chlorite, sericitic and late porphyry fragments common
- 4** Tronkagan Fluvial/Fluvial
- 3 Laminar Flow
 - 2 Laminar Flow
 - 1 Channel: bedded to finely laminated

- SYMBOLS**
- (P) >1% Pyrite
 - (S) Limits on Sulfide
 - (K) Limits on K-feldspar
 - (F) Fault/Glue Assembly
 - (D) Deformation
 - (C) Quarry
 - (G) Geological Contact
 - (F) Fault - showing down dropped side
 - (D) Dipping
 - (V) Vein
 - (P) Polished
 - (J) Joint/Fracture
 - (S) Shear
 - (T) Trench
 - (D) Drill Hole
- QV : quartz vein
 Di : diolite
 An : andesite
 Ma : mafic
 Sp : granite
 Mag : magnetite
 Qtz : quartz vein
 Sulf : sulfide
 K-f : K-feldspar
 Ep : epidote
 Chl : chlorite
 Hem : hematite
- 0 25 50 m

MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.
ROK PROPERTY
NORTH AREA TRENCHES
GEOLOGY

DATE: DEC. 1991
 PROJECT: ROK
 SCALE: 1 : 500
 NTS: 184H/13W
 BY: D.T. MENNER
 Keewatin Engineering Inc. MAP No. 10

NOTE: SEE INDIVIDUAL TRENCH PLANS FOR GEOLOGY & CHIP SAMPLE ASSAYS.



10800 N

10700 N

10600 N

10500 N

10100 E

(SURVEY GRID)

10200 E

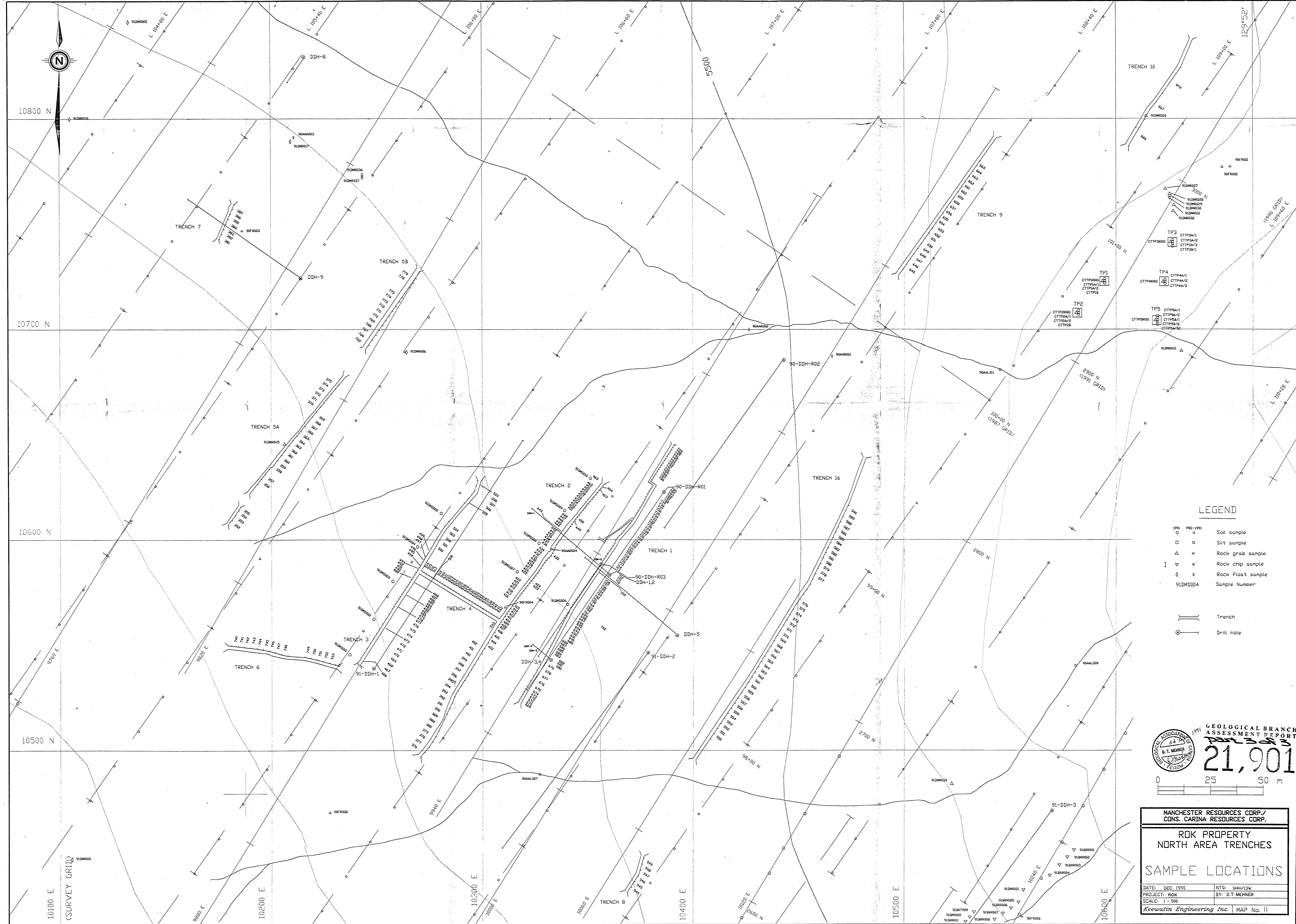
10300 E

10400 E

10500 E

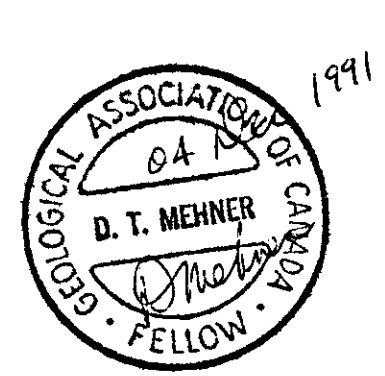
10600 E

129°52'

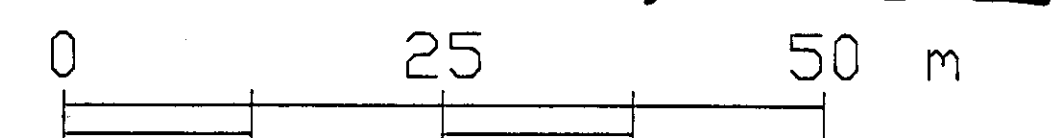


LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- I I Rock chip sample
- ▽ ▽ Rock float sample
- ◇ ◇ Sample Number
- 91DMS004
- Trench
- Drill hole



GEOLOGICAL BRANCH
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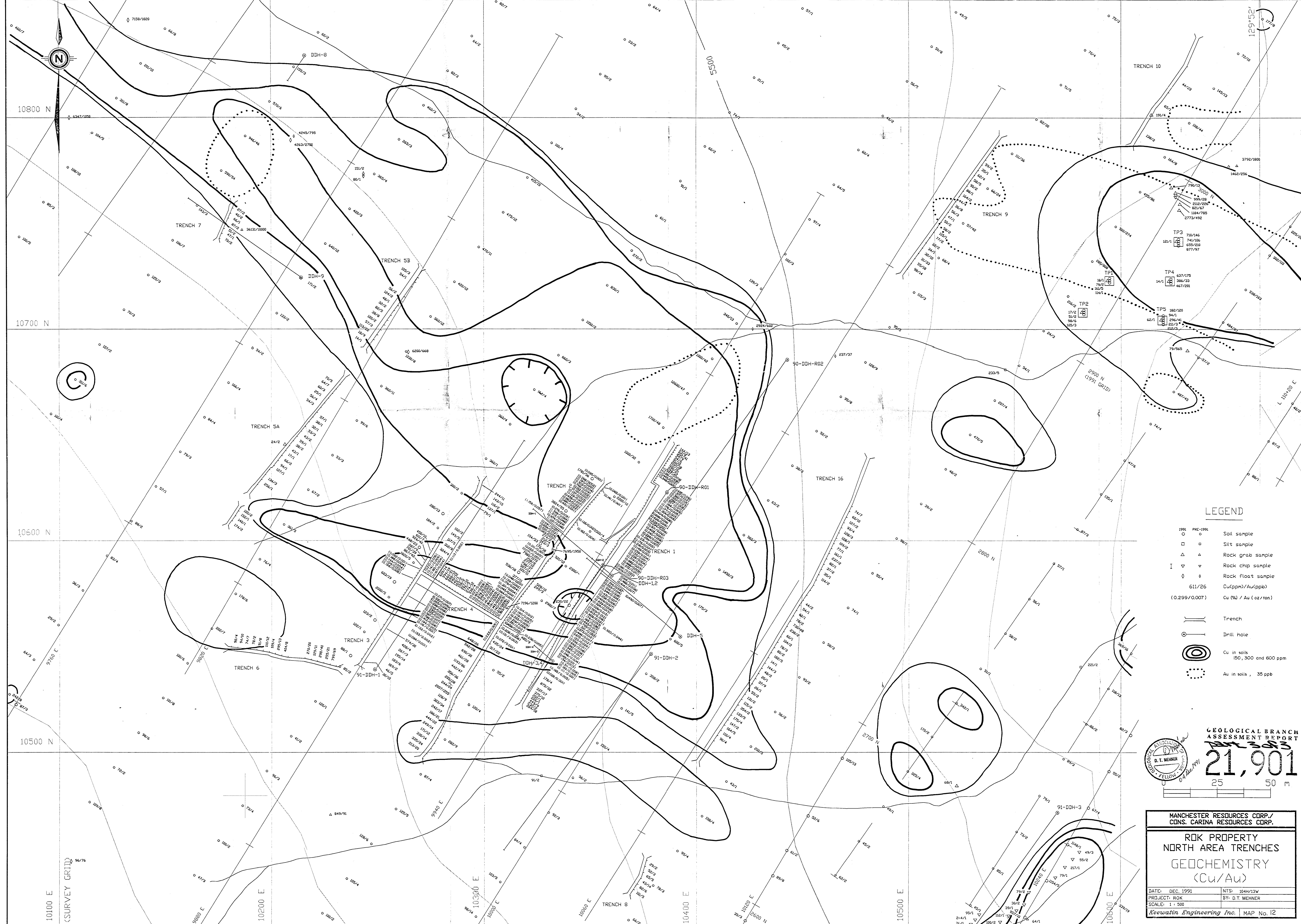
MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.

RJK PROPERTY
NORTH AREA TRENCHES

SAMPLE LOCATIONS

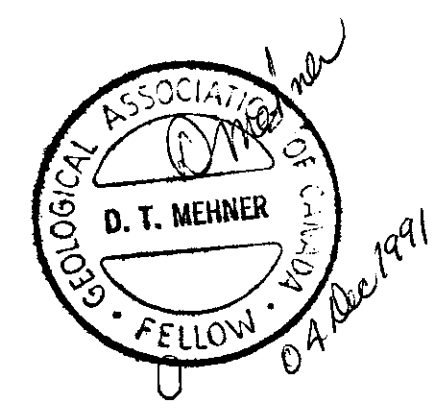
DATE: DEC 1991	NTS: 1044/12W
PROJECT: RJK	BY: D.T. MEHNERT
SCALE: 1 : 500	

Keewatin Engineering Inc. MAP No. 11



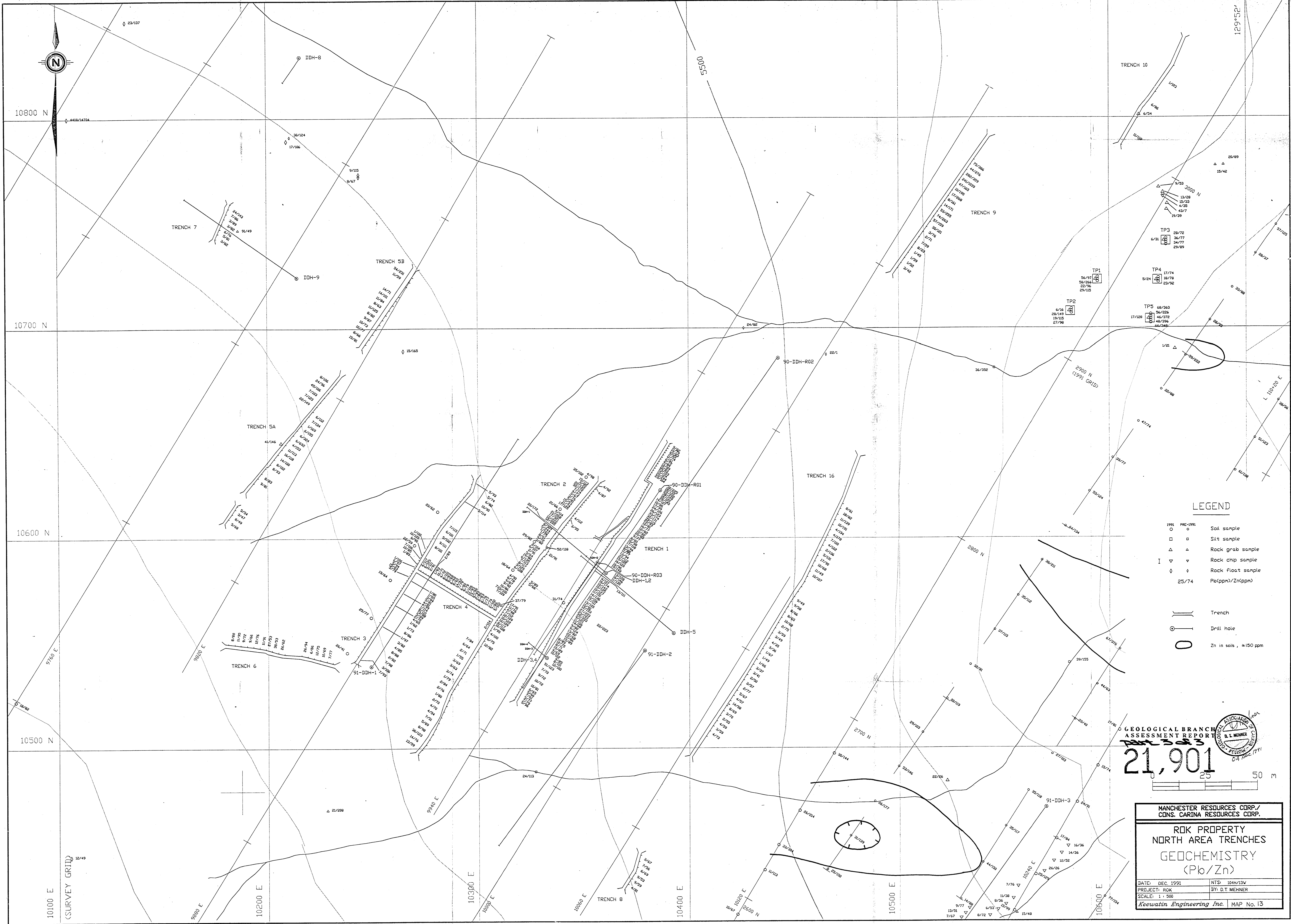
LEGEND

- PRC-1591 Soil sample
- Silt sample
- △ Rock grab sample
- I Rock chip sample
- ▽ Rock float sample
- 611/26 Cu(ppm)/Au(ppb)
- (0.299/0.007) Cu (%) / Au (oz/ton)
- Trench
- Drill hole
- Cu in soils 150, 300 and 600 ppm
- Au in soils 35 ppb



GEOLOGICAL BRANCH
 ASSESSMENT REPORT
21,901
 25 50 m

MANCHESTER RESOURCES CORP./ CONS. CARINA RESOURCES CORP.	
ROK PROPERTY NORTH AREA TRENCHES GEOCHEMISTRY (Cu/Au)	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1 : 500	
Keewatin Engineering Inc. MAP No. 12	



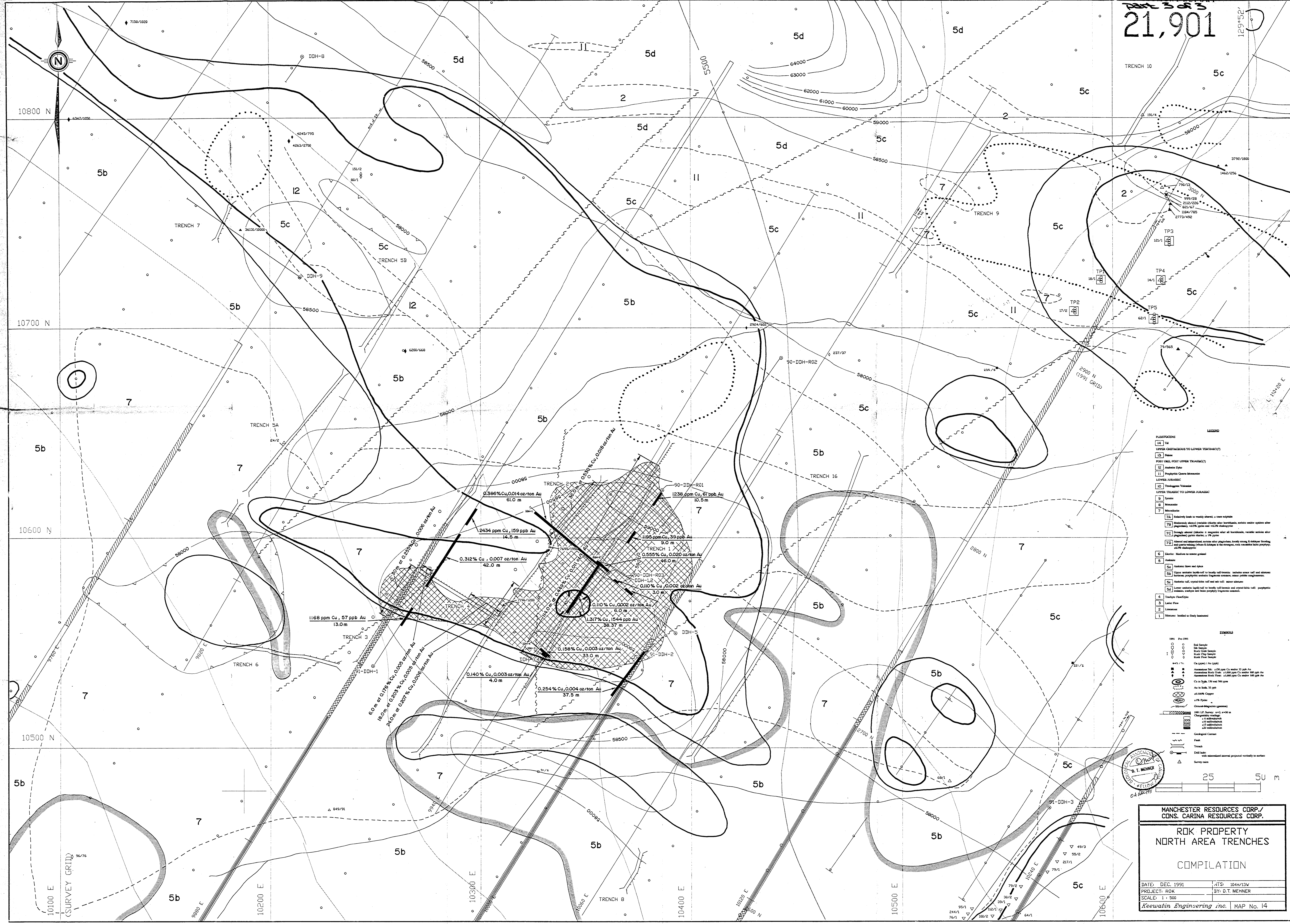
LEGEND

- PRC-1999 Soil sample
- PRC-1999 Silt sample
- △ Rock grab sample
- ▽ Rock chip sample
- ◇ Rock float sample
- ◇ Pb(ppm)/Zn(ppm)
- 25/74
- ||| Trench
- Drill hole
- Zn in soils, ≥150 ppm

GEOLOGICAL BRANCH
 ASSESSMENT REPORT
21,901
 25 50 m

MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.
ROK PROPERTY
NORTH AREA TRENCHES
GEOCHEMISTRY
(Pb/Zn)

DATE: DEC. 1991	NTS: 104H/13V
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1 : 500	
Keewatin Engineering Inc. MAP No. 13	



- LEGEND**
- FLYSHOALS
 - UPPER ORSTACIGUS TO LOWER TRIASSIC(?)
 - POST ORAL POST UPPER TRIASSIC(?)
 - ANDESITE DYKE
 - POLYGENIC CONCRETE MENSURE
 - LOWER JURASSIC
 - TRIASSIC VOLCANIC
 - UPPER TRIASSIC TO LOWER JURASSIC
 - SPALIN
 - MENSURE
 - MISCELLANEOUS
 - 7A Randomly fault to weakly altered, a trace sulphide
 - 7B Strongly altered (chlorite + magnetite) after all faulting, variable surface after (slightly) post-dates a 7B system
 - 7C Strongly altered (chlorite + magnetite) after all faulting, variable surface after (slightly) post-dates a 7B system
 - 7D Altered and mineralized (chlorite + magnetite) locally strong, locally strong and locally strong (chlorite + magnetite) in the strongest, rock, remnant later porphyry; 40-50 m diameter
 - 6 Diorite: Medium to coarse grained
 - 5 Andesite
 - 5a Andesite flow and dyke
 - 5b Upper section (partial) to heavily faulted, variable surface and altered (slightly) post-dates a 7B system, polygenic (slightly) system, minor post-dates (slightly) system
 - 5c Andesite (alt. typical) fault and with alt. minor alteration
 - 5d Lower section (partial) to heavily faulted and crystal (alt. post-dates) system, minor post-dates (slightly) system
 - 4 Trenches (Flow/Dike)
 - 3 Lateral Flow
 - 2 Limestone
 - 1 Measure: Isolated to (slightly) isolated

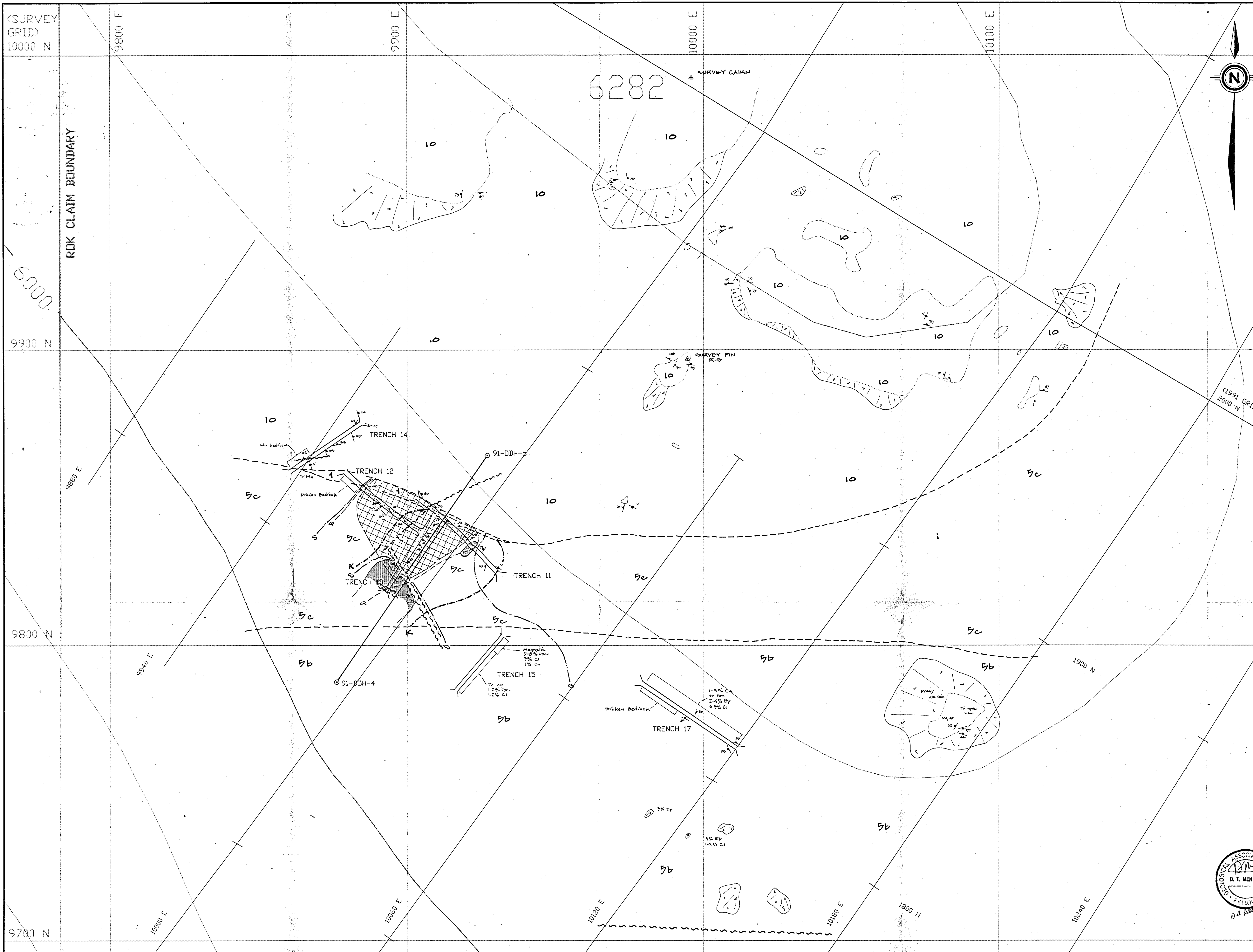
- SYMBOLS**
- 1991 Pre 1991
 - Soil Sample
 - Soil Sample
 - Rock Chip Sample
 - Rock Chip Sample
 - Rock Chip Sample
 - 447 (1)
 - Cu (ppm) / Au (ppb)
 - Assessment 5a: 1150 ppm Cu, 57 ppb Au
 - Assessment 5b: 1168 ppm Cu, 57 ppb Au
 - Assessment 5c: 1168 ppm Cu, 57 ppb Au
 - Assessment 5d: 1168 ppm Cu, 57 ppb Au
 - 1991 LP Survey: +/- 30 m
 - Chert/Pyrite
 - 10 m diameter
 - 10 m diameter
 - 10 m diameter
 - 10 m diameter
 - Geological Contact
 - Flank
 - Trench
 - Dike: with mineralized ground proximal to surface
 - Survey line

MANCHESTER RESOURCES CORP./CONS. CARINA RESOURCES CORP.

ROK PROPERTY NORTH AREA TRENCHES

COMPILATION

DATE: DEC. 1991 NTS: 104H/13W
 PROJECT: ROK BY: D.T. MEHNER
 SCALE: 1 : 500
 Keewatin Engineering Inc. MAP No. 14



EXPLANATION

LITHOLOGY

- LOWER JURASSIC**
- 10 Toodoggone Volcanics
Marson, andesite tuffs, lapilli-tuffs,
resorted volcanoclastics, minor flows.
- UPPER TRIASSIC TO LOWER JURASSIC
IN PART, STUHINI GROUP EQUIVALENT**
- 5c Andesite tuff
 - 5b Andesite lapilli-tuff
 - 1 Siltstone

ALTERATION

- Limits of sericite
- Limits of K-feldspar
- Limits of quartz veining
- ≥ 0.1% Copper
- ≥ 1% Pyrite

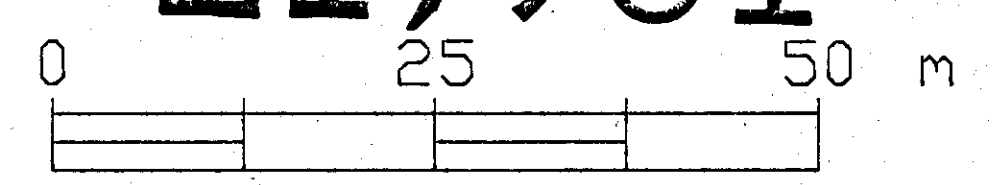
SYMBOLS

- Outcrop
- /||/ Fault/mear
- Geologic contact, defined, assumed
- || Trench
- Diamond Drill Hole
- ~ Fault, defined, assumed
- || Bedding
- || Joints/Fractures
- || Shear
- || Vein

- Bn Bornite
- Ca Calcite
- Cl Chlorite
- Cp Chalcopyrite
- Hm Hematite
- Ma Malachite
- Tr Trace

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

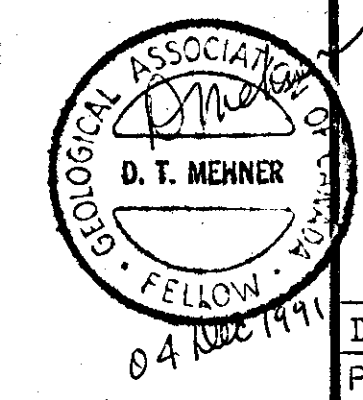
21,901



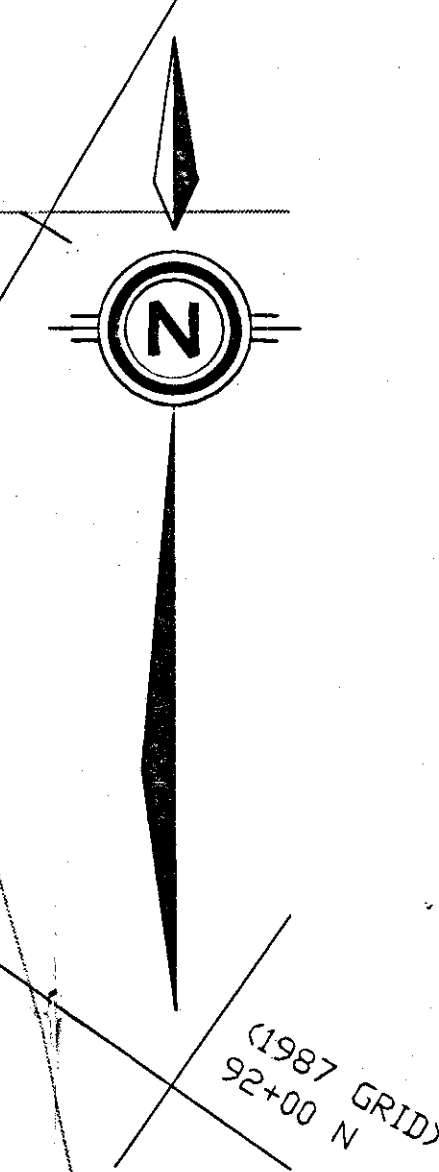
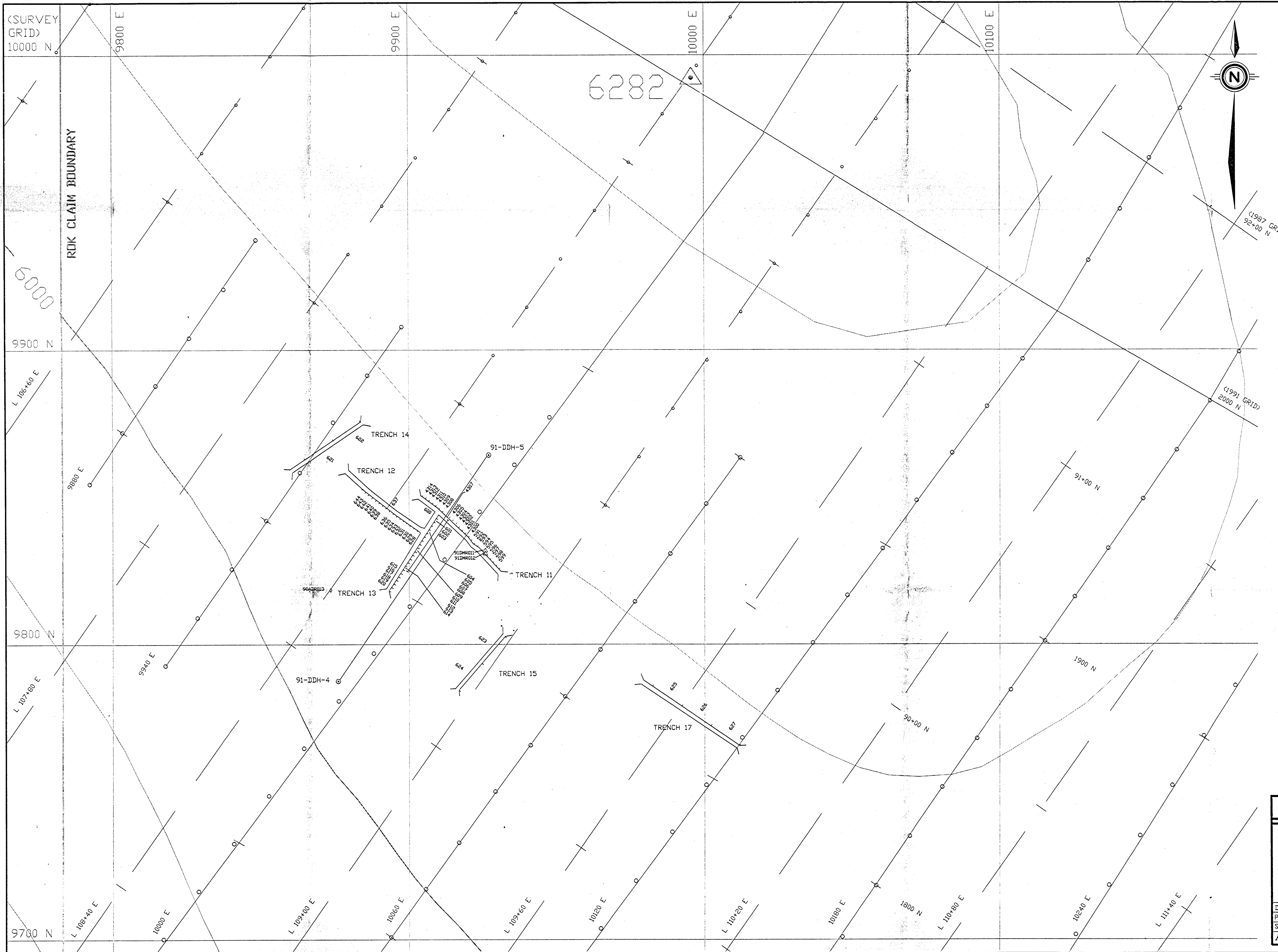
MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.

**ROK PROPERTY
SOUTH AREA TRENCHES**

GEOLOGY

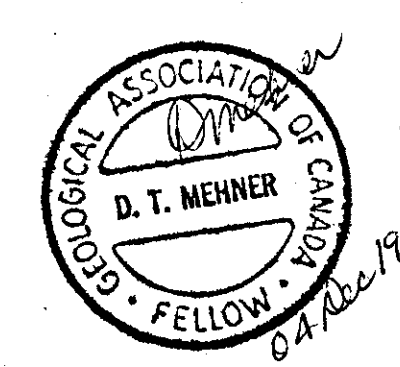


DATE: Dec, 1991	NTS: 104H/13W
PROJECT: ROK	BY: D. Mehner
SCALE: 1:500	
Keewatin Engineering Inc. MAP No. 15	



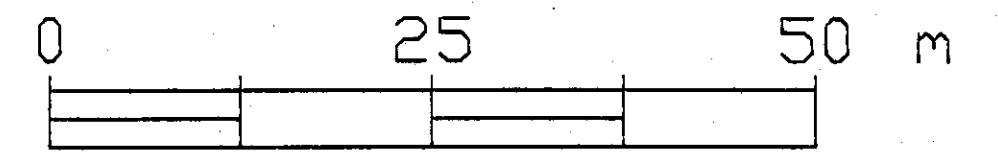
LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- I ▽ ▽ Rock chip sample
- ◇ ◇ Rock float sample
- 91DMS004 Sample Number
- ══ Trench
- Drill hole
- △ Survey cairn

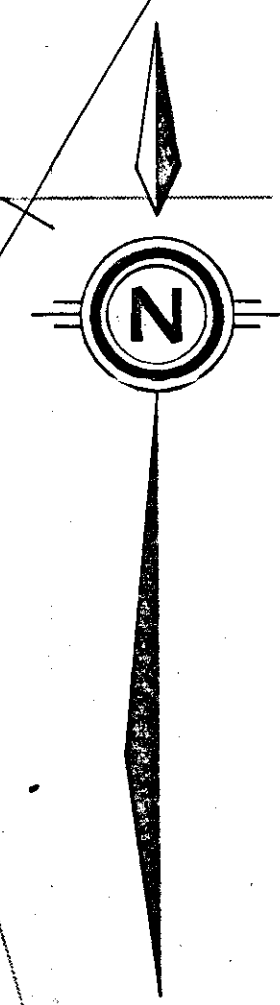
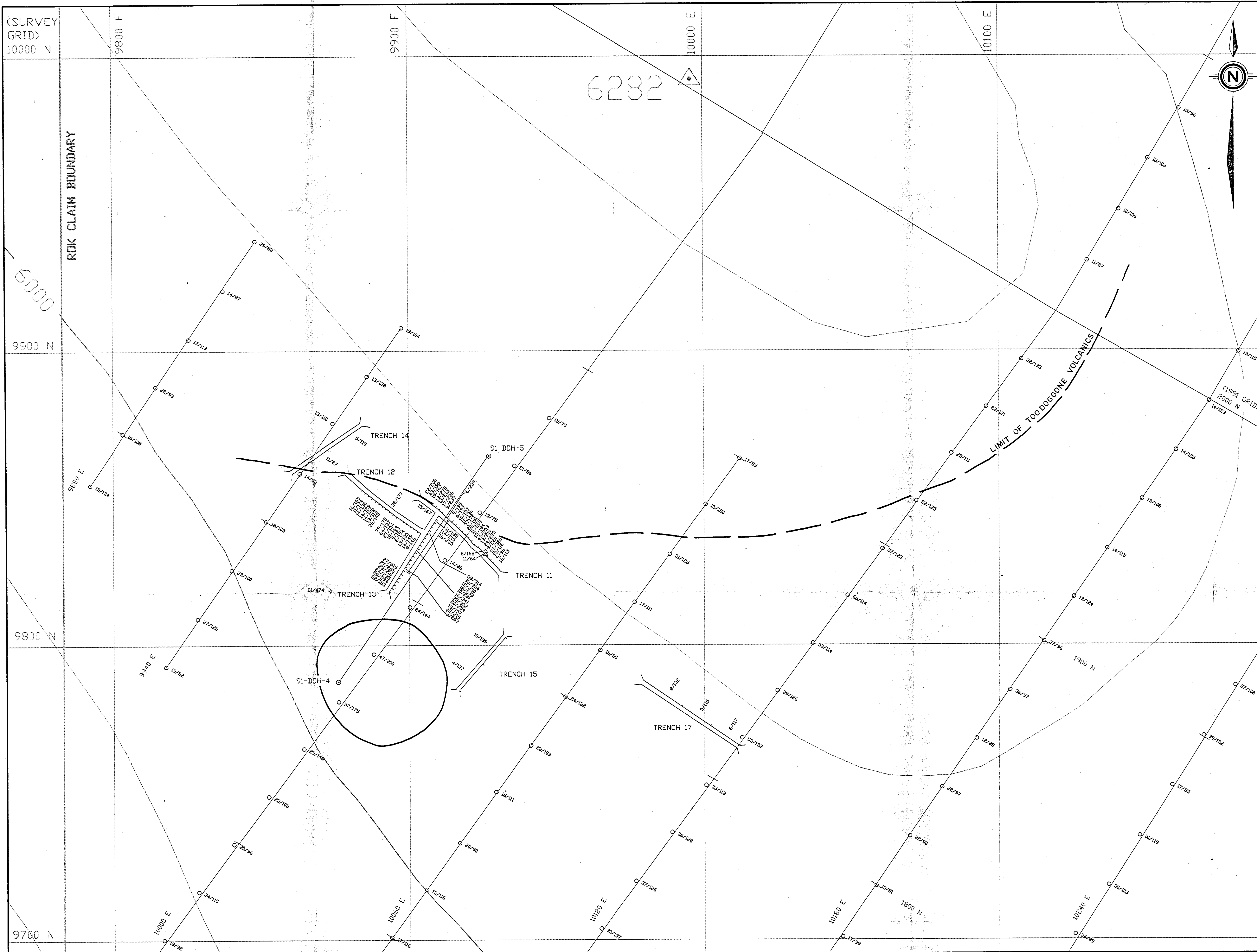


GEOLOGICAL BRANCH
ASSESSMENT REPORT

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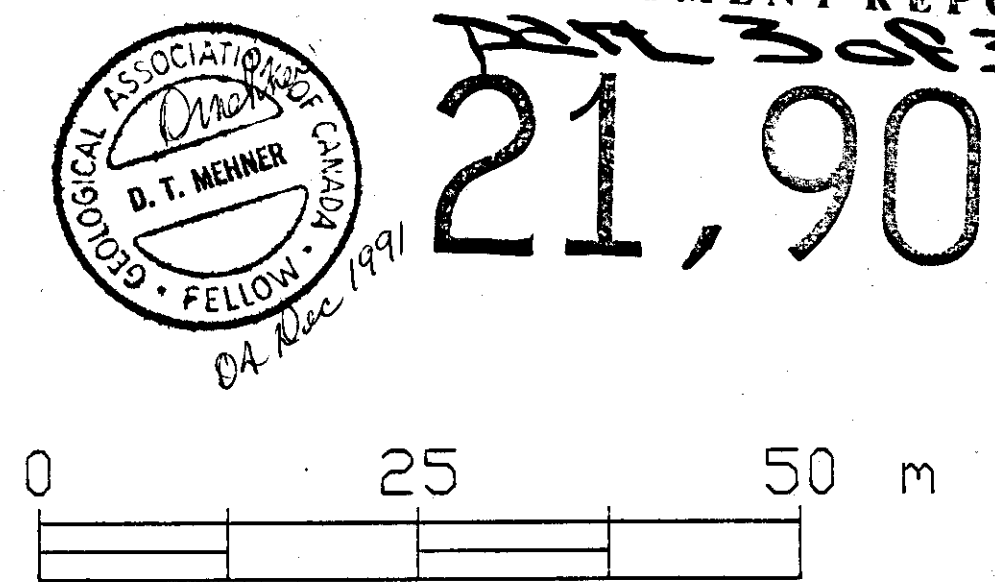



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ROK PROPERTY SOUTH AREA TRENCHES	
SAMPLE LOCATIONS	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1 : 500	
Keewatin Engineering Inc. MAP No. 16	



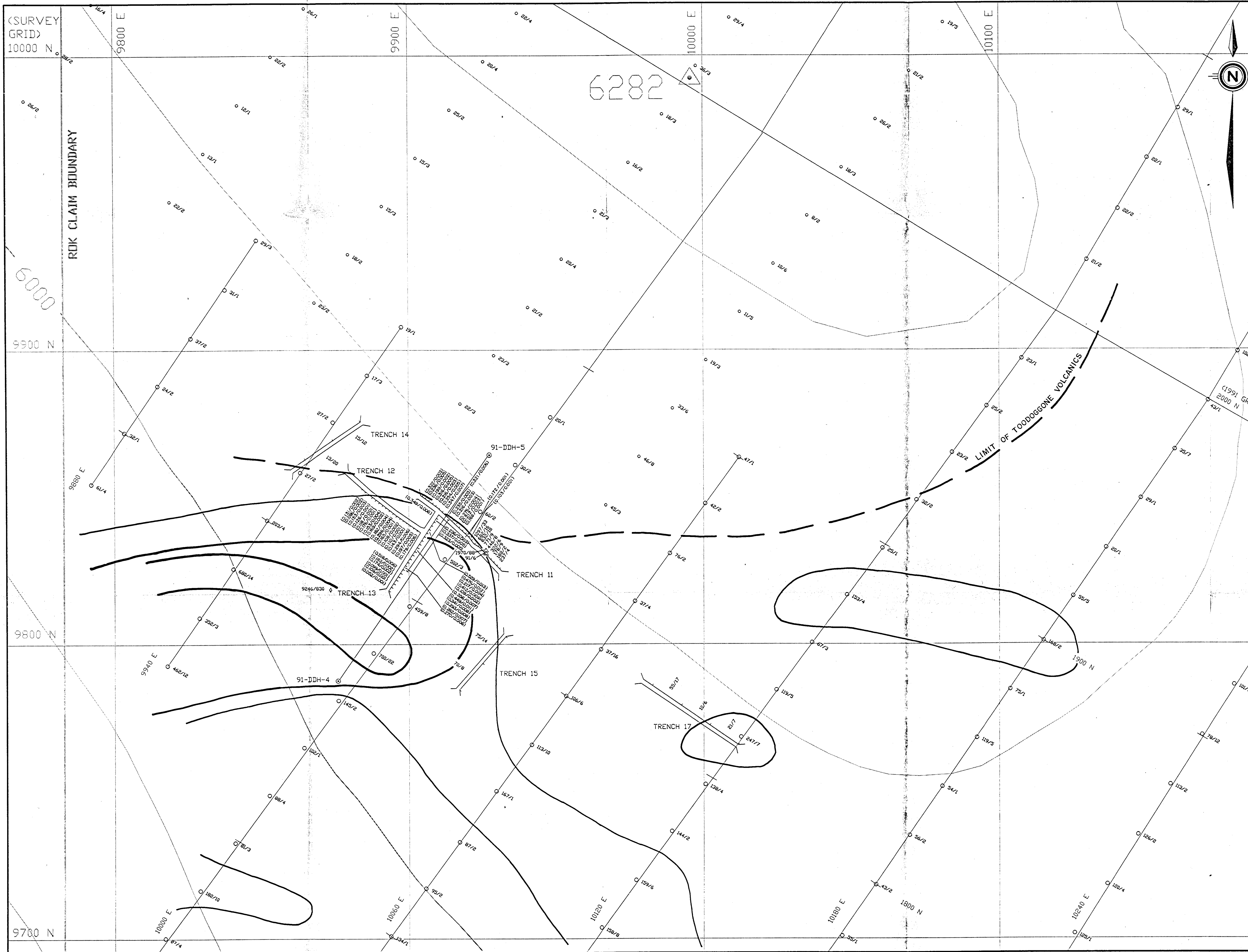
LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- ▽ ▽ Rock chip sample
- ◇ ◇ Rock float sample
- 25/74 Pb(ppm)/Zn(ppm)
- — Trench
- — Drill hole
- △ Survey cairn
- Zn in soils, ≥150 ppm



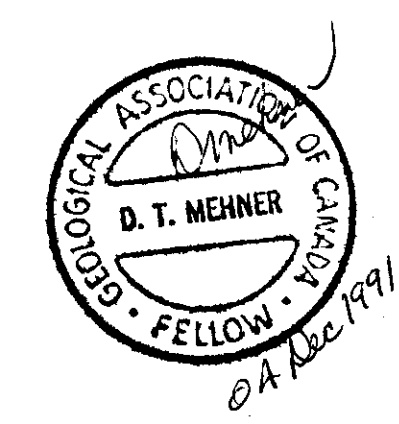

GEOLOGICAL BRANCH ASSESSMENT REPORT
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MANCHESTER RESOURCES CORP./ CONS. CARINA RESOURCES CORP.	
ROK PROPERTY SOUTH AREA TRENCHES GEOCHEMISTRY (Pb/Zn)	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1 : 500	
Keewatin Engineering Inc. MAP No. 18	

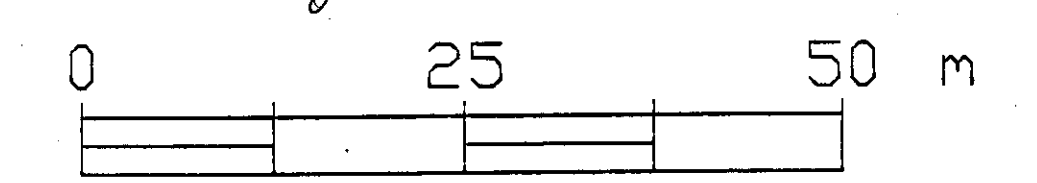


LEGEND

- ○ 1991 PRE-1991 Soil sample
- □ Silt sample
- △ △ Rock grab sample
- I ▽ ▽ Rock chip sample
- ◇ ◇ Rock float sample
- 611/26 Cu(ppm)/Au(ppb)
- (0.321/0.006) Cu(%) / Au(oz/ton)
- Trench
- — Drill hole
- △ Survey cairn
- ◎ Cu in soils 150, 300 and 600 ppm



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**
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MANCHESTER RESOURCES CORP./ CONS. CARINA RESOURCES CORP.	
ROK PROPERTY SOUTH AREA TRENCHES GEOCHEMISTRY (Cu/Au)	
DATE: DEC. 1991	NTS: 104H/13W
PROJECT: ROK	BY: D. T. MEHNER
SCALE: 1 : 500	
Keewatin Engineering Inc. MAP No. 17	

(SURVEY
GRID)
10000 N.

9800 E

9900 E

10000 E

10100 E

9900 N

9800 N

9700 N

10000 E

10100 E

10200 E

10300 E

10400 E

10500 E

10600 E

10700 E

10800 E

10900 E

11000 E

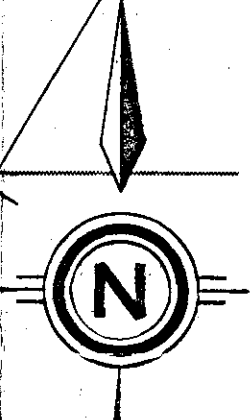
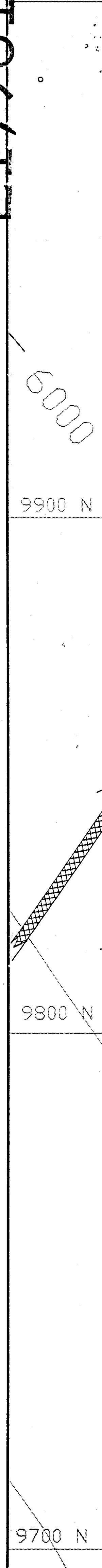
11100 E

11200 E

11300 E

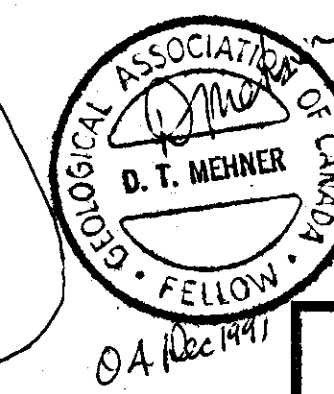
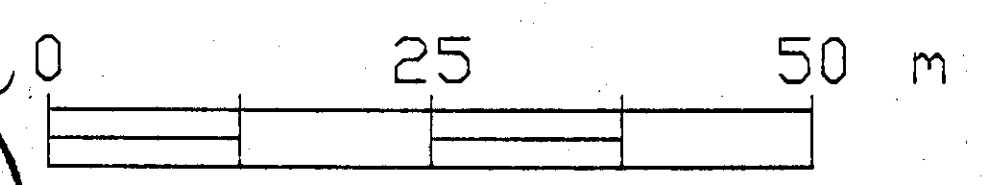
11400 E

ROK CLAIM BOUNDARY



- LEGEND**
- 14 T1a UPPER CRETACEOUS TO LOWER TERTIARY(?)
 - 13 Fluvial
 - POST ORAL POST UPPER TRIASSIC(?)
 - 12 Andesite Dyke
 - 11 Porphyritic Quartz Monzonite
 - LOWER JURASSIC
 - 10 Tholeiitic Volcanic
 - UPPER TRIASSIC TO LOWER JURASSIC
 - 9 Granite
 - 8 Metasediment
 - 7 Metavolcanic
 - 7A Moderately fresh to weakly altered... iron sulphide
 - 7B Moderately altered (variable chlorite after hornblende, sericite and/or epidote after plagioclase); 0.05% pyrite and 0.2% chalcopyrite
 - 7C Strongly altered (chlorite & sericite after all hornblende, variable and/or epidote after plagioclase); pyrite, chalcopyrite, 1% pyrite
 - 7D Altered and unaltered, sericite after plagioclase; locally strong K-feldspar blebbing and quartz veining (where K-feldspar is the sericite); rock resembles later porphyry; 0.5% chalcopyrite
 - 6 Diabase: Medium to coarse grained
 - 5 Andesite
 - 5a Andesite flows and dykes
 - 5b Upper andesite lapilli-tuff to locally tuff-breccia: includes minor tuff and siliceous breccias; porphyritic andesite fragments common; major pyrite conglomerates
 - 5c Andesite tuff, crystal-tuff tuff and ash tuff; minor siliceous
 - 5d Lower andesite lapilli-tuff to locally tuff-breccia and crystal-tuff tuff; porphyritic andesite; tuffite and later porphyry fragments common
 - 4 Tephritic Flow/Dyke
 - 3 Laminar Flow
 - 2 Laminar
 - 1 Siliceous breccia to Dandy breccia

- SYMBOLS**
- 1991 Pre-1991
 - Soil Sample
 - Soil Sample
 - ◇ Rock Core Sample
 - ◇ Rock Chip Sample
 - ◇ Rock Flot Sample
 - 1991 / 1991
 - Cu (ppm) / Au (ppb)
 - Anomalous Site: ≥ 150 ppm Cu and/or 35 ppb Au
 - ▲ Anomalous Rock Core: $\ge 1,000$ ppm Cu and/or 100 ppb Au
 - ▲ Anomalous Rock Flot: $\ge 1,000$ ppm Cu and/or 100 ppb Au
 - Cu in Soil, 150 and 300 ppm
 - Au in Soil, 35 ppb
 - All 1991 Core
 - All 1991 Flot
 - Gravel Magnetite (grams)
 - 50,000
 - 1991 L.P. Survey: $n=2$, $s=50$ m
 - Competency reading:
 - 0-6 millivolts/m
 - 6-10 millivolts/m
 - 10-15 millivolts/m
 - 15-20 millivolts/m
 - Geological Contact
 - Fault
 - Trench
 - Drill hole with generalized interval projected vertically to surface
 - Survey cairn

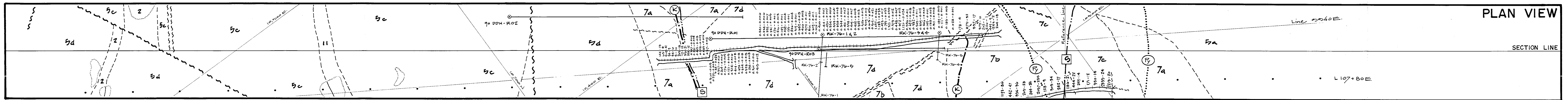


MANCHESTER RESOURCES CORP./
CONS. CARINA RESOURCES CORP.

**ROK PROPERTY
SOUTH AREA TRENCHES
COMPILATION**

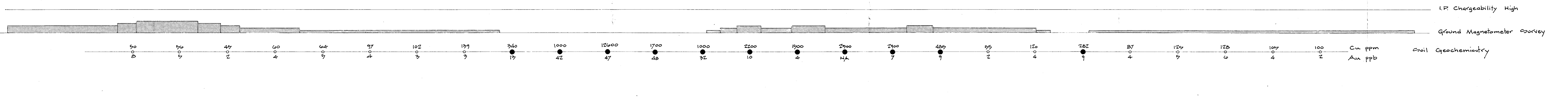
DATE: DEC. 1991	NTS: 104H/13V
PROJECT: ROK	BY: D.T. MEHNER
SCALE: 1 : 500	

Keewatin Engineering Inc. MAP No. 19



PLAN VIEW

SECTION LINE

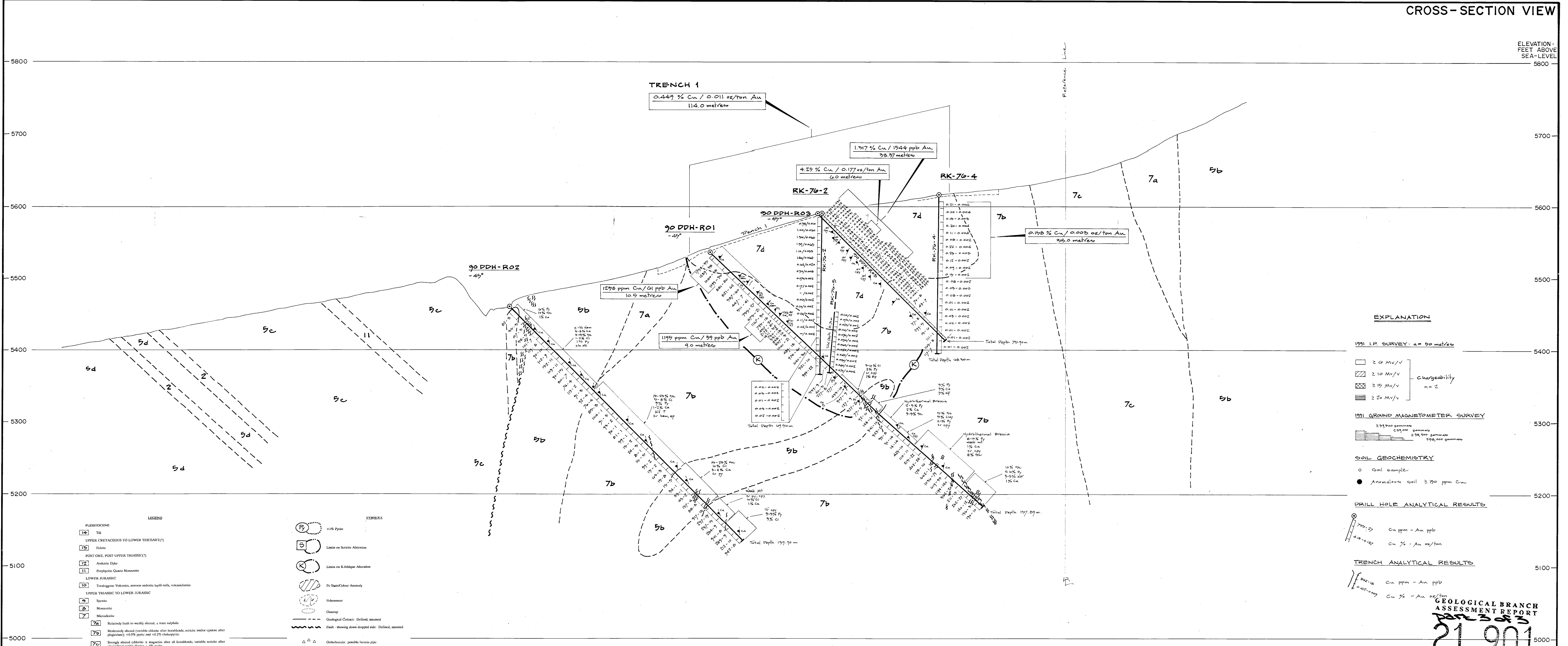


I.P. Chargeability High

Ground Magnetometer Survey

Cu ppm
Au ppb

Soil Geochemistry



CROSS-SECTION VIEW

ELEVATION - FEET ABOVE SEA-LEVEL

TRENCH 1
0.44% Cu / 0.011 oz/ton Au
114.0 metres

1.31% Cu / 1944 ppb Au
36.97 metres

4.25% Cu / 0.177 oz/ton Au
6.0 metres

0.15% Cu / 0.003 oz/ton Au
35.0 metres

1270 ppm Cu / 0.1 ppb Au
10.9 metres

1199 ppm Cu / 39 ppb Au
9.0 metres

EXPLANATION

1991 I.P. SURVEY: a = 50 metres

Chargeability
n = 2

1991 GROUND MAGNETOMETER SURVEY

253,500 gamma
253,500 gamma
253,500 gamma

SOIL GEOCHEMISTRY

Soil sample
Analytical soil > 150 ppm Cu

DRILL HOLE ANALYTICAL RESULTS

Cu ppm - Au ppb
Cu % - Au oz/ton

TRENCH ANALYTICAL RESULTS

Cu ppm - Au ppb
Cu % - Au oz/ton

LEGEND	SYMBOLS
PLEISTOCENE	116 Pyrite
T4	Lens on Scribe Alteration
UPPER CRETACEOUS TO LOWER TERTIARY(?)	Lens on K-feldspar Alteration
Folite	Fz Spinel Colour Anomaly
POST ORE, POST UPPER TRIASSIC(?)	Fulcrum
Andesite Dike	Quarry
Porphyry Quartz Monzonite	Quartz Vein (Dipend, assumed)
LOWER JURASSIC	Quartz Vein (Dipend, assumed)
Tandage Volcanics, monzonite, andesite, tuff, tuffs, volcanics	Quartz Vein (Dipend, assumed)
UPPER TRIASSIC TO LOWER JURASSIC	Quartz Vein (Dipend, assumed)
Syncline	Quartz Vein (Dipend, assumed)
Monzonite	Quartz Vein (Dipend, assumed)
Muscovite	Quartz Vein (Dipend, assumed)
7	Quartz Vein (Dipend, assumed)
Relatively fresh to weakly altered, trace sulphide	Quartz Vein (Dipend, assumed)
726	Quartz Vein (Dipend, assumed)
Moderately altered (sericite chlorite after hornblende, sericite and/or epidote after plagioclase), 40-50% pyrite and 40-20% chloropyrite	Quartz Vein (Dipend, assumed)
720	Quartz Vein (Dipend, assumed)
Strongly altered (chlorite, a magnetite after all hornblende, variable sericite after plagioclase) pyrite, 40-50% pyrite	Quartz Vein (Dipend, assumed)
741	Quartz Vein (Dipend, assumed)
Altered and/or altered (sericite after plagioclase, locally strong K-feldspar bleaching and/or magnetite, chlorite, K-feldspar in the monzonite, rock resembles later porphyry, 40-50% chloropyrite)	Quartz Vein (Dipend, assumed)
Diorite: Modest to coarse grained	Quartz Vein (Dipend, assumed)
6	Quartz Vein (Dipend, assumed)
Andesite	Quartz Vein (Dipend, assumed)
26a	Quartz Vein (Dipend, assumed)
Upper andesite (tuff) to locally tuff breccia: includes minor tuff and shales, calcareous, porphyritic, andesite fragments common, minor porphyry conglomerate	Quartz Vein (Dipend, assumed)
19b	Quartz Vein (Dipend, assumed)
Andesite (tuff, crystal tuff) and ash tuff: massive shales	Quartz Vein (Dipend, assumed)
19c	Quartz Vein (Dipend, assumed)
Lower andesite (tuff) to locally tuff breccia and crystal tuff: porphyritic, andesite, andesite and tuff (porphyry fragments common, minor conglomerate, including trachyte tuff)	Quartz Vein (Dipend, assumed)
19d	Quartz Vein (Dipend, assumed)
Tuffaceous sandstone	Quartz Vein (Dipend, assumed)
4	Quartz Vein (Dipend, assumed)
Lentic flow	Quartz Vein (Dipend, assumed)
2	Quartz Vein (Dipend, assumed)
Limestone	Quartz Vein (Dipend, assumed)
1	Quartz Vein (Dipend, assumed)
Siltstone: Isolated to finely laminated	Quartz Vein (Dipend, assumed)

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MANCHESTER RESOURCES CORP. / CONS. CARINA RESOURCES CORP.

ROK PROPERTY

CROSS SECTION 9940 E.

includes

90DDH-RO1-3 & 76-RK-2,4-5

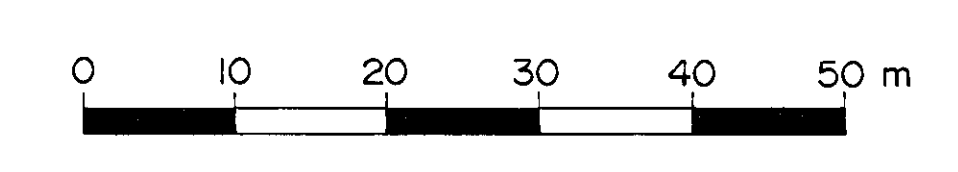
LOOKING SOUTHEAST

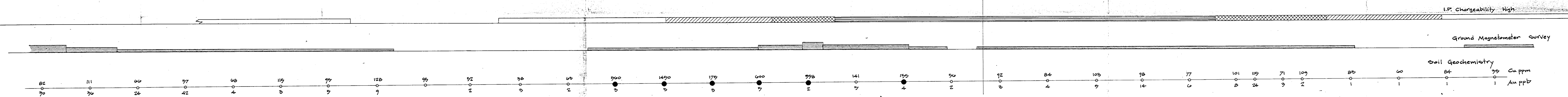
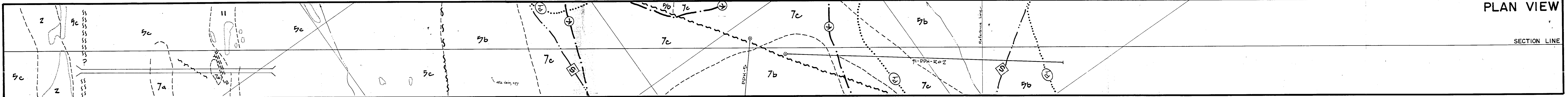
DATE: DEC. 1991 NTS: 104H/13W

PROJECT: ROK PROJ. GEOL.: D. MEHNER

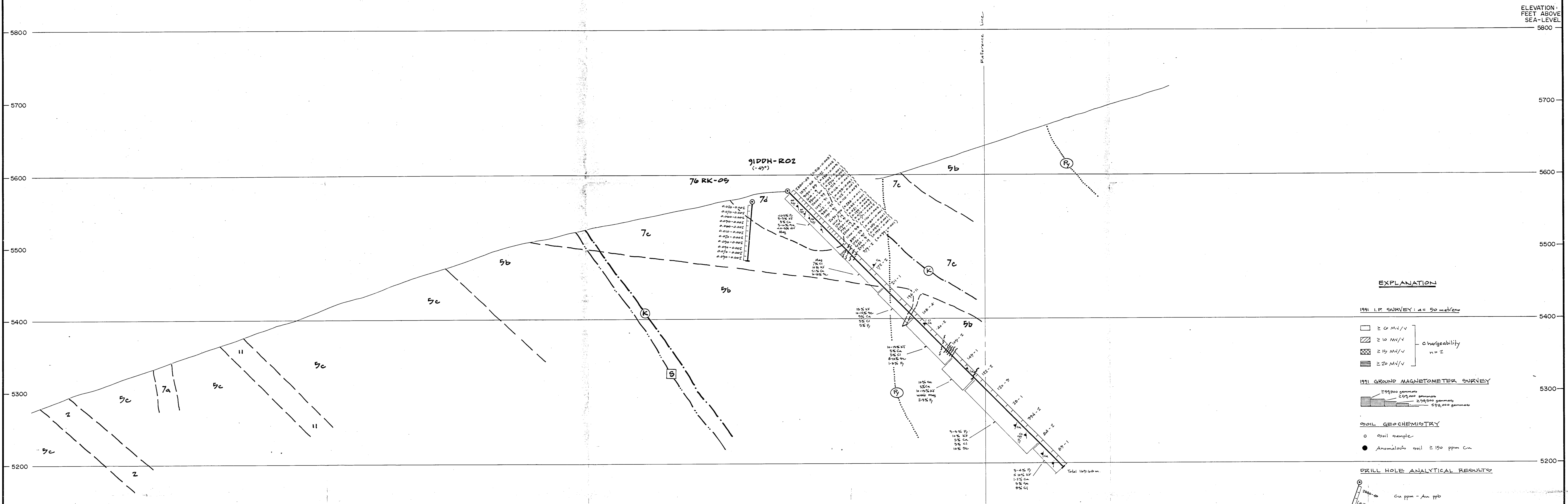
SCALE: 1:500

Keewatin Engineering Inc. MAP No. 21





CROSS-SECTION VIEW



EXPLANATION

1991 I.P. SURVEY: $a = 50$ metres

- \square ≥ 0 M/V
- \square ≥ 10 M/V
- \square ≥ 15 M/V
- \square ≥ 20 M/V

Chargeability $n = 2$

1991 GROUND MAGNETOMETER SURVEY

- \square 2000 gamma
- \square 2500 gamma
- \square 3000 gamma
- \square 3500 gamma
- \square 4000 gamma

SOIL GEOCHEMISTRY

- \circ Soil sample
- \bullet Anomalous soil ≥ 150 ppm Cu

DRILL HOLE ANALYTICAL RESULTS

- \circ Cu ppm - Au ppb
- \bullet Cu % - Au oz/ton

LEGEND

PLEISTOCENE

- 14 T1

UPPER CRETACEOUS TO LOWER TERTIARY(?)

- 13 Felsite

POST ORE, POST UPPER TRIASSIC(?)

- 12 Analcite Dike
- 11 Porphyritic Quartz Monzonite

LOWER JURASSIC

- 10 Trondhjemsite, gabbro, mafic andesite, quartz, rhyolite

UPPER TRIASSIC TO LOWER JURASSIC

- 9 Syenite
- 8 Monzonite
- 7 Monzonite

SYENITE

- 11a Syenite
- 11b Lenses on S. Kibikape Alteration
- 11c Lenses on N. Kibikape Alteration
- 11d S. Zone/Color Anomaly
- 11e Feldspar
- 11f Outcrop
- 11g Unaltered Chlorite "Duffield" facies
- 11h Fault - showing down dropped side: Deformed, unsorted
- 11i Orthoclase: possible trace type
- 11j Boulding
- 11k Vein
- 11l Felsite
- 11m Joint/Fracture
- 11n Shear

Other Symbols:

- 11p 1-1% Pyrite
- 11q Lenses on S. Kibikape Alteration
- 11r Lenses on N. Kibikape Alteration
- 11s S. Zone/Color Anomaly
- 11t Feldspar
- 11u Outcrop
- 11v Unaltered Chlorite "Duffield" facies
- 11w Fault - showing down dropped side: Deformed, unsorted
- 11x Orthoclase: possible trace type
- 11y Boulding
- 11z Vein
- 11aa Felsite
- 11ab Joint/Fracture
- 11ac Shear

Mineralogy:

- Qz: quartz
- Pl: plagioclase
- Al: albite
- Ca: calcite
- Ms: muscovite
- Dy: diorite
- Mg: magnetite
- Qtz: quartz vein
- Ms: muscovite
- Kfs: K-feldspar
- Cpx: clinopyroxene
- Hbl: hornblende
- Chl: chlorite

GEOLOGICAL BRANCH ASSESSMENT REPORT

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MANCHESTER RESOURCES CORP. / CONS. CARINA RESOURCES CORP.

ROK PROPERTY

NORTH AREA TRENCHES

CROSS SECTION 10000E.

76-RK-05 & 91DDH-R02

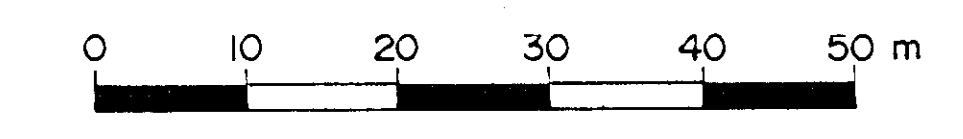
LOOKING SOUTHEAST

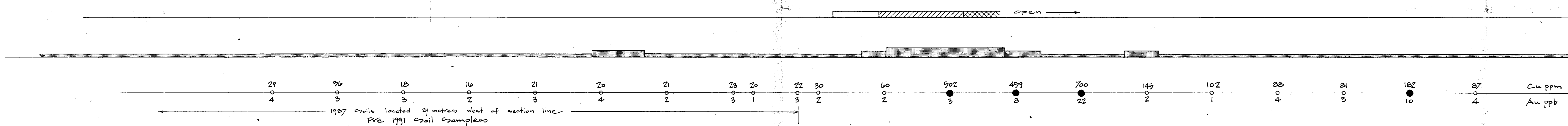
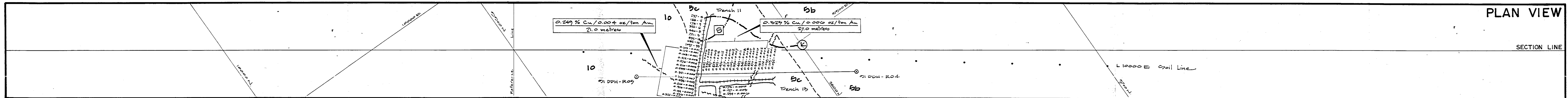
DATE: 08/19/91 NTS: 104H/13W

PROJECT: ROK PROJ. GEOL: D. WEHNER

SCALE: 1:500 MAP No. 22

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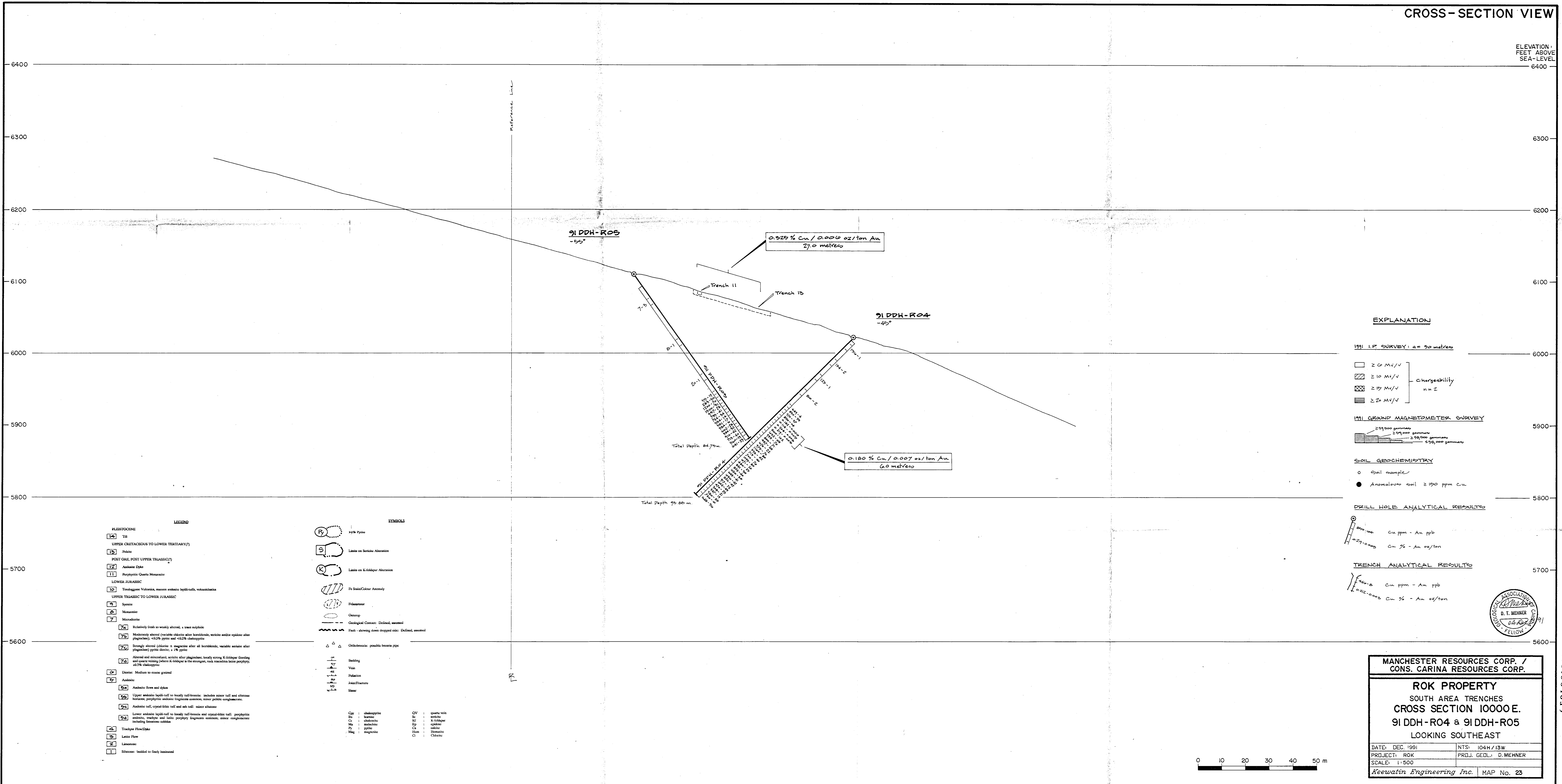




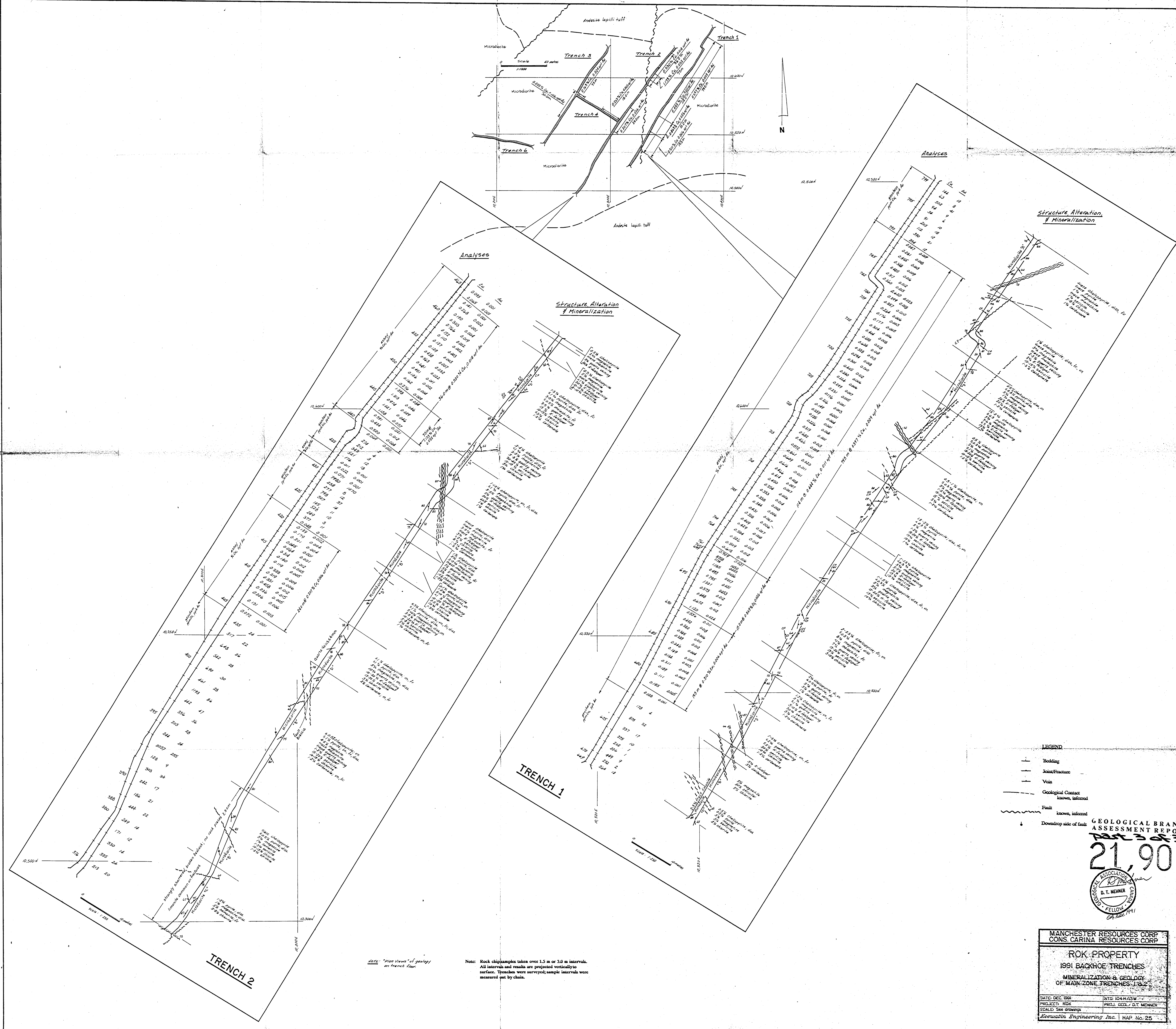
I.P. Chargeability High

Ground Magnetometer Survey

Soil Geochemistry



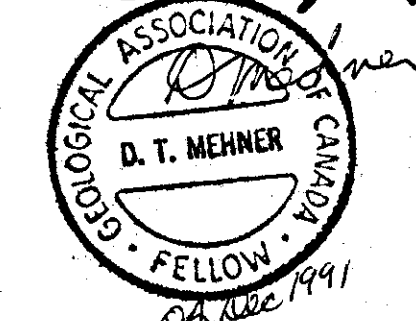
GEOLOGICAL BRANCH
ASSESSMENT REPORT
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- LEGEND**
- Bedding
 - Joint/Fracture
 - Vein
 - - - Geological Contact
known, inferred
 - ~ Fault
known, inferred
 - ⊥ Downdrop side of fault

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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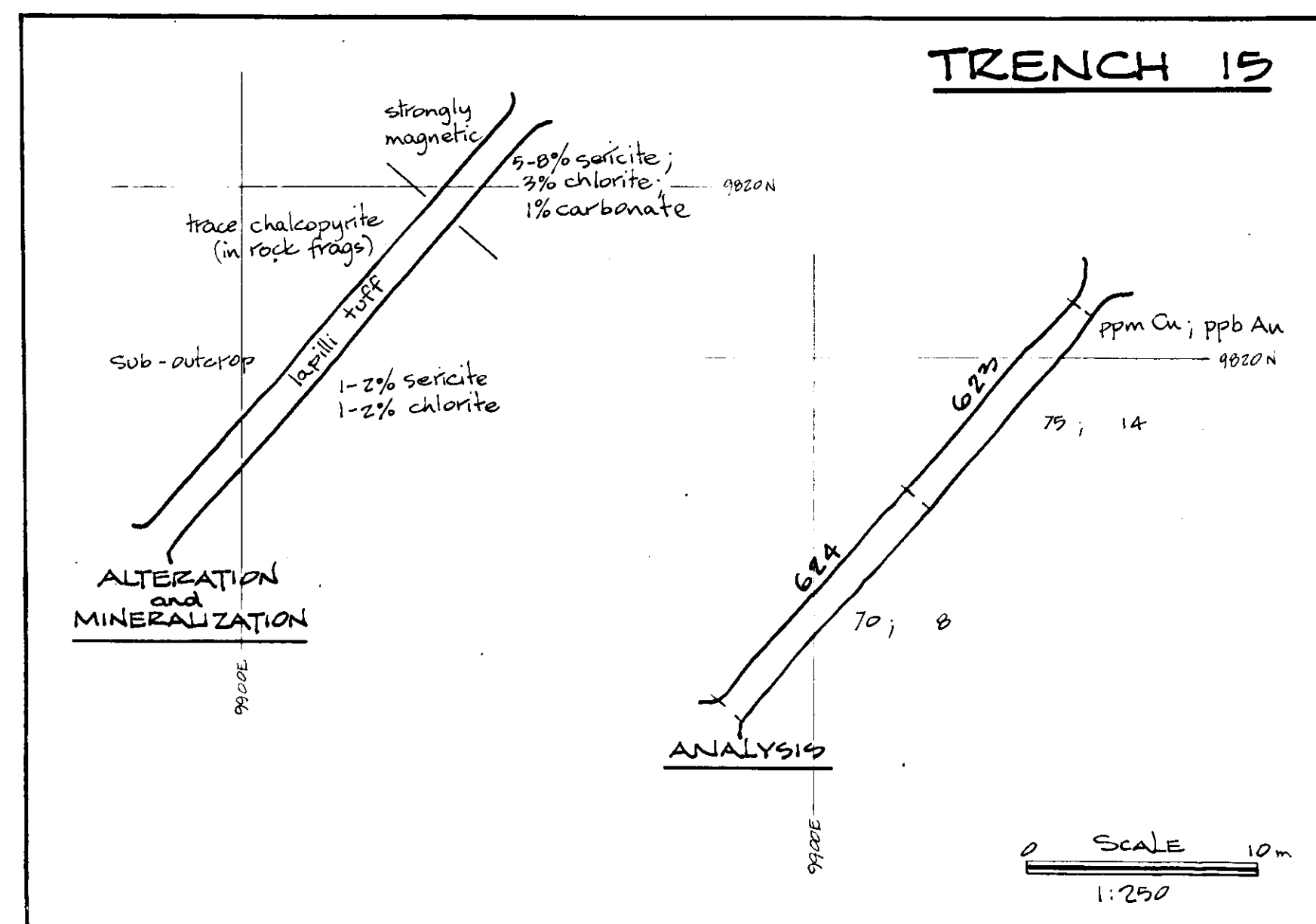
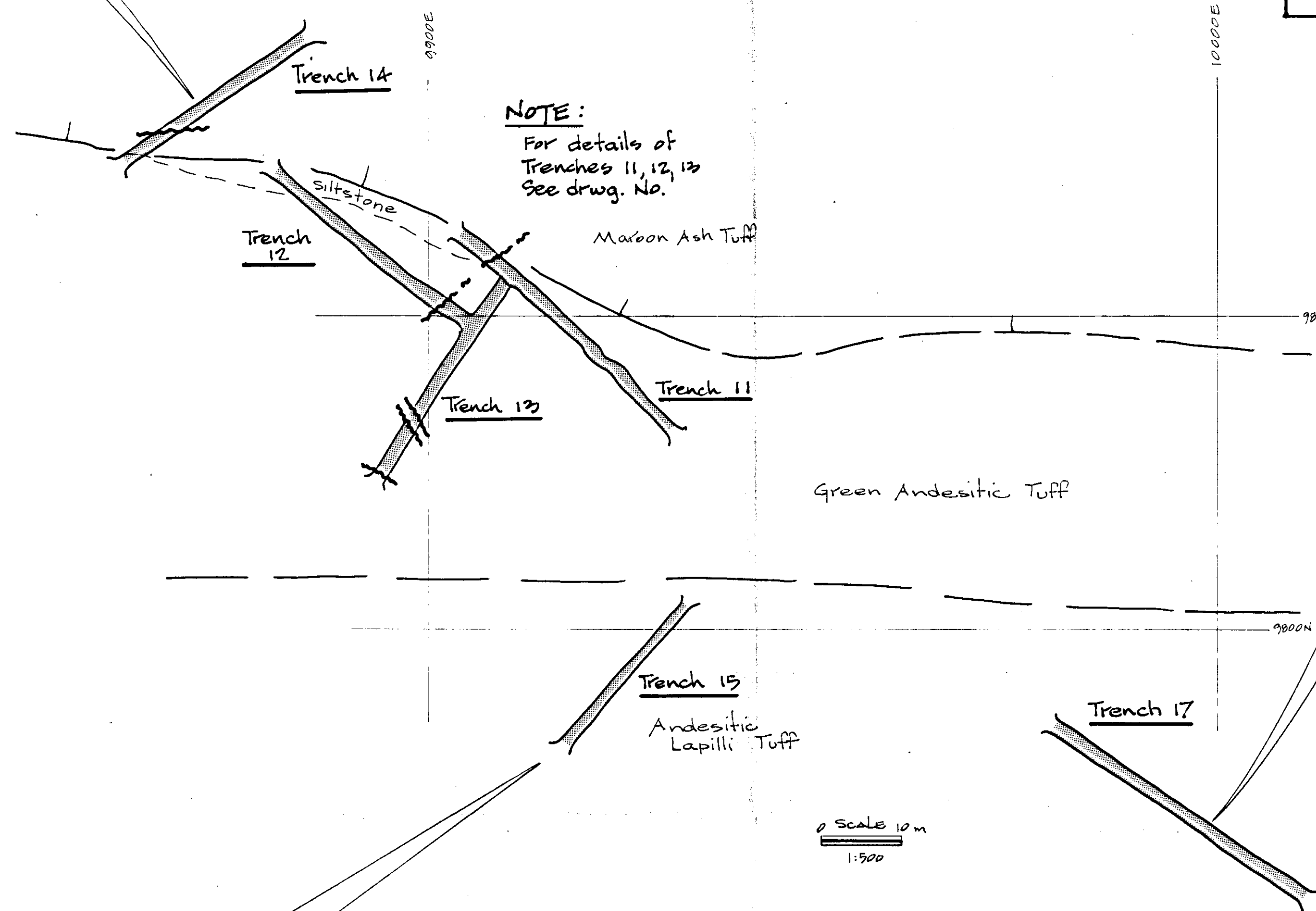
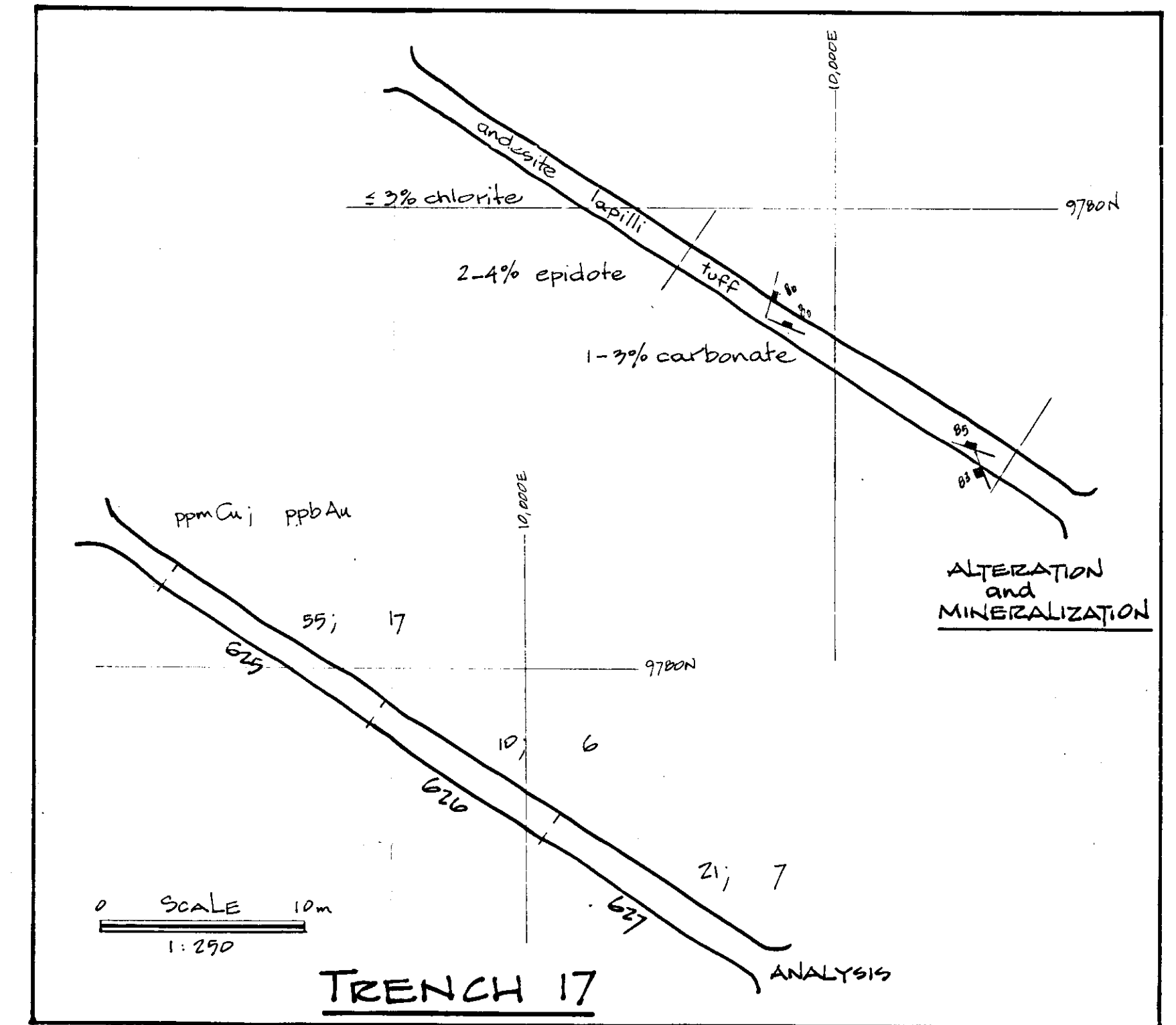
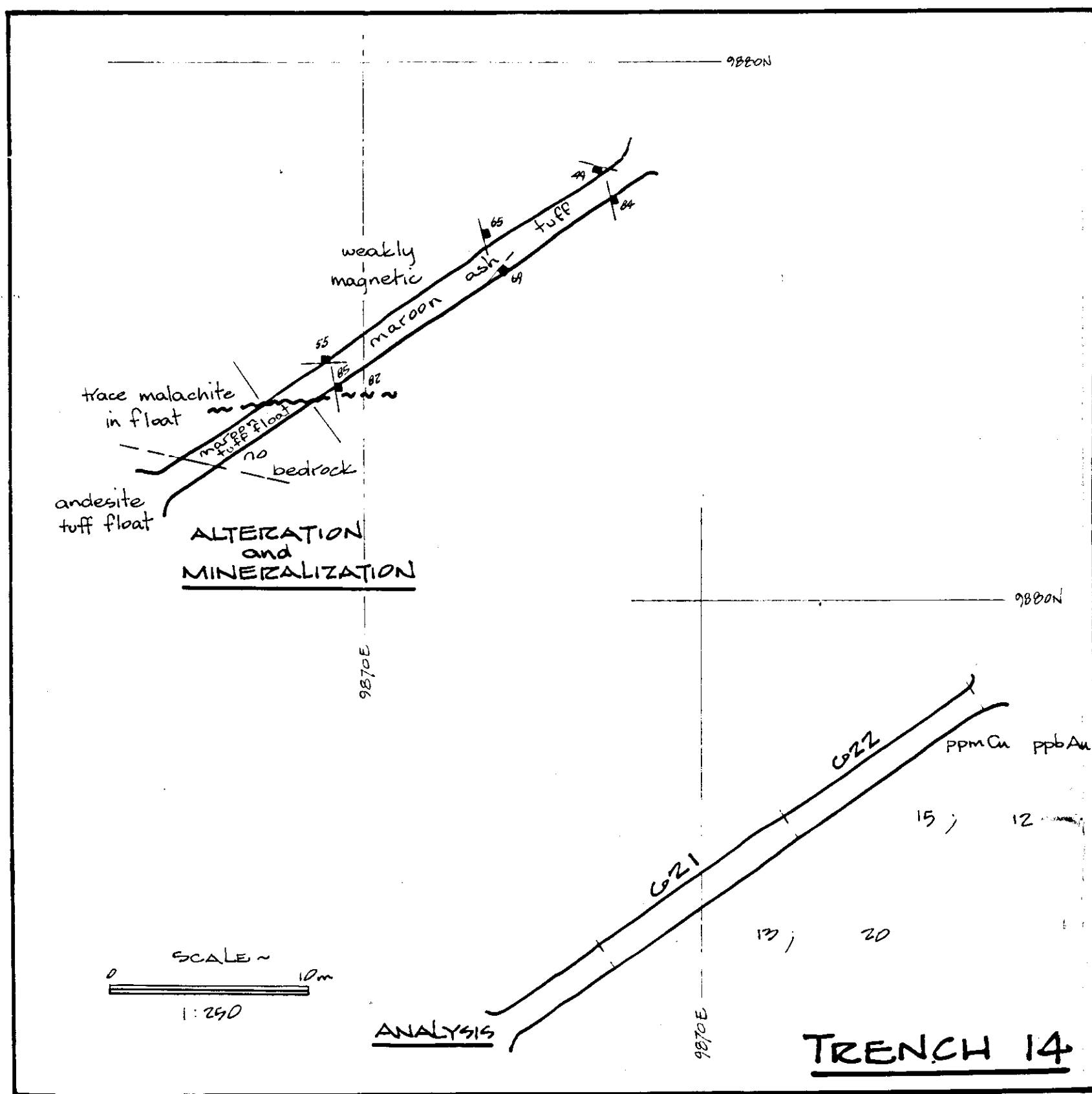
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CONS. CARINA RESOURCES CORP

ROK PROPERTY
1991 BACKHOE TRENCHES
MINERALIZATION & GEOLOGY
OF MAIN-ZONE TRENCHES 1 & 2

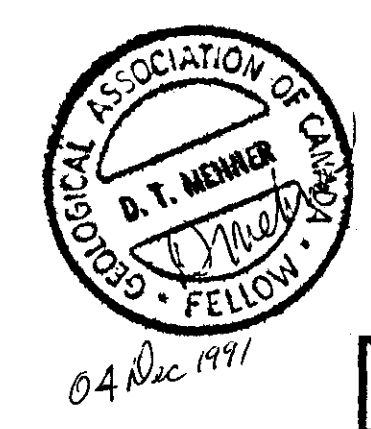
DATE: DEC 1991 DTS: 104H/3W
PROJECT: ROK PROJ. GEOL.: D.T. MENNER
SCALE: See drawings
Keenwater Engineering Inc. | MAP No. 25

Note: "Plan View" of geology on trench floor.

Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.



- LEGEND**
- Bedding
 - Joint/Fracture
 - Vein
 - Geological Contact
known, inferred
 - ~ Fault
known, inferred
 - ⊥ Downdrop side of fault



GEOLOGICAL BRANCH
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21.901

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ROK PROPERTY
1991 BACKHOE TRENCHES
MINERALIZATION & GEOLOGY
OF SOUTH ZONE TRENCHES 14-15-17

DATE: DEC. 1991	NTS: 104H/13 W
PROJECT: ROK	PRD.J. GED.J. D.T. MEHNER
SCALE: See drawings	
Keewatin Engineering Inc. MAP No. 31	

NOTE: "Plan Views" of geology on trench floor.

Note: Rock chip samples taken over 1.5 m or 3.0 m intervals. All intervals and results are projected vertically to surface. Trenches were surveyed; sample intervals were measured out by chain.