



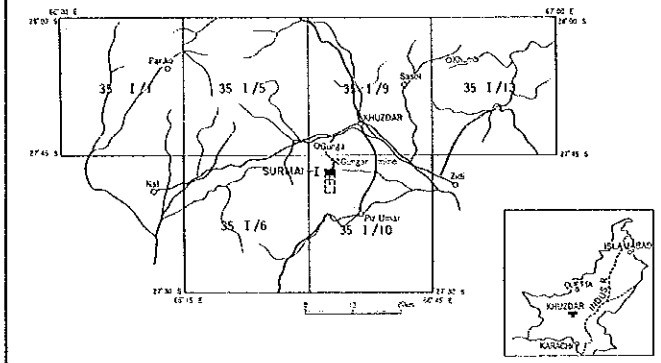
SURMAI - 1

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国若建科5成表

REPORT ON THE COOPERATIVE MINERAL EXPLORATION  
IN  
KHUZDAR AREA OF BALUCHISTAN  
IN  
THE ISLAMIC REPUBLIC OF PAKISTAN  
PHASE I

GEOLOGICAL MAP OF SURMAI SURVEY AREA  
(SURMAI - I)

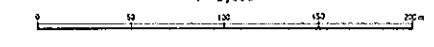


Geophysical and Geological Survey Area  
Geophysical Survey and Detailed Geological Survey Area

MAY - 1987

JAPAN INTERNATIONAL COOPERATION AGENCY  
METAL MINING AGENCY OF JAPAN

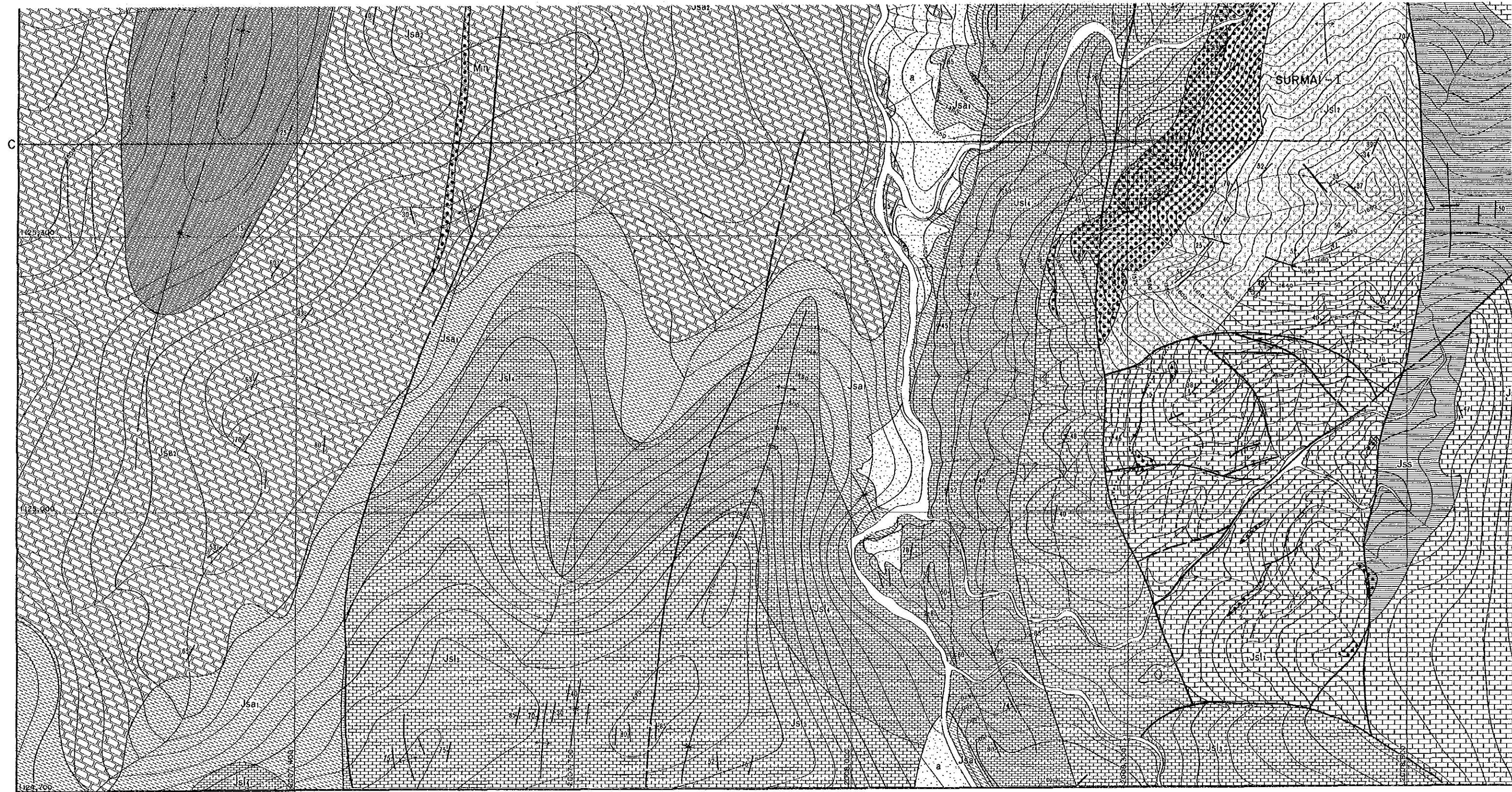
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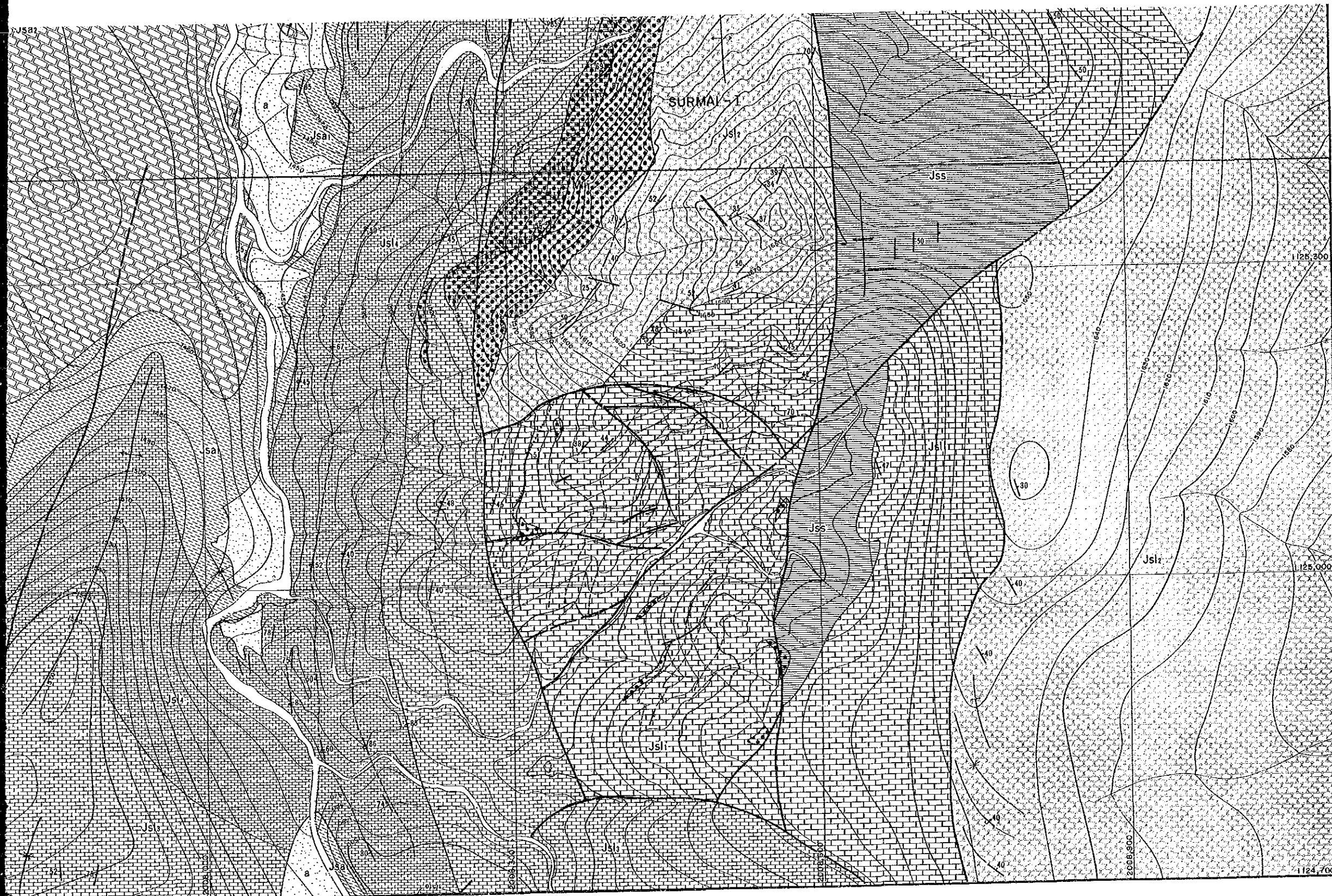


LEGEND

Age	Formation	Member	Unit	Lithological description
QUATERNARY			Q	Alluvium/Collofium
	Anjira		Jsa <sub>3</sub>	Bedded limestone
			Jsa <sub>2</sub>	Interbedded limestone and shale. Limestone thin bedded having ammonite fossils.
LOWER JURASSIC	Anjira		Jsa <sub>1</sub>	Interbedded limestone and shale. Limestone thin to thick bedded contains ammonites.
			Jsl <sub>4</sub>	Limestone grey, thick to massive, mottled with a zone or thin interbedded limestone and shale.
			Jsl <sub>3</sub>	Limestone and shale interbedded. Limestone dark grey, thin to medium bedded, mottled, fossiliferous.
	Shirineh		Jsl <sub>2</sub>	Limestone with very minor shale. Limestone grey thick to massive with some oolitic beds. (is changed to gossan where replaced by mineralizing solutions)
			Jsl <sub>1</sub>	Interbedded limestone and shale with minor marl. Limestone grey, thin bedded, mottled and oolitic occasionally. Shale of black colour.
	Springwar		Jss	Interbedded sandstone and shale
			Min	Mineralization
			Dip (Normal)	
			Dip (Overturned)	
			Anticline	
			Syncline	
			Fault	
			Bedding traces	
			A—A' Profile line	

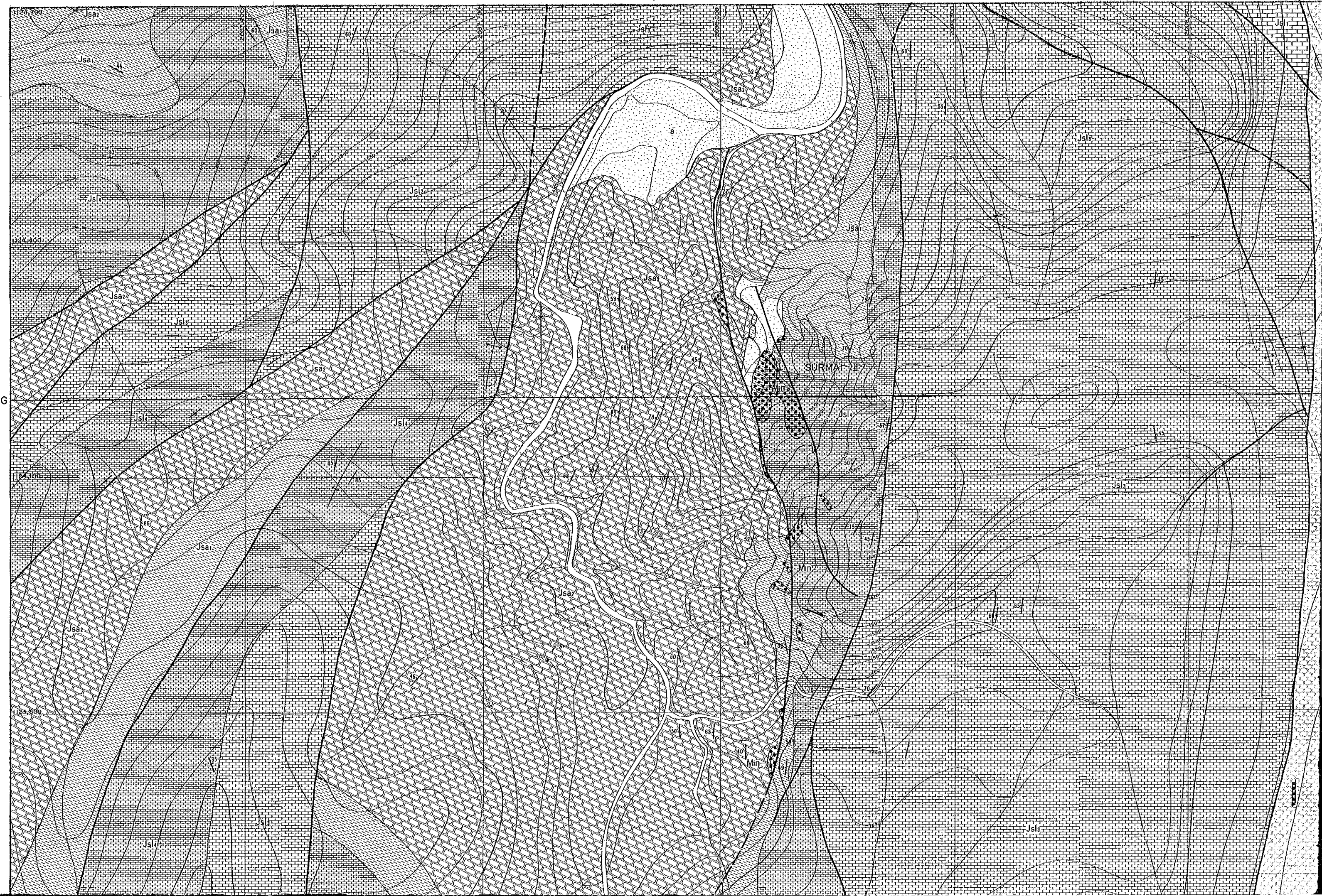




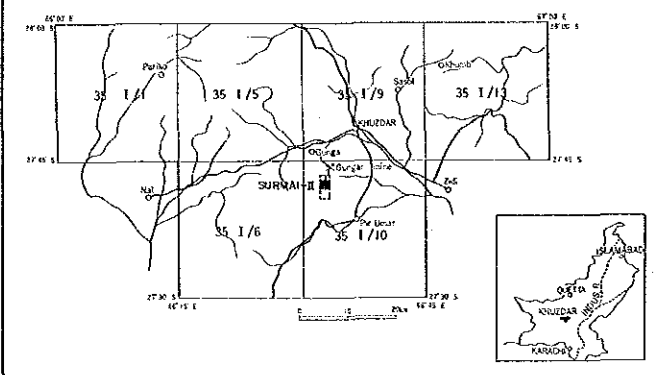


**LEGEND**

Age	Formation	Member	Unit	Lithological description	
QUATERNARY			Q	Alluvium/Colluvium	
			Jsa	Bedded limestone	
LOWER JURASSIC	Anjira	Jsa1	Jsa1	Interbedded limestone and shale. Limestone thin bedded having ammonite fossils.	
		Jsa2	Jsa2	Interbedded limestone and shale. Limestone thin to thick bedded contains ammonites.	
		Jsa3	Jsa3	Limestone grey, thick to massive, mottled with a zone or thin interbedded limestone and shale.	
	Shirinab	Loralai	Jsl1	Jsl1	Limestone and shale interbedded. Limestone dark grey, thin to medium bedded, mottled, fossiliferous.
			Jsl2	Jsl2	Limestone with very minor shale. Limestone grey thick to massive with some oolitic beds. (Is changed to gossan where replaced by mineralizing solutions)
		Jsl3	Jsl3	Interbedded limestone and shale with minor marl. Limestone grey, thin bedded, mottled and oolitic occasionally. Shale of black colour.	
		Jsl4	Jsl4	Interbedded sandstone and shale	
	Jsl5	Jsl5	Mineralization		
	Structural Features				Dip (Normal)
					Dip (Overturned)
				Anticline	
				Syncline	
				Fault	
				Bedding traces	
				A-A' Profile line	



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PHASE I  
GEOLOGICAL MAP OF SURMAI SURVEY AREA  
(SURMAI - II)

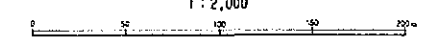


Geochemical and Geological Survey Area  
Geophysical Survey and Detailed Geological Survey Area

MAY - 1987

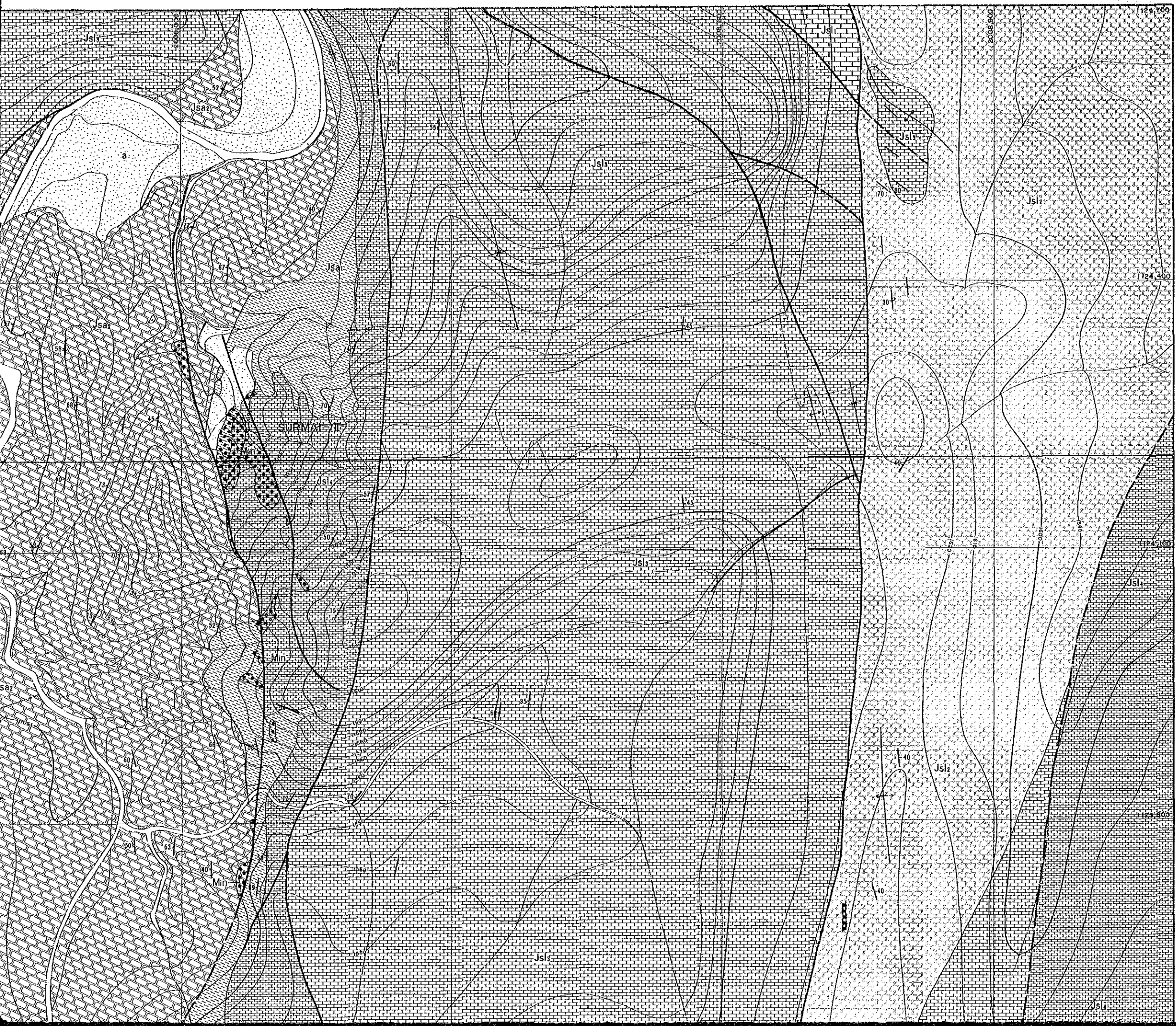
JAPAN INTERNATIONAL COOPERATION AGENCY  
METAL MINING AGENCY OF JAPAN

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LEGEND

Age	Formation	Member	Unit	Lithological description
QUATERNARY			Q	Alluvium/Colluvium
	Anjira		Jsa <sub>3</sub>	Bedded limestone
			Jsa <sub>2</sub>	Interbedded limestone and shale. Limestone thin bedded having ammonite fossils.
		Jsa <sub>1</sub>	Interbedded limestone and shale. Limestone thin to thick bedded contains ammonites.	
LOWER JURASSIC	Shirinaib		Jsl <sub>4</sub>	Limestone grey, thick to massive, mottled with a zone or thin interbedded limestone and shale.
			Jsl <sub>3</sub>	Limestone and shale interbedded. Limestone dark grey, thin to medium bedded, mottled, fossiliferous.
			Jsl <sub>2</sub>	Limestone with very minor shale. Limestone grey thick to massive with some oolitic beds. (Is changed to gossan where replaced by mineralizing solutions)
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	Springear		Jss	Interbedded sandstone and shale
			Min	Mineralization
			Dip (Normal)	
			Dip (Overturned)	
			Anticline	
			Syncline	
			Fault	
			Bedding traces	
			A	Profile line







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Age	Formation	Member	Unit	Lithological description	
QUATERNARY			Q	Alluvium/Colluvium	
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LOWER JURASSIC	Shrinob	Loralai	Jsl <sub>4</sub>	Limestone grey, thick to massive, mottled with a zone or thin interbedded limestone and shale.	
			Jsl <sub>1</sub>	Limestone and shale interbedded. Limestone dark grey, thin to medium bedded, mottled, fossiliferous.	
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		Springwar		Jss	Interbedded sandstone and shale
			Mn	Mineralization	
				Dip (Normal)	
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