

タイ王国MAE-SOT地区産
オイルシェール利用セメント工場
建設計画調査報告書

図面集

昭和58年8月

国際協力事業団

タイ王国MAE-SOT地区産
オイルシェール利用セメント工場
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昭和58年8月

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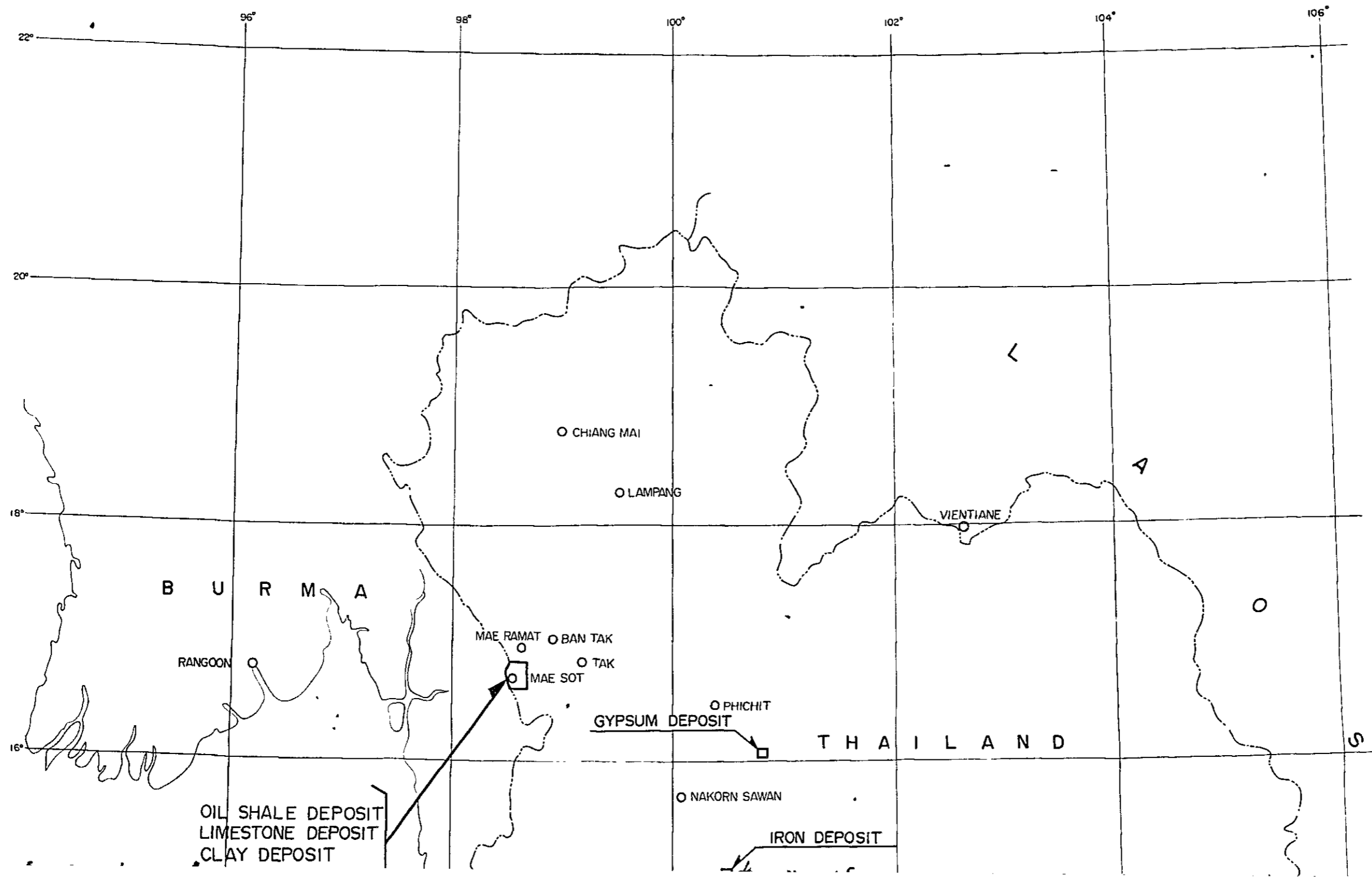
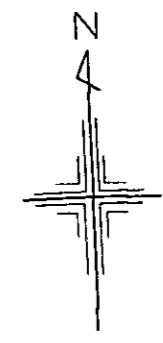
国際協力事業団	
受入 月日 184. 8. 24	122
登録No. 13864	68.3
	MPI

国際協力事業団

工 務 部

801 - 88

LOCATION MAP OF RAW MATERIAL DEPOSITS



OIL SHALE DEPOSIT
LIMESTONE DEPOSIT
CLAY DEPOSIT
SILICA SAND DEPOSIT

A N D A M A N

14°

S E A

12°

○ NAKORN SAWAN

IRON DEPOSIT

○ SARA BURI

◎ BANGKOK

C A M B O D I A

PHNOM PENH

G U L F

O F

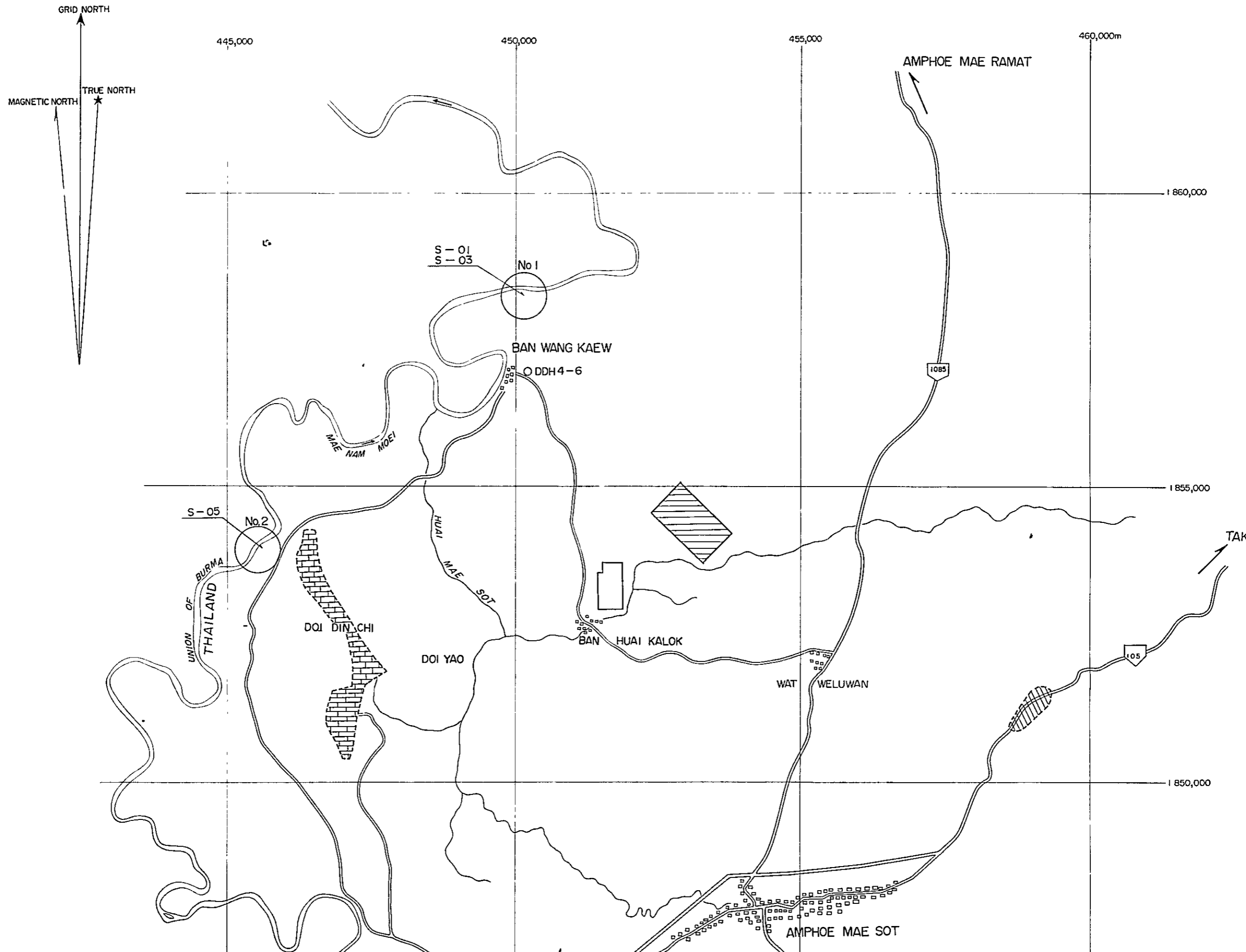
S I A M

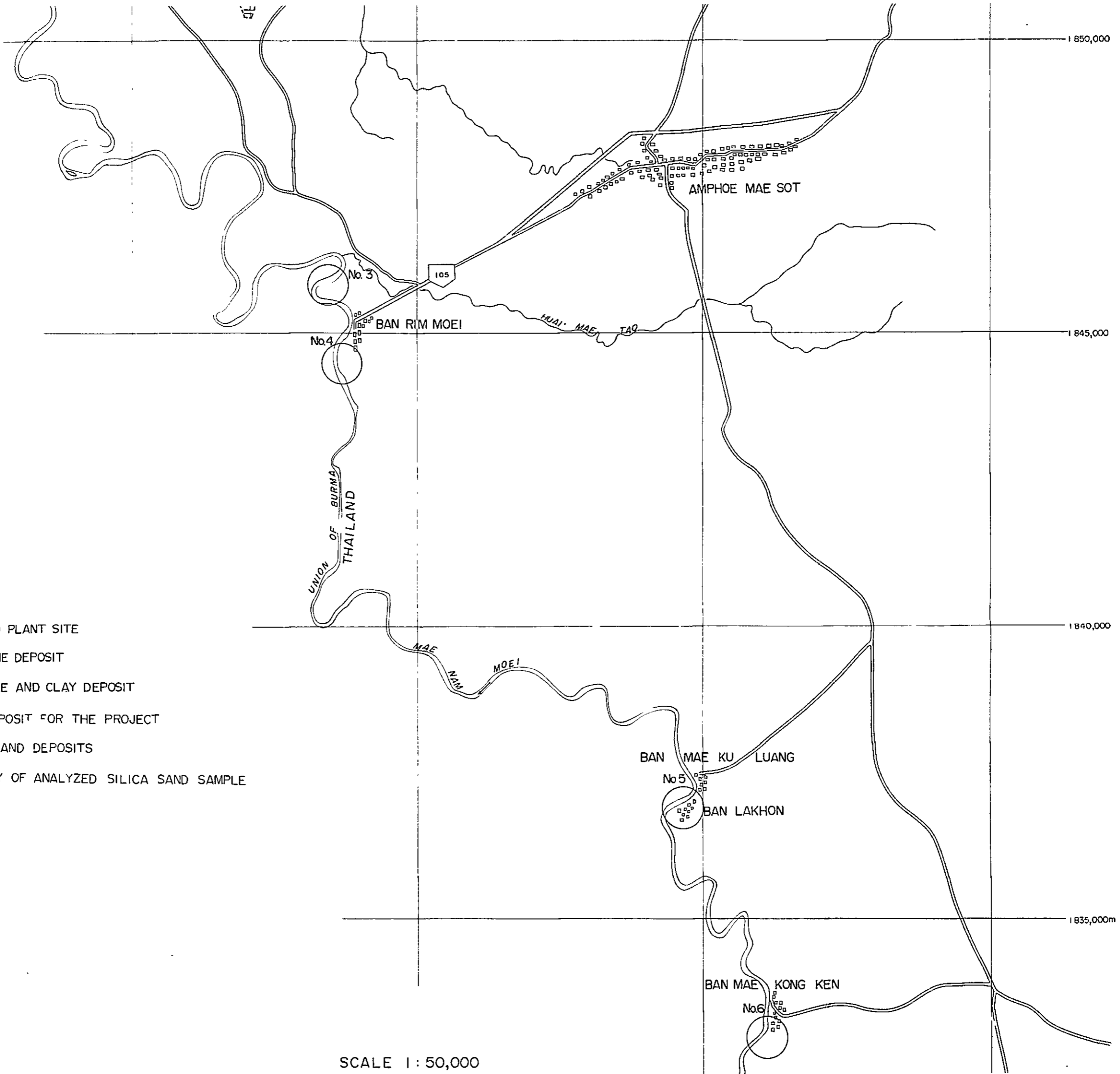
10°

SCALE 1 : 4,000,000








INDEX MAP OF RAW MATERIAL DEPOSITS AND PROPOSED PLANT SITE











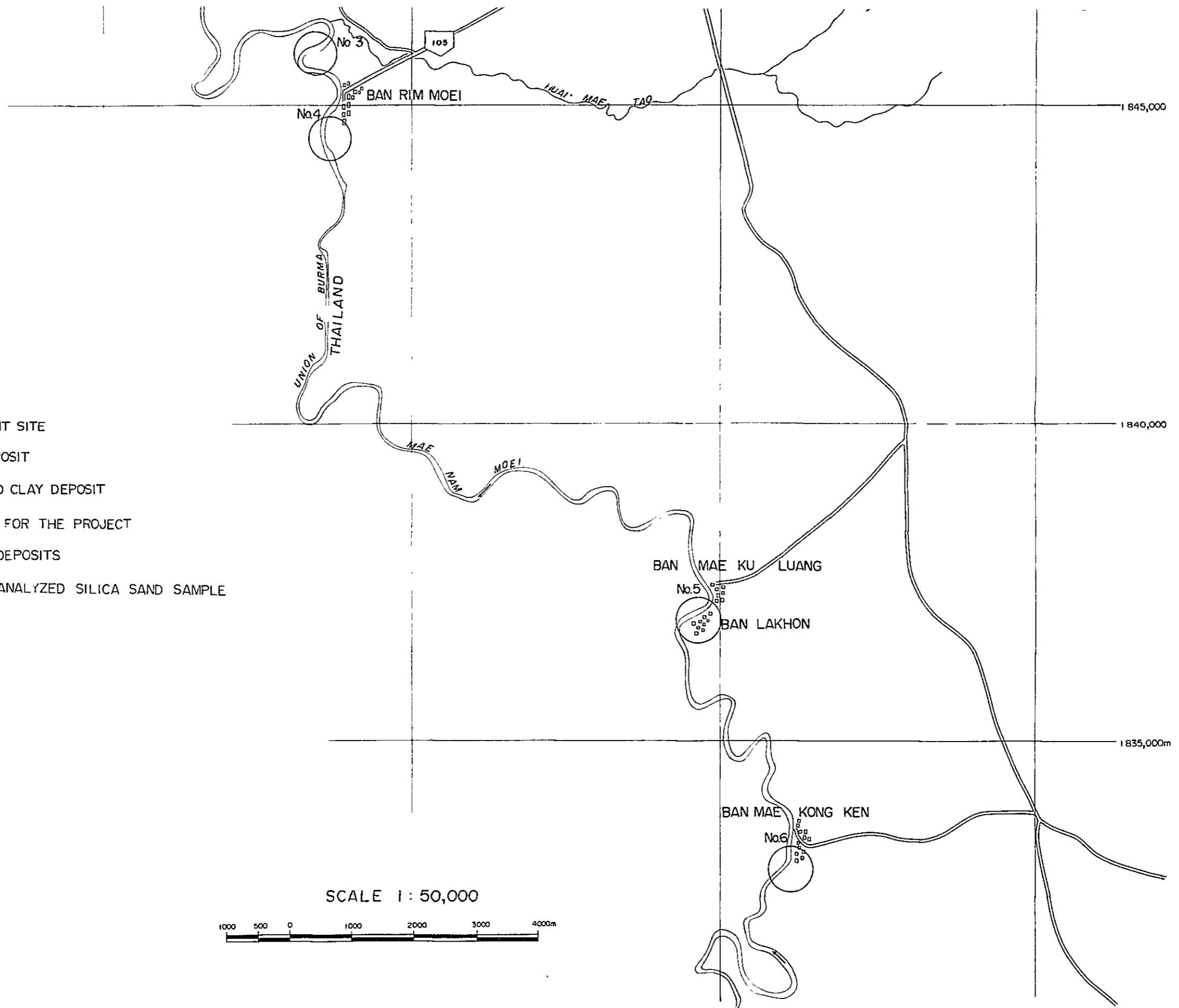
LEGEND

-  PROPOSED PLANT SITE
-  LIMESTONE DEPOSIT
-  OIL SHALE AND CLAY DEPOSIT
-  CLAY DEPOSIT FOR THE PROJECT
-  SILICA SAND DEPOSITS
- S-01 LOCALITY OF ANALYZED SILICA SAND SAMPLE

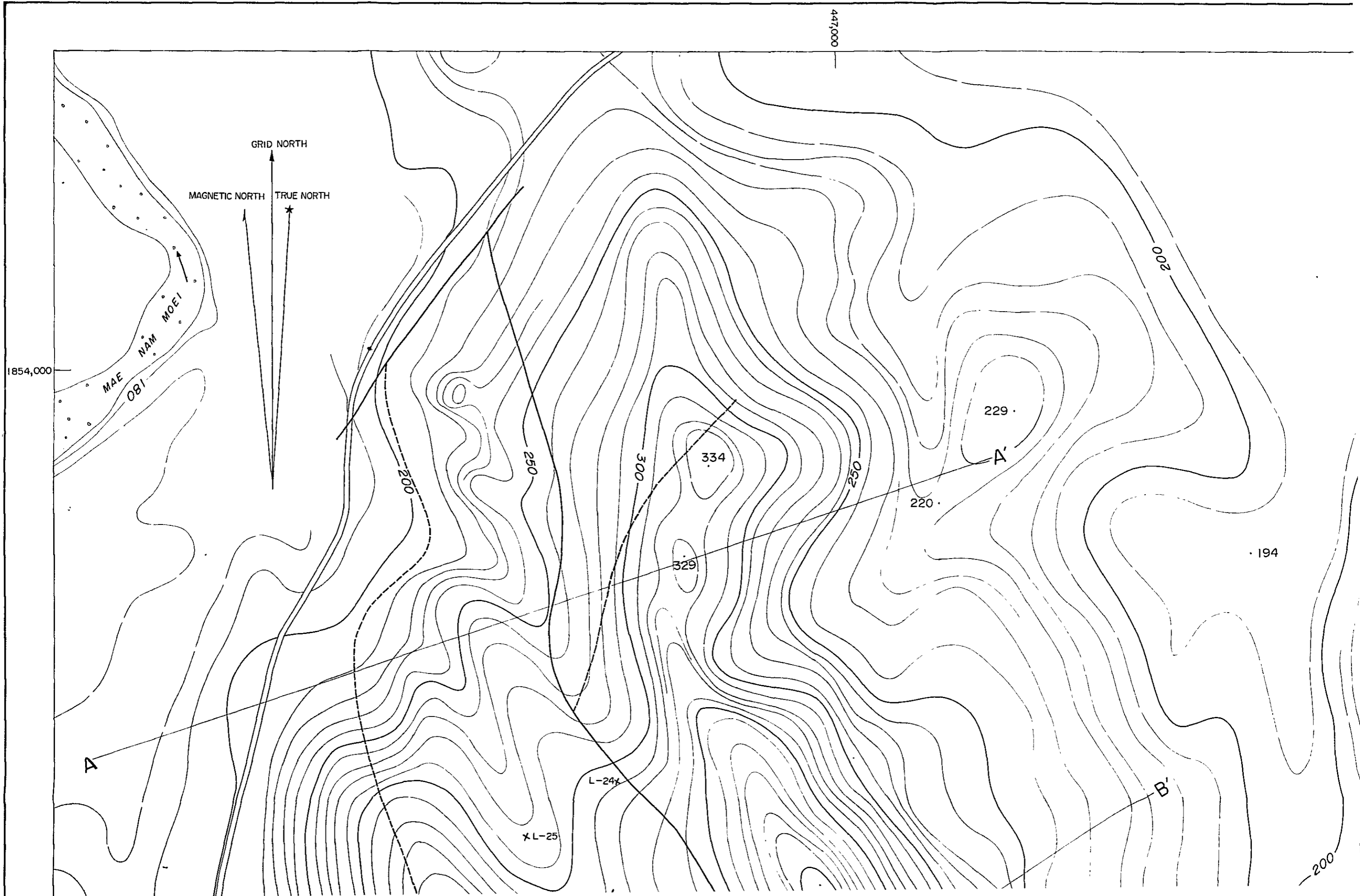
SCALE 1 : 50,000

LEGEND

-  PROPOSED PLANT SITE
-  LIMESTONE DEPOSIT
-  OIL SHALE AND CLAY DEPOSIT
-  CLAY DEPOSIT FOR THE PROJECT
-  SILICA SAND DEPOSITS
-  S-01 LOCALITY OF ANALYZED SILICA SAND SAMPLE



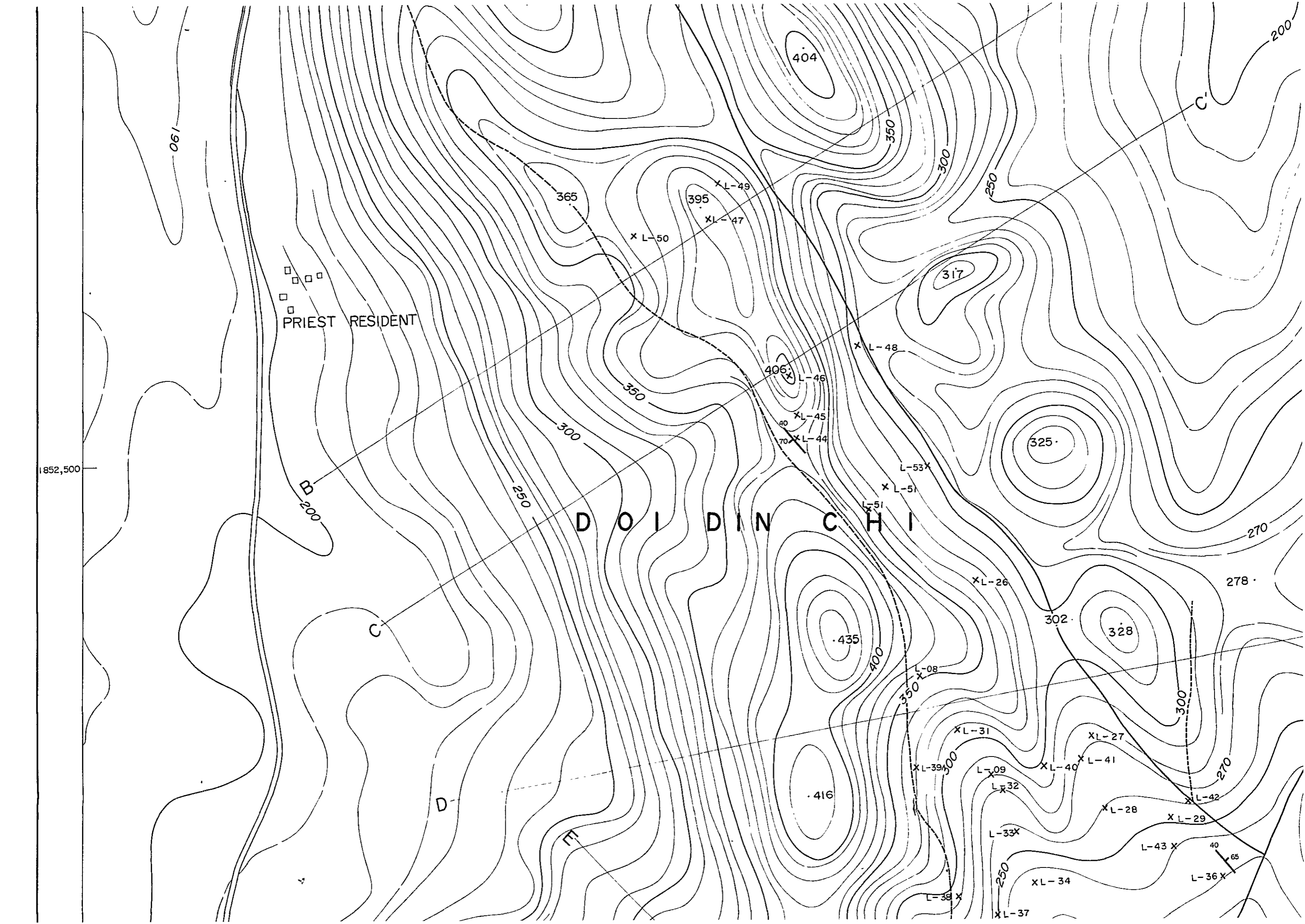
TOPOGRAPHICAL AND GEOLOGICAL MAP OF DOI DIN CHI LIMESTONE

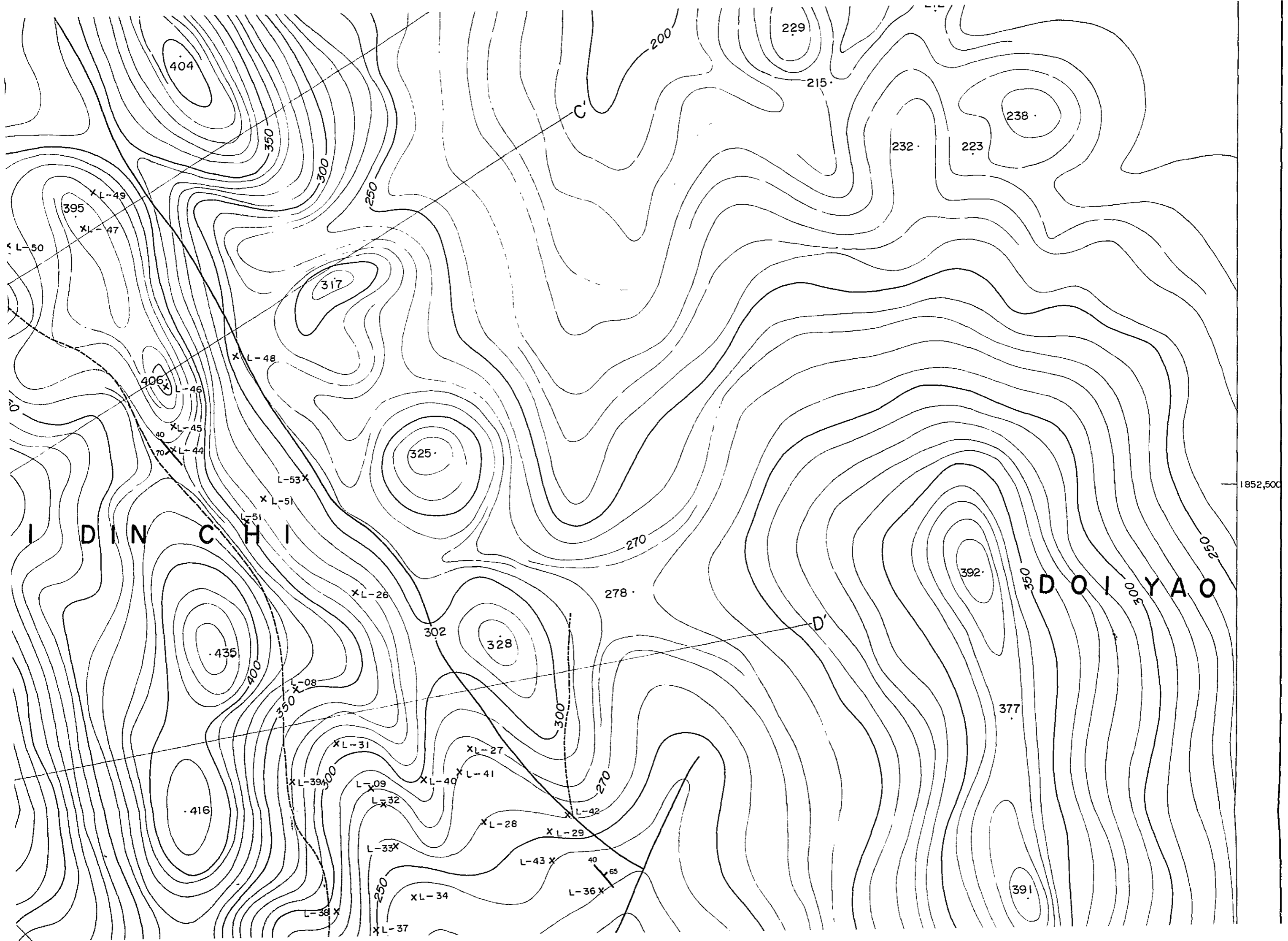


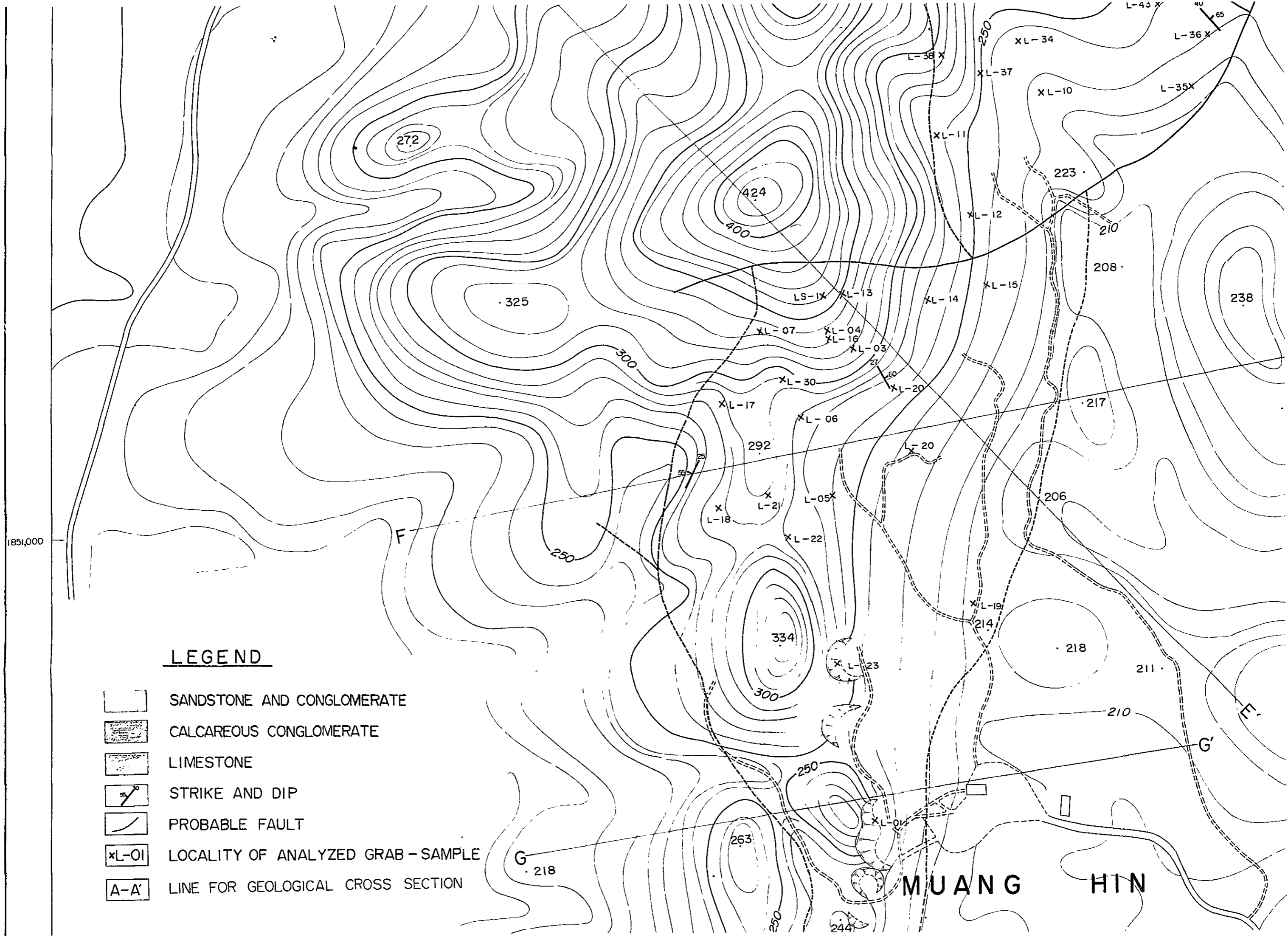
D GEOLOGICAL MAP OF DOI DIN CHI LIMESTONE DEPOSIT

G-03

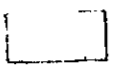
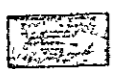
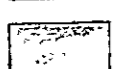

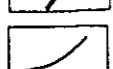
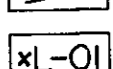
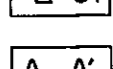




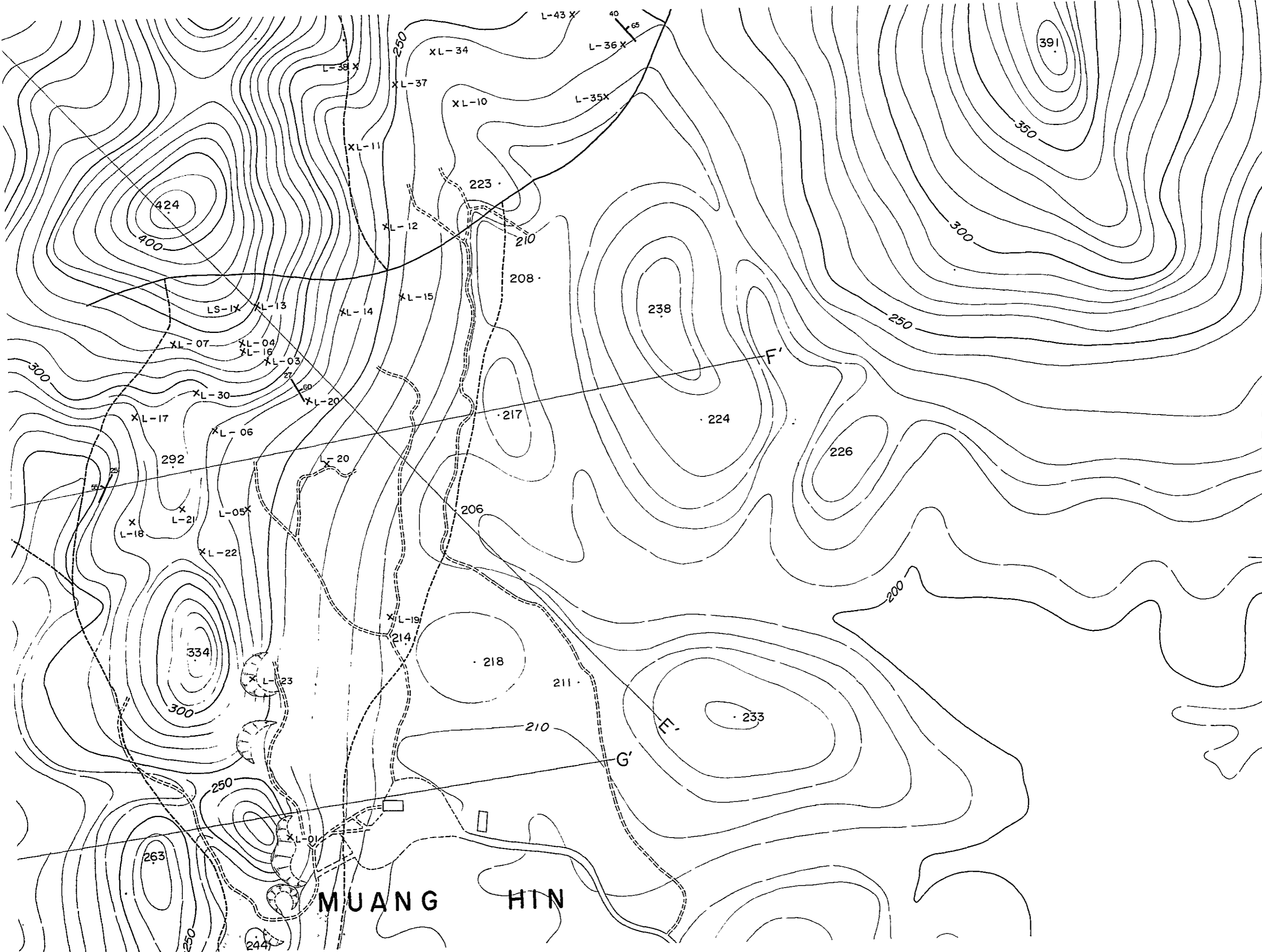




LEGEND

-  SANDSTONE AND CONGLOMERATE
-  CALCAREOUS CONGLOMERATE
-  LIMESTONE
-  STRIKE AND DIP
-  PROBABLE FAULT
-  xL-01 LOCALITY OF ANALYZED GRAB - SAMPLE
-  A-A' LINE FOR GEOLOGICAL CROSS SECTION

MUANG HIN


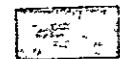
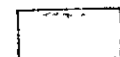


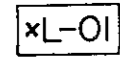
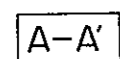


MUANG HIN

1851,000

1851,000

LEGEND

-  SANDSTONE AND CONGLOMERATE
-  CALCAREOUS CONGLOMERATE
-  LIMESTONE
-  STRIKE AND DIP
-  PROBABLE FAULT
-  LOCALITY OF ANALYZED GRAB - SAMPLE
-  LINE FOR GEOLOGICAL CROSS SECTION

F

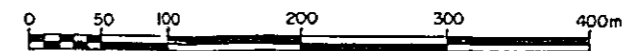
G

G'

E'

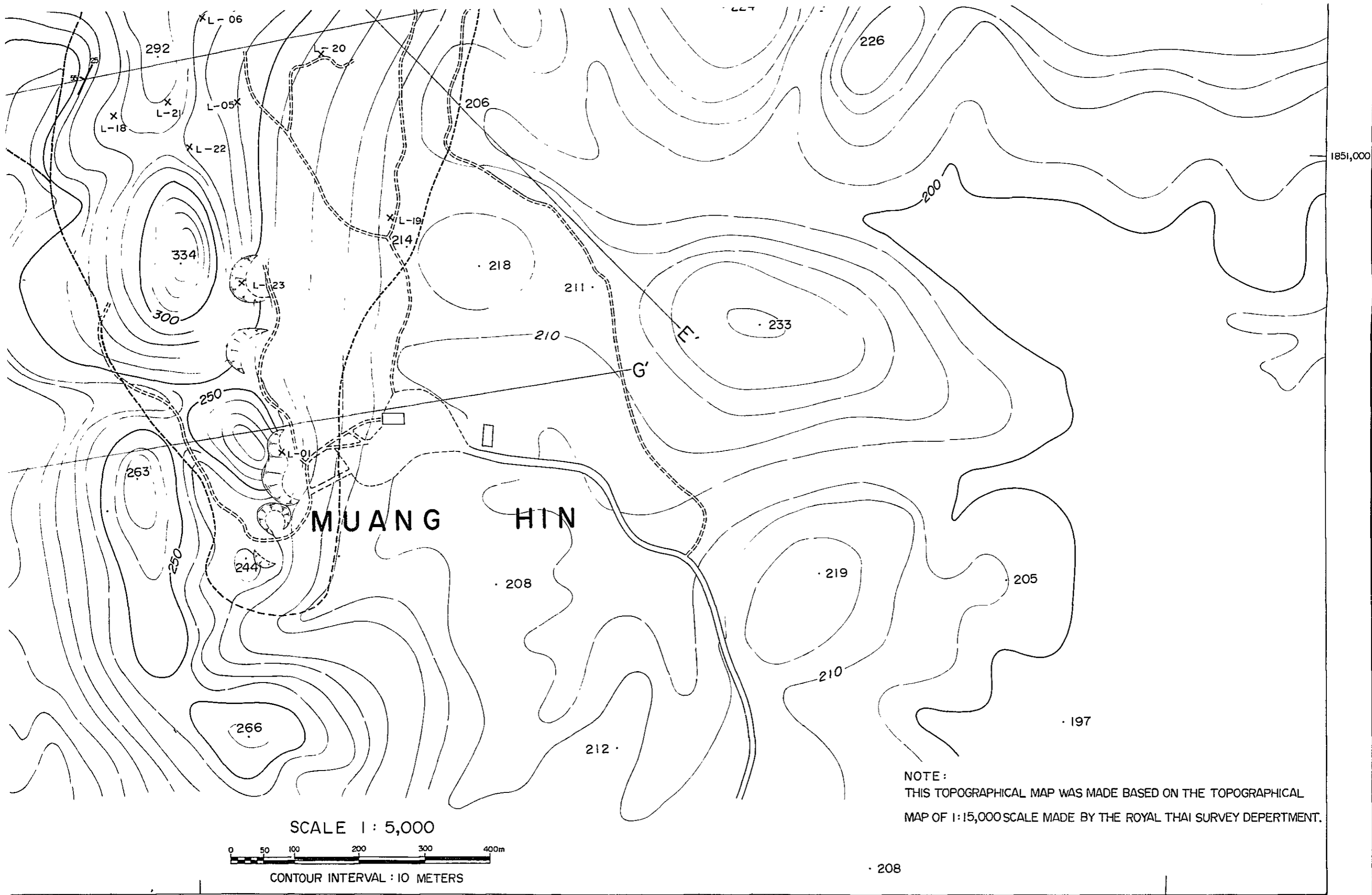
MUANG HIN

SCALE 1 : 5,000

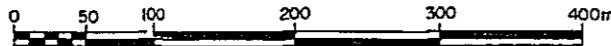


CONTOUR INTERVAL : 10 METERS

447,000



SCALE 1 : 5,000

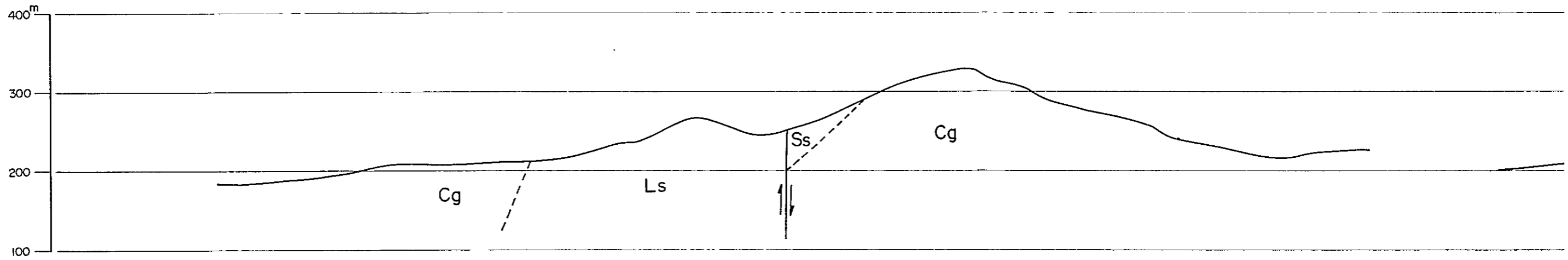


CONTOUR INTERVAL : 10 METERS

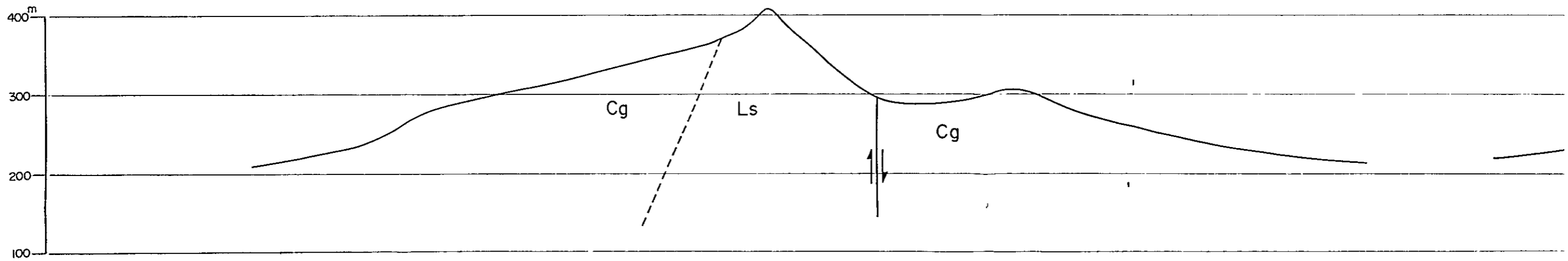
NOTE :
 THIS TOPOGRAPHICAL MAP WAS MADE BASED ON THE TOPOGRAPHICAL
 MAP OF 1:15,000 SCALE MADE BY THE ROYAL THAI SURVEY DEPARTMENT.

GEOLOGICAL CROSS SECTION OF DOI DI

Sec. A - A'

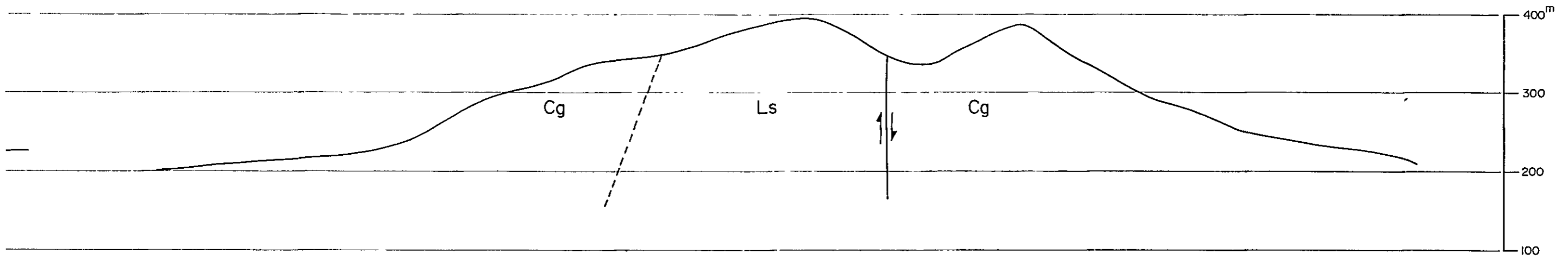


Sec. C - C'

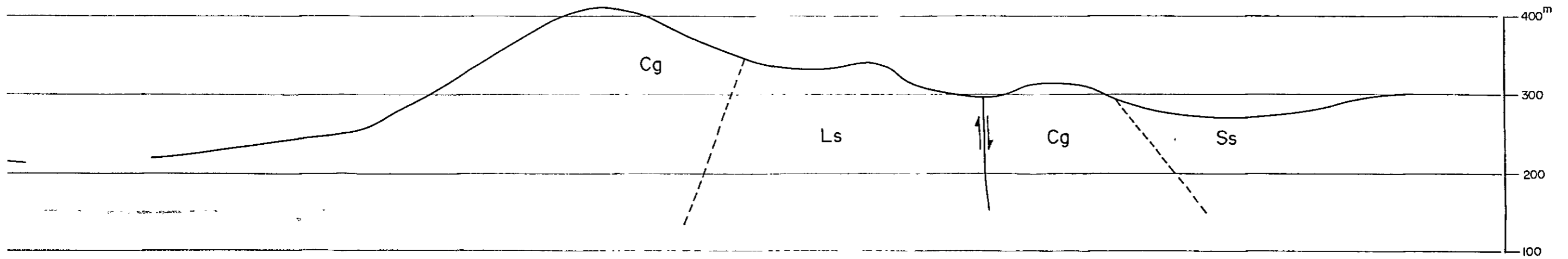


MAP OF DOI DIN CHI LIMESTONE DEPOSIT

Sec. B - B'



Sec. D - D'



100

Sec. E - E'

400^m

300

200

100

Cg

Ls

Ss

Sec. G - G'

400^m

300

200

100

Ss

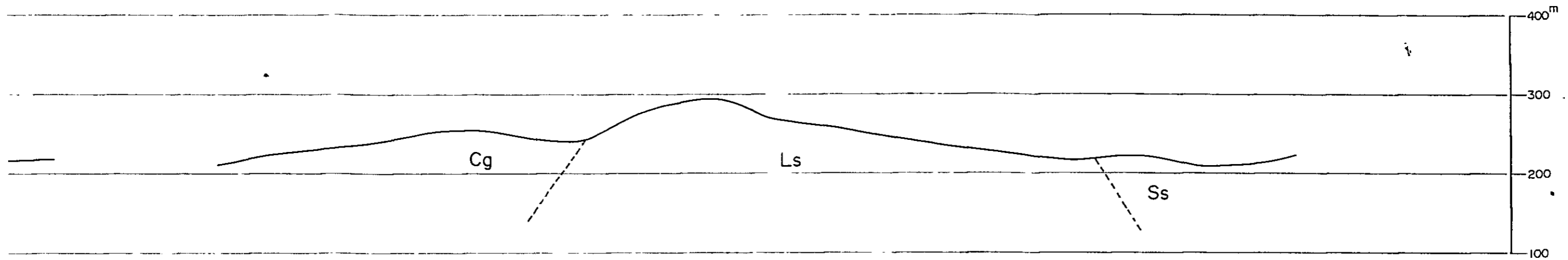
Ls

Ss


SCALE 1:2,000

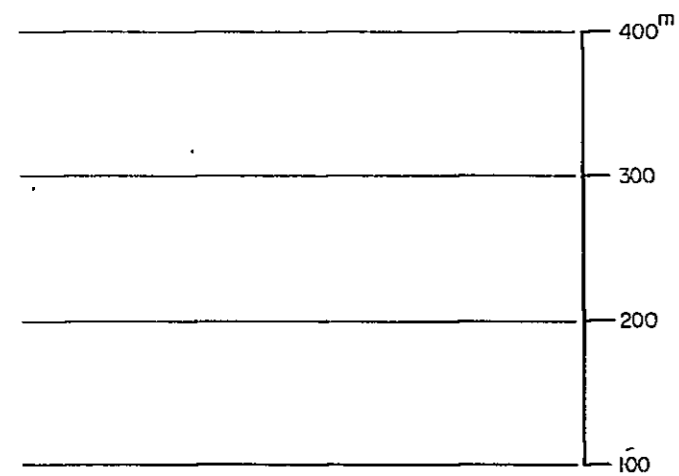


Sec. F - F'



LEGEND

- | | |
|---|----------------------------|
| Ss | SANDSTONE AND CONGLOMERATE |
| Cg | CALCAREOUS CONGLOMERATE |
| Ls | LIMESTONE |
|  | PROBABLE FAULT |



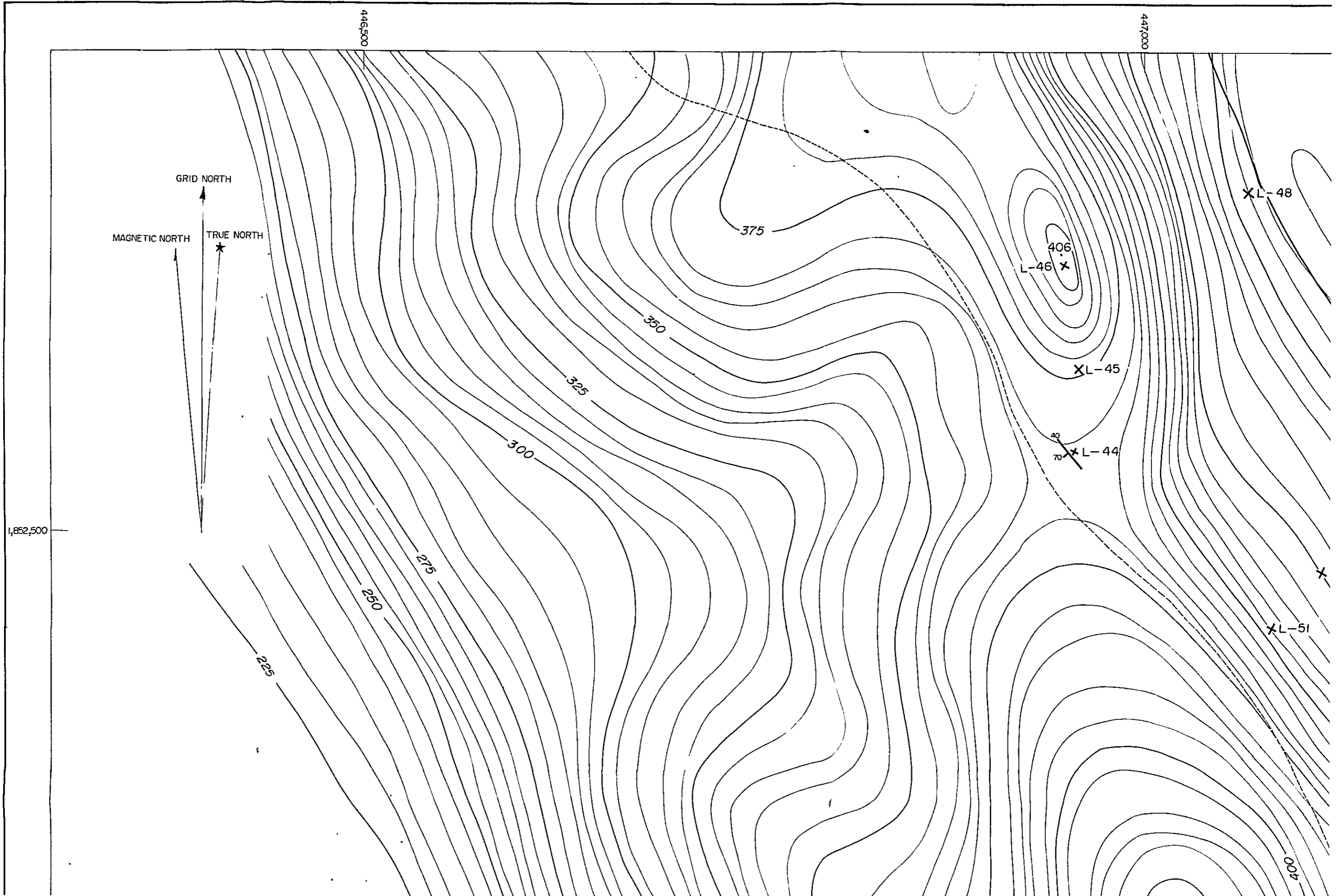
SCALE 1 : 2,000



NOTE .

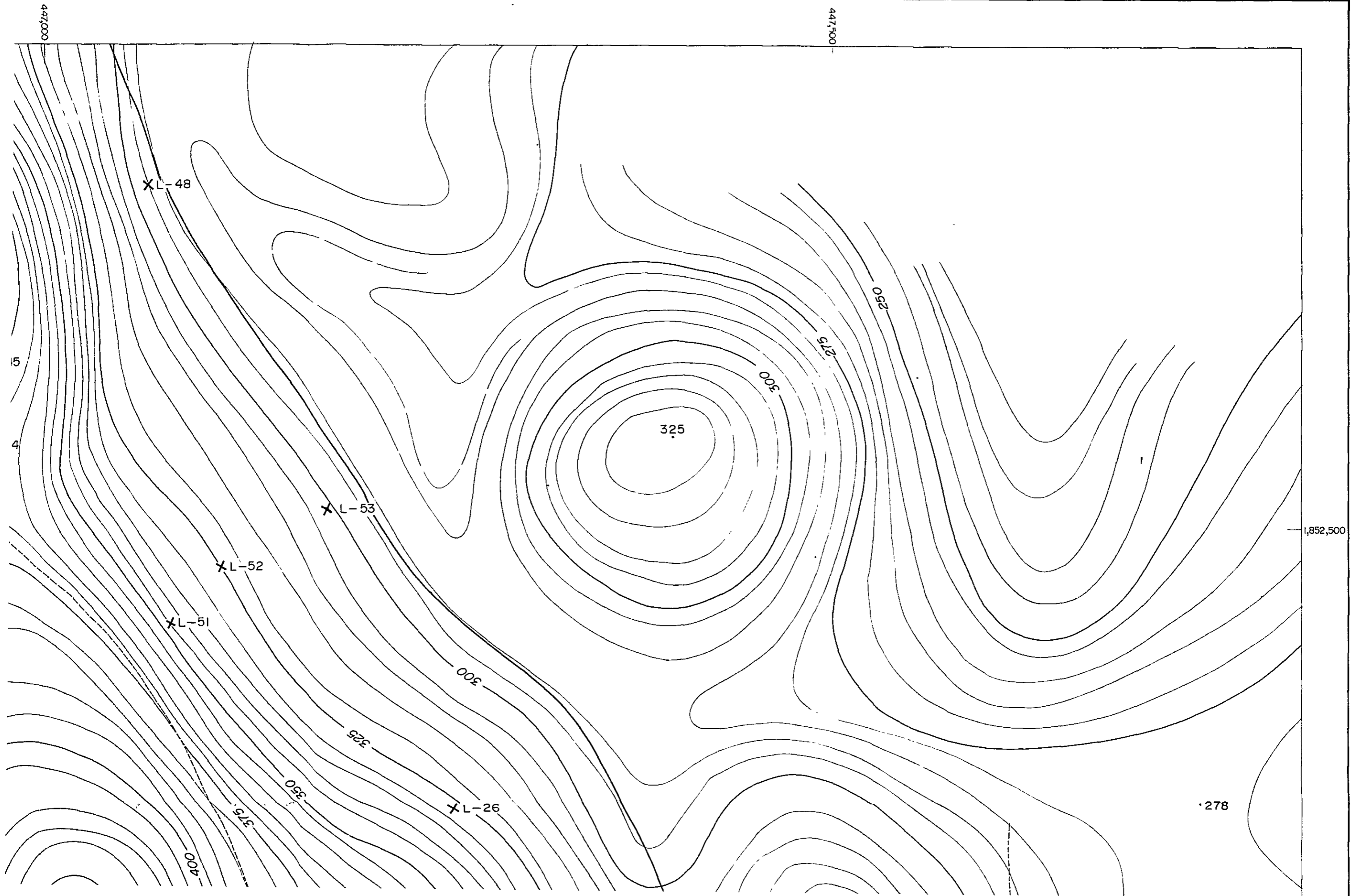
THIS GEOLOGICAL CROSS SECTIONS WERE MADE BASED ON DRAWING G - 03.

TOPOGRAPHIC AND GEOLOGICAL MAP OF TI

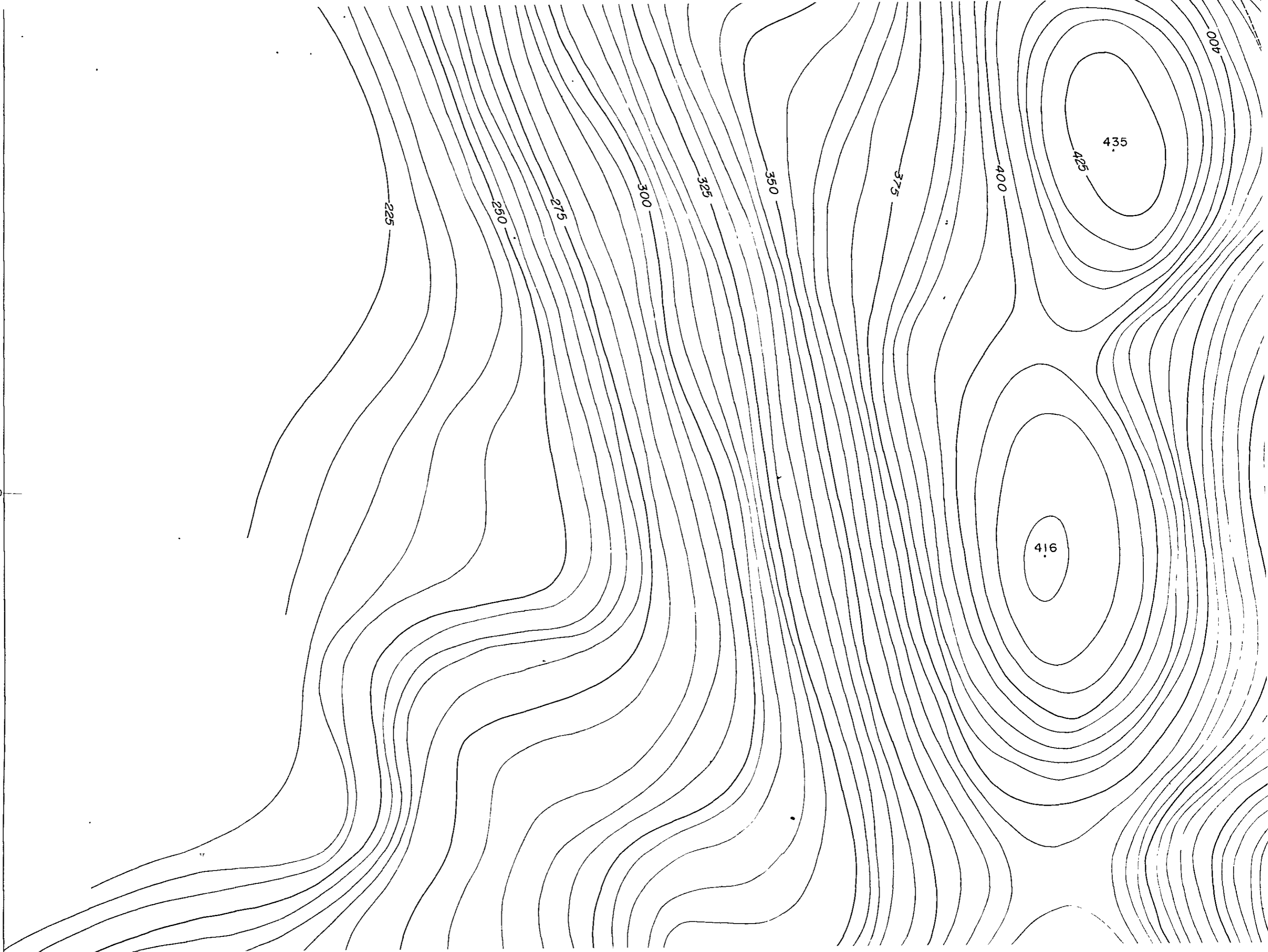


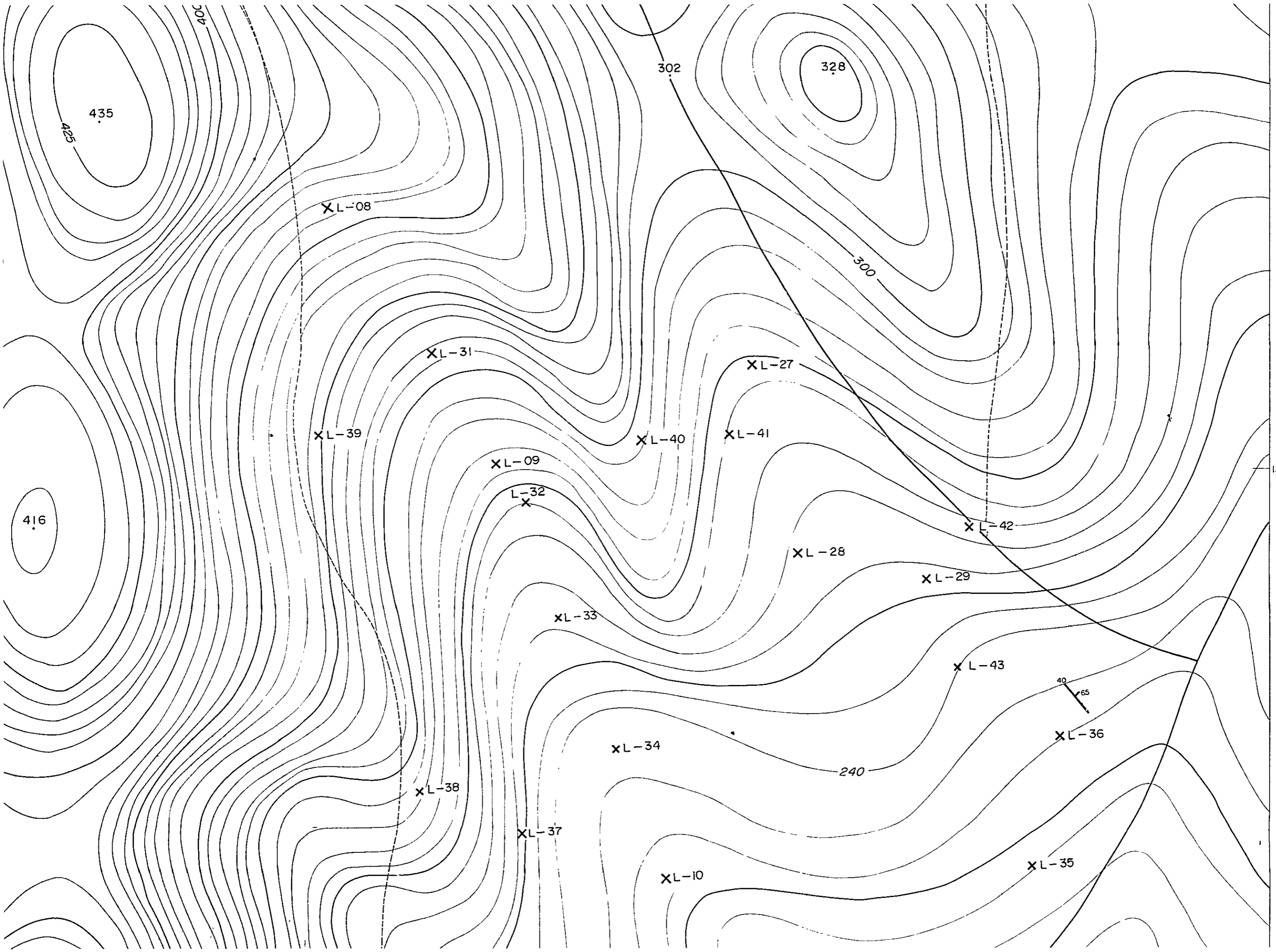
AL MAP OF THE PROPOSED LIMESTONE QUARRY AT DOI DIN CHI

G - 05

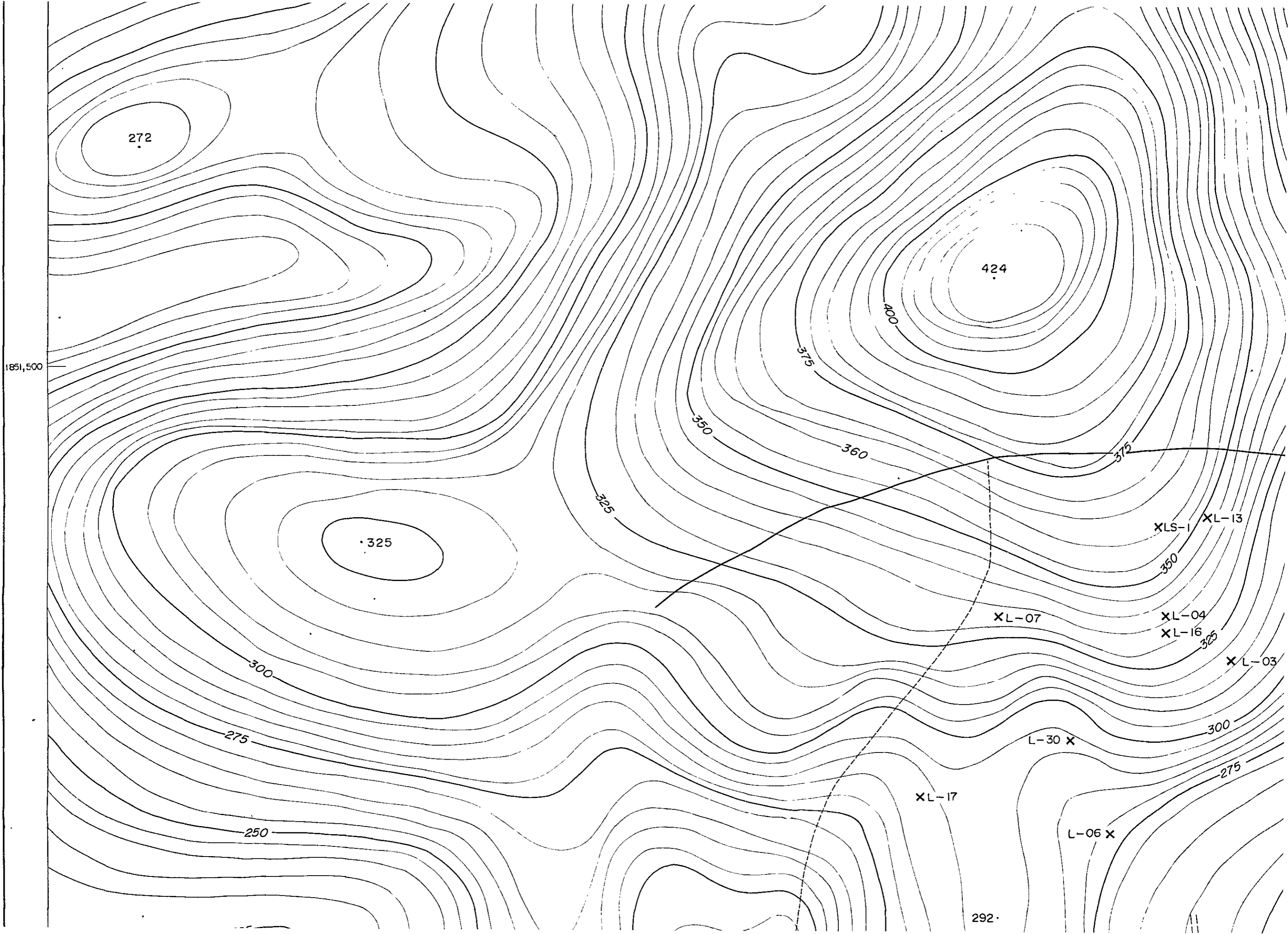


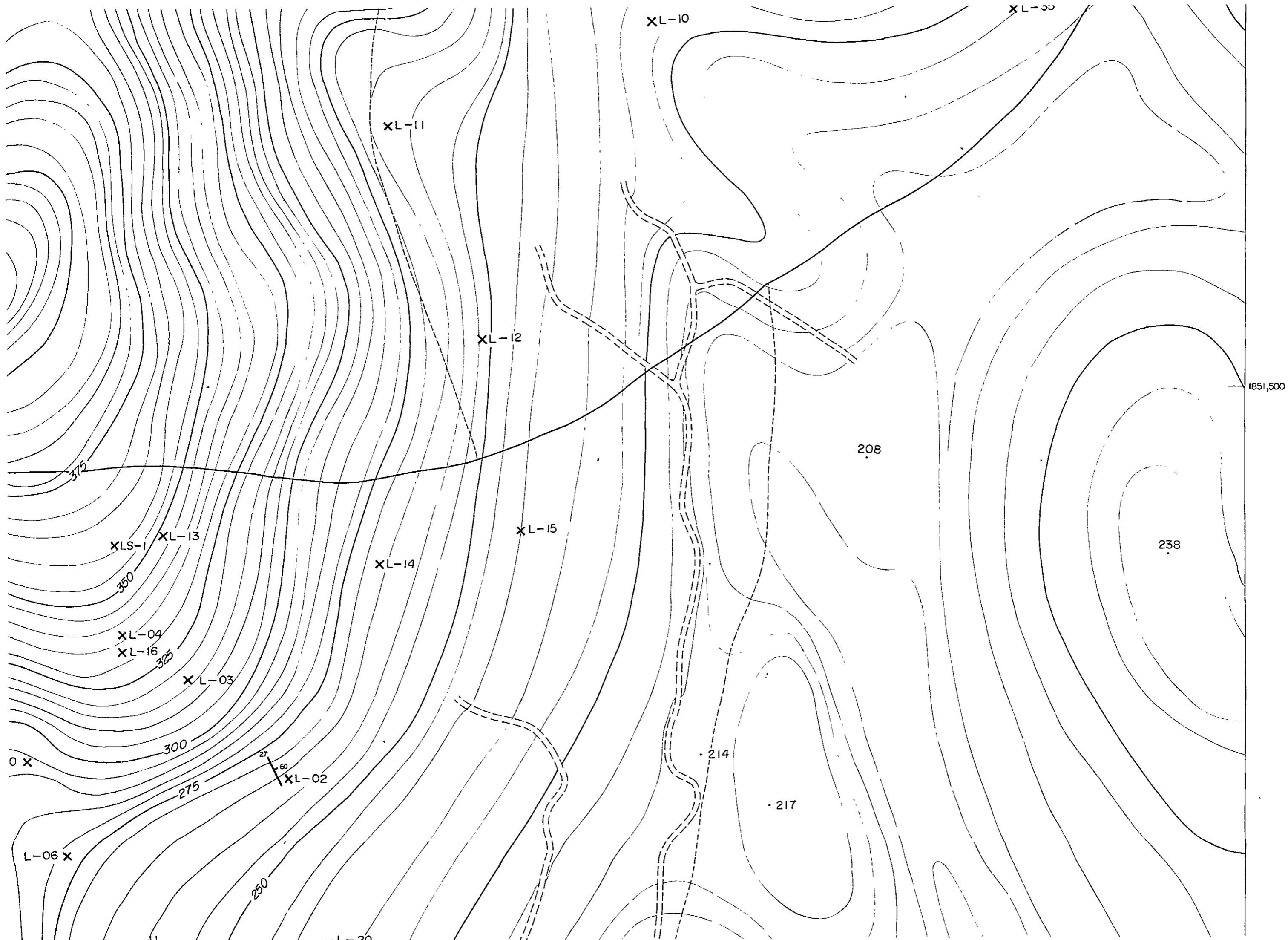
1,852,000





1,852,000







225

292

25
55

1,851,000

XL-18

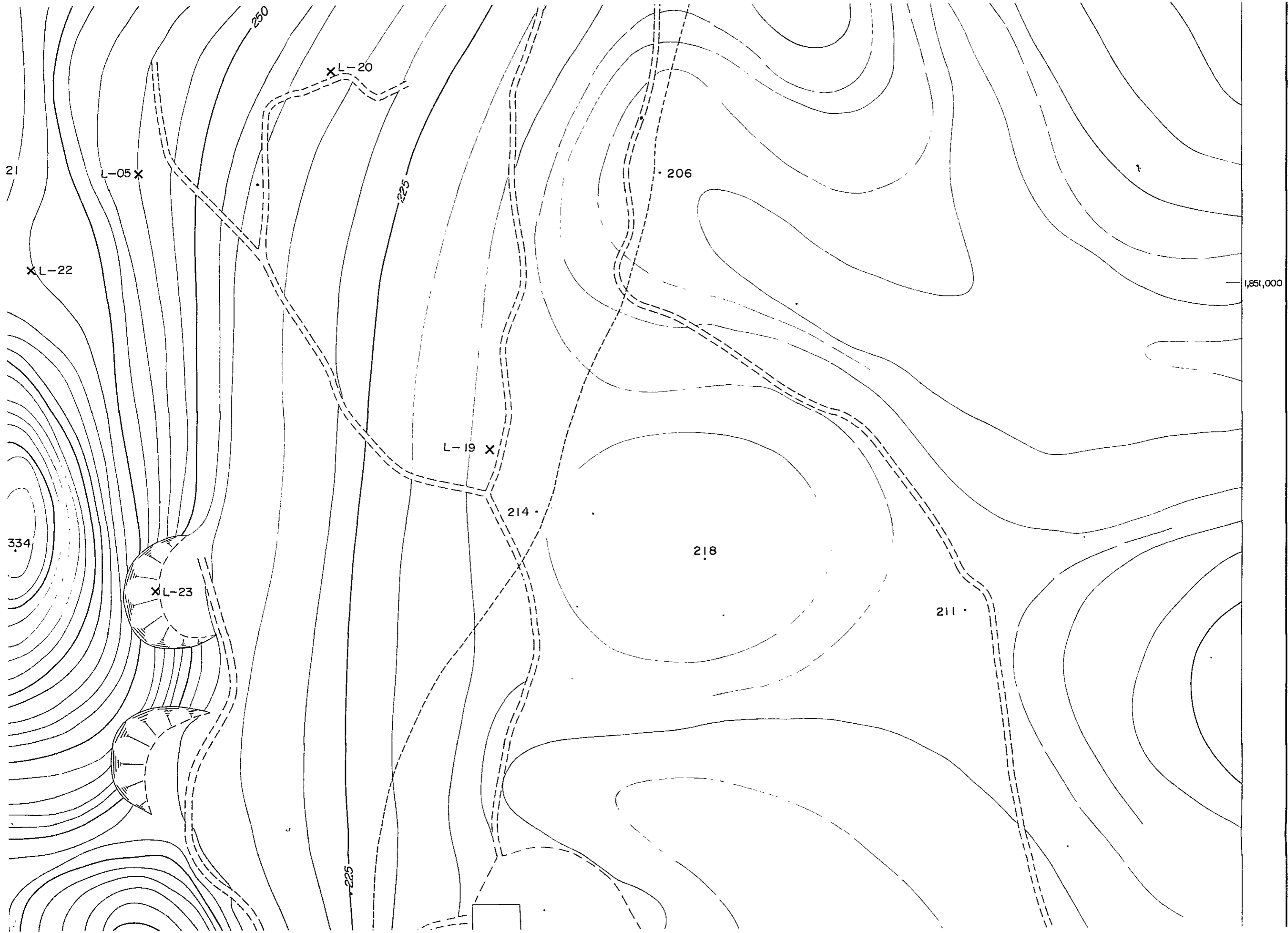
XL-21

L-05 X



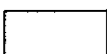
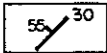
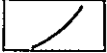
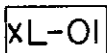
XL-22

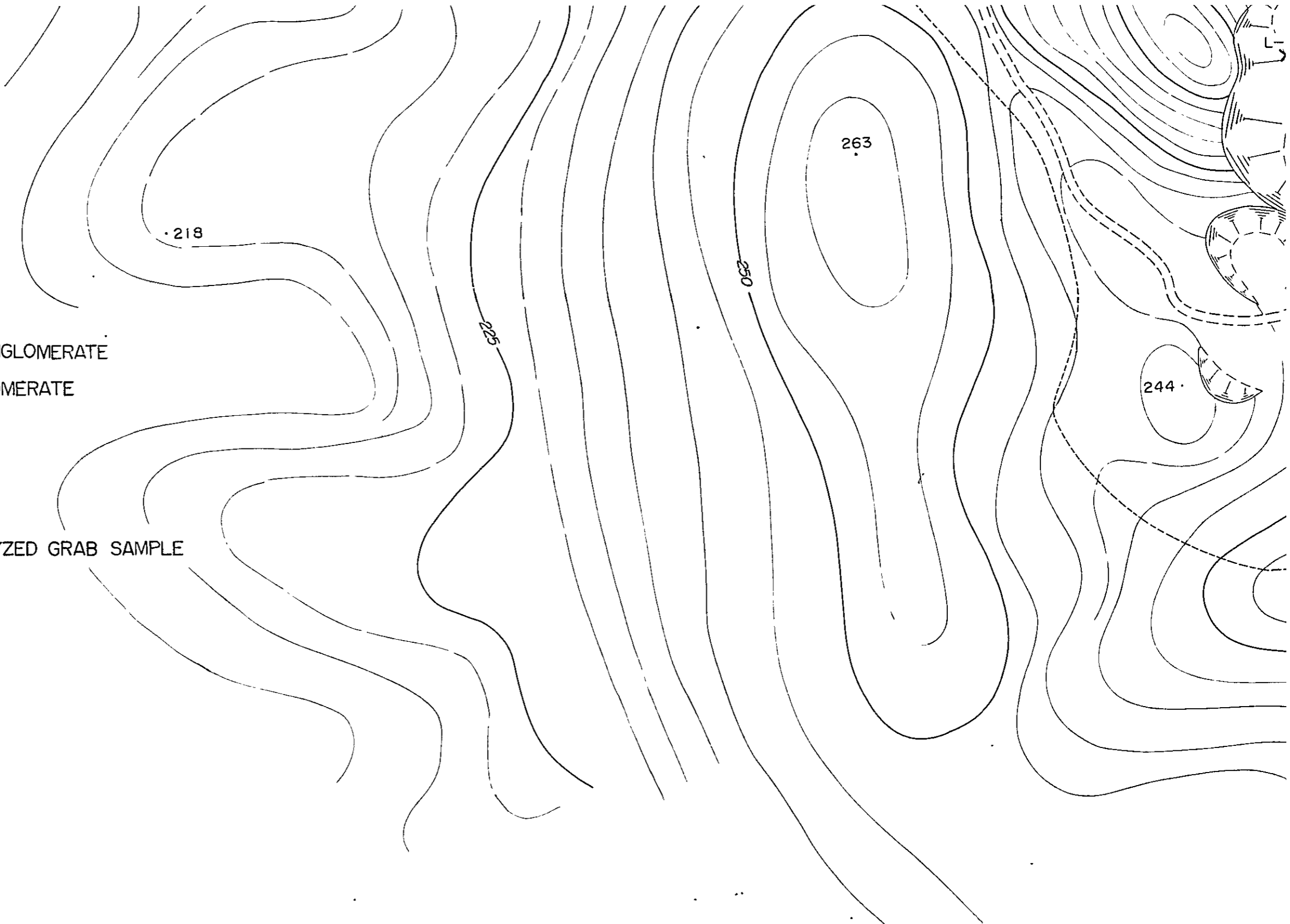
334

XL-23

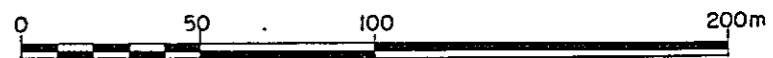


LEGEND

-  SANDSTONE AND CONGLOMERATE
-  CALCAREOUS CONGLOMERATE
-  LIMESTONE
-  STRIKE AND DIP
-  PROBABLE FAULT
-  LOCALITY OF ANALYZED GRAB SAMPLE

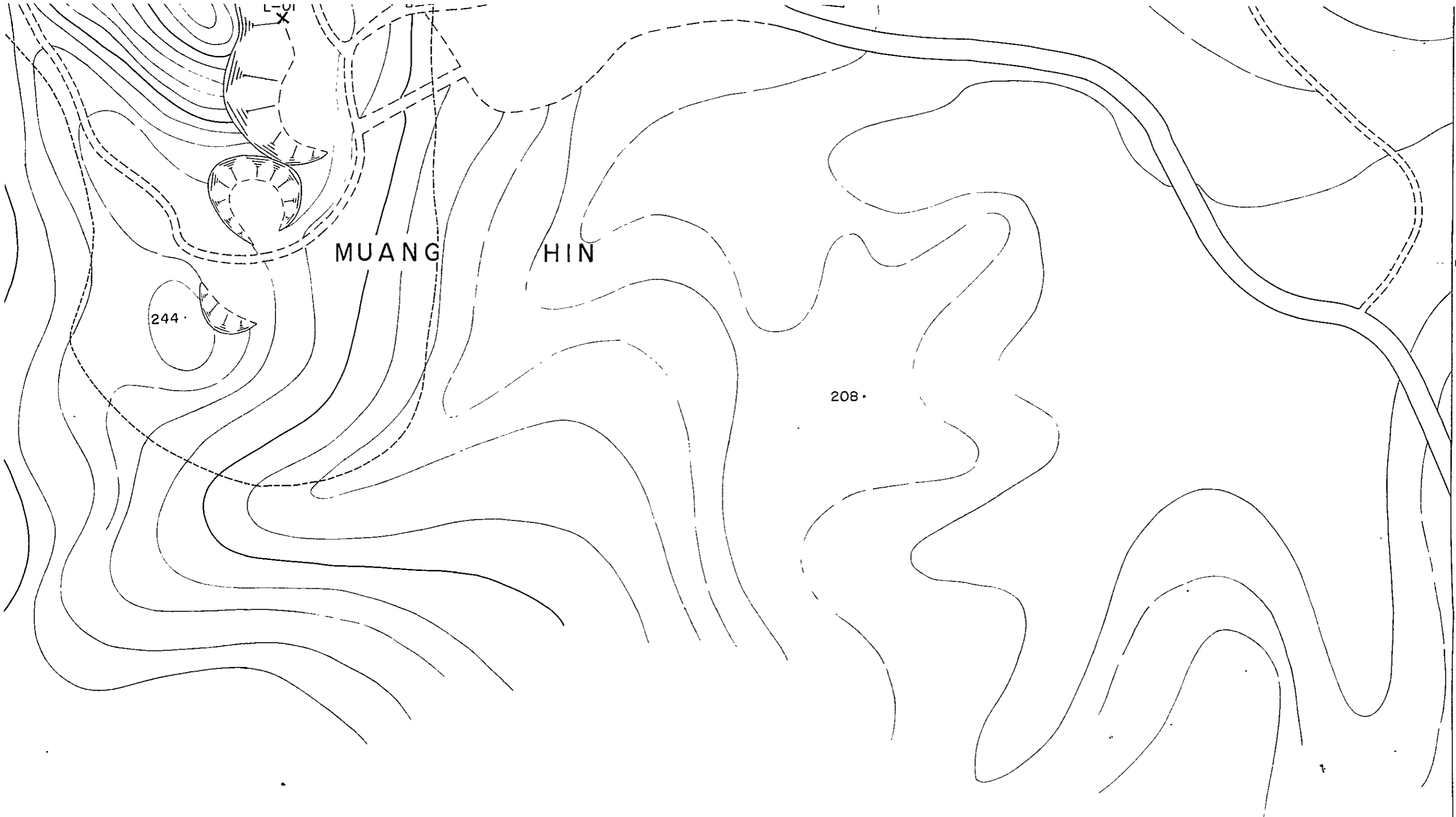


SCALE 1:2,000
CONTOUR INTERVAL : 5 METERS



446,500

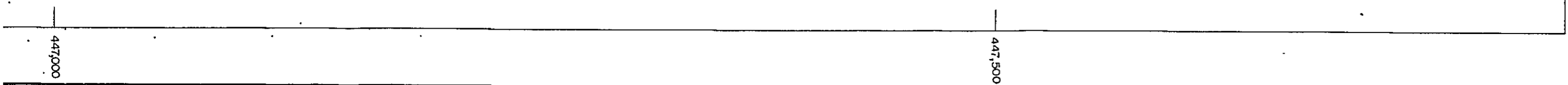
447,000



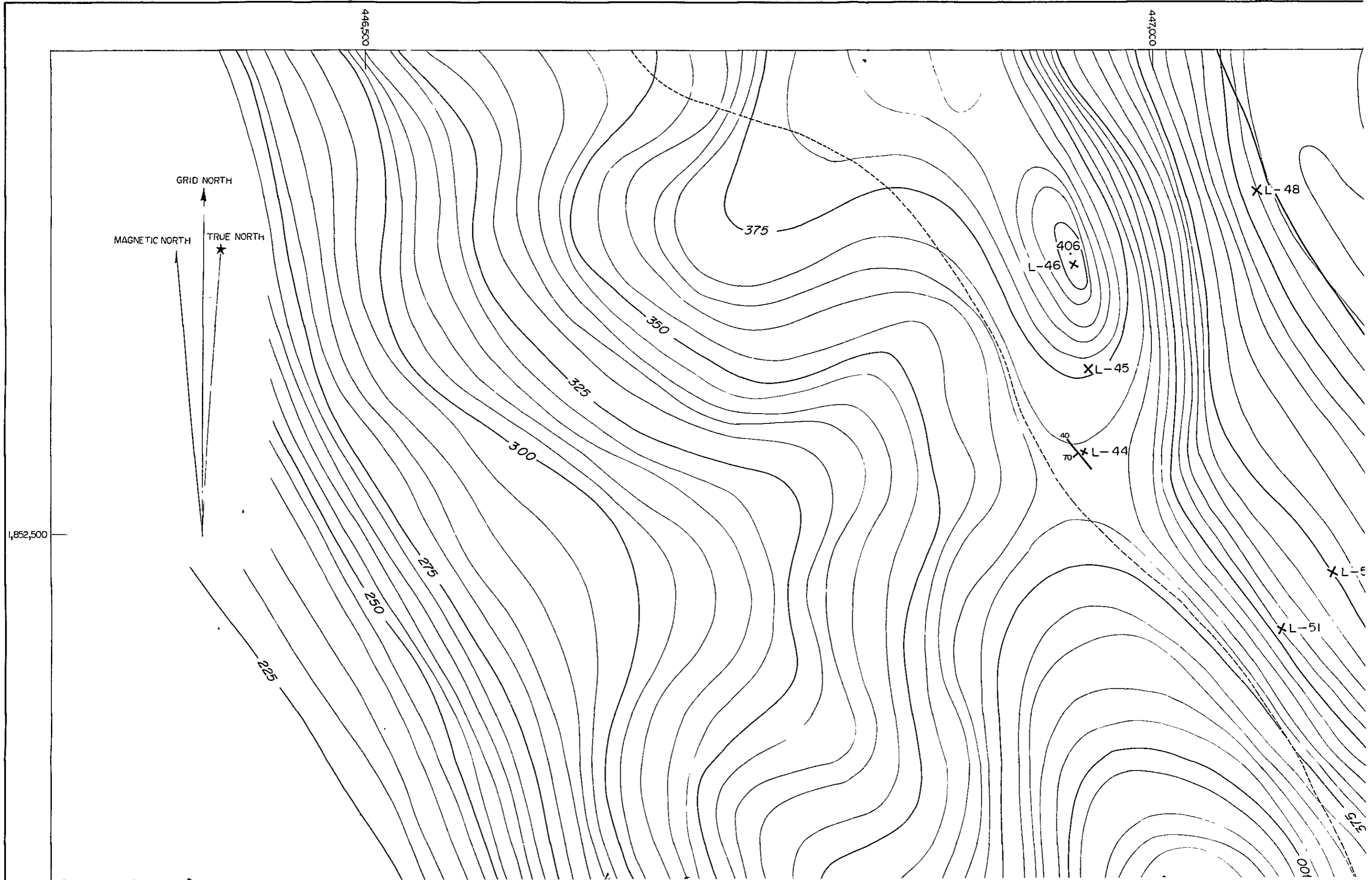
LE 1:2,000
INTERVAL : 5 METERS



NOTE :
THIS TOPOGRAPHICAL MAP WAS MADE BASED ON THE TOPOGRAPHICAL MAP
OF 1:15,000 SCALE MADE BY THE ROYAL THAI SURVEY DEPARTMENT.

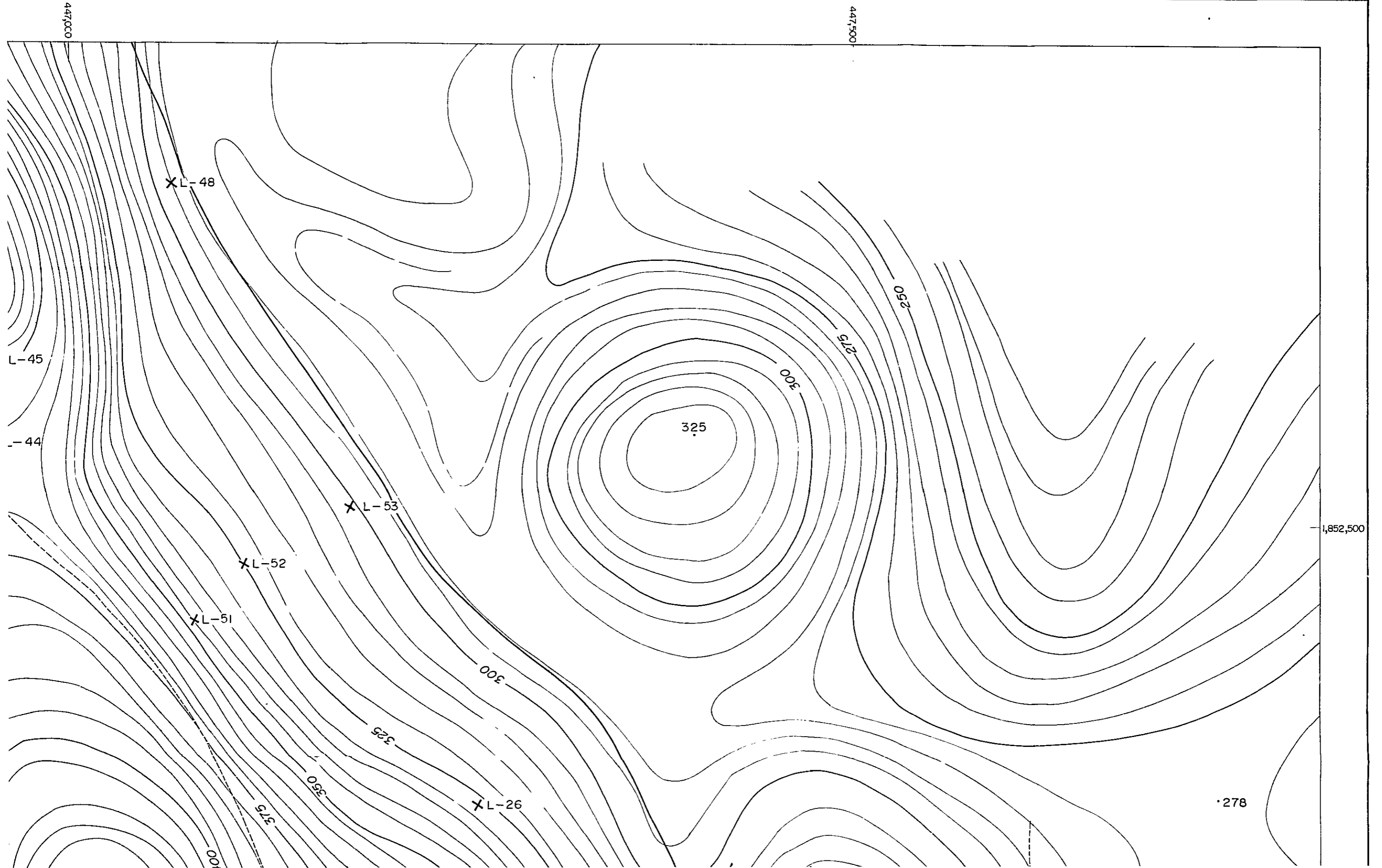


MAP FOR RESERVES CALCULATION OF THE PROPOSED L

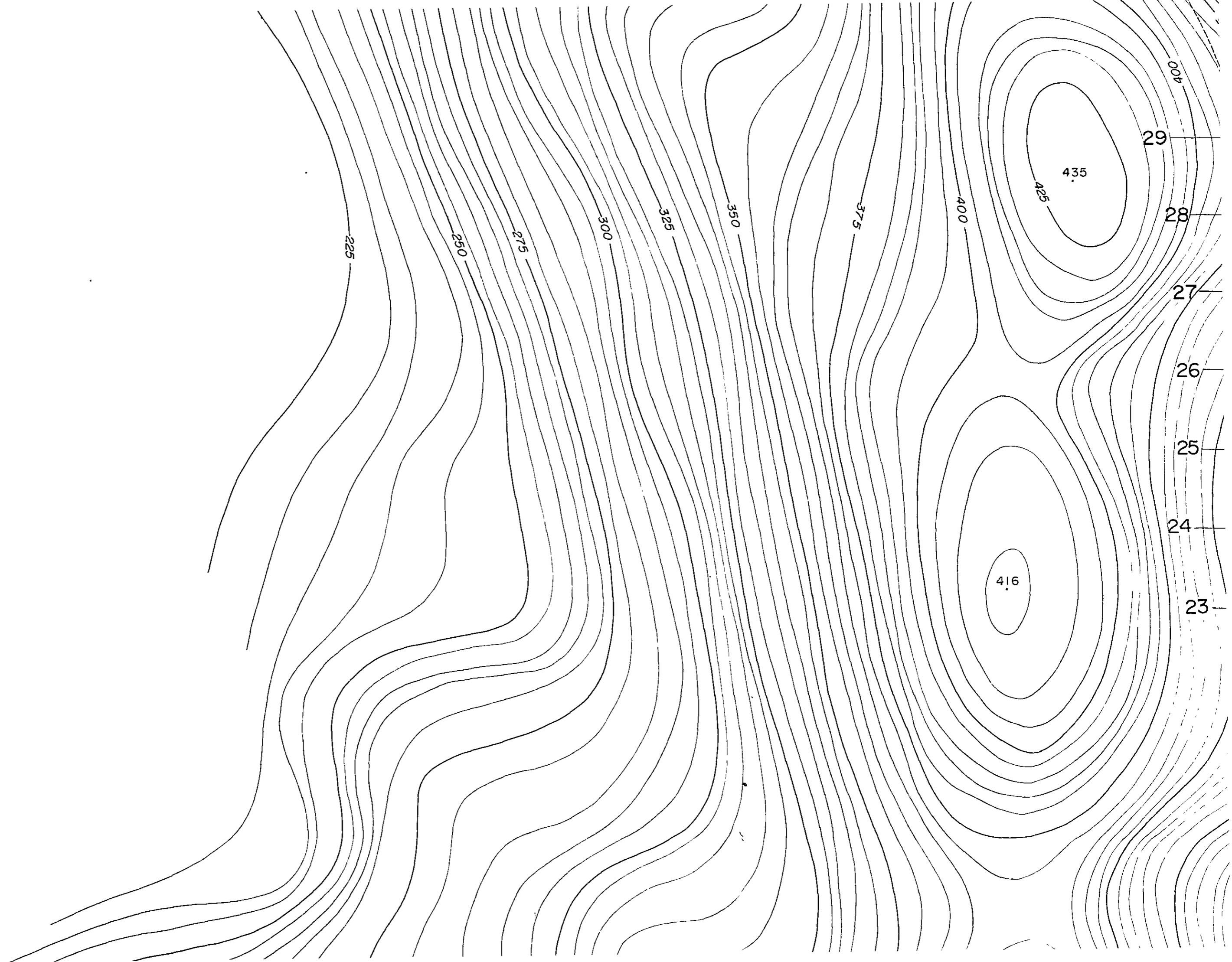


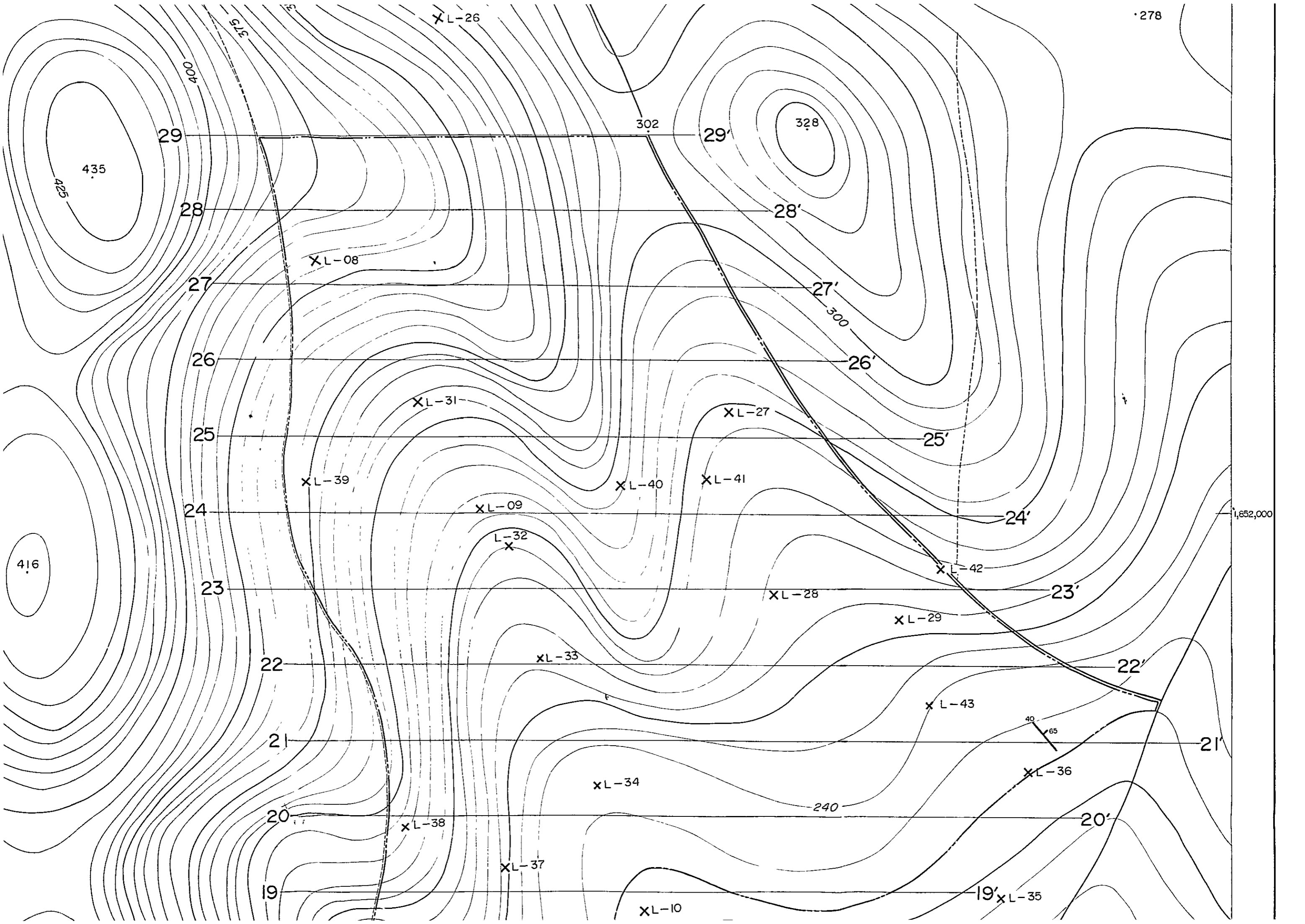
THE PROPOSED LIMESTONE QUARRY AT DOI DIN CHI

G-06



1,852,000





278

XL-26

302

328

29

29'

435

425

28

28'

XL-08

27

27'

300

26

26'

XL-31

XL-27

25

25'

XL-39

XL-40

XL-41

24

24'

1,652,000

XL-09

L-32

X

XL-42

23

23'

XL-28

XL-29

22

22'

XL-33

XL-43

21

21'

40

65

XL-36

XL-34

240

20

20'

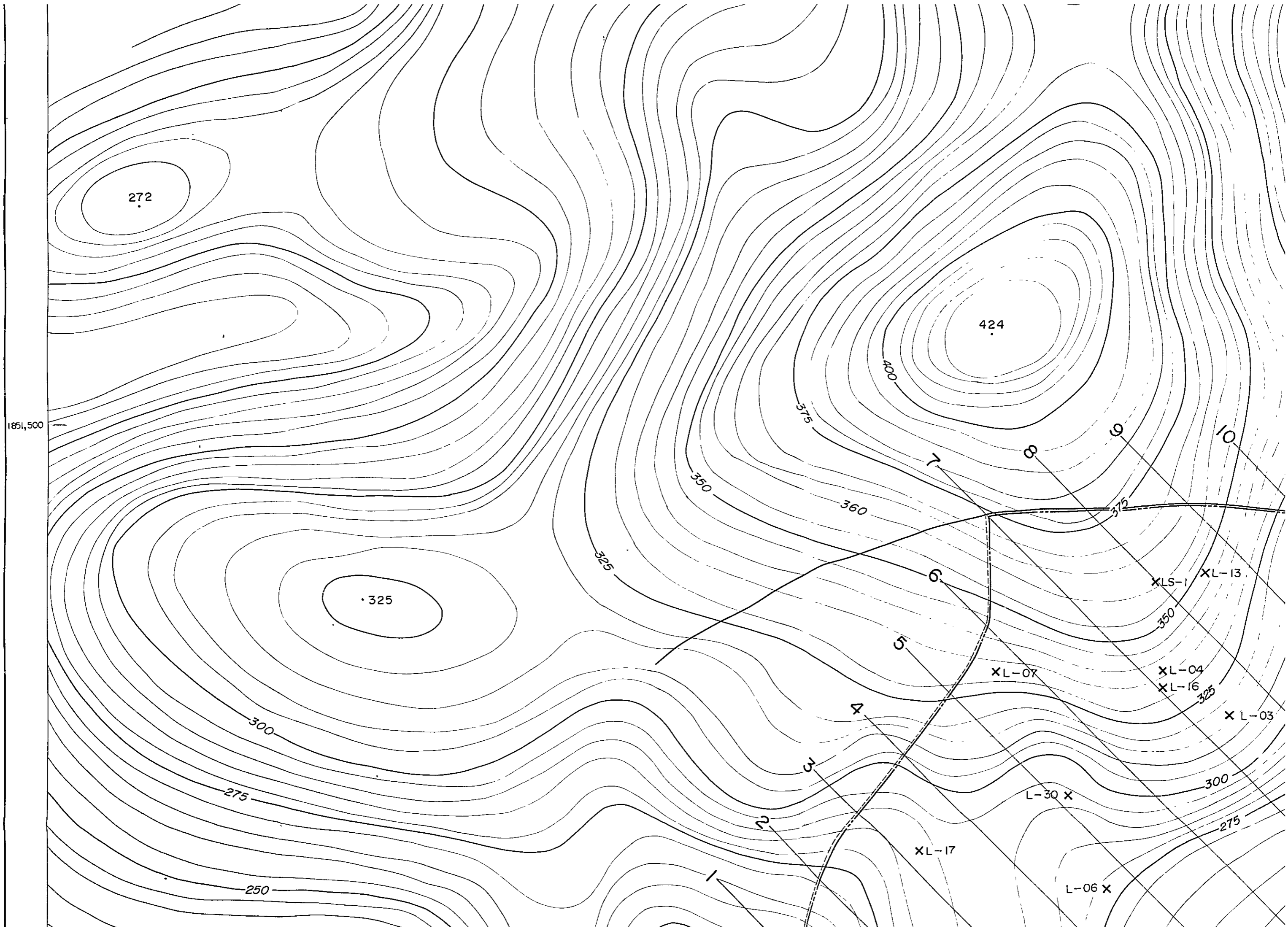
XL-38

19' XL-35

XL-37

XL-10

19



272

424

325

1851,500

400

375

350

360

325

300

275

250

XL-01

XL-13

XL-07

XL-04

XL-16

XL-03

L-30 X

XL-17

L-06 X

7

8

9

10

6

5

4

3

2

1

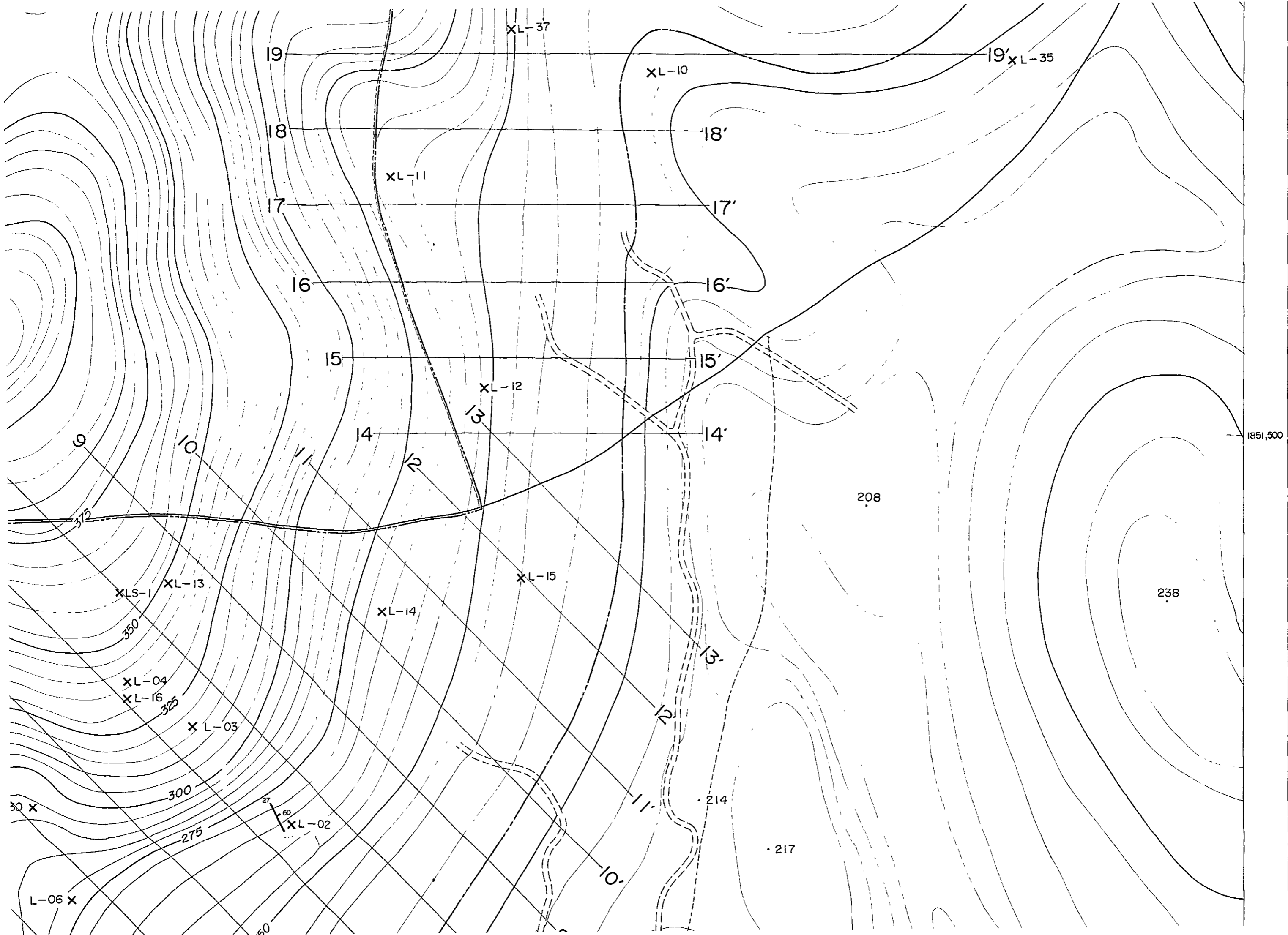
350

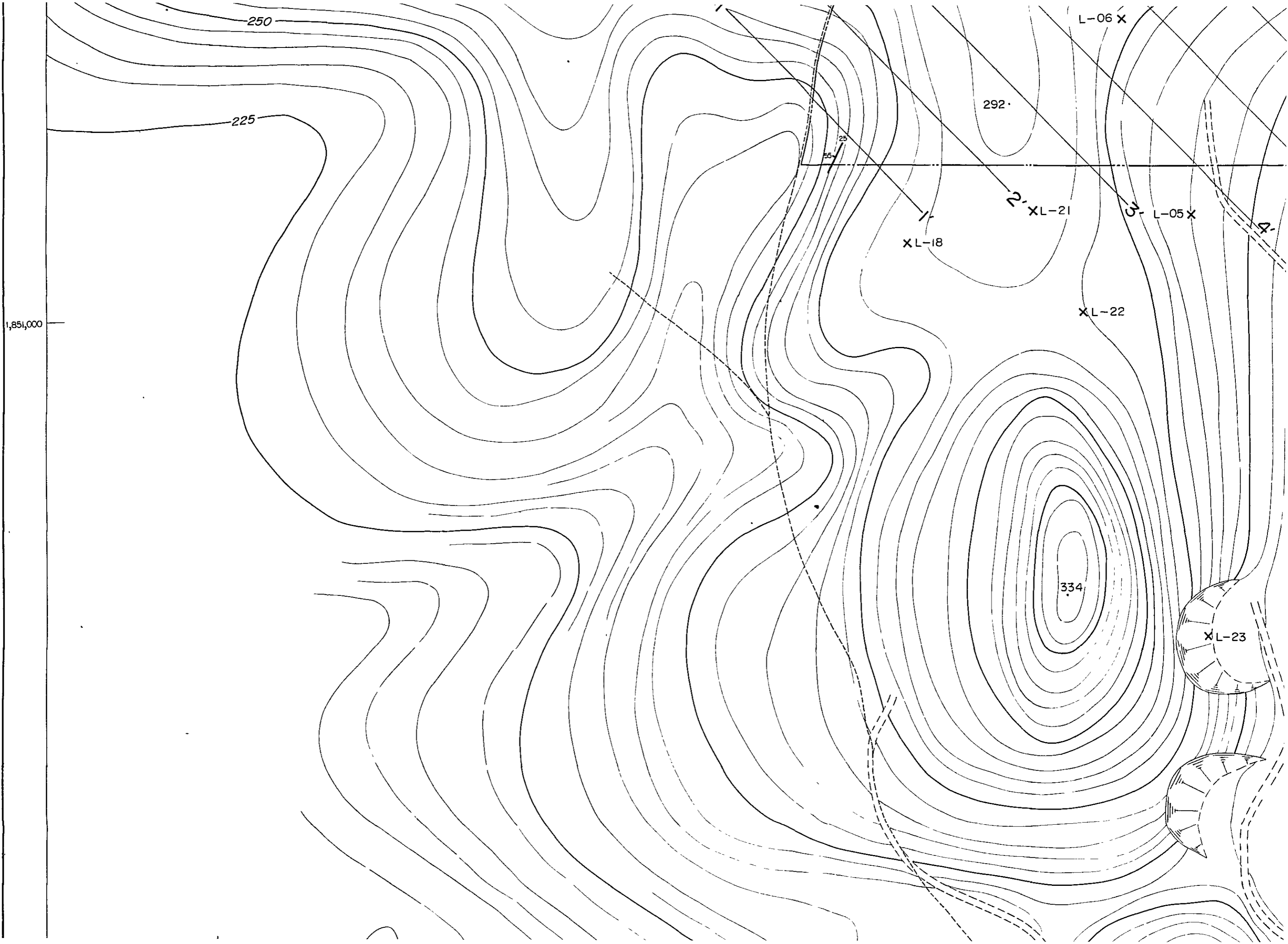
300

275

325

375





250

225

292

L-06 X

XL-18

XL-21

L-05 X

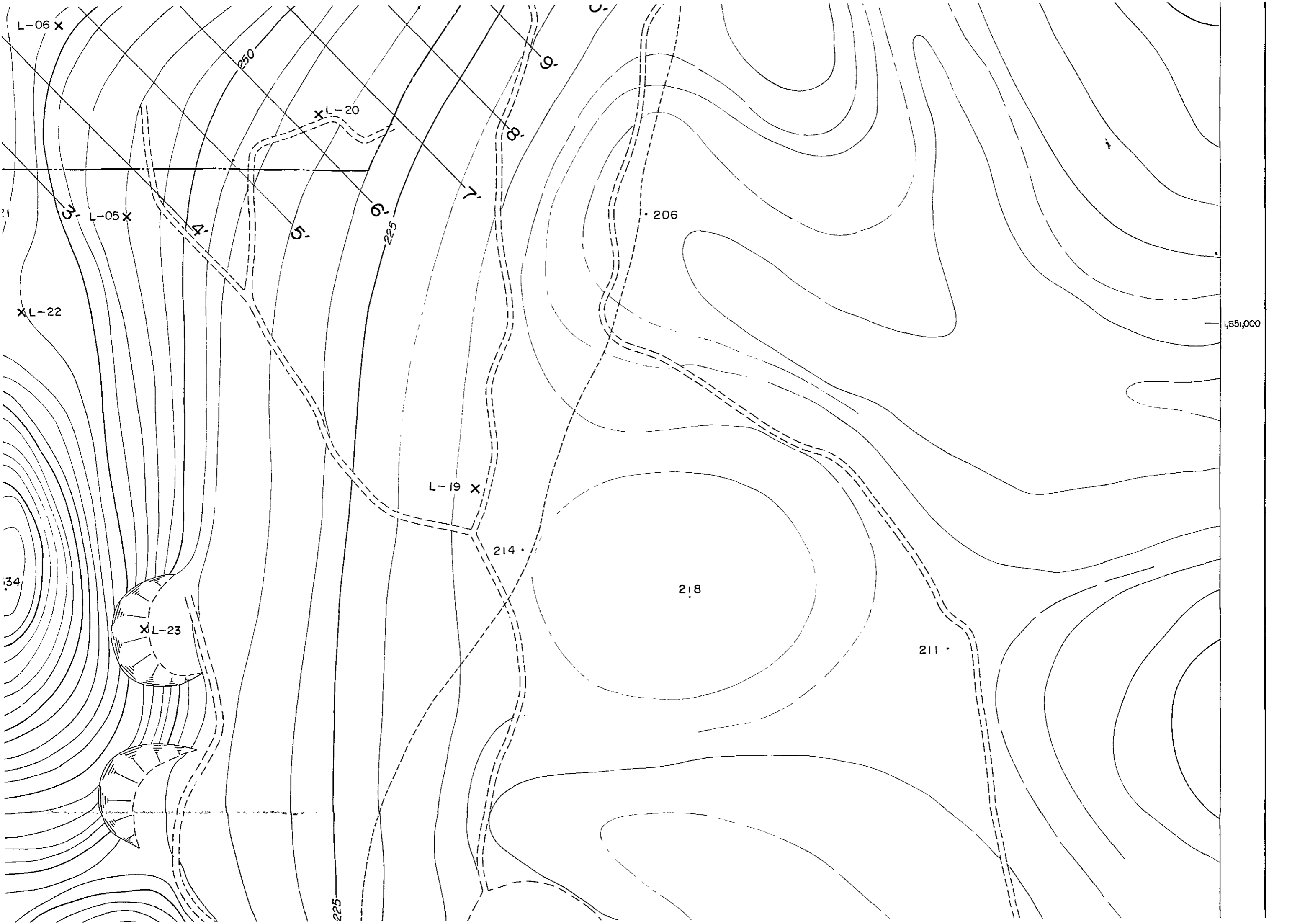
XL-22

334

XL-23

1,851,000

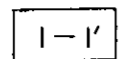
25
55



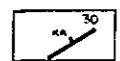
LEGEND



AREA FOR RESERVES CALCULATION



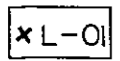
LINE FOR SECTIONAL DRAWING



STRIKE AND DIP



PROBABLE FAULT



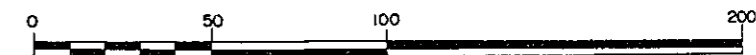
LOCALITY OF ANALYZED SAMPLES

1,550,500

446,500

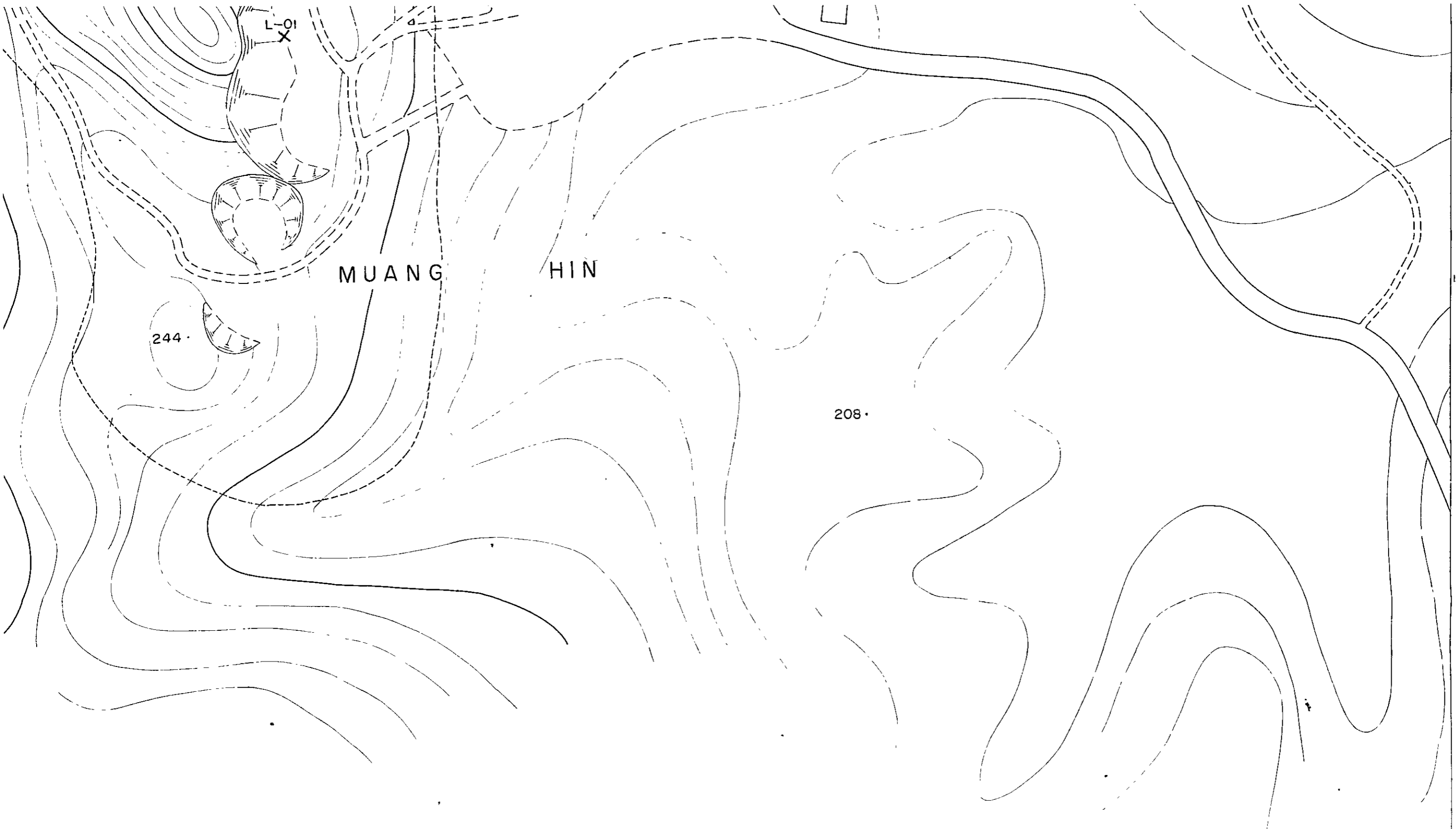
447,000

SCALE 1 : 2,000



CONTOUR INTERVAL : 5 METERS





L-01
X

MUANG HIN

244

208

1,850,500

SCALE 1 : 2,000



CONTOUR INTERVAL : 5 METERS

NOTE :

THIS TOPOGRAPHICAL MAP WAS MADE BASED ON THE TOPOGRAPHICAL MAP OF 1 : 15,000 SCALE MADE BY THE ROYAL THAI SURVEY DEPARTMENT.

447,000

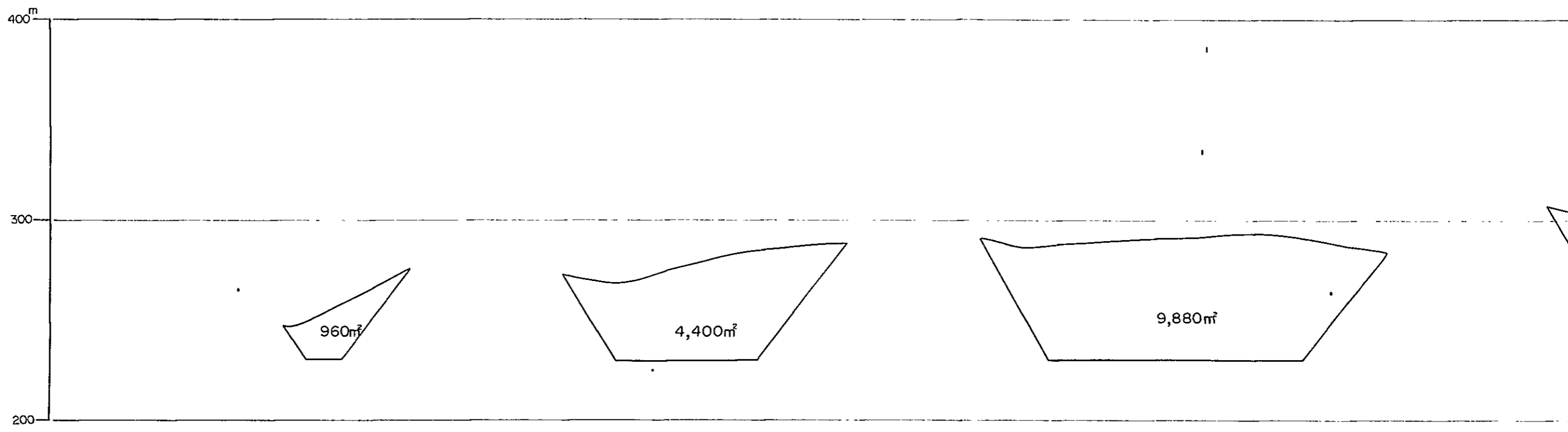
447,500

SECTIONAL DRAWINGS FOR RESERVES CALCULATION OF DOI DIN

Sec. 1 - 1'

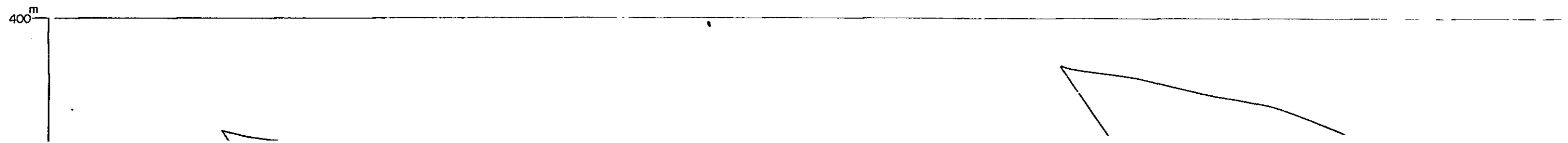
Sec. 2 - 2'

Sec. 3 - 3'



Sec. 6 - 6'

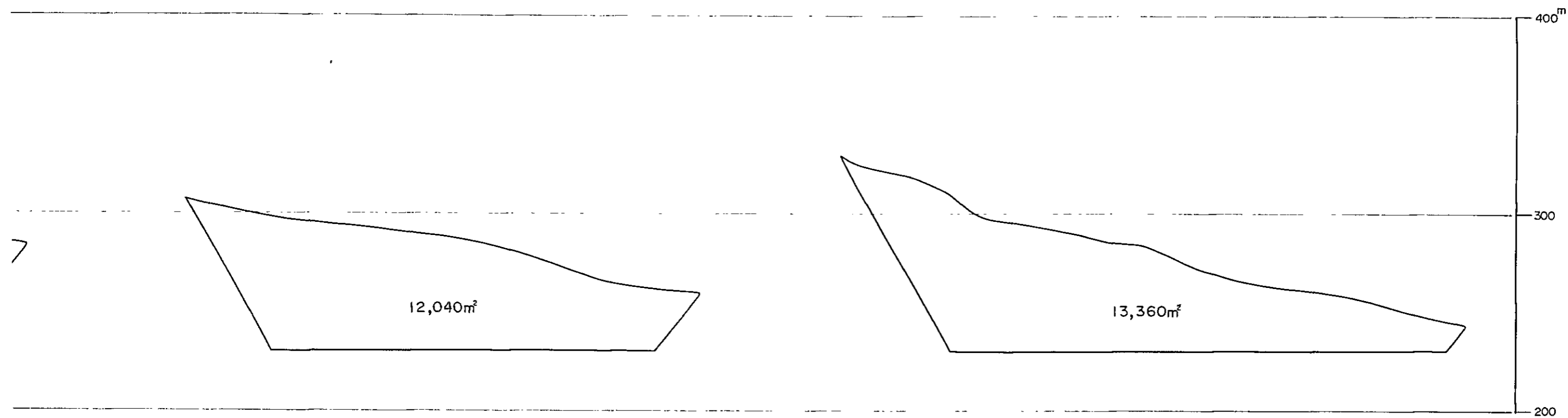
Sec. 7 - 7'



OF DOI DIN CHI LIMESTONE DEPOSIT (SOUTHERN DEPOSIT)

Sec. 4 - 4'

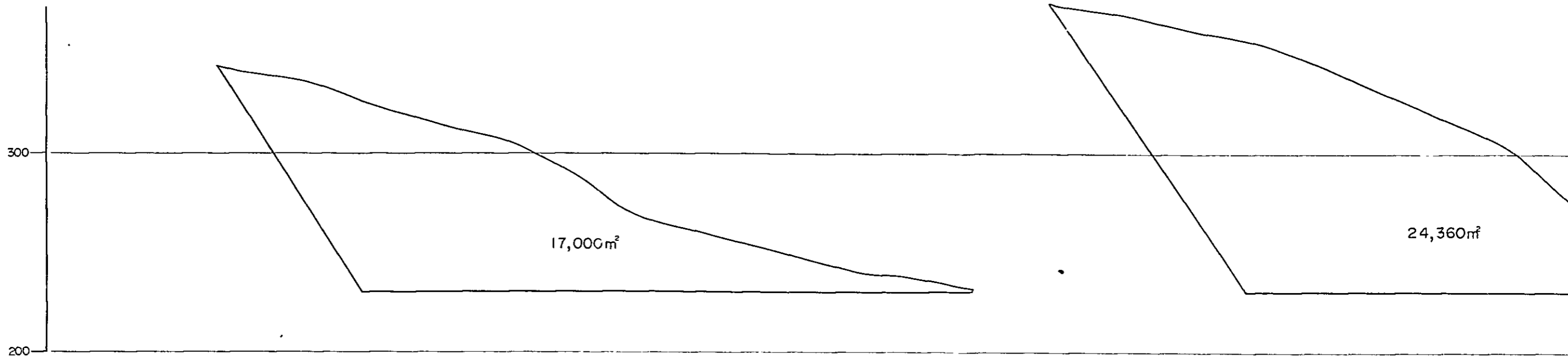
Sec. 5 - 5'



c. 7 - 7'

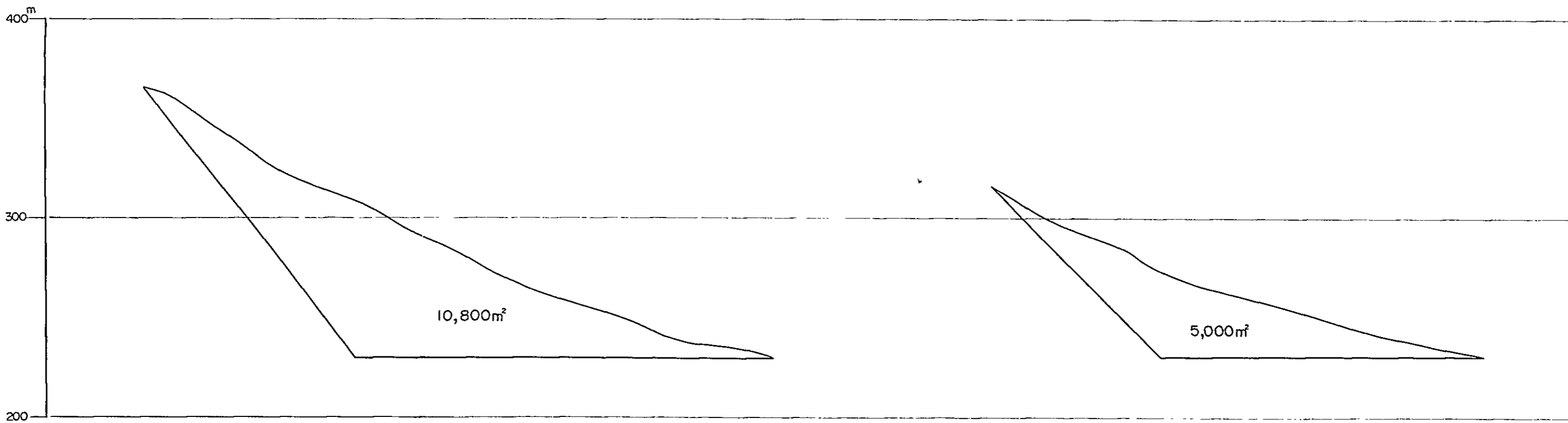
Sec. 8 - 8'





Sec. 9 - 9'

Sec. 10 - 10'

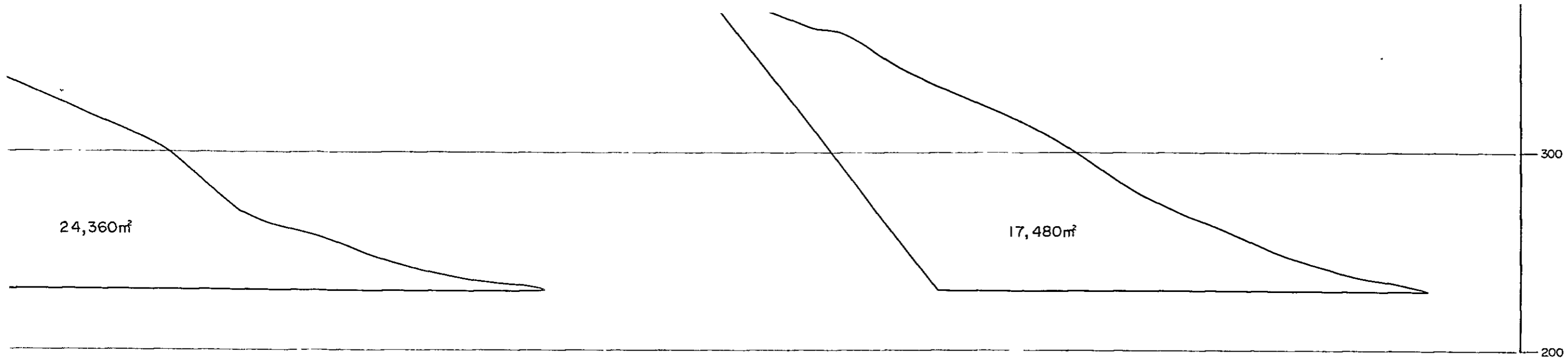


10,800m²

5,000m²

SCALE 1 : 2,000

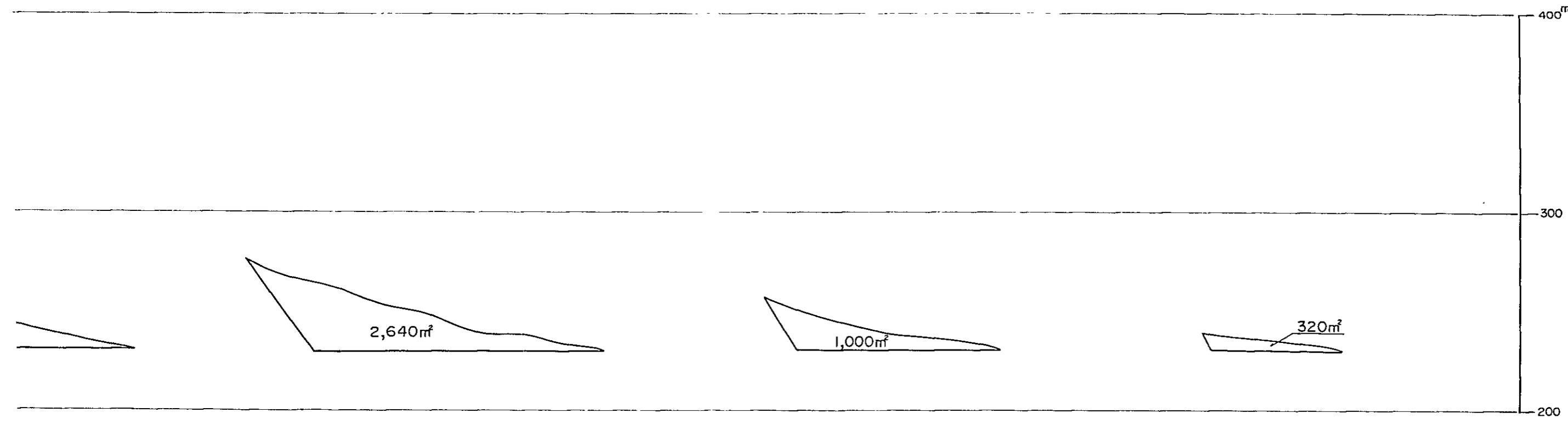




Sec. 11-11'

Sec. 12-12'

Sec. 13-13'



SCALE 1:2,000



NOTE
THIS SECTIONAL DRAWINGS WERE MADE BASED ON
DRAWING G-06.

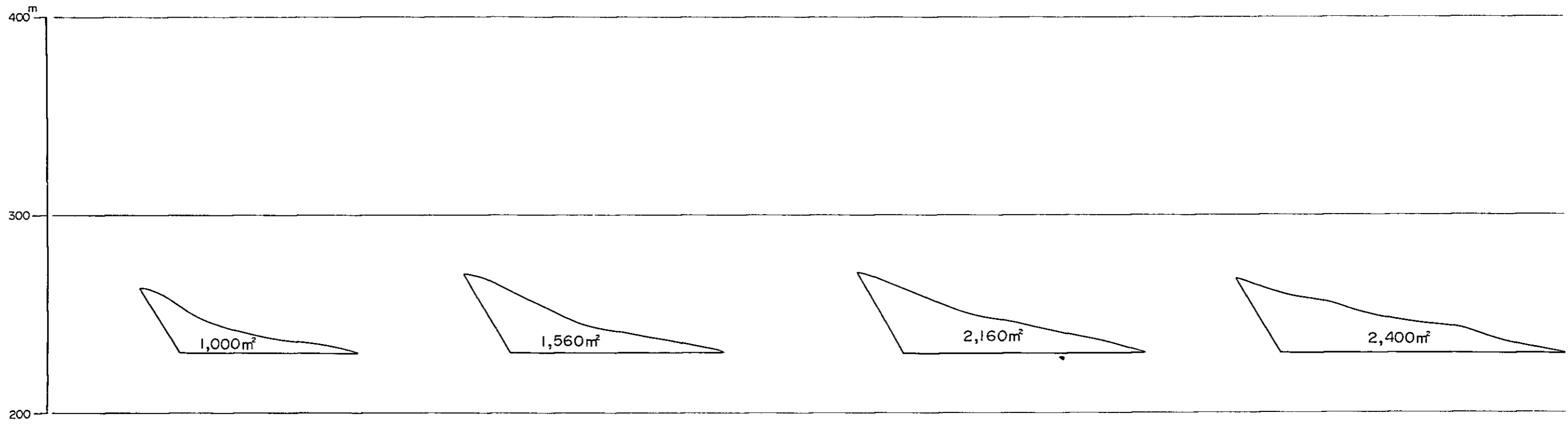
SECTIONAL DRAWINGS FOR RESERVES CALCULATION OF DOI DIN

Sec. 14 - 14'

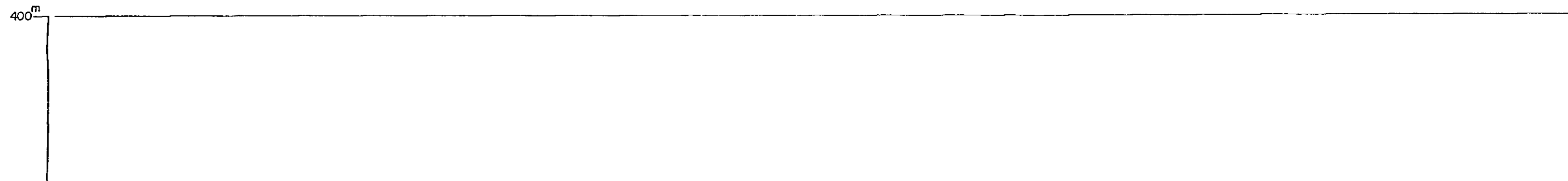
Sec. 15 - 15'

Sec. 16 - 16'

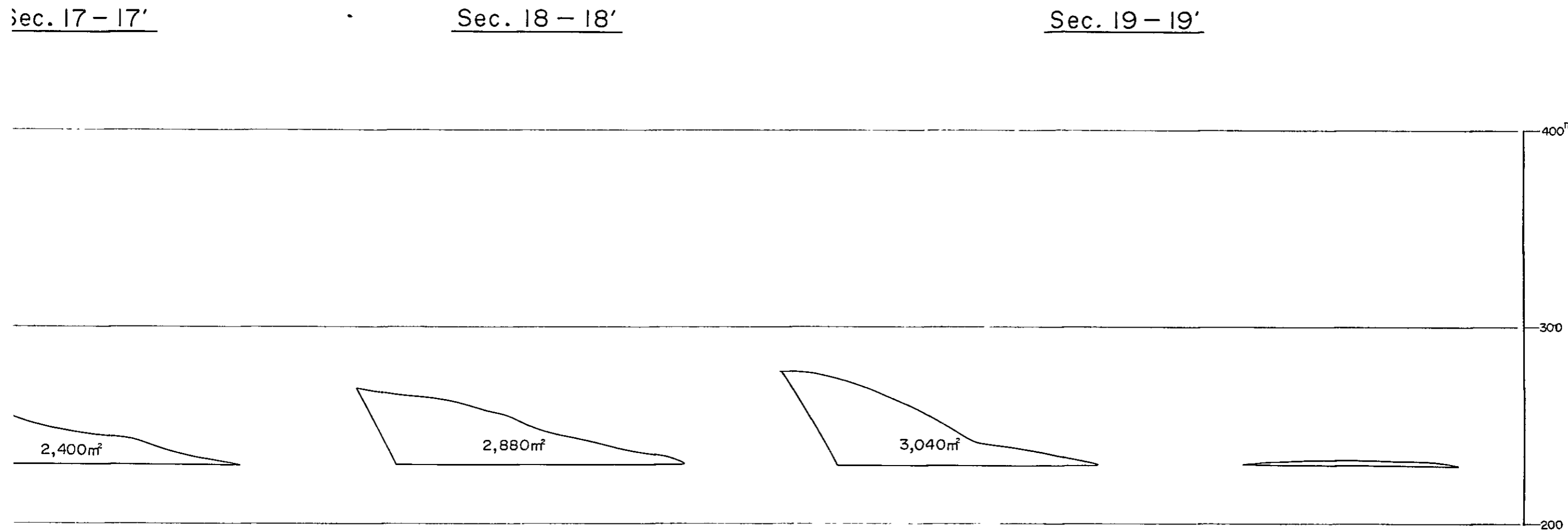
Sec. 17 - 17'



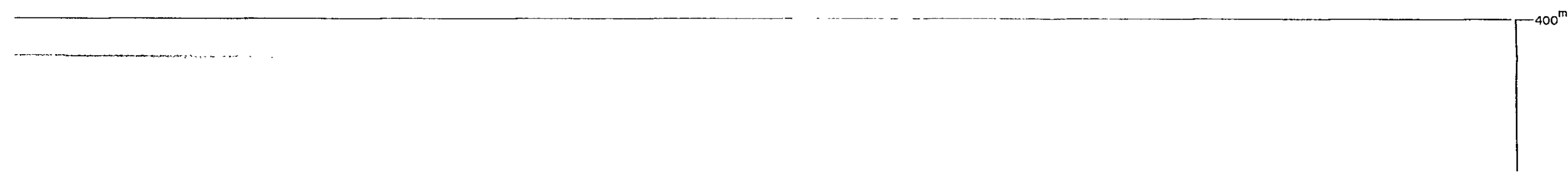
Sec. 20 - 20'



OF DOI DIN CHI LIMESTONE DEPOSIT (NORTHERN DEPOSIT)



Sec. 21 - 21'



300

200

4,400m²

Sec. 22 - 22'

400^m

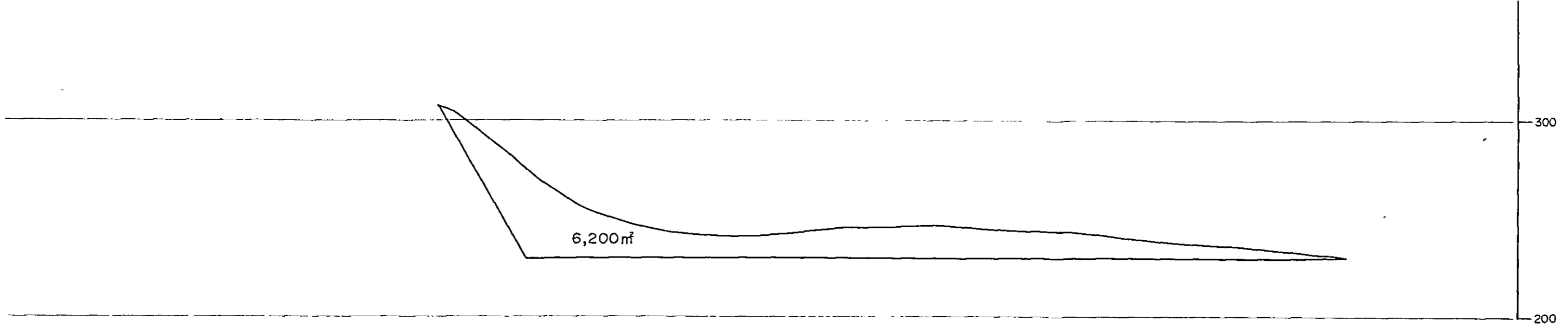
300

200

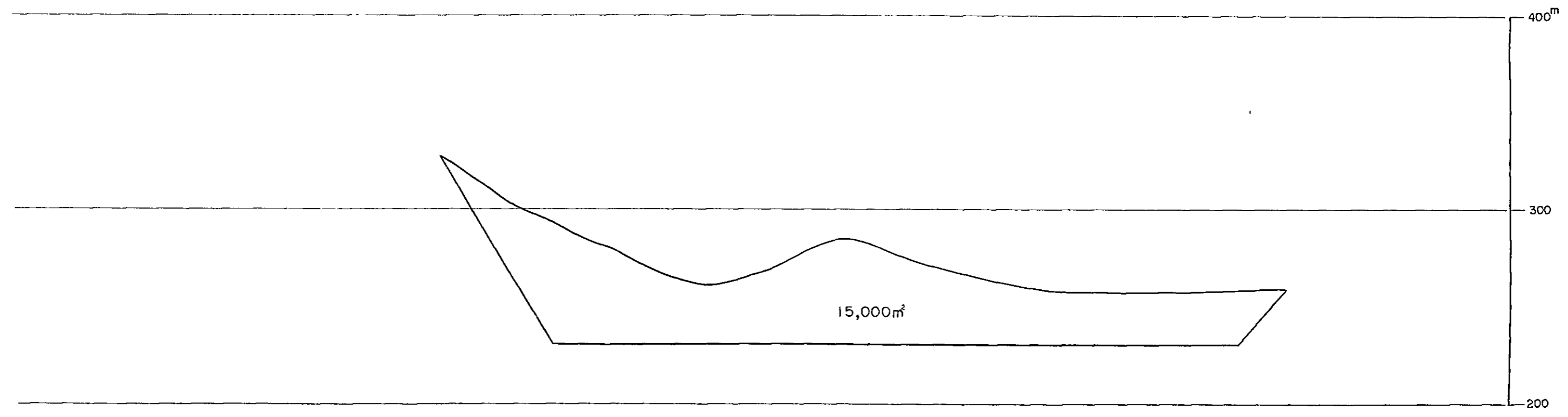
11,480m²

SCALE 1 : 2,000

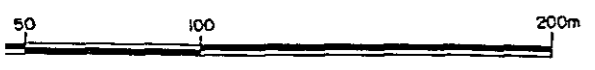




Sec. 23 - 23'

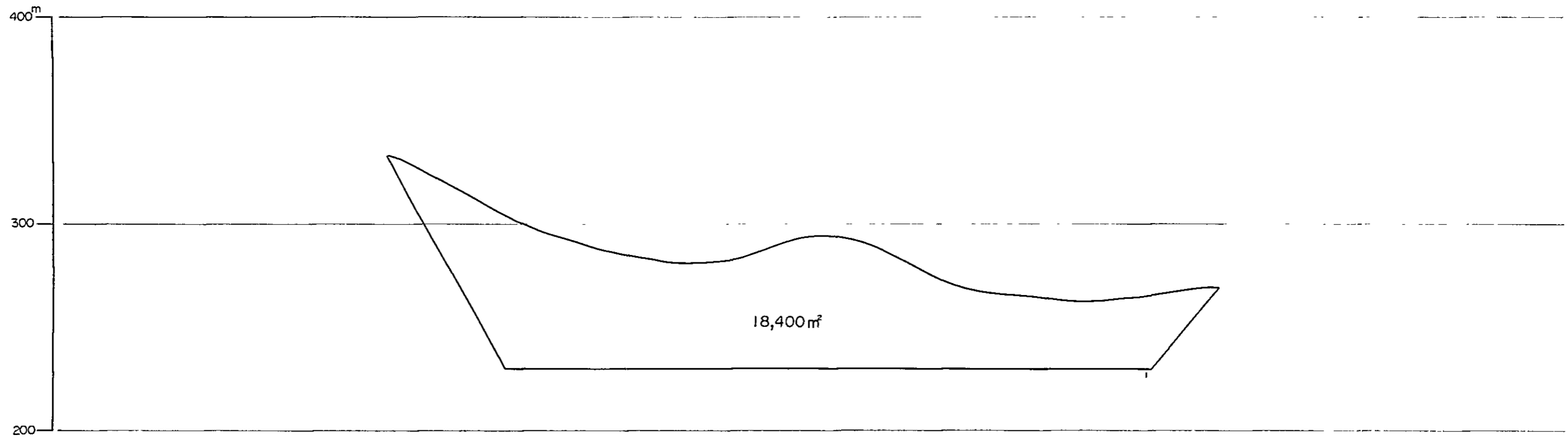


SCALE 1 : 2,000



SECTIONAL DRAWINGS FOR RESERVES CALCULATION OF DOI DIN

Sec. 24 - 24'

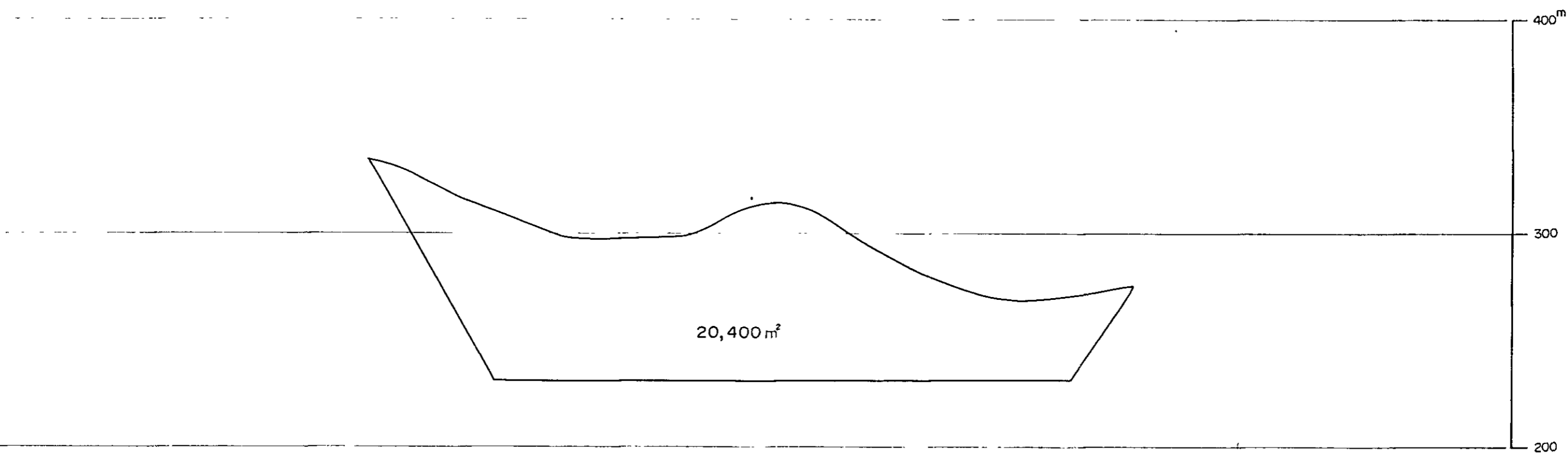


Sec. 26 - 26'

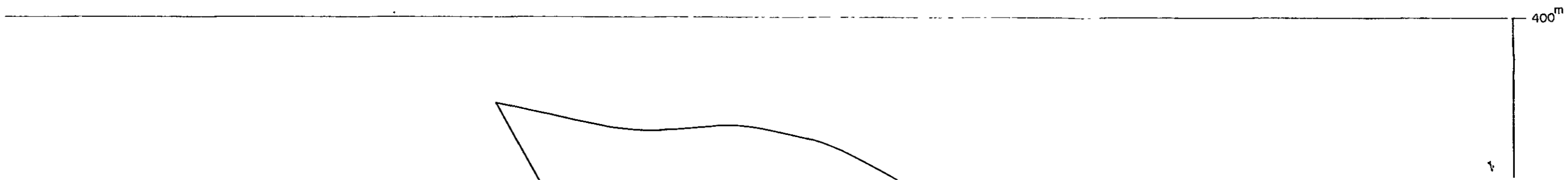


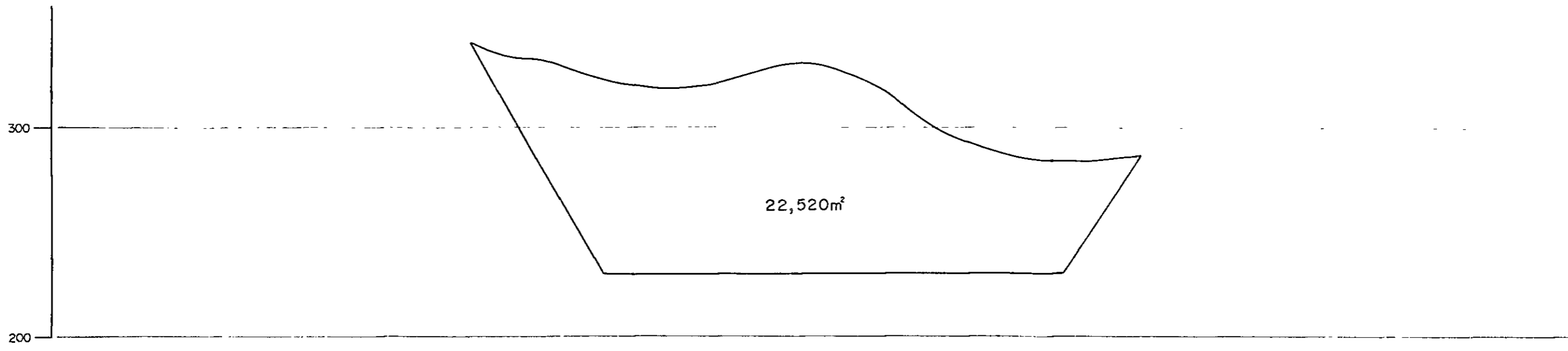
OF DOI DIN CHI LIMESTONE DEPOSIT (NORTHERN DEPOSIT)

Sec. 25 - 25'

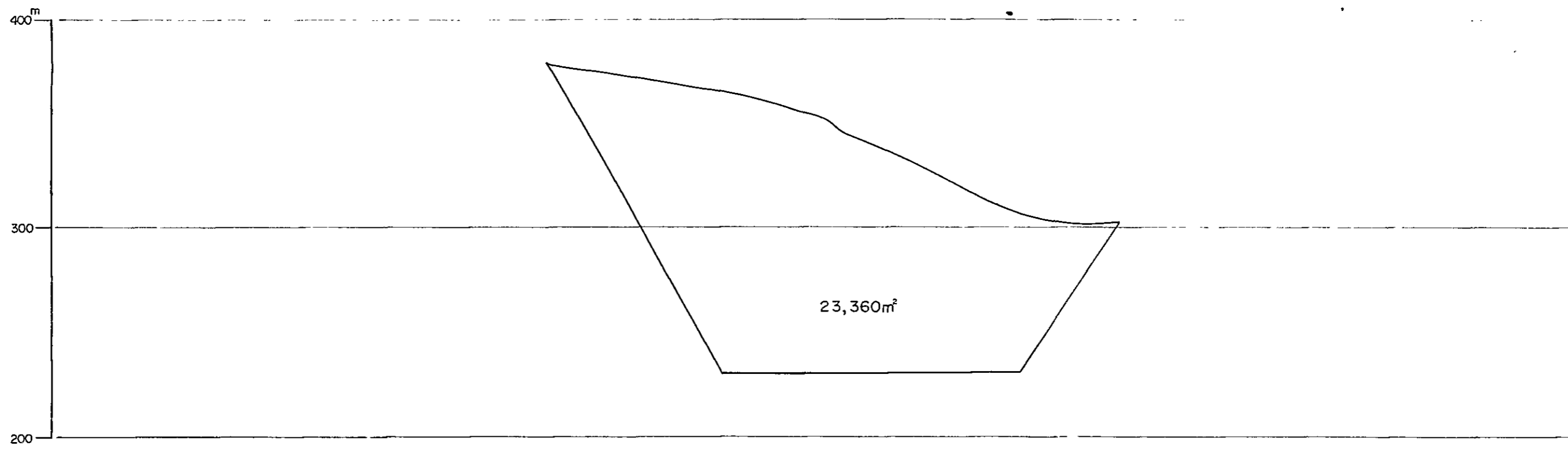


Sec. 27 - 27'



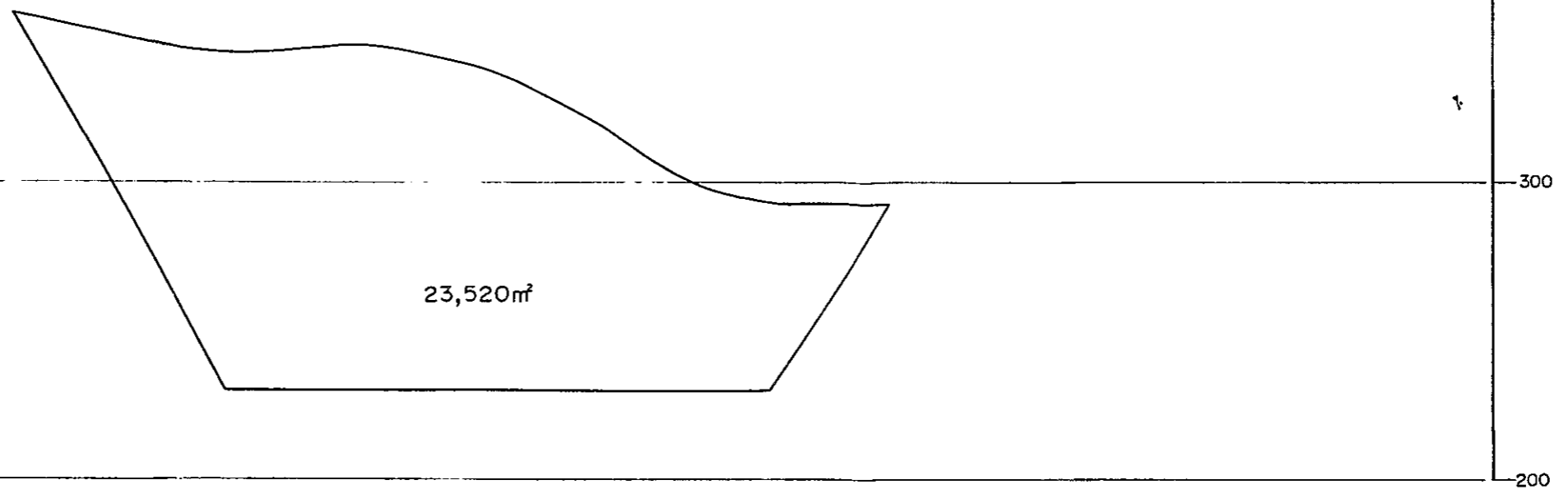


Sec. 28 - 28'

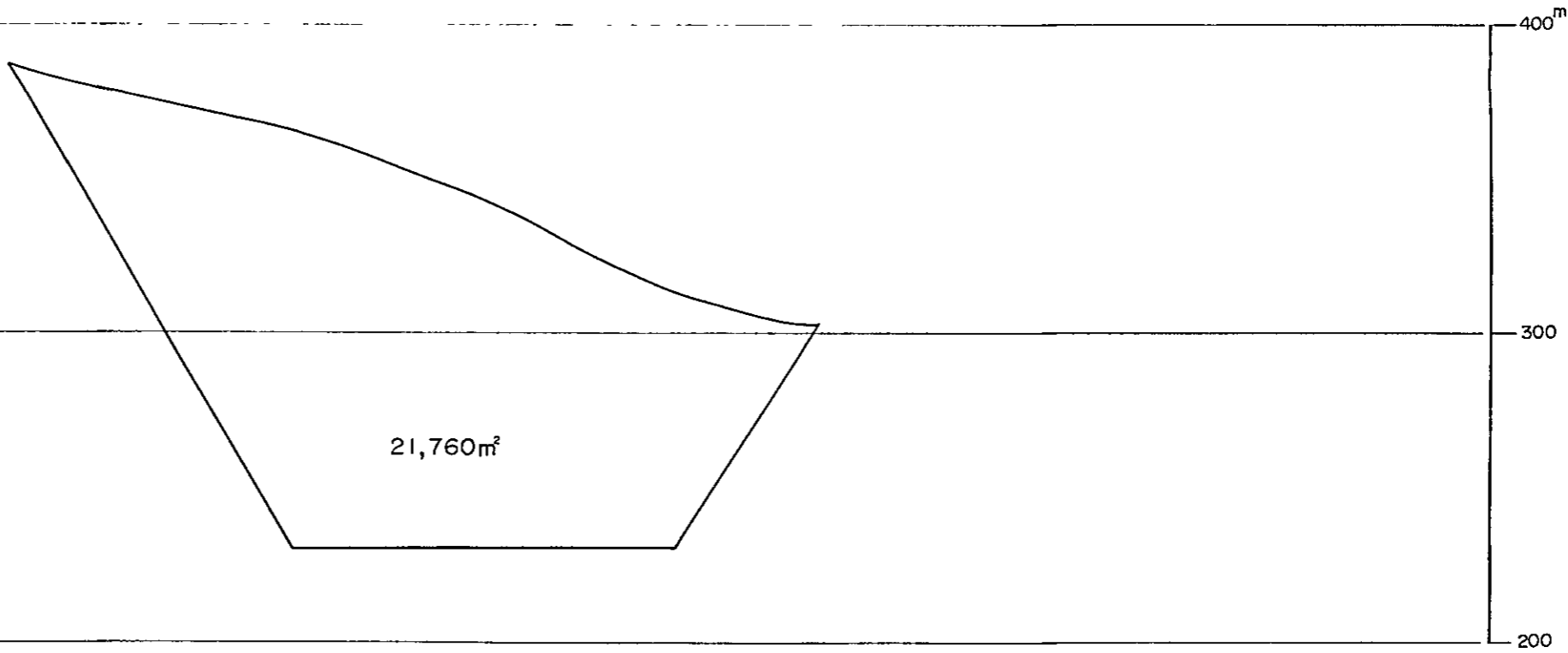


SCALE 1 : 2,000





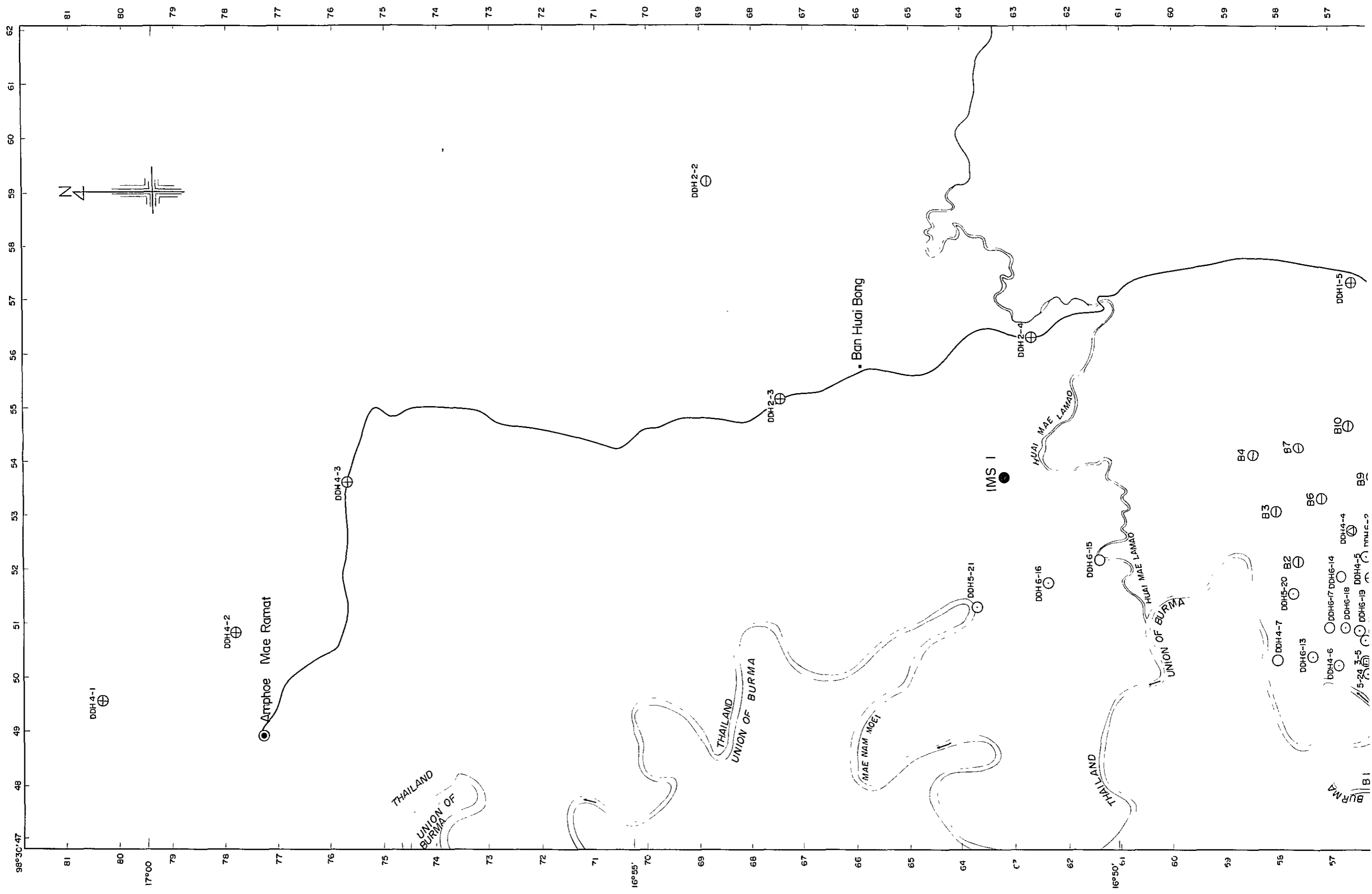
Sec. 29 - 29'

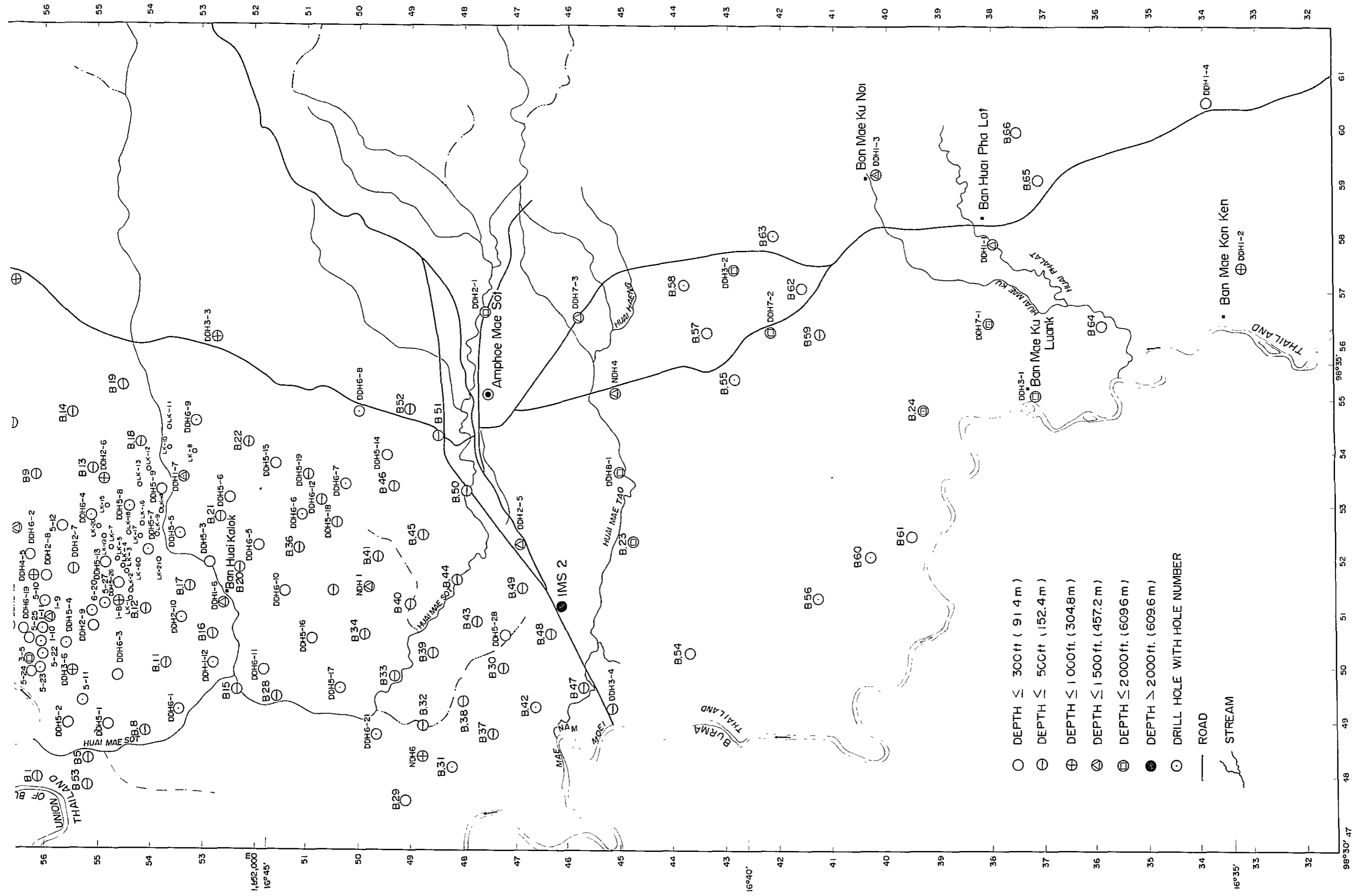


SCALE 1 : 2,000

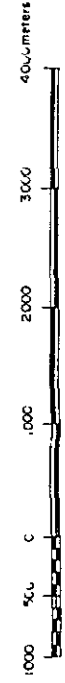


LOCATION MAP OF DRILLING POINTS ON OIL SHALE DEPOSIT G-08

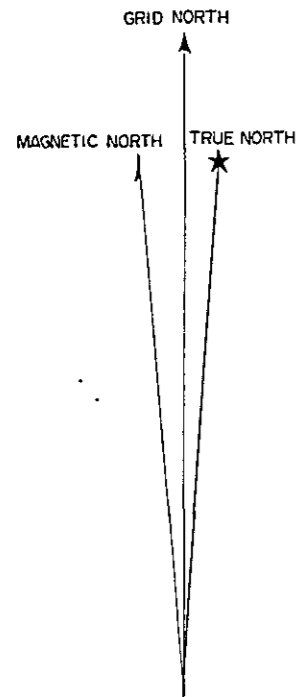




- DEPTH ≤ 300ft (91.4 m)
- ⊖ DEPTH ≤ 500ft (152.4 m)
- ⊕ DEPTH ≤ 1000ft (304.8 m)
- ⊗ DEPTH ≤ 1500ft (457.2 m)
- ⊞ DEPTH ≤ 2000ft (609.6 m)
- DEPTH > 2000ft (609.6 m)
- DRILL HOLE WITH HOLE NUMBER
- ROAD
- ~ STREAM



451,500



DDH 5-27



DDH 1-8



• 205

204

201

199.5

⊙ O17BH
T-198.618

DDH 5-13



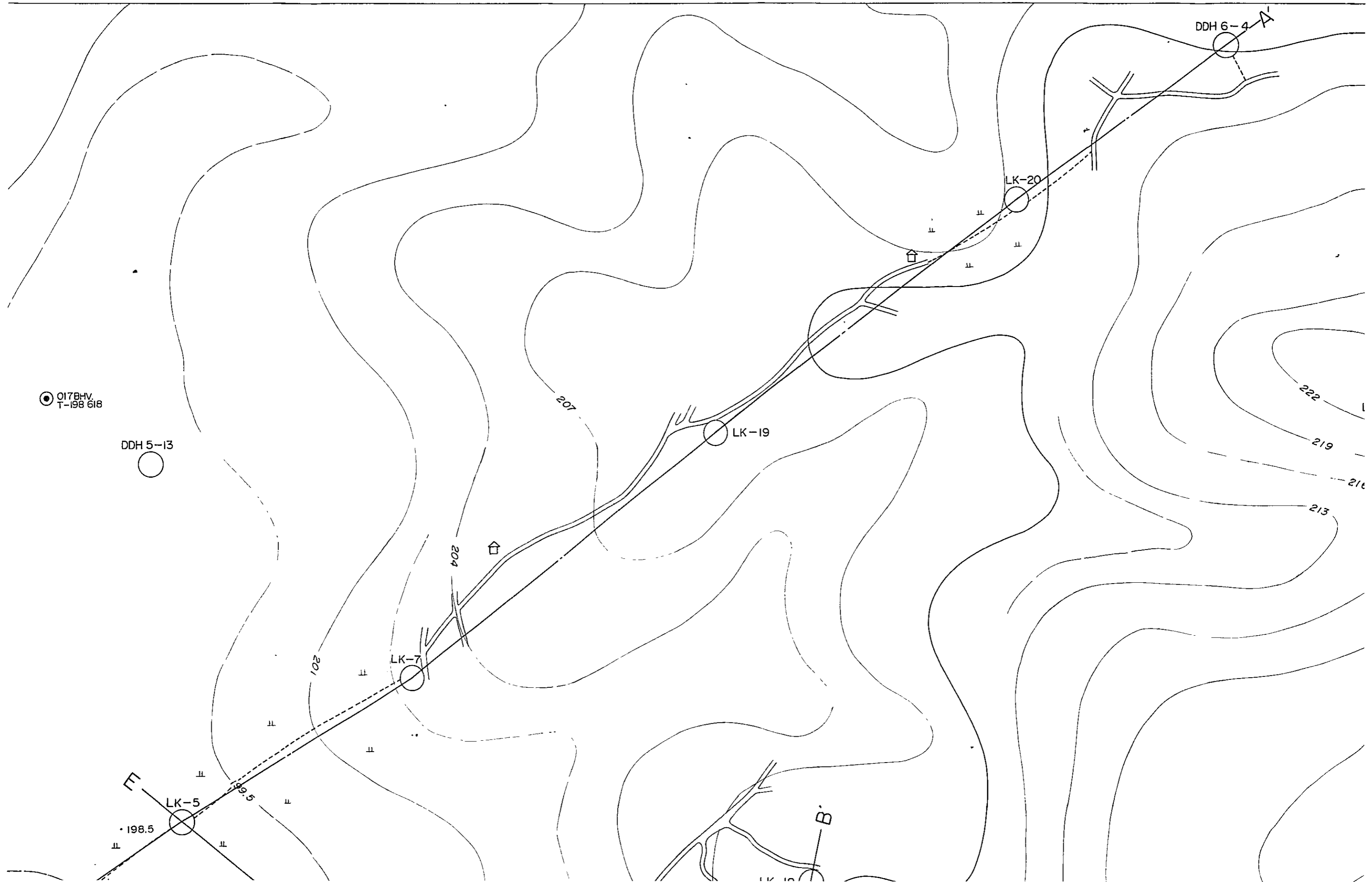
FT

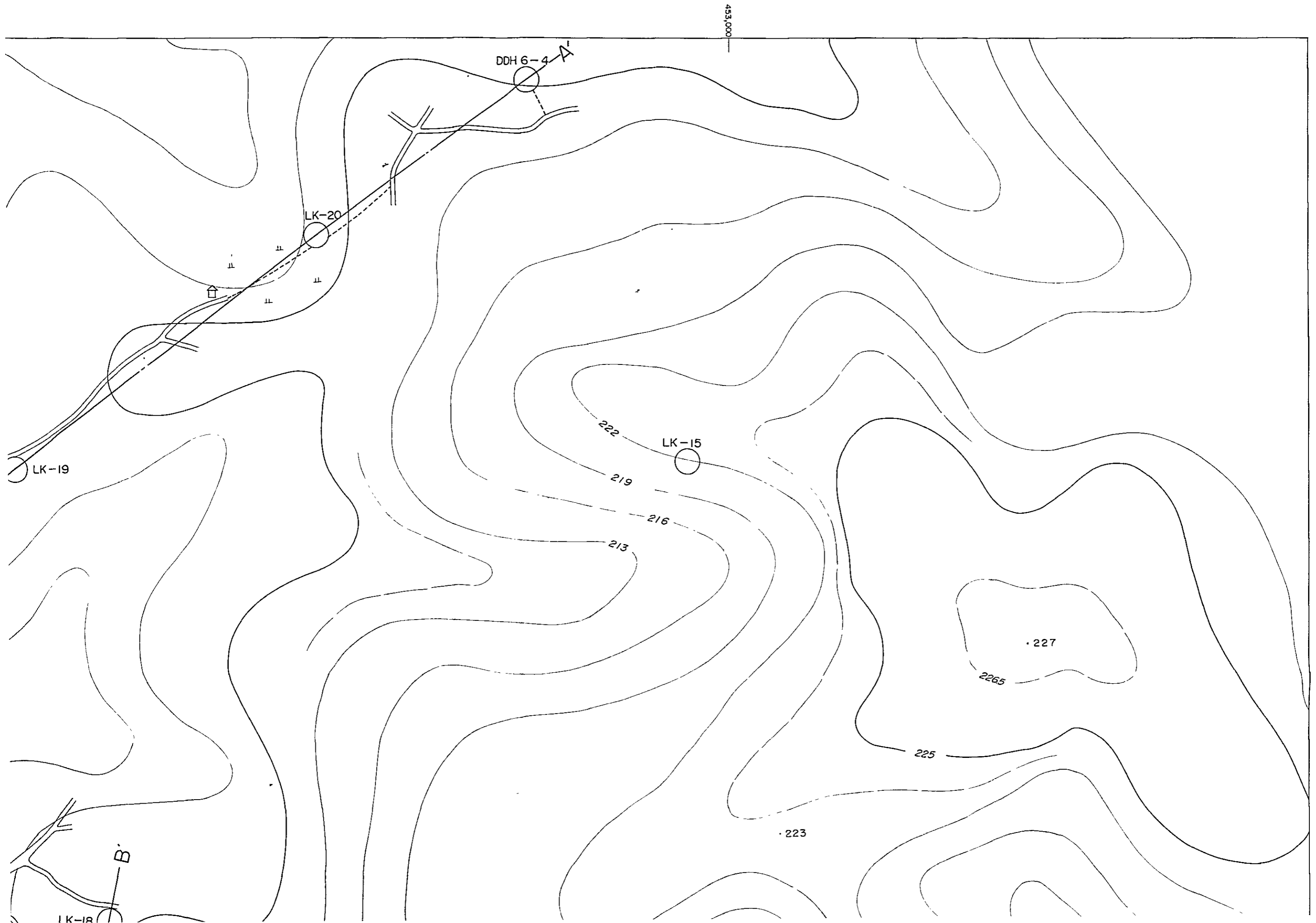
LK-5

• 198.5



TOPOGRAPHICAL MAP OF THE PROPOSED OIL SHALE QUARRY

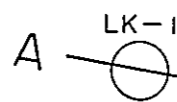




DDH 1-8



• 205



LK-1

204



LK-2

OSH LK-2

198



200

20

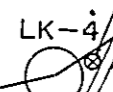
30

40

50

25

• 198.5



LK-4

M-03

M



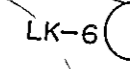
LK-5

• 198.5

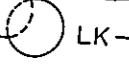
201

1995

198



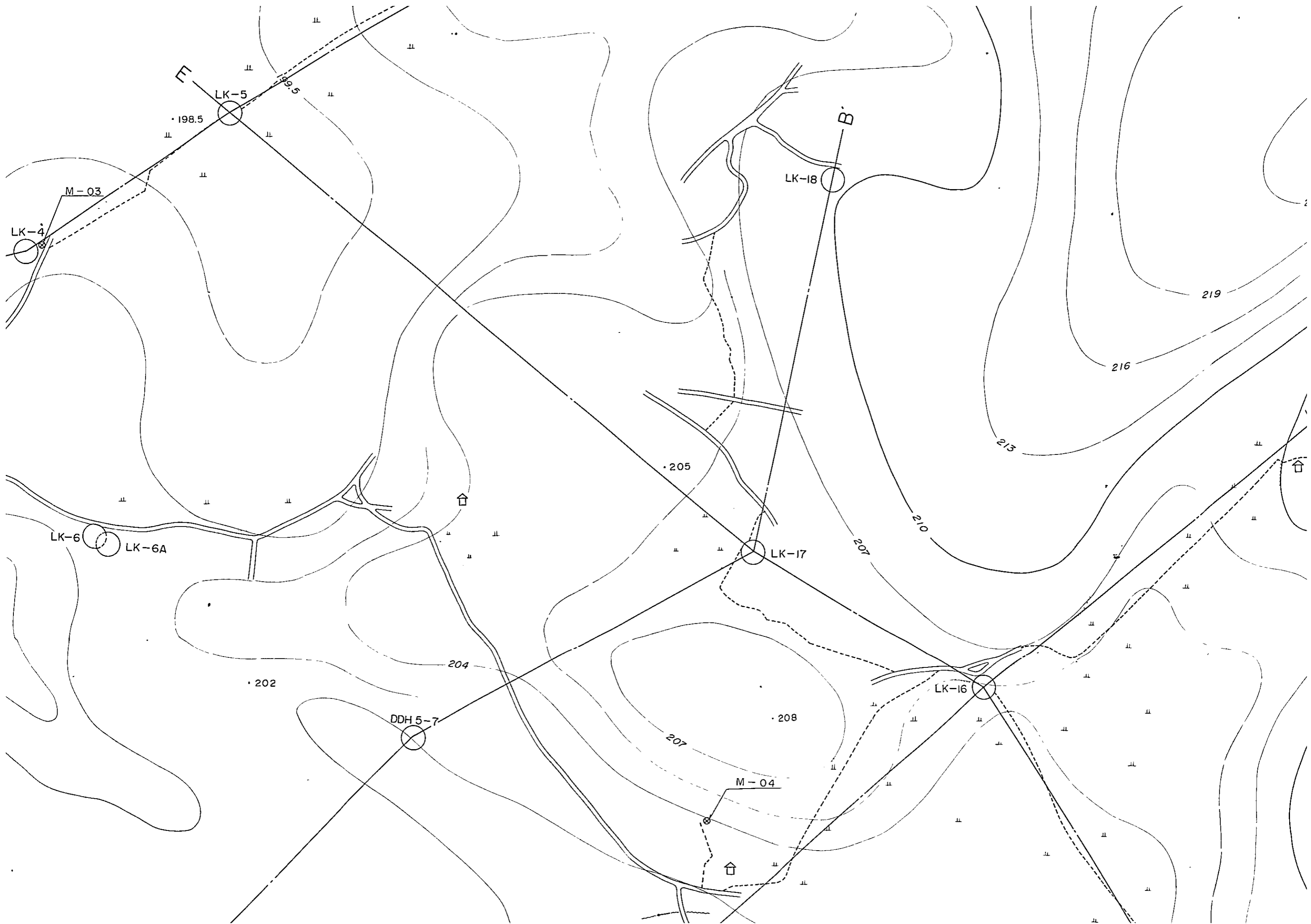
LK-6

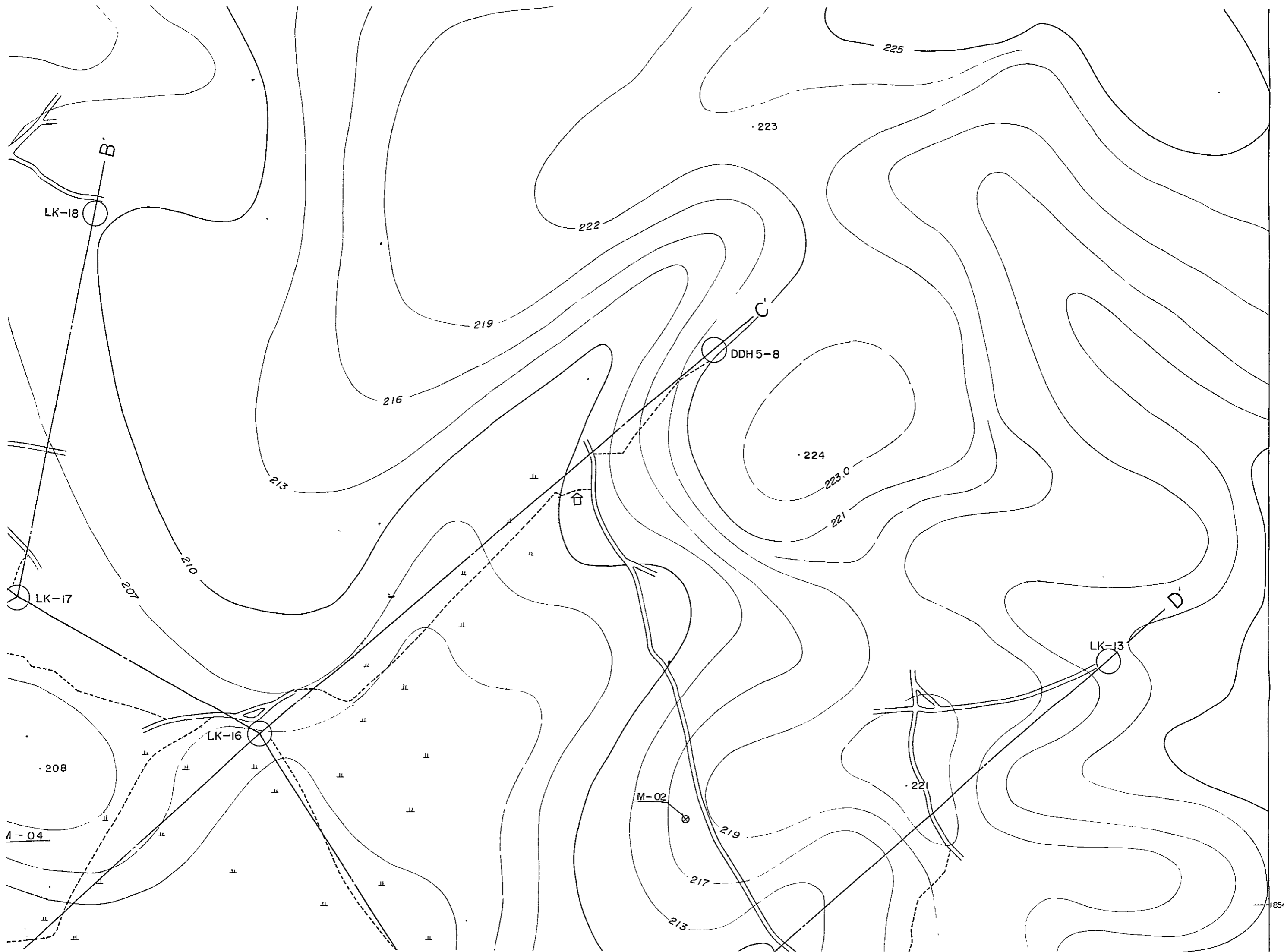


LK-6A

B 12







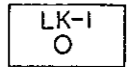
1854,000

B 12

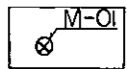
198

1854,000

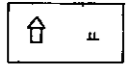
LEGEND



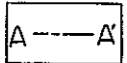
LOCATION OF BORE HOLE AND BORE HOLE NO



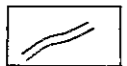
LOCALITY OF OIL SHALE OR CLAY (MARL) SAMPLE AND SAMPLE NO.



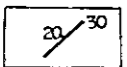
HUT AND RICE FIELD



LINE FOR GEOLOGICAL CROSS SECTION



SMALL ROAD



STRIKE AND DIP

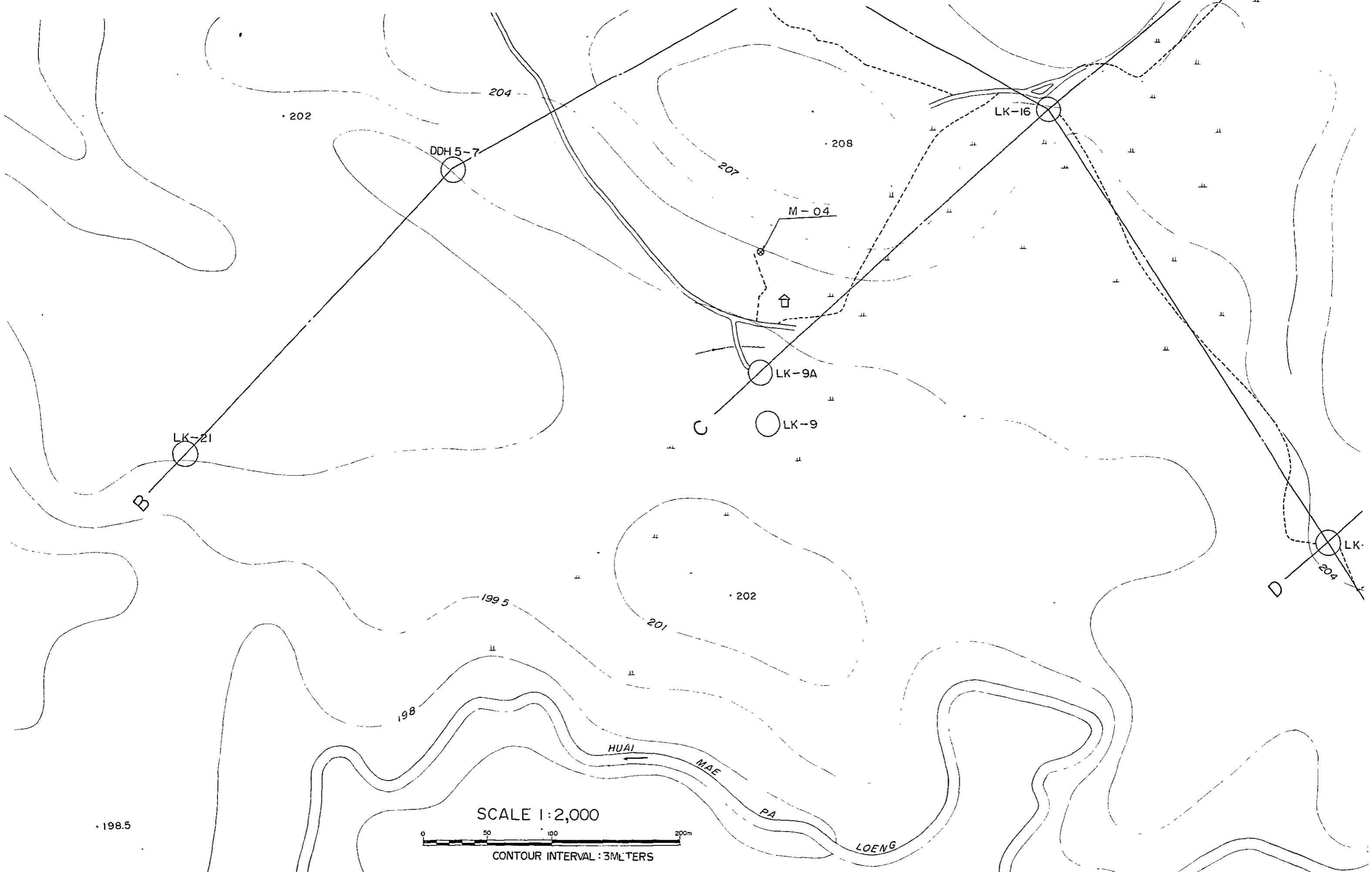
LK-21

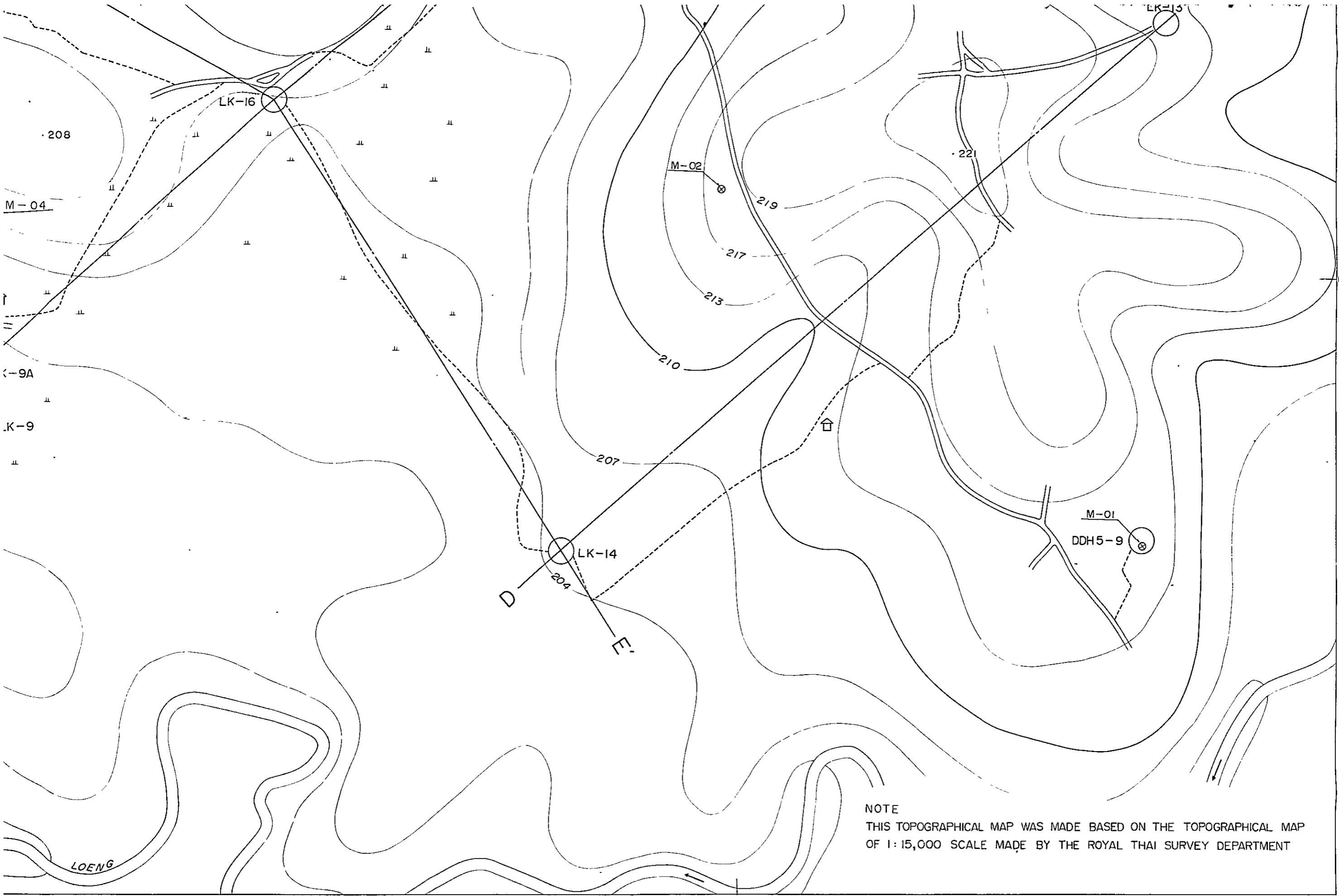
B

• 1985

• 1985

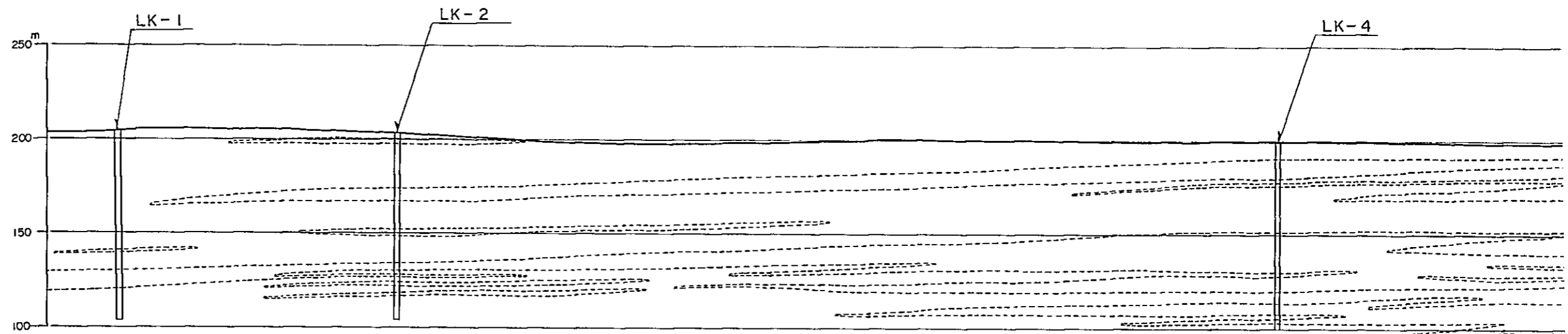
451,500



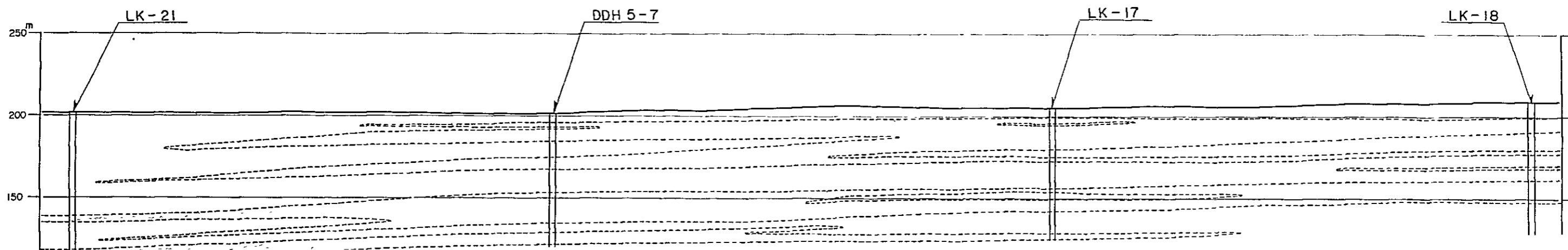


NOTE
THIS TOPOGRAPHICAL MAP WAS MADE BASED ON THE TOPOGRAPHICAL MAP
OF 1:15,000 SCALE MADE BY THE ROYAL THAI SURVEY DEPARTMENT

TENTATIVE GEOLOGICAL CROSS

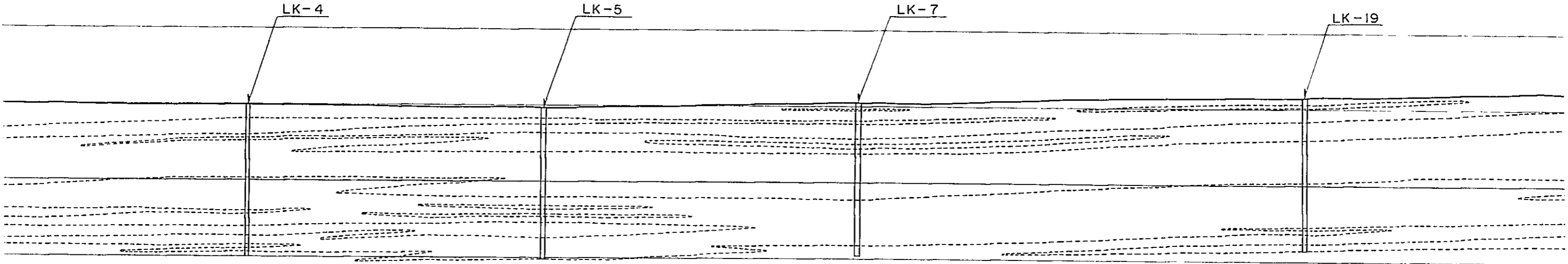


Sec. B - B'

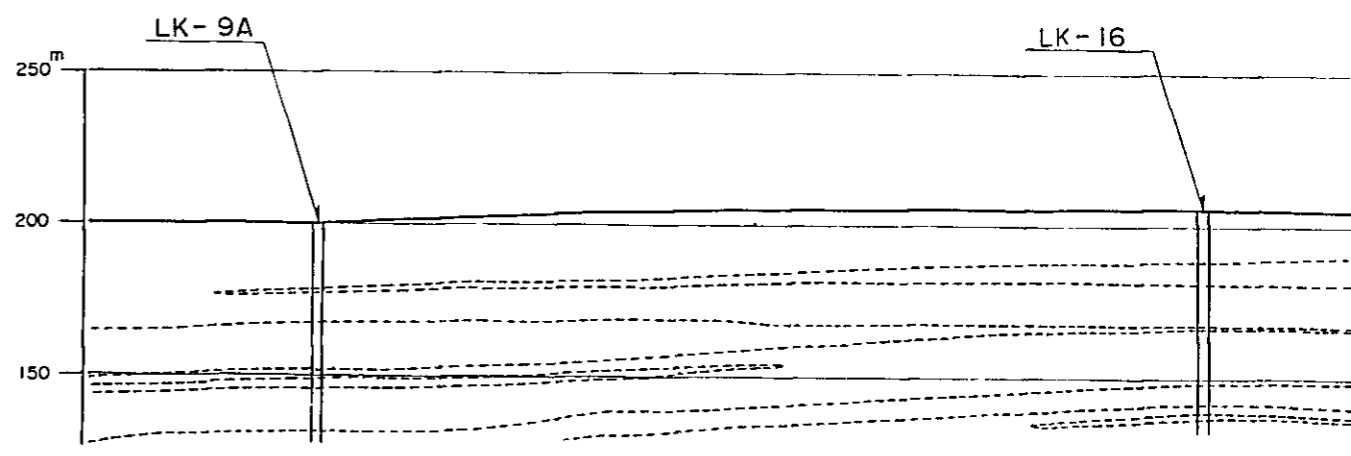
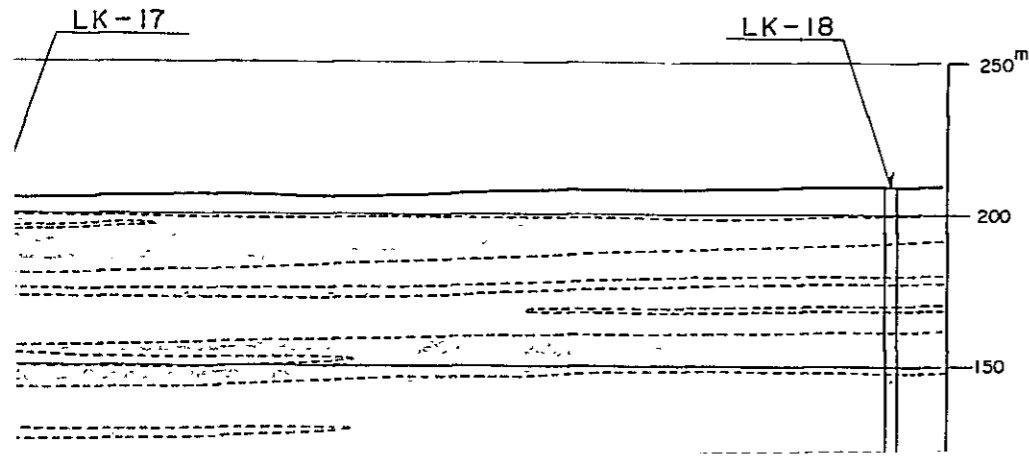


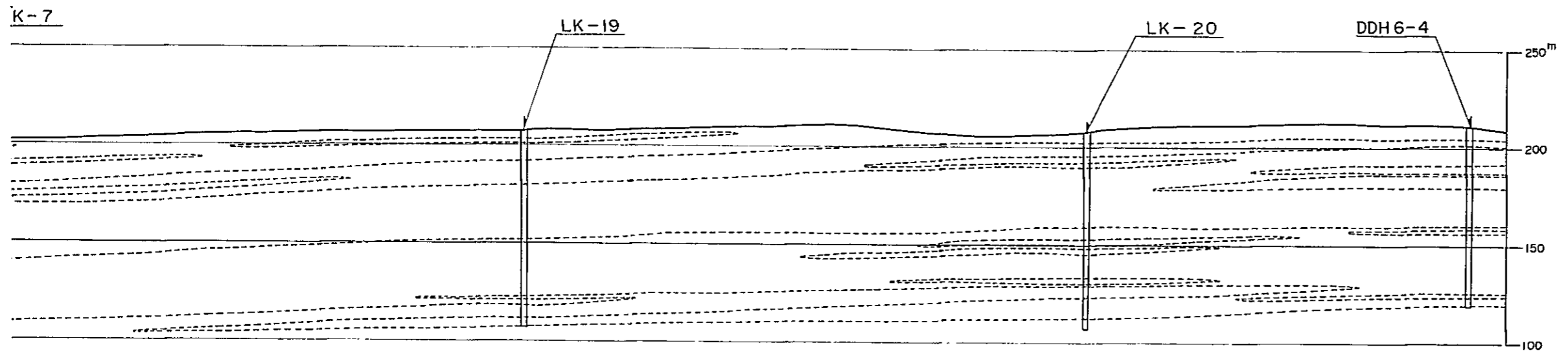
ENTATIVE GEOLOGICAL CROSS SECTION OF THE PROPOSED OIL SHALE QUARRY

Sec. A - A'

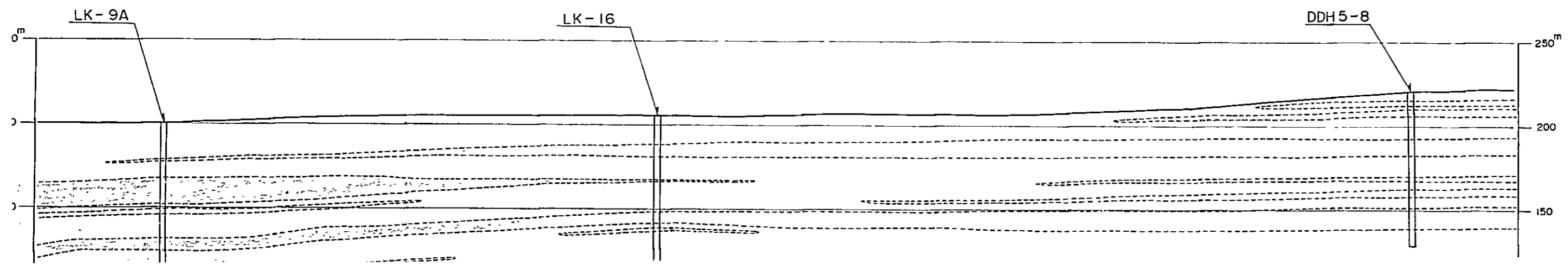


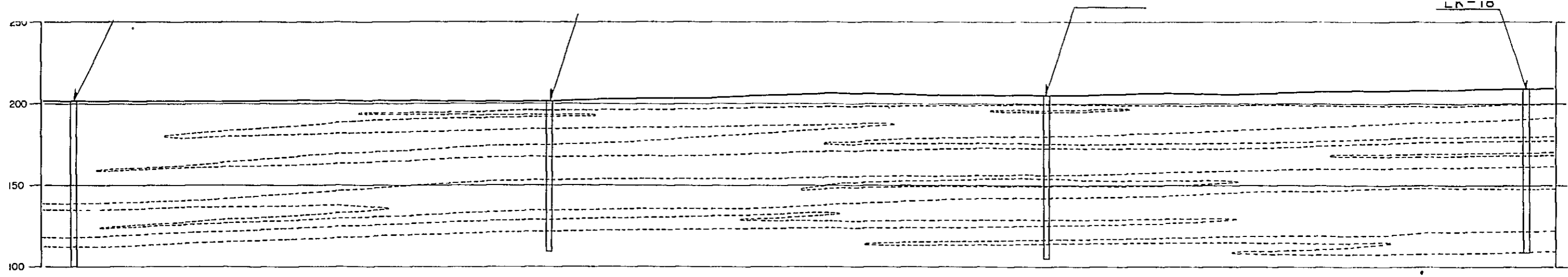
Sec. C



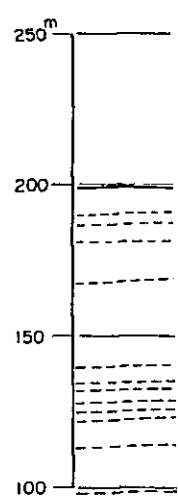
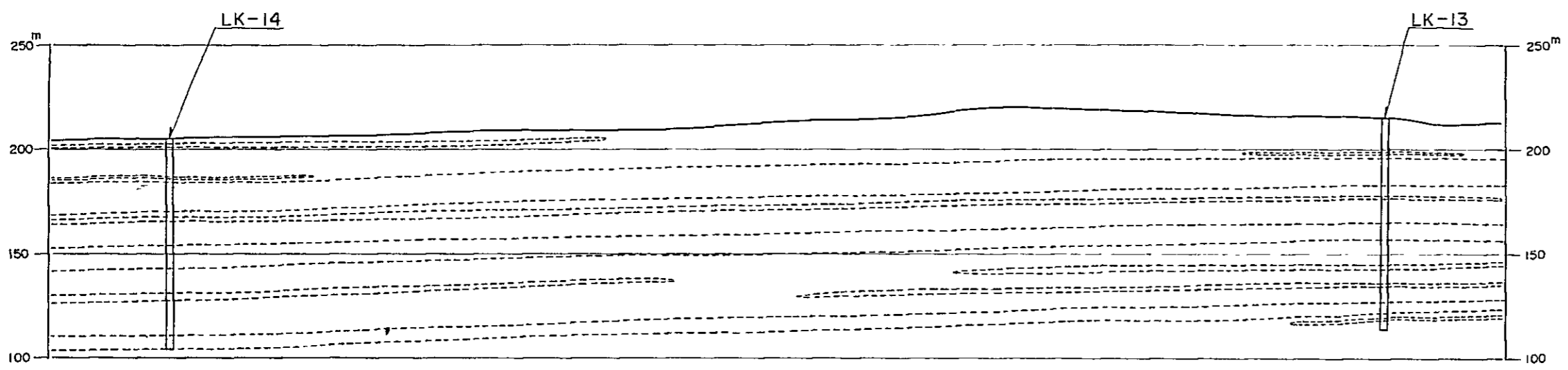


Sec. C - C'

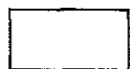



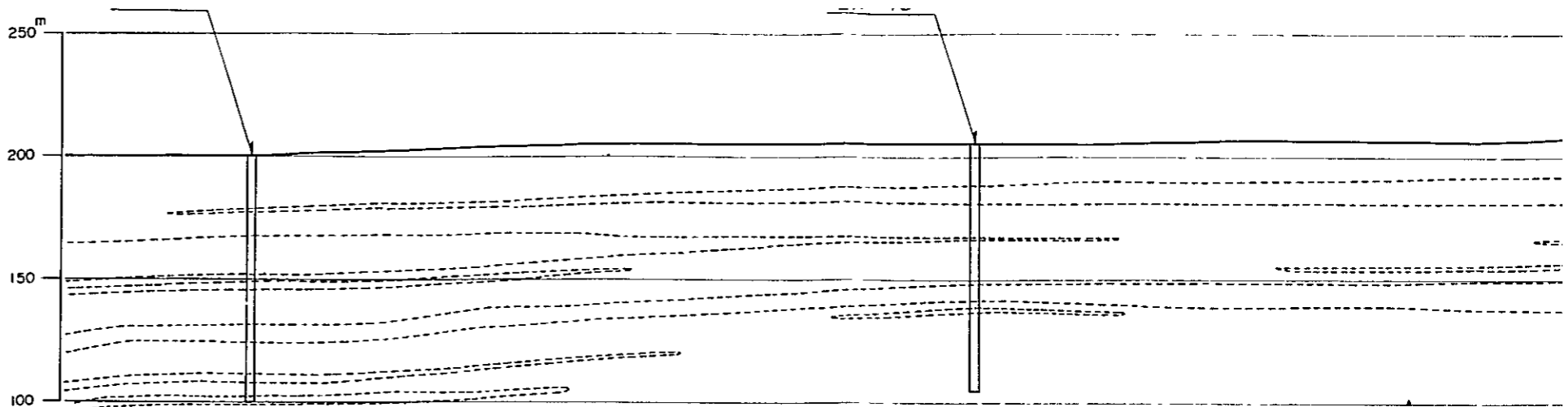
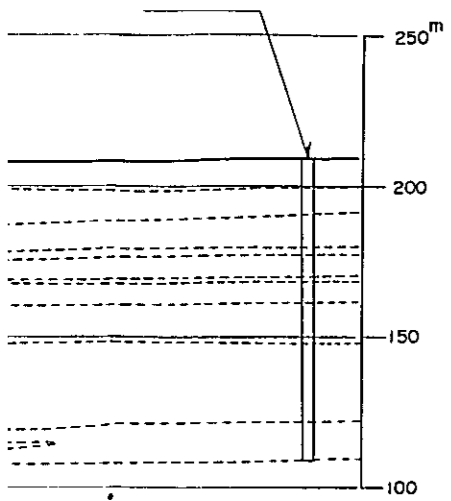


Sec. D - D'

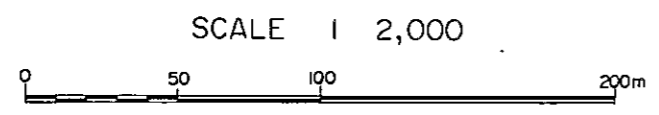
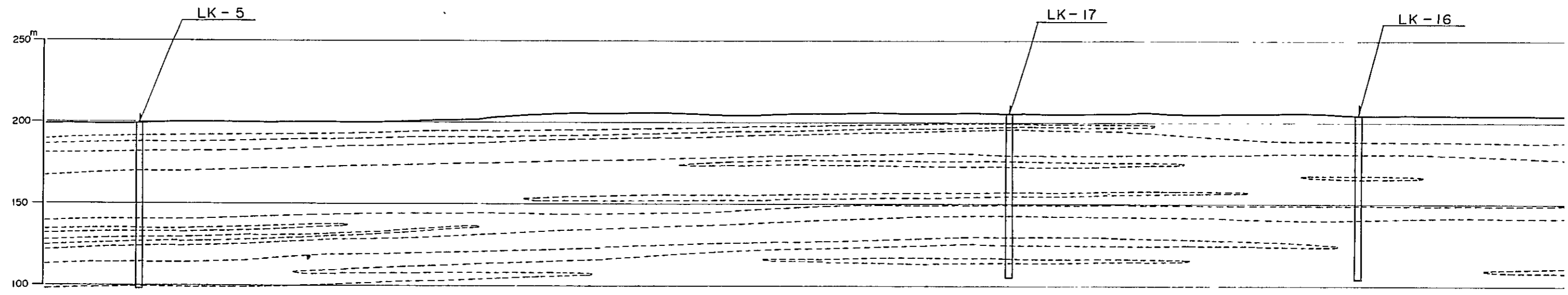


LEGEND

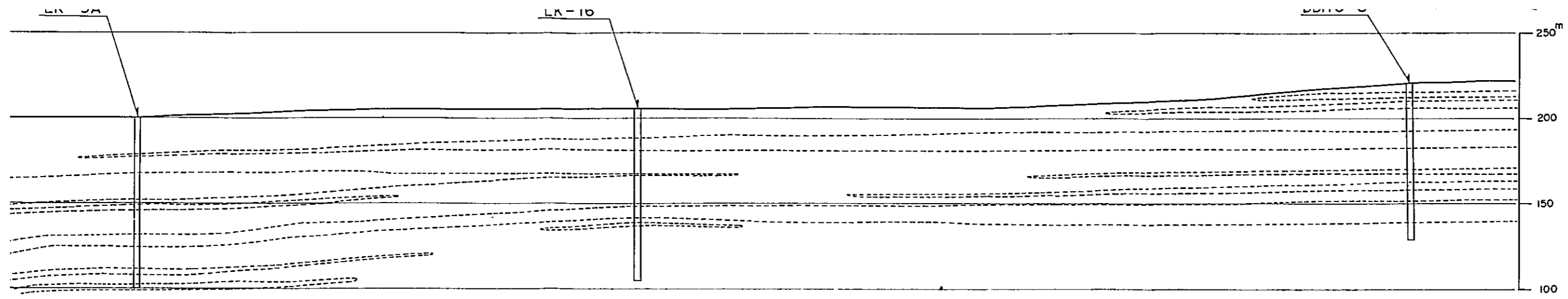
-  OIL SHALE (HIGH, MEDIUM, AND LOW GRADE)
-  MARLSTONE, SANDSTONE, CLAYSTONE etc.



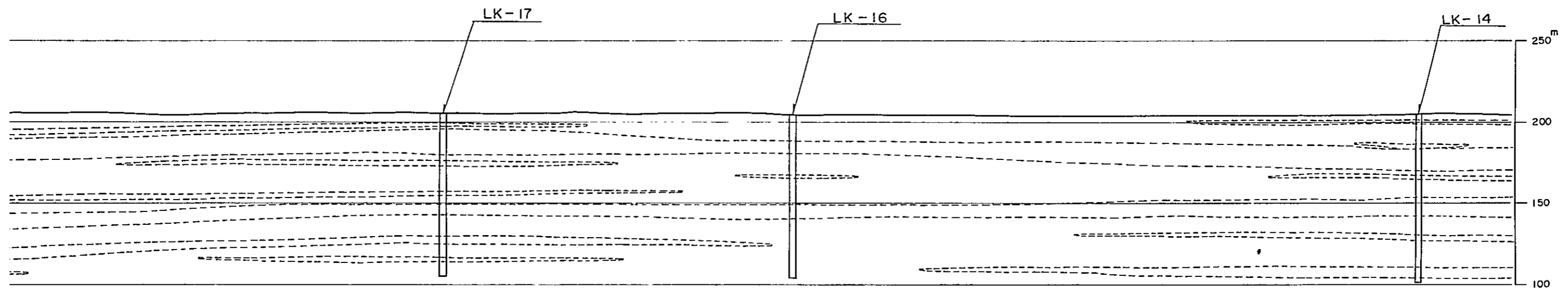
Sec. E - E'



NOTES :
 1 THIS TENTAT
 DRAWING G -
 2 GEOLOGICAL
 BY PRESUMIN
 REQUIRED FC



Sec. E - E'



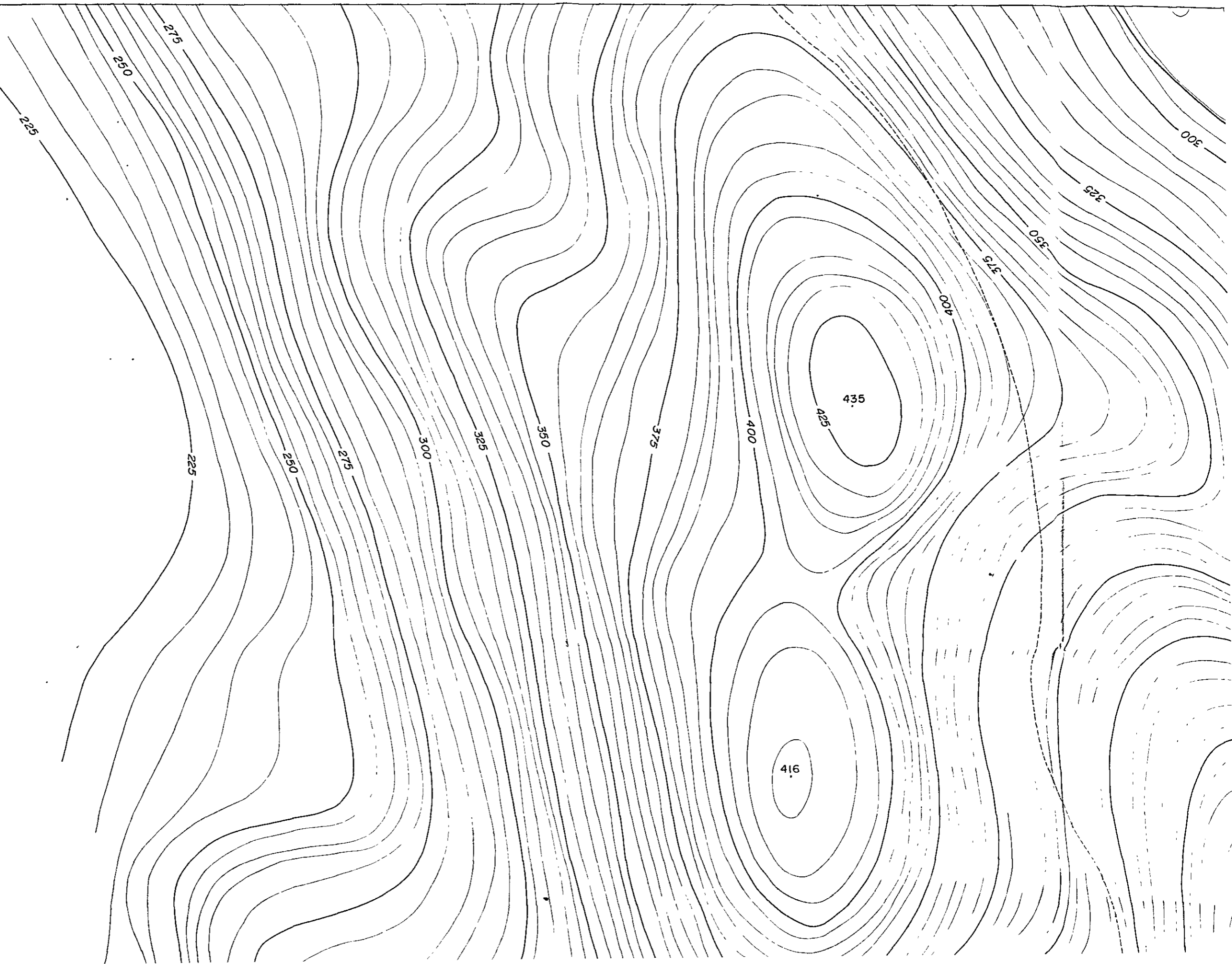
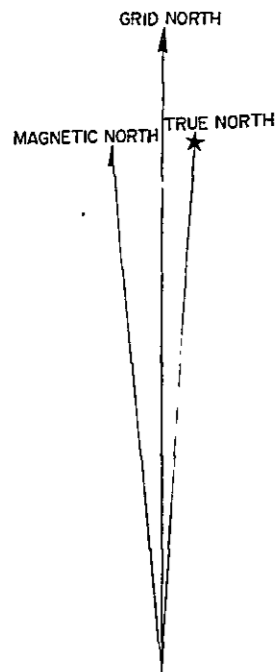
NOTES :

- 1 THIS TENTATIVE GEOLOGICAL CROSS SECTIONS WERE MADE BASED ON DRAWING G-09, USING BORING LOGS MADE BY DMR.
- 2 GEOLOGICAL BOUNDARY LINES BETWEEN BORE HOLES WERE DRAWN BY PRESUMING. SUPPLEMENTARY BORING AND TRENCHING ARE REQUIRED FOR EXACT CORRELATION OF OIL SHALE.

LIMESTONE QUARRY DEVELOPMENT PLAN

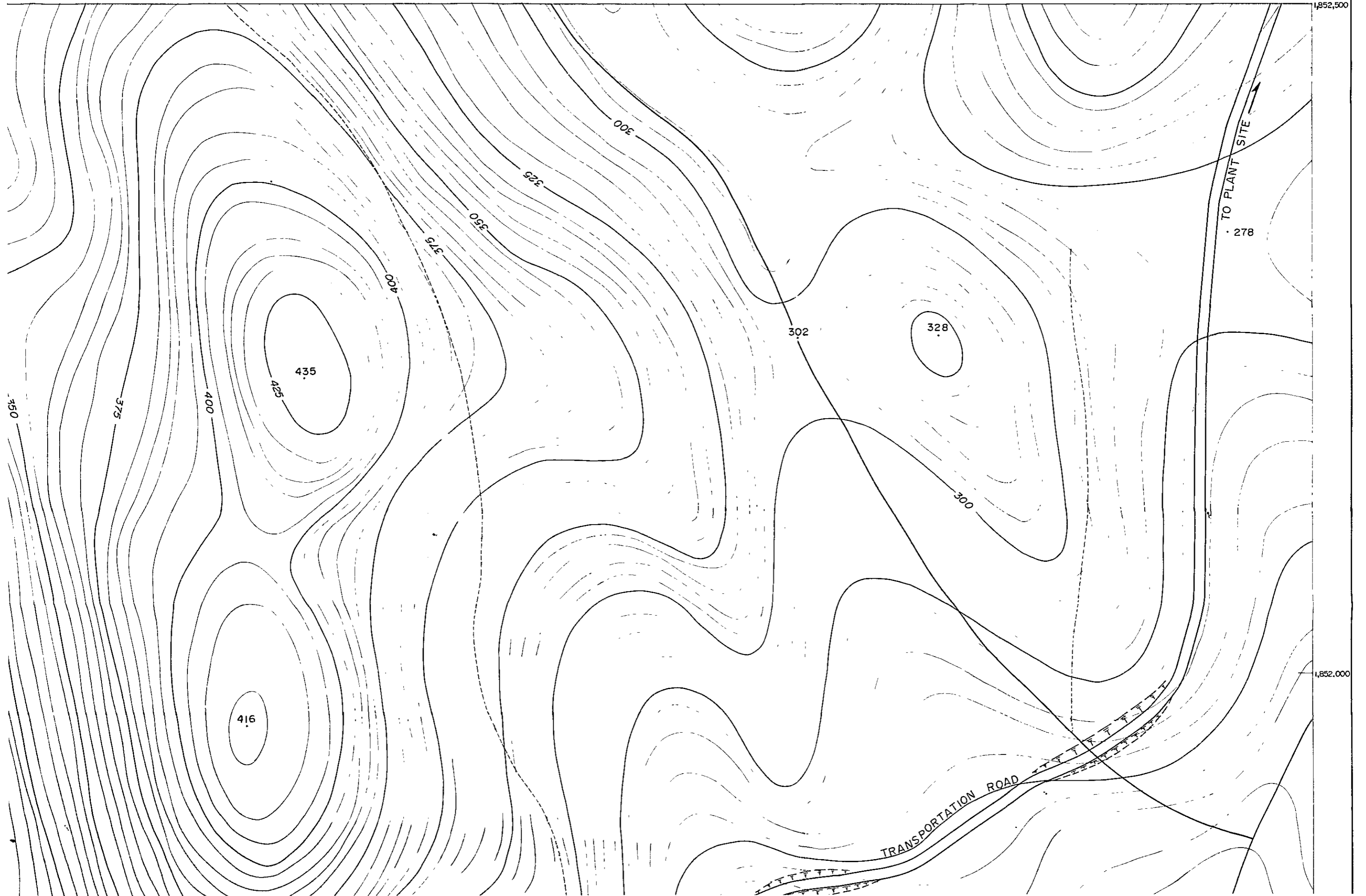
1,852,500

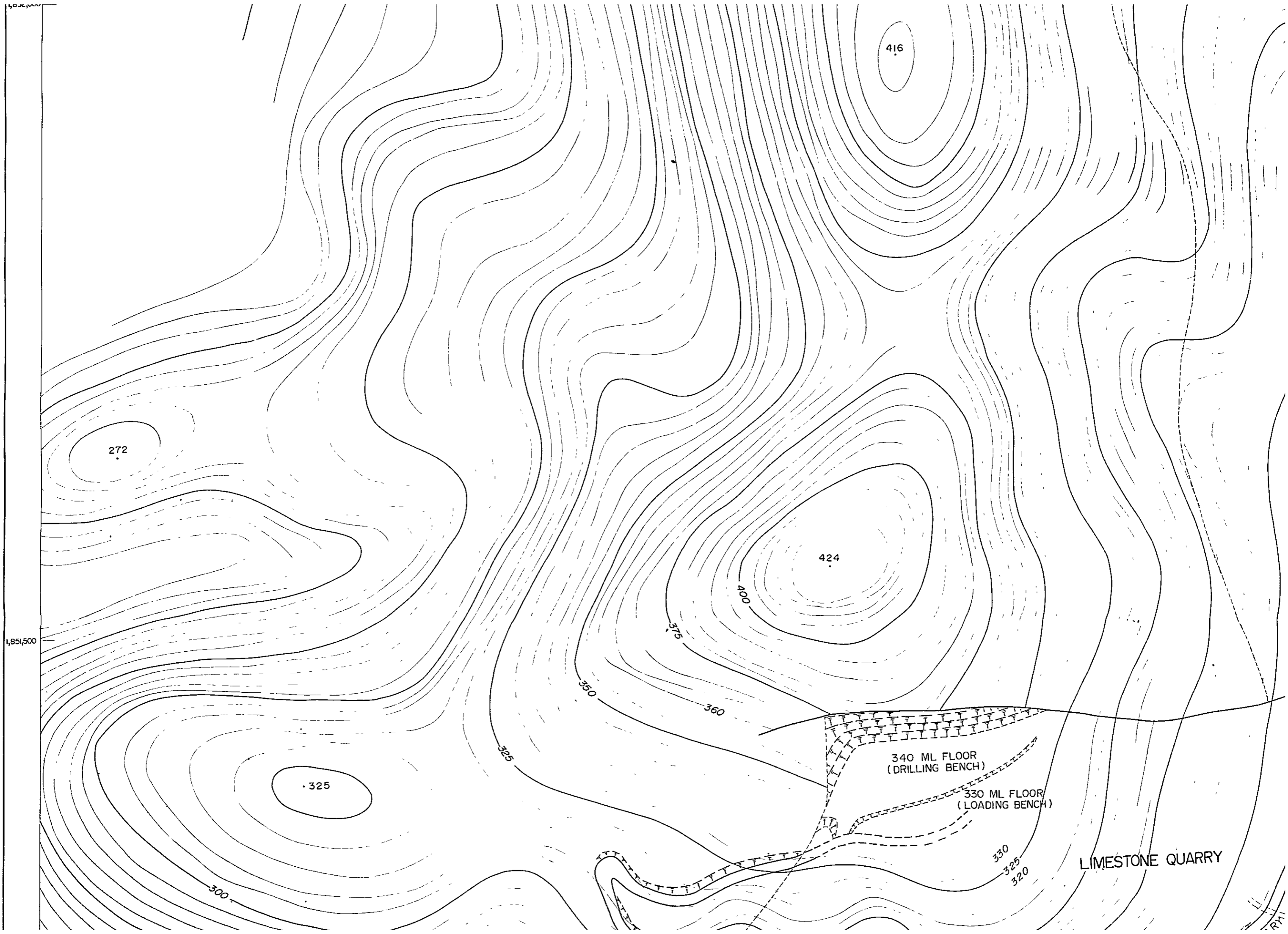
1,852,000



STONE QUARRY DEVELOPMENT PLAN

M - 01





272

416

424

325

340 ML FLOOR
(DRILLING BENCH)

330 ML FLOOR
(LOADING BENCH)

LIMESTONE QUARRY

1,851,500

300

325

350

360

375

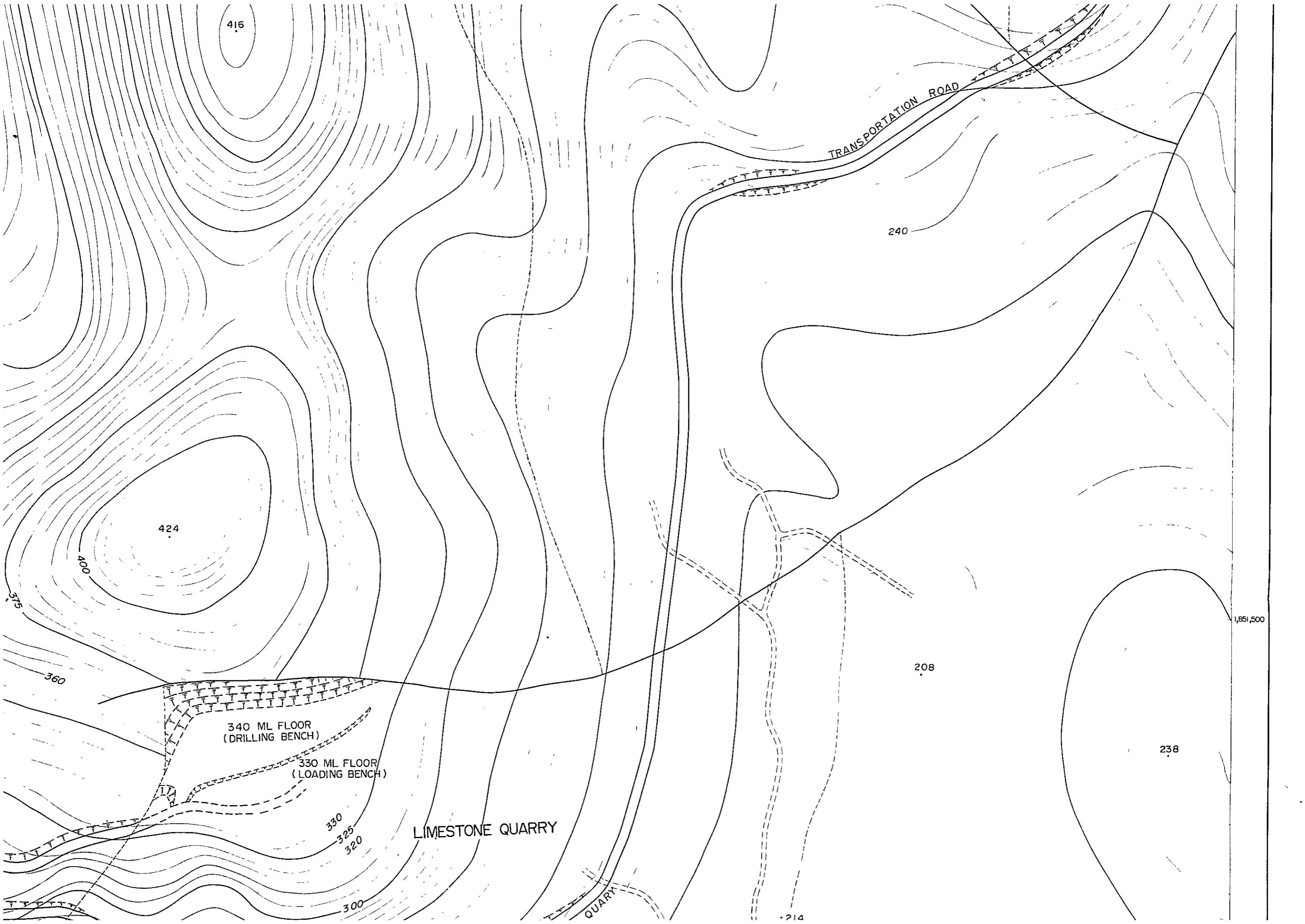
400

330

325

320

RA



416

424

400

360

360

340 ML FLOOR
(DRILLING BENCH)

330 ML FLOOR
(LOADING BENCH)

330

325

320

LIMESTONE QUARRY

300

QUARRY

TRANSPORTATION ROAD

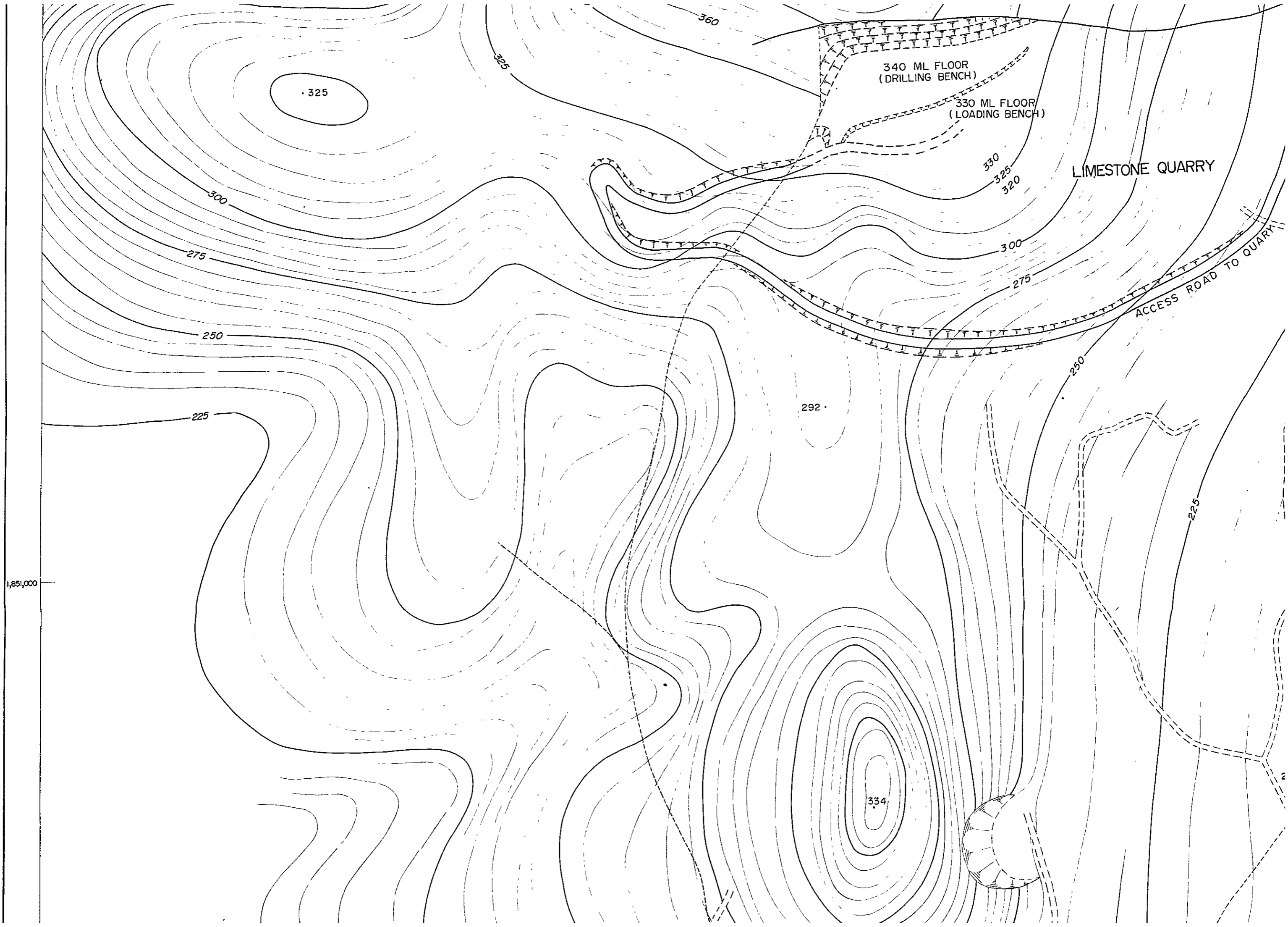
240

208

238

1,651,500

214



325

340 ML FLOOR
(DRILLING BENCH)

330 ML FLOOR
(LOADING BENCH)

LIMESTONE QUARRY

ACCESS ROAD TO QUARRY

292

334

1,851,000

340 ML FLOOR
(DRILLING BENCH)

330 ML FLOOR
(LOADING BENCH)

LIMESTONE QUARRY

ACCESS ROAD TO QUARRY

292

334

330
325
320

300

275

250

225

214

218

211

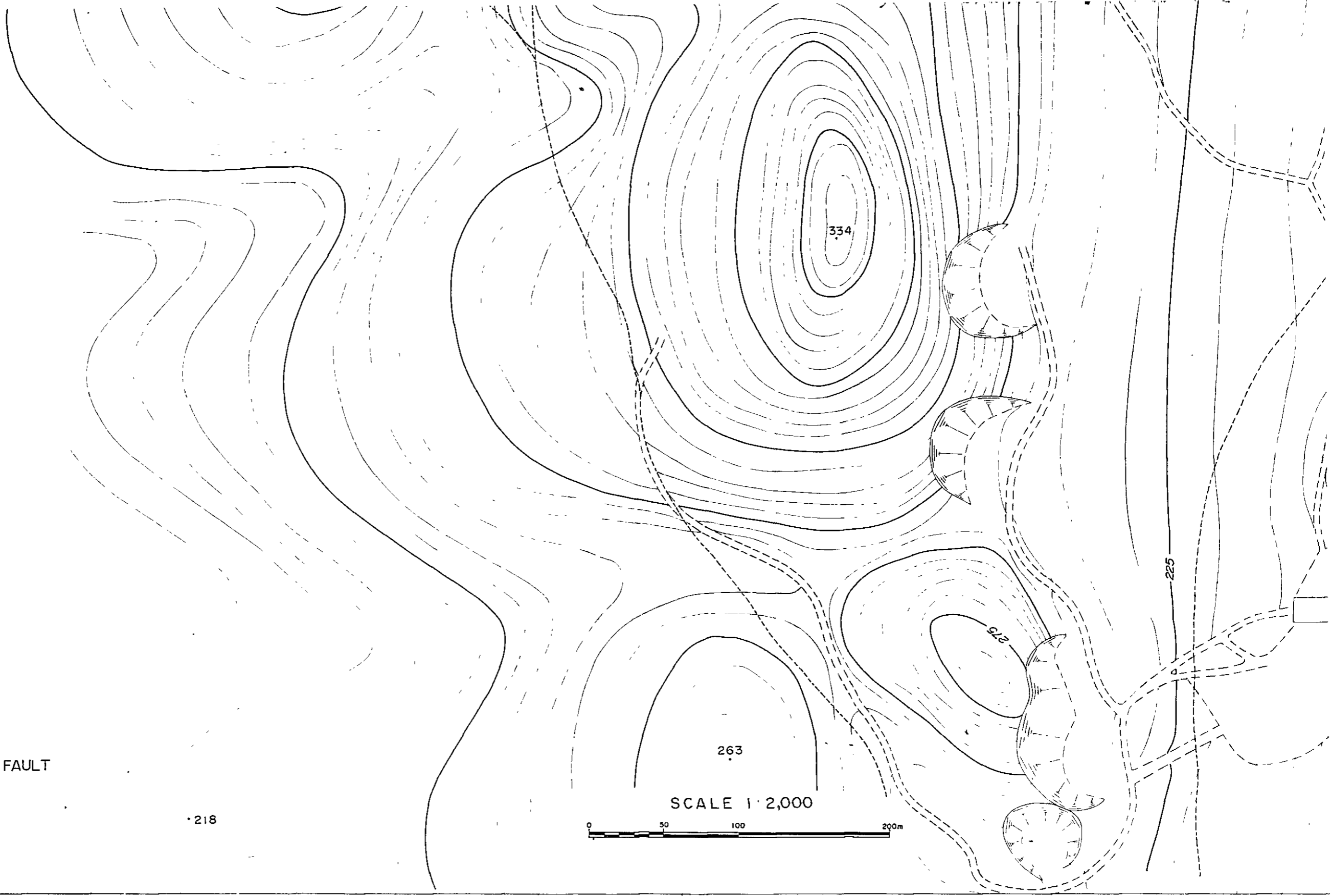
214

217

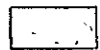
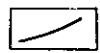
206

238

1,851,000



LEGEND

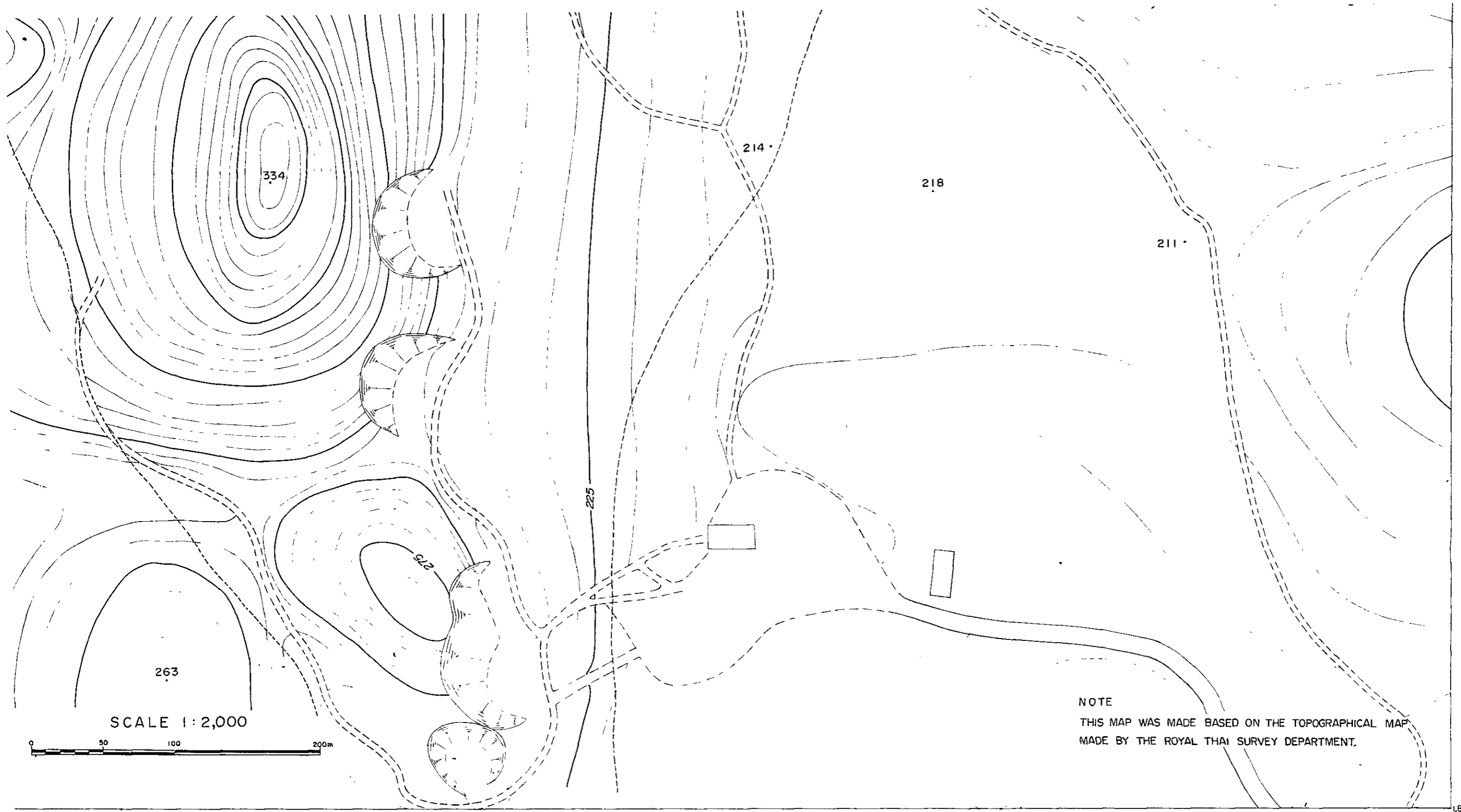
-  LIMESTONE
-  PROBABLE FAULT

218

263

SCALE 1:2,000



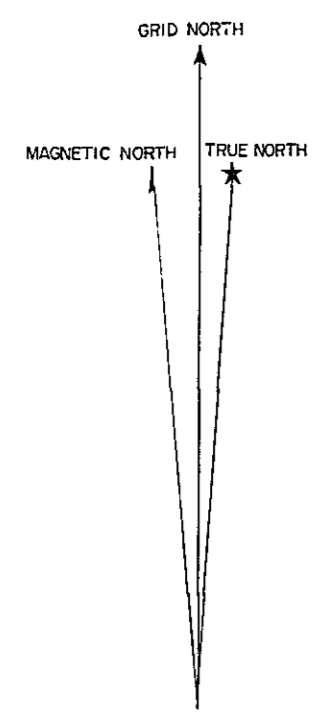


1,850,500

JAPAN INTERNATIONAL COOPERATION AGENCY, TOKYO JAPAN

PIT DESIGN OF

451,500



DDH 5-27



DDH 1-8



• 205

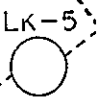
○ 017BHV
T-198.618

DDH 5-13



LK-5

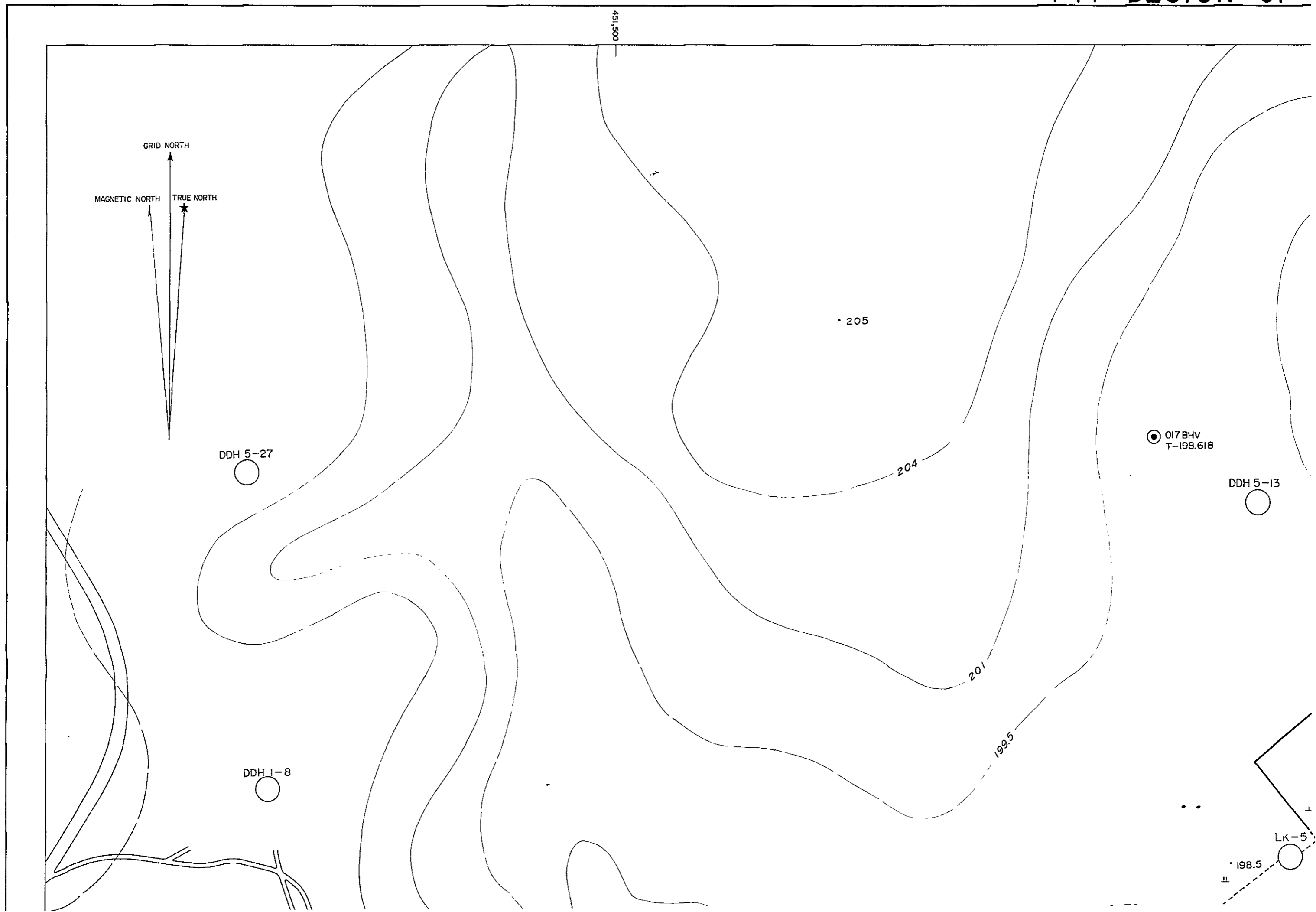
• 198.5



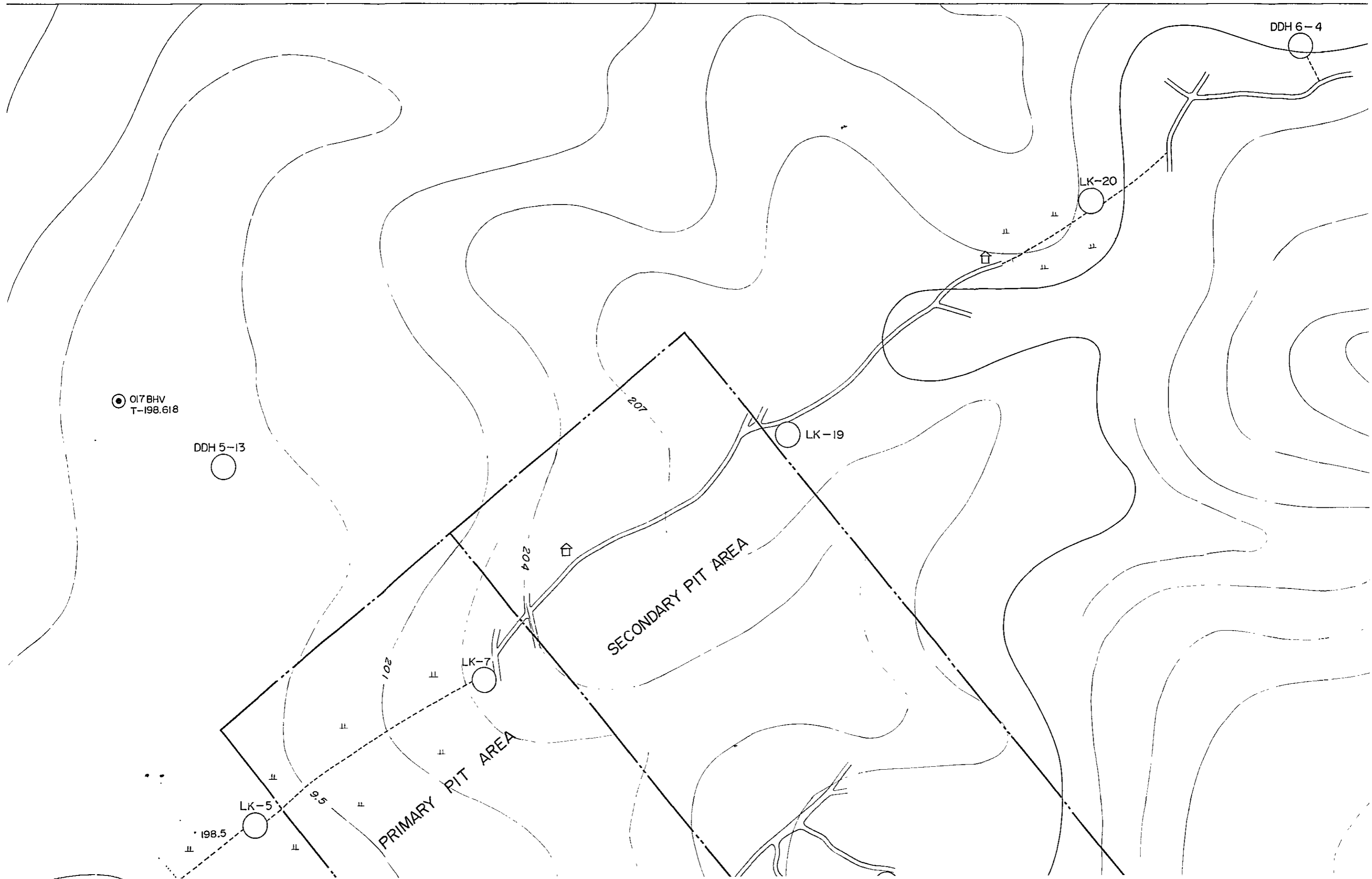
204

201

199.5



PIT DESIGN OF OIL SHALE QUARRY



453,000

DDH 6-4

LK-20

LK-15

LK-19

222

219

216

213

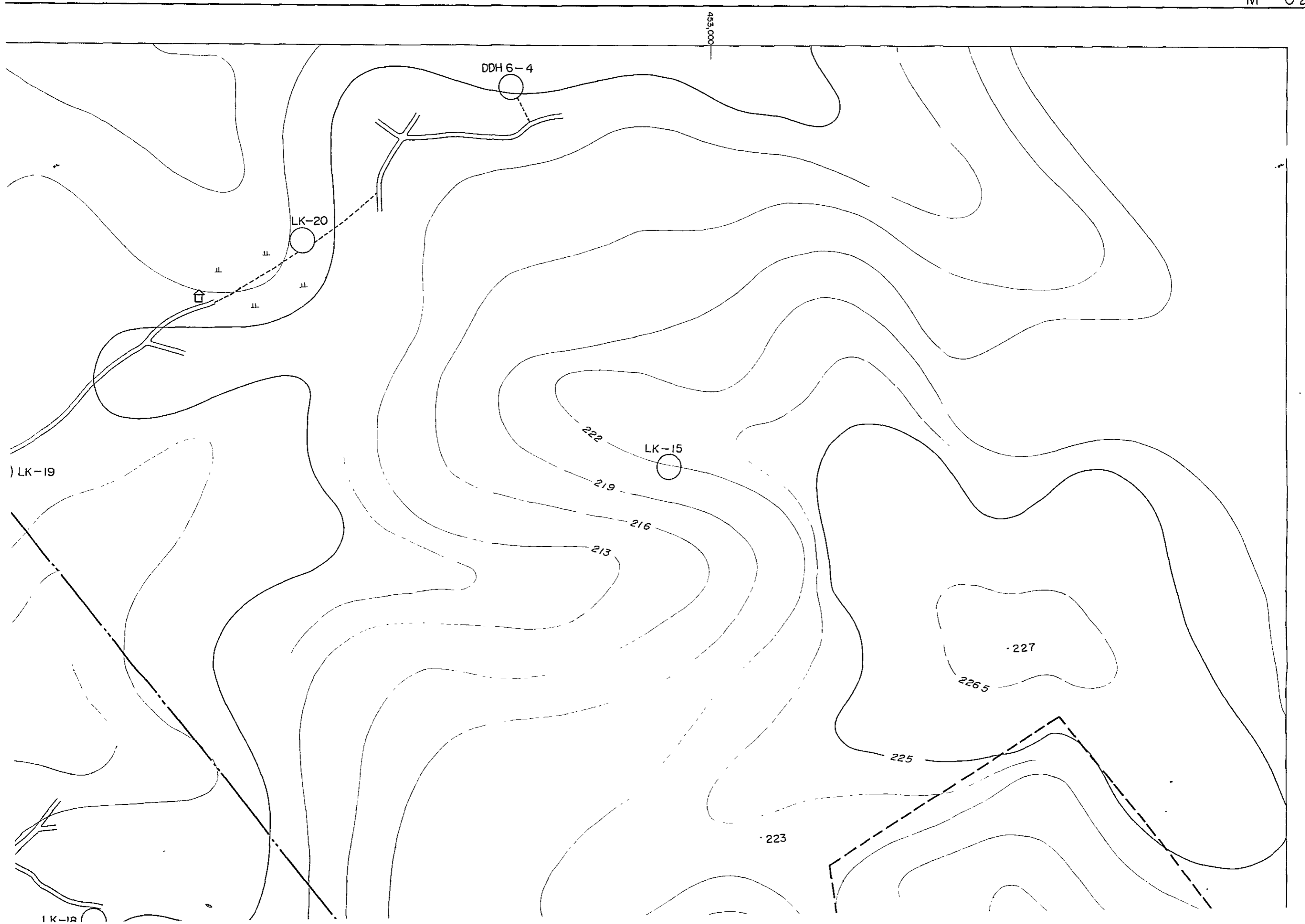
227

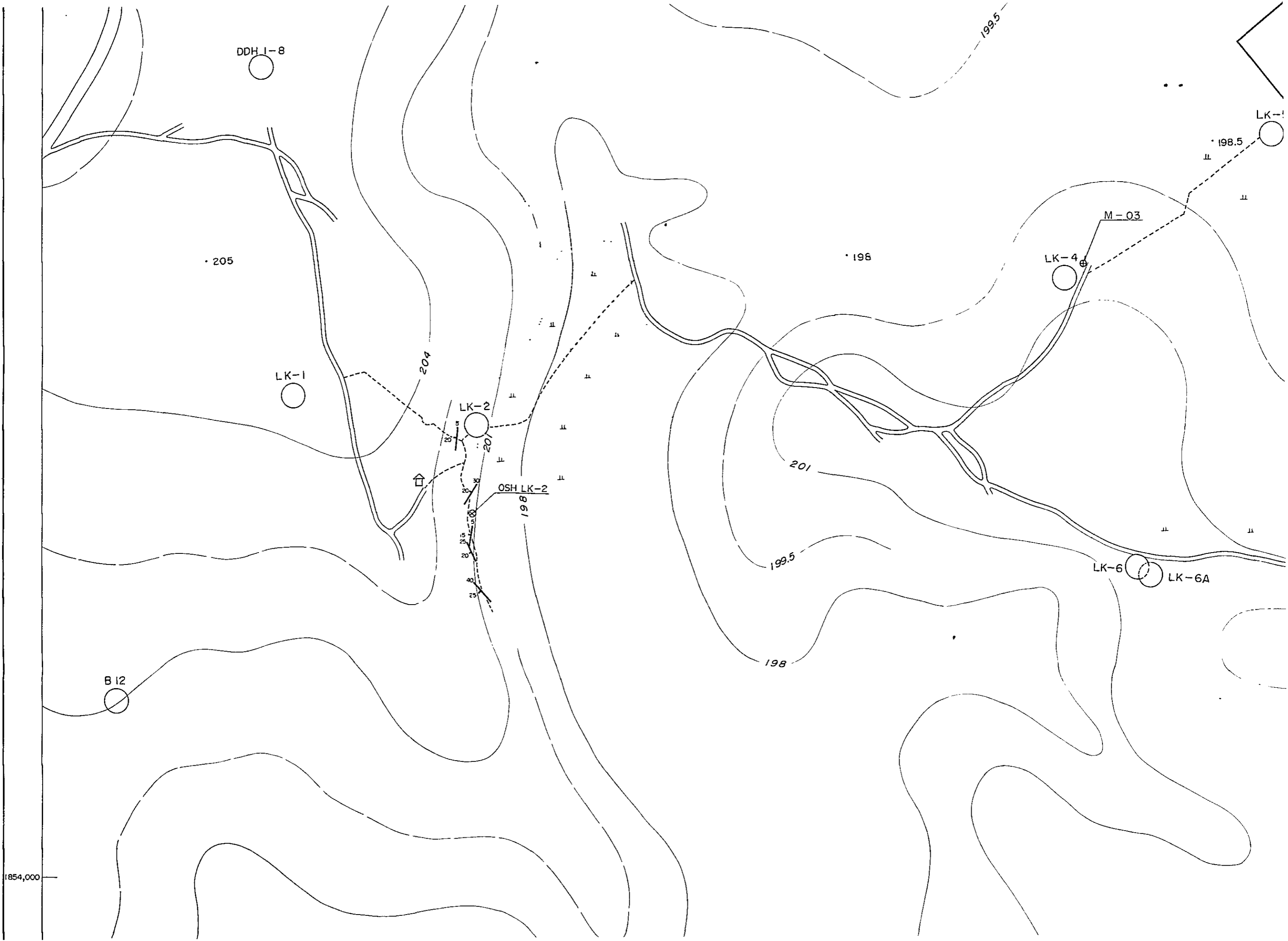
226.5

225

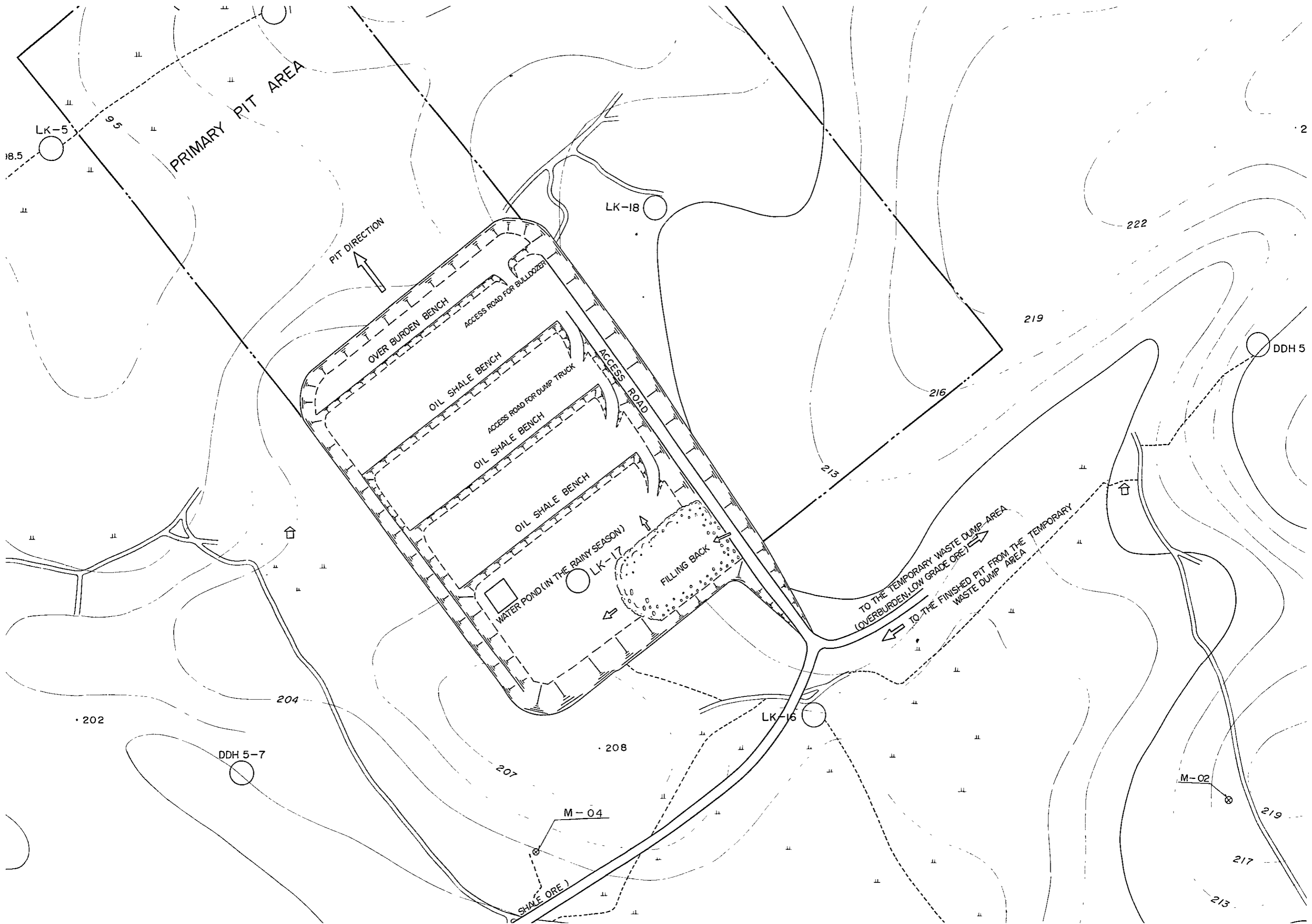
223

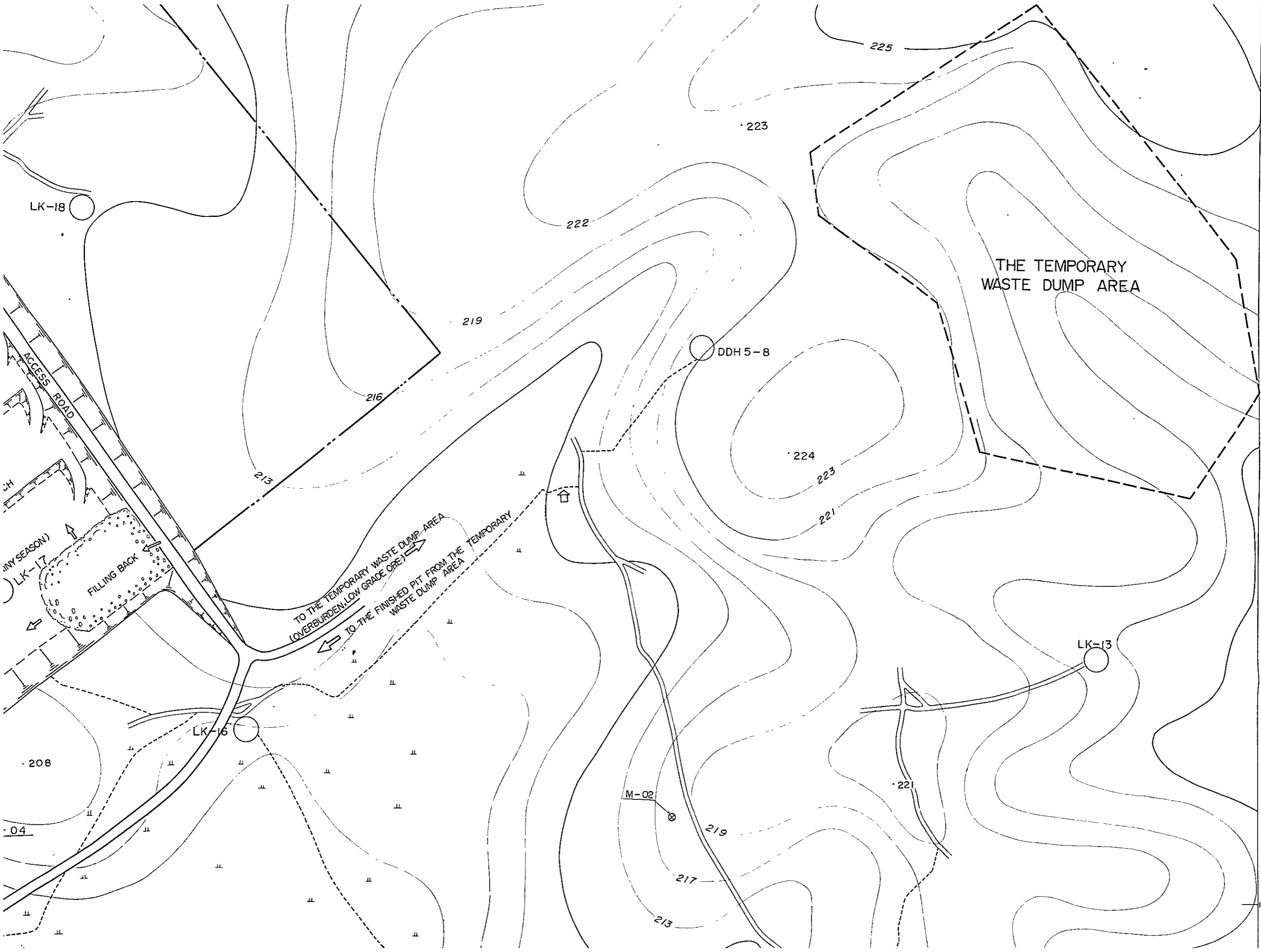
LK-18





1854,000





LK-18

223

222

225

THE TEMPORARY WASTE DUMP AREA

219

DDH 5-8

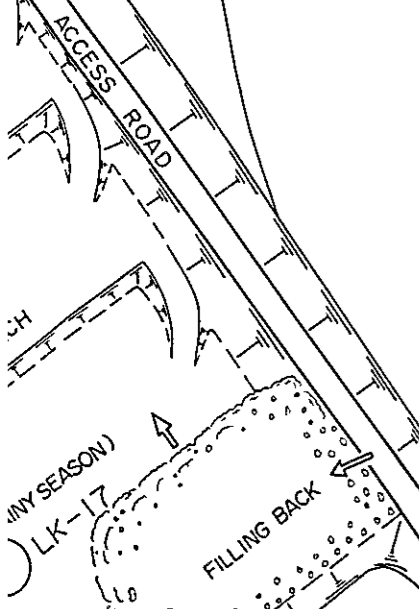
216

213

224

223

221



TO THE TEMPORARY WASTE DUMP AREA
(OVERBURDEN, LOW GRADE ORE)

TO THE FINISHED PIT FROM THE TEMPORARY
WASTE DUMP AREA

LK-16

LK-13

208

204

M-02

221

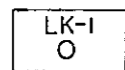
219

217

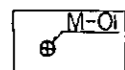
213

1854,000

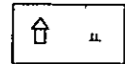
LEGEND



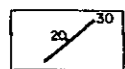
LOCATION OF BORE HOLE AND BORE HOLE NO.



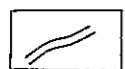
LOCALITY OF OIL SHALE OR CLAY MARL SAMPLE AND SAMPLE NO.



HUT AND RICE FIELD



STRIKE AND DIP



SMALL ROAD

LK-21

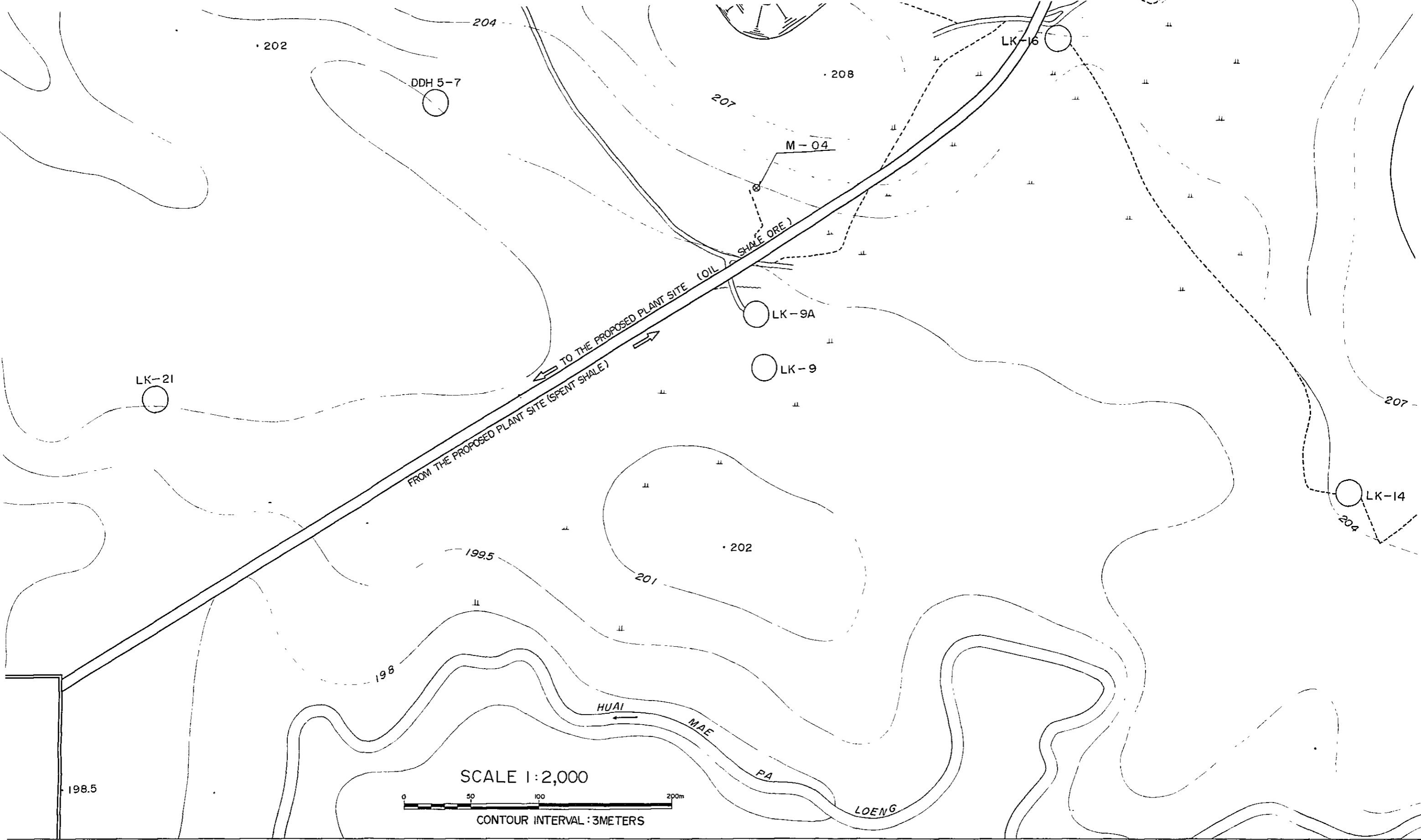


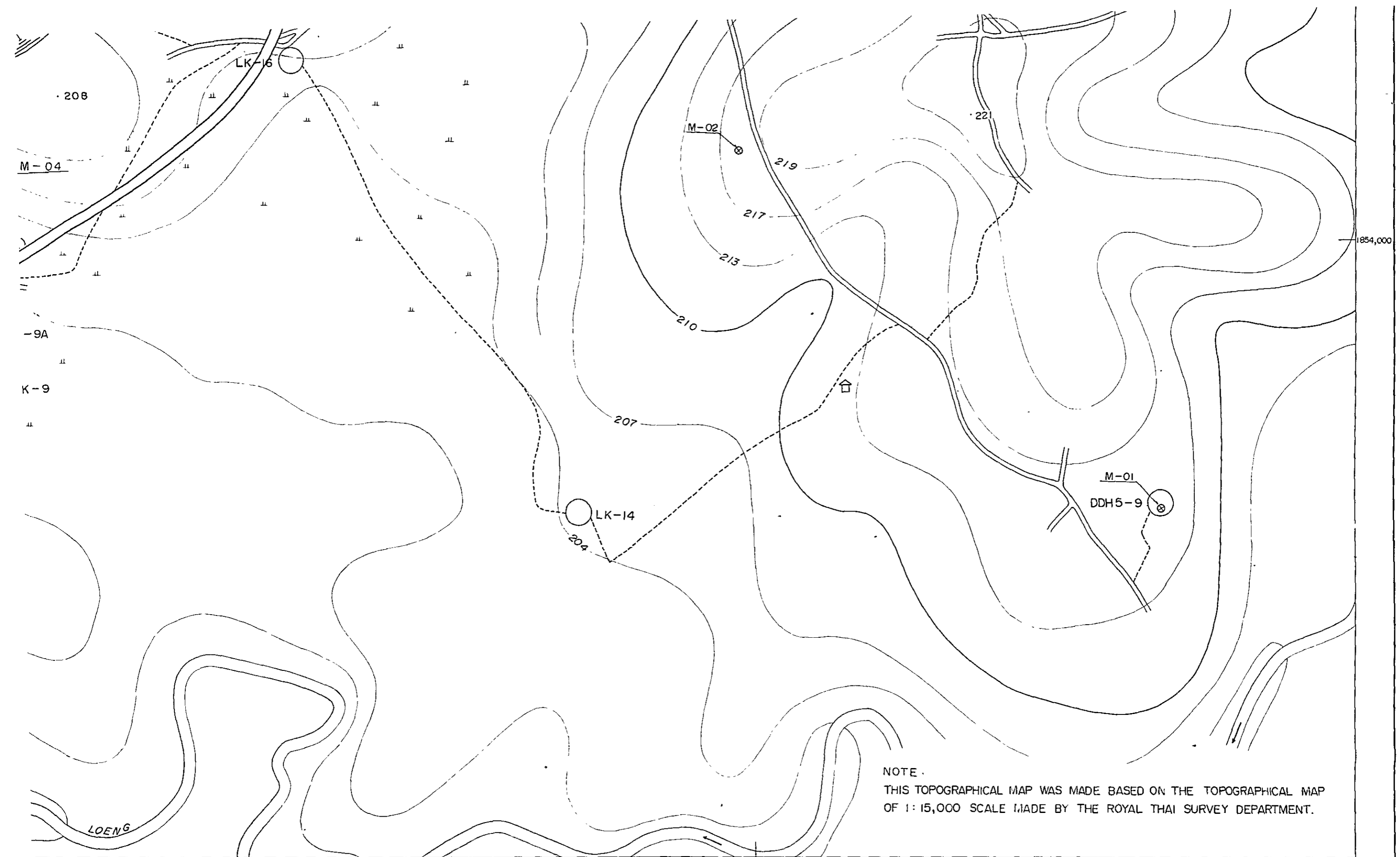
THE PROPOSED PLANT SITE

• 198.5

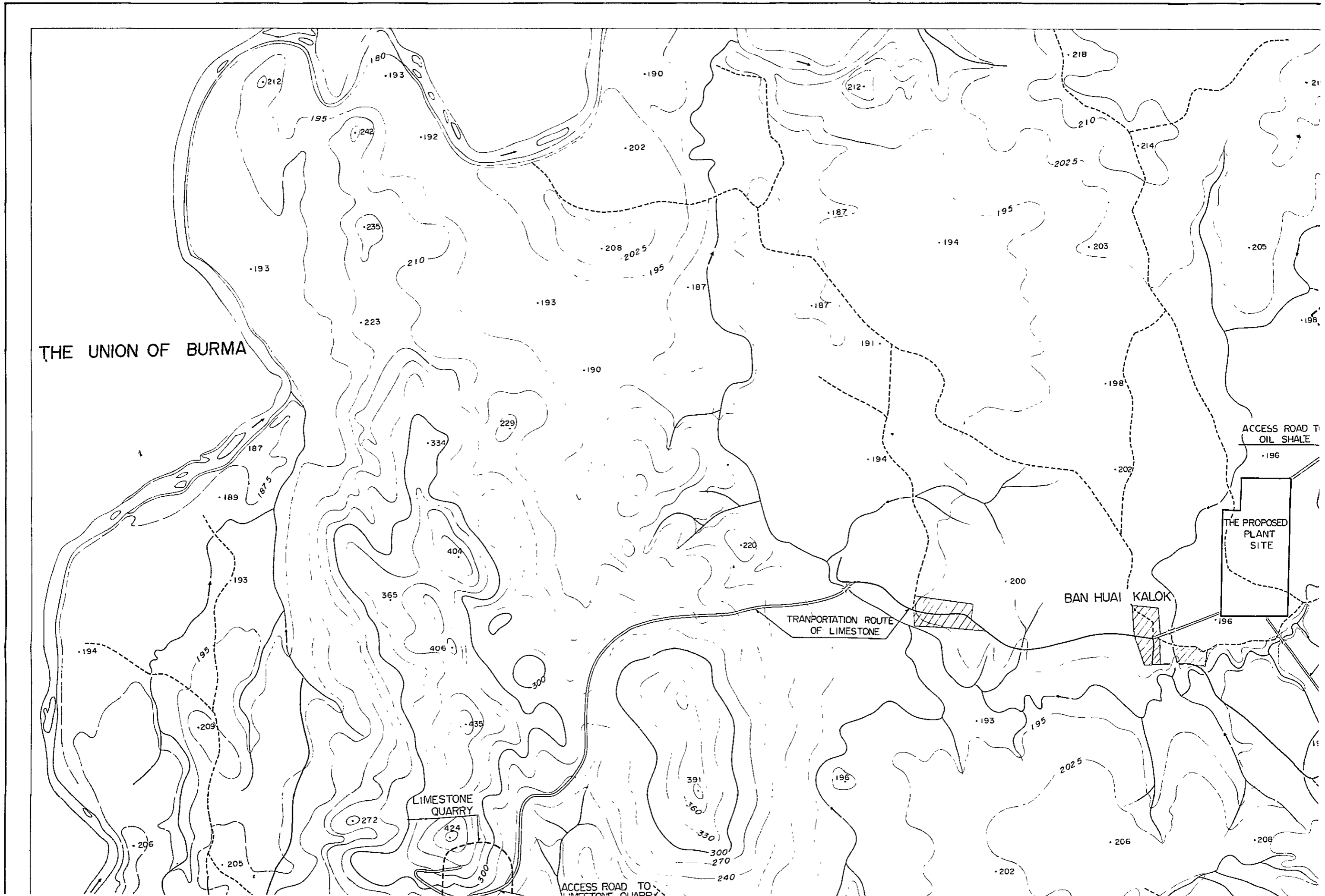
1985

451,500

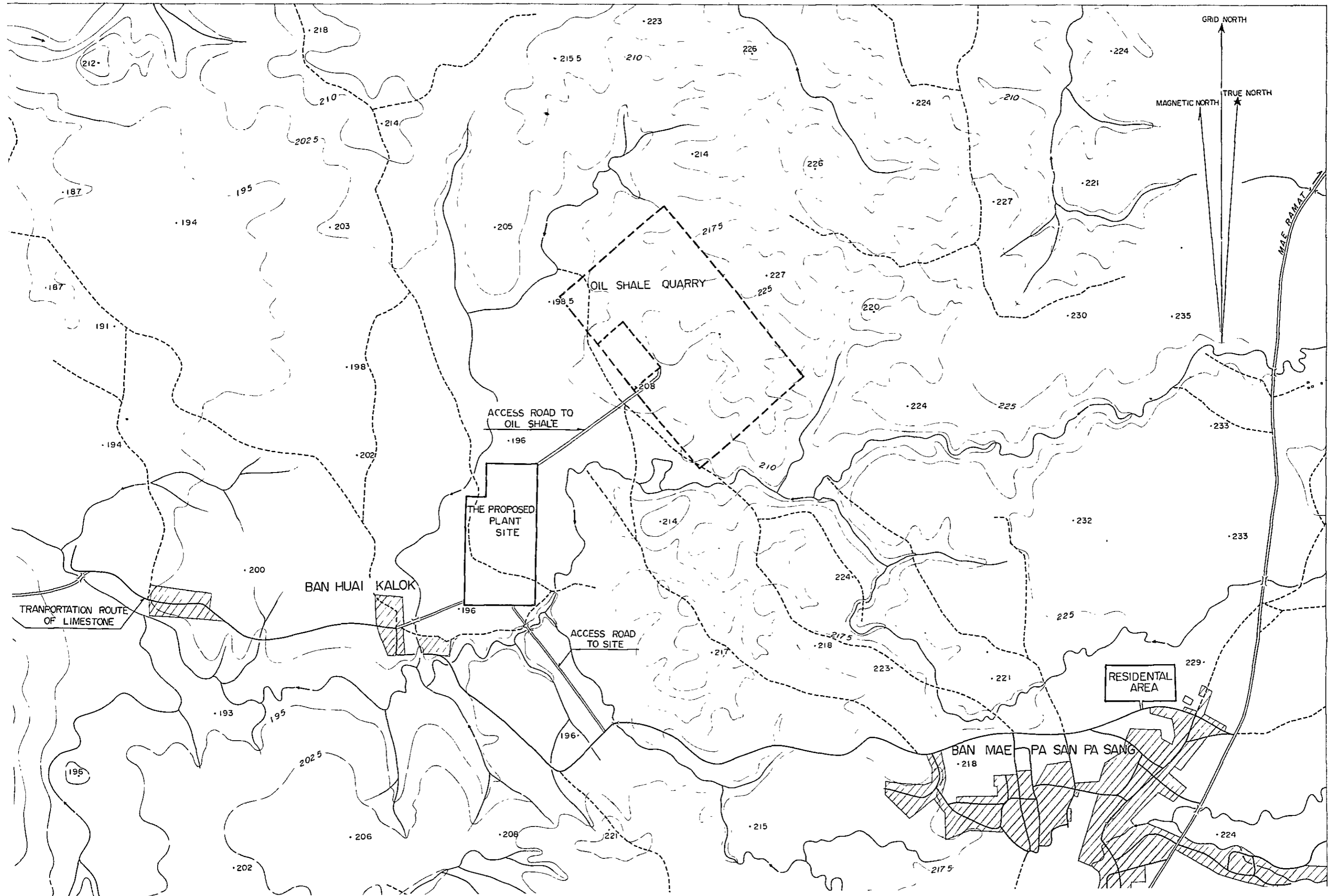


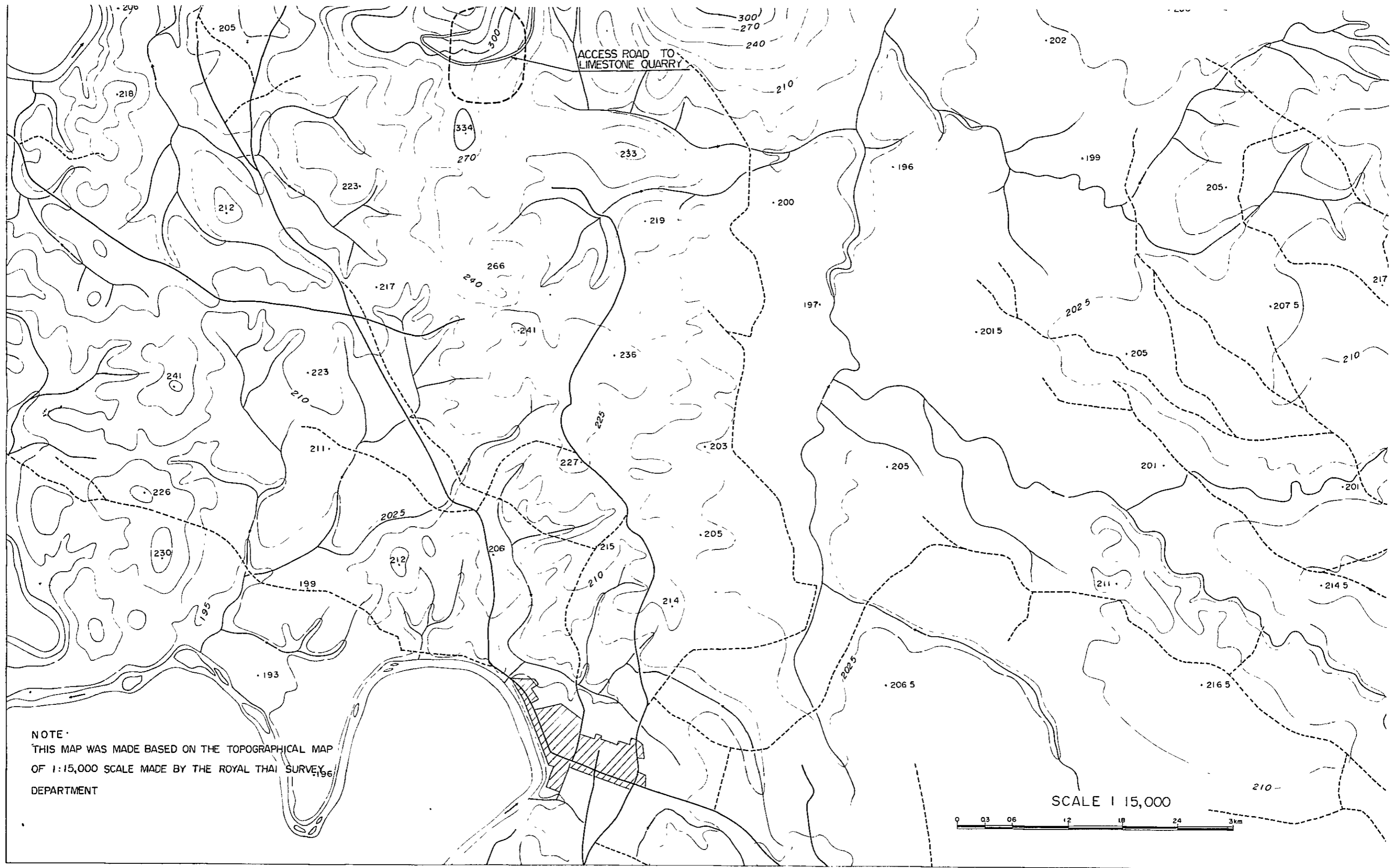


MAP FOR TRANSPORTATION ROUTE OF LIMESTONE AND OIL SHALE



ION ROUTE OF LIMESTONE AND OIL SHALE MATERIALS



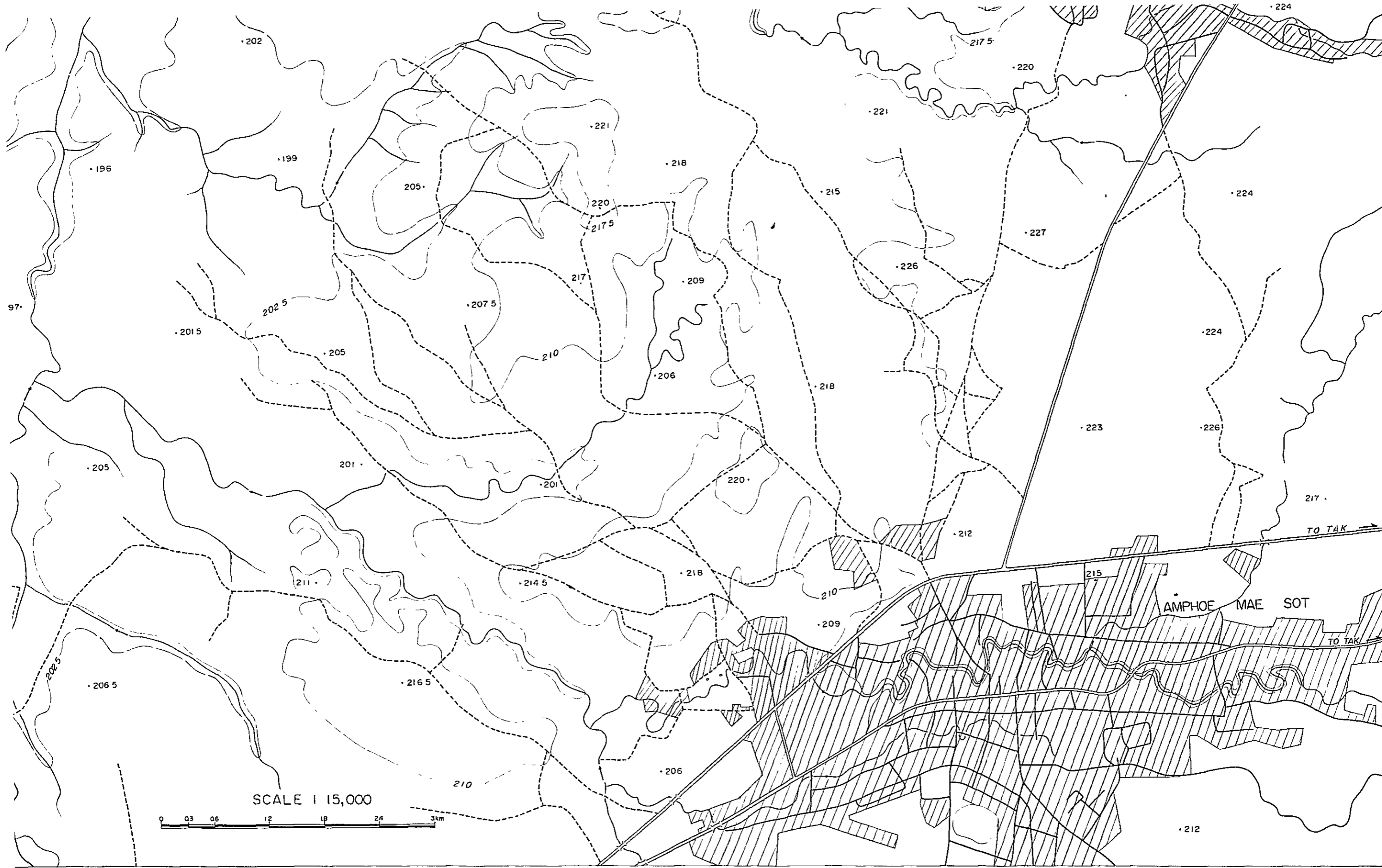


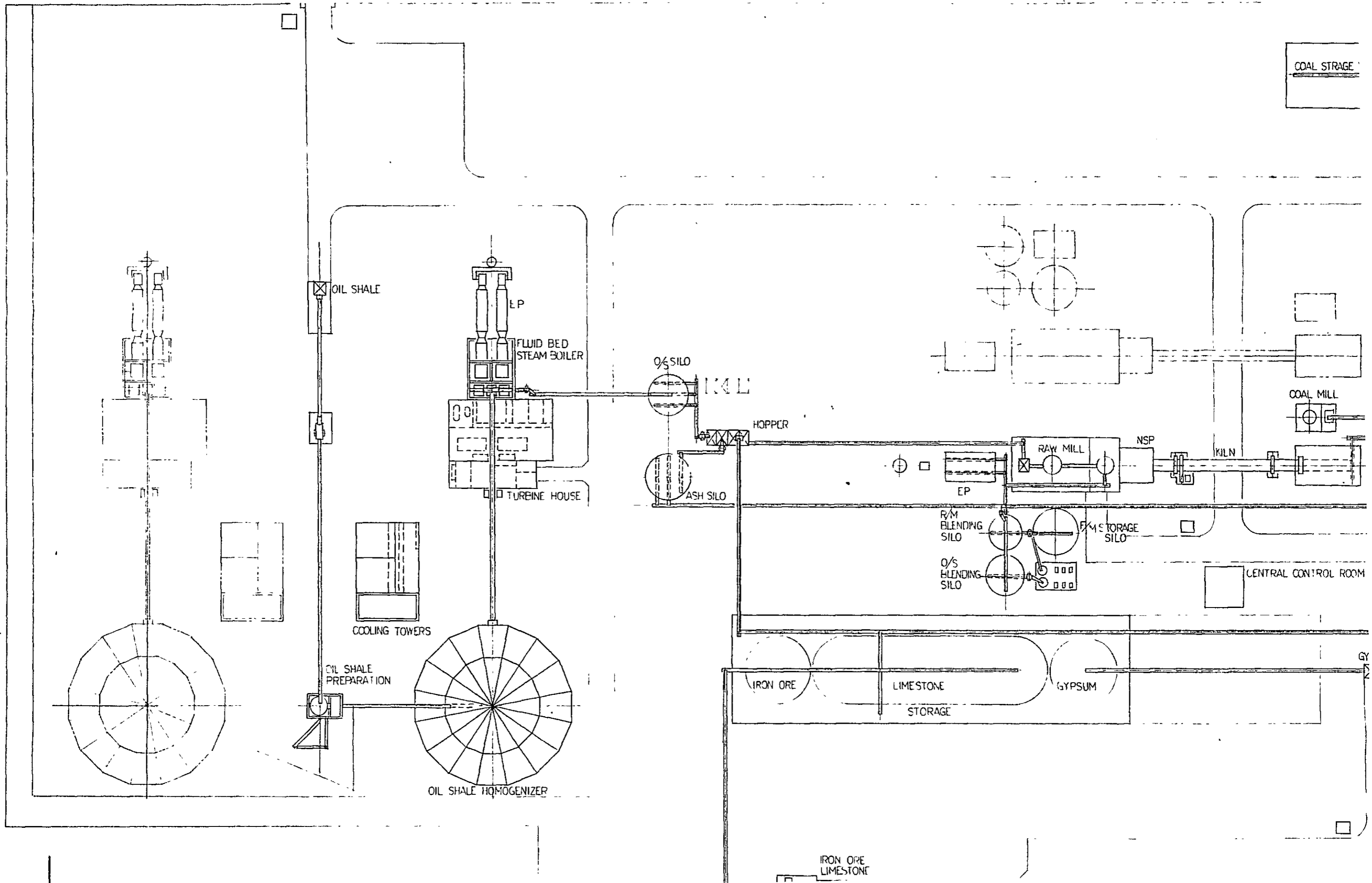
ACCESS ROAD TO
LIMESTONE QUARRY

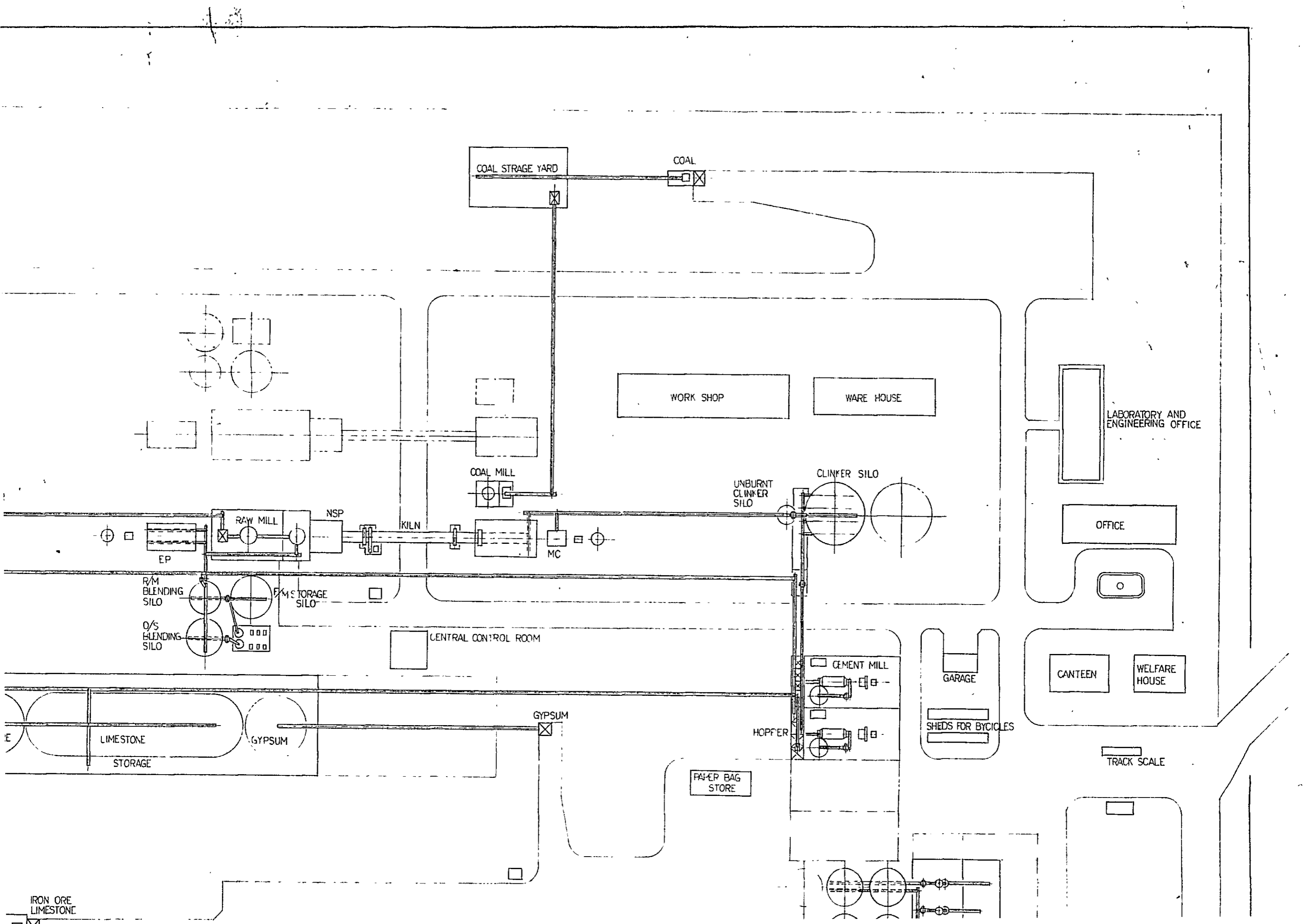
NOTE
THIS MAP WAS MADE BASED ON THE TOPOGRAPHICAL MAP
OF 1:15,000 SCALE MADE BY THE ROYAL THAI SURVEY
DEPARTMENT

SCALE 1 15,000









COAL STRAGE YARD

COAL

WORK SHOP

WARE HOUSE

LABORATORY AND ENGINEERING OFFICE

COAL MILL

CLINKER SILO

UNBURNT CLINKER SILO

RAW MILL

NSP

KILN

MC

OFFICE

R/M BLENDING SILO

F/M STORAGE SILO

O/S BLENDING SILO

CENTRAL CONTROL ROOM

CEMENT MILL

GARAGE

CANTEEN

WELFARE HOUSE

SHEDS FOR BICYCLES

GYPSUM

HOPFER

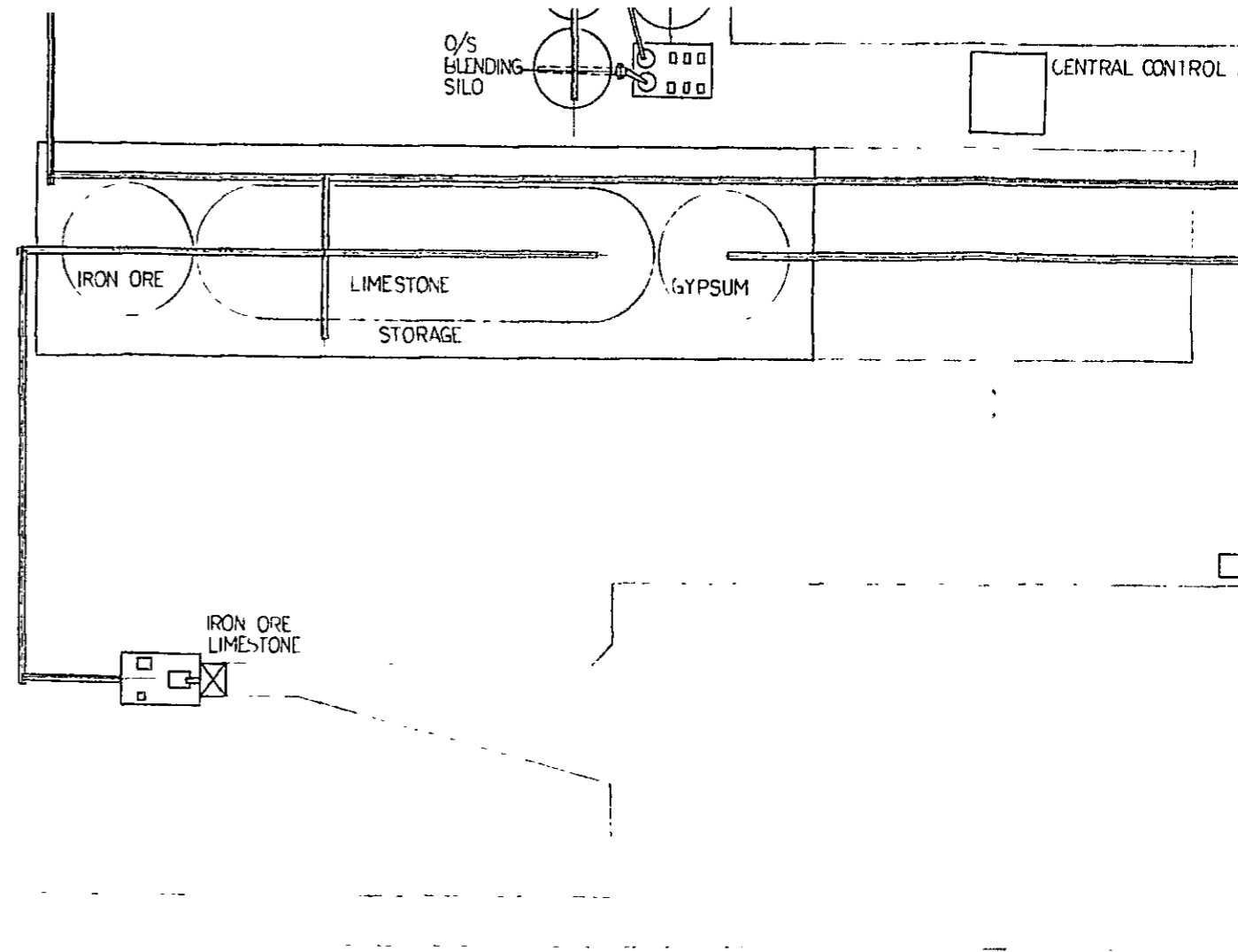
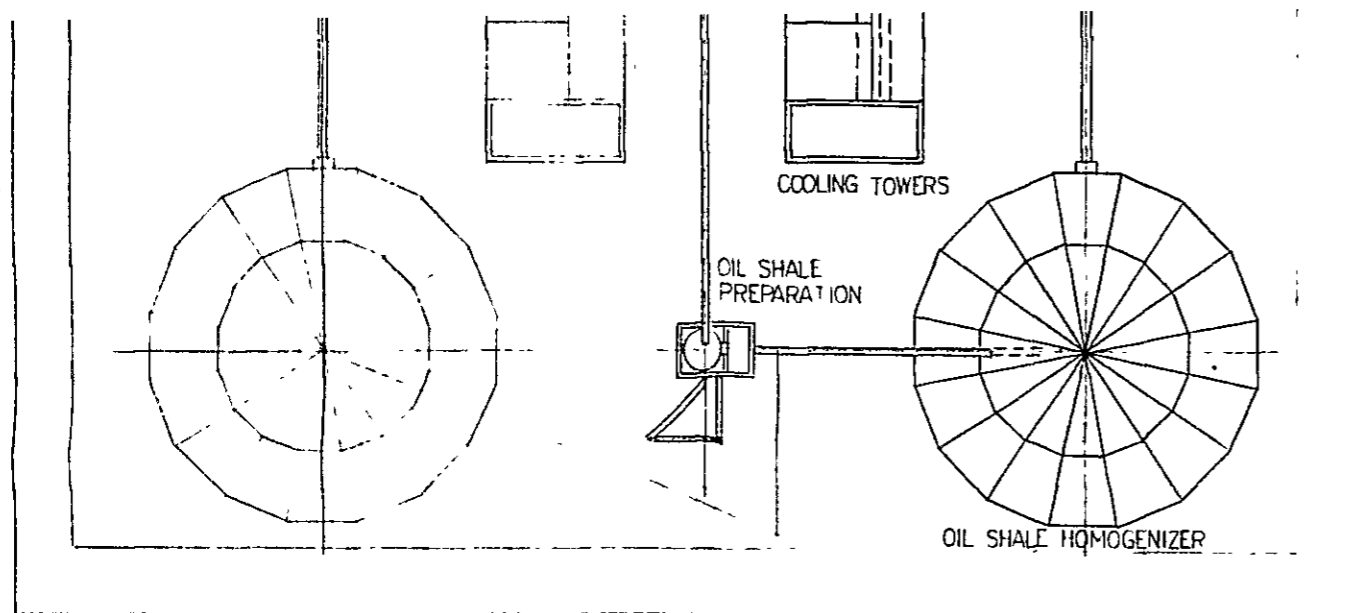
TRACK SCALE

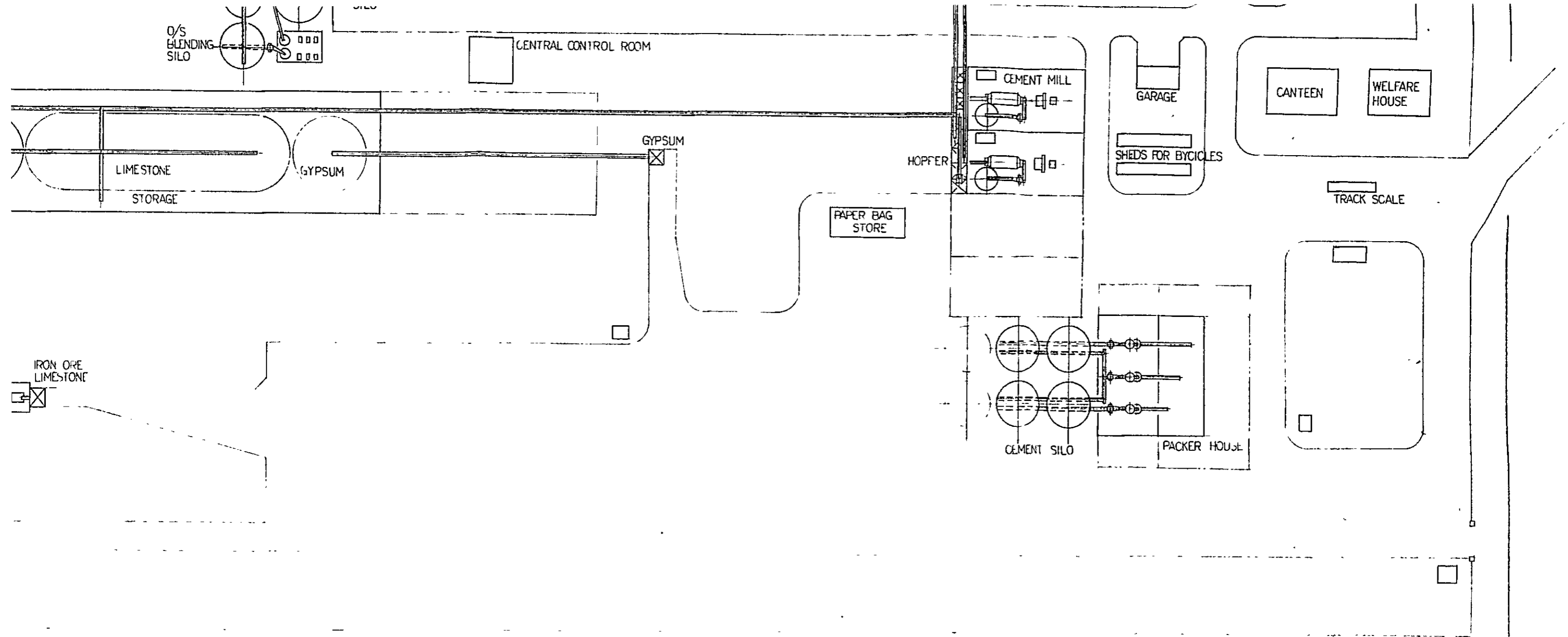
PAPER BAG STORE

LIMESTONE STORAGE

GYPSUM

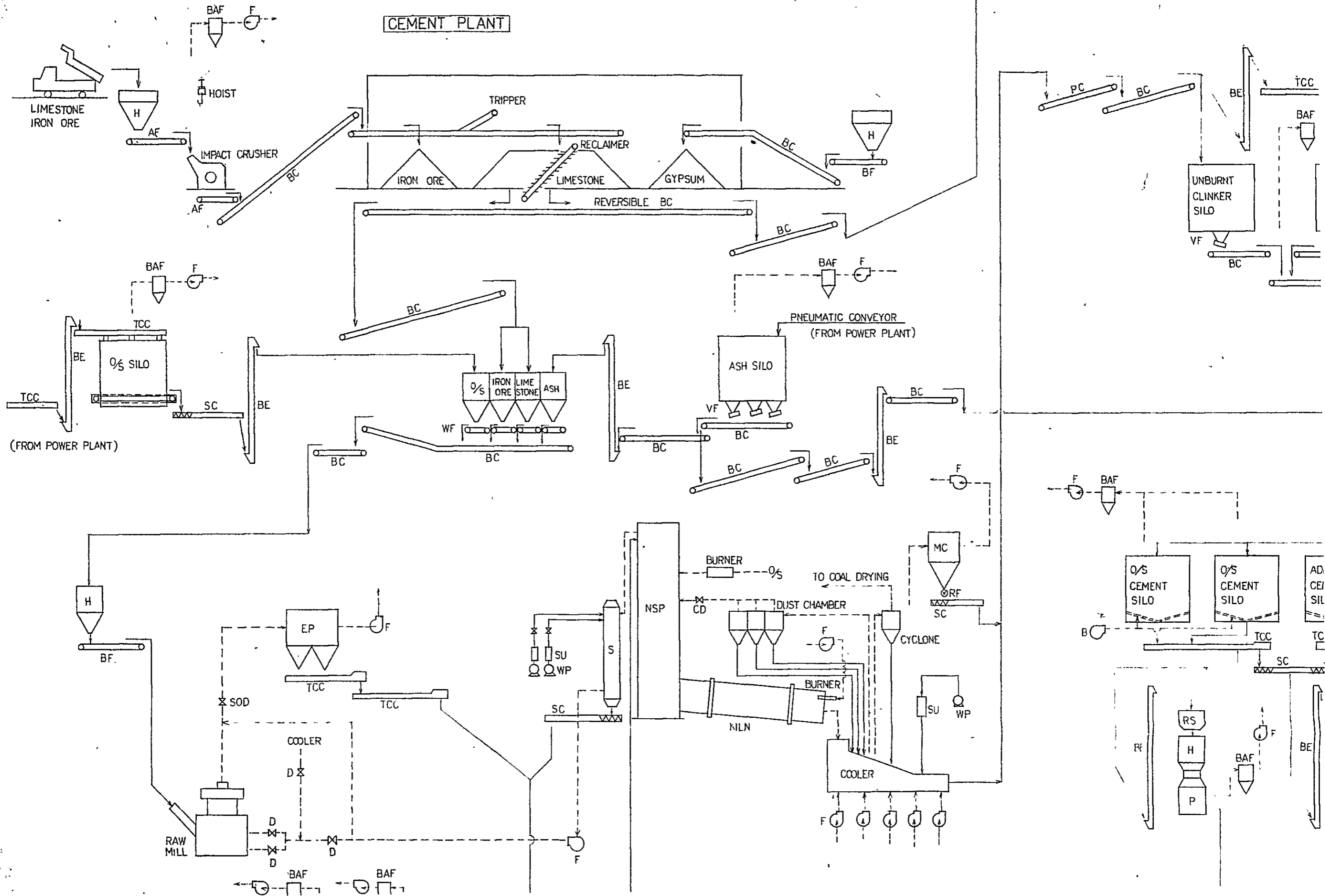
IRON ORE LIMESTONE

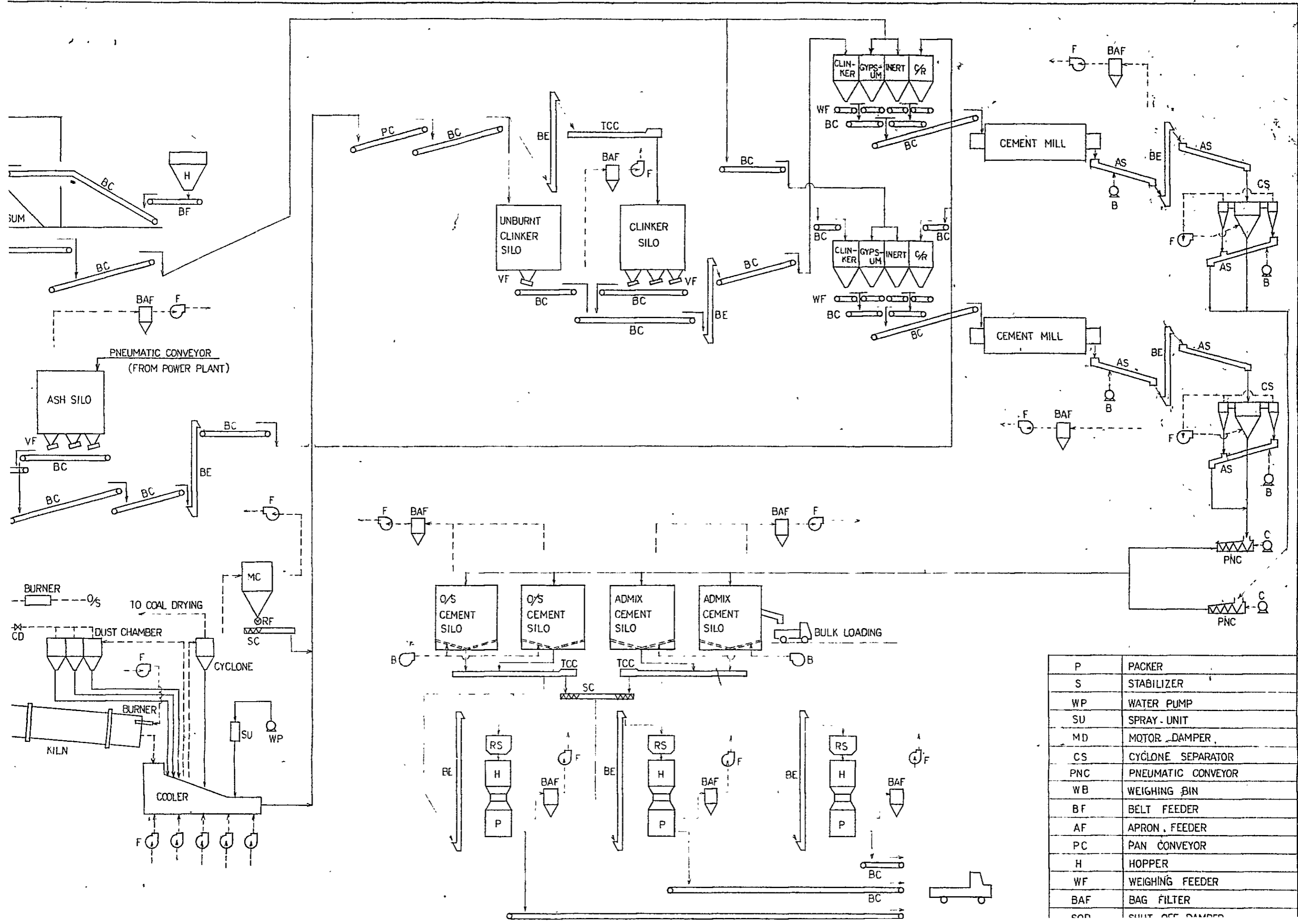




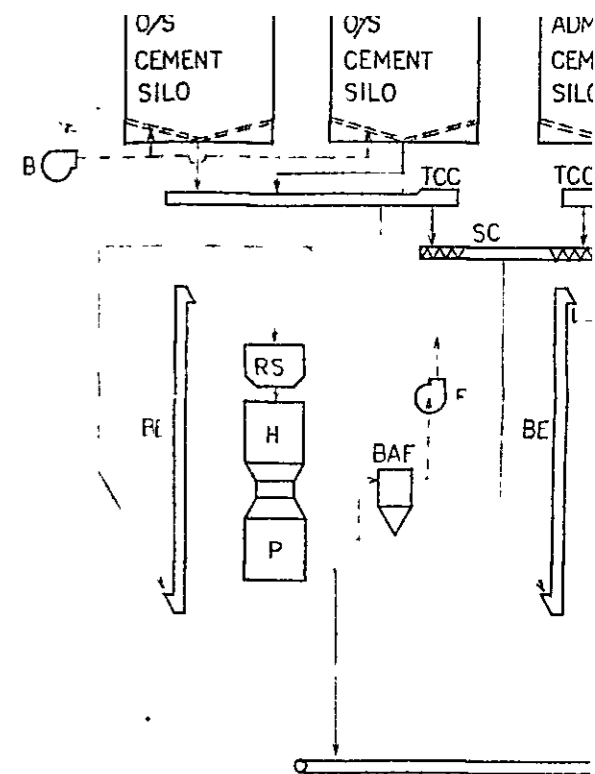
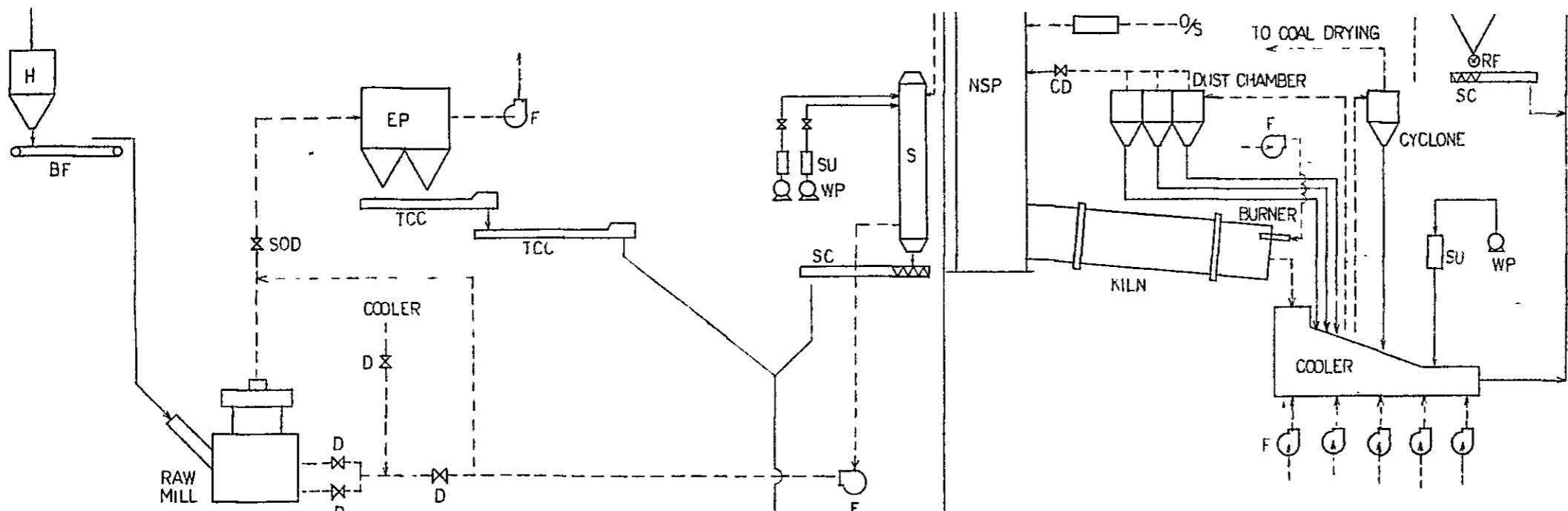
JAPAN INTERNATIONAL COOPERATION AGENCY			THE INTEGRATED POWER AND CEMENT PLANT PROJECT MAE SOT, KINGDOM OF THAILAND LAY OUT OF CEMENT PLANT		
APPROVED	CHECKED	DESIGNED DRAWN	SCALE	DATE	DWG. NO.
<i>P. Ojabe</i>	<i>Kondo</i>	<i>M. Kaori</i>	1/1000	26 APR '83	P-01
					FILE NO.

CEMENT PLANT

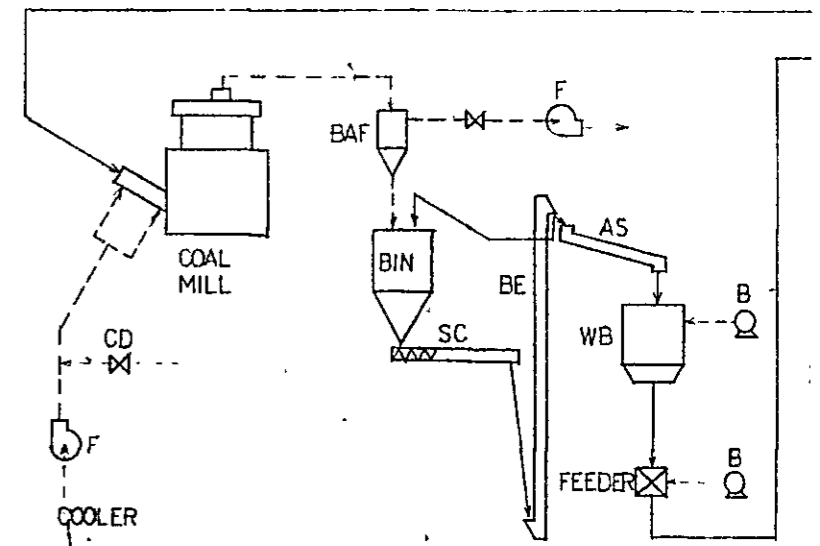
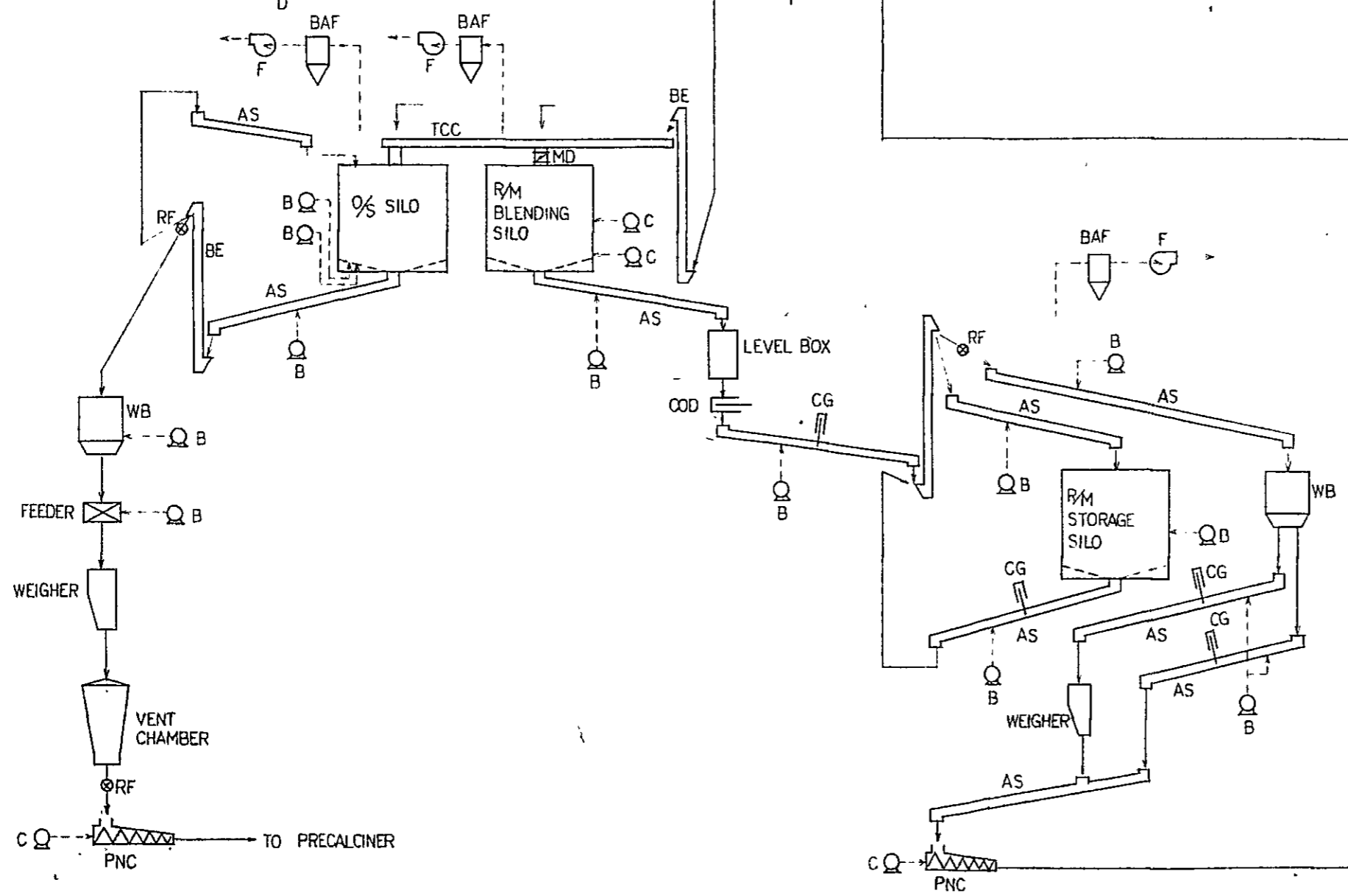
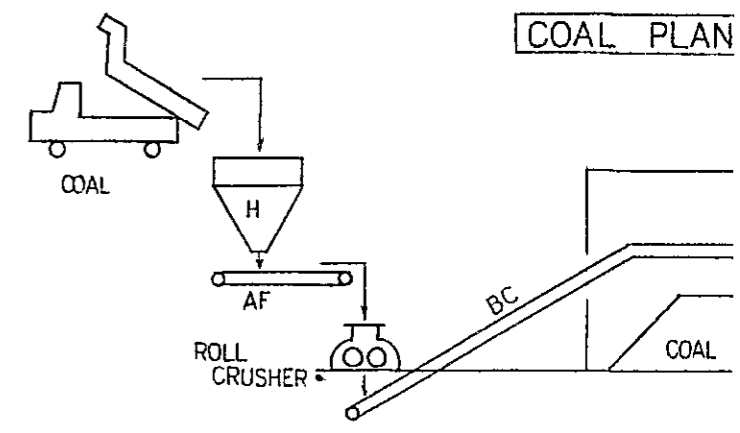


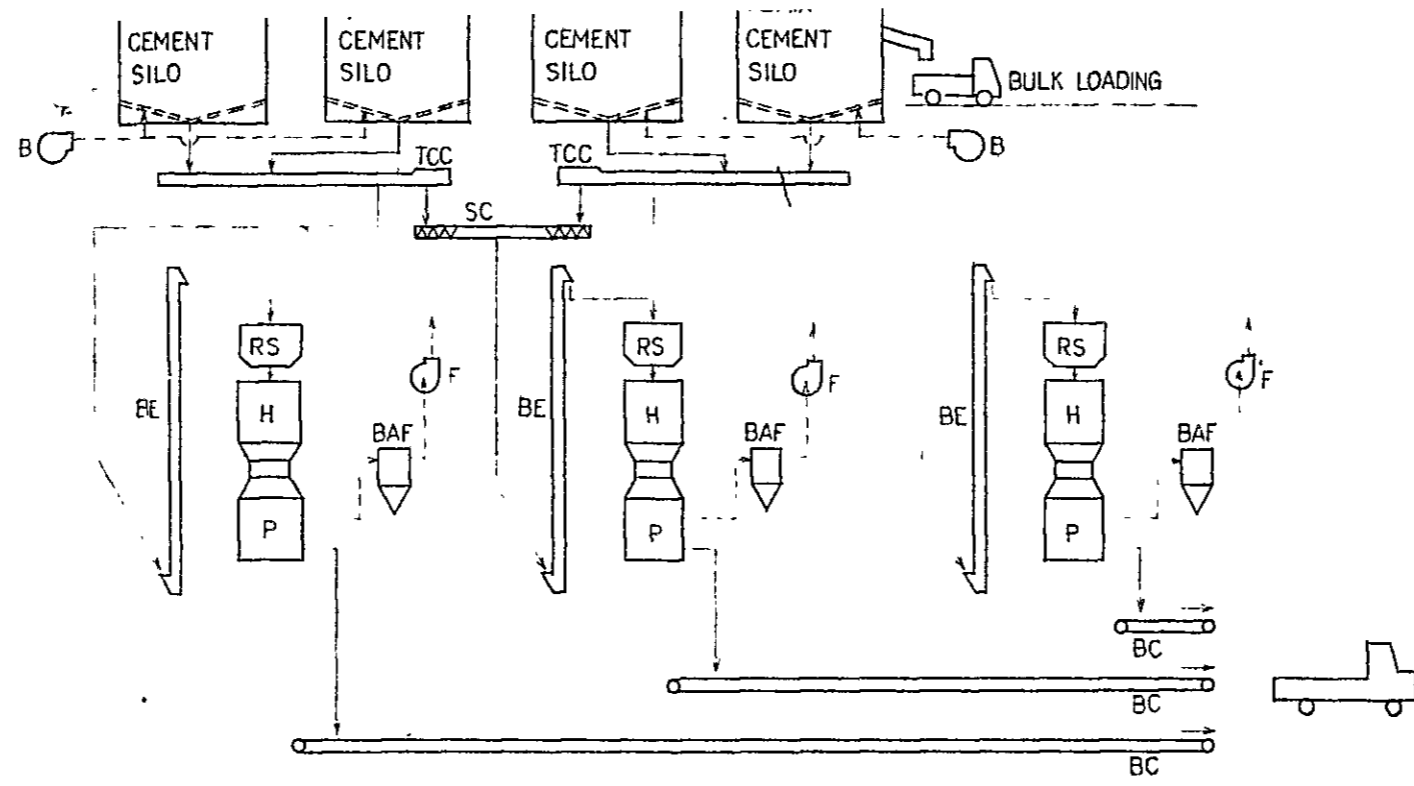
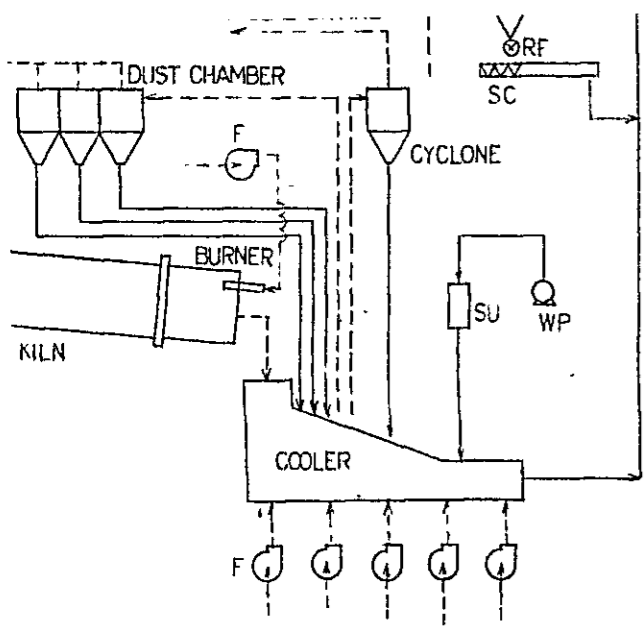


P	PACKER
S	STABILIZER
WP	WATER PUMP
SU	SPRAY - UNIT
MD	MOTOR DAMPER
CS	CYCLONE SEPARATOR
PNC	PNEUMATIC CONVEYOR
WB	WEIGHING BIN
BF	BELT FEEDER
AF	APRON FEEDER
PC	PAN CONVEYOR
H	HOPPER
WF	WEIGHING FEEDER
BAF	BAG FILTER
CD	SUIT OFF DAMPER

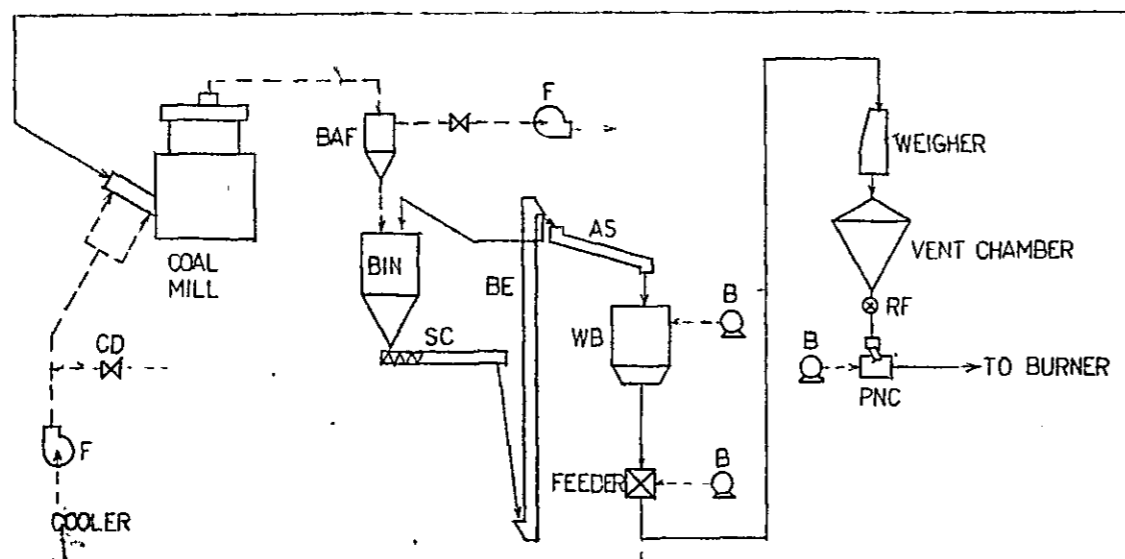
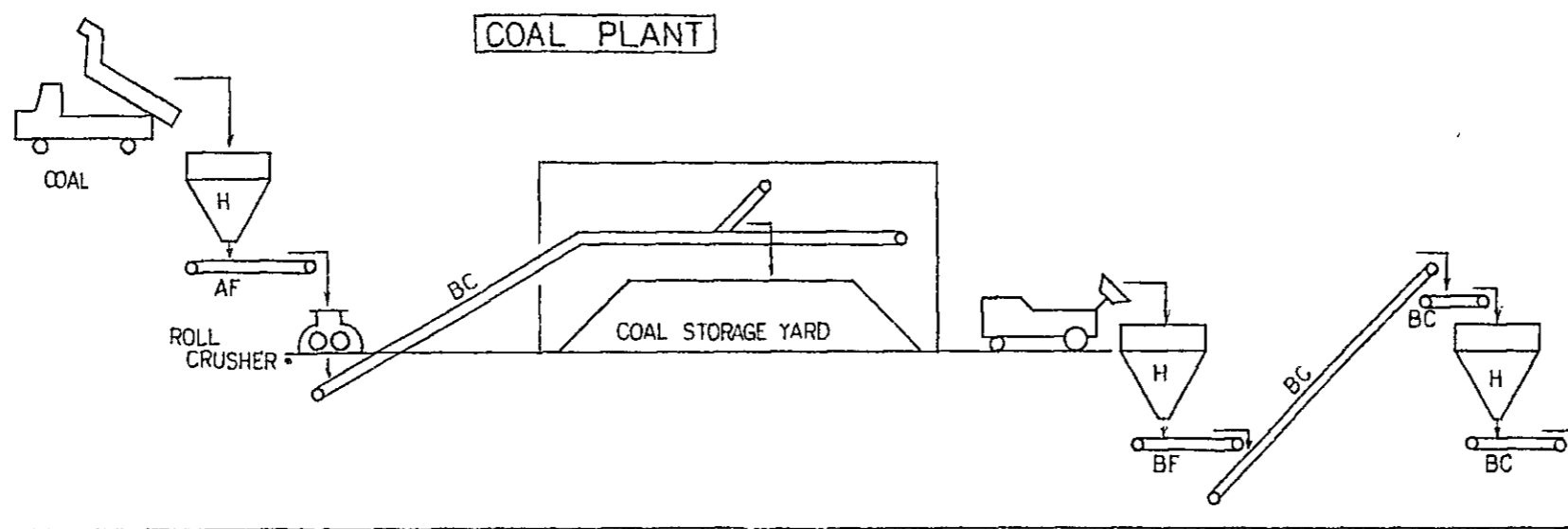
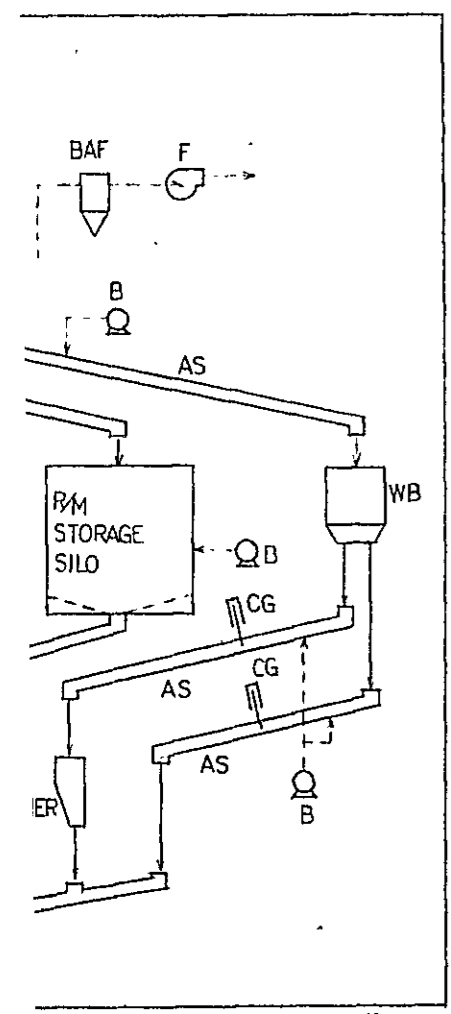


COAL PLAN





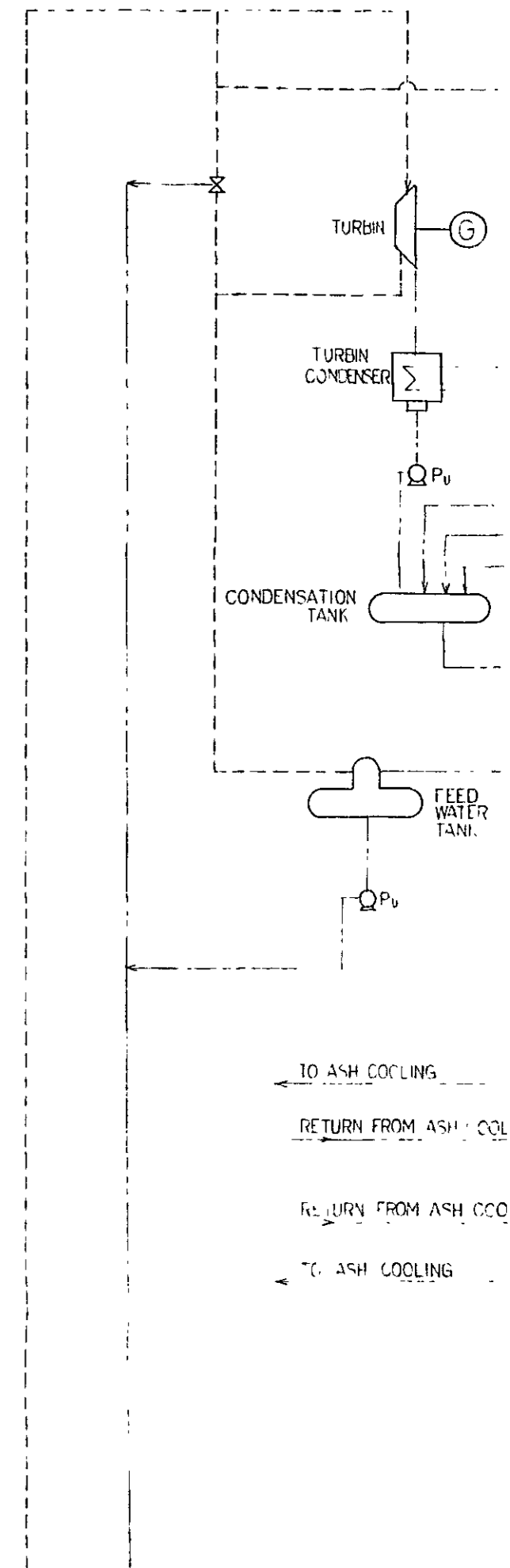
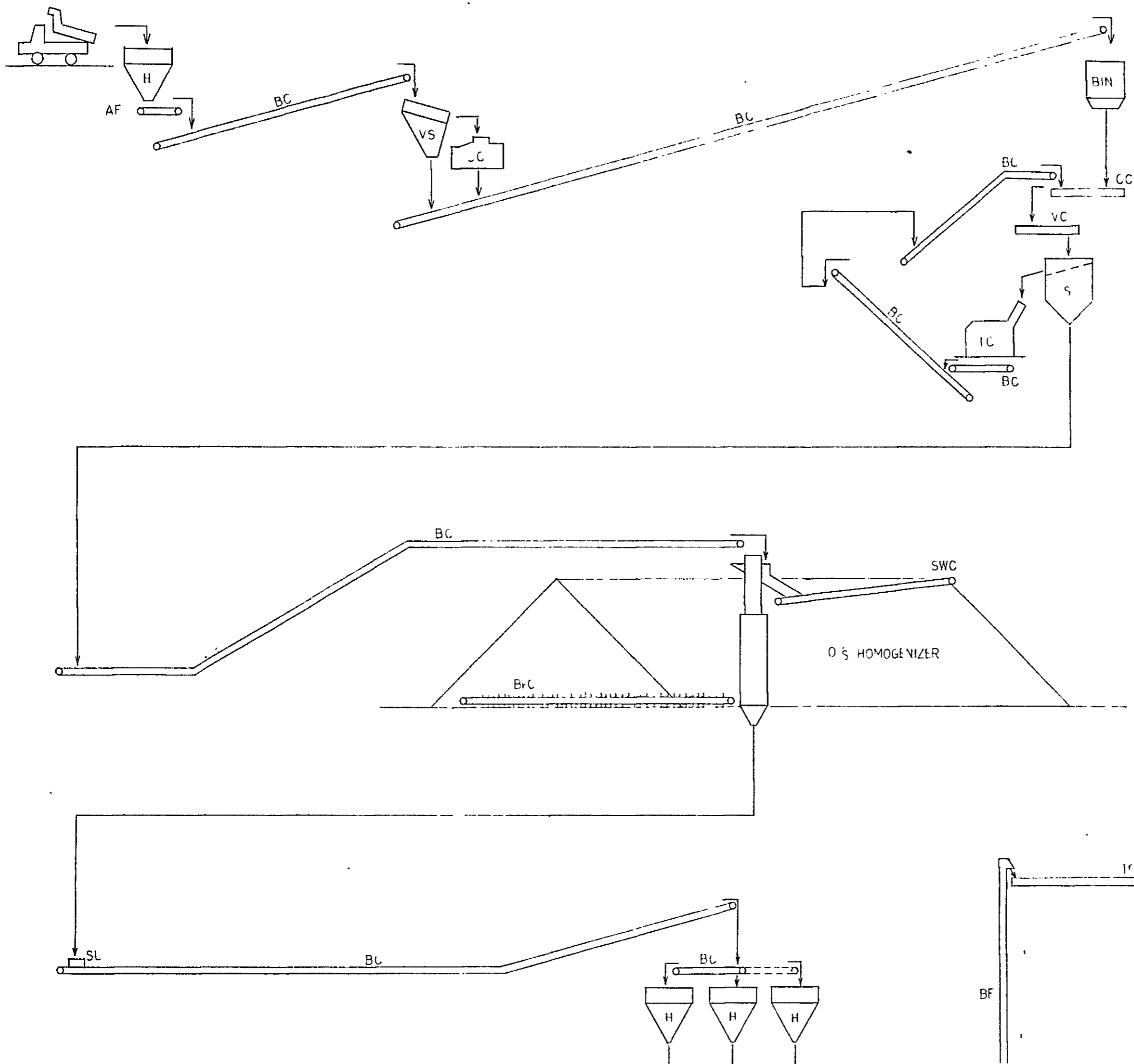
P	PACKER
S	STABILIZER
WP	WATER PUMP
SU	SPRAY UNIT
MD	MOTOR DAMPER
CS	CYCLONE SEPARATOR
PNC	PNEUMATIC CONVEYOR
WB	WEIGHING BIN
BF	BELT FEEDER
AF	APRON FEEDER
PC	PAN CONVEYOR
H	HOPPER
WF	WEIGHING FEEDER
BAF	BAG FILTER
SOD	SHUT OFF DAMPER
VF	VIBRATING FEEDER
EP	ELECTRIC STATIC PRECIPITATOR
D	DAMPER
TCC	TRAF CHAIN CONVEYOR
C	COMPRESSOR
RF	ROTARY FEEDER
BE	BUCKET ELEVATOR
B	BLOWER
CG	CONTROL GATE
CD	CONTROL DAMPER
AS	AIR SLIDE CONVEYOR
BC	BELT CONVEYOR
SC	SCREW CONVEYOR
RS	ROTARY SCREEN
F	FAN
MC	MULTI CYCLONE
SYMBOL	MACHINE

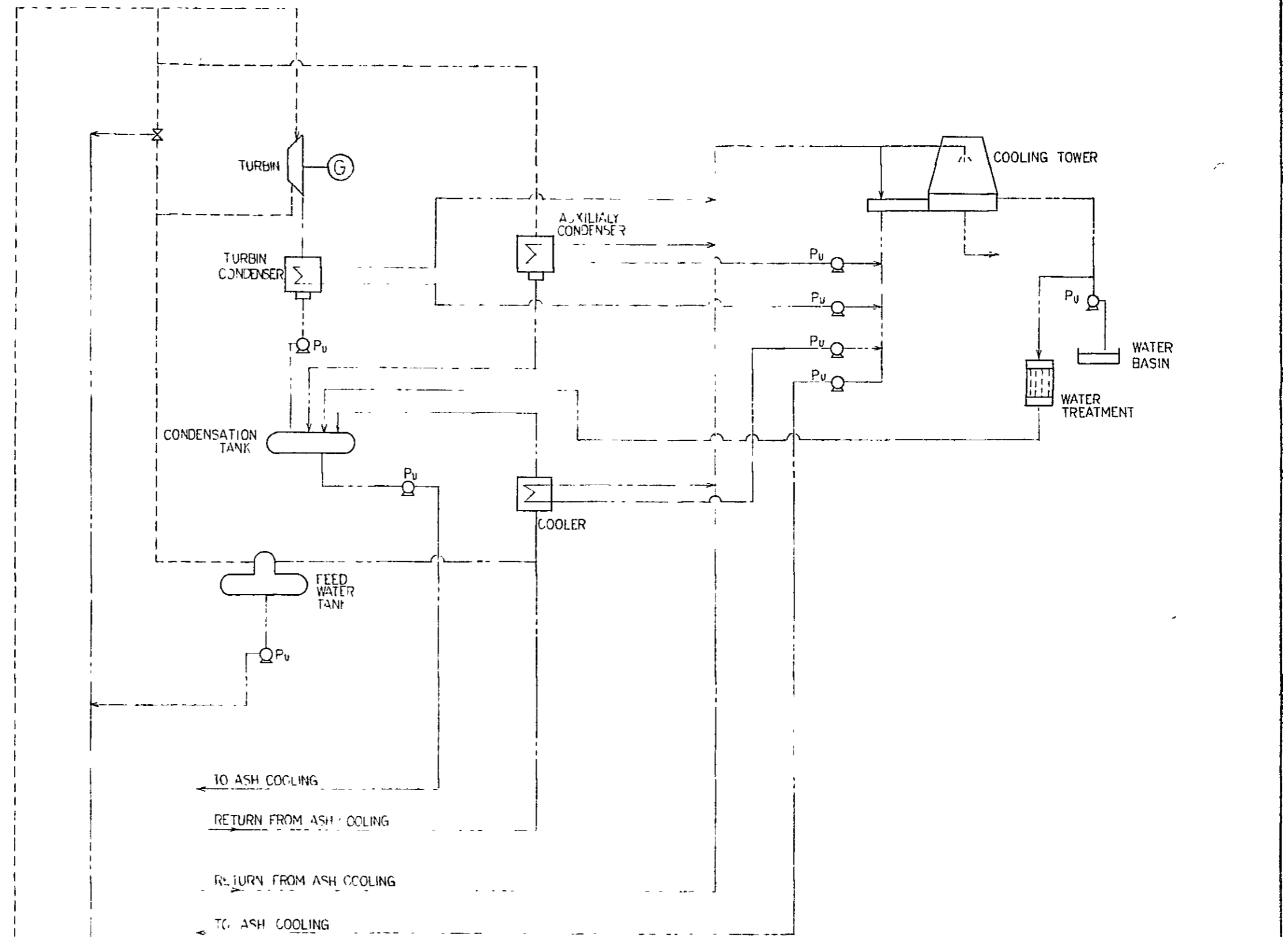
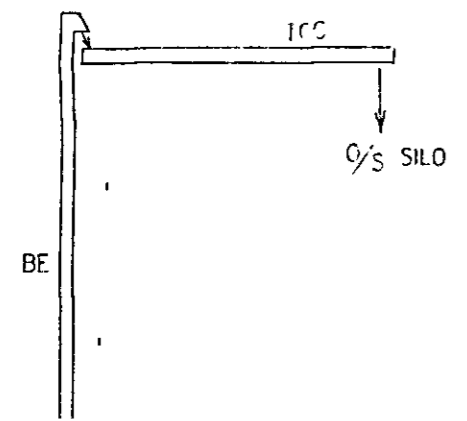
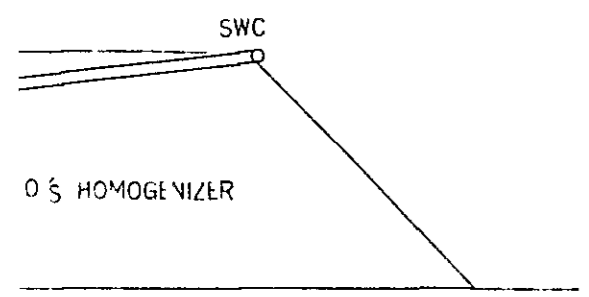
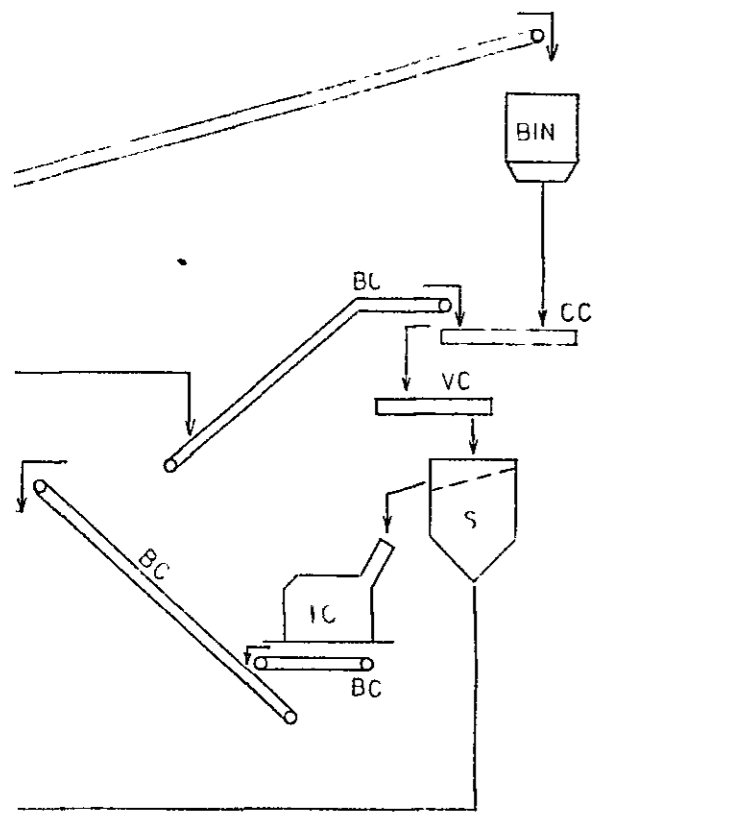


JAPAN
INTERNATIONAL
COOPERATION
AGENCY

THE INTEGRATED POWER AND
CEMENT PLANT PROJECT
MAE SOT, KINGDOM OF THAILAND
FLOW SHEET OF CEMENT PLANT(1)

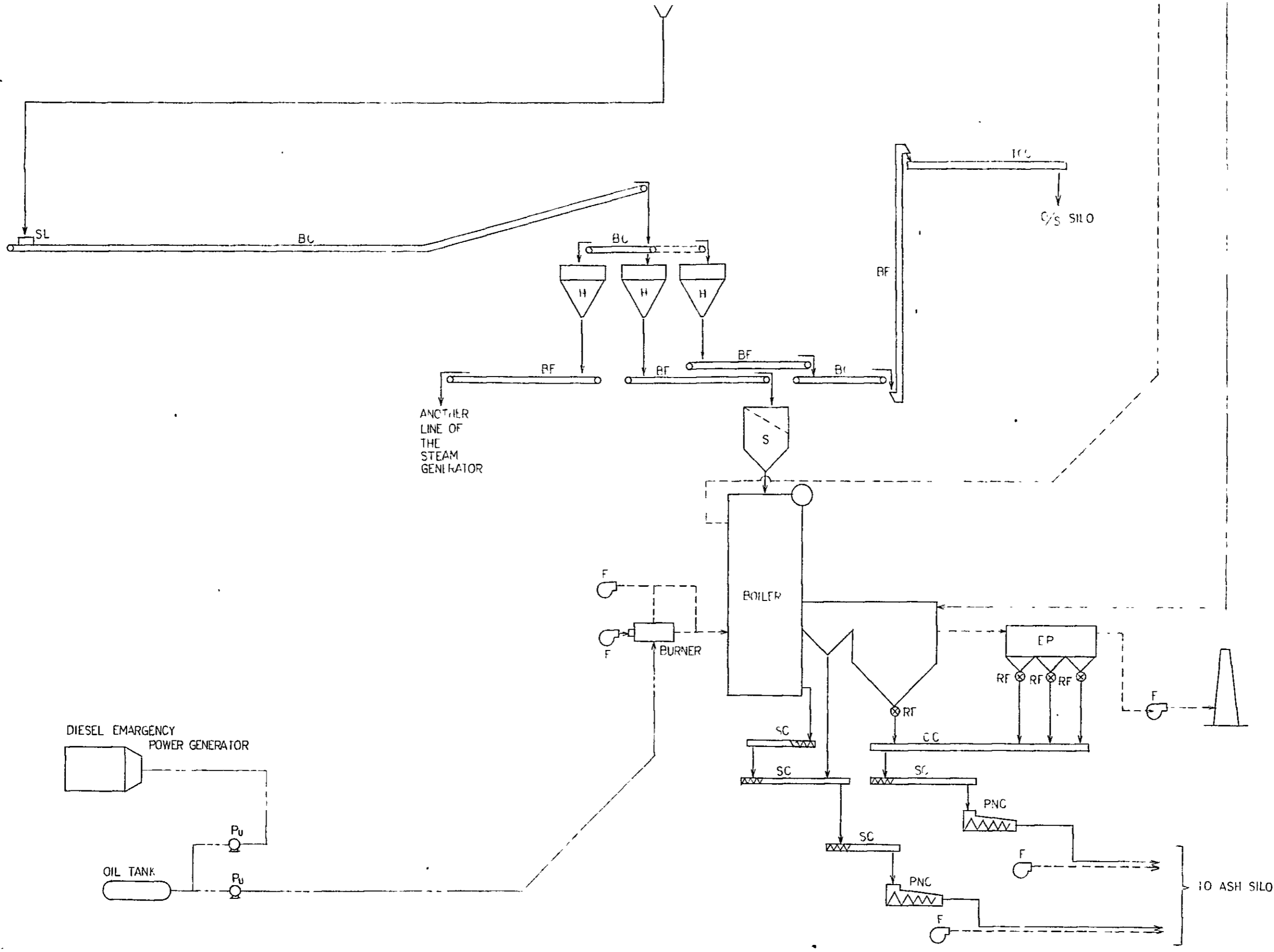
APPROVED <i>Ry</i>	CHECKED <i>Yoshi Kondo</i>	DESIGNED DRAWN <i>M. Kaori</i>	SCALE	DATE 26, MAR '83	DWG. NO. P-02	FILE NO.
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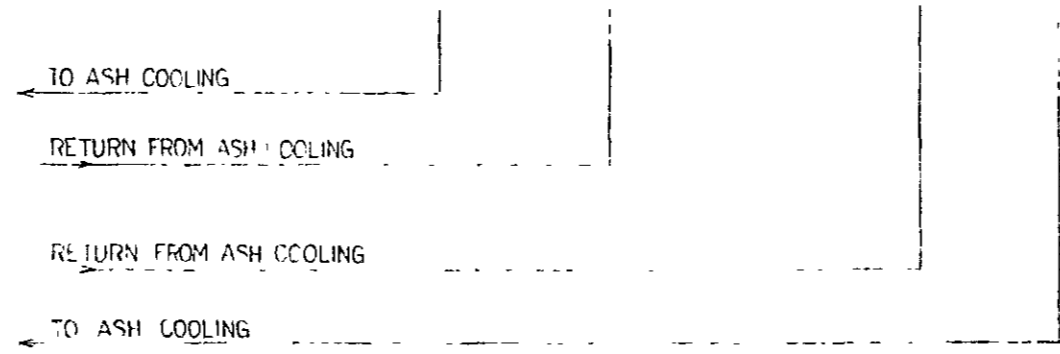
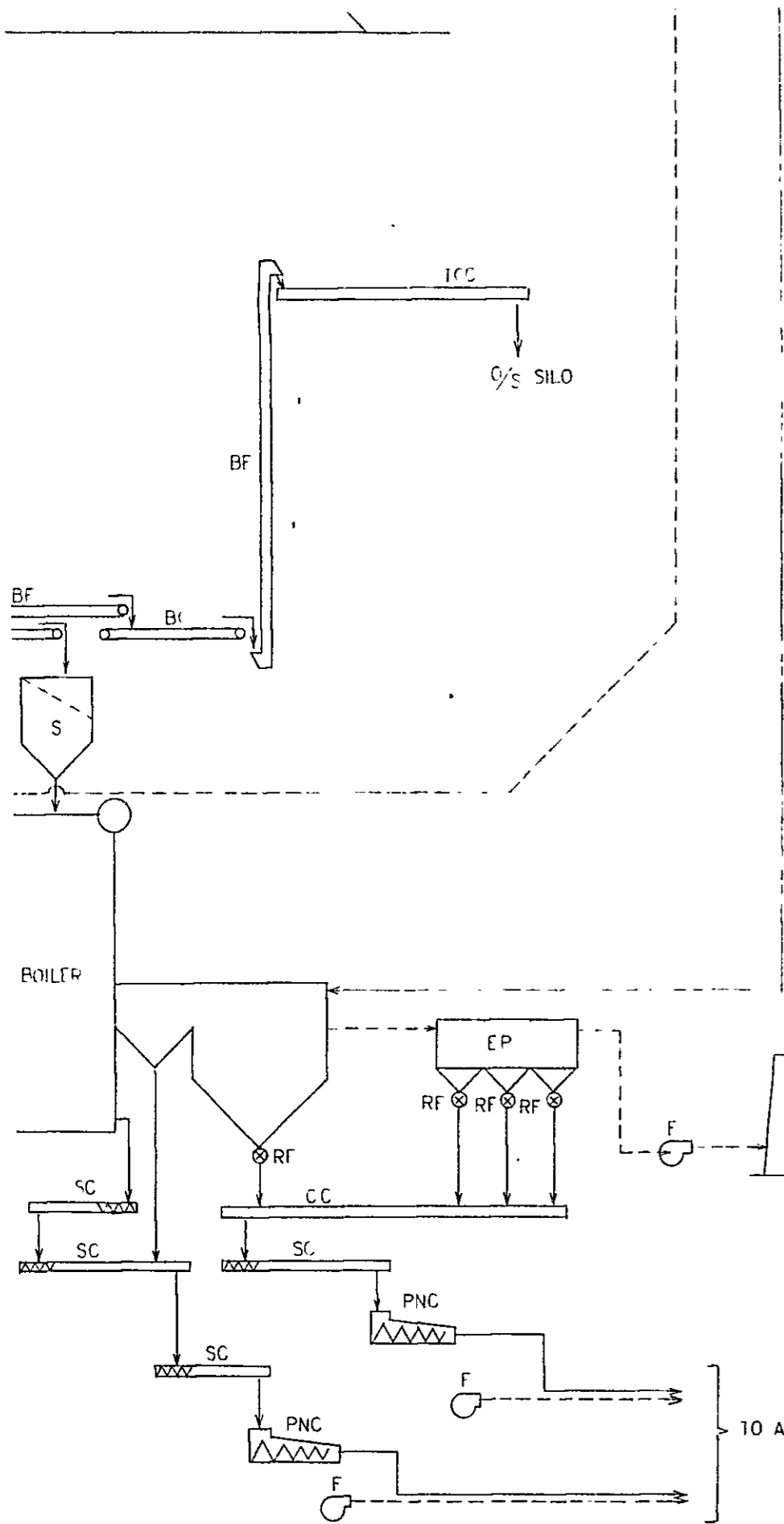




F	FAN
PNC	PNEUMATIC CONVEYOR
RF	ROTARY FEEDER
SC	SCREW CONVEYOR
P	PUMP

← TO ASH COOLING
 RETURN FROM ASH CO
 RETURN FROM ASH CO
 ← TO ASH COOLING





F	FAN
PNC	PNEUMATIC CONVEYOR
RF	ROTARY FEEDER
SC	SCREW CONVEYOR
Pu	PUMP
G	GENERATOR
BF	BELT FEEDER
TCC	TROUGH CHAIN CONVEYOR
SL	SHAKER LOADER
SWC	SWINGABLE CONVEYOR
CC	CHAIN CONVEYOR
BrC	BROACHING CONVEYOR
IC	IMPACT CRUSHER
S	SCREEN
VC	VIBRATOR CONVEYOR
EP	ELECTROSTATIC PRECIPITATOR
JC	JAW CRUSHER
VS	VIBRATING SCREEN
BC	BELT CONVEYOR
AF	APRON FEEDER
H	HOPPLER
SYMBOL	

JAPAN INTERNATIONAL COOPERATION AGENCY	THE INTEGRATED POWER AND CEMENT PLANT PROJECT MAE SOT, KINGDOM OF THAILAND					
	FLOW SHEET OF CEMENT PLANT(2) (POWER PLANT)					
APPROVED <i>Fig. 2.10</i>	CHECKED <i>Kondo</i>	DESIGNED DRAWN <i>M. Kaori</i>	SCALE	DATE 31, MAY '83	DWG. NO. P-03	FILE NO.

MAP OF MAIN POWER STATIONS AND TRANSMISSION LINES IN THAILAND

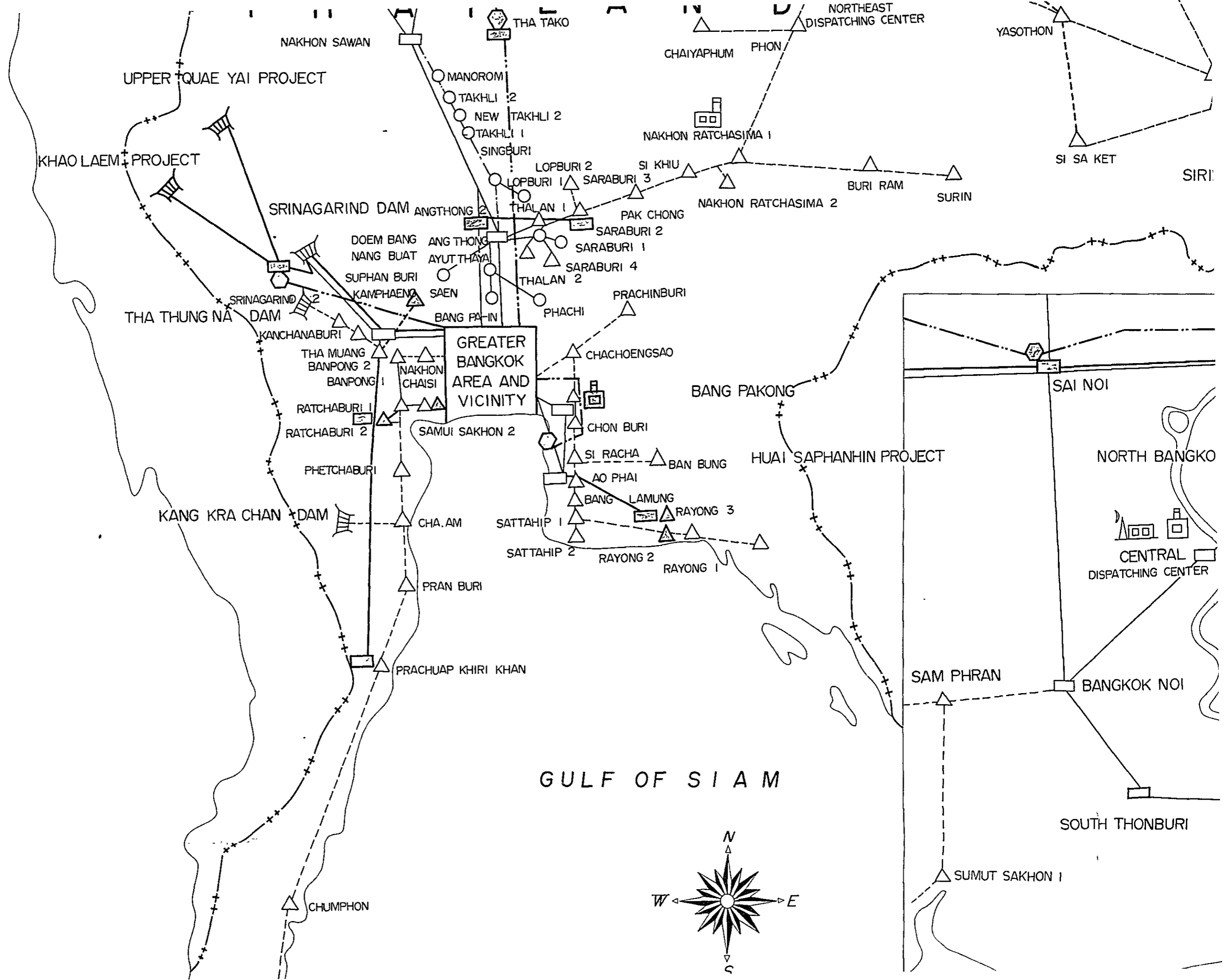
(AS OF 1981 END)



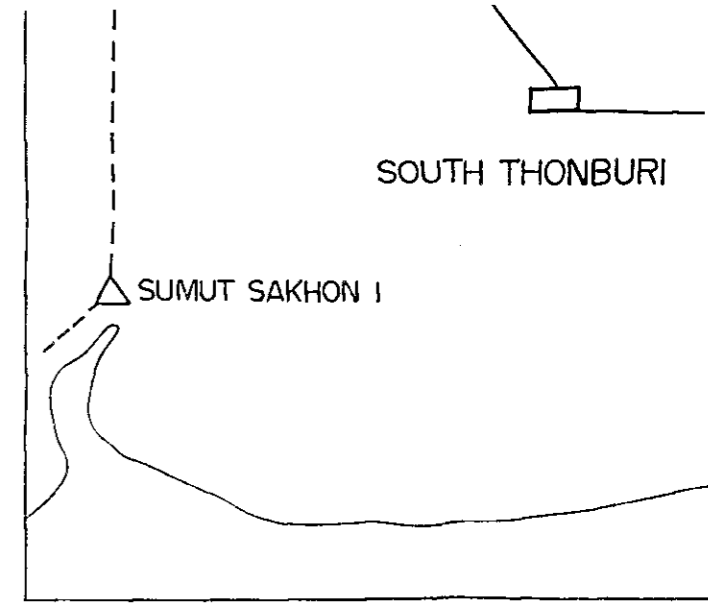
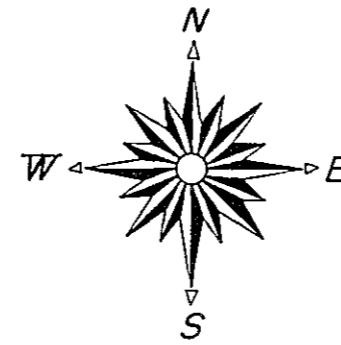
OF MAIN POWER STATIONS AND TRANSMISSION LINES IN THAILAND

(AS OF 1981 END)





GULF OF SIAM



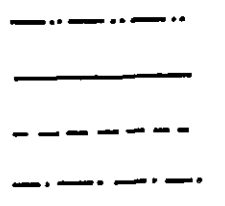
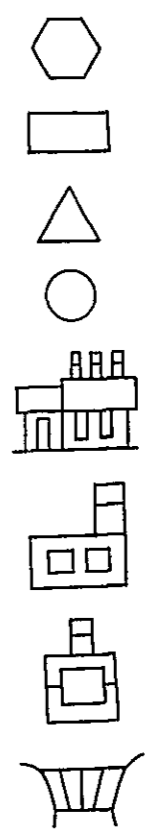
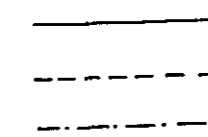
SOUTH THONBURI

SUMUT SAKHON 1

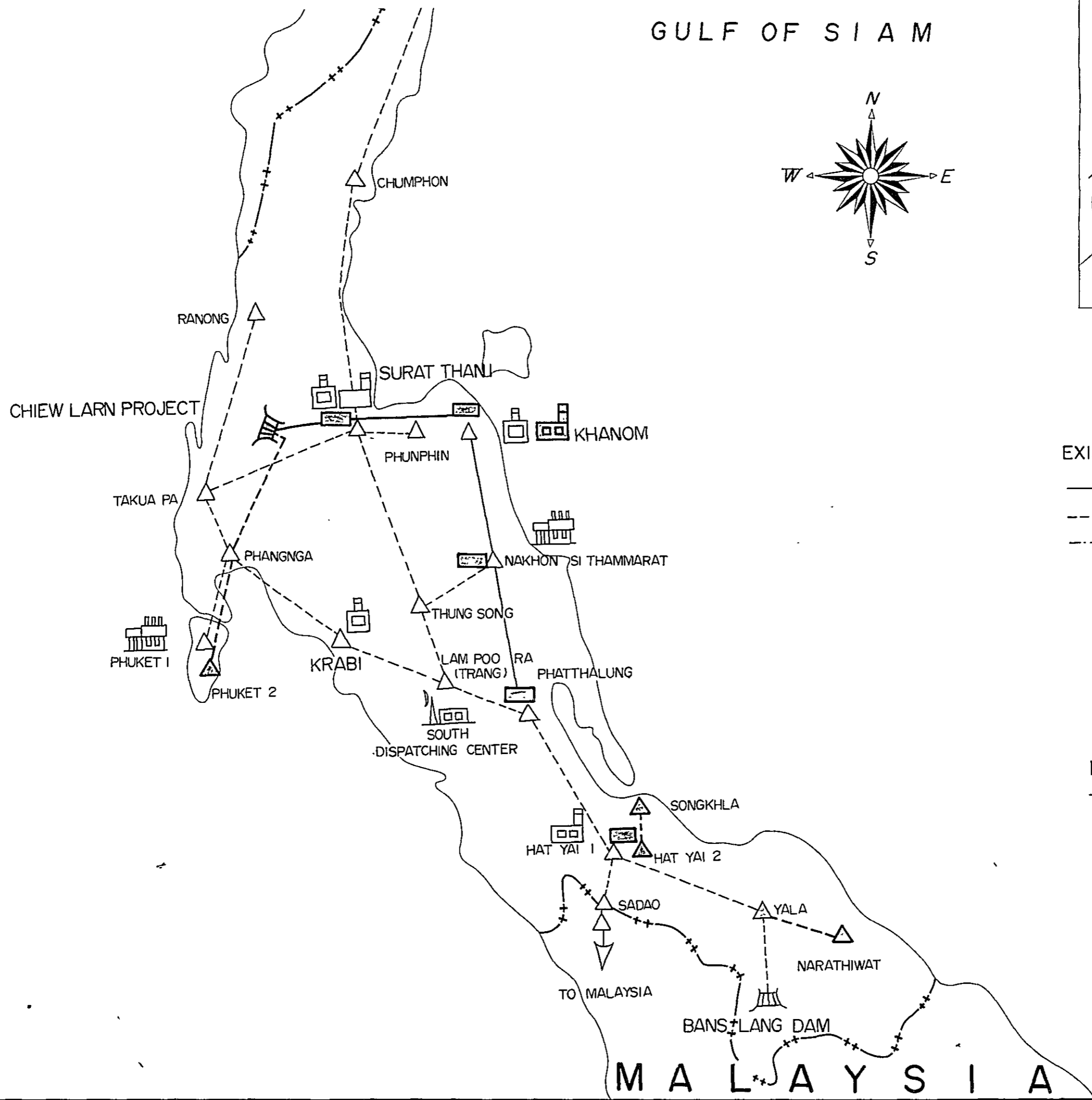
GREATER BANGKOC

UNDER IMPLEMENTATION

EXISTING

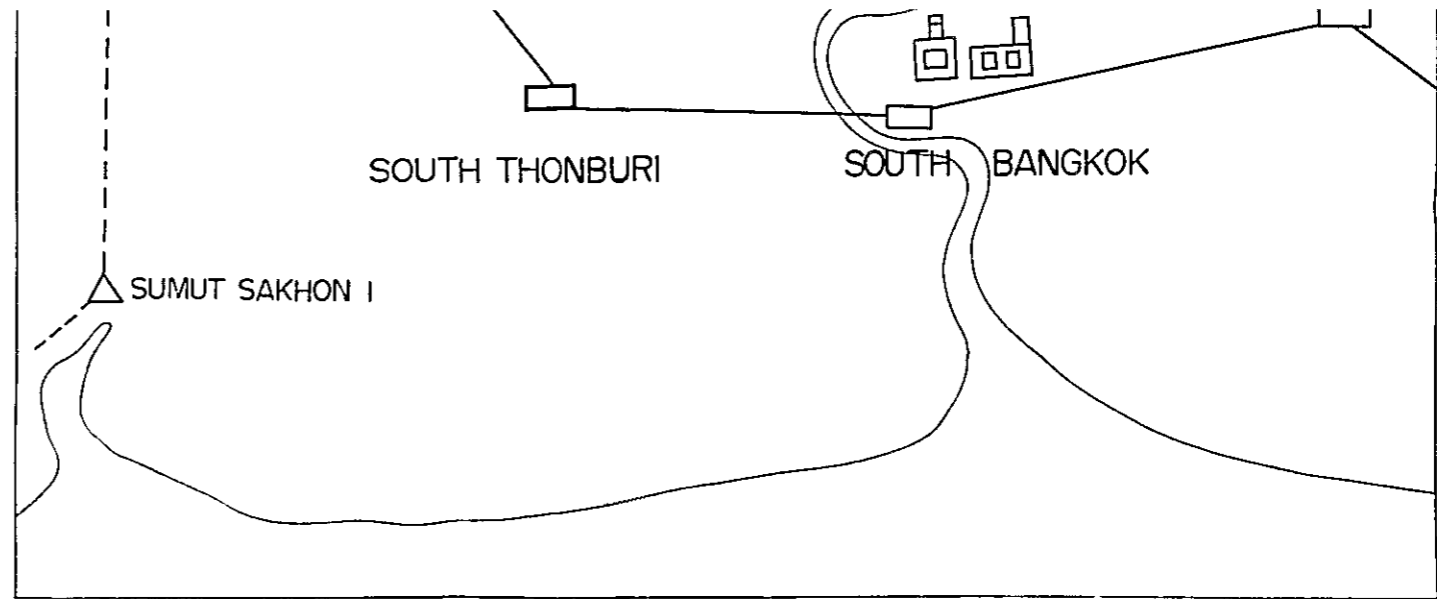
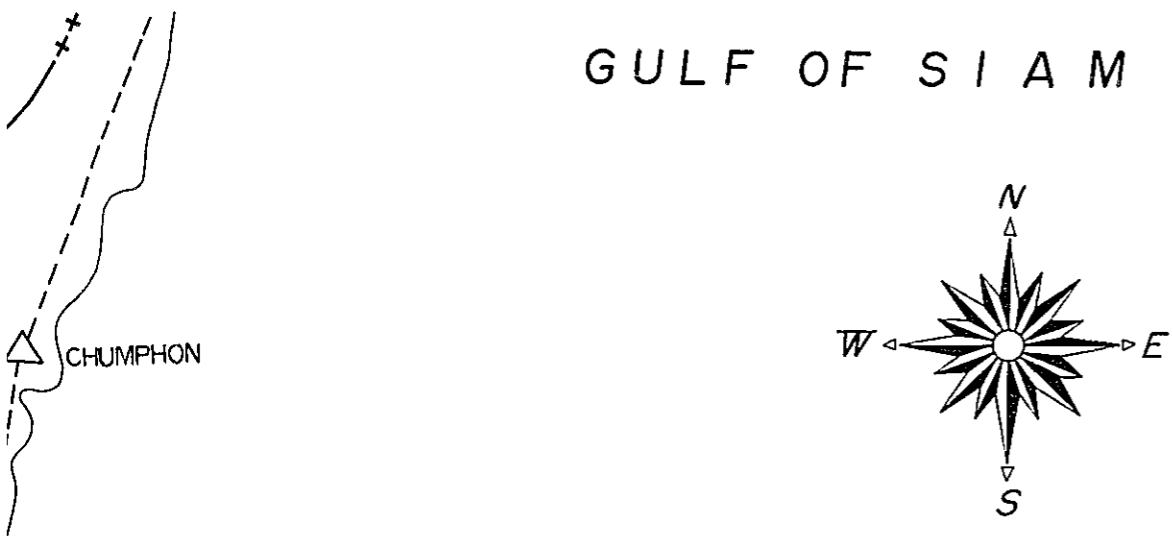


— ++ — INTERNATIONAL BOL

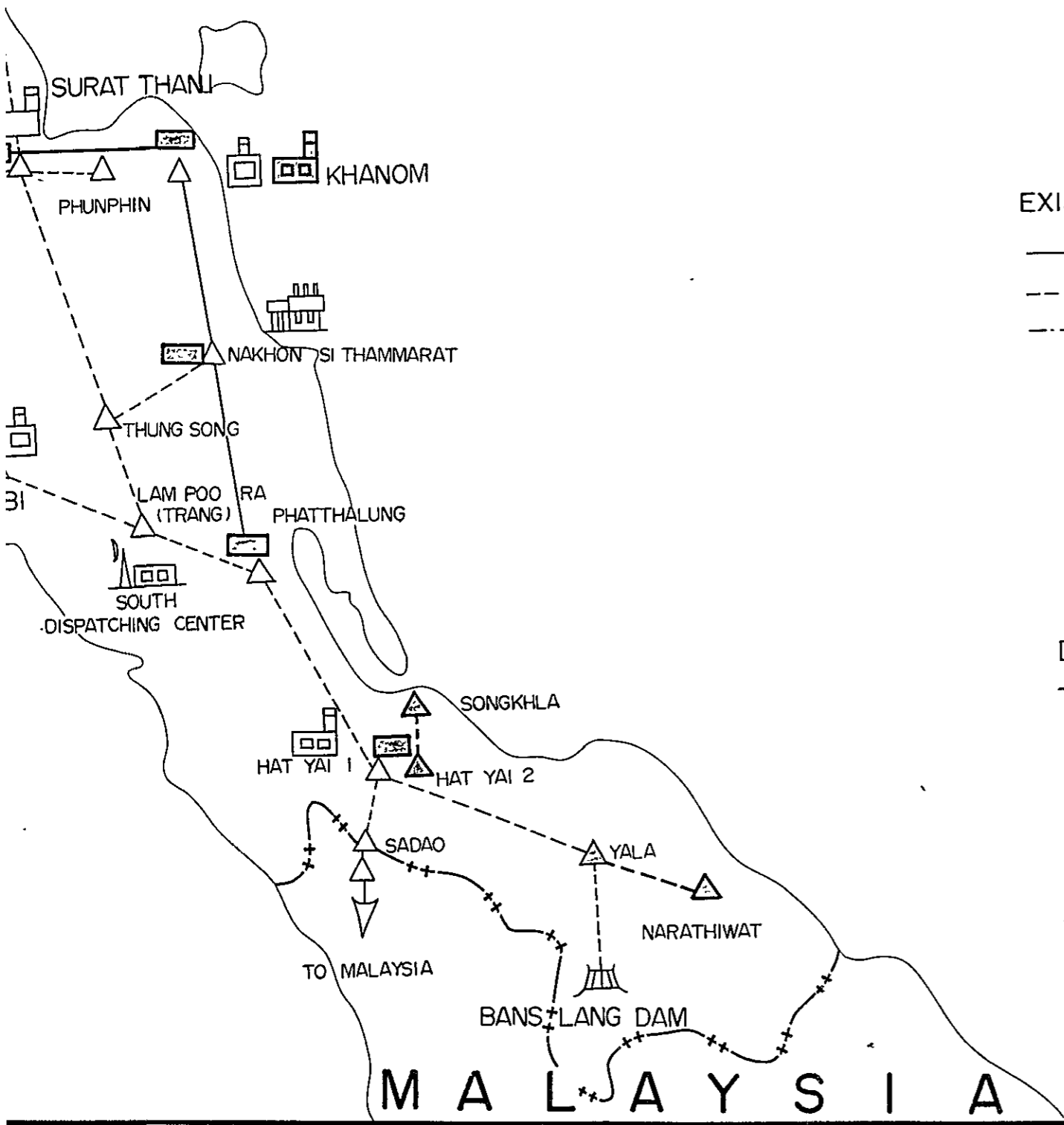


MALAYSIA

GULF OF SIAM

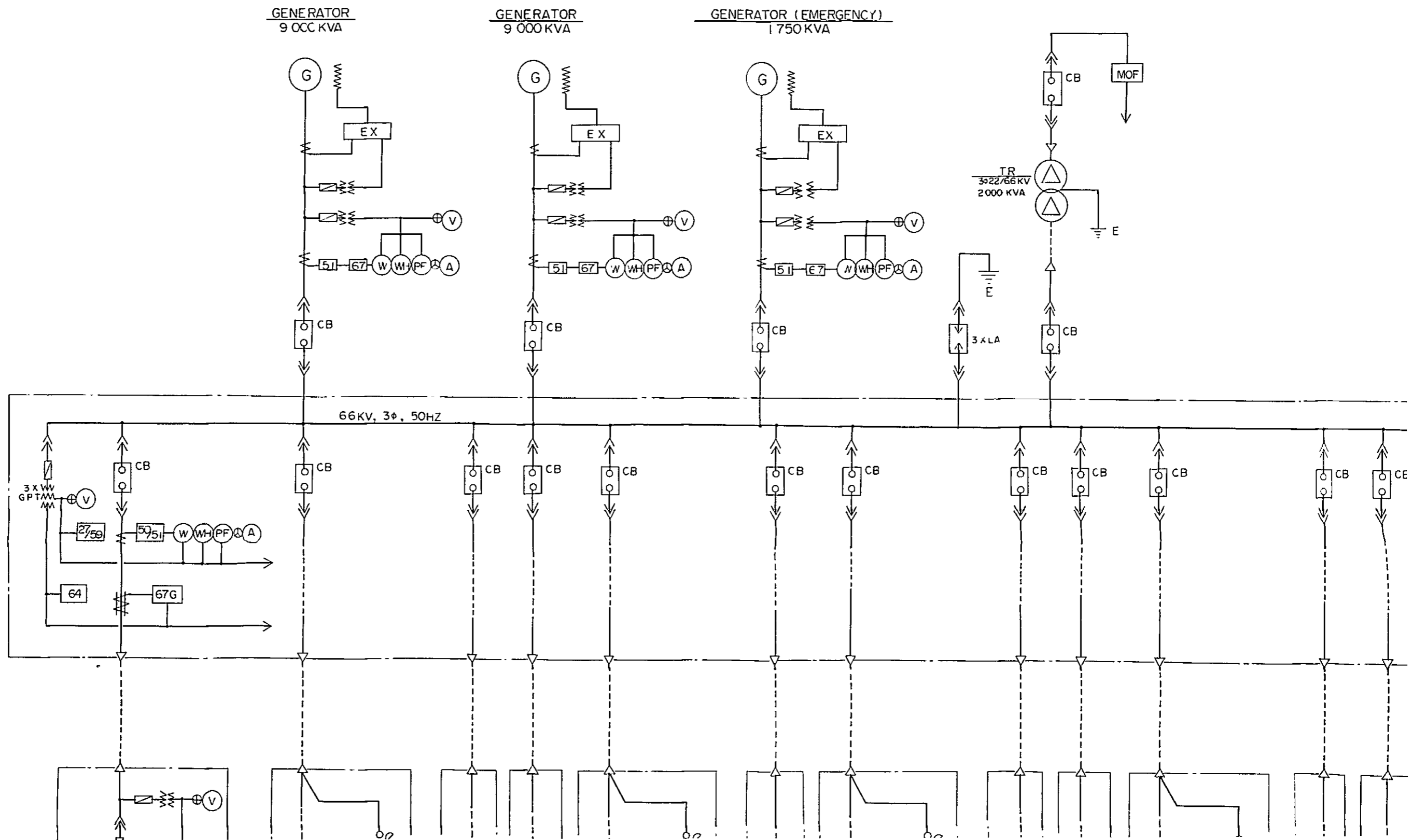


GREATER BANGKOK AREA AND VICINITY



EXISTING		UNDER IMPLEMENTATION	
	500kV TRANSMISSION LINE		500kV SUBSTATION
	230kV TRANSMISSION LINE		230kV SUBSTATION
	115kV TRANSMISSION LINE		115kV SUBSTATION
	69kV TRANSMISSION LINE		69kV SUBSTATION
	DIESEL POWER PLANT		GAS TURBINE POWER PLANT
	GAS TURBINE POWER PLANT		THERMAL POWER PLANT
	THERMAL POWER PLANT		HYDRO POWER PLANT
	HYDRO POWER PLANT		
	INTERNATIONAL BOUNDARY		

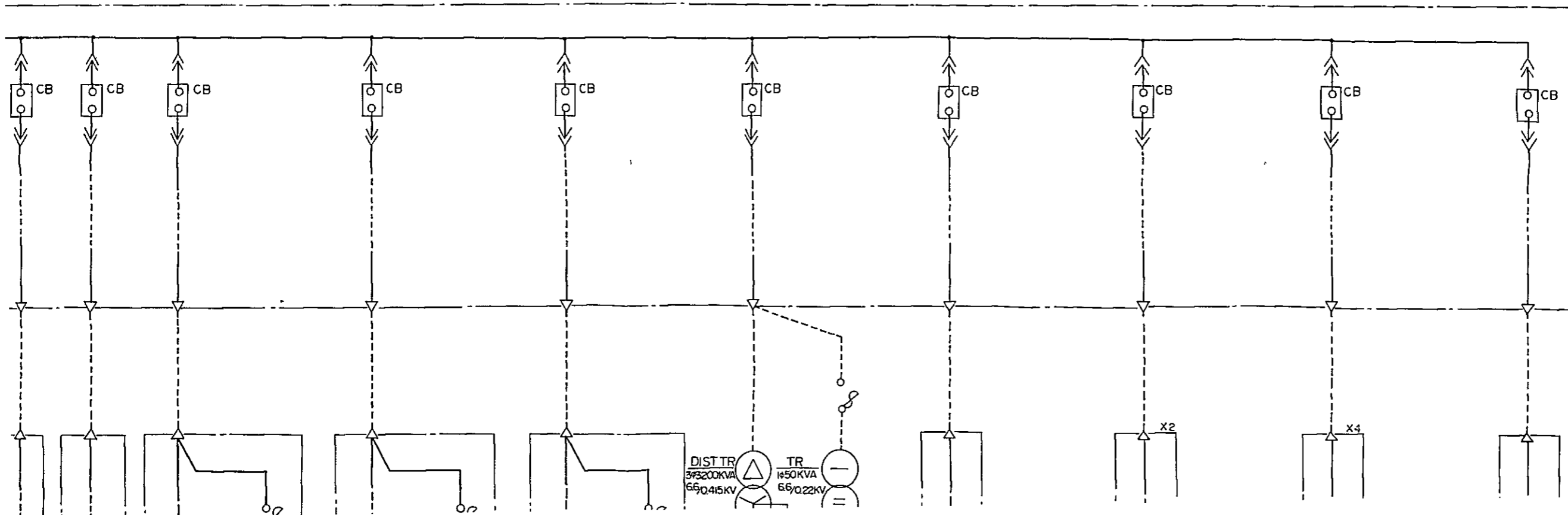
SINGLE LINE DIAGRAM FOR THE INTEGRATED POWER STATION AND CEMENT MAE SOT, THAILAND.

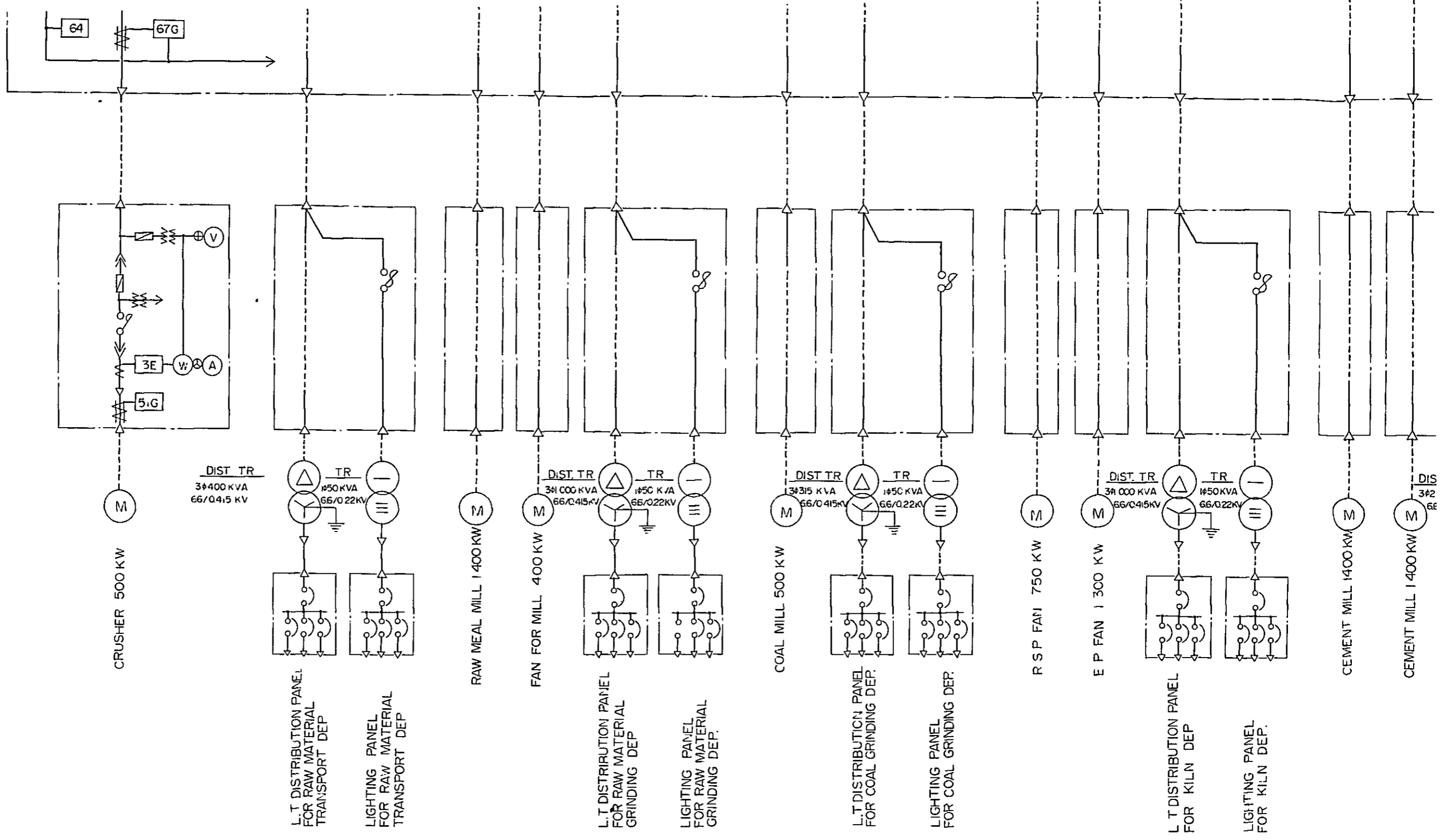


EMENT PLANT PROJECT

SYMBOL

- 51 OVER CURRENT RELAY
- 51G GROUNDING OVER CURRENT RELAY
- 27/59 UNDER-OVER VOLTAGE RELAY
- 50/51 OVER CURRENT RELAY WITH INSTANTANEOUS ELEMENT
- 67G DIRECTIONAL GROUNDING OVER CURRENT RELAY
- 64 GROUNDING OVER VOLTAGE RELAY FOR FEEDER
- 3E OVER CURRENT, PHASE REVERSAL, PHASE FAILURE
- P T POTENTIAL TRANSFORMER
- CT CURRENT TRANSFORMER
- 67 REVERSE POWER RELAY
- W INDICATING WATTMETER
- WH INDICATING WATT - HOURMETER
- P F POWER FACTOR METER
- EX EXCITER





CRUSHER 500 KW

DIST. TR.
3#400 KVA
66/0.415 KV

L.T DISTRIBUTION PANEL
FOR RAW MATERIAL
TRANSPORT DEP.

LIGHTING PANEL
FOR RAW MATERIAL
TRANSPORT DEP.

RAW MEAL MILL 1400 KW

FAN FOR MILL 400 KW

DIST. TR.
3#400 KVA
66/0.415 KV

L.T DISTRIBUTION PANEL
FOR RAW MATERIAL
GRINDING DEP.

LIGHTING PANEL
FOR RAW MATERIAL
GRINDING DEP.

COAL MILL 500 KW

DIST. TR.
3#315 KVA
66/0.415 KV

L.T DISTRIBUTION PANEL
FOR COAL GRINDING DEP.

LIGHTING PANEL
FOR COAL GRINDING DEP.

R S P FAN 750 KW

E P FAN 1300 KW

DIST. TR.
3#400 KVA
66/0.415 KV

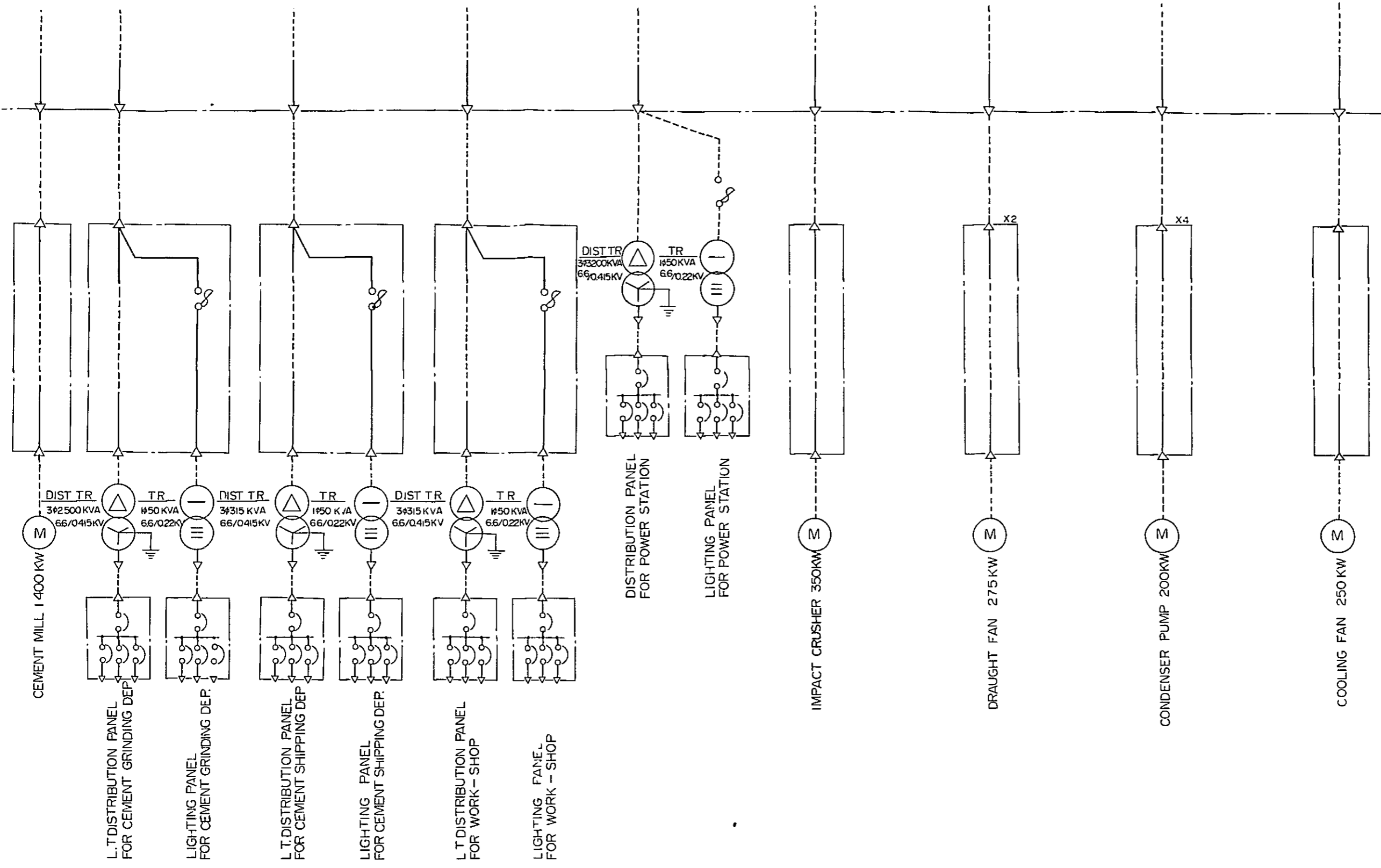
L.T DISTRIBUTION PANEL
FOR KILN DEP.

LIGHTING PANEL
FOR KILN DEP.

CEMENT MILL 1400 KW

CEMENT MILL 1400 KW

DIS
3#2
EE



JICA