

Figure 6 - Aeromagnetic Map of the Casa-Berardi Area
(Source: MERQ, 1983a)

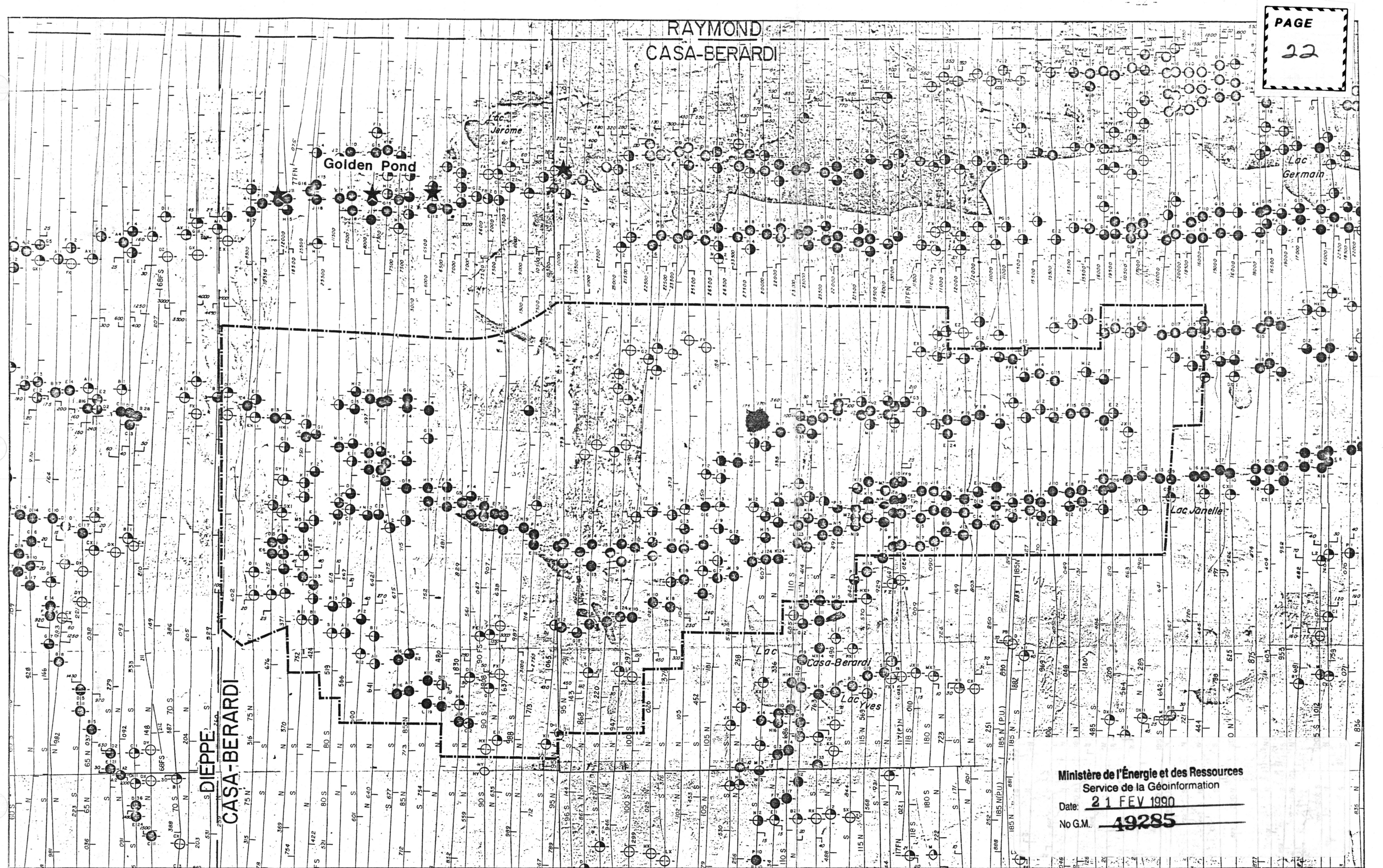
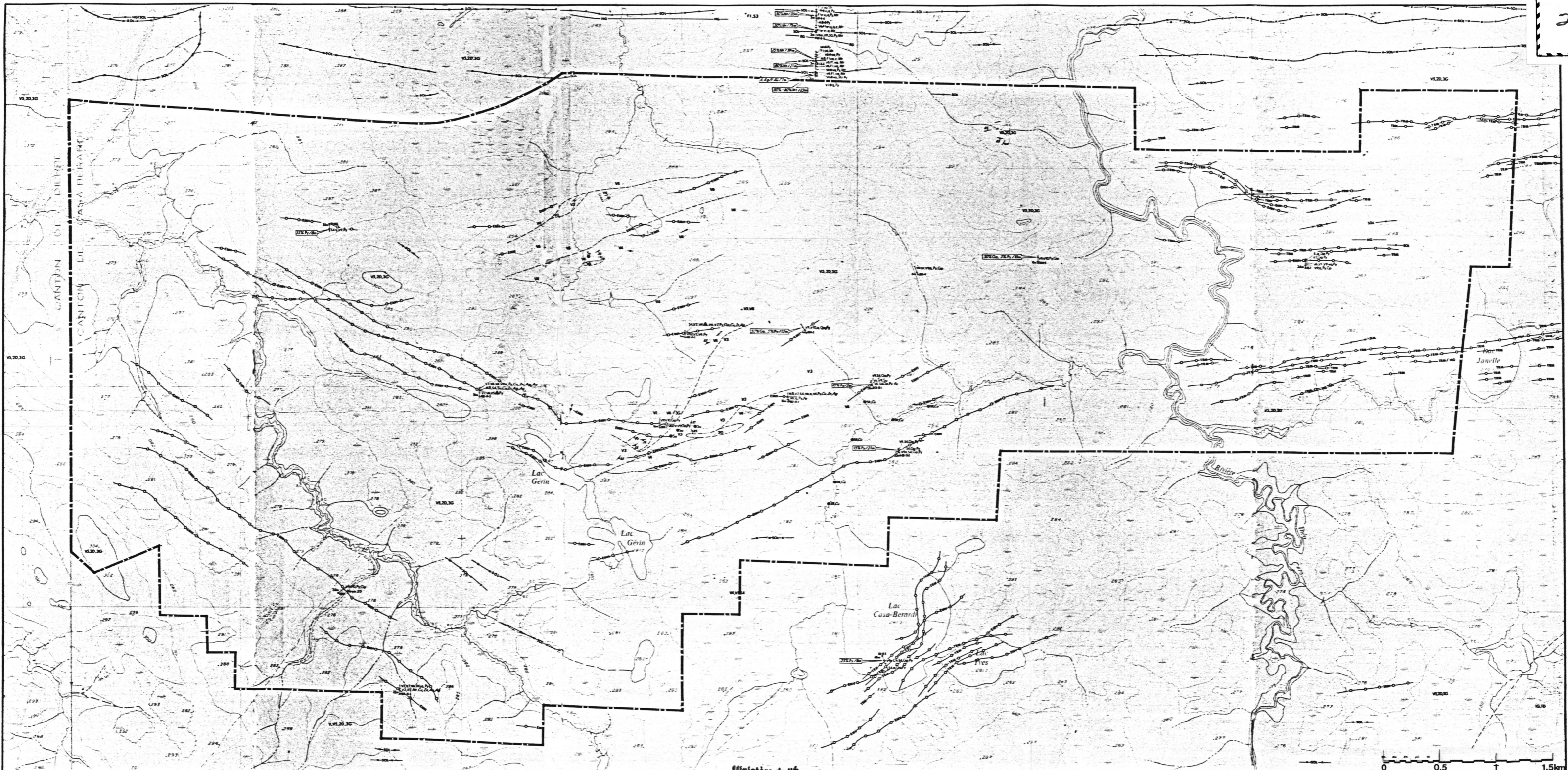


Figure 7 - Electromagnetic (INPUT) Map of the Casa-Berardi Area
(Source: MERQ, 1980)



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Figure 8 - 1983 Geoscientific Compilation of the Casa-Berardi Property

(Source: MERQ, 1983c)

A

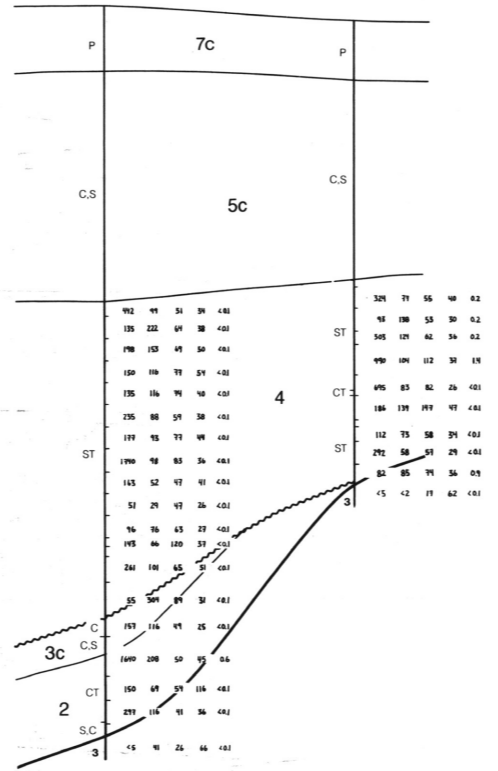
290 m

163

165

290 m

A'



B

290 m

180

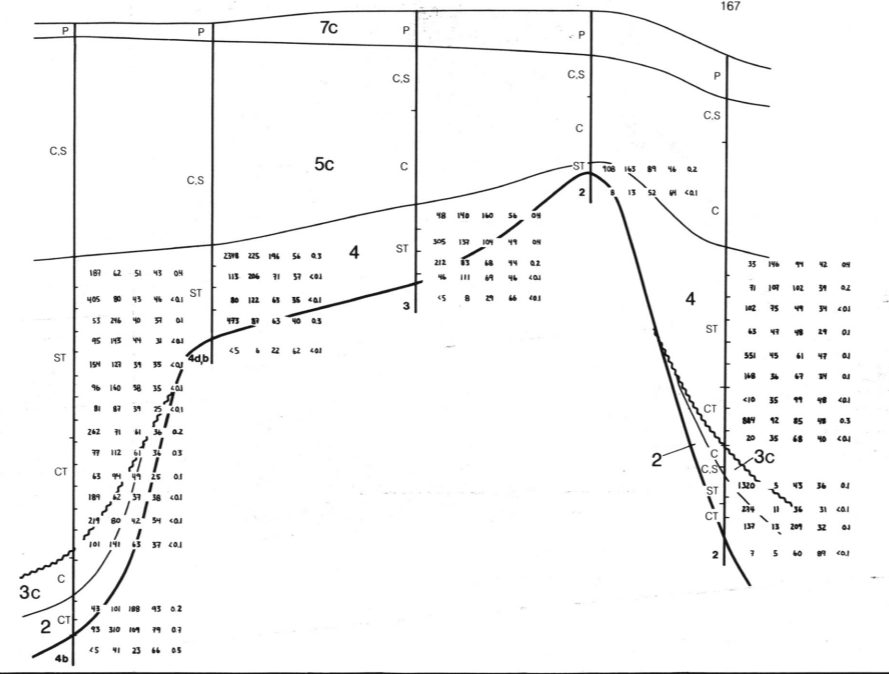
161

182

184

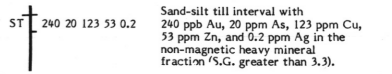
290 m

B'



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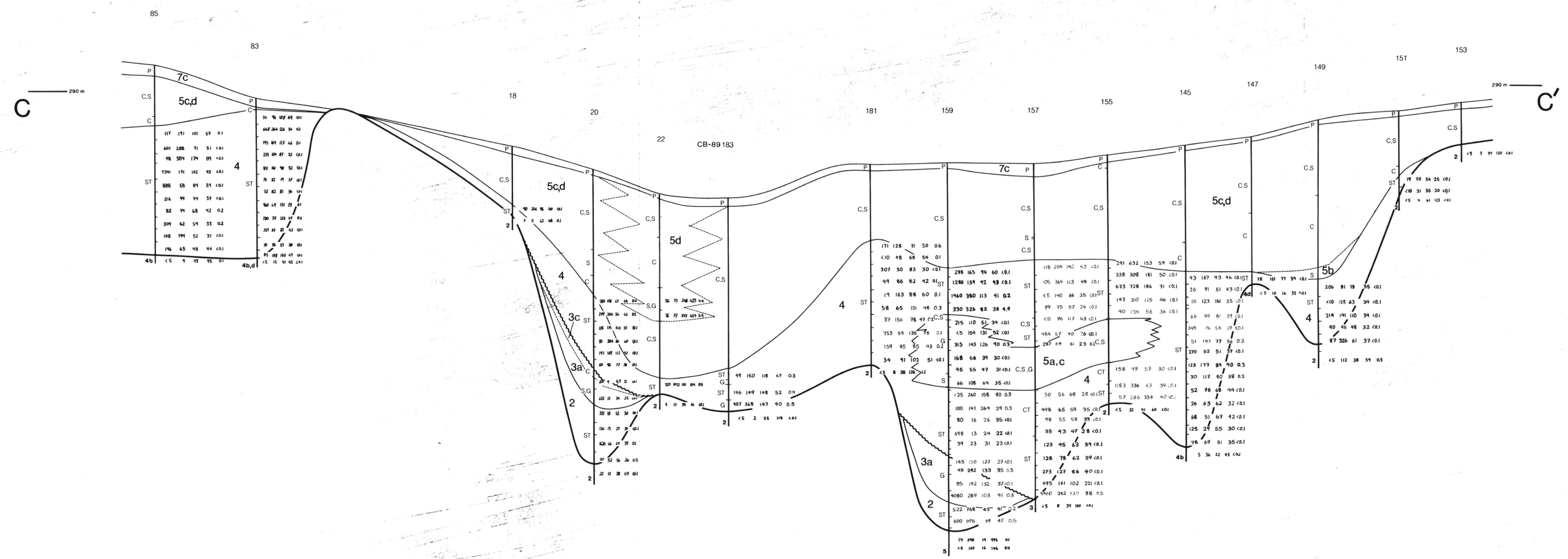
- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
- Present
- 7 Holocene Sediments
 - 7c - forest-peat member
 - 7b - lacustrine member
 - 7a - fluvial member
- PLEISTOCENE**
- 10,000 Years B.P.
- LATE WISCONSINAN**
- 6 Cochrane Till
 - 5 Ojibway II Sediments
 - 5e - littoral and aeolian member
 - 5d - Cochrane member
 - 5c - glaciolacustrine clay member
 - 5b - glaciolacustrine sand member
 - 5a - glaciofluvial member
 - 4 Chibougamau/Matheson Till
- 100,000 Years B.P.
- EARLY WISCONSINAN AND SANGAMON**
- 3 Missinaibi Formation
 - 3c - Ojibway I member
 - 3b - forest-peat member
 - 3a - fluvial member
- ILLINOIAN**
- 2 Lower Till and Sediments
- 1,000,000 Years B.P.
- YARMOUTH AND KANSAN**
- 1 Older Till and Sediments
- Sediment Varieties**
- P Peat, organics
 - C.S Clay, silt
 - S Sand
 - G Gravel
 - ST Sand-silt till; clay subordinate
 - CT Clay till
- Symbols**
- Quaternary/bedrock unconformity
 - Interglacial unconformity
 - Quaternary unit boundary
 - Quaternary subunit boundary
- Geochemistry**
- Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (S.G. greater than 3.3).



- Bedrock Lithology**
- 6 Gabbro
 - 5 Iron formation, chert
 - 4 Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - 3 Intermediate volcanics
 - 2 Mafic volcanics
 - 1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

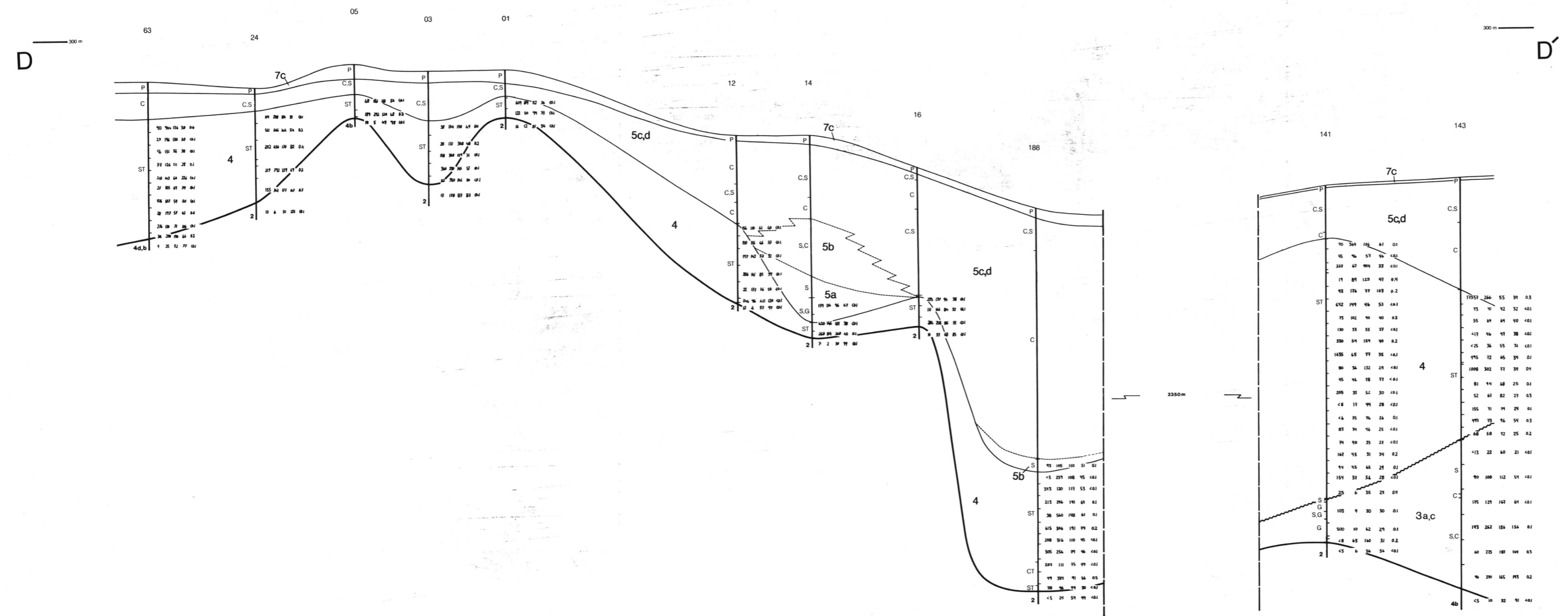
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CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP
Figure 18 - Sections
A-A' and B-B'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
Present
7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
10,000 Years B.P.
LATE WISCONSINAN
6 Cochrane Till
5 Ojibway II Sediments
5d - littoral and aeolian member
5c - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciofluvial member
4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
3 Missinaibi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- ILLINOIAN**
2 Lower Till and Sediments
- 1,000,000 Years B.P.
YARMOUTH AND KANSAN
1 Older Till and Sediments
- Sediment Varieties**
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till
- Symbols**
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary
- Geochemistry**
Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%S.G. greater than 3.3).
- Bedrock Lithology**
6 Gabbro
5 Iron formation, chert
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4a - conglomerate
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4c - quartzite
4d - siltstone
4e - mudstone
3 Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics
- Scale**
Vertical 1:400
Horizontal 1:10,000

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Figure 19 - Section C-C'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
Present
7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
10,000 Years B.P.
6 Cochrane Till
5 Ojibway II Sediments
5c - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glacioluvial member
4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
3 Missinaibi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- 1,000,000 Years B.P.
YARMOOUTH AND KANSAN
1 Older Till and Sediments

- Sediment Varieties**
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till

- Symbols**
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary

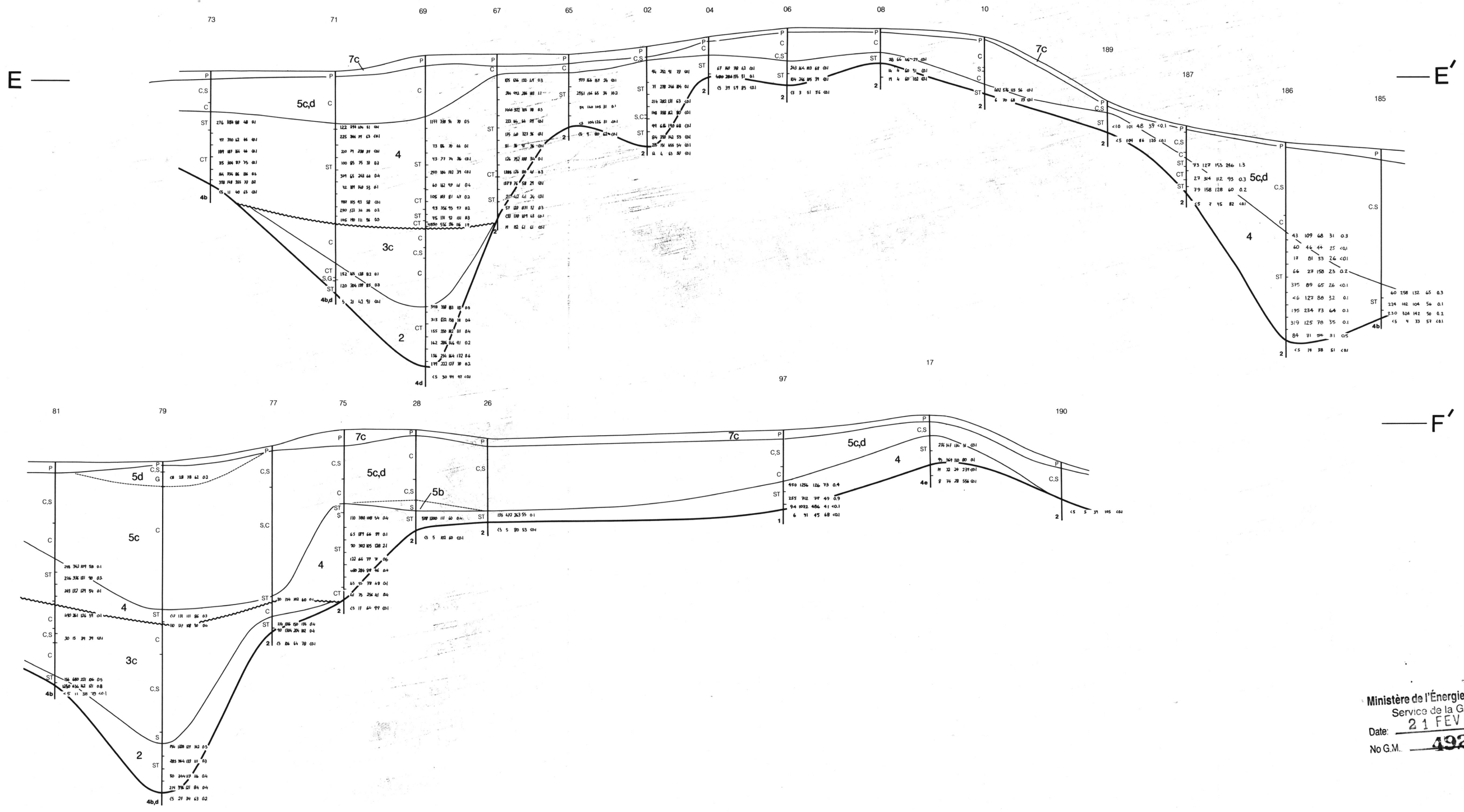
Geochemistry
Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%G. greater than 3.3).

- Bedrock Lithology**
6 Gabbro
5 Iron formation, chert
4 Clastic sediments
4a - conglomerate
4b - greywacke
4c - quartzite
4d - siltstone
4e - mudstone
3 Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

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Figure 20 - Section
D-D'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
- Present [7] Holocene Sediments
 - 7c - forest-peat member
 - 7b - lacustrine member
 - 7a - fluvial member
- PLEISTOCENE**
- 10,000 Years B.P.
- LATE WISCONSINAN**
- [6] Cochrane Till
 - [5] Ojibway II Sediments
 - 5e - littoral and aeolian member
 - 5d - Cochrane member
 - 5c - glaciolacustrine clay member
 - 5b - glaciolacustrine sand member
 - 5a - glaciolacustrine member
 - [4] Chibougamau/Matheson Till
- 100,000 Years B.P.
- EARLY WISCONSINAN AND SANGAMON**
- [3] Missisquoi Formation
 - 3c - Ojibway I member
 - 3b - forest-peat member
 - 3a - fluvial member
- ILLINOIAN**
- 1,000,000 Years B.P.
- [2] Lower Till and Sediments
 - [1] Older Till and Sediments
- Sediment Varieties**
- P Peat, organics
 - C.S. Clay, silt
 - C Sand
 - G Gravel
 - ST Sand-silt till; clay subordinate
 - CT Clay till
- Symbols**
- Quaternary/bedrock unconformity
 - Interglacial unconformity
 - Quaternary unit boundary
 - Quaternary subunit boundary
- Geochemistry**
- ST 240 20 123 53 0.2
- Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%G. greater than 3.3).
- Bedrock Lithology**
- [6] Gabbro
 - [5] Iron formation, chert
 - [4] Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - [3] Intermediate volcanics
 - [2] Mafic volcanics
 - [1] Ultramafic volcanics

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Figure 21 - Sections
E-E' and F-F'



- LEGEND**
Abitibi Quaternary Stratigraphy
- H O L O C E N E**
- Present **7** Holocene Sediments
 7c - forest-peat member
 7b - lacustrine member
 7a - fluvial member
- P L E I S T O C E N E**
- 10,000 Years B.P. **LATE WISCONSINAN**
- 6** Cochrane Till
- 5** Ojibway II Sediments
 5e - littoral and aeolian member
 5d - Cochrane member
 5c - glaciolacustrine clay member
 5b - glaciolacustrine sand member
 5a - glaciofluvial member
- 4** Chibougamau/Matheson Till
- 100,000 Years B.P. **EARLY WISCONSINAN AND SANGAMON**
- 3** Missinabi Formation
 3c - Ojibway I member
 3b - forest-peat member
 3a - fluvial member
- ILLINOIAN**
- 2** Lower Till and Sediments
- 1,000,000 Years B.P. **YARMOUTH AND KANSAN**
- 1** Older Till and Sediments

- Sediment Varieties**
- P Peat, organics
 C Clay, silt
 S Sand
 G Gravel
 ST Sand-silt till; clay subordinate
 CT Clay till
- Symbols**
- Quaternary/bedrock unconformity
 Interglacial unconformity
 Quaternary unit boundary
 Quaternary subunit boundary

Geochemistry

Sand-silt till interval with
 240 ppb Au, 20 ppm As, 123 ppm Cu,
 53 ppm Zn, and 0.2 ppm Ag in the
 non-magnetic heavy mineral
 fraction (S.G. greater than 3.3).

ST 240 20 123 53 0.2

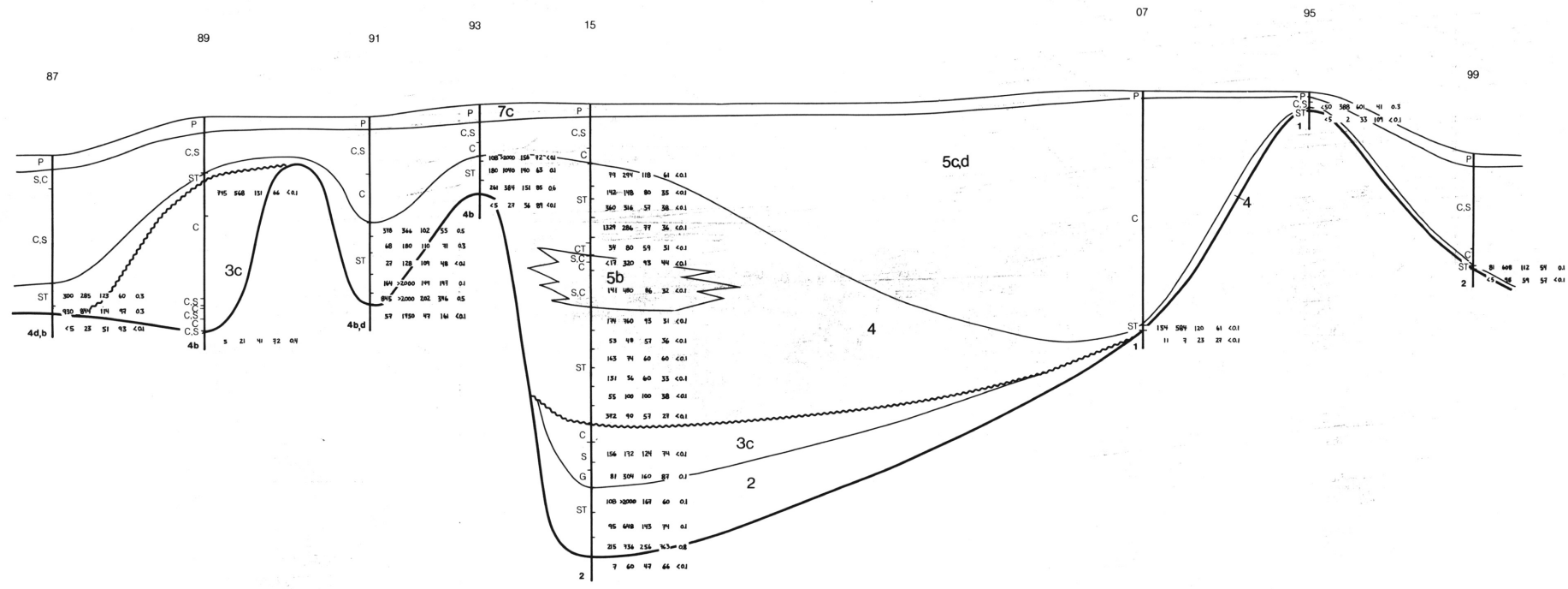
- Bedrock Lithology**
- 6** Gabbro
5 Iron formation, chert
4 Clastic sediments
 4a - conglomerate
 4b - greywacke
 4c - quartzite
 4d - siltstone
 4e - mudstone
- 3** Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics

Scale
 Vertical 1:400
 Horizontal 1:10,000

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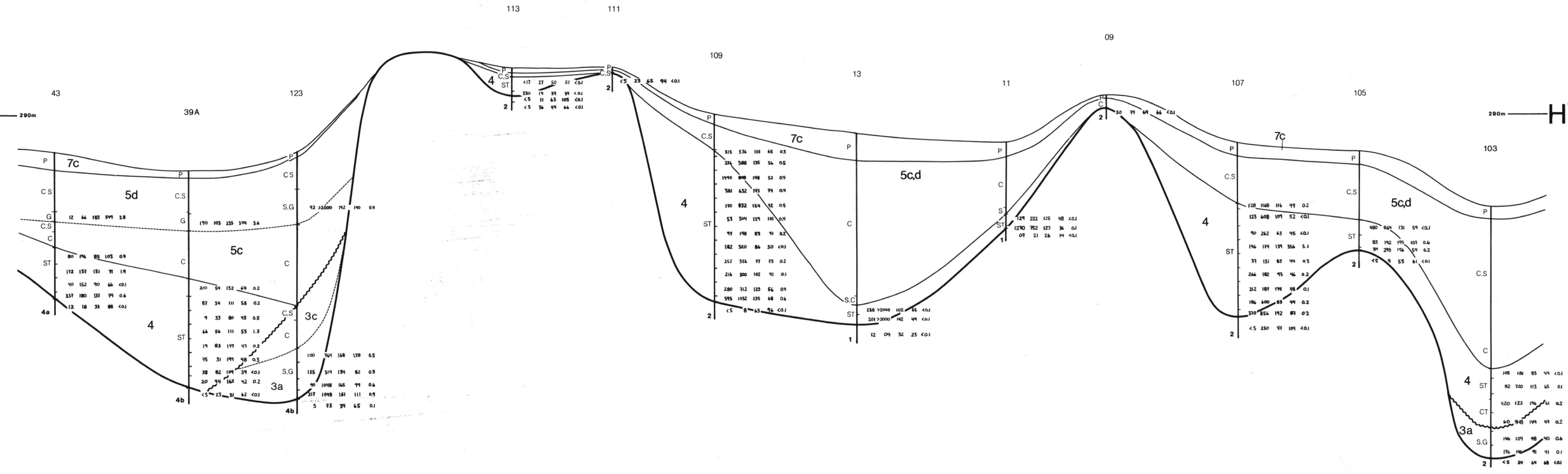
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 CASA-BERARDI TOWNSHIP
 Figure 22 - Section
E'-E''

G



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H

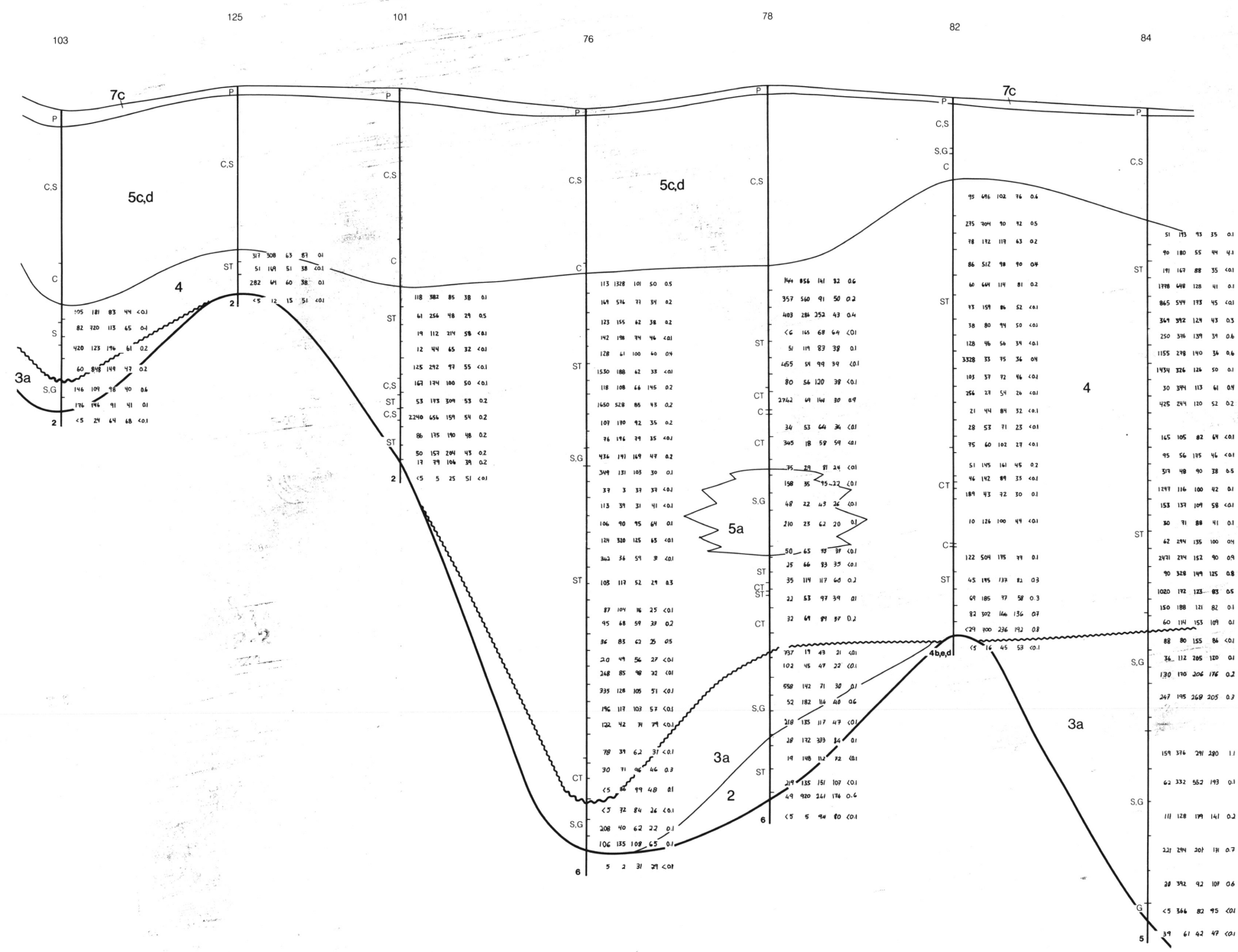


- LEGEND**
Abitibi Quaternary Stratigraphy
- H O L O C E N E**
 Present
 7 Holocene Sediments
 7c - forest-peat member
 7b - lacustrine member
 7a - fluvial member
- P L E I S T O C E N E**
 10,000 Years B.P.
LATE WISCONSINAN
 6 Cochrane Till
 5 Ojibway II Sediments
 5e - littoral and aeolian member
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 5c - glaciolacustrine clay member
 5b - glaciolacustrine sand member
 5a - glaciolacustrine member
 4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
 3 Missinaibi Formation
 3c - Ojibway I member
 3b - forest-peat member
 3a - fluvial member
- ILLINOIAN**
 2 Lower Till and Sediments
- 1,000,000 Years B.P.
YARMOUTH AND KANSAN
 1 Older Till and Sediments
- Sediment Varieties**
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 C Clay, silt
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 G Gravel
 ST Sand-silt till; clay subordinate
 CT Clay till
- Symbols**
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 Interglacial unconformity
 Quaternary unit boundary
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 4c - quartzite
 4d - siltstone
 4e - mudstone
 3 Intermediate volcanics
 2 Mafic volcanics
 1 Ultramafic volcanics
- Scale**
 Vertical 1:400
 Horizontal 1:10,000

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Figure 23 - Sections
G-G' and H-H'

H' — 280 m

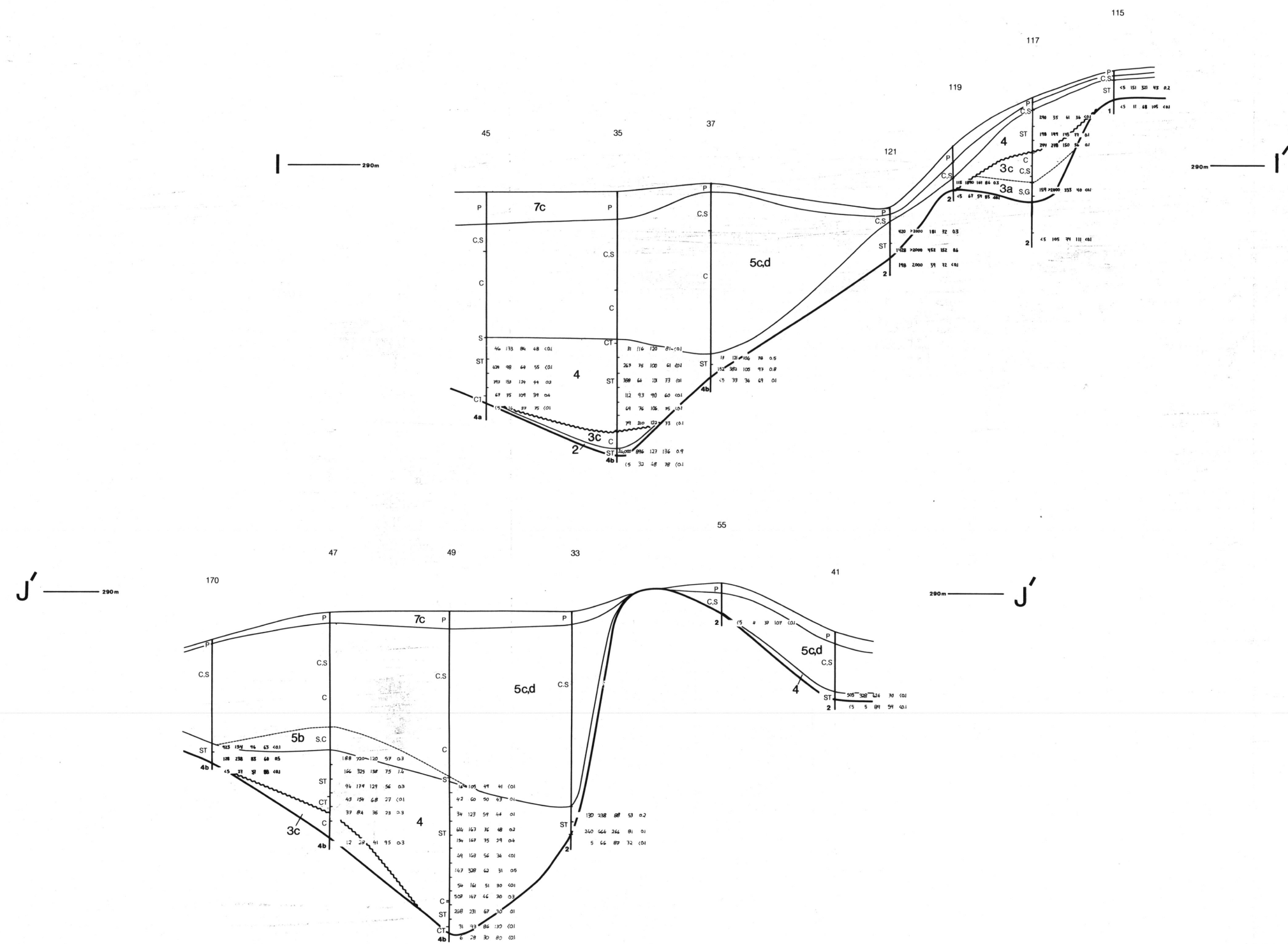
280 m — H''



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
- Present 7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
- 10,000 Years B.P. LATE WISCONSINAN
6 Cochrane Till
5 Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciolacustrine member
- 100,000 Years B.P. EARLY WISCONSINAN AND SANGAMON
3 Missinabi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- ILLINOIAN
2 Lower Till and Sediments
- 1,000,000 Years B.P. YARMOUTH AND KANSAN
1 Older Till and Sediments
- Sediment Varieties**
- P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
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Interglacial unconformity
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Quaternary subunit boundary
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4d - siltstone
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1 Ultramafic volcanics

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Figure 24 - Section
H'-H''



LEGEND
Abitibi Quaternary Stratigraphy

HOLOCENE

Present

7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member

PLEISTOCENE

10,000 Years B.P.

LATE WISCONSINAN

6 Cochrane Till
5 Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciofluvial member

100,000 Years B.P.

EARLY WISCONSINAN AND SANGAMON

3 Missinabi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member

ILLINOIAN

2 Lower Till and Sediments

1,000,000 Years B.P.

YARMOUTH AND KANSAN

1 Older Till and Sediments

Sediment Varieties

P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till

Symbols

Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary

Geochemistry

ST 240 20 123 53 0.2
Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
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Bedrock Lithology

6 Gabbro
5 Iron formation, chert
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4c - quartzite
4d - siltstone
4e - mudstone

3 Intermediate volcanics
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1 Ultramafic volcanics

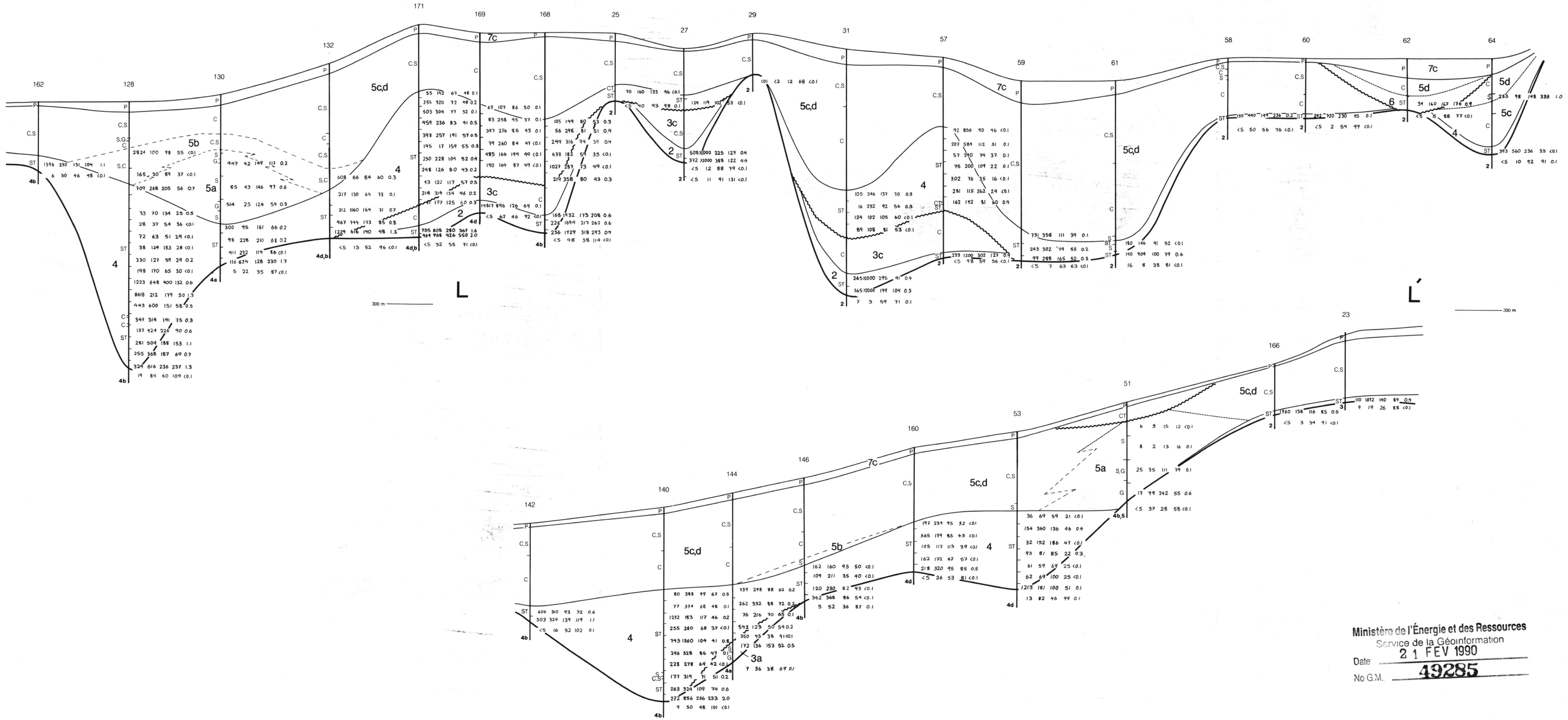
Scale
Vertical 1:400
Horizontal 1:10,000

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Figure 25 - Sections
I-I' and J-J'

K

K'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
- Present
 - 7 Holocene Sediments
 - 7c - forest-peat member
 - 7b - lacustrine member
 - 7a - fluvial member
- PLEISTOCENE**
- LATE WISCONSINAN**
- 10,000 Years B.P.
 - 6 Cochrane Till
 - 5 Ojibway II Sediments
 - 5e - littoral and aeolian member
 - 5d - Cochrane member
 - 5c - glaciolacustrine clay member
 - 5b - glaciolacustrine sand member
 - 5a - glaciolacustrine member
 - 4 Chibougamau/Matheson Till
- EARLY WISCONSINAN AND SANGAMON**
- 100,000 Years B.P.
 - 3 Missisquoi Formation
 - 3c - Ojibway I member
 - 3b - forest-peat member
 - 3a - fluvial member
- ILLINOIAN**
- 2 Lower Till and Sediments
- YARMOUTH AND KANSAN**
- 1,000,000 Years B.P.
 - 1 Older Till and Sediments

- Sediment Varieties**
- P Peat, organics
 - C Clay, silt
 - S Sand
 - G Gravel
 - ST Sand-silt till; clay subordinate
 - CT Clay till

- Symbols**
- Quaternary/bedrock unconformity
 - Interglacial unconformity
 - Quaternary unit boundary
 - Quaternary subunit boundary

Geochemistry

Sand-silt till interval with 240 ppb Au, 20 ppm As, 123 ppm Cu, 33 ppm Zn, and 0.2 ppm Ag in the non-magnetic heavy mineral fraction (%S.G. greater than 3.3).

- Bedrock Lithology**
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 - 4e - mudstone
 - 3 Intermediate volcanics
 - 2 Mafic volcanics
 - 1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

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Date _____
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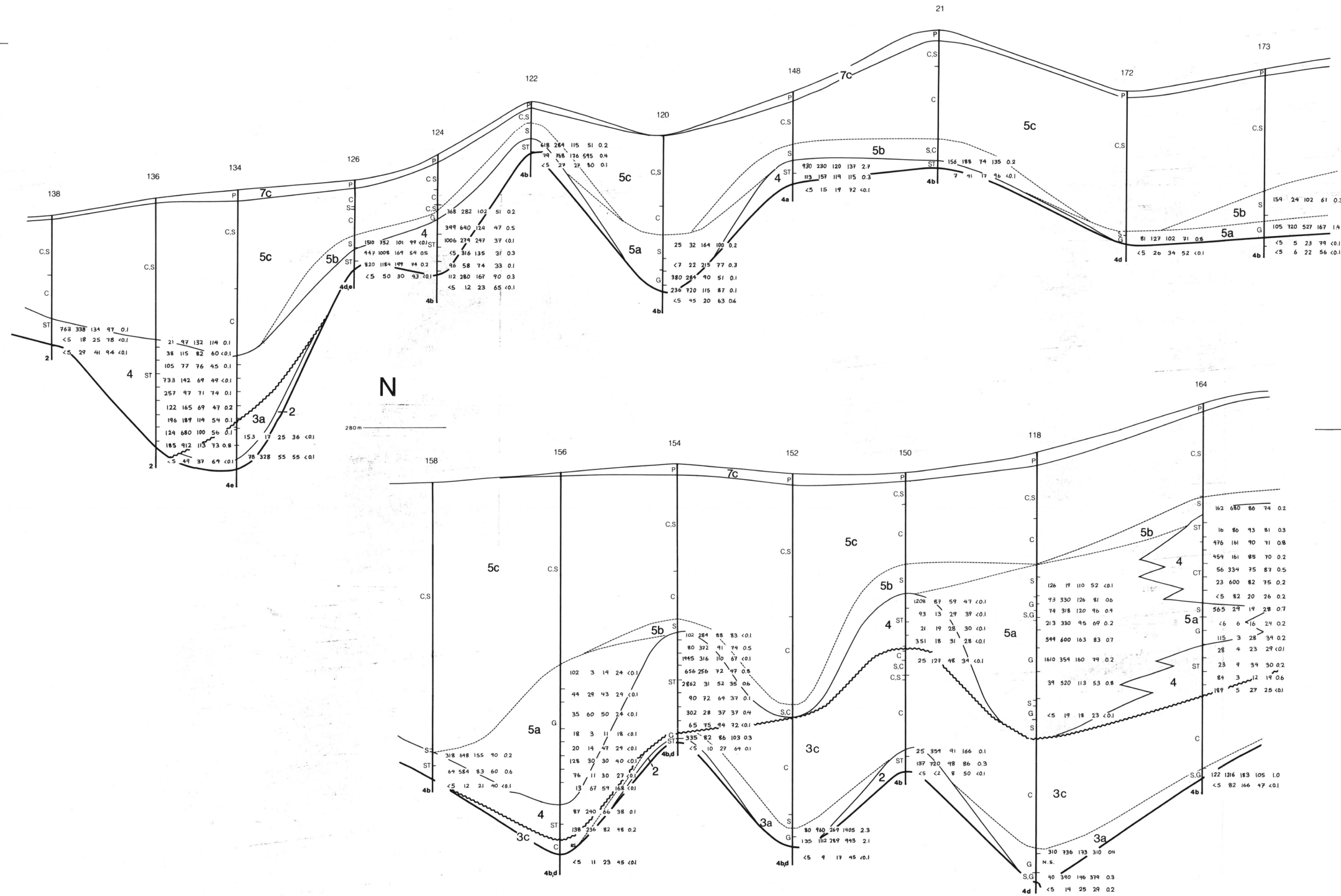
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Figure 26 - Sections
K-K' AND L-L'

M

M'

N

N'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
- Present **7** Holocene Sediments
 - 7c - forest-peat member
 - 7b - lacustrine member
 - 7a - fluvial member
- PLEISTOCENE**
- LATE WISCONSINAN**
- 10,000 Years B.P. **6** Cochrane Till
 - 5** Ojibway II Sediments
 - 5e - littoral and aeolian member
 - 5d - Cochrane member
 - 5c - glaciolacustrine clay member
 - 5b - glaciolacustrine sand member
 - 5a - glaciofluvial member
 - 4** Chibougamau/Matheson Till
- EARLY WISCONSINAN AND SANGAMON**
- 100,000 Years B.P. **3** Missinaibi Formation
 - 3c - Ojibway I member
 - 3b - forest-peat member
 - 3a - fluvial member
- ILLINOIAN**
- 2** Lower Till and Sediments
- YARMOUTH AND KANSAN**
- 1,000,000 Years B.P. **1** Older Till and Sediments

- Sediment Varieties**
- P Peat, organics
 - C Clay, silt
 - S Sand
 - G Gravel
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- Symbols**
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Sand-silt till interval with
 240 ppb Au, 20 ppm As, 123 ppm Cu,
 33 ppm Zn, and 0.2 ppm Ag in the
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 fraction (%G. greater than 3.3).

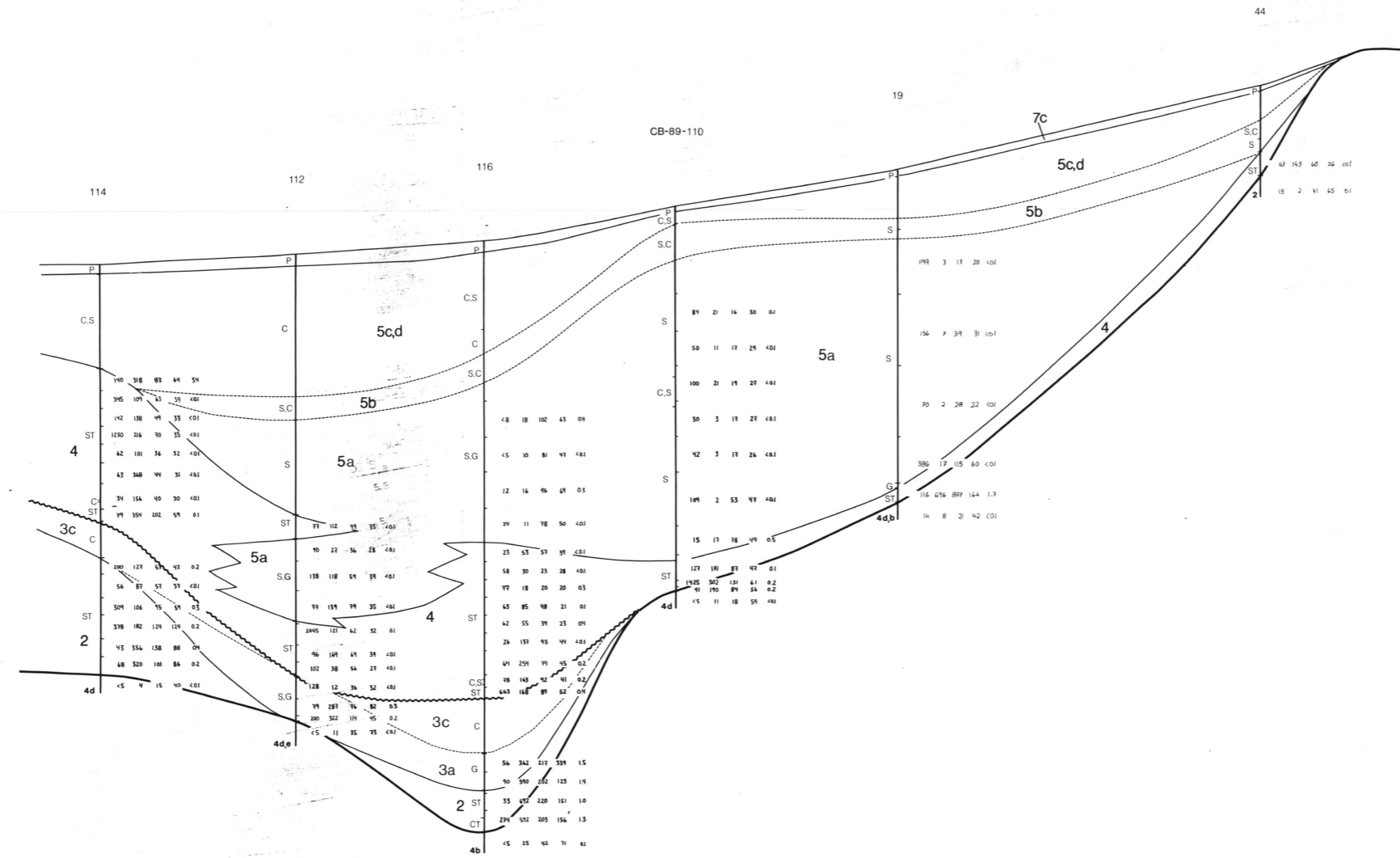
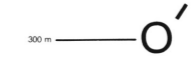
ST 240 20 123 53 0.2

- Bedrock Lithology**
- 6** Gabbro
 - 5** Iron formation, chert
 - 4** Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - 3** Intermediate volcanics
 - 2** Mafic volcanics
 - 1** Ultramafic volcanics

Scale
 Vertical 1:400
 Horizontal 1:10,000

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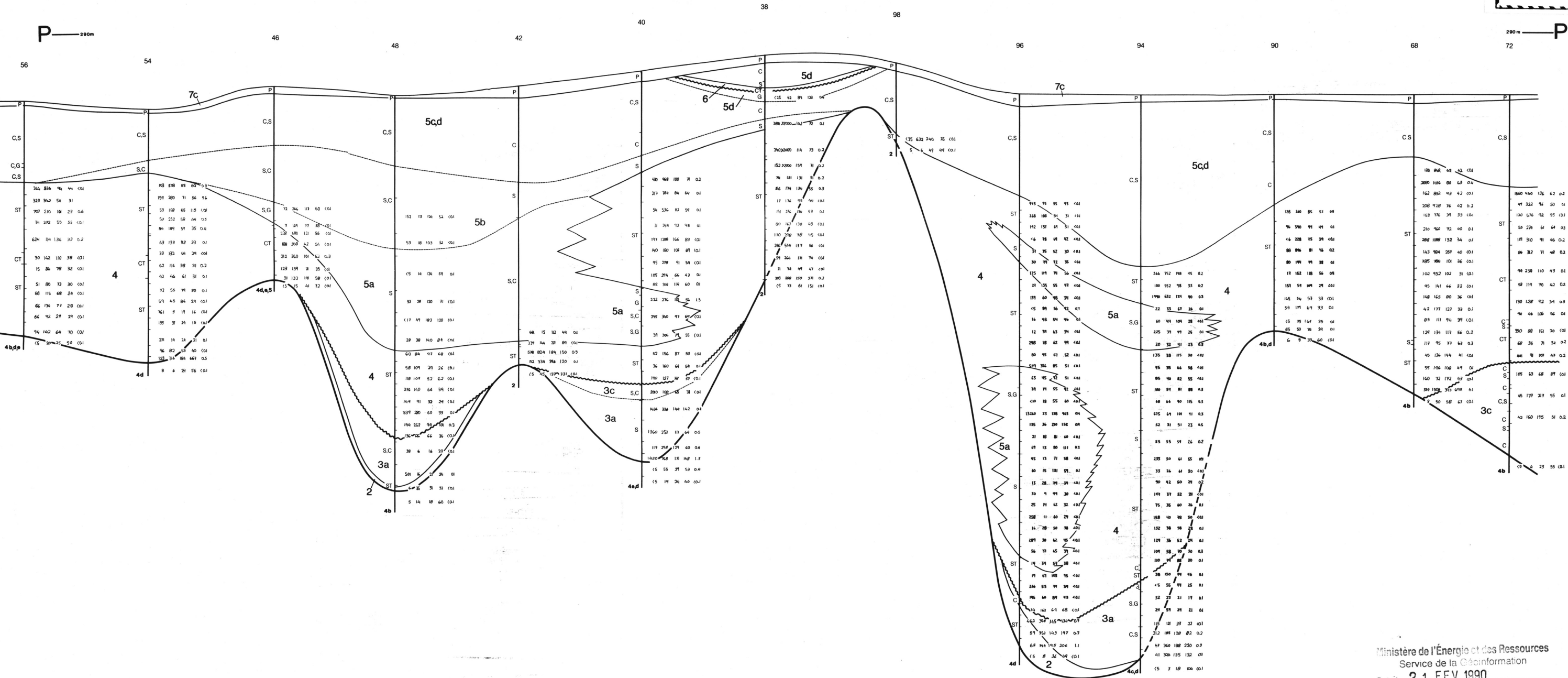
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CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP
Figure 27 - Sections
M-M' and N-N'



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
 Present
 7 Holocene Sediments
 7c - forest-peat member
 7b - lacustrine member
 7a - fluvial member
- PLEISTOCENE**
 10,000 Years B.P.
LATE WISCONSINAN
 6 Cochrane Till
 5 Ojibway II Sediments
 5e - littoral and aeolian member
 5d - Cochrane member
 5c - glaciolacustrine clay member
 5b - glaciolacustrine sand member
 5a - glacioluvial member
 4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
 3 Missinabi Formation
 3c - Ojibway I member
 3b - forest-peat member
 3a - fluvial member
- ILLINOIAN**
 1,000,000 Years B.P.
YARMOUTH AND KANSAN
 2 Lower Till and Sediments
 1 Older Till and Sediments
- Sediment Varieties**
 P Peat, organics
 C Clay, silt
 S Sand
 G Gravel
 ST Sand-silt till; clay subordinate
 CT Clay till
- Symbols**
 Quaternary/bedrock unconformity
 Interglacial unconformity
 Quaternary unit boundary
 Quaternary subunit boundary
- Geochemistry**
 Sand-silt till interval with
 240 ppb Au, 20 ppm As, 123 ppm Cu,
 53 ppm Zn, and 0.2 ppm Ag in the
 non-magnetic heavy mineral
 fraction (%G. greater than 3.3).
- Bedrock Lithology**
 6 Gabbro
 5 Iron formation, chert
 4 Clastic sediments
 4a - conglomerate
 4b - greywacke
 4c - quartzite
 4d - siltstone
 4e - mudstone
 3 Intermediate volcanics
 2 Mafic volcanics
 1 Ultramafic volcanics

Ministère de l'Énergie et des Ressources
 Service de la Géoinformation
 Date: 21 FEV 1990
 No G.M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP
 Figure 28 - Section
 O-O'



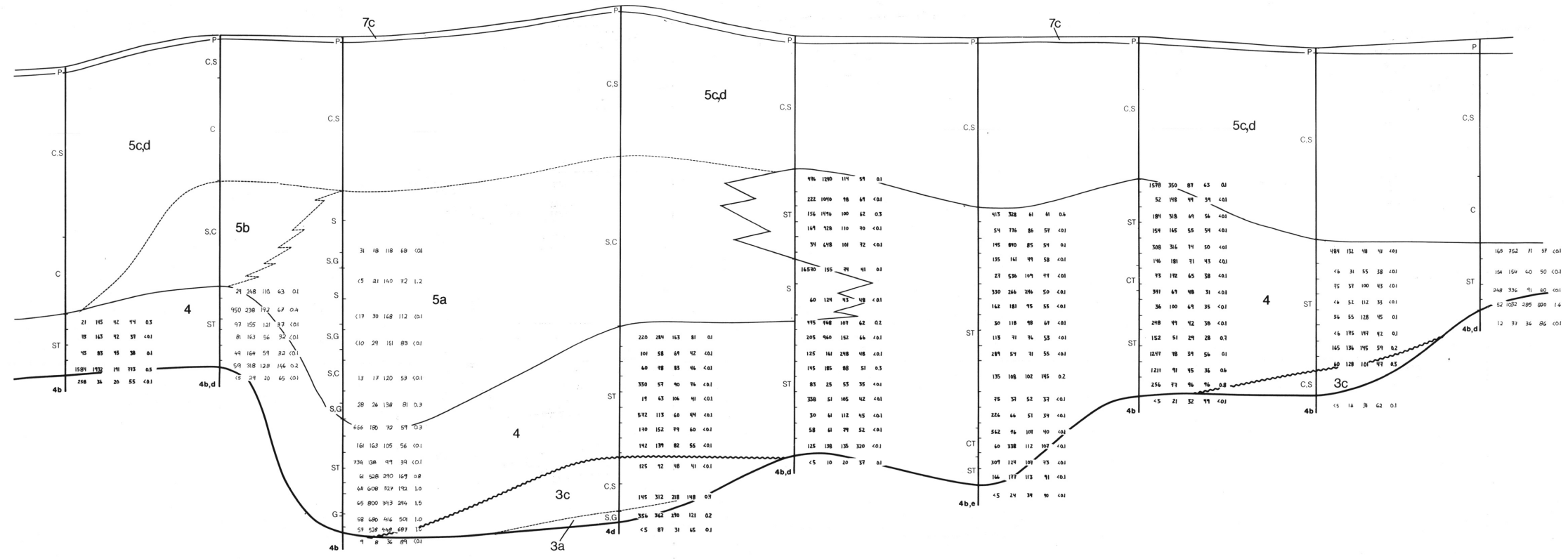
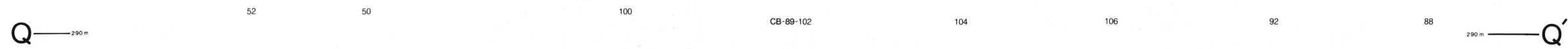
- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
Present
7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
10,000 Years B.P.
LATE WISCONSINAN
6 Cochrane Till
5 Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glacioluvial member
4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
3 Missisquoi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- ILLINOIAN**
2 Lower Till and Sediments
- 1,000,000 Years B.P.
YARMOUTH AND KANSAN
1 Older Till and Sediments
- Sediment Varieties**
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till
- Symbols**
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary
- Geochemistry**
Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%G. greater than 3.3).
- Bedrock Lithology**
6 Gabbro
5 Iron formation, chert
4 Clastic sediments
4a - conglomerate
4b - gneiss
4c - quartzite
4d - siltstone
4e - mudstone
- 3 Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

Ministère de l'Énergie et des Ressources
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CAMBOR INC.
CASA-BERA RDI PROPERTY
CASA-BERA RDI TOWNSHIP
Figure 29 - Sections

P-P'



LEGEND
Abitibi Quaternary Stratigraphy

HOLOCENE
Present
7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member

PLEISTOCENE
10,000 Years B.P.
6 Cochrane Till
5 Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciolacustrine member

LATE WISCONSINAN
100,000 Years B.P.
4 Chibougamau/Matheson Till

EARLY WISCONSINAN AND SANGAMON
3 Missinabi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member

ILLINOIAN
2 Lower Till and Sediments

YARMOUTH AND KANSAN
1,000,000 Years B.P.
1 Older Till and Sediments

Sediment Varieties
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till

Symbols
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary

Geochemistry
Sand-silt till interval with 240 ppb Au, 20 ppm As, 123 ppm Cu, 53 ppm Zn, and 0.2 ppm Ag in the non-magnetic heavy mineral fraction (%S.G. greater than 3.3).

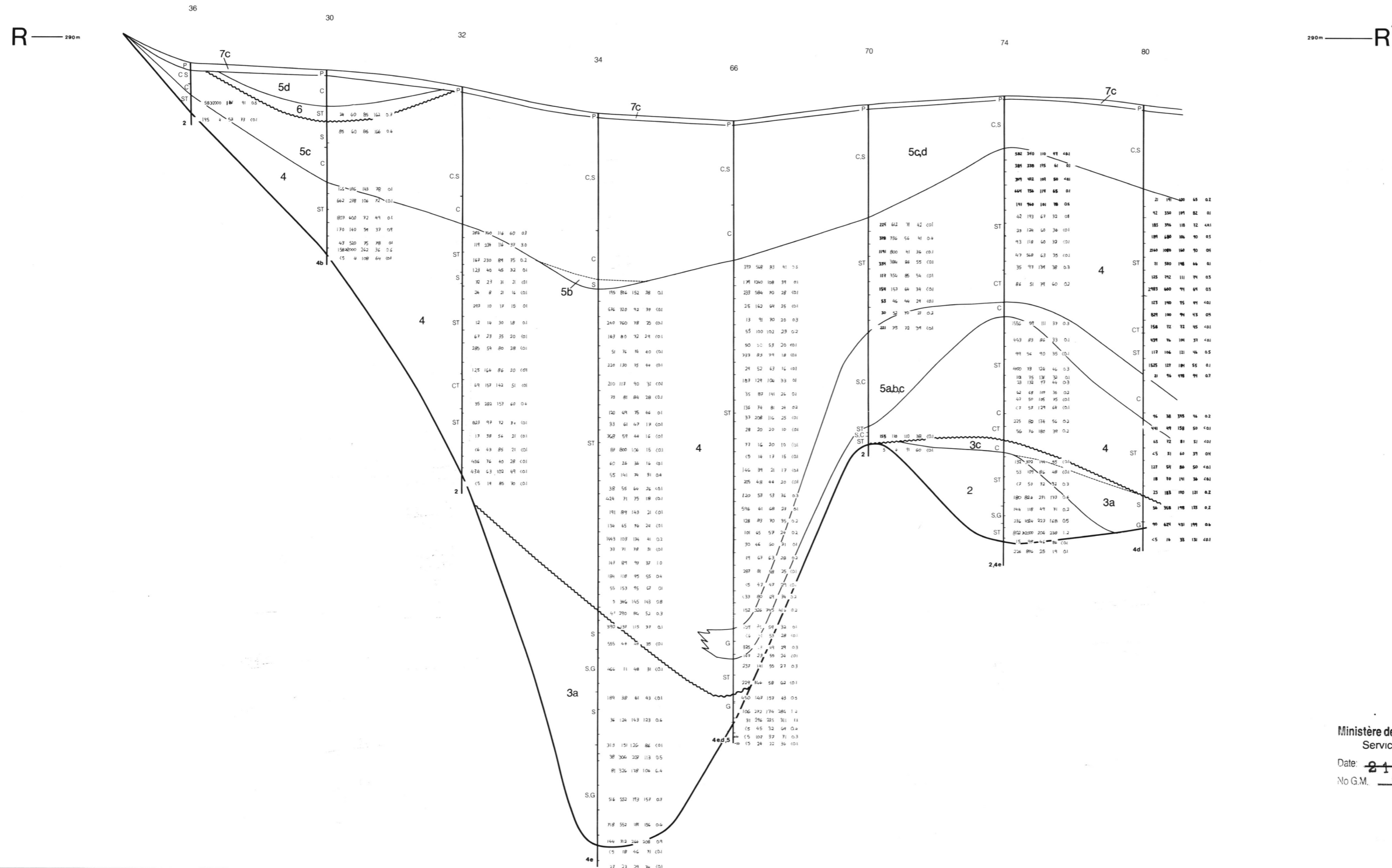
Bedrock Lithology
6 Gabbro
5 Iron formation, chert
4 Clastic sediments
4a - conglomerate
4b - greywacke
4c - quartzite
4d - siltstone
4e - mudstone

3 Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date: 21 FEV 1990
No G.M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP
Figure 30 - Section
Q-Q'

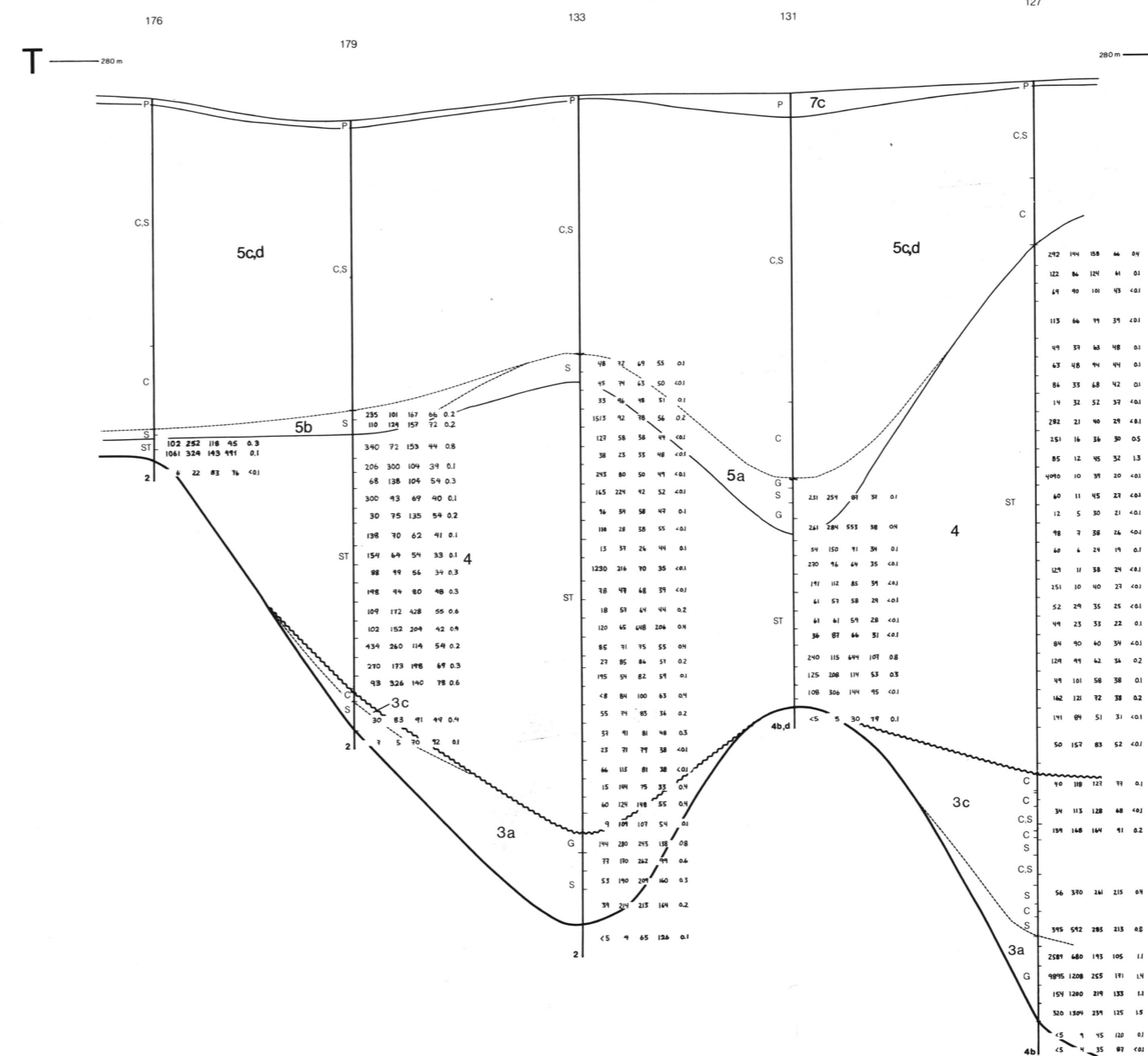
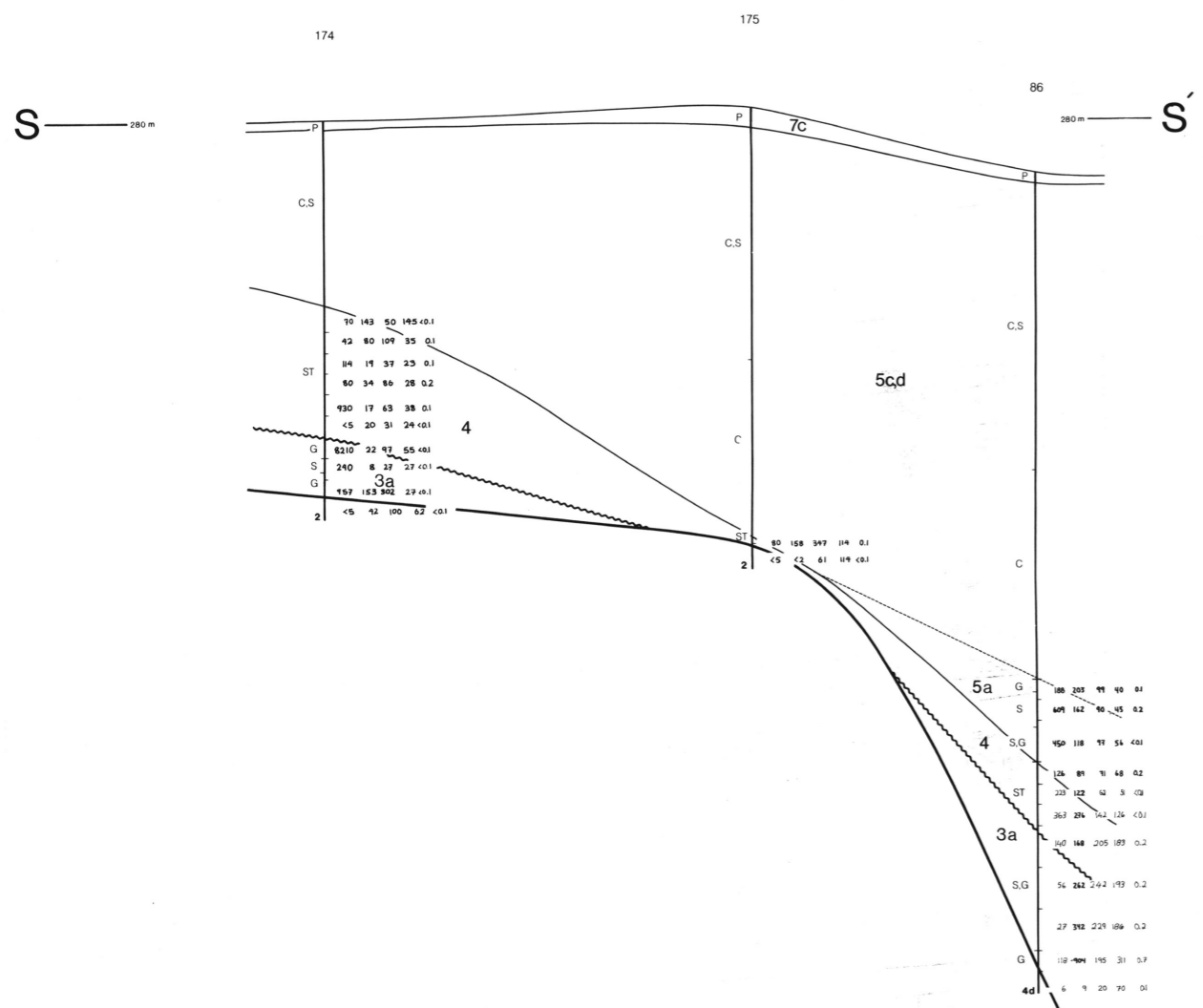


- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
Present
7 Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
10,000 Years B.P.
LATE WISCONSINAN
6 Cochrane Till
5 Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciolacustrine member
4 Chibougamau/Matheson Till
- 100,000 Years B.P.
EARLY WISCONSINAN AND SANGAMON
3 Missinabi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- ILLINOIAN**
2 Lower Till and Sediments
- 1,000,000 Years B.P.
YARMOUTH AND KANSAN
1 Older Till and Sediments
- Sediment Varieties**
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till
- Symbols**
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary
- Geochemistry**
Sand-silt till interval with
240 ppb Au, 29 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%G. greater than 3.).
- Bedrock Lithology**
6 Gabbro
5 Iron formation, chert
4 Clastic sediments
4a - conglomerate
4b - greywacke
4c - quartzite
4d - siltstone
4e - mudstone
3 Intermediate volcanics
2 Mafic volcanics
1 Ultramafic volcanics

Scale
Vertical 1:400
Horizontal 1:10,000

Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date: 21 FEV 1990
No G.M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP
Figure 31 - Section
R-R'



- LEGEND**
Abitibi Quaternary Stratigraphy
- H O L O C E N E**
- Present
- 7 Holocene Sediments
 - 7c - forest-peat member
 - 7b - lacustrine member
 - 7a - fluvial member
- P L E I S T O C E N E**
- 10,000 Years B.P.
- LATE WISCONSINAN**
- 6 Cochrane Till
 - 5 Ojibway II Sediments
 - 5e - littoral and aeolian member
 - 5d - Cochrane member
 - 5c - glaciolacustrine clay member
 - 5b - glaciolacustrine sand member
 - 5a - glaciofluvial member
 - 4 Chibougamau/Matheson Till
- 100,000 Years B.P.
- EARLY WISCONSINAN AND SANGAMON**
- 3 Missinaibi Formation
 - 3c - Ojibway I member
 - 3b - forest-peat member
 - 3a - fluvial member
- ILLINOIAN**
- 2 Lower Till and Sediments
- 1,000,000 Years B.P.
- YARMOUTH AND KANSAN**
- 1 Older Till and Sediments

- Sediment Varieties**
- P Peat, organics
 - C Clay, silt
 - S Sand
 - G Gravel
 - ST Sand-silt till; clay subordinate
 - CT Clay till

- Symbols**
- Quaternary/bedrock unconformity
 - Interglacial unconformity
 - Quaternary unit boundary
 - Quaternary subunit boundary

Geochemistry

Sand-silt till interval with 240 ppb Au, 20 ppm As, 123 ppm Cu, 53 ppm Zn, and 0.2 ppm Ag in the non-magnetic heavy mineral fraction (%G. greater than 3.3).

- Bedrock Lithology**
- 6 Gabbro
 - 5 Iron formation, chert
 - 4 Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - 3 Intermediate volcanics
 - 2 Mafic volcanics
 - 1 Ultramafic volcanics

Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date: 21 FEV 1990
No G.M. 49285

Scale
Vertical 1:400
Horizontal 1:10,000

CAMBIOR INC.
CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP
Figure 32 - Sections
S-S' and T-T'

U — 290 m

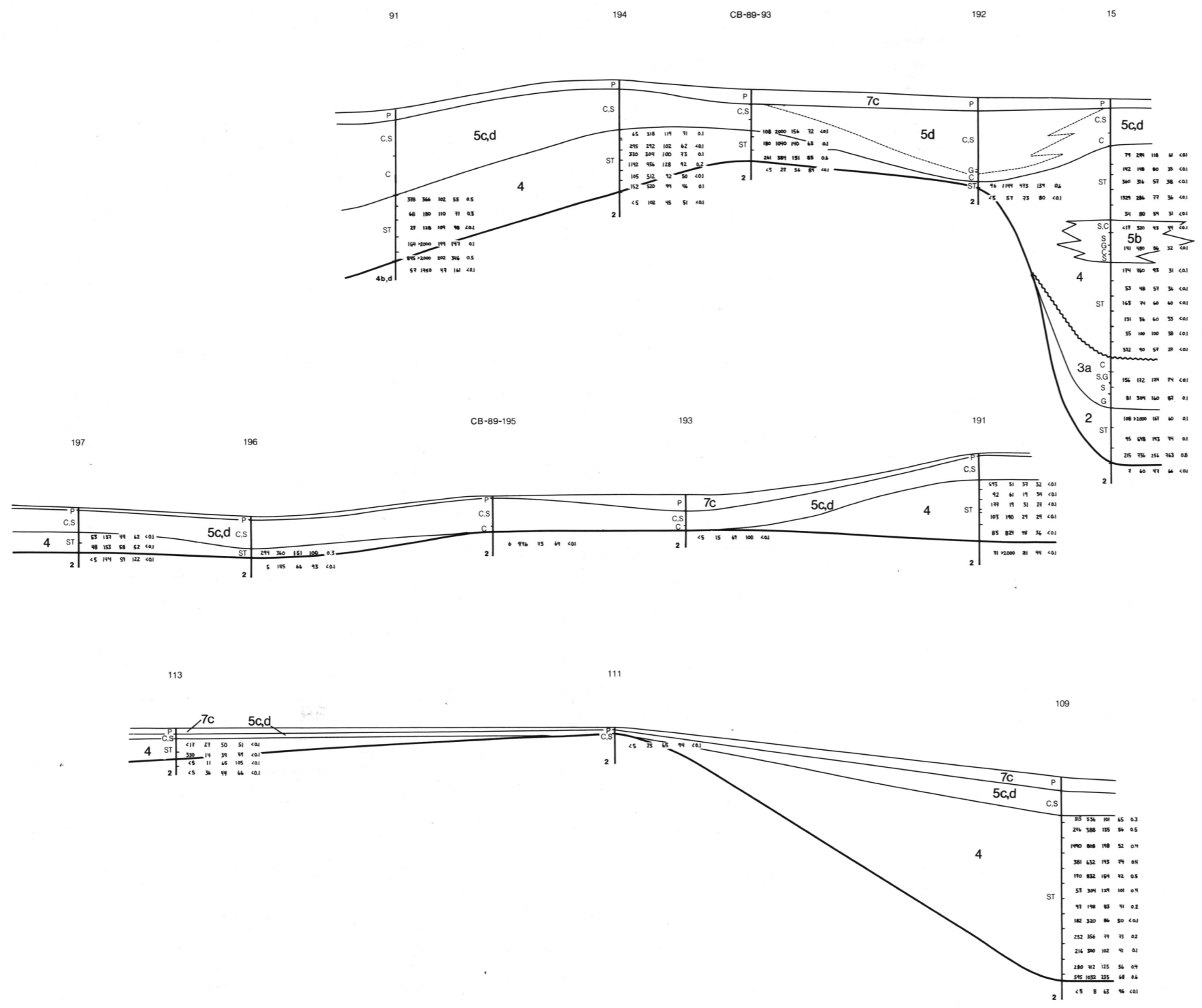
U' — 290 m

V — 290 m

V' — 290 m

W — 290 m

W' — 290 m



- LEGEND**
Abitibi Quaternary Stratigraphy
- HOLOCENE**
Present [7] Holocene Sediments
7c - forest-peat member
7b - lacustrine member
7a - fluvial member
- PLEISTOCENE**
10,000 Years B.P. [6] Cochrane Till
[5] Ojibway II Sediments
5e - littoral and aeolian member
5d - Cochrane member
5c - glaciolacustrine clay member
5b - glaciolacustrine sand member
5a - glaciolacustrine member
- 100,000 Years B.P. [4] Chibougamau/Matheson Till
- EARLY WISCONSINAN AND SANGAMON**
[3] Missinabi Formation
3c - Ojibway I member
3b - forest-peat member
3a - fluvial member
- ILLINOIAN**
[2] Lower Till and Sediments
- 1,000,000 Years B.P. **YARMOUTH AND KANSAN**
[1] Older Till and Sediments
- Sediment Varieties**
P Peat, organics
C Clay, silt
S Sand
G Gravel
ST Sand-silt till; clay subordinate
CT Clay till
- Symbols**
Quaternary/bedrock unconformity
Interglacial unconformity
Quaternary unit boundary
Quaternary subunit boundary
- Geochemistry**
Sand-silt till interval with
240 ppb Au, 20 ppm As, 123 ppm Cu,
53 ppm Zn, and 0.2 ppm Ag in the
non-magnetic heavy mineral
fraction (%G. greater than 3.3).

ST 240 20 123 53 0.2

- Bedrock Lithology**
- [6] Gabbro
 - [5] Iron formation, chert
 - [4] Clastic sediments
4a - conglomerate
4b - greywacke
4c - quartzite
4d - siltstone
4e - mudstone
 - [3] Intermediate volcanics
 - [2] Mafic volcanics
 - [1] Ultramafic volcanics

Scale
Vertical 1:400
East-West 1:2500
North-South 1:1500

Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date: 21 FEV 1990
No G.M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP
Figure 33 - Sections
U - U', V - V' and W - W'

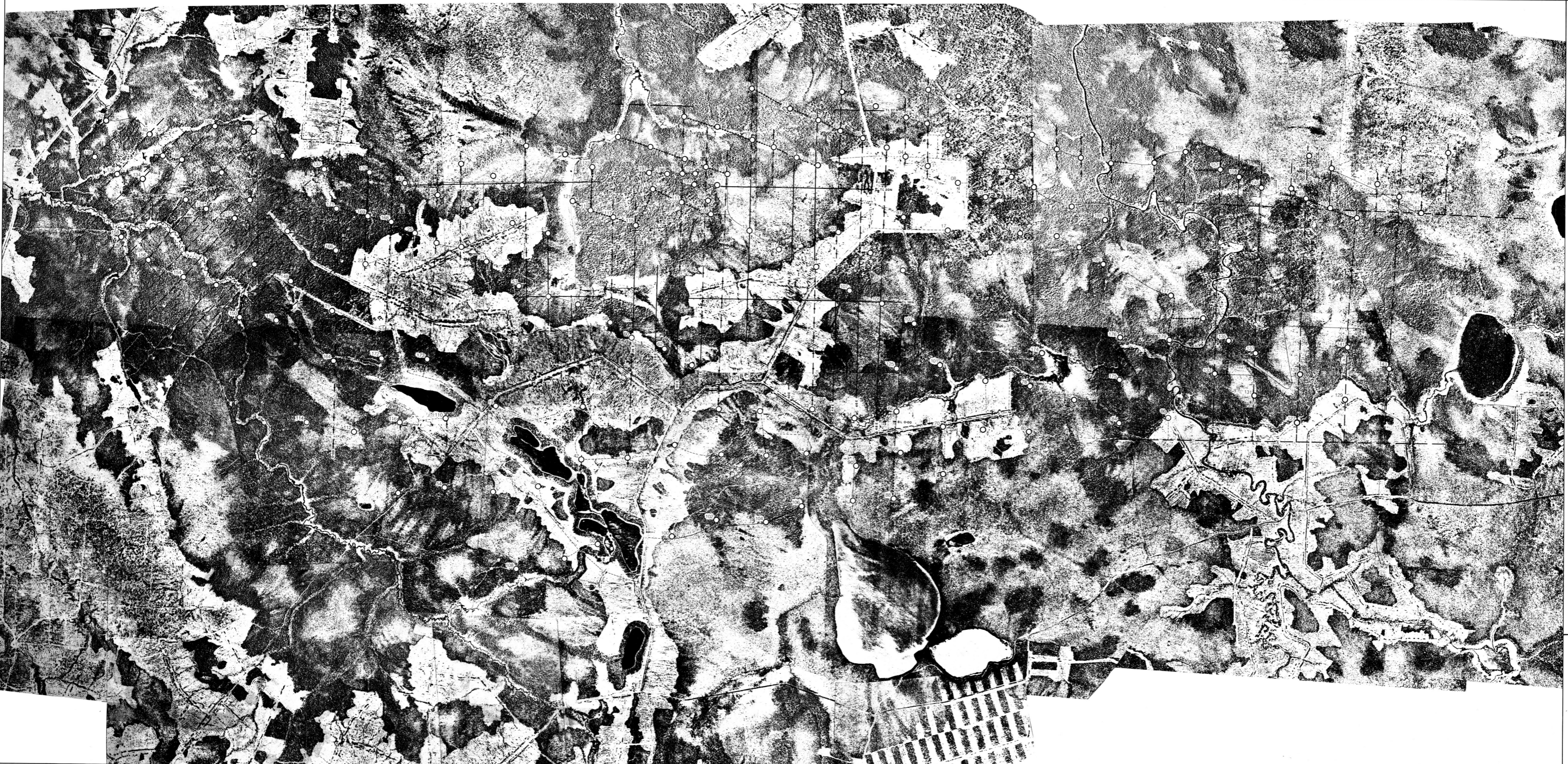
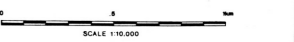


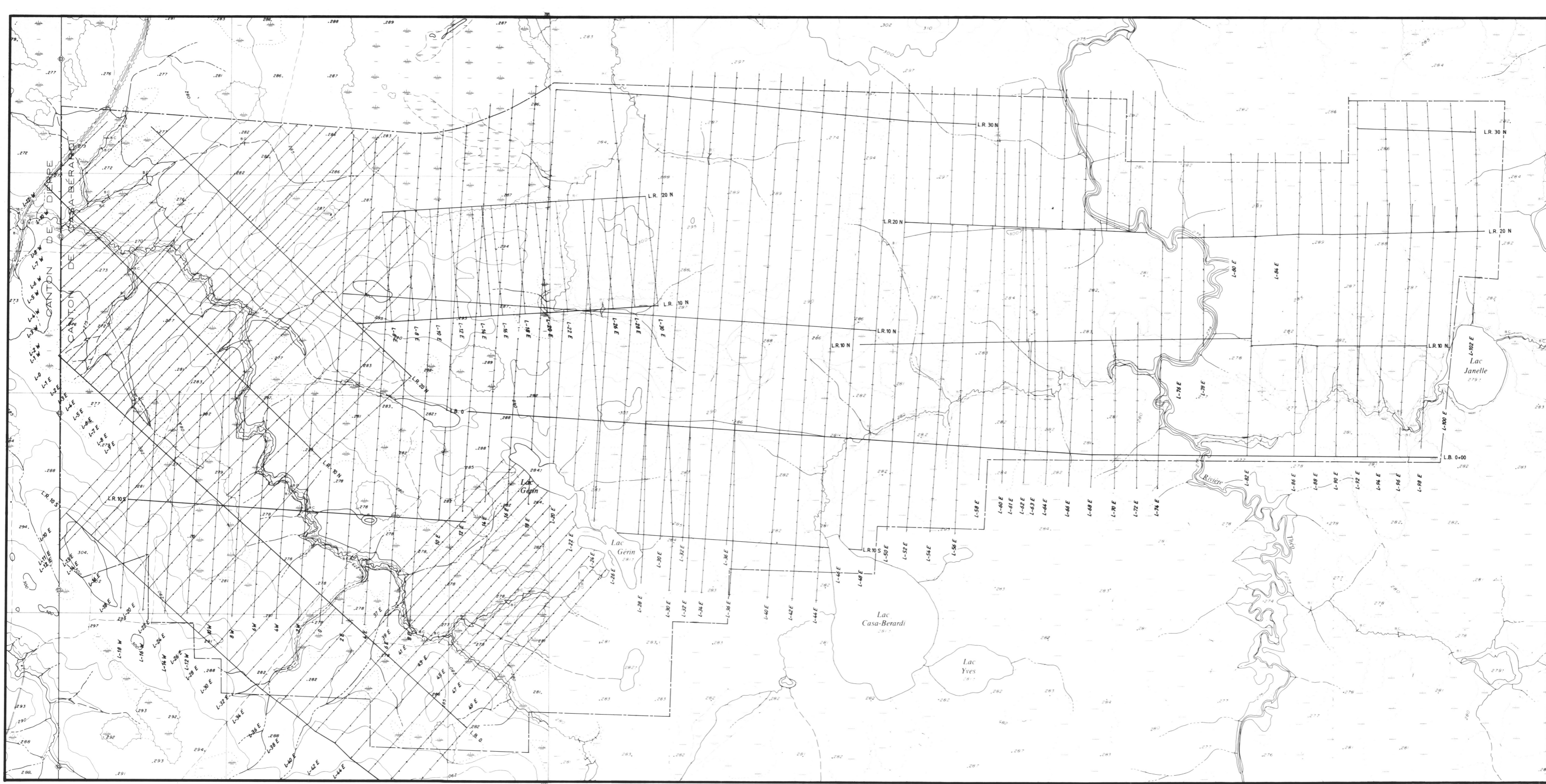
- ODM LEGEND
- 02 1989 reverse circulation drill hole No. CB-89-02
 - Grid line visible on 1986 air photos
 - Grid line positioned by known hole location(s)
 - Approximate location of grid line
 - Bulldozed drill road
 - Cut and bulldozed drill road
 - Existing tractor road

CAMBIOR INC.
CASA-BERARDI PROPERTY
CASA-BERARDI TOWNSHIP

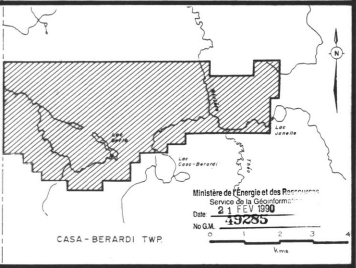
Plan 1
PROPERTY TERRAIN
AND CORRECTED GRIDS

BY OVERBURDEN DRILLING MANAGEMENT LIMITED MAY 1989





- Possibilité d'affleurement
- Ruisseau
- Marécage
- Route principale
- Ligne électrique
- Clôture
- Route d'accès
- Chemin de tracteur



CAMBIOR inc.

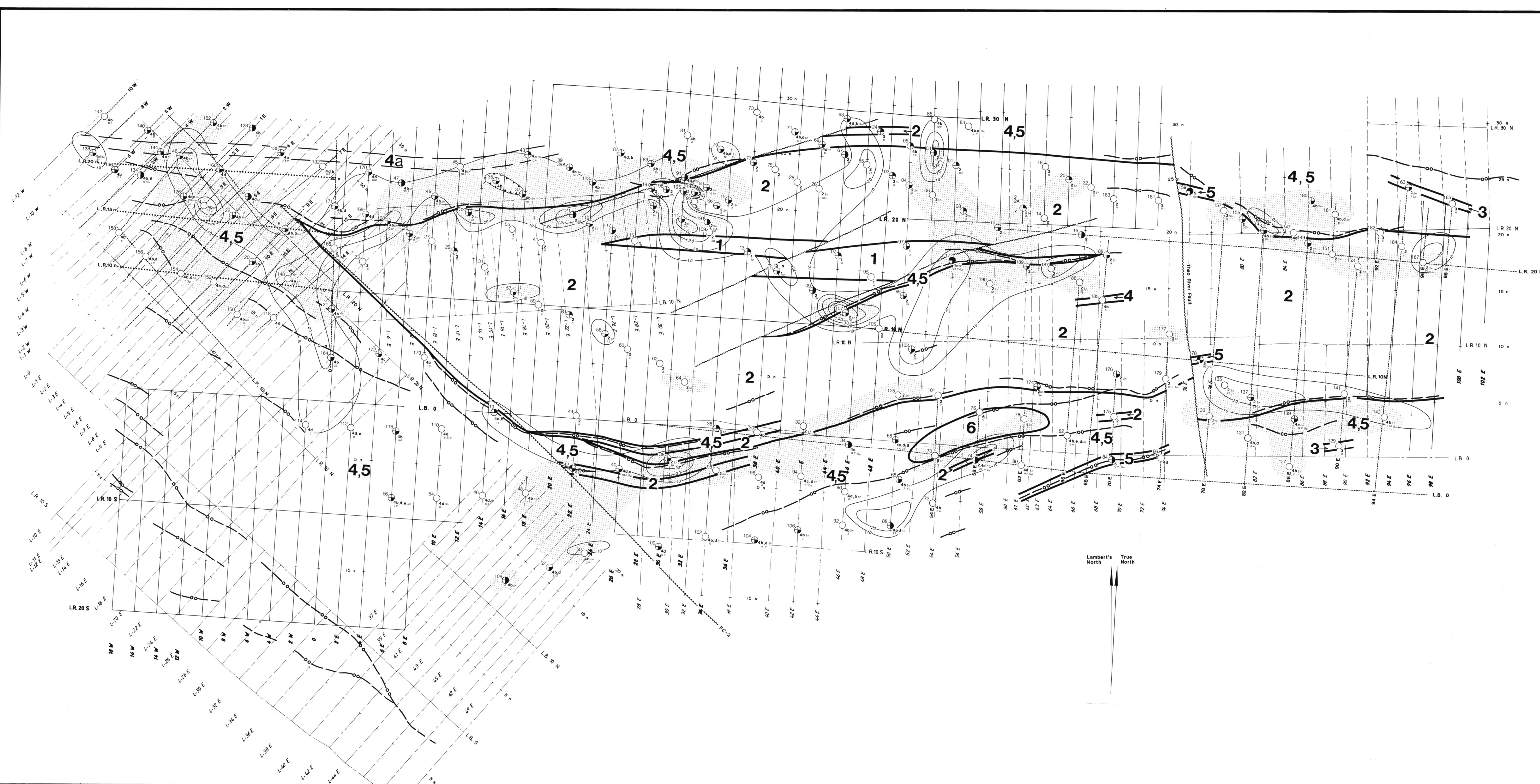
PROJET : CASA - BERARDI

Plan 2
PROPERTY TOPOGRAPHY
AND LAMBERT GRIDS



EXÉCUTÉ PAR : _____ 0 - 1988
 Dessiné PAR : S.A.J.B. 08 - 1988
 INTERPRÉTÉ PAR : G. Lambert, ING. 08 - 1988
 APPROUVÉ PAR : _____

Echelle : 1:10,000 CARTE N° :



ODM LEGEND

Bedrock Lithology

- 6 Gabbro
- 5 Iron formation, chert
- 4 Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
- 3 Intermediate volcanics
- 2 Mafic volcanics
- 1 Ultramafic volcanics

Symbols

- 109 1989 reverse circulation drill hole No. CB-89-109; bedrock intersection of unit 2; 30 percent Fe/Mg carbonate
- Unit contact based on 1989 reverse circulation drill holes and 1981, 1982, 1986, 1987 reverse circulation and diamond drill holes (Landry and Gauthier, 1988)
- Subunit contact
- Fault
- Strong EMH conductor
- Fe/Mg carbonate contours: contours at 10, 20, 30 and 40 percent
- Sheared: weak, moderate, or strong
- Area of moderate to strong shearing
- Silicified
- Greater than or equal to 1% pyrite
- Arsenopyrite
- Chloritoid
- Tourmaline
- Fuchsite
- Hematite
- Graphite

Bedrock Geochemistry

- Gold greater than or equal to 10 ppb
- Arsenic greater than or equal to 20 ppm
- Copper greater than or equal to 200 ppm
- Zinc greater than or equal to 200 ppm

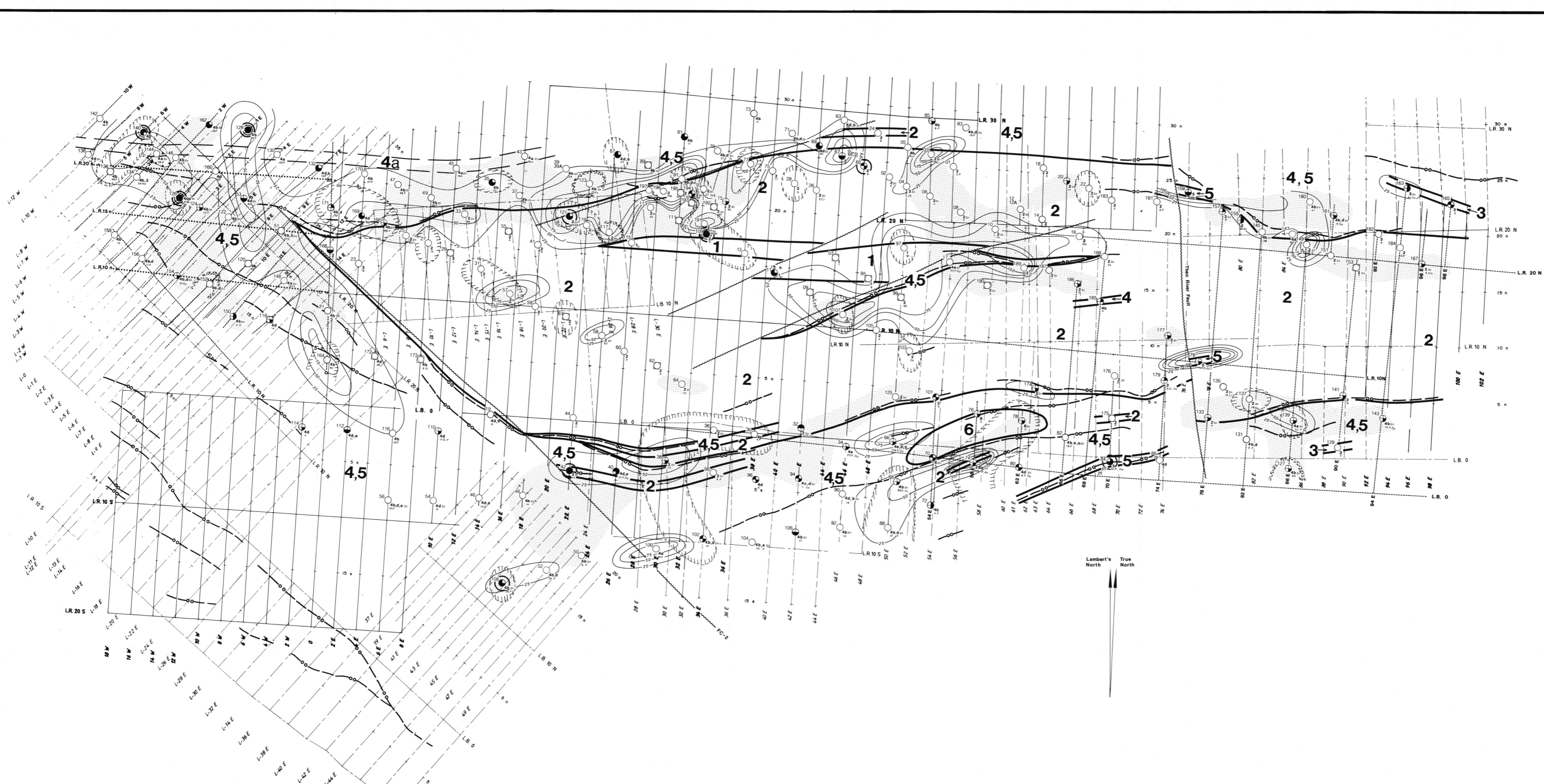
Ministère de l'Énergie et des Ressources
 Séries géologiques
 Date: 11/1988
 No. M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP

Plan 3
BEDROCK GEOLOGY, GEOCHEMISTRY
AND CARBONATE ALTERATION

BY OVERBURDEN DRILLING MANAGEMENT LIMITED JUNE 1989

SCALE 1:10,000



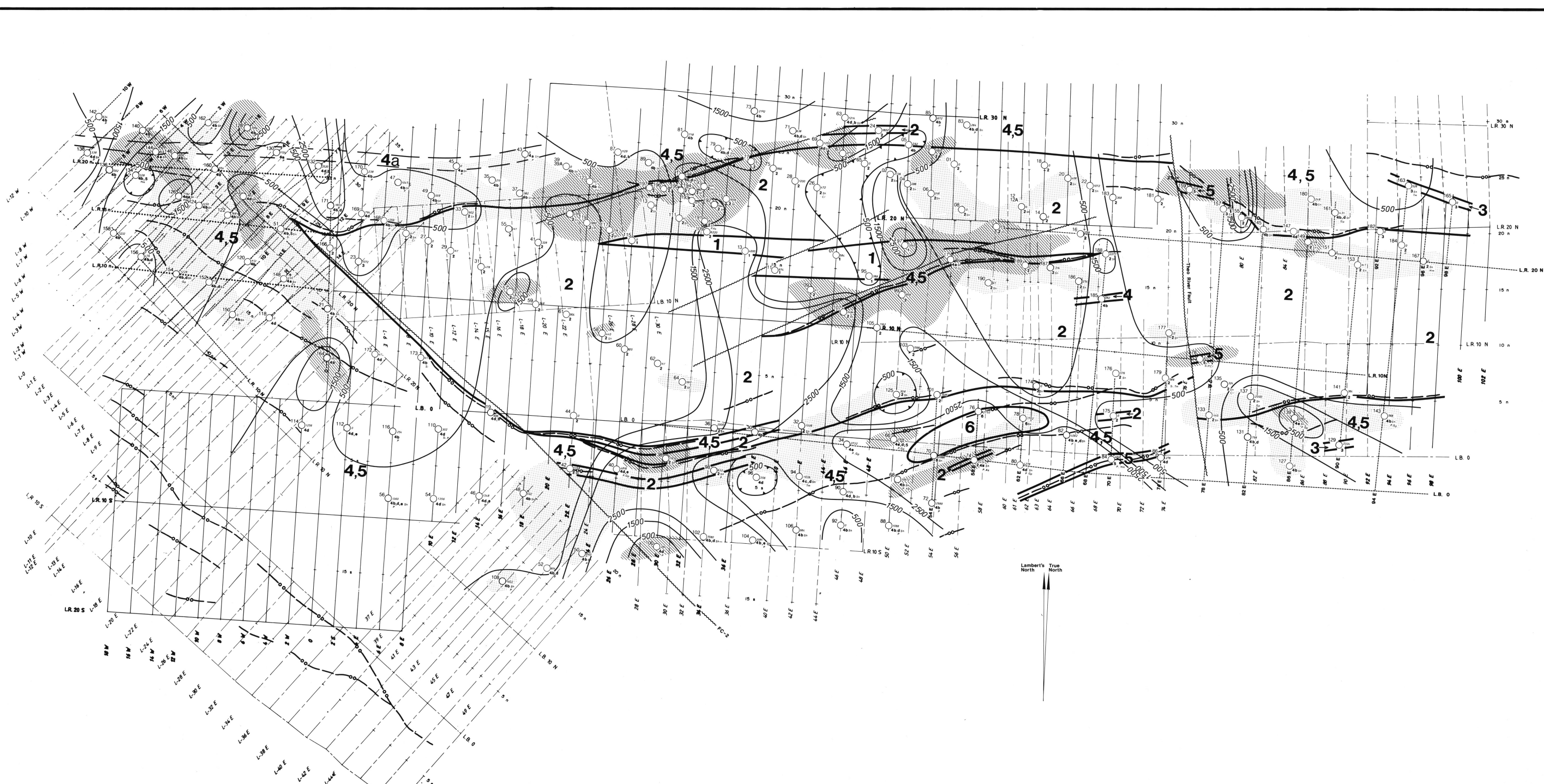
- ODM LEGEND**
- Bedrock Lithology**
- 6 Gabbro
 - 5 Iron formation, chert
 - 4 Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - 3 Intermediate volcanics
 - 2 Mafic volcanics
 - 1 Ultramafic volcanics
- Symbols**
- 109 1989 reverse circulation drill hole No. CB-89-109; bedrock intersection of unit 2; 25 ppm arsenic
 - Unit contact based on 1989 reverse circulation drill holes and 1981, 1982, 1986, 1987 reverse circulation and diamond drill holes (Landry and Gauthier, 1983)
 - Subunit contact
 - Fault
 - Strong EMH conductor
 - 25 Bedrock arsenic contour: contours at 25, 50, 75 and 100 ppm
 - Sheared: weak, moderate, or strong
 - Area of moderate to strong shearing
 - Silicified
 - Greater than or equal to 1% pyrite
 - Arsenopyrite
 - Chloritoid
 - Tourmaline
 - Fuchsite
 - Hematite
 - Graphite
 - Zone of arsenic dispersion in Lower Till (anomalous arsenic with stratigraphic continuity)
 - Zone of arsenic dispersion in Matheson Till (anomalous arsenic with stratigraphic continuity)
 - Zone of arsenic enrichment in contiguous Sangamon interglacial fluvial samples
 - Less than 0.5 metres Matheson Till intersected
- Heavy Mineral Gold Anomalies**
- Ten or more visible gold grains or greater than 1000 ppb gold
 - Ten or more visible gold grains
 - Greater than 1000 ppb gold
 - Stratigraphic continuity
 - Elevated pathfinder element
 - Five or more delicate plus irregular gold grains
 - Potentially significant
- Ministère de l'Énergie et des Ressources
 Service de l'Information
 11 FÉV 1988
 No. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP

Plan 4
BEDROCK GEOLOGY AND
HEAVY MINERAL GEOCHEMISTRY

BY OVERBURDEN DRILLING MANAGEMENT LIMITED JUNE 1989

SCALE 1:10,000



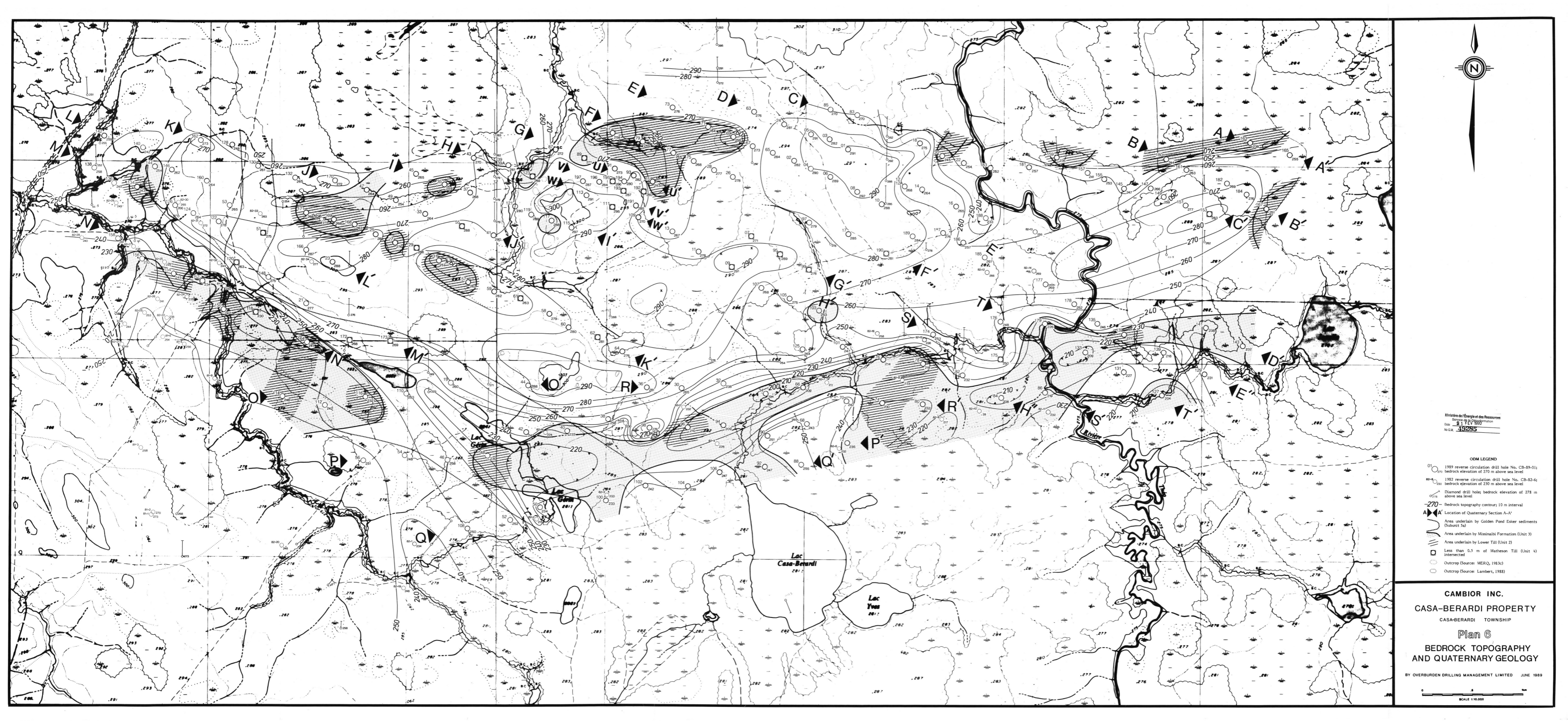
- ODM LEGEND**
- Bedrock Lithology**
- 6 Gabbro
 - 5 Iron formation, chert
 - 4 Clastic sediments
 - 4a - conglomerate
 - 4b - greywacke
 - 4c - quartzite
 - 4d - siltstone
 - 4e - mudstone
 - 3 Intermediate volcanics
 - 2 Mafic volcanics
 - 1 Ultramafic volcanics
- Symbols**
- 1989 reverse circulation drill hole No. CB-89-109; bedrock intersection of unit 2; sum of all Matheson Till concentrate assays over 200 ppm equals 6222 (greater than 2000 ppm cut to 2,000 ppm)
 - Unit contact based on 1989 reverse circulation drill holes and 1981, 1982, 1986, 1987 reverse circulation and diamond drill holes (Landry and Cauthier, 1983)
 - - - Subunit contact
 - Fault
 - Strong EMH conductor
 - Zone of bedrock arsenic greater than 50 ppm
 - Matheson Till arsenic sum contour: contours at 500, 1500 and 2500 ppm
 - No Matheson Till sample
 - Sheared: weak, moderate, or strong
 - Area of moderate to strong shearing
 - Silicified
 - Greater than or equal to 1% pyrite
 - Arsenopyrite
 - Chloritoid
 - Tourmaline
 - Fuchsite
 - Hematite
 - Graphite
- Ministère de l'Énergie et des Ressources
Date: 21 FEB 1990
No. G.M. 49285

CAMBIOR INC.
CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP

Plan 5
BEDROCK AND MATHESON TILL
ARSENIC GEOCHEMISTRY

BY OVERBURDEN DRILLING MANAGEMENT LIMITED, JUNE 1989

SCALE 1:10,000



Ministère de l'Énergie et des Ressources
 Service de l'Information
 Date: 21 Mars 1988
 No. G.M. 49285

- ODM LEGEND**
- 01 1989 reverse circulation drill hole No. CB-89-01; bedrock elevation of 270 m above sea level
 - 82-02 1982 reverse circulation drill hole No. CB-82-6; bedrock elevation of 230 m above sea level
 - 0576 Diamond drill hole; bedrock elevation of 278 m above sea level
 - 270 Bedrock topography contour; 10 m interval
 - A-A' Location of Quaternary Section A-A'
 - Area underlain by Golden Pond Esker sediments (Subunit 5a)
 - Area underlain by Missinabi Formation (Unit 3)
 - Area underlain by Lower Till (Unit 2)
 - Less than 0.5 m of Matheson Till (Unit 4) intersected
 - Outcrop (Source: MERQ, 1983c)
 - Outcrop (Source: Lambert, 1988)

CAMBIOR INC.
CASA-BERARDI PROPERTY
 CASA-BERARDI TOWNSHIP
Plan 6
BEDROCK TOPOGRAPHY
AND QUATERNARY GEOLOGY

BY OVERBURDEN DRILLING MANAGEMENT LIMITED JUNE 1989

