1-3 Geology, Mineralization and Alteration

(1) MJFV-1

The geology of the drill hole consists mainly of basalt lavas, basaltic andesite lavas and volcaniclastics of the Koroutari Andesites. The rocks is intruded by basaltic dykes(Fig 2-4). The drill hole encountered two mineralized zones.

① Geology

· 0～7.60m :	Soil.
·	7.60～38.20m : Basalt lava. It shows amygdaloidal textures that are filled with quartz, zeolites and other minerals. The internal structure of the lava varies from autobrecciated one like hyaloclastite to massive compact one.
· 38.20～61.40m :	Lapilli tuff with intercalation of sandy tuff and tuff breccia. It shows grayish green and is rather soft. It is mainly composed of mafic lithic fragments. Weak grading is observed within 60 cm to 2m. As the drill hole crosses bedding planes at about 75 degrees, the beds are estimated to dip about 30 degrees. A basalt dyke intrudes into the 38.90～39.20m depth.
· 61.40～75.80m :	Basalt lava. It appears to be more compact than the basalt lava between 7.60m and 38.20m.
· 75.80～100.60m :	Coarse tuff, Lapilli tuff and tuff breccia. It shows brown or green color and is argillized intermittently and softened.
· 100.60～109.00m :	Basalt lava. It is massive and compact and shows dark green to black color.
· 100.90～120.80m :	Tuff breccia to lapilli tuff. It shows grayish green and widely brecciated and argillized. It is mainly composed of lithic fragments and hematitic cherty angular fragments. The interval between 120.10m and 120.80m is clay zone containing quartz breccia.
· 120.80～172.95m :	Basalt to basaltic andesite. It partly shows fine grained and appears to be intrusive.
· 172.95～176.53m :	Tuff breccia. It is composed of multi-colored lithic fragments and sandy matrix.
· 176.53～179.65m :	Basalt lava. It is compact and shows grayish green.

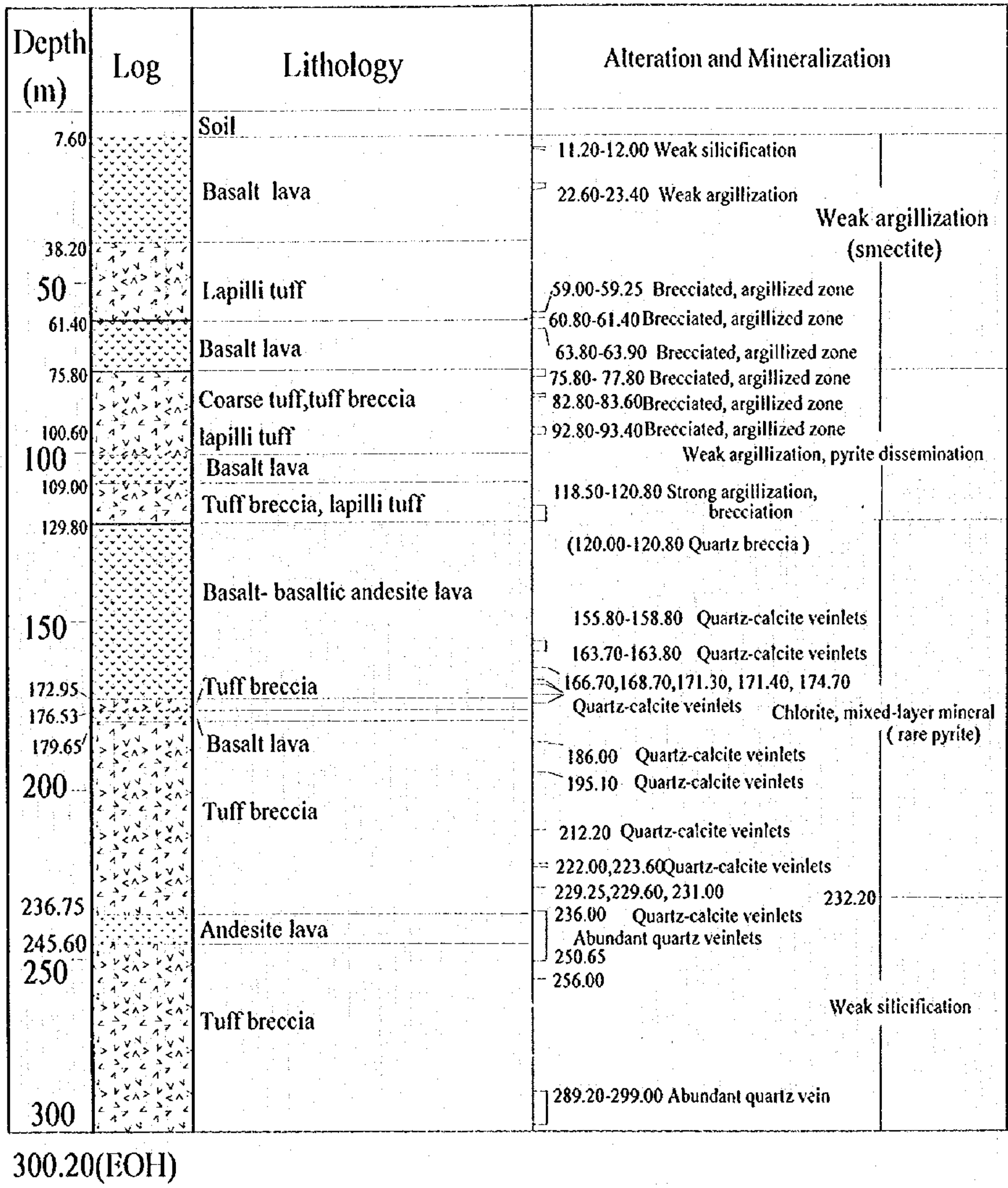
- 179.65～236.75m : Tuff breccia. It is rather compact and massive. It is composed of basaltic to andesitic angular fragments of up to 10 cm of diameter. It partly contains scoria and shows agglomeratic texture .
- 236.75～245.60m : Andesite lava. It shows grayish green and reddish, and compact porphyritic texture. It shows brecciated near the boundary of the lower unit (244.80～245.60m).
- 245.60～300.20m : Tuff breccia. It shows a texture similar to the rock between 179.65m and 236.75m.

② Mineralization and Alteration

- 0～75.80m : Weakly argillized. Smectite is identified by X-ray diffraction method. Neither pyritization nor other mineralization occurs. However, weak silicification occurs at the depth of 11.20～12.00m, weak argillization at the depth of 22.60～23.40m and brecciation and argillization at the depths of 59.00～59.25m, 60.80～61.40m and 63.80～63.90m.
- 75.80～120.45m : Widely argillized. Pyrite dissemination is widespread. The intervals of 75.80～77.80m, 82.80～83.60m, 92.80～94.80m and 18.50～120.80m are stronger than other parts in terms of argillization and brecciation, and quartz veins occur. Especially, chlorite occurs between 120.0m and 120.80m. A sample from the quartz vein at 120.40～120.45m depth assayed the value of 5.76 g/tAu.
- 120.80～232.20m : Weak alteration turned the interval greenish. No pyrite dissemination is observed. Quartz-calcite veinlets occur at 155.8～158.8m, 163.70～163.80m, 166.70m, 168.70m, 171.30m, 171.40m, 174.70m, 186.00m, 195.10m, 212.20m, 222.00m, 223.60m, 229.25m, 229.60m and 231.00m. No significant gold mineralization occurs (The assay value for the 0.30m interval from the depth of 212.20m is 0.011 g/tAu).

Depth(m)	Width (m)	Au (g/t)	Description
120.00～120.10	(0.10)	0.008	Clay zone
120.10～120.20	(0.10)	0.100	Quartz breccia zone
120.20～120.40	(0.20)	0.318	Quartz breccia
120.40～120.45	(0.05)	5.76	Quartz vein
120.45～120.80	(0.35)	0.404	Clay zone

・232.20～300.20m : Weakly silicified. Quartz - iron oxide veinlets and calcite veinlets occur. The veinlets occur most abundantly at the intervals of 236.00～250.65m and 289.20～299.00m. No significant gold mineralization is observed within these veinlets, as the assay value of the quartz vein at the depth of 256.00m is 0.023 g/tAu over the 0.08m interval.



Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Cal-Qtz veinlet	60.80	0.20	0.029	3	45.0	3.8	1.750
Qtz veins	75.80	1.05	<0.008	<0.4	1.0	<0.5	<0.005
Ore zone	120.00	0.10	0.008	0.6	4.0	<0.5	0.006
Ore zone	120.10	0.10	0.100	0.7	13.0	<0.5	0.010
Ore zone	120.20	0.20	0.318	2.1	3.0	<0.5	0.005
Ore zone	120.40	0.05	5.76	90	40.0	0.9	0.047
Ore zone	120.45	0.35	0.404	3.5	38.0	<0.5	0.047
Qtz-breccia	212.20	0.30	0.011	<0.4	2.0	<0.5	<0.005
Qtz vein	255.50	0.08	0.023	0.6	2.0	<0.5	0.005

Qtz:Quartz

Fig. 2-4 Geologic Log of MJFV-1

(2) MJFV-2

The geologic units of the drill hole consist mainly of andesitic volcaniclastic rocks, basalt lavas, andesite lavas. A basaltic dyke intrudes at the depth of 72.10m~85.80m. The drill hole encountered two mineralized zones consisting of quartz - clay veins and a weakly silicified zone(Fig 2-5).

① Geology

· 0~9.85m :	Soil.
· 9.85~52.60m :	Lapilli tuff~coarse tuff. It shows mosaic texture consisting of mafic lithic fragments. The dip of the beds is estimated to be 30° since the hole crosses the beds at about 70° . The rock is weathered to the depth of 23.60m and show brown to ocher color. The rock deeper than 23.60m shows pale green . A fine tuff bed is intercalated at 51.70~52.60m depth.
· 52.60~69.70m :	Volcanic conglomerate. It is composed of basaltic cobbles and boulders of 20 to 40 cm diameter and lapilli to ash size matrix. It is soft and pyrite is weakly disseminated. The matrix of the rock has been partly undergone oxidation and shows reddish.
· 69.70~72.10m :	Breccia zone. It is tectonically brecciated and weekly silicified. Pyrite dissemination and calcite veins occur.
· 72.10~85.80m :	Basalt dyke. It is hard and compact. It shows dark green. The texture is porphyritic and fine grained.
· 85.80~118.20m :	Scoria tuff~tuff breccia. It contains basaltic scorias at the depth of 85.80~94.30m and shows brown and green. It is rather soft since it has been argillized to occur mixed-layer mineral. This zone may be a fault zone. The interval between 94.30m and 118.75m is tuff breccia, and consists of multi-color basaltic blocks and lapilli to fine ash size matrix.
· 118.20~118.75m :	Quartz vein within brecciated zone.
· 118.75~152.10m :	Basalt. It is fine grained and thought to be a intrusive rock. It shows dark green and is hard and compact. It contains olivine phenocrysts of 1~2mm diameter. A thin bed of lapilli tuff is intercalated between the depths of 139.00m and 139.05m.
· 152.10~152.50m :	A thin bed of fine tuff.
· 152.50~159.65m :	Andesite lava. It is massive , compact and hard.
· 159.65~183.70m :	Tuff breccia. It comprises of green, red and black colored andesitic

blocks and purplish matrix. The interval between 179.00m and 182.50m is autobrecciated. A bed of scoria tuff is intercalated between 182.50m and 183.70m.

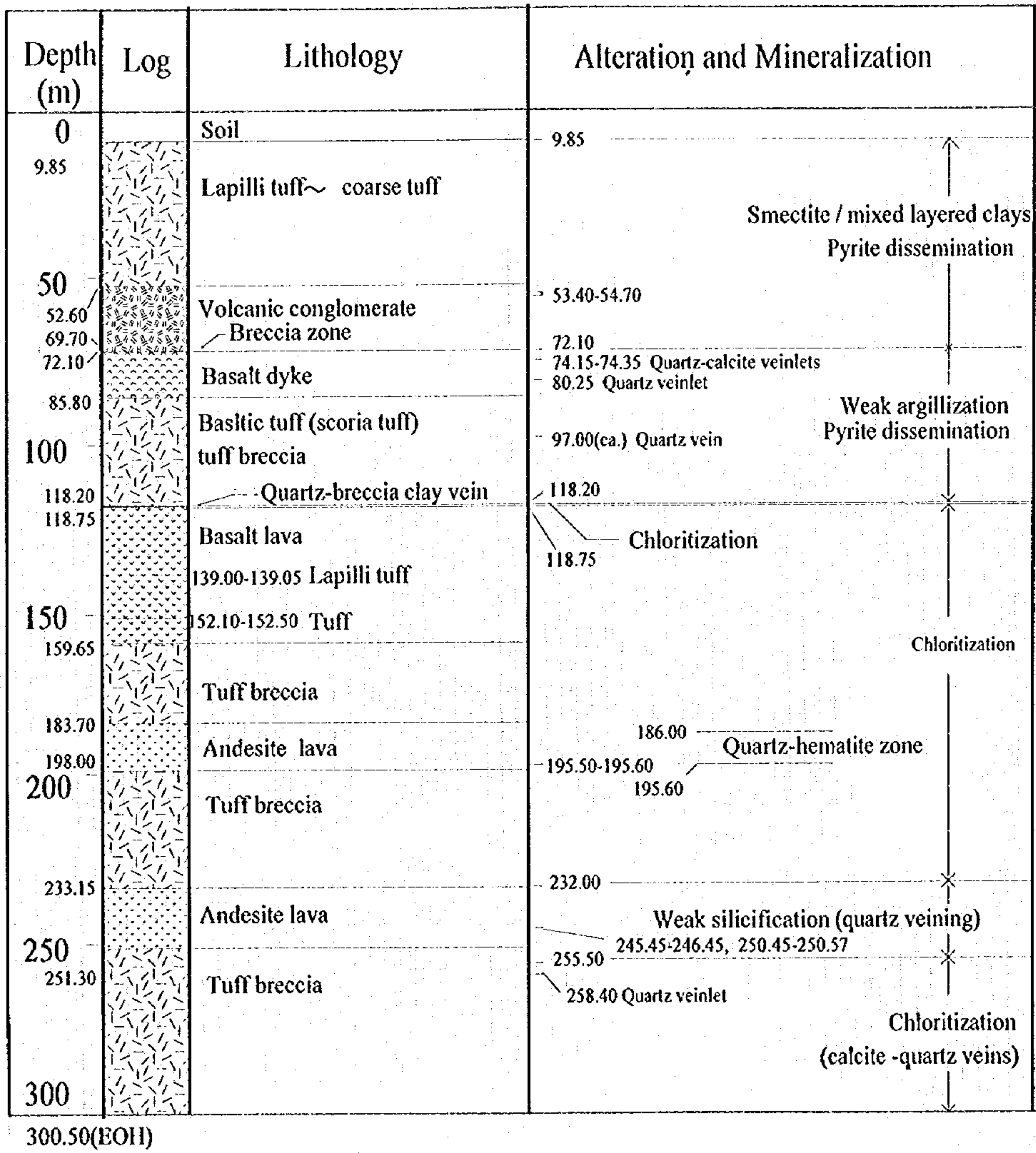
- 183.70～198.00m : Basaltic andesite lava. It shows green to red color and is hard. It is generally compact and unbrecciated, while the boundaries of two flow units at 183.70～186.00m and 195.10～198.00m are autobrecciated.
- 198.00～231.15m : Tuff breccia. It consists of green, red and black colored andesitic breccia and more reddish matrix of ash. The percentage of blocks is more than the one of matrix.
- 231.15～251.30m : Autobrecciated andesitic lava.
- 251.30～300.50m : Tuff breccia. It may be termed agglomerate. It consists of andesitic breccia of 10～15cm diameter and matrix of same composition. It shows purplish green to red and hard. A thin bed of fine tuff is intercalated at the depth of 274m. The intersected angle of the bed is about 45 degree and the dip of the bed is estimated to be about horizontal.

② Mineralization and alteration

- 9.85～72.10m : Mixed-layer mineral and smectite occur and pyrite is disseminated weakly at this interval. The assay value for the interval of 53.30～54.70m(1.40m) is 0.031g/tAu.
- 72.10～118.20m : It is weakly argillized to become greenish and has been undergone pyrite dissemination. Quartz veinlets and calcite veinlets occur at 74.15～74.35m, 80.25m and 97.00m.
- 118.20～118.75m : Quartz veining and brecciated zone. Assay values varies depending on the vein material as shown below. The average of three samples between 118.40m and 118.75m(0.35m width) is 0.614g/tAu.

Depth (m)	Width(m)	Au (g/t)	Description
118.20～118.40	(0.20)	0.094	Quartz breccia, Green clay
118.40～118.45	(0.05)	0.890	Quartz
118.45～118.55	(0.10)	0.895	Stratified clay
118.55～118.70	(0.15)	0.254	Weakly brecciated zone
118.70～118.75	(0.05)	0.854	Weakly brecciated zone

- 118.75～232.20m : Chloritization. Quartz hematite veins occur between 186.00m and 195.60m. A quartz vein between 195.10m and 195.20m (width 0.10m) assays 0.010 g/tAu, and a quartz-iron oxide vein between 195.50m and 195.60m (width 0.10m) 0.032g/tAu.
- 232.30～255.00m : Weakly silicified. Quartz veinlets occur and assay low in gold: 0.010 g/tAu (245.45m～246.45m), and <0.008 g/tAu (250.45～250.57m).
- 255.00m～300.50m : Chloritization. Calcite veinlets of 1mm～5mm width occur at many places (A quartz vein occurs at the depth of 258.40m.)



Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Tuff	50.00	1.00	0.059	1.6	12.0	<0.5	0.009
Silicified zone	53.30	1.40	0.031	1	37.0	0.6	0.338
Qtz-breccia +Clay	118.20	0.20	0.094	4.9	26.0	<0.5	0.009
Qtz-breccia +Clay	118.40	0.05	0.830	1.4	8.0	<0.5	<0.005
Qtz-breccia +Clay	118.45	0.10	0.895	1.6	2.0	<0.5	<0.005
Qtz-breccia +Clay	118.55	0.15	0.254	1.1	3.0	<0.5	<0.005
Qtz-breccia +Clay	118.70	0.05	0.845	3	3.0	<0.5	<0.005
Qtz Veinlet	186.00	0.18	0.018	<0.4	3.0	<0.5	<0.005
Qtz-breccia	195.10	0.10	0.010	<0.4	2.0	<0.5	<0.005
Qtz-breccia	195.50	0.10	0.032	<0.4	3.0	<0.5	<0.005
Qtz-Hematite Veinlets	245.35	1.00	0.010	<0.4	1.0	<0.5	<0.005
Qtz Veinlet	250.50	0.07	<0.008	<0.4	3.0	<0.5	0.012

Qtz:Quartz

Fig. 2-5 Geologic Log of MJFV-2

(3) MJFV-3

The geology of this hole consists of andesite lava, basaltic andesite lava and volcaniclastics of the Koroutari Andesites. Basaltic dykes intrude into this hole. Two gold mineralization zones occur and a weak silicification zone was encountered at depth (Fig.2-6).

① Geology

- 0～10.00m : Soil.
- 10.00～19.70m : Tuff breccia. It is basaltic andesitic and seems to be genetically autobrecciated. It is reddish due to oxidation.
- 19.70～32.80m : Porphyritic basaltic andesite lava. It is dark green and autobrecciated.
- 32.80～36.90m : Tuff breccia. It is dark green.
- 36.90～127.40m : Basaltic andesite lava. It is autobrecciated and shows porphyritic texture. It is mostly dark green - pale green, and yellowish green.
- 127.40～131.70m : Basalt dyke. It is dark green. It is medium grained and shows trachytic texture under microscopy. The boundary between the underlying tuff breccia is sharp and 70° .
- 131.70～151.60m : It shows tuff breccia texture and appears to be genetically autobrecciated lava. It consists of pale green blocks and reddish ash matrix. A thin fine tuff layer is intercalated between 147.80m and 148.40m.
- 151.60～170.70m : Tuff breccia. It consists of porphyritic andesitic lithic fragments and scoria matrix. It looks massive. In some part lapilli size fragments are dominant.
- 170.70～130.70m : Andesite lava. It appears to be more felsic than the lava at the upper units.
- 180.70～215.70m : Tuff breccia. It consists of green andesitic angular blocks up to 20cm diameter and scoriaceous fragments with pale green and brown matrix of coarse ash.
- 215.70～221.90m : Andesite lava. It is similar to the rock at the depth of 170.70～180.70m. It is autobrecciated at the boundary with the lower unit.
- 221.90～244.60m : Tuff breccia, lapilli tuff and tuff. It shows mosaic texture and multi-color and consists of andesitic blocks with minor amount basalt blocks of up to 70cm diameter. The content of the blocks is

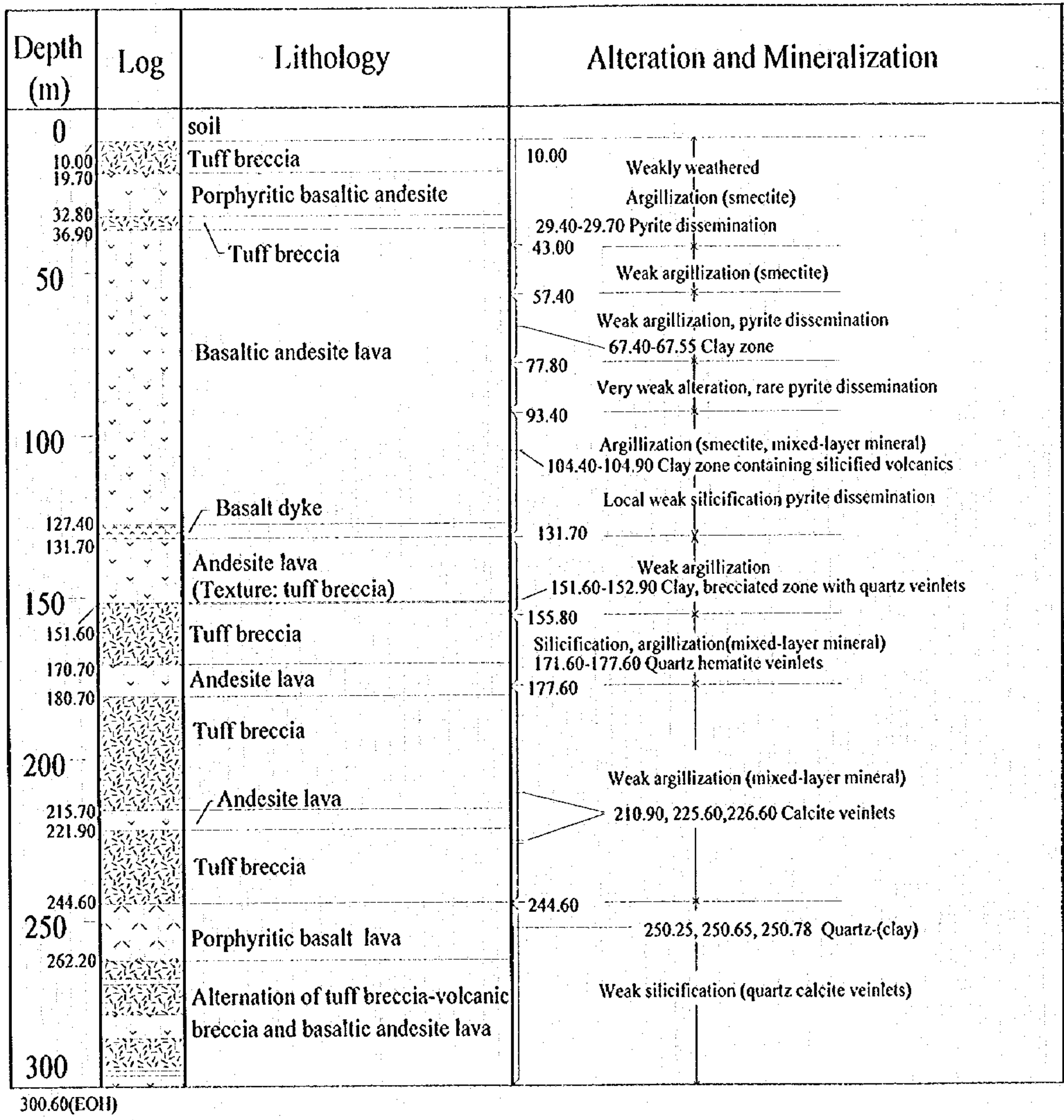
less than matrix content. Scoriaceous fine tuffs and sandy tuffs are intercalated in the tuff breccias and lapilli tuffs.

- 244.60～262.20m : Porphyritic basaltic andesite. It is compact and hard. It shows dark green and purplish green.
- 262.20～300.60m : Alteration zone of volcanic breccia- tuff breccias and autobrecciated basaltic andesite lavas. The volcanic breccia- tuff breccia consists of scoriaceous sub-angular blocks and grayish green matrix. This interval includes lapilli tuff size parts. A basalt dyke intrudes into the depth between 295.00m and 296.00m.

② Mineralization and alteration

- 10.00～43.00m : It is brown and soft due to the weak weathering. Smectite occurs. Pyrite dissemination is limited at the depth between 29.40m and 29.70m.
- 43.00～57.40m : It shows greenish due to weak argillization(comprising of smectite). No pyritization occurs
- 57.40～77.80m : Weakly argillized. Weak pyritization occurs. Gold mineralization is also weak as the most strongly argillized zone(67.40m～67.55m) assays 0.010g/tAu.
- 77.80～93.40m : This zone is more weakly altered than the upper interval, and argillization is limited to fracture zones. Pyrite dissemination is also weak and limited.
- 93.40～131.70m : Smectite and mixed-layer mineral occur and weak silicification is observed. Pyrite is disseminated weakly. The argillized zone including silicified volcanic blocks between 104.40m and 104.90m assays 0.638g/tAu.
- 131.70～155.80m : Weakly argillized. The clay and breccia including quartz veining occur between 151.60 and 152.90m. The interval between 152.10m and 152.20m(width 0.10m) assays 5.06 g/tAu. Two samples from the apparent hanging wall and footwall assay 0.835 g/tAu(0.10m) and 2.04 g/tAu(0.05m), respectively.
- 155.80～177.60m : Silicified. Hematite and quartz veinlets occur at 171.60m～177.60m. Mixed-layer mineral is identified by X-ray diffraction analysis. The 1.0m intervals between 174.60m and 175.60m, and between 176.60m and 177.60m assay 0.014 g/t and 0.010 g/t, respectively.

- 177.60～244.60m : Mixed-layer mineral is identified by X-ray diffraction analysis. No pyrite dissemination was observed. Calcite quartz veinlets occur at 210.90m, 225.60m and 226.60m depths.
- 244.6～300.60m : Weakly silicified. Calcite quartz veinlets occur. Chlorite and mixed-layer mineral are identified from the samples within this interval. Quartz-calcite veins assay as low as 0.021 g/tAu(width 0.40 m), 0.012 g/tAu(width 0.13m), 0.015 g/tAu(width 0.17m).



Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Argillized zone	67.40	0.15	0.010	<0.4	<1	<0.5	<0.005
Clay zone	104.40	0.50	0.638	1.6	85.0	11.9	0.023
Qtz vein	152.00	0.10	0.835	<0.4	<1	<0.5	<0.005
(Clay+Qtz)	152.10	0.10	5.06	<0.4	6.0	<0.5	0.005
Breccia zone (Clay+Qtz)	152.20	0.05	2.04	1	7.0	<0.5	0.005
Silicified zone	174.60	1.00	0.014	<0.4	<1	<0.5	<0.005
Qtz vein(1cm)	176.60	1.00	0.010	<0.4	<1	<0.5	<0.005
Qtz fragments	250.25	0.40	0.021	0.4	2.0	<0.5	<0.005
Clay-Qtz	250.65	0.13	0.012	1	1.0	<0.5	<0.005
Qtz stockwork	250.78	0.17	0.015	<0.4	<1	<0.5	<0.005

Qtz:Quartz

Fig. 2-6 Geologic Log of MJFV-3

1-4 Considerations on the Nakoroutari Area

1-4-1 Mineralization and Alteration Zones

Three drill holes confirmed gold mineralization in quartz fragments - argillized zones (① and ②) hosted by the basalt and andesite lavas and volcaniclastic rocks. They also crossed a silicified zone (③). The significant zones (Fig. 2-7~Fig. 2-12)are listed below:

(1) MJFV-1

① 60.80m~77.80m : The interval consists mainly of argillized zone with pyrite dissemination, and the following intervals were sampled for chemical analysis:

60.80m~61.40m	Quartz argillized zone	0.029 g/tAu
75.80m~77.80m	Quartz argillized zone	<0.008 g/tAu

② 120.10m~120.80m : Argillized zone with pyrite dissemination. Major assay results are shown below:

120.20m~120.40m	Argillized zone with quartz breccia	0.318g/tAu
120.40m~120.45m	Argillized zone with quartz breccia	5.76g/tAu

(2) MJFV-2

① 118.20m~118.75m : Quartz breccia zone . The following interval was sampled for chemical analysis:

118.40m~118.75m (0.35m) 0.614 g/tAu

② 186.00m~195.60m : Quartz-hematite veinlets zone. Neither wide quartz vein nor clay vein occurs in this interval. Even the most significant assays low in gold as follows:

195.50m~195.60m (0.10m) 0.032g/tAu

③ 230m~255m : Silicified zone where quartz veinlets occur. One of the veinlets assays below 0.010 g/tAu.

(3) MJFV-3

① 57.40m~77.80m : Weakly argillized zone. The most strongly argillized zone assays 0.010 g/tAu.

93.40m~119.20m : Weakly brecciated zone

104.40m~104.90m : Silicified and argillized zone. The interval between 104.40m and 104.90m assays 0.638g/tAu.

② 151.90m~152.60m : Quartz breccia-argillized zone(galena and sphalerite occur.)

152.10m~152.20m (0.10m) 5.06 g/tAu

152.20m～152.25m (0.05m) 2.04 g/tAu

③ 245m～256m : Calcite-quartz veinlets occur at the depth of 244.60～300.60m. Especially, quartz veinlets occur in the silicified zone at 245～256m depth. The quartz veinlets assay low in gold and the highest value is 0.021 g/tAu.

In summary, gold mineralization occurs mainly in the two quartz breccia-argillized zones and one silicification zone. These zones trend in NNW-SSE direction and dip eastward (Fig. 2-7～Fig. 2-12). Namely, the quartz-argillized zone on the eastern side crosses MJFV-1 at 60.80 m～75.80 m depth, MJFV-2 near 118.20m depth, and MJFV-3 near 67.40m depth. The zone on the western side crosses the mineralized zone in MJFV-1 near 120.40 m depth, and MJFV-3 near 152.10 m depth, and it probably crosses MJFV-2 through the quartz angular fragments zone near 195 m depth, but mineralization is weaker than in the other two holes. Aside from the above two zones, a silicified zone is inferred to pass through the vicinity of 250 m depth of MJFV-2 and near 250 m depth of MJFV-3 with NNE-SSW strike. This silicified zone contains quartz veinlets.

1-4-2 Characteristics of Mineralization and Structural Control

(1) Characteristics of Mineralization

The mineralization accompanied by quartz angular fragments-silicified zones is of epithermal, and the lack or the paucity of sulfide minerals in the quartz veins and alteration zones is the characteristics of the mineralization of this area. The averages of homogenization temperatures of three quartz samples range from 220 to 240°C(Fig. 2-13), and the occurrence of chalcedonic quartz with crustified structure and other features indicate the shallow location of genesis. Regarding minor element content, however, although samples with high As and Hg content are harmonious with shallow genesis, As, Sb, and Hg contents are not necessarily high. It is seen that the Au/Ag ratio differs significantly among the high gold samples. Also electrum occurred in MJFV-3 and its Ag grade is low compared to Au content. The dominant gangue minerals are quartz and smectite with minor contents of adularia or carbonate minerals. It is noted that in the drill holes in this area, kaolin minerals and alunite are not observed, and enargite and luzonite are also absent. These facts indicate that this belongs to the low-sulfidation type gold mineralization (White and Hedenquist, 1990).

(2) Alteration

The regional alteration of this area is generally weak. Chlorite-sericite and mixed-layer minerals were formed by hydrothermal alteration associated with mineralization, and these alteration zones are inferred to extend in the NW-SE direction with steep dip. Identification of the alteration minerals enabled the separation of the alteration zones of all the drill holes in this area into upper smectite zone and lower chlorite-sericite zone. And in MJFV-1, mixed-layer mineral occurs in between the smectite and sericite zones and also below the chlorite-sericite zone. Although the detailed distribution of each alteration zone is not clear, chlorite-sericite zone extends in the NW-SE direction at steep dip. From this zoning of the alteration, it is considered that MJFV-1 and -3 penetrated the main part of the mineralization and alteration zones. Chlorite and sericite are believed to be the product of hydrothermal alteration associated with mineralization because mixed-layer mineral occurs again in the lower part of MJFV-1 and MJFV-3, and regional propylitization (chloritization) does not occur in this area.

(3) Structural Control on the Mineralization

The mineralization of this area is concluded to be of low-sulfidation type controlled by the fracture system in basalt-andesite lava-volcaniclastic rocks. Mineralization of this type is a product of an extensive regional circulation of hydrothermal fluid, and the location of the heat source is not necessarily confined within the area. It may be necessary to consider a wider fluid circulation such as the that of the Labasa Caldera system. In fact, many hot springs occur in this caldera. During the first year survey, however, stronger mineralization has not been found outside of this Leli' Prospect area.

(4) Re-interpretation of the Geophysical Investigation

① Results of Laboratory Work

Resistivity and chargeability were measured for the drill core samples(Fig.2-14). Thirty five samples are supplied for the measurement. The numbers of the samples for each rock type are 8 for andesite, 8 for basalt, 16 for volcaniclastic rocks and three for silicified-argillized rock. The average values of resistivity and chargeability classified by the rock types are:

- 255 ohm-m, 5.9mV·s/V for andesite
- 155 ohm-m, 3.4mV·s/V for basalt
- 146 ohm-m, 6.4mV·s/V for volcaniclastic rocks
- 531 ohm-m, 6.3mV·s/V for a silicified rock
- 33 ohm-m, 20.3mV·s/V for argillized rocks.

② Considerations

The mineralization of this area has been concluded to be of low sulfidation type controlled by the fracture system in basalt-andesite lava-volcaniclastic rocks.

The weakly silicified zone where quartz veinlets occur is correlated to the CSAMT high resistivity anomaly under the Korobua Creek(Fig.2-15,-16)

The IP anomaly that was estimated by a simulation extends to the deeper part of MJFV-2 and MJFV-3 (Fig. 2-17). The results of laboratory measurement of chargeability may not be high enough to explain the high chargeability of the simulation. The hematite and other iron oxides presence in silicified zone at depth may not be enough to produce the high anomaly since the volume of the iron oxides is limited. Consequently, pyrite dissemination at shallow depth is considered to be attributable to the anomaly.

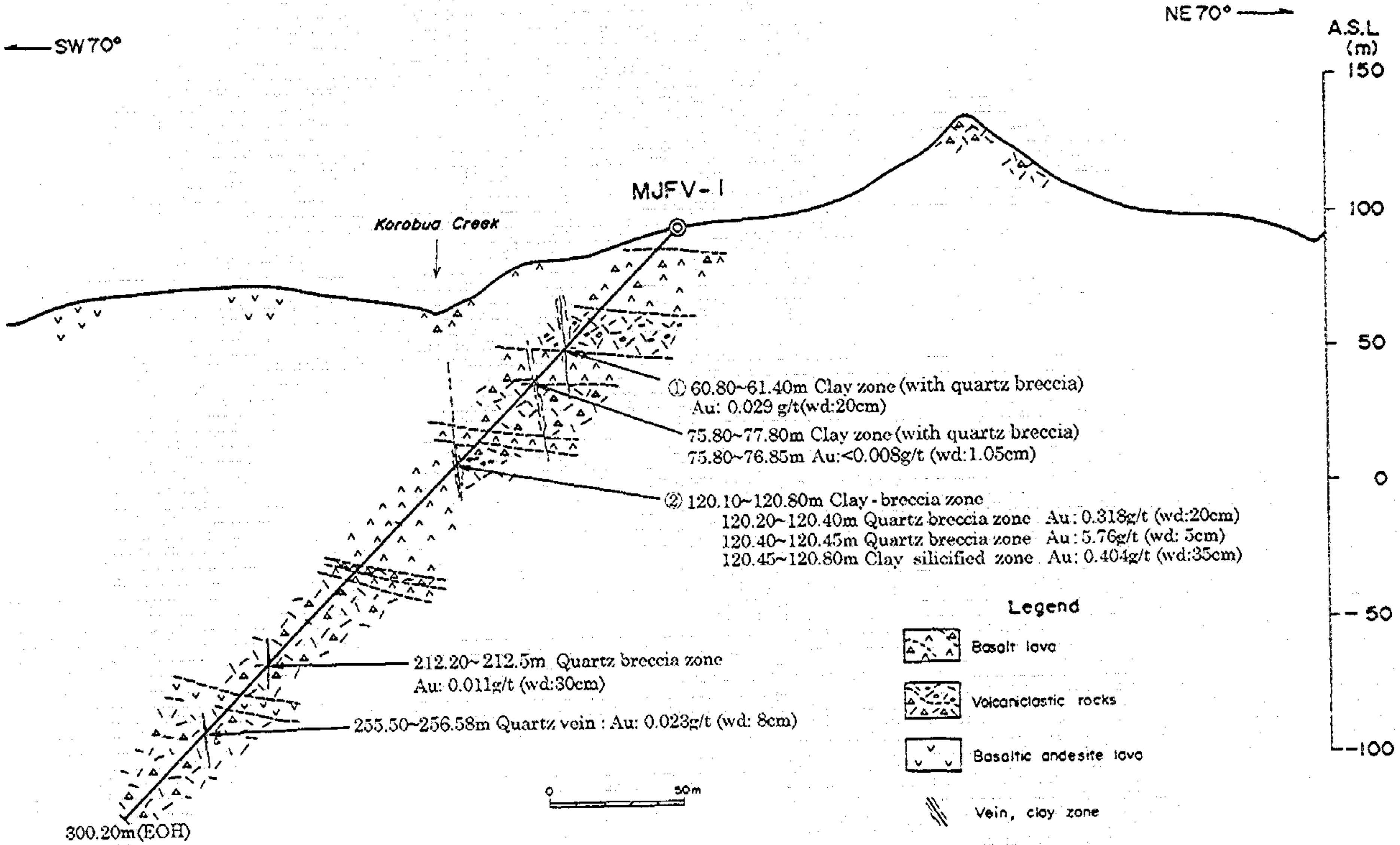


Fig. 2-7 Geologic Profile of MJFV-1

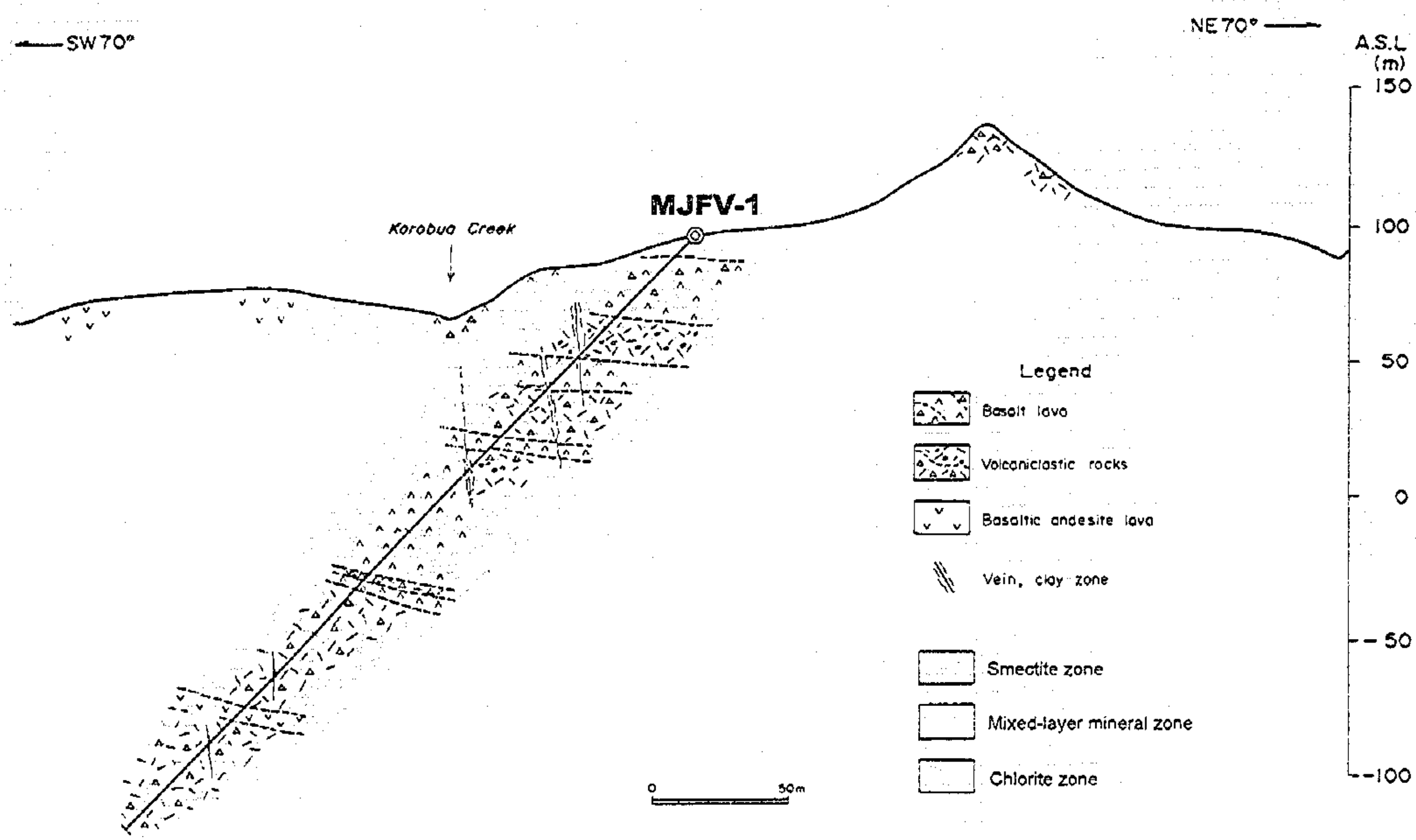


Fig. 2-8 Schematic Alteration Zoning of MJFV-1

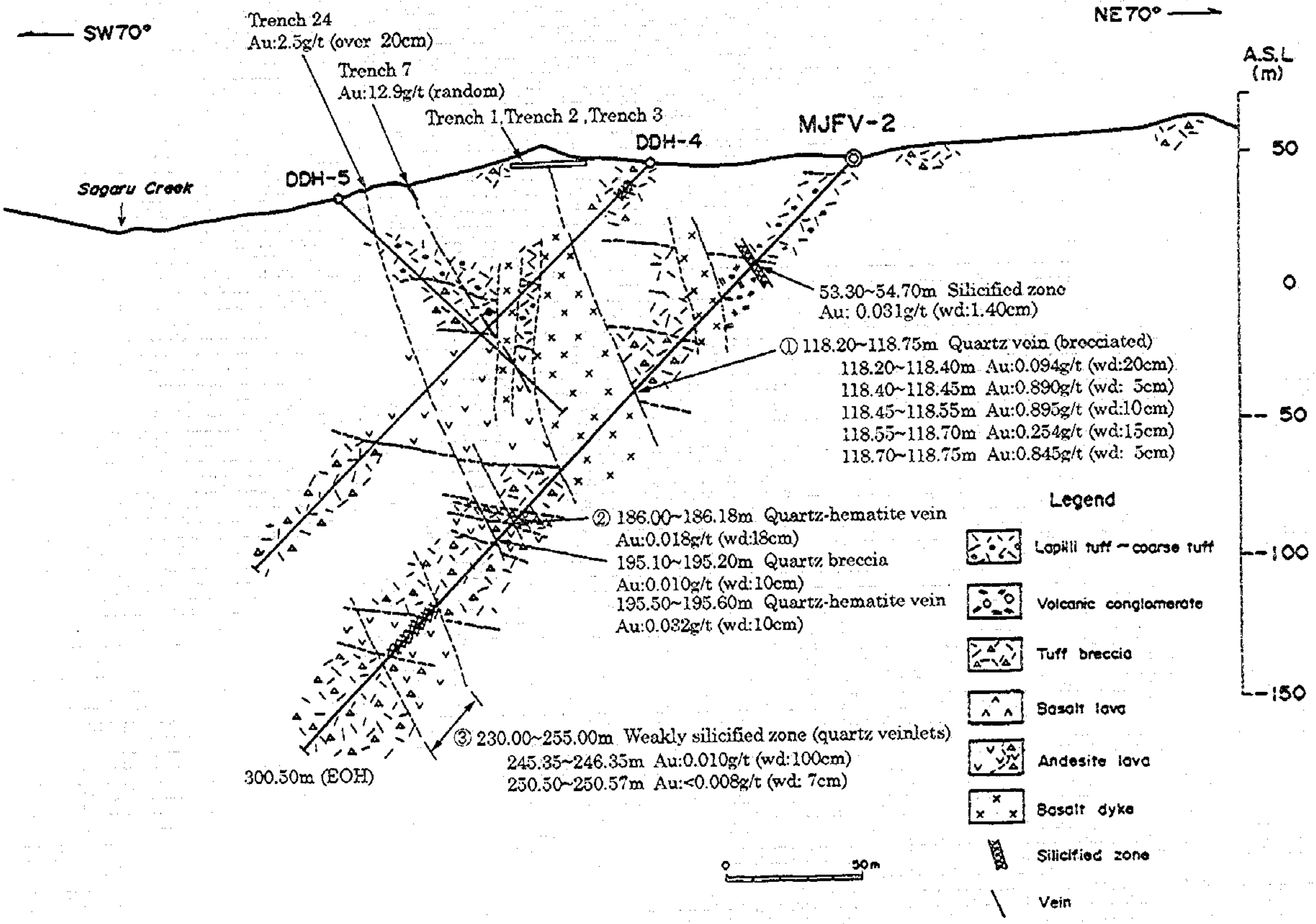


Fig. 2-9 Geologic Profile of MJFV-2

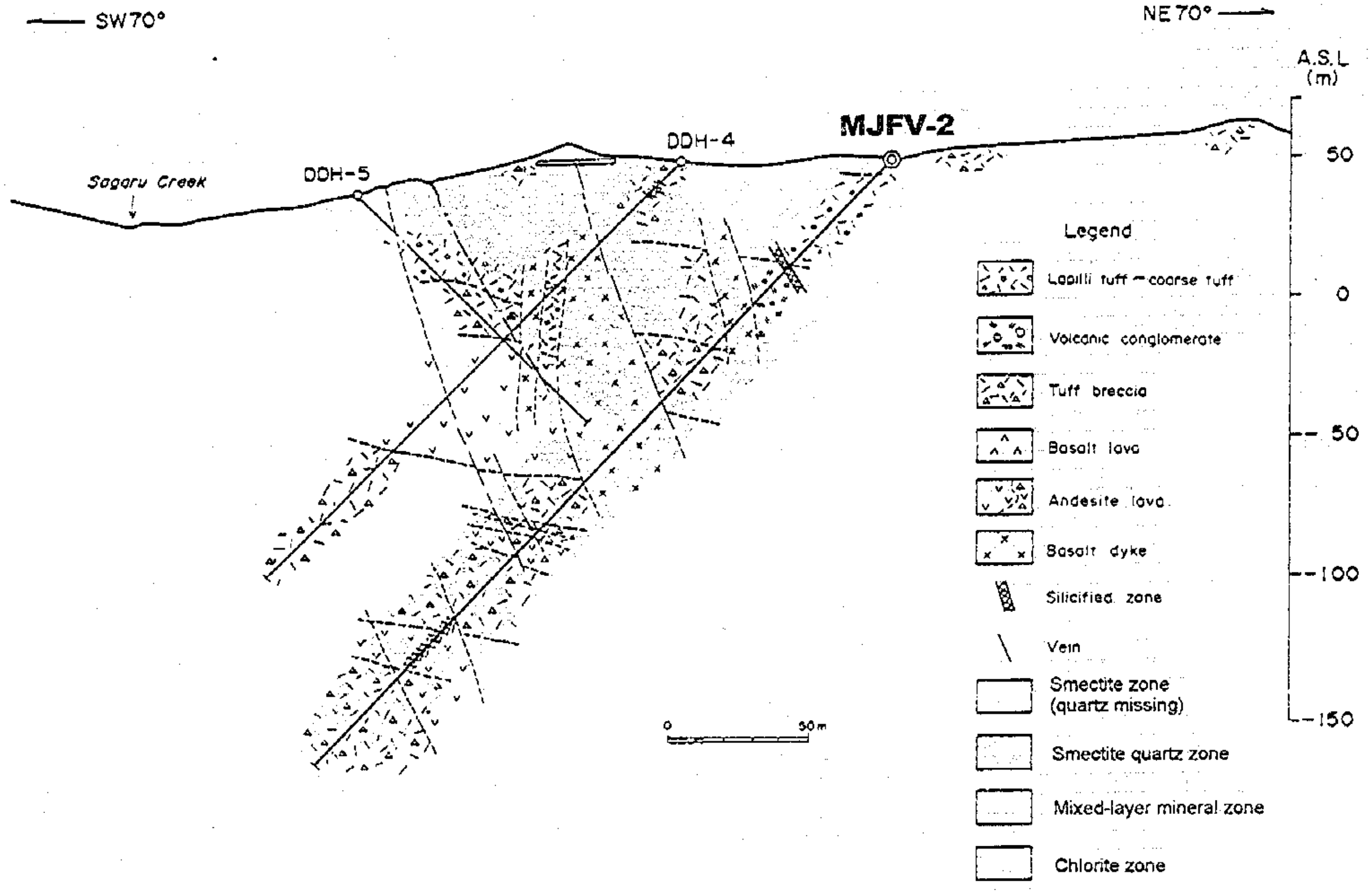


Fig. 2-10 Schematic Alteration Zoning of MJFV-2

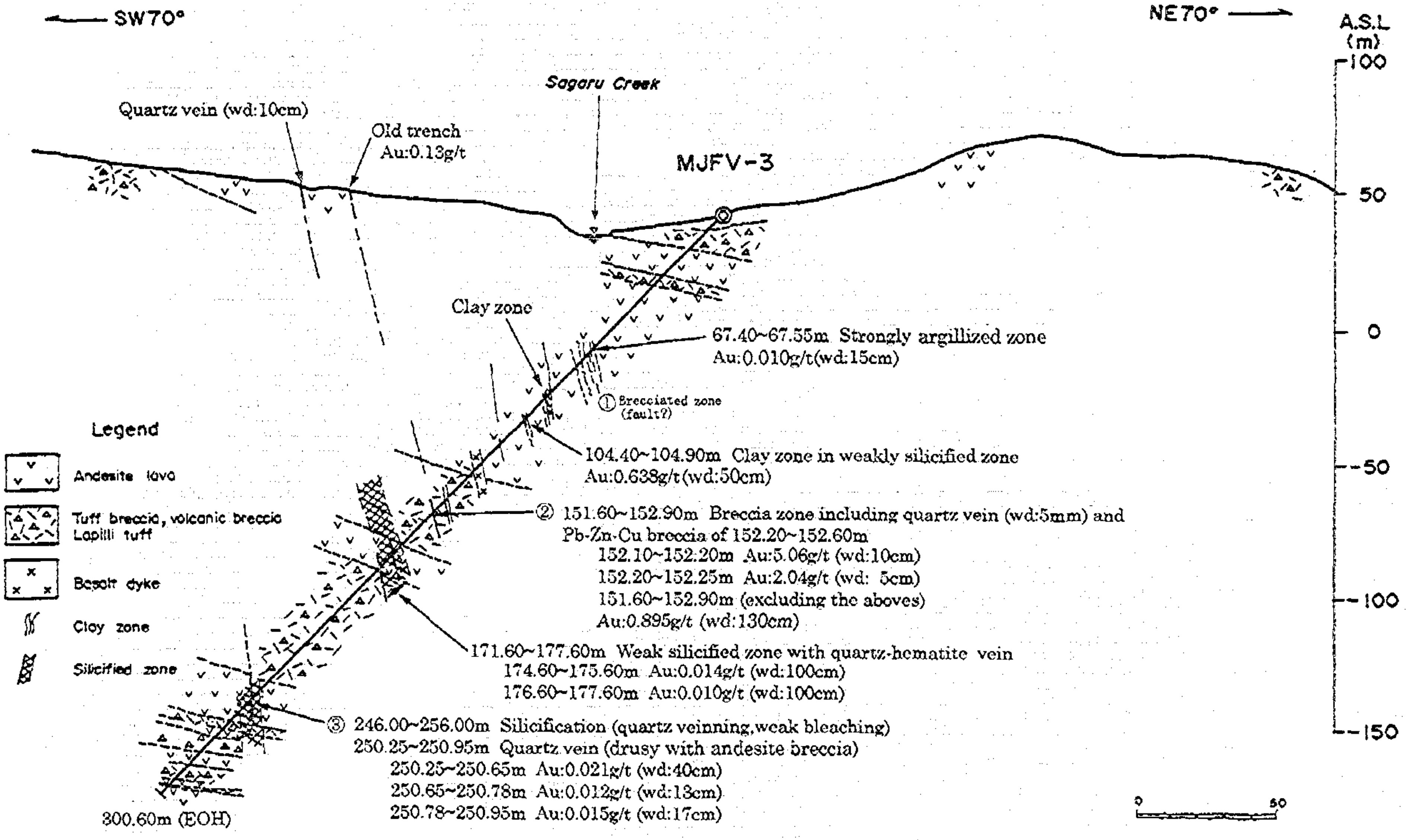


Fig. 2-11 Geologic Profile of MJFV-3

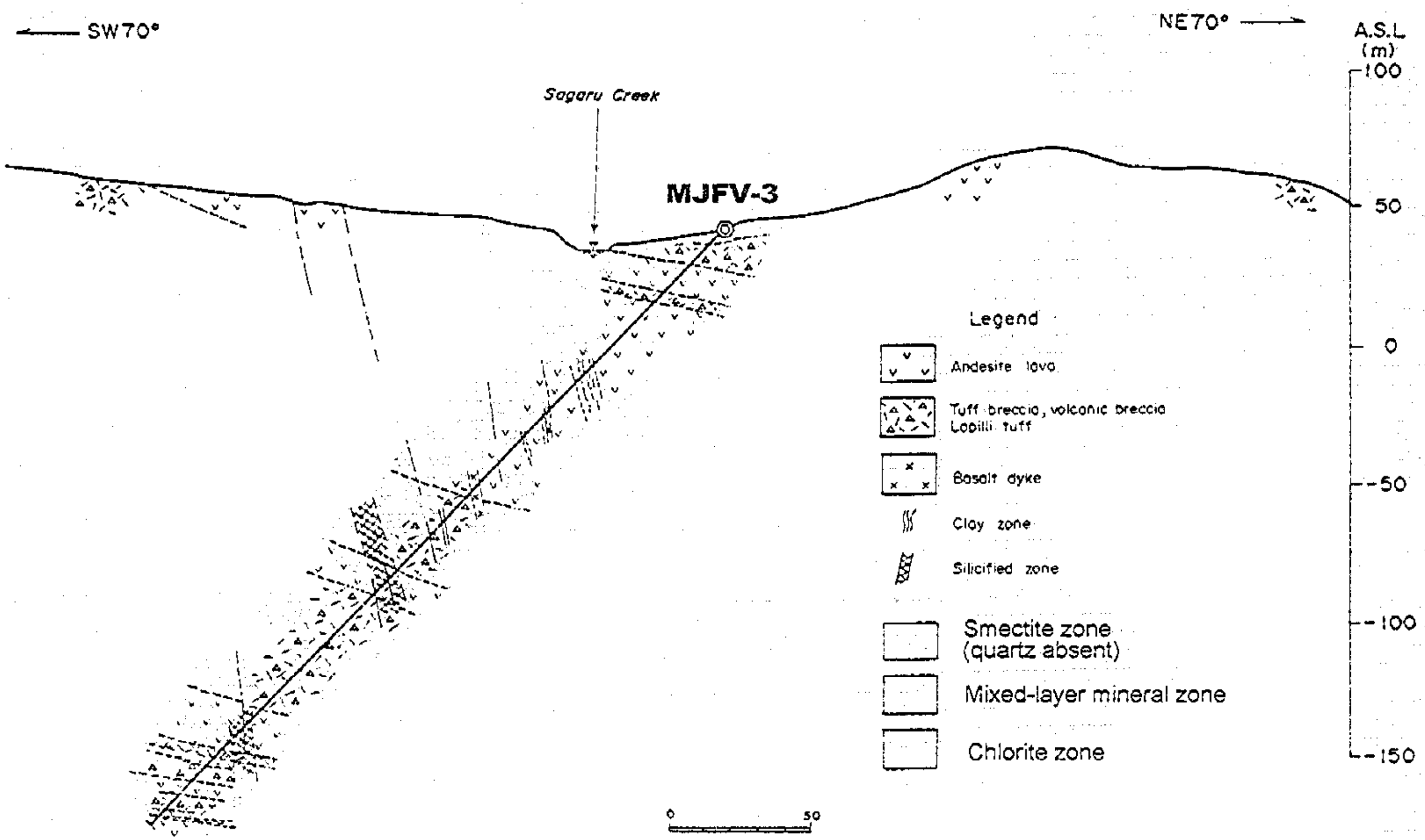
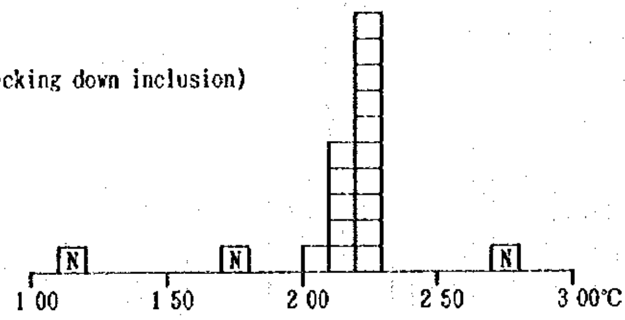


Fig. 2-12 Schematic Alteration Zoning of MJFV-3

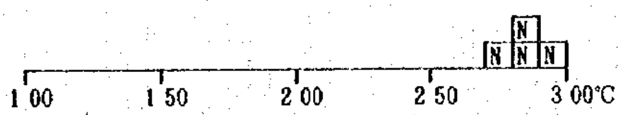
ND103
(MJFV-1,120.20m)

number 16(excluding a necking down inclusion)
average 220℃
maximum 228℃
minimum 206℃
standard deviation 6℃



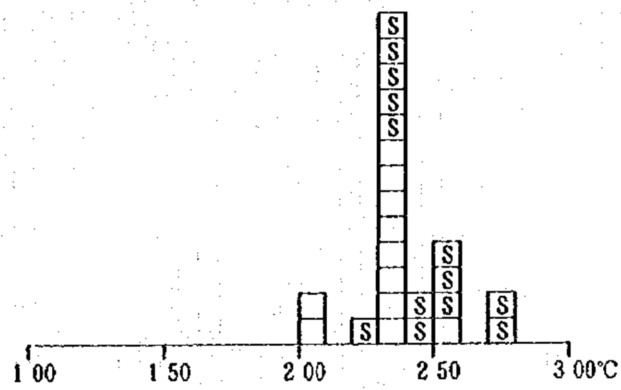
ND120
(MJFV-1,255.50m)

number 4
average 285℃
maximum 296℃
minimum 275℃
standard deviation 9℃



ND310
(MJFV-3,152.20m)

number 24
average 240℃
maximum 274℃
minimum 202℃
standard deviation 6℃



Legend
□:Primary
P: Pseudo-secondary
S: Secondary
N:Necking down?

Fig. 2-13 Histograms of Homogenization Temperature from the Nakoroutari Area

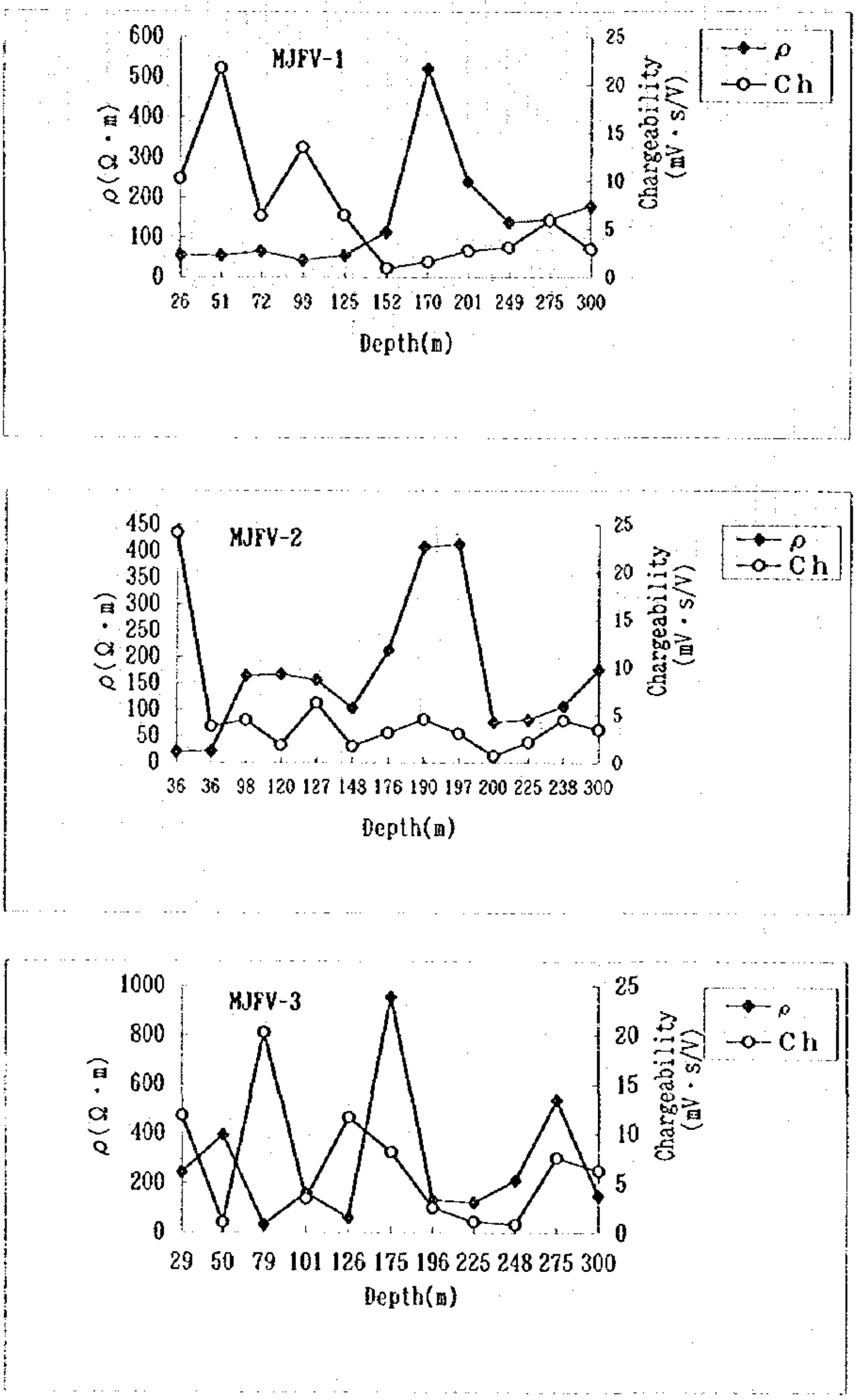


Fig. 2-14 Resistivity and Chargeability of Drill Core Samples

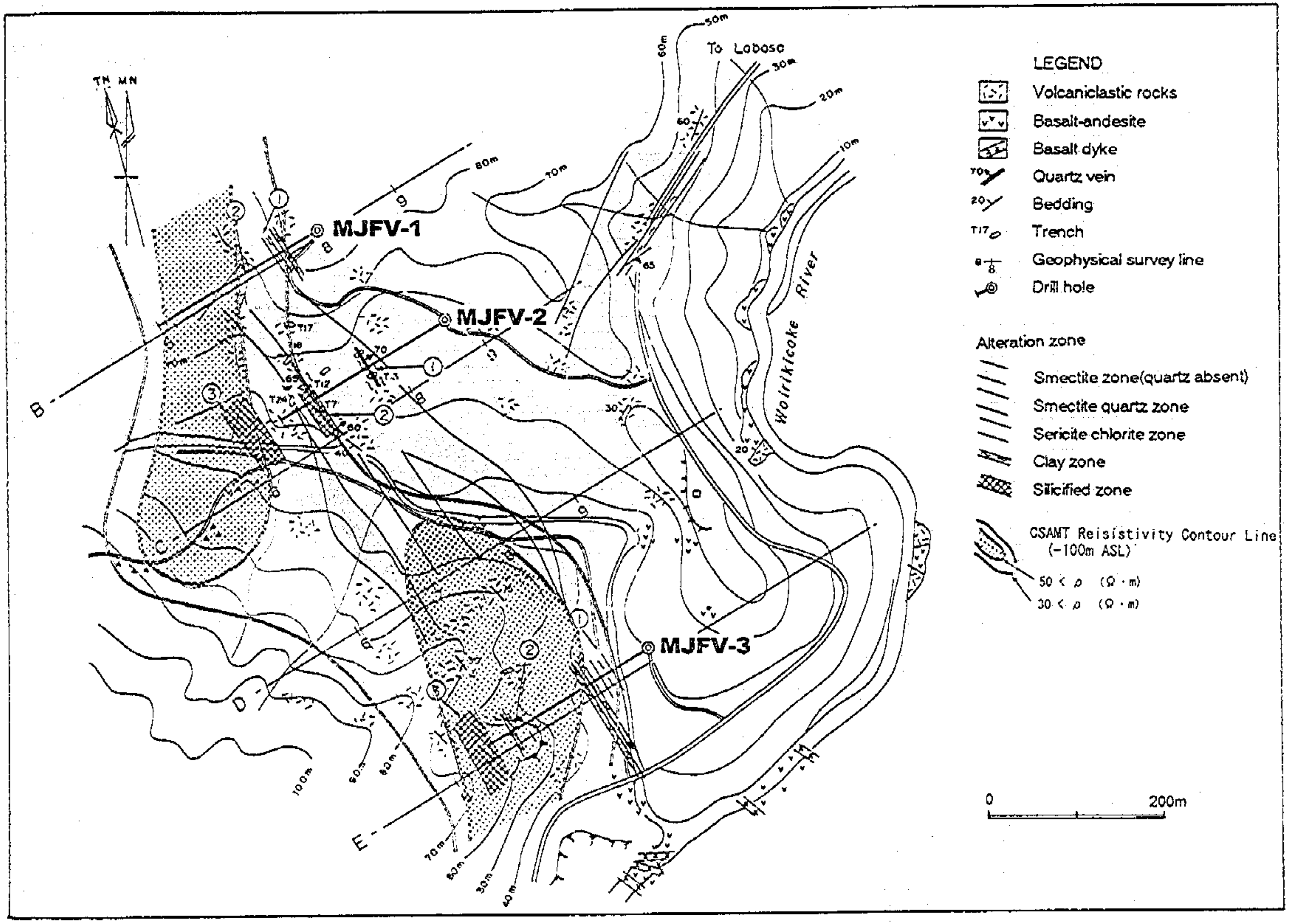


Fig. 2-15 Outline of theReisistvity Anomaly by the CSAMT Method

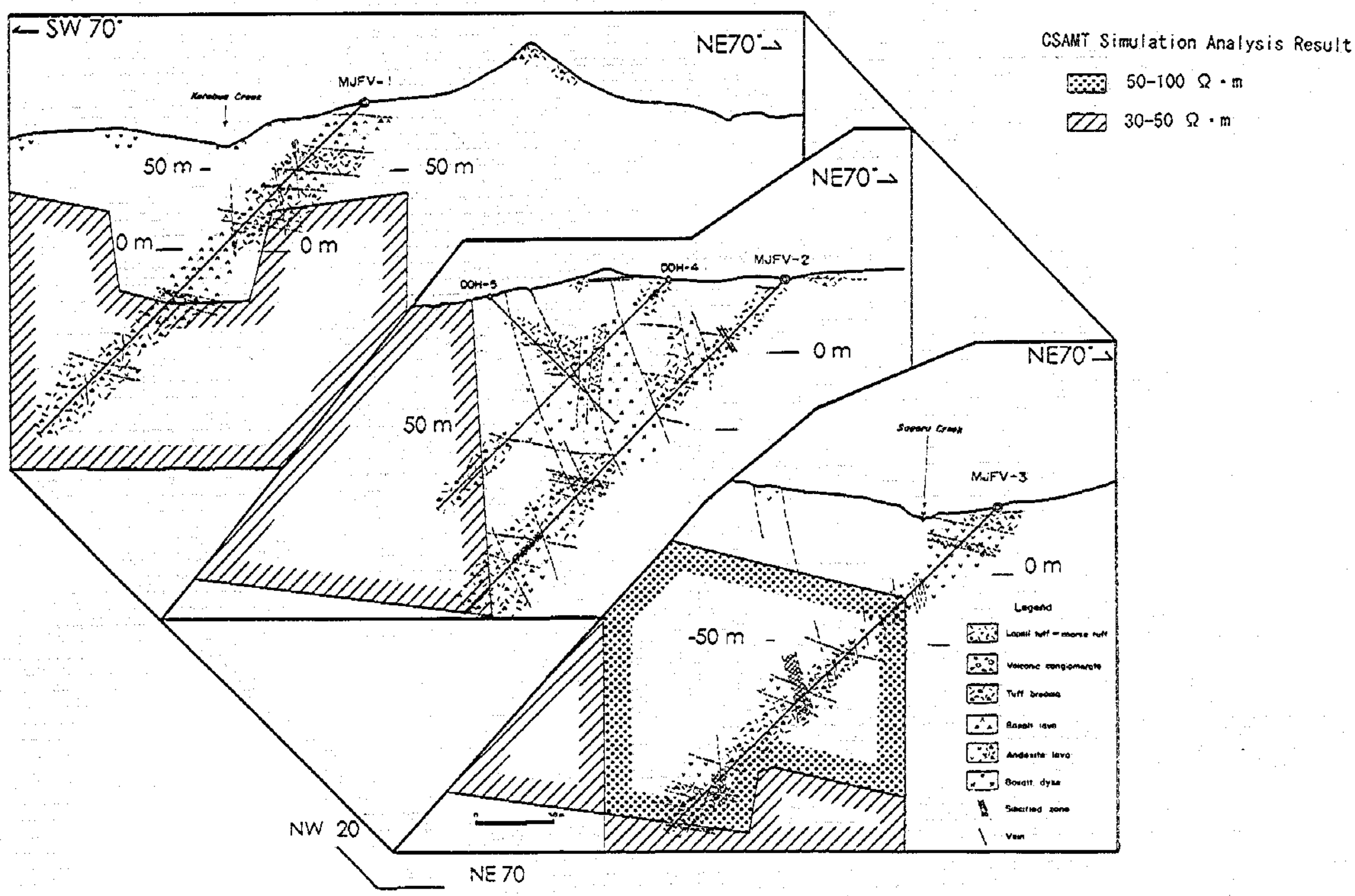


Fig. 2-16 Schematic Diagram Showing the CSAMT Simulation Results

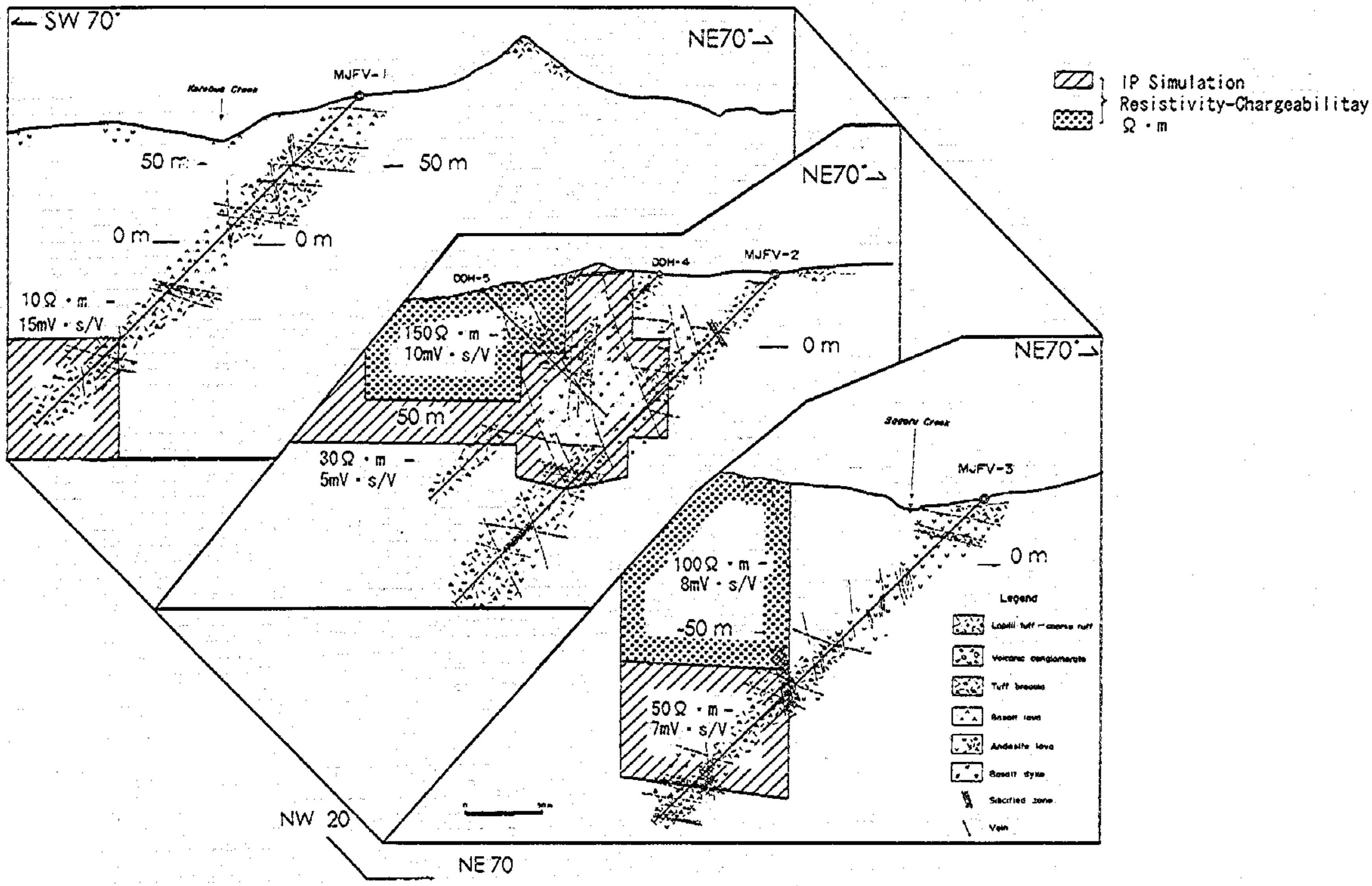


Fig. 2-17 Schematic Diagram Showing the IP Simulation Results

Chapter 2 Dakuniba Area

2-1 Outline

The locations, directions and lengths of the three holes are listed below.

Table 2-8 Location, Orientation and Length of Drill Holes in the Dakuniba Area

Drill No.	Coordinates		Elevation (m)	Azimuth	Inclination	Drilled Length(m)
	Latitude	Longitude				
MJFV-4	16° 43' 40"S	179° 50' 30"E	320	S30° W	-45°	300.50
MJFV-5	16° 43' 45"S	179° 50' 35"E	280	S30° W	-45°	300.30
MJFV-6	16° 43' 50"S	179° 50' 50"E	220	S30° W	-45°	300.90

2-2 Drilling

(1) MJFV-4

The MJFV-4 was drilled to the depth of 1.50 m by non-water drilling using a pipe with cemented carbide tips 168 mm diameter. Further drilling was done by PQ, HQ and NQ wireline method. A PQ bit was used to the depth of 53.55 m, while PW casing pipes were inserted to the depth of 12 m after reaming by PW casing diamond shoe. HW casing pipes were used for the length of 57 m. Drilling by the HQ bits was done to the depth of 151.90 m and NW casing pipes were inserted for the length of 152 m. A NQ bit was used to the 300.50 m depth, the end of the hole.

A rod was broken while drilling at the depth of 159 m. However, it did not cause any significant delay of progress. Three types of polymer were added to the drilling water to prevent circulation loss and vibration, while small amount of bentonite was also added.

The drilling operation is summarized on Table 2-9. Record of progress of the operation is shown in Table 2-10 and Fig. 2-18

Table 2-9 Summary of the Drilling Operation on MJFV-4

Drilling Length

Drilling Length	Meterage(m)
Length planned	300.00
Length drilled	300.50

Survey Period

Operation	Survey Period				Total man day	
	Period	Day	Work day	Off day	Engineer	Worker
Preparation	Oct. 1~Oct .2	1.5	1.5	0.0	6	10
Drilling	Oct. 2~Oct. 15	13.0	12.0	1.0	75	136
Dismantling	Oct. 15~Oct.16	1.5	1.5	0.0	6	10
Total		16.0	15.0	1.0	87	156

Working Hours

Operation	(hours)	(percentage)
Drilling	157	48.8%
Other work	98	30.4%
Recovering	11	3.4%
Subtotal	266	82.6%
Reassemblage	48	14.9%
Dismantlment	8	2.5%
Water supply	0	0.0%
Grand total	322	100.0%
(Road construction)	202	-

Casing Pipe Inserted

Size	Meterage (m)
168mm	1.50
PW	12.00
HW	57.00
NW	152.00

Drilling Length by Each Bit Size

Bit size	Drilled length (m)	Core length (m)
168mm	2.50	0.50
PQ	53.55	53.20
HQ	95.85	95.65
NQ	148.60	148.60
Total	300.50	297.95

Core Recovery of 100m Hole

Depth of Core Recovery	Core recovery
0.00m~100.00m	97.5%
100.00m~200.00m	100.0%
200.00m~300.20m	100.0%
total	99.2%

Efficiency of Drilling

Total length/drilling period	18.8m/day
Total length/shift	11.3m/shift

Table 2-10 Records of the Drilling Operation on MJFV-4

Date	Drilling length (m)		Daily total (m)		Cumulative length (m)		Shift (shift)		Man working (man)	
	Shift 1	Shift 2	Drilling length	Core length	Drilling length	Core length	Drilling	Total	Enginner	Worker
Oct 1	0.00		0.00	0.00			0	1	3	3
Oct 2	2.50	0.00	2.50	0.50	2.50	0.50	1	2	3	3
Oct 3	10.20	12.80	23.00	22.65	25.50	23.15	2	2	4	3
Oct 4	6.35	9.35	15.70	15.70	41.20	38.85	2	2	4	3
Oct 5	9.40	8.10	17.50	17.30	58.70	56.15	2	2	4	3
Oct 6	0.00	2.10	2.10	2.10	60.80	58.25	1	2	3	4
Oct 7	30.00	15.00	45.00	45.00	105.80	103.25	2	2	4	5
Oct 8	21.00	4.15	25.15	25.15	130.95	128.40	2	2	4	5
Oct 9	20.95	7.70	28.65	28.65	159.60	157.05	2	2	4	5
Oct 10	27.00	18.00	45.00	45.00	204.60	202.05	2	2	4	5
Oct 11	18.00	12.00	30.00	30.00	234.60	232.05	2	2	4	5
Oct 12	8.10	14.20	22.30	22.30	256.90	254.35	2	2	4	5
Oct 13		4.70	4.70	4.70	261.60	259.05	1	1	3	4
Oct 14	18.00	18.00	36.00	36.00	297.60	295.05	2	2	4	5
Oct 15	2.90	0.00	2.90	2.90	300.50	297.95	1	2	4	5
Oct 16	0.00		0.00	0.00	300.50	297.95	0	1	4	5
Total	174.40	126.10	300.50	297.95			24	29	60	68

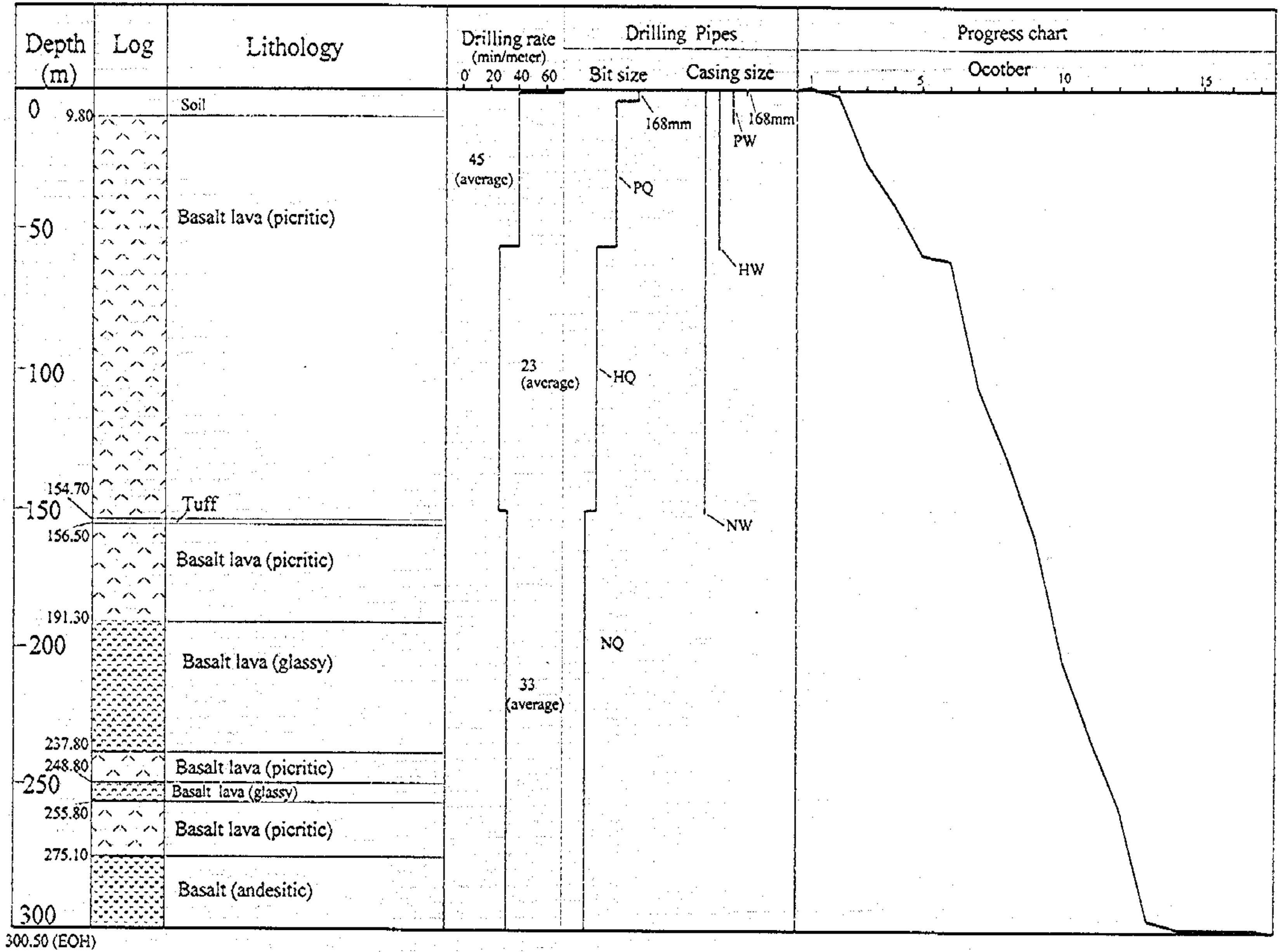


Fig. 2-18 Drilling Progress of MJFV-4

(2) MJFV-5

The MJFV-5 was drilled to the depth of 1.30 m by non-water drilling using a pipe with cemented carbide tips of 168 mm diameter. Further drilling was done by PQ, HQ and NQ wireline method. A PQ bit was used to the depth of 56.10 m, while PW casing pipes were inserted to the depth of 4.5 m after reaming by PW casing diamond shoe. HW casing pipes were used for the length of 57 m. Drilling by the HQ bits was done to the depth of 155.00 m and NW casing pipes were inserted for the length of 156 m. A NQ bit was used to 300.30 m, the end of the hole.

Continuous rainfall during the drilling of MJFV-5 hampered transportation of fuels and commuting to the drill site and it took longer days than other holes to drill the whole length.

More bentonite was used while drilling the hole MJFV-5 than other two holes to prevent circulation loss of drilling water since the collar was located near steep slope.

The drilling operation is summarized on Table 2-11, record of progress of the operation is shown in Table 2-12 and Fig. 2-19

Table 2-11 Summary of the Drilling Operation on MJFV-5

Drilling Length

Drilling Length	Meterage(m)
Length planned	300.00
Length drilled	300.30

Survey Period

Operation	Survey Period				Total man day	
	Period	Day	Work day	Off day	Engineer	Worker
Preparation	Oct. 17~Oct. 17	1.0	1.0	0.0	4	7
Drilling	Oct. 18~Nov. 5	18.5	13.5	3.0	73	122
Dismantling	Nov. 5~Nov. 8	3.5	3.5	0.0	14	24
Total		23.0	18.0	3.0	91	153

Working Hours

Operation	(hours)	(percentage)
Drilling	182	48.5%
Other work	153	40.8%
Recovering	6	1.6%
Subtotal	341	90.9%
Reassemblage	7	1.9%
Dismantlment	27	7.2%
Water supply	0	0.0%
Grand total	375	100.0%
(Road construction)	18	-

Casing Pipe Inserted

Size	Meterage (m)
168mm	1.30
PW	4.50
HW	57.00
NW	156.00

Drilling Length by Each Bit Size

Bit size	Drilled length (m)	Core length (m)
168mm	1.30	1.30
PQ	54.80	53.40
HQ	98.90	98.80
NQ	145.30	145.30
Total	300.30	298.80

Core Recovery of 100m Hole

Depth of Core Recovery	Core recovery
0.00m~100.00m	98.6%
100.00m~200.00m	99.9%
200.00m~300.20m	100.0%
total	99.5%

Efficiency of Drilling

Total length/drilling period	13.0m/day
Total length/shift	7.7m/shift

Table 2-12 Records of the Drilling Operation on MJFV-5

Date	Drilling length (m)		Daily total (m)		Cumulative length (m)		Shift (shift)		Man working (man)	
	Shift 1	Shift 2	Drilling length	Core length	Drilling length	Core length	Drilling	Total	Enginner	Worker
Oct 17	1.30		1.30	1.30	1.30	1.30	1	1	4	7
Oct 18	0.00		0.00	0.00	1.30	1.30	0	1	5	7
Oct 19	4.45	11.75	16.20	14.80	17.50	16.10	2	2	4	8
Oct 20		1.90	1.90	1.90	19.40	18.00	1	1	3	2
Oct 21	15.60	9.40	25.00	25.00	44.40	43.00	2	2	4	7
Oct 22	13.60	18.00	31.60	31.60	76.00	74.60	2	2	4	7
Oct 23	24.00	15.00	39.00	39.00	115.00	113.60	2	2	4	7
Oct 24	18.00	14.70	32.70	32.60	147.70	146.20	2	2	4	7
Oct 25	7.30	13.80	21.10	21.10	168.80	167.30	2	2	4	7
Oct 26	6.00	12.00	18.00	18.00	186.80	185.30	2	2	4	7
Oct 27		6.00	6.00	6.00	192.80	191.30	1	1	4	2
Oct 28	21.00	0.00	21.00	21.00	213.80	212.30	1	2	4	7
Oct 29	12.80	0.00	12.80	12.80	226.60	225.10	1	2	4	7
Oct 30	17.20	0.00	17.20	17.20	243.80	242.30	1	2	4	7
Oct 31	17.20	0.00	17.20	17.20	261.00	259.50	1	2	4	7
Nov 1	10.85	0.00	10.85	10.85	271.85	270.35	1	2	4	7
Nov 2	10.95	0.00	10.95	10.95	282.80	281.30	1	2	4	7
Nov 3			0.00	0.00	282.80	281.30	0	1	3	3
Nov 4	7.40	0.00	7.40	7.40	290.20	288.70	1	2	4	8
Nov 5	10.10	0.00	10.10	10.10	300.30	298.80	1	2	4	8
Nov 6	0.00	0.00	0.00	0.00	300.30	298.80	0	2	4	8
Nov 7	0.00		0.00	0.00	300.30	298.80	0	1	4	8
Nov 8	0.00	0.00	0.00	0.00	300.30	298.80	0	1	4	8
Total	197.75	102.55	300.30	298.80			25	39	91	153

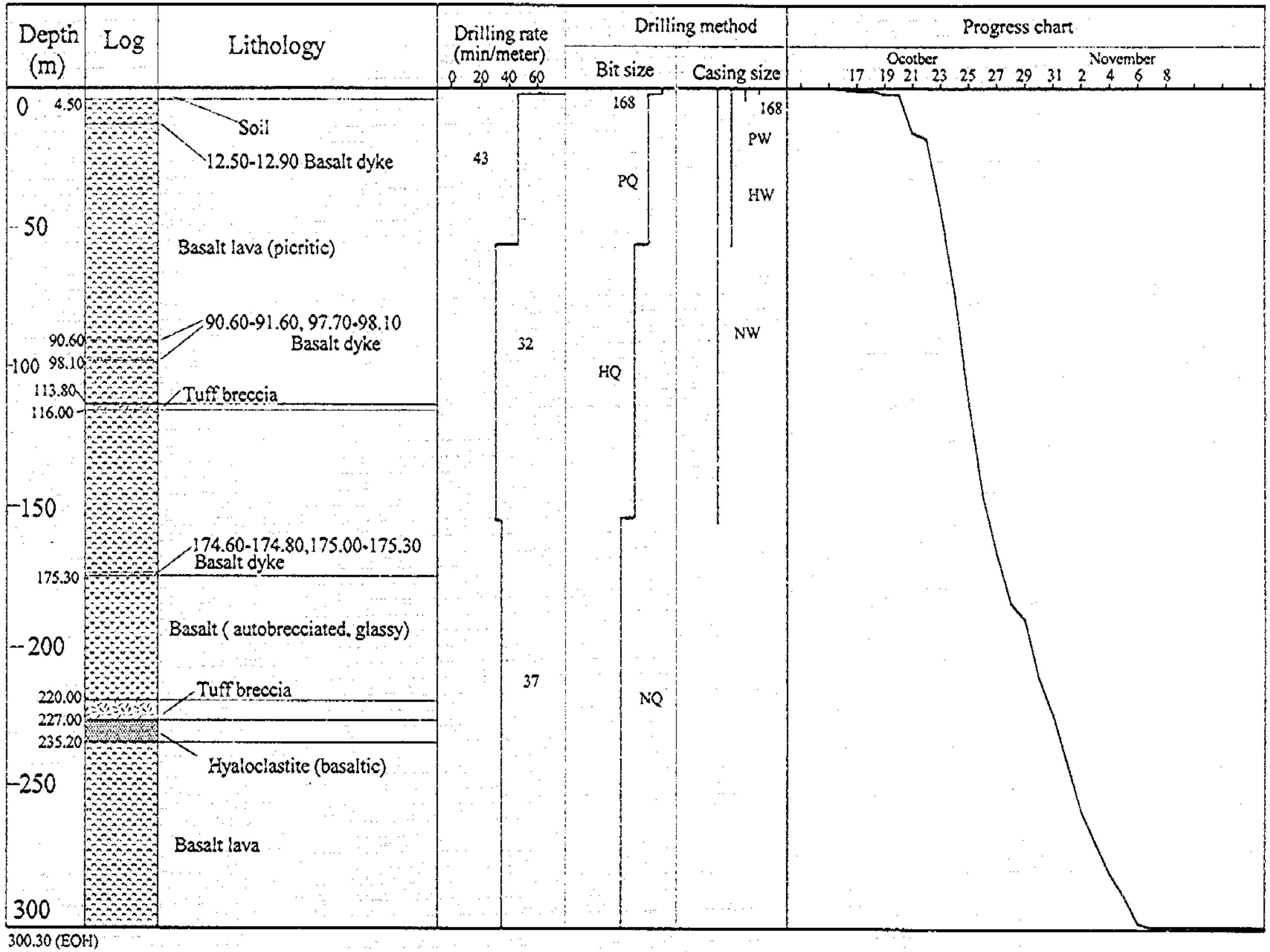


Fig. 2-19 Drilling Progress of MJFV-5

(3) MJFV-6

The MJFV-6 was drilled to the depth of 1.30 m by non-water drilling method using a pipe of 168 mm diameter with cemented carbide tips. Further drilling was done by PQ, HQ and NQ wireline method. A PQ bit was used to the depth of 56.80 m, while PW casing pipes were inserted to the depth of 12 m after reaming by PW casing diamond shoe. HW casing pipes were used for the length of 56.80 m. Drilling by the HQ bits was done to the depth of 158.40 m and NW casing pipes were inserted for the length of 158 m. A NQ bit was used to the depth of 300.90 m, the end of hole.

Bearings of a gear in the main transmission box of the rig were broken while drilling at the depth of 60 m and it took one and a half day to fix the trouble. Three types of polymer were added to the drilling water to prevent circulation loss of water and vibration, although small amount of bentonite was also added.

The drilling operation is summarized on Table 2-13. Record of progress of the operation is shown in Table 2-14 and Fig. 2-20

Table 2-13 Summary of the Drilling Operation on MJFV-6

Drilling Length

Drilling Length	Meterage(m)
Length planned	300.00
Length drilled	300.90

Survey Period

Operation	Survey Period				Total man day	
	Period	Day	Work day	Off day	Engineer	Worker
Preparation	Sept. 8～Sept. 9	2.0	2.0	1.0	5	7
Drilling	Sept.10～Sept.28	18.5	17.5	1.0	57	90
Dismantling	Sept.28～Sept. 30	2.5	1.5	1.0	7	11
Total		23.0	21.0	3.0	70	108

Working Hours

Operation	(hours)	(percentage)
Drilling	156	36.7%
Other work	98.5	23.2%
Recovering	124	29.2%
Subtotal	378.5	89.1%
Reassemblage	22.5	5.3%
Dismantlment	24	5.6%
Water supply	0	0.0%
Grand total	425	100.0%
(Road construction)		-

Casing Pipe Inserted

Size	Meterage (m)
168mm	1.30
PW	12.00
HW	56.80
NW	158.00

Drilling Length by Each Bit Size

Bit size	Drilled length (m)	Core length (m)
168mm	1.30	1.30
PQ	55.45	52.50
HQ	101.65	101.65
NQ	142.50	142.20
Total	300.90	297.65

Core Recovery of 100m Hole

Depth of Core Recovery	Core recovery
0.00m～100.00m	97.1%
100.00m～200.00m	100.0%
200.00m～300.20m	99.7%
total	98.9%

Efficiency of Drilling

Total length/drilling period	11.6m/day
Total length/shift	7.3m/shift

Table 2-14 Records of the Drilling Operation on MJFV-6

Date	Drilling length (m)		Daily total (m)		Cumulative length (m)		Shift (shift)		Man working (man)	
	Shift 1	Shift 2	Drilling length	Core length	Drilling length	Core length	Drilling	Total	Enginner	Worker
Sep 8	0.00		0.00	0.00	0.00	0.00	0	1	2	0
Sep 9	0.00		0.00	0.00	0.00	0.00	0	1	3	7
Sep 10	1.30		1.30	1.30	1.30	1.30	1	1	3	7
Sep 11	0.00		0.00	0.00	1.30	1.30	0	1	3	7
Sep 12	4.25		4.25	2.30	5.55	3.60	1	1	3	7
Sep 13	6.00	15.05	21.05	20.05	26.60	23.65	2	2	3	7
Sep 14	13.45	12.25	25.70	25.70	52.30	49.35	2	2	3	6
Sep 15		1.30	1.30	1.30	53.60	50.65	1	1	2	2
Sep 16	6.15	0.00	6.15	6.15	59.75	56.80	1	2	3	5
Sep 17	0.00	0.00	0.00	0.00	59.75	56.80	0	2	3	2
Sep 18	10.35	15.00	25.35	25.35	85.10	82.15	2	2	3	5
Sep 19	21.00	18.00	39.00	39.00	124.10	121.15	2	2	3	5
Sep 20	27.00	3.00	30.00	30.00	154.10	151.15	2	2	3	5
Sep 21	0.00	0.00	0.00	0.00	154.10	151.15	0	2	3	5
Sep 22	0.00		0.00	0.00	154.10	151.15	0	1	2	0
Sep 23	8.80	30.00	38.80	38.80	192.90	189.95	2	2	4	5
Sep 24	12.00	3.00	15.00	15.00	207.90	204.95	2	2	4	5
Sep 25	0.00	6.00	6.00	6.00	213.90	210.95	1	2	4	5
Sep 26	21.00	21.00	42.00	42.00	255.90	252.95	2	2	4	5
Sep 27	20.85	15.15	36.00	35.70	291.90	288.65	2	2	4	5
Sep 28	9.00	0.00	9.00	9.00	300.90	297.65	1	2	4	5
Sep 29		0.00	0.00	0.00	300.90	297.65	0	1	2	4
Sep 30	0.00		0.00	0.00	300.90	297.65	0	1	2	4
Total	161.15	139.75	300.90	297.65			24	37	70	108

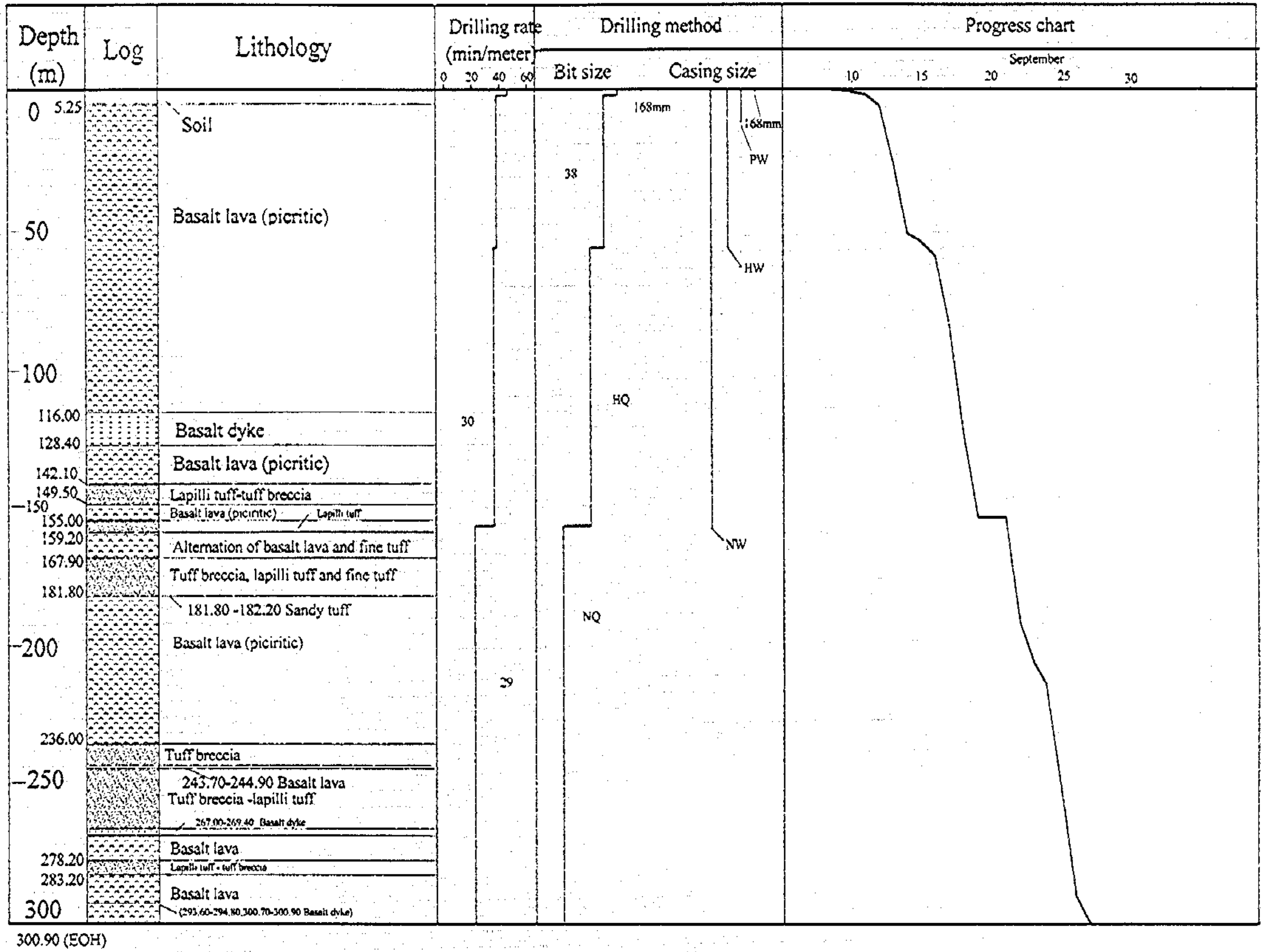


Fig. 2-20 Drilling Progress of MJFV-6

2-3 Geology, Alteration and Geology

(1) MJFV-4

MJFV-4 was drilled to clarify the downward continuation of the gold mineralization at the trench 29 from which a sample returned 12.4g/t Au over the 1.06 m interval. Three mineralization zones were intersected including quartz and argillized basalt fragments between 138.15 m and 191.30 m.

The geologic units of the drill hole consist mainly of basalt lavas with intercalation of sandy tuff. The basalt lavas are generally of picritic in mineral composition, while basalt lavas that is blacky and appears more glassy and andesitic than picritic basalt occur near the bottom of the drill hole(Fig. 2-21).

① Geology

- 0～9.80m : Soil
- 9.80～191.30m : Picritic basalt. Basalt dykes occur at 19.35～19.55m, 32.40～32.50m, 52.40～56.70m. Basalt lava ranges from dark green, hard and compact one to reddish, rather soft and amygdaloidal one. The amygdules of the basalt are filled with silica mineral, zeolites and green mineral(partly chlorite). The basalt dykes are distinguished from the lava because it generally shows fine grained texture in addition to existence of the chilled margin. A thin layer of sandy tuff is intercalated at 154.70～156.50m. It is greenish and shows mosaic texture.
- 191.30～237.80m : Autobrecciated basalt lava. It is blacky to dark gray and appears to be more andesitic. It is broken in more brittle shapes. Phenocrysts of plagioclase are more prominent than phenocrysts of pyroxene and olivine.
- 237.80～248.80m : Picritic basalt lava. It shows similar appearance to the picritic lavas in 9.80～191.30m.
- 248.80～255.60m : Autobrecciated basalt lava. It shows an appearance similar to the rock at 191.30～237.60m.

- 255.60～275.10m : Picritic basalt lava. It shows an appearance similar to the rock at 9.80～191.30m. A narrow basalt dyke occurs at 275.00～275.10m.
- 275.10～300.50m : Glassy basalt lava. It shows dark gray to dark green color and is hard and compact rocks. It appears to be more andesitic. It consists of abundant plagioclase phenocrysts and less amount of medium grained pyroxene phenocrysts

② Mineralization and Alteration

Generally, chlorite and mixed-layer mineral occur in and near faults and veins, and smectite outwards within this drill hole. Quartz veins and argillized zones related mineralization occur at the following localities.

- 21.60m : Quartz veinlets(width about 1 mm).
- 26.80～27.15m : Argillized zone.
- 41.80m : Drusy quartz and calcite veinlets (width 1～5mm).
- 42.80～48.00m : Weakly argillized zone.
- 52.40～58.80m : Partly chloritized zone. Within this interval, white clay veinlets (width about 1 mm) occur at 53.50m, 54.20m and 55.60m.
- 60.80～61.50m : Brecciated zone. It shows reddish due to iron oxides
- 69.00m : Calcite veinlets.
- 72.80m～73.00m : Calcite veinlets.
- 81.80～82.20m : Calcite veinlets.
- 113.80m, 122.80m : Drusy quartz-calcite veinlets.
- 127.70～129.20m : Silicified and bleached zone.
- 129.82m, 130.20m, 131.20m, 139.10m : Drusy quartz and calcite veinlets.
- 138.15～139.20m : Silicified and clay zone. The drill hole intersected this zone at an angle of 75° and the true width of the zone appears to be about 1.0m.

Depth (m)	Width(m)	Au(g/t)	Description
138.15～138.25	0.10	<0.008g/t	Gray clay zone
138.25～138.35	0.10	0.231g/t	White clay zone with silicified fragments
138.35～138.50	0.15	0.011g/t	Brown clay zone with weakly altered basalt fragments
138.50～138.65	0.15	0.613g/t	Weakly silicified breccia zone
138.65～139.00	0.35	0.156g/t	Clay zone with pyrite dissemination

- 166.40m, 170.35m, 173.40m, 173.50m, 174.15m, 175.30m, 175.60m : Quartz veinlets
- 176.45～177.15m : Clay zone including quartz veinlets with pyrite dissemination.
- 180.95～191.30m : This zone shows greenish color due to occurrence of mixed-layer mineral. It is weakly silicified with quartz veinlets and disseminated with pyrite. The quartz veinlets of 1 mm to 1 cm width occur at the depths of followings: 182.10m, 183.60m, 185.00m, 186.50m, 190.10m. The interval between 190.40 and 191.30m is argillized.

Depth (m)	Width (m)	Au (g/t)	Description
190.40～190.60	0.20	0.393	Silicified breccia zone
190.60～190.90	0.30	0.236	Clay zone
190.90～191.20	0.30	0.790	Clay zone
191.20～191.00	0.10	0.195	Silicified breccia zone

- 201.20～202.50m : Green clay and silicified zone. A quartz veinlet occurs at 202.50m.
- 213.10～214.10m : Pale greenish clay zone.
- 222.60～223.60m : Weakly silicified.
- 231.30～231.90m : Silicified with pyrite dissemination.
- 232.70m : A quartz veinlet crosses at an angle of 10° .
- 234.20～234.40m : Weakly silicified.
- 235.50～235.80m : Silicified, with pyrite dissemination.
- 236.60～237.80m : Weakly argillized.
- 237.80～238.60m : Argillized.

- 242.50～244.90m : Weakly silicified. A quartz veinlet of 5 mm width occurs at the depth of 244.90m.
- 250.00～250.60m : Quartz veinlets.
- 252.10～255.60m : Weakly silicified.
- 274.00～277.50m : Weakly silicified. A quartz veinlet occurs at the depth of 274.00m. (less than 1mm width).
- 280.00～282.70m : Weakly silicified. Quartz veinlets occur at the depths of 280.00m, 280.90m and 282.70m.
- 294.70～295.30m : Weakly silicified. A quartz vein of 12 cm width occurs at the depth of 295.00m and it returned low gold content of 0.009g/tAu.
- 297.20m : Quartz veinlets.

Depth (m)	Log	Lithology	Alteration and Mineralization
0 – 9.80		Soil	
9.80 – 154.70		Basalt lava (picritic)	21.60 Quartz veinlets (width 1mm) 26.80-27.15 argillized zone 41.80 Drusy quartz-calcite vein 42.80-48.00 Weakly argillized zone 52.40-58.80 Weakly chloritization zone 60.80-61.50 Brecciation and hematitization 69.00 Calcite veinlts 72.80-73.00 Calcite 81.80-82.20 Calcite veinlets 113.80 Drusy quartz calcite veinlets 122.80 Drusy quartz calcite veinlets 127.70-129.20 Slicification, breached 138.15-139.20 Silicified breccia clay zone
154.70 – 156.50		Tuff	
156.50 – 191.30		Basalt lava (picritic)	166.40 Quartz veinlets 170.35, 173.40, 173.50, 174.15, 175.30, 175.60 Quartz veinlets 180.95-191.30 Mixed-layer mineral, weak silicification and pyrite dissemination
191.30 – 237.80		Basalt lava (glassy)	201.20-202.50 Silicification with green clay mineral 213.10-214.10 Argaillized zone (pale green) 222.60 Silicification 231.30-231.90 Silicification, pyrite dissemination 232.70,234.20-234.40 Quartz veinlet, weak silicification
237.80 – 248.80		Basalt lava (picritic)	235.50-235.80, 236.60-238.60 Silicification,argillization and pyrite dissemination
248.80 – 255.80		Basalt lava (glassy)	242.50-244.90 Weak silicification, quartz veinlet 250.00-250.60, 252.10-255.60 Quartz veinlet, weak silicification
255.80 – 275.10		Basalt lava (picritic)	274.40-277.50 Weak silicification
275.10 – 300.50		Basalt (andesitic)	280.00-282.70 Weak silicification 294.70-295.30 Silicification, quaratz vein 297.20 Quartz veinlet

300.50 (EOH)

Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Clay+silicified fragments	138.15	0.10	<0.008	0.4	20	<0.5	<0.005
Clay(brown)	138.25	0.10	0.231	2.6	60	<0.5	0.005
Basalt	138.35	0.15	0.011	0.5	<20	<0.5	0.007
Clay+Basalt fragment	138.50	0.15	0.613	3	215	<0.5	0.016
Clay+Basalt fragment	138.65	0.35	0.155	3.4	70	<0.5	0.006
Silcified basalt +Qtz Veinlets	180.95	0.50	0.056	4.2	145	<0.5	0.021
Silicified basalt +Qtz veinlets	181.45	0.35	0.033	1.4	30	<0.5	0.010
Silicified basalt +Qtz veinlets	181.80	0.40	0.052	2.5	200	<0.5	0.013
Silicified basalt +Qtz veinlets	182.20	0.40	0.191	3.8	200	<0.5	0.012
Qtz vein	183.80	0.60	0.041	1.1	50	<0.5	0.006
Silicified fragments	190.40	0.20	0.393	2.3	100	<0.5	0.012
Clay	190.60	0.30	0.236	1.4	90	<0.5	0.013
Clay	190.90	0.30	0.790	5.8	220	<0.5	0.016
Silifified fragment	191.20	0.10	0.195	2.9	225	<0.5	0.005
Qtz vein	295.00	0.12	0.009	0.5	20	<0.5	<0.005

Qtz:Quartz

Fig. 2-21 Geologic Log of MJFV-4

(2) MJFV-5

MJFV-5 was drilled to clarify the downward continuation of the gold mineralization at the trench 34 from which a sample returned 16.1g/t Au over the 0.80 m interval. As a result of drilling, five mineralization zones were intersected at 121.45 ~ 186.30 m depth, consisting of quartz veins and/or argillized and brecciated basalt, at 138.15 ~ 191.30 m depth. The vein at 121.45~123.65 m depth consists of clay and quartz and silicified fragments with pyrite dissemination, including an interval of 0.60m at 27.6g/tAu.

The geology of the drill hole consists mainly of basalt lava. The basalt lava is generally of picritic in texture, while the basalt lava that appears more glassy and andesitic than picritic basalt occurs near the bottom of the drill hole(Fig. 2-22).

① Geology

· 0~4.50m :	Soil
· 4.50~175.30m :	Picritic basalt lava. It shows dark green to purplish green or reddish color. It consists of 1~5m thick flow units, within which the color changes from reddish to dark green. Generally, it contains amygdules and irregular cavities that are filled with quartz , calcite, zeolite and green minerals. It has an intercalation of tuff breccia at 113.80~116.00 m depth. It is intruded by basalt dykes at 12.50~12.90m, 90.60~91.60m, 97.70~98.10m, 174.60~174.80m and 175.00~175.30m depths.
· 175.30~220.00m :	Glassy basalt lava. It appears to be of andesitic texture. It consists of blacky blocks of diameter of less than 10cm and green glassy matrix over 30% and autobrecciated lava. The basalt is composed of medium grained phenocrysts and glassy groundmass.
· 220.00~227.00m :	Tuff breccia. It is rather hard and consists of green to reddish blocks of less than 10 cm diameter and multi-color matrix .
· 227.00~235.20m :	Hyaloclastite. It appears to be lava, genetically, although it consists of blacky lithic fragments.
· 235.20~300.30m :	Basalt lava. The upper part shows blacky to reddish and dark green. It is hard and compact to weakly brecciated. The

phenocrysts comprise mainly of medium to large grained pyroxene.

② Mineralization and Alteration

Generally, alteration is weak and smectite is the most predominant clay mineral to the end of the drill hole. Mixed-layer mineral and sericite occur along the veins at the depth of 121.45～186.30m. Major mineralization and alteration zones are as follows.

- 18.40m, 19.50m, 22.00m, 22.10m : Quartz veins.
- 20.40～20.60m : Clay veins.
- 76.40m : Clay veins (intersected at an angle of 50°). Pyrite dissemination.
- 81.60m : Iron oxide veinlet.
- 87.80～88.00m : Weakly argillized.
- 119.40～119.80m : Silicification zone. Three quartz veinlets are emplaced at 119.55～119.65m depth.
- 121.45～123.65m : Quartz vein, silicified breccia - clay zone.

Depth (m)	Width (m)	Au (g/t)	Description
121.45～121.80	0.35	0.291 g/t	Pale green clay zone
121.80～122.45	0.45	2.71 g/t	Pale green clay zone
122.45～122.75	0.50	13.5 g/t	Clay + quartz fragments zone
122.75～123.35	0.60	27.6 g/t	Silicified fragments + clay zone
123.35～123.65	0.30	0.545 g/t	Quartz-argillized fragments～clay zone

- 125.90m : Quartz vein of the width 1cm(intersected at an angle of 30°).
- 127.10m : Quartz vein of the width 1cm intersected at an angle of 30°).
- 128.05m : Quartz vein of the width 1cm (intersected at an angle of 45°).
- 128.65m : Quartz vein of the width 5cm (intersected at an angle of 80°).
- 130.40m : Quartz vein of the width 5cm (intersected at an angle of 70°).
- 132.20m : Quartz vein of the true width 2cm. (1.27g/tAu over an interval of 20cm).
- 135.20m : Quartz vein of 10cm width (crossed at an angle of 50°), 0.362g/tAu (assayed width 20cm).

- 136.05～140.00m : Weak silicified zone. Within this zone, quartz vein of the width 5cm occur at the depth of 136.05m with an assay result of 0.771 g/tAu (assayed width 20cm). A clay vein of 5 cm width occurs at the depth of 139.00m (crossed at an angle of 40°).
- 141.90m : Quartz vein of 2cm width(crossed at an angle of 60°).
- 142.80～143.00m : Three quartz veinlets of 5mm～1cm width (irregular direction).
- 145.00～145.40m : Dark green clay mineral (chlorite + smectite).
- 149.00m : Quartz veinlet at the width of 1cm (crossed at an angle of 20°).
- 152.00～153.55m : Quartz breccia - clay zone.

Depth (m)	Width (m)	Au (g/t)	Description
152.40～152.70	0.30	0.244 g/t	Clay and silicified breccia zone
152.70～153.00	0.30	3.55 g/t	Silicified breccia zone
153.00～153.40	0.40	1.27 g/t	Clay and silicified breccia zone

- 155.80m, 157.00m and 158.50m : Quartz vein of width 3mm～1cm (at an angle of 20～40°).
- 163.30～165.00m : A quartz vein occurs in rather strongly argillized basalt, from which chlorite and mixed-layer mineral are identified. An interval including 2 cm wide quartz vein assays 11.7 g/tAu.

Depth (m)	Width (m)	Au(g/t)	Description
163.60～164.00	0.40	11.7g/t	Quartz vein (true width 2cm)
164.10～164.40	0.30	1.51g/t	Quartz vein - silicified zone

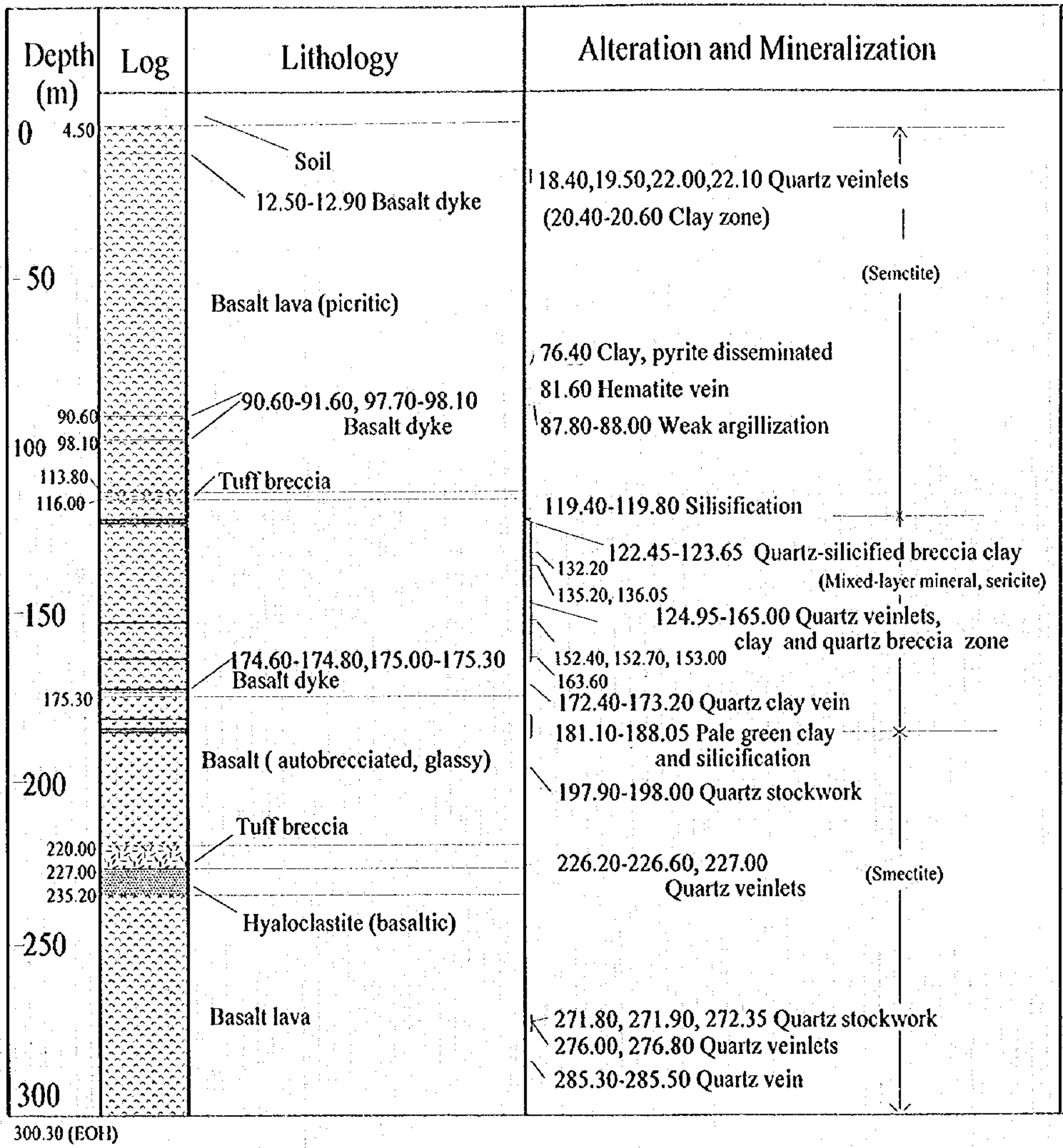
- 172.40～173.20m : Quartz and clay vein zone.

Depth (m)	Width (m)	Au (g/t)	Description
172.40～172.70	0.30	0.706 g/t	Quartz - clay zone
172.70～173.00	0.30	0.192 g/t	Quartz and silicified breccia zone

· 181.10～188.05m : Pale green clay and silicified zone. Within this interval, two quartz veins of 1 cm width occur at the depths of 181.10m and 181.30m.

Depth (m)	Width (m)	Au(g/t)	Description
182.00～182.30	0.30	0.498 g/t	Quartz vein, pyrite disseminated
185.00～185.20	0.20	5.02 g/t	Quartz vein, pyrite disseminated
186.10～186.30	0.20	1.05 g/t	Quartz vein, pyrite disseminated

· 197.90～198.00m : Quartz stockwork.
· 226.20～226.60m, 227.00m : Quartz veinlets.
· 271.80m, 271.90m, 272.35m : Quartz stockwork.
· 276.00m, 276.80m : Quartz veinlets.
· 285.30～285.50m : Quartz vein of 6cm width (intersected at an angle of 45°).



Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Clay,pale-green	121.45	0.35	0.291	5.4	350	<0.5	0.031
Clay,pale-green	121.80	0.45	2.71	165	350	<0.5	0.047
Clay+Qtz fragments	122.25	0.50	13.5	140	300	1.5	0.049
Qtz fragments+Clay	122.75	0.60	27.6	900	320	1.2	0.017
Qtz+Clay	123.35	0.30	0.545	8.3	300	1.4	0.045
Qtz-Pyrite vein (true width: 2cm)	132.20	0.20	1.27	7.6	240	<0.5	0.097
Qtz-Pyite veinlets	135.20	0.20	0.362	5.1	300	<0.5	0.012
Qtz-Py vein (true width: 5cm)	136.05	0.20	7.71	9.9	200	<0.5	0.050
Clay>Silicifeid fragments	152.40	0.30	0.244	14.7	220	0.6	0.015
Silicified fragments	152.70	0.30	3.55	16.5	220	0.8	0.023
Clay+Silicified fragment	153.00	0.40	1.27	4.6	90	<0.5	0.034
Qtz (true width 2cm)	163.60	0.40	11.7	4.3	210	<0.5	0.005
Qtz +silicified zone	164.10	0.30	1.51	1.5	30	<0.5	0.005
Qtz+Clay	172.40	0.30	0.706	1.3	50	<0.5	0.005
Clay+silicified zone	172.70	0.30	0.192	1.2	40	<0.5	0.005
	182.00	0.30	0.498	1.5	50	<0.5	<0.005
Qtz-Clay-Pyrite	185.00	0.20	5.02	4	110	<0.5	0.009
Qtz-Clay-Pyrite	186.10	0.20	1.05	1.7	140	<0.5	0.056

Qtz:Quartz

Fig. 2-21 Geologic Log of MJFV-5

Fig. 2-22 Geologic Log of MJFV-5

(3) MJFV-6

MJFV-6 was drilled to clarify the downward continuation of the gold mineralization at the trenches such as Trench 40 from which several samples returned 2 to 4g/t Au. As a result of drilling, a wide zone from 55 m to 132 m depth with frequent quartz veining was encountered. Within this zone , the interval from 120.10m to 123.00m is thought to be extended from the trenches. A clay and pyrite disseminated zone is encountered at depth of this drill hole.

The geology of the drill hole consists mainly of basalt lava and volcaniclastic rocks (Fig. 2-23).

① Geology

• 0～5.25m :	Soil.
• 5.25～116.00m :	Picritic basalt lava. It is dark green and pyroxene and olivine phenocrysts are prominent. It shows amygdaloidal texture. The structure of the lava varies from compact-massive to autobrecciated ones.
• 116.00～128.40m :	Basalt dyke. It is dark green, and become pale green where it is altered. It is fine grained. It is tectonically brecciated.
• 128.40～142.10m :	Picritic basalt lava. A basalt dyke intrudes at 132.00～132.10m depth.
• 142.10～149.50m :	Lapilli tuff ～ tuff breccia. Pale green to grayish green. It contains fragments of 3 cm diameter at maximum, comprising 20% of the total volume. A basalt dyke intrudes at 143.00～143.80m depth.
• 149.50～155.00m :	Autobrecciated picritic basalt lava.
• 155.00～159.20m :	Lapilli tuff. The beds are estimated to dip 0° ～25° since the bedding planes crosses at angles of 20° ～45° with the drill hole.
• 159.20～167.90m :	Alternation of basalt and fine tuff.
• 167.90～181.80m :	Tuff breccia, lapilli tuff and fine tuff from the lower to the upper.
• 181.80～182.20m :	Sandy tuff.
• 182.20～236.00m :	Basalt lava. The structure of the rock ranges from autobrecciated to compact one.
• 236.00～243.70m :	Tuff breccia.
• 243.70～244.90m :	Dark green and compact lava.

- 244.90m～267.00m : Tuff breccia～volcanic breccia. A basalt dyke intrudes at the depth of 253.10～254.00m.
- 267.00～269.40m : Basalt dyke.
- 269.40～278.20m : Auto-brecciated basalt lava.
- 278.20～283.20m : Lapilli tuff and tuff breccia. A large basalt block(?) is encountered at the depth of 282.10～282.70m.
- 283.20～300.90m : Basalt lava. Basalt dykes intrude at the depth of 293.60～294.80m and 300.70～300.90m.

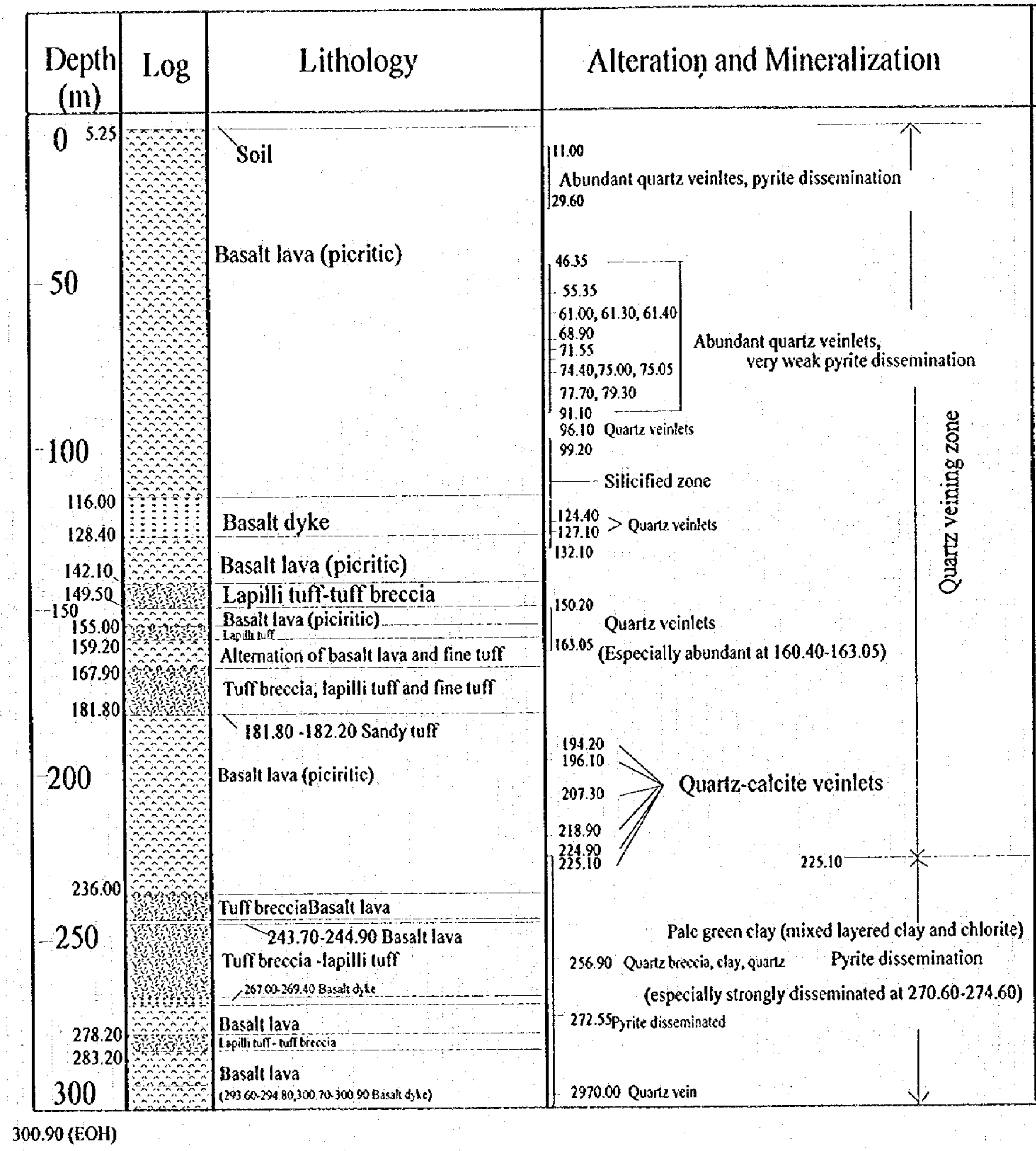
② Mineralization and Alteration

- 11.00～29.60m : Quartz veinlets occur rather abundantly. Pyrite is weakly disseminated.
- 46.35～91.10m : Quartz veinlets occur abundantly. Pyrite is partly disseminated. Within this interval 6 samples were assayed only to be resulted in lower than the detection limit(<0.008g/), and Ag, As, Sb and Hg values are low.
- 99.20～132.10m : Silicified. Quartz veinlets occur.

Depth (m)	Width(m)	Au(g/t)	Description
120.10～120.30	0.20	0.208g/t	Drusy quartz veinlet, breached
122.10～122.30	0.20	0.198g/t	Clay and silicified fragments
124.40～125.00	0.60	0.150g/t	Clay and silicified fragments
127.40～131.80	1.40	0.016g/t	Quartz veinlets

- 150.20～163.05m : Quartz veinlets zone. Veinlets occur especially within 160.40～163.05m.
- 194.20m, 196.10m, 207.30m, 218.90m, 224.90m, 225.10m : Quartz calcite veinlets.
- 225.10～300.70m : Weakly argillized. Pyrite disseminated. Pyrite occurs as veinlets and densely disseminated surrounding breccia rims abundantly between 270.6～274.6m. Chlorite and mixed-layer mineral occur at the places where the rock shows grayish green and pale green color. Assay results show low gold values.

Depth (m)	Width(m	Au(g/t)	Description
256.90～259.20	2.30	<0.008g/t	Quartz fragments and clay zone
272.55～273.10	0.55	0.039g/t	Pyrite disseminated and argillized zone
297.00～297.25	0.25	0.069g/t	Pyrite disseminated and argillized zone



Chemical Analysis Results

Description	Depth (m)	Interval (m)	Au (g/t)	Ag (g/t)	As (ppm)	Sb (ppm)	Hg (ppm)
Qtz Breccia	55.35	0.20	<0.008	<0.4	2.0	<0.5	0.011
Vein swarms	61.00	0.30	<0.008	<0.4	1.5	<0.5	0.012
Qtz vein	61.30	0.10	<0.008	<0.4	1.0	<0.5	0.022
Qtz veinlets	61.40	0.30	<0.008	<0.4	1.0	<0.5	0.009
Qtz veinlets	68.90	1.00	<0.008	<0.4	1.5	<0.5	0.009
Qtz veinlets	71.55	1.00	<0.008	<0.4	6.5	<0.5	0.027
Qtz veins	74.40	0.15	<0.008	<0.4	3.0	<0.5	0.010
Qtz vein	75.00	0.05	0.048	<0.4	50.0	<0.5	0.013
Qtz vein	75.05	0.85	0.036	<0.4	28.0	<0.5	0.020
Qtz veinlets	77.70	0.85	<0.008	<0.4	12.5	1.3	0.016
Qtz breccia + Clay	79.30	0.40	0.010	0.6	32.5	<0.5	0.013
Qtz+Clay	96.10	0.20	<0.008	<0.4	48.5	0.5	0.047
Qtz veinlets	112.00	1.00	<0.008	<0.4	29.0	<0.5	0.009
Qtz veinlts	114.00	0.20	<0.008	<0.4	24.0	<0.5	0.030
Qtz + Clay	114.70	0.90	<0.008	<0.4	35.0	<0.5	0.020
Drusy qtz veinlets	120.10	0.20	0.208	<0.4	42.5	<0.5	0.007
Qtz fragment + Clay	122.10	0.20	0.198	<0.4		0.6	0.010
Qtz fragment + Clay	124.40	0.60	0.150	<0.4	44.5	<0.5	0.014
Qtz veinlets	127.10	1.40	0.016	<0.4	25.5	<0.5	0.008
Qtz breccia + Clay	256.90	2.30	<0.008	0.5	50.0	<0.5	0.008
Qtz veinlets							
Pyrite disseminated	272.55	0.55	0.039	0.8	36.5	<0.5	0.012
Qtz-Pyrite vein	297.00	0.25	0.069	0.4		<0.5	0.011

Qtz:Quartz

Fig. 2-23 Geologic Log of MJFV-6

2-4 Considerations on the Drilling Results

2-4-1 Mineralization and Alteration Zones

The drill holes MJFV-4, MJFV-5 and MJFV-6 intersected several mineralization zones that appear to be continued from the showings on the surface (Fig. 2-24~Fig. 2-29).

(1) MJFV-4

The main intersects by MJFV-4 are the clay and silicified veins at 138.15m(width 0.85m), 180.95m(width 1.65m) and 190.40m(width 0.90m). The intersected angles of the veins are 75° , 40° and 60° in harmony with the assumption that the veins extend from the surface showings: trenches T29 and T28. All the assay results of the veins show that gold values are less than 1 g/tAu, compared to the higher values on the surface. The intersects are about 100 m below the surface.

(2) MJFV-5

MJFV-5 intersected 6 zones that assay more than 1 g/tAu between 21.45m and 186.30m. Especially, a 2.20 m wide zone with 11.3 g/t Au was confirmed at the depth of 121.45 m ~ 123.65 m. Within this mineralized zone, a sample over a width of 0.60 m from 122.75 m to 123.35 m depth assays 27.6 g/t Au. This zone may extend to the outcrop (trench T34), and the dip of the vein is estimated to be about 50° on the assumption that it strikes N75°W. It is highly possible that this vein is continuous to that encountered in MJFV-4 at 190.40 m depth (an average of 4 samples over 0.90 m width is 0.451 g/t Au).

(3) MJFV-6

MJFV-6 intersected many quartz veinlets. MJFV-6 is about 550 m distant from MJFV-5. Although the correlation between the ores at these two drill holes is difficult, they lie within a WNW-ESE trending mineralized zone that is inferred from the surface data. The veins confirmed in MJFV-6, aside from the above, are; many quartz veinlets in the shallow part (55 ~ 96 m), and pyrite dissemination-argillization zone in the deeper part (near 225 ~ 300 m). Although these are low grade to barren, they are very interesting.

2-4-2 Structural Control on the Mineralization

(1) General

Three holes were drilled targeting the lower parts of the outcrops. The highest grade of 27.6 g/t Au (0.60 m wide) together with five 1 g/t Au zones were confirmed in MJFV-5. Although only grades of less than 1 g/t Au were obtained in MJFV-4 and MJFV-6, existence of several quartz and clay veins were confirmed in these holes and the possibility of the occurrence of high Au zones in the extension of these fracture systems is high. A wide pyrite dissemination- argillization zone occurs near the Karikarimasi Creek, and MJFV-6 caught the extension of this zone. Samples from this alteration zone have low Au content, but the relation of this hydrothermal activity that caused this alteration and Au mineralization could not be clarified by the drilling carried out during this year.

The gold mineralization confirmed by the drilling carried out during this year is controlled by the fracture system in basalt lava and basaltic volcaniclastic rocks, and it has the characteristics of the low-sulfidation type gold mineralization.

(2) Geologic Structure and Mineralization

The geologic structure near the Dakuniba Prospect is relatively simple and the basalt lava and volcaniclastic rocks have NW~EW strike and gentle SE~S dip. The host of the ore veins is mostly basaltic lava. The ore veins appear to occur along faults in MJFV-4 and MJFV-5, and the veins are considered to be controlled by the WNW fault system. These faults are not clear on the surface. However, the topography between the MJFV-4 and MJFV-5 sites and the Nagagani Creek is extremely steep and suggests the existence of blind faults. Further it is believed that two WNW faults occur parallel to the extension of the Dakuniba Prospect 800 m north and south from the Prospect. MJFV-4 and MJFV-5 are located at the junction of the NW-SE trending veins and the WNW trending veins and there is a high possibility of bonanza formation in this locality.

(3) Mineralization and Alteration

Alteration associated with mineralization is limited to the immediate margin of the ore veins in MJFV-4 and MJFV-5. Mixed-layer mineral is mainly formed here and the most prospective veins have chlorite-sericite zone. Smectite zone occurs away from the vein. One the other hand, MJFV-6 has widely occurring chlorite in the deeper parts that is the major difference with the other two holes. Strong pyrite dissemination is observed in this alteration zone.

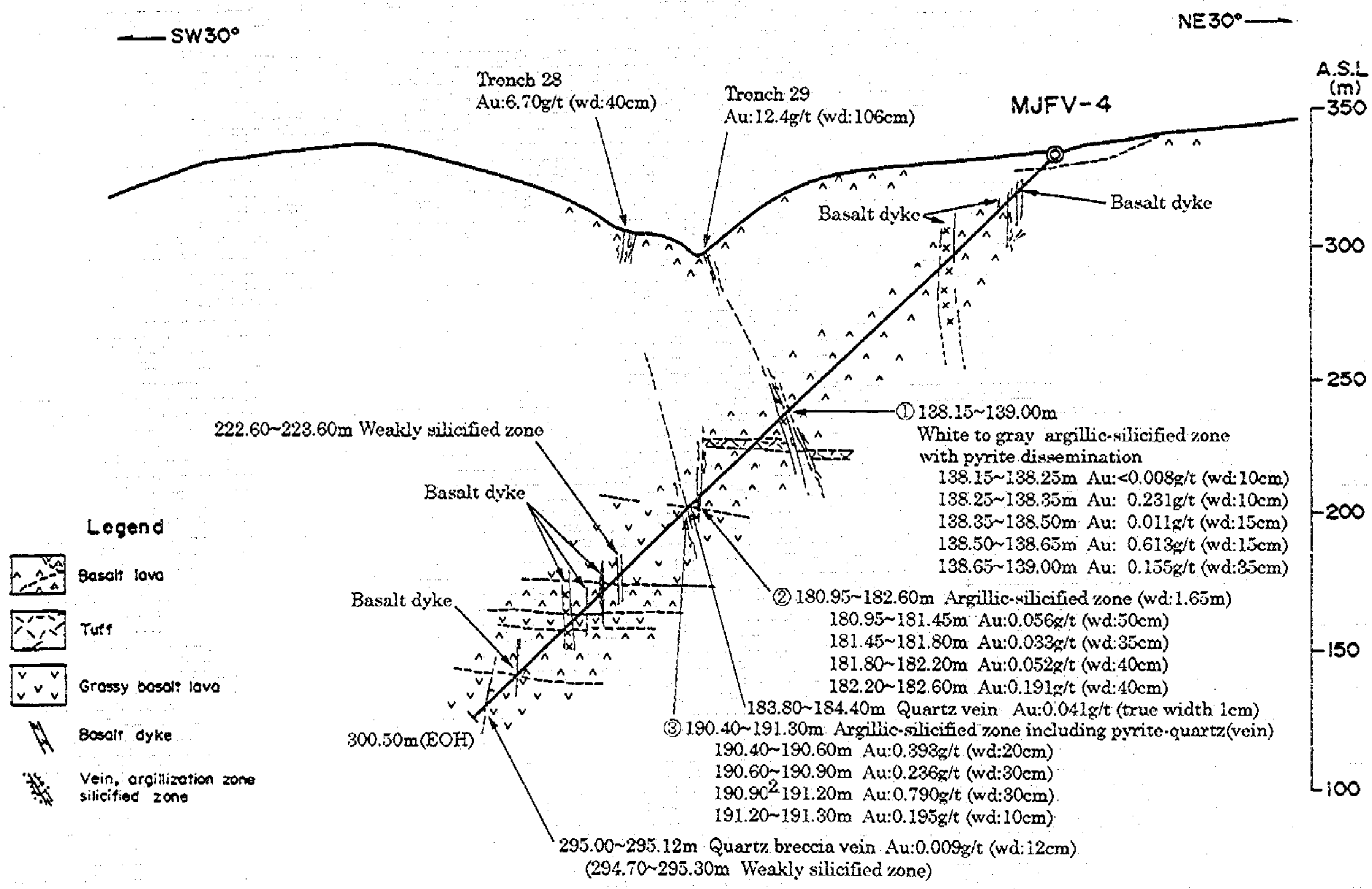


Fig. 2-24 Geologic Profile of MJFV-4

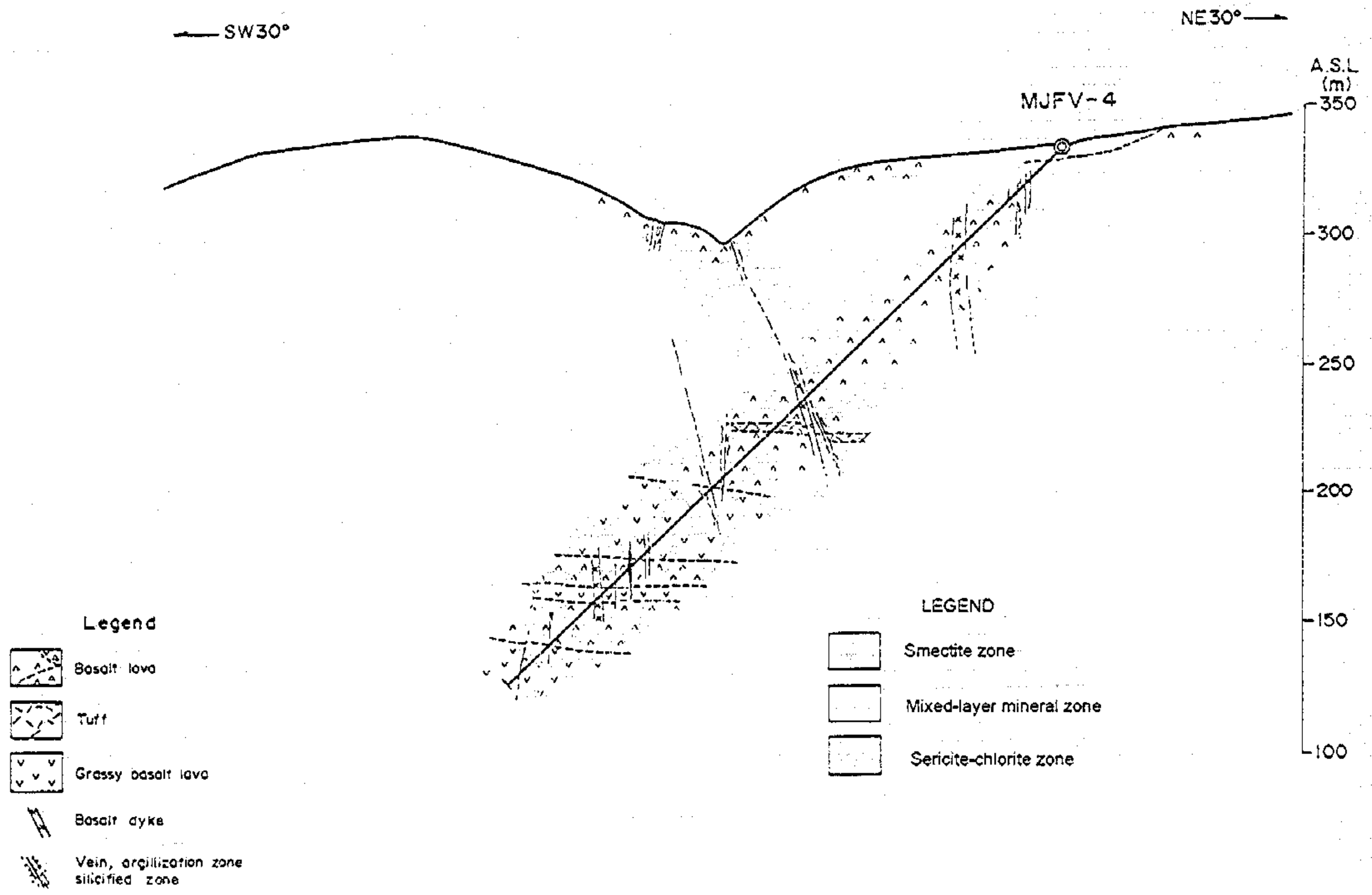


Fig. 2-25 Schematic Alteration Zoning of MJFV-4

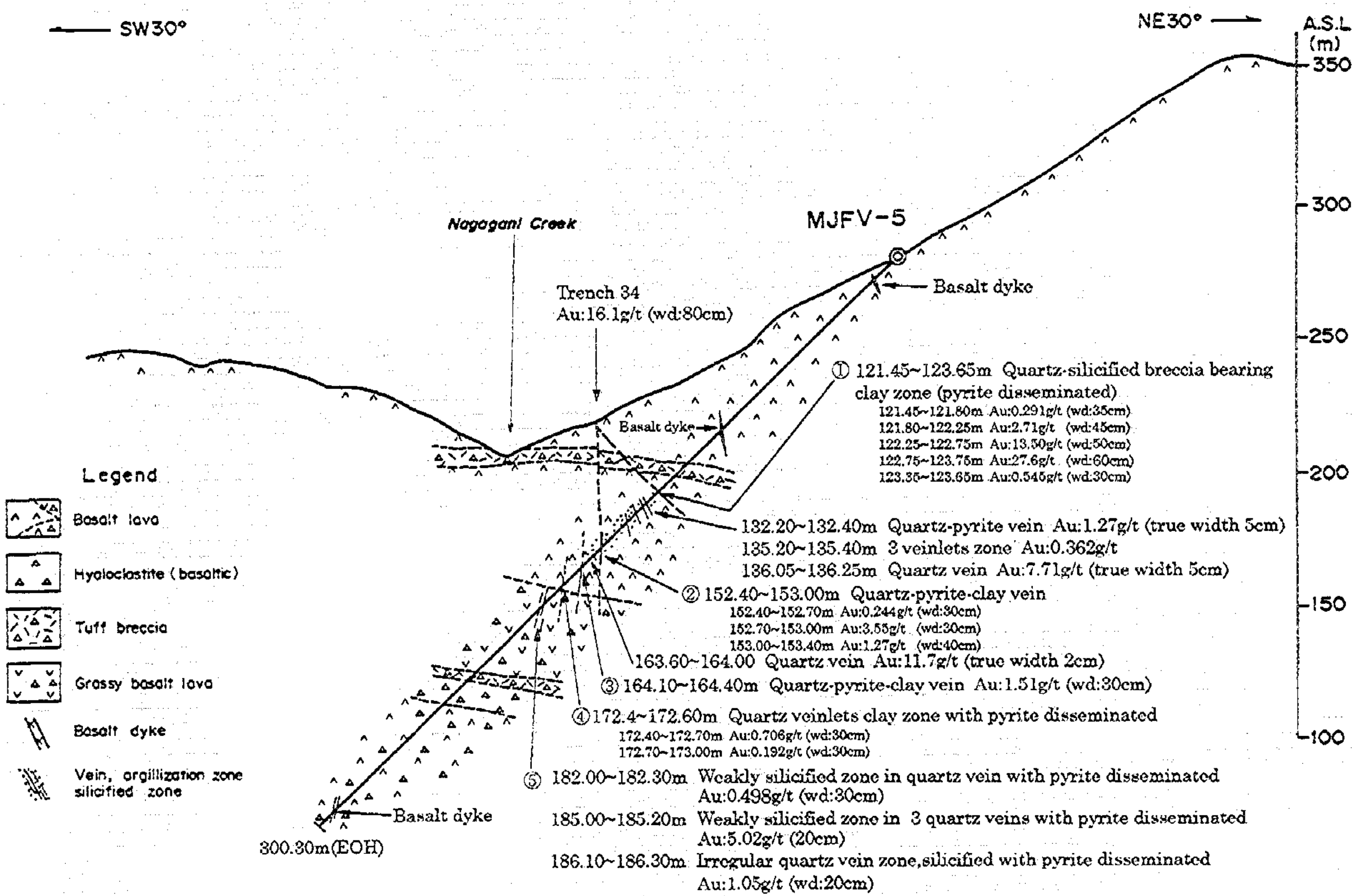


Fig. 2-26 Geologic Profile of MJFV-5

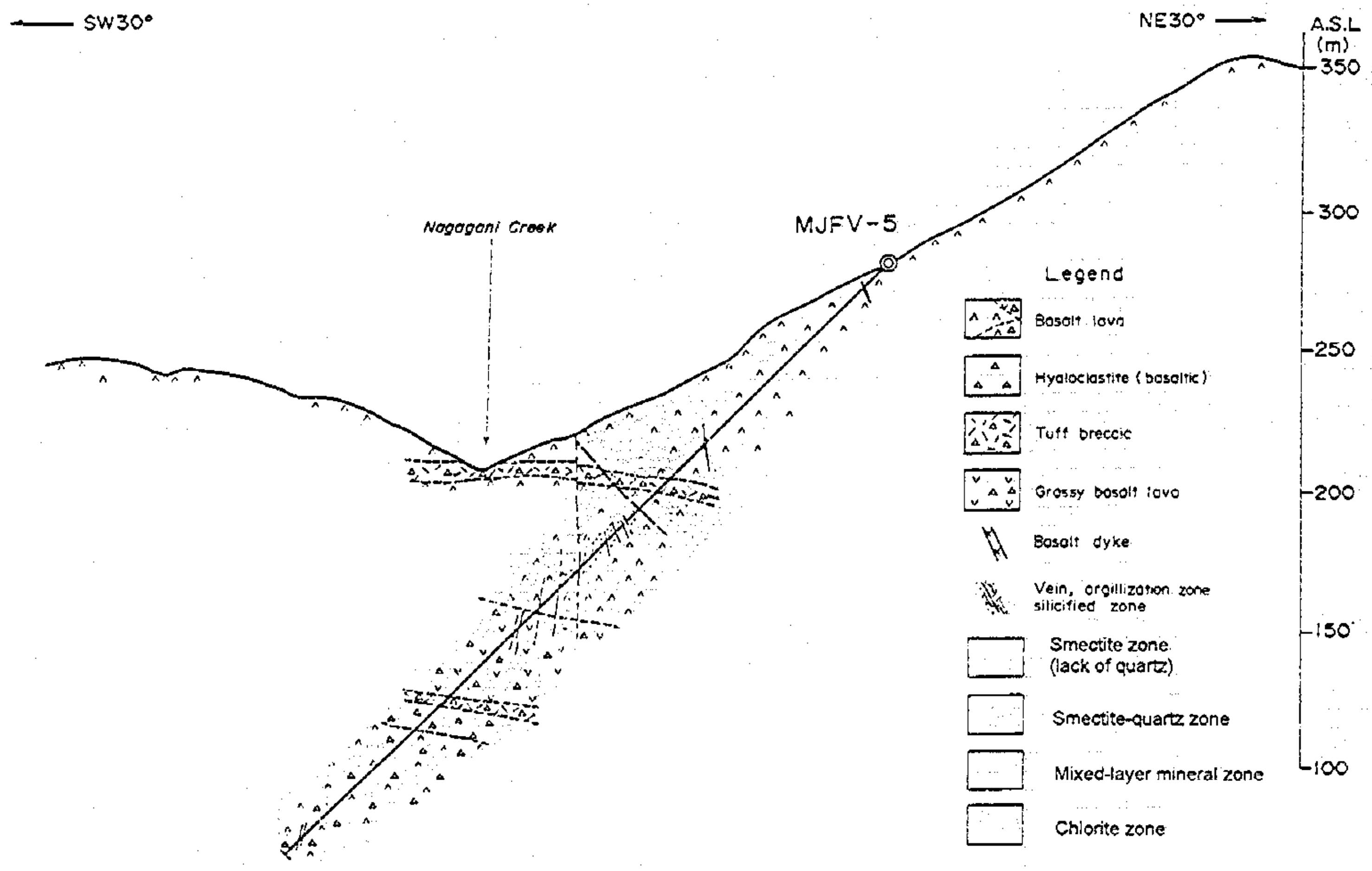


Fig. 2-27 Schematic Alteration Zoning of MJFV-5

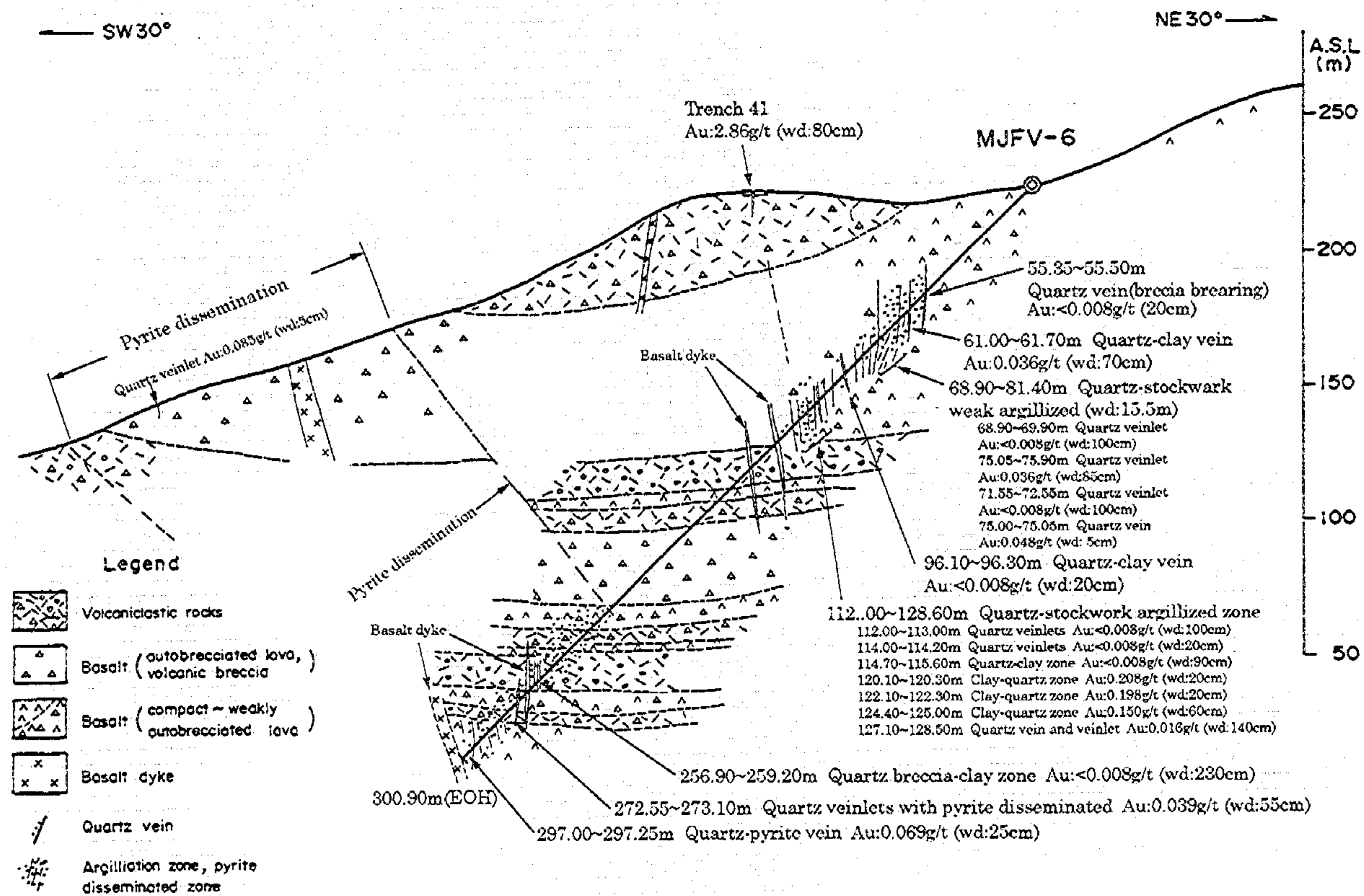


Fig. 2-28 Geologic Profile of MJFV-6

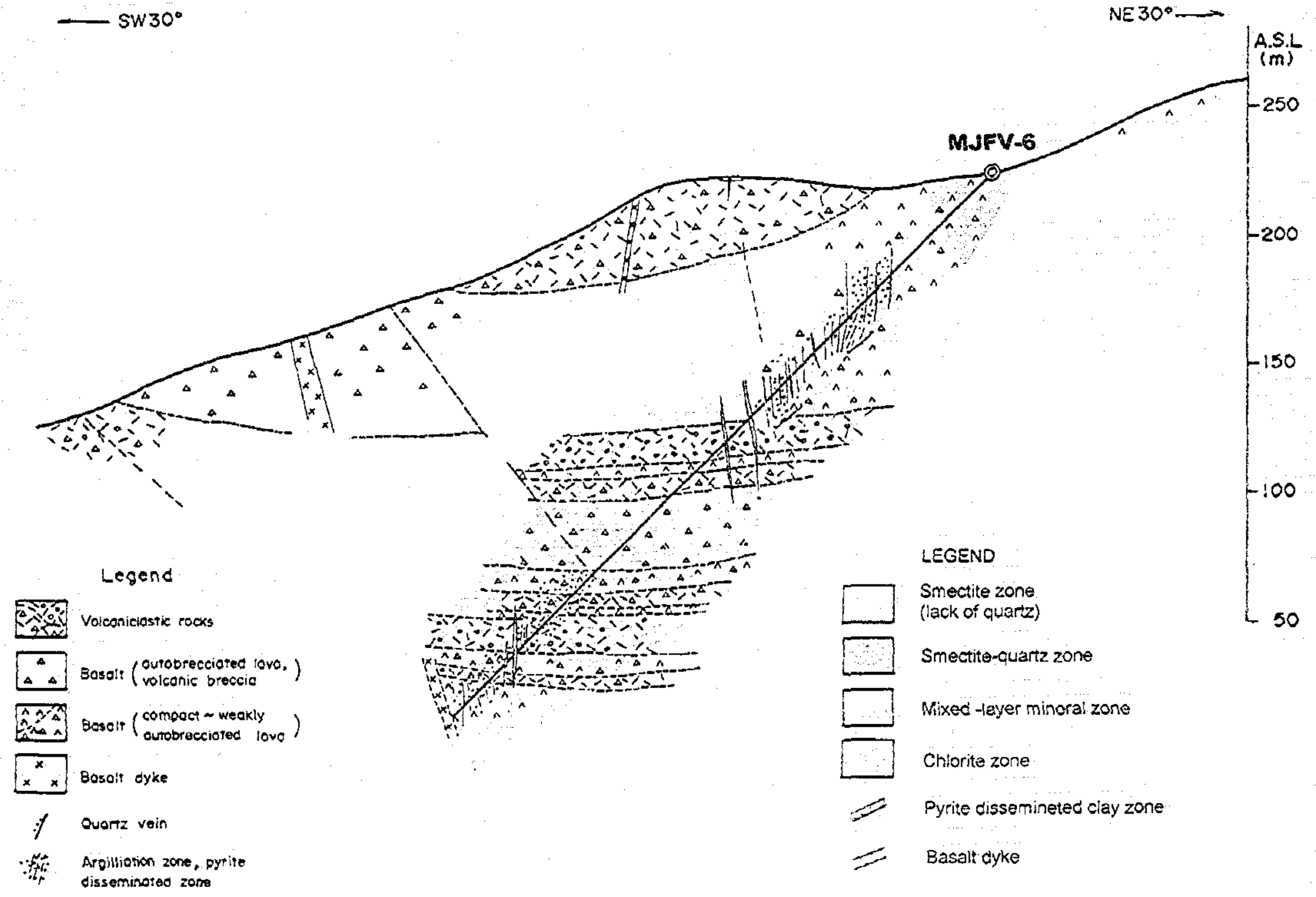
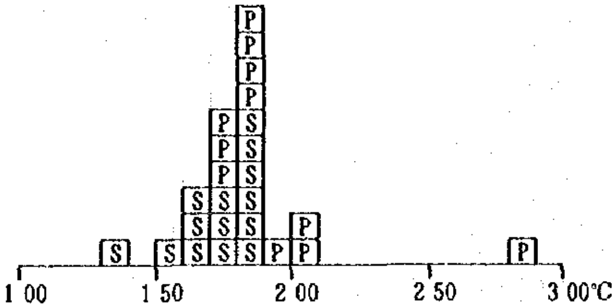


Fig. 2-29 Schematic Alteration Zoning of MJFV-6

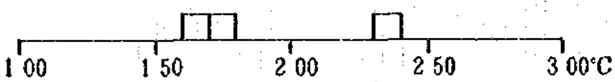
DD414
(MJFV-4,138.25m)

number 24
average 182°C
maximum 286°C
minimum 136°C
standard deviation 27°C



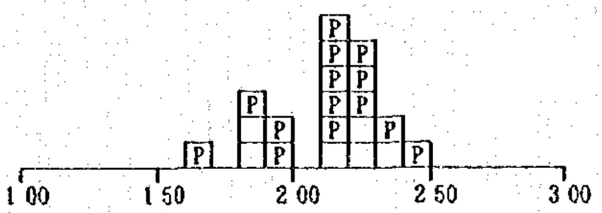
DD418
(MJFV-4,180.95m)

number 3
average 194°C
maximum 237°C
minimum 169°C
standard deviation 37°C



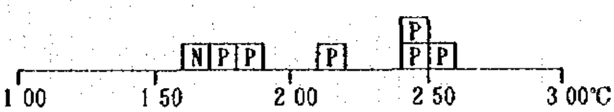
DD421
(MJFV-4,182.20m)

number 20
average 212°C
maximum 243°C
minimum 167°C
standard deviation 20°C



DD505
(MJFV-5,123.35m)

number 6 (excluding a necking down inclusion)
average 219°C
maximum 250°C
minimum 178°C
standard deviation 33°C



DD507
(MJFV-5,152.75m)

number 20
average 239°C
maximum 273°C
minimum 178°C
standard deviation 27°C

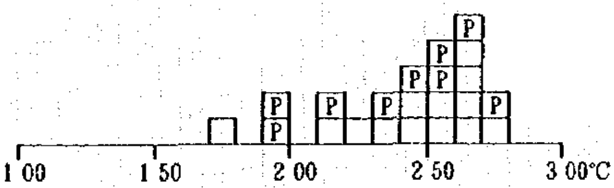


Fig. 2-30 Histograms of Homogenization Temperatures of Fluid Inclusions from the Dakuniba Area(1)

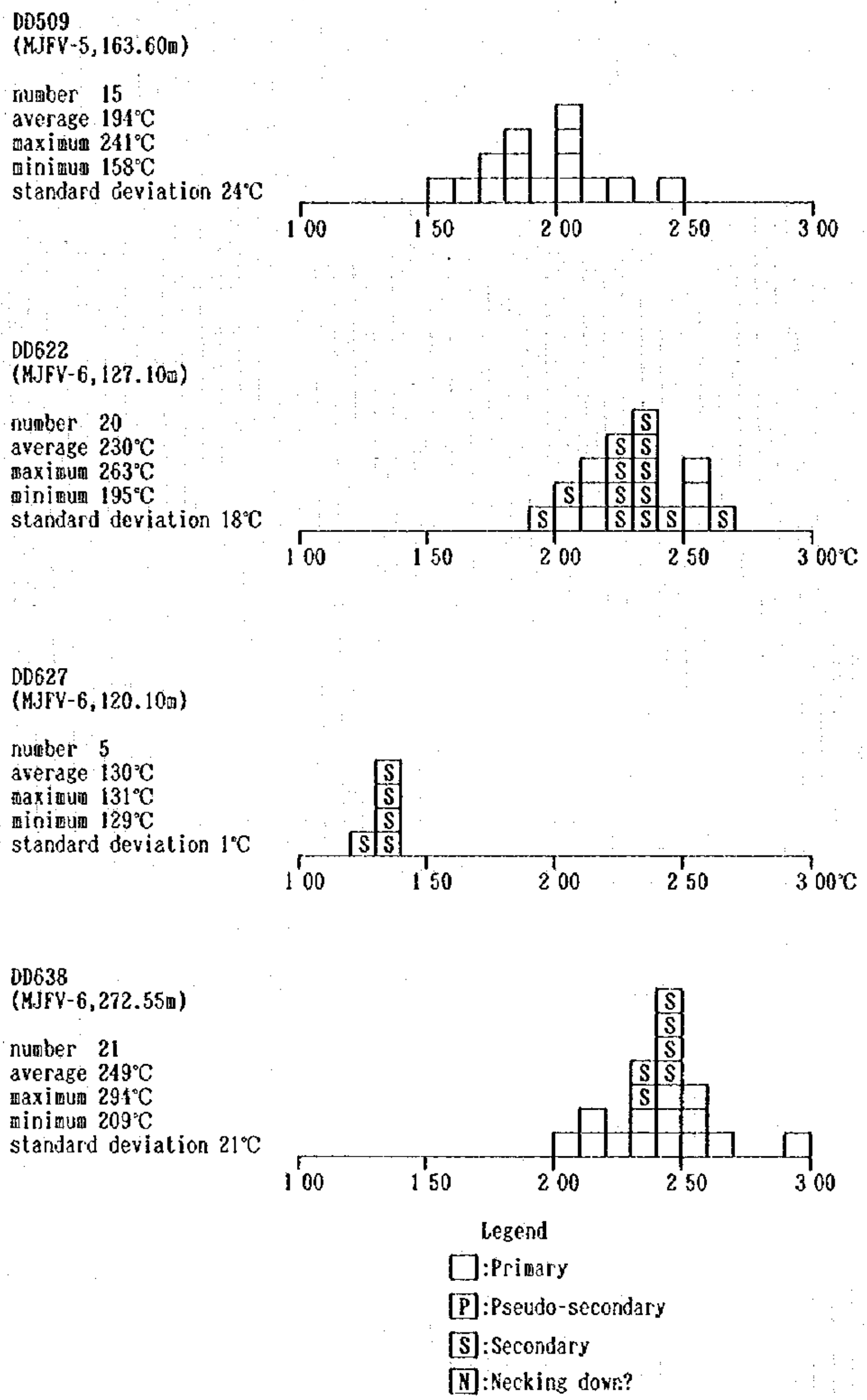


Fig. 2-30 Histograms of Homogenization Temperatures of Fluid Inclusions from the Dakuniba Area(2)

PART III CONCLUSIONS AND RECOMMENDATIONS

PART III CONCLUSIONS AND RECOMMENDATIONS

Chapter 1 Conclusions

The following results were obtained by drilling in Nakoroutari and Dakuniba areas during the second year of the of the Vanua Levu mineral exploration project.

(1) Nakoroutari area

Drilling in this area (MJFV-1, -2, -3) confirmed the existence of Au showings consisting of quartz veins - calcite veins and clay veins and the grades are; 5.76 g/t Au in MJFV-1 (120.40 m deep, 0.05 m wide), 5.06 g/t Au in MJFV-3 (152.10 m deep, 0.10 m wide). Although thin, these are ore level grades. From the location of the ore in the drill holes and the ore showings on the surface, the mineralization is considered to be a series of veins filling the fissures system of this area. With this assumption, the ores in both drill holes would be 600 m apart in the strike direction (NNW-SSE). However, the MJFV-2 hole in between the two has only a low grade, 0.032 g/t Au, 0.10 m wide, quartz clay zone. In spite of this, it is significant that a gold showing with 600 m strike length was discovered. Also parallel low-grade veins are inferred to occur exceeding 400 m in strike length with a maximum grade of 0.89 g/t Au (MJFV-2, 118.40 m deep, 0.25 m wide). In the deeper parts of MJFV-2 and MJFV-3, quartz veinlets occur and the rocks are silicified, but promising gold showings were not found. It is felt that the characteristics of the gold mineralization of this area were clarified by the work carried out during the first and second years of this project.

(2) Dakuniba area

Gold showings were confirmed in all three drilling (MJFV-4, -5, -6) in this area. In MJFV-5, 2.20 m wide zone with 11.3 g/t Au was confirmed at depth of 121.45 m ~ 123.65 m, and within this mineralized zone, 122.75 to 123.35 m depth contained 27.6 g/t Au with a width of 0.60 m. If this zone is continuous to the outcrop (trench T34) and the strike of the vein is N75°W, the dip of the vein would be about 50°. It highly possible that this vein is continuous to that encountered in MJFV-4 at 190.40 m depth (0.90 m wide, 4 samples average 0.451 g/t Au).

Many quartz veinlets were encountered in MJFV-6. MJFV-5 is at a distance of about

550 m and the correlation between the ores of these two drill holes is difficult, but they lie within a WNW-ESE trending mineralized zone inferred on the surface. The veins confirmed in MJFV-6, aside from the above are; many quartz veinlets in the shallow (55 ~ 96 m) part, and pyrite dissemination-silicification-argillization zone in the deeper part (near 225 ~ 300 m). Although these are low grade to barren, they are very interesting.

As above, gold mineralization, and the associated fissure system and alteration were clarified by the three holes drilled during this year. These agree largely with the strike and dip of the mineral showings on the surface, confirming the continuation of the mineral showings into the deeper subsurface zones. The mineralization confirmed at MJFV-5 is promising and it is necessary to clarify the extension of the veins laterally and vertically toward MJFV6.

Chapter 2 Recommendations for the Third Year

The following results were obtained by drilling in Nakoroutari and Dakuniba areas during the second year of the of the Vanua Levu mineral exploration project.

(1) Nakoroutari area

The geology, alteration, and the characteristics of the gold mineralization of this area were clarified by the work carried out during the first and second years of this project. Drilling in this area (MJFV-1, -2, -3) confirmed the ores in both drill holes would be 600 m apart in the strike direction (NNW-SSE). Judging from the widths and gold grades of the veins that drill holes encountered, however, it is not felt that promising gold deposits are emplaced in this area. No further work in this area is recommended.

(2) Dakuniba area

In MJFV-5, a promising gold mineralization zone was encountered at depth of 121.45 m ~ 123.65 m. The width and gold values of the samples indicate that the potential of ore emplacement if this zone is continuous to the outcrop to the surrounding area. However, Geologic knowledge that has been clarified by the first and second phase survey is not enough to judge the continuity of the mineralization zone. Further drilling near the MJFV-5, therefore, is recommended to clarify the details of the gold mineralization in the area.

(3) Waimotu Area

Pursuant to the first phase survey results, further work in the Waimotu area is recommended. The area is located approximately 45 km northeast of Savusavu, and the Waimotu Lode and Bill' Hill Prospect are most interesting within the area.

a. Geological survey and exploration carried out in the Waimotu Lodes and Bill's Hill Prospects are not sufficient for assessment of the resources in the area.

A total of 551 m adits was dug and seven holes with a total of 609 m length were drilled into the Waimotu Lodes, seven and four holes were drilled in the Bill's Hill Prospect, respectively. Of these, half of the drilling lengths targeting the Waimotu Lodes may not be enough to penetrate the ore zone of the Main Lode.

b. The zone extending from the lower part of the Waimotu Lodes to the subsurface part of eastern Bill's Hill has never been drilled in the past presumably due to no outcrop. The following high grades of Waimotu Lodes and occurrence of mineralization on the Bill's Hill indicate mineralization may extend in between.

The widths of the Waimotu Lodes are, 1.2 m maximum for the Main Lode and 0.8 m was confirmed at an outcrop for the East Lode. The maximum grade is 24.2 g/t Au for the Main and 42.5 g/t Au for the East Lodes. The gold content of 42.5 g/t was obtained in a sample collected from the East Lode (0.8 m wide). The grade of the West Lode is the lowest of the three at 0.92 g/t Au.

In conclusion, geological survey and exploration carried out covering limited parts of the Waimotu Lodes and Bill's Hill Prospects are not sufficient for assessment of the resources in the area. Therefore, it is recommended that we first confirm the downward continuity and the distribution of the new veins parallel to the known three veins, by electric survey, namely CSAMT and IP, then follow it up by drilling.

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