

COLUMNAR SECTION FOR A-SEAM, W-7


Scale, 1 : 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
	405.85					carbonaceous mudstone black	Dip: 14°
	405.97	1.12	0.72			coal, bright	
						wooly shale	
A seam	406.26	0.29	0.28			coal fine grade, bright dull & bright	
	406.38	0.12	0.12				
						coal, bright	
	406.76	0.30	0.37			coal, bright, w/ calcite vein	white calcite in coupling
	406.90	0.14	0.13			coal, bright	
	407.07	0.17	0.16			mudstone, dark gray	Dip: 19°
	407.16	0.03	0.03				
						coal, bright	
	407.80	0.20	0.67			carbonaceous mudstone	
	407.87	0.07	0.67			coal, bright	
	408.15	0.28	0.27			mudstone, dark gray	
	408.155	0.005	0.005				
						coal, bright	
	408.50	0.345	0.33			wooly shale	
	408.55	0.05	0.05			mudstone, gray silty	

205/2.15 (true)

COLUMNAR SECTION FOR B-SEAM, W-7

Scale, 1 : 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLES	DESCRIPTION	REMARKS
		APPARENT	TRUE				
B-SEAM	436.53					midstone, dark gray fractured	
	436.58	0.05	0.05			carbonaceous mudstone	
	436.70	0.12	0.11			coal, bright	
	437.15	0.45	0.42			midstone, dark gray	
	437.70	0.55	0.51			coal, bright	
	437.705	0.005	0.005			midstone w/ pyrite	
	437.87	0.185	0.155			coal, bright shiny bit (carboniferous) concretion	
	437.90	0.03	0.03			early shale	
					midstone, gray	Dip: 21°	

COLUMNAR SECTION FOR C-SEAM, W-7

Scale, 1:20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DISCRIPTION	REMARKS
		APPARENT	TRUE				
C SEAM	448.95					midstone gray fractured	
	449.05					carbonaceous mudstone	
	449.25	0.20	0.19			coal	
	449.255					coaly shale	
						coal, bright	
	450.00	0.745	0.71			coal, bright, dull, silty	
	450.05	0.05	0.05			coal, bright & dull partel	
	450.25	0.20	0.19				
						coal, bright	Dip: 17°
	451.96	1.71	1.64			coal, bright & dull w/ calcite vein	Dip: 17° evidence calcite in sampling
	452.40	0.44	0.42			Carbonaceous mudstone black, silty	

3.20 / 3.205 (True)

COLUMNAR COAL SECTION FOR B-SEAM, W-8

Scale, 1 : 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE			
B-seam (True thickness)	316.35				all. siltstone, gray, mudst. brown gray sandst. fine, white gray	
	316.65	0.30	0.29		carbonaceous mudstone, charcoal brown, massive	
	317.29	0.64	0.62		leafy shale, massive black w/ coal inq. streaks	
	317.60	0.31	0.30		coal, bright and slightly dull (harder coal)	
	318.26	0.66	0.64		coal, bright, massive	Dip: 15° (not clear)
	318.30	0.12	0.12		coal, red-salt + fissures	
	319.00	0.62	0.60		coal, bright, massive	
	319.05	0.05	0.05		mudstone, massive, dark gray	

COLUMNAR COAL SECTION FOR C-SEAM, W-8

Scale, 1 : 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	PLANES	DESCRIPTION	REMARKS
		APPARENT	TRUE				
C-seam	327.09					musstone dark gray massive, carbonaceous in lower	
						coal, bright slightly dull and lustrous in part bituminous & phyllitic	
	330.10	2.21	2.08				
							Dip: 20° (not sure)
						coal, light, massive	
	332.00	1.90	1.79				(continues)

293 / 10.03 (true)

					coal, bright medium partly dull & rather "heavy"
333.00	6.00	0.94			
					coal, bright, massive
337.00	4.00	3.76			
337.25	0.25	0.21			coal, bright-medium (broken core)
					coal, bright massive
338.69	0.84	0.79			
338.20	0.11	0.10			coal, sh. massive
338.47	0.27	0.25			coal, bright, massive
338.56	0.09	0.08			coal, med bright, massive
					sediments, dark gray, carbonaceous w/ coal lens streaks

COLUMNAR SECTION FOR A-SEAM, S-1

SCALE, 1: 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
A-seam	301.75					mudstone, gray to dark gray, soft, clayey, with carbonaceous matter	dipping 15°
	301.92	0.07	0.07			coal, dull, banded, fine	
	302.12	0.30	0.29			coal, bright	
	302.20	0.08	0.07			coal, dull	
	302.28	0.08	0.07			coal, bright	
	302.31	0.03	0.03			siltstone, white sand	dipping 20°
2.05 / 2.08 (True)						coal, bright	
	304.00	1.69	1.55			mudstone, gray, and siltstone to sandstone very fine, light gray, random alternation	dipping 27°

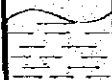









COLUMNAR SECTION FOR B-SEAM, S-1

Scale, 1 : 20


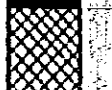


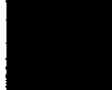



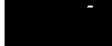
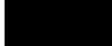
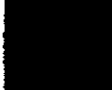

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
	325.00					midstone, carb. black to darkgray	
						coaly shale crushed	dipping: 10°
B-SEAM	325.42	0.42	0.41			coal, bright	
	325.70	0.28	0.27			coaly shale	
6.57 / 0.72 (true)	325.72	0.22	0.22			coal, bright	
	325.76	0.04	0.04			coal dull, bright, inferior	
	325.87	0.11	0.11			coaly shale	
	326.00	0.13	0.13			coal, dull, tan to brown, inferior quality	
	326.15	0.15	0.15			coaly shale crushed at top corner	
	326.70	0.55	0.54			coal, dull, inferior	
	326.81	0.11	0.11			coal, bright	
	326.90	0.09	0.09			coaly shale	
	327.06	0.16	0.16			midstone, gray massive	

COLUMNAR SECTION FOR C-SEAM, S-1

Scale, 1:20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
C-seam	352.86					mudstone dark gray	
	353.00	0.14	0.14			Coal, bright fractured completely crushed at top	
						Coal, bright massive	dipping 10°
	355.10	2.10	2.07			Coal, bright fractured	
	355.32	0.22	0.22			coal, dull & bright crushed laminated	
	355.72	0.40	0.39			coal bright	
	356.00	0.28	0.28			coal, micaceous	
	356.53	0.53	0.52			coal, dull banded, inferior quality (not coal)	dipping 10°
	356.90	0.37	0.36				
							(continues)










					curly shale	
	357.60	0.70	0.77			
					coal, bright massive	
	358.47	0.79	0.78			
	358.70				coal, dull	
10.10 / 17.34 (True)	359.00	0.53	0.52			cone test
	359.30				coal, bright massive thin calcite vein and film at 359.44 360.32-49 363.50	
	363.65	4.65	4.50			dipping 10°
	364.10	0.43	0.44		coal, dull	(continue)

364.55	0.15	0.14		Coal, midlenons.
364.80	0.25	0.25		Coal, dull & bright barrel inferior quality (cont. c.)
365.15	0.35	0.34		Coaly shale
365.45	0.30	0.30		Coal, bright
366.10	0.65	0.64		Coal, dull, banded inferior quality (cont. c.) broken ore, conc. rec. 30%
366.35	0.25	0.25		Coal, bright massive
				fractured & broken ore at 367.00-367.40 368.43-368.63 369.82-371.44
371.44	5.07	5.01		Coaly shale (siliceous)
371.48	0.04	0.04		Coal, bright fractured & broken ore at 371.48-372.00
372.35	0.07	0.05		Coaly shale (siliceous)
372.40	0.05	0.05		Coal, dull & bright inferior
372.50	0.10	0.10		Coaly shale

dipping 7°

COLUMNAR COAL SECTION FOR A-SEAM, S-2

Scale, 1 : 20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
A-seam (true thickness)	509.20					mudstone, dark gray	
						coal, bright brooksore	
	510.02	0.82	0.83				
	.86	0.84	0.83			carbonaceous mudstone	dip: 36°
						coal, bright brooksore	
	510.85	0.59	0.45				
	.88	0.03	0.02			coal, dull	
	.72	0.04	0.03			carbonaceous mudstone	dip: 44°
						coal, bright	
	511.18	0.46	0.35				
	.21	0.03	0.02			coal, border inferior	
						coal bright w/ pyrite in upper part (fill in with)	
	511.67	0.46	0.36				
						mudstone gray to dark gray	dip: 34°

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/ 189

COLUMNAR COAL SECTION FOR B-SEAM, S-2

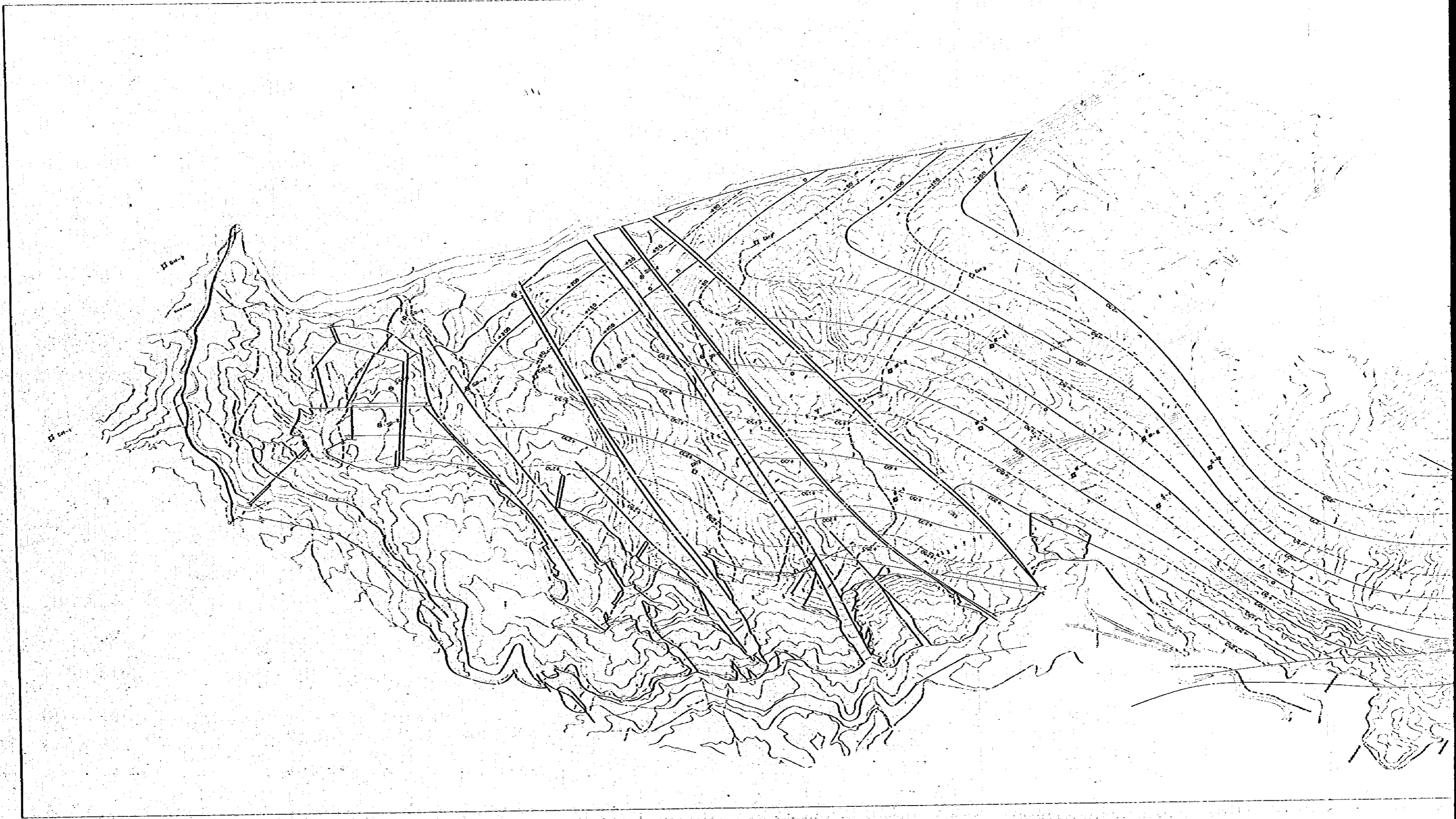
Scale, 1 : 20

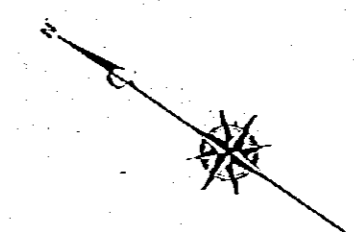
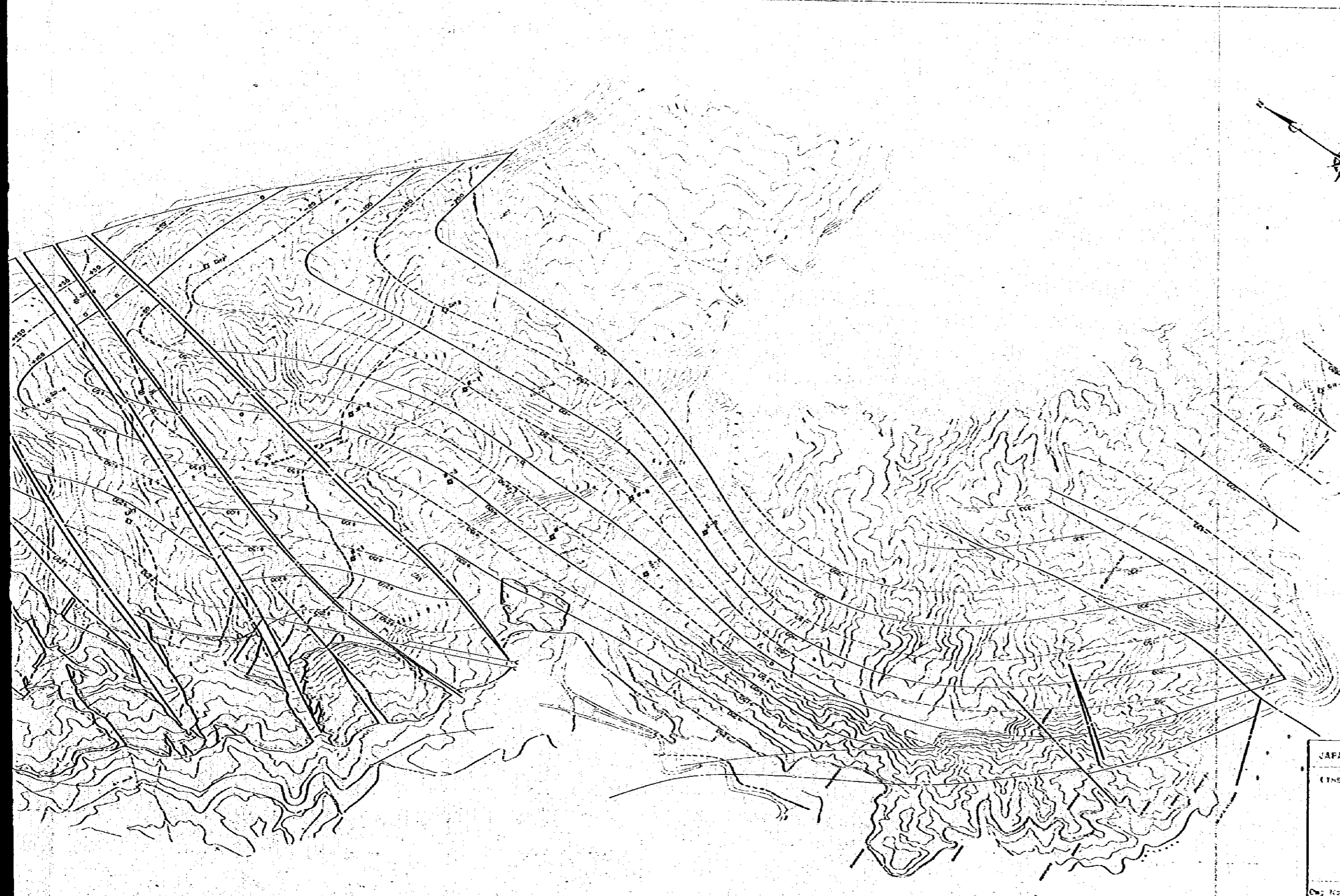
SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
B-seam (with shales)	533.30					midstone, gray to black	
	42	0.12	0.10			coaly shale	Dip: 20°
	534.63	0.21	0.19			coal, bright	
	71	0.08	0.07			coal, dull	
0.70	82	0.11	0.10			coal, bright	
0.79	87	0.05	0.045			coal, dull	
	88	0.01	0.01			coaly shale	
						coal, bright	
1.13 1.70	535.25	0.31	0.33			coal, banded inferior	
	30	0.03	0.045			coal, banded inferior	
						coaly shale	
	535.91	0.61	0.54			coal, banded inferior	
	536.30	0.39	0.35			midstone, silty gray to dark gray	Dip: 26°

COLUMNAR COAL SECTION FOR C-SEAM, S-2









Scale, 1:20

SEAM NAME	DEPTH (M)	THICKNESS (M)		COLUMN	SAMPLE	DESCRIPTION	REMARKS
		APPARENT	TRUE				
C-SEAM (see diagram)	557.12					micstone dark grey fractured & slickensided	dip: 20°
	557.44	0.32	0.20			coal, bright w/ pyrite	
	557.72	0.28	0.24			coal, dull 1.5-5.6 w/ calcite vein 1.5 cm width	exhibit calcite vein in sampling
						coal, bright	
	558.61	0.09	0.78			micstone, grey	
	.84	0.03	0.03		coal, bright		
	.72	0.00	0.07				
						micstone, silty carbonaceous w/ abundant carb. matter	dip: 30°





Legend

-  Isobath line
-  Outcrop of coal seam
-  Fault (surface)
-  Fault (coal seam horizon)
-  Mined out
- CR-1,2. 
- SR-2,5. 
- W-1,2. 

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE REHABILITATION OF DASHUO COAL MINE)

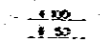
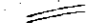

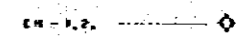
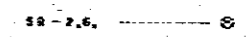
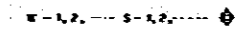
Structure Contour Map
A Seam

Map No.	90	Scale	1:10,000
Date	July, 1979	Prepared by	S. Yagi





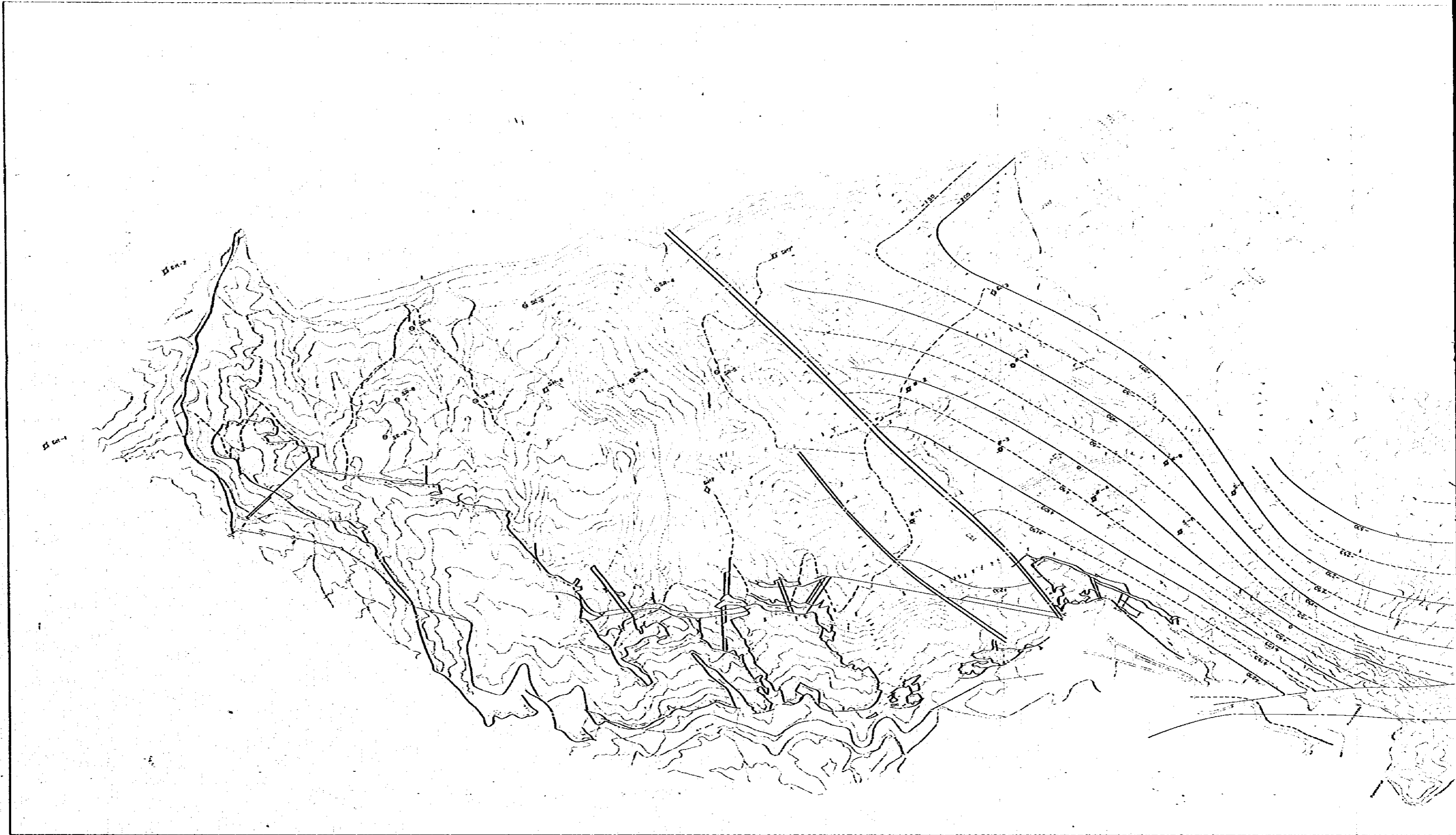
Legend

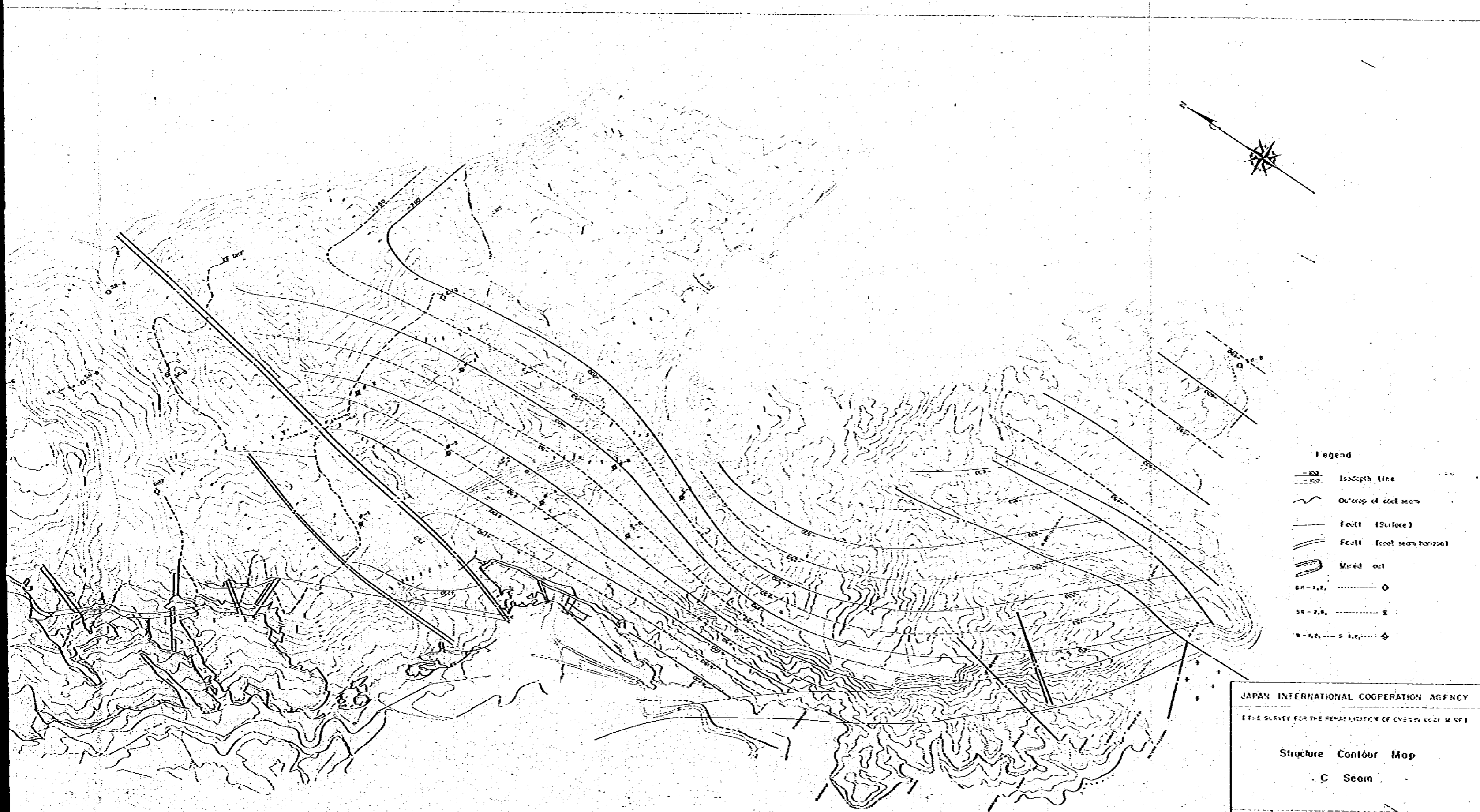
-  Isobath line
-  Fault (cool sea horizon)
-  Mined cut
-  EN-1.2
-  SB-2.6
-  W-1.2

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE REHABILITATION OF CARBON COAL MINE)

Structure Contour Map
 B Seam

Map No.	9b	Scale	1 : 10,000
Date	July, 1979	Prepared by	S. Yagi





Legend

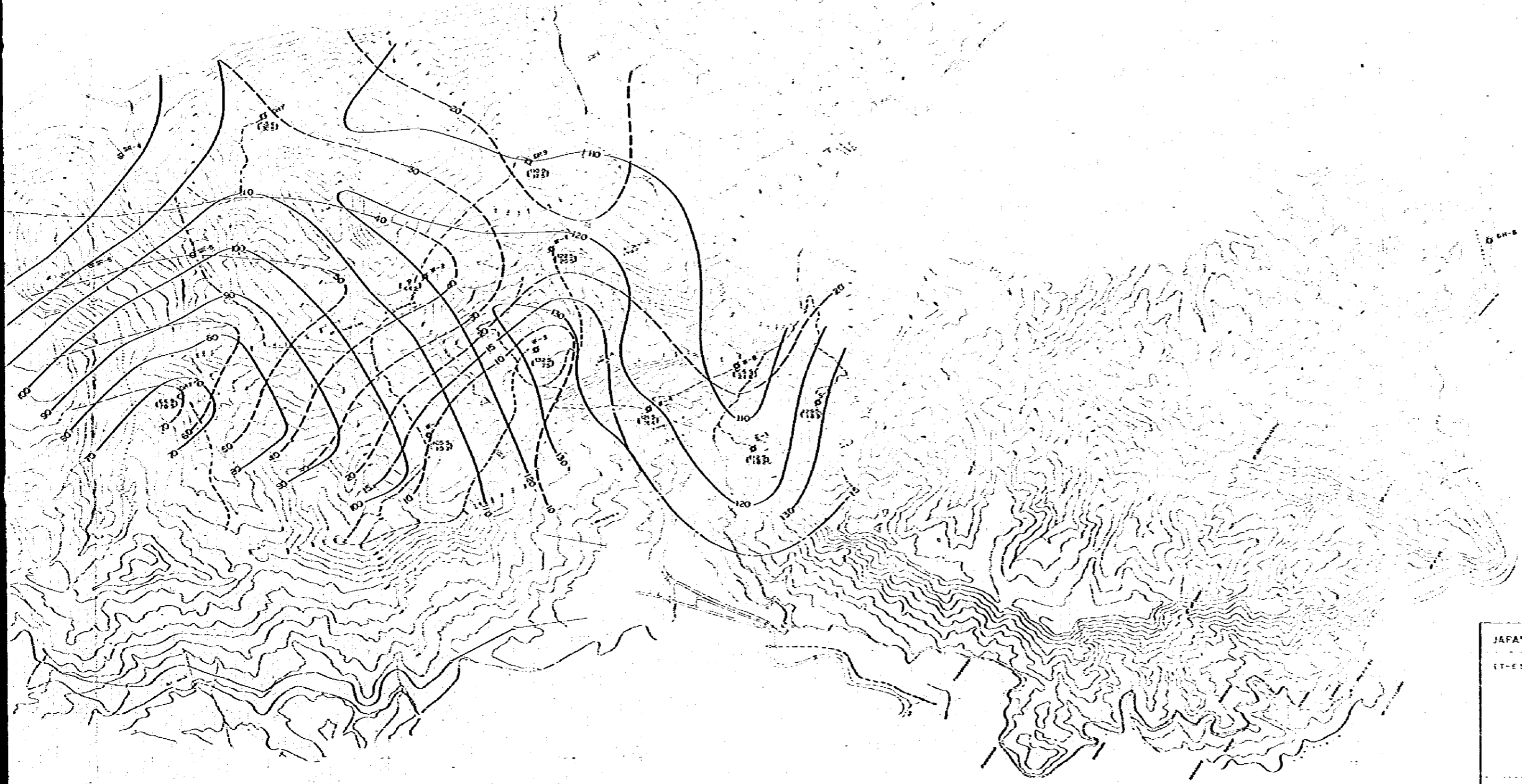
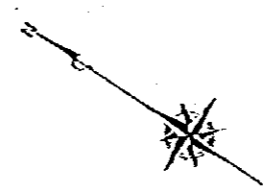
- Isodepth line
- Outcrop of coal seam
- Fault (Surface)
- Fault (Coal seam horizon)
- Mine out
- 0
- 5
- 10

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE REHABILITATION OF OVERSEAS COAL MINES)

Structure Contour Map
C Seam

Drawn by	9c	Scale	1 : 10,000
Date	July, 1979	Expressed by	S. Yagi





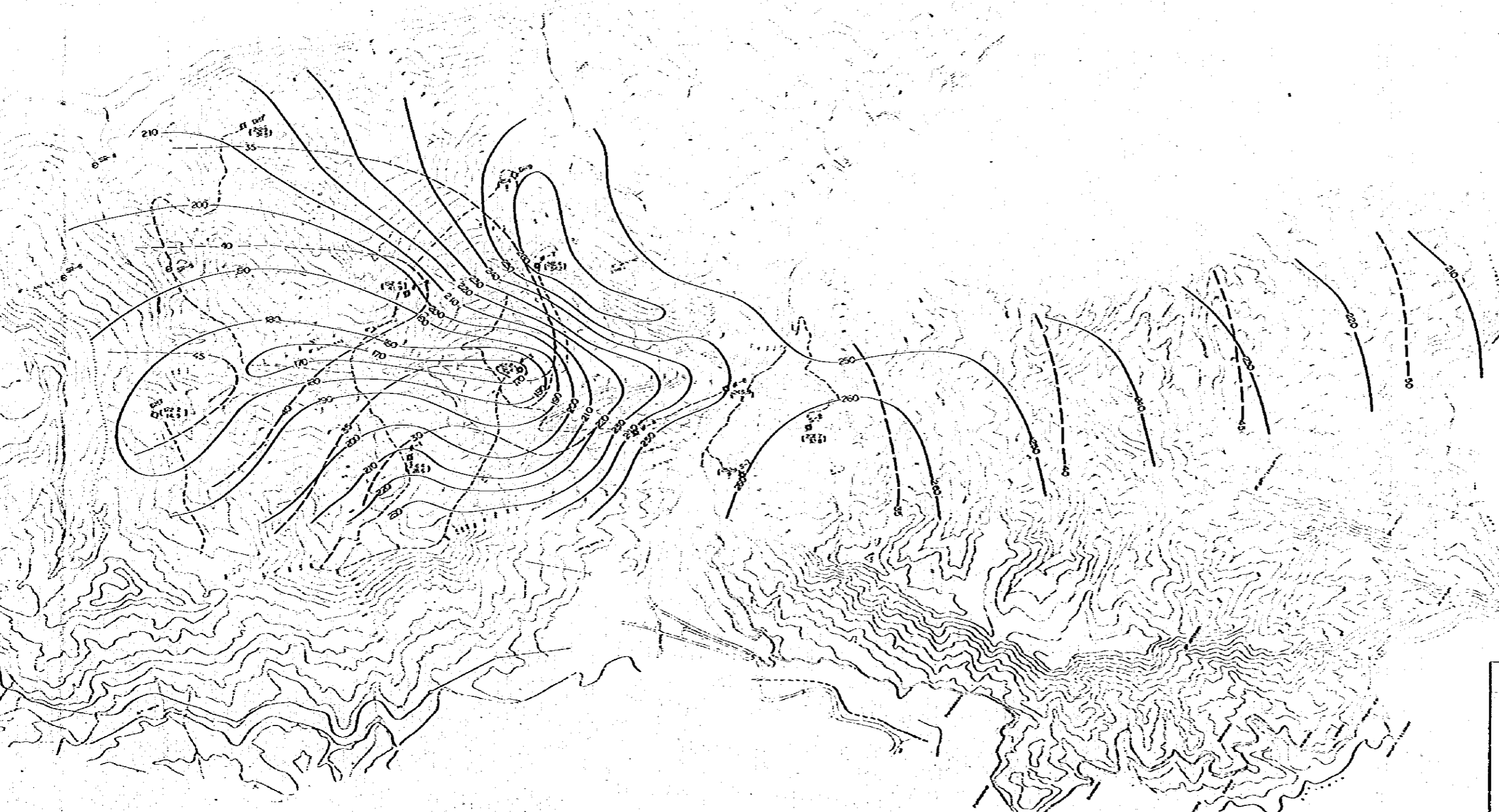
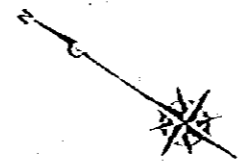
Legend

- W-5 \diamond Thickness of the formation (M)
- CH-1,2 \diamond Sand ratio (%)
- SR-2,3 \circ Sand ratio (%)
- W-1,2 \diamond Sand ratio (%)
- Across road

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SUPPLY FOR THE PENINSULA OF MALAYA)
**Isopoch and Sand Ratio
 in Sawah Lunto Formation**

Scale	10 0	Scale	1 : 10,000
Date	July, 1979	Author	T. Negishi





Legend

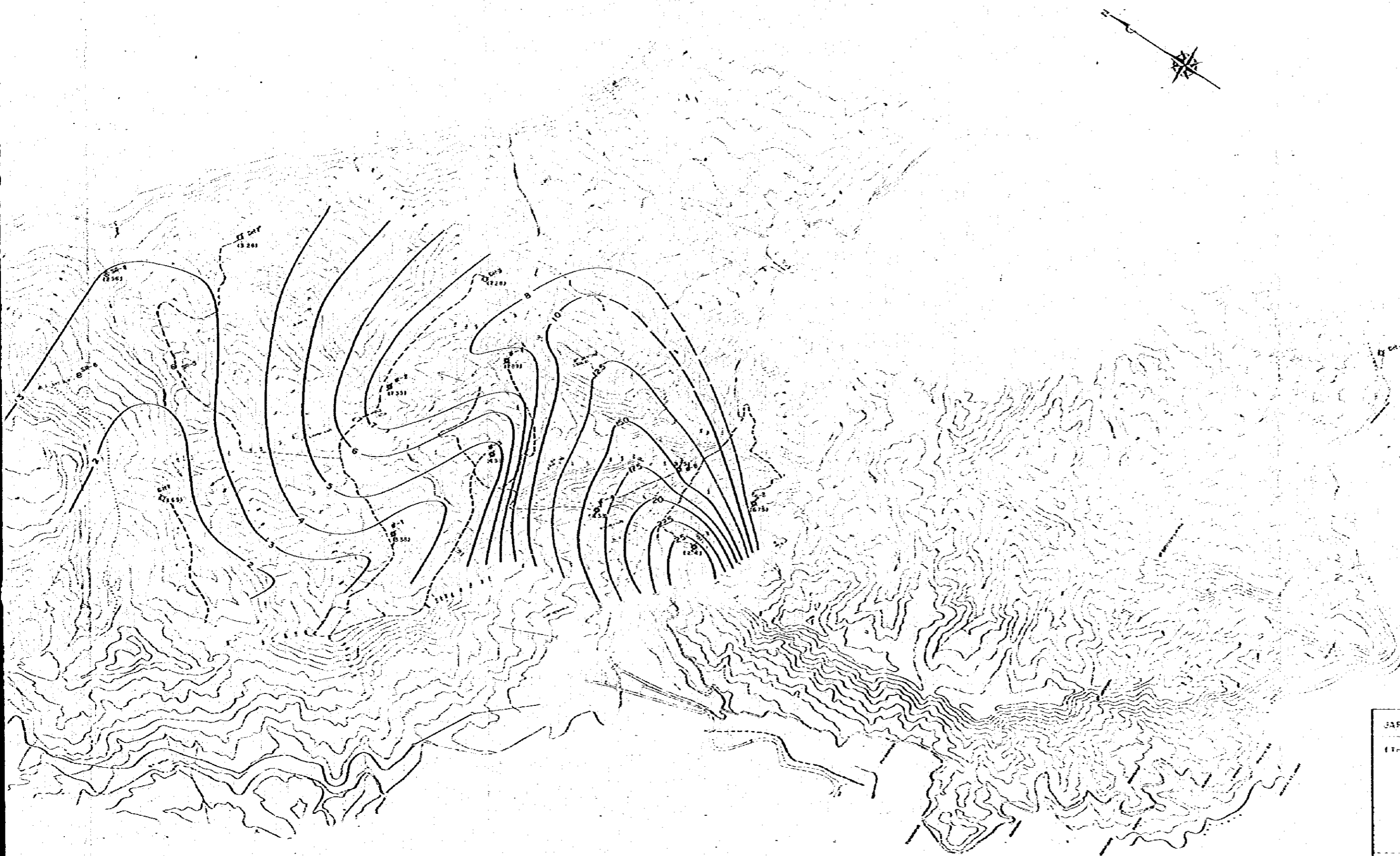
- W-5 Thickness of the formation (M)
- Sand ratio (%)
- 210— Isopach (M)
- 50--- Sand ratio (%)
- DR-1, 2, 3 DR-1, 2, 3
- DR-4, 5, 6 DR-4, 5, 6
- DR-7, 8 DR-7, 8
- --- Road and River

JAPAN INTERNATIONAL COOPERATION AGENCY
(THE SURVEY FOR THE REHABILITATION OF CHINA COAL FIELD)

Isopach and Sand Ratio
in Lower Sawah Tambang Formation

Dwg No.	106	Scale	1 : 10,000
Date	July, 1979	Prepared by	T. Negishi



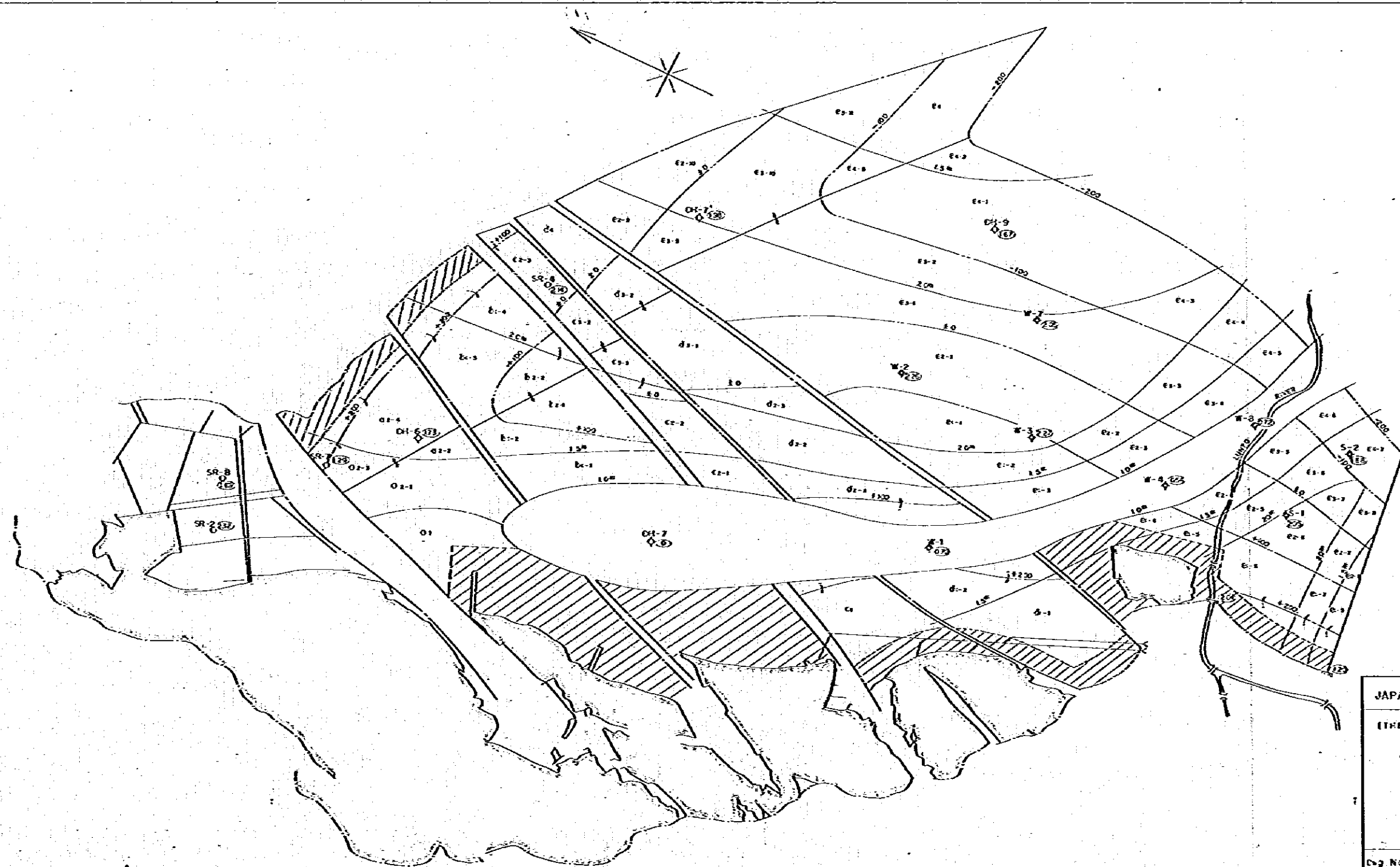


- Legend
- 10 — coal thickness (M)
 - CR-1,2. —◇—
 - SR-2,6. —○—
 - W-1,2. —S-1,2. —◇—
 - Access road

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE FORMALIZATION OF CIVILIAN ECON. REL.)

**Composit Thickness of Coal
 in Sawah Lunto Formation**

Map No.	11	Scale	1:10,000
Date	July, 1979	Prepared by	T. Kogishi

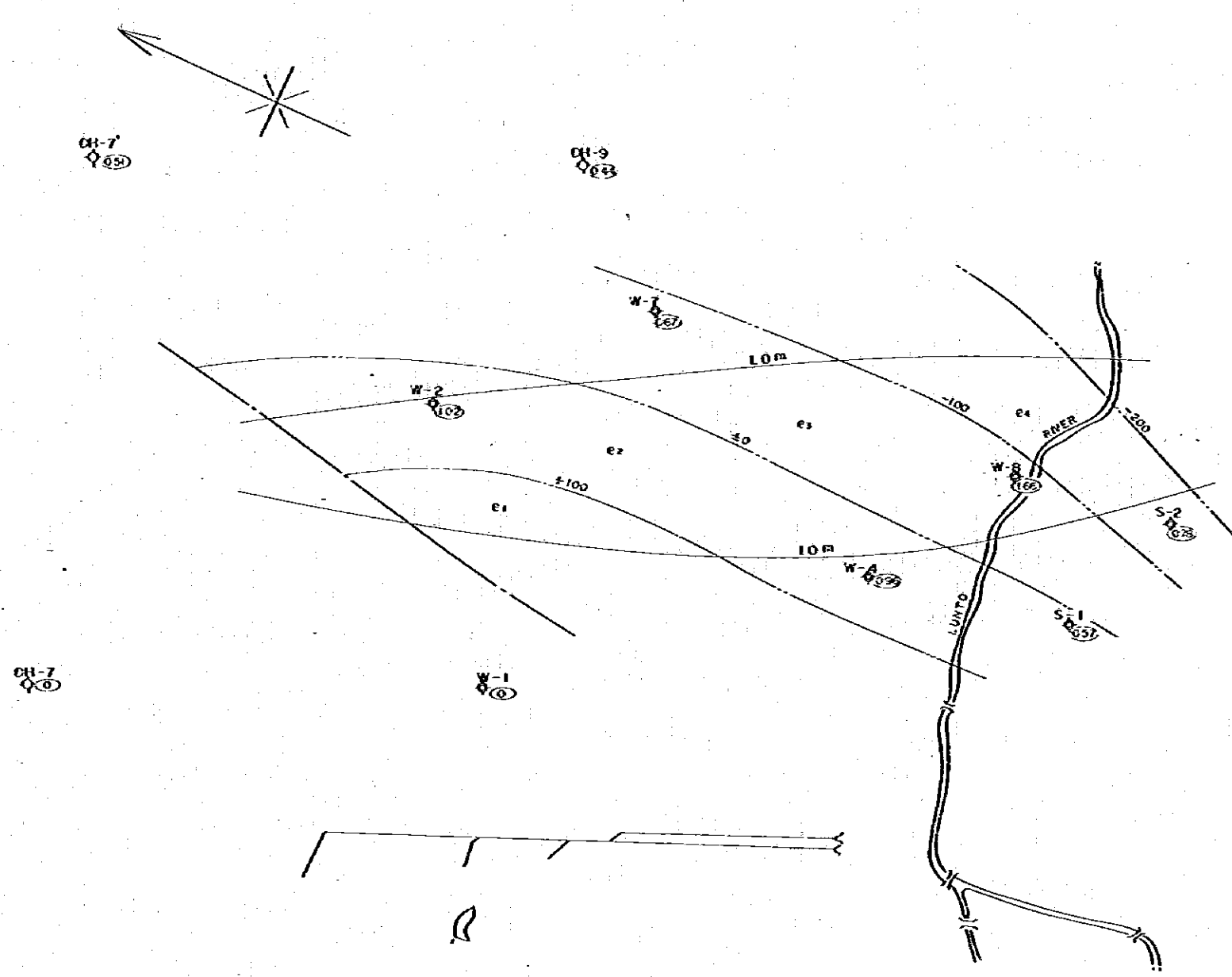


- Legend**
- Surface contour line
 - Isopach line
 - - - Fault
 - - - Outcrop
 - ▨ Unusable
 - Wired out
 - ⊙ Coal thickness
 - e-5 Block No.

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE REHABILITATION OF CMBLN COAL MINE)

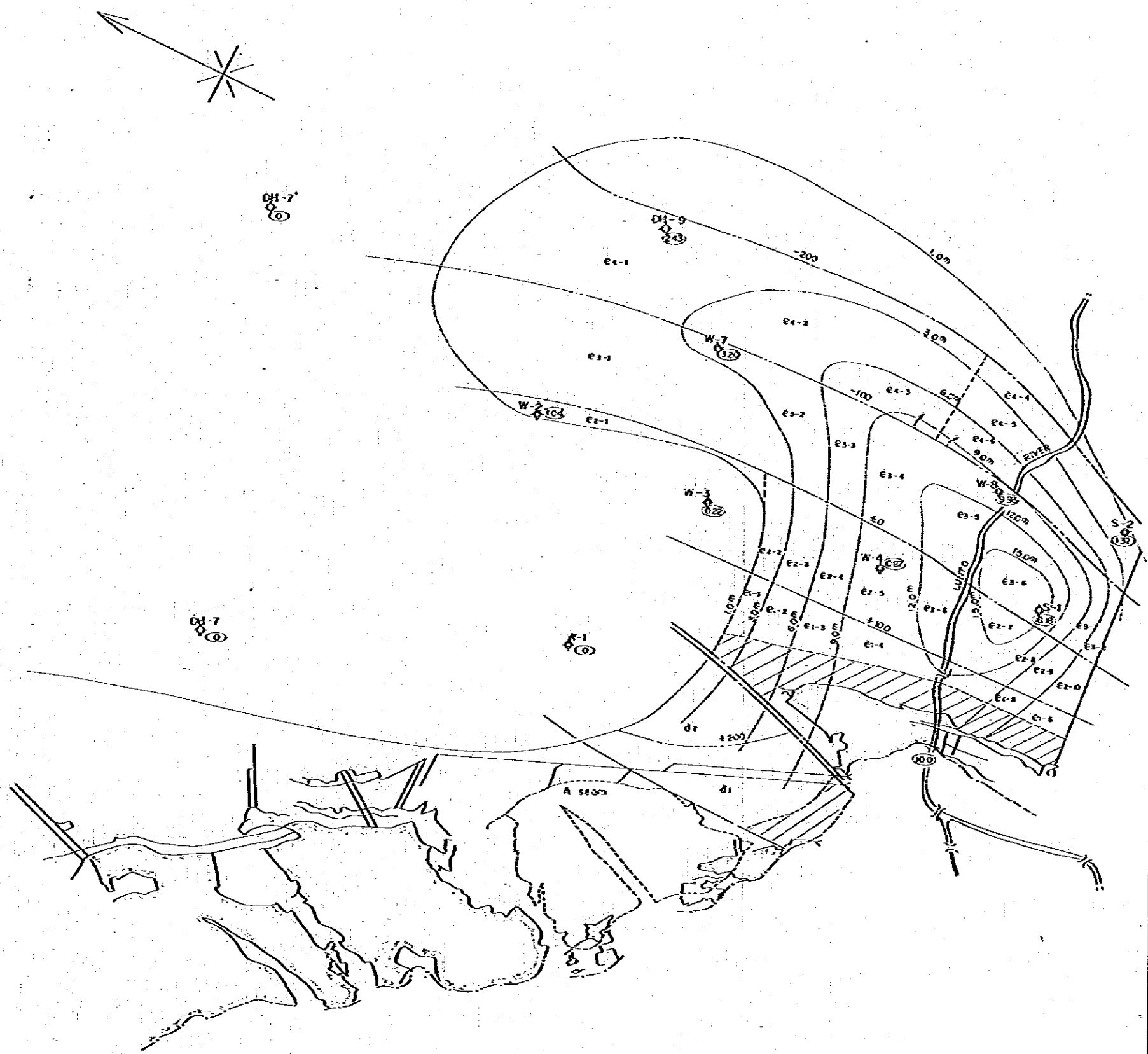
Cool Reserve Calculation Map
A Seam

Dwg No	12 a	Scale	1 : 10,000
Date	July, 1979	Prepared by	K. Ito



- Legend**
- Structure contour line
 - Isogach line
 - Fault
 - Outcrop
 - ▨ Unworkable
 - ▭ Mined out
 - ⊙ Coal thickness
 - e-1 Block No.

JAPAN INTERNATIONAL COOPERATION AGENCY			
(THE SURVEY FOR THE REHABILITATION OF OVELIN COAL MINE)			
Coal Reserve Calculation Map			
B Seam			
Org No.	12b	Scale	1 : 10,000
Date	July, 1979	Prepared by	K, I I o



Legend

- Structure contour line
- Isopach line
- - - Fault
- - - Outcrop
- ▨ Unworkable
- ▭ Mined out
- ⊙ Coal thickness
- E-1 Block No.

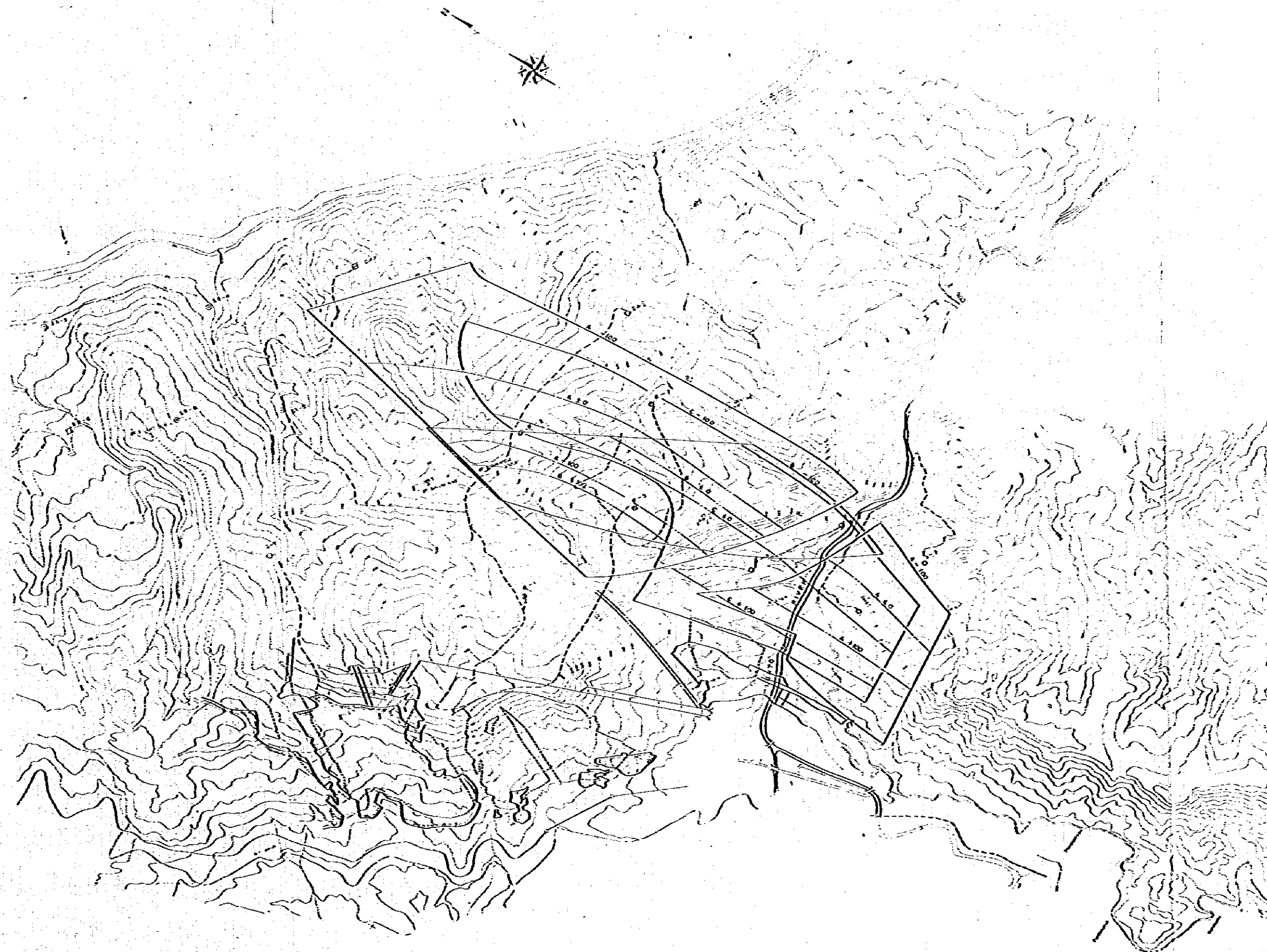
JAPAN INTERNATIONAL COOPERATION AGENCY




(THE SURVEY FOR THE REHABILITATION OF OMBLIN COAL MINE)

Coal Reserve Calculation Map

C Seam

Dwg. No.	12 C	Scale	1 : 10,000
Date	July, 1979	Prepared by	K. Ito

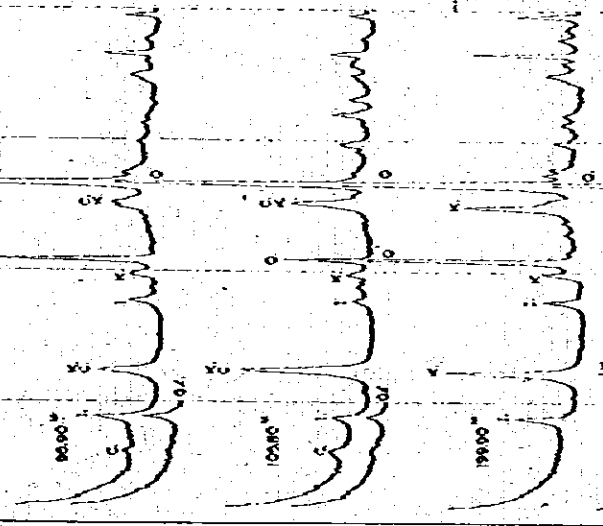


- Legend
-  Area of reserves to be mined at early stage
 -  Mined out area, A seam
 -  Mined out area, C seam

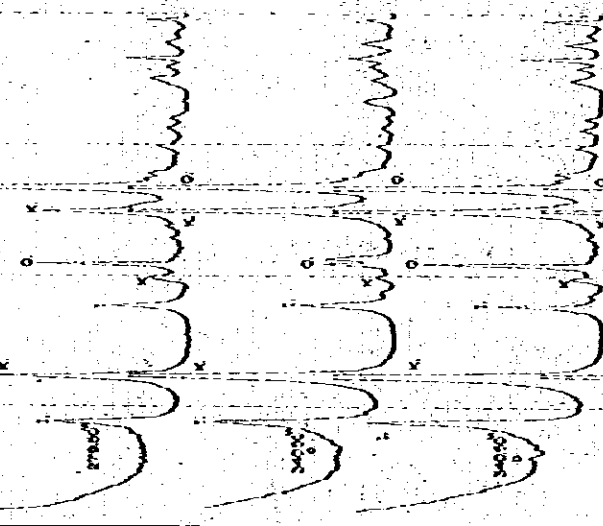
JAPAN INTERNATIONAL COOPERATION AGENCY			
(THE SURVEY FOR THE RE-DEVELOPMENT OF OASIN COAL MINE)			
Proposed Mining Area at Initial Development Stage			
Fig No.	13	Scale	1 : 10,000
Date	July, 1979	Prepared by	K. Ito

W-2

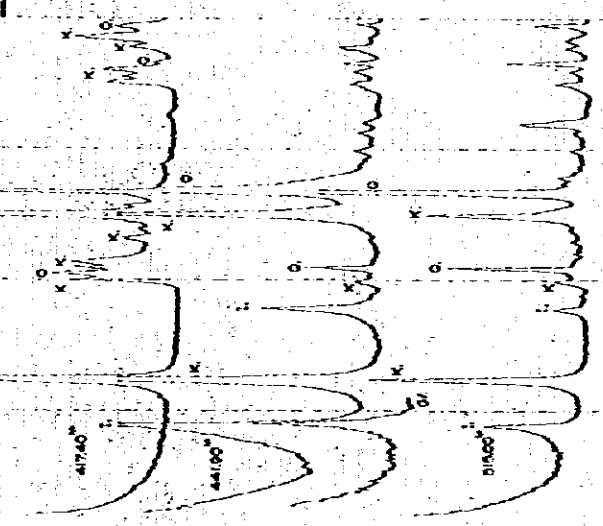
Upper Sash, Tombong Formation



Lower Sash, Tombong Formation



Sash Lulo Formation



W-4

4700

18300

20400

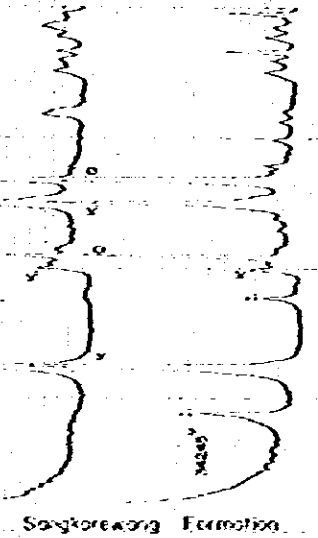
26700

30000

32400

37400

44500



Sangkoreang Formation

(2θ, Kα)

(2θ, Kα)

Legend

- Gl. Treated with glycerol
- X. Illite
- G. Chlorite
- K. Kaolin
- Q. Quartz

JAPAN INTERNATIONAL COOPERATION AGENCY
 (THE SURVEY FOR THE REHABILITATION OF OMBUJIN COAL MINE)

X-ray Diffraction Pattern of Clayminerals
 in W-2 and W-4

Exp. No.	14	Scale	
Date	July, 1970	Prepared by	T. Nagata

W-1 (500.00m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	N 19° E	0° 50'	N 5° E	0° 55'	N 12° E	0° 58'
100	N 42° E	1° 05'	N 35° E	1° 00'	N 39° E	1° 00'
150	N 82° E	0° 55'	N 75° E	0° 50'	N 79° E	0° 50'
200	E	0° 35'	E	0° 25'	E	0° 30'
250	S 37° W	0° 45'	S 60° W	0° 25'	N 40° W	0° 30'
300	S	0° 55'	S	0° 55'	S	0° 55'
350	N 52° E	0° 45'	N 10° E	0° 40'	N 31° E	0° 40'
400	S 22° W	0° 45'	S 37° W	0° 55'	S 29° W	0° 50'
450	N 67° E	1° 00'	N 45° E	1° 00'	N 56° E	0° 55'

W-2 (515.30m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	S	1° 40'	S	1° 20'	S	1° 45'
100	S 55° W	1° 25'	S 30° W	1° 15'	S 43° W	1° 40'
150	S 45° W	2° 25'	S 20° W	2° 40'	S 33° W	2° 35'
200	S 26° W	1° 45'	S 55° W	1° 50'	S 41° W	1° 45'
250	S 47° E	3° 40'	S 7° E	2° 55'	S 27° E	2° 38'
300	S 35° W	4° 45'	S 2° W	3° 00'	S 19° W	3° 38'
350	S 20° W	2° 20'	S 38° W	2° 35'	S 29° W	2° 25'
400	S 1° E	5° 00'	S	0° 55'	S 0° E	4° 58'
450	S 37° W	3° 45'	S 33° W	3° 30'	S 35° W	3° 35'
500	S 55° W	1° 00'	S 40° W	1° 00'	S 48° W	1° 00'

W-3 (499.20m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	S	1° 30'	S 4° E	1° 50'	S 2° E	1° 45'
100	S	2° 40'	S	2° 05'	S	2° 18'
150	S 47° W	2° 40'	S 5° W	2° 20'	S 26° W	2° 45'
200	S 47° W	2° 30'	S 2° W	2° 30'	S 24° W	2° 30'
250	S 37° W	2° 25'	S 7° W	2° 30'	S 22° W	2° 28'
300	S 27° W	2° 30'	S 27° W	2° 30'	S 27° W	2° 30'
350	S 16° W	2° 30'	S 4° W	2° 30'	S 10° W	2° 30'
380	S 19° E	1° 30'	S 7° E	1° 55'	S 13° E	1° 38'
450	N 52° E	2° 00'	N 5° E	2° 00'	N 29° E	2° 00'

W-4 (347.50m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	S 80° W	2° 40'	S 65° W	3° 40'	S 73° W	2° 40'
100	S 37° E	3° 00'	S 47° E	2° 25'	S 42° E	2° 50'
150	N 85° E	2° 30'	S 87° E	2° 30'	S 86° E	2° 40'
200	S 21° W	5° 00'	S 17° E	4° 30'	S 19° E	4° 30'

This crew did not go down to 200m because of abnormal currents

W-7 (537.80m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	S 52° W	0° 45'	N 50° W	0° 30'	S 13° W	0° 38'
100	N 27° W	1° 00'	N 20° W	1° 00'	S 24° W	1° 00'
150	S 30° E	1° 30'	S 37° E	1° 35'	S 34° E	1° 30'
200	N 42° W	1° 30'	N 27° W	1° 30'	N 35° W	1° 30'
250	N	1° 50'	N	1° 50'	N	1° 50'
300	N 40° W	2° 00'	N 60° W	2° 00'	N 50° W	2° 00'
350	N	1° 45'	N 20° W	1° 30'	N 40° W	1° 45'
400	N 14° W	2° 35'	N 20° W	2° 30'	N 17° W	2° 35'
450	N 50° W	2° 00'	N 30° W	1° 55'	N 40° W	1° 58'
500	N 42° W	1° 05'	N 50° W	0° 55'	N 46° W	1° 00'

W-8 (406.25m)

Depth	1st Run		2nd Run		Average	
	Direction	Angle	Direction	Angle	Direction	Angle
50	N	0° 45'	N	0° 45'	N	0° 45'
100	S 50° W	0° 45'	S 37° W	0° 30'	S 44° W	0° 38'
150	N	1° 30'	S 47° W	1° 30'	S 30° W	1° 45'
200	N 37° W	1° 00'	N 27° W	1° 05'	N 32° W	1° 00'
250	S 27° W	2° 00'	S 40° W	2° 00'	S 34° W	2° 00'
300	N 87° E	3° 00'	N 75° E	2° 45'	N 81° E	2° 52'
350	N 87° E	4° 15'	N 75° E	4° 30'	N 81° E	4° 23'
400	N 47° W	3° 30'	N 37° W	3° 00'	N 42° W	3° 15'

