Chapter 3 Kamiyobo Area

3-1 Geology and Mineralization

The major geological units of this area are carbonate rocks and argillaceous-arenaceous metasediments, syenite intruding these formations and Quarternary residual sediments (Fig. 19).

Carbonate rocks of the area is that of the upper horizon, namely bedded limestone, and is accompanied by frequently intercalation beds of several millimeter thick of metasandstone and shale.

Argillaceous-arenaceous metasedimentary rocks, which is predominantly of mud sediments, consists of conglomeratic shale and shale, partly intercalates calcareous rock and conglomerate.

Sandy metasediments are composed of sandy-siliceous sandstones.

Small intrusive bodies seeming to be syenite porphyry are sporadically distributed at north-west part and south-east part of the surveyed area.

The geological structure of the area is controlled by anticlinal structure distributing around core of calcareous rocks in north-western area. This anticline strikes NNW-SSE in axis.

Thin bedded ore veins of several millimeter in thickness accompanied by limonite and hematite are sporadically exposed in south-west part, and hematite-magnetite outcrop is observed at south-eastern part of the Area. Chemical analysis detected poor contents of Cu, Pb and Zn from ore of the outcrop.

There is, however, Kamiyobo Mineralized Zone at approximately 600m north of this area, where strong copper mineralization was found during previous works.

3-2 Geochemical Survey

3-2-1 Sampling

635 soils were taken with sampling interval of 100m N-S and 50m E-W from the whole Kamiyobo Area.

3-2-2 *Indicator Element*

On the basis of phase first survey, 3 elements, namely Cu, Pb, and Zn, were used as indicator element.

3-2-3 Processing of Data

The statistical analysis was carried out on the 450 samples, excluding 185 samples collected additionally from south part. The 450 samples were not processed without lithological classification because distribution of the intrusive and carbonate rocks are very narrow in the Area, and the amount of samples from these rock area was less than 10%.

The behavior of each component is close to lognormal distribution. The mean value (M) and the standard deviation (σ) are as follows:

Element	Mean(M)	Log Standard Deviation(σ)
Cu	37	.303627
Pb	29	.317458
Zn	45	.382264
Pb+Zn	77	.344227
Cu+Pb+Zn	117	.320779

The correlation of the components is as follows, and all components have good correlation each other.

Element component	Coefficient of Correlation
Cu-Pb	.76
Pb-Zn	.80
Zn-Cu	.74
Zn-Pb+Zn	.97
Zn-Cu+Pb+Zn	.98
Pb+Zn-Cu+Pb+Zn	.95

The M+σ, M+2σ, and M+3σ calculated from mean value and standard deviation, and threshold value (t) obtained from the cumulative frequency distribution are as follows:

Element	M+σ	M+2σ	M+3σ	Threshold (t)
Cu	74ppm	149ppm	299ppm	62ppm
Pb	61	126	226	76
Zn	108	260	628	100
Pb+Zn	169	373	825	130
Cu+Pb+Zn	244	510	1,068	230

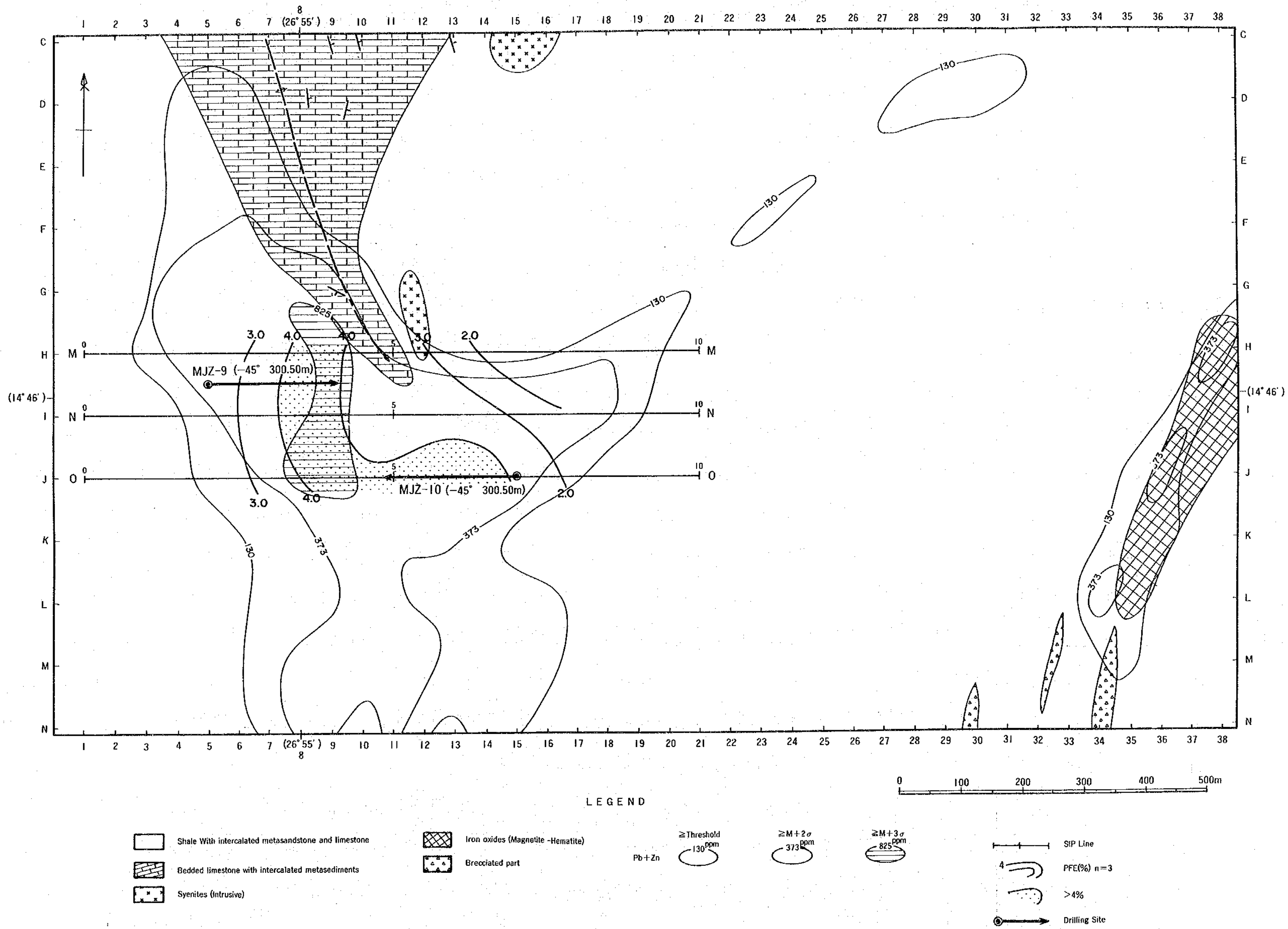

Fig. 19 Lacation Map of Drillings in Kamiyobo Area

3-2-4 Extraction of Anomaly

Similar anomalous zones were extracted by M+σ and t, and threshold values were used for determining the anomalous values as in the first phase survey.

3-2-5 Evaluation of Anomalous zones

The anomalous zones extracted by using the above mentioned anomalous values are shown in Fig. 20 to Fig. 22. It is clearly seen that the anomalous zones of each component coincide very well with these maps.

Two anomalous zones of Pb+Zn were found extensively in the southwest part, and in vein-form in the south-eastern part in this area. The former anomalous zone consists of two directions of elongation NNW-SSE and NE-SW, and NNW-SSE zone is the highest anomaly. On the other hand the latter anomalous zone extends in NNE-SSW direction distributing along boundary of hematite-magnetite outcrops.

The result reveals that the NNW-SSE trending anomalous zone is most promising anomalous zone (refer to Table 6, The List of Geochemical Anomalous Zones in Kamiyobo Area).

3-3 Geophysical Survey (SIP method)

3-3-1 General

In the area of Kamiyobo, two anomalous zones have been delineated by geological and geochemical survey for Cu, Pb and Zn in the second year. The anomaly in the southwest was deemed very promising being composed of many anomalous values in Cu, Pb and Zn. In the third year, a geophysical prospecting of SIP method was conducted to delineate a depth and inclination of mineralized zone and this was followed by a drilling programme.

The area is some 0.3 square kilometers and three lines, M, N and O of 1 km each were laid down to intersect the anomalous zone, as illustrated in Fig. 23.

3-3-2 Survey results

Anomalous zones of 3 to 4%PFE were delineated broadly in the central part of each line, M, N and O. These zones have similar patterns of PFE and a depth of the top was estimated at about 150m. The AR in the anomalous zone ranges from some 300 to 500 ohm-m. The zone has an elongation of a N-S trend. A zone of high PFE more than 4% on the plan at n=3 approximately coincides with the centers of geochemical anomalies (Fig. 28). Anomalous phases ranging from -20 to -30 mrad were observed on each of lines coinciding with the zones of 3 to 4%PFE. With a change of frequency from 0.125 to 0.375, a field of -20 mrad on line M becomes as a field of phase decrease at the west of point 4 or of phase increase, but the area of -20 mrad on line O becomes as a field of phase decrease (Fig. 30). The result of drilling on the PFE anomaly in the field of phase decrease indicated an origin of anomaly to be black shales disseminated with chalcopyrite and pyrite.

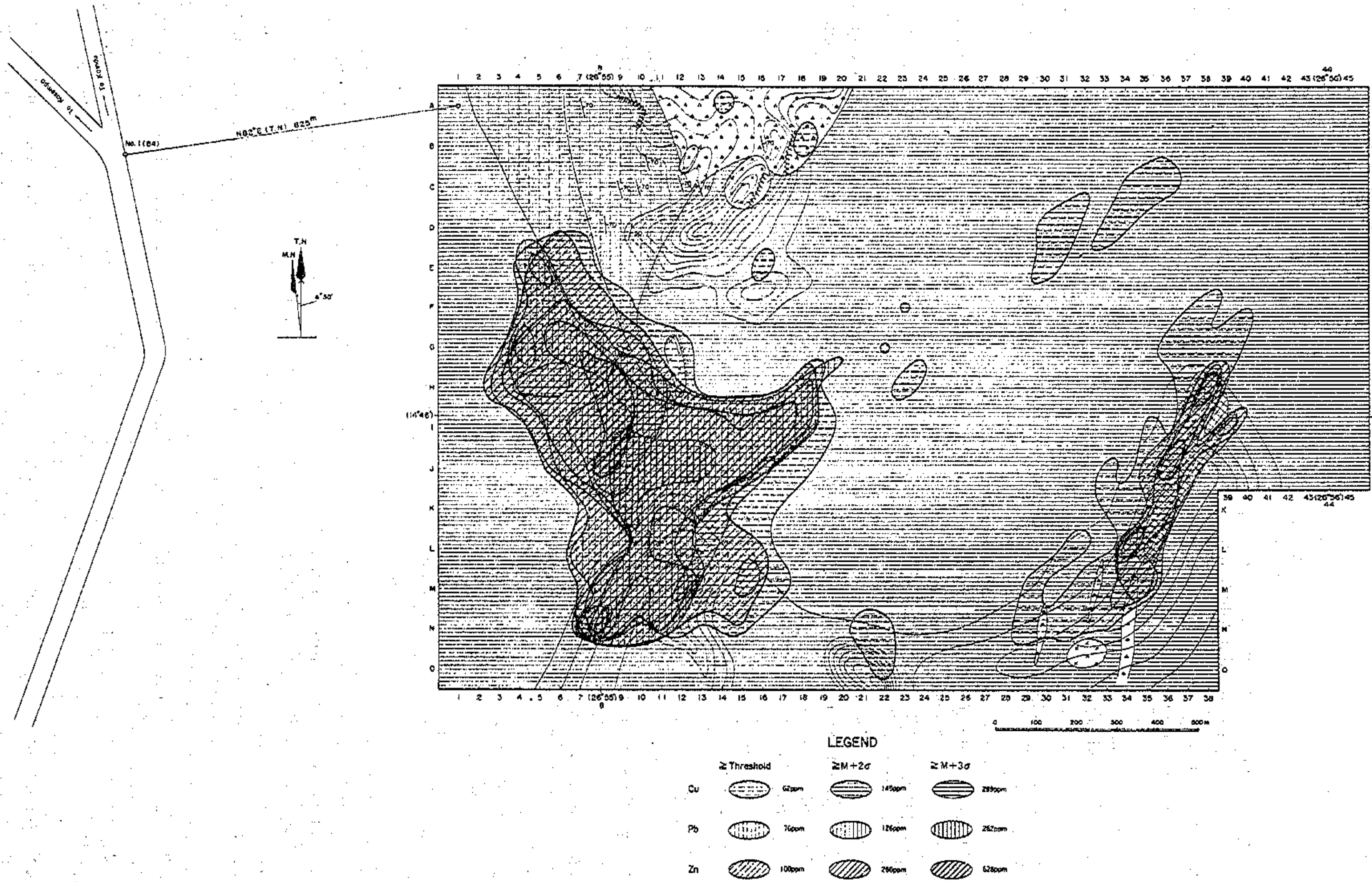

Fig.20 Map of Geochmical Anomaly Zones in Kamiyobo Area(Cu,Pb,Zn)

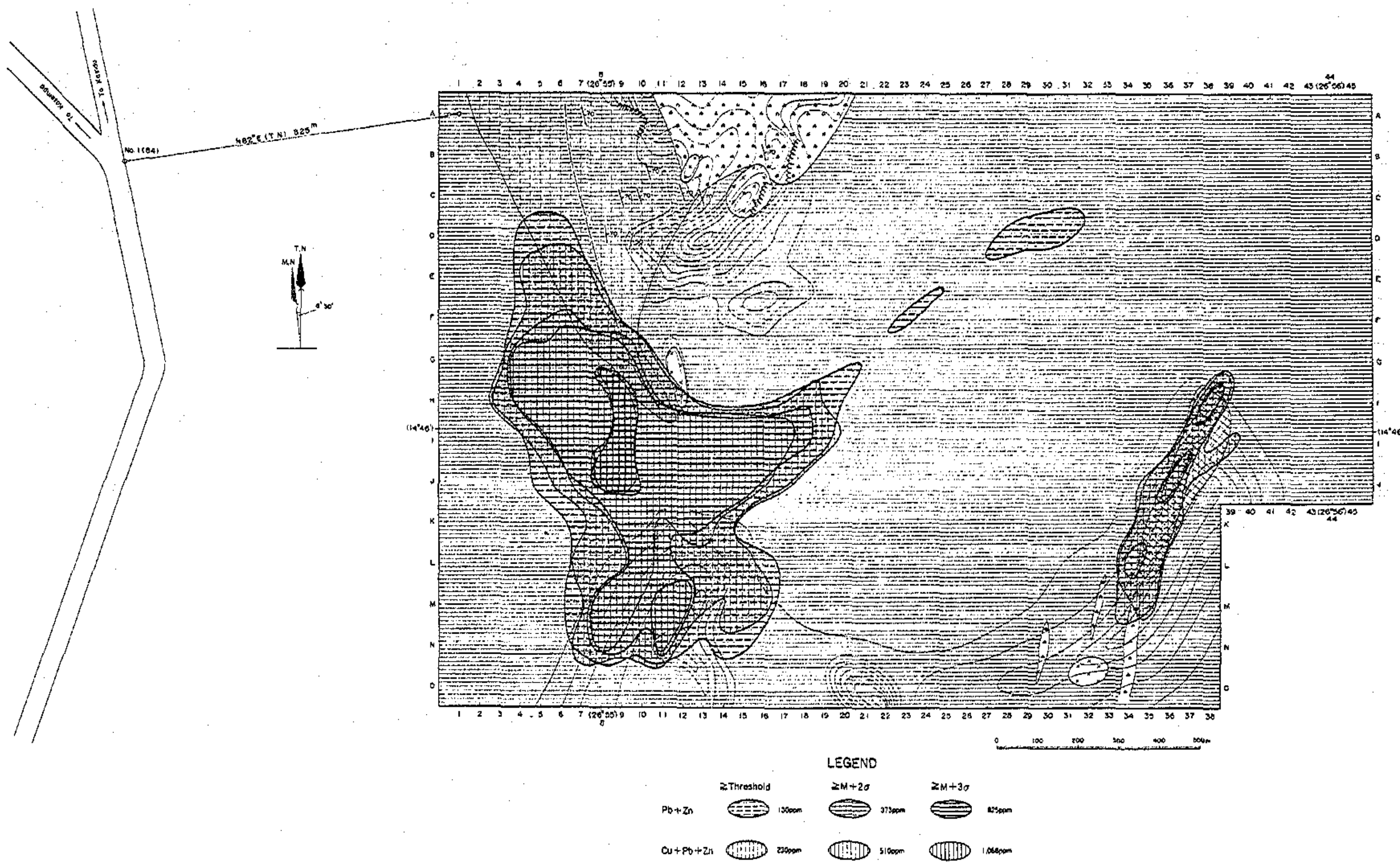

Fig.21 Map of Geochemical Anomaly Zones in Kamiyobo Area(Pb+Zn, Cu+Pb+Zn)

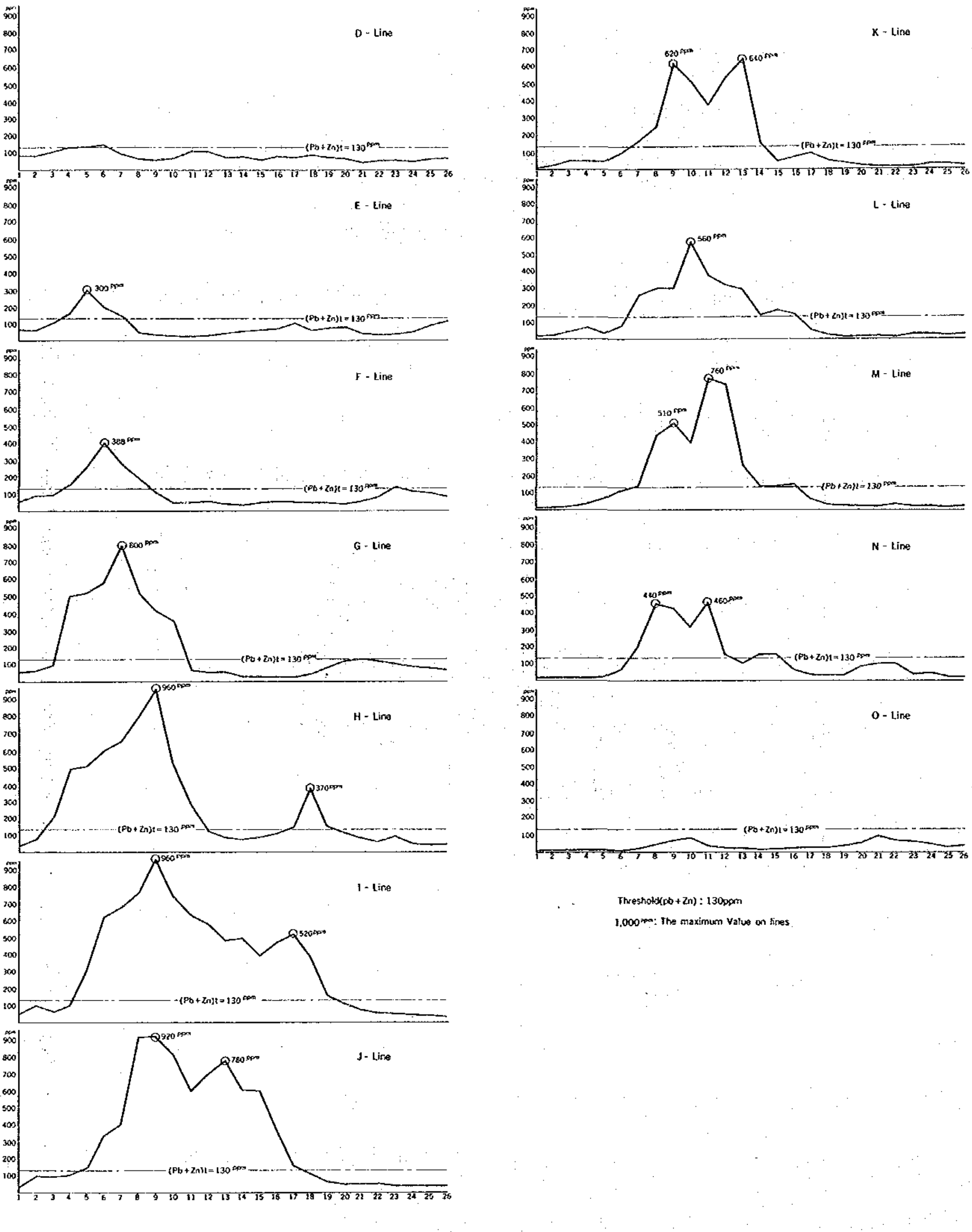

Fig.22 Profile of Geochemical Anomaly in Kamiyobo Area

Table. 6 The List of Geochemical Anomalous Zones in Kamiyobo Area

Anomalous Zone	Amounts of over Critical Value(t)		Maximum Value (ppm)	Extention of Anomalous Zone(m)		Rock	* Evaluation
	Element	≥t		High Anomalous Zone (≥M+3σ)	Whole Zone (≥ t)		
South West NNW-SSE Anomalous Zone	Cu		220	-	1,100	Meta Sedi-ments	A
	Pb		400	250	1,000		
	Zn		800	300	1,050		
	Pb + Zn		960	300	1,150		
	Cu+Pb+Zn		1,180	300	1,050		
South West NE-SW Anomalous Zone	Cu		200	-	900	Meta Sedi-ments	B
	Pb		380	100	950		
	Zn		540	-	900		
	Pb + Zn		780	-	1,000		
	Cu+Pb+Zn		800	-	900		
South West NNW-SSE + NE-SW Anomalous Zone	Cu	91					
	Pb	64					
	Zn	85					
	Pb + Zn	96					
	Cu+Pb+Zn	82					
South East NNE-SSW Anomalous Zone	Cu	33	200	-	900	Meta Sedi-ments	B
	Pb	2	100	-	100		
	Zn	11	600	-	650		
	Pb + Zn	9	700	-	650		
	Cu+Pb+Zn	11	900	-	650		

* A : Progressive prospections necessary

B : To be studied after result of A

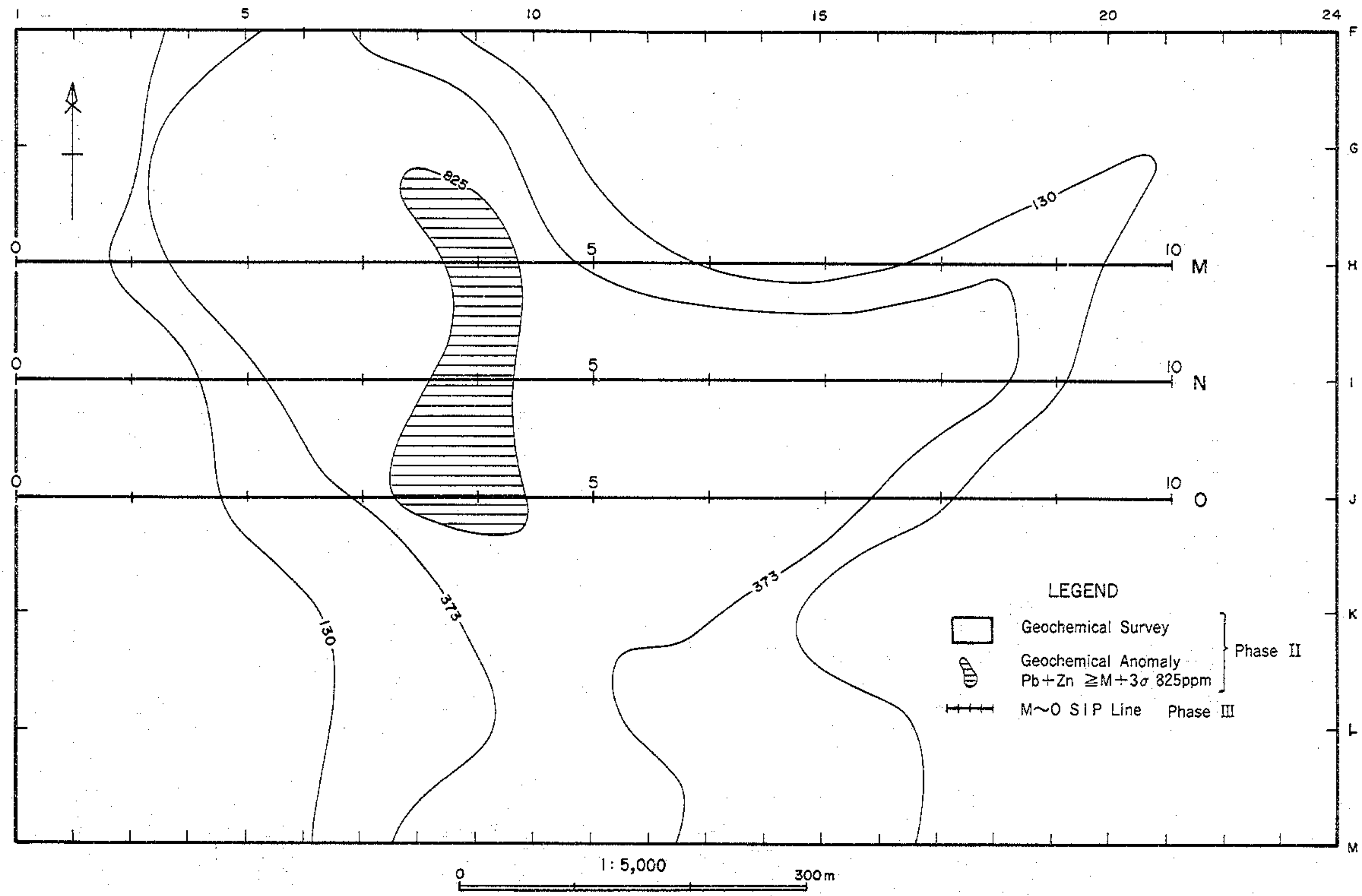

Fig. 23 Location Map of SIP Survey Line in Kamiyobo Area

3-4 Drilling Survey

3-4-1 Purpose and Drill Locations

The drilling survey was aimed at clarifing mineralization at deep part of anomalous center and anomalous peak of geochemical survey, and geophysical anomalous zones in this area.

The locations of the drill holes are shown in Fig. 19, and geological section of drill holes is shown in Fig. 24.

3-4-2 Survey Period and amount of Work

The drilling survey was conducted in the third phase. The details of operation is summarized in the following.

Drill Hole No.	Depth (m)	Inclina- tion	Bearing	Depth of Laterite (m)	Length of Core (m)	Core recovery (%)	Term		Explora- tion Target
							Start- ing	Comple- tion	
JMZ-9	300.5	-45°	90°	6.0	285.2	96.8	23 Aug.	31 Aug.	IP anomaly zone and geo- chemical anomaly zone
MJZ-10	300.5	-45°	270°	19.0	269.8	95.8	4 Sep.	13 Sep.	Ditto

$$\text{Core Recovery} = \frac{\text{Length of Core}}{\text{Depth} - \text{Depth of Laterite}} \times 100$$

3-4-3 Geology, Geological Structure and Mineralization

Lead-zinc mineralization was confirmed at MJZ-9 and MJZ-10 holes. The MJZ-9 penetrated mineralizations of 5.10m in thickness, 378ppm of Cu, 54ppm of Pb, 107ppm of Zn between 154.27m and 160.15m in depth. The hole also caught Pb-Zn showings between 240.20m-244.80m and 253.25m-257.75m in depth. The MJZ-10 confirmed mineralization of 1.20m in width, 0.14% of Cu, 51ppm of Pb, and 190ppm of Zn between 291.40m-293.75m in depth, and several thin Cu-Zn bearing veins are also observed between 145.90m-149.70m at the hole.

These mineralization are divided into two forms. Namely one is chalcopyrite-pyrite-disseminated dolomitic-calcite network veins, and these veins form bedded mineralization concentrating irregularly along bedding planes. The other is calcite or quarts veins disseminating chalcopyrite and pyrite, and they are thin veins, 1-2cm in width, sometimes reach 10cm.

The mineralizations with chalcopyrite and pyrite are emplaced predominantly in black pebble shale or conglomerate, and also are associated with pyrite nodules or layers regarding as sedimentary origin. Galena is rarely observed with naked eye.

Copper concentration in the mineralization is weaker than that of Sable Antelope mineralization, and also the values of Pb/Zn are smaller, but Pb and Zn contents are slightly richer comparing that of Sable Antelope.

3-4-4 Geochemical Anomalies and Mineralized Zone

The most strong geochemical anomalous zone extending NNW-SSE direction corresponds clearly with the part of copper-pyrite mineralization embedded in black pebble shale and conglomerate. The anomalous zone of NE-SW system could be depended on poor-copper mineralization embedded in chert as vein-form.

The extensive anomalous area of larger range than $(M+2\sigma)$-order could be related with broad weak mineralization found in above mentioned rocks.

Geochemical survey on surface soil and drilling survey reveal following results;

Grades of drill cores tend to be generally high of Cu, low of Zn, and very low of Pb, and also ratio of Cu/Pb of drilling core is similarly large, and Zn/Pb is small. The facts suggest that mineralization of the area is rich Cu in the underground deep part, while richer Pb and Zn grade toward shallow part. Rich Pb-Zn mineralization would be existed at eroded part, considering from characteristics of the mineralization in the Karenda Area, though dissolution and depositing behavior of Cu, Pb, and Zn near the surface should be clarified.

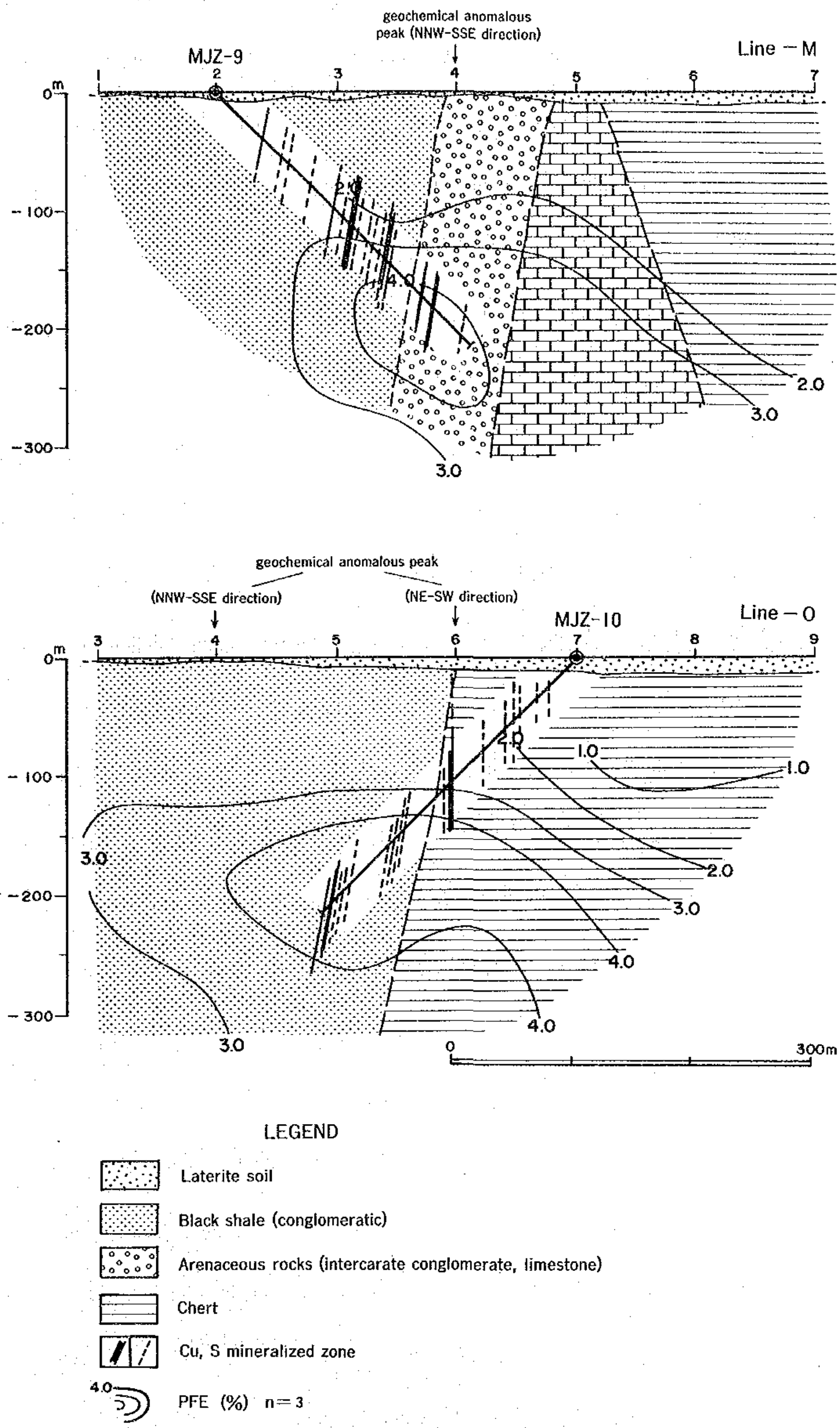

Fig. 24 Geological Section in Kamiyobo Area

PART Ⅳ

SYNTHETIC DISCUSSION

PART IV SYNTHETIC DISCUSSION

1 Geology and Mineralization

1) Karenda Area

The deposits and the mineralized zones in the Area are distributed generally along the tectonic line extending east-west, and their intensity grade and scale intend to depend on that of breccia-fractured zone. A mineralized zone is also embedded along tectonic line of N-S system, and it is supposed that a cross point of the E-W and the N-S systems are also provided possibly a place of these mineralization.

Main country rock of the mineralization is carbonate rock, but the mineralizations are usually embedded near the boundary with metasedimentary rock. Thus the boundary of the both rocks is presumably suited for the place of the mineralization.

Consequently, most mineralized zones in the Area are emplaced in particular structural place under the structural control.

2) Detailed survey Areas

As the result of the drilling survey conducted in the anomalous zones of geophysical and geochemical surveys, no exploitable deposit was discovered in the Karenda Area.

In the Bob Zinc Area, zinc oxide bearing mineralization was found. The mineralization was formed in the brecciated and sideritized dolomite, and has been eroded to present surface. The zinc silicate ore is accompanied by minute-grained chalcopyrite and pyrite, and zinc ores are usually contained in the host rock.

In the Sable Antelope Area, the mineralizations of network and vein types mainly accompanied with pyrite occur in the carbonate rocks. Lead-zinc mineralizations are also observed in some places.

In the vicinity of the Blue Jacket mineralized zone, network type mineralization associated with chalcopyrite-bornite bearing veins is present in the black shale. The mineralization was deposited under high temperature condition, because of presence of exsolution texture of chalcopyrite and bornite. The mineralization occurs in intraformational foldings and breccia-fractured zone, and also are accompanied by bedded pyrite dissemination inferred to be marginal phase of the mineralization and some zinc-lead mineralizations.

In the Kamiyobo Area, there are bedded mineralization, which gathered network veins with chalcopyrite-pyrite dissemination embedded in black shale like beds, and vein type ores. The shale contains nodules and alternated thin layers of pyrite, which infer sedimentary origin.

These copper-zinc-lead mineralizations in the above Areas have characteristically small ratio in the carbonate rocks and large ratio in argillaceous-arenaceous rocks as for as to Cu/Pb, and other hand very large ratio of Cu/Pb or Zn/Pb in strong mineralization in the black shale.

In the consideration with presence of ore form suggested sedimentary origin and close association of copper and lead concentration, the these mineralizations are presumably sedimentary origin.

2 Geochemical Anomaly and Mineralization

1) Karenda Area

The anomalous zones of each Cu, Pb and Zn elements obtained in the Area are correlative with places of known deposits, mineralized zones and showings.

The Zn anomalous zones are harmoniously distributed on the boundary between carbonate rocks and argillaceous-arenaceous rocks, extending E-W direction, and some anomalies occur in tectonic line of N-S system.

The Pb and Zn anomalies exist not only in carbonate rock areas but also in intrusive rock areas.

The Cu anomalous zones are distributed in harmony with tectonic line of E-W system, and some anomalies are present partially in the intrusive rocks area.

As mentioned above, these anomalies of each indicator are distributed not only depend on lithological condition, and but also controlled by tectonic structure.

2) Detailed survey Area

The anomalous zones of all elements are correlative with mineralized zone and showings.

In the Bob Zinc Area, Zn anomalous zones occur in their differ grade in the breccia-fractured part, in accordance with strength or weakness of sideritization. In the Kamiyobo Area, Cu, Pb and Zn anomalies are definitely obtained, relating to bedded or vein mineralized zone, although the ratios of these indicator elements differ from that of drill cores. According to chemical analysis of cores, copper is contained richer in the argillaceous-arenaceous rocks, while zinc and lead are contained rather in carbonaceous rocks.

From the facts mentioned above, it should be considered relationship with characteristics of mineralization and lithological situation in order to evaluate a geochemical anomaly in the Area.

3 Geophysical anomaly and mineralization

3.1 Results of CSAMT method

Geophysical prospecting of Karenda area was initiated by the CSAMT method with point intervals of 400m in an east-west direction and of 600m separations in a north-south direction. The method is efficient for resistivity mapping and the structure of resistivity in this area became nearly evident by this survey.

The apparent resistivity (AR) in the area ranges from 10 to 20,000 ohm-m as shown in the plan of AR at 2,048 Hz (Fig. 10). Generally, the AR is high in areas of limestones and low in areas of meta-sandstones and shales. The contour of 1,000 ohm-m runs approximately on boundaries between areas of limestones and areas of meta-sandstones and shales. These data have been supported by geophysical surveys (IP and SIP) in the 2nd and 3rd year at the southeast of the area A and by the results of drilling. Consequently, the CSAMT method was very effective in geological mapping in the area.

The AR in the vicinity of known mineralized zone widely ranges from 200 to 20,000 ohm-m (Table 7). These values are assumed not to show AR of mineralized zone itself, but to show AR of surrounding rocks. If a direct investigation of mineralized zone is required, a small spacing of measurement points should be chosen in proportion with an extent of mineralized zone.

Table. 7 Apparent Resistivity of Mineralized Zones

Ore Deposit	Apparent Resistivity (ohm-m)
Bob Zinc	4,640 - 10,000
Sable Antelope	10,000 - 21,500
Wonder Rocks	464 - 1,000
Crystal Jacket	2,150 - 4,640
Kakuyo	2,150 - 4,640
Maurice Gifford	1,000 - 2,150
Colonel	1,000 - 2,150
True Blue	2,150 - 4,640
Silver King	1,000 - 2,150
Blue Jacket	1,000 - 2,150
North Star	215 - 464

3-2 Rock properties

Measurements of physical properties of rock and ore samples conducted in the second and third year show that high PFE and phases are observed in ores of Sable Antelope, Many shales, sandstones with pyrite and chalcopyrite and limestones. Features of phase spectra, especially in the field of low frequency from 0.125 to 3 Hz are summarized as follows.

Table. 8 Phase Characteristics of Rock and Ore Samples

Rock and ore	Phase		
	0.125Hz	0.125 to 0.375Hz	1 to 3Hz
Ores of Sable Antelope with chalcopyrite and pyrite	larger than -20mrad	increasing or stable	not definite
Black shales with chalco-pyrite and pyrite	ditto	decreasing or stable	ditto
Black shales	ditto	slightly increasing	slightly increasing
Sandstones & Limestones with pyrite dissemination	ditto	decreasing	decreasing
Sandstones & Limestones	smaller than -20mrad	increasing	increasing

Many of black shales disseminated with chalcopyrite and pyrite show decreases in phase at a change of frequency from 0.125 to 0.375 Hz. Many of ores from Sable Antelope show increases in phase in accordance with an increase of frequency from 0.125 to 0.375 Hz. The difference in phase characteristics between rocks and ores may be useful in analysis of geophysical anomalies.

3-3 Results of IP and SIP surveys

Six holes were drilled on anomalous zones obtained by the IP and SIP methods, namely being of MJZ-7, 8, 9, 10, 11 and 12.

MJZ-7 and 8 were put down to investigate anomalous zone No.3, which was found in the second year (Figs. 25 and 26). Black shales disseminated with chalcopyrite and pyrite were intersected within the zone of 4%PFE and 300 to 1,000 ohm-m in AR. Anomalous zone No.3 shows similar values in PFE and AR on lines A, B and C. Phase characteristics of anomaly are different on line I and line G (Fig. 17). All phases in the anomaly on line I decrease at the change of frequency from 0.125 to 0.375 Hz but phase characteristics on line G yield two fields, one being of phase increase on the south-western side of point 15 and another being of phase decrease on the north-eastern side of the same point. A part of the field of phase

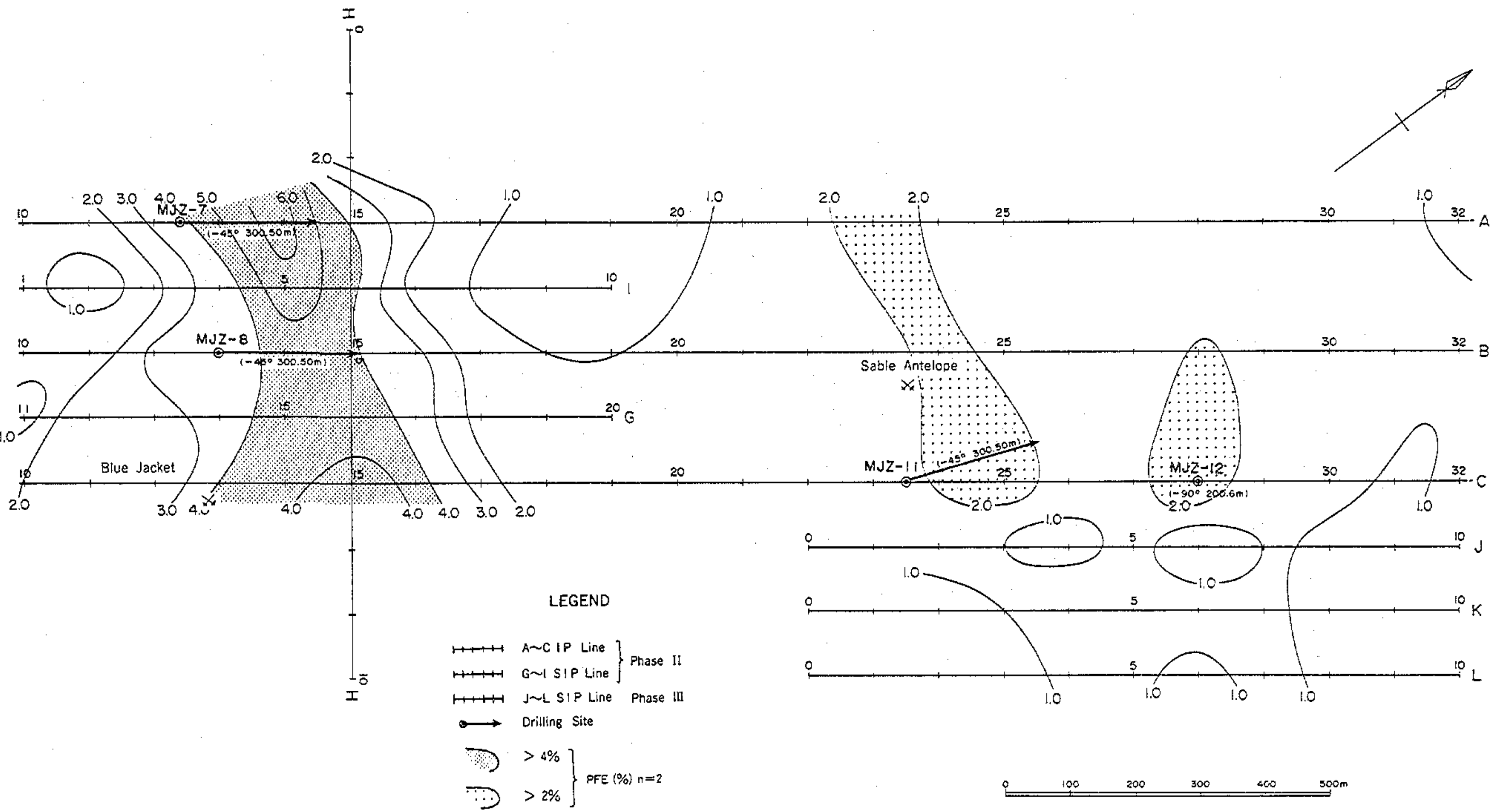

Fig.25 Geophysical Anomaly & Drilling Site in Sable Antelope Area

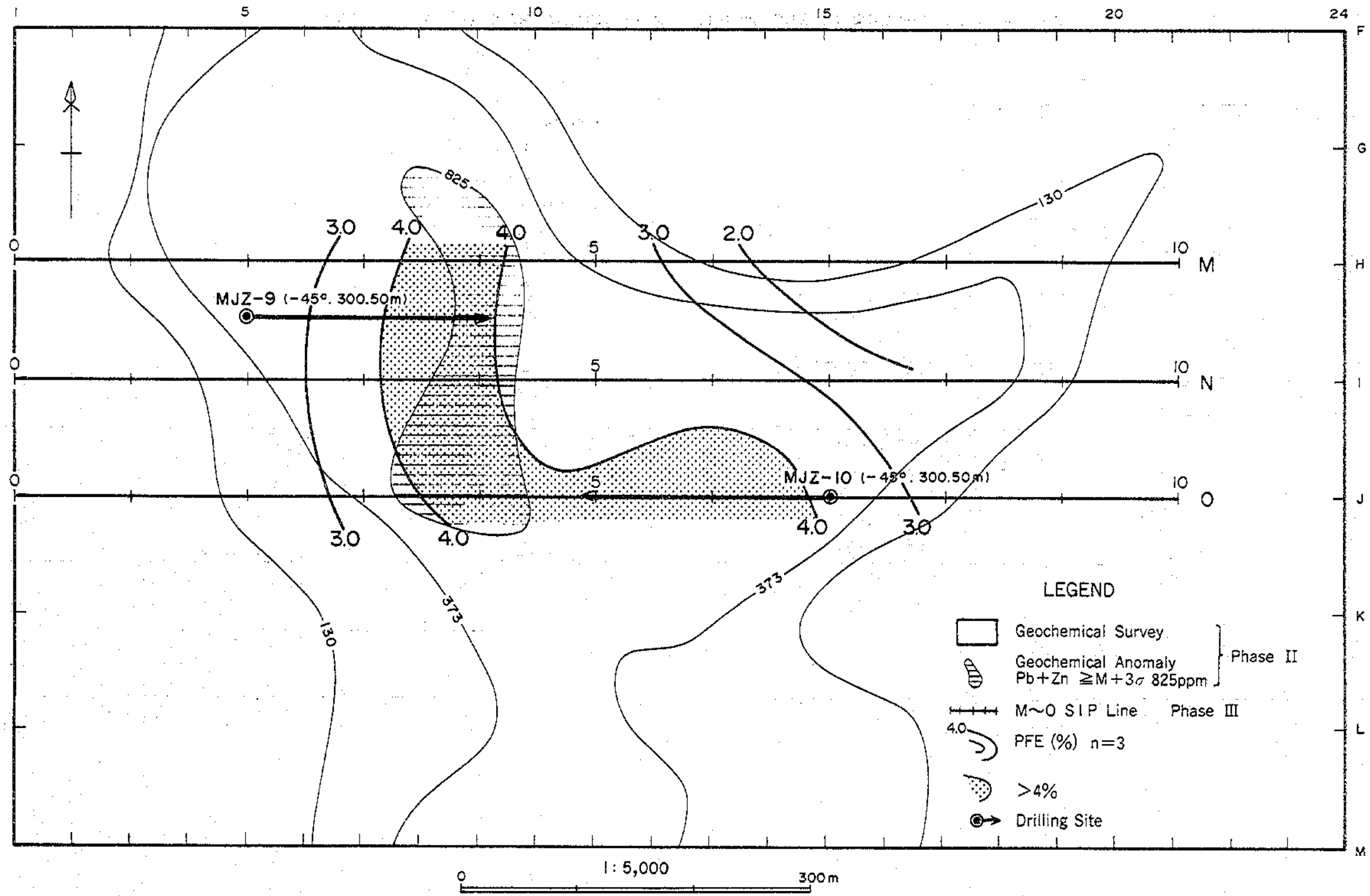

Fig. 27 Geophysical Anomaly & Drilling Site in Kamiyobo Area

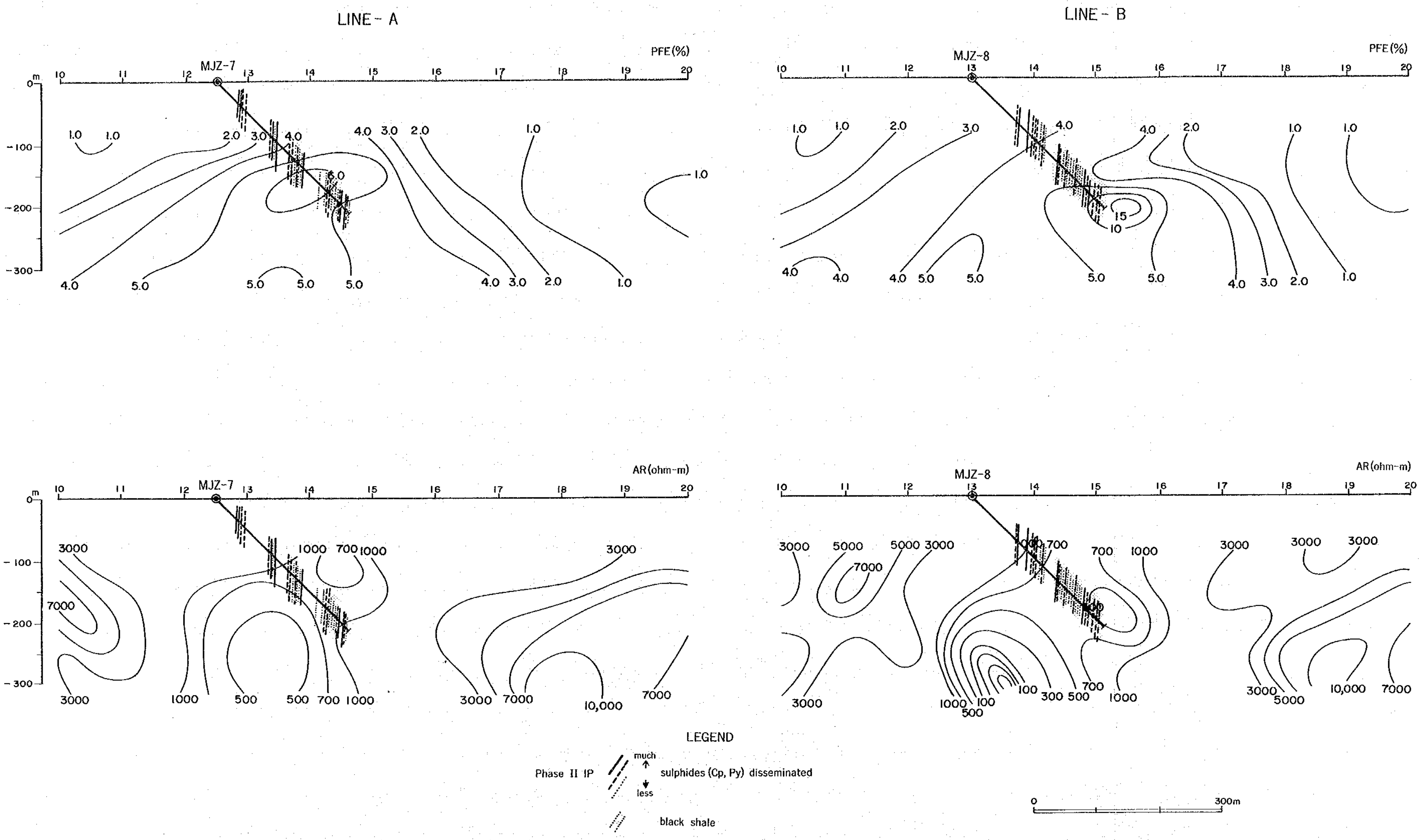

Fig. 26 Geophysical Anomaly & Drilling Result in Sable Antelope Area (I)

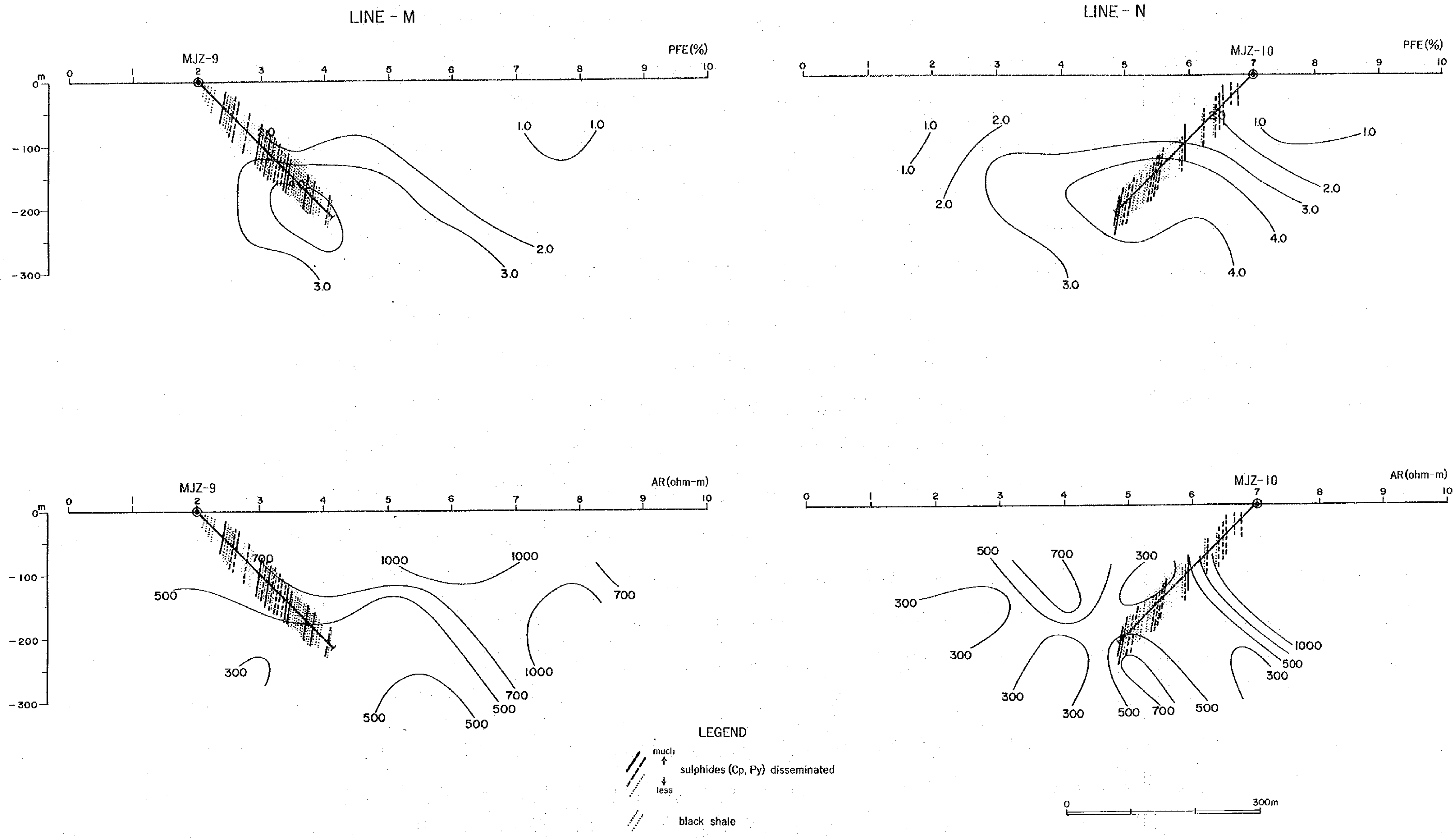

Fig. 28 Geophysical Anomaly & Drilling Result in Kamiyobo Area

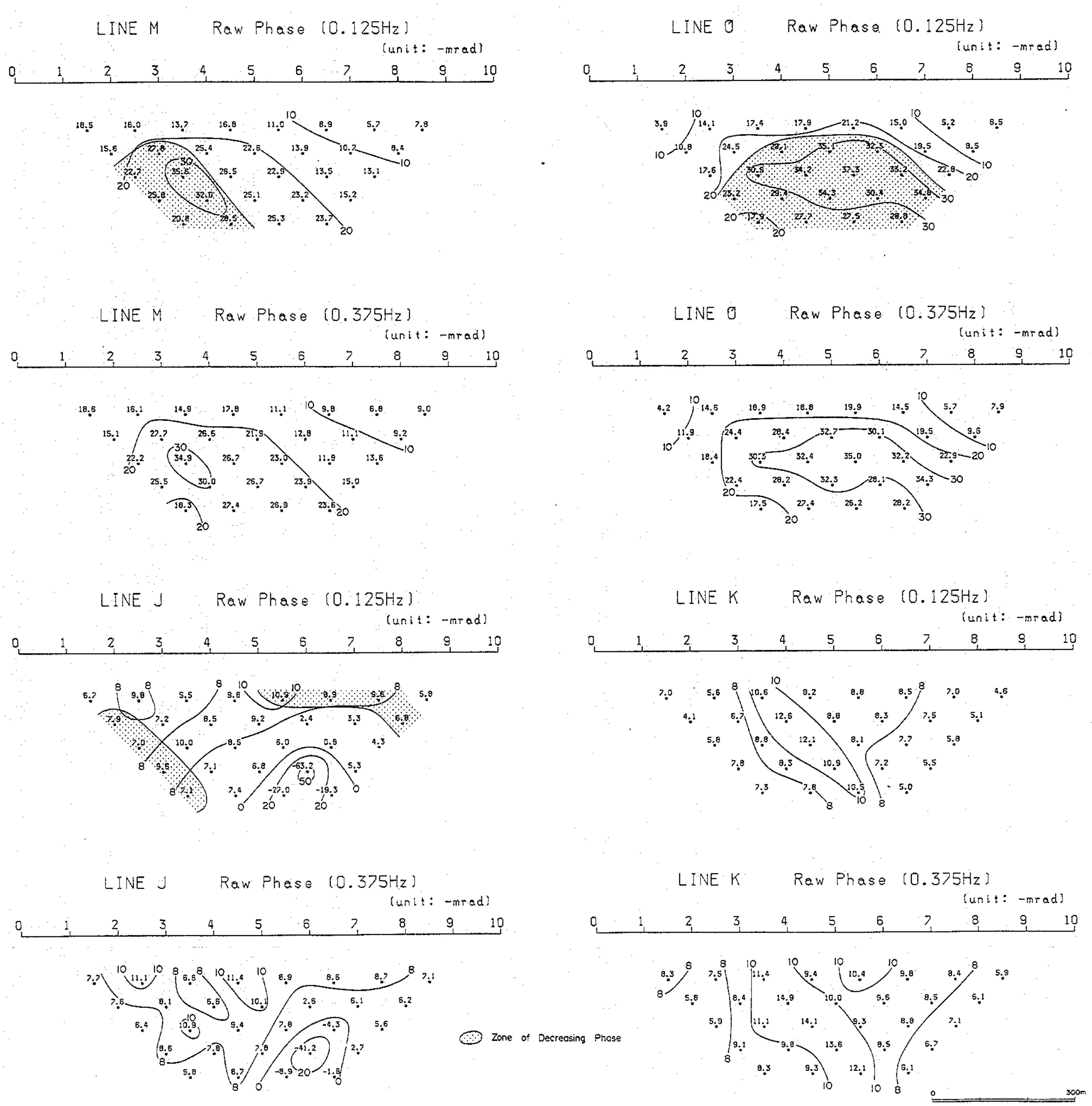

Fig.29 Phase Characteristics in the Low Freguency Rauge LineJ, K, M, O

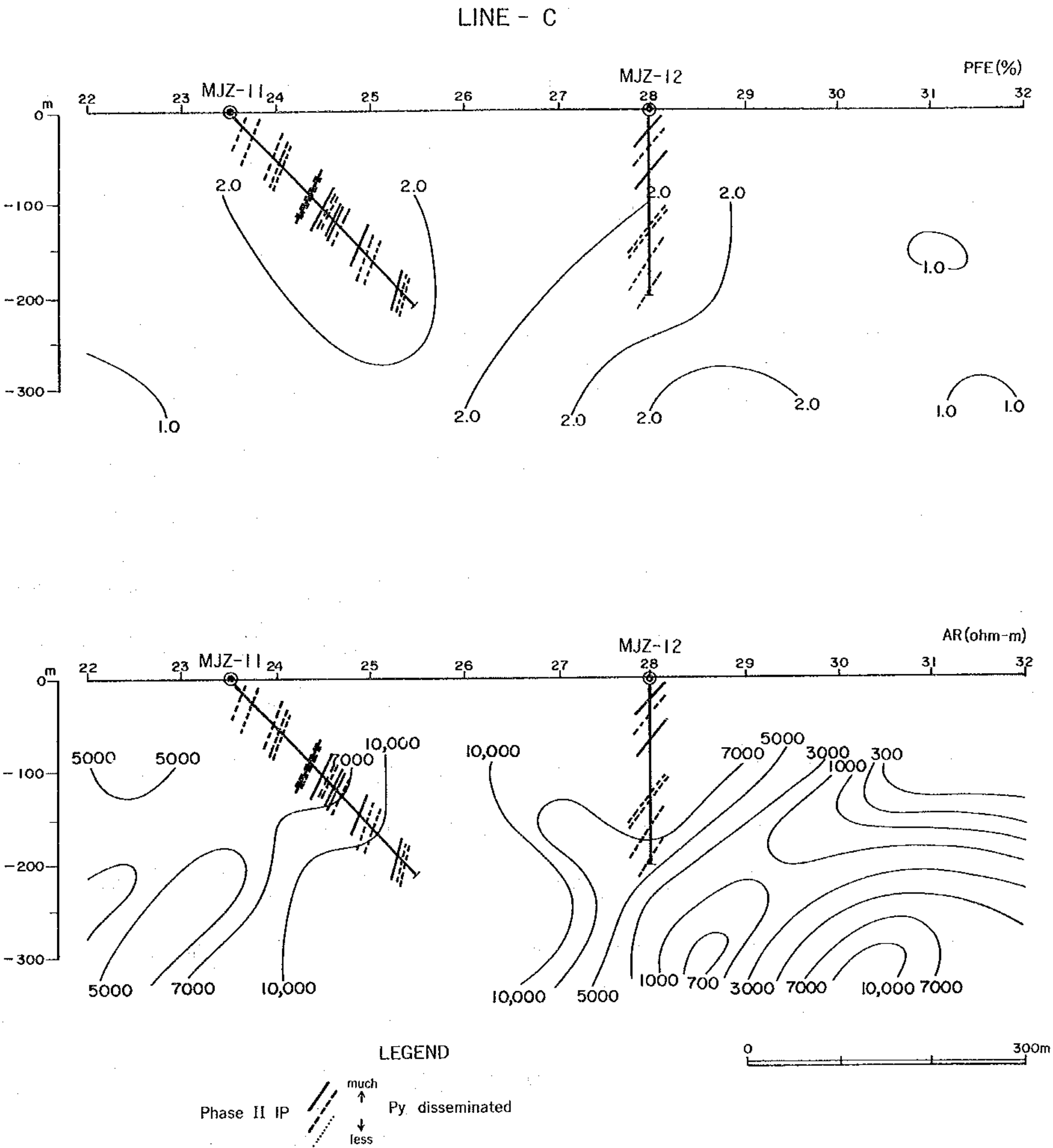

Fig. 30 Geophysical Anomaly & Drilling Result in Sable Antelop Area (II)

increase becomes as a field of phase decrease at the change of frequency from 1 to 3 Hz. These phase characteristics are interesting because of similarity with those of ores from Sable Antelope.

MJZ-9 and 10 were sunk in Kamiyobo on geophysical anomaly of 3 to 4%PFE and 300 to 500 ohm-m in AR. The anomalous zone is originated from black shales and pebble-bearing shales disseminated with chalcopyrite and pyrite, similarly with the origin of anomalous zone No.3 (Figs. 27 and 28). Phase characteristics on lines M, N and O are deemed to be same with those on line I, namely the most of PFE anomalies falls in the field of phase decrease at the range from 0.125 to 0.375 Hz. A part of anomaly on line M between points 4 and 5 shows a zone of phase increase, and phases in this zone also increase at a change from 1 to 3 Hz, differing from spectra at the southwest of point 15 on line G. Therefore, it can be assumed a possibility in which the PFE anomaly on line M is separated into a field of dense dissemination with chalcopyrite and pyrite and a field of weak impregnation of these minerals (Fig. 29).

MJZ-11 and 12 were drilled on anomalies No.1 and No.2, discovered in the 2nd year. The anomalous zone of 2 to 3%PFE and 7,000 to 10,000 ohm-m seems to be originated from limestones with pyrite impregnation (Fig. 13). In estimation of phase characteristics of anomalous zones Nos. 1 and 2, a field of phase decrease at a change of 0.125 to 0.375 is observed on line J, even if phases are small, but a field of phase increase only is noticed on line K. Consequently, anomalous zones No.1 and No.2 are assumed to have entirely disappeared on line K (Fig. 29).

4 Synthesis

1) *The mineralization in the investigated Area is synthesized from the* results and informations obtained through geological, geochemical and drilling surveys.

① The deposit and mineralized zone which are embedded in carbonate rocks and argillaceous-arenaceous rocks are noteworthy among them.

② The breccia-fractured zone provided most suitable environment to deposit ores, and tiny fractures developing along the strata are also favourable place for mineralization.

③ The forms of mineralization are classified into two types, namely fine network veinlets (including partly vein type) and bedded form having sedimentation texture.

④ Copper mineralization tends to be emplaced in the argillaceous-arenaceous rocks, on the contrary zinc and lead mineralization in the carbonate rocks. Pyrite occurs in the both rocks. Ratio of Cu/Pb is larger in the argillaceous-arenaceous rocks, and smaller in the carbonate rocks.

⑤ Copper, zinc and lead existing in network vein and veinlet were removed from country rocks, and secondly concentrated to the present places.

⑥ Accordingly, genesis of the main deposits and mineralized zones in the investigated Area seems to be due to removal and secondary concentration of the elements.

⑦ Mechanics and genesis of the mineralization are generalized as follows;

(a) Sedimentation of the carbonate rocks, and the precipitation mainly of lead, zinc and iron sulfide

(b) Sedimentation of the argillaceous-arenaceous rocks, and precipitation mainly of copper, zinc, lead and iron sulfide
(c) Folding movements and igneous activities
(d) Formation of brecciated and fractured zone (igneous activity and tectonic movement)
(e) Sulfide Mineralization (movement and accumulation of copper, lead, zinc and etc.)
(f) Folding, faulting
(g) Uplifting and erosion
(h) Formation and dispersion of secondary minerals

2) Following information will be useful in survey or analysis of a similar field.

① Efficiency of CSAMT method on geological mapping has been confirmed in areas of limestones and metasediments. Application over an area of poor exposure may be possible.

② Although an existence of black shales with chalcopyrite and pyrite dissemination has been revealed, discrimination of massive ore from black shales presents an important subject in the future. Several approaches are provided as follows.

(a) Found is a possibility that phase spectra at a range of low frequency from 0.125 to 3 Hz may be effective in discrimination of IP origins.
(b) Utilization of resistivity data will be helpful. The AR in the area of black shales ranged from 300 to 800 ohm-m but lower AR may be expected in an area of massive ores. An examination with metal factor (MF) becomes necessary. Attention should be given to a similarity in patterns of PFE and of AR on pseudosections.
(c) When a good topographic condition is available, the detailed gravity survey on detected IP anomaly may discriminate a difference between black shales and massive ores of high density.

PART V

CONCLUSION AND RECOMMENDATION

PART V CONCLUSION AND RECOMMENDATION

1 Conclusion

The investigation consisting of geological, geochemical and geophysical surveys were conducted in the Karenda Area, and drilling survey was successively performed in the Bob Zinc, Sable Antelope and Kamiyobo Areas to aim at clarifying emplacement condition of the mineralizations on the basis of results of the investigation. The results are summarized as follows;

1) The investigation in the Areas mentioned above resulted in finding no economically valuable deposits.
2) However, the surveys have elucidated characteristics of mineralization, and the genesis and history of the mineralization in the Karenda Area are synthesized as follows;
   (a) Sedimentation of the carbonate rocks, and the precipitation mainly of lead, zinc and iron sulfide
   (b) Sedimentation of the argillaceous-arenaceous rocks, and precipitation mainly of copper, zinc, lead and iron sulfide
   (c) Folding movements and igneous activities
   (d) Formation of brecciated and fractured zone (igneous activity and tectonic movement)
   (e) Sulfide mineralization (movement and accumulation of copper, lead, zinc and etc.)
   (f) Folding, faulting
   (g) Uplifting and erosion
   (h) Formation and dispersion secondary minerals
3) Among IP anomalous zones detected by geophysical survey, some zones result from pyrite-disseminated black shale. However it is pointed out that there is difference of phase characteristics between ore and rock in low frequency domain according to the result of laboratory test on drilling cores. The fact is useful to analyze IP anomaly in a mineralization similar to the Karenda Area.

2 Recommendation for the future

From the results of the investigation, it is concluded that economically valuable deposit might be scarecely emplaced in the surveyed area.

However, in the occasion of a prospecting and exploration on a similar type of the Karenda Deposit in future, it is desirable that the survey would be performed, refering to and applying the information of characteristics of the mineralization and analytical data of the geophysical survey obtained through this investigation on the Karenda Area.

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