3-6-2 Sarami area

Fig.II-3-21 shows the compiled geophysical map obtained in Sarami area, where the upper figure indicates the TDIP results, while the lower figure shows the TEM results. Both of them present the geophysical information to a depth of about 150 to 200m.

The TDIP survey carried during this field season detected high chargeability distributions in the southwestern part and at the northwest side of the central part in the area. The chargeability anomaly zones in the southwestern part are located on the boundary between V1-1 and V1-2 and in V1-1. The chargeability anomaly zone at the northwest side of in the central part is detected in V1-2. The high metal factor zones are distributed in this anomaly zone associated with low resistivity.

Based on the results of high metal factor distributions, the TEM survey by the several large fixed loops was conducted at the location shown in the lower figure, covering high metal factor zones. To confirm the extracted TEM anomalies, the boreholes MJOB-S1 and MJOB-S2 were drilled in the north part of the loop 3 and south part of the loop1, respectively. The TEM anomaly zone detected at the east of MJOB-S2 borehole is probably due to the geological occurrence not related to mineralization, judging from TEM anomaly being distributed in the low chargeability zone. Drilling results of the above mentioned boreholes are described in Chapter 4 (Section 4-4-2).

3-6-3 Hara Kilab area

Fig.II-3-22 shows the compiled geophysical map obtained in Hara Kilab area, where the upper figure indicates the TDIP results, while the lower figure, show the TEM results. Both of them present the geophysical information to a depth of about 150 to 200m.

As indicated in Fig.II-3-22, high chargeability values of above 8 mV/V are seen distributed at the western margin and in the central part of the area. The western anomaly is distributed on the boundary between V1-1 and V1-2 and in the region of trondhjemite distribution. However, no remarkable high metal factor zone was detected in this high chargeability zone. Consequently, there is no possibility of the existence of large scale of massive sulphide deposits in the western anomaly zone.

The high metal factor zone associated with low resistivity part was delineated in the high chargeability zone detected in the central part of the area. Based on the results of high metal factor distributions, the TEM survey by the several large fixed loops was conducted at the location shown in above-mentioned figure. To verify the extracted TEM anomalies, the boreholes MJOB-H1 and MJOB-H2 were drilled in the north part of the loop 4 and southeast part of the loop 3, respectively. Drilling results of the above mentioned boreholes are described in Chapter 4 (Section 4-4-3).

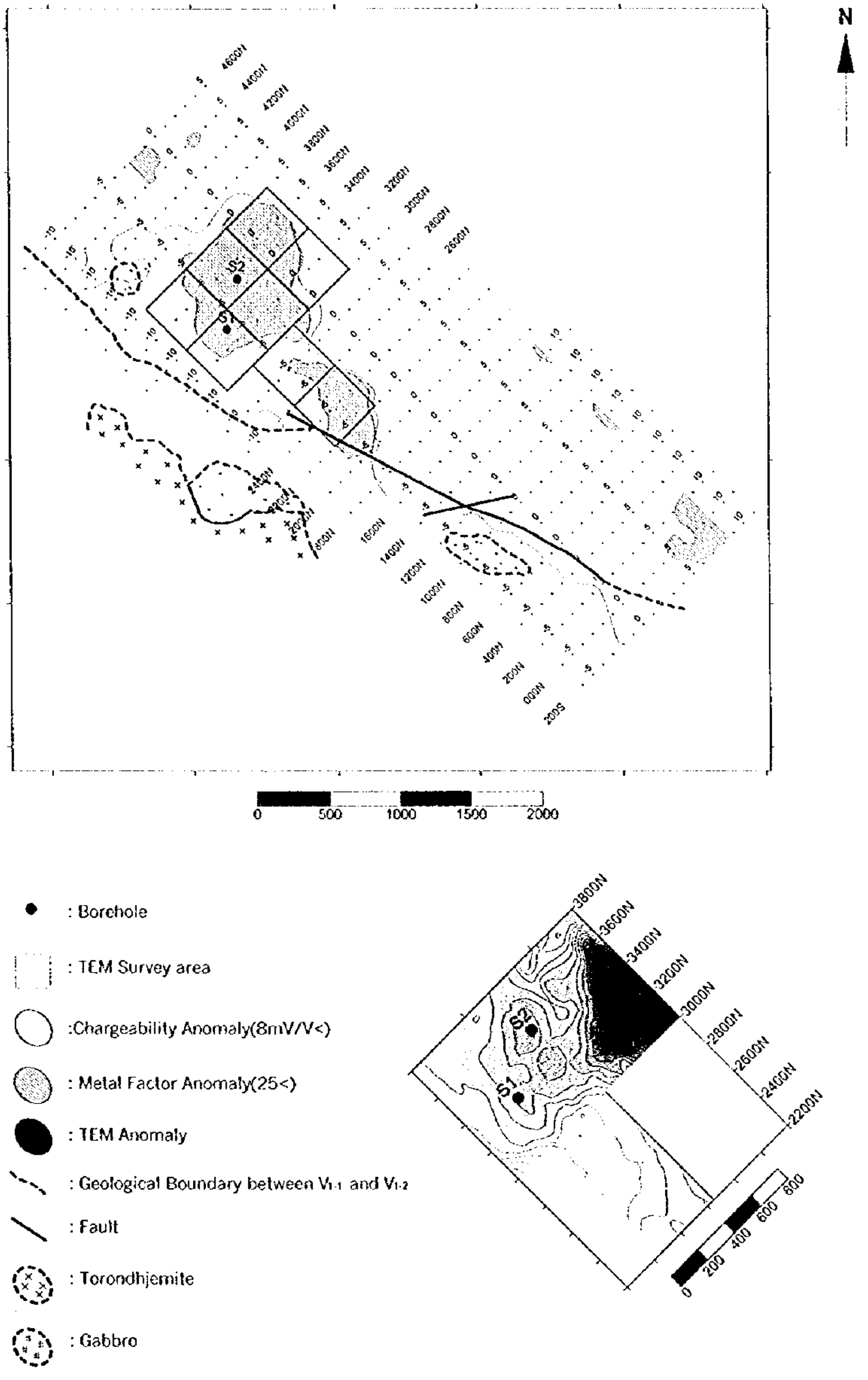
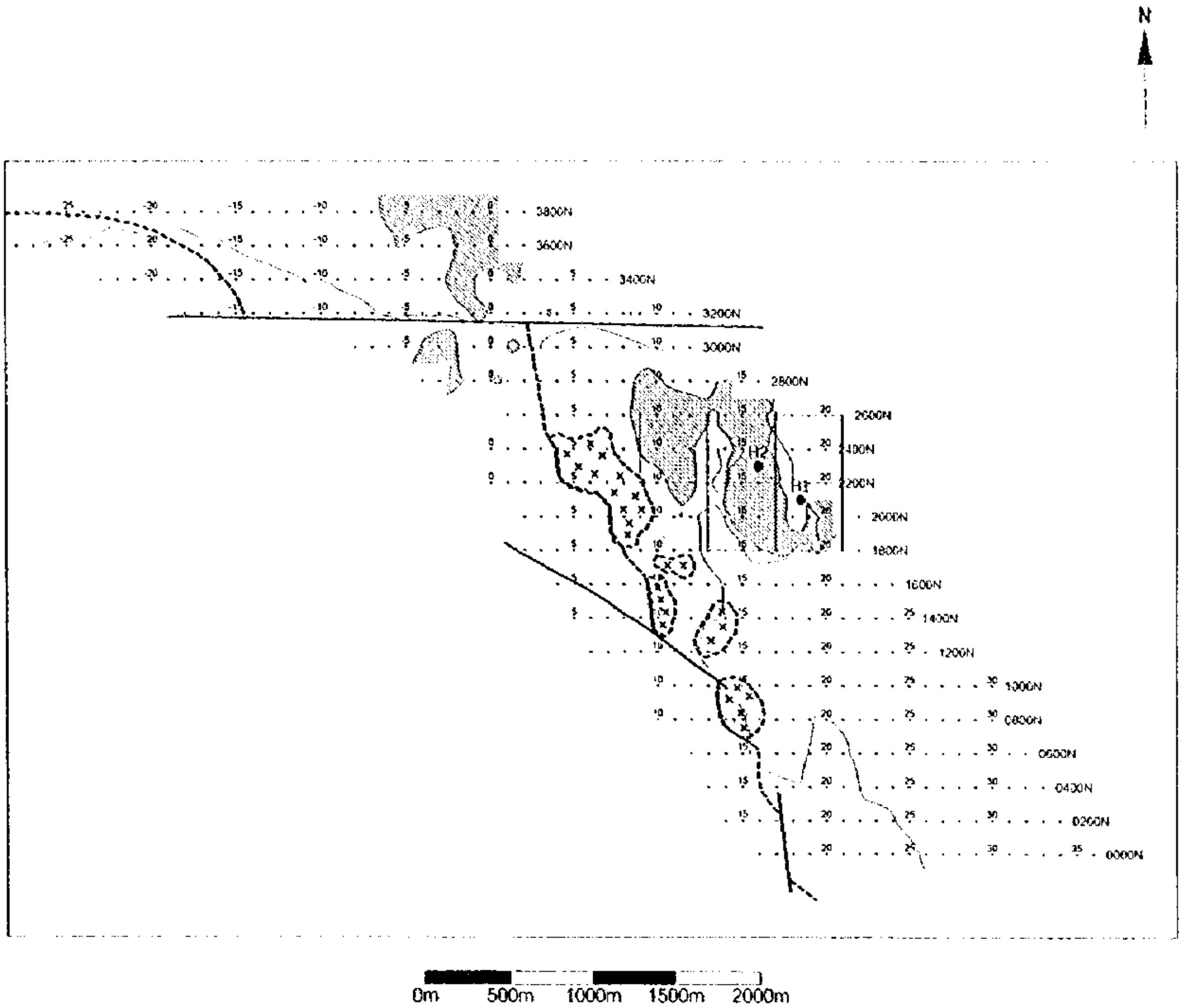
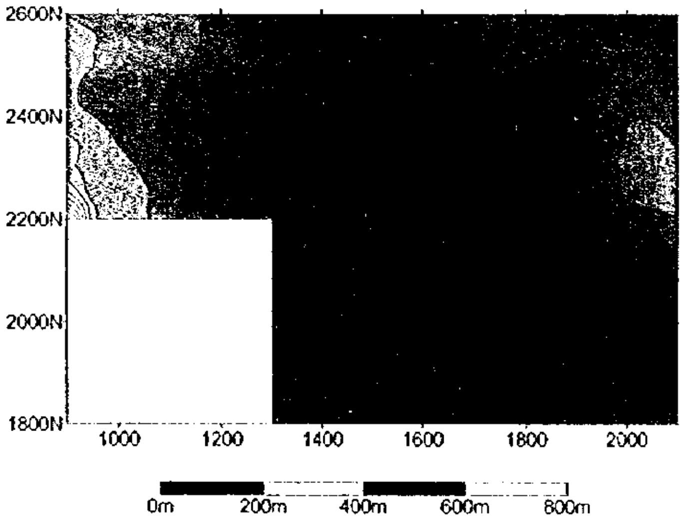


Fig. II -3-21 Compiled geophysical map in Sarami area





● : Borehole

: TEM Survey area

: Chargeability Anomaly(8mV/V<)

: Metal Factor Anomaly(25<)

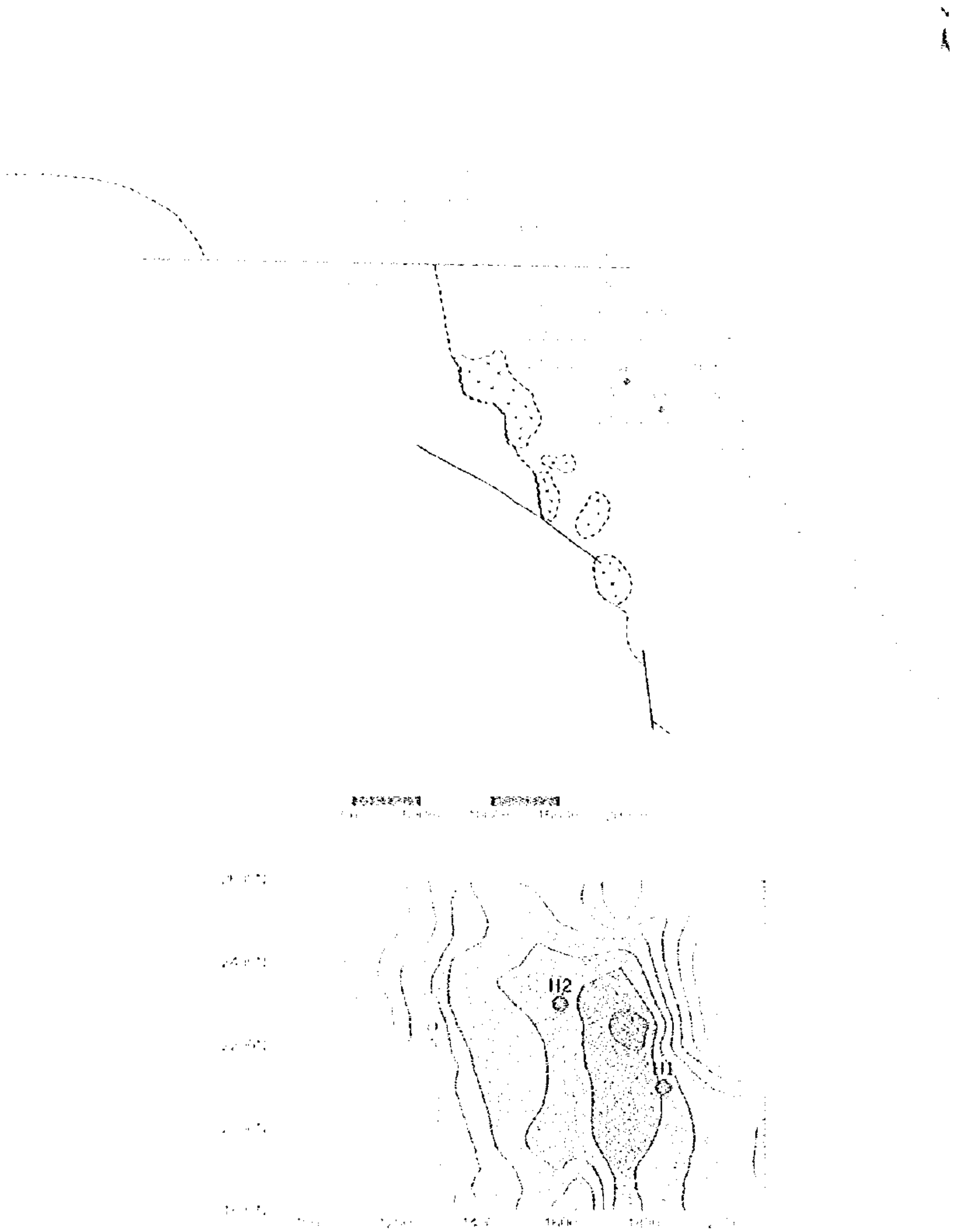
: TEM Anomaly

: Geological Boundary

: Fault

: Toronjomite

Fig. II-3-22 Compiled geophysical map in Hara Kilab area



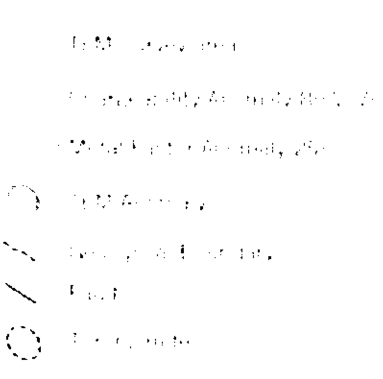


Fig. II-3-22 Computed geophysical map in Hata Kuribo area

CHAPTER 4 DRILLING SURVEY

4-1 Background and Objectives

Drilling survey was carried out in order to investigate the extension and the grade of the ore body No.3 discovered in Ghuzayn area during Phase I, and to clarify the mineralization on anomaly zones detected by the geophysical surveys conducted during the Phase II of this project.

4-2 Survey Areas and Amounts

Drilling survey was conducted at the western part of Ghuzayn area, Dhahwa IP anomaly zone in Hara Kilab area and Omah IP anomaly zone in Sarami area. Figs.II-4-1, II-4-2 and II-4-3 show the location of the boreholes. As indicated in Table II-4-1, the total amount of survey consisted of 10 boreholes with a drilling length of 2,580.40m.

4-3 Survey Method

4-3-1 Drilling operations

The drilling operations were done by using three types of rigs mentioned in a table of Appendix 1. The wire line method was utilized. Appendix 2 shows the progress records of the drillings.

4-3-2 Core logging

Description of the drill cores was conducted at the drilling site during drilling operations and compiled in a 1:200 log sheet. Core sampling was carried out concurrent to core logging activities. Amounts of laboratory works are indicated in Table I-1-2.

4-4 Results

Drilling logs are shown in Appendix 3. The results of the laboratory works are indicated in Table II-4-2 for thin sections, Table II-4-3 for polished sections, Table II-4-4 for X-ray diffraction analysis and Appendix 4 for chemical analysis of ore. The results of drilling survey are described for each of the surveyed areas as follows:

4-4-1 Ghuzayn area

Drilling survey was carried out at six boreholes to investigate the extension and the grade of the ore body No.3 detected by drilling survey during Phase I (MJOB-G30, G31, G32 and G33).

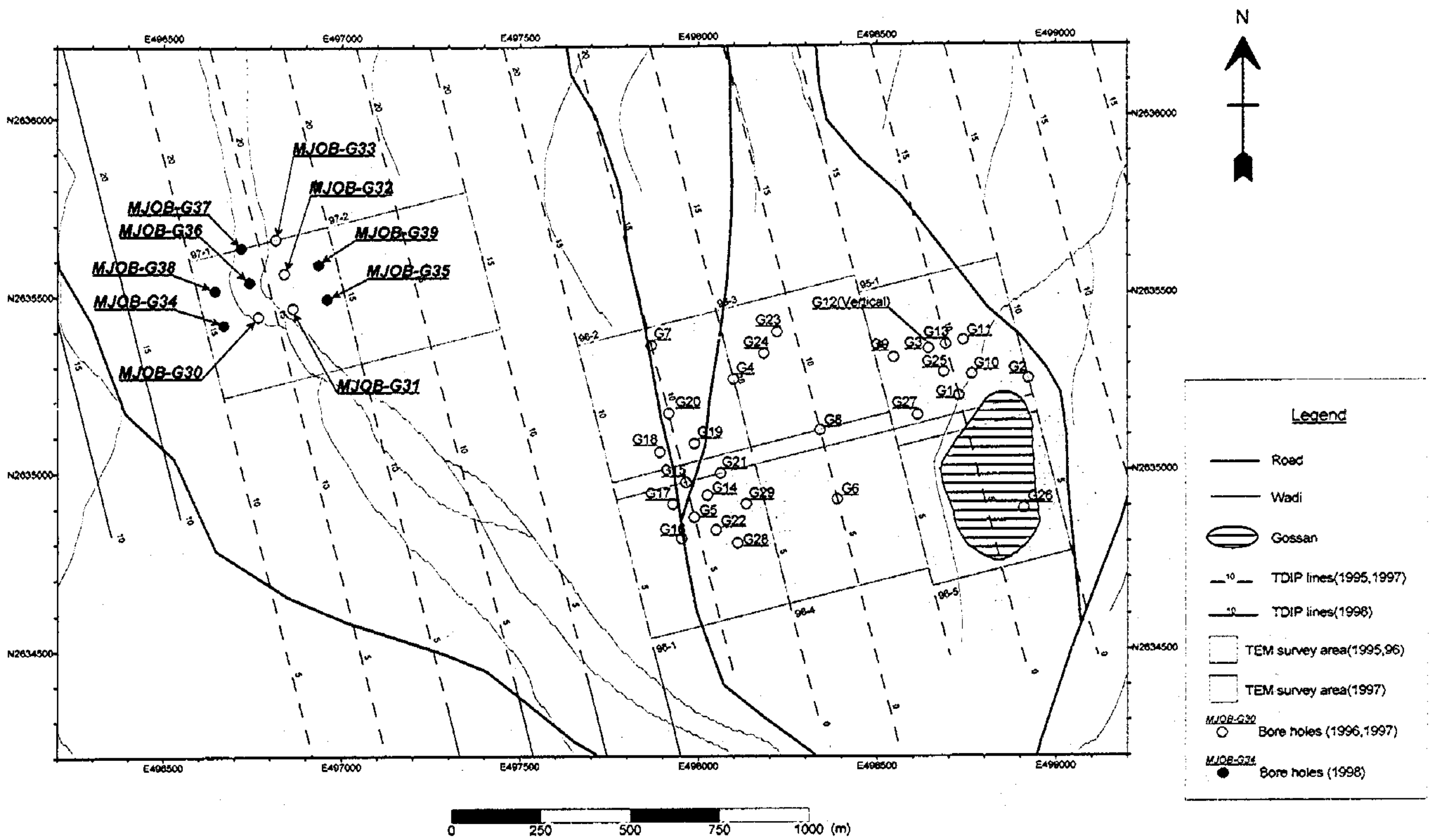


Fig. II -4-1 Location map of boreholes in Ghuzayn area

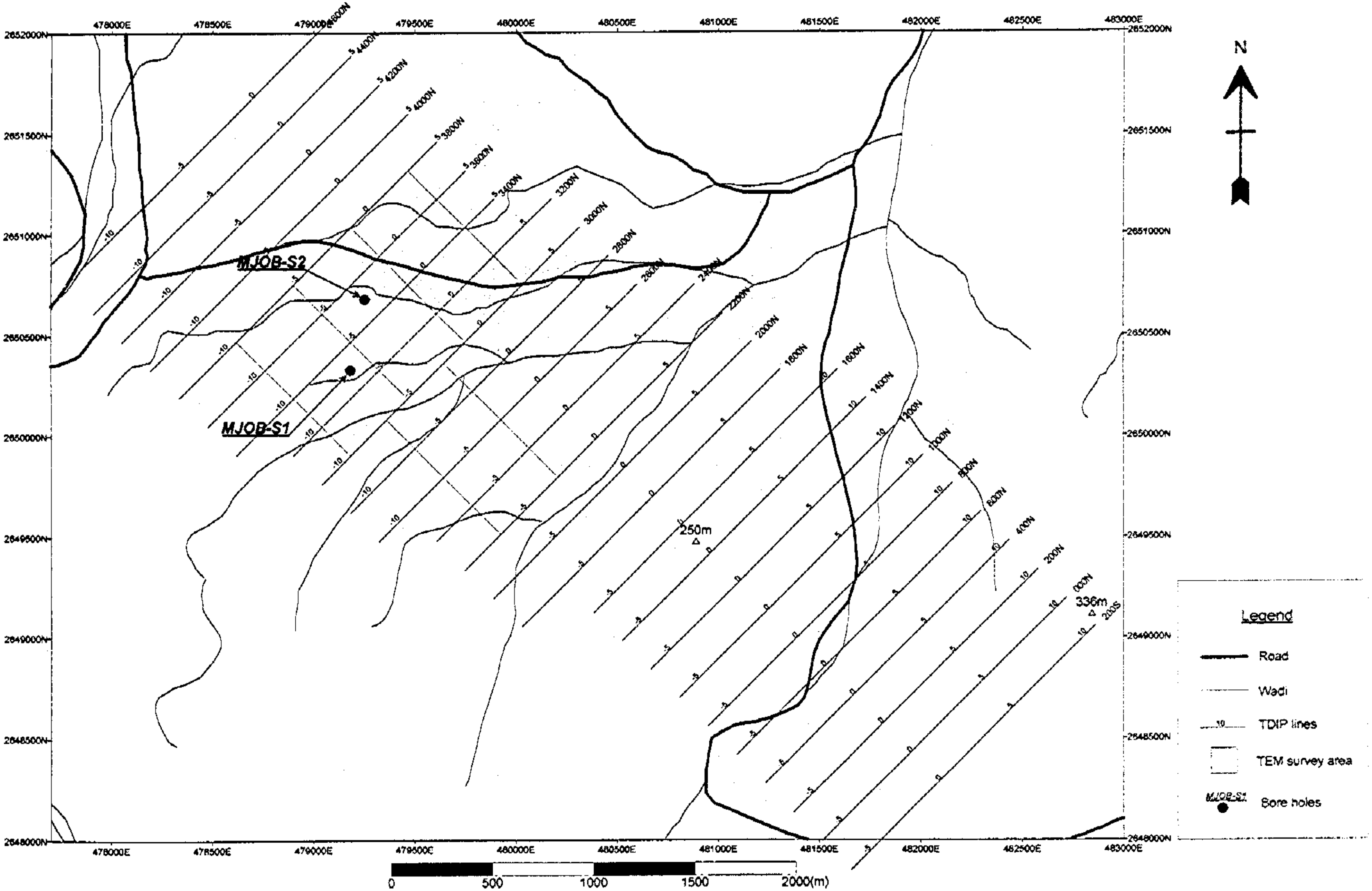


Fig. II-4-2 Location map of boreholes in Sarami area

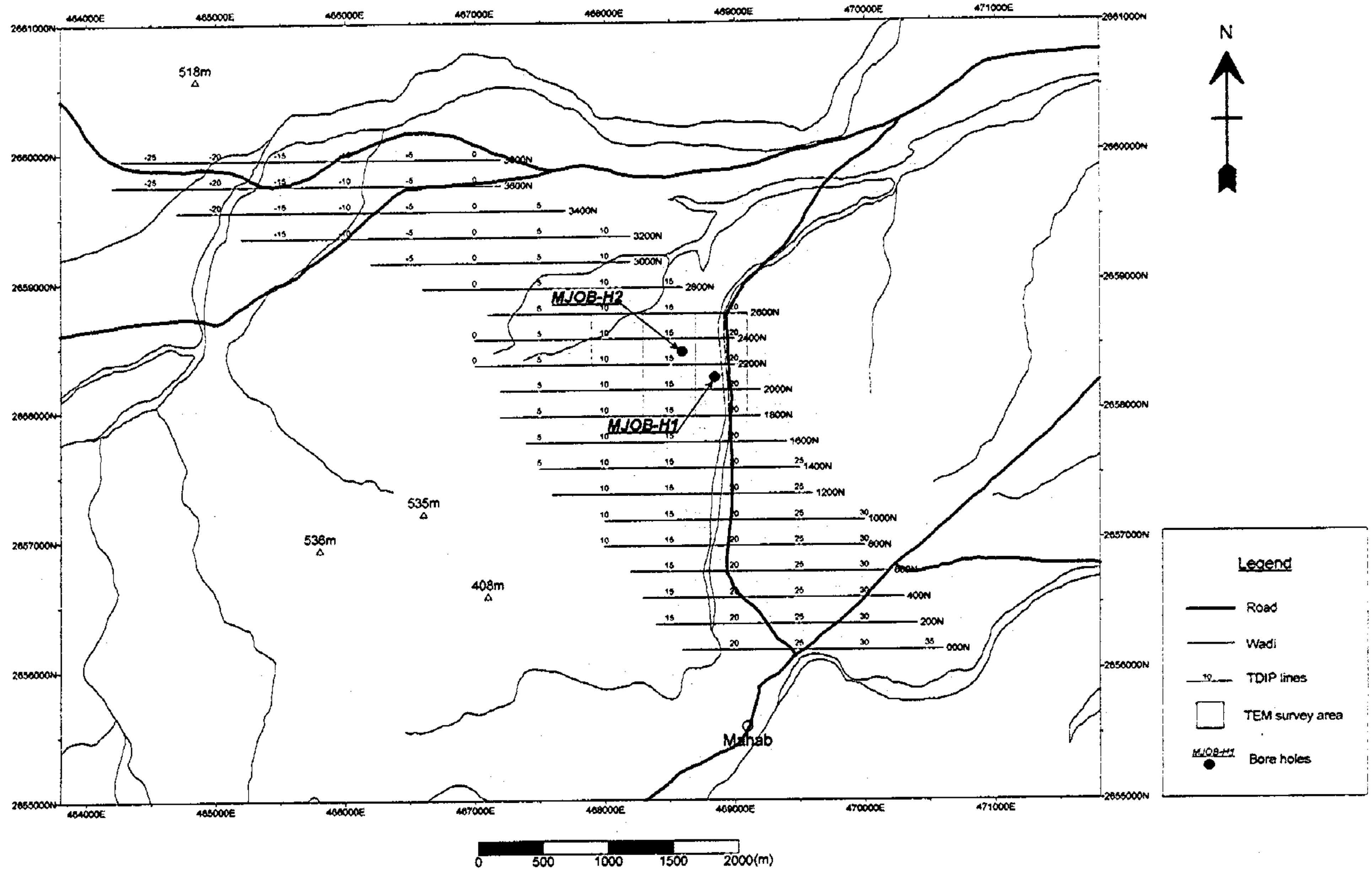


Fig. Ⅱ-4-3 Location map of boreholes in Hara Kilab area

Table II-4-1 Drilling survey conducted in Phase II

Area Name	Holes	Coordinate		Length planned	Length excuted	Inclination	Direction
		N (km)	E (km)	(m)	(m)	(deg.)	
(1) Ghuzayn area	MJOB-G34	2,635.418	496.668	250	250.40	-90	
	MJOB-G35	2,635.490	496.959	200	200.10	-90	
	MJOB-G36	2,635.539	496.741	250	251.00	-90	
	MJOB-G37	2,635.636	496.716	270	270.15	-90	
	MJOB-G38	2,635.515	496.644	300	300.60	-90	
	MJOB-G39	2,635.587	496.935	200	201.90	-90	
	Total length			1,470	1,474.15		
(2) Hara Kilab area	MJOB-H1	2,658.256	468.756	350	350.70	-90	
	MJOB-H2	2,658.442	468.605	250	251.30	-90	
	Total length			350	602.00		
(3) Sarami area	MJOB-S1	2,650.330	479.187	250	250.40	-90	
	MJOB-S2	2,650.680	479.258	250	253.85	-90	
	Total length			500	504.25		
Total length :				2,320	2,580.40		

Table II-4-2 Description of thin sections of drilling cores

Ser. No.	Sample Location: Hole No.	Sample Location: Depth (m)	Rock Name	Geo. Unit	Texture	Primary Minerals: Quartz	Plagioclase	Clinopyroxene	Orthopyroxene	Olivine	Apatite	Spinel	Glass	Opaque minerals	Secondary Minerals: Quartz	Albite	Illite	Chlorite	Epidote	Zoisite	Actinolite	Pumpellyite	Prehnite	Calcite	Smectite	Opaque minerals	Pseudomorph	Remarks
1	G34	186.90	Diorite	Dike	Ophitic		◎	◎			·	·		·		◎		○	·					○		·	○	OM: pyrite, Pse: Cpx
2	G34	206.30	Micro-gabbro	Dike	Equigranular.		○	◎						·	●	○		○				·	·	●	·	●		OM: pyrite
3	G34	210.00	Gabbro	Dike	Equigranular.		○	◎	○					·		○	●	◎			●				●	●	○	OM: pyrite, Pse: Cpx
4	G34	230.50	Basalt	$V_{1\text{-}1}$	Basaltic, amygdaloidal		◎	○						·	●	○		○	●					●		●		OM: pyrite, fractured and brecciated
5	G35	62.40	Basalt	$V_{1\text{-}2}$	Intersertal, amygdaloidal		○						○	·	○	○	●	◎				·		●		●		OM: pyrite
6	G35	126.50	Basalt	$V_{1\text{-}2}$	Intersertal, amygdaloidal		◎	◎					○	·	●	●		○	·							·		OM: pyrite
7	G35	177.40	Basalt	$V_{1\text{-}1}$	Basaltic, amygdaloidal		○						◎	·				●	◎					·				
8	G38	249.20	Dolerite	Dike	Ophitic		●	◎				·		·	●	●	·	◎	●		●	·			·	●	○	OM: pyrite
9	H1	92.50	Silicified basalt	$V_{1\text{-}2}$	Intersertal, amygdaloidal		◎						◎		○	○								●		○		OM: pyrite
10	H1	150.90	Hyaloclastite	$V_{1\text{-}2}$	Clastic								◎		○			○	○	●		●		●		●		OM: pyrite
11	H1	225.20	Basalt	$V_{1\text{-}2}$	Intersertal, amygdaloidal		◎	◎					◎	·	●	○		◎					○			·		
12	H2	41.30	Basalt	V_2	Intersertal, amygdaloidal		○	●					◎	·	○	○		◎								·		Zeolite (○)
13	H2	57.00	Basalt	V_2	Intersertal, amygdaloidal		◎						○		●	○		◎							●	·		Zeolite (○)
14	H2	169.00	Altered basalt	$V_{1\text{-}2}$	Intersertal, amygdaloidal		○						○		◎	○	●	●						○		○		OM: pyrite

◎ : abundant, ○ : common, ● : a little, · : rare,
OM: Opaque minerals, Pse : pseudomorph, Cpx: clinopyroxene, Ho: hornblende, Bi: biotite

Table Ⅱ-4-3 Description of polished section of drilling cores

Ser.	Sample Location		Sample Description	Identified Minerals					
No.	Hole No.	Depth (m)		Cp	Py	Sp	Mt	Ht	Gg
1	G35	131.00	Massive sulphide ore	∘	○				∘
2	G36	230.60	Massive sulphide ore	●	○				∘
3	G36	186.70	Massive sulphide ore	∘	○				∘
4	G36	214.25	Massive sulphide ore	∘	○				∘
5	G36	193.60	Massive sulphide ore	●	○				∘
6	G36	179.80	Massive magnetite ore	●	○	∘			∘
7	G36	227.80	Massive magnetite ore	∘	∘				∘
8	G37	256.30	Massive sulphide ore	●	○				∘
9	G37	257.50	Massive sulphide ore	∘	○	∘			∘
10	H1	167.60	Pyrite-chalcopyrite-quartz vein	●	○				○
11	H1	179.40	Disseminated sulphide ore	∘	●	∘			○
12	H2	146.30	Strongly disseminated sulphide ore	●	○				○
13	H2	223.70	Slightly disseminated sulphide ore	∘	∘				○

○ abundant
● common
∘ rare

Cp: Chalcopyrite
Py: Pyrite
Sp: Sphalerite
Mt: Magnetite
Ht: Hematite
Gg: Gangue minerals

Table II-4-4 Results of X-ray diffraction analyses of drilling cores

Ser.	Sample Location		Lithology(Formation)	Identified Minerals								
No.	Hole No.	Depth		Qz	Pl	Ch	Il	Mt	Cc	Ep	Aa	Py
1	G35	61.80m	Basalt pillow lava(V1-2)	●	●	○			∘			
2	G35	198.00m	Argillized basalt pillow lava(V1-1)	∘	●	◎						
3	G35	198.60m	Argillized basalt pillow lava(V1-1)	∘	○	◎						
4	G36	248.00m	Epidotized basalt pillow lava(V1-1)	●		◎			∘	○		
5	G37	263.50m	Epidotized basalt pillow lava(V1-1)	∘	∘	◎						
6	H1	48.80m	Pillow breccia(V2)	∘	∘	∘		○			○	
7	H1	89.00m	Argillized basalt pillow lava(V1-2)	●	○	○			∘			●
8	H1	102.70m	Argillized basalt pillow lava(V1-2)	○	●	○		●				●
9	H1	149.00m	Epidotized basalt pillow lava(V1-2)	◎		○				○		
10	H1	156.60m	Epidotized basalt pillow lava(V1-2)	○	●	●		●		●		●
11	H1	206.00m	Basalt pillow lava(V1-2)					○	∘			
12	H2	168.20m	Argillized basalt pillow lava(V1-2)	○		○						◎
13	H2	205.10m	Argillized pillow breccia(V1-2)	○	●	○	●					●
14	H2	236.05m	Argillized pillow breccia(V1-2)	○	∘	○	●	●				

◎ abundant
○ common
● rare
∘ very rare

Qz: Quartz
Pl: Plagioclase
Ch: Chlorite
Il: Ilite
Mt: Montmorillonite
Cc: Calcite
Ep: Epidote
Aa: Analcime
Py: Pyrite

(1) MJOB-G34 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2) and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -4.30m Unconsolidated Quaternary sediments.

-4.30m ~ -210.65m V1-2. Consisting mainly of basaltic pillow lava and massive lava. Pillow lava is predominant above -155.40m and massive lava below -155.40m. Accompanied partially by basaltic dikes of less than 2m in width. Gabbros also intrude between -183.70m ~ -188.60m and -208.90m ~ -210.65m. Metalliferous sediments are intercalated between -164.60m ~ -165.25m and -174.80m ~ -177.90m.

-210.65m Fault. Estimated ore body is absent due to this fault.

-210.65m ~ -250.40m(end of hole) V1-1. Consisting mainly of basaltic pillow lava. Accompanied by basaltic massive lava. Pillow breccia is observed in pillow lava.

Mineralization: On the hanging wall side, pyrite dissemination is observed slightly in metalliferous sediments. On the footwall side, slightly intense pyrite dissemination with pyrite veinlets is observed between -220.40m ~ -224.60m and weak pyrite dissemination is observed intermittently in other part.

Alteration: On the hanging wall side, weak silicification is recognized from -22.90m to deeper part. Epidotization is not recognized. On the footwall side, slightly intense silicification is recognized from -210.65m to -227.40m and epidote veinlets are observed overall.

(2) MJOB-G35 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2), massive sulphide ore and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -6.90m Unconsolidated Quaternary sediments.

-6.90m ~ -127.25m V1-2. Consisting mainly of basaltic pillow lava. At the deeper part, above massive sulphide ore, massive lava is developed. Variole texture is recognized in pillow lava between -32.90m ~ -103.20m. Accompanied partially by basaltic dykes.

-127.25m ~ -133.35m Massive sulphide ore (core length: 6.1m). Accompanied by magnetite bed of 25cm thick at the uppermost part. Containing banded hematite at the lower part. Accompanied by two basaltic dikes of less than 1m in width.

-133.35m ~ -200.10m(end of hole) V1-1. Consisting of basaltic pillow lava, and accompanied partially by basaltic dikes. Intercalating reddish-brown metalliferous sediments between -196.10m ~ -197.80m.

Mineralization: Massive sulphide ore was intersected in the core between -127.25m ~ -133.35m. Average grade of this part (including basaltic dikes) is 0.8% Cu. Other mineralization except massive sulphide is as follows. On the hanging wall side, pyrite dissemination is recognized below -94.85m accompanied by pyrite veinlets between -96.90m ~ -114.80m. Weak sphalerite dissemination accompanied by sphalerite-calcite veinlets is recognized between -104.65m ~ -114.05m. Chalcopyrite dissemination is recognized slightly just above massive sulphide ore. On the footwall side, mineralization is very weak except deepest part. Weak pyrite dissemination is recognized in places between -133.35m ~ -196.19m. The deepest part from -197.80m to end of hole is like stockwork ore, and slightly intense pyrite dissemination and veinlets are recognized.

Alteration: On the hanging wall side, clear silicification is recognized below -88.15m and epidotization is recognized below -104.95m. On the footwall side, silicification is observed overall and accompanied by argillization between -197.80m ~ end of hole. Epidotization is very intense and epidote veinlets are developed densely above -197.80m except on dikes.

(3) MJOB-G36 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2), massive sulphide ore and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -13.15m Unconsolidated Quaternary sediments.

-13.15m ~ -177.00m V1-2. Consisting mainly of basaltic pillow lava, and intercalating thin massive lava quite partially. A lot of basaltic dikes are intruded.

-177.00m ~ -231.25m Massive sulphide ore (core length: 54.25m). Accompanied by magnetite bed of 5cm thick at the uppermost part and by V1-1 at the lowest part of 30cm length.

-231.25m ~ -251.00m(end of hole) V1-1. Consisting mainly of basaltic pillow lava and accompanied a lot of jasper in interpillow.

Mineralization: Massive sulphide ore was intersected in the core between -177.00m ~ -231.25m. Average grade of this part is 1.14% Cu. On the hanging wall side, mineralization is not so intense. Weak pyrite dissemination is recognized between -103.65m ~ -140.25m and -166.30m ~ -177.00m. Chalcopyrite is recognized as dissemination or chalcopyrite-calcite veinlets below -133.30m. Sphalerite dissemination is recognized between -131.35m ~ -133.10m. On the footwall side, slightly intense pyrite dissemination is recognized just below massive sulphide ore.

Alteration: On the hanging wall side, weak silicification is recognized below -74.20m, and intermediate silicification is recognized below -105.40m. Epidote veinlets are recognized sparsely between -95.10m ~ -133.30m, and are developed as network below -133.30m. Dense epidote dissemination is recognized between -175.65m ~ -176.20m. On the footwall side, silicification and epidotization are intense, and especially epidote network and dissemination are remarkably developed.

(4) MJOB-G37 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2), massive sulphide ore and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -12.50m Unconsolidated Quaternary sediments.

-12.50m ~ -255.05m V1-2. Consisting mainly of basaltic pillow lava and intercalating massive lava partially. Thick doleritic massive lava (sheet flow) is remarkably developed between -169.30m ~ -194.25m. A lot of basaltic dikes are intruded.

-255.05m ~ -259.15m Massive sulphide ore (core length: 4.10m).

-159.15m ~ -270.15m(end of hole) V1-1. Consisting mainly of basaltic pillow lava. Accompanied by a lot of jasper in interpillow.

Mineralization: Massive sulphide ore was intersected in the core between -255.05m ~ -259.15m. Average grade of this part is 1.59% Cu. On the hanging wall side, pyrite dissemination and veinlets are recognized below -116.05m, and intense pyrite dissemination is recognized between -117.55m ~ -135.20m, -201.35m ~ -207.50m and -250.90m ~ -255.05m. Chalcopyrite is recognized as dissemination or in epidote-calcite veinlets between -201.35m ~ -214.80m and -252.95m ~ -255.05m. Spalerite are recognized as dissemination between -193.85m ~ -198.00m and in pyrite-calcite veinlets between -121.00m ~ -121.55m and -150.70m ~ -165.75m. On the footwall side, intense pyrite dissemination and veinlets are recognized. Chalcopyrite dissemination is recognized in places.

Alteration: On the hanging wall side, weak silicification is recognized even under overburden, and intermediate silicification is recognized below -139.15m. Epidotization is recognized widely between -138.80m ~ -166.00m and -197.55m ~ massive sulphide ore. Very dense epidote veinlets are developed partially below -197.55m. On the footwall side, silicification is weak but epidotization is intense. Epidote network and dissemination are remarkably developed.

(5) MJOB-G38 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2) and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -3.05m Unconsolidated Quaternary sediments.

-3.05m ~ -252.60m V1-2. Consisting mainly of basaltic pillow lava and massive lava. The proportion of massive lava is larger than that of other boreholes. Valiore texture is recognized between -76.45m ~ -110.60m and -169.55m ~ -202.00m. Accompanied by a lot of basaltic dikes. Thick doleritic basaltic dike is intruded at the stratigraphic position of massive sulphide ore.

-252.60m ~ -300.60m(end of hole) V1-1. Consisting mainly of basaltic pillow lava, and intercalating massive lava in places. A lot of epidote and jasper are recognized in interpillows. Basaltic dikes are intruded.

Mineralization: On the hanging wall side, pyrite dissemination and veinlets are recognized intermittently between -31.30m ~ -117.00m. This mineralization is weak overall except the part between -70.00m ~ -79.10m. On the footwall side, weak to intermediate pyrite dissemination and veinlets are recognized intermittently below -269.85m.

Alteration: On the hanging wall side, weak silicification is recognized between -29.00m ~ -243.79m and intermediate silicification is recognized below -243.70m. Epidotization is not recognized. On the footwall side, intermediate silicification and epidotization are recognized overall.

(6) MJOB-G39 borehole

Geology: Consisting of Quaternary sediments, Upper extrusives rocks (V1-2), massive sulphide ore and Lower extrusives rocks (V1-1) of Lower Volcanic Rocks.

0.00m ~ -8.40m Unconsolidated Quaternary sediments.

-8.40m ~ -9.35m Consolidated Quaternary sediments (calcrete)

-9.35m ~ -186.95m V1-2. Consisting mainly of basaltic pillow lava. Massive lava is developed just above massive sulphide ore. Variole texture is recognized in pillow lava between -82.80m ~ -151.80m. A lot of basaltic dikes are intruded.

-186.95m ~ -188.95m Massive sulphide ore (core length: 2.00m). Accompanied by magnetite bed of 10cm thick at uppermost part. Basaltic dyke is intruded between -187.05m ~ -188.05m.

-188.95m ~ -201.90m(end of hole) V1-1. Consisting of basaltic pillow lava and massive lava. Epidote and jasper are recognized in interpillows.

Mineralization: Massive sulphide ore was intersected in the core between -186.95m ~ -188.95m. Average grade between -188.05m ~ -188.95m is 0.84% Cu. On the hanging wall side, pyrite dissemination and veinlets are recognized below -99.10m and their intensity is extremely variable. Intense chalcopyrite dissemination is recognized in pillow lava between -160.50m ~ -180.70m. Sphalerite dissemination with sphalerite-calcite veinlets is recognized between -148.80m ~ -159.80m. On the footwall side, intermediate to weak pyrite dissemination and veinlets are recognized. Chalcopyrite dissemination and veinlets are recognized in places.

Alteration: On the hanging wall side, weak silicification is recognized below -40.00m and intermediate silicification is recognized below -99.10m. Epidote veinlets are recognized below -135.00m, and are developed as network between -160.50m ~ -179.00m. Epidote dissemination is also recognized in this network zone. On the footwall side, silicification is weak, and epidote veinlets are recognized sparsely.

4-4-2 Sarami area

IP anomaly zone (Omah IP anomaly zone) was detected widely at the northern part of Sarami area by TDIP survey in Phase II. TEM survey was carried out at this IP anomaly zone, and as a result, two TEM anomaly zones were detected. Drilling survey was carried out at two locations in these TEM anomaly zones.

(1) MJOB-S1 borehole

Geology: Consisting of Quaternary sediments and Upper extrusives rocks (V1-2) of Lower Volcanic Rocks.

0.00m ~ -6.60m Unconsolidated Quaternary sediments.

-6.60m ~ -250.40m(end of hole) V1-2. Consisting mainly of basaltic pillow lava and massive lava. A large number of basaltic dikes are intruded.

Mineralization: Pyrite dissemination and veinlets are recognized overall in both V1-2 and basaltic dikes and their intensity are more intense above -165.65m. Considering the intense mineralization of dikes, mineralization in this area may have occurred mainly when basaltic dikes were intruded. Chalcopyrite and sphalerite are recognized in one part respectively.

Alteration: Weak to intermediate silicification is recognized overall. Intensely silicificated basaltic dikes are recognized. Epidotization is intense in both V1-2 and dikes. Epidote veinlets network and epidote dissemination are developed in many parts.

(2) MJOB-S2 borehole

Geology: Consisting of Quaternary sediments and Upper extrusives rocks (V1-2) of Lower Volcanic Rocks.

0.00m ~ -1.00m Unconsolidated Quaternary sediments.

-1.00m ~ -253.85m(end of hole) V1-2. Consisting mainly of basaltic pillow lava and massive lava. A large number of basaltic dikes are intruded.

Mineralization: Pyrite dissemination and veinlets are recognized overall in both V1-2 and basaltic dikes. Pyrite-epidote-quartz veinlets with chalcopyrite are recognized in places.

Alteration: Weak to intermediate silicification is recognized overall in both V1-2 and basaltic dikes. Intensely silicificated massive lava or basaltic dikes are recognized partially. Epidotization is also recognized overall. Not only epidote veinlets but also epidote dissemination is recognized in many parts.

4-4-3 Hara Kilab area

IP anomaly zone (Dhahwa IP anomaly zone) was detected widely at the central part of Hara Kilab area by TDIP survey in Phase II. TEM survey was carried out at this IP anomaly zone, and TEM anomaly zone was detected. Drilling survey was carried out at two locations in this TEM anomaly zone.

(1) MJOB-H1 borehole

Geology: Consisting of Quaternary sediments, extrusive rocks (V2) of Middle Volcanic Rocks and Upper extrusives rocks (V1-2) of Lower Volcanic Rocks.

0.00m ~ -7.05m Unconsolidated Quaternary sediments.

-7.05m ~ -56.10m V2. Consisting of basaltic pillow breccia.

-56.10m ~ -350.70m(end of hole) V1-2. Consisting mainly of basaltic pillow lava, and intercalating basaltic massive lava and pillow breccia partially. Variole texture is recognized in pillow lava between -56.10m ~ -92.80m. Basaltic dikes are intruded.

Mineralization: On the V1-2, remarkable mineralization is recognized widely form uppermost part to -199.50m. This mineralization consists mainly of pyrite dissemination. Pyrite veinlets are also developed, and stockwork ore which is similar to that observed just below massive sulphide ore is formed between -161.65m ~ -179.80m. Pyrite-quartz veinlets with chalcopyrite are recognized in this stockwork ore. Chalcopyrite is also recognized as veinlets or dissemination partially in another part. Sphalerite is recognized in pyrite-quartz veinlets between -82.85m ~ -89.30m. On the V2, pyrite dissemination and veinlets are recognized slightly in the lowest part.

Alteration: On the V1-2, the part between -85.25m ~ -184.70m is silicificated intensely, accompanied by argillization between -85.25m ~ -109.35m. Below -184.70m, intermediate to weak silicification is recognized continuously. Epidotization is recognized between -110.70m ~ -161.65m. Epidote veinlets network and dense epidote dissemination are recognized just above the stockwork ore.

(2) MJOB-H2 borehole

Geology: Consisting of Quaternary sediments, extrusive rocks (V2) of Middle Volcanic Rocks and Upper extrusives rocks (V1-2) of Lower Volcanic Rocks.

0.00m ~ -2.70m Unconsolidated Quaternary sediments.

-2.70m ~ -70.20m V2. Consisting of basaltic pillow lava and pillow breccia. Basaltic dikes are intruded.

-70.20m ~ -251.30m(end of hole) V1-2. Consisting mainly of basaltic pillow lava, and intercalating basaltic massive lava and pillow breccia. Basaltic dikes are intruded.

Mineralization: On the V1-2, remarkable mineralization is recognized widely as same as in MJOB-H1 borehole. Intense pyrite dissemination and veinlet networks are developed overall. Stockwork ore which is similar to that observed just below massive sulphide ore is formed between -124.10m ~ -142.25m, -145.35m ~ -155.75m, -157.10m ~ -214.85m and -244.35m ~ end of hole. Chalcopyrite is recognized as dissemination or chalcopyrite-pyrite veinlets below -120.20m in places.

Alteration: Silicification is recognized below -87.30m. Intense silicification with argillization is developed from -145.80m to end of hole. Epidote veinlets are recognized intermittently below -221.60m.

4-5 Further Considerations

4-5-1 Ghuzayn area

As the result of drilling survey in Phase I and Phase II, a general idea regarding the extension and grade of ore body No.3 was clarified. Core length and average grade of ore are shown in table II-4-5.

Geologic cross sections across boreholes for ore body No.3 are shown in Fig.II-4-4. Figs.II-4-5 to II-4-8 shows the average copper assay distribution, the isopach map, the depth of the top surface and the depth of the bottom surface of the ore body, respectively. It is clear from Fig.II-4-4 and Fig.II-4-8, that the geological structure around the ore body No.3 shows monocline which strikes NE-SW and dips about 20°NW. This characteristic is similar to that of ore body No.2. The bottom surface of the ore body shows monocline, while the top surface shows dome-type shape (See Fig.II-4-4 and Fig.II-4-7). Fig.II-4-6 shows that the ore body extends slightly northward. Therefore orebody No.3 has semi-ellipsoidal shape extending slightly northward.

A fault making V1-1/V1-2 boundary is confirmed in MJOB-G34 borehole. It is thought that this fault controls southward extension of ore body, and its extension had been the pass of hydrothermal solution. Considering the location of this fault on the surface and its intersection by the borehole, it

Table II-4-5 Summary of drilling results in Ghuzayn area

Ore Body Name	Bore Hole NO.	Type of Ore	Depth (m)		Thickness	Average Grade	
			from	to	(m)	Cu%	Zn(%)
	(Phase II: 1998)						
Ghuzayn Ore Body No.3	MJOB-G35	massive sulphide	**127.25**	**133.35**	**6.10**	**0.80**	**0.04**
	MJOB-G36	massive sulphide	**177.00**	**231.25**	**54.25**	**1.14**	**0.05**
	MJOB-G37	massive sulphide	**255.05**	**259.15**	**4.10**	**1.59**	**0.08**
	MJOB-G39	massive sulphide	**188.05**	**188.95**	**0.90**	**0.84**	**0.09**
	(Phase I: 1997)						
	MJOB-G30	massive sulphide	**110.40**	**201.80**	**91.40**	**2.68**	**0.01**
		massive sulphide (high grade part)	114.40	126.40	12.00	7.71	0.01
	MJOB-G31	massive sulphide	**109.30**	**181.30**	**72.00**	**1.66**	**0.04**
		stockwork	181.30	213.25	31.95	0.27	0.01
	MJOB-G32	massive sulphide	**169.35**	**209.00**	**39.65**	**1.13**	**0.05**
	MJOB-G33	stockwork	223.20	230.95	7.75	0.70	0.04
		massive sulphide	**230.95**	**247.40**	**16.45**	**0.83**	**0.06**

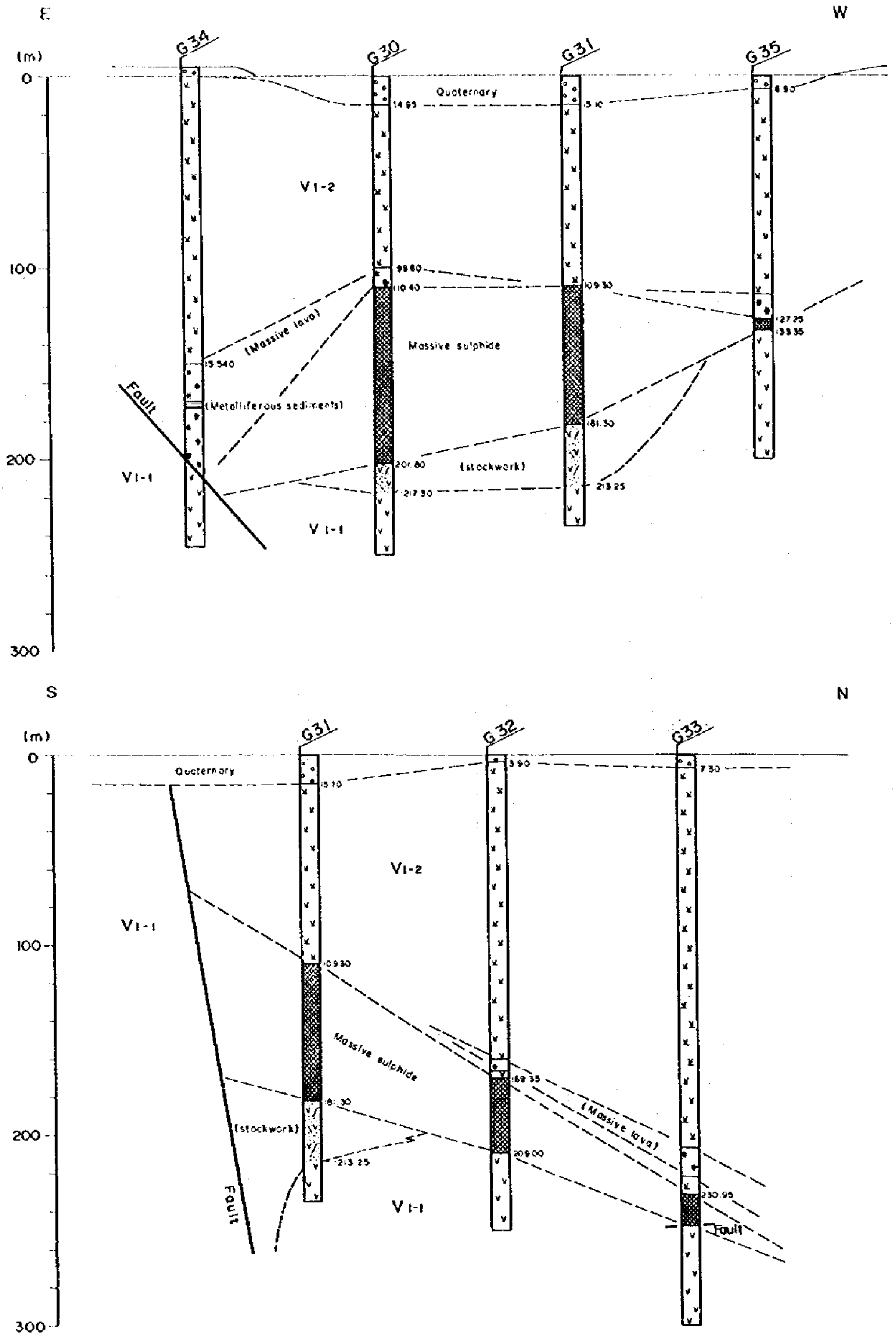


Fig. II-4-4 Cross section of borehole site in Ghuzayn Body No.3

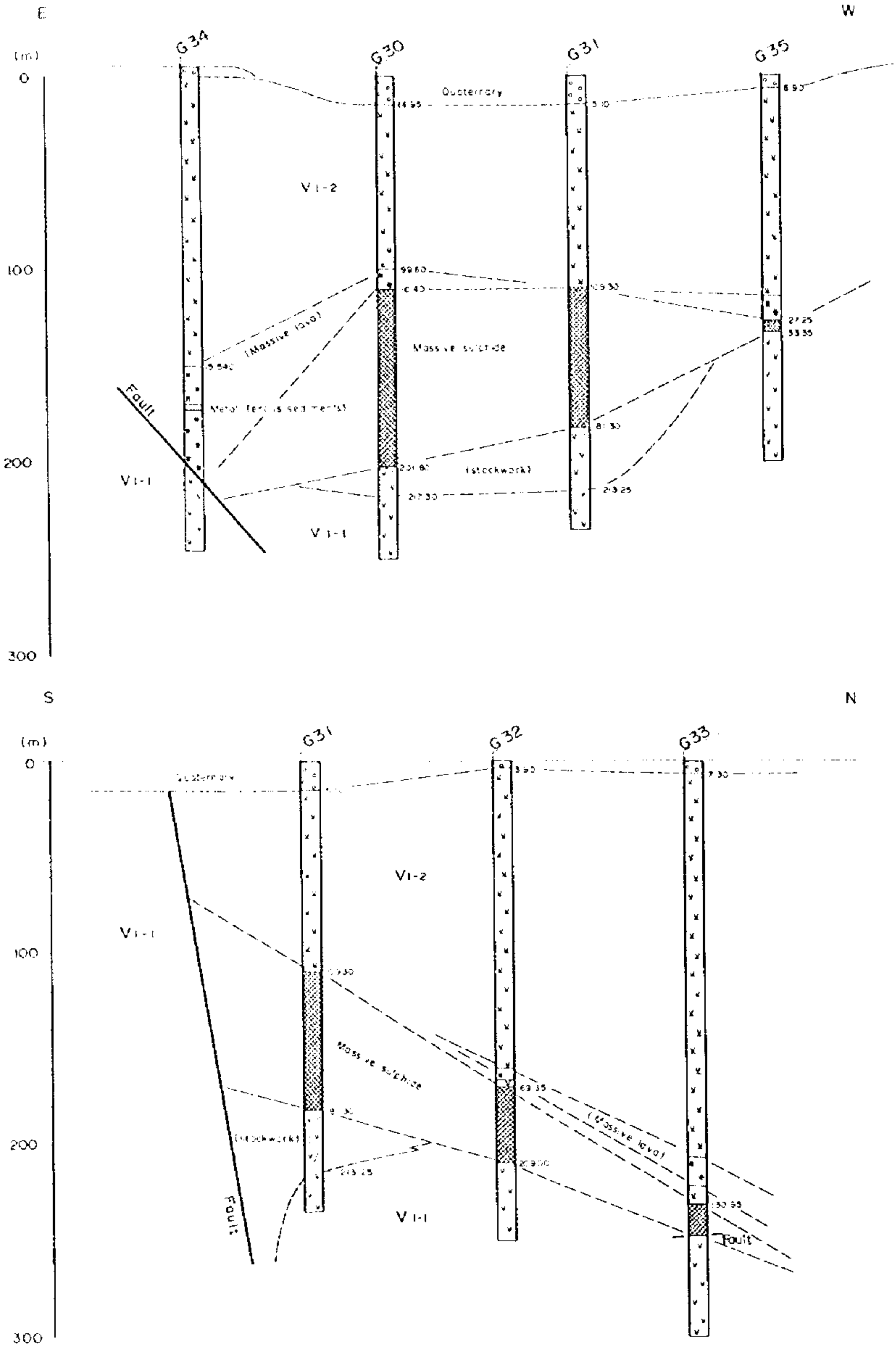


Fig. II-4-4 Cross section of borehole site in Ghuzayn Body No.3

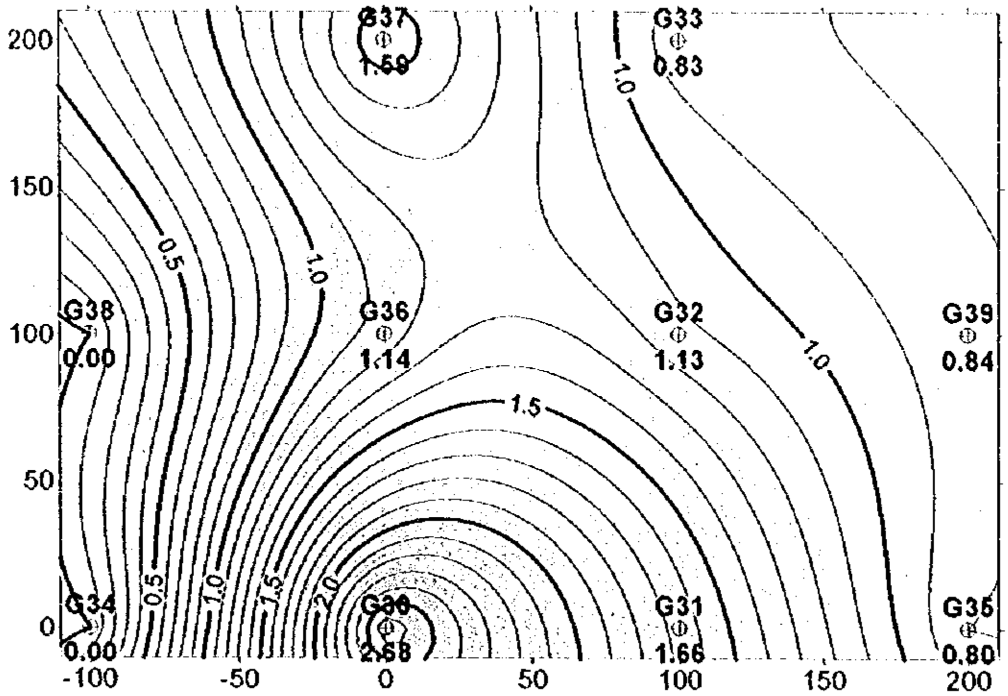


Fig. II-4-5 Copper assay distribution of Ghuzayn Body No.3

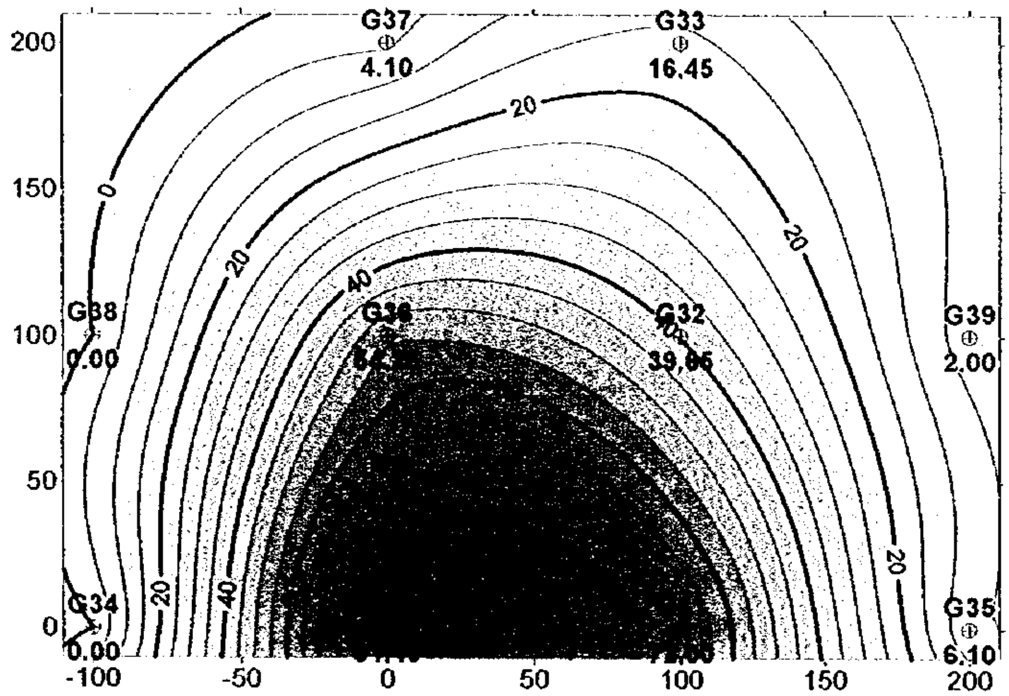


Fig. II-4-6 Isopack map of Ghuzayn Body No.3

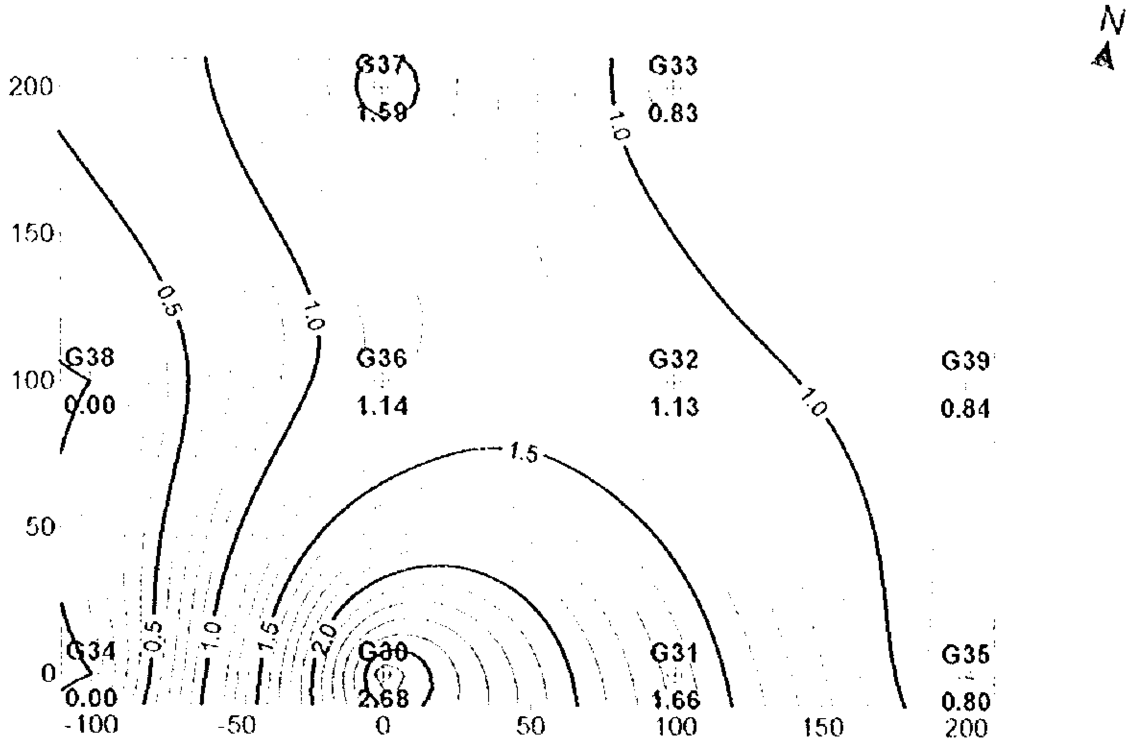


Fig. II-4-5 Copper assay distribution of Ghuzayn Body No.3

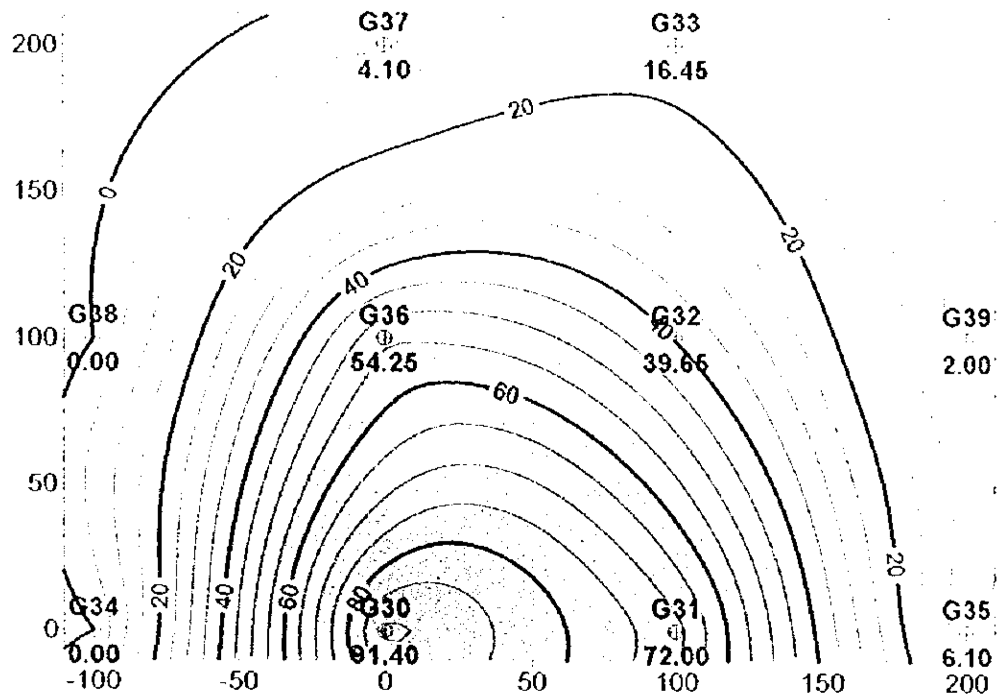


Fig. II-4-6 Isopack map of Ghuzayn Body No.3

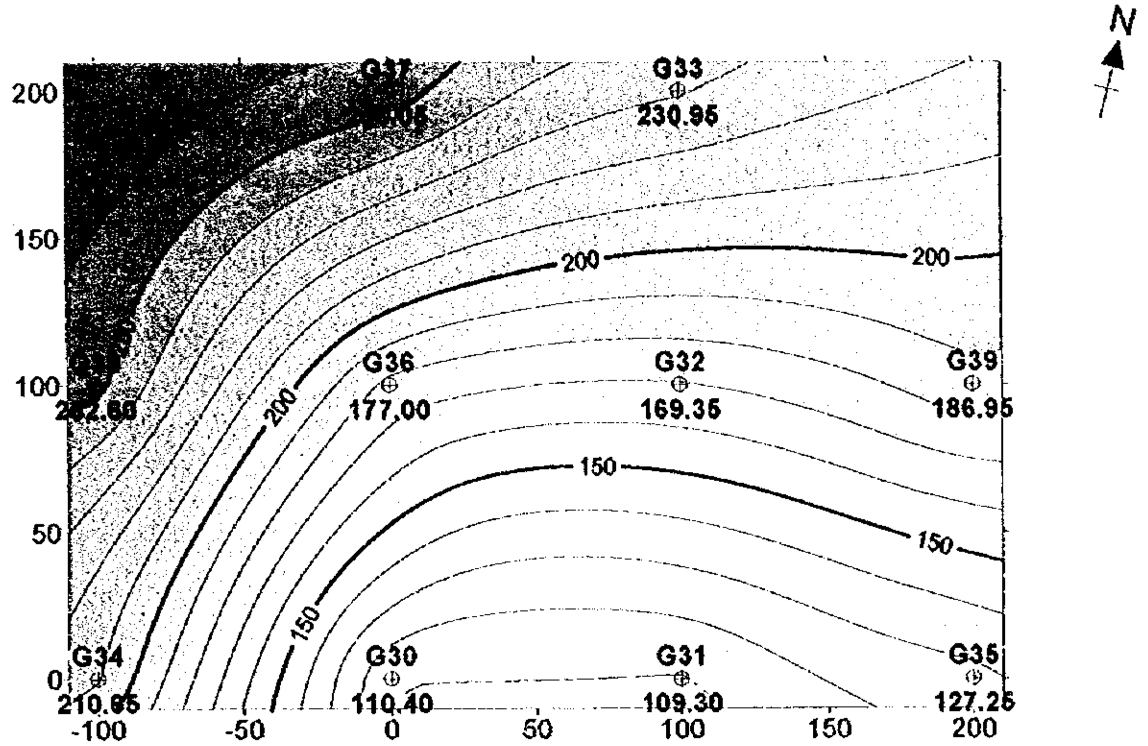


Fig. Ⅱ-4-7 Contours of the top surface of Ghuzayn Body No.3

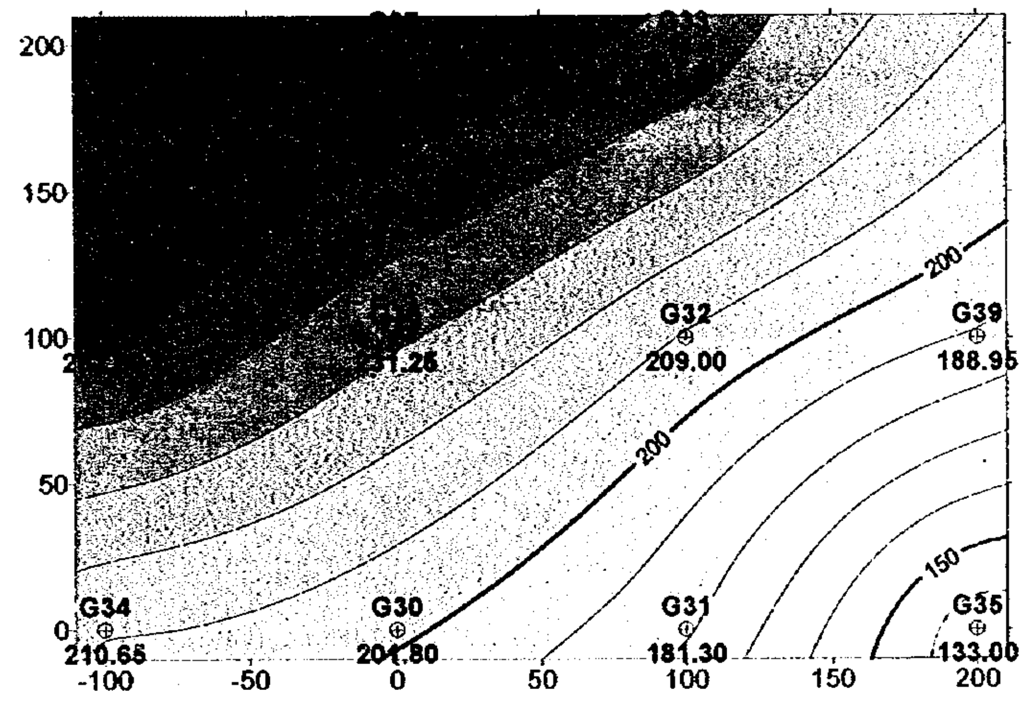


Fig. Ⅱ-4-8 Contours of the bottom surface of Ghuzayn Body No.3

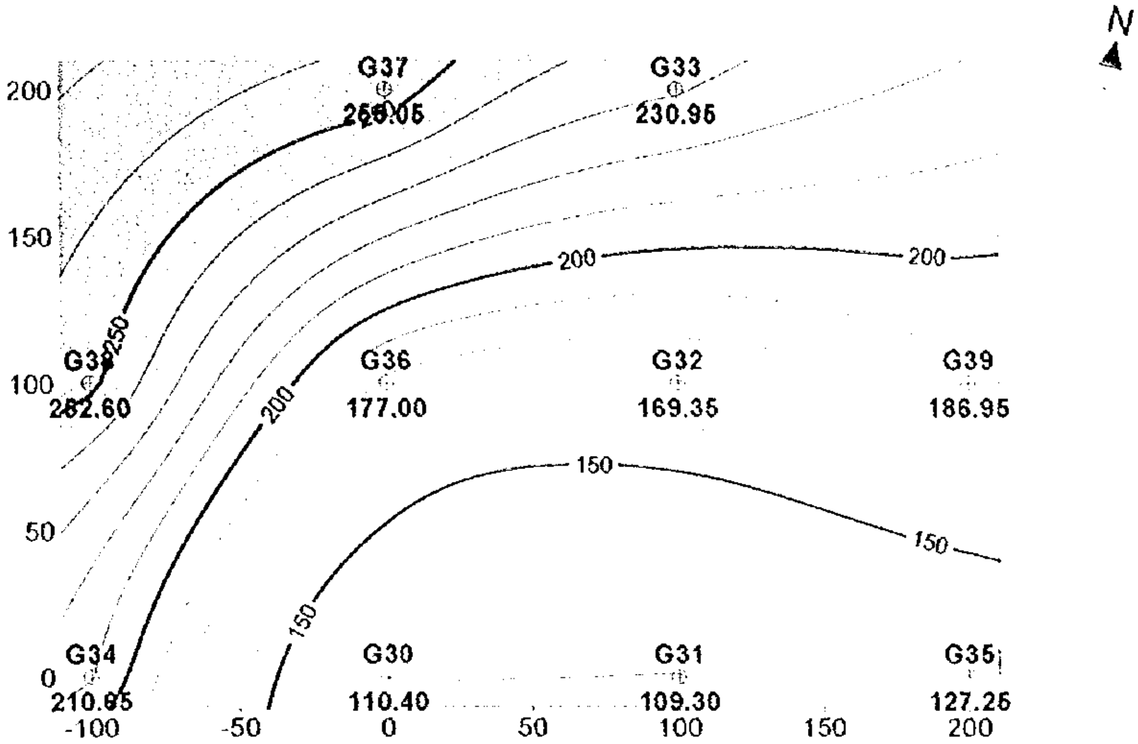


Fig. II-4-7 Contours of the top surface of Ghuzayn Body No.3

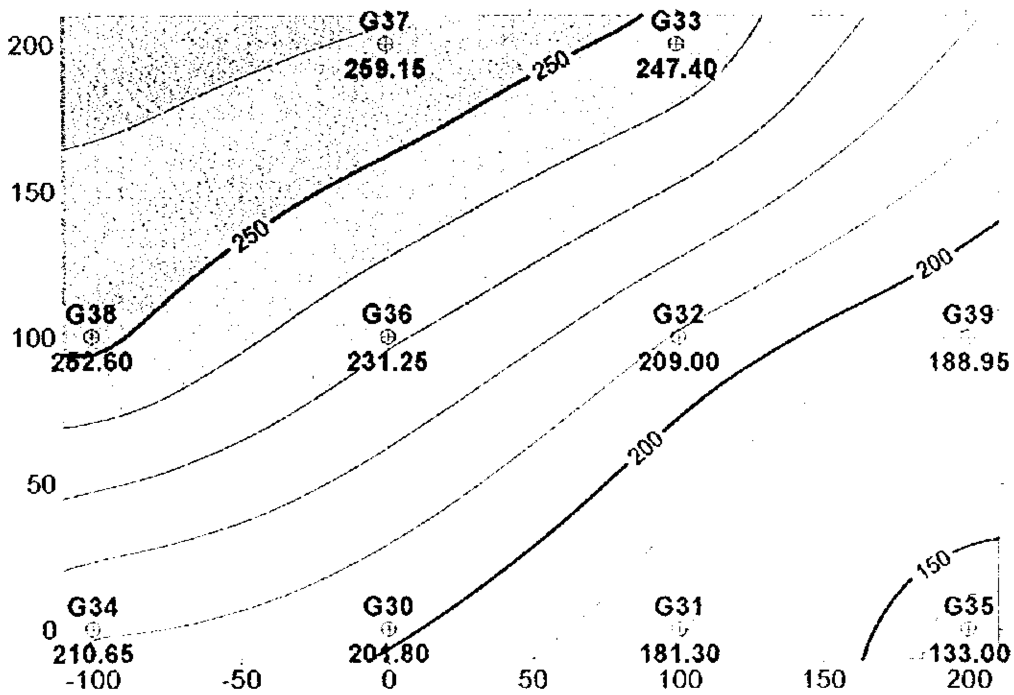


Fig. II-4-8 Contours of the bottom surface of Ghuzayn Body No.3

can be estimated a dip of about 80°N.

The distribution of average copper assay is shown in Fig.II-4-5. Average grade shows maximum value at MJOB-G30 borehole and is decreasing toward all directions. Although MJOB-G37 borehole is located at the edge of ore body, average grade presents a high value. Fig.II-4-9 to Fig.II-4-10 show vertical change of copper assay. Vertical change of each borehole is extremely variable, but there is no general trend common to all boreholes.

Alteration related to mineralization consists of silicification and epidotization. These are distributed widely, increasing their intensity near the ore body and are remarkable on the footwall side.

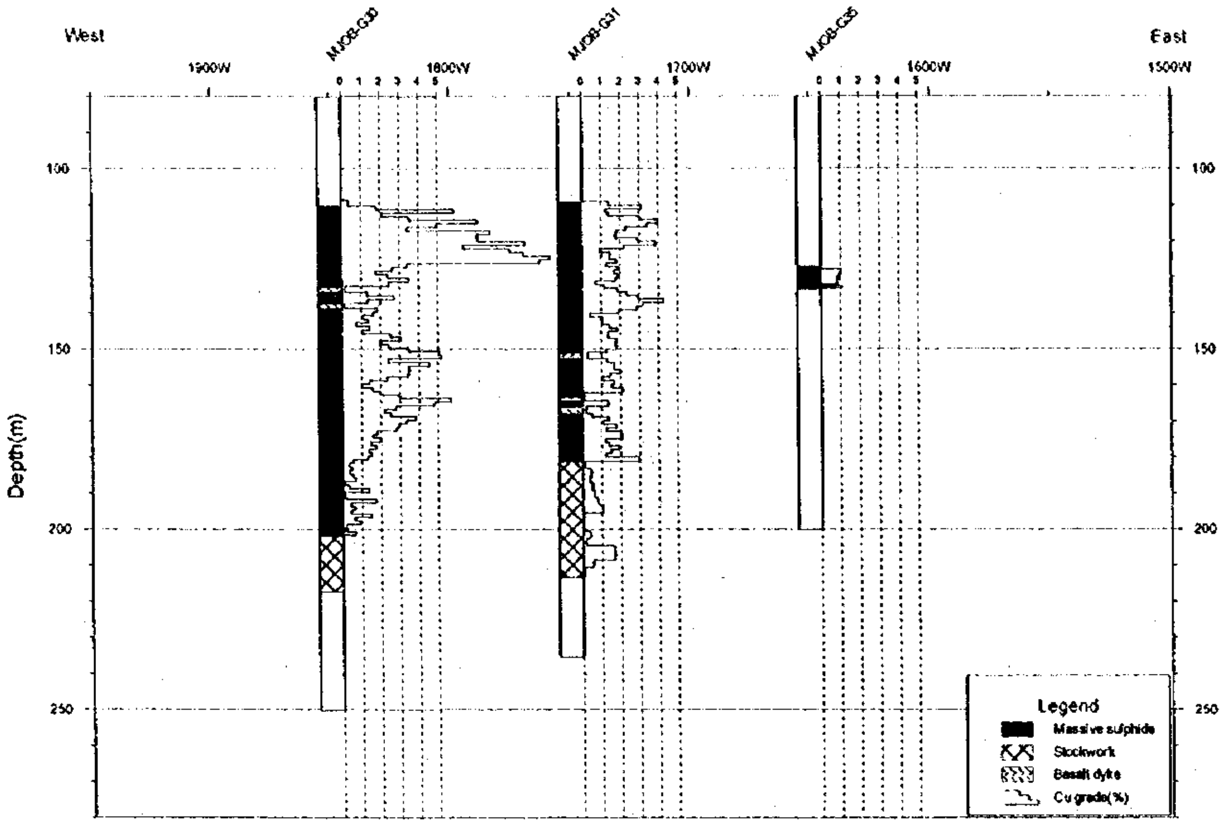
There is a good correlation between the results of TEM survey and the distribution of ore body estimated by drilling survey; therefore TEM is an effective geophysical method for this area (Fig.II-4-11).

4-5-2 Sarami area

In Sarami area, drilling survey was carried out at the anomaly zone detected by TDIP and TEM survey in Phase II. Mineralization and alteration is recognized almost all over the core. Intense pyrite dissemination and a lot of veinlets are recognized. Geophysical anomaly reflects such intense mineralization. Drilling did not reach the stratigraphic position of massive sulphide deposits because the dip of beds is steep (See Fig.II-4-12). Considering mineralization and alteration of basaltic dikes, it is thought that this mineralization occurred when dikes were intruded.

4-5-3 Hara Kilab area

In Hara Kilab area, drilling survey was carried out at the anomaly zone detected by TDIP and TEM survey in Phase II. Intense mineralization and alteration is recognized widely on the V1-2 (See Fig.II-4-14). All boreholes intersected a stockwork ore similar to that observed just below massive sulphide ore in Ghuzayn area. Massive sulphide is not confirmed. All boreholes did not reach the stratigraphic position of massive sulphide deposits (See Fig.II-4-13). It is thought that this mineralization occurred after the formation of massive sulphide deposits.



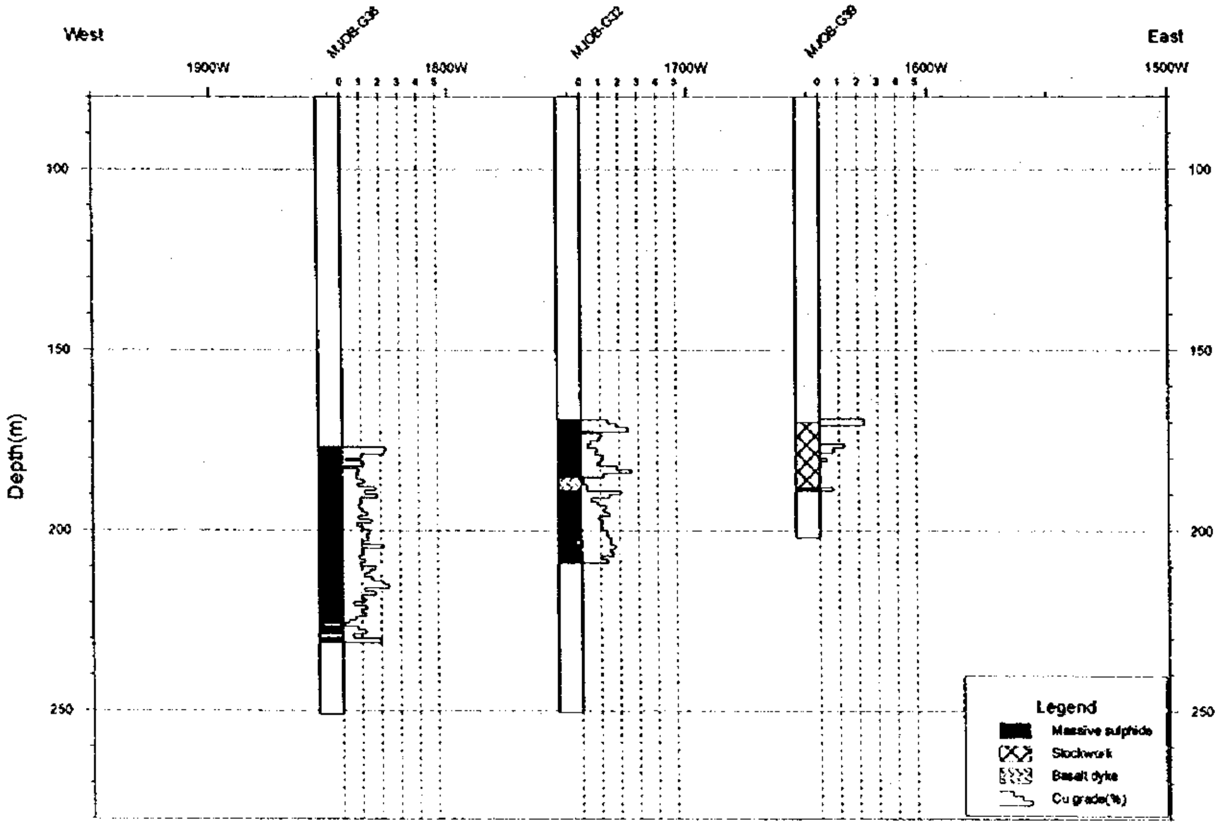
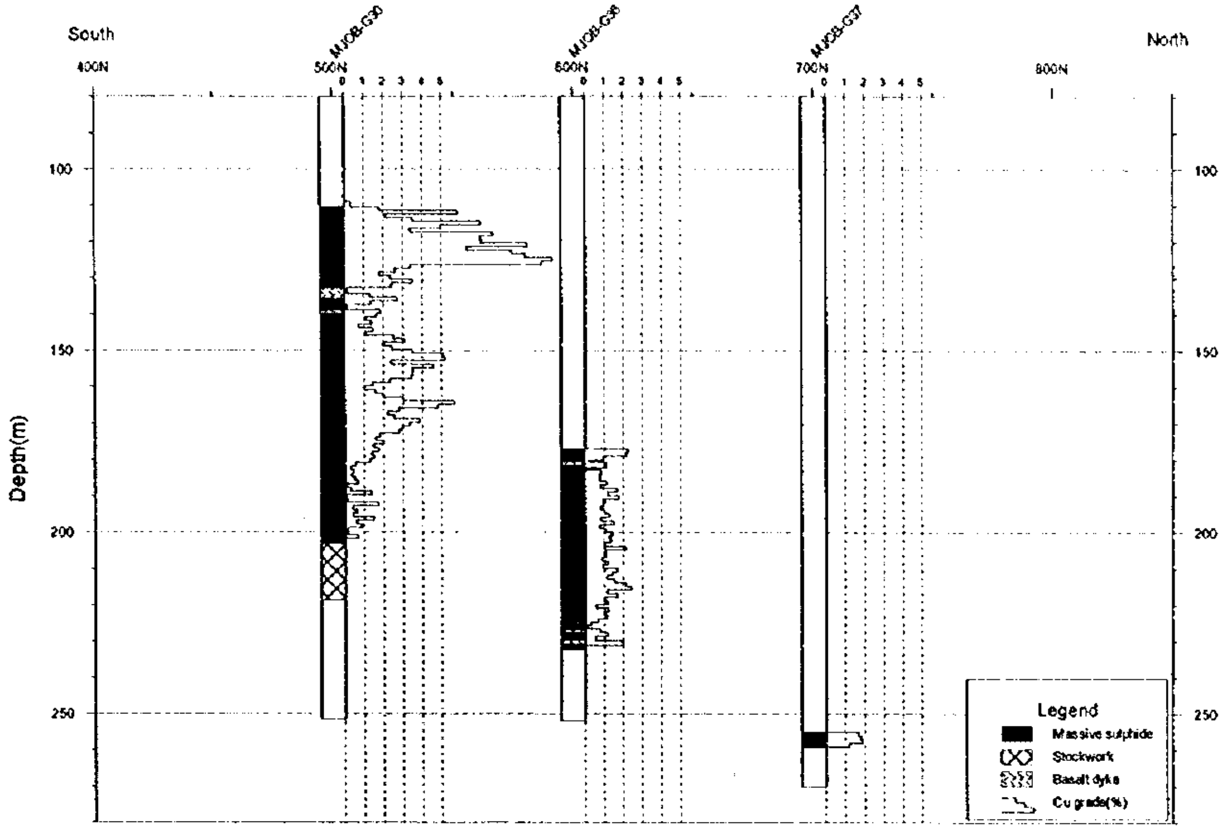


Fig. II-4-9 Vertical change of Copper assay of each hole(1)



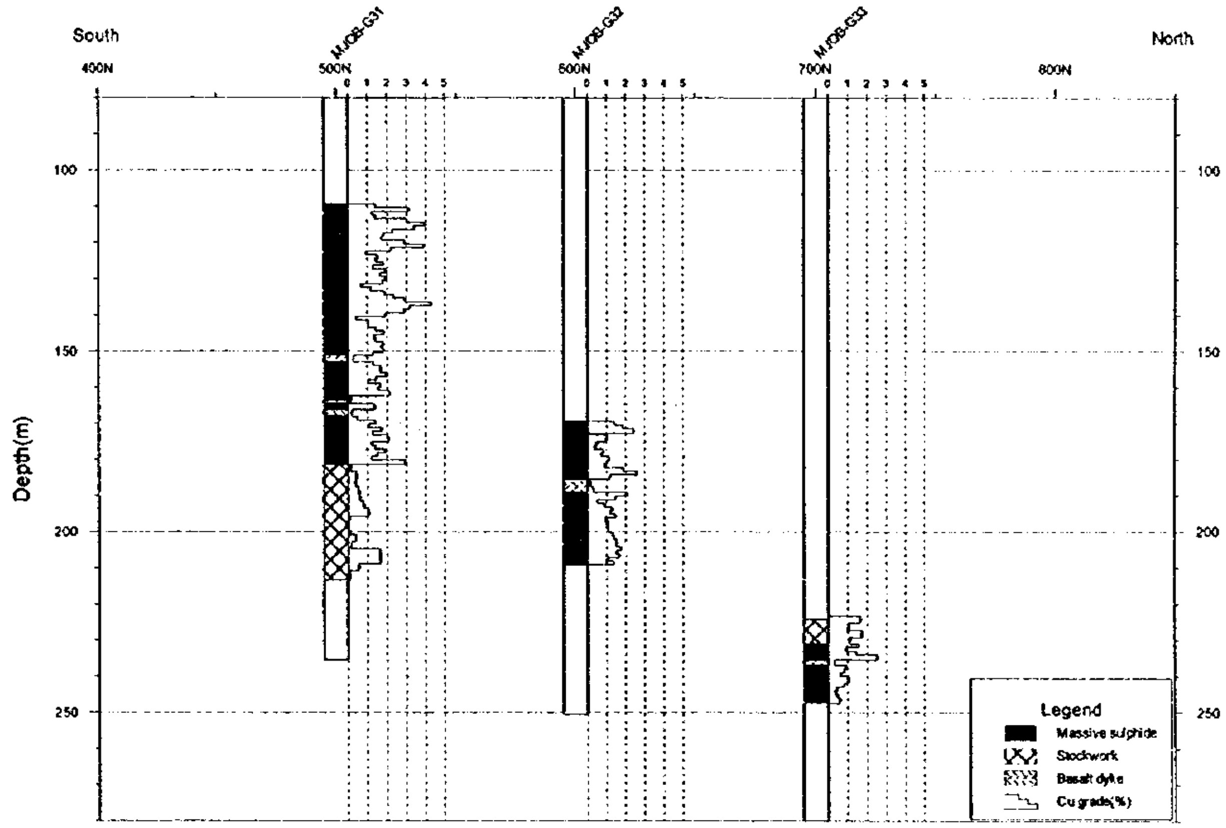


Fig. II-4-10 Vertical change of Copper assay of each hole(2)

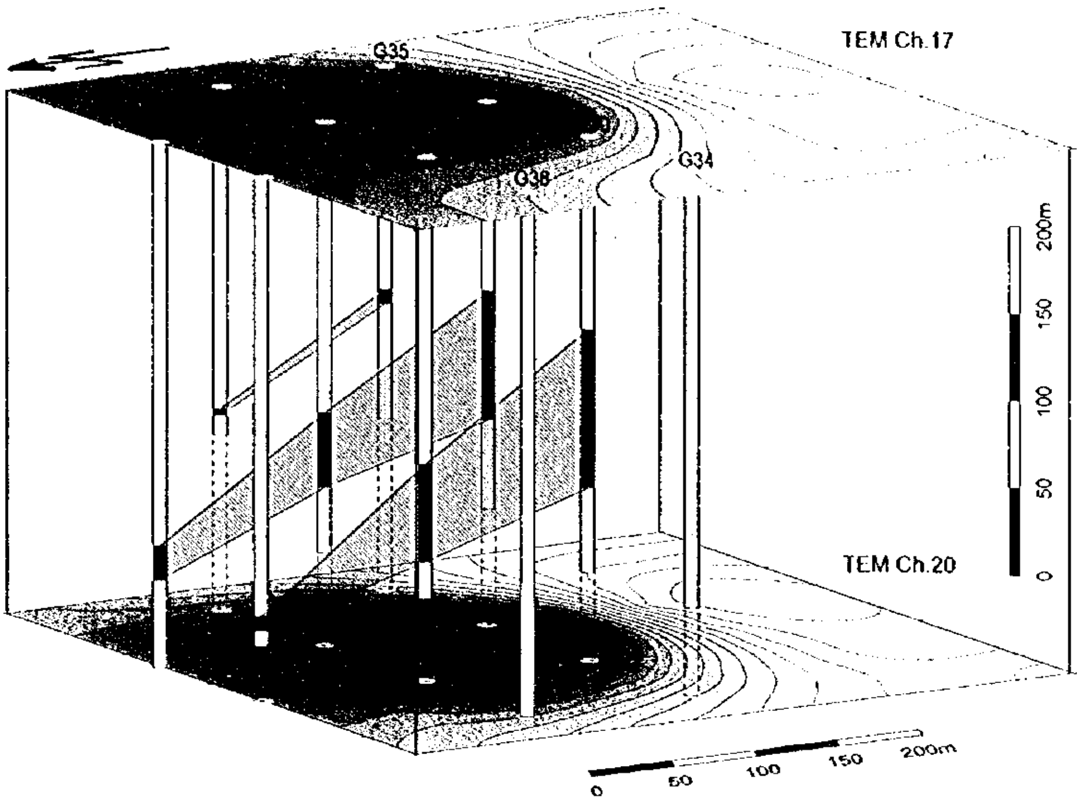


Fig. II-4-11 Correspondence between TEM and drilling results in Ghuzayn Body No.3

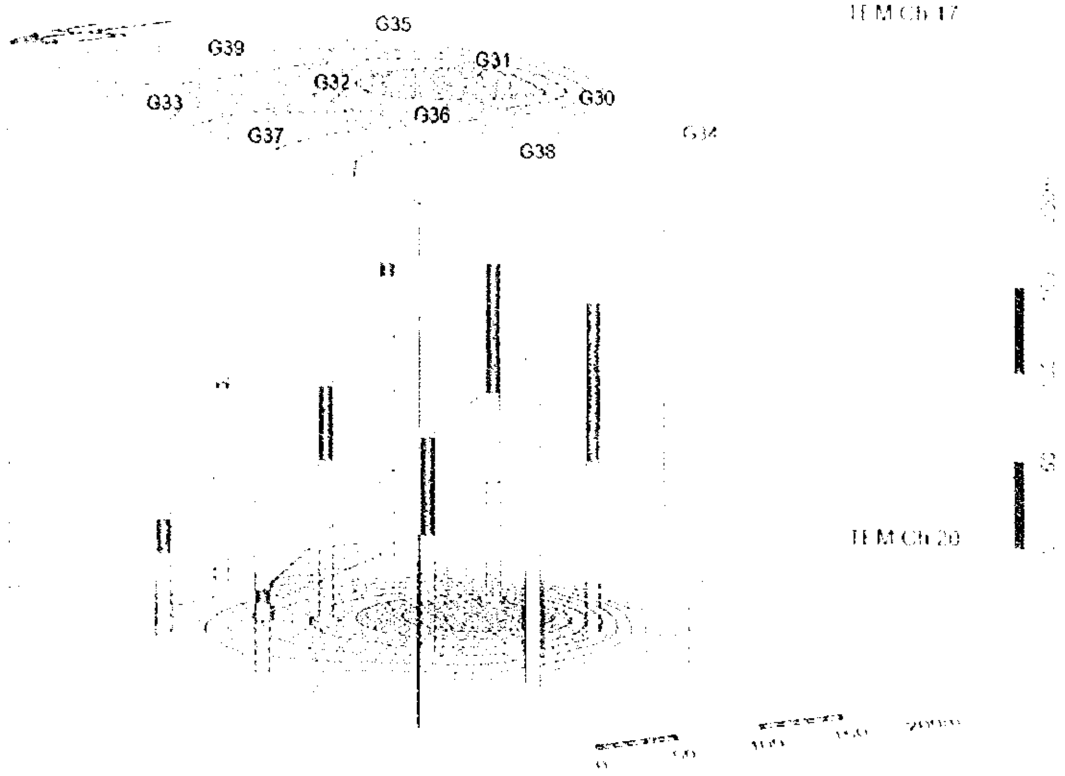


Fig. II-4-11 Correspondence between TEM and drilling results in Ghuzayn Body No. 3

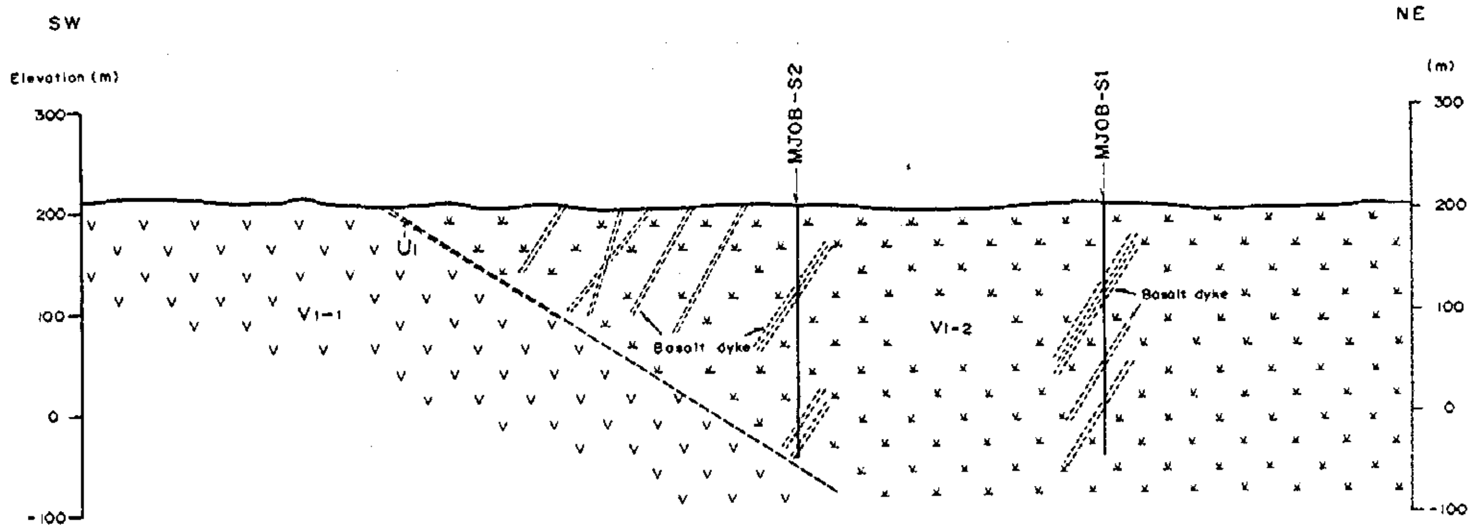
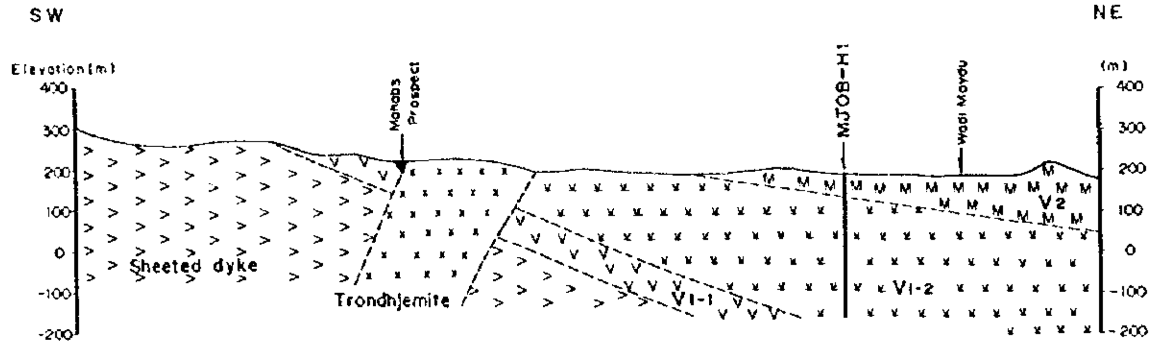


Fig. II-4-12 Cross section of borehole site in Sarami area



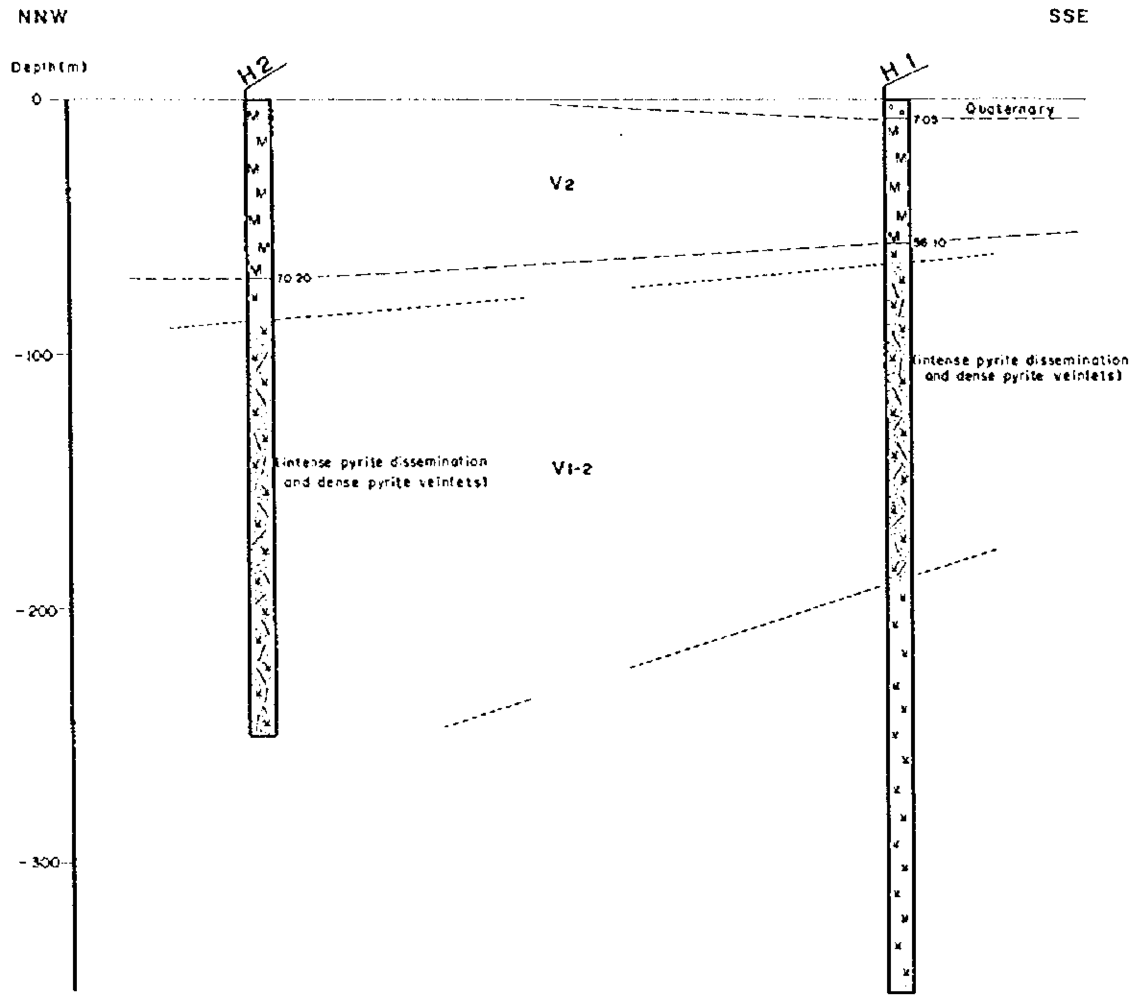


Fig. II-4-13 Cross section of borehole site in Hara Kilab area

PART III CONCLUSIONS AND RECOMMENDATIONS

CHAPTER I CONCLUSIONS

Based on the results obtained during the surveys carried out in the first phase of the Cooperative Mineral Exploration in the South Batinah Coast area, the second phase was executed during this fiscal year by undertaking the following tasks:
Geophysical and drilling surveys in Ghuzayn area;
Geological and geophysical surveys in the areas of Salami, Mahab, Hara Kilab and Maqail;
Drilling survey in Sarami and Hara Kilab areas based on the results of the geophysical survey; and
Geological survey in Zuha area.

The survey results can be summarized as follows:

(1) Ghuzayn

The drilling results reveal that the dimensions of the ore body No.3 is likely to be 200m in width along the E-W direction and 250m in length along the N-S direction. The distribution of the ore body becomes thick in its central portion but gets abruptly thin in the marginal portion (Fig.III-1). According to 8 boreholes which intersected the ore body No. 3 in Phases I and II, the geological ore reserves are roughly estimated in 8 millions tons with an average assay of 1.4%Cu.

The IP anomaly detected in A'Ruwydhat, to the north of Ghuzayn area, was examined by a TEM method, however, the TEM survey did not delineate any promising anomaly. In spite of this, there seems a possibility for the existence of stockwork type ore, due not only to the high IP chargeability zone but also to the fact that silicified zone and quartz veinlets associated with copper mineral showings are cropped out.

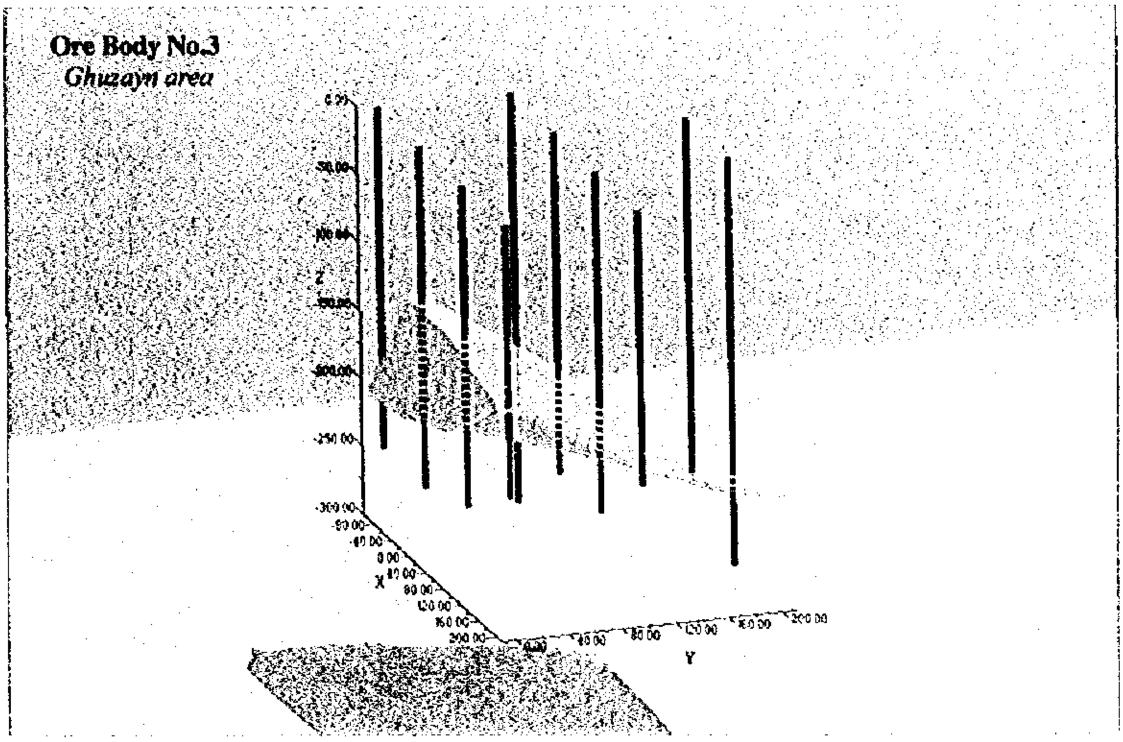
(2) Sarami

Two anomaly zones, Omah No.1 and Omah No.2, were detected by IP survey. Among them, TEM anomalies were delineated in the central and western parts of the Omah No.1 IP anomaly zone.

Two drillings conducted in these TEM anomaly zones intersected extensive pyrite mineralization probably related to the intrusion of basaltic dykes.

(3) Hara Kilab

Remarkable TEM anomalies were detected in the central part of IP anomalous zone. According to the results of the drilling survey, intense pyritization consisting of disseminations and veinlets and accompanied partly by chalcopyrite were found in V1-2 formation. This mineralization seems to have taken place at a stage later than the formation of massive sulphide production.



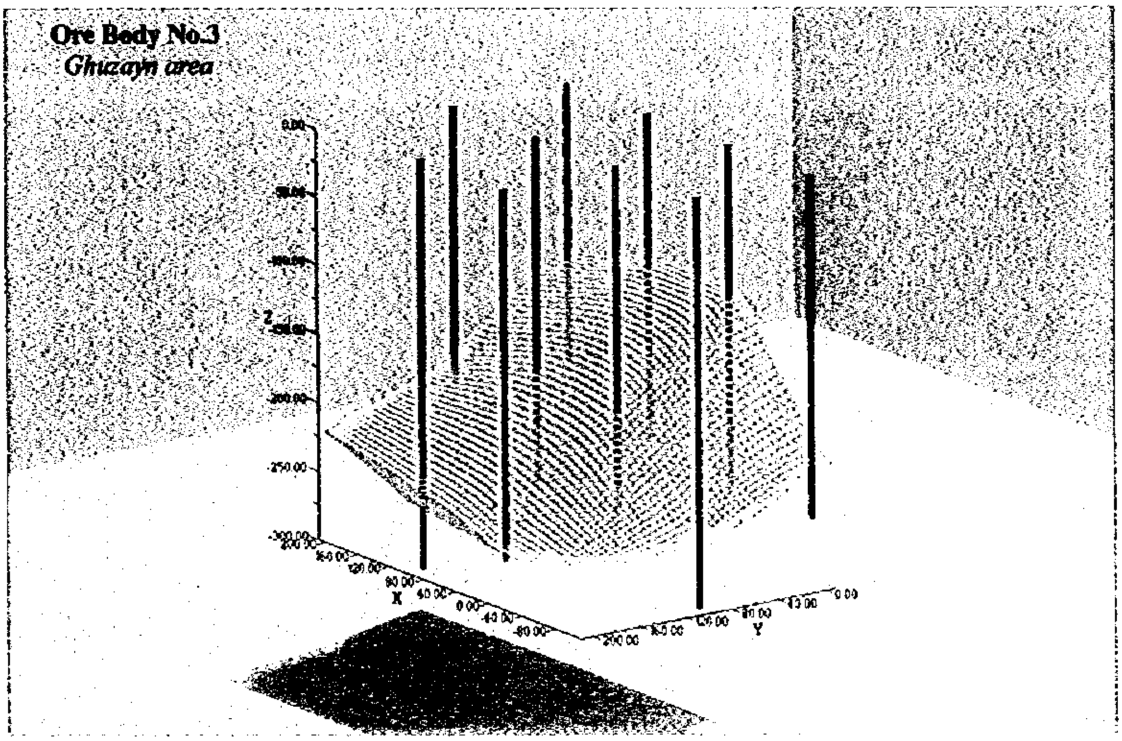
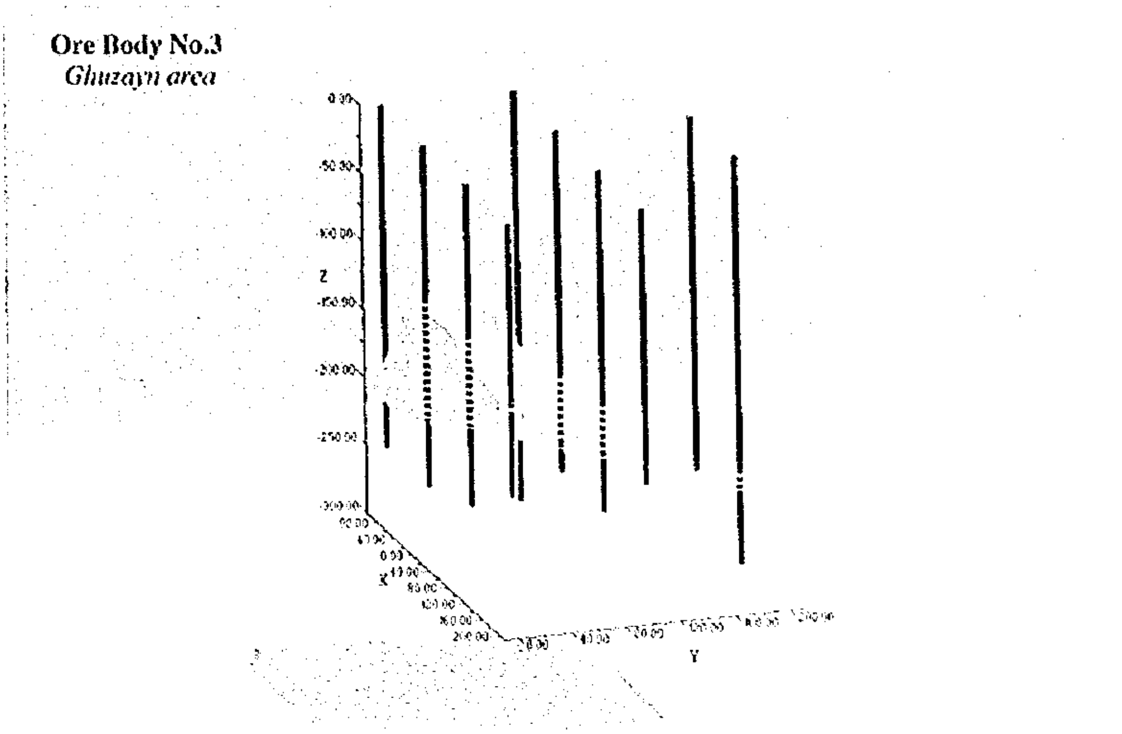


Fig.III-1 Schematic view of Ghuzayn Body No.3



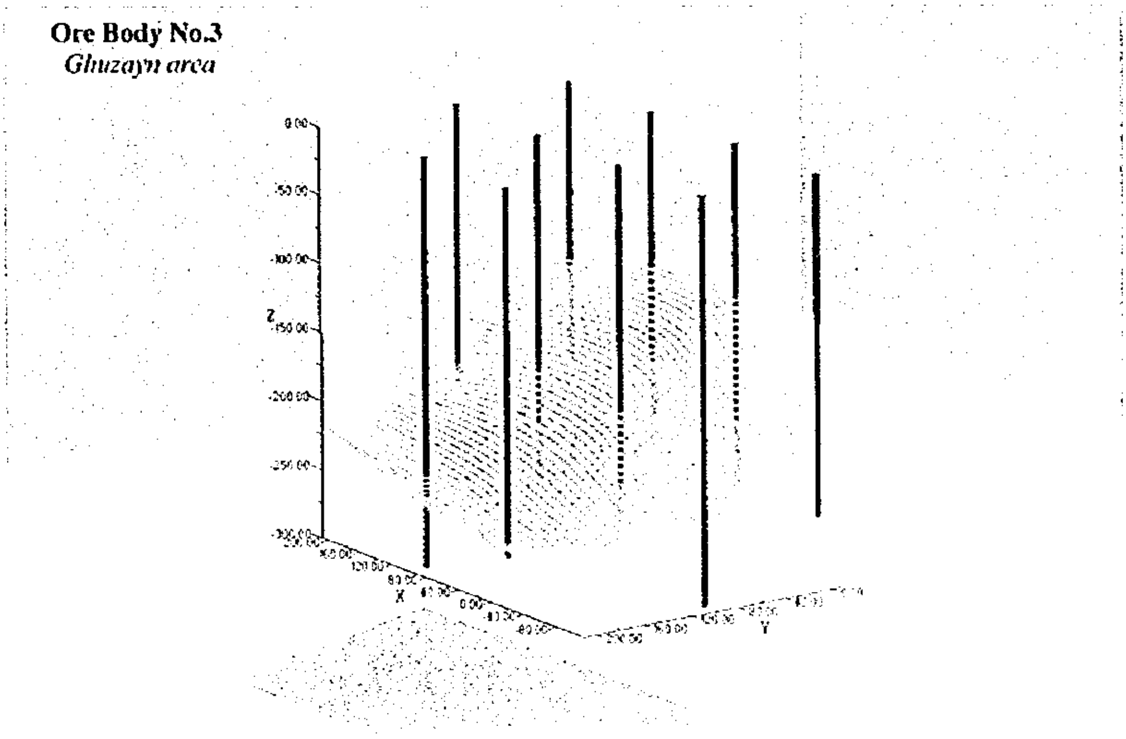


Fig.III-1 Schematic view of Ghuzayn Body No.3

Another IP anomaly was detected at the south end of the survey area. The existence of massive sulphide is expected in the vicinity of this anomaly because of strong epidotization and copper mineralization that occurred in this vicinity.

(4) Maqail

A high chargeability zone with relatively high resistivity values was detected crossing the survey area in the N-S direction. The existence of massive sulphide deposits is expected judging from the IP results and the abundance of mineral showings on the surface.

(5) Mahab

No significant anomaly was detected by the geophysical survey in this area.

The possibility for the existence of massive sulphide deposits is extremely low.

(6) Zuha

A large-scale gossan crop out and abundant copper oxides are distributed in this area. Strong epidotization was found in V1-1 formation and metalliferrous sediments are observed continuously distributed in this area. Judging from the above features, the potential for the existence of massive sulphide deposits seems to be high.

CHAPTER 2 RECOMMENDATIONS

Further geophysical and drilling survey works are recommended in the following areas that present a high potential for massive sulphide deposits.

(1) Ghuzayn

Drilling survey around the deposit No.3 is recommended to clarify its distribution and determine its copper grade.

In A'Ruwydhat area, where a broad high chargeability anomaly zone was delineated, drilling survey is recommended in order to clarify the nature of this anomaly.

Further IP survey covering the east and west extension of the surveyed area is also recommended in order to search for additional massive sulphide deposits.

(2) Hara Kilab

Further IP survey is recommended to clarify the IP anomaly detected at the south end of the area.

(3) Maqail

Further IP survey is recommended to clarify the north and south extension of the high chargeability zone.

(4) Zuha

Drilling surveys previously conducted by Prospection Ltd. and by the Ministry of Petroleum & Minerals were concentrated in the vicinity of the gossan. The east area of this gossan, where the boundary of V1-1 and V1-2 dips eastwards and is covered by the extensive wadi sediments, still remains as a promising target area.

Geophysical exploration followed by drilling survey is recommended in order to discover massive sulphide deposits.

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APPENDICES

Appendix 1

Drilling equipments and consumed materials

Drilling Equipment

	Rig-1	Rig-2	Rig-3
Model	RAMROD-II	VOL-180	N-18(f5L)
Maker	Joy Manufacturing Co. USA	Voltas Ltd. India	Acker Drill Co. USA
Mounting	Truck mounted 4WD	Truck mounted 4WD	Skid Mounted
Drilling capacity with NX size wire Line coring	450 m	650 m	600 m
Angle hole drilling capacity	Upto 60 deg.	Vertical only	Upto 60 deg.
Circulation pump	35 GPM 800 PSI	37 GPM 1000 PSI	37 GPM 1000 PSI

Consumed material

Hole No.	MJOB-G34	MJOB-G35	MJOB-G36	MJOB-G37	MJOB-G38	MJOB-G39	MJOB-H1
Bit: NW	1	1	1	1	1	1	1
Bit: NX	1	1	1	1	1	1	2
Bit: BX	-	-	-	-	-	-	-
Light Oil (l)	30	25	30	35	25	35	45
Mud (kg)	240	210	260	310	220	360	480
Cement (kg)	100	150	200	200	150	300	250

Hole No.	MJOB-H2	MJOB-S1	MJOB-S2
Bit: NW	1	1	1
Bit: NX	1	1	1
Bit: BX	-	-	-
Light Oil (l)	30	30	30
Mud (kg)	280	230	240
Cement (kg)	150	100	250

Appendix 2

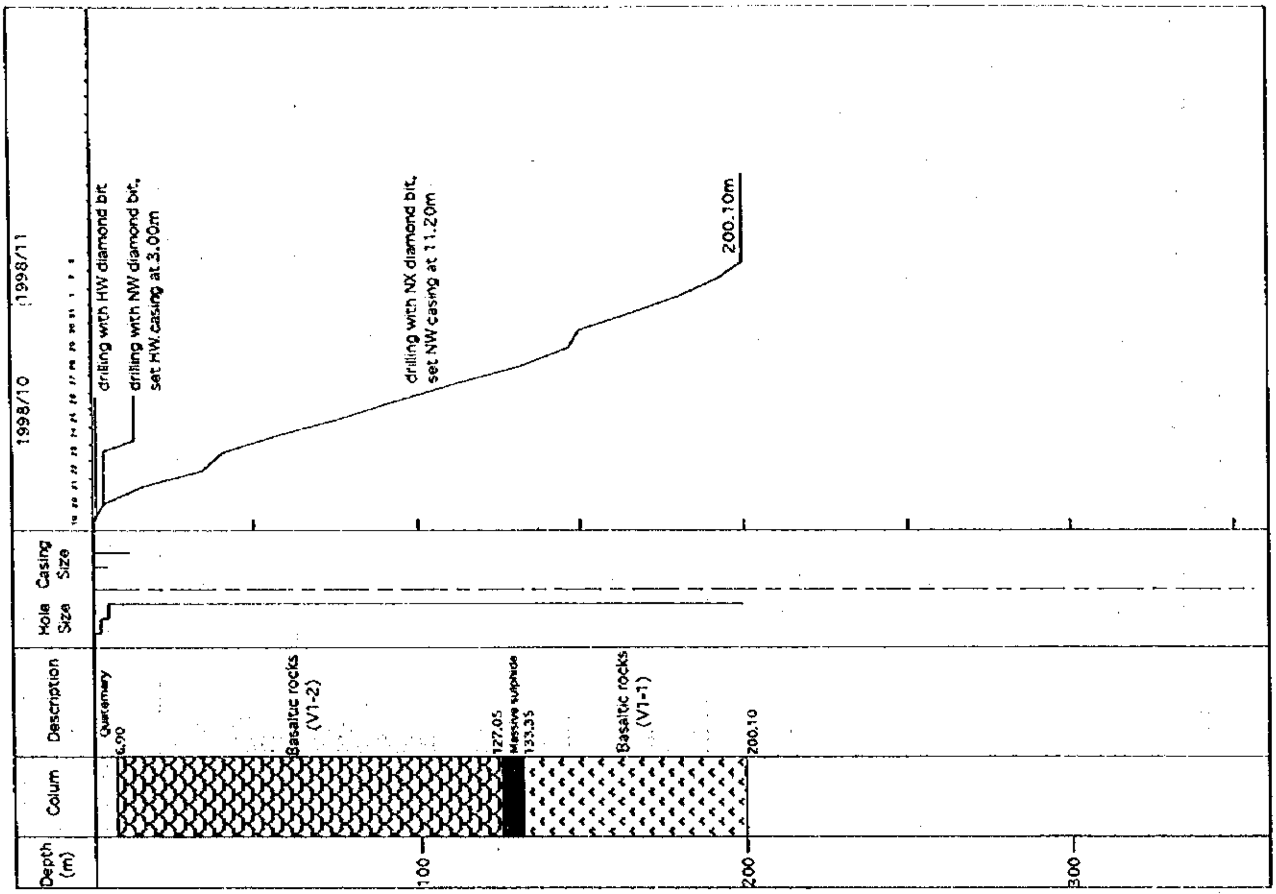
Generalized drilling results and progress record of drilling

Progress record of drilling

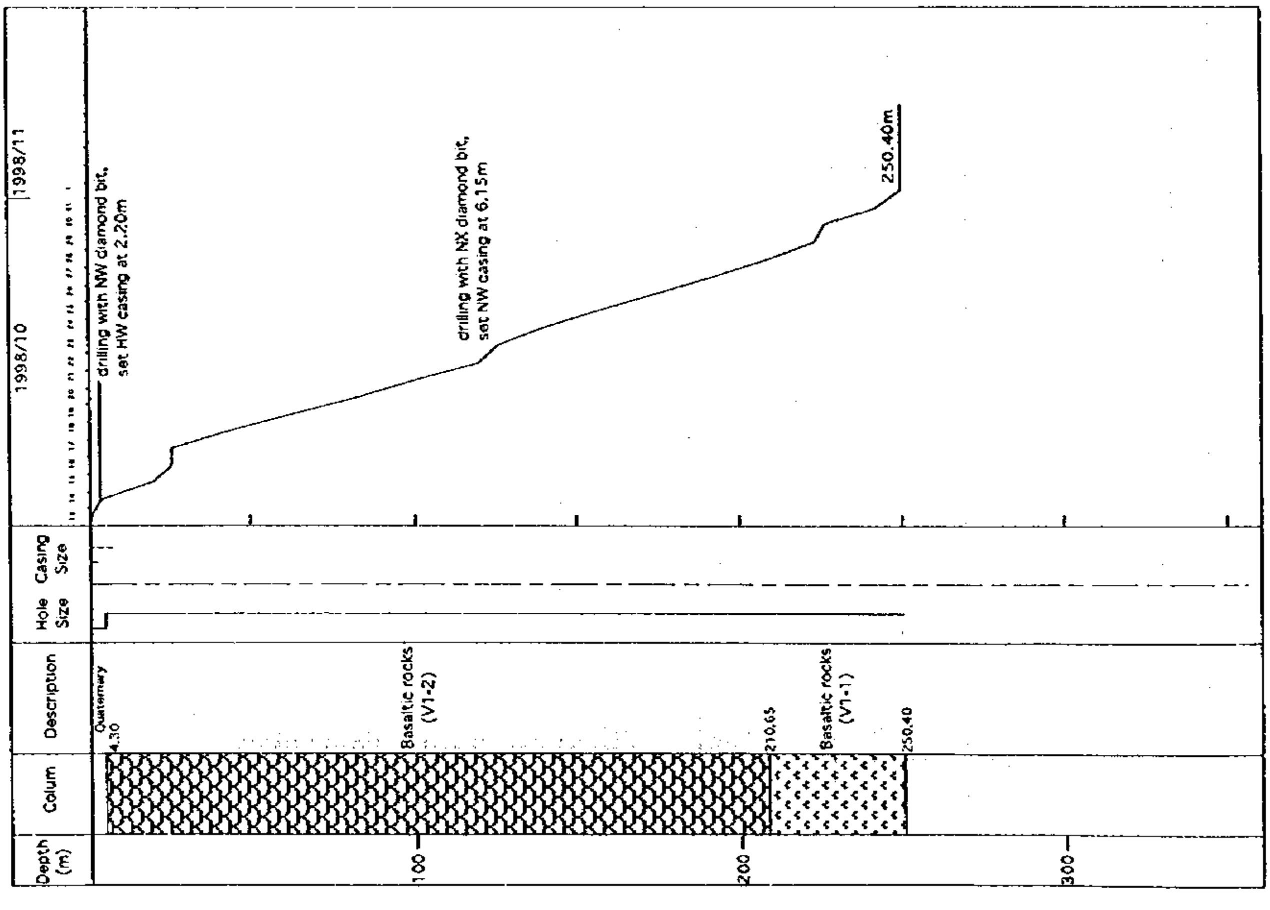
	Hole No.	MJOB-G34	MJOB-G35	MJOB-G36	MJOB-G37	MJOB-G38	MJOB-G39	MJOB-H1
Drilling Priod	Preparation	10/14	10/20	9/26	9/26	11/23	11/23	12/13
	Days (A)	0.5	0.5	1	1	1	1	1
	Drilling	10/14 to 11/1	10/20 to 11/4	9/27 to 10/13	9/27 to 10/19	11/24 to 12/11	11/24 to 12/7	12/14 to 1/10
	Days (B)	18.5	15	16.5	22.5	18	14	28
	Removing	11/2	11/4	10/13	10/19	12/12	12/8	1/11
	Days (C)	1	0.5	0.5	0.5	1	1	1
	Total days (D)	20	16	18	24	20	16	30
Depth	Planned depth (E)	250m	200m	250m	270m	300m	200m	350m
	Drilled depth (F)	250.40m	200.10m	251.00m	270.15m	300.60m	201.90m	350.70m
Recovery	Overburden (G)	1.00m	6.90m	13.15m	12.50m	3.05m	9.35m	7.05m
	Core length (H)	247.55m	195.30m	248.60m	267.85m	298.85m	198.85m	344.30m
	Recovery (H/F)	99%	98%	99%	99%	99%	98%	98%
Casing	HW casing	2.20m	3.00m	2.00m	-	1.50m	2.00m	3.00m
	NW casing	6.15m	11.20m	11.50m	8.00m	9.65m	9.20m	19.55m
	NX casing	-	-	-	-	-	-	-
Rate	meter /day (F/B)	13.54m	13.34m	15.21m	12.01m	16.70m	14.42m	12.53m
	meter/ total day (F/D)	12.52m	12.51m	13.94m	11.26m	15.03m	12.62m	11.69m

	Hole No.	MJOB-H2	MJOB-S1	MJOB-S2
Drilling Priod	Preparation	12/14	12/30 to 12/31	12/30 to 1/1
	Days (A)	1	2	3
	Drilling	12/15 to 12/29	1/1 to 1/16	1/2 to 1/22
	Days (B)	15	16	21
	Removing	12/30	1/16	1/23
	Days (C)	1	1	1
	Total days (D)	17	19	25
Depth	Planned depth (E)	250m	250m	250m
	Drilled depth (F)	251.30m	250.40m	253.85m
Recovery	Overburden (G)	2.70m	6.60m	1.00m
	Core length (H)	248.50m	244.95m	250.10m
	Recovery (H/F)	99%	98%	100%
Casing	HW casing	1.00m	1.50m	2.50m
	NW casing	13.80m	7.65m	26.00m
	NX casing			
Rate	meter /day (F/B)	16.75m	15.65m	12.09m
	meter/ total day (F/D)	14.78m	13.18m	10.15m

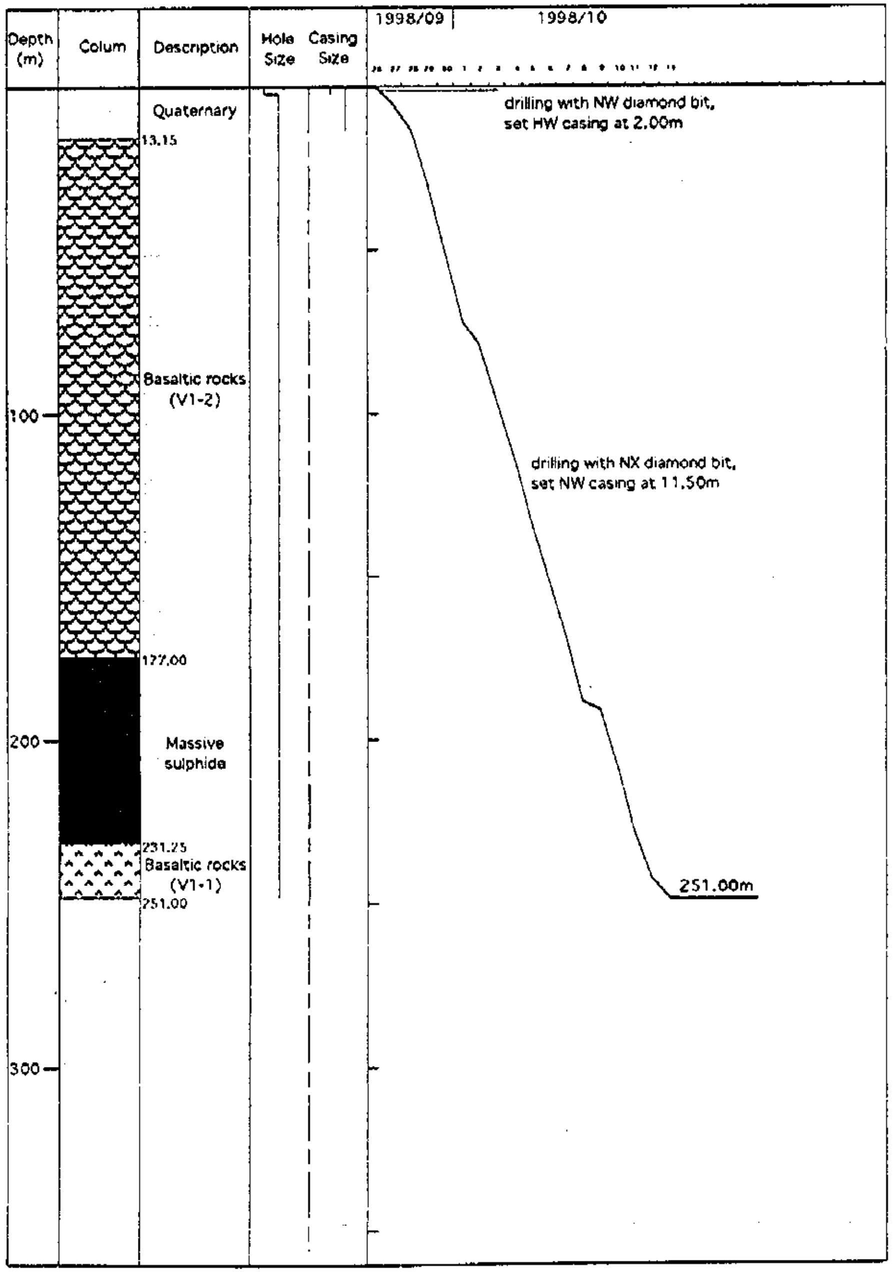
G35


Depth (m)
Colum
Description
Hole Size
Casing Size
1998/10
1998/11
Quaternary
6.90
Basaltic rocks
(V1-2)
127.05
Massive sulphide
133.35
Basaltic rocks
(V1-1)
200.10
drilling with HW diamond bit
drilling with NW diamond bit,
set HW casing at 3.00m
drilling with NX diamond bit,
set NW casing at 11.20m
200.10m
100
200
300

G34

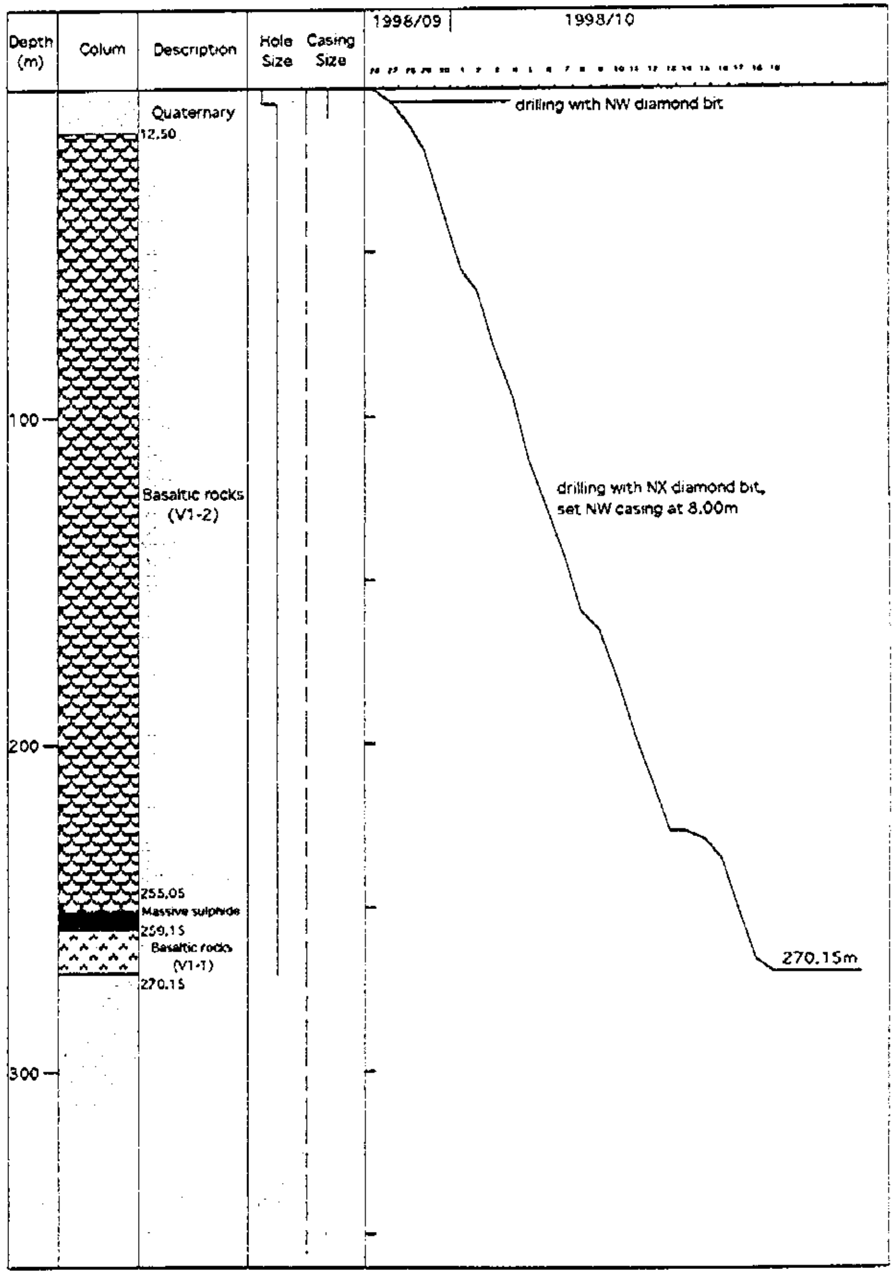

Depth (m)
Colum
Description
Hole Size
Casing Size
1998/10
1998/11
Quaternary
4.30
Basaltic rocks
(V1-2)
210.65
Basaltic rocks
(V1-1)
250.40
drilling with NW diamond bit,
set HW casing at 2.20m
drilling with NX diamond bit,
set NW casing at 6.15m
250.40m
100
200
300

G36

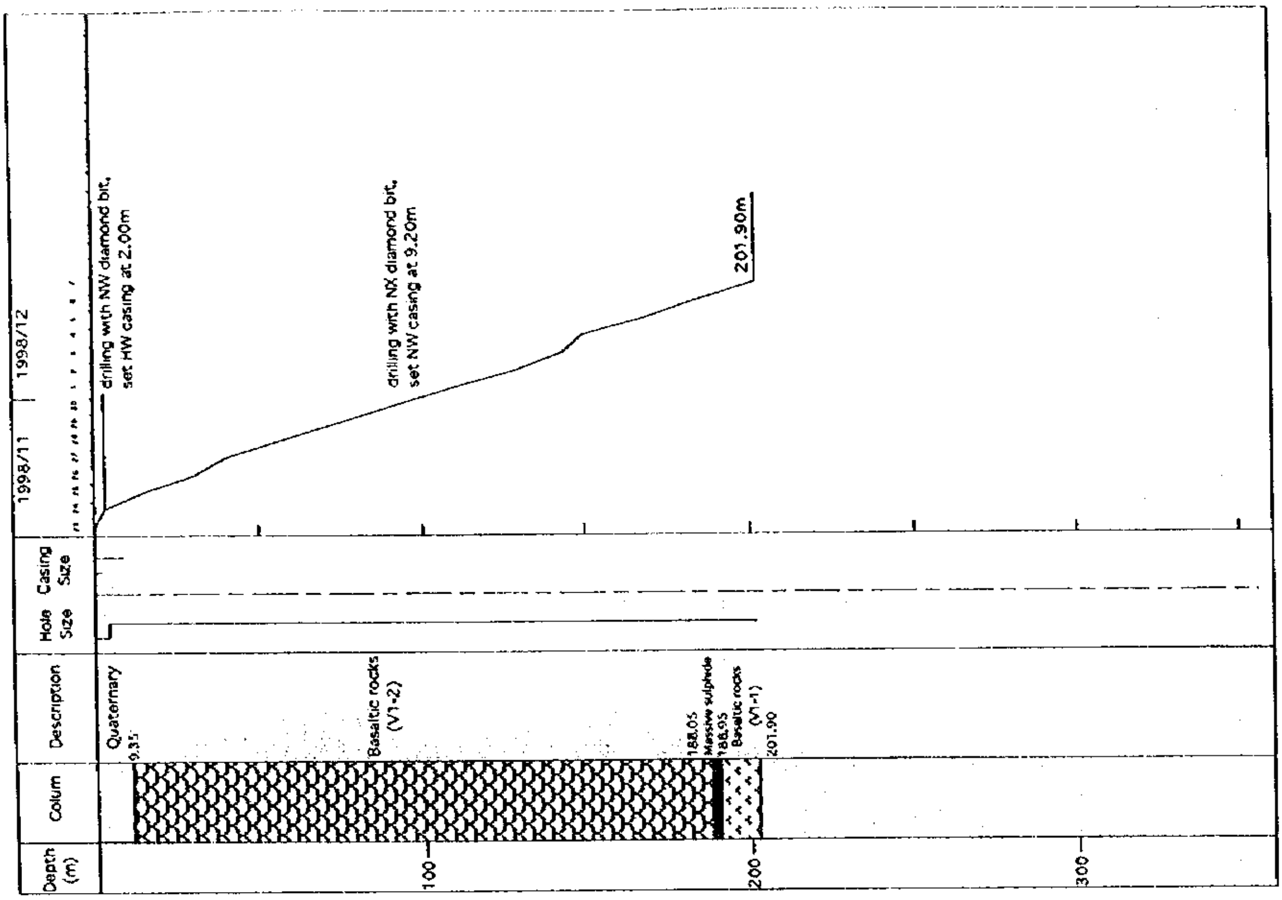


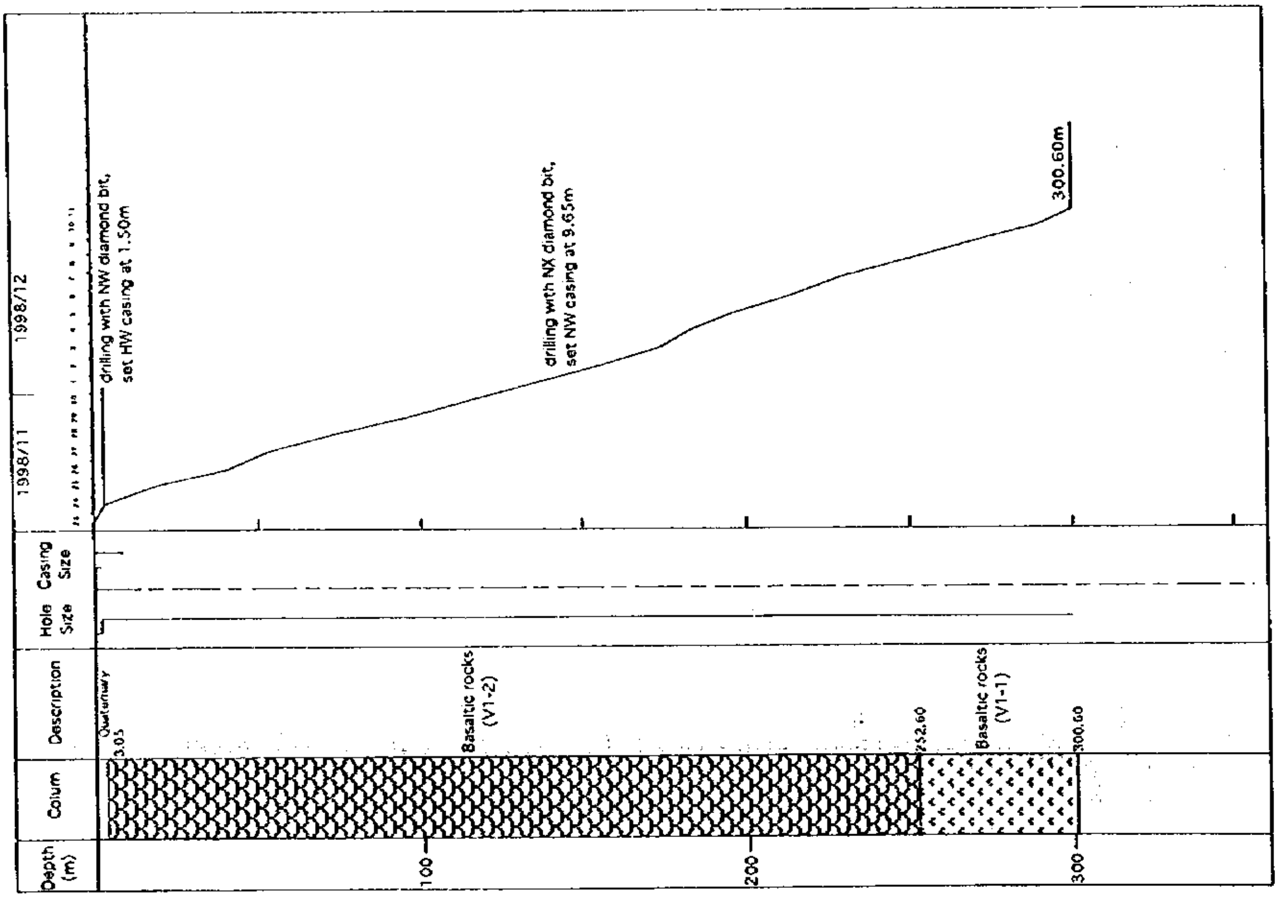
Depth (m)
Colum
Description
Hole Size
Casing Size
1998/09
1998/10
Quaternary
13.15
Basaltic rocks (V1-2)
177.00
Massive sulphide
231.25
Basaltic rocks (V1-1)
251.00
100
200
300
drilling with NW diamond bit, set HW casing at 2.00m
drilling with NX diamond bit, set NW casing at 11.50m
251.00m

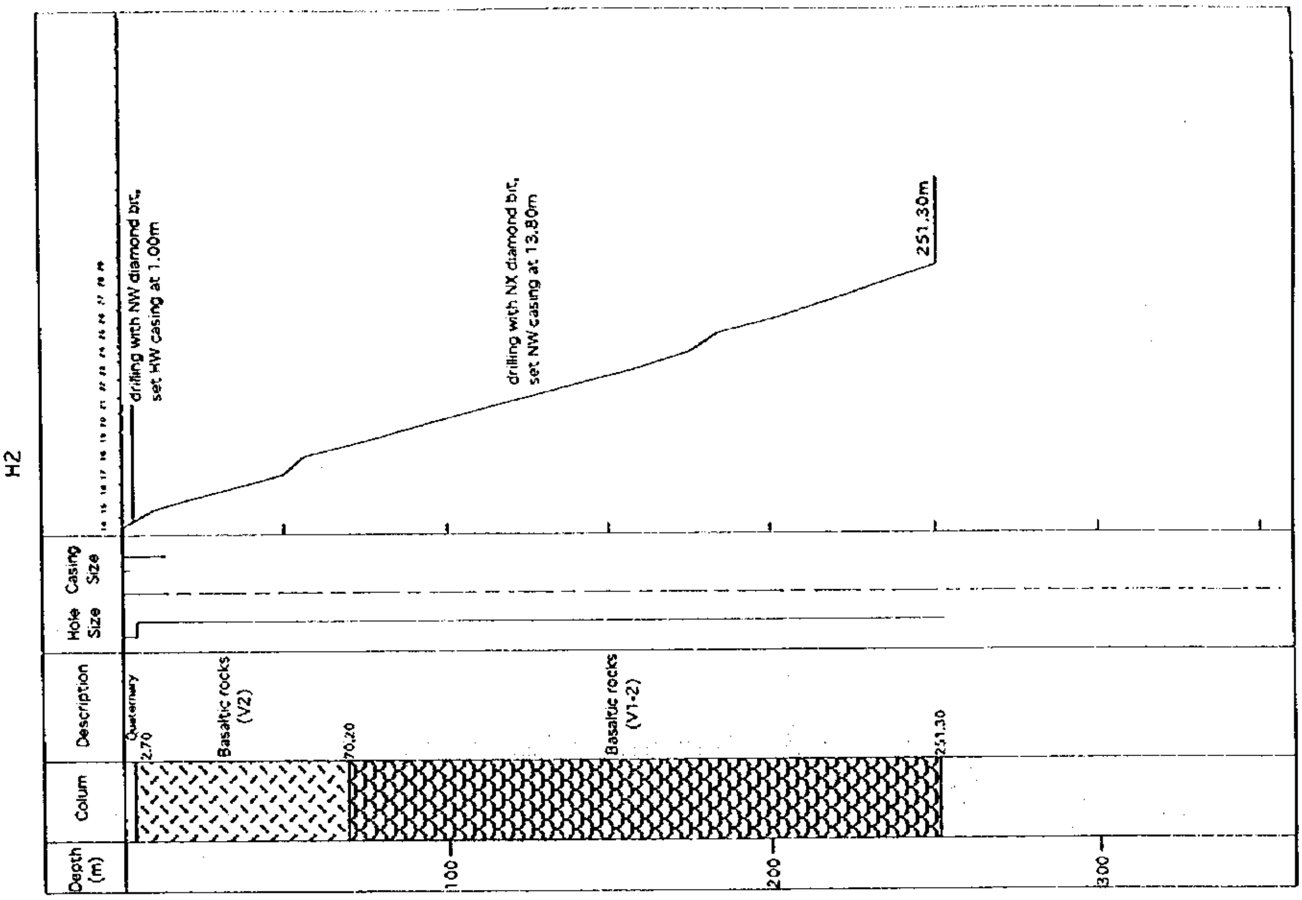
G37

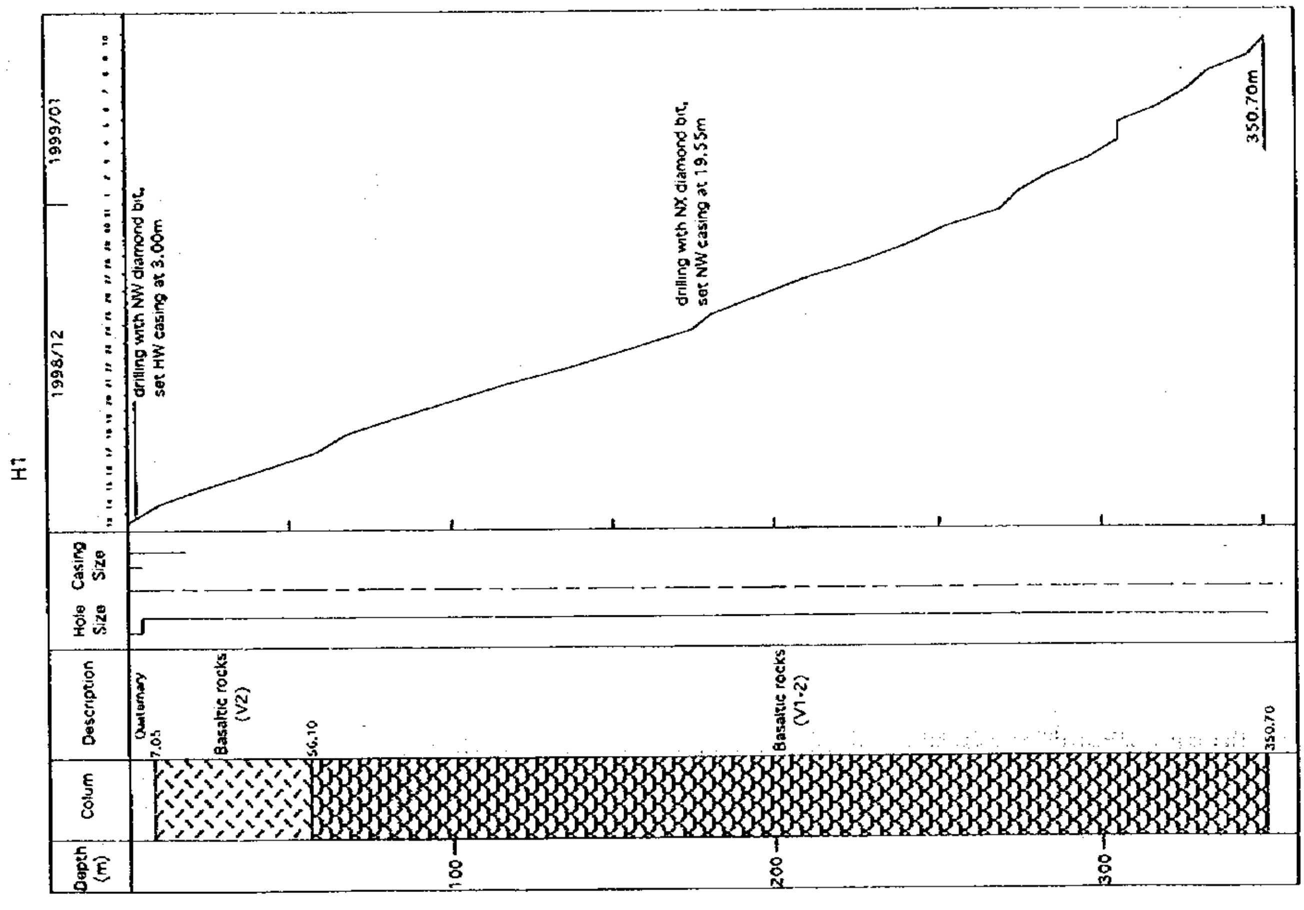


Depth (m)
Colum
Description
Hole Size
Casing Size
1998/09
1998/10
Quaternary
12.50
Basaltic rocks (V1-2)
255.05
Massive sulphide
259.15
Basaltic rocks (V1-1)
270.15
100
200
300
drilling with NW diamond bit
drilling with NX diamond bit, set NW casing at 8.00m
270.15m

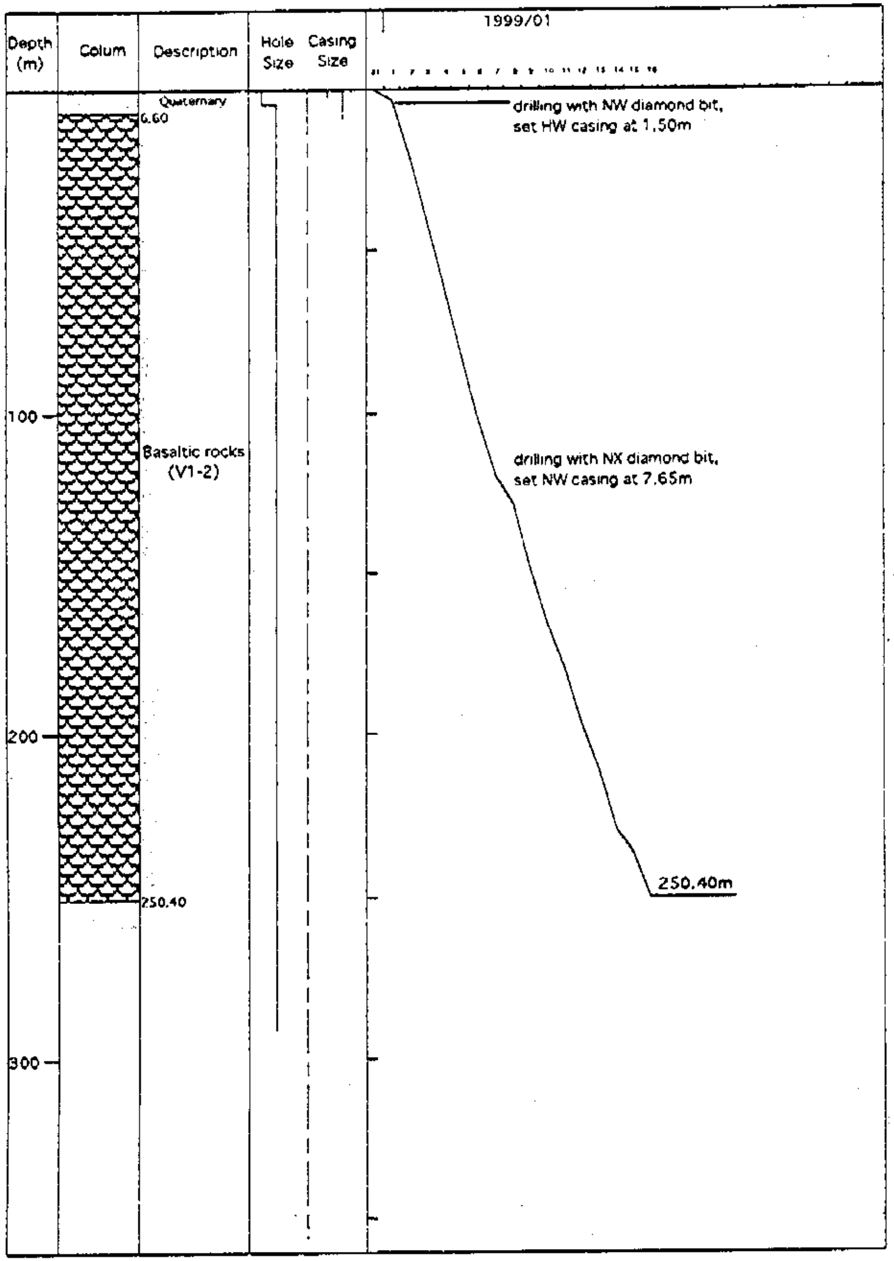

G39
1998/11
1998/12
drilling with NW diamond bit,
set HW casing at 2.00m
drilling with NX diamond bit,
set NW casing at 9.20m
201.90m
Hole Size
Casing Size
Description
Quaternary
9.35
Basaltic rocks
(V1-2)
188.05
Massive sulphide
188.95
Basaltic rocks
(V1-1)
201.90
Colum
Depth (m)
100
200
300


G38
1998/11
1998/12
drilling with NW diamond bit,
set HW casing at 1.50m
drilling with NX diamond bit,
set NW casing at 9.65m
300.60m
Hole Size
Casing Size
Description
Quaternary
3.05
Basaltic rocks
(V1-2)
252.60
Basaltic rocks
(V1-1)
300.60
Colum
Depth (m)
100
200
300


H2
Depth (m)
Colum
Description
Hole Size
Casing Size
Quaternary
2.70
Basaltic rocks (V2)
70.20
Basaltic rocks (V1-2)
251.30
100
200
300
drilling with NW diamond bit, set HW casing at 1.00m
drilling with NX diamond bit, set NW casing at 13.80m
251.30m

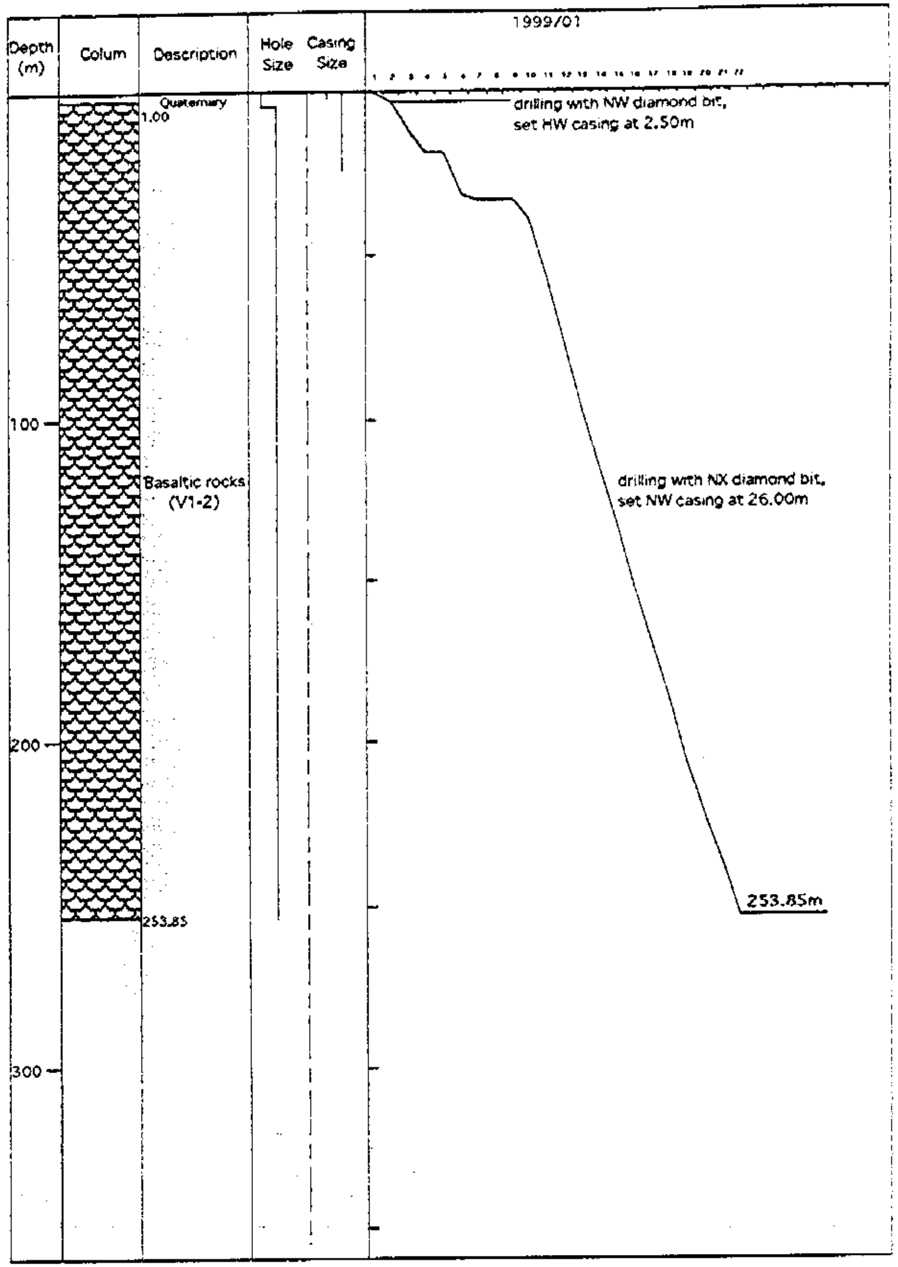

H1
Depth (m)
Colum
Description
Hole Size
Casing Size
Quaternary
7.05
Basaltic rocks (V2)
56.10
Basaltic rocks (V1-2)
350.70
100
200
300
1998/12
1999/01
drilling with NW diamond bit, set HW casing at 3.00m
drilling with NX diamond bit, set NW casing at 19.55m
350.70m

S1



Depth (m)
Colum
Description
Hole Size
Casing Size
1999/01
Quaternary
6.60
Basaltic rocks (V1-2)
250.40
100
200
300
drilling with NW diamond bit, set HW casing at 1.50m
drilling with NX diamond bit, set NW casing at 7.65m
250.40m

S2

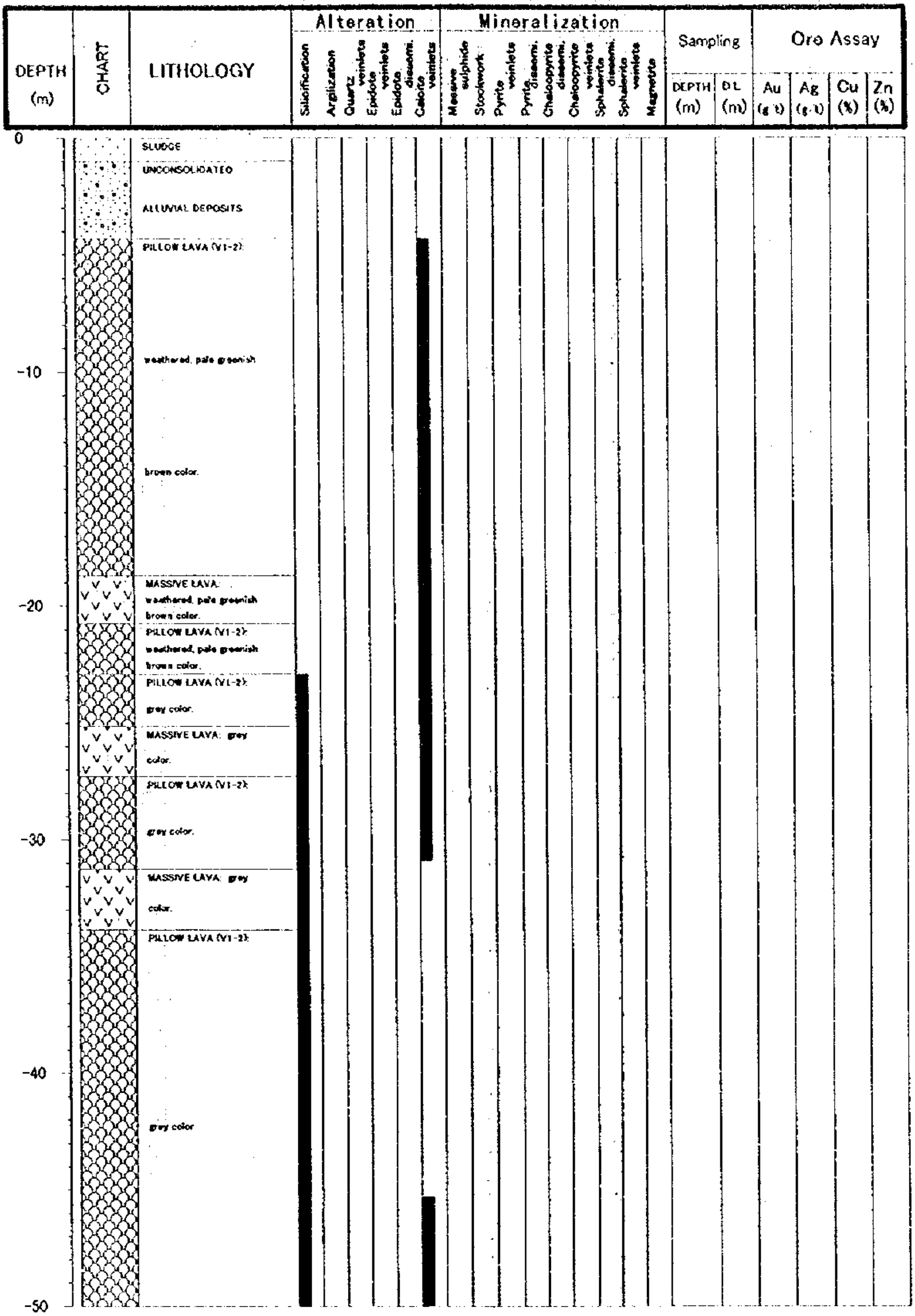


Depth (m)
Colum
Description
Hole Size
Casing Size
1999/01
Quaternary
1.00
Basaltic rocks (V1-2)
253.85
100
200
300
drilling with NW diamond bit, set HW casing at 2.50m
drilling with NX diamond bit, set NW casing at 26.00m
253.85m

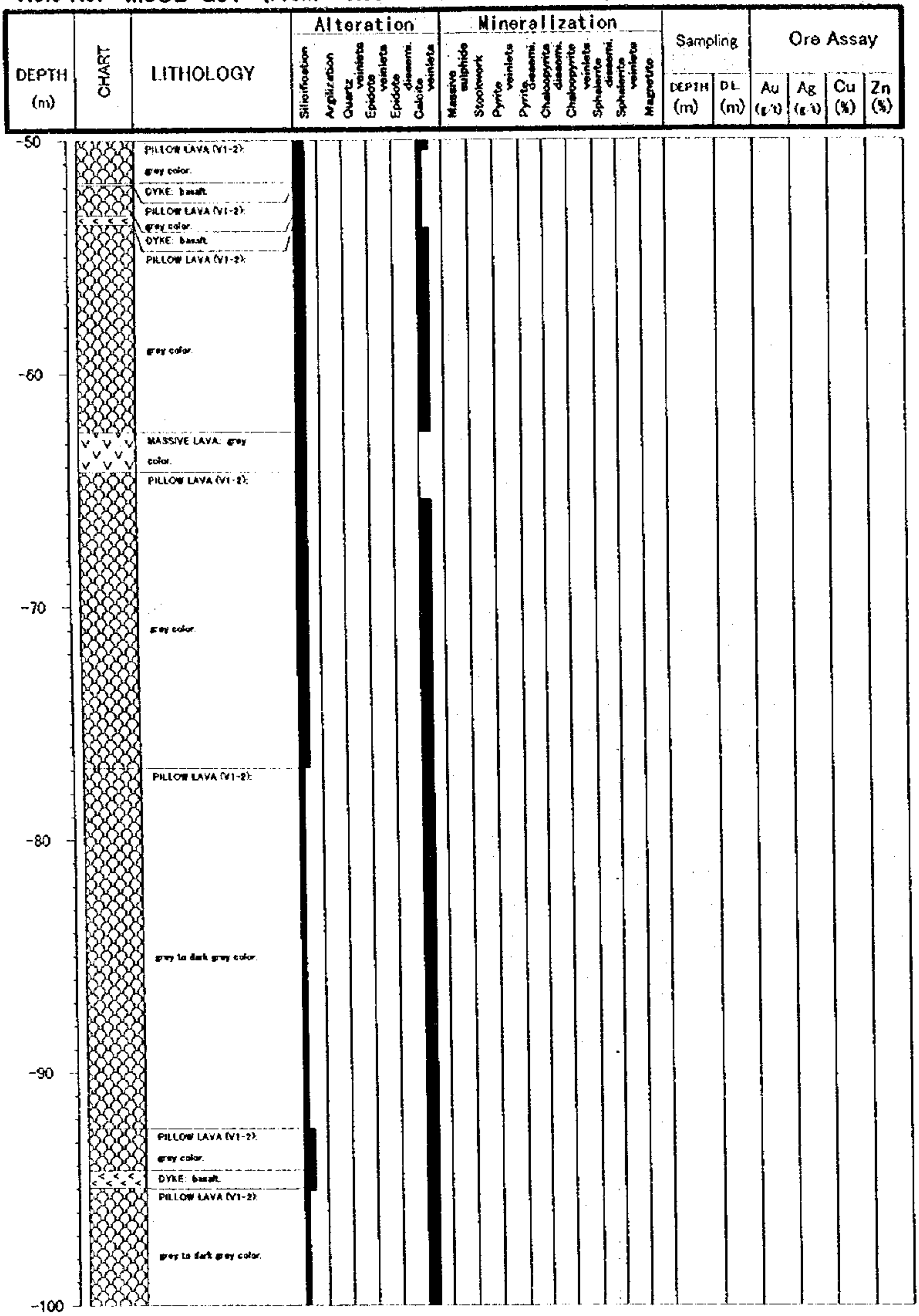
Appendix 3

Drilling logs

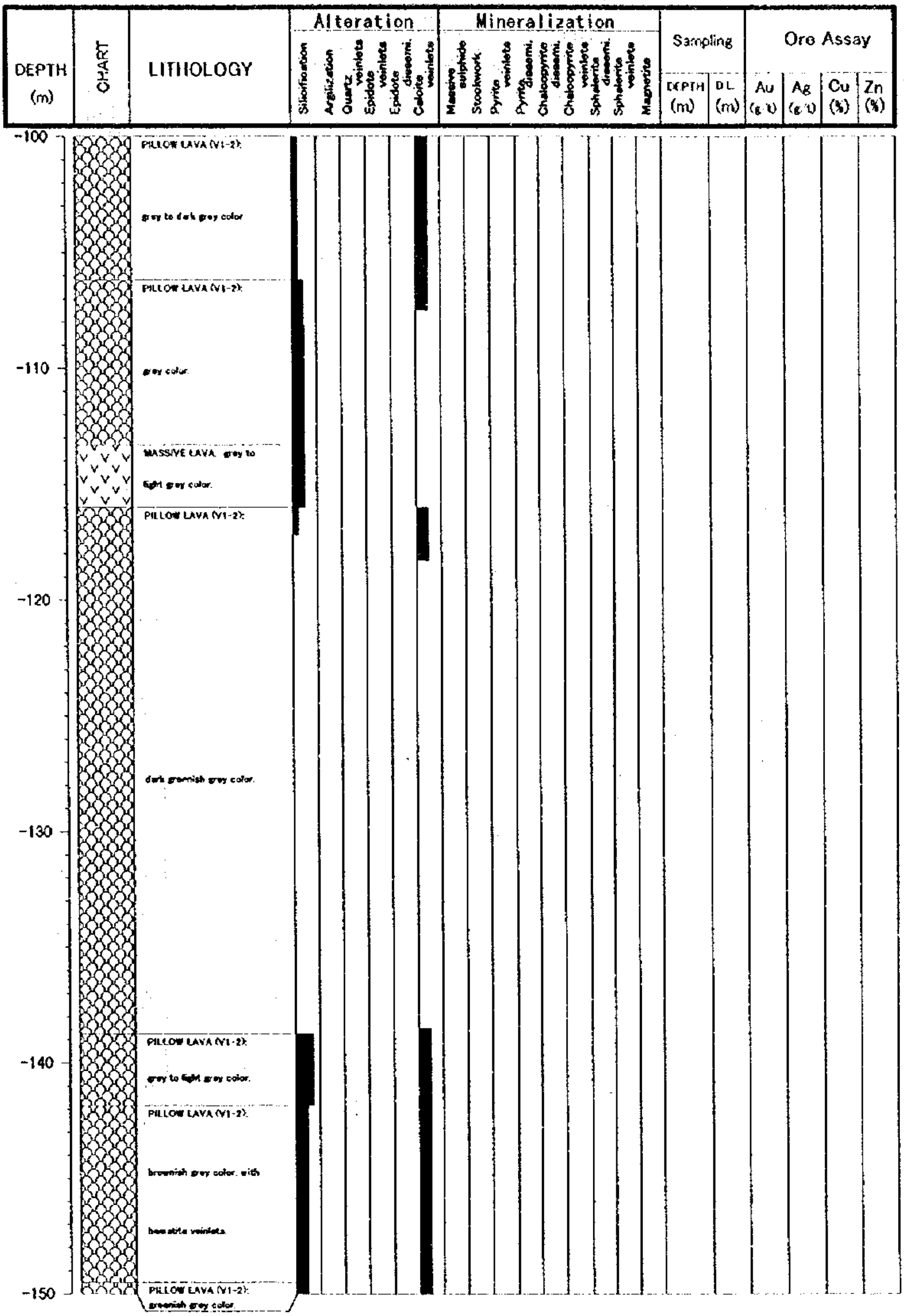
Hole No. MJOB-G34 (From 0.00 m to -250.40 m)



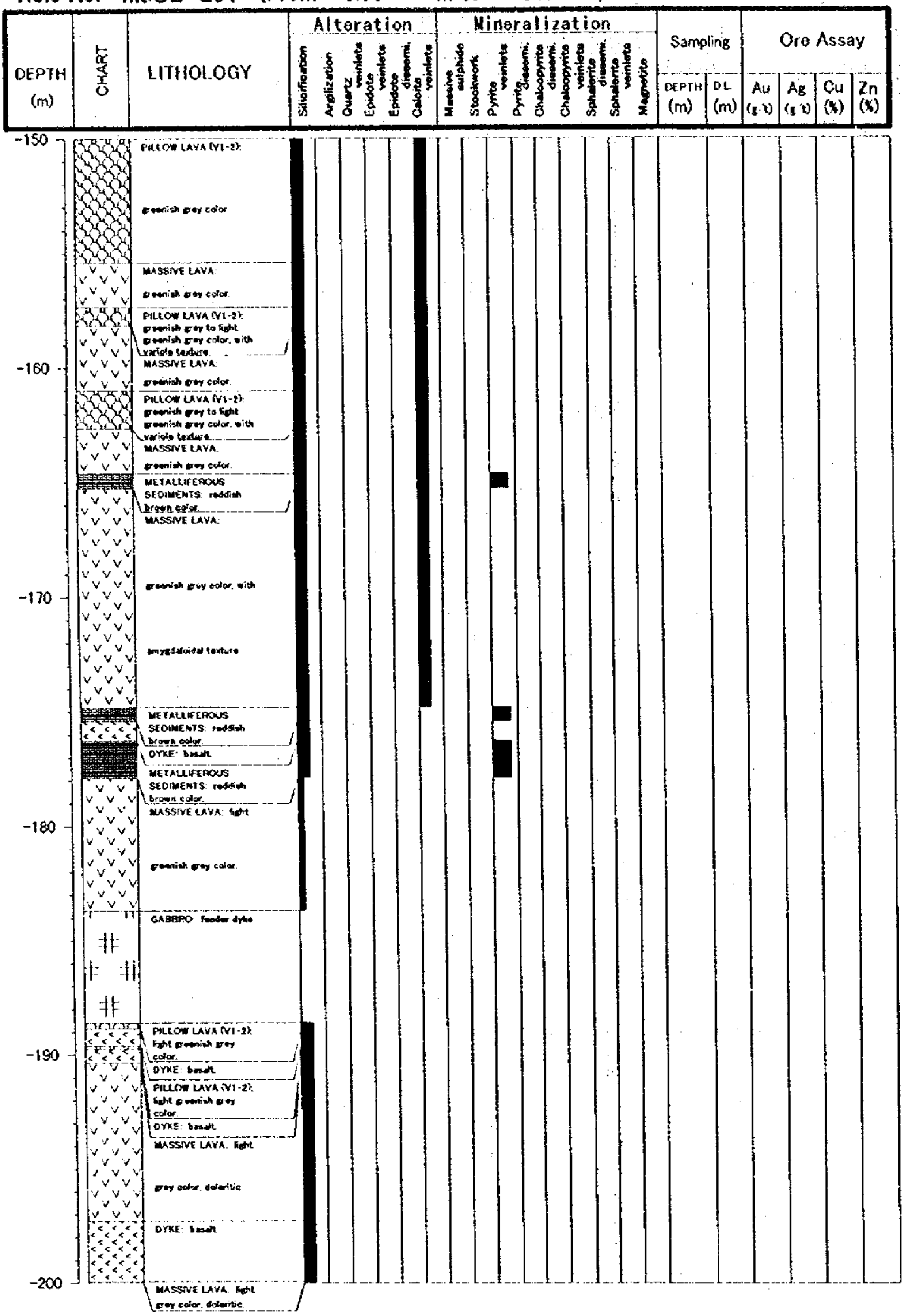
Hole No. MJOB-G34 (From 0.00 m to -250.40 m)



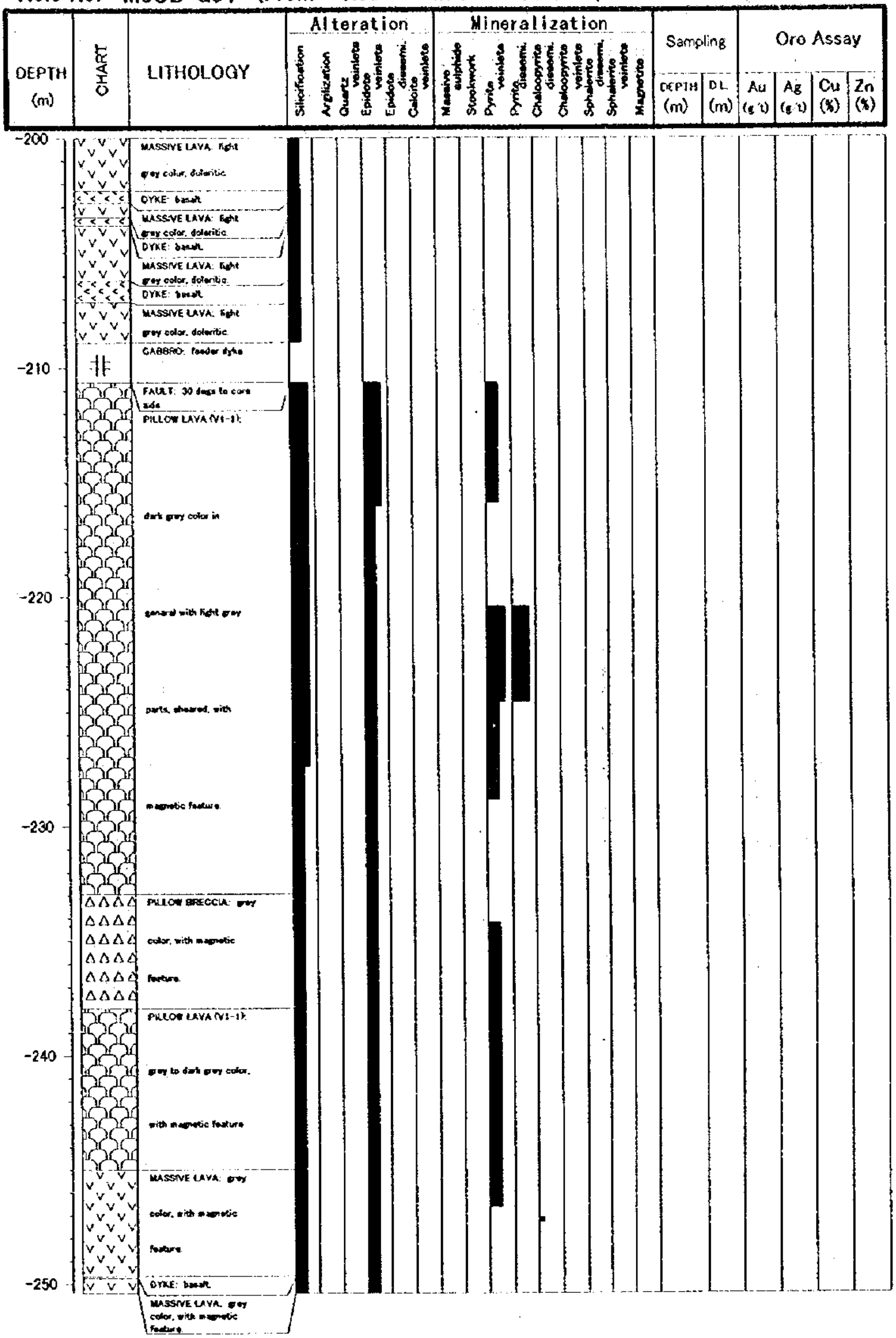
Hole No. MJOB-G34 (From 0.00 m to -250.40 m)



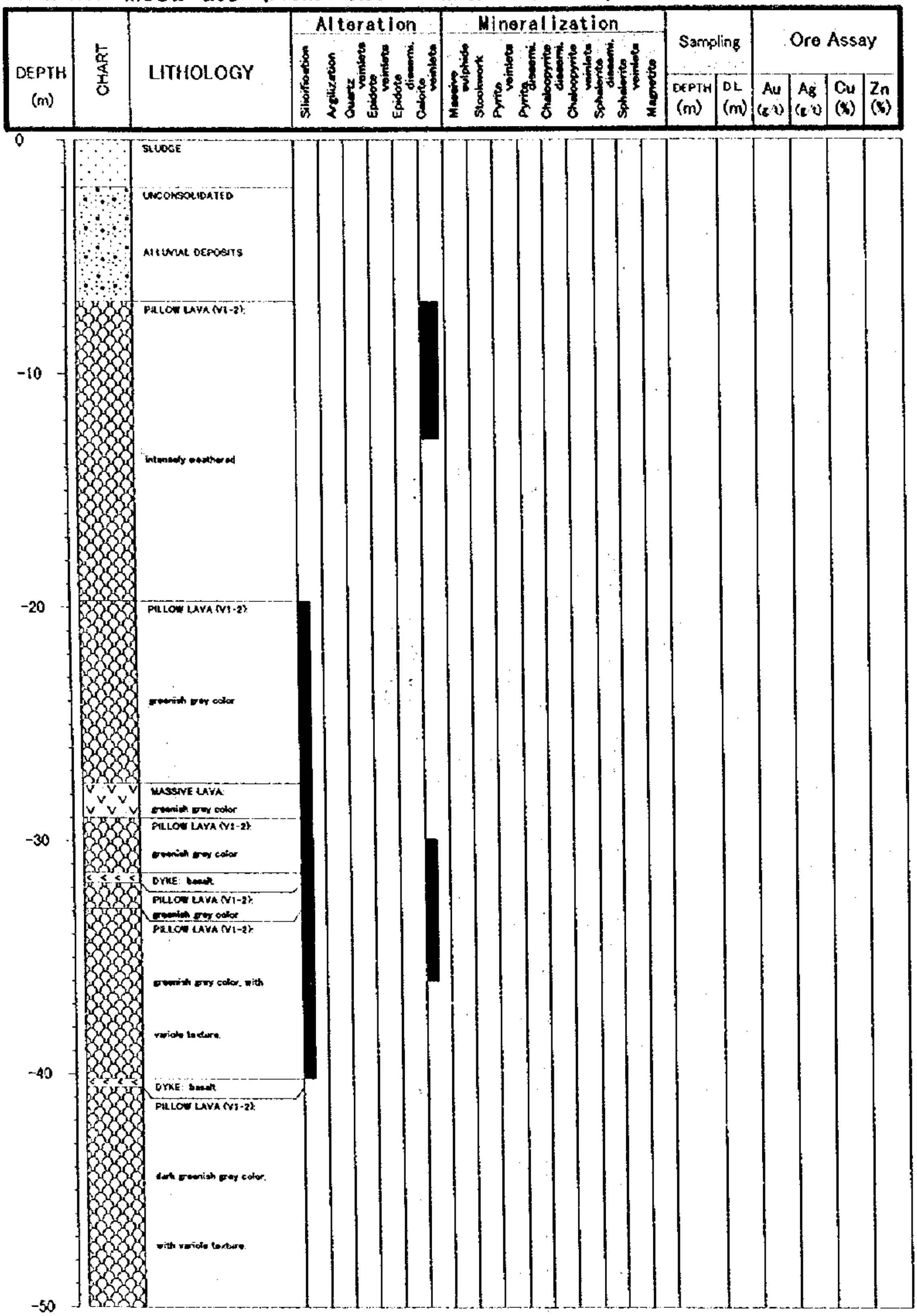
Hole No. MJOB-G34 (From 0.00 m to -250.40 m)



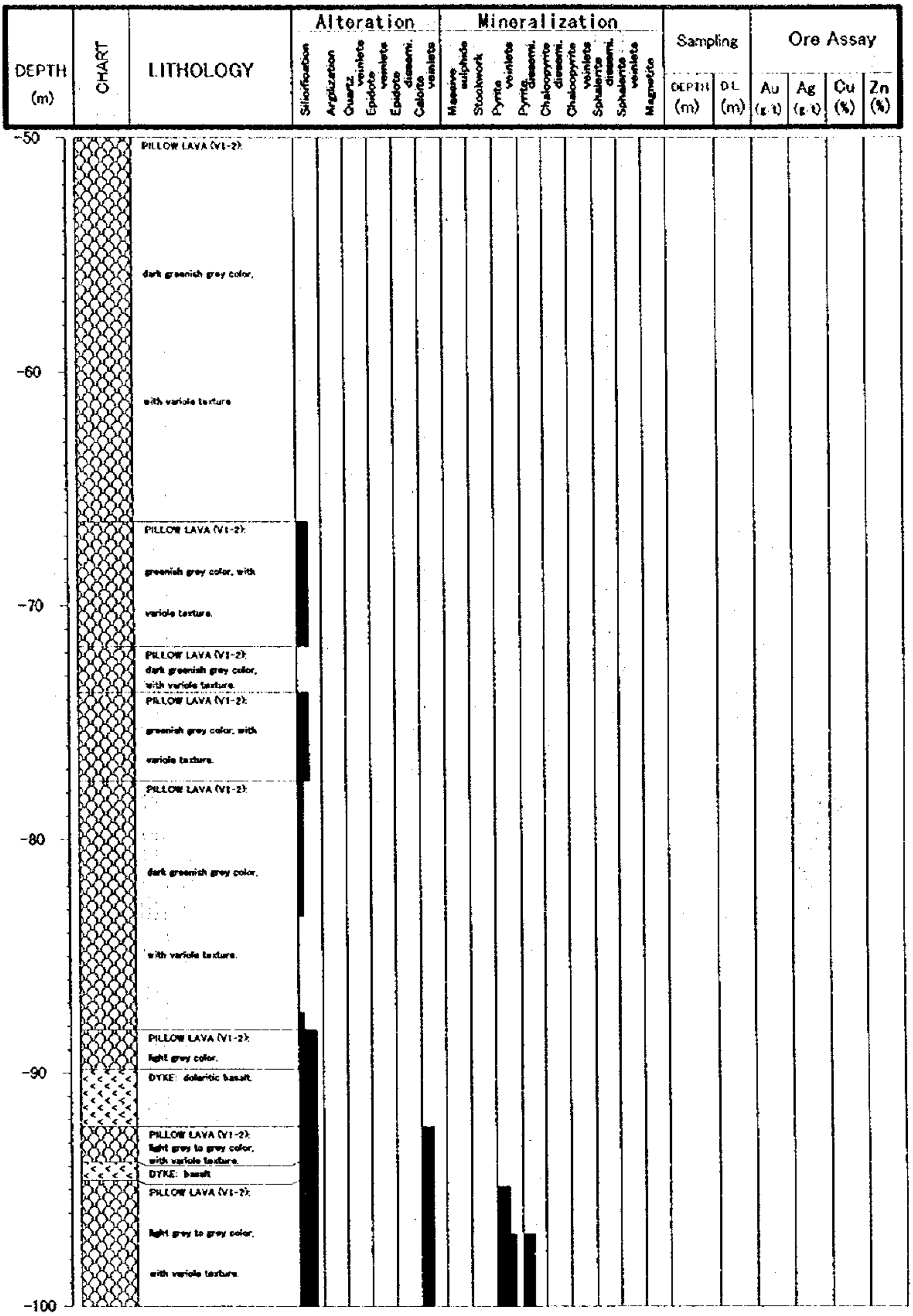
Hole No. MJOB-G34 (From 0.00 m to -250.40 m)



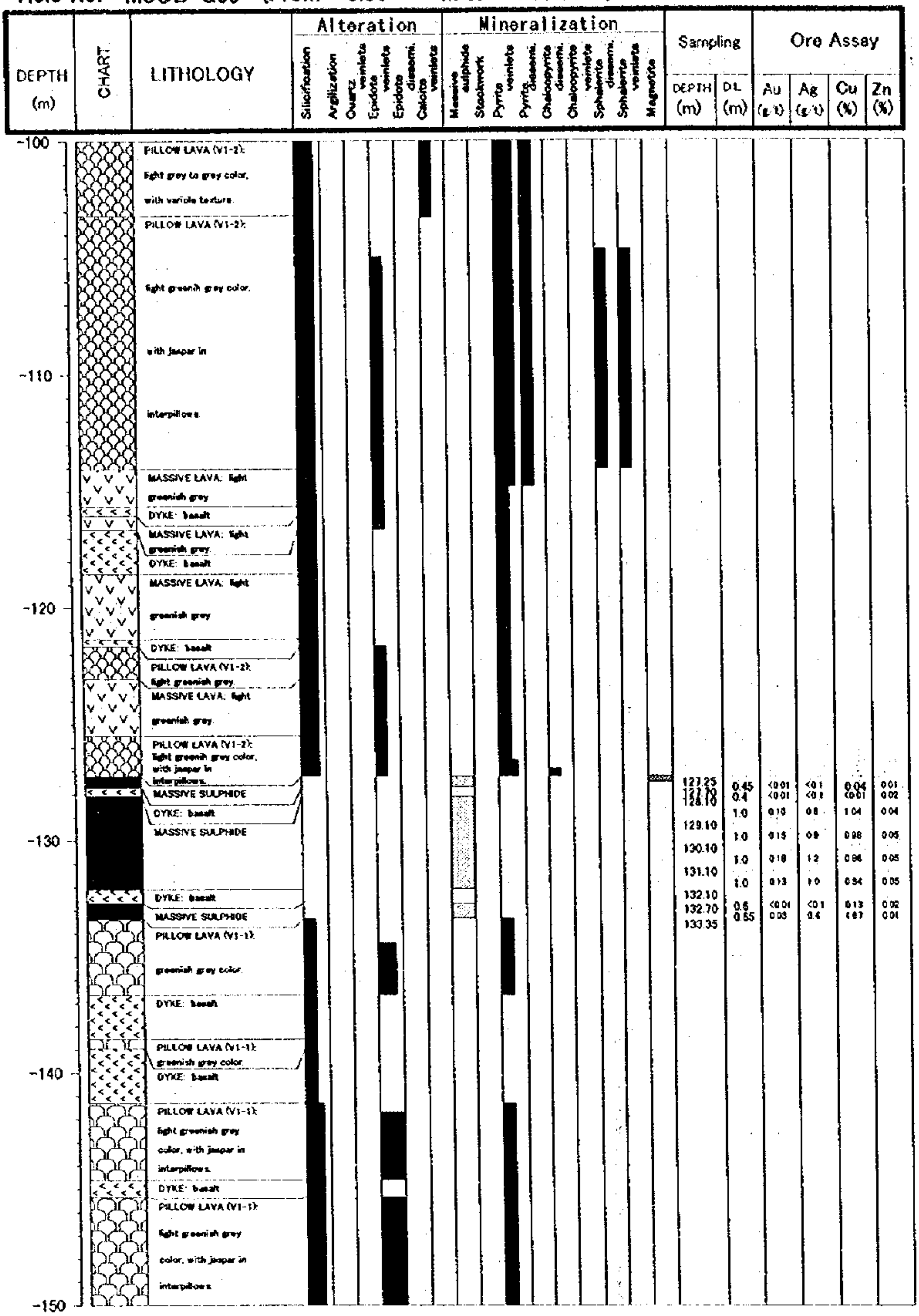
Hole No. MJOB-G35 (From 0.00 m to -200.10 m)



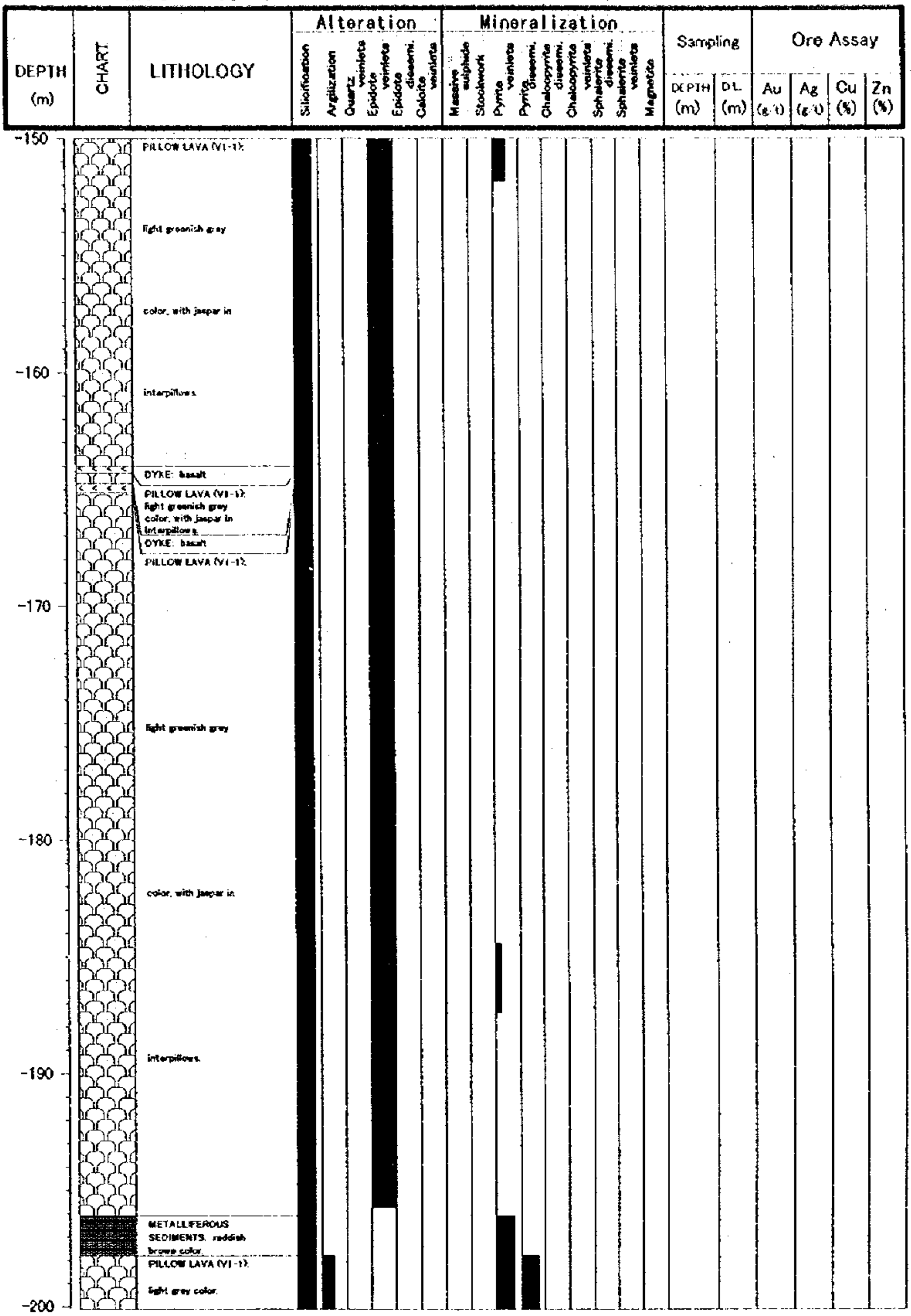
Hole No. MJOB-G35 (From 0.00 m to -200.10 m)



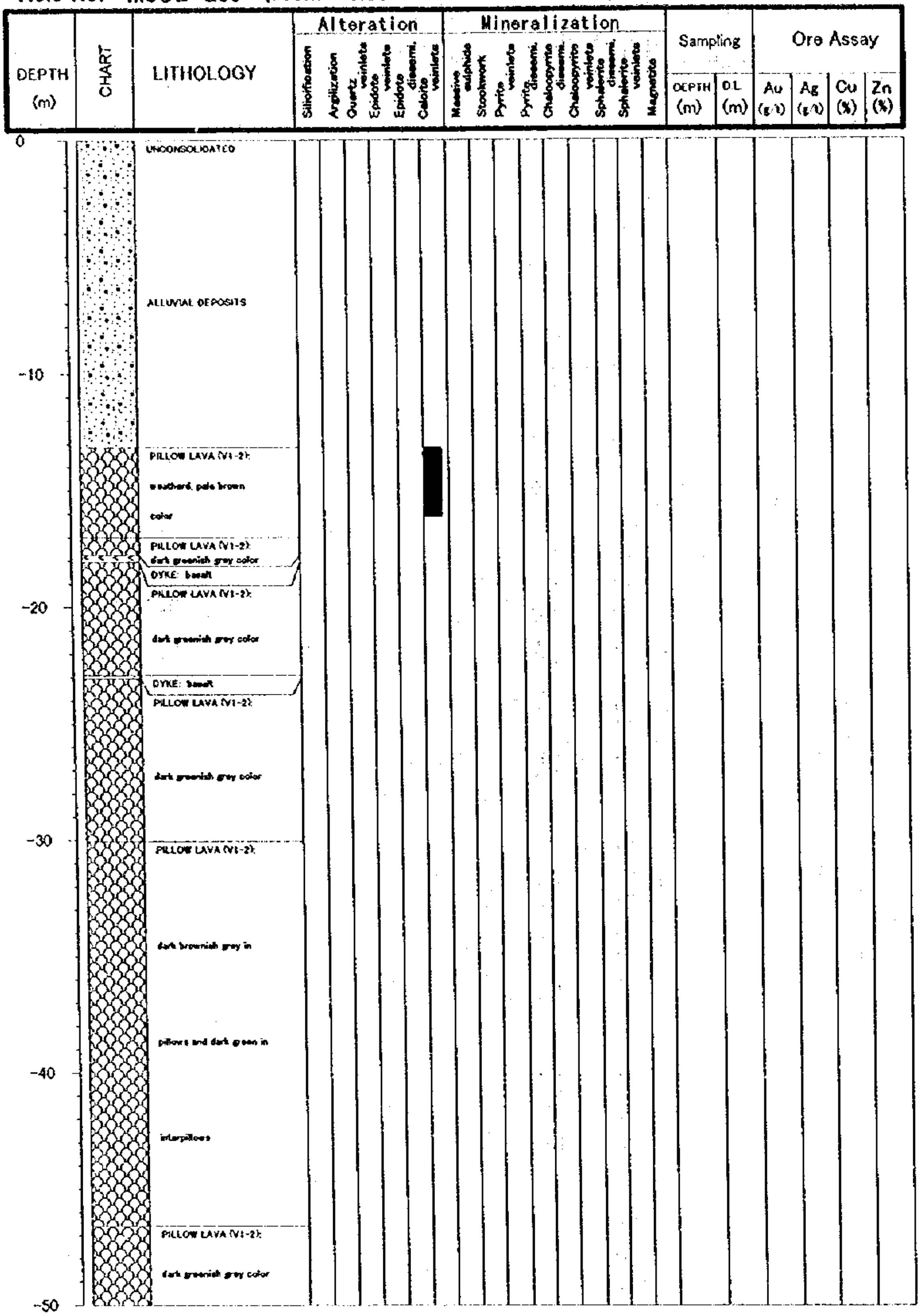
Hole No. MJOB-G35 (From 0.00 m to -200.10 m)



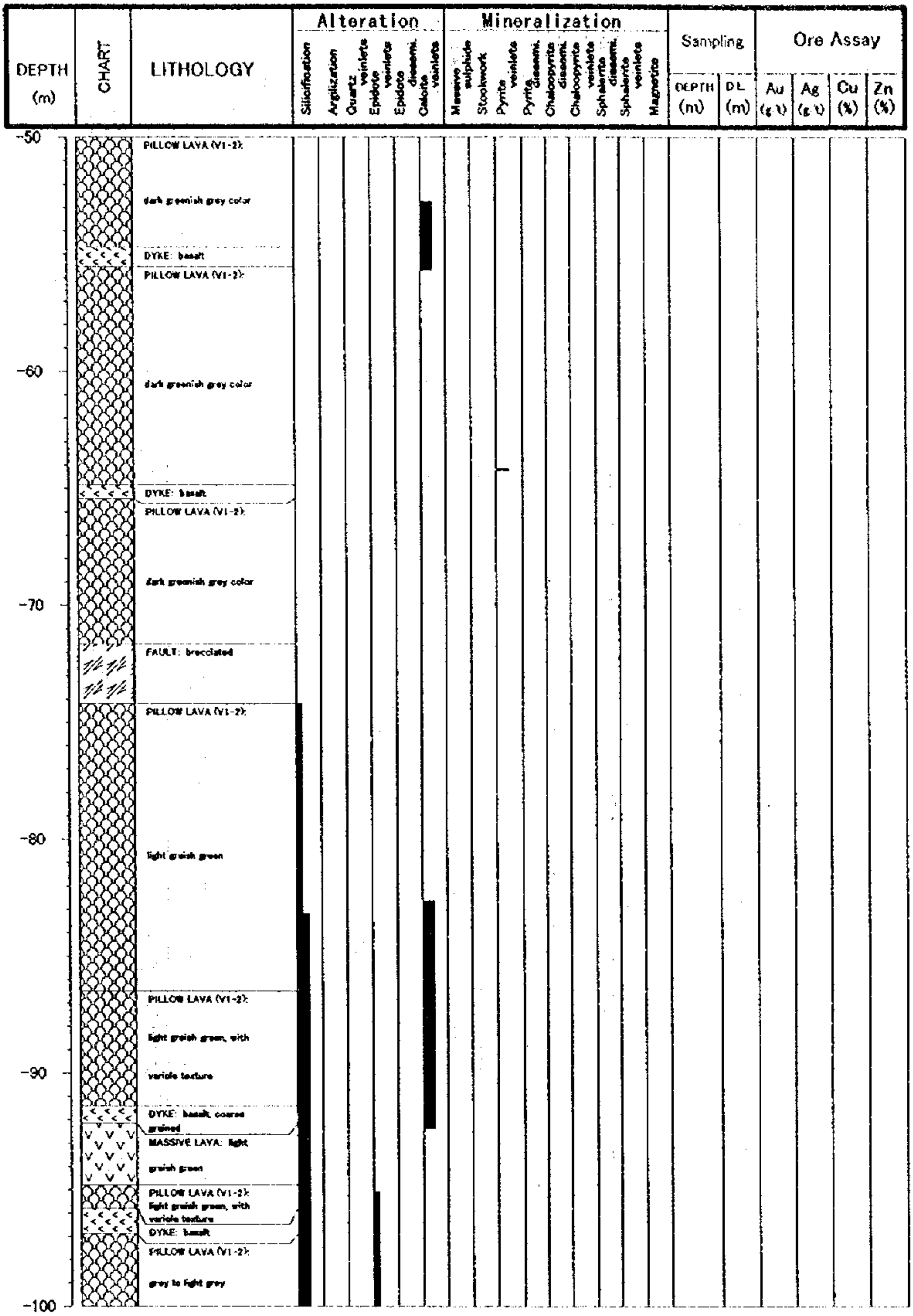
Hole No. MJOB-G35 (From 0.00 m to -200.10 m)



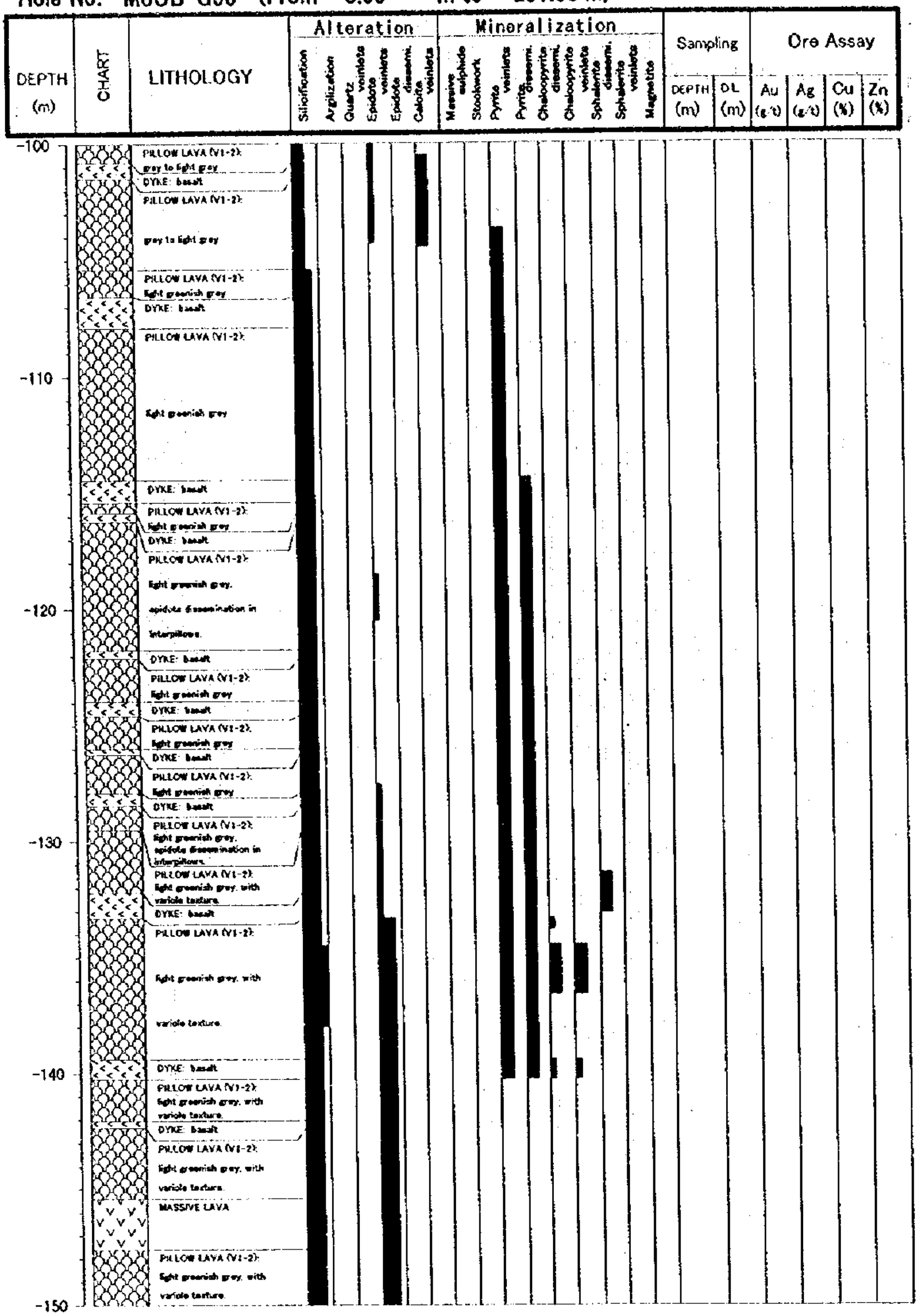
Hole No. MJOB-G36 (From 0.00 m to -251.00 m)



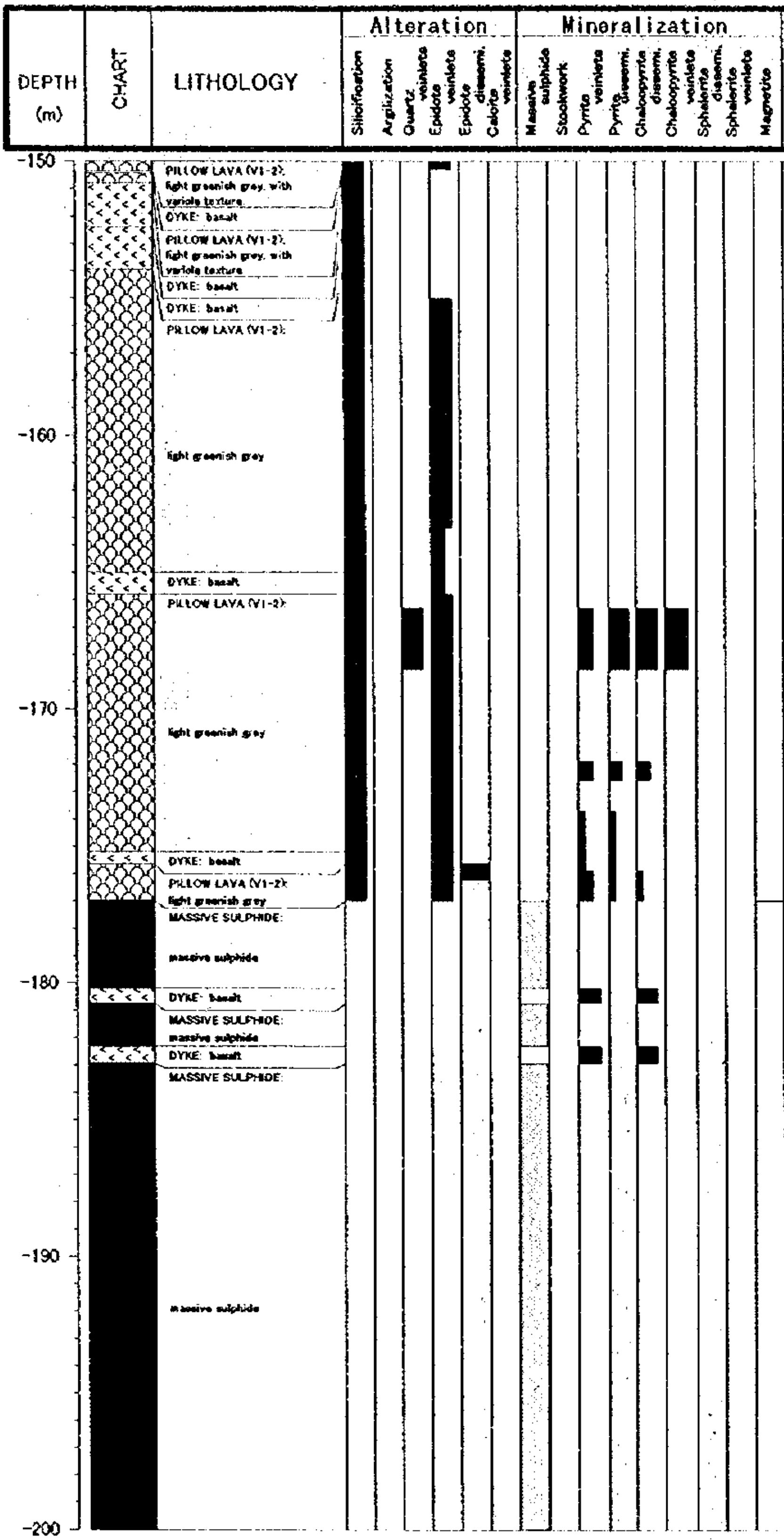
Hole No. MJOB-G36 (From 0.00 m to -251.00 m)



Hole No. MJOB-G36 (From 0.00 m to -251.00 m)

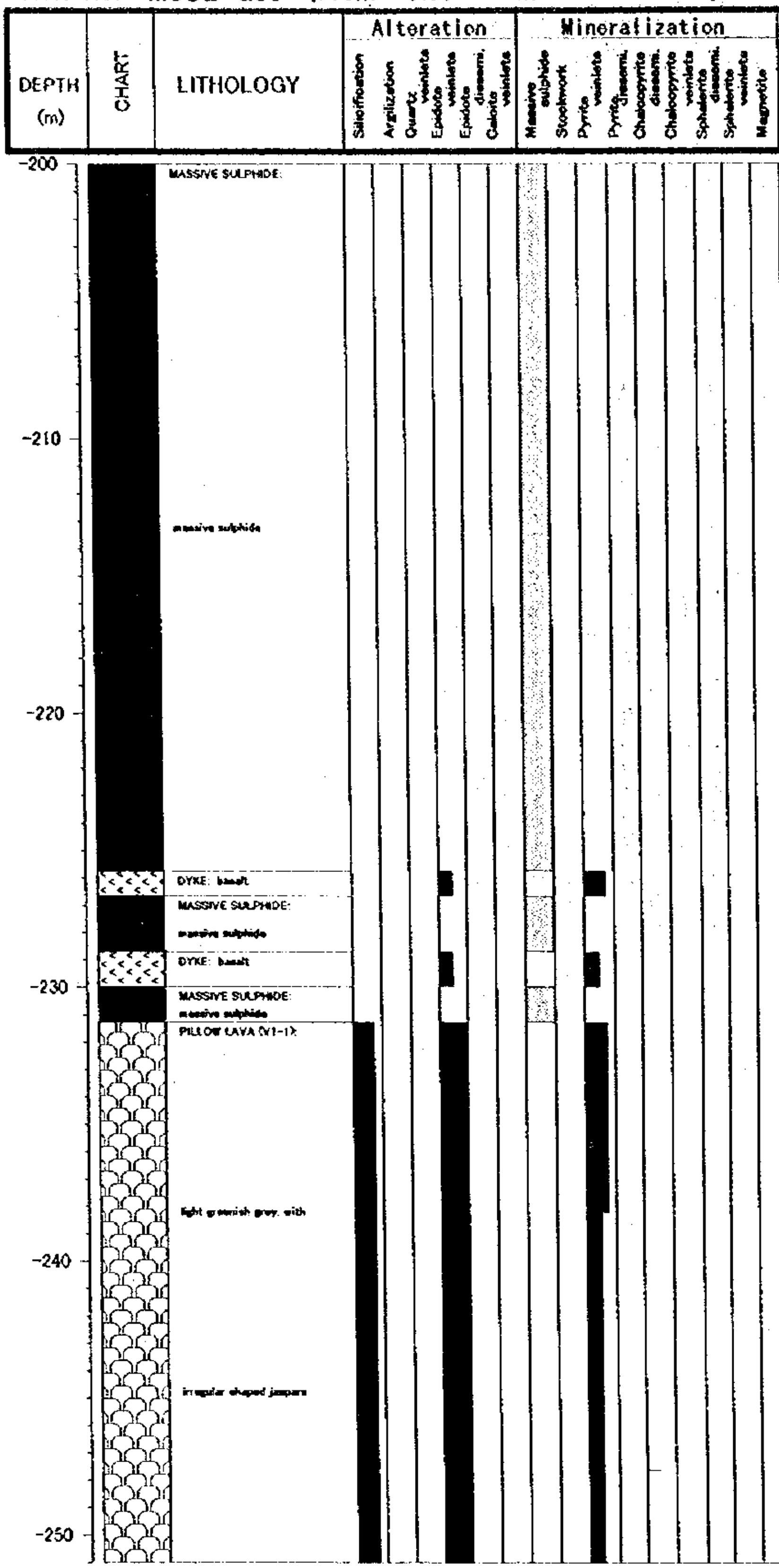


Hole No. MJOB-G38 (From 0.00 m to -251.00 m)



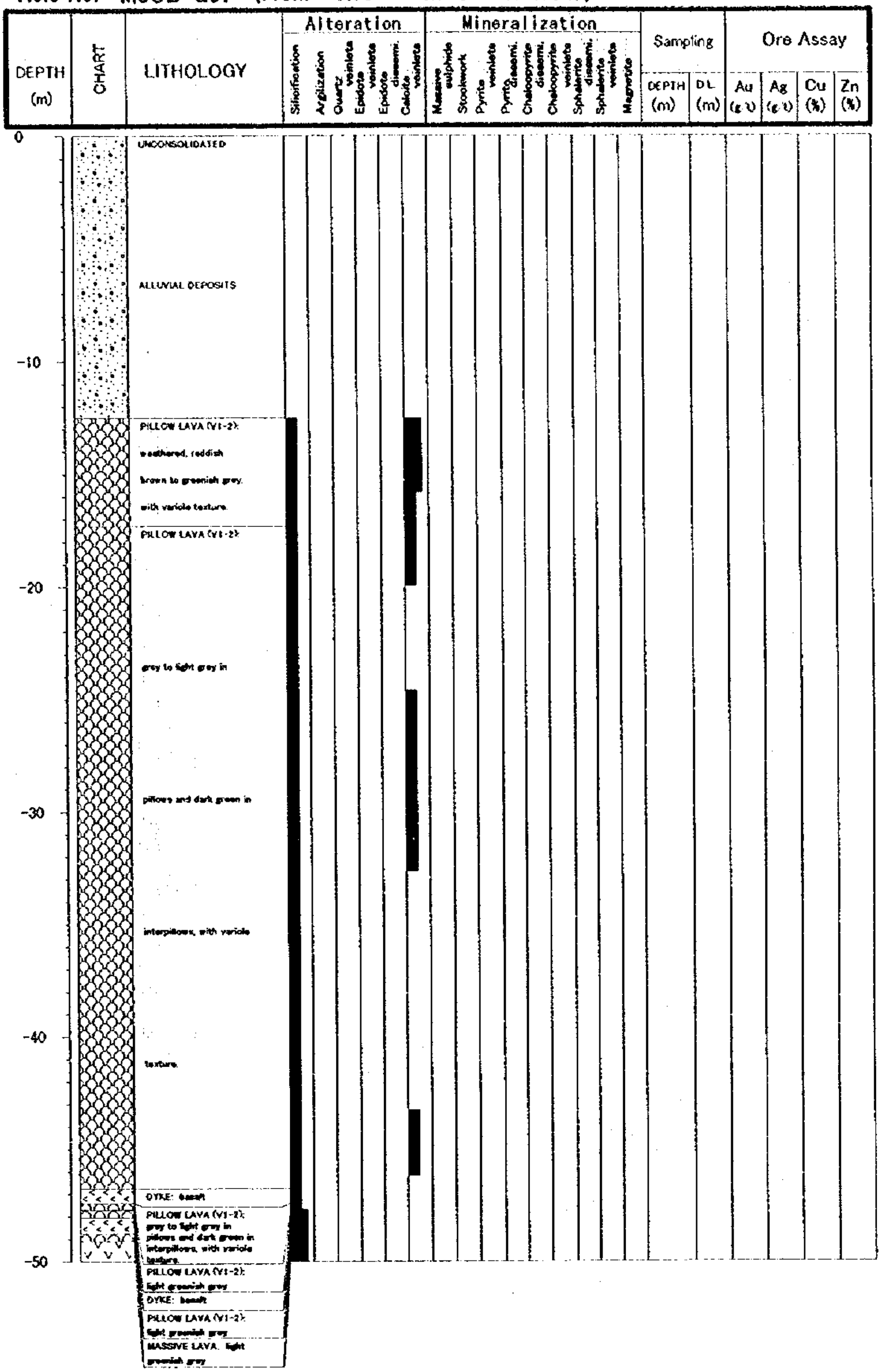
Sampling DEPTH (m)	DL (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
177.00	1	0.13	1.0	2.26	0.05
178.00	1	0.16	1.2	2.17	0.05
179.00	1.2	0.10	1.1	0.81	0.05
180.20	0.55	N.D.	0.1	0.30	0.01
180.75					
	1.55	0.13	1.2	0.70	0.05
182.30	0.65	N.D.	0.2	0.12	0.01
182.95	1	0.11	1.2	0.83	0.04
183.95	1	0.10	1.1	0.77	0.08
184.95	1	0.10	0.9	0.75	0.08
185.95	1	0.09	1.1	1.14	0.04
186.95	1	0.10	1.0	0.82	0.04
187.95	1	0.10	1.4	1.71	0.03
188.95	1	0.08	1.2	1.17	0.03
189.95	1	0.10	1.1	1.78	0.03
190.95	1	0.04	0.9	0.93	0.04
191.95	1	0.08	1.0	0.93	0.04
192.95	1	0.06	0.8	0.84	0.05
193.95	1	0.07	0.8	1.03	0.06
194.95	1	0.09	1.0	1.29	0.05
195.95	1	0.06	0.9	0.82	0.07
196.95	1	0.04	1.1	1.51	0.08
197.95	1	0.08	1.2	0.76	0.08
198.95	1	0.08	0.8	1.05	0.08

Hole No. MJOB-G36 (From 0.00 m to -251.00 m)

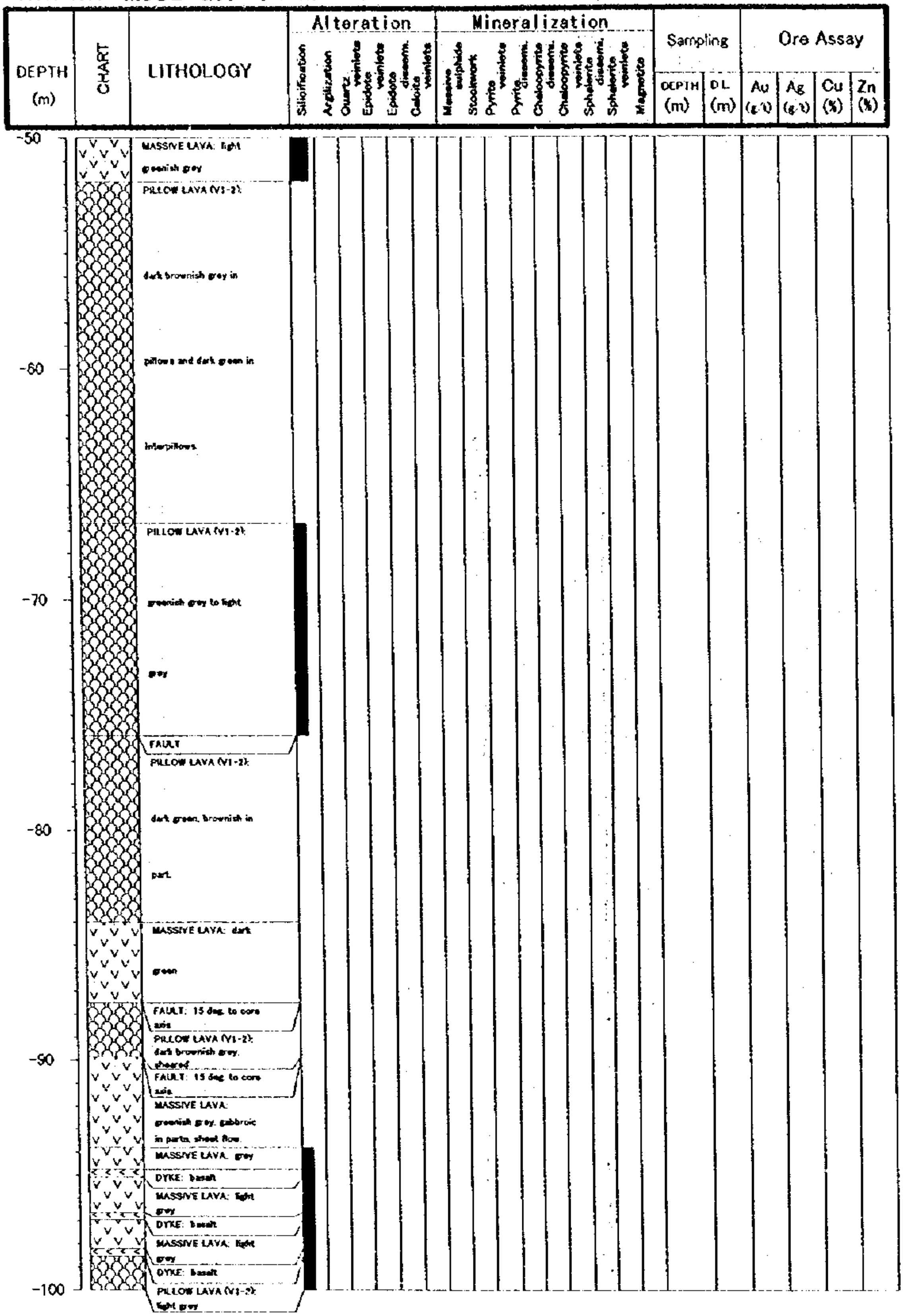


Sampling DEPTH (m)	DL (m)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
200.95	1	0.07	1.0	1.42	0.07
201.95	1	0.13	1.2	1.28	0.06
202.95	1	0.11	3.1	1.34	0.08
203.95	1	0.10	6.1	1.00	0.07
204.95	1	0.13	1.7	2.13	0.08
205.95	1	0.12	1.5	1.04	0.07
206.95	1	0.09	1.1	1.08	0.05
207.95	1	0.11	0.8	0.86	0.06
208.95	1	0.12	0.9	1.18	0.06
209.95	1	0.11	1.1	0.92	0.05
210.95	1	0.05	1.2	1.73	0.05
211.95	1	0.09	1.8	1.41	0.05
212.95	1	0.05	0.7	1.13	0.04
213.95	1	0.05	0.7	1.55	0.05
214.95	1	0.10	1.1	2.13	0.04
215.95	1	0.10	1.1	2.42	0.06
216.95	1	0.07	0.8	1.15	0.02
217.95	1	0.07	0.8	1.70	0.02
218.95	1	0.07	1.0	0.99	0.03
219.95	1	0.07	0.8	1.17	0.02
220.95	1	0.07	1.0	0.57	0.04
221.95	1	0.11	1.8	1.22	0.06
222.95	1	0.09	1.1	0.99	0.06
223.95	1	0.06	1.6	1.16	0.06
224.95	1	0.09	1.5	0.66	0.06
225.95	0.8	0.11	1.8	0.35	0.05
226.95	0.9	N.D.	0.2	0.12	0.02
227.65	1	0.10	1.1	0.79	0.05
228.70	1.05	0.10	1.2	1.13	0.05
229.95	1.25	N.D.	<0.1	0.43	0.01
231.25	1.3	0.06	1.1	1.52	0.02

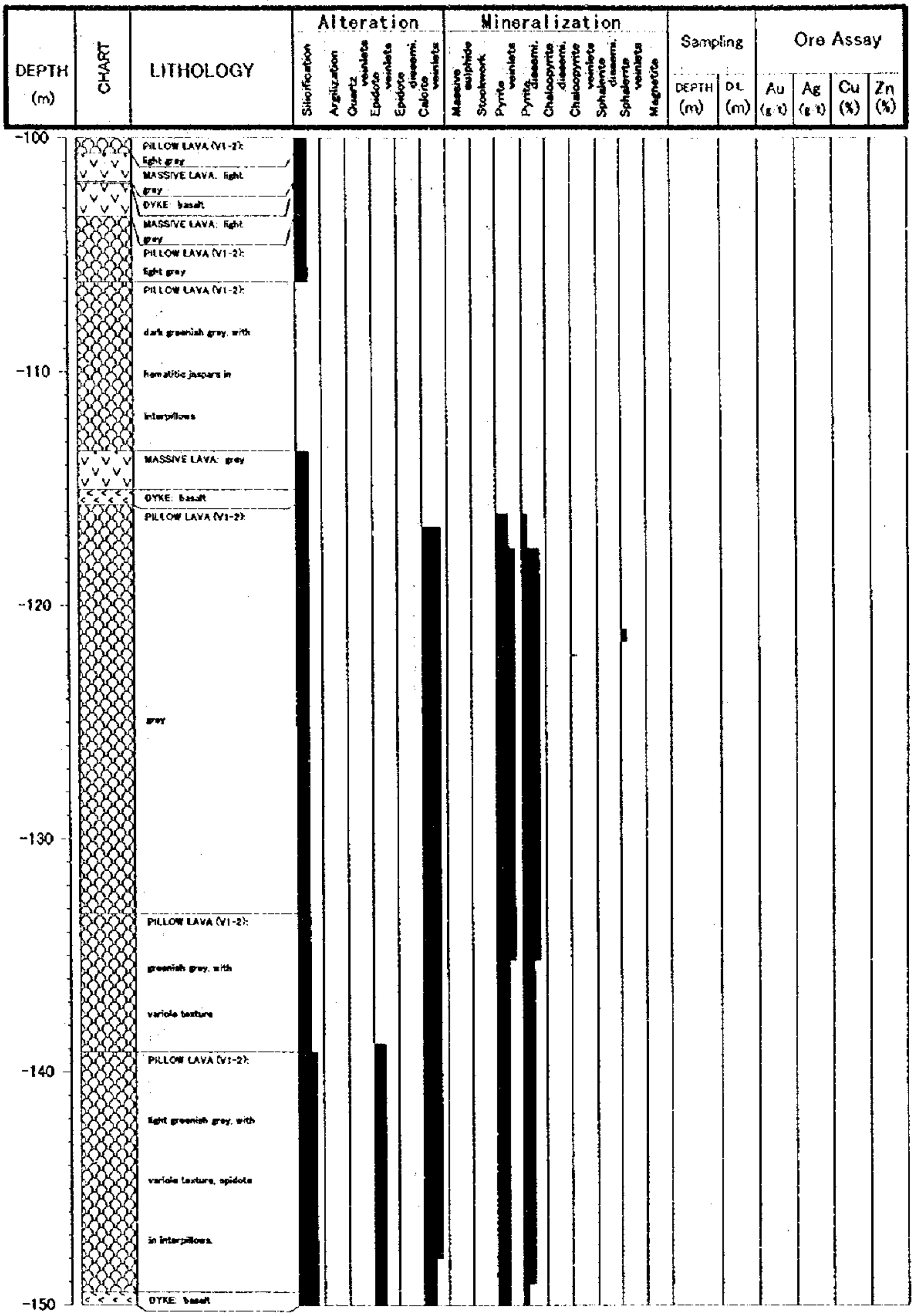
Hole No. MJOB-G37 (From 0.00 m to -270.15 m)



Hole No. MJOB-G37 (From 0.00 m to -270.15 m)



Hole No. MJOB-G37 (From 0.00 m to -270.15 m)



Hole No. MJOB-G37 (From 0.00 m to -270.15 m)