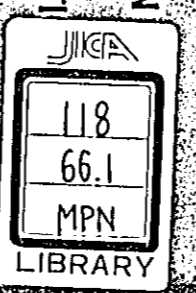


REPUBLIC OF THE PHILIPPINES  
REPORT ON GEOLOGICAL SURVEY  
OF NORTHWESTERN LUZON

PHASE III  
NOVEMBER 1981

METAL MINING AGENCY OF JAPAN  
JAPAN INTERNATIONAL COOPERATION



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1046629[0]

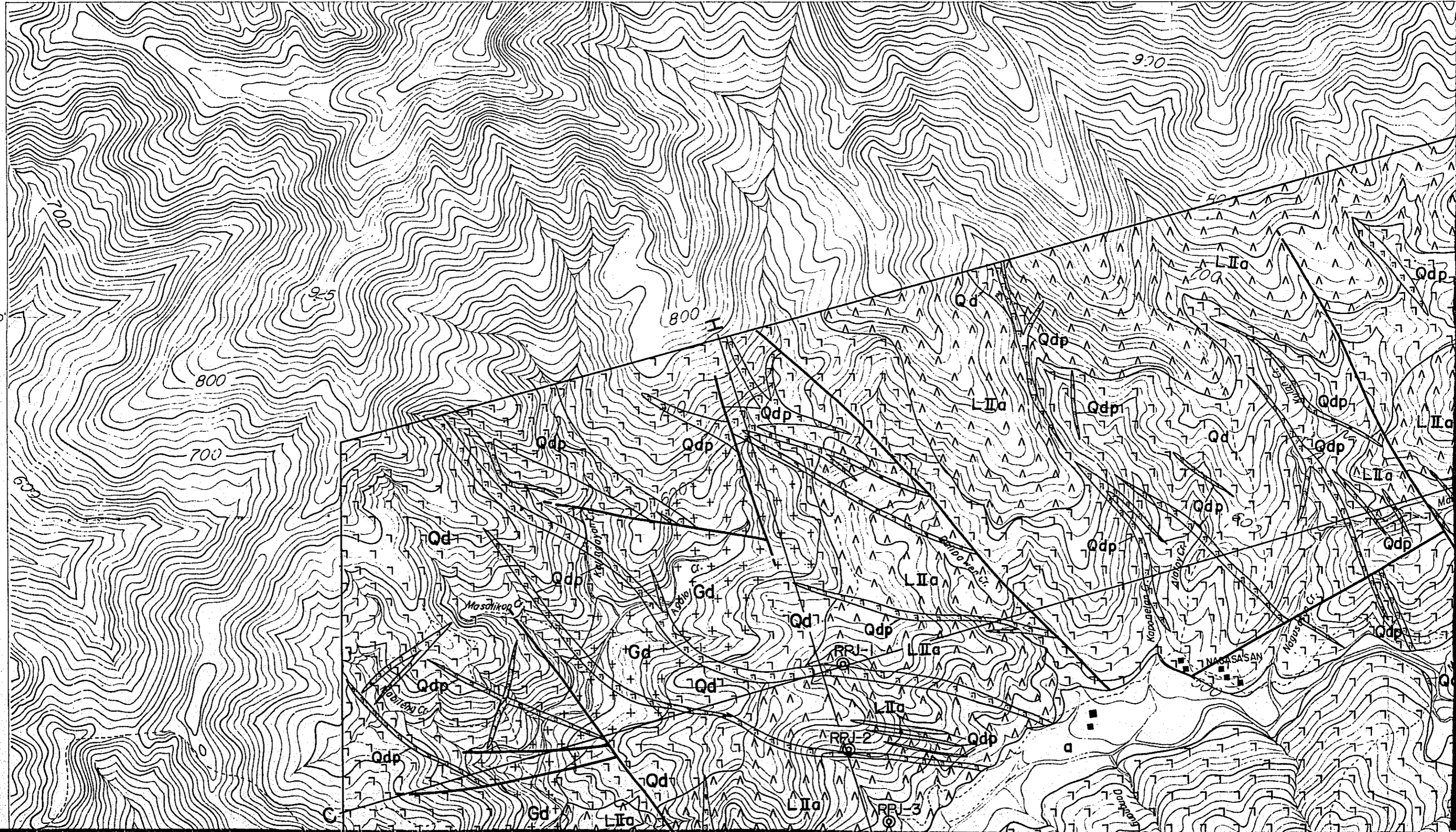
国際協力事業団		118
受入 月日	'87. 4. 20	66.1
登録 No.	08456	MPN

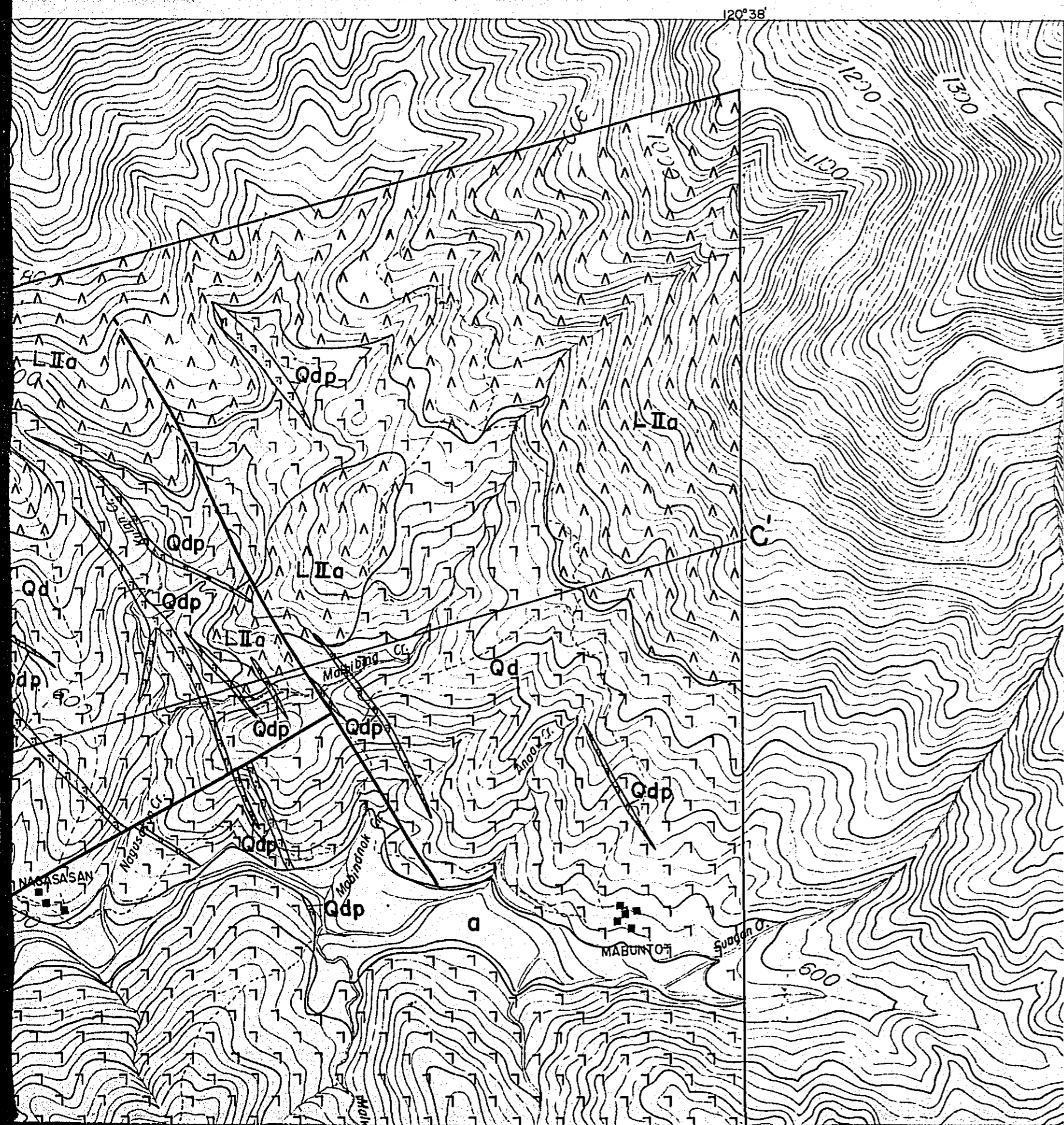


120°40'

120°39'

17°30'



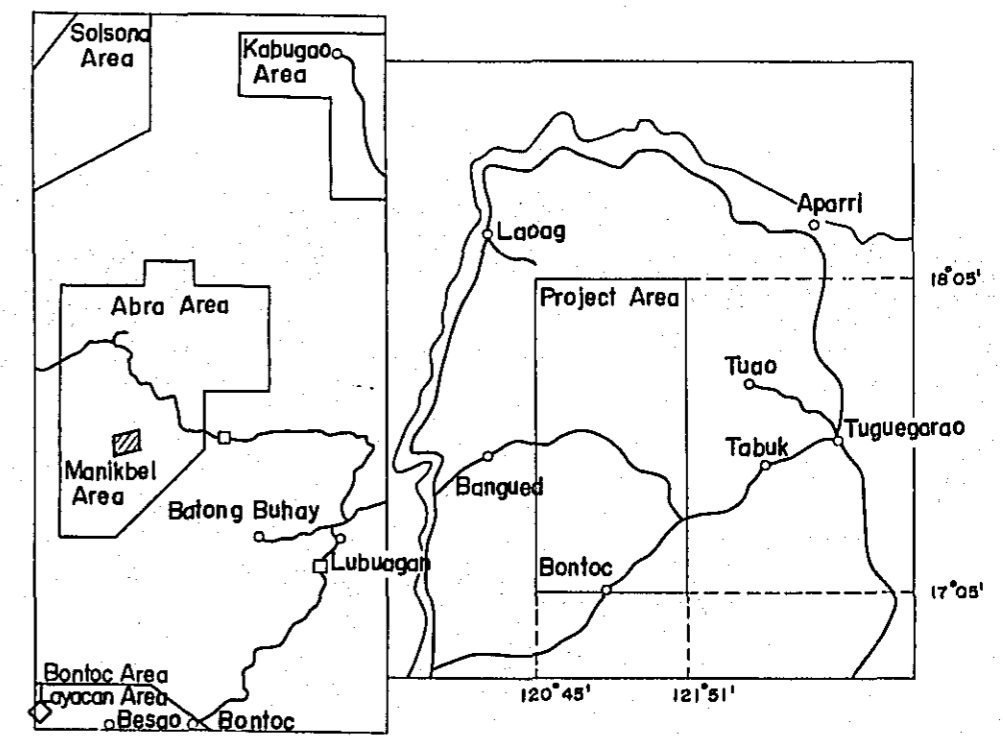


PL. I-1-1  
**GEOLOGICAL SURVEY**  
**OF**  
**NORTHWESTERN LUZON**  
**PHILIPPINES**  
 (PHASE III)

国際協力事業団  
 08456  
 図書資料室蔵書

**Geological Map of**  
**Manikbel Area**

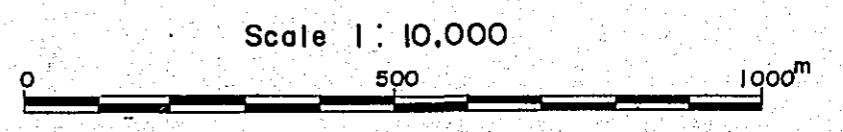
LOCATION INDEX



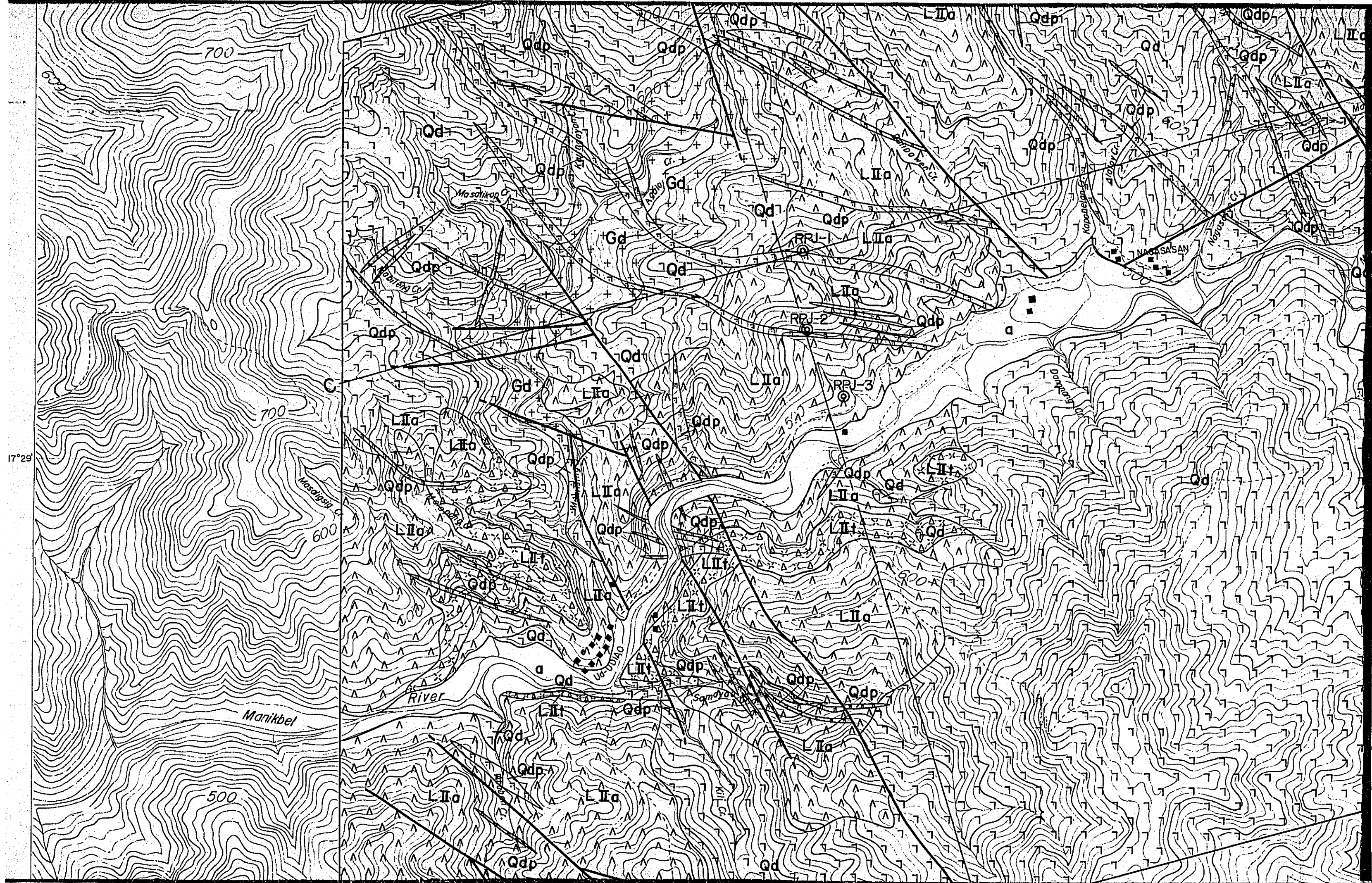
METAL MINING AGENCY OF JAPAN  
 JAPAN INTERNATIONAL COOPERATION AGENCY

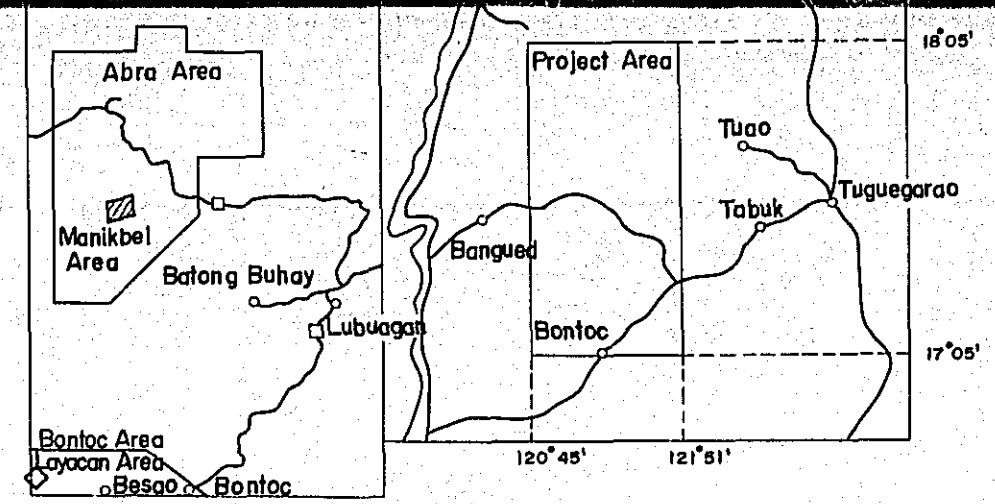
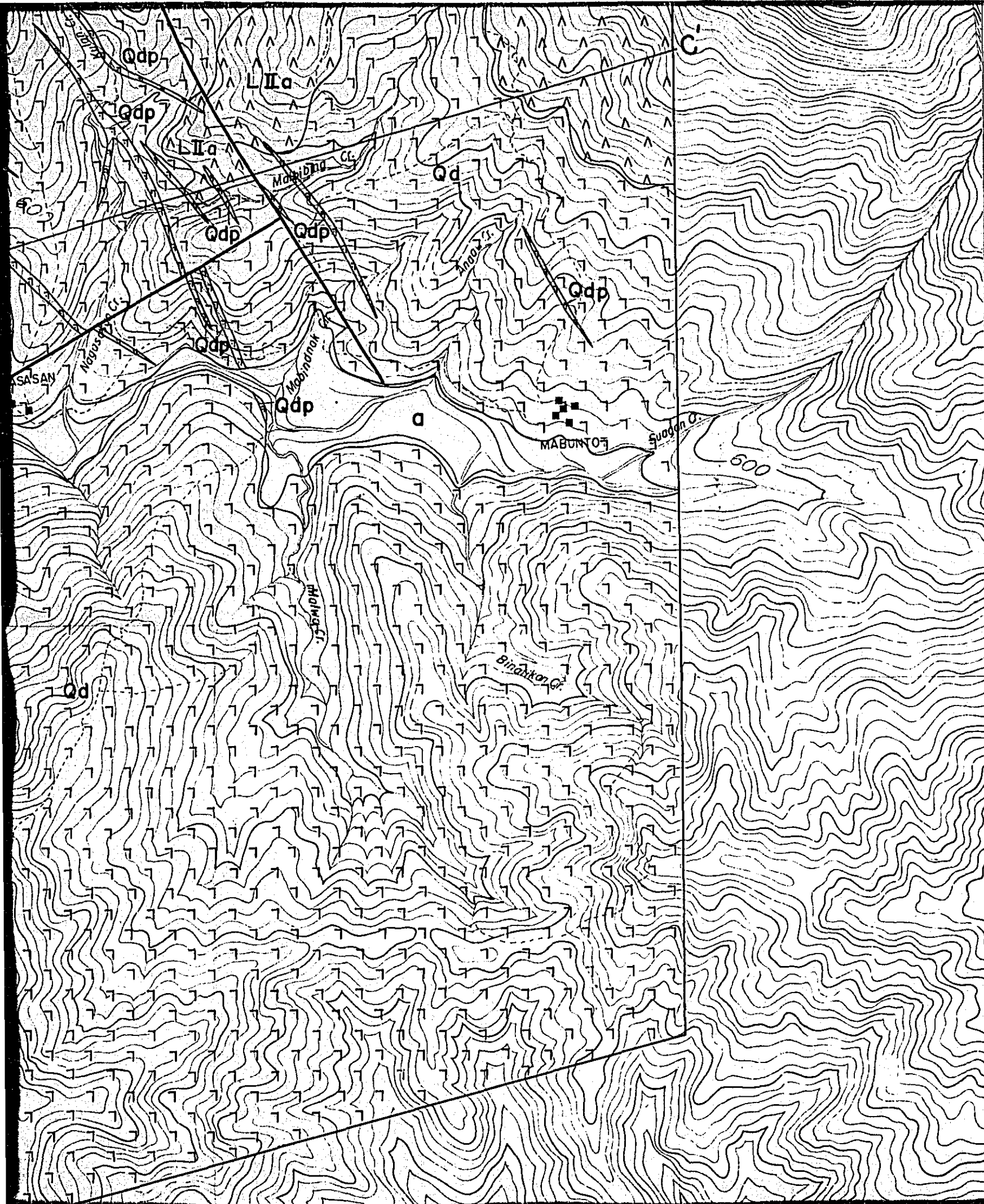
September 1981

Prepared by Bishimetal Exploration Co., Ltd





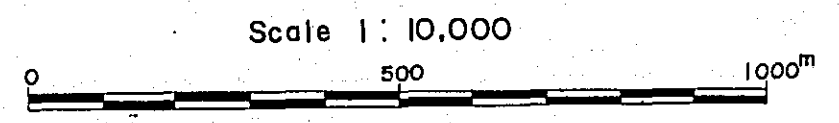




METAL MINING AGENCY OF JAPAN  
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September 1981

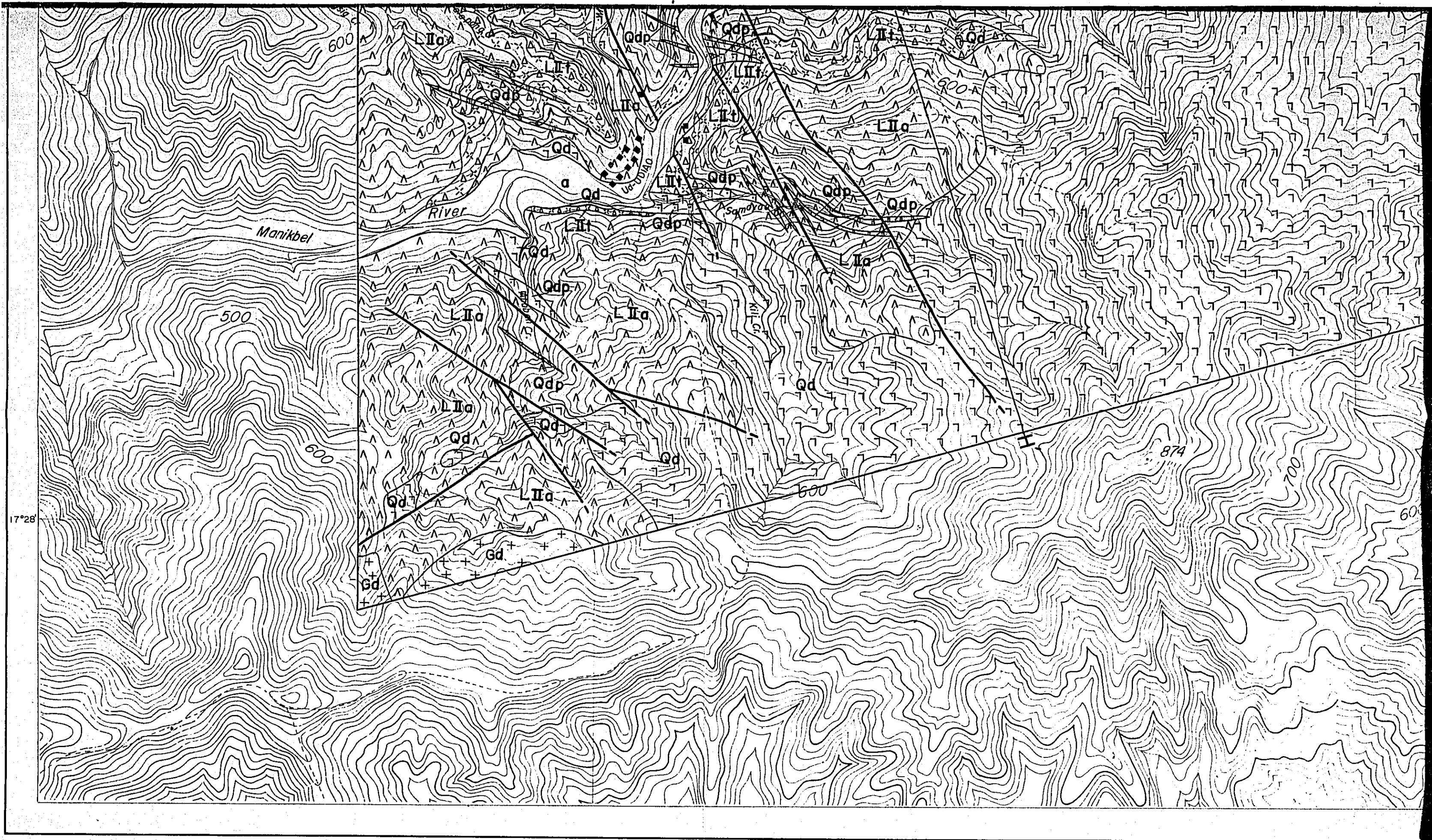
Prepared by Bishimetal Exploration Co., Ltd

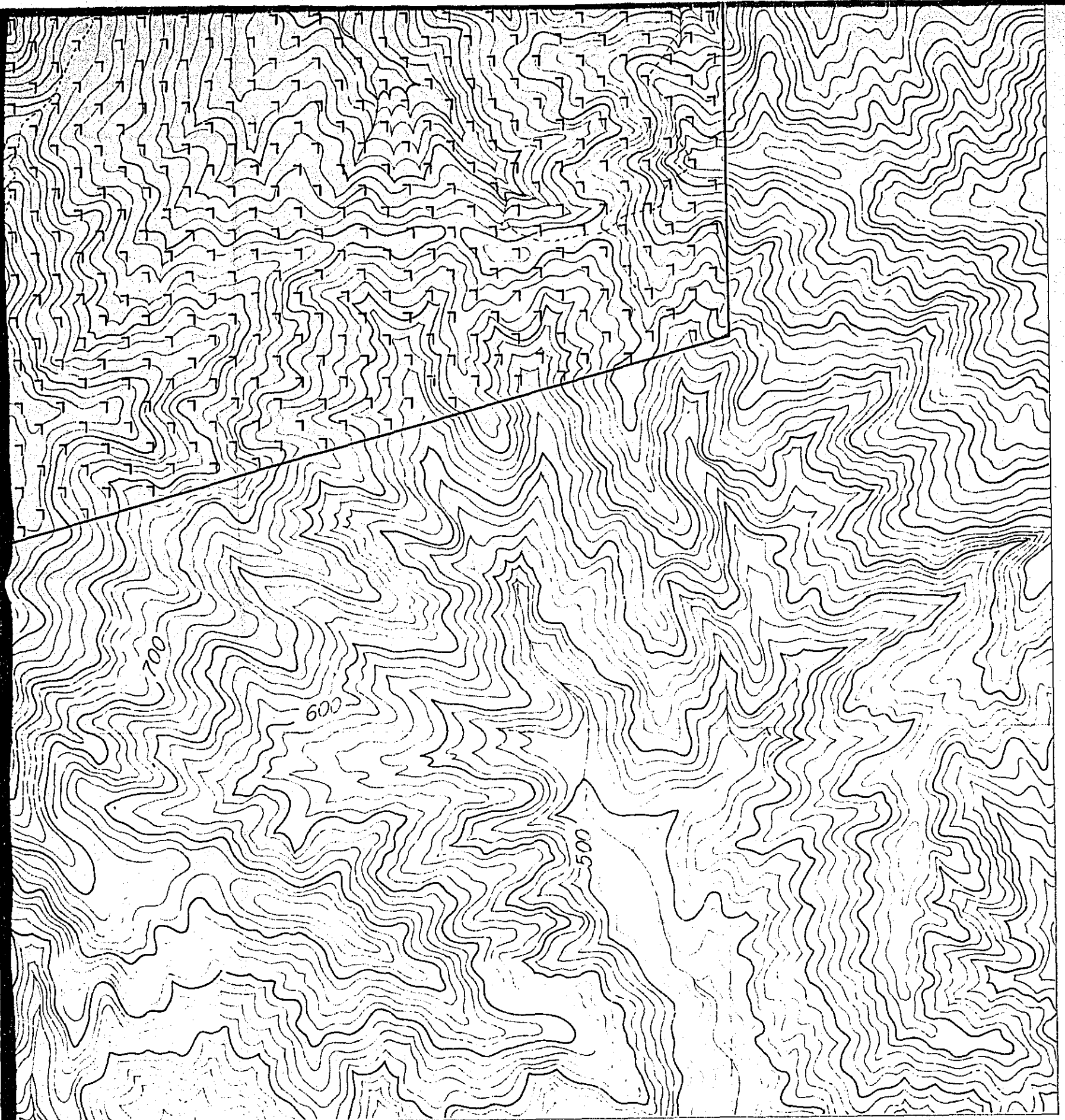


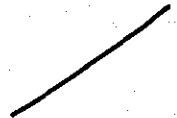
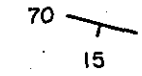

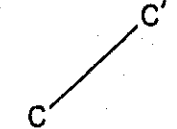
LEGEND

- Alluvium - a Gravel & sand
- Licuan Group Formation II
  - LIa Predominant andesite lava
  - LIi Predominant andesitic pyroclastics
- Intrusives
  - Qdp Quartz diorite porphyry ~ dacite dyke
  - Gd Granodiorite



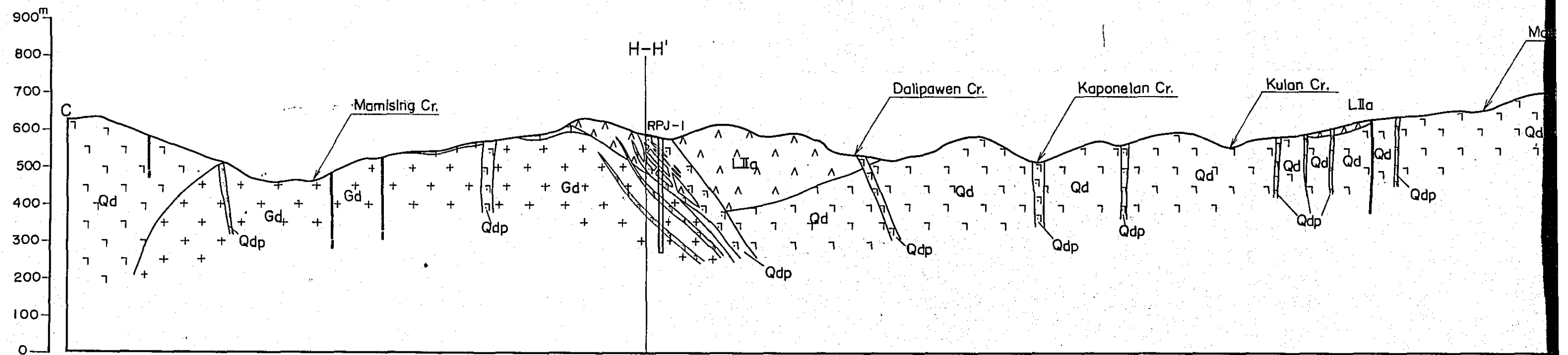


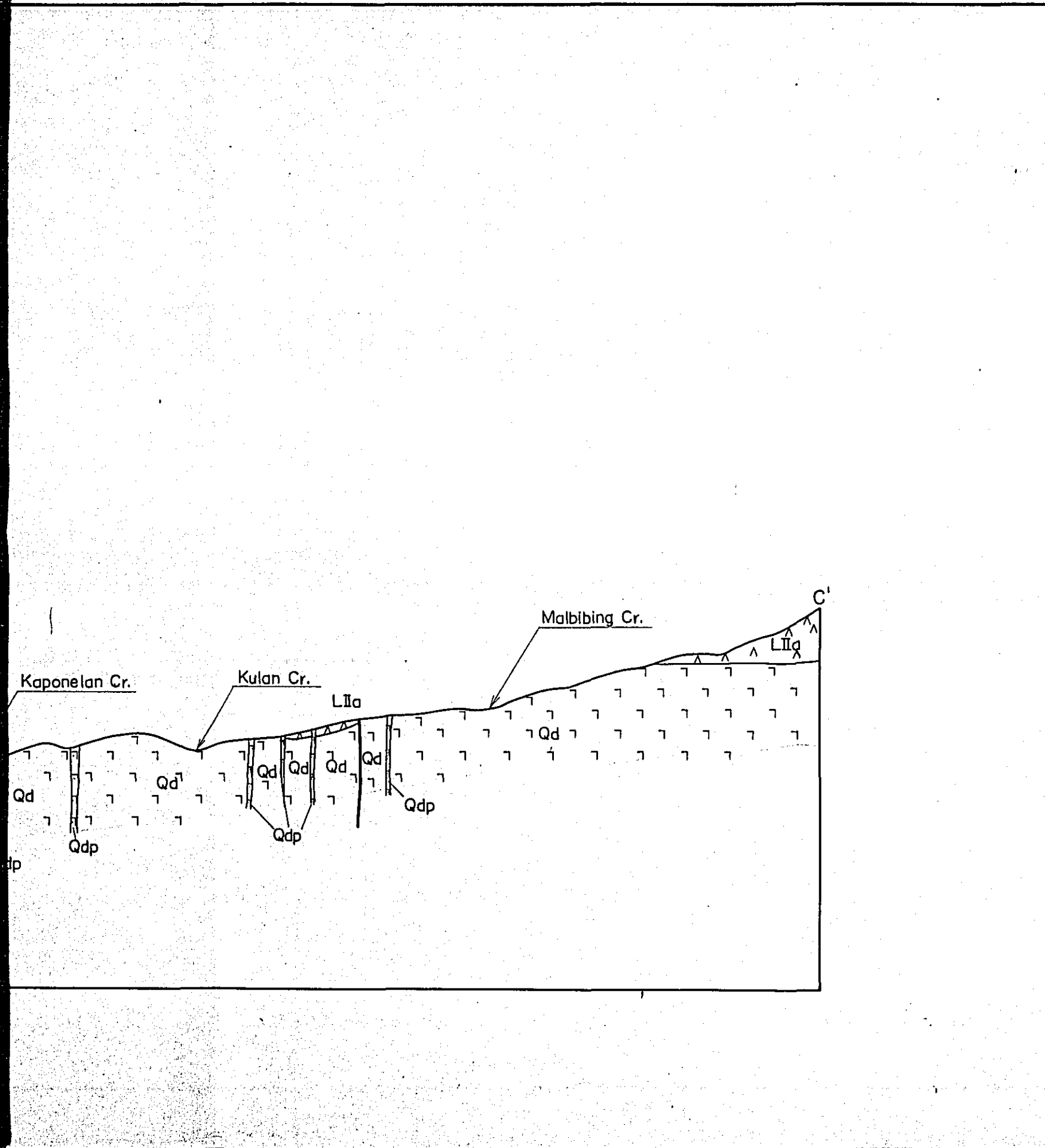


- Alluvium a Gravel & sand
  
- Licuan Group  
Formation II LIIa ^ ^  
^ ^ ^ Predominant andesite lava
- LII† Δ × Δ ×  
× Δ × Δ Predominant andesitic pyroclastics
  
- Intrusives
- Qdp ∩ ∩  
∩ ∩ ∩ Quartz diorite porphyry ~  
dacite dyke
- Gd + + +  
+ + Granodiorite
- Qd ∩ ∩ ∩  
∩ ∩ Quartz diorite
  
- Others
-  Fault
-  70  
15 Bedding plane (strike & dip)
-  RPJ-1~3 Drilling site
-  Profile line



# C - C' Profile

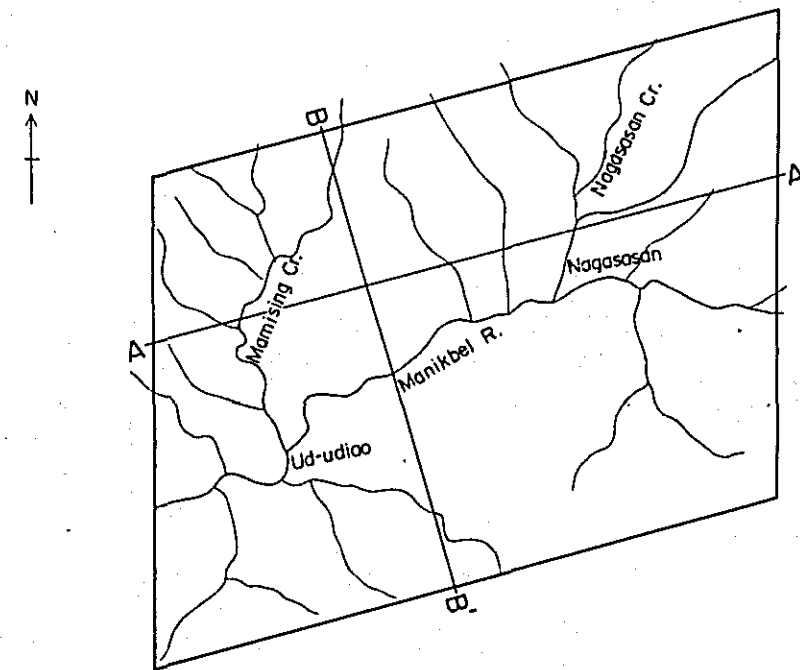




GEOLOGICAL SURVEY  
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Geological Profiles of  
Manikbel Area

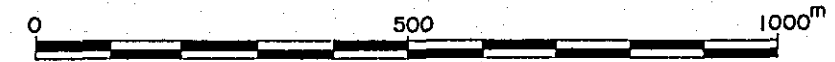


METAL MINING AGENCY OF JAPAN  
JAPAN INTERNATIONAL COOPERATION AGENCY

September 1981

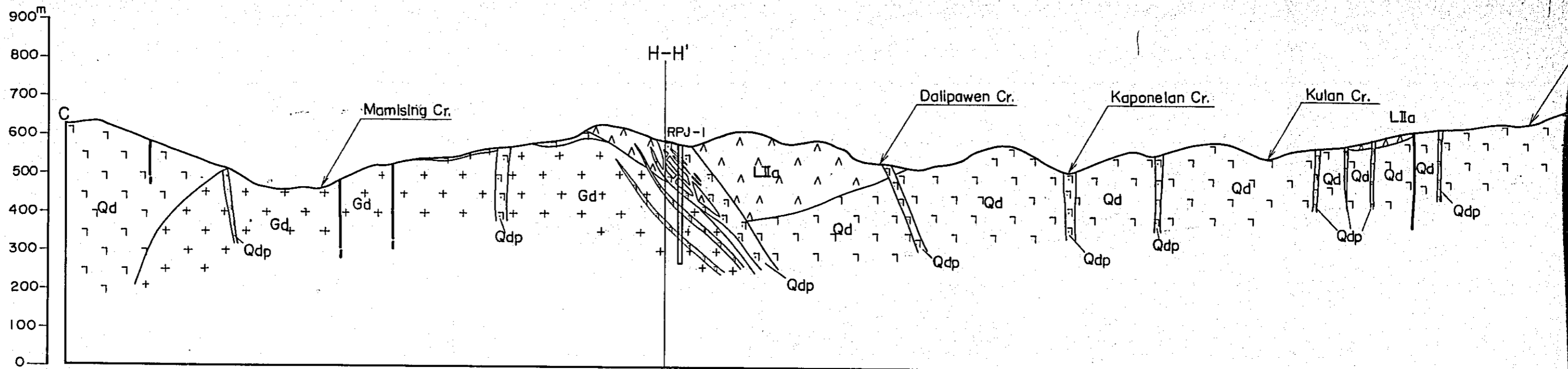
Prepared by Bishimetal Exploration Co., Ltd

Scale 1:10,000

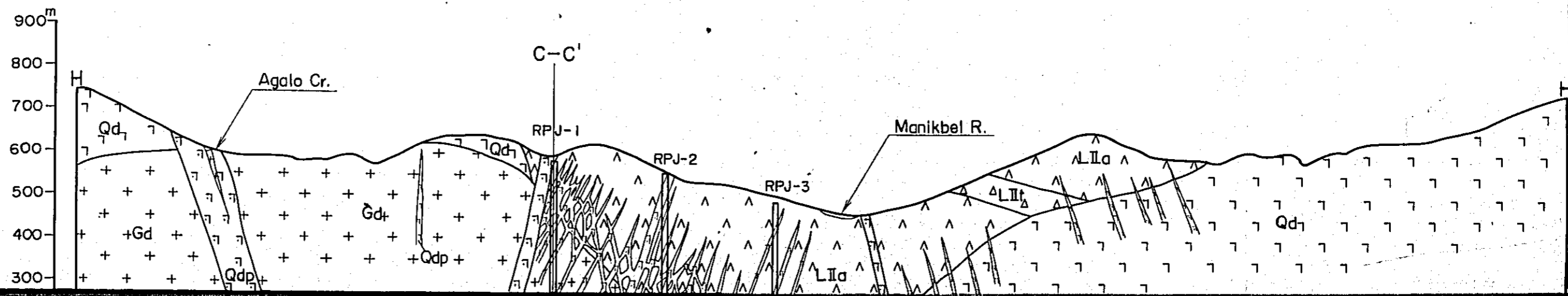


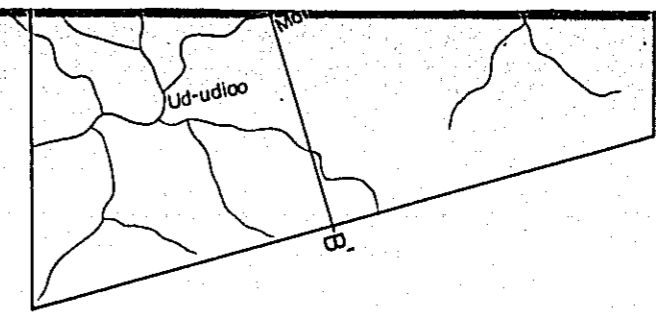
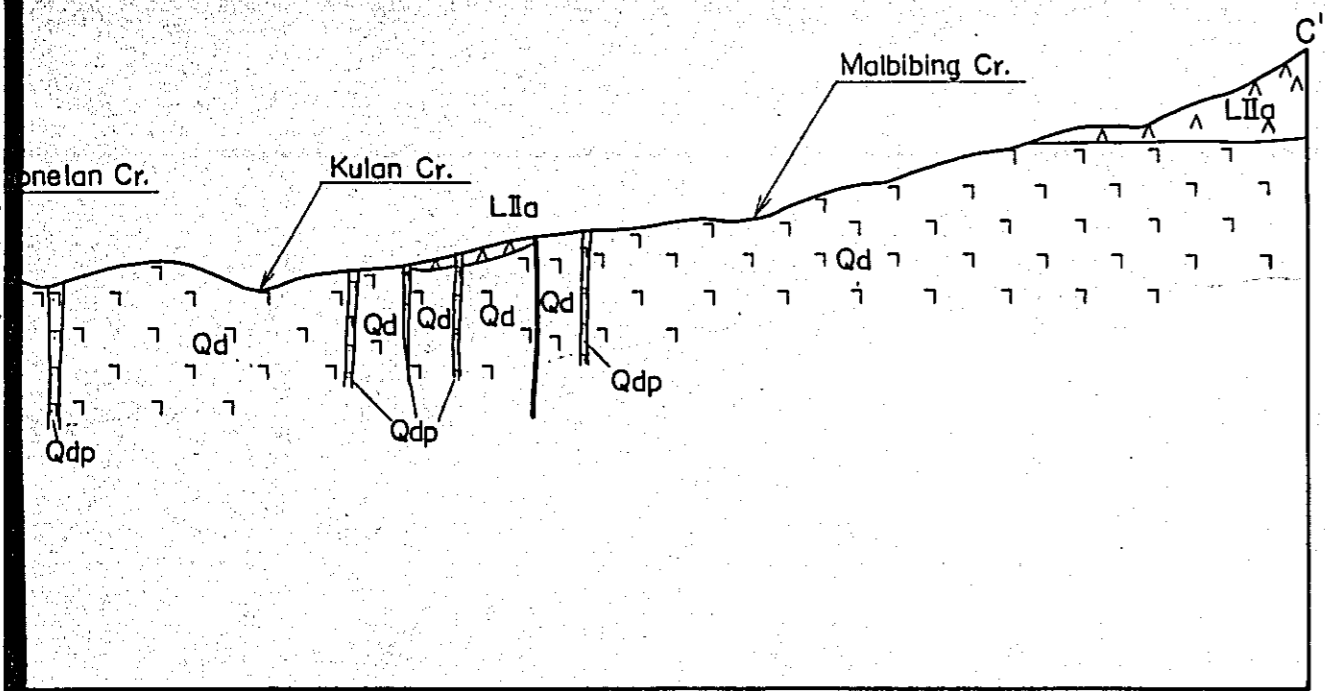


# C - C' Profile

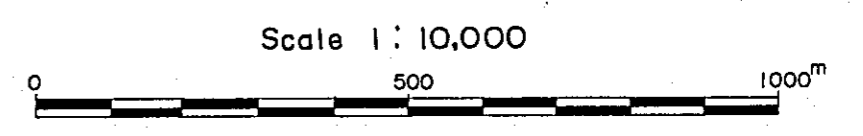


# H - H' Profile



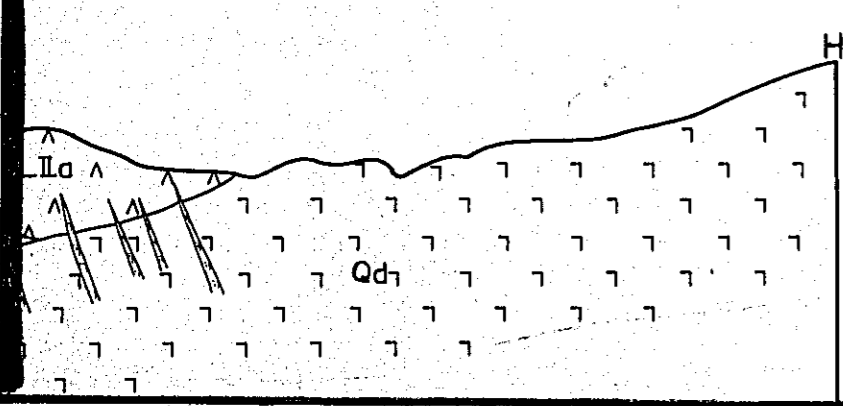


METAL MINING AGENCY OF JAPAN  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
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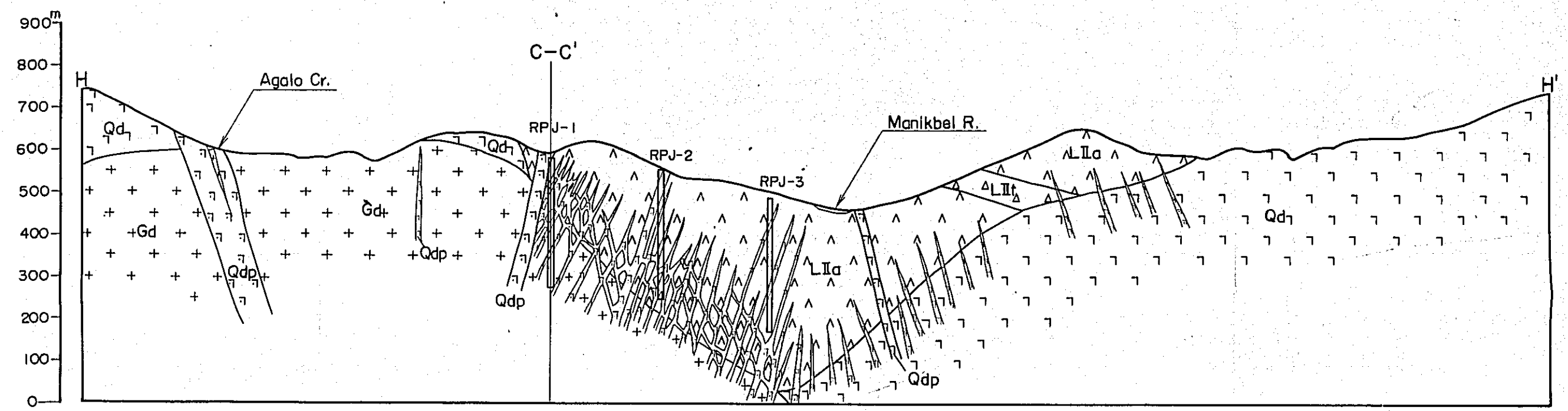


LEGEND

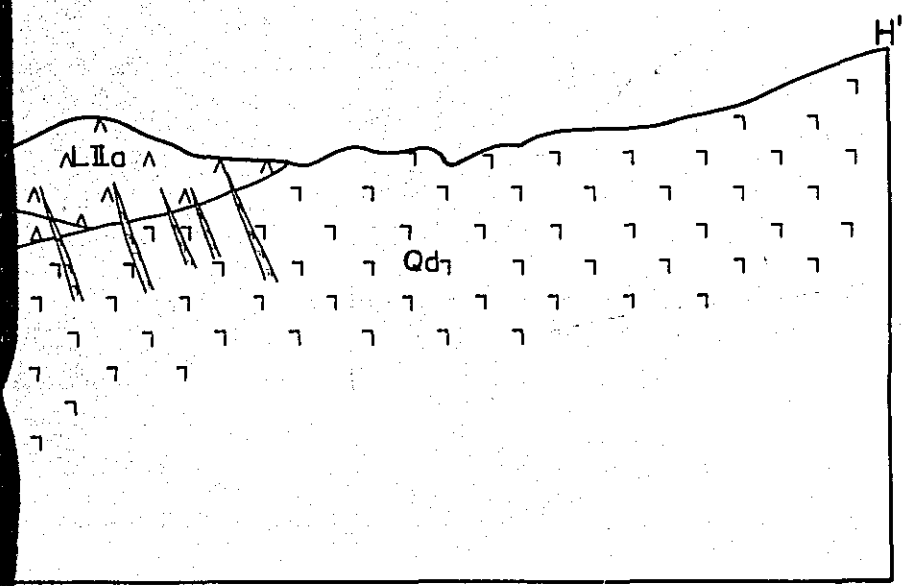
Alluvium	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">a</td><td style="width: 20px;"></td></tr></table>	a		Gravel & sand
a				
Licuan Group Formation II	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">LIIa</td><td style="text-align: center;">^ ^ ^ ^</td></tr></table>	LIIa	^ ^ ^ ^	Predominant andesite lava
	LIIa	^ ^ ^ ^		
<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">LII†</td><td style="text-align: center;">Δ Δ Δ Δ</td></tr></table>	LII†	Δ Δ Δ Δ	Predominant andesitic pyroclastics	
LII†	Δ Δ Δ Δ			
Intrusives	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">Qdp</td><td style="text-align: center;">∩ ∩ ∩ ∩</td></tr></table>	Qdp	∩ ∩ ∩ ∩	Quartz diorite porphyry - dacite dyke
	Qdp	∩ ∩ ∩ ∩		
	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">Gd</td><td style="text-align: center;">+ + + +</td></tr></table>	Gd	+ + + +	Granodiorite
Gd	+ + + +			
<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="text-align: center;">Qd</td><td style="text-align: center;">∩ ∩ ∩ ∩</td></tr></table>	Qd	∩ ∩ ∩ ∩	Quartz diorite	
Qd	∩ ∩ ∩ ∩			



# H-H' Profile







## LEGEND

- Alluvium 

a	
---	--

 Gravel & sand
- Licuan Group Formation II { 

LIIa	^ ^ ^ ^ ^ ^
------	----------------

 Predominant andesite lava
- { 

LIIb	Δ Δ Δ Δ Δ Δ
------	----------------

 Predominant andesitic pyroclastics
- Intrusives
- { 

Qdp	γ γ γ γ γ
-----	--------------

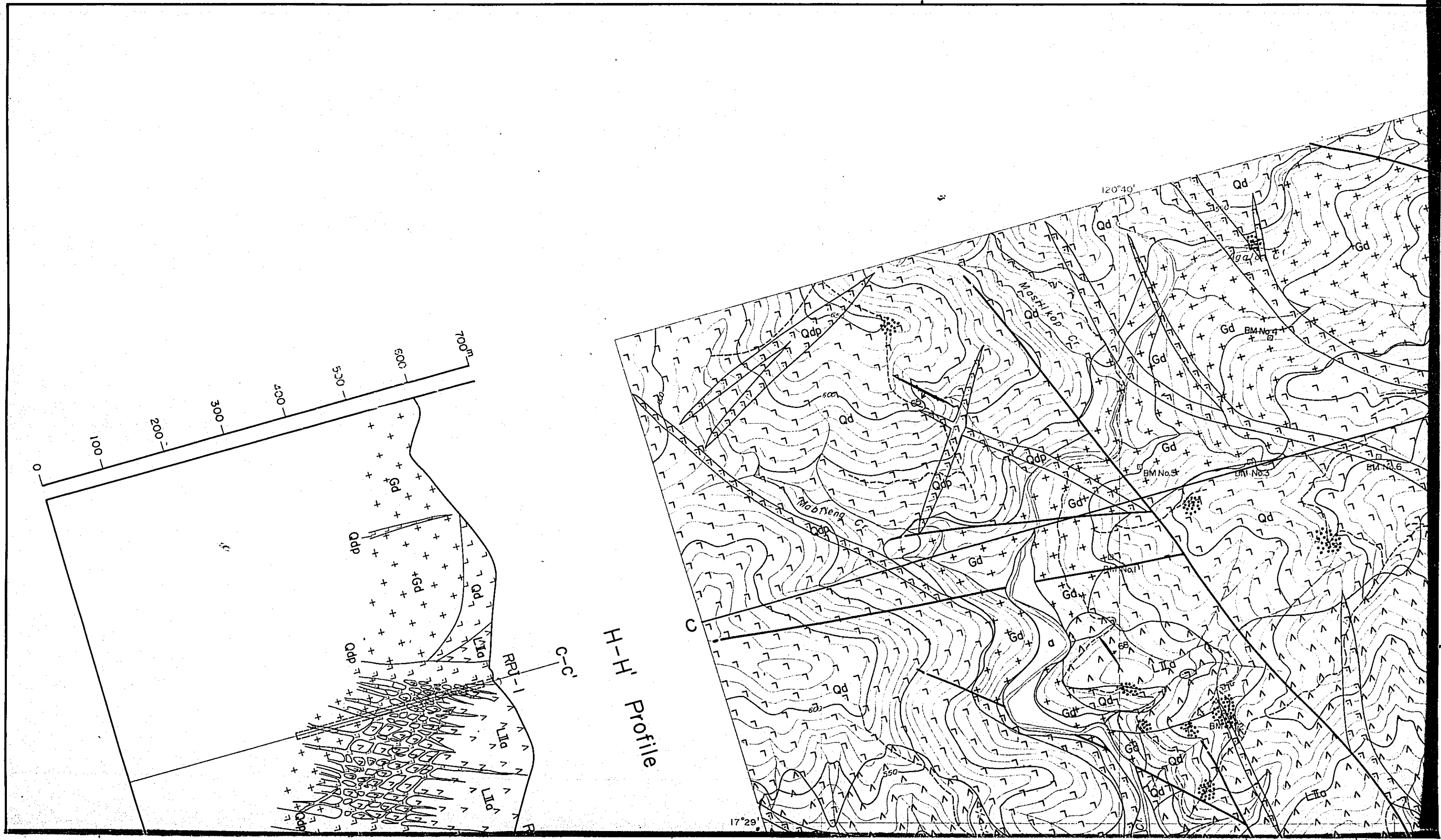
 Quartz diorite porphyry - dacite dyke
- { 

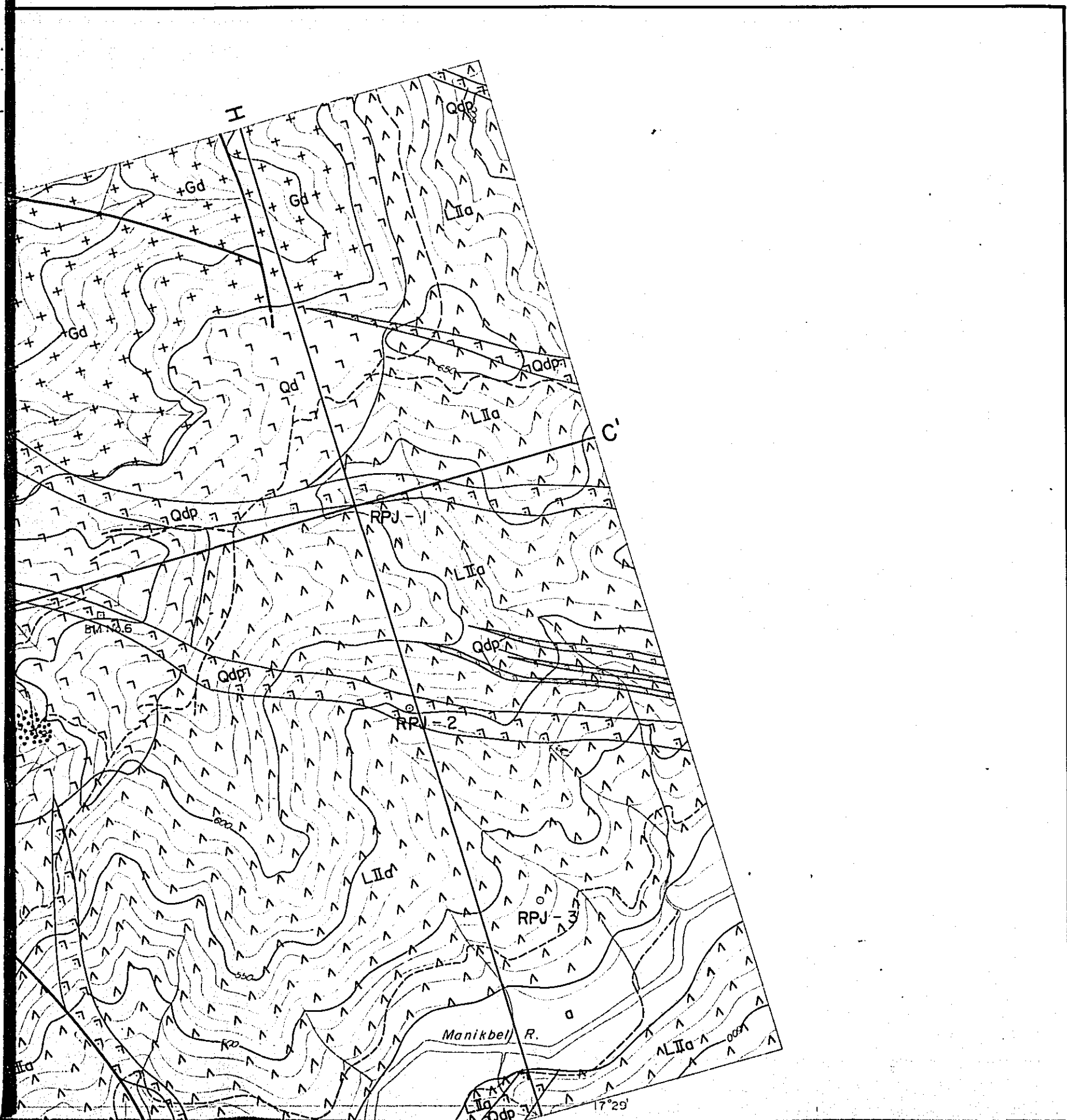
Gd	+ + + + +
----	--------------

 Granodiorite
- { 

Qd	γ γ γ γ γ γ
----	----------------

 Quartz diorite
- Others
- / Fault
- | RPJ-1~3 Drilling hole





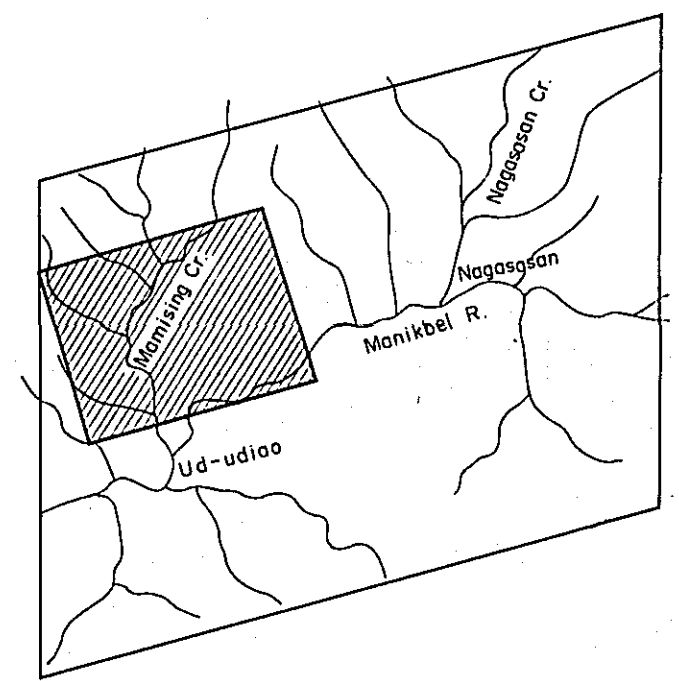
PL I-1-3

GEOLOGICAL SURVEY  
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Geological Map & Profiles of  
Manikbel Mineralized Area

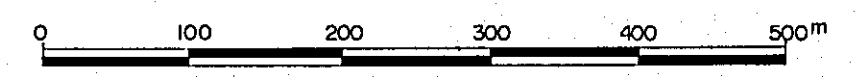


METAL MINING AGENCY OF JAPAN  
JAPAN INTERNATIONAL COOPERATION AGENCY

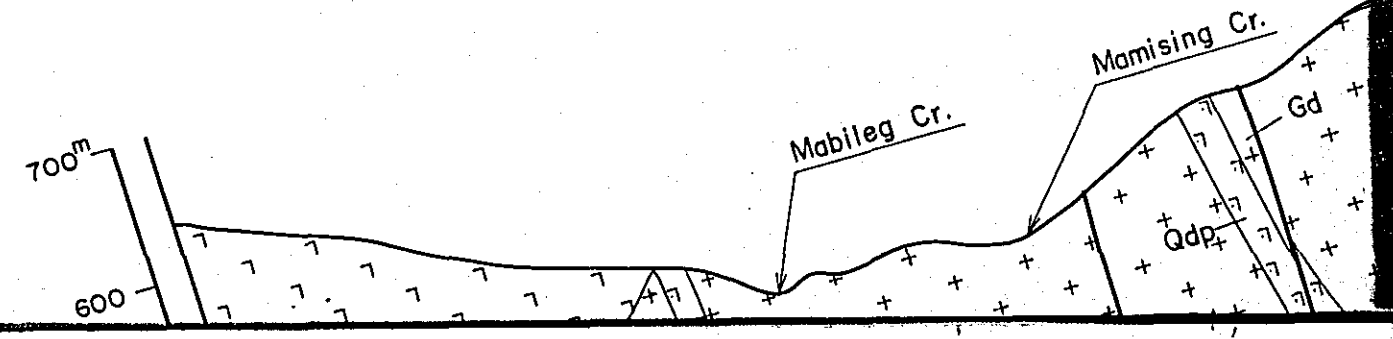
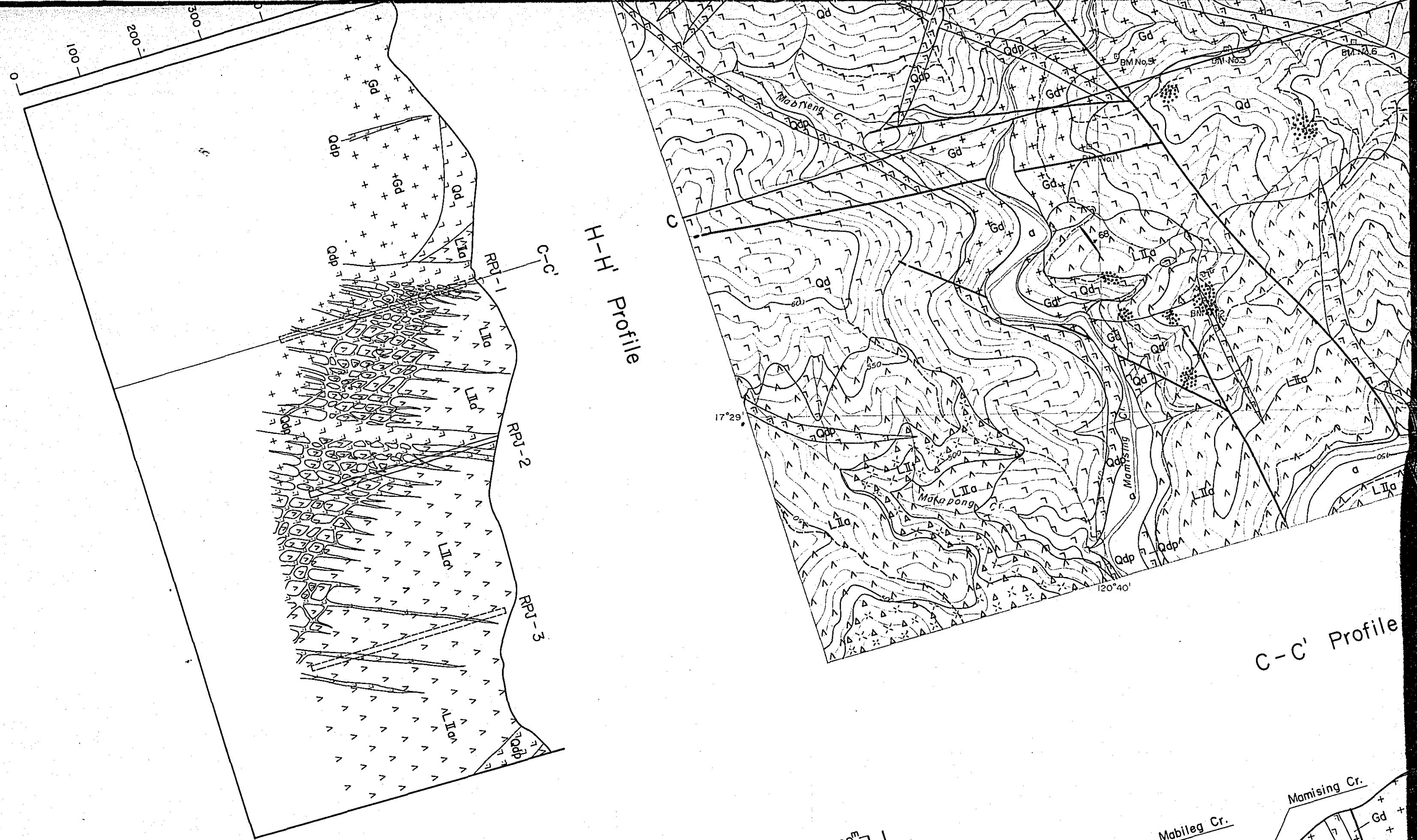
September 1981

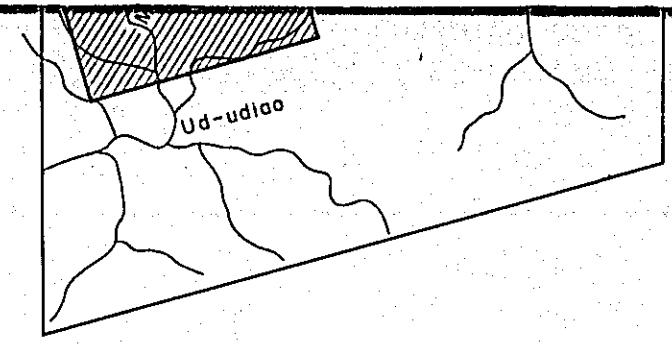
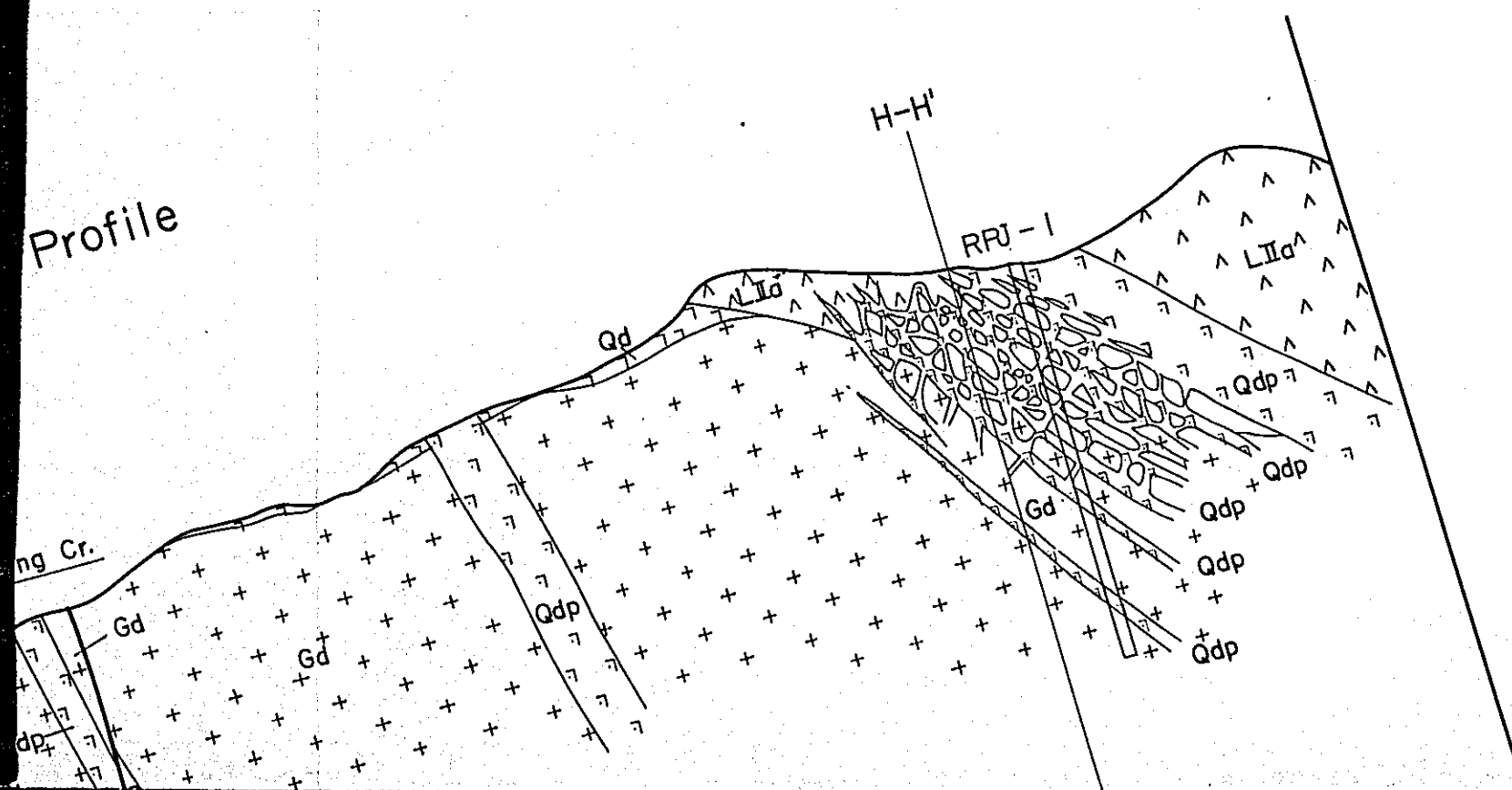
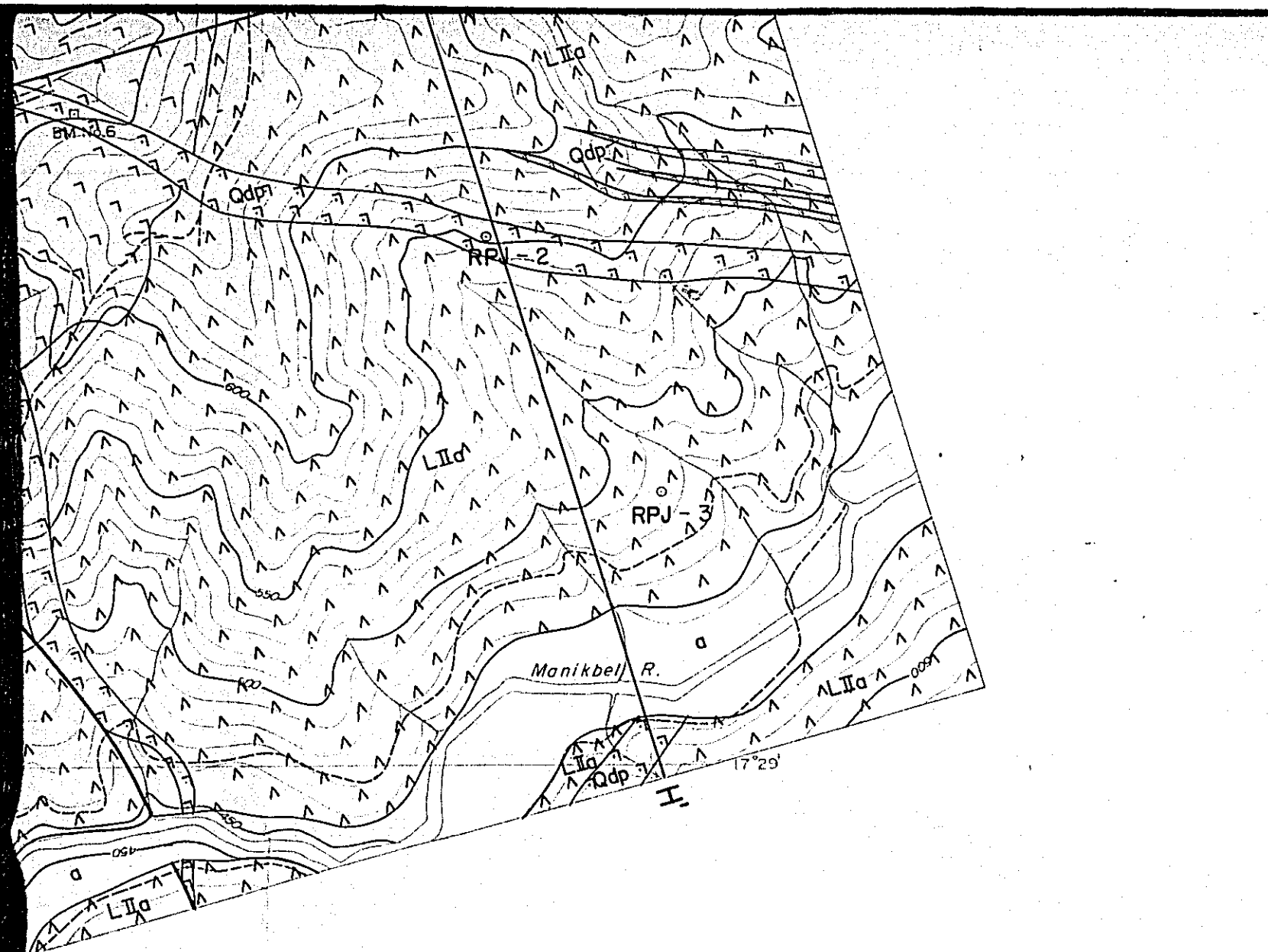
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1:5,000









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 JAPAN INTERNATIONAL COOPERATION AGENCY

September 1981

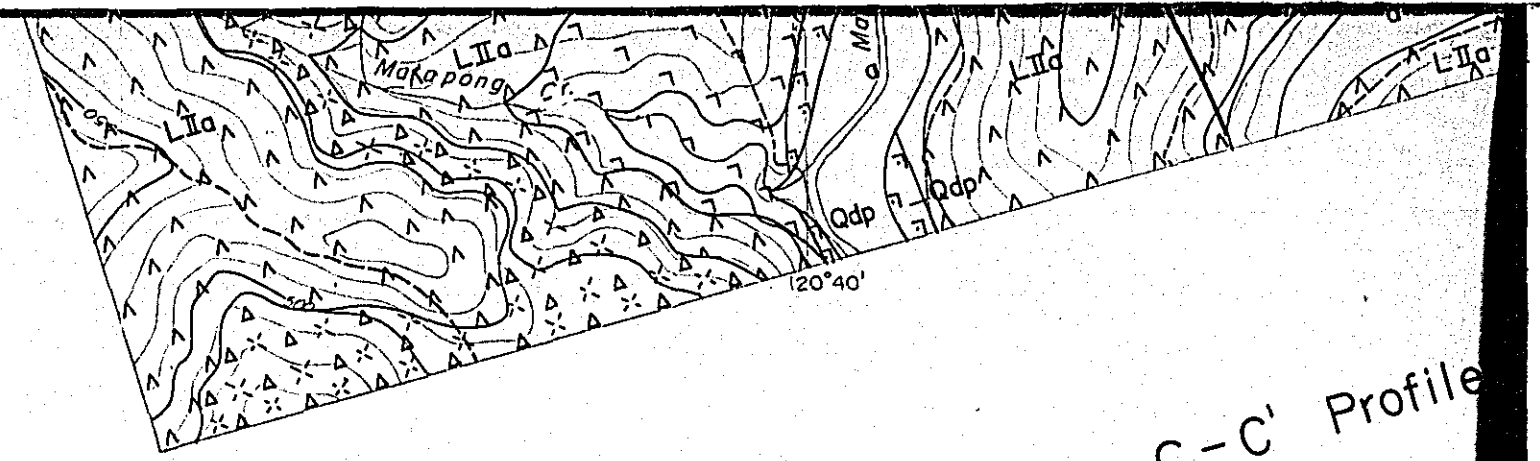
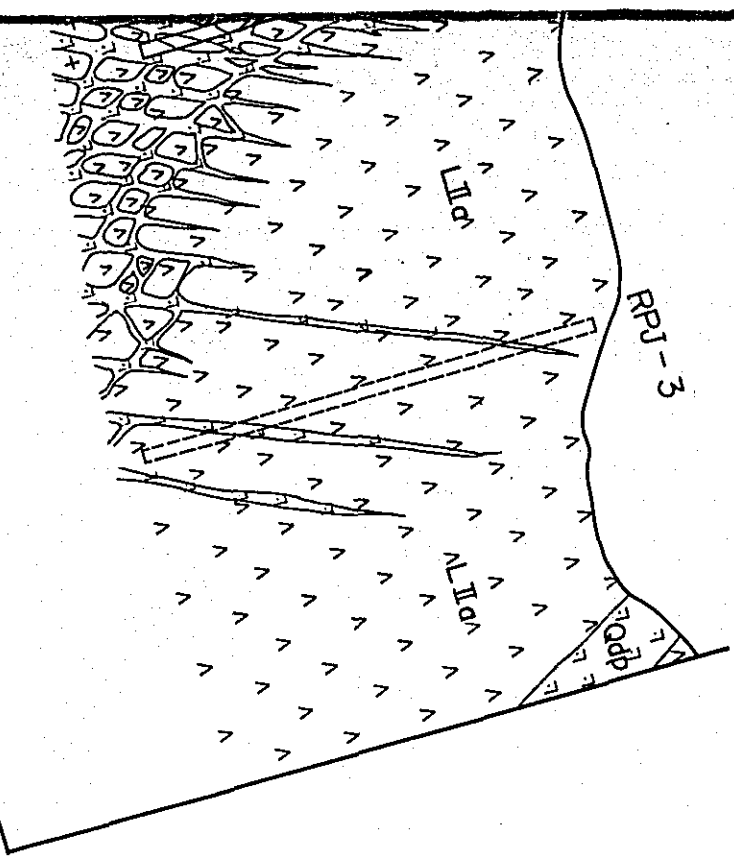
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1:5,000

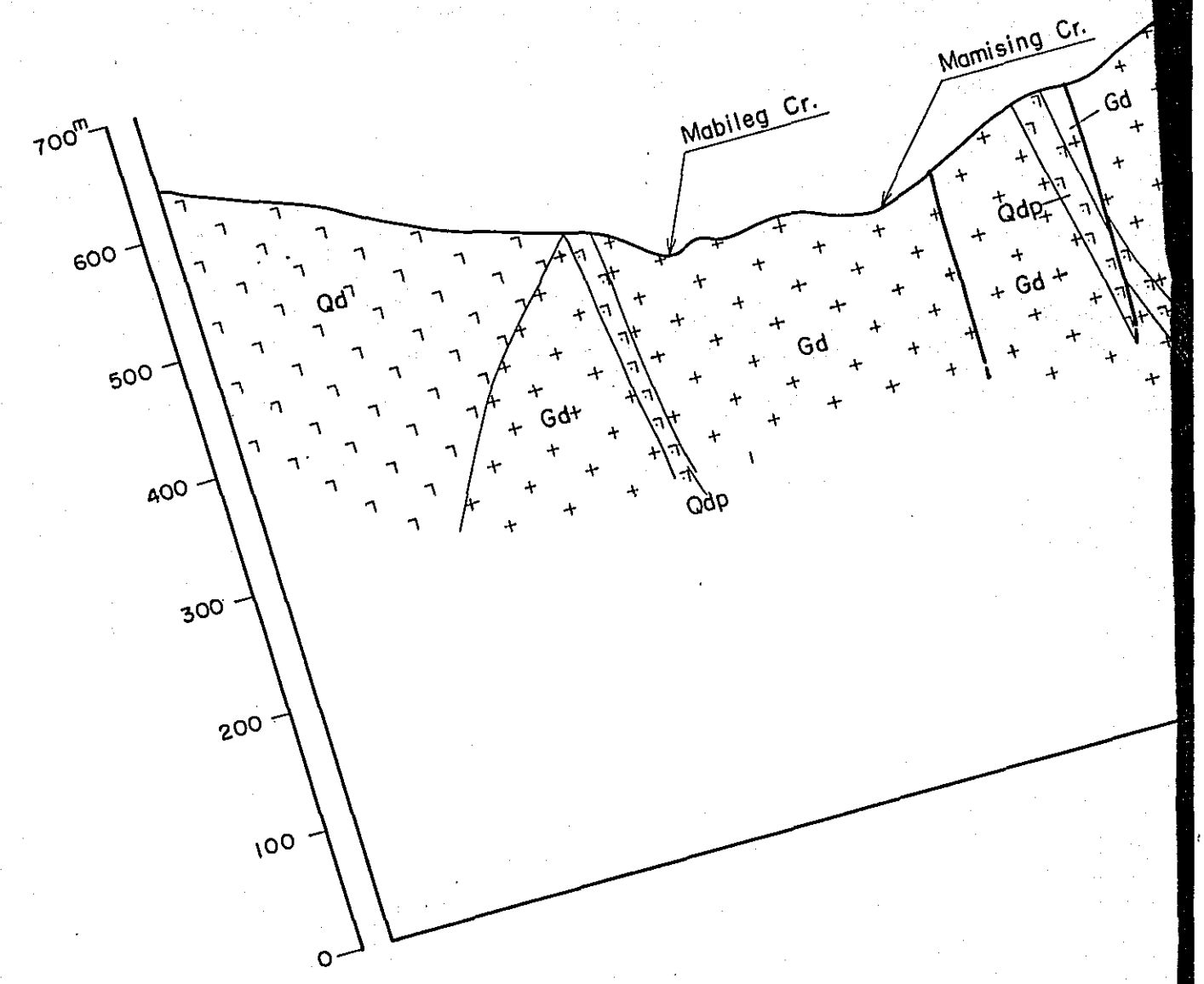


LEGEND

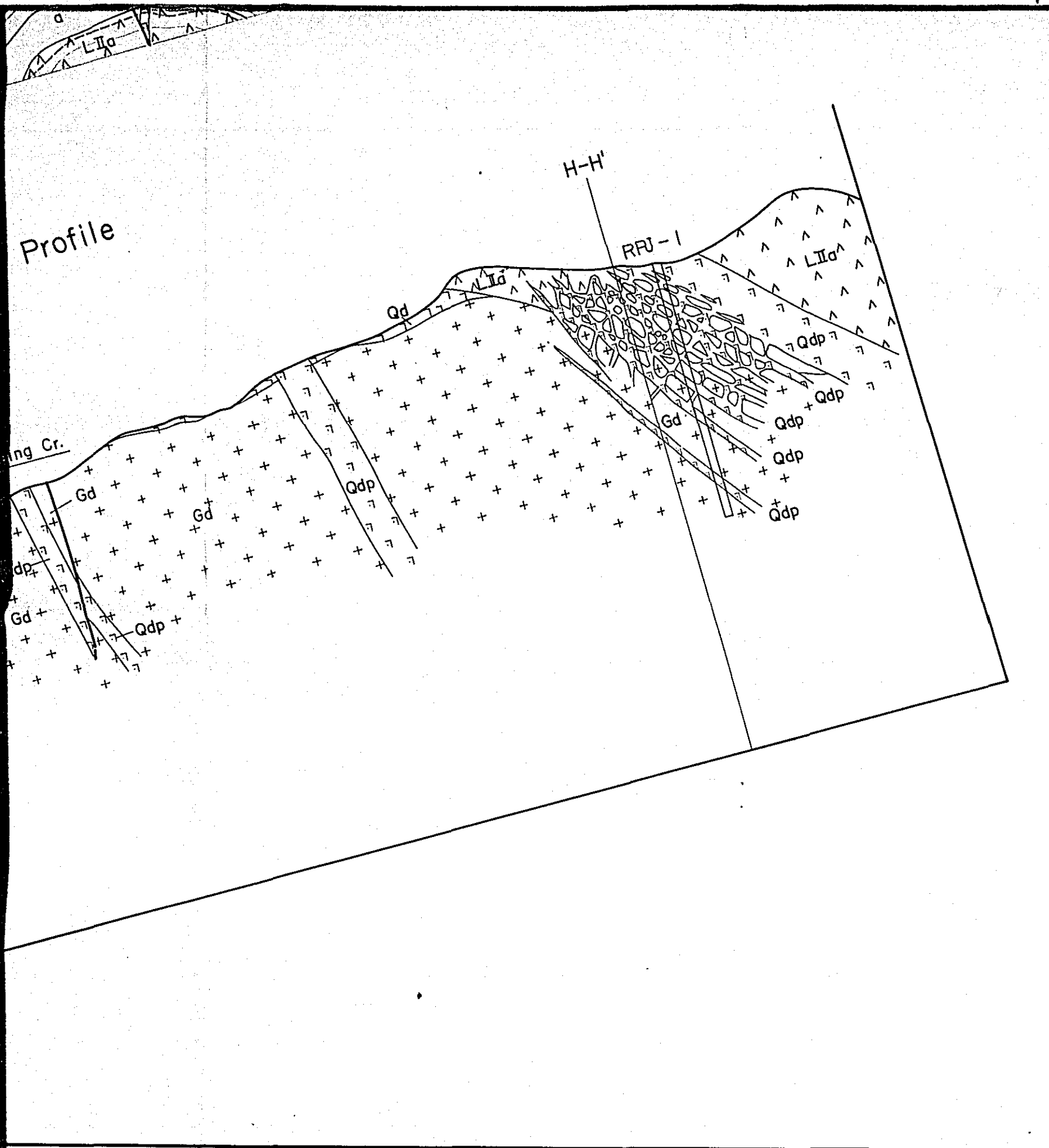
Alluvium	a	Gravel & sand
Licuan Group Formation II	LIIa	Predominant andesite lava
	LIIb	Predominant andesitic pyroclastics
Intrusives	Qdp	Quartz diorite porphyry ~ dacite dyke
	Gd	Granodiorite
	Qd	Quartz diorite



C-C' Profile







### LEGEND

- Alluvium 

a
---

 Gravel & sand
  
- Licuan Group Formation II
  - |      |              |
|------|--------------|
| LIIa | ^ ^<br>^ ^ ^ |
|------|--------------|

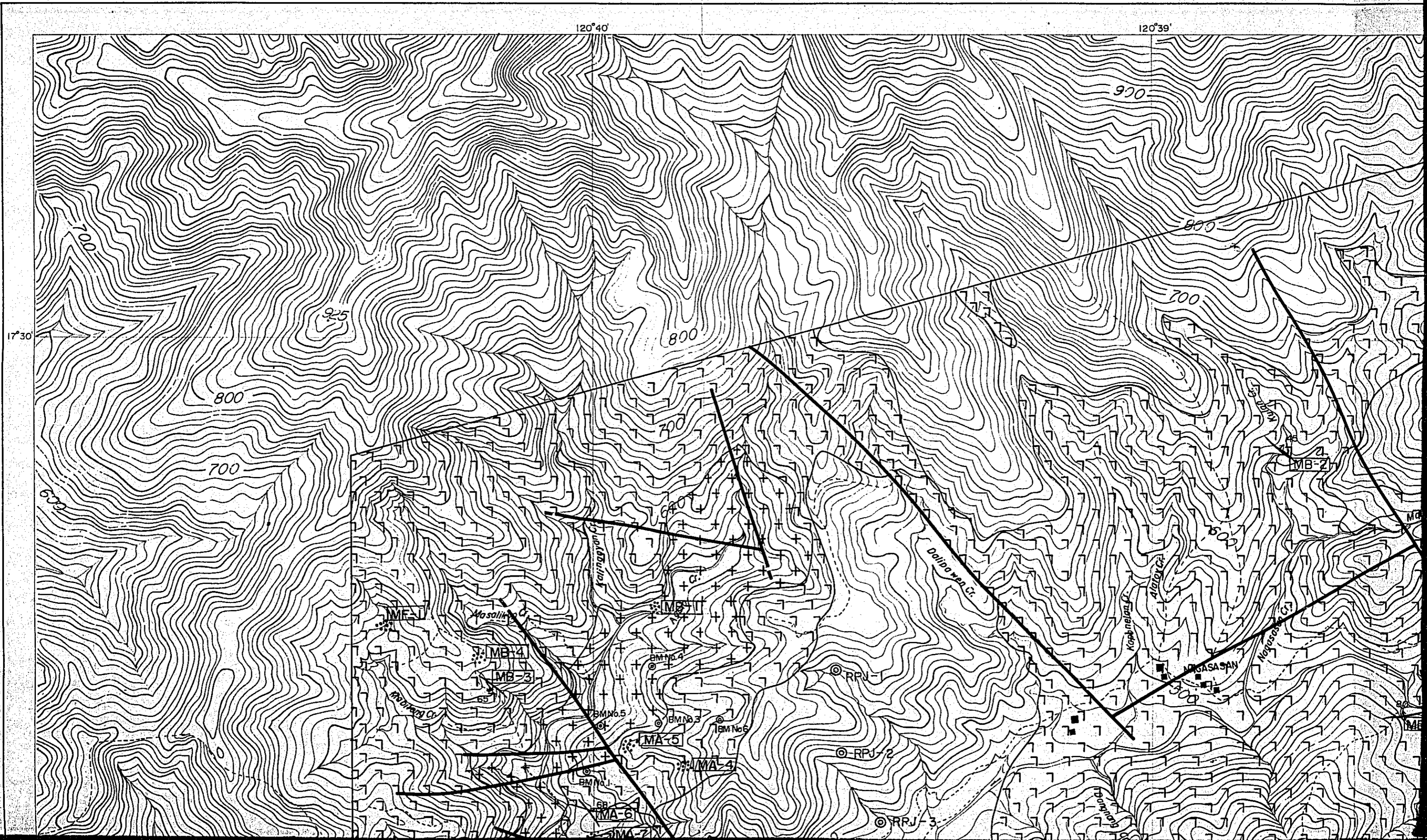
 Predominant andesite lava
  - |      |                |
|------|----------------|
| LIIb | xΔxΔx<br>ΔxΔxΔ |
|------|----------------|

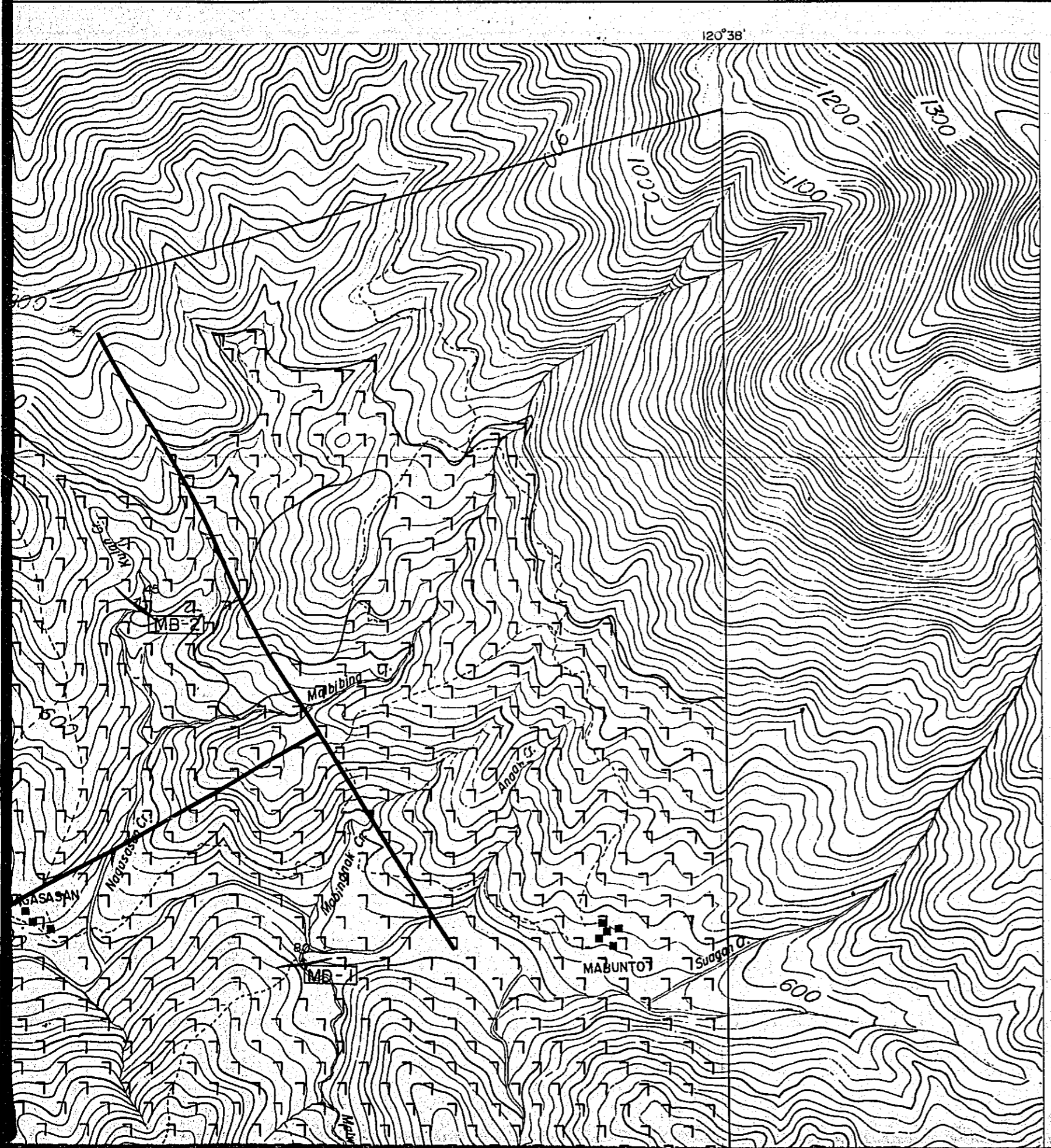
 Predominant andesitic pyroclastics
  
- Intrusives
  - |     |              |
|-----|--------------|
| Qdp | □ □<br>□ □ □ |
|-----|--------------|

 Quartz diorite porphyry ~ dacite dyke
  - |    |              |
|----|--------------|
| Gd | + +<br>+ + + |
|----|--------------|

 Granodiorite
  - |    |              |
|----|--------------|
| Qd | □ □<br>□ □ □ |
|----|--------------|

 Quartz diorite
  
- Others
  - Fault
  - Cu-dissemination
  - Cupreiferous vein
  - Profile line
  - RPJ-1~3 Drilling hole





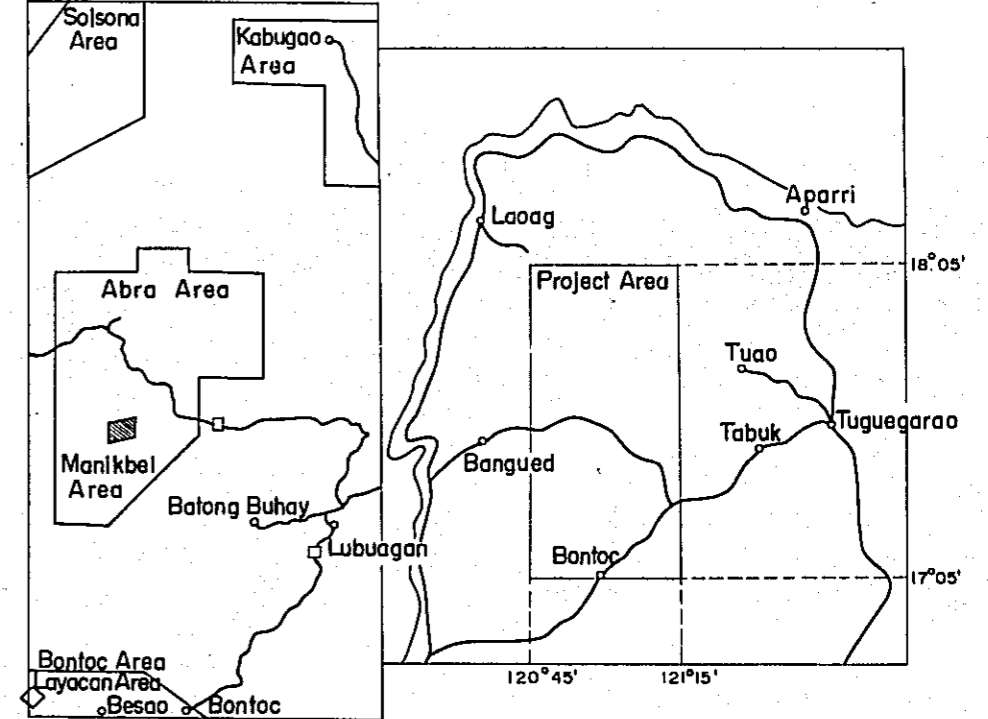
PL.I-1-4

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08456  
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Map Showing the Relationship between  
Mineralized Zones and Geological Structure  
in Manikbel Area

LOCATION INDEX

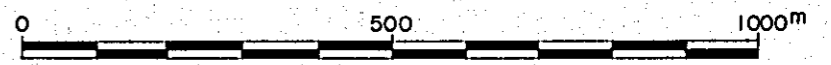


METAL MINING AGENCY OF JAPAN  
JAPAN INTERNATIONAL COOPERATION AGENCY

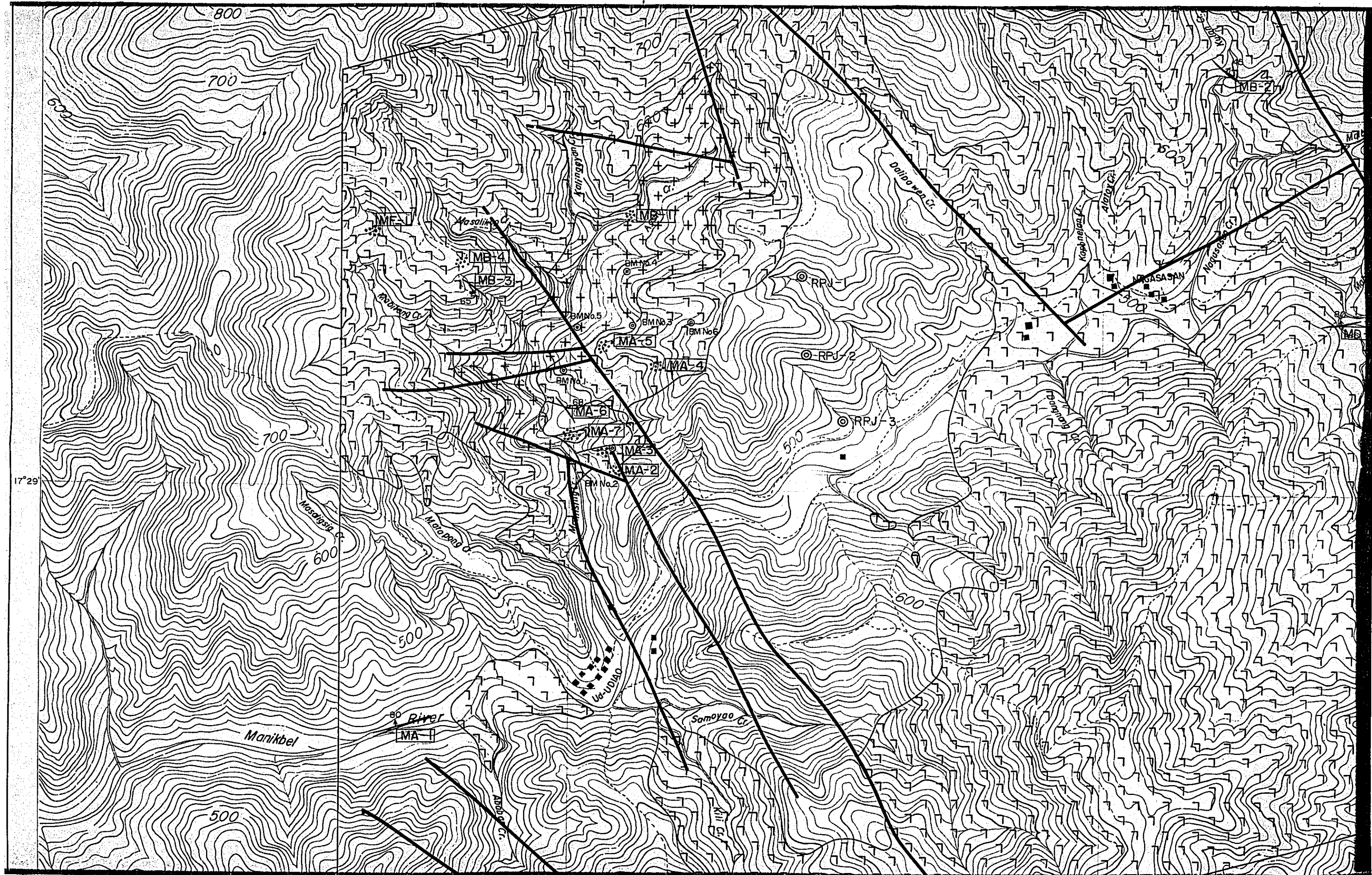
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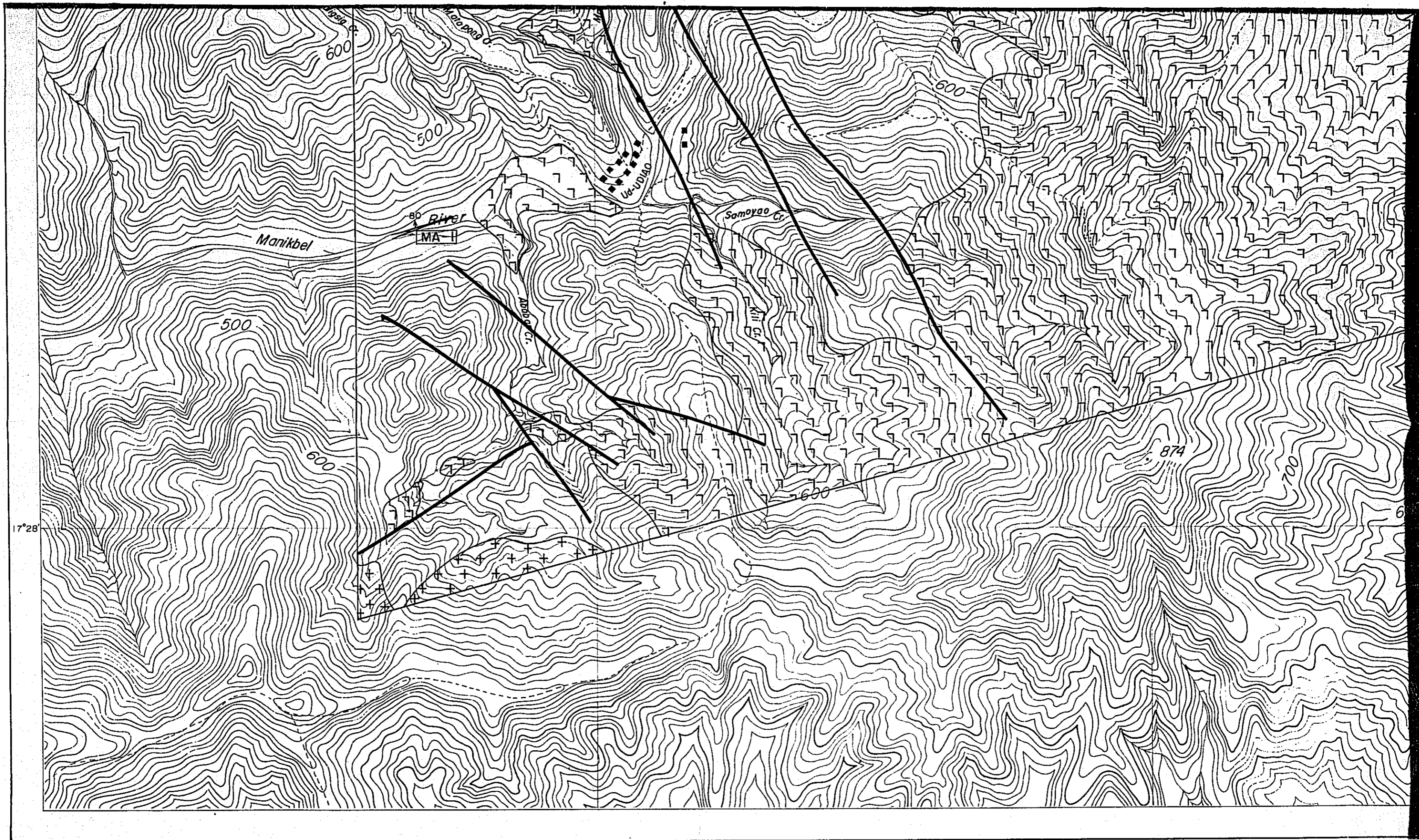


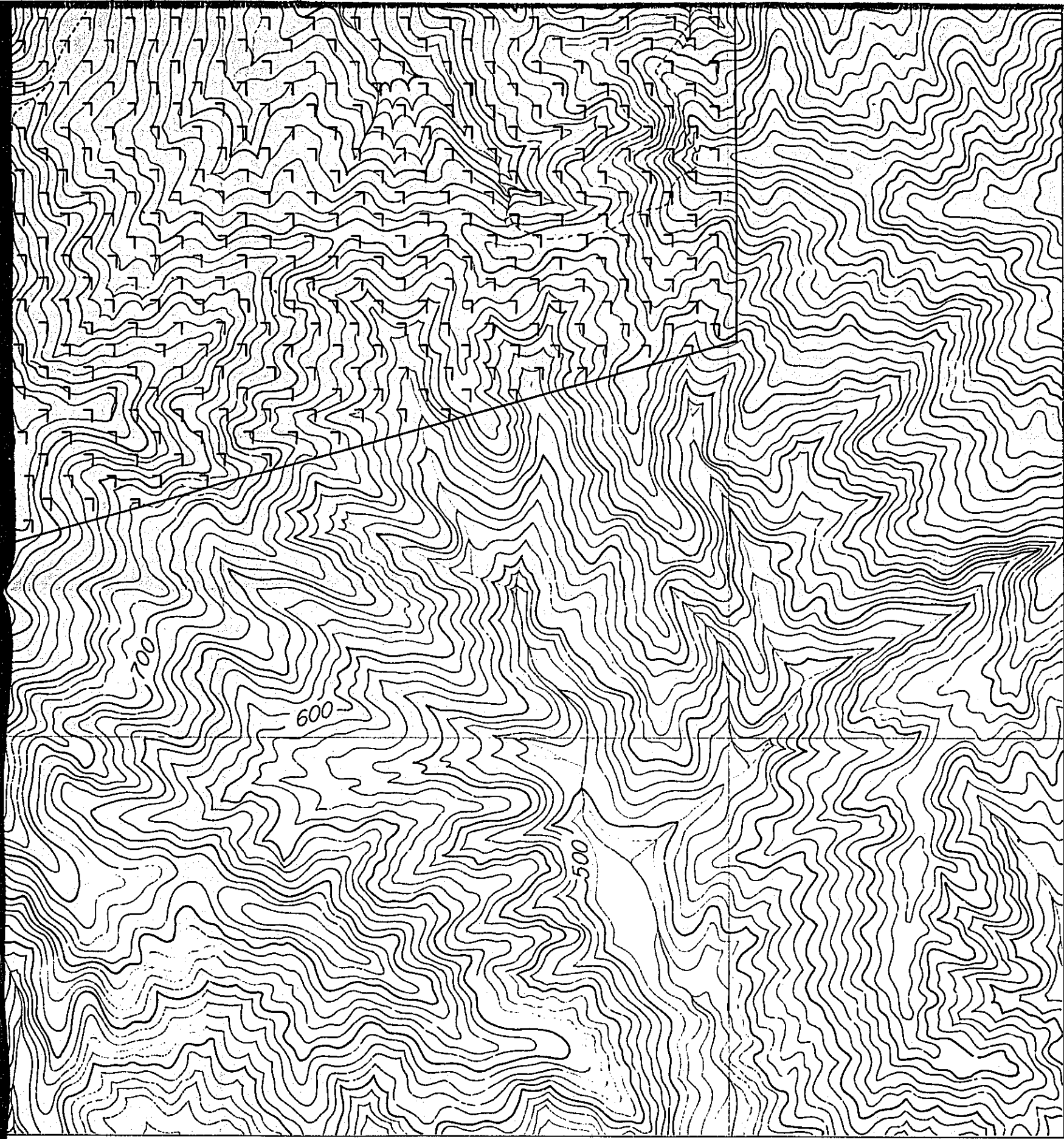





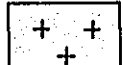


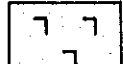


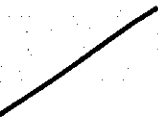





 (mainly composed of andesite)

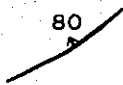
 Granodiorite


 Quartz diorite


 Fault

Mineralization

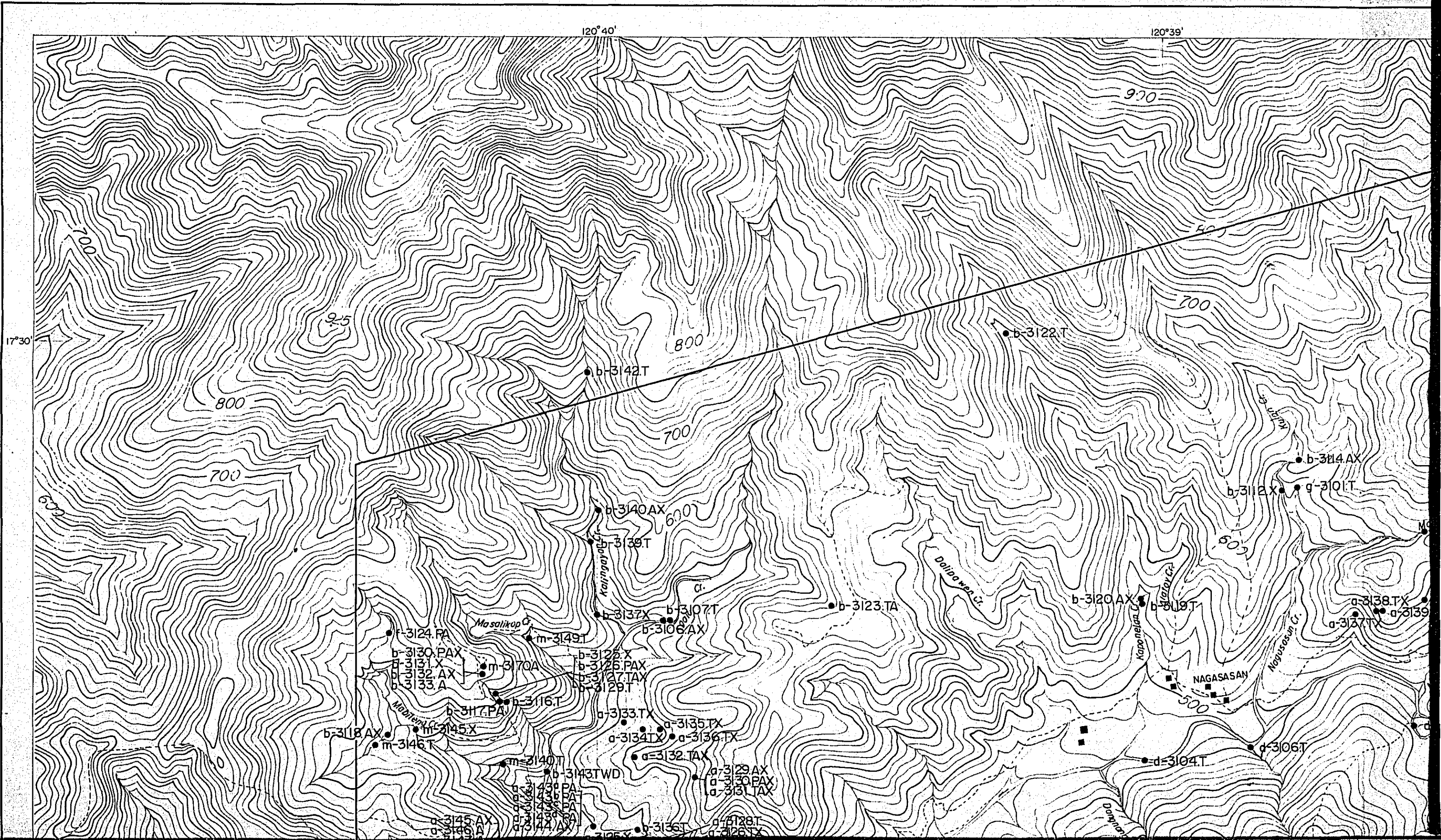
 Cu-dissemination

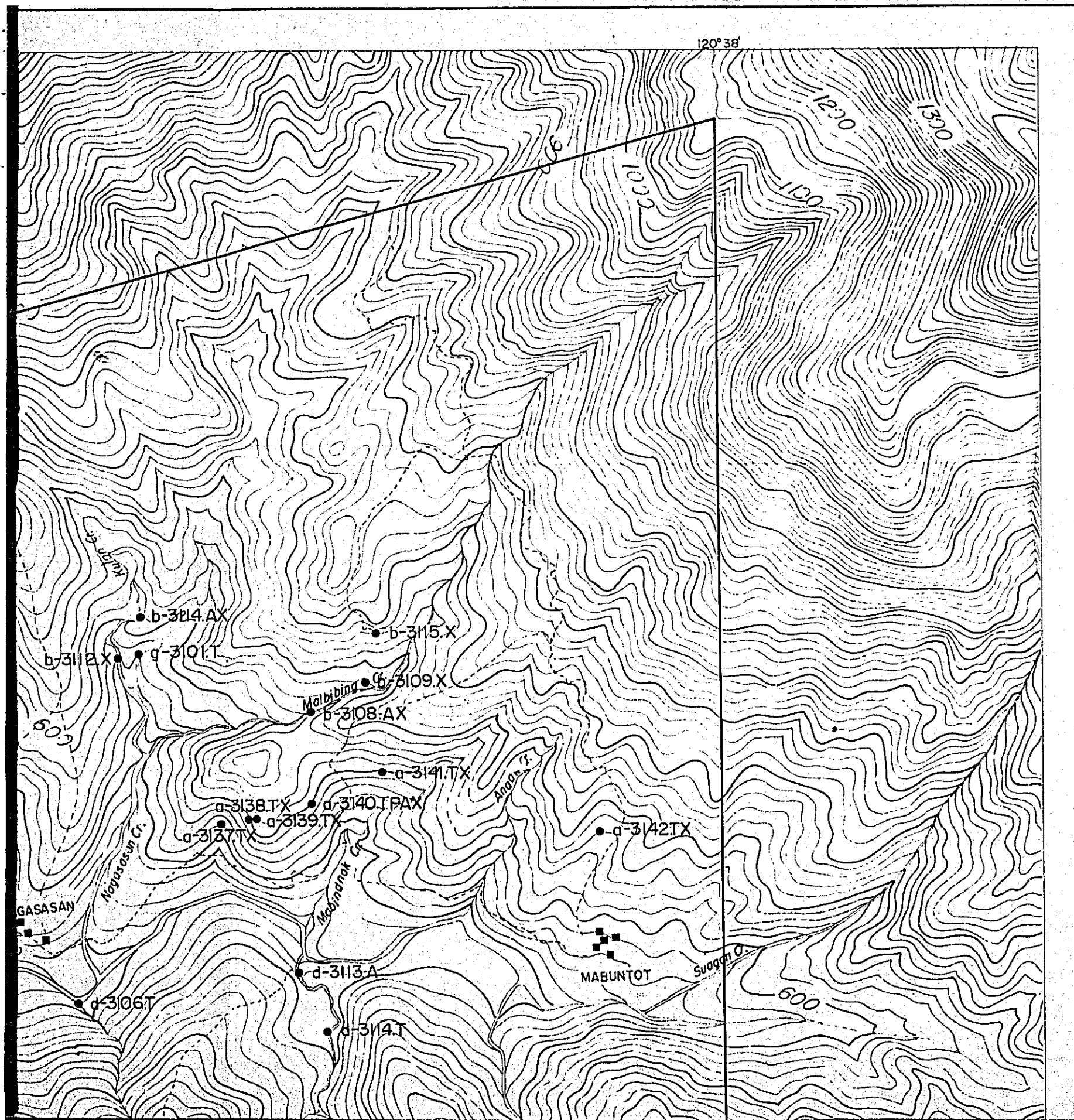
 Cupiferous vein

 RPJ-1~3  
Drilling site

 BM No.1~6



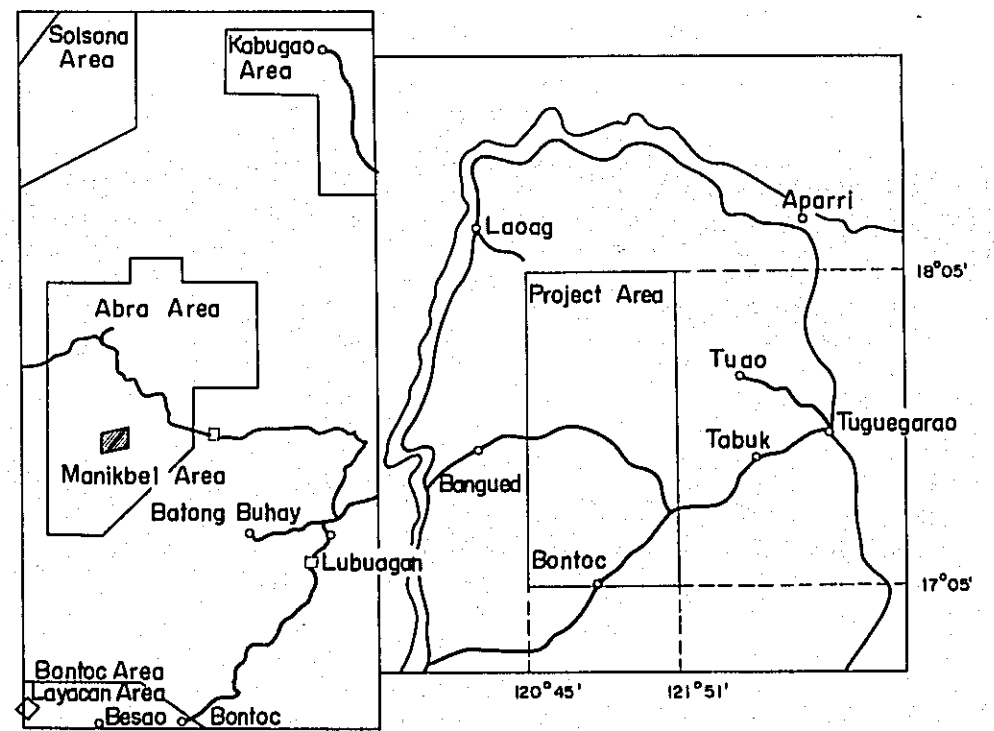




GEOLOGICAL SURVEY  
 OF  
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 PHILIPPINES  
 (PHASE III)  
 Location Map of  
 Analyzed Rock Samples of  
 Manikbel Area

PI 1-1-5  
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 08456  
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LOCATION INDEX

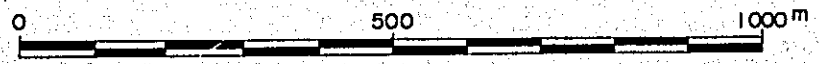


METAL MINING AGENCY OF JAPAN  
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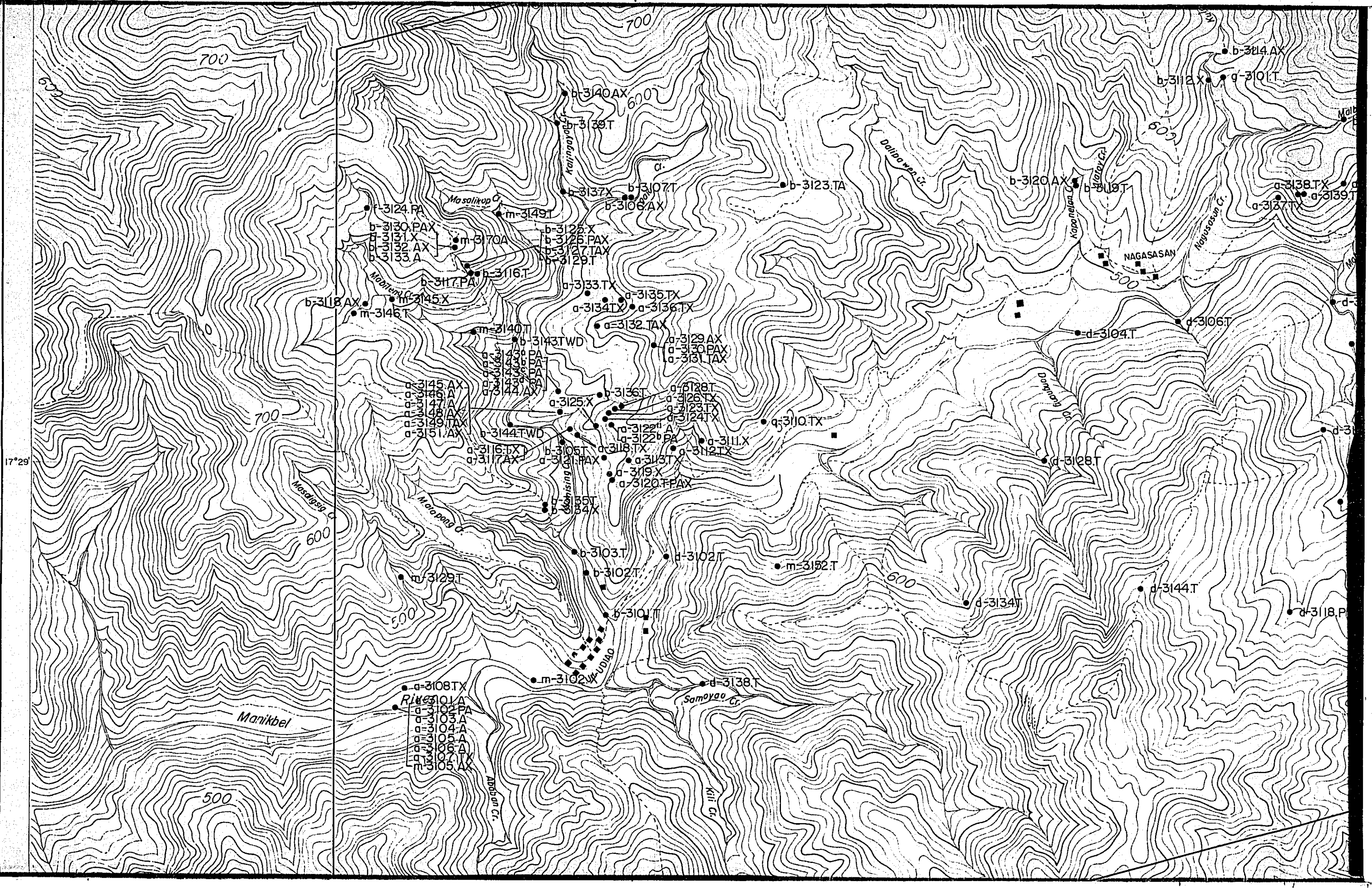
September 1981

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Scale 1 : 10,000







17°29'

700

700

700

600

500

600

600

600

a-3108TX  
a-3101A  
a-3102PA  
a-3103A  
a-3104A  
a-3105A  
a-3106A  
a-3107TX  
m-3105AX

Manikbel River

Abogan Cr.

Samoyao Cr.

Kili Cr.

NAGASASAN

Manikbel

Masalikop Cr.

Kalingay Cr.

Daliba Waa Cr.

Nagasasan Cr.

Nagasasan Cr.

Marapang Cr.

Martina Cr.

Marapang Cr.

Kaponean Cr.

Kalayan Cr.

b-3124.PA  
b-3130.PAX  
b-3131.X  
b-3132.AX  
b-3133.A  
m-3170A  
b-3117.PA  
b-3116.T  
m-3145X  
b-3118.AX  
m-3146.T  
m-3140.T  
b-3143.TWD  
a-3145.AX  
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a-3147.AX  
a-3148.AX  
a-3149.TAX  
a-3151.AX  
a-3144.TWD  
a-3125.X  
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d-3134T  
d-3128.T  
d-3104.T  
d-3106.T  
d-3118.P

m-3149T  
b-3125.X  
b-3126.PAX  
b-3127.TAX  
b-3129.T  
a-3133.TX  
a-3135.TX  
a-3134.TX  
a-3136.TX  
a-3132.TAX  
a-3129.AX  
a-3130.PAX  
a-3131.TAX  
a-3128.T  
a-3126.TX  
a-3123.TX  
a-3124.TX  
a-3110.TX  
a-3122.A  
a-3122b.PA  
a-3111.X  
a-3112.TX  
a-3113.TX  
a-3114.TX  
a-3115.TX  
a-3116.TX  
a-3117.AX  
a-3118.TX  
a-3119.X  
a-3120.TPAX  
b-3105T  
b-3104X  
b-3103T  
b-3102T  
b-3101T  
m-3102X  
d-3138T  
d-3102T  
m-3152.T  
d-3134T  
d-3128.T  
d-3104.T  
d-3106.T  
d-3118.P

b-3140AX  
b-3138T  
b-3137X  
b-3107T  
b-3106.AX  
b-3123.TA  
b-3120.AX  
b-3119T  
a-3138.TX  
a-3137.TX  
a-3139T

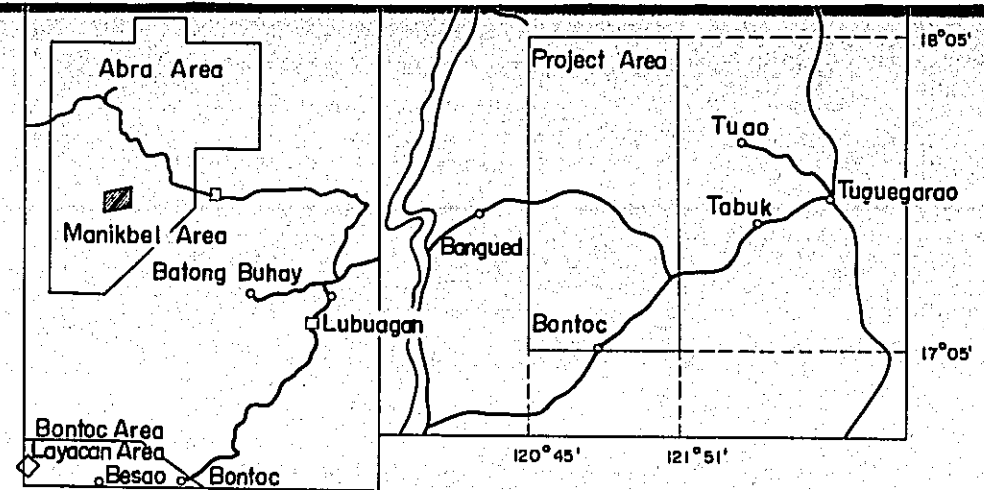
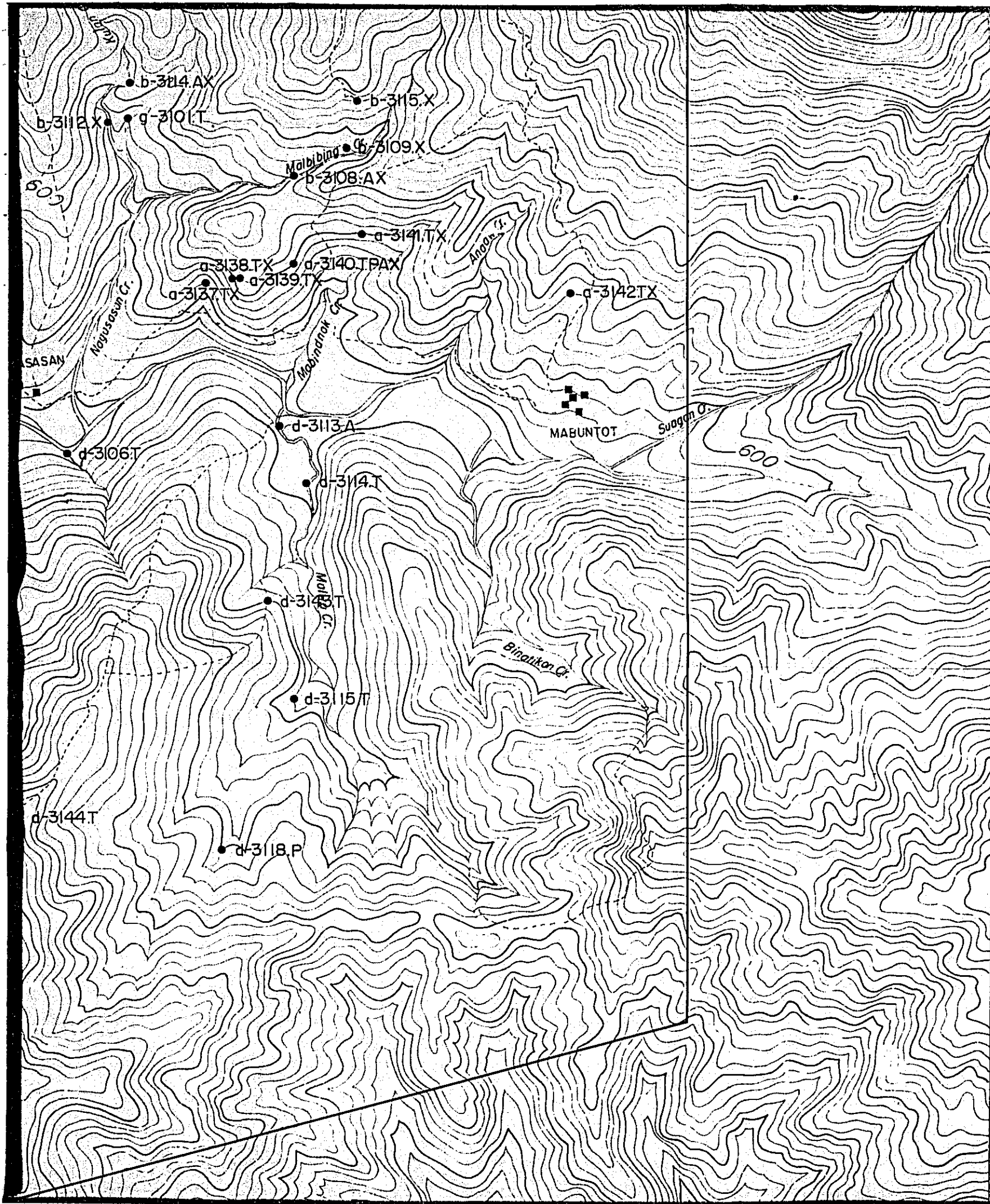
b-3114.AX  
b-3112.X  
g-3101.T

a-3138.TX  
a-3137.TX  
a-3139T

d-

d-31

d-3118.P

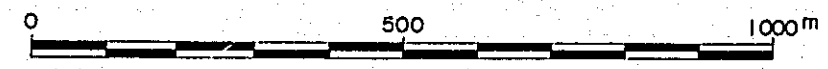


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Prepared by Bishmetal Exploration Co., Ltd.

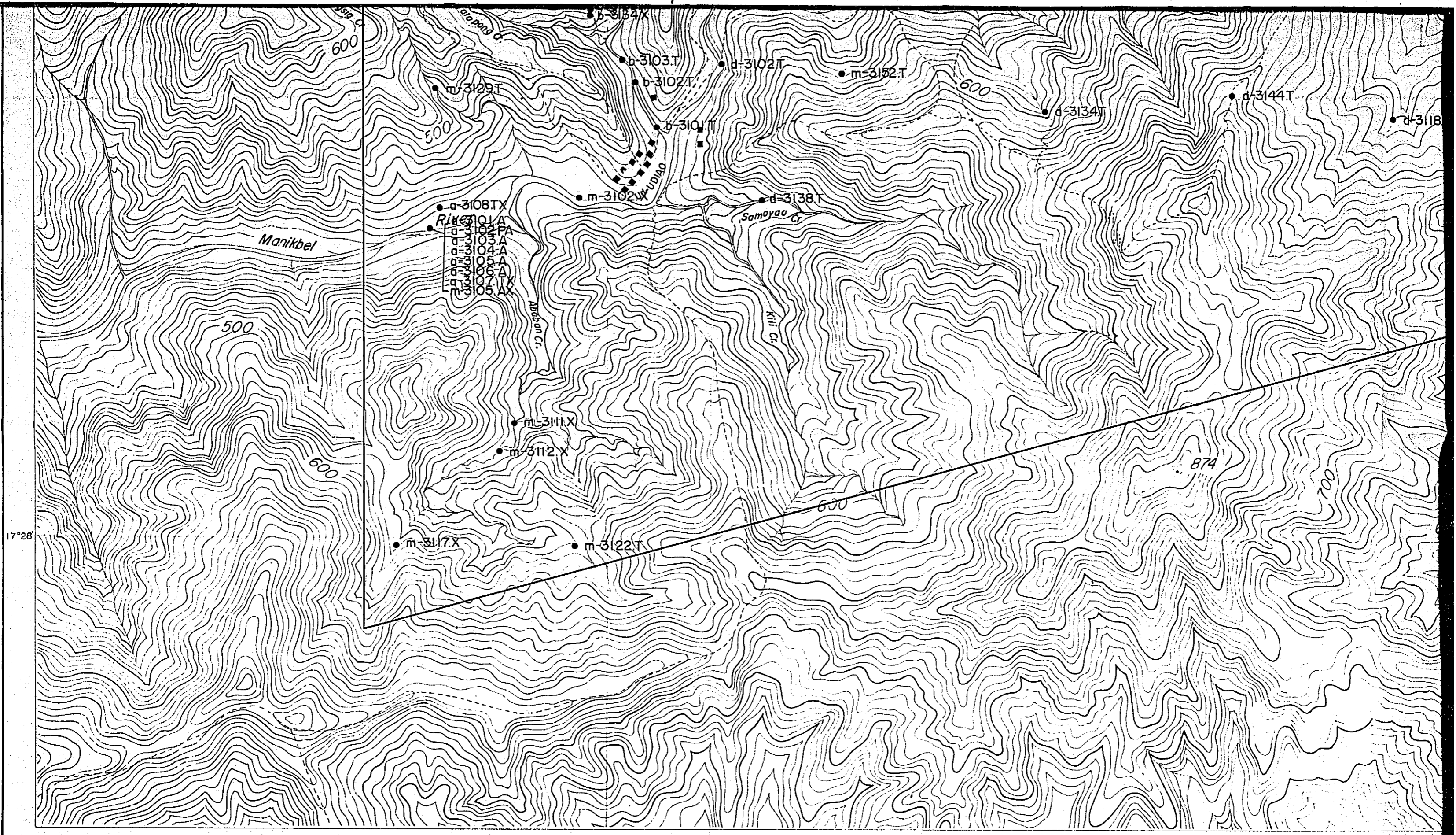
Scale 1 : 10,000



LEGEND

- a-3101 Sampling site & sample number
- T Thin section
- P Polished section
- A Chemical analysis of ore
- W Chemical analysis of whole rock
- D K-Ar dating
- X X-ray





17°28'

Manikbel

a-3108TX  
a-3102PA  
a-3103A  
a-3104A  
a-3105A  
a-3106A  
a-3107TX  
a-3105AX

River

Apusan Cr.

Samoyau Cr.

Kili Cr.

m-3129T

b-3103T

d-3102T

m-3152T

b-3102T

b-3101T

d-3134T

d-3144T

d-3118

m-3102W

d-3138T

m-3111X

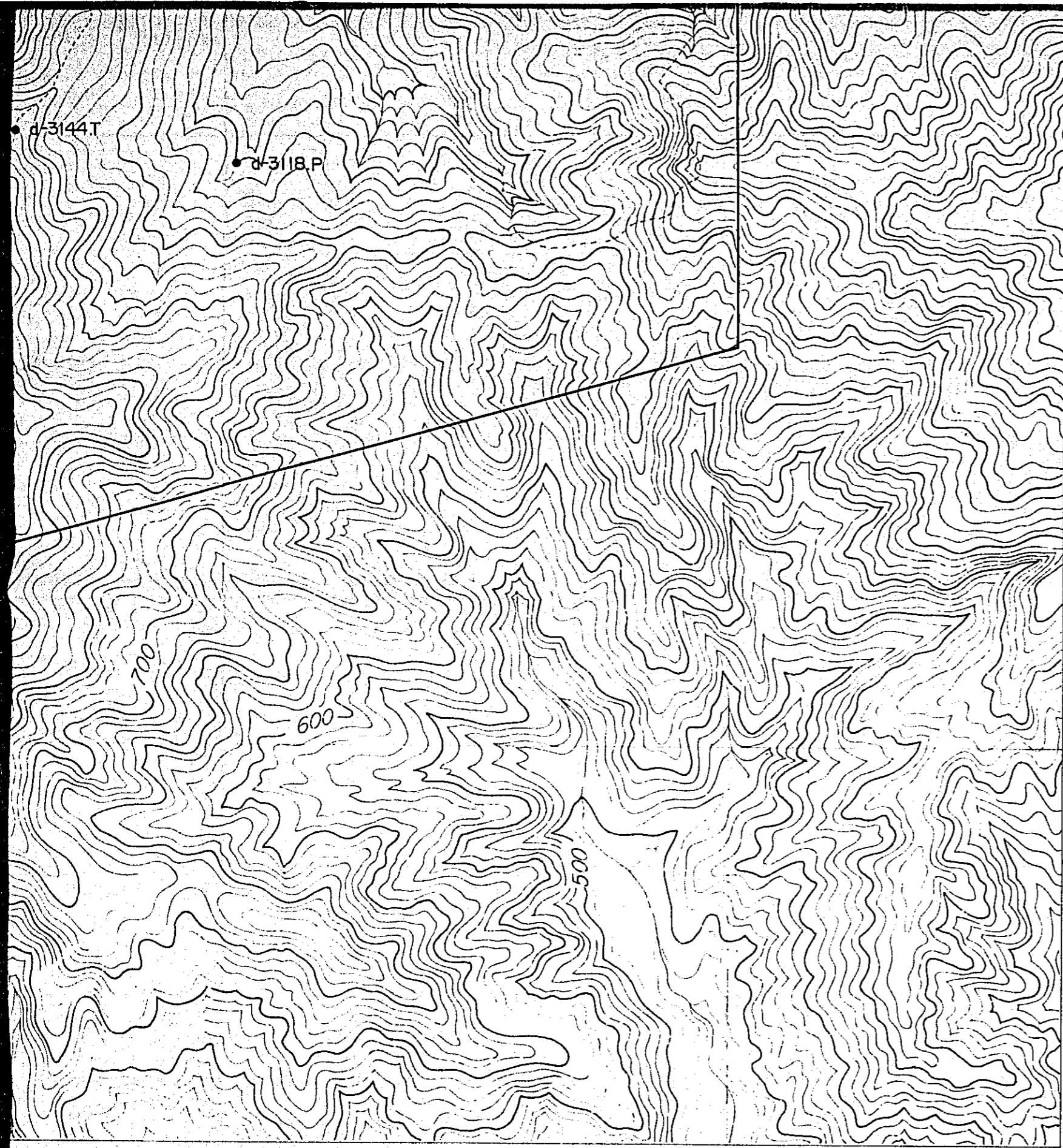
m-3112X

m-3117X

m-3122T

874

700



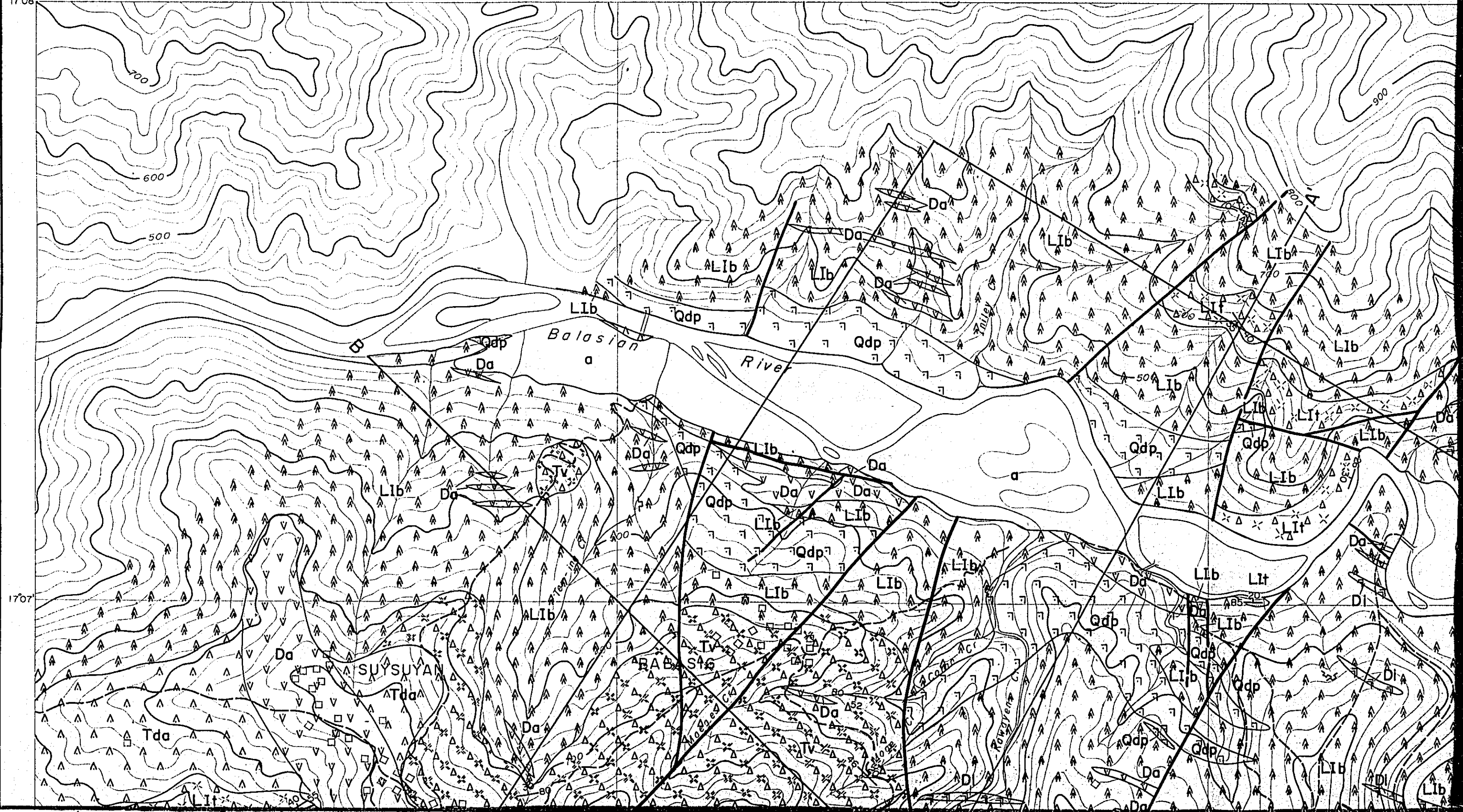
# LEGEND

- a-3101 Sampling site & sample number
- T Thin section
- P Polished section
- A Chemical analysis of ore
- W Chemical analysis of whole rock
- D K-Ar dating
- X X-ray

120°44'  
17°08'

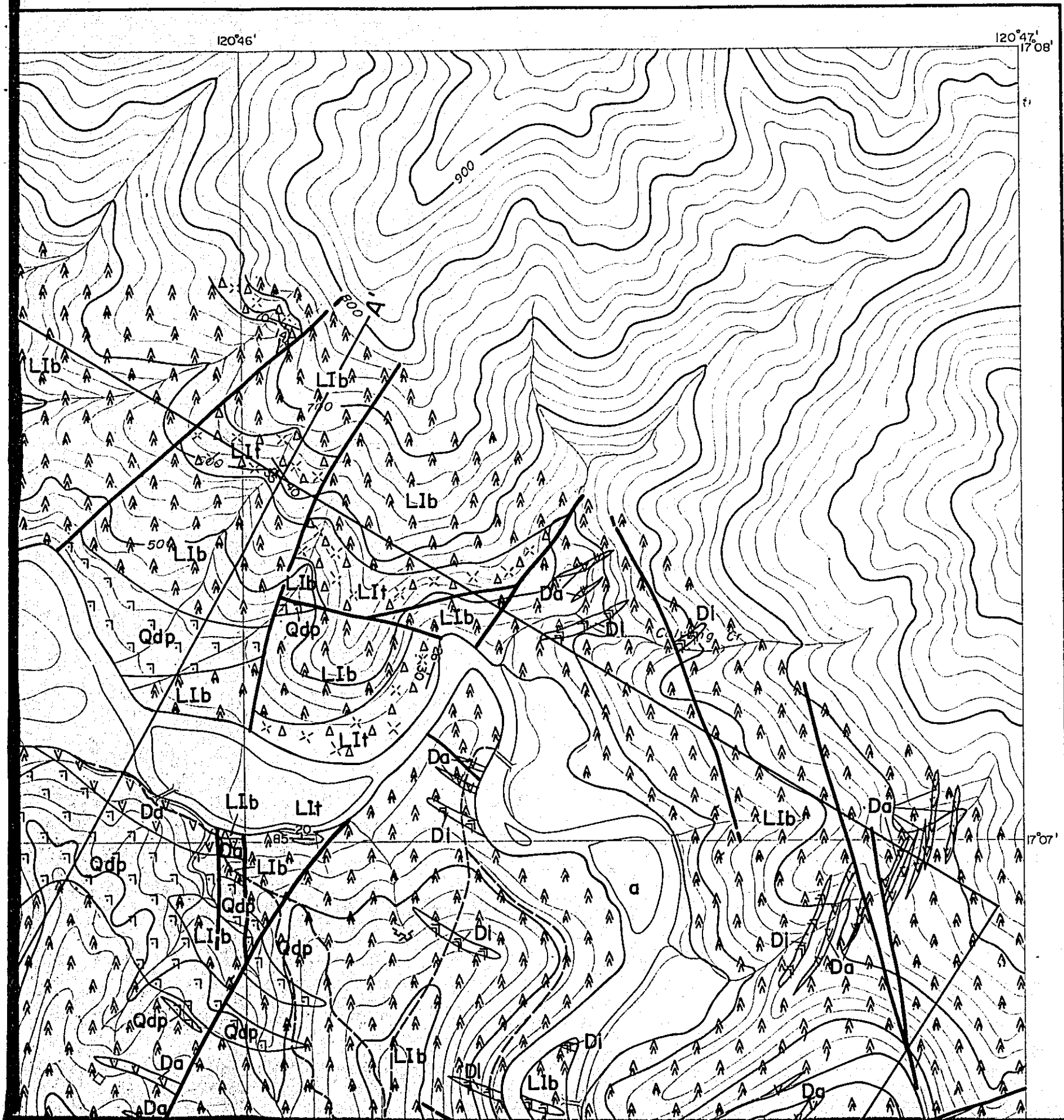
120°45'

120°46'



17°07'



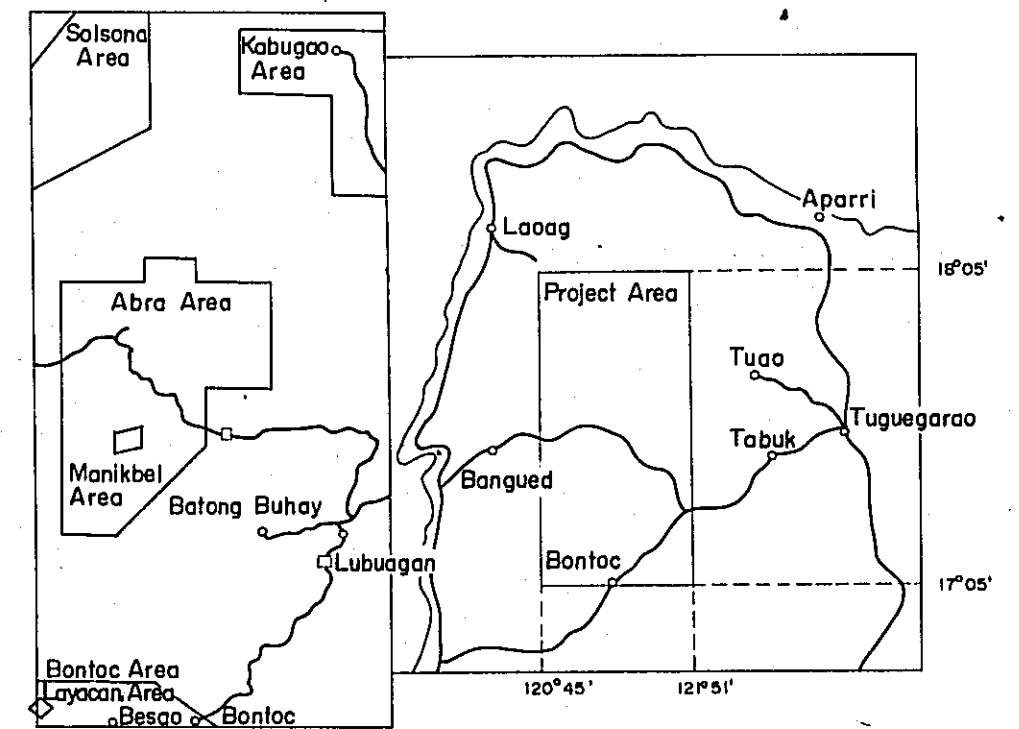


GEOLOGICAL SURVEY  
 OF  
 NORTHWESTERN LUZON  
 PHILIPPINES  
 (PHASE III)

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Geological Map of  
 Layacan Area

LOCATION INDEX



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 JAPAN INTERNATIONAL COOPERATION AGENCY

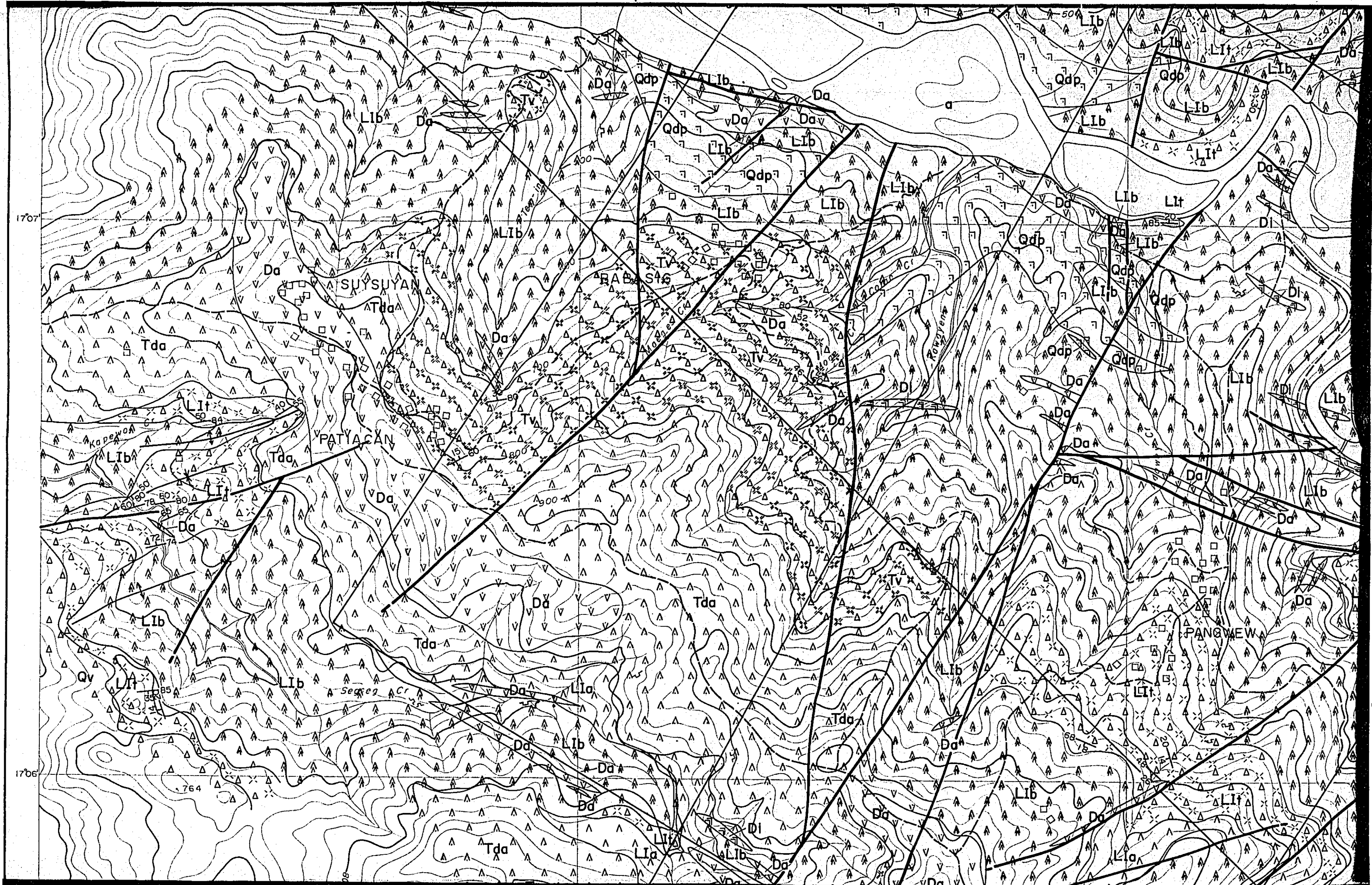
September 1981

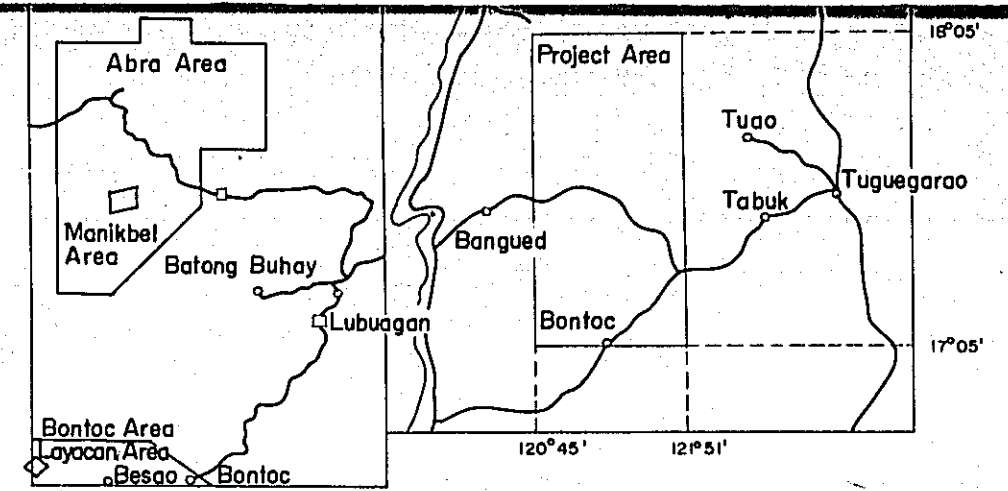
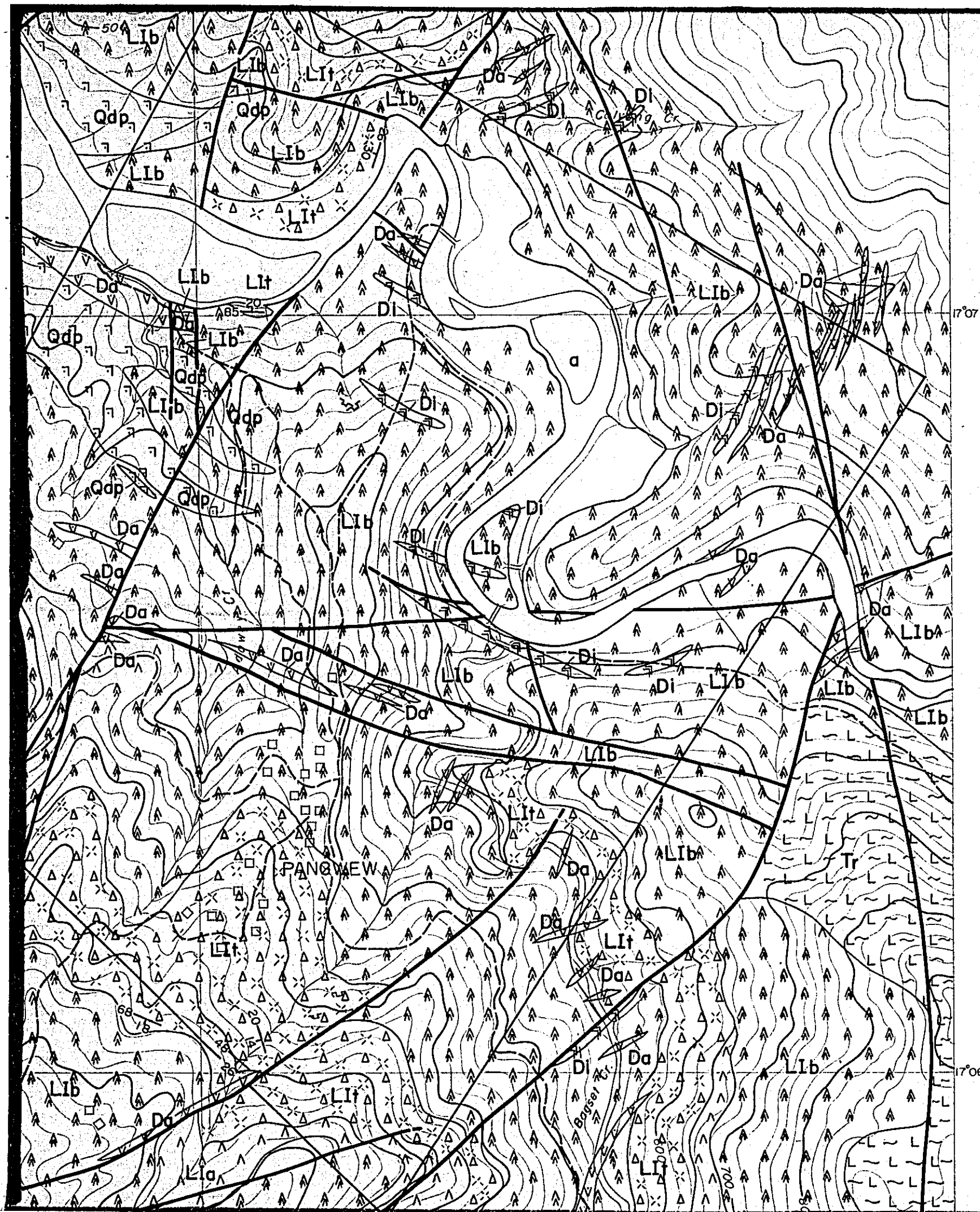
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1 : 10,000







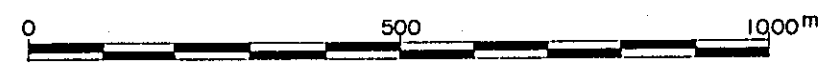


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Prepared by Bishimetal Exploration Co., Ltd.

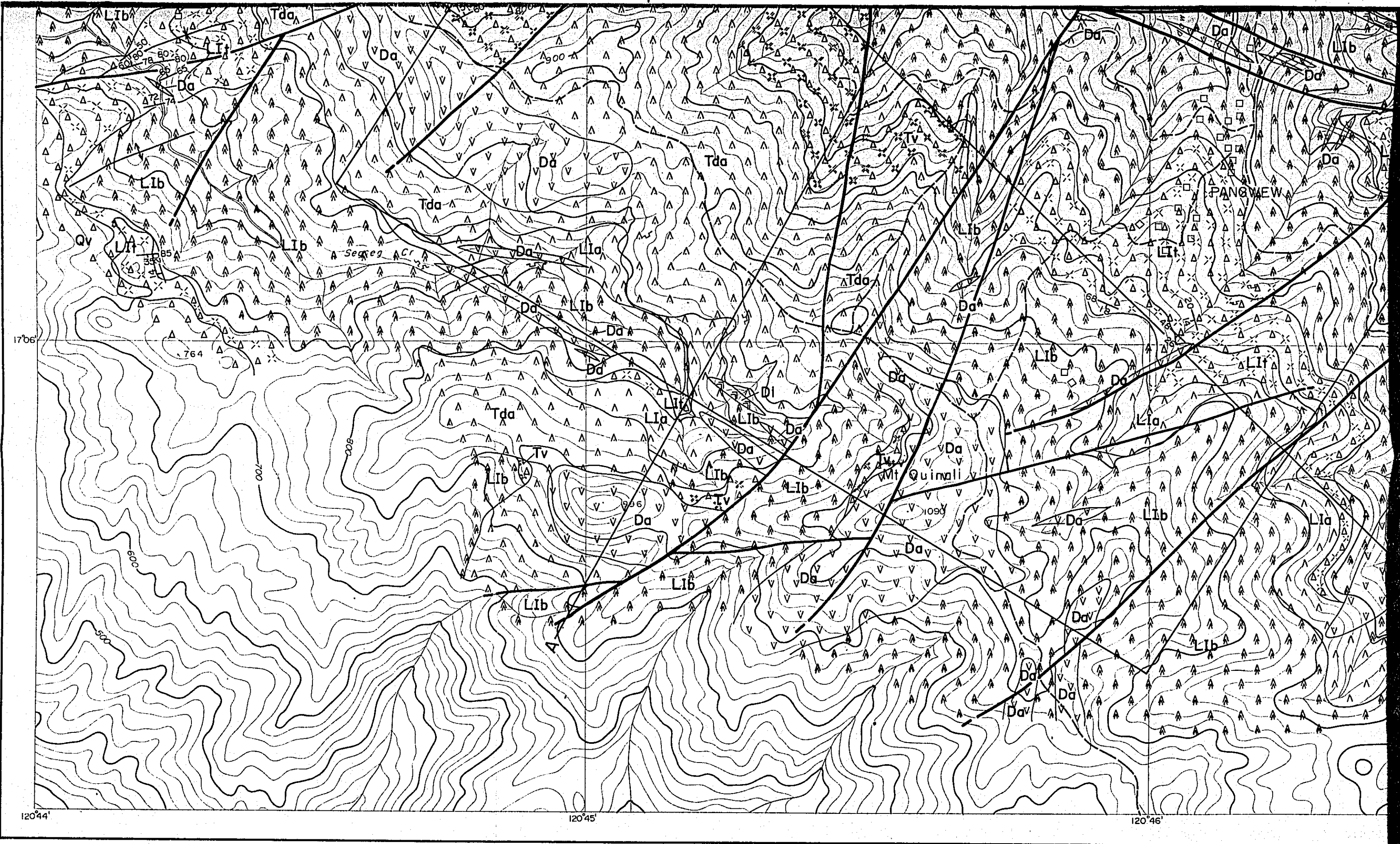
Scale 1 : 10,000



LEGEND

Alluvium	a	Gravel & sand
Quaternary Volcanics	Qv	▲ ▲ ▲ ▲ ▲ ▲ Dacitic to andesitic pyroclastics & lava
Tineg Formation	Tda	▲ ▲ ▲ ▲ ▲ Dacite lava
	Tv	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ Dacitic pyroclastics
	Tr	-L-L-L- -L-L- Rhyolite
Licuan Group Formation I	Llb	▲ ▲ ▲ ▲ ▲ Basalt ~ basic andesite lava
	LIa	▲ ▲ ▲ ▲ ▲ Porphyritic andesite lava
	LIi	▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ Andesitic pyroclastics



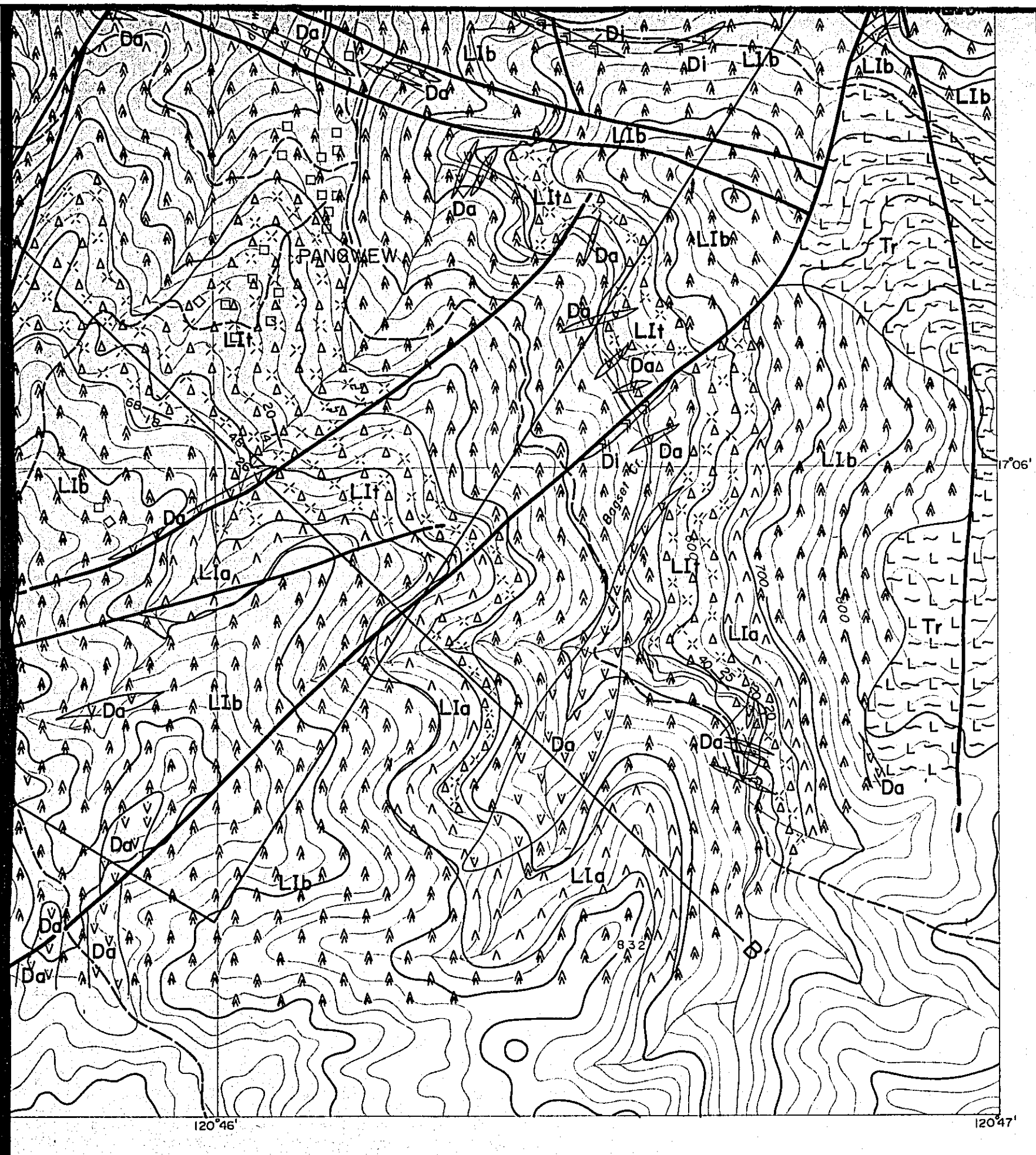


120°44'

120°45'

120°46'

17°06'

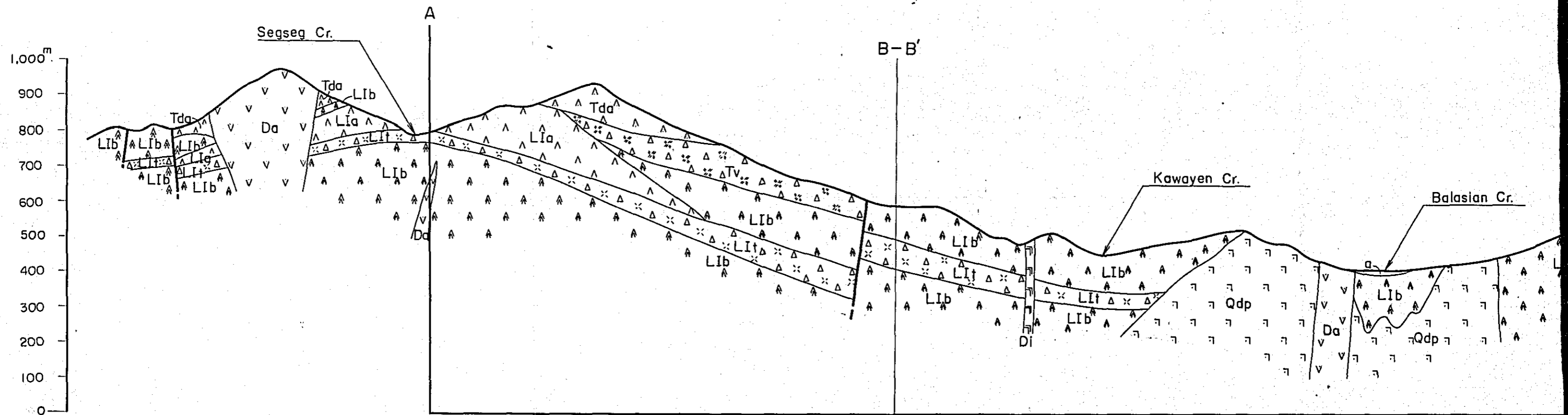


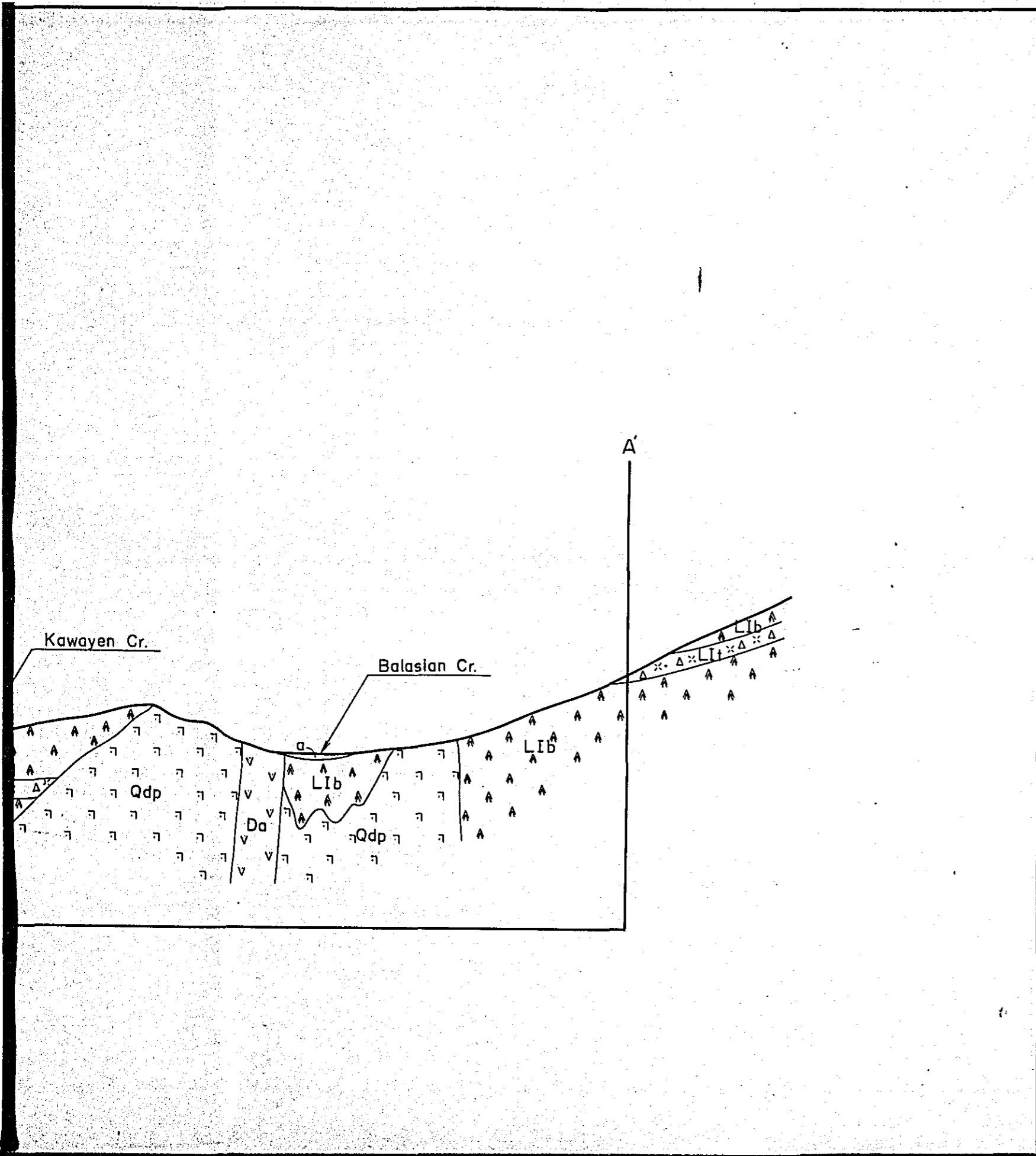
# LEGEND

- Alluvium a Gravel & sand
- Quaternary Volcanics Qv △ △  
△ △ △ Dacitic to andesitic pyroclastics & lava
- Tineg Formation
  - Tda △ △  
△ △ △ Dacite lava
  - Tv △ ※△ ※  
※ △ ※△ Dacitic pyroclastics
  - Tr -L-L-L-  
-L-L- Rhyolite
- Licuan Group Formation I
  - Lib △ △  
△ △ △ Basalt ~ basic andesite lava
  - Lta △ △  
△ △ △ Porphyritic andesite lava
  - Lit △ ×△ ×  
×△ ×△ Andesitic pyroclastics
- Intrusives
  - Da ▽ ▽  
▽ ▽ ▽ Dacite dyke
  - Qdp ┌ ┌  
└ └ Quartz diorite porphyry dyke & stock
  - Di ┌ ┌  
└ └ Micro-diorite ~ dolerite dyke
- Others
  - 20 60 Bedding plane (strike & dip)
  - — — Fault
  - \* — Synclinal axis
  - ▲ — Anticlinal axis
  - A — A' Profile line



# A — A' Profile



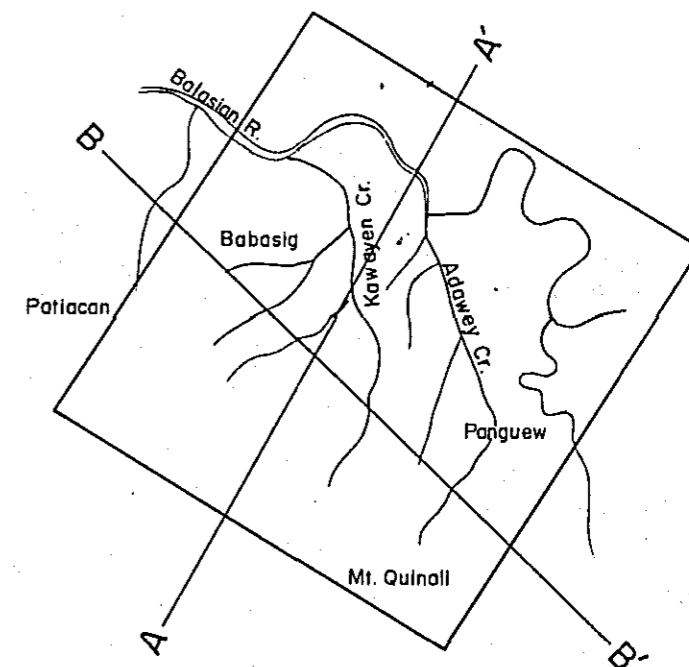


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GEOLOGICAL SURVEY  
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 PHILIPPINES

(PHASE III)

Geological Profiles of  
 Layacan Area

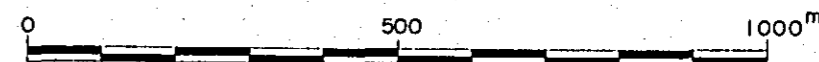


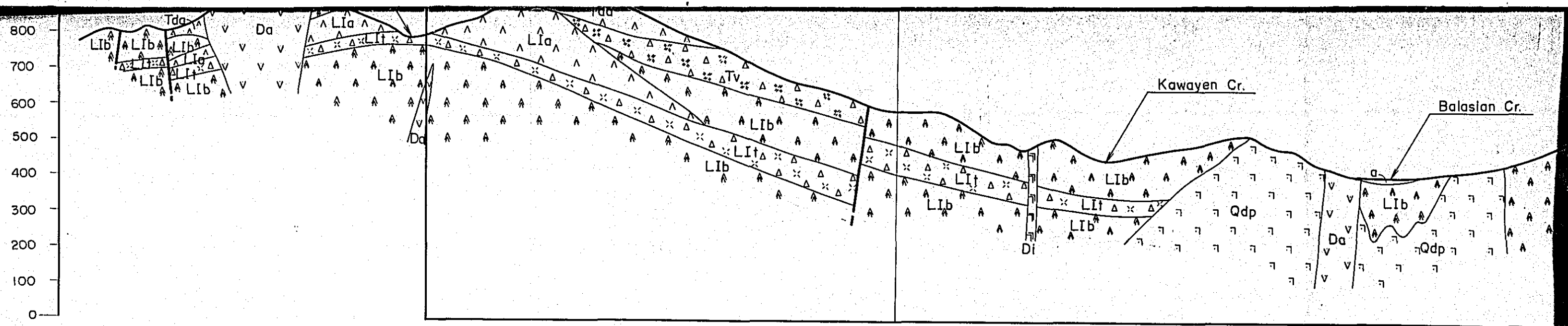
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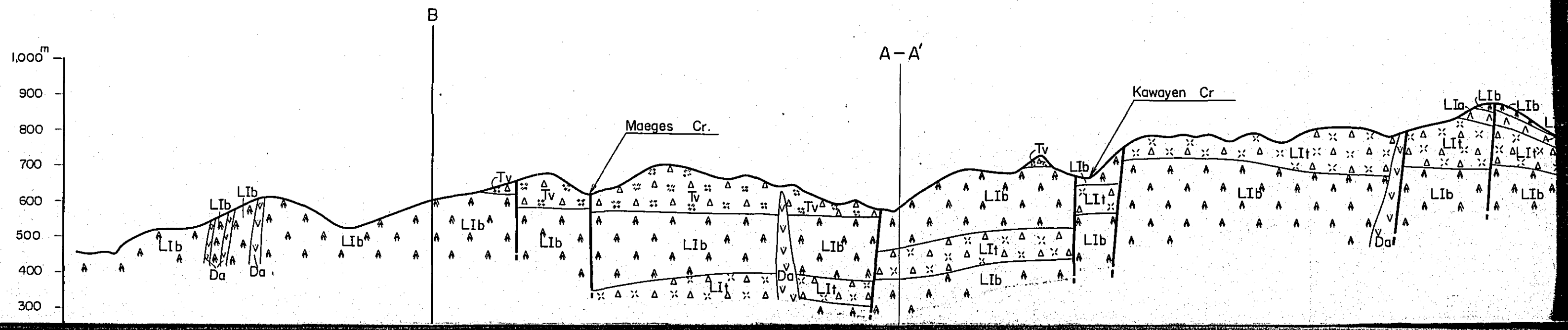
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1:10,000

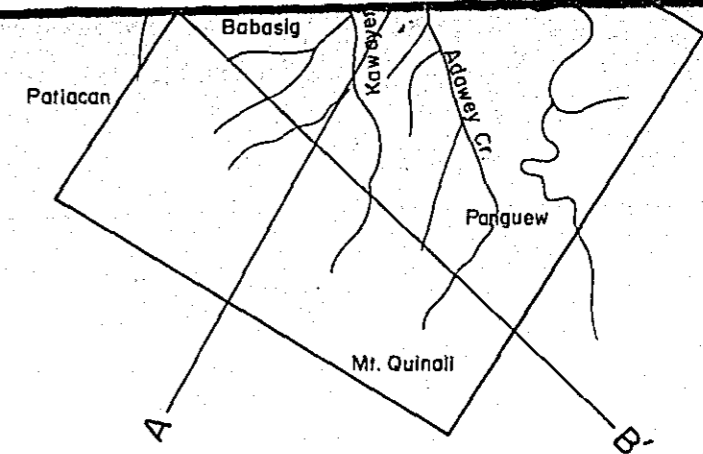
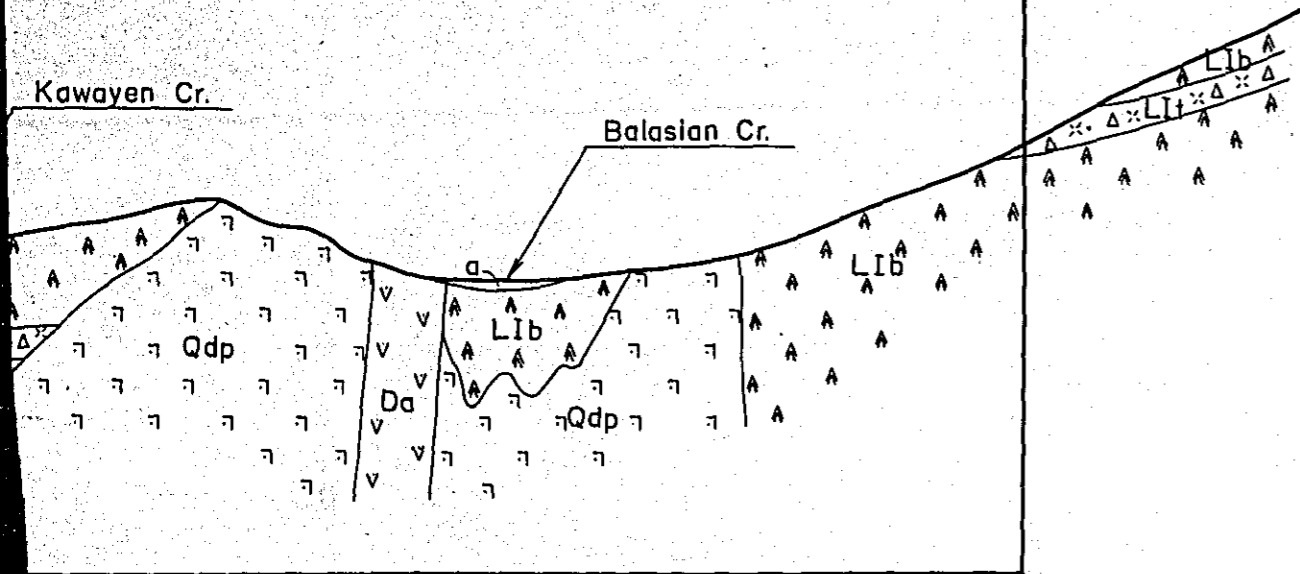




B — B' Profile



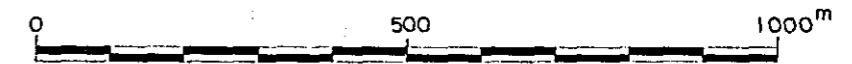




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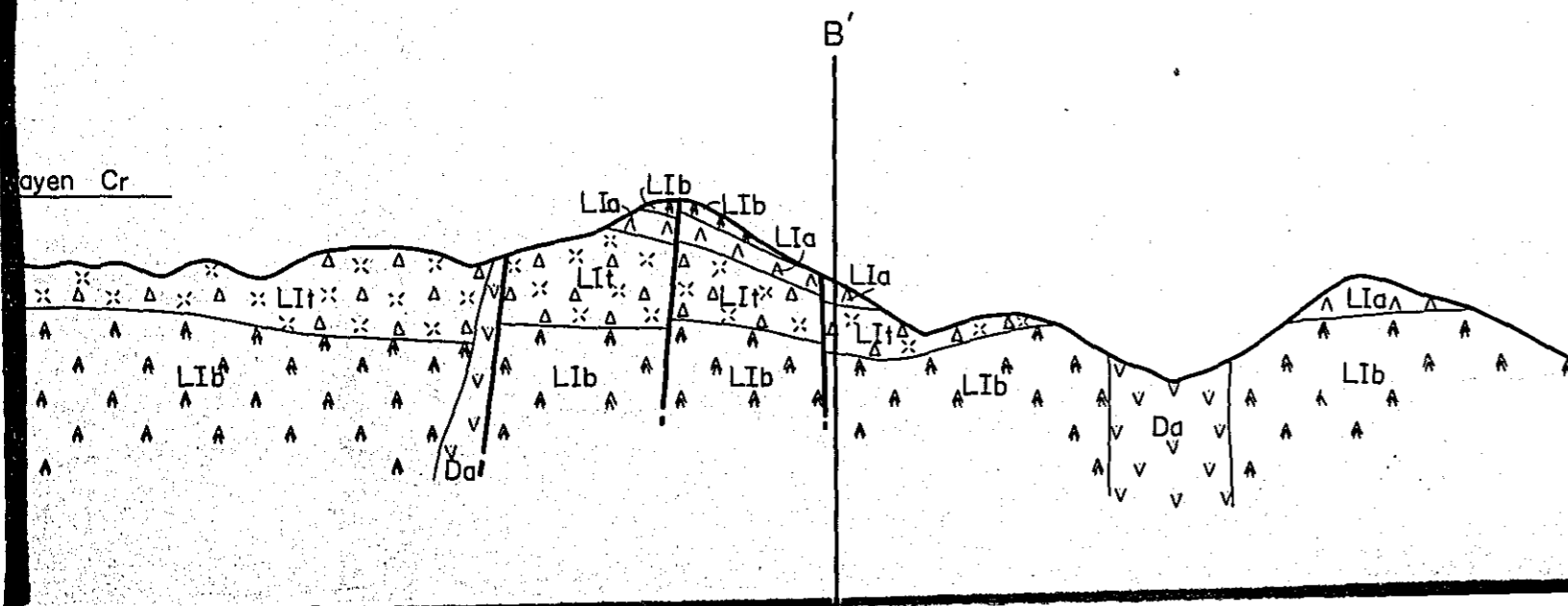
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1 : 10,000

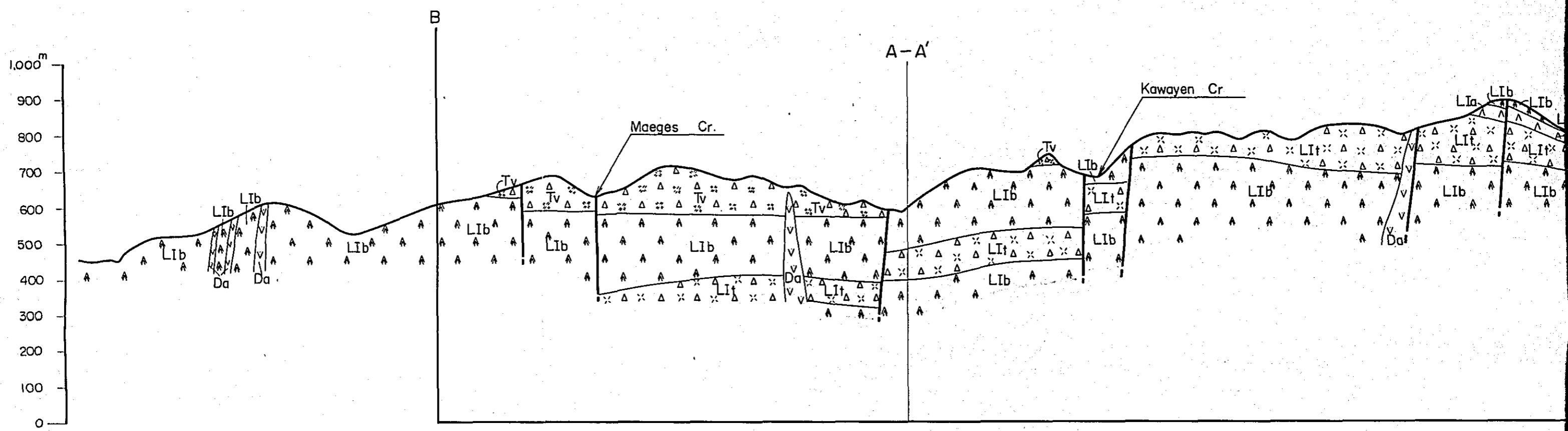


### LEGEND

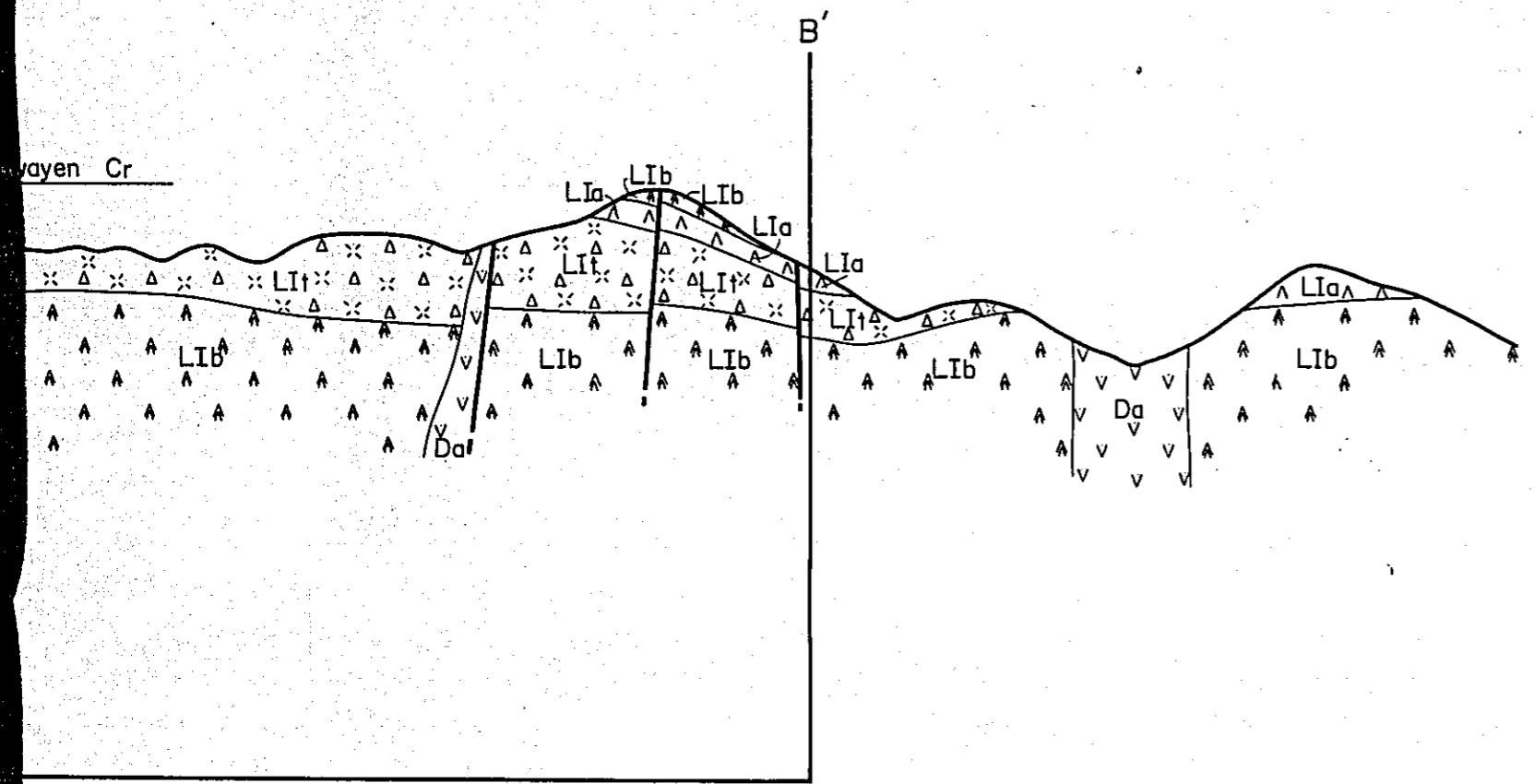
Alluvium	□	Gravel & sand
Quaternary Volcanics	Qv	▲▲▲▲ ▲▲▲▲ Dacitic to andesitic pyroclastics & lava
Tineg Formation	Tda	▲▲▲▲ ▲▲▲▲ Dacite lava
	Tv	▲▲▲▲ ▲▲▲▲ Dacitic pyroclastics
	Tr	LLL LLL Rhyolite
Licuan Group Formation I	Llb	▲▲▲▲ ▲▲▲▲ Basalt~basic andesite lava
	LIa	▲▲▲▲ ▲▲▲▲ Porphyritic andesite lava



# B - B' Profile



ayen Cr



### LEGEND

- Alluvium 

a	
---	--

 Gravel & sand
  
- Quaternary Volcanics 

Qv	△ △ △ △ △
----	--------------

 Dacitic to andesitic pyroclastics & lava
  
- Tineg Formation
  - |     |              |
|-----|--------------|
| Tda | △ △ △<br>△ △ |
|-----|--------------|

 Dacite lava
  - |    |              |
|----|--------------|
| Tv | △ △ △<br>△ △ |
|----|--------------|

 Dacitic pyroclastics
  - |    |              |
|----|--------------|
| Tr | L L L<br>L L |
|----|--------------|

 Rhyolite
  
- Licuan Group Formation I
  - |     |              |
|-----|--------------|
| LIb | ▲ ▲ ▲<br>▲ ▲ |
|-----|--------------|

 Basalt~basic andesite lava
  - |     |              |
|-----|--------------|
| LIa | △ △ △<br>△ △ |
|-----|--------------|

 Porphyritic andesite lava
  - |     |              |
|-----|--------------|
| LIi | △ △ △<br>△ △ |
|-----|--------------|

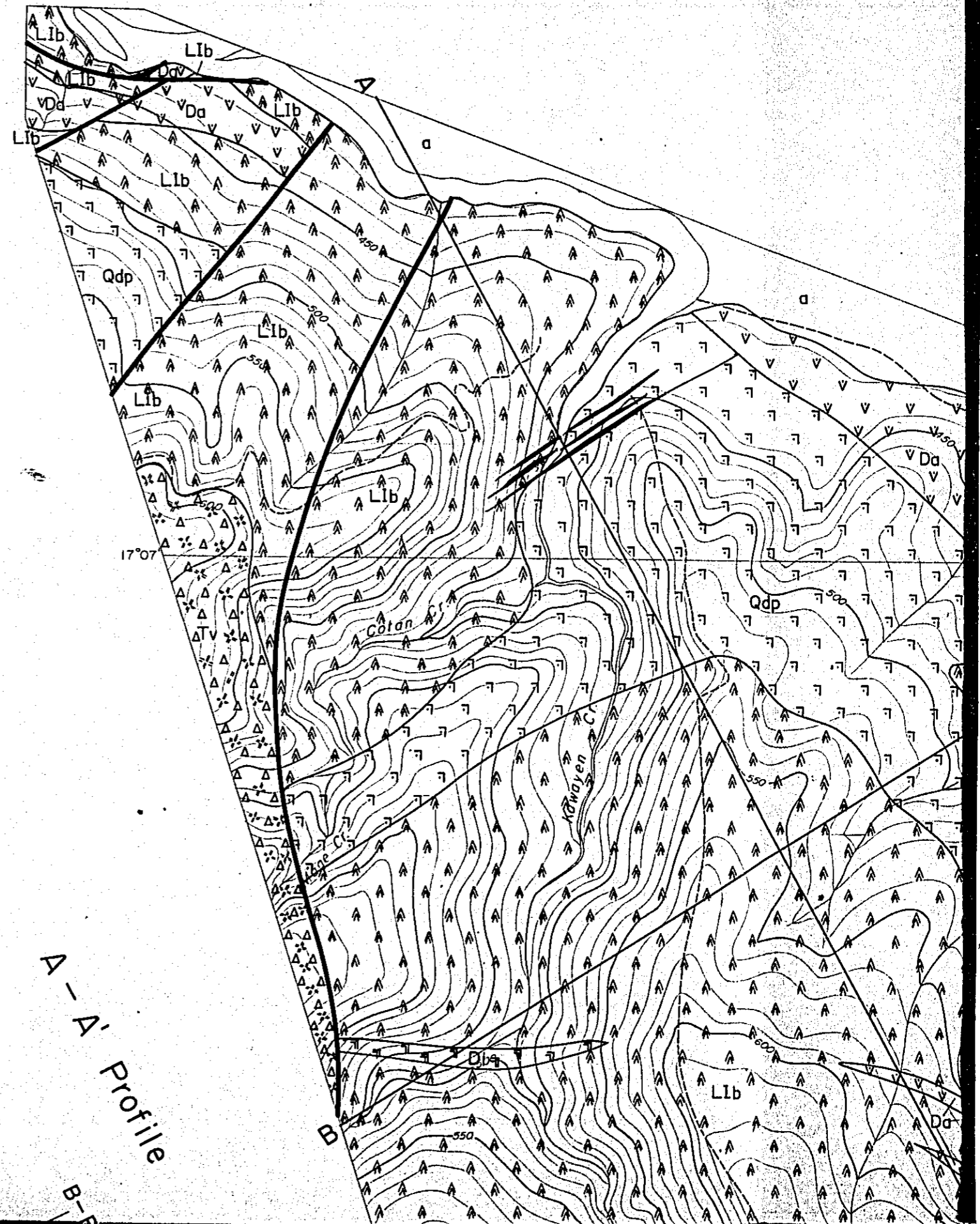
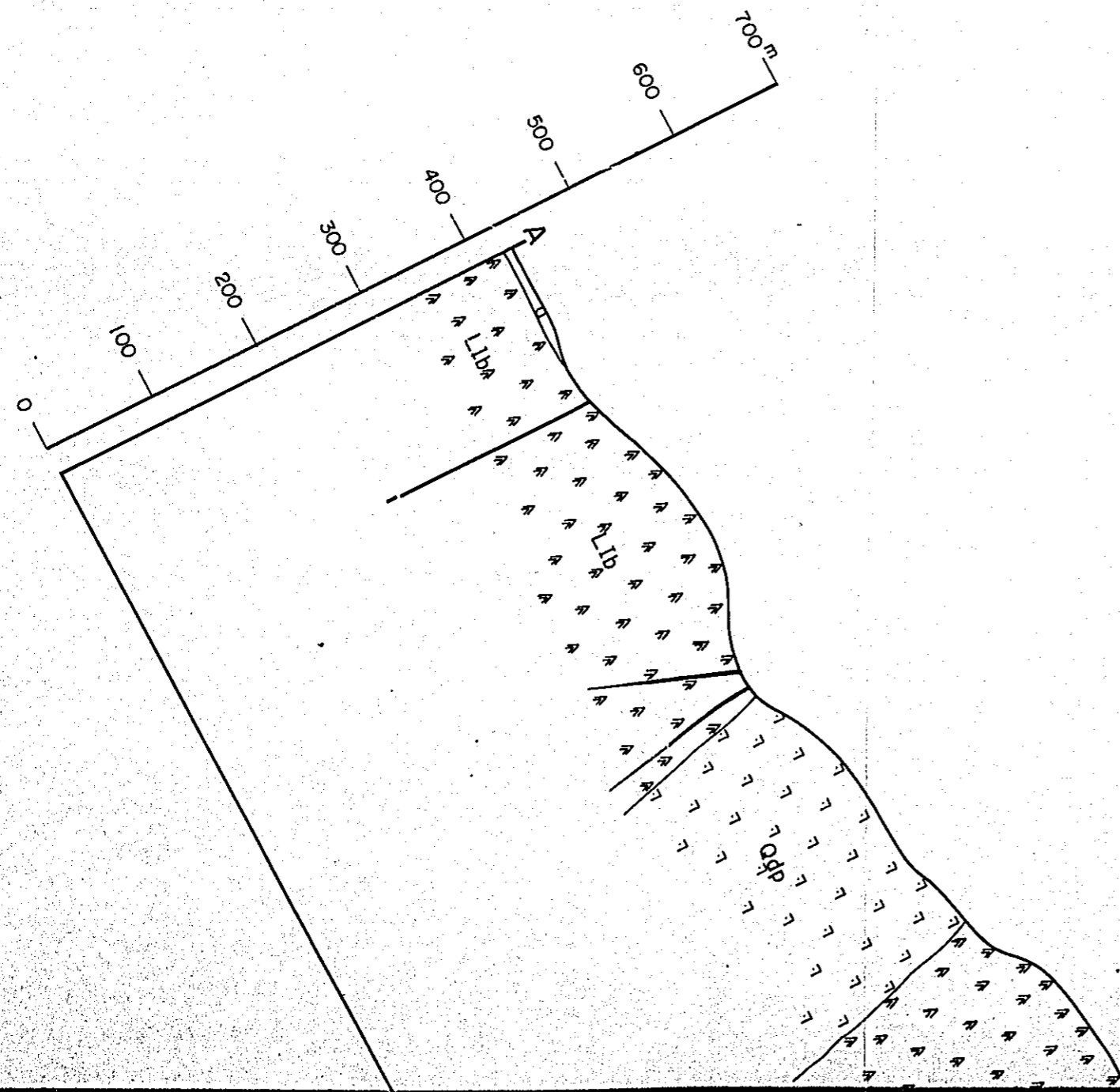
 Basaltic~andesitic pyroclastics
  
- Intrusives
  - |    |              |
|----|--------------|
| Da | ∇ ∇ ∇<br>∇ ∇ |
|----|--------------|

 Dacite dyke & stock
  - |     |              |
|-----|--------------|
| Qdp | ⌈ ⌈ ⌈<br>⌈ ⌈ |
|-----|--------------|

 Quartz diorite porphyry dyke & stock
  - |    |              |
|----|--------------|
| Di | ⌈ ⌈ ⌈<br>⌈ ⌈ |
|----|--------------|

 Micro-diorite ~ dolerite dyke
  
- Others
  - Fault

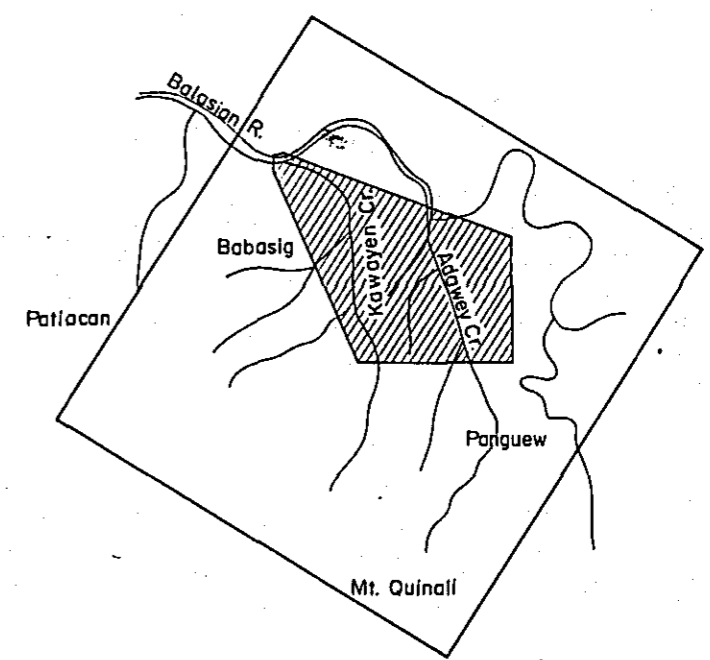
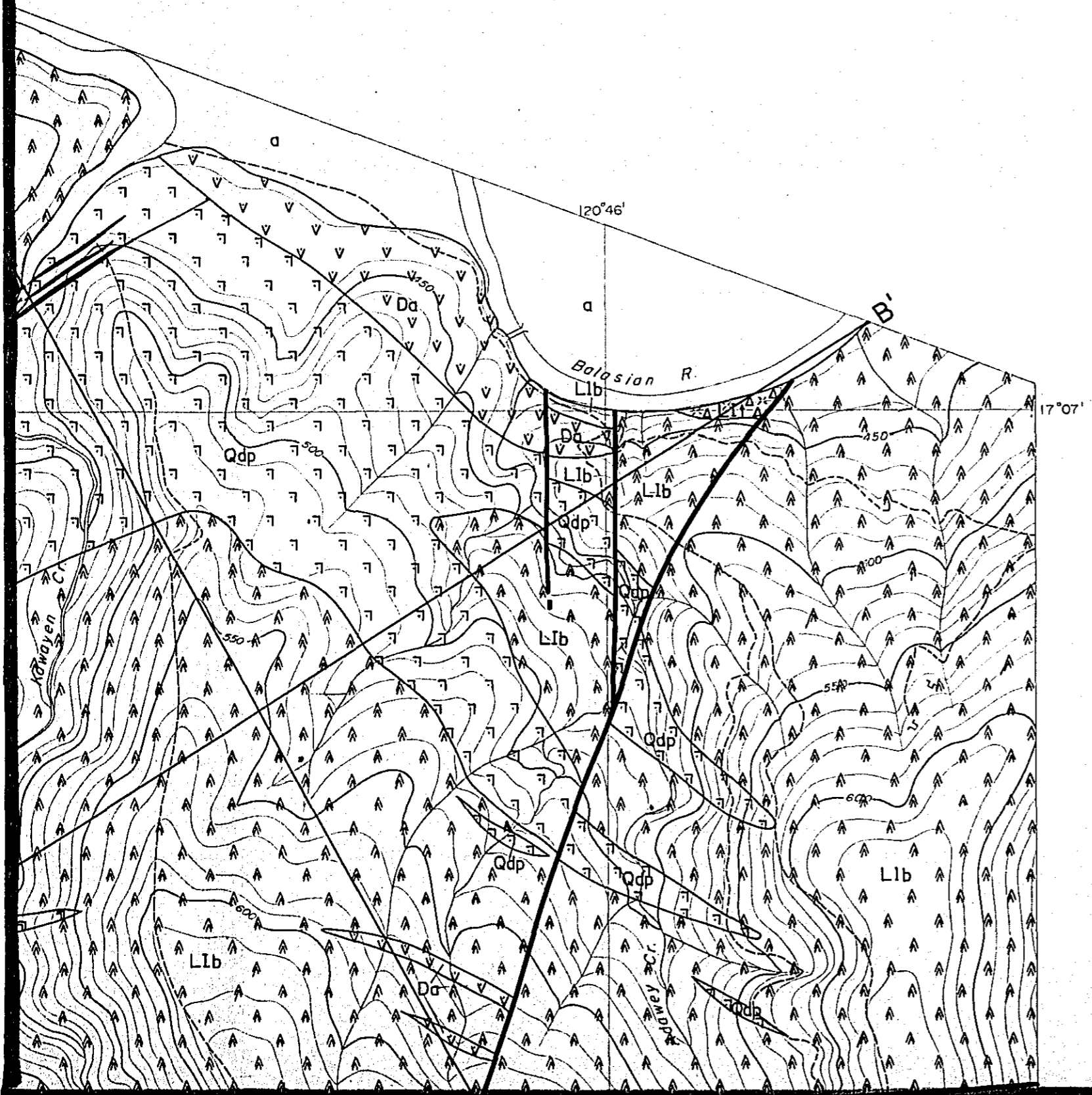




GEOLOGICAL SURVEY  
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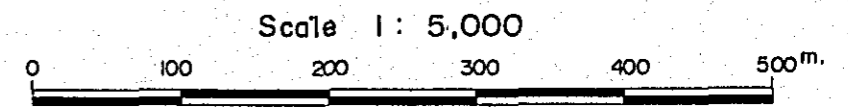
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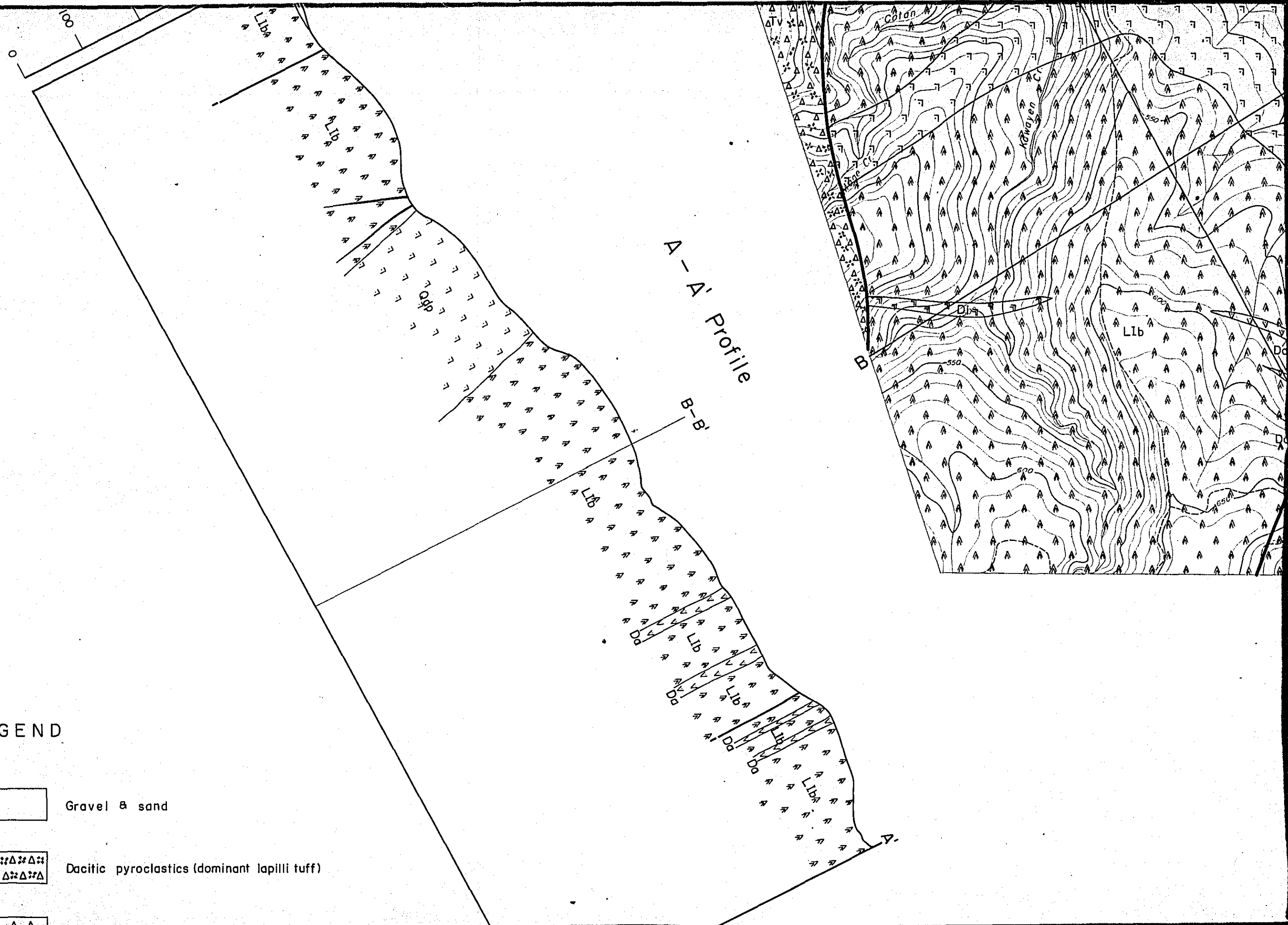
Geological Map & Profiles of  
Layacan Mineralized Area



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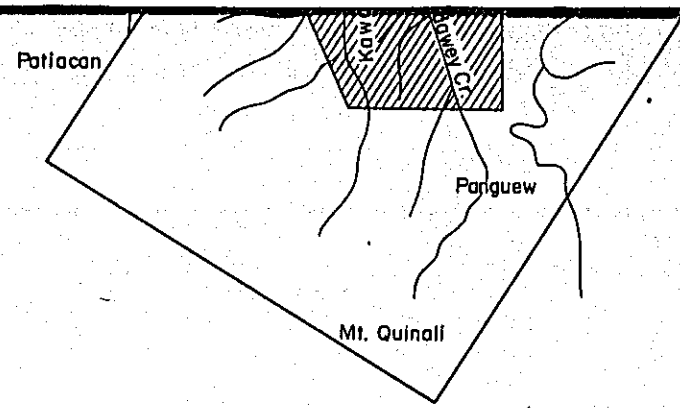
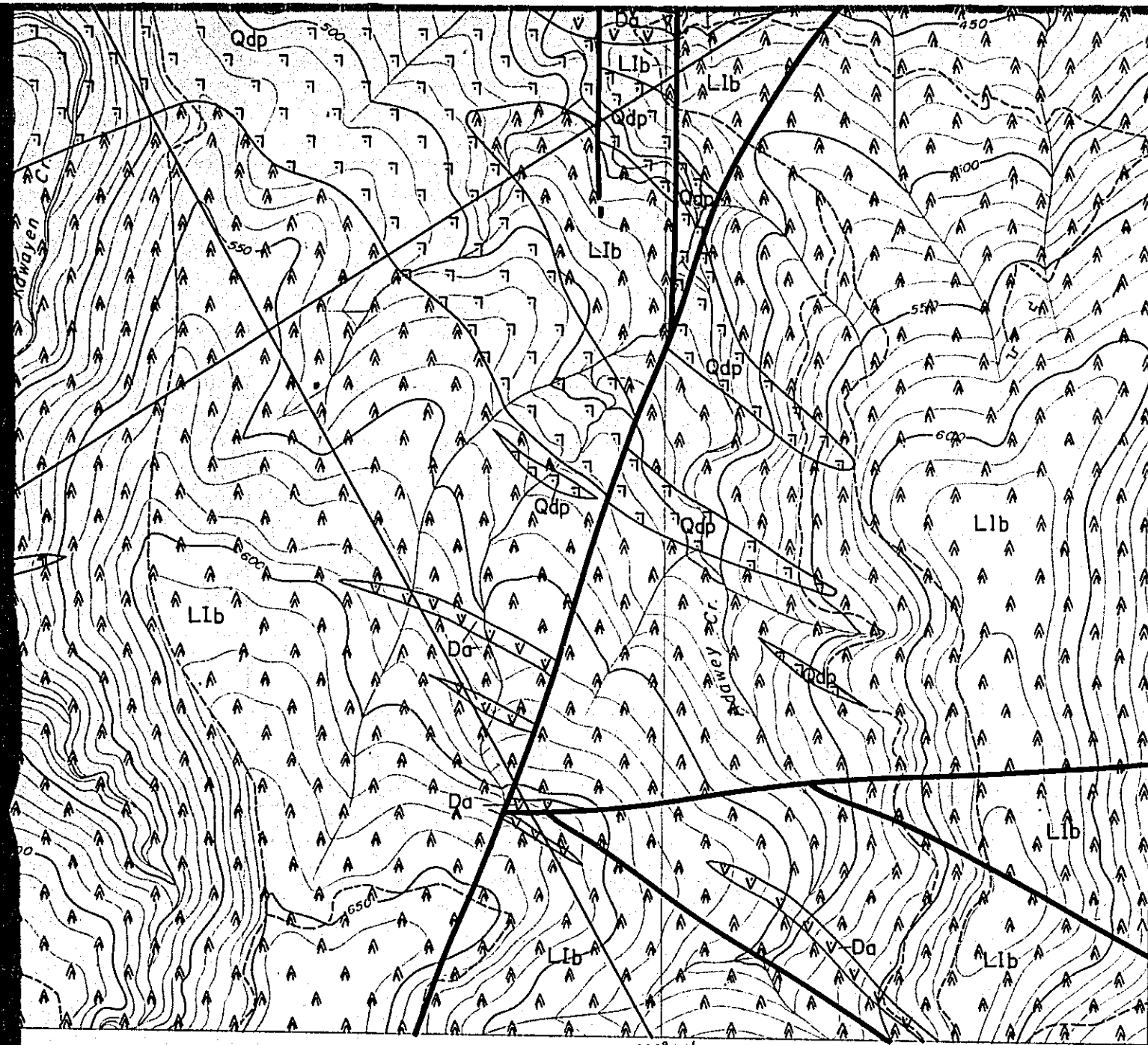
LEGEND

Alluvium a Gravel & sand

Tineg Formation Tv  Dacitic pyroclastics (dominant lapilli tuff)

L





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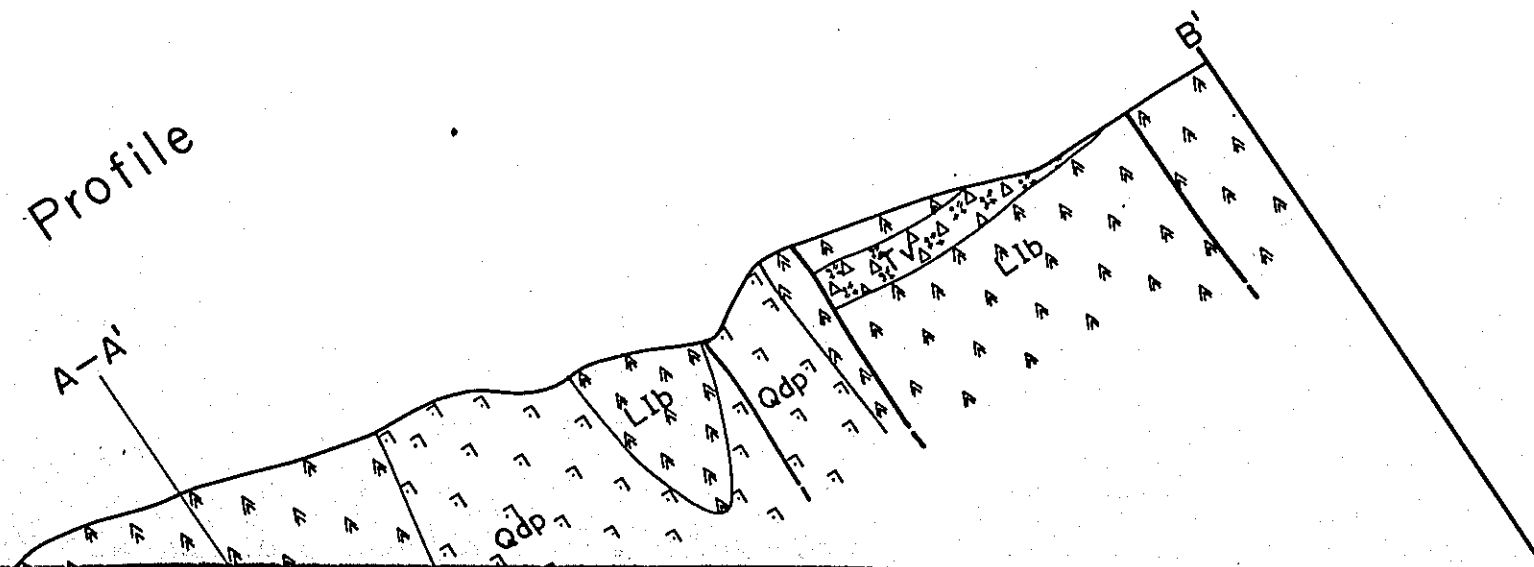
Prepared by Bishimetal Exploration Co., Ltd.

Scale 1 : 5,000



B-B' Profile

A-A'



# LEGEND

- Alluvium

a	
---	--

Gravel & sand
  
- Tineg Formation

Tv	::Δ::Δ:: Δ::Δ::Δ
----	---------------------

Dacitic pyroclastics (dominant lapilli tuff)
  
- Licuan Group  
Formation I

LIb	^ ^ ^ ^ ^
-----	--------------

Basalt~ basic andesite lava
  
- |     |                |
|-----|----------------|
| LIt | xΔxΔx<br>ΔxΔxΔ |
|-----|----------------|

Andesitic pyroclastics
  
- Intrusives

Da	v v v v v
----	--------------

Dacite dyke

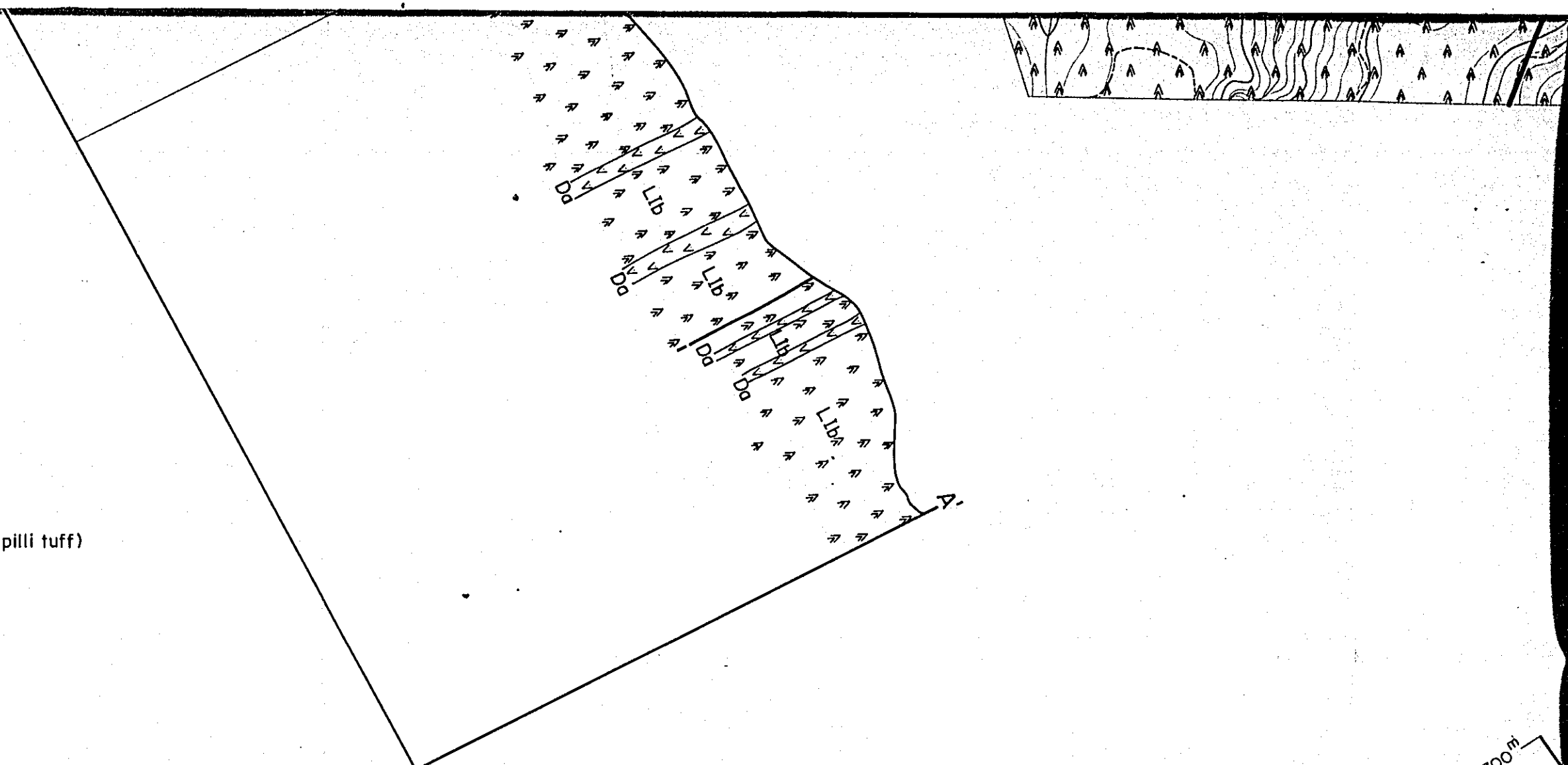
Qdp	7 7 7 7 7
-----	--------------

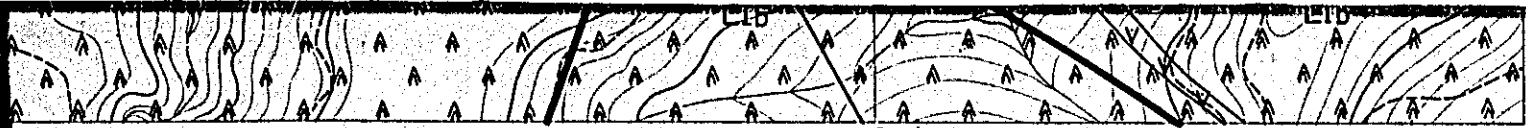
Quartz diorite porphyry dyke & stock

Di	7 7 7 7 7
----	--------------

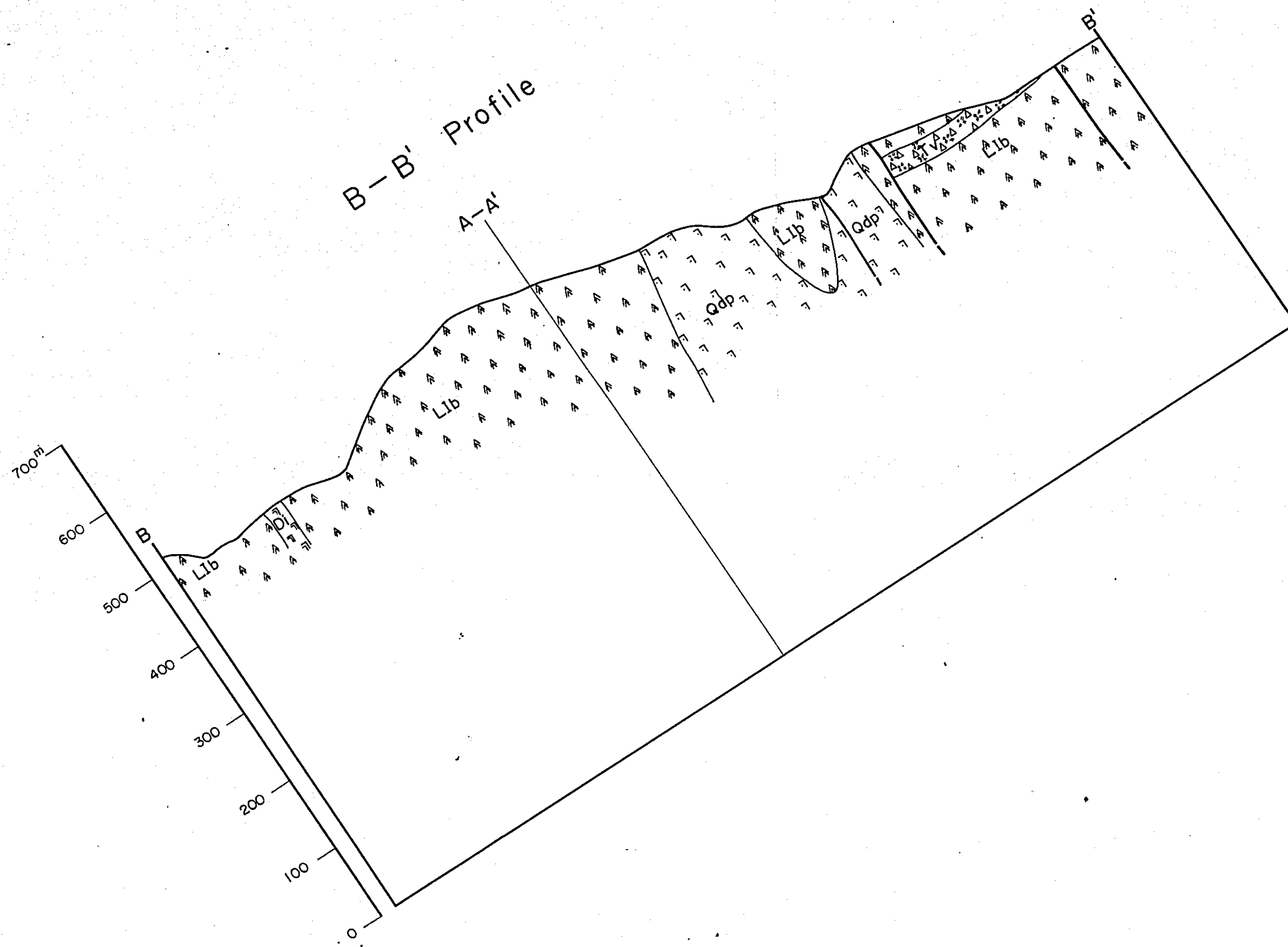
Micro-diorite~ dolerite dyke
  
- Others

	Fault
	Cupreferous vein
A	Profile line





120° 16'



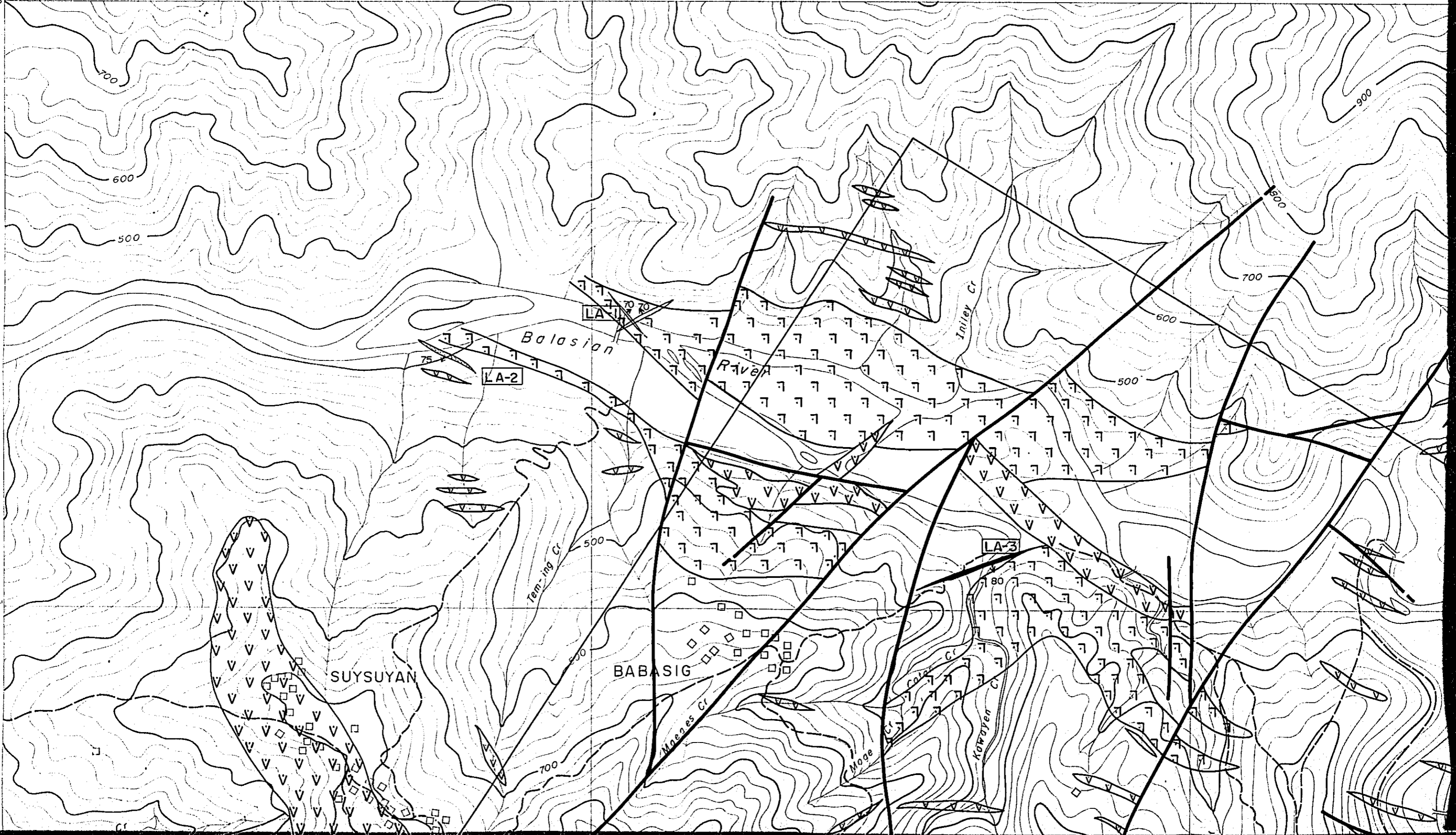


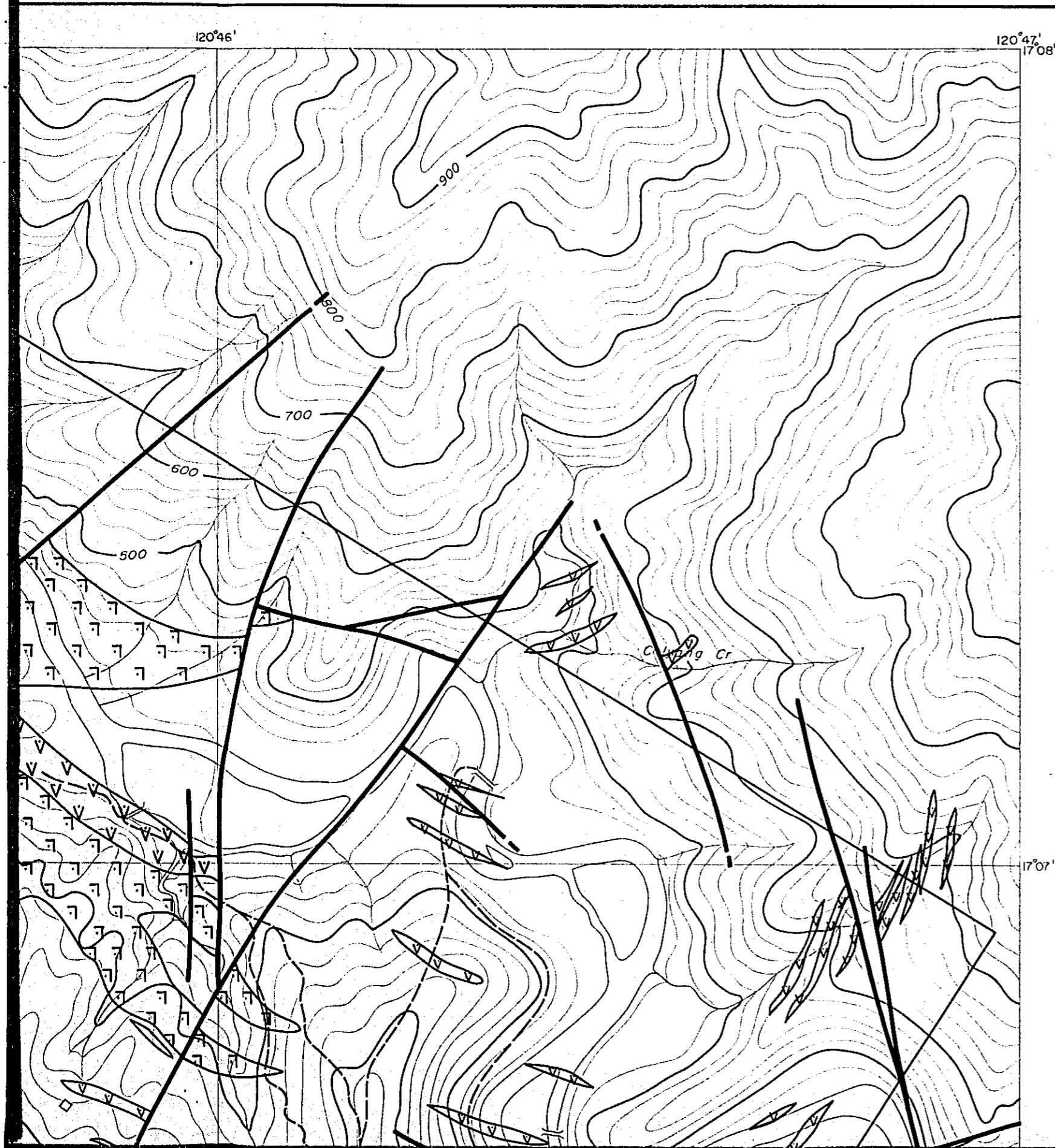
120°44'  
17°08'

120°45'

120°46'

17°07'

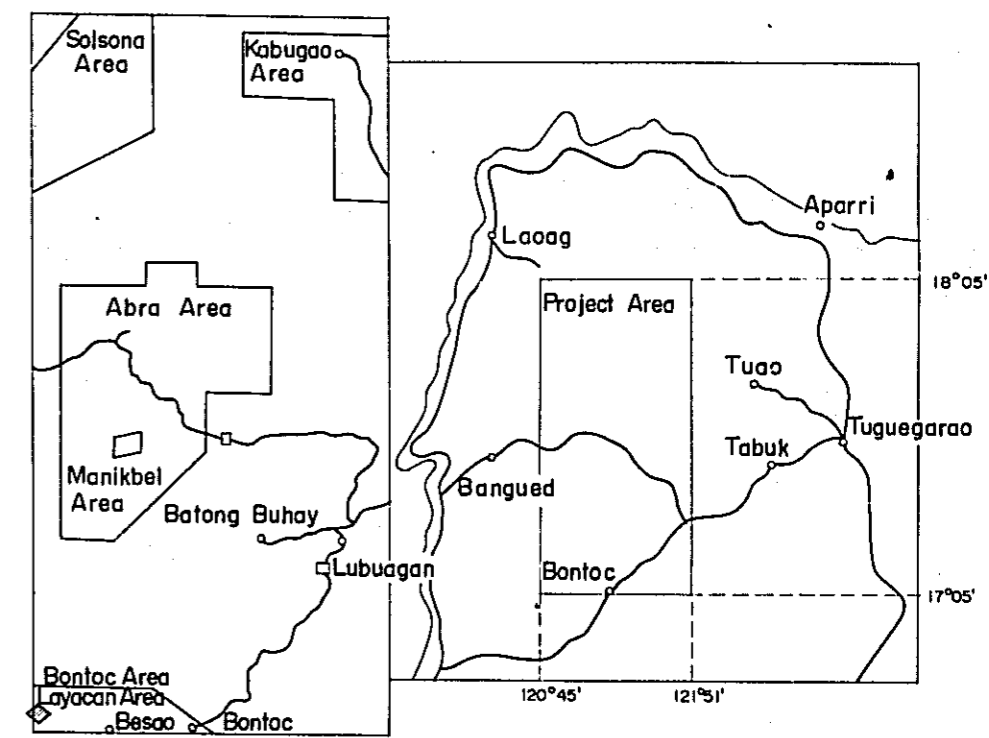




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**GEOLOGICAL SURVEY  
 OF  
 NORTHWESTERN LUZON  
 PHILIPPINES**  
 (PHASE III)

**Map Showing the Relationship between  
 Mineralized Zones and Geological Structure  
 in Layacan Area**  
 LOCATION INDEX

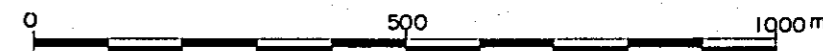


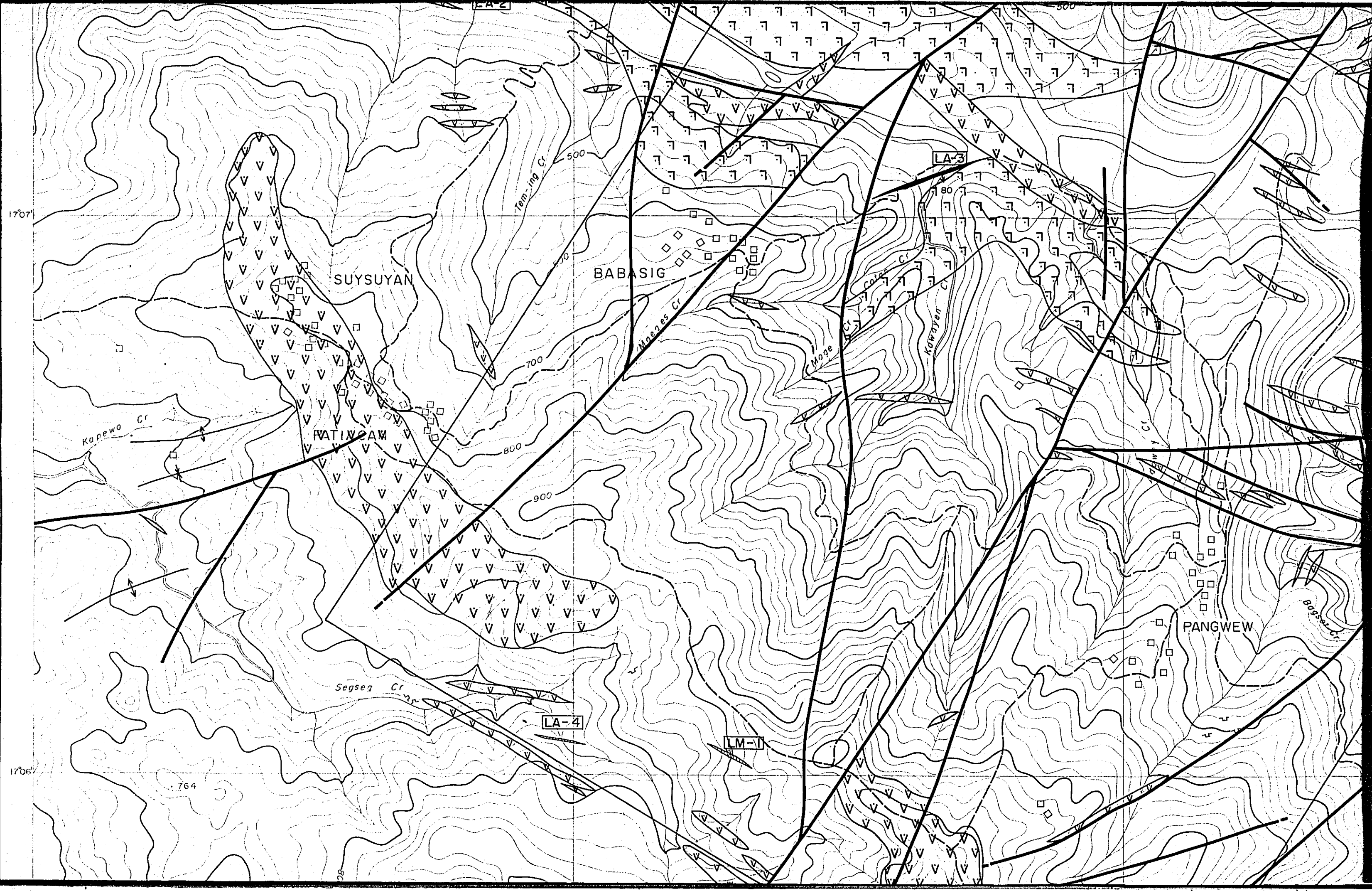
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September 1981

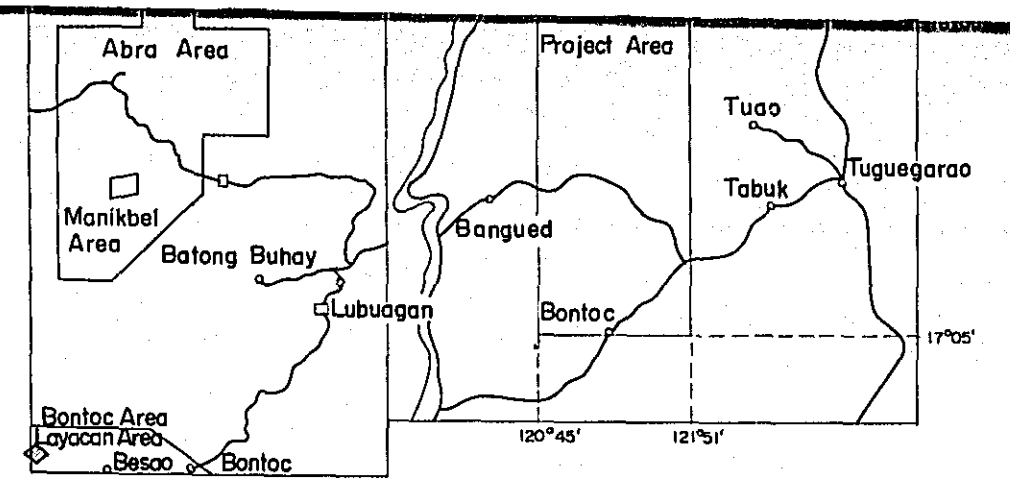
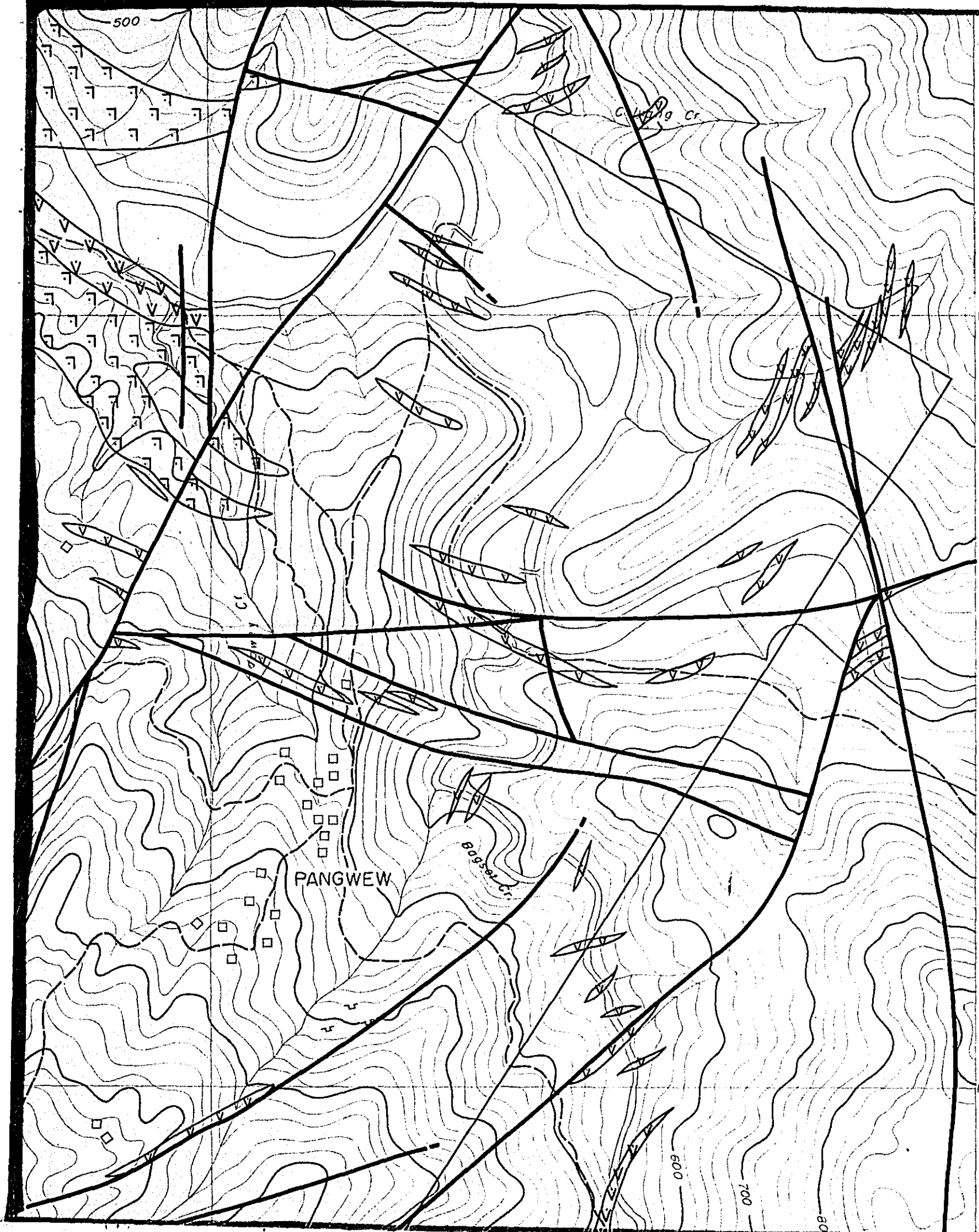
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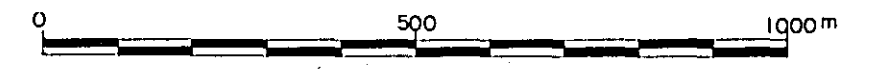


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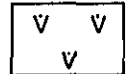
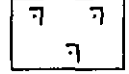
September 1981


Prepared by Bishimetal Exploration Co., Ltd.


Scale 1 : 10,000

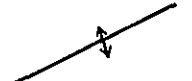


LEGEND


-  Licuan Group Formation I & Tineg Formation
-  Dacite dyke & stock
-  Quartz diorite porphyry stock

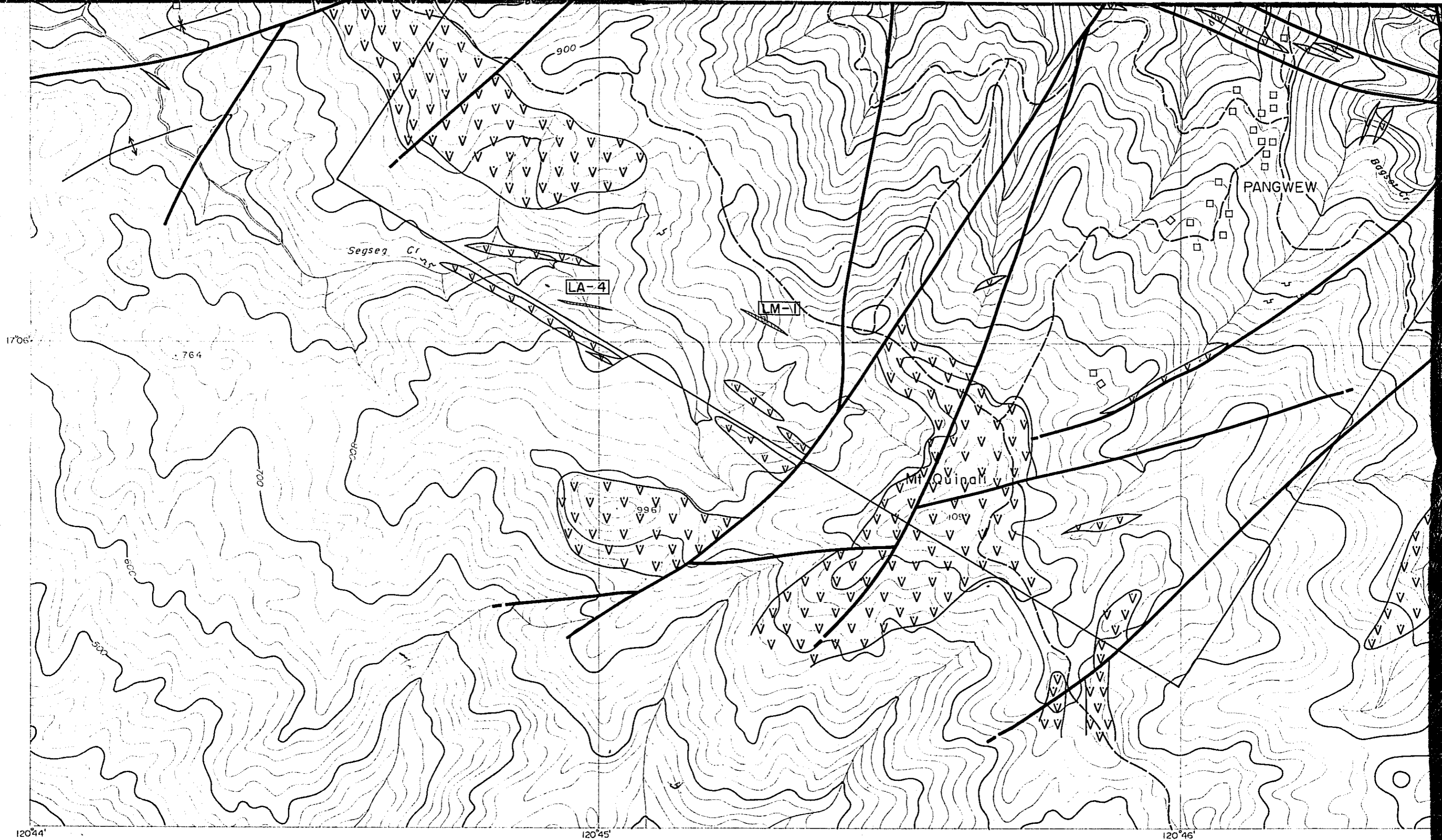
 Fault

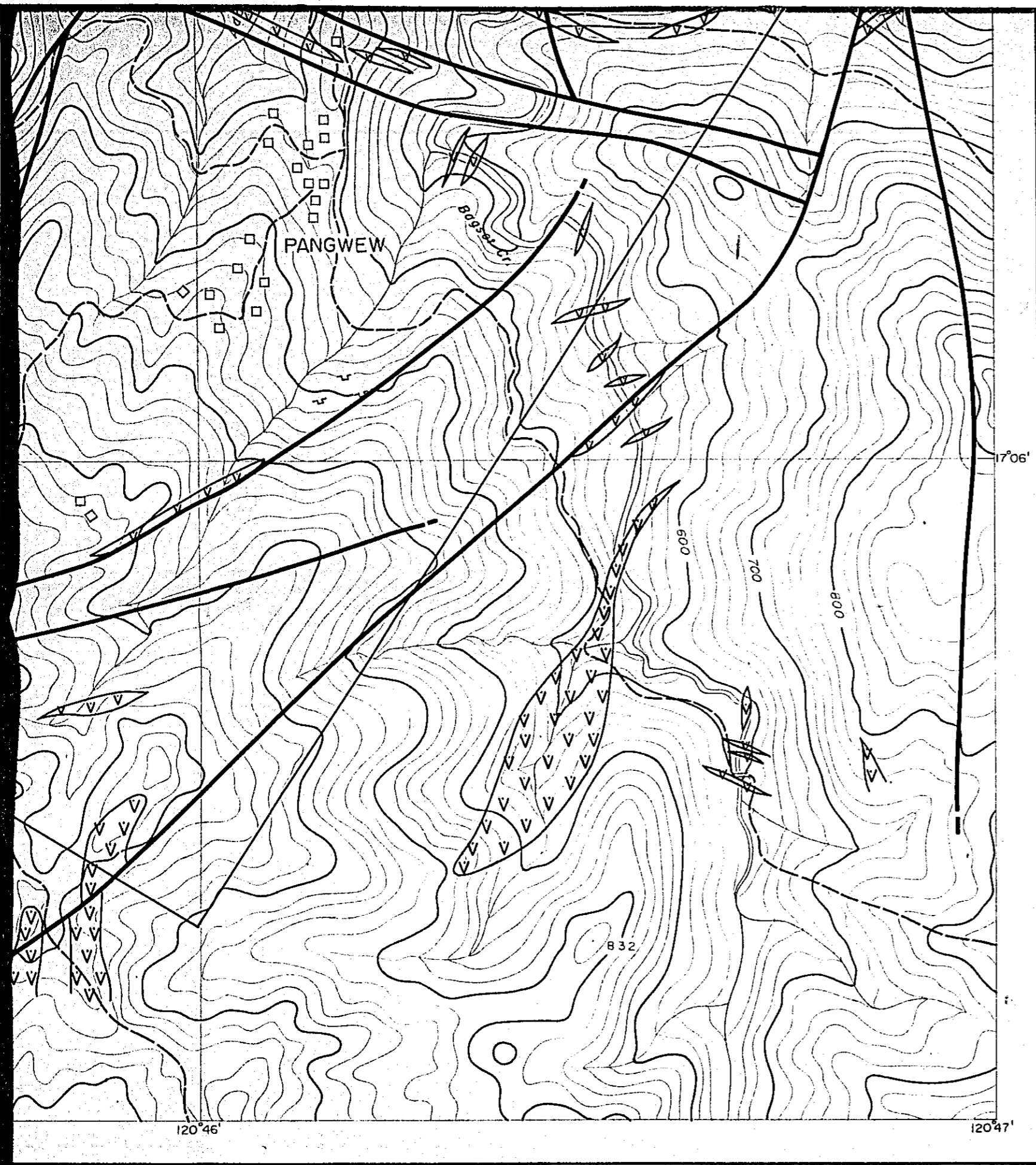
 Synclinal axis

 Anticlinal axis


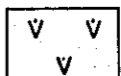
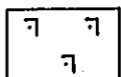


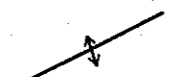

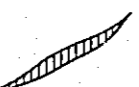

Mineralization

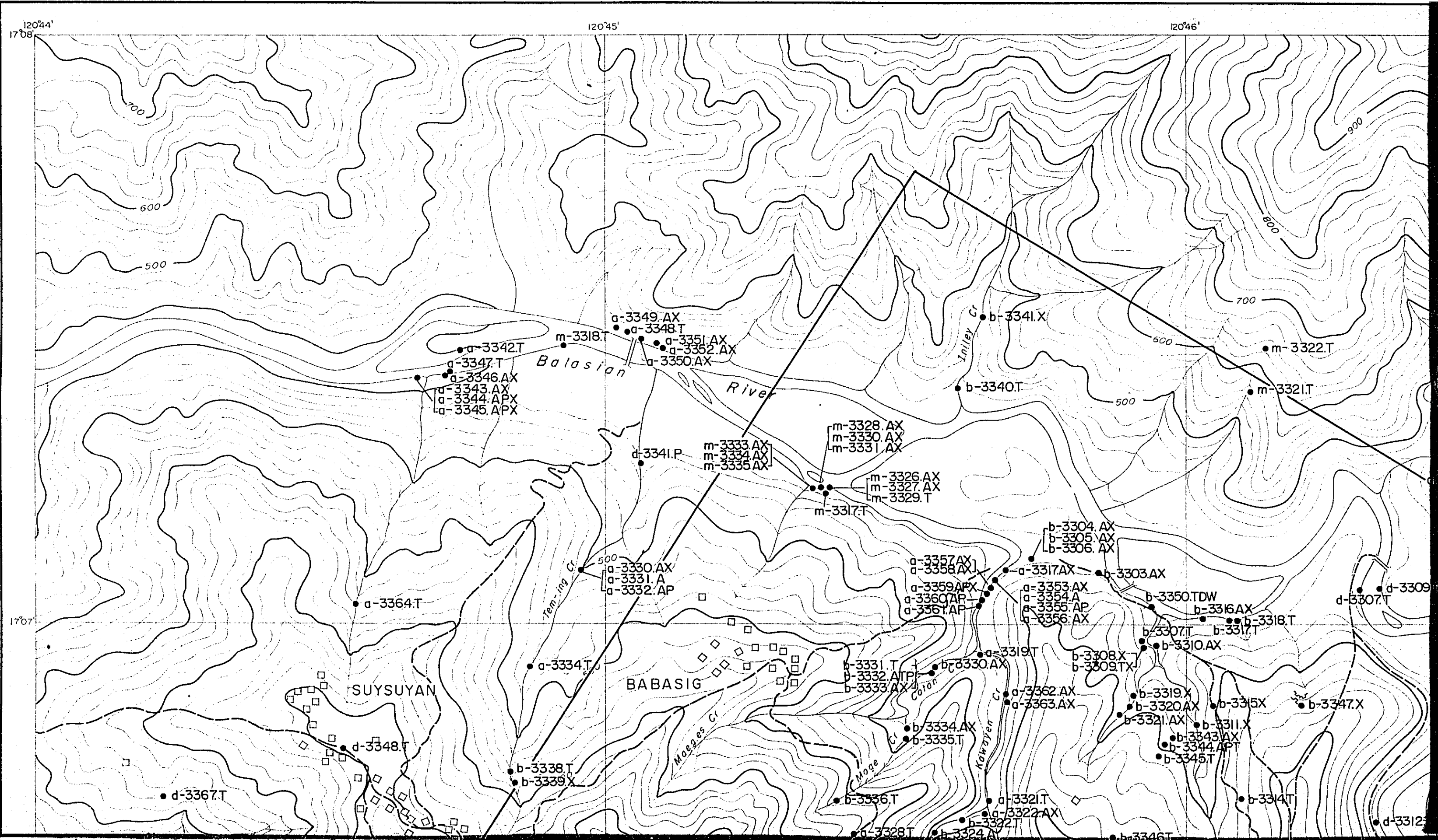
 Cupreiferous vein





# LEGEND

-  Licuan Group Formation I & Tineg Formation
-  Dacite dyke & stock
-  Quartz diorite porphyry stock
-  Fault
-  Synclinal axis
-  Anticlinal axis
- Mineralization**
-  Cupreiferous vein
-  Gold bearing cupriferous vein
-  Gold bearing vein



120°44'  
17°06'

120°45'

120°46'

17°07'

Balsian River

Iniley Cr.

Terning Cr.

BABASIG

Moeres Cr.

Kawayen Cr.

SUYSUYAN

a-3342.T  
a-3347.T  
a-3346.AX  
a-3343.AX  
a-3344.APX  
a-3345.APX

a-3349.AX  
a-3348.T  
a-3351.AX  
a-3352.AX  
a-3350.AX

b-3341.X  
b-3340.T

m-3322.T  
m-3321.T

m-3333.AX  
m-3334.AX  
m-3335.AX

m-3328.AX  
m-3330.AX  
m-3331.AX  
m-3326.AX  
m-3327.AX  
m-3329.T  
m-3317.T

a-3330.AX  
a-3331.A  
a-3332.AP

a-3357.AX  
a-3358.AX  
a-3359.APX  
a-3360.AP  
a-3361.AP

b-3304.AX  
b-3305.AX  
b-3306.AX

a-3364.T

a-3334.T

b-3331.T  
b-3332.AX  
b-3333.AX

a-3317.AX  
a-3353.AX  
a-3354.A  
a-3355.AP  
a-3356.AX

b-3303.AX

b-3350.TDW  
b-3316.AX  
b-3317.T

d-3309  
d-3307.T

d-3348.T

b-3338.T  
b-3339.X

a-3319.T  
b-3330.AX

b-3308.X  
b-3309.TX

b-3319.X  
b-3320.AX  
b-3321.AX  
b-3311.X

b-3315.X  
b-3347.X

d-3367.T

b-3336.T

a-3321.T  
a-3322.AX

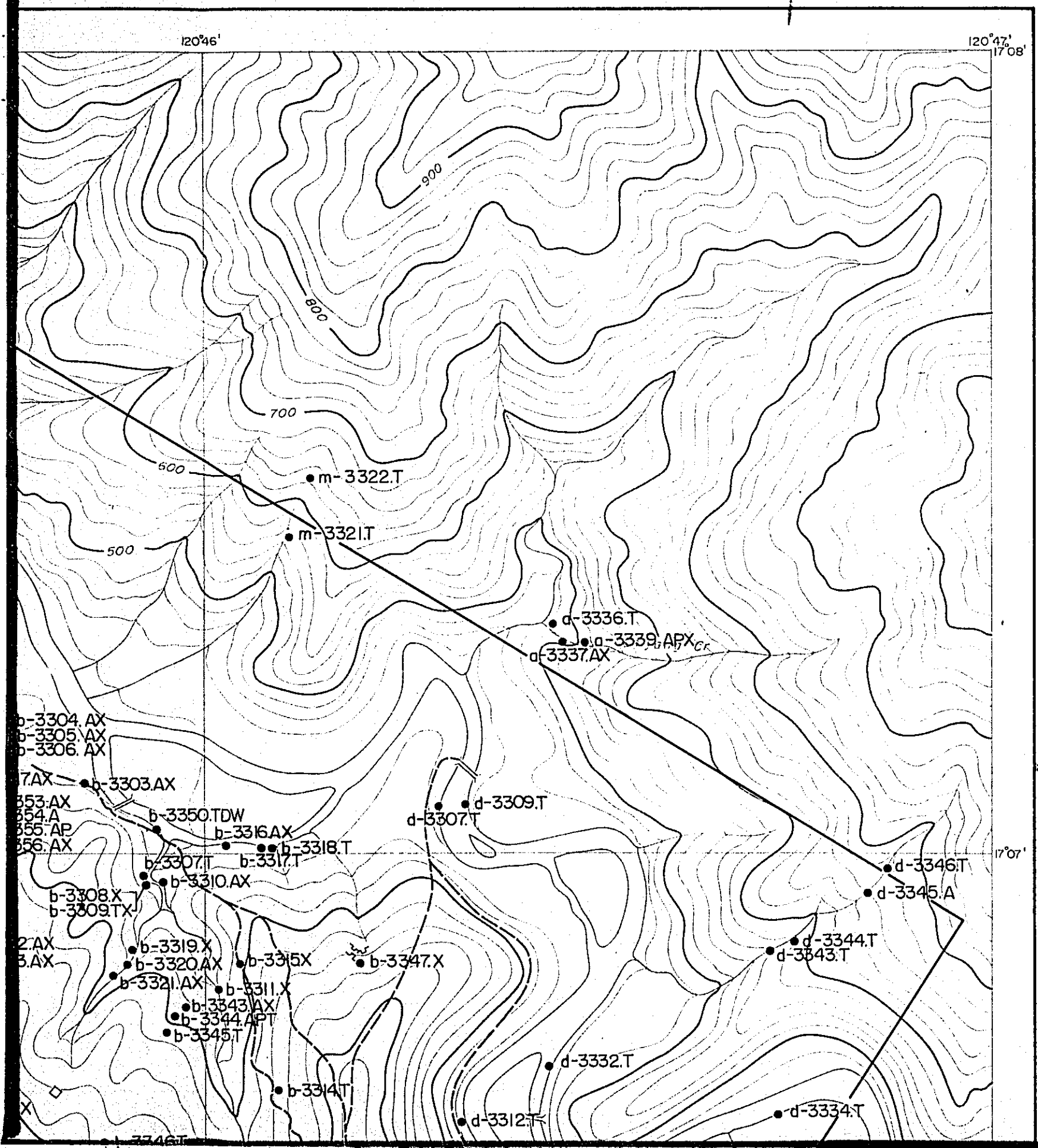
b-3314.T

d-3312

a-3328.T  
b-3324.AX

b-3346.T



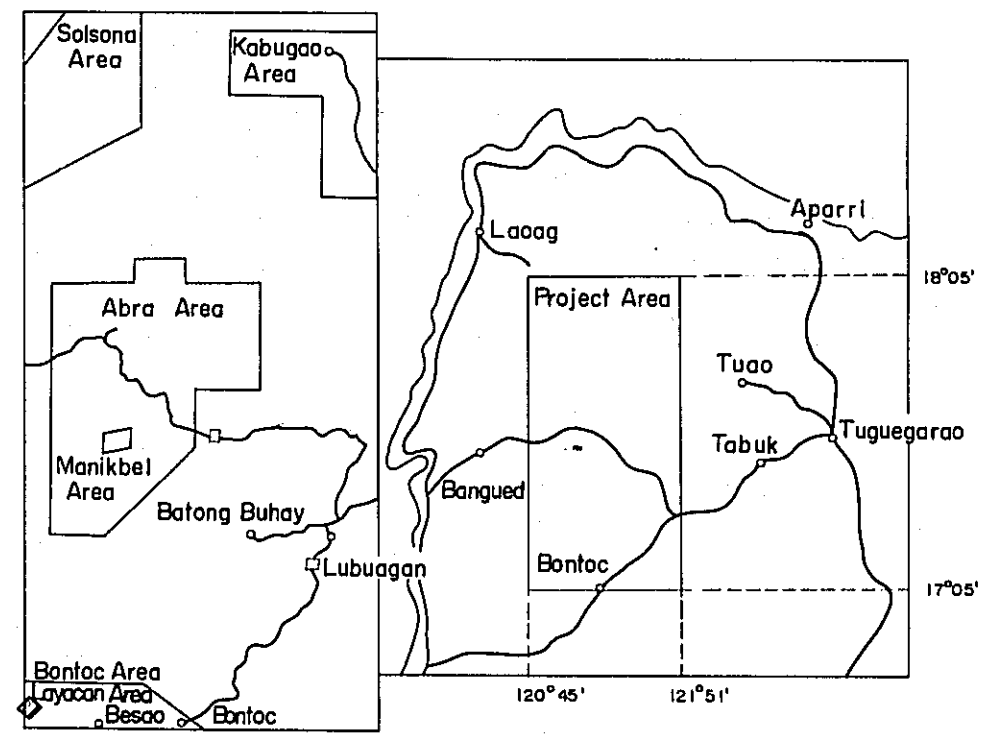


PL. I-2-5  
 国際協力事業団  
 08456  
 図書資料部蔵書

# GEOLOGICAL SURVEY OF NORTHWESTERN LUZON PHILIPPINES

(PHASE III)  
 Location Map of  
 Analyzed Rock Samples of  
 Layacan Area

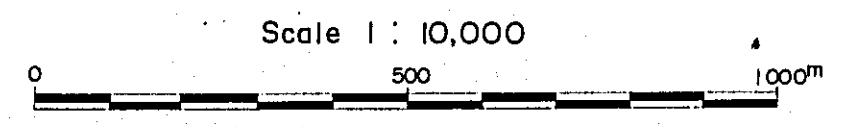
LOCATION INDEX

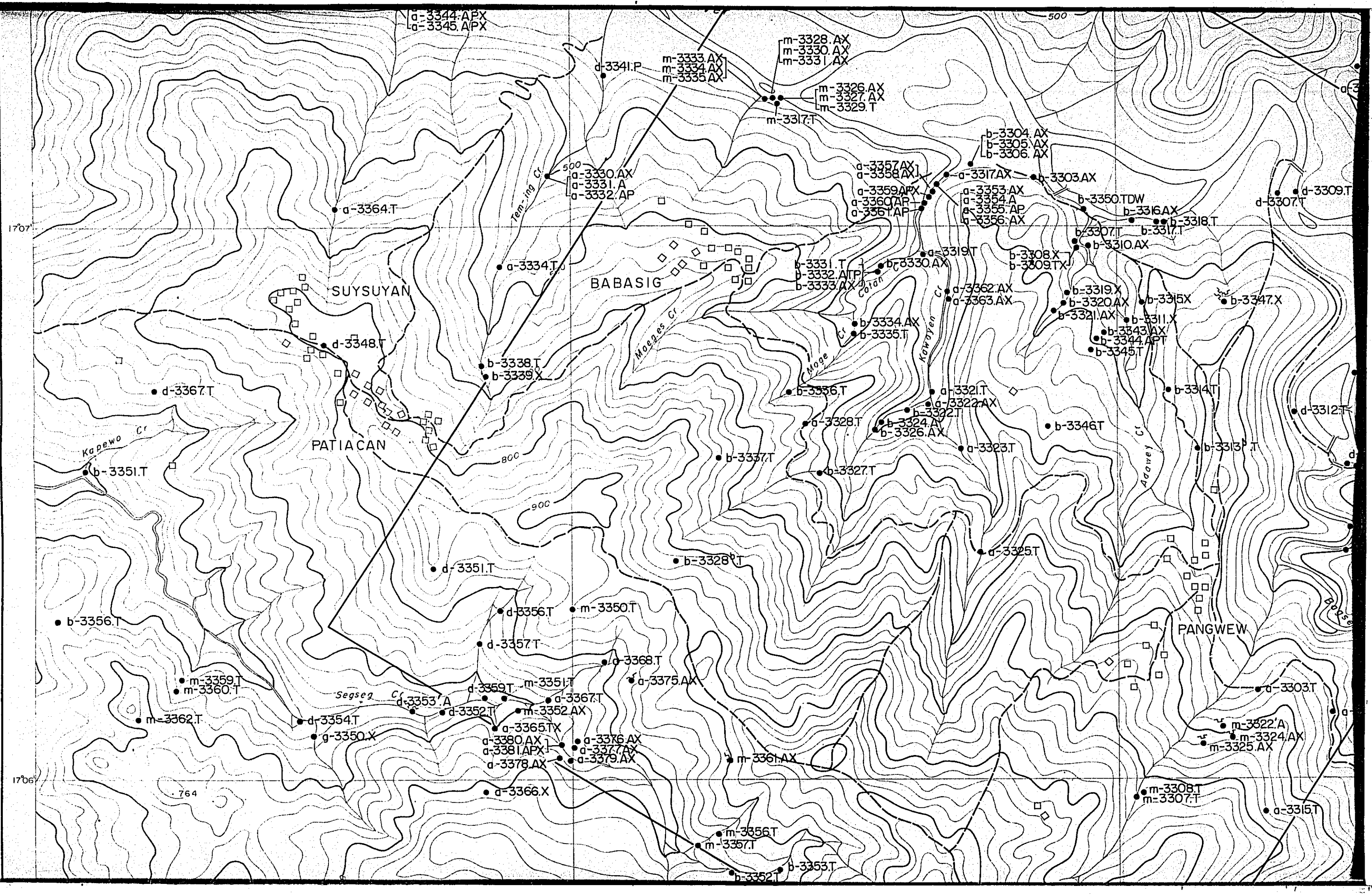


METAL MINING AGENCY OF JAPAN  
 JAPAN INTERNATIONAL COOPERATION AGENCY

September 1981

Prepared by Bishimetal Exploration Co., Ltd.





a-3344.APX  
a-3345.APX

m-3333.AX  
m-3334.AX  
m-3335.AX

m-3328.AX  
m-3330.AX  
m-3331.AX

m-3326.AX  
m-3327.AX  
m-3329.T

b-3304.AX  
b-3305.AX  
b-3306.AX

500  
a-3330.AX  
a-3331.A  
a-3332.AP

a-3357.AX  
a-3358.AX

a-3353.AX  
a-3354.A  
a-3355.AP  
a-3356.AX

a-3364.T

b-3350.TDW  
b-3316.AX  
b-3317.T

d-3309.T  
d-3307.T

17°07'

SUYSUYAN

BABASIG

PATIACAN

PANGWEW

Kapewo Cr.

800

900

Segseg Cr.

d-3353.A

d-3352.T

a-3365.TX  
a-3380.AX  
a-3381.APX  
a-3378.AX

a-3376.AX  
a-3377.AX  
a-3379.AX

a-3366.X

17°06'

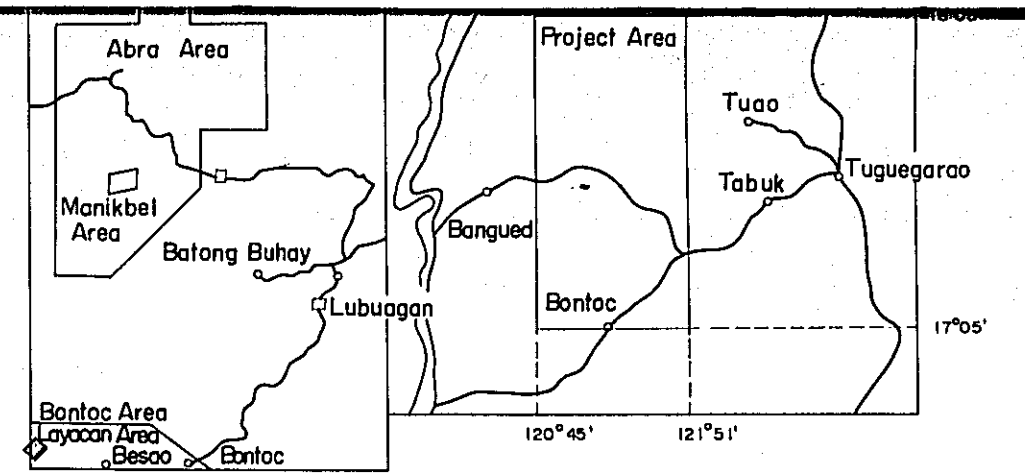
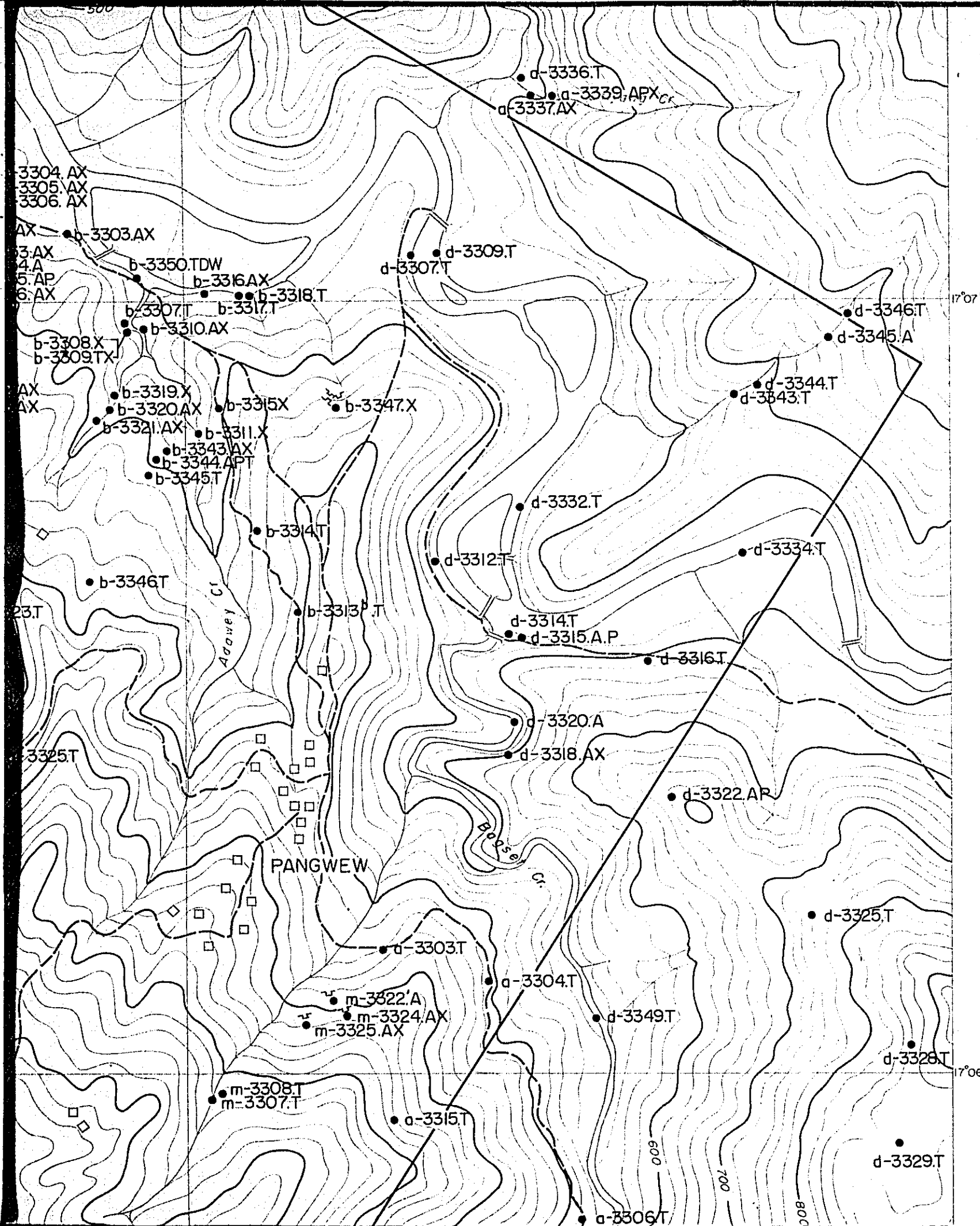
764

m-3356.T  
m-3357.T

b-3352.T  
b-3353.T

m-3308.T  
m-3307.T

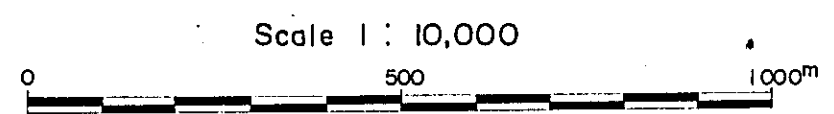
a-3315.T



METAL MINING AGENCY OF JAPAN  
 JAPAN INTERNATIONAL COOPERATION AGENCY

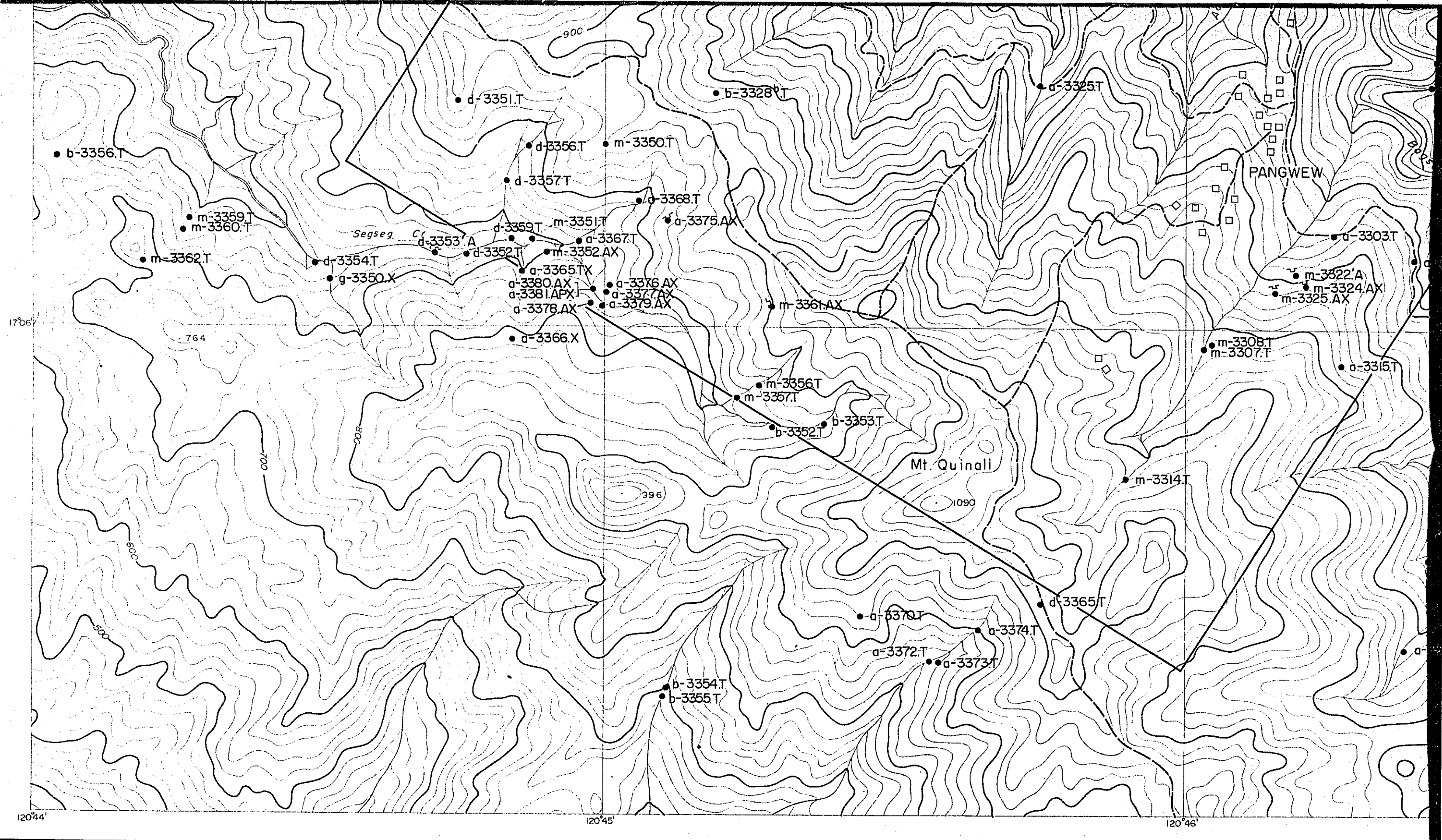
September 1981

Prepared by Bishimetal Exploration Co., Ltd.



LEGEND

- a-3301 Sampling site & sample number
- T Thin section
- P Polished section
- A Chemical analysis of ore
- W Chemical analysis of whole rock
- D K-Ar dating
- X X-ray



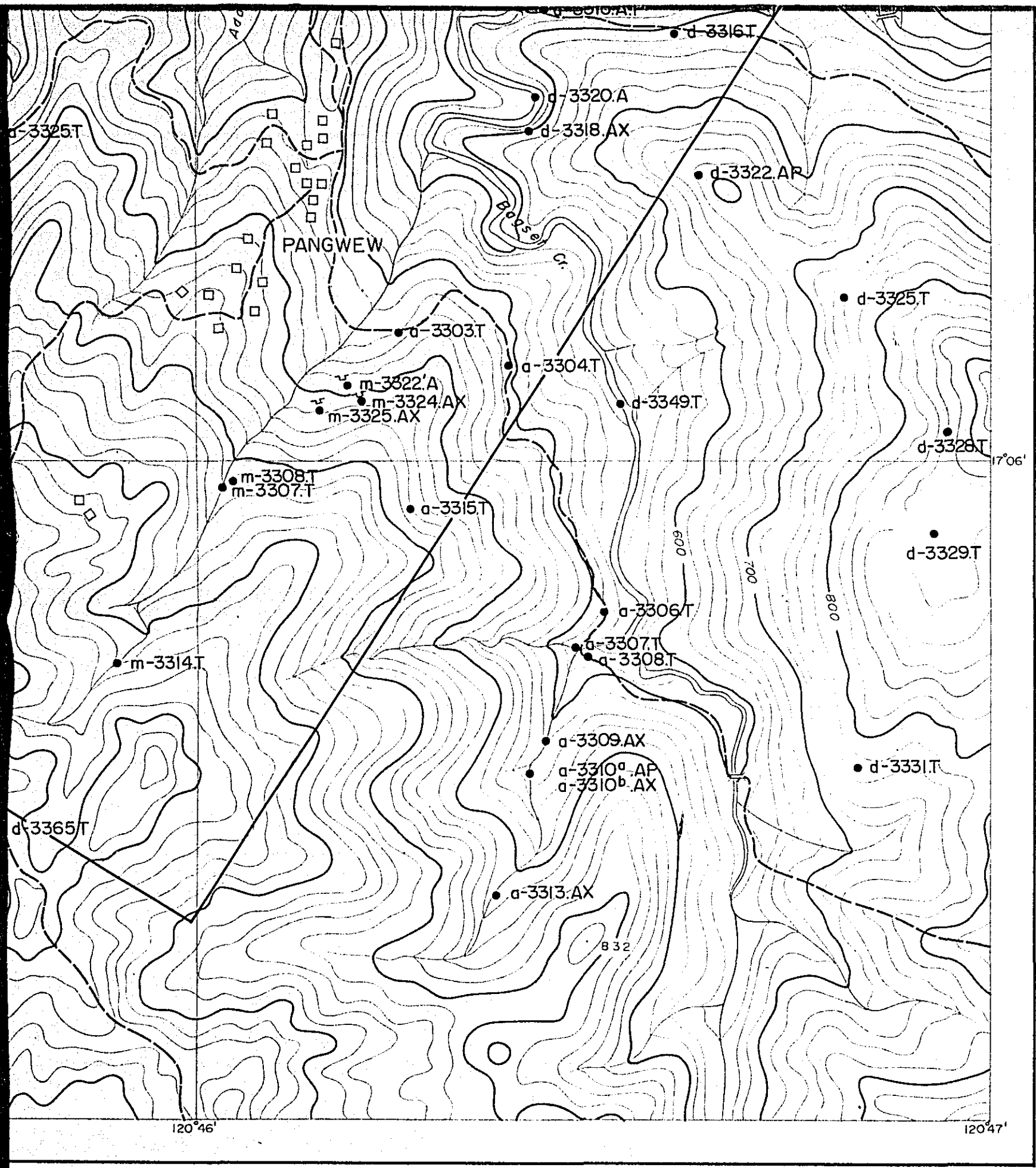
120°44'

120°45'

120°46'

17°06'





### LEGEND

- a-3301 Sampling site & sample number
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