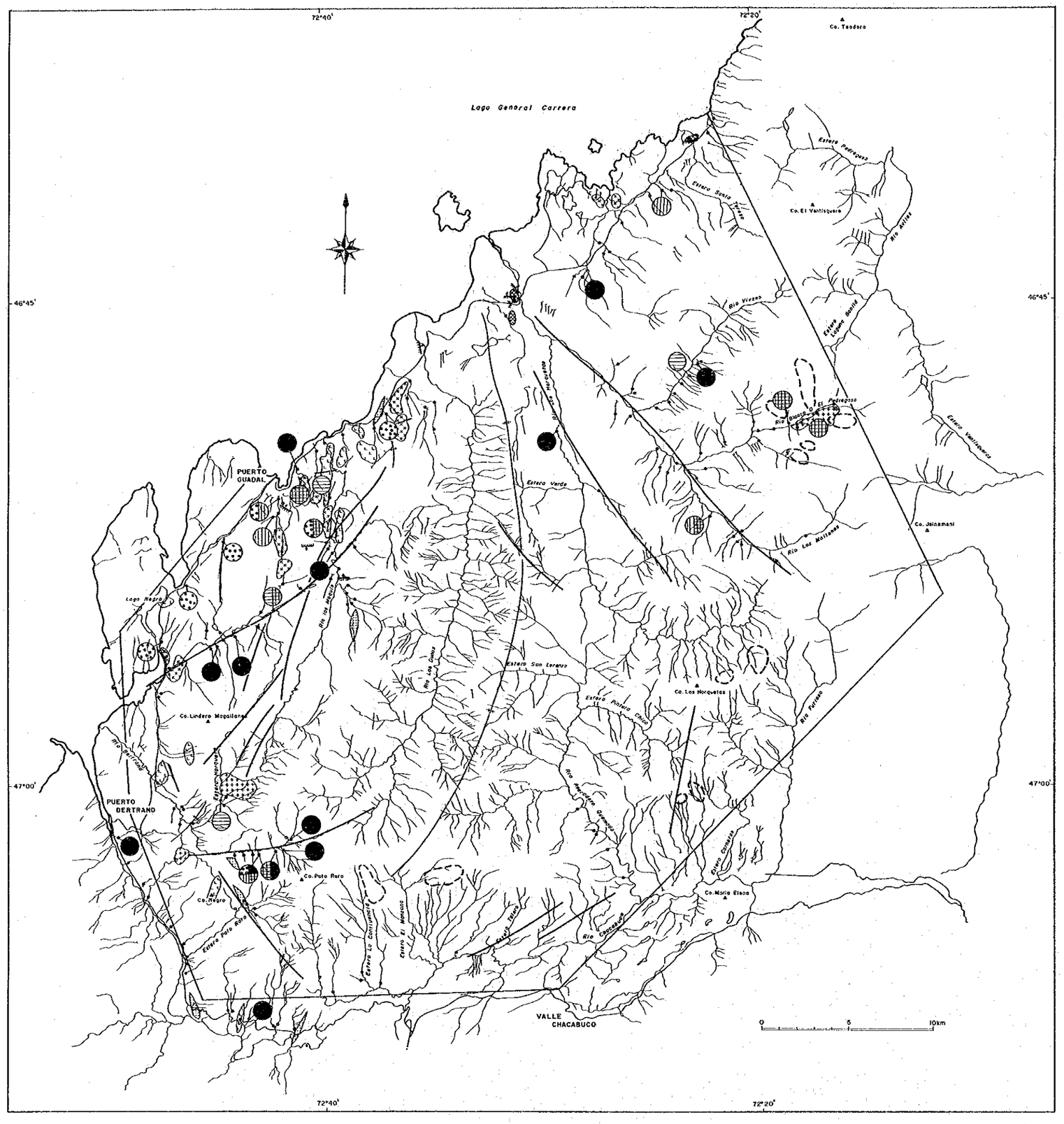


LEGEND

Intrusive rocks
- Andesite
- Rhyolite and dacite
- Tonalites and quartz diorites
- Granites

- Hydrothermal alteration zones
- Alteration zones extracted from Landsat TM images
- Ore veins
- Faults
- Anticlinal axes
- Synclinal axes
- Stream sediment samples

Geochemical anomalies
- Au ≥ 3 ...
- Ag ≥ 0.1 ...
- Cu ≥ 35 ...
- Pb ≥ 36 ...
- Zu ≥ 242 ...
- As ≥ 59 ...

Fig. II-5-6 Collective Interpretation Map of the Chile Chico-Chacabuco Area

CHAPTER 6. CHILE CHICO-CHACABUCO AREA (LAKE JEINIMENI ALTERATION ZONE)

6.1. Geology

The geological units constructing this area are lapilli tuff belonging to the Divisadero Formation, dacites, basalts and granites. The rest three intruded into the Divisadero Formation (Fig.Ⅱ-6-1 and Ⅱ-6-2)

6.1.1. Stratigraphy

The Divisadero Formation of the Late Cretaceous and Quaternary sediments crop out within the area. Judging from the geological setting of the Chile Chico-Chacabuco Area in the western neighboring of the area (see Chapter 5), the Divisadero Formation seems to be underlain by the andesite member of the Ibañez Formation and far beneath by the basement metamorphics. But their exact levels are still uncertain. In this chapter, only the Divisadero Formation is described.

(1) Divisadero Formation

This formation consists of greenish white to light gray, dacitic lapilli tuff and fine tuff. Lapillis are fragments of dacites, andesites and pumices (chloritized in the most cases). The matrices include quartz crystals. Pumices are often flattened by welding under pressure. In this report, the fine tuff is presumed to be a member of lapilli tuff, because it is distributed within the northern narrow part of the area and it is merely 10 m in thickness.

(2) Quaternary

The Quaternary System is composed of alluvium and boulder clay. They are shown en bloc on the geological map (Fig.Ⅱ-6-1). The alluvium are developed around the mouths of the Antonio River and the Gloria River pouring into the Lake Jeinimeni. No river terraces are found along both the rivers. The boulder clay is widely distributed as ground moraine throughout the part around Lake Verde. Boulders are not well graded and mainly of lapilli tuff, andesite and dacite.

6.1.2. Intrusive rocks

(1) Dacite

Dacites occur as stocks and dikes. Two relatively large stocks are found around the northern shore of Lake Jeinimeni and the southeastern end of Lake Verde. Numerous dikes are arranged in parallel rows in the southeastern part of the area. Direct relationships between the two stocks are not clear, since

there are Lake Jeinimeni and the ground moraine as glacial valley. The dacites are compact and hard rocks of white or light gray color. They have porphyritic textures with sporadic phenocrysts of quartz and plagioclase in glassy matrices. The grain sizes of the matrices are less than 2 mm. All the rocks of the stocks and the dikes hardly maintain their original textures because of silicification, argillization and also dissemination of pyrite. Therefore, intrusions of both the stocks and the dikes must have preceded the formation of the Lake Jeinimeni Alteration Zone.

(2) Granite

The granite is emplaced as a stock and a dike. The granite stock occupies an area of 1 km x 0.3 km in the northern shore of Lake Jeinimeni, intruding into the dacite stock described above. On the other hand, the granite dike occurs as about 1 m-wide small body in the lapilli tuff on the southern shore of Lake Jeinimeni. This dike has the NNE-SSW trend. The rock of the dike is hard, greenish gray in color and subhedral, medium-grained. It is almost free from alteration, though feldspar and mafic minerals are partly altered to sericite and chlorite, respectively. Granite is not regarded to be related to the alteration.

(3) Basalt dike

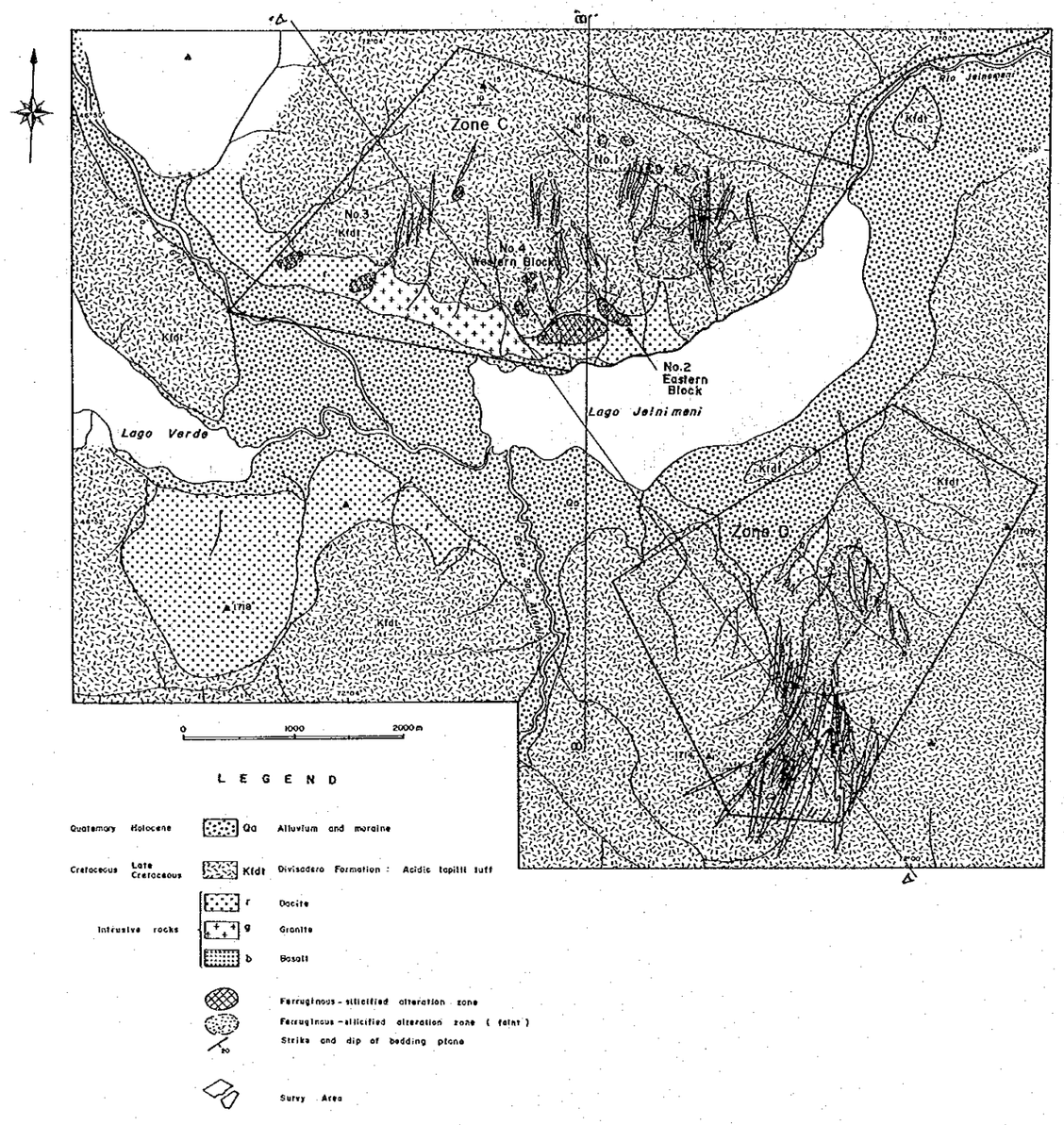
Almost all the rocks of the dikes had turned grayish by hydrothermal alteration (iron ore dissemination and silicification) and their original textures had been destroyed, although some fresh dikes consist of dark gray to dark green, fine-grained and hard rocks. These dikes cut the lapilli tuff and the dacites, and are formed during the final stage of volcanism at this area. They stretch from north to south as to be mentioned later.

6.1.3. Geologic structure

The Divisadero Formation has a gentle monocline with 10 to 15°NE dip and is free from alteration. No fault has disturbed the formation.

6.2. Mineralization

In this area, no known ore deposits are present, though some hydrothermal alteration zones are developed. The alteration zones are distributed in both the northern and the southern sides of Lake Jeinimeni. The tentative names "Alteration Group C" and "Alteration Group D" are given to the northern and the southern alteration zones, respectively, in the report of the second phase. The Alteration Group C can be divided into four alteration zones bordered by unaltered zones as results of the investigation carried out in



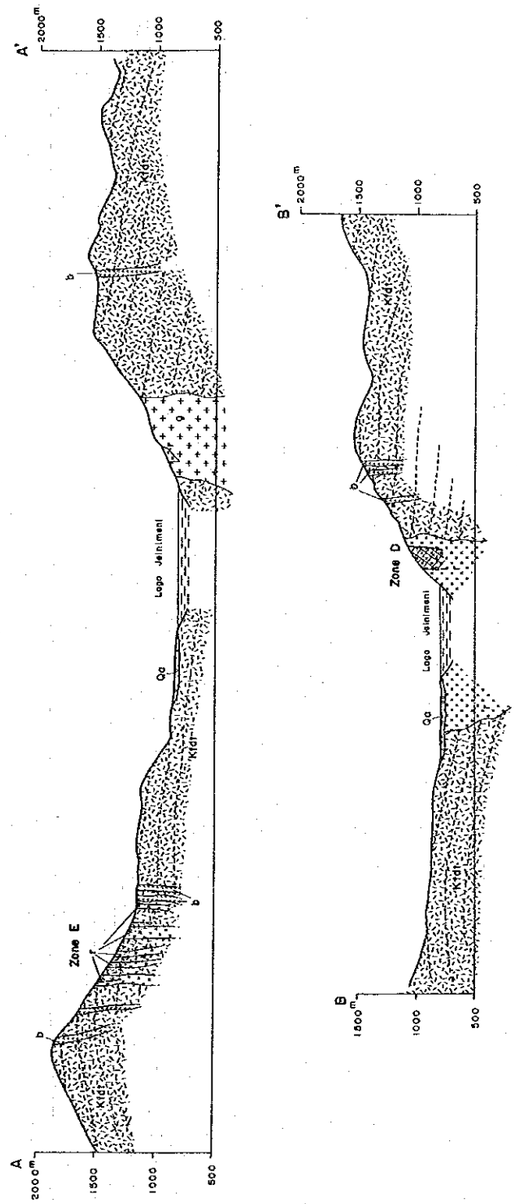


Fig. II-6-1 Geological Map of the Chile Chico-Chacabuco Area
(Lake Jeinimeni Alteration Zone)

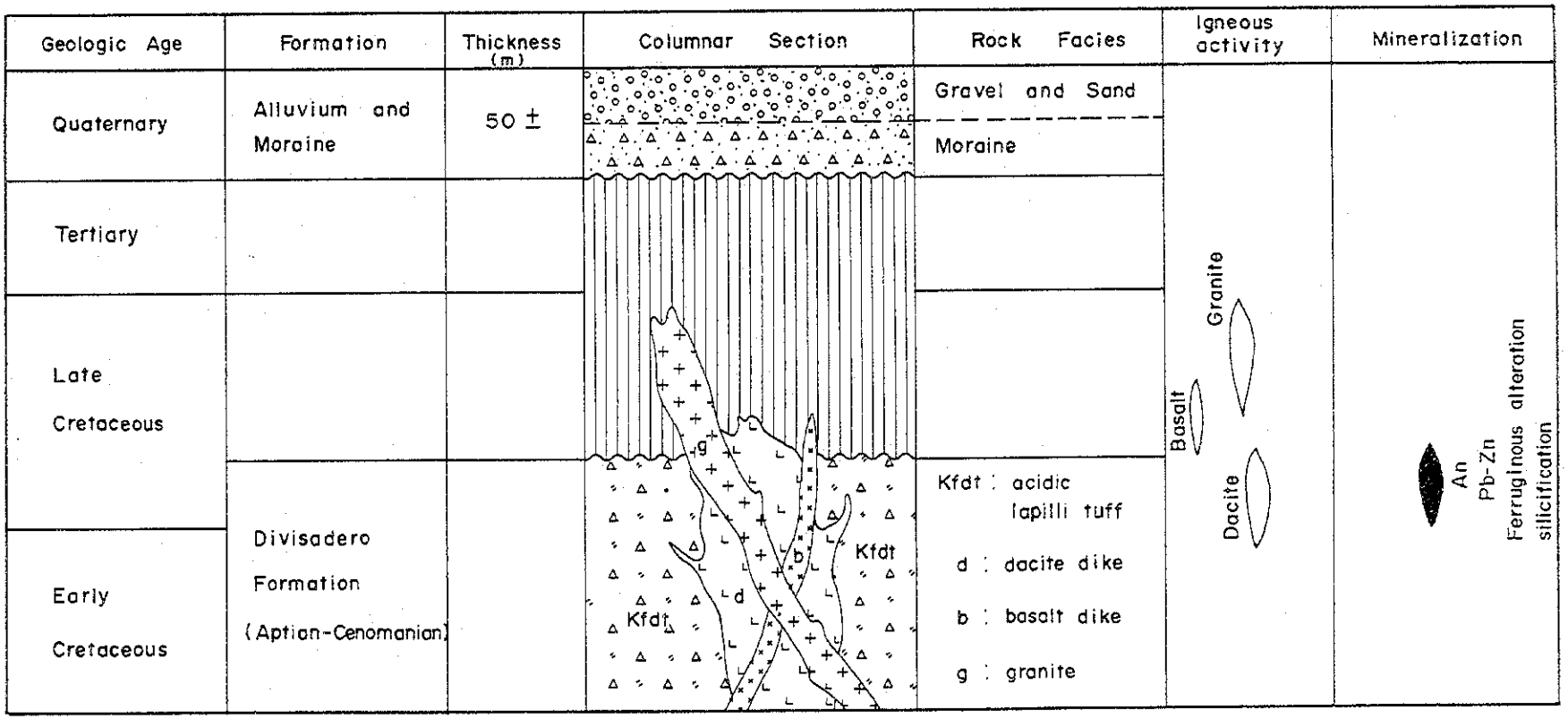


Fig. II-6-2 Schematic Columnar Section of the Chile Chico-Chacabuco Area
(Lake Jeinimeni Alteration Zone)

this phase. These four alteration zones are named as Alteration Zones No.1 to No.4, respectively (see PLATE 13).

(1) Alteration Zone No.1

This alteration zone is developed, as several blocks along the ridge, on the NE-SW trending ridge in the northern part of the area. The presence of this alteration zone was confirmed only by autochthonous floats, because no outcrops were found. The blocks are 250 m x 100 m in size, and the spaces between the blocks are covered by the unaltered lapilli tuff floats (autochthonous). This alteration zone corresponds to a weakly silicified zone developed in the lalpilli tuff of the Divisadero Formation and bears reddish brown color with dissemination of limonite, hematite, pyrite and so on. There rarely occur floats with quartz-veinlets among autochthonous ones. Such floats do not give details of directions of quartz veins, but quartz veins in them are 2 cm wide, translucent with pectinate structure and disseminated slightly by minor oxide minerals. Its ore grade is shown below.

Assay on Float of Quartz Veinlet

Sample No.	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
3TH707	1.94	2.3	10	96	34	0.11

As seen above, quartz veinlets contain a small amount of gold. The ore grades of the representative altered rocks with iron oxides are listed below.

Assay on Altered Rocks

Sample No.	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
3TH701	<20	0.1	<10	11	42	0.08
3TH702	<20	0.2	10	108	392	0.01
3TH703	<20	0.1	60	28	90	0.01
3TH706	<20	0.8	<10	755	82	0.20

Note: Samples are from autochthonous floats.

(2) Alteration Zone No.2

This alteration zone is situated on the ridges about 15 km west of the Alteration Zone No.1, and its existence is affirmed not by outcrops, but by occurrence of autochthonous floats only. The altered floats re scattered within an area of 100 m x 100 m, and several floats with quartz veinlets (1 cm

wide) were found in and around the center of the area. Floats with quartz veinlets are found just within an area of 20 m x 20 m. The ore grades of the floats with quartz veinlets are given below. Alteration is restricted to silicification without any other alteration. Alteration is accompanied almost alweys by dissemination of a little pyrite, and pyrite is oxidized to oxide minerals, turning reddish brown.

Assay on Quartz Veinlet

Sample No.	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
3TH710	0.8	1.3	<10	27	25	0.04
3TH711	0.3	0.8	<10	14	21	0.01

Note: Samples are from autochthonous floats.

Quartz veinlets include a minor amount of gold also in this alteration zone as shown above.

(3) Alteration Zone No.3

This alteration zone is composed of a weakly silicified rocks widely distributed in the eastern part of the area. The rocks of the outcrops look reddish brown due to weak dissemination of limonite and hematite. The host rock is the lapilli tuff. No quartz veinlets are found even on floats.

(4) Alteration Zone No.4

This alteration zone is located on the northern shore of Lake Jeinimeni, and extends from east to west. It is separated into two blocks by an unaltered part. Both the blocks are developed around the contact with the dacite stock and the lapilli tuff. The eastern block is estimated to be about 700 m x 250 m and the western one about 350 m x 100 m. In both blocks, quartz veinlets are developed around the contact, with distribution density of 5 to 6 veins per 1 m. Each veinlet is narrower than 1 cm. Veinlets point to various directions without any regularity. A trace of dissemination-type galena is found rarely in quartz veinlets.

The floats with quartz veinlet that contains 6.7 g/t Au (measured in the Second Phase) might have been derived from this alteration zone. The assay results on the samples collected from this alteration zone are shown in Table 3 in Appendix. Samples with quartz veinlets among them are as follows.

Assay on Quartz Veinlets

	Sample No.	O/F	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
W	3TM723	O	0.1ppm	1.0	20	666	385	0.21
	3TM715	F	0.2ppm	13.5	30	1.60%	213	0.45
	3TM716	F	1.9ppm	17.1	30	0.38%	0.24%	1.84
	3TM718	O	<20	0.1	10	38	18	0.01
	3TM731	O	0.8ppm	4.5	40	0.62%	530	0.41
E	3YM756	F	<20	6.8	<10	183	22	3.70
	3YM758	F	<20	0.1	<10	104	83	0.12
	3YM765	O	<20	0.8	10	207	414	0.12
	3YM766	O	20	0.7	20	0.10%	302	0.11

W: Western Block, E: Eastern Block, O: Outcrop, F: Float

The host rocks of both blocks are the dacite and the lapilli tuff. Both rocks are affected by weak silicification and argillization, and are accompanied by dissemination of fine-grained pyrite. And also dissemination-type limonite and hematite, or stockwork, tinged with brown, are ubiquitous throughout the host rocks. Ore grades of the representative altered rocks are shown below.

Assay on Altered Rock (Alteration Group D)

Sample No.	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
3TM718	<20	0.1	10	38	18	0.01
3TM720	<20	0.1	<10	9	28	<0.01
3YM770	<20	<0.1	<10	<5	12	0.01
3YM771	<20	<0.1	<10	<5	10	0.01

Note: All samples are from outcrops.

As seen above, quartz veinlets have suffered weak mineralization of Au and Pb, together with a trace of Zn. A good correlation between Au and Ag contents (correlation coefficient r= 0.74) is noticed and implies that gold occurs as electrum.

The alteration products are mainly quartz often with sericite. Kaoline minerals are detected by X-ray diffraction, but its broad peaks caused by low crystallinity possibly mean an origin by weathering of feldspar. On the other hand, feldspar with sharp peaks, which is regarded as primary mineral in the host rocks, is abundantly found. Survival of such feldspar suggests that

alteration was not so strong. Jarosite is detected in one sample. This mineral occurs as a secondary mineral in the alteration zone and of iron minerals. As a whole, this alteration zone is characterized by silicification and sericitization.

(5) Alteration Group D

The tentative name "Alteration Group D", described in the report of the second phase, is used also in this report. This group is situated on the south shore of Lake Jeinimeni and is marked with high anomaly of Au and weak anomalies of Ag, Cu, Pb, Zn, Mo, and As in geochemical exploration of the second phase. Around this group, are distributed the dacitic tuff of the Divisadero Formation and dikes of basalts and dacites that intruded the lapilli tuff. Basalt dikes are the youngest product of volcanism, because they cut the dacite dikes. Both dikes are arranged in parallel rows, elongating in the N-S or NNE-SSW directions..

This group occupies an elliptical area (2.5 km x 1 km), with the same direction of elongation as dikes, around the dacite dikes. Minute pyrite dissemination is always found in this group, but quartz vein had never been noticed. The outcrops of the group look brown due to dissemination of secondary oxide minerals such as limonite and hematite or stockwork. Ore grades of the representative altered rocks are given below.

Assay on Altered Rocks

Sample No.	Au(ppb)	Ag(ppm)	Cu(ppm)	Pb(ppm)	Zn(ppm)	S(%)
3TH740	<20	0.2	<10	39	206	0.01
3TH746	<20	0.1	<10	12	91	0.01
3YH775	20	0.5	30	8	26	0.37
3YH780	<20	0.1	10	13	25	0.02

Note: All samples are from outcrops.

As seen above, little useful metals are contained in the samples. The minerals identified by X-ray diffraction are a great amount of quartz and feldspar, and a small amount of sericite. Abundant existence of primary feldspar constituting the host rocks means that alteration was not so strong.

The characteristics of the alteration zones mentioned above are summarized as follows.

(a) The alteration zones of this area were dismembered with unaltered parts between. The largest and most strongly altered one is the Alteration Zone No.4 block of the Alteration Group C faced the northern shore of Lake Jeinimeni.

(b) Gold occurs as electrum in quartz veins, but its content is low (1 to 2 g/t). Quartz veinlets are accompanied by a very small amount of galena and pyrite.

(c) Quartz veinlets are not well developed with distribution density of 5 to 6 narrow (less than 1 cm) veins per 1 m. Their occurrence is limited to an area of 200 m x 200 m.

(d) The alteration is mainly silicification and subordinate weak sericitization.

6.3. Evaluation

The alteration zones developed in this area are presumed to be epithermal from the base metals and alteration-mineral assemblages. Local mineralizations of Au and Pb associated with alteration are weak. Judging from the mineral assemblages, the present outcrop level might have been slightly deeper than the level of the hot-spring-type deposits.

These alteration zones are developed around the dacite stock, suggesting a close relation with it. The exact date of intrusion of the dacite stock has not been known yet, but the date is inferred as the Late Cretaceous from a close relation between the dacite stock and acid volcanism that produced the Divisadero Formation. Accordingly, these alteration zones might have been formed in the Late Cretaceous, because they are closely related to emplacement of the dacite stock.

Provided that these alteration zones were formed in the Late Cretaceous, it is hard to construct precise alteration process, since the uppermost part of the alteration zones had been eroded. It might have been formed, however, at a deeper level, if it is closely related to the dacite stock. Wide extensions of the silicified zones suggest that these alteration zones were formed at not far beneath the surface. The silicified zone shifts to Pb-Zn zone at lower level at the Laguna Verde Gold Deposit, about 100 km north of the area. This leads to an interpretation that this alteration zone may have been formed at the deeper level than that of the gold deposit.

Taking all these factors into consideration, it is concluded that both mineralization and alteration occurred in this area have been weak. Although it is not easy to judge the ore grade gets high or not at the lower level of the alteration zone, the present outcrop level might have been in the circumstance where gold was precipitated at the time of the formation, since this alteration zone is regarded to be located at the transitional zone from the acidic zone to the intermediate zone. Low Au grades still in this alteration zone may be attributed to low Au content of the mineralizing solution. Accordingly, there is little prospect of change for the better at the deeper levels.

PART III
CONCLUSIONS AND RECOMMENDATIONS

PART III CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 1. CONCLUSIONS

1.1. Alto Cisnes-El Toqui Area (Cerro Aguja Alteration Zone)

The Cerro Aguja Alteration Zone is developed in the western part of this area occupying an area of 5 km E-W and 4 km N-S, and is hosted by pyroclastic rocks of the Divisadero Formation. The alteration is acidic and is characterized by the dissemination of pyrite and a very small amount of chalcopyrite as well as disseminations and stockworks of limonite and hematite. Assay results of altered rocks show extremely low contents of useful metalliferous elements. Only the contents of arsenic are relatively high (mean value: 123 ppm). Anomalies of As are detected around the alteration zone by panned concentrate geochemical exploration.

The alteration zone is inferred to have genetical relation to hot-spring-type deposits based on features of host-rock alteration and minor elements. The present surface of the zone is believed to be situated between the ground surface and the "Stockwork veins" zone of the schematic section proposed by Berger and Eimon (1982). The alteration zone is in a favorable situation for gold deposition under the acidic environment, but no significant gold deposition was noticed. This suggests low contents of gold in mineralizing solution itself. From these viewpoints, no improvement of gold contents is anticipated below the present level of the alteration zone.

1.2. Alto Cisnes-El Toqui Area

Although 14 alteration groups hosted by the Ibañez and Divisadero Formations are distributed in this area, only quartz veinlets or dissemination of pyrite occur in these groups and contents of useful minerals are extremely low. Rocks are altered, but only weak silicification is recognized in these groups. In view of the above information, there is a small possibility that promising ore deposits occur within those alteration groups.

The stratiform replacement Pb-Zn deposits of El Toqui type hardly occur in this area due to the lack of the Coyhaique Formation. No significant anomalies were obtained through geochemical exploration.

1.3. Ibañez-Murta Area (North)

More than 30 mineralization zones of various dimensions are distributed

in this area. Five mineralization groups called E, F, G, H, and K are hosted by lapilli tuff and rhyolite lava of the Divisadero Formation and are developed with intensive stockwork veins of quartz accompanied by dissemination of pyrite as well as stockwork and dissemination of limonite and hematite. Rocks of these groups are intensely silicified and weakly sericitized. Although grade of Au ranging from 0.1 to 0.2 ppm were rarely obtained from assaying on quartz of stockwork veins, no concentration of other elements were detected.

The present level of outcrops is believed to correspond to the "Stockwork veins" zone of the schematic section (Berger and Eimon, 1982). however, contents of gold are low. In other words, few concentration of gold was within the mineralizing solution because almost no gold mineralization was recognized despite the favorable condition for gold deposition. From this viewpoint there is a small possibility that the grade of gold will increase downward.

Only the dissemination of pyrite accompanied by quartz veinlets was found in the other mineralization groups where very few contents of gold, silver, and other base metals were detected. Therefore, mineralization will not improve further in the deep underground. On the basis of the above considerations, mineral potential of this area is believed to be low with respect to gold and silver as well as base metals.

1.4. Ibañez-Murta Area (South)

Some vein type Pb-Zn(-Cu-Mo) deposits occur and about 20 alteration zones of various dimensions are distributed in this area. The vein type deposits are mainly situated in the eastern part of the area in small scales. Most of the alteration zones have dimension of 500 x 200 m and rocks of the zones are silicified and weakly argillized. Disseminations and stockwork of pyrite, limonite, and hematite generally occur in these alteration zones, but few veins of quartz and sulfide minerals are observed. Anomalous zones of Au-Pb-Zn and Au were obtained through panned concentrate geochemistry. The former and the latter are distributed to the west and north of Puerto Ibañes, respectively.

Neither deposits of Silva type nor of El Toqui type are anticipated to occur in this area because of absence of the basement metamorphics and the Coyhaique Formation. Potential mineralizations are of Pb-Zn(-Cu) vein type and of epithermal Au-Ag type, but these deposits will be small because of the

general features of mineralization of known mines. The former base metal mineralization might be found in the geochemical Pb-Zn anomalous zone located to the west of Puerto Ibañez. The latter epithermal gold concentration occur in two separated areas. One is an area enclosed by the road connecting Puerto Ibañez with Coyhaique and the Chile-Argentine border. The other is located in the upper reaches of the Long River. The above area near the Chile-Argentine border lies on the N-S trending gold-silver belt where the Katterfeld and Laguna Verde Deposits are located.

Some alteration zones were extracted from TM images in an area enclosed by the Avellano River and the upper reaches of the Long River. Only the area is prospective for epithermal gold mineralization. No surface survey was conducted in this phase due to thick snow cover.

1.5. Chile Chico-Chacabuco Area

Some vein type Cu-Pb-Zn deposits are situated in the northern part of this area. They are in small scales. Although several alteration zones are also distributed in the northeastern part of the area, rocks of the zones are weakly silicified together with dissemination or veinlets of pyrite and limonite. The Pb-Zn mineral potential of the Silva type is very small because the widely distributed basement metamorphics are interbedded with few calcareous schists. Cu-Pb-Zn veins hosted by the basement metamorphics, the Ibañez and Divisadero Formations are anticipated to occur in the vicinity of felsic intrusive rocks, but the mineral potential is low. Furthermore, there is no mineral potential in the middle of this area where the post-mineralization Tertiary marine sediments are widely distributed.

1.6. Chile Chico-Chacabuco Area (Lake Jeinimeni Alteration Zone)

The Alteration Group C extracted from TM image is divided into several parts with no alteration zones between the parts. Although quartz veinlets are exposed in some parts, accompanied by faint mineralization of Au (1 to 2 g/t) and Pb, the veinlets are sparsely developed in an area of 200 x 200 m. The Alteration Group D surveyed in the Second Phase is composed of the silicification zones with dissemination of pyrite. Neither quartz vein nor significant grades of useful metals were found in this group.

These alteration groups are of epithermal type based on alteration mineral assemblage. The present level of outcrops is believed to have been under depositional environment of gold when the formation time, because the groups were probably situated in the transitional zone from the acidic to

intermediate zones. Despite the above condition the grade of gold is low in those groups. Therefore, the mineralization takes unlikely a turn for better downward.

CHAPTER 2. RECOMMENDATIONS FOR FUTURE EXPLORATION

The following recommendations can be stated with regard to six areas for future exploration based on the results of this survey.

(1) Alto Cisnes-El Toqui Area (Cerro Aguja Alteration Zone)

The prospectiveness is small and the area does not warrant further exploration.

(2) Alto Cisnes-El Toqui Area

The necessity for further exploration work is small.

(3) Ibañez-Murta Area (North)

Further exploration work is concluded to be not feasible in this area.

(4) Ibañez-Murta Area (South)

Geological survey and geochemical exploration should be conducted in two areas stated below because they remain unexplored and may have mineral potential of gold of epithermal type.

- Area enclosed by the road connecting Puerto Ibañez with Coyhaique and the Chile-Argentine border.
- Area enclosed by the Avellano River and the upper reaches of the Long River. This area is located to the west of the survey area of Third Phase.

(5) Chile Chico-Chacabuco Area

The necessity for further exploration work is small.

(6) Chile Chico-Chacabuco Area (Lake Jeinimeni Alteration Zone)

The Lake Jeinimeni Alteration Zone itself does not warrant further exploration because the mineralization is faint and is not believed to improve underground.

The surrounding areas, however, are situated at the southern extension of the "Au-Ag" belt mentioned before. Furthermore a plenty of alteration zones

with geochemical anomalies of Au are aligned on the belt as described in the report of the Second Phase. Therefore, emphasis of future exploration is placed on the Au-Ag belt between Lake General Carrera and the Chacabuco River.

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APPENDIX

Table 1 List of Mineral Indications (1)

Alto Cisnes-El Toqui Area

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results* Sample	Au	Ag	Cu	Pb	Zn	S	Exploration & production
1 Alteration Halo	44°43′ 71°18′ (centre)		py qz	Silicification with py diss.	N30W	0.2×0.7km	Lapilli tuff	sil	3TM414	<20	0.2	<10	11	17	0.01	
									3TM415	<20	0.2	<10	13	15	0.01	
									3TM416	<20	0.5	<10	15	9	0.01	No
									3TM417	<20	0.1	<10	12	30	<0.01	
									3TM418	<20	0.2	<10	15	19	<0.01	
									3TM419	<20	0.2	<10	13	18	0.01	
Quartz stock-work zone			py qz	Qz stockwork zones developed in the silicified rock consisting of 2 systems. Each quartz veinlets 0.5-5cm wide.	N30E and N30W	System N30E: 1.0×2.0km System N30W: 0.5×1.0km	ditto	ditto	3TM420	<20	0.2	<10	18	34	<0.01	ditto
									3TM421	<20	0.3	<10	18	21	<0.01	
									3TM422	<20	1.0	<10	14	27	0.01	
									3TM423	<20	0.1	<10	<10	21	<0.01	
									3TM424	<20	0.3	<10	15	20	<0.01	
									3TM425	<20	0.2	<10	17	40	<0.01	
									3TM427	<20	0.3	<10	13	22	<0.01	
									3TM428	<20	0.2	<10	17	36	<0.01	
									3TM429	<20	0.2	<10	15	16	0.04	
									3TM430	<20	0.1	<10	15	15	0.01	
Vein			py qz	Single vein 0.5-5cm wide	N30E/ 90	Unknown	Granite	ditto	3TM431	<20	0.4	<10	28	38	<0.01	ditto
2	44°41′ 71°17′		py qz	Single vein 0.5cm wide	E-W/ 50S	Unknown	ditto	ditto	3TM403	<20	0.1	<10	13	64	0.01	ditto
3	44°48′ 71°17′		py qz	Silicification (extended over the Chile border)	N10E	0.3×over1.5km	Andesite	ditto	3PM418a	<20	1.5	10	53	55	0.01	ditto
4	44°48′ 71°18′		py(boxwork only)	Silicification 40m wide	N.A.	Unknown	ditto	ditto	3PM417	<20	0.1	<10	<10	< 5	0.02	ditto
									3PM417a	<20	0.2	24	<10	12	0.03	
5	44°47′ 71°18′		py qz, epi	Silicified zone crosscut by qz veinlets (<5cm wide)	N.A.	ditto	ditto	ditto	3PM404	<20	0.2	12	29	102	0.94	ditto
									3PM405	<20	0.3	15	43	14	0.11	
									3PM406	<20	0.2	12	27	73	2.46	
6	44°44′ 71°20′		qz	Silicifiucation	N30E	0.4×0.1km	Dacite	sil(intensive)	3SM401	<20	0.1	<10	16	17	0.18	ditto

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (2)

Alto Cisnes-El Toqui Area

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
7	44°44′ 71°22′		py qz	py diss. in silicified dacite	N80E	0.5×0.3km	Dacite	sil(inten-sive)	3YM409 3YM410	<20 <20	0.1 0.3	<10 <10	<10 10	8 40	0.01 0.01	No
8	44°45′ 71°27′		ditto	py diss. in silicified dacite. Shear zone(10m wide) lies par-allel to the elongation. Qz veins occur in the shear.	N75W	2.0×0.3km	ditto	sil	3YM402 3YM403 3YM404 3YM405 3YM406 3FM416 (float) 3FM417	<20 <20 <20 <20 <20 <20 <20	0.2 0.4 0.2 0.2 0.2 <0.1 <0.1	<10 <10 <10 <10 <10 <10 <10	18 <10 18 21 20 16 <10	12 8 12 14 12 13 < 5	0.11 0.02 0.12 0.15 0.06 0.04 0.01	ditto
9	44°43′ 71°28′		py	py diss. in tuff.	N50E	1.0×0.4km	Sandy tuff +lapilli tuff	ditto	3FM429 3FM430	<20 <20	<0.1 <0.1	<10 <10	<10 12	8 < 5	0.04 <0.01	ditto
10	44°44′ 71°29′		ditto	py diss. and limonite stock-work	N-S	1.0×0.5km	Rhyo-litic tuff	sil+arg	3FM434 3FM435 3FM436 3FM437	<20 <20 <20 <20	0.1 0.1 0.1 0.1	<10 17 <10 22	29 10 13 25	19 7 15 58	0.08 0.17 0.28 4.20	ditto
11	44°43′ 71°30′		ditto	ditto	-	1.9×0.9km	Andesite	arg.	3FM440 3FM441 3FM442	<20 <20 <20	0.1 0.1 0.2	22 25 23	31 29 32	167 37 27	4.48 2.40 0.88	ditto
12	44°37′ 71°27′		py, apy(?) qz	Qz-py stock-work(+ limo after py)	unknown	0.2×0.3km	Dacite	sil+arg	3YM450	<20	0.2	<10	18	5	0.42	ditto
13	44°36′ 71°27′		ditto qz	ditto	ditto	0.3×0.5km	Andesite	ditto	3YM454	<20	0.2	<10	<10	11	0.16	ditto
14	44°37′ 71°30′		py qz	Qz-py stock-work(+ limo after py)	N70E	1.5×1.5km	Dacite +dacitic tuff	ditto	3FM401 3FM444-1 3FM444-2 3FM444-3	20 <20 <20 <20	1.3 0.2 0.4 0.3	36 28 29 20	64 15 37 38	47 55 64 29	0.40 0.19 0.49 0.14	ditto

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (3)

Alto Cisnes-El Toqui Area
(Cerro Aguja Alteration Zone)

Indication number	lat' lon"	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
Co. Aguja Altera- tion Zone	44°26′ 71°46′	Au (?)	sp, py hem, limo	Dissemination and stockwork of limo, hem and Py		5×4km (large unit) 0.1×0.1km (small unit)	Acidic pyro- clastic rocks+ andesite +granite	Sil, Alu, Ka Pyr, Se	3FM454	<20	0.1	10	151	< 5	8.60	No
									3FM455	<20	0.1	10	121	< 5	3.84	
									3FM456	<20	0.1	40	200	< 5	12.54	
									3FM457	<20	0.1	10	22	5	3.76	
									3FM459	<20	0.2	20	78	5	2.90	
									3FM461	<20	0.1	20	51	5	5.20	
									3FM463	<20	0.1	<10	9	< 5	0.24	
									3FM465	<20	0.1	<10	43	< 5	2.70	
									3FM466	<20	0.1	20	6	13	0.13	
									3FM468	<20	0.1	<10	12	< 5	0.16	
									3FM469	<20	0.1	<10	17	44	0.13	
									3FM473	40	0.3	20	139	< 5	4.60	
									3FM474	<20	0.1	<10	15	20	1.50	
									3FM475	<20	0.1	<10	16	12	1.00	
									3FM482	<20	0.1	10	7	135	0.38	
									3MM410	<20	0.1	10	15	35	0.18	
									3FM477	<20	0.1	<10	8	10	0.30	Float sample
									3FM478	<20	0.1	20	13	41	1.00	
									3FM479	<20	0.1	<10	17	32	0.40	
									3FM480	<20	0.1	<10	14	5	0.08	
									3MM402	<20	0.4	10	22	20	0.10	
									3MM403a	<20	0.1	<10	17	20	0.82	
									3MM403b	<20	0.6	<10	3	6	1.44	
									3MM411	<20	0.1	10	26	23	0.12	
									3MM412	160	0.8	180	168	< 5	6.04	
									3MM414	<20	0.1	<10	9	5	1.20	
									3MM416	<20	0.2	<10	49	348	0.01	

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (4)

Ibañez-Murta Area:(South)

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
1	46°08′ 72°35′		py, cp(?)	Qz-cal veinlets and py diss. in silicified rock	Irreg.	0.3km	Por-phyritic granite	sil+se+cal	3VM580	<20	0.6	<10	35	40	1.36	No
2	46°12′ 72°29′		py hem, limo	Diss. and stock-work.	ditto	3.0×1.5km	Quartz monzo-nite	sil(weak)	3FM564 3FM565 3FM566 3FM568	<20 <20 <20 <20	0.1 0.2 <0.1 0.4	<10 <10 <10 <10	<10 10 <10 16	< 5 6 < 5 7	6.80 6.20 0.42 2.40	ditto
3	46°09′ 72°19′	Pb, Zn Cu	sp, gn, cp	Veinlets and stockwork		1.2×0.3km	Rhyolite and tuff	sil+ferru-ginous	3VM531H 3VM531J 3VM531L 3VM531N	<20 <20 <20 <20	7.3 4.5 1.1 1.3	<10 31 <10 13	0.16% 0.34% 212 193	0.51% 0.19% 41 310	0.29 0.84 0.11 0.24	ditto
4	46°11′ 72°19′		hem, limo	Stockwork 50m wide for zone	N-S	Extension along strike; unknown	Andesite (?)	sil	3FM548 3FM549	<20 <20	0.2 0.2	12 <10	24 68	29 13	0.01 0.07	ditto
5	46°12′ 72°21′		qz	Qz stockwork <10cm wide each 1.5m wide for the zone		ditto	Lapilli tuff		3SM513	<20	0.1	15	34	88	0.02	ditto
6	46°10′ 72°13′		py qz	Veinlets 2-5cm wide		Veinlets occur in the area of 5×3m.	diito	sil	3TM525	<20	5.8	14	14	7	1.66	ditto
7	46°09′ 72°11′		qz	2 systems of veinlets. System1; 3cm wd System2; 12cm wd	1:N10E/82W 2:N40W/75N	Probably very short.	ditto		3SM507 3SM508	<20 <20	1.9 2.7	200 610	<10 34	23 27	0.01 0.01	ditto
8	46°10′ 72°10′		ditto	Single vein 7cm wide.	N34W/78W	ditto	ditto		3SM506	<20	0.1	<10	<10	21	0.01	ditto
9	46°09′ 72°09′		py qz	Single veins 3-10cm wide.	N80W/50N	Less than 5m extension along strike.	ditto		3TM518 3TM519 3TM520	<20 80 <20	0.2 1.9 0.3	<10 80 14	<10 157 37	26 42 15	0.02 0.01 <0.01	ditto
10	46°11′ 72°12′		ditto	Single vein; 0.5-50cm wide	N20W/90	Probably very short.	ditto	sil	3TM522	<20	0.1	<10	12	10	0.01	ditto

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (5)

Ibañez-Nurta Area:(South)

Indication number	lat' lon"	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results* Sample	Au	Ag	Cu	Pb	Zn	S	Exploration & production
11	46°12′ 72°12′		qz only	Qz stockwork 4-15cm wide each veinlets.	E-W/ 60S		Lapilli tuff		3SM509	<20	0.1	14	10	119	<0.01	No
									3SM510	<20	0.1	<10	<10	15	<0.01	
									3SM511	<20	1.7	46	56	405	0.04	
									3SM512	<20	0.1	<10	<10	10	0.02	
12	46°12′ 72°14′		ditto	Single vein; 3-5cm wide	N80E	Less than 200m along strike.	ditto	sil	3TM539	<20	<0.1	10	<10	52	0.02	ditto
									3TM540	<20	0.1	10	<10	46	<0.01	
Mina Fenix Mine site	46°08′ 72°04′	Cu, Pb Zn	cp, gn, sp, py qz	Vein 10m wide	N30W/ 85W	Unknown	Fine tuff and syenite porphyry	ditto	3FM529	40	21.0	0.22%	0.25%	13.6%	11.7	Drifts are recognized in 2 levels
									3FM530	400	320.0	0.17%	10.0%	0.91%	2.80	
									3FM531	700	114.0	670	12.9%	15.3%	19.1	
Outskirts		Cu, Pb	cp, bn, py qz	Vein and stockwork Widths of vein range 1.7-2.3m.	N70W/ 90-80S N30-40W (stock-works)	Vein's extension; unknown 4 stockwork zones are recognized. Sizes of each zone are; A. 10×30m. B. 5×150m. C. 50×100m. D. 50×300m.	Andesite and Lapilli tuff	arg+sil	Vein 3FM524	300	36.0	81	912	153	0.08	No
									3FM525	500	5.9	23	813	313	0.06	
									3FM527	20	3.0	350	960	320	0.14	
									Stock-works							ditto
								zoneA	3SM514	380	3.7	<10	223	222	1.14	
								zoneB	3SM515	<20	0.1	<10	21	26	0.01	
								zoneC	3SM516	<20	0.1	<10	<10	117	0.01	
								zoneD	3SM517	<20	0.1	<10	11	107	0.02	
									3SM518	<20	0.5	<10	18	23	<0.01	
13	46°15′ 72°03′		py qz	Qz stockwork occured in sil. rock.		200×300m	Lapilli tuff	sil	3SM503	<20	0.3	31	<10	12	0.01	ditto
									3SM519	<20	0.5	<10	197	8	0.03	
									3SM520	<20	1.0	<10	141	< 5	0.50	
									3SM521	<20	1.8	<10	95	227	0.10	
									3SM522	<20	0.9	<10	<10	12	0.01	
									3SM523	<20	<0.1	<10	<10	22	0.01	
									3SM524	<20	0.2	<10	10	12	<0.01	
									3SM526	<20	0.1	22	<10	56	<0.01	
14	46°16′ 72°02′		qz only	Veinlets in sil. rock.	N60E	5×100m for zone	tuff	ditto	3TM545	200	0.2	<10	10	25	0.01	ditto
									3TM546	<20	0.2	<10	20	19	<0.01	
									3TM549	<20	0.1	25	25	54	0.01	

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (6)

Ibañez-Murta Area: (South)

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
15	46°16′ 72°06′		qz only	Vein There exist several paral-lel veinlets of 2cm wide.	N73E/ 75N	Unkown	Dacitic lapilli tuff	no	3FM514	<20	0.2	<10	35	26	0.01	No
16	46°16′ 72°04′		qz+limo	Veinlet		ditto	Dacite dyke	sil(faint)	3FM574	<20	0.1	<10	<10	8	0.04	ditto
17	46°18′ 72°03′		qz, limo, hm	Stockwork		ditto	Dacitic tuff breccia	ditto	3FM571	<20	0.3	32	19	207	0.11	ditto
18	46°18′ 72°03′		limo	ditto			Lapilli tuff	sil	3FM570	<20	0.2	30	71	29	0.03	ditto
19	46°18′ 71°57′			Silicified rock	massive	100×500m	ditto	ditto	3TM568	<20	0.3	<10	35	82	0.02	ditto
20	46°19′ 71°58′			ditto	ditto	100×200m	Dacite	ditto	3TM566	<20	0.4	74	169	72	0.07	ditto
									3TM567	<20	0.2	<10	<10	27	0.08	
21	46°19′ 71°57′		qz, cal	Veinlets in silicified rock	N30E/ 90	400×500m	Lapilli tuff	ditto	3FM503	<20	0.8	12	50	189	0.01	ditto
									3TM562	<20	1.0	<10	93	19	<0.01	
									3TM563	<20	0.3	<10	19	57	1.10	
22	46°20′ 71°56′		qz	ditto	E-W	200×400m	ditto	ditto	3FM506	<20	2.5	42	98	85	0.04	ditto
									3TM564	<20	0.1	112	345	45	0.01	
									3TM565	<20	0.7	10	37	191	0.09	
23	46°19′ 72°00′		qz, hm	Veinlet There exist 2 paralelle vein-lets. Width ranges 1-10cm.		-	Dacite dyke	sil(faint)	3FM590	240	1.3	36	69	15	0.06	ditto
24	46°24′ 71°57′		py qz	Veinlets in silicified rock	N40E/ 90	1×0.5km	Lapilli tuff	sil	3TM554	<20	0.1	<10	27	93	0.04	ditto
									3TM556	<20	3.5	<10	492	114	0.09	
									3TM557	<20	1.3	<10	321	121	0.06	
									3TM558	<20	5.9	12	0.43	123	1.38	
									3TM559	<20	1.2	<10	89	161	0.02	
									3TM560	<20	0.6	<10	102	154	0.01	
									3TM561	120	2.5	62	0.36	85	0.11	

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (7)

Ibañez-Murta Area: (South)
: (North)

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
25	46°24′ 71°57′		qz, limo	Limonite vein 10cm wide	N-S/ 90	5m along strike only	Lapilli tuff	no	3TM513	<20	0.1	15	16	63	1.06	No
26	46°27′ 72°01′			Silicified rock	massive	100×200m	ditto	sil	3TM511	<20	0.8	<10	57	35	0.02	ditto
Ibañez-Murta Area (North)																
A	45°58′ 72°06′		py qz	Py diss. and sil. dacite/ granite.	N30W	1.0×4.0km	Porphyric dacite, Lapilli tuff and granite	ditto	See Table for assay							ditto
B	45°58′ 72°02′		cp, py limo, hm	Veinlets, py diss. and stock-work	N35W/ 90 and N75E/ 65S (both for veins)	1.8×0.9km (large unit) 0.1×0.2km (small unit)	Rhyolite apilli tuff and granite	sil, arg	ditto							ditto
C	46°01′ 72°06′		py qz	Silicified dacite accompanied with py diss. and qz veinlets (0.5-1 cm wide)	N50E	1.0×4.0km	Dacite	sil	ditto							ditto
D	45°56′ 71°57′		ditto	Silicified dacite or dacitic lapilli tuff associated with qz veinlets (0.5-1cm wide) Vein-shaped sil. zone (20cm) occur as well.	N68E/ 58NW N82E/ 77N N49E/ 75NW	0.5×1.1km	Dacite and dacitic lapilli tuff	sil (moderate)	ditto							ditto

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (8)

Ibañez-Murta Area:(North)

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
E	45°58′ 71°57′		py qz	Qz veinlets, stockwork and a little py diss. in dacitic lapilli tuff.	N64W/ 90 N50W	3.0×1.5km	Dacitic lapilli tuff and dacite	sil	See Table for assay							No
F	45°59′ 71°58′		limo, qz	Qz veinlets(3cm wide) and py diss.	N64W N74W	3.5×1.0km	Dacitic lapilli tuff	ditto	ditto							ditto
G	45°59′ 71°56′		py limo, qz	Qz veinlets(4cm wide) and Qz stockwork	N6E N84W	0.8×0.5km	ditto	ditto	ditto							ditto
H	46°00′ 71′56′		py qz	Qz stockwork with small amount of py. Vein-shaped sil. zone(withpy) also occurs	N15-60W/ 70-90NE or SW N52W/ 82W	0.7×1.0km 0.2×0.5km	Rhyolite lava, dacitic lapilli tuff	sil (intensive)	ditto							ditto
I	45°56′ 71°53′		py	Py diss. occuring paralelle to fracures	N49W/ 83SW N34E/ 84NW N38W/ 86SW	0.2×0.5km 0.1×0.4km 0.2×0.2km	Rhyolite lava	ditto (intensive)	ditto							ditto
J	45°59′ 71°54′		py qz	Py diss. and Qz stockwork	N74W	1.5×0.2km 1.0×0.3km	Dacitic lapilli tuff	sil	ditto							ditto
K	46°00′ 71°52′		ditto	Qz stockwork trend of major veinlets:N45W, N64W, N70W etc.		1.7×1.0km	ditto		ditto							ditto

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (9)

Chile Chico Chacabuco Area

Indication number	lat' lon"	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results* Sample	Au	Ag	Cu	Pb	Zn	S	Exploration & production
1	46°40′ 72°23′	Cu	cp, py qz, ba(?)	veinlets max. wd; 0.1m	N81E/ 78N	100m×300m	pelitic schist	sil (intensive) +qz-bt	3MM712	80	2.6	0.16	61	0.27	3.24	No
2	46°42′ 72°26′		py qz	stockwork	N70W as zone	less than 100m along strike	and	sil (moderate)	3YM705	<20	0.1	16	11	82	0.02	ditto
3 consisting of 2 types of mineralization	46°45′ 72°31′		typeⅠ: py	veinlets(2-5cm wide)	N36W/ 82NE	300×600m (whole zone)	Dacitic lapilli tuff/ tuff	sil (moderate)	3MM726	100	8.7	<10	55	13	55.0	
			typeⅡ: py	py diss. in fissure	N86W/ 84N and N34E/ 63NW			sil(moderate) +ser	3MM727	<20	0.2	<10	18	14	0.14	ditto
									3MM728	60	0.7	<10	244	24	0.25	
4	46°46′ 72°35′	Pb, Zn	gn, sp, py qz	single vein	N9W/ 74E	6m wide×20 along strike	Rhyolite (lava)	sil(intensive)	3MM729a 3MM729b 3MM728c	<20 <20 20	2.1 6.7 13.4	72 120 52	0.26 0.52 0.95	0.14 0.72 0.26	0.18 0.66 0.43	Field reconnaissance by French geologists in 1980's
5 consisting of 2 types of mineralization	46°49′ 72°39′		typeⅠ: py	py diss. in rhyolite dyke	massive	less than 10m	ditto (dyke)	sil(moderate)	3MM733	<20	<0.1	<10	20	32	0.04	No
			typeⅡ: no mineral visible	recrystalized calcareous schist	N4E/ 28W	300m×800m expressed as extension of the preferable rock unit for replacement Pb-Zn deposit such as Silva	calcareous schist	recrystallization only	3MM734	<20	<0.1	<10	<10	25	0.01	
Mina San Sebastian	46°51′ 72°42′	Pb-Zn	sp, gn, py qz	single vein	N60W/ 70NE	possibly 20m along strike. max. wd; 0.5m	Pelitic schist	sil(moderate) :20cm wd. halo only	3MM703 3YM716	<20 <20	22.9 2.6	0.13 300	3.20 0.28	109 0.50	0.64 0.34	A drift driven in 50's. Also trench lies in 50m extension (10m×1.5m deep; no vein)

*: expressed as ppb for Au, % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (10)

Chile Chico Chacabuco Area

Indication number	lat° lon°	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
6	46°51′ 72°40′	Au	py, apy(?)	py diss. in very silicified dacite	massive	50m×50m	dacite	sil(intensive)	3YM704	180	0.2	<10	21	13	1.20	No
7	46°53′ 72°39′		py qz	single vein crosscutting schistosity	E-W/ 60N	10m only	Pelitic schist	sil(faint)	3YM703	<20	0.1	<10	11	15	0.02	ditto
8	46°56′ 72°48′	Au	py, po, cp qz	segregated qz in pelitic schist, parallel to schistosity	N15E/ 40W	3-5m only (part of py mineralization)	ditto	ditto	3YM717 3YM718	<40 <120	14.1 1.0	0.12 0.22	<10 31	34 87	0.29 0.92	ditto
9	46°56′ 72°47′	Au	py	silicified and indurated grn. schist	N30E/ 50NW	200×100m (possibly more)	green-schst	sil(intensive)	3YM702	<20	0.3	100	<10	131	1.20	ditto
10	46°59′ 72°48′	Au	ditto	py diss. in silicified rock (possiblydacite)	massive	100×50m	dacite	sil(very intensive)	3YM708	<20	<0.1	<10	<10	6	0.01	ditto
11	47°06′ 72°38′	Au	ditto	feruginous alteration	N66W/ 27SW	5m only	politic schist	sil(faint) +ferruginous alt.	3MM731	<20	<0.1	31	19	81	0.06	ditto
		Au	ditto	ditto	-	-	andesitic tuff	sil(moderate)+ ferruginous alteration	3MM732 3YM722	<20 <20	<0.1 <0.1	10 14	24 25	55 91	0.03 0.01	float sample
12	46°52′ 72°22′	Au	ditto	py diss. and py veinlets in sil. accidic tuff	massive	2.0×0.5km	tuff	sil(intensive)	3YM711	<20	<0.1	<10	20	37	0.05	ditto
13	46°49′ 72°18′	Au	ditto	py diss. in sil tuff breccia	ditto	10×50m	accidic tuff breccia	ditto	3MM720	<20	0.7	<10	80	5	0.01	ditto

*: expressed as ppb for Au. % for S and ppm for the other elements other than specified.

Table 1 List of Mineral Indications (11)

Lake Jeinimeni Altration Zone

Indication number	lat' lon"	Ore Metal	Ore/Gangue minerals	Features of mineralization	Strike dip	Extension of mineralization	Country rock	Alteration	Assay Results*							Exploration & production
									Sample	Au	Ag	Cu	Pb	Zn	S	
Zone C		Au	Py	Py diss in weakly silicified rock (gossaneous alteration)	NW-SE	Consisting of 4 small zones. 250m×100m each in size	lapilli tuff	sil(weak) + Py	3TM701	<20	0.1	<10	11	42	0.08	No
									3TM702	<20	0.2	10	108	392	0.01	
									3TM703	<20	0.1	60	28	90	0.01	
									3TM704	<20	8.1	30	71	53	0.01	
									3TM705	<20	0.3	10	14	40	0.01	
									3TM706	<20	0.8	<10	755	82	0.20	
									3TM707	1.94°°m	2.3	10	96	34	0.11	
		Au	ditto	Several qz veinlets occur in contre area of the zone	N-S?	100m×100m	lapilli tuff	sil(weak) + Py	3TM710	800	1.3	<10	27	25	0.04	ditto
									3TM711	260	0.8	<10	14	21	0.01	
									3YM755	<20	<0.1	<10	6	< 5	0.04	
									3YM756	<20	6.8	<10	183	22	3.70	
		Au	Py(nearly nil)	Very weak sil+Py diss	No direction	750m×500m	lapilli tuff	sil(weak) + Py	3YM751	<20	0.2	<10	< 5	88	0.05	ditto
		Au	ditto	Sil+Py diss. Development of qz veinlets is recognized in the peripheral zone of dacite stock.	E-W	700m×250m + 310m×100m	Dacite	sil(weak) + Py		See Table for assay						ditto
Zone D		Au	Py	Very weak Py diss + Sil only.	NNE-SSW	2.5km×300m	lapilli tuff	sil(weak) + Py		ditto						ditto

*: expressed as ppb for Au, % for Sand ppb for the other elements other than specified.

Table 2 Ore Assay Results (1)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Alto Cisnes-El Toqui Area	3FM 401	20	1.3	36	64	47	0.40
	3FM 416	<20	<0.1	<10	16	13	0.04
	3FM 417	<20	<0.1	<10	<10	< 5	0.01
	3FM 429	<20	<0.1	<10	<10	8	0.04
	3FM 430	<20	<0.1	<10	12	< 5	<0.01
	3FM 434	<20	0.1	<10	29	19	0.08
	3FM 435	<20	0.1	17	10	7	0.17
	3FM 436	<20	0.1	<10	13	15	0.28
	3FM 437	<20	0.1	22	25	58	4.20
	3FM 440	<20	0.1	22	31	167	4.48
	3FM 441	<20	0.1	25	29	37	2.40
	3FM 442	<20	0.2	23	32	27	0.88
	3FM 444-1	<20	0.2	28	15	55	1.19
	3FM 444-2	<20	0.4	29	37	64	0.49
	3FM 444-3	<20	0.3	20	38	29	0.14
	3PM 404	<20	0.2	12	29	102	0.94
	3PM 405	<20	0.3	15	43	14	0.11
	3PM 406	<20	0.2	12	27	73	2.46
	3PM 417	<20	0.1	<10	<10	< 5	0.02
	3PM 417a	<20	0.2	24	<10	12	0.03
	3PM 418a	<20	1.5	10	53	55	0.01
	3SM 401	<20	0.1	<10	16	17	0.19
	3TM 403	<20	0.1	<10	13	64	0.01
	3TM 414	<20	0.2	<10	11	17	0.01
	3TM 415	<20	0.2	<10	13	15	0.01
	3TM 416	<20	0.5	<10	15	9	0.01
	3TM 417	<20	0.1	<10	12	30	<0.01
	3TM 418	<20	0.2	<10	15	19	<0.01
	3TM 419	<20	0.2	<10	13	18	0.01
	3TM 420	<20	0.2	<10	18	34	<0.01
	3TM 421	<20	0.3	<10	18	21	<0.01
	3TM 422	<20	1.0	<10	14	27	0.01
	3TM 423	<20	0.1	<10	<10	21	<0.01
	3TM 424	<20	0.3	<10	15	20	<0.01
	3TM 425	<20	0.2	<10	17	40	<0.01
	3TM 427	<20	0.3	<10	13	22	<0.01
	3TM 428	<20	0.2	<10	17	36	<0.01
	3TM 429	<20	0.2	<10	15	16	0.04
	3TM 430	<20	0.1	<10	15	15	0.01
	3TM 431	<20	0.4	<10	28	38	<0.01
	3VM 450	<20	0.2	<10	18	5	0.42
	3VM 454	<20	0.2	<10	<10	11	0.16
	3YM 402	<20	0.2	<10	18	12	0.11
	3YM 403	<20	0.4	<10	<10	8	0.02
	3YM 404	<20	0.2	<10	18	12	0.12
	3YM 405	<20	0.2	<10	21	14	0.15
	3YM 406	<20	0.2	<10	20	12	0.06
	3YM 409	<20	0.1	<10	<10	8	0.01
	3YM 410	<20	0.3	<10	10	40	0.01
Alto Cisnes- El Toqui Area (Cerro Aguja Alteration Zone)	3FM 454	<20	0.1	10	151	< 5	8.60
	3FM 455	<20	0.1	10	121	< 5	3.84
	3FM 456	<20	0.1	10	200	< 5	12.50
	3FM 457	<20	0.1	10	22	5	3.76

Table 2 Ore Assay Results (2)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Alto Cisnes-El Toqui Area (Cerro Aguja Alteration Zone)	3FM 459	<20	0.2	20	78	5	2.90
	3FM 461	<20	0.1	20	51	5	5.20
	3FM 463	<20	0.1	<10	9	< 5	0.24
	3FM 465	<20	0.1	<10	43	< 5	2.70
	3FM 466	<20	0.1	20	6	13	0.13
	3FM 468	<20	0.1	<10	12	< 5	0.16
	3FM 469	<20	0.1	<10	17	44	0.13
	3FM 473	40	0.3	20	139	< 5	4.60
	3FM 474	<20	0.1	<10	15	20	1.50
	3FM 475	<20	0.1	<10	16	12	1.00
	3FM 477	<20	0.1	<10	8	10	0.30
	3FM 478	<20	0.1	20	13	41	1.00
	3FM 479	<20	0.1	<10	17	32	0.40
	3FM 480	<20	0.1	<10	14	5	0.08
	3FM 482	<20	0.1	10	7	135	0.38
	3MM 402	<20	0.4	10	22	20	0.10
	3MM 403a	<20	0.1	<10	17	20	0.82
	3MM 403b	<20	0.6	<10	3	6	1.44
	3MM 410	<20	0.1	10	15	35	0.18
	3MM 411	<20	0.1	10	26	23	0.12
	3MM 412	160	0.8	180	168	< 5	6.04
	3MM 414	<20	0.1	<10	9	5	1.20
	3MH 416	<20	0.2	<10	49	348	0.01
Ibañez-Murta Area: (South)	3FM 503	<20	0.8	12	50	189	0.01
	3FM 506	<20	2.5	42	98	85	0.04
	3FM 514	<20	0.2	<10	35	26	0.01
	3FM 524	300	36.0	81	912	153	0.08
	3FM 525	500	5.9	23	813	313	0.06
	3FM 527	20	3.0	350	960	320	0.14
	3FM 529	40	21.0	0.22%	0.25%	13.6%	11.70
	3FM 530	400	320	0.17%	10.0%	0.91%	2.80
	3FM 531	700	114	670	12.9%	15.3%	19.10
	3FM 548	<20	0.2	12	24	29	0.01
	3FM 549	<20	0.2	<10	68	13	0.07
	3FM 564	<20	0.1	<10	<10	< 5	6.80
	3FM 565	<20	0.2	<10	10	6	6.20
	3FM 566	<20	<0.1	<10	<10	< 5	0.42
	3FM 568	<20	0.4	<10	16	7	2.40
	3FM 570	<20	0.2	30	71	29	0.03
	3FM 571	<20	0.3	32	19	207	0.11
	3FM 574	<20	0.1	<10	<10	8	0.04
	3FM 590	240	1.3	36	69	15	0.06
	3SM 503	<20	0.3	31	<10	12	0.01
	3SM 505	<20	0.4	<10	0.11%	46	0.10
	3SM 506	<20	0.1	<10	<10	21	0.01
	3SM 507	<20	1.9	200	<10	23	0.01
	3SM 508	<20	2.7	610	34	27	0.01
	3SM 509	<20	0.1	14	10	119	<0.01
	3SM 510	<20	0.1	<10	<10	15	<0.01
	3SM 511	<20	1.7	46	56	405	0.04
	3SM 512	<20	0.1	<10	<10	10	0.02
	3SM 513	<20	0.1	15	34	88	0.02
	3SM 514	380	3.7	<10	223	222	1.14
	3SM 515	<20	0.1	<10	21	26	0.01

Table 2 Ore Assay Results (3)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (South)	3SM 516	<20	0.1	<10	<10	117	0.01
	3SM 517	<20	0.1	<10	11	107	0.02
	3SM 518	<20	0.5	<10	18	23	<0.01
	3SM 519	<20	0.5	<10	197	8	0.03
	3SM 520	<20	1.0	<10	141	< 5	0.50
	3SM 521	<20	1.8	<10	95	227	0.10
	3SM 522	<20	0.9	<10	<10	12	0.01
	3SM 523	<20	<0.1	<10	<10	22	0.01
	3SM 524	<20	0.2	<10	10	12	<0.01
	3SM 526	<20	0.1	22	<10	56	<0.01
	3TM 511	<20	0.8	<10	57	35	0.02
	3TM 513	<20	0.1	15	16	63	1.06
	3TM 518	<20	0.2	<10	<10	26	0.02
	3TM 519	80	1.9	80	157	42	0.01
	3TM 520	<20	0.3	14	37	15	<0.01
	3TM 522	<20	0.1	<10	12	10	0.01
	3TM 525	<20	5.8	14	14	7	1.66
	3TM 539	<20	<0.1	10	<10	52	0.02
	3TM 540	<20	0.1	10	<10	46	<0.01
	3TM 545	200	0.2	<10	10	25	0.01
	3TM 546	<20	0.2	<10	20	19	<0.01
	3TM 549	<20	0.1	25	25	54	0.01
	3TM 554	<20	0.1	<10	27	93	0.04
	3TM 556	<20	3.5	<10	492	114	0.09
	3TM 557	<20	1.3	<10	321	121	0.06
	3TM 558	<20	5.9	12	0.43%	123	1.38
	3TM 559	<20	1.2	<10	89	161	0.02
	3TM 560	<20	0.6	<10	102	154	0.01
	3TM 561	120	2.5	62	0.36%	85	0.11
	3TM 562	<20	1.0	<10	93	19	<0.01
	3TM 563	<20	0.3	<10	19	57	1.10
	3TM 564	<20	0.1	112	345	45	0.01
	3TM 565	<20	0.7	10	37	191	0.09
	3TM 566	<20	0.4	74	169	72	0.07
	3TM 567	<20	0.2	<10	<10	27	0.08
	3TM 568	<20	0.3	<10	35	82	0.02
	3VM 513	<20	0.4	<10	16	95	2.50
	3VM 531H	<20	7.3	<10	0.16%	0.51%	0.29
	3VM 531J	<20	4.5	31	0.34%	0.19%	0.84
	3VM 531L	<20	1.1	<10	212	41	0.11
	3VM 531N	<20	1.3	13	198	310	0.24
	3VM 536	<20	1.1	1.50%	25	13	1.42
	3VM 580	<20	0.6	<10	35	40	1.36
Ibañez-Murta Area: (North)	3FM 801	<20	0.2	10	16	21	0.06
	3FM 802	<20	1.5	10	219	233	0.03
	3FM 806	<20	0.1	10	19	131	<0.01
	3FM 809	<20	<0.1	<10	14	61	0.01
	3FM 810	<20	<0.1	10	13	56	<0.01
	3FM 811	<20	<0.1	10	15	24	0.01
	3FM 812	<20	<0.1	10	20	33	<0.01
	3FM 813	<20	<0.1	10	14	30	0.02
	3FM 814	<20	<0.1	10	13	34	0.01
	3FM 815	<20	<0.1	10	14	25	<0.01
	3FM 823	<20	<0.1	<10	18	18	0.01

Table 2 Ore Assay Results (4)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (North)	3FM 825	<20	0.1	<10	22	50	0.08
	3FM 826	<20	0.1	<10	21	71	0.04
	3FM 828	<20	0.2	50	34	49	0.02
	3FM 829	<20	0.1	10	19	27	0.01
	3FM 830	<20	0.1	10	36	25	0.04
	3FM 831	<20	<0.1	<10	32	7	0.11
	3FM 832	<20	0.1	10	28	18	0.06
	3FM 833	<20	<0.1	<10	18	6	0.17
	3FM 834	<20	<0.1	<10	22	7	0.58
	3FM 835	<20	0.3	40	54	51	0.08
	3FM 836	<20	0.1	10	24	15	0.04
	3FM 837	<20	<0.1	10	15	10	0.17
	3FM 838	<20	<0.1	10	24	30	0.24
	3FM 839	<20	0.1	10	84	32	0.09
	3FM 840	<20	0.1	<10	16	12	2.04
	3FM 841	<20	0.2	10	66	17	0.64
	3FM 843	<20	0.1	20	19	17	0.05
	3FM 845a	<20	0.2	20	57	18	0.66
	3FM 845b	<20	0.1	10	9	12	0.01
	3FM 849	<20	0.3	<10	17	16	<0.01
	3MM 801	<20	<0.1	10	10	27	0.01
	3MM 802	<20	0.7	<10	<10	6	0.04
	3MM 803a	<20	0.7	<10	<10	< 5	0.07
	3MM 803b	<20	1.0	<10	<10	< 5	0.10
	3MM 804	<20	0.3	22	22	37	0.02
	3MM 805	<20	0.3	<10	<10	< 5	0.01
	3MM 806	<20	0.1	<10	<10	16	0.01
	3MM 807	<20	0.1	<10	<10	46	0.02
	3MM 809	<20	0.5	12	12	< 5	0.02
	3MM 811	<20	0.1	13	13	26	0.01
	3MM 812	<20	<0.1	12	12	30	0.12
	3MM 813	<20	<0.1	<10	<10	19	<0.01
	3MM 816	<20	0.1	10	10	37	0.02
	3MM 817	<20	<0.1	10	10	33	<0.01
	3MM 818	<20	<0.1	<10	<10	25	0.01
	3MM 821	<20	0.3	17	17	18	0.02
	3MM 822	<20	0.2	22	22	39	<0.01
	3MM 823	<20	0.2	20	20	30	0.01
	3MM 824	<20	<0.1	19	19	27	<0.01
	3MM 825	20	0.6	14	14	60	0.01
	3MM 827	<20	0.1	17	17	27	0.01
	3MM 829	<20	<0.1	16	16	35	0.01
	3MM 830	<20	<0.1	14	14	50	0.01
	3MM 831	<20	<0.1	<10	10	49	<0.01
	3MM 832	<20	<0.1	<10	<10	5	0.01
	3MM 833	<20	<0.1	<10	10	7	0.10
	3MM 834	<20	0.5	10	73	117	0.70
	3MM 836	<20	0.1	<10	25	18	0.10
	3MM 837	<20	<0.1	<10	<10	8	0.07
	3MM 838	<20	<0.1	10	<10	30	0.04
	3MM 839	<20	0.1	10	19	16	0.44
	3MM 840	<20	0.1	<10	15	41	0.14
	3MM 841	<20	0.4	10	12	9	0.16

Table 2 Ore Assay Results (5)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañz-Murta Area: (North)	3MM 842	<20	<0.1	<10	<10	5	0.05
	3MM 843	<20	0.7	<10	<10	< 5	0.76
	3MM 844	<20	0.1	<10	14	9	0.08
	3MM 845	<20	0.4	10	<10	14	0.01
	3MM 846	<20	0.3	10	10	14	0.13
	3MM 847	<20	1.8	<10	<10	12	0.15
	3MM 848	<20	0.6	<10	<10	8	0.33
	3MM 849	<20	0.8	<10	<10	< 5	0.01
	3MM 850	<20	0.9	<10	<10	16	0.29
	3MM 851	<20	2.7	10	<10	8	0.40
	3MM 852	<20	0.3	<10	<10	< 5	0.01
	3MM 853	<20	0.8	<10	<10	< 5	0.05
	3MM 854	<20	0.3	<10	<10	< 5	0.09
	3MM 855	40	0.8	<10	<10	< 5	0.09
	3MM 856	<20	0.3	<10	<10	< 5	0.05
	3MM 857	<20	0.3	<10	<10	< 5	0.02
	3MM 858	<20	0.3	<10	<10	< 5	0.01
	3MM 859	<20	0.8	<10	<10	< 5	0.01
	3MM 860	<20	0.5	<10	<10	< 5	0.01
	3MM 861	<20	0.1	<10	<10	< 5	<0.01
	3MM 862	<20	0.1	<10	<10	< 5	0.02
	3MM 863	<20	0.3	<10	<10	14	0.01
	3MM 864	<20	0.3	<10	<10	25	0.01
	3MM 865	<20	1.6	<10	10	< 5	0.17
	3SM 801	<20	0.1	10	10	27	0.01
	3SM 802	<20	0.2	10	21	27	0.02
	3SM 803	<20	0.1	<10	11	20	<0.01
	3SM 804	<20	0.4	10	10	40	0.01
	3SM 805	<20	0.2	<10	10	25	0.01
	3SM 806	<20	0.4	10	19	22	0.05
	3SM 807	<20	0.4	10	14	40	0.02
	3SM 808	<20	0.5	10	16	26	0.01
	3SM 809	40	3.5	<10	11	< 5	0.02
	3SM 810	<20	0.8	10	42	6	0.02
	3SM 811	60	2.7	<10	10	10	0.02
	3SM 812	20	0.8	10	15	21	0.03
	3SM 813	40	0.6	<10	12	10	0.03
	3SM 814	<20	0.4	10	15	20	0.01
	3SM 815	20	1.9	<10	15	7	0.05
	3SM 816	160	0.5	10	18	5	0.10
	3SM 817	20	0.2	<10	<10	12	0.05
	3SM 818	40	3.7	10	<10	9	0.05
	3SM 819	40	1.1	10	13	10	0.02
	3SM 820	40	1.0	10	20	7	0.01
	3SM 821	<20	0.1	<10	<10	15	<0.01
	3SM 822	<20	0.7	90	57	15	0.02
	3SM 823	20	0.5	10	11	9	0.02
	3SM 824	<20	2.6	10	15	5	0.04
	3SM 825	140	1.1	20	19	20	0.02
	3SM 826	20	0.2	10	11	18	0.01
	3SM 827	<20	<0.1	<10	<10	26	0.01
	3SM 828	<20	0.1	<10	<10	15	<0.01
	3SM 829	<20	0.1	<10	11	21	<0.01
	3SM 830	<20	<0.1	<10	<10	< 5	0.01

Table 2 Ore Assay Results (6)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (North)	3SM 831	<20	<0.1	<10	<10	15	0.09
	3SM 832	<20	<0.1	<10	<10	7	0.02
	3SM 833	<20	0.1	<10	13	14	0.02
	3SM 834	<20	<0.1	<10	<10	12	0.02
	3SM 835	20	0.1	10	<10	27	0.03
	3SM 836	40	2.9	<10	16	12	0.01
	3SM 837	<20	0.2	<10	<10	22	0.01
	3SM 838	<20	0.7	10	<10	13	0.03
	3SM 839	40	5.3	10	21	35	2.10
	3SM 840	<20	0.9	<10	11	5	0.06
	3SM 841	220	8.3	<10	33	17	2.04
	3SM 842	20	0.2	<10	10	< 5	0.05
	3SM 843	20	0.4	10	21	17	0.17
	3SM 844	<20	0.1	<10	<10	< 5	0.02
	3SM 845	20	0.2	<10	11	< 5	0.13
	3SM 846	20	0.1	<10	12	5	0.03
	3SM 847	20	0.1	10	11	11	0.19
	3SM 848	<20	0.1	10	<10	17	0.01
	3SM 849	20	0.8	10	68	16	<0.01
	3SM 850	20	0.3	<10	10	< 5	0.05
	3SM 851	<20	0.2	<10	12	< 5	0.09
	3SM 852	<20	0.2	<10	14	< 5	0.02
	3SM 853	<20	0.3	10	12	12	0.01
	3SM 854	<20	0.1	10	19	27	0.31
	3SM 855	<20	4.1	40	26	28	0.01
	3SM 856	<20	0.1	<10	27	14	0.03
	3SM 857	<20	1.7	10	25	12	0.52
	3SM 858	<20	0.2	10	11	11	0.02
	3SM 859	<20	0.1	10	22	14	0.03
	3SM 860	<20	0.1	10	28	13	0.01
	3SM 861	<20	0.1	10	14	38	0.11
	3SM 862	<20	0.1	<10	<10	22	0.01
	3SM 863	<20	0.1	10	<10	22	<0.01
	3SM 864	<20	0.2	10	15	18	0.07
	3SM 865	<20	0.2	10	31	12	0.01
	3SM 866	<20	0.3	<10	12	7	0.05
	3SM 867	<20	0.1	<10	<10	< 5	0.03
	3SM 868	<20	0.3	10	<10	56	0.02
	3SM 869	<20	0.5	10	12	8	0.13
	3SM 870	<20	0.1	<10	<10	5	0.02
	3SM 871	<20	0.3	10	13	17	0.01
	3SM 872	<20	0.2	<10	14	21	0.01
	3SM 873	<20	0.1	<10	<10	6	0.01
	3SM 874	<20	0.1	10	<10	6	0.01
	3SM 875	<20	<0.1	<10	<10	23	<0.01
	3SM 876	<20	<0.1	<10	<10	18	<0.01
	3SM 877	<20	<0.1	<10	<10	9	0.01
	3SM 878	<20	<0.1	<10	<10	20	<0.01
	3SM 879	<20	<0.1	<10	<10	< 5	0.01
	3SM 880	<20	<0.1	<10	13	12	<0.01
	3SM 881	<20	<0.1	<10	<10	8	<0.01
	3SM 882	<20	<0.1	<10	<10	11	<0.01
	3SM 883	<20	0.1	<10	<10	12	0.01
	3SM 884	<20	<0.1	<10	<10	25	<0.01

Table 2 Ore Assay Results (7)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (North)	3SM 885	<20	<0.1	<10	10	32	0.01
	3SM 886	<20	<0.1	<10	<10	9	0.01
	3SM 887	<20	<0.1	<10	<10	7	0.02
	3SM 888	<20	<0.1	<10	<10	7	0.01
	3SM 889	<20	<0.1	<10	<10	11	<0.01
	3SM 890	<20	<0.1	<10	<10	10	<0.01
	3SM 891	<20	<0.1	<10	<10	16	0.01
	3SM 892	<20	<0.1	<10	<10	15	<0.01
	3SM 893	<20	<0.1	<10	<10	11	<0.01
	3SM 894	<20	0.2	10	<10	32	0.33
	3SM 895	<20	0.2	<10	11	< 5	0.09
	3SM 896	<20	0.1	10	<10	13	0.05
	3SM 897	<20	0.1	<10	<10	6	0.03
	3SM 898	<20	0.1	<10	<10	7	0.02
	3SM 899	<20	0.1	<10	13	8	0.02
	3SM 8100	<20	0.1	<10	30	7	0.03
	3SM 8101	<20	0.2	<10	<10	11	0.01
	3SM 8102	<20	0.2	<10	15	5	0.08
	3SM 8103	<20	<0.1	<10	<10	< 5	0.03
	3SM 8104	<20	<0.1	<10	12	5	0.02
	3SM 8105	<20	0.1	<10	10	9	0.13
	3TM 802	<20	0.1	10	9	< 5	0.36
	3TM 803	<20	0.1	30	< 5	12	0.03
	3TM 804	<20	1.1	40	30	62	1.50
	3TM 807	<20	0.1	30	13	27	0.15
	3TM 810	<20	0.4	70	12	20	0.56
	3TM 811	<20	0.6	870	10	18	1.46
	3TM 812	<20	2.8	50	53	9	1.20
	3TM 813	<20	0.1	10	16	10	0.08
	3TM 814	<20	0.6	20	11	6	0.11
	3TM 815	<20	<0.1	20	< 5	8	0.17
	3TM 816	<20	0.1	10	< 5	6	0.03
	3TM 817	<20	0.2	20	5	10	0.50
	3TM 818	<20	0.1	20	7	9	0.07
	3TM 819	<20	0.1	10	6	10	0.11
	3TM 820	<20	0.6	20	< 5	5	0.29
	3TM 821	<20	0.2	20	< 5	11	0.17
	3TM 822	<20	<0.1	10	5	< 5	0.14
	3TM 823	<20	0.1	10	< 5	8	0.19
	3TM 824	<20	0.9	140	< 5	17	0.23
	3TM 825	<20	0.9	280	8	49	1.20
	3TM 826	<20	0.4	50	5	53	0.18
	3TM 827	<20	0.6	100	8	14	0.02
	3TM 828	<20	0.5	110	12	55	0.30
	3TM 829	<20	0.2	70	< 5	8	0.02
	3TM 830	<20	0.1	10	< 5	11	0.07
	3TM 831	<20	0.1	20	< 5	9	0.02
	3TM 832	<20	0.1	10	< 5	7	0.01
	3TM 833	<20	1.4	150	6	6	0.11
	3TM 834	<20	1.0	10	9	8	0.32
	3TM 837	<20	0.2	40	6	10	0.06
	3TM 838	<20	2.6	30	12	11	0.06
	3TM 839	<20	0.1	10	10	< 5	0.16

Table 2 Ore Assay Results (8)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibanez-Nurta Area: (North)	3TM 840	<20	0.3	10	5	< 5	1.90
	3TM 841	<20	0.2	40	< 5	5	0.21
	3TM 842	<20	0.2	10	< 5	< 5	0.92
	3TM 843	<20	0.5	50	29	5	0.32
	3TM 844	<20	0.1	30	7	< 5	0.21
	3TM 846	<20	0.1	50	8	13	0.17
	3TM 847	<20	0.1	10	< 5	10	0.06
	3TM 848	<20	0.7	10	27	12	0.49
	3TM 851	<20	0.6	10	54	21	0.02
	3TM 852	<20	0.1	30	10	8	0.02
	3TM 853	<20	<0.1	<10	<10	7	0.08
	3TM 854	<20	<0.1	<10	<10	5	0.03
	3TM 855	<20	0.1	10	15	37	0.01
	3TM 856	<20	<0.1	<10	12	24	0.02
	3TM 857	<20	<0.1	<10	<10	21	0.04
	3TM 858	<20	0.2	<10	<10	< 5	0.02
	3TM 859	<20	0.2	<10	30	< 5	0.09
	3TM 860	<20	0.3	<10	25	5	0.08
	3TM 861	<20	0.1	<10	<10	< 5	0.03
	3TM 862	<20	0.2	<10	12	< 5	0.24
	3TM 863	<20	0.2	<10	20	< 5	0.17
	3TM 864	<20	0.3	<10	26	< 5	0.23
	3TM 865	<20	0.2	<10	12	7	0.14
	3TM 866	<20	0.1	10	16	263	0.08
	3TM 867	<20	0.3	<10	<10	12	0.02
	3TM 868	<20	0.7	<10	<10	8	0.04
	3TM 869	<20	0.3	<10	<10	12	0.02
	3TM 870	<20	<0.1	<10	10	17	0.01
	3TM 871	<20	0.4	10	23	7	0.04
	3TM 872	<20	0.1	<10	11	6	0.06
	3PM 800	<20	<0.1	<10	11	18	0.01
	3PM 801	<20	0.1	10	16	16	0.20
	3VM 818	<20	0.1	<10	21	42	0.21
	3VM 820	<20	0.1	<10	<10	< 5	0.03
	3YM 801	<20	0.1	<10	5	26	0.02
	3YM 802	<20	0.1	10	6	28	0.13
	3YM 803	<20	0.1	10	8	21	1.84
	3YM 804	<20	0.3	<10	21	41	1.94
	3YM 805	<20	0.1	<10	7	19	1.54
	3YM 806	<20	<0.1	<10	11	39	0.02
	3YM 807	<20	0.1	<10	6	42	0.01
	3YM 808	<20	0.1	40	< 5	33	0.12
	3YM 809	<20	<0.1	<10	6	44	<0.01
	3YM 812	<20	0.1	<10	11	25	0.01
	3YM 813	<20	<0.1	<10	9	40	0.01
	3YM 814	<20	0.1	<10	12	35	0.01
	3YM 815	<20	0.1	<10	10	39	<0.01
	3YM 816	<20	<0.1	<10	9	36	<0.01
	3YM 817	<20	0.2	<10	11	12	0.03
	3YM 818	<20	0.1	<10	13	21	0.01
	3YM 819	<20	0.2	<10	12	10	0.02
	3YM 820	<20	0.1	<10	12	8	0.03
	3YM 821	<20	0.1	<10	8	19	0.01
	3YM 822	<20	0.3	10	38	41	0.01

Table 2 Ore Assay Results (9)

Area	Samole number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (North)	3YM 823	<20	0.1	10	31	24	<0.01
	3YM 824	<20	0.1	10	9	16	0.02
	3YM 825	<20	<0.1	<10	11	19	0.01
	3YM 826	<20	<0.1	<10	12	26	<0.01
	3YM 827	<20	0.1	20	7	13	0.01
	3YM 828	<20	0.1	<10	12	14	0.01
	3YM 829	<20	<0.1	10	9	21	0.01
	3YM 830	<20	0.1	10	7	14	<0.01
	3YM 831	<20	<0.1	<10	5	17	0.01
	3YM 832	<20	0.1	10	10	9	<0.01
	3YM 833	<20	0.1	10	< 5	18	0.01
	3YM 850	<20	0.1	<10	<10	< 5	0.03
	3YM 851	<20	<0.1	<10	18	5	0.01
	3YM 852	<20	<0.1	<10	37	6	0.04
	3YM 853	<20	<0.1	<10	<10	5	0.05
	3YM 854	<20	<0.1	<10	27	24	0.02
	3YM 855	<20	<0.1	10	<10	17	0.01
	3YM 856	<20	<0.1	<10	<10	18	0.01
	3YM 857	<20	0.1	<10	12	16	0.02
	3YM 858	<20	0.1	<10	<10	16	0.05
	3YM 859	<20	<0.1	<10	15	23	0.05
	3YM 860	<20	<0.1	<10	28	8	0.04
	3YM 861	<20	<0.1	<10	<10	13	0.01
	3YM 862	<20	<0.1	40	<10	13	0.29
	3YM 863	<20	0.2	<10	<10	16	0.05
	3YM 864	<20	0.2	<10	14	< 5	0.03
	3YM 865	<20	0.3	<10	12	10	0.17
	3YM 866	<20	0.2	<10	12	12	0.03
	3YM 867	<20	0.1	<10	<10	5	0.04
	3YM 868	<20	0.2	<10	10	5	0.05
	3YM 869	<20	0.5	<10	13	< 5	0.05
	3YM 870	<20	0.2	<10	16	< 5	0.05
	3YM 871	<20	<0.1	40	<10	21	0.01
	3YM 872	<20	<0.1	20	13	11	0.04
	3YM 873	<20	0.2	40	13	11	0.04
	3YM 874	<20	0.5	50	26	93	0.01
	3YM 875	<20	0.2	20	66	41	0.03
	3YM 876	<20	0.1	10	11	20	0.01
	3YM 877	<20	<0.1	<10	<10	13	0.04
	3YM 878	<20	0.1	10	<10	18	0.04
	3YM 879	<20	0.1	10	<10	9	0.05
	3YM 880	<20	0.1	10	<10	6	0.02
	3YM 881	<20	0.1	10	<10	30	0.02
	3YM 882	<20	<0.1	30	93	70	<0.01
	3YM 883	<20	0.1	10	17	16	0.11
	3YM 884	<20	0.1	<10	14	50	0.01
	3YM 885	<20	0.1	<10	10	40	0.01
	3YM 886	<20	0.9	<10	<10	< 5	0.03
	3YM 887	<20	0.6	10	<10	9	0.06
	3YM 888	<20	0.4	<10	<10	6	0.06
	3YM 889	<20	0.3	<10	<10	12	0.04
	3YM 890	<20	0.8	<10	<10	< 5	0.06
	3YM 891	<20	0.5	<10	<10	< 5	0.11
	3YM 892	<20	<0.1	<10	<10	11	0.05

Table 2 Ore Assaying Results (10)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Ibañez-Murta Area: (North)	3YM 893	<20	1.1	<10	12	< 5	0.04
	3YM 894	<20	0.1	<10	<10	12	0.01
	3YM 895	<20	0.7	<10	16	< 5	0.06
	3YM 896	<20	0.7	<10	11	6	0.06
	3YM 897	<20	0.8	<10	19	11	0.05
	3YM 898	<20	0.2	<10	<10	5	0.01
	3YM 899	40	1.5	10	12	14	0.02
Chile Chico-Chacabuco Area	3MM 703	<20	22.9	0.13%	3.20%	109	0.64
	3MM 712	80	2.6	0.16%	61	0.27%	3.24
	3MM 720	<20	0.7	<10	80	5	0.01
	3MM 726	100	8.7	<10	55	13	55.0
	3MM 727	<20	0.2	<10	18	14	0.14
	3MM 728	60	0.7	<10	244	24	0.25
	3MM 729a	<20	2.1	72	0.26%	0.14%	0.18
	3MM 729b	<20	6.7	120	0.52%	0.72%	0.66
	3MM 729c	20	13.4	52	0.95%	0.26%	0.43
	3MM 731	<20	<0.1	31	19	81	0.06
	3MM 732	<20	<0.1	10	24	65	0.03
	3MM 733	<20	<0.1	20	32	7	0.04
	3MM 734	<20	<0.1	<10	<10	25	0.01
	3YM 702	<20	0.3	100	<10	131	1.20
	3YM 703	<20	0.1	<10	11	15	0.02
	3YM 704	180	0.2	<10	21	13	1.20
	3YM 705	<20	0.1	16	11	82	0.02
	3YM 708	<20	<0.1	<10	<10	6	0.01
	3YM 711	<20	<0.1	<10	20	37	0.05
	3YM 716	<20	2.6	300	0.28%	0.50%	0.34
	3YM 717	40	14.1	0.12%	<10	34	0.29
	3YM 718	120	1.0	0.22%	31	87	0.92
	3YM 722	<20	<0.1	14	25	91	0.01
Chile Chico-Chacabuco Area (Lake Jeinimeni Alteration Zone)	3TM 701	<20	0.1	<10	11	42	0.08
	3TM 702	<20	0.2	10	108	392	0.01
	3TM 703	<20	0.1	60	28	90	0.01
	3TM 704	<20	8.1	30	71	53	0.01
	3TM 705	<20	0.3	10	14	40	0.01
	3TM 706	<20	0.8	<10	755	82	0.20
	3TM 707	1.94ppm	2.3	10	96	34	0.11
	3TM 710	800	1.3	<10	27	25	0.44
	3TM 711	260	0.8	<10	14	21	0.01
	3TM 712	<20	<0.1	<10	13	28	0.01
	3TM 715	200	13.5	30	1.60%	213	0.45
	3TM 716	1.90ppm	17.1	30	0.38%	0.24%	1.84
	3TM 718	<20	0.1	10	38	18	0.01
	3TM 719	<20	0.1	<10	20	20	0.04
	3TM 720	<20	0.1	<10	9	28	<0.01
	3TM 721	<20	0.1	<10	5	8	<0.01
	3TM 722	<20	0.1	<10	9	12	0.01
	3TM 723	100	1.0	20	666	385	0.21
	3TM 724	100	20	10	0.59%	175	0.42
	3TM 725	<20	0.5	20	0.10%	166	0.54
	3TM 726	<20	0.1	<10	12	33	0.02
	3TM 727	<20	0.1	<10	6	32	0.01

Table 2 Ore Assaying Results (11)

Area	Sample number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
Chile Chico-Chacabuco Area (Lake Jeinimeni Alteration Zone)	3TM 728	<20	0.2	<10	136	86	0.02
	3TM 729	<20	0.4	<10	19	13	0.37
	3TM 730	<20	1.6	220	80	78	0.03
	3TM 731	800	4.5	40	0.62%	530	0.41
	3TM 732	<20	0.1	<10	17	146	<0.04
	3TM 734	<20	0.1	<10	17	25	0.01
	3TM 735	<20	0.1	<10	38	58	0.01
	3TM 736	<20	0.2	<10	12	59	0.01
	3TM 737	<20	0.3	<10	93	53	0.01
	3TM 738	<20	0.8	10	91	65	0.03
	3TM 740	<20	0.2	<10	39	206	0.01
	3TM 741	<20	0.1	<10	8	15	0.68
	3TM 743	<20	<0.1	10	< 5	31	0.02
	3TM 744	<20	0.1	<10	10	48	0.07
	3TM 745	<20	0.4	10	29	65	0.04
	3TM 746	<20	0.1	<10	12	91	0.01
	3YM 751	<20	0.2	<10	< 5	88	0.05
	3YM 752	<20	0.1	<10	5	83	0.02
	3YM 753	<20	0.1	<10	< 5	94	0.02
	3YM 754	<20	0.3	<10	19	10	0.03
	3YM 755	<20	<0.1	<10	6	< 5	0.04
	3YM 756	<20	6.8	<10	183	22	3.70
	3YM 757	<20	<0.1	<10	5	17	0.02
	3YM 758	<20	0.1	<10	104	83	0.12
	3YM 759	<20	0.1	<10	5	14	0.01
	3YM 760	<20	0.2	10	9	49	0.03
	3YM 761	<20	0.6	10	52	75	0.08
	3YM 762	<20	0.2	<10	7	47	0.01
	3YM 763	<20	0.2	<10	11	57	0.02
	3YM 764	<20	0.2	10	67	176	0.09
	3YM 765	<20	0.8	10	207	414	0.12
	3YM 766	20	0.7	20	0.10%	302	0.11
	3YM 767	<20	0.1	<10	32	57	0.01
	3YM 768	<20	0.2	<10	23	65	0.01
	3YM 769	<20	0.1	10	10	2	10.03
	3YM 770	<20	<0.1	<10	< 5	12	0.01
	3YM 771	<20	<0.1	<10	< 5	10	0.01
	3YM 772	<20	0.1	<10	14	23	<0.01
	3YM 773	<20	0.1	10	32	21	<0.01
	3YM 774	<20	0.1	<10	11	22	<0.01
	3YM 775	20	0.5	30	8	26	0.37
	3YM 776	<20	0.3	10	201	21	0.74
	3YM 777	<20	0.1	<10	3	36	0.20
	3YM 779	<20	0.1	<10	4	22	0.04
	3YM 780	<20	0.1	10	13	25	0.02
	3YM 781	<20	0.1	<10	13	28	<0.01
	3YM 782	<20	0.1	<10	8	26	<0.01
	3YM 783	<20	<0.1	10	16	39	<0.01
	3YM 784	<20	<0.1	<10	3	45	0.01
	3YM 785	<20	<0.1	<10	3	36	<0.01
	3YM 786	<20	0.1	<10	27	112	0.01

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (1)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
	3TM 802	<20	0.1	10	9	< 5	0.36
	3TM 803	<20	0.1	30	< 5	12	0.03
	3TM 804	<20	1.1	40	30	62	1.50
	3TM 807	<20	0.1	30	13	27	0.15
	3TM 810	<20	0.4	70	12	20	0.56
	3TM 811	<20	0.6	870	10	18	1.46
	3TM 812	<20	2.8	50	53	9	1.20
	3TM 813	<20	0.1	10	16	10	0.08
	3TM 814	<20	0.6	20	11	6	0.11
	3TM 815	<20	<0.1	20	< 5	8	0.17
	3TM 816	<20	0.1	10	< 5	6	0.03
	3TM 817	<20	0.2	20	5	10	0.50
	3TM 818	<20	0.1	20	7	9	0.07
	3TM 819	<20	0.1	10	6	10	0.11
	3TM 820	<20	0.6	20	< 5	5	0.29
	3TM 821	<20	0.2	20	< 5	11	0.17
	3TM 822	<20	<0.1	10	5	< 5	0.14
	3TM 823	<20	0.1	10	< 5	8	0.19
A	3TM 837	<20	0.2	40	6	10	0.06
	3TM 838	<20	2.6	30	12	11	0.06
	3TM 839	<20	0.1	10	10	< 5	0.16
	3TM 840	<20	0.3	10	5	< 5	1.90
	3TM 841	<20	0.2	40	< 5	5	0.21
	3TM 842	<20	0.2	10	< 5	< 5	0.92
	3TM 843	<20	0.5	50	29	5	0.32
	3TM 844	<20	0.1	30	7	< 5	0.21
	3TM 846	<20	0.1	50	8	13	0.17
	3TM 847	<20	0.1	10	< 5	10	0.06
	3TM 848	<20	0.7	10	27	12	0.49
	3YM 801	<20	0.1	<10	5	26	0.02
	3YM 802	<20	0.1	10	6	28	0.13
	3YM 803	<20	0.1	10	8	21	1.84
	3YM 804	<20	0.3	<10	21	41	1.94
	3YM 805	<20	0.1	<10	7	19	1.54
	3YM 806	<20	<0.1	<10	11	39	0.02
	3YM 807	<20	0.1	<10	6	42	0.01
	3YM 808	<20	0.1	40	< 5	33	0.12
	3FM 801	<20	0.2	10	16	21	0.06
	3FM 802	<20	1.5	10	219	233	0.03
	3FM 806	<20	0.1	10	19	131	<0.01
	3FM 809	<20	<0.1	<10	14	61	0.01
	3FM 810	<20	<0.1	10	13	56	<0.01
	3FM 811	<20	<0.1	10	15	24	0.01
	3FM 812	<20	<0.1	10	20	33	<0.01
	3FM 813	<20	<0.1	10	14	30	0.02
B	3FM 814	<20	<0.1	10	13	34	0.01
	3FM 815	<20	<0.1	10	14	25	<0.01
	3FM 823	<20	<0.1	<10	18	18	0.01
	3FM 825	<20	0.1	<10	22	50	0.08
	3FM 826	<20	0.1	<10	21	71	0.04
	3FM 828	<20	0.2	50	34	49	0.02
	3FM 829	<20	0.1	10	19	27	0.01
	3FM 830	<20	0.1	10	36	25	0.04
	3FM 831	<20	<0.1	<10	32	7	0.11
	3FM 832	<20	0.1	10	28	18	0.06

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (2)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
B	3FM 833	<20	<0.1	<10	18	6	0.17
	3FM 834	<20	<0.1	<10	22	7	0.58
	3FM 835	<20	0.3	40	54	51	0.08
	3FM 836	<20	0.1	10	24	15	0.04
	3FM 837	<20	<0.1	10	15	10	0.17
	3FM 838	<20	<0.1	10	24	30	0.24
	3FM 839	<20	0.1	10	84	32	0.09
	3FM 840	<20	0.1	<10	16	12	2.04
	3FM 841	<20	0.2	10	66	17	0.64
	3FM 843	<20	0.1	20	19	17	0.05
	3FM 845a	<20	0.2	20	57	18	0.66
	3FM 845b	<20	0.1	10	9	12	0.01
	3FM 849	<20	0.3	<10	17	16	<0.01
	3YM 809	<20	<0.1	<10	6	44	<0.01
	3YM 812	<20	0.1	<10	11	25	0.01
	3YM 813	<20	<0.1	<10	9	40	0.01
	3YM 814	<20	0.1	<10	12	35	0.01
	3YM 815	<20	0.1	<10	10	39	<0.01
	3YM 816	<20	<0.1	<10	9	36	<0.01
	3YM 817	<20	0.2	<10	11	12	0.03
	3YM 818	<20	0.1	<10	13	21	0.01
	3YM 819	<20	0.2	<10	12	10	0.02
	3YM 820	<20	0.1	<10	12	8	0.03
	3YM 821	<20	0.1	<10	8	19	0.01
	3YM 822	<20	0.3	10	38	41	0.01
	3YM 823	<20	0.1	10	31	24	<0.01
	3YM 824	<20	0.1	10	9	16	0.02
	3YM 825	<20	<0.1	<10	11	19	0.01
	3YM 826	<20	<0.1	<10	12	26	<0.01
	3YM 827	<20	0.1	20	7	13	0.01
	3YM 828	<20	0.1	<10	12	14	0.01
	3YM 829	<20	<0.1	10	9	21	0.01
	3YM 830	<20	0.1	10	7	14	<0.01
	3YM 831	<20	<0.1	<10	5	17	0.01
	3YM 832	<20	0.1	10	10	9	<0.01
	3YM 833	<20	0.1	10	< 5	18	0.01
C	3TM 824	<20	0.9	140	< 5	17	0.23
	3TM 825	<20	0.9	280	8	49	1.20
	3TM 826	<20	0.4	50	5	53	0.18
	3TM 827	<20	0.6	100	8	14	0.02
	3TM 828	<20	0.5	110	12	55	0.30
	3TM 829	<20	0.2	70	< 5	8	0.02
	3TM 830	<20	0.1	10	< 5	11	0.07
	3TM 831	<20	0.1	20	< 5	9	0.02
	3TM 832	<20	0.1	10	< 5	7	0.01
	3TM 833	<20	1.4	150	6	6	0.11
	3TM 834	<20	1.0	10	9	8	0.32
D	3MM 831	<20	<0.1	<10	10	49	<0.01
	3MM 832	<20	<0.1	<10	<10	5	0.01
	3MM 833	<20	<0.1	<10	10	7	0.10
	3MM 834	<20	0.5	10	73	117	0.70
	3MM 836	<20	0.1	<10	25	18	0.10
	3MM 837	<20	<0.1	<10	<10	8	0.07
	3MM 838	<20	<0.1	10	<10	30	0.04
	3MM 839	<20	0.1	10	19	16	0.44

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (3)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
D	3NM 840	<20	0.1	<10	15	41	0.14
	3NM 841	<20	0.4	10	12	9	0.16
	3NM 842	<20	<0.1	<10	<10	5	0.05
	3NM 843	<20	0.7	<10	<10	< 5	0.76
	3NM 844	<20	0.1	<10	14	9	0.08
	3SM 842	20	0.2	<10	10	< 5	0.05
	3SM 843	20	0.4	10	21	17	0.17
	3SM 844	<20	0.1	<10	<10	< 5	0.02
E	3FM 845	20	0.2	<10	11	< 5	0.13
	3SM 846	20	0.1	<10	12	5	0.03
	3SM 847	20	0.1	10	11	11	0.19
	3SM 848	<20	0.1	10	<10	17	0.01
	3SM 849	20	0.8	10	68	16	<0.01
	3SM 850	20	0.3	<10	10	< 5	0.05
	3SM 851	<20	0.2	<10	12	< 5	0.09
	3SM 852	<20	0.2	<10	14	< 5	0.02
	3SM 853	<20	0.3	10	12	12	0.01
	3SM 854	<20	0.1	10	19	27	0.31
	3SM 855	<20	4.1	40	26	28	0.01
	3SM 856	<20	0.1	<10	27	14	0.03
	3SM 857	<20	1.7	10	25	12	0.52
	3SM 858	<20	0.2	10	11	11	0.02
	3SM 859	<20	0.1	10	22	14	0.03
	3SM 860	<20	0.1	10	28	13	0.01
	3SM 861	<20	0.1	10	14	38	0.11
	3SM 862	<20	0.1	<10	<10	22	0.01
	3SM 863	<20	0.1	10	<10	22	<0.01
	3SM 864	<20	0.2	10	15	18	0.07
	3SM 865	<20	0.2	10	31	12	0.01
	3SM 866	<20	0.3	<10	12	7	0.05
	3SM 867	<20	0.1	<10	<10	< 5	0.03
	3SM 868	<20	0.3	10	<10	56	0.02
	3SM 869	<20	0.5	10	12	8	0.13
	3SM 870	<20	0.1	<10	<10	5	0.02
	3SM 871	<20	0.3	10	13	17	0.01
	3SM 872	<20	0.2	<10	14	21	0.01
	3SM 873	<20	0.1	<10	<10	6	0.01
	3TM 851	<20	0.6	10	54	21	0.02
	3TM 852	<20	0.1	30	10	8	0.02
	3TM 853	<20	<0.1	<10	<10	7	0.08
	3TM 854	<20	<0.1	<10	<10	5	0.03
	3TM 855	<20	0.1	10	15	37	0.01
	3TM 856	<20	<0.1	<10	12	24	0.02
	3TM 857	<20	<0.1	<10	<10	21	0.04
	3TM 858	<20	0.2	<10	<10	< 5	0.02
	3TM 859	<20	0.2	<10	30	< 5	0.09
	3TM 860	<20	0.3	<10	25	5	0.08
	3TM 861	<20	0.1	<10	<10	< 5	0.03
	3TM 862	<20	0.2	<10	12	< 5	0.24
	3TM 863	<20	0.2	<10	20	< 5	0.17
	3TM 864	<20	0.3	<10	26	< 5	0.23
	3TM 865	<20	0.2	<10	12	7	0.14
	3TM 866	<20	0.1	10	16	263	0.08
	3YM 850	<20	0.1	<10	<10	< 5	0.03

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (4)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
E	3YM 851	<20	<0.1	<10	18	5	0.01
	3YM 852	<20	<0.1	<10	37	6	0.04
	3YM 853	<20	<0.1	<10	<10	5	0.05
	3YM 854	<20	<0.1	<10	27	24	0.02
	3YM 855	<20	<0.1	10	<10	17	0.01
	3YM 856	<20	<0.1	<10	<10	18	0.01
	3YM 857	<20	0.1	<10	12	16	0.02
	3YM 858	<20	0.1	<10	<10	16	0.05
	3YM 859	<20	<0.1	<10	15	23	0.05
	3YM 860	<20	<0.1	<10	28	8	0.04
	3YM 861	<20	<0.1	<10	<10	13	0.01
	3YM 862	<20	<0.1	40	<10	13	0.29
	3YM 863	<20	0.2	<10	<10	16	0.05
	3YM 864	<20	0.2	<10	14	< 5	0.03
	3YM 865	<20	0.3	<10	12	10	0.17
	3YM 866	<20	0.2	<10	12	12	0.03
	3YM 867	<20	0.1	<10	<10	5	0.04
	3YM 868	<20	0.2	<10	10	5	0.05
	3YM 869	<20	0.5	<10	13	< 5	0.05
	3YM 870	<20	0.2	<10	16	< 5	0.05
	3YM 871	<20	<0.1	40	<10	21	0.01
	3YM 872	<20	<0.1	20	13	11	0.04
	3YM 873	<20	0.2	40	13	11	0.04
	3YM 874	<20	0.5	50	26	93	0.01
	3YM 875	<20	0.2	20	66	41	0.03
	3YM 876	<20	0.1	10	11	20	0.01
	3YM 877	<20	<0.1	<10	<10	13	0.04
	3YM 878	<20	0.1	10	<10	18	0.04
	3YM 879	<20	0.1	10	<10	9	0.05
	3YM 880	<20	0.1	10	<10	6	0.02
	3YM 881	<20	0.1	10	<10	30	0.02
	3YM 882	<20	<0.1	30	93	70	<0.01
	3YM 883	<20	0.1	10	17	16	0.11
F	3SM 801	<20	0.1	10	10	27	0.01
	3SM 802	<20	0.2	10	21	27	0.02
	3SM 803	<20	0.1	<10	11	20	<0.01
	3SM 804	<20	0.4	10	10	40	0.01
	3SM 805	<20	0.2	<10	10	25	0.01
	3SM 806	<20	0.4	10	19	22	0.05
	3SM 807	<20	0.4	10	14	40	0.02
	3SM 808	<20	0.5	10	16	26	0.01
	3SM 809	40	3.5	<10	11	< 5	0.02
	3SM 810	<20	0.8	10	42	6	0.02
	3SM 811	60	2.7	<10	10	10	0.02
	3SM 812	20	0.8	10	15	21	0.03
	3SM 813	40	0.6	<10	12	10	0.03
	3SM 814	<20	0.4	10	15	20	0.01
	3SM 815	20	1.9	<10	15	7	0.05
	3SM 816	160	0.5	10	18	5	0.10
	3SM 817	20	0.2	<10	<10	12	0.05
	3SM 818	40	3.7	10	<10	9	0.05
	3SM 819	40	1.1	10	13	10	0.02
	3SM 820	40	1.0	10	20	7	0.01
	3TM 867	<20	0.3	<10	<10	12	0.02

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (5)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
F	3TM 868	<20	0.7	<10	<10	8	0.04
	3TM 869	<20	0.3	<10	<10	12	0.02
	3TM 870	<20	<0.1	<10	10	17	0.01
	3TM 871	<20	0.4	10	23	7	0.04
	3TM 872	<20	0.1	<10	11	6	0.06
	3PM 800	<20	<0.1	<10	11	18	0.01
	3PM 801	<20	0.1	10	16	16	0.20
	3YM 818	<20	0.1	<10	21	42	0.21
	3YM 820	<20	0.1	<10	<10	< 5	0.03
	3YM 884	<20	0.1	<10	14	50	0.01
	3YM 885	<20	0.5	<10	10	40	0.05
	3YM 886	<20	0.9	<10	<10	< 5	0.03
	3YM 887	<20	0.6	10	<10	9	0.06
	3YM 888	<20	0.4	<10	<10	6	0.06
	3YM 889	<20	0.3	<10	<10	12	0.04
	3YM 890	<20	0.8	<10	<10	< 5	0.06
	YM 891	<20	0.5	<10	<10	< 5	0.11
	3YM 892	<20	<0.1	<10	<10	11	0.05
	3YM 893	<20	1.1	<10	12	< 5	0.04
	3YM 894	<20	0.1	<10	<10	12	0.01
	3YM 895	<20	0.7	<10	16	< 5	0.06
	3YM 896	<20	0.7	<10	11	6	0.06
	3YM 897	<20	0.8	<10	19	11	0.05
	3YM 898	<20	0.2	<10	<10	5	0.01
	3YM 899	40	1.5	10	12	14	0.02
G	3SM 894	<20	0.2	10	<10	32	0.33
	3SM 895	<20	0.2	<10	11	< 5	0.09
	3SM 896	<20	0.1	10	<10	13	0.05
	3SM 897	<20	0.1	<10	<10	6	0.03
	3SM 898	<20	0.1	<10	<10	7	0.02
	3SM 899	<20	0.1	<10	13	8	0.02
	3SM8100	<20	0.1	<10	30	7	0.03
	3SM8101	<20	0.2	<10	<10	11	0.01
	3SM8102	<20	0.2	<10	15	5	0.08
	3SM8103	<20	<0.1	<10	<10	< 5	0.03
	3SM8104	<20	<0.1	<10	12	5	0.02
	3SM8105	<20	0.1	<10	10	9	0.13
H	3MM 801	<20	<0.1	10	10	27	0.01
	3MM 802	<20	0.7	<10	<10	6	0.04
	3MM 803a	<20	0.7	<10	<10	< 5	0.07
	3MM 803b	<20	1.0	<10	<10	< 5	0.10
	3MM 804	<20	0.3	22	22	37	0.02
	3MM 805	<20	0.3	<10	<10	< 5	0.01
	3MM 806	<20	0.1	<10	<10	16	0.01
	3MM 807	<20	0.1	<10	<10	46	0.02
	3MM 845	<20	0.4	10	<10	14	0.01
	3MM 846	<20	0.3	10	10	14	0.13
	3MM 847	<20	1.8	<10	<10	12	0.15
	3MM 848	<20	0.6	<10	<10	8	0.33
	3MM 849	<20	0.8	<10	<10	< 5	0.01
	3MM 850	<20	0.9	<10	<10	16	0.29
	3MM 851	<20	2.7	10	<10	8	0.40
	3MM 852	<20	0.3	<10	<10	< 5	0.01
	3MM 853	<20	0.8	<10	<10	< 5	0.05
	3MM 854	<20	0.3	<10	<10	< 5	0.09

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (6)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
H	3MM 855	40	0.8	<10	<10	< 5	0.09
	3MM 856	<20	0.3	<10	<10	< 5	0.05
	3MM 857	<20	0.3	<10	<10	< 5	0.02
	3MM 858	<20	0.3	<10	<10	< 5	0.01
	3MM 859	<20	0.8	<10	<10	< 5	0.01
	3MM 860	<20	0.5	<10	<10	< 5	0.01
	3MM 861	<20	0.1	<10	<10	< 5	<0.01
	3MM 862	<20	0.1	<10	<10	< 5	0.02
	3MM 863	<20	0.3	<10	<10	14	0.01
	3MM 864	<20	0.3	<10	<10	25	0.01
	3MM 865	<20	1.6	<10	10	< 5	0.17
I	3MM 821	<20	0.3	17	17	18	0.02
	3MM 822	<20	0.2	22	22	39	<0.01
	3MM 823	<20	0.2	20	20	30	0.01
	3MM 824	<20	<0.1	19	19	27	<0.01
	3MM 825	20	0.6	14	14	60	0.01
	3MM 827	<20	0.1	17	17	27	0.01
	3MM 829	<20	<0.1	16	16	35	0.01
	3MM 830	<20	<0.1	14	14	50	0.01
J	3MM 816	<20	0.1	10	10	37	0.02
	3MM 817	<20	<0.1	10	10	33	<0.01
	3MM 818	<20	<0.1	<10	<10	25	0.01
	3SM 821	<20	0.1	<10	<10	15	<0.01
	3SM 822	<20	0.7	90	57	15	0.02
	3SM 823	20	0.5	10	11	9	0.02
	3SM 824	<20	2.6	10	15	5	0.04
	3SM 825	140	1.1	20	19	20	0.02
	3SM 826	20	0.2	10	11	18	0.01
	3SM 827	<20	<0.1	<10	<10	26	0.01
K	3SM 828	<20	0.1	<10	<10	15	<0.01
	3SM 829	<20	0.1	<10	11	21	<0.01
	3SM 830	<20	<0.1	<10	<10	< 5	0.01
	3SM 831	<20	<0.1	<10	<10	15	0.09
	3SM 832	<20	<0.1	<10	<10	7	0.02
	3SM 833	<20	0.1	<10	13	14	0.02
	3SM 834	<20	<0.1	<10	<10	12	0.02
	3SM 835	20	0.1	10	<10	27	0.03
	3SM 836	40	2.9	<10	16	12	0.01
	3SM 837	<20	0.2	<10	<10	22	0.01
	3SM 838	<20	0.7	10	<10	13	0.03
	3SM 839	40	5.3	10	21	35	2.10
	3SM 840	<20	0.9	<10	11	5	0.06
	3SM 841	220	8.3	<10	33	17	2.04
	3SM 874	<20	0.1	10	<10	6	0.01
	3SM 875	<20	<0.1	<10	<10	23	<0.01
	3SM 876	<20	<0.1	<10	<10	18	<0.01
	3SM 877	<20	<0.1	<10	<10	9	0.01
	3SM 878	<20	<0.1	<10	<10	20	<0.01
	3SM 879	<20	<0.1	<10	<10	< 5	0.01
	3SM 880	<20	<0.1	<10	13	12	<0.01
	3SM 881	<20	<0.1	<10	<10	8	<0.01
	3SM 882	<20	<0.1	<10	<10	11	<0.01
	3SM 883	<20	0.1	<10	<10	12	0.01
	3SM 884	<20	<0.1	<10	<10	25	<0.01
	3SM 885	<20	<0.1	<10	10	32	0.01

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (7)

Ibañez-Murta Area (North)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	S %
K	3SM 886	<20	<0.1	<10	<10	9	0.01
	3SM 887	<20	<0.1	<10	<10	7	0.02
	3SM 888	<20	<0.1	<10	<10	7	0.01
	3SM 889	<20	<0.1	<10	<10	11	<0.01
	3SM 890	<20	<0.1	<10	<10	10	<0.01
	3SM 891	<20	<0.1	<10	<10	16	0.01
	3SM 892	<20	<0.1	<10	<10	15	<0.01
	3SM 893	<20	<0.1	<10	<10	11	<0.01
	3MM 809	<20	0.5	12	12	< 5	0.02
	3MM 811	<20	0.1	13	13	26	0.01
	3MM 812	<20	<0.1	12	12	30	0.12
	3MM 813	<20	<0.1	<10	<10	19	<0.01

Chile Chico-Chacabuco Area (Lake Jeinimeni Alteration Zone)

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zu ppm	S %
Zone C	3TM 712	<20	<0.1	<10	13	28	0.01
	3TM 715	200	13.5	30	1.60%	213	0.45
	3TM 716	1.90***	17.1	30	0.38%	0.24%	1.84
	3TM 718	<20	0.1	10	38	16	0.01
	3TM 719	<20	0.1	<10	20	20	0.04
	3TM 720	<20	0.1	<10	9	28	<0.01
	3TM 721	<20	0.1	<10	5	8	<0.01
	3TM 722	<20	0.1	<10	9	12	0.01
	3TM 723	100	1.0	20	666	385	0.21
	3TM 724	100	2.0	10	0.59%	175	0.42
	3TM 725	<20	0.5	20	0.10%	166	0.54
	3TM 726	<20	0.1	<10	12	33	0.02
	3TM 727	<20	0.1	<10	6	32	0.01
	3TM 728	<20	0.2	<10	136	86	0.02
	3TM 729	<20	0.4	<10	19	13	0.37
	3TM 730	<20	1.6	220	80	78	0.03
	3TM 731	800	4.5	40	0.62%	530	0.41
	3YM 752	<20	0.1	<10	5	83	0.02
	3YM 754	<20	0.3	<10	19	10	0.03
	3YM 757	<20	<0.1	<10	5	17	0.02
	3YM 753	<20	0.1	<10	< 5	94	0.02
	3YM 758	<20	0.1	<10	104	83	0.12
	3YM 759	<20	0.1	<10	5	14	0.01
	3YM 760	<20	0.2	10	9	49	0.03
	3YM 761	<20	0.6	10	52	75	0.08
	3YM 762	<20	0.2	<10	7	47	0.01
	3YM 763	<20	0.2	<10	11	57	0.02
	3YM 764	<20	0.2	10	67	176	0.09
	3YM 765	<20	0.8	10	207	414	0.12
	3YM 766	20	0.7	20	0.10%	302	0.11
	3YM 767	<20	0.1	<10	32	57	0.01
	3YM 768	<20	0.2	<10	23	65	0.01
	3YM 769	<20	0.1	10	10	21	0.03
	3YM 770	<20	<0.1	<10	< 5	12	0.01
	3YM 771	<20	<0.1	<10	< 5	10	0.01
	3YM 772	<20	0.1	<10	14	23	<0.01

Table 3 Ore Assay Results Rearranged for Each Mineralization Zone (8)

Chile Chico-Chacabuco Area

Area	Sample Number	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zu ppm	S %
Zone C	3YM 773	<20	0.1	10	32	21	<0.01
	3YM 774	<20	0.1	<10	11	22	<0.01
	3YM 775	20	0.5	30	8	26	0.37
	3YM 776	<20	0.3	10	201	21	0.74
	3YM 777	<20	0.1	<10	3	36	0.20
Zone D	3TM 732	<20	0.1	<10	17	146	<0.01
	3TM 734	<20	0.1	<10	17	25	0.01
	3TM 735	<20	0.1	<10	38	58	0.01
	3TM 736	<20	0.2	<10	12	59	0.01
	3TM 737	<20	0.3	<10	93	53	0.01
	3TM 738	<20	0.8	10	91	65	0.03
	3TM 740	<20	0.2	<10	39	206	0.01
	3TM 741	<20	0.1	<10	8	15	0.68
	3TM 743	<20	<0.1	10	< 5	31	0.02
	3TM 744	<20	0.1	<10	10	48	0.07
	3TM 745	<20	0.4	10	29	65	0.04
	3TM 746	<20	0.1	<10	12	91	0.01
	3YM 779	<20	0.1	<10	4	22	0.04
	3YM 780	<20	0.1	10	13	25	0.02
	3YM 781	<20	0.1	<10	13	28	<0.01
	3YM 782	<20	0.1	<10	8	26	<0.01
	3YM 783	<20	<0.1	10	16	39	<0.01
	3YM 784	<20	<0.1	<10	3	45	0.01
	3YM 785	<20	<0.1	<10	3	36	<0.01
	3YM 786	<20	0.1	<10	27	112	0.01

Table 4 Results of Whole Rock Analysis and Normative Composistion

Sample No	3FR433	3MR705	3SR550	3TR402	3TR801	3VR419
SiO2	74.320	61.840	64.650	70.300	69.340	63.870
TiO2	0.240	0.850	0.600	0.480	0.430	0.430
Al2O3	13.700	17.320	16.140	14.510	16.030	14.800
Fe2O3	1.580	2.700	2.570	2.010	1.520	2.210
FeO	0.290	2.930	1.940	0.580	0.610	0.460
MnO	0.050	0.110	0.080	0.090	0.020	0.100
MgO	0.200	1.480	2.020	0.590	1.550	1.120
CaO	0.280	5.130	4.100	1.160	3.750	5.740
Na2O	4.350	4.340	4.110	5.090	4.640	3.520
K2O	4.190	1.410	2.250	3.560	1.190	1.850
P2O5	0.080	0.240	0.160	0.190	0.160	0.170
BaO	0.080	0.040	0.050	0.080	0.020	0.030
LOI	1.050	0.580	0.660	0.910	1.100	6.260
TOTAL	100.400	98.950	99.340	99.550	100.350	100.550
Q	32.464	19.241	21.189	24.541	28.228	24.622
C	1.927	0.829	0.524	1.112	1.196	0.000
or	24.763	8.333	13.298	21.040	7.033	10.934
ab	36.787	36.703	34.757	43.045	39.240	29.768
an	0.232	21.361	17.523	3.206	16.144	19.126
di-wo	0.000	0.000	0.000	0.000	0.000	2.980
di-en	0.000	0.000	0.000	0.000	0.000	2.576
hy-en	0.498	3.684	5.029	1.469	3.859	0.213
hm	1.869	5.628	4.508	2.589	2.129	2.669
il	0.107	0.235	0.171	0.193	0.043	0.214
tn	0.451	1.782	1.252	0.929	1.000	0.779
ap	0.189	0.568	0.379	0.450	0.379	0.402
TOTAL	99.290	98.350	98.630	98.570	99.240	94.260

Table 5 Assay Results on Panned Concentrate Geochemical Samples (1)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3FP401	<20	0.2	115	22	184	<5	3MP420	60	0.2	11	25	138	<5
3FP402	<20	0.2	7	20	190	<5	3MP421	<20	4.0	35	44	207	<5
3FP403	<20	0.1	2	6	135	<5	3MP422	<20	0.4	10	19	154	<5
3FP404	<20	0.2	10	23	280	<5	3MP423	60	3.7	85	203	272	<5
3FP405	<20	0.2	8	10	252	<5	3MP424	<20	0.1	5	18	169	<5
3FP406	<20	0.2	5	17	136	<5	3MP425	1100	1.7	16	25	148	<5
3FP407	<20	0.2	5	16	104	<5	3MP426	<20	0.3	10	39	182	<5
3FP408	<20	0.3	6	22	176	<5	3MP427	<20	0.3	19	31	118	<5
3FP409	<20	0.3	11	20	295	<5	3SP401	<20	0.2	6	11	157	<5
3FP410	<20	0.2	8	29	146	<5	3SP402	<20	0.2	7	13	121	<5
3FP411	<20	0.2	10	16	218	11	3SP403	<20	0.3	22	13	53	<5
3FP412	<20	0.0	4	10	109	<5	3SP404	<20	0.7	32	19	82	<5
3FP413	<20	0.2	12	36	155	<5	3SP405	<20	0.6	24	19	72	<5
3FP414	40	0.1	33	52	66	30	3SP406	4400	1.0	11	17	141	<5
3FP415	40	0.1	18	34	48	12	3SP407	<20	0.2	5	16	150	<5
3FP416	<20	0.1	14	41	143	14	3SP408	<20	0.2	8	15	218	<5
3FP417	<20	0.2	7	21	170	<5	3SP409	<20	2.2	9	18	185	<5
3FP418	<20	0.1	4	14	100	<5	3SP410	<20	0.2	12	20	165	<5
3FP419	60	0.2	4	12	125	<5	3SP411	<20	0.3	21	16	67	<5
3FP420	40	0.7	73	45	154	56	3SP412	<20	0.4	17	25	137	<5
3FP421	<20	0.3	42	89	148	11	3SP413	<20	0.3	11	15	220	<5
3FP422	<20	0.3	13	40	206	18	3SP414	<20	1.3	45	28	169	<5
3FP423	<20	0.1	5	12	128	<5	3SP415	<20	0.1	3	10	122	<5
3FP424	<20	0.4	18	28	155	<5	3SP416	<20	0.3	11	23	164	<5
3MP401	40	0.3	10	14	160	<5	3FP501	660	0.3	9	39	196	<5
3MP402	<20	1.3	98	45	187	<5	3FP502	150	0.5	7	41	453	<5
3MP403	<20	0.9	146	36	204	<5	3FP503	100	0.3	6	51	371	<5
3MP404	<20	0.5	20	25	146	<5	3FP504	700	0.4	6	47	345	<5
3MP405	<20	0.4	15	16	122	<5	3FP505	<20	0.1	2	4	141	<5
3MP406	<20	0.2	12	11	191	<5	3FP506	<20	0.3	3	13	245	<5
3MP407	<20	0.1	7	14	94	<5	3FP507	<10	0.1	4	9	184	<5
3MP408	<20	6.6	72	38	167	<5	3FP508	<20	0.1	2	4	152	<5
3MP409	<20	0.2	6	36	168	<5	3FP509	<20	0.1	2	6	136	<5
3MP410	<20	0.6	30	14	157	<5	3FP510	<10	0.1	3	6	96	<5
3MP411	<20	0.7	15	25	174	<5	3FP511	<10	0.1	2	6	110	<5
3MP412	<20	0.2	7	13	97	<5	3FP512	<20	0.1	0	1	46	<5
3MP413	<20	0.6	8	10	147	<5	3FP513	<10	0.1	4	9	151	<5
3MP414	<20	0.2	8	18	131	<5	3FP514	<20	0.2	4	16	206	<5
3MP415	<20	0.1	7	15	104	<5	3FP515	<20	0.2	4	14	296	<5
3MP416	<20	0.1	4	34	102	<5	3FP516	<20	0.3	6	15	360	<5
3MP417	<20	0.3	25	15	119	<5	3FP517	<20	0.2	4	12	244	<5
3MP418	<20	0.3	54	13	161	<5	3FP518	<20	0.3	6	14	369	<5
3MP419	<20	0.2	13	8	126	<5	3FP519	<10	0.2	5	16	265	<5

3FP401～3SP416 Alto Cisnes-El Toqui Area (Cerro Aguja Alteration zone)

3FP501～3FP519 Ibañez-Murta Area (South)

Table 5 Assay Results on Panned Concentrate Geochemical Samples (2)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3FP520	<20	0.1	3	10	248	<5	3SP512	<30	0.8	8	180	934	<5
3FP521	<20	0.1	2	5	159	<5	3SP513	<20	0.7	10	91	388	<5
3FP522	<20	0.2	3	13	216	<5	3SP514	<20	0.2	6	37	285	<5
3FP523	<20	0.1	3	7	182	<5	3SP515	<20	0.1	4	26	205	<5
3FP524	<20	0.1	3	6	211	<5	3SP516	<20	0.2	4	18	231	<5
3FP525	<20	0.1	4	9	228	<5	3SP517	<20	0.4	27	71	283	<5
3FP526	<20	0.2	7	16	308	<5	3SP518	<20	0.4	21	59	255	<5
3FP527	<10	0.1	4	10	210	<5	3SP519	<20	0.3	77	48	190	<5
3FP528	<20	0.2	5	10	365	<5	3SP520	<10	0.4	7	25	282	<5
3FP529	<20	0.2	6	15	291	<5	3SP521	<20	0.3	7	14	386	<5
3FP530	<10	0.2	5	11	272	<5	3SP522	<20	0.5	12	61	318	<5
3FP531	<10	0.2	14	12	273	<5	3SP523	<10	0.2	5	20	356	<5
3FP532	20	0.3	77	39	250	<5	3SP524	<20	0.2	5	11	304	<5
3FP533	<20	0.3	48	22	273	<5	3SP525	<20	0.2	4	13	310	<5
3FP534	<20	0.1	4	7	165	<5	3SP526	<20	0.1	3	8	222	<5
3FP535	<20	0.3	2	13	253	<5	3SP527	<20	0.2	5	42	282	<5
3FP536	<20	0.3	13	13	292	<5	3SP528	<20	0.2	3	6	114	<5
3FP537	<20	0.2	11	8	202	<5	3SP529	<20	0.2	4	12	277	<5
3FP538	<20	0.2	18	11	200	<5	3SP530	<20	0.2	4	14	235	<5
3FP539	<20	0.2	12	9	267	<5	3SP531	<20	0.2	5	17	380	<5
3FP540	20	0.3	18	11	288	<5	3SP532	<20	0.1	2	12	213	<5
3FP541	<10	0.3	7	11	274	<5	3SP533	<20	0.4	7	14	397	<5
3FP542	<20	0.3	36	13	224	<5	3TP501	670	2.0	10	99	1053	20
3FP543	<20	0.2	9	12	282	<5	3TP502	<20	0.2	7	22	158	<5
3FP544	<20	0.1	13	10	156	<5	3TP503	<20	0.7	12	21	195	<5
3FP545	<20	1.0	25	38	251	<5	3TP504	<10	0.1	3	18	139	<5
3FP546	<10	0.1	5	8	145	<5	3TP505	120	0.2	5	16	219	<5
3FP547	<20	0.2	8	9	178	<5	3TP506	<20	0.1	3	14	266	<5
3FP548	740	0.6	6	25	317	<5	3TP507	<20	0.3	17	124	321	<5
3FP549	<20	0.1	4	13	258	<5	3TP508	<20	0.7	7	70	211	<5
3FP550	<20	0.2	14	45	321	<5	3TP509	<20	0.2	12	11	130	<5
3FP551	<20	0.2	8	11	187	<5	3TP510	<20	0.6	18	156	322	<5
3SP501	<10	0.3	7	36	311	<5	3TP511	<10	0.2	5	14	273	<5
3SP502	<20	0.1	4	12	364	<5	3TP512	870	0.8	12	63	436	<5
3SP503	<20	0.2	4	14	299	<5	3TP513	<20	0.2	7	16	325	<5
3SP504	390	0.3	7	25	289	<5	3TP514	<20	0.2	11	64	702	<5
3SP505	<20	0.2	13	13	333	<5	3TP515	<20	0.2	5	15	329	<5
3SP506	<20	0.2	7	35	291	<5	3TP516	<20	0.2	5	18	314	<5
3SP507	5600	2.2	7	27	267	<5	3TP517	<20	0.2	4	13	231	<5
3SP508	<20	0.2	7	20	195	<5	3TP518	<20	0.1	5	13	305	<5
3SP509	<20	0.2	4	14	345	<5	3TP519	<10	0.2	5	16	292	<5
3SP510	<10	0.2	8	35	175	<5	3TP520	<30	0.3	5	18	327	<5
3SP511	<20	0.2	4	138	244	<5	3TP521	<20	6.2	15	90	303	<5

3FP520～3TP521 Ibañez-Murta Area (South)

Table 5 Assay Results on Panned Concentrate Geochemical Samples (3)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3TP522	<20	3.6	33	104	657	<5	3VP536	<20	0.2	4	10	204	<5
3TP523	<20	5.9	8	26	312	<5	3VP537	<10	0.1	7	11	239	<5
3TP524	1200	0.6	63	36	200	<5	3VP538	<20	0.1	7	6	165	<5
3TP525	1200	0.5	36	92	208	<5	3VP539	<20	0.1	7	10	229	<5
3TP526	2800	1.7	8	44	405	<5	3VP540	<20	0.2	7	24	227	<5
3TP527	<20	0.3	12	359	699	<5	3VP541	<10	1.1	9	18	279	<5
3TP528	230	1.4	38	1202	592	<5	3VP542	<20	0.3	15	33	407	<5
3TP529	<20	0.2	4	15	251	<5	3VP543	20	0.9	67	56	324	61
3VP501	<20	0.3	6	22	419	<5	3VP544	20	0.2	8	8	231	<5
3VP502	110	0.3	6	16	367	<5	3VP545	<10	0.2	10	13	219	<5
3VP503	75	0.3	18	101	343	<5	3FP801	<20	0.4	12	35	2788	<5
3VP504	560	0.6	8	13	343	<5	3FP802	<20	0.2	7	36	2426	<5
3VP505	2700	2.4	32	60	446	<5	3FP803	<20	0.3	15	279	1551	184
3VP506	<20	0.4	15	64	291	<5	3FP804	<20	0.2	9	140	1056	131
3VP507	<20	0.3	5	14	367	<5	3FP805	<20	0.3	0	71	1571	71
3VP508	<20	0.2	5	17	391	<5	3FP806	<20	0.2	0	73	2098	<5
3VP509	<20	0.3	5	14	391	<5	3FP807	<20	0.3	16	191	1960	198
3VP510	<20	0.3	25	61	344	<5	3FP808	<20	0.2	7	43	2115	<5
3VP511	<20	0.4	16	37	264	<5	3MP801	<20	0.3	10	182	3387	<5
3VP512	<20	0.1	7	9	150	<5	3MP802	<20	0.2	9	185	2463	<5
3VP513	1800	1.0	39	68	507	<5	3MP803	<20	0.4	7	100	2229	<5
3VP514	4300	6.8	186	111	223	88	3MP804	60	0.6	37	430	3355	738
3VP515	<20	0.3	9	18	265	<5	3MP805	<20	0.4	26	239	2381	154
3VP516	1500	34.1	48	29	152	<5	3PP800	<20	0.3	7	51	2326	<5
3VP517	200	1.2	7	18	208	<5	3PP801	100	6.0	15	286	1553	37
3VP518	1100	3.3	18	51	288	<5	3PP802	340	0.3	7	88	250	98
3VP519	<20	0.3	12	28	324	<5	3PP803	60	0.8	151	87	2184	<5
3VP520	40	0.3	5	11	184	<5	3PP804	<20	0.6	40	430	2360	80
3VP521	<20	0.3	5	11	425	<5	3PP805	<20	0.3	9	395	2658	<5
3VP522	800	0.3	6	14	350	<5	3PP806	<20	0.5	10	159	2958	<5
3VP523	50	0.2	8	8	193	<5	3PP807	<20	3.6	10	194	3541	<5
3VP524	50	0.2	6	10	241	<5	3SP801	360	0.3	12	173	2315	<5
3VP525	<10	0.1	6	10	279	<5	3SP802	<20	0.2	12	162	1856	<5
3VP526	<20	0.2	5	10	261	<5	3SP803	<20	0.9	29	371	1875	586
3VP527	<20	0.1	4	20	236	<5	3TP801	<20	0.8	195	58	2368	<5
3VP528	50	0.2	8	43	242	<5	3TP802	<20	0.5	51	61	2398	<5
3VP529	70	0.7	7	14	223	<5	3VP801	160	0.8	10	24	398	6
3VP530	980	0.2	7	38	252	<5	3VP802	2900	1.9	14	32	175	<5
3VP531	<20	0.3	30	33	210	<5	3VP803	1500	1.0	10	36	431	<5
3VP532	20	0.2	19	15	190	<5	3VP804	<20	0.2	3	13	305	<5
3VP533	180	0.2	10	19	267	<5	3VP805	<20	0.2	6	25	429	<5
3VP534	30	0.1	14	12	205	<5	3VP806	<20	0.3	5	13	331	<5
3VP535	30	0.1	5	16	176	<5	3VP807	<20	0.2	6	16	309	<5

3TP522～3VP545 Ibañez-Murta Area (South)

3FP801～3VP807 Ibañez-Murta Area (North)

Table 5 Assay Results on Panned Concentrate Geochemical Samples (4)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3VP808	<20	0.2	6	13	330	<5
3VP809	<20	0.2	6	18	312	<5
3VP810	<20	0.3	9	18	345	<5
3VP811	40	0.4	12	28	324	<5
3VP812	<20	0.2	8	16	272	<5
3VP813	<20	0.2	6	15	226	<5
3VP814	<20	0.7	12	31	212	<5
3VP801	<20	0.4	141	235	2336	<5
3VP802	<20	0.2	8	38	1943	<5
3VP803	<20	0.2	25	82	1369	<5
3VP804	<20	0.2	20	137	967	98
3VP805	<20	0.3	30	111	1323	71

3VP808~3VP805 Ibañez-Murta Area (North)

Table 6 Assay Results on Stream Sediment Geochemical Samples (1)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3FS401	< 1	<0.05	9.5	15.0	92	11.5	3SS415	< 1	<0.05	5.5	5.0	78	0.5
3FS402	< 1	<0.10	5.0	4.0	70	2.0	3SS416	< 1	<0.05	4.5	4.0	72	0.5
3FS403	< 1	<0.05	6.0	6.0	65	2.5	3SS417	< 1	<0.05	4.5	6.0	58	1.0
3FS404	< 1	<0.05	5.5	6.0	82	1.5	3SS418	< 1	<0.05	6.0	11.0	86	2.5
3FS405	1	<0.05	4.5	7.0	60	0.5	3SS419	< 1	<0.05	4.0	6.0	62	3.0
3FS406	5	0.40	8.0	19.0	88	9.5	3SS420	< 1	<0.05	4.5	15.0	77	< 0.5
3FS407	< 1	<0.05	5.5	19.0	72	5.0	3SS421	< 1	<0.05	4.0	11.0	102	1.0
3FS408	< 1	<0.05	7.0	12.0	86	4.5	3SS422	< 1	0.05	4.5	11.0	103	0.5
3FS409	< 1	0.05	5.0	18.0	70	3.5	3SS423	< 1	<0.05	4.0	11.0	111	< 0.5
3FS410	< 1	<0.05	3.0	8.0	44	1.5	3SS424	< 1	<0.05	6.0	11.0	87	2.0
3FS411	< 1	0.05	8.5	32.0	106	6.0	3SS425	< 1	<0.05	3.5	9.0	71	1.5
3FS412	< 1	0.05	7.0	15.0	132	2.5	3SS426	< 1	<0.05	7.5	6.0	65	1.5
3FS413	< 1	<0.05	5.5	5.0	68	1.0	3SS427	< 1	<0.05	3.5	5.0	52	1.0
3FS414	< 1	0.05	5.0	7.0	74	2.0	3SS428	< 1	<0.05	6.5	7.0	70	4.0
3FS415	< 1	<0.05	7.0	6.0	88	1.0	3SS429	< 1	<0.05	4.5	4.0	62	< 0.5
3PS400	< 1	<0.05	6.0	7.0	87	< 0.5	3SS430	< 1	<0.05	21.5	10.0	101	2.5
3PS401	< 1	<0.05	12.0	15.0	67	4.5	3SS431	< 1	<0.05	5.5	4.0	67	1.0
3PS402	< 1	0.05	16.5	10.0	74	3.0	3SS432	< 1	<0.05	5.0	4.0	74	1.0
3PS403	< 1	0.10	12.5	11.0	91	3.5	3SS433	< 1	0.05	5.5	4.0	59	0.5
3PS404	< 1	0.05	19.5	14.0	114	10.5	3SS434	< 1	<0.05	9.0	24.0	103	1.5
3PS405	< 1	0.05	15.0	19.0	78	28.0	3SS435	< 1	<0.05	4.5	4.0	56	1.0
3PS406	< 1	0.05	17.5	19.0	97	43.5	3SS436	< 1	<0.05	2.5	4.0	55	0.5
3PS407	< 1	<0.05	15.0	18.0	53	35.5	3SS437	< 1	<0.05	2.5	4.0	42	0.5
3PS408	< 1	<0.05	9.5	8.0	70	3.5	3TS401	< 1	<0.05	5.0	5.0	42	1.0
3PS409	< 1	0.05	10.5	8.0	65	2.5	3TS402	< 1	<0.05	6.0	5.0	45	0.5
3PS410	< 1	<0.05	9.5	8.0	88	1.0	3TS403	< 1	0.05	6.0	15.0	92	1.0
3PS411	< 1	<0.05	2.0	4.0	37	< 0.5	3TS404	< 1	0.05	6.5	10.0	70	1.0
3PS412	< 1	<0.05	4.0	7.0	55	1.0	3TS405	< 1	0.05	5.0	24.0	95	1.0
3PS413	< 1	<0.05	8.0	5.0	65	0.5	3TS406	< 1	0.05	5.5	22.0	106	1.0
3SS401	< 1	<0.05	4.5	6.0	65	1.0	3TS407	< 1	<0.05	6.0	23.0	93	3.5
3SS402	< 1	<0.05	4.5	5.0	74	< 0.5	3TS408	< 1	<0.05	6.5	12.0	70	4.5
3SS403	< 1	<0.05	6.0	5.0	57	< 0.5	3TS409	< 1	0.10	9.5	29.0	160	4.5
3SS404	< 1	<0.05	4.5	4.0	48	< 0.5	3TS410	< 1	<0.05	7.5	17.0	72	6.5
3SS405	< 1	<0.05	5.0	4.0	54	< 0.5	3TS411	< 1	<0.05	11.0	16.0	77	12.5
3SS406	< 1	<0.05	5.5	7.0	70	0.5	3TS412	< 1	<0.05	22.0	14.0	123	18.0
3SS407	3	<0.05	5.0	7.0	61	< 0.5	3TS413	< 1	<0.05	7.0	6.0	67	7.5
3SS408	< 1	<0.05	7.0	9.0	83	0.5	3TS414	< 1	<0.05	8.0	8.0	65	5.5
3SS409	< 1	<0.05	4.5	8.0	60	1.0	3TS415	< 1	<0.05	17.5	12.0	75	7.5
3SS410	< 1	<0.05	4.0	4.0	61	< 0.5	3TS416	< 1	<0.05	3.5	7.0	65	2.5
3SS411	< 1	<0.05	6.0	16.0	140	0.5	3TS417	< 1	<0.05	5.0	6.0	52	1.0
3SS412	< 1	<0.05	4.0	4.0	55	1.0	3TS418	< 1	<0.05	4.5	5.0	45	1.5
3SS413	< 1	<0.05	5.0	5.0	74	0.5	3TS419	< 1	<0.05	8.0	8.0	57	4.0
3SS414	< 1	<0.05	3.5	3.0	57	< 0.5	3TS420	< 1	<0.05	6.0	6.0	53	3.5

3FS401～3TS420 Alto Cisnes-El Toqui Area

Table 6 Assay Results on Stream Sediment Geochemical Samples (2)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3TS421	< 1	0.05	7.5	15.0	74	6.0	3YS401	< 1	<0.05	6.5	11.0	80	2.0
3TS422	< 1	<0.05	8.5	16.0	74	7.0	3YS402	< 1	<0.05	4.5	7.0	63	4.0
3TS423	< 1	0.10	5.0	7.0	61	6.5	3YS403	< 1	<0.05	6.5	9.0	65	4.0
3TS424	< 1	0.05	8.0	22.0	95	17.0	3YS404	< 1	0.05	5.5	22.0	76	6.0
3TS425	< 1	0.10	4.0	5.0	49	6.0	3YS405	< 1	<0.05	3.5	4.0	57	0.5
3TS426	< 1	0.05	7.0	6.0	48	7.5	3YS406	< 1	<0.05	3.5	4.0	52	< 0.5
3TS427	< 1	0.20	5.0	7.0	73	10.5	3YS407	< 1	<0.05	4.5	9.0	40	1.0
3TS428	< 1	<0.05	7.5	25.0	85	3.0	3YS408	< 1	<0.10	3.0	4.0	72	6.0
3TS429	< 1	<0.05	3.0	8.0	64	1.0	3YS409	< 1	0.05	6.0	6.0	86	3.0
3TS430	< 1	<0.05	2.5	3.0	53	0.5	3YS410	< 1	0.10	6.0	7.0	88	3.5
3TS431	< 1	<0.05	5.0	4.0	61	1.5	3YS411	< 1	<0.20	4.0	4.0	88	< 0.2
3TS432	< 1	<0.05	7.0	7.0	68	1.5	3YS412	< 1	<0.05	2.0	6.0	39	< 0.5
3TS433	< 1	<0.05	5.0	4.0	37	1.5	3YS413	4	<0.05	3.0	6.0	47	1.0
3TS434	< 1	<0.05	3.5	3.0	35	0.5	3YS414	1	<0.05	2.5	6.0	52	1.5
3VS401	60	<0.05	2.5	2.0	38	1.5	3YS415	6	0.20	24.01	52.0	376	4.0
3VS402	< 1	<0.05	2.5	3.0	31	4.0	3YS416	3	<0.05	1.5	7.0	20	< 0.5
3VS403	< 1	<0.05	2.5	2.0	33	0.5	3YS417	2	<0.05	8.0	24.0	84	2.0
3VS404	< 1	<0.05	4.0	2.0	37	0.5	3YS418	8	<0.05	4.5	10.0	73	0.5
3VS405	< 1	<0.05	2.5	2.0	27	1.0	3YS419	< 1	<0.05	3.5	5.0	50	< 0.5
3VS406	< 1	<0.05	3.5	3.0	35	1.0	3YS420	< 1	<0.05	2.5	4.0	59	1.0
3VS407	< 1	<0.05	3.5	3.0	47	1.5	3YS421	2	<0.05	2.5	5.0	57	0.5
3VS408	< 1	<0.05	2.5	2.0	37	1.0	3MS701	< 1	<0.05	6.5	54.0	261	8.5
3VS409	< 1	<0.05	2.0	2.0	38	< 0.5	3MS702	< 1	<0.05	5.5	14.0	112	9.5
3VS410	< 1	<0.05	2.0	2.0	30	0.5	3MS703	< 1	0.05	6.5	87.0	176	8.0
3VS411	< 1	<0.05	2.0	2.0	38	< 0.5	3MS704	< 1	<0.05	5.0	4.0	91	4.0
3VS412	< 1	<0.05	3.5	2.0	32	1.0	3MS705	< 1	<0.05	3.5	3.0	71	2.5
3VS413	< 1	<0.05	3.5	2.0	37	0.5	3MS706	< 1	<0.05	1.5	< 1.0	45	10.5
3VS414	< 1	<0.05	4.0	5.0	37	2.0	3MS707	< 1	<0.05	4.5	3.0	116	30.5
3VS415	< 1	<0.05	4.5	2.0	40	0.5	3MS708	< 1	<0.05	4.5	8.0	116	8.0
3VS416	< 1	<0.05	5.5	3.0	39	1.5	3MS709	< 1	<0.05	8.5	5.0	99	105.0
3VS417	< 1	<0.05	4.5	2.0	56	1.0	3MS710	< 1	<0.05	4.8	4.0	61	22.6
3VS418	< 1	<0.05	5.5	3.0	46	1.0	3MS711	< 1	0.05	56.5	27.0	222	6.0
3VS419	< 1	<0.05	5.0	7.0	74	1.5	3MS712	< 1	0.15	34.0	18.0	136	5.0
3VS420	< 1	0.05	8.0	4.0	65	3.5	3MS713	< 1	<0.05	10.0	9.0	86	8.5
3VS421	< 1	<0.05	6.0	3.0	64	2.5	3MS714	< 1	0.05	10.5	10.0	71	7.0
3VS422	< 1	<0.05	6.0	4.0	66	3.0	3MS715	< 1	<0.05	6.0	7.0	83	8.0
3VS423	< 1	<0.05	4.5	3.0	29	21.0	3MS716	< 1	<0.05	4.0	1.0	40	1.0
3VS424	< 1	<0.05	4.5	4.0	64	1.0	3MS717	< 1	<0.05	8.0	7.0	98	4.5
3VS425	< 1	<0.05	4.0	1.0	26	1.0	3MS718	< 1	<0.05	3.0	3.0	60	7.0
3VS426	< 1	<0.05	2.5	2.0	43	0.5	3MS719	< 1	<0.05	9.0	12.0	69	5.5
3VS427	< 1	<0.05	4.0	3.0	55	2.0	3MS720	< 1	<0.05	10.0	10.0	103	4.0
3VS428	1	<0.05	5.5	2.0	35	< 0.5	3MS721	< 1	0.05	13.5	9.0	83	6.5
3VS429	< 1	<0.05	3.0	2.0	35	1.5	3MS722	< 1	<0.05	6.5	6.0	78	10.5

3TS421～3YS421 Alto Cisnes-El Toqui Area
3MS701～3MS722 Chile Chico-Chacabuco Area

Table 6 Assay Results on Stream Sediment Geochemical Samples (3)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3MS723	< 1	<0.05	5.5	7.0	48	15.0	3MS766	< 1	<0.05	4.0	16.0	224	6.0
3MS724	< 1	<0.05	14.5	7.0	114	18.0	3MS767	< 1	<0.05	6.0	22.0	284	13.0
3MS725	< 1	<0.05	9.5	7.0	89	8.0	3MS768	< 1	<0.05	5.0	9.0	105	11.5
3MS726	< 1	<0.05	1.5	6.0	37	3.5	3MS769	< 1	<0.05	6.0	6.0	62	2.0
3MS727	< 1	<0.05	4.0	5.0	56	3.5	3MS770	< 1	<0.05	18.5	18.0	159	16.0
3MS728	1	0.05	54.5	27.0	169	30.0	3PS701	< 1	0.15	32.0	17.0	109	18.0
3MS729	< 1	<0.05	21.5	13.0	137	24.5	3PS702	3	<0.05	23.5	10.0	102	14.0
3MS730	< 1	<0.05	22.5	13.0	115	15.0	3PS703	1	0.05	42.5	7.0	96	13.0
3MS731	< 1	<0.05	5.5	9.0	117	10.5	3PS704	1	<0.05	14.0	9.0	98	5.0
3MS732	< 1	<0.05	9.0	24.0	252	13.5	3PS705	1	<0.05	21.5	12.0	116	6.5
3MS733	1	0.05	28.0	19.0	201	49.0	3PS706	< 1	<0.05	10.5	9.0	117	3.5
3MS734	< 1	<0.05	5.0	10.0	73	48.0	3PS707	< 1	<0.05	9.5	8.0	93	4.5
3MS735	< 1	<0.05	7.5	5.0	64	4.0	3PS708	< 1	<0.05	5.5	8.0	56	6.0
3MS736	< 1	<0.05	10.5	6.0	70	4.5	3PS709	< 1	<0.05	14.0	10.0	104	9.0
3MS737	< 1	0.05	16.5	7.0	85	7.0	3PS710	< 1	<0.05	15.0	12.0	105	10.5
3MS738	< 1	<0.05	17.5	8.0	72	22.5	3PS711	< 1	<0.05	13.0	11.0	105	12.5
3MS739	< 1	<0.05	24.0	7.0	105	6.5	3PS712	< 1	<0.05	7.0	17.0	272	3.0
3MS740	< 1	<0.05	18.5	8.0	114	8.5	3PS713	< 1	<0.05	7.0	32.0	431	8.0
3MS741	< 1	<0.05	3.0	4.0	29	5.0	3PS714	< 1	<0.05	22.0	10.0	136	8.0
3MS742	< 1	<0.05	12.5	8.0	77	12.0	3YS701	2	<0.05	13.5	9.0	119	23.5
3MS743	< 1	0.05	8.0	16.0	66	19.5	3YS702	< 1	<0.05	8.0	9.0	116	17.5
3MS744	< 1	0.05	13.0	20.0	78	30.0	3YS703	6	<0.05	5.0	6.0	113	20.5
3MS745	2	0.10	12.5	29.0	68	23.0	3YS704	2	<0.05	2.5	4.0	92	37.5
3MS746	< 1	<0.05	3.5	3.0	51	13.0	3YS705	4	<0.05	3.5	4.0	69	12.5
3MS747	< 1	0.10	9.5	23.0	76	32.0	3YS706	2	<0.05	6.5	14.0	143	5.5
3MS748	< 1	0.05	4.5	15.0	64	15.0	3YS707	< 1	<0.05	9.0	11.0	171	13.5
3MS749	< 1	0.05	4.5	14.0	35	24.5	3YS708	1	<0.05	14.0	20.0	162	8.0
3MS750	< 1	0.05	6.0	27.0	77	21.5	3YS709	< 1	0.25	36.5	13.0	190	18.0
3MS751	< 1	<0.05	2.0	10.0	70	8.0	3YS710	< 1	<0.05	10.0	10.0	390	9.5
3MS752	< 1	<0.05	19.5	15.0	123	15.0	3YS711	< 1	<0.05	14.0	10.0	75	15.5
3MS753	< 1	<0.05	10.0	7.0	129	4.5	3YS712	< 1	0.05	16.0	27.0	107	28.5
3MS754	< 1	<0.05	16.5	9.0	108	9.0	3YS713	< 1	<0.05	5.0	7.0	75	4.0
3MS755	< 1	<0.05	13.5	11.0	126	8.0	3YS714	< 1	<0.05	22.5	14.0	140	27.0
3MS756	< 1	<0.05	11.5	8.0	75	7.5	3YS715	< 1	<0.05	16.0	12.0	101	9.5
3MS757	< 1	<0.05	4.5	7.0	50	3.0	3YS716	< 1	<0.05	18.0	18.0	146	21.5
3MS758	< 1	<0.05	6.5	9.0	54	4.0	3YS717	< 1	<0.05	7.5	11.0	94	9.5
3MS759	< 1	<0.05	3.5	9.0	54	3.5	3YS718	< 1	<0.05	9.5	17.0	133	17.0
3MS760	< 1	<0.05	4.5	7.0	60	1.5	3YS719	< 1	<0.05	6.5	10.0	113	7.0
3MS761	< 1	<0.05	9.0	7.0	63	1.5	3YS720	< 1	<0.05	13.0	10.0	92	5.0
3MS762	< 1	<0.05	7.5	9.0	92	13.0	3YS721	< 1	<0.05	19.5	14.0	137	12.0
3MS763	< 1	<0.05	9.5	9.0	86	7.0	3YS722	< 1	<0.05	5.0	13.0	90	5.0
3MS764	< 1	<0.05	6.0	7.0	72	13.0	3YS723	< 1	<0.05	5.6	10.0	120	3.8
3MS765	< 1	0.05	9.0	10.0	85	16.5	3YS724	< 1	<0.05	7.0	9.5	126	12.6

3MS723～3YS724 Chile Chico-Chacabuco Area

Table 6 Assay Results on Stream Sediment Geochemical Samples (4)

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm
3YS725	< 1	0.05	4.4	11.0	114	5.0
3YS726	< 1	0.05	4.8	22.0	112	5.0
3YS727	< 1	<0.05	13.4	13.5	133	28.0
3YS728	5	<0.05	3.6	9.5	82	28.2
3YS729	1	0.10	13.4	8.0	351	67.6
3YS730	< 1	<0.05	6.6	6.5	85	5.8
3YS731	< 1	<0.05	15.4	8.0	102	11.6
3YS732	< 1	<0.05	10.6	5.5	78	5.4
3YS733	< 1	<0.05	14.4	7.0	81	11.8
3YS734	< 1	<0.05	8.0	8.0	73	9.4
3YS735	8	<0.05	5.2	5.5	68	3.6
3YS736	< 1	<0.05	5.6	7.5	78	4.0
3YS737	1	<0.05	6.2	4.5	38	31.8
3YS738	< 1	<0.05	7.2	8.0	69	6.6
3YS739	< 1	<0.05	14.4	8.5	84	15.0
3YS740	9	0.25	21.6	82.0	287	140.0
3YS741	33	0.10	22.0	14.5	166	418.0
3YS742	3	0.05	14.6	25.0	135	48.8
3YS743	4	0.05	24.0	23.5	130	50.8
3YS744	2	0.05	21.2	25.0	119	57.0
3YS745	2	<0.05	12.0	7.5	76	6.8
3YS746	1	<0.05	15.8	7.5	74	7.8
3YS747	< 1	<0.05	11.8	5.5	75	6.0
3YS748	4	<0.05	8.6	6.0	69	7.6
3YS749	1	<0.05	16.2	9.5	70	32.4
3YS750	< 1	<0.05	8.0	4.5	56	6.8
3YS751	1	<0.05	9.2	6.0	80	8.2
3YS752	< 1	<0.05	4.8	6.5	56	10.0
3YS753	< 1	<0.05	7.2	6.5	46	12.0
3YS754	< 1	0.05	22.2	14.0	88	9.4
3YS755	< 1	<0.05	9.0	6.5	53	9.6
3YS756	< 1	<0.05	9.6	[illegible].0	69	10.4
3YS757	< 1	<0.05	4.2	5.0	38	7.4
3YS758	< 1	<0.05	1.8	3.5	27	1.8
3YS759	< 1	<0.05	3.2	4.0	28	2.4
3YS760	3	<0.05	3.0	4.0	26	1.8
3YS761	< 1	<0.05	12.8	8.0	89	21.6
3YS762	< 1	<0.05	5.8	7.5	138	19.8
3YS763	< 1	<0.05	7.6	6.0	85	25.0
3YS764	1	0.05	15.0	13.0	83	15.8
3YS765	< 1	<0.05	14.4	10.0	77	6.0
3YS766	< 1	0.15	5.2	45.0	126	25.0
3YS767	< 1	0.05	6.6	14.0	82	12.0
3YS768	< 1	<0.05	28.8	13.5	121	12.6
3YS769	< 1	0.05	22.0	20.0	101	22.2
3YS770	< 1	0.05	7.8	15.0	52	7.6
3YS771	2	0.05	18.0	13.5	94	17.6
3YS772	< 1	0.05	17.2	13.5	93	16.0
3YS773	< 1	<0.05	5.8	6.5	79	3.0
3YS774	< 1	0.10	11.8	11.0	80	15.4
3YS775	< 1	<0.05	5.6	8.0	79	3.6
3YS776	< 1	0.10	10.2	13.5	89	7.4
3YS777	< 1	<0.05	8.8	7.5	81	10.6
3YS778	< 1	0.05	9.0	7.5	62	6.2

3YS725～3YS778 Chile Chico－Chacabuco Area

Table 7 Second Principal Component Score

Alto Cisnes-El Toqui Area											
Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score
401	0.569	402	-0.085	403	0.536	404	0.407	405	-0.862	406	-4.727
407	0.518	408	0.631	409	-0.108	410	0.153	411	0.144	412	-0.031
413	0.365	414	-0.129	415	0.444	400	0.148	401	0.858	402	0.423
403	-0.223	404	0.648	405	0.684	406	0.810	407	1.277	408	0.762
409	0.222	410	0.554	411	-0.245	412	0.213	413	0.419	401	0.267
402	0.056	403	0.192	404	0.093	405	0.133	406	0.230	407	-2.532
408	0.307	409	0.250	410	0.031	411	0.175	412	0.254	413	0.211
414	-0.002	415	0.250	416	0.183	417	0.273	418	0.478	419	0.392
420	-0.027	421	0.152	422	-0.441	423	-0.071	424	0.443	425	0.189
426	0.551	427	0.183	428	0.630	429	0.081	430	1.027	431	0.382
432	0.337	433	-0.255	434	0.506	435	0.304	436	-0.057	437	-0.045
401	0.346	402	0.312	403	-0.226	404	-0.149	405	-0.341	406	-0.298
407	0.473	408	0.608	409	-0.398	410	0.701	411	0.970	412	1.315
413	0.774	414	0.763	415	1.112	416	0.292	417	0.323	418	0.362
419	0.718	420	0.598	421	0.163	422	0.770	423	-0.468	424	0.315
425	-0.542	426	0.256	427	-0.934	428	0.543	429	0.072	430	-0.034
431	0.410	432	0.508	433	0.432	434	0.129	401	-6.810	402	0.318
403	0.017	404	0.214	405	0.136	406	0.239	407	0.289	408	0.121
409	-0.195	410	-0.075	411	-0.195	412	0.273	413	0.157	414	0.365
415	0.261	416	0.492	417	0.355	418	0.421	419	0.359	420	0.209
421	0.588	422	0.594	423	0.836	424	0.298	425	0.391	426	0.005
427	0.385	428	-0.768	429	0.266	401	0.481	402	0.476	403	0.614
404	0.000	405	0.086	406	-0.019	407	0.259	408	-0.133	409	0.018
410	-0.504	411	-1.197	412	-0.277	413	-2.930	414	-0.924	415	-4.343
416	-2.999	417	-1.515	418	-3.935	419	-0.034	420	0.049	421	-2.101
Chile Chico-Chacabuco Area											
Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score	Sample No	Score
701	1.841	702	0.548	703	1.561	704	0.188	705	-0.041	706	-2.019
707	-0.637	708	0.337	709	-0.831	710	-0.834	711	2.082	712	1.103
713	0.416	714	0.196	715	0.135	716	-0.501	717	0.592	718	-0.642
719	0.524	720	0.905	721	0.380	722	-0.062	723	-0.552	724	0.328
725	0.342	726	-0.644	727	-0.089	728	0.426	729	0.732	730	0.824
731	0.349	732	1.387	733	-0.028	734	-0.611	735	0.166	736	0.374
737	0.327	738	0.023	739	0.862	740	0.779	741	-0.907	742	0.218
743	-0.173	744	0.029	745	-1.595	746	-0.964	747	-0.286	748	-0.309
749	-0.980	750	0.024	751	-0.209	752	0.885	753	0.867	754	0.728
755	0.906	756	0.366	757	0.077	758	0.245	759	0.091	760	0.496
761	0.767	762	0.191	763	0.479	764	-0.169	765	-0.081	766	1.190
767	1.315	768	0.201	769	0.433	770	1.104	701	0.366	702	-1.345
703	-0.299	704	0.066	705	0.348	706	1.024	707	0.669	708	-0.003
709	0.689	710	0.734	711	0.576	712	1.834	713	2.031	714	1.086
701	-1.226	702	0.258	703	-2.951	704	-2.524	705	-2.942	706	-0.549
707	0.773	708	0.577	709	0.534	710	1.512	711	0.227	712	0.478
713	0.287	714	0.754	715	0.769	716	0.911	717	0.423	718	0.699
719	0.594	720	0.819	721	1.026	722	0.591	723	0.840	724	0.432
725	0.425	726	0.738	727	0.510	728	-3.026	729	-0.600	730	0.286
731	0.507	732	0.343	733	0.253	734	0.130	735	-2.945	736	0.384
737	-1.960	738	0.200	739	0.263	740	-2.655	741	-5.405	742	-1.653
743	-1.878	744	-1.227	745	-1.154	746	-0.359	747	0.307	748	-2.257
749	-0.880	750	-0.174	751	-0.601	752	-0.350	753	-0.431	754	0.627
755	-0.160	756	0.109	757	-0.664	758	-0.765	759	-0.606	760	-2.575
761	0.088	762	0.146	763	-0.306	764	-0.574	765	0.649	766	0.134
767	0.063	768	1.033	769	0.520	770	0.008	771	-1.229	772	0.345
773	0.463	774	-0.187	775	0.464	776	0.232	777	0.160	778	-0.027

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 1 : Plutonic Rocks

Area	Sample No.	Rock name	Texture	Minerals														Observation
				Primary						Altered								
				Qz	Pl	Or	Bt	Am	Px	Lm	Cl	Se	Ka	Ep	Ca	Bt	Si	
Alto Cisnes-El Toqui	3FT439	Andesitic Porphyry	Porphyritic	◎	○	△					△			△	tr		△	
	3TT402	Granite	Hypidiomorphic	◎	○	◎	△				△	tr	○					
	3PT406	Monzonite	Hyppidiomorphic	△	○	○		Ps			△	△	△	?	tr			
	3PT407	Andesitic Porphyry	Porphyritic	△	○		Ps	Ps			○	△			tr			
	3PT409	Granite	Hypidiomorphic	○	tr	○	tr				tr		○	△			△	
	3PT416	Andesite Porphyry	Porphyritic		○				○	△	○		△		△		tr	
	3YT411	Granite	Hypidiomorphic	○	△	○	tr						○					
	3YT413	Adamelite Porphyry	Porphyritic	○	○	○	△	△			○	△	○	tr				
	3VT407	Monzonite Porphyry	Porphyritic	△	○	○					○		○	△				
	3VT421	Tonalite Porphyry	Porphyritic		○		tr	tr	○		tr							
	3VT428	Syenite	Holocrystalline	○	○	○	△	Ps		tr	△		○				tr	
	3VT461	Granite	Hypidiomorphic	○	○	○	△	tr			△		○	tr				
Co. Aguja Altera-tion Zone	3FT451	Rhyolitic Porphyry	Porphyritic	○	△	△	?			△		○	○		○		△	
	3FT470	Monzonite Porphyry	Holocrystalline	tr	○	○	Ps			△	△	○	○		○		△	
	3FT476	Granite	Hypidiomorphic	○	○	○	△			tr	△	tr	tr					
Ibañez-Murta (South)	3FT532	Syenite Porphyry	Porphyritic	△	○	○				△		○	○		tr			
	3FT561	Monzodiorite	Hypidiomorphic	△	○	○	△	△			○	○	○	tr				
	3FT562	Quartz Monzonite	Hypidiomorphic	○	○	○		tr			○	△	◎	△	○			

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace, Ps;relicts

Abbreviation: Qz;quartz, Pl;plagiocase, Or;orthoclase, Bt;biotite, Am;amphibole, Px;pyroxene, Lm;limonite, Cl;chlorite, Se;sericite, Ka;kaolinite, Ep;epidote, Ca;calcite, Si;silica

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 2 : Plutonic Rocks

Area	Sample No.	Rock name	Texture	Minerals														Observation
				Primary						Altered								
				Qz	Pl	Or	Bt	Am	Px	Lm	Cl	Se	Ka	Ep	Ca	Bt	Si	
Ibañez-Murta Area (South)	3FT583	Granodiorite	Hypidiomorphic	△	◎	△	△			△	○	△	△	○	○			
	3ST502	Syenite Porphyry		○	○			?		○	△	△		○		△		
	3ST550	Tonalite	Hypidiomorphic	○	◎	-	△	○	-	-	tr	△	△	-	tr			
	3TT509	Tonalite Porphyry		tr	○			△	△		○	tr	△	tr			△	
	3VT510	Dacite Porphyry	Holocrystalline	△	◎	△	△	△			○		△		△		△	
	3VT514a	Andesite Porphyry	Holocrystalline		◎		○	△	tr		○		○		○			
	3VT515b	Porphritic diorite		◎	tr					△					△		△	
	3VT547	Andesite Porphyry	Porphyritic	△	○	tr			△		○		○		○		△	
	3VT580	Granite Porphyry	Porphyritic	○	△	○						○	△		○			
Chile Chico-Chacabuco Area	3MT705	Tonalite	Hypidiomorphic	○	◎	-	○	○	-	-	tr	tr	tr	-	-			
	3MT707	Porphyritic Qz-Diorite	Holocrystalline	△	○						○		△		○			
	3MT714	Phyolite Porplyry			○	△	○				△		△		○		tr	
	3MT719	Granite	Hypidiomorphic	○	△	○	△	△			△	△	△	tr				
	3MT725	Rhyodacite Porphyry	Porphyritic	○	○	○	△			△	○		△		○			
	3YT709	Quartz Diorite	Porphyry	△	◎	?	△				○		○			△	△	
Ibañez-Murta Area(Nor)	3FT842	Trachyte Porphyry	Holocrystalline	△	△	△				△	tr		△		○	△	△	

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace

Abbreviation: Qz;quartz, Pl;plagiocase, Or;orthoclase, Bt;biotite, Am;amphibole, Px;pyroxene, Lm;limonite, Cl;chlorite, Se;sericite, Ka;kaolinite, Ep;epidote, Ca;calcite, Si;silica

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 3 : Volcanic Rocks

Area	Sample No.	Rock name	Texture	Minerals																							
				Phenocryst						Groundmass						Alteration mineral											
				Qz	Pl	Bt	Am	Px	Sn	Pl	Qz	Am	Px	Or	Vi	Cl	Se	Ka	Ep	Ca	Si	Alb	Aln	Lm	Mo	Ja	Tu
Alto Cisnes-El Toqui Area	3VT419	Andesite	Porphyritic	tr	○	○	○	?		○					○	tr		△		tr				○			
Ibañez-Murta Area (South)	3FT507	Andesite	Porphyritic		○													○		○				△		△	
	3FT509	Andesite	Pilotaxitic		◎					○					△	○	△	△						tr			
	3FT538	Andesite	Porphyritic		◎					○	tr				△	△		△		○		tr					
	3FT542	Andesite	Porphyritic	△	◎					○							△	△		△	△	?					
	3FT544	Andesite	Porphyritic		◎		?									△		○						△	△	tr	tr
	3FT576	Dacite														△	○	○		○	tr			△	△		
	3FT578	Trachyte	Porphyritic		○					△							△	△		△			△		△	△	
	3FT594	Basaltic andesite	Porphyritic		◎			○		○		Ps				○	tr	○		tr				tr	△		
	3VT553	Andesite			△					○						○	○	○	△								
	3VT558a	Rhyolite	Porphyritic	△	○				△	△	○			△				○		△	△			△		△	
Ibañez-Murta Area (North)	3MT810	Perlite	Hypocrystalline		○							△	○			△							△				
	3MT815	Basalt	Porphyritic		○			○		○			○			△				tr							

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace, Ps;relicts

Abbreviation: Qz;quartz, Pl;plagiocase, Or;orthoclase, Bt;biotite, Am;amphibole, Px;pyroxene, Lm;limonite, Cl;chlorite, Se;sericite, Ka;kaolinite, Ep;epidote, Ca;calcite, Mo;montmorillonite, Si;silica, Alb;albite, Aln;alunite, Sn;sanidin, Vi;vitreous, Ja;Jarosite, Tu;Tourmalin

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 4 : Metamorphic Rocks

Area	Sample No.	Rock name	Texture	Minerals													Observation
				Qz	Pl	Or	Bt	Ms	Am	Cl	Ca	Ep	Ka	Se	Lm	Gr	
Chile	3MT710	Greenschist	Nematoblastic	tr	△				△	○	△	△	tr				
Chico-	3MT712	Mica schist	Nematoblastic	○	tr		○			tr	tr		tr				
Chacabuco	3MT713	Mica schist	Nematoblastic	○	tr	tr		△		△			△		tr		

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace

Abbreviation: Qz;quartz, Pl;plagiocase, Or;orthoclase, Bt;biotite, Am;amphibole, Lm;limonite, Cl;chlorite, Se;sericite
Ka;kaolinite, Ep;epidote, Ca;calcite, Ms;muscovite, Gr;garnet,

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 5 : Pyroclastic Rocks

Area	Sample No.	Rock name	Texture	Minerals																						
				Fragments						Matrix						Alteration minerals										
				Qz	Pl	Or	Bt	Lit	Po	Op	Cl	Si	Ar	Vi	Fe	Mo	Cl	Se	Ka	Ep	Ca	Si	Bt	Aln	Fe	Ze
Alto Cisnes-El Toqui Area	3FT484	Rhyolitic tuff	Clastic	○	○	○	△	△		tr		△	△			?	○		○	○	△	△		?		
Ibañez-Murta Area (South)	3FT547	Tuff	Clastic	△	△					△	△			tr	△			?	-	tr	△	△		tr		tr
	3TT510	Crystal-lithic	Clastic	tr	○	?	ps			tr	tr	△	○		△		○	tr	tr		△	tr				
	3TT516	Welded tuff	Clastic	tr	△	△		○		△		△	○					tr			△	△			△	?
	3TT518b	Sandy tuff	Clastic	△	○	○		△	△	○		tr	tr					△	tr		tr	△		?		
	3TT527	Sandy tuff	Clastic	tr	ps		tr	◎	?	tr	△	tr	○			△	○	△	○		○	△				
	3TT550	Crystal-lithic	Clastic	△	○	?	△	△		tr	△	△	○			△		△	△			△			tr	
	3TT551	Welded tuff	Clastic		ps					△	△	tr	○			△	△	△	○		○	△			△	
	3TT555	Rhyolitic tuff	Clastic	○	○	△	ps	△			△	△	○				△	△	△		△	△				△
	3VT558	Rhyolitic tuff	Clastic	○	△	△		△				△	○		○		△	tr	○			△			△	
Chile Chico-Chacabuco Area	3MT724	Crystal tuff	Clastic		○			△	△	tr	△	△	○	△	?	△	△	tr	○		○	tr				

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace

Abbreviation: Qz;quartz, Pl;plagiocase, Or;orthoclase, Bt;biotite, Cl;chlorite, Se; sericite, Ka;kaolinite, Ep;epidote, Ca;calcite, Mo;montmorillonite, Si;silica, Op;opaque mineral, Aln;alunite, Lit;lithic, Po;vitreous fragment Ar;clay, Vi;vitreous, Fe;feldespar, Ze;zeolite

Table 8 Microscopic Observations of Thin Sections of Rocks

Part 6 : Sedimentary Rocks

Area	Sample No.	Rock name	Texture	Minerals																Observation
				Clasts					Matrix					Alteration minerals						
				Lit	Qz	Pl	Bt	Ca	Op	Cl	Cy	Si	Fe	Fe	Cy	Cl	Se	Ca	Si	
Ibañez-Murta Area (South)	3ST507	Sandstone	Clastic	△	△	○			tr	tr				△	○	○	△	△	tr	
	3VT562	Micro-breccia	Clastic	△	△	△					tr		△	△	△	△	○	△		
	3VT574	Sandstone	Clastic	△	△	○	△	○			tr			tr	△	△	△	△		
Chile Chico-Chacabuco Area	3MT734	Limestone	Clastic		△			◎										○		
	3PT711	Sandstone	Clastic	tr	△	○		△	△	△	△		△	△	△	△		tr		
Ibañez-Murta (North)	3FT819	Limestone	Clastic					◎					tr		tr	△		○		
	3VT826	Sandstone	Clastic	△	△	△	△	△	△		△	△	△		△			△	△	

Abundance of mineral: ◎;abundant, ○;common, △;scarce, tr;trace

Abbreviation: Qz;quartz, Pl;plagiocase, Bt;biotite, Cl;chlorite, Se;sericite, Ca;calcite, Si;silica, Lit;lithic
Op;opaque mineral, Cy;clay mineral, Fe;limonite and or hematite

Table 9 Microscopic Observations of Polished Sections of Ores

Area	Sample No.	Observation	Minerals determined											
			Py	Cp	Cv	Cc/Dig	As	Ga	Zn	Po	Ht/Li	Mg/Ma	Ja	Ox.Cu
Cerro Aguja	3FPs454	dissemination	◎								◎		△	
Alteration	3FPs459	ditto	○	tr							◎			
Zone	3FPs466	ditto	○								◎			
	3MPs412	ditto	◎	tr							◎		△	
	3FPs529	ditto	tr	◎				○	◎		tr			
	3TPs540	—	○								○			
Ibañez-	3TPs545	dissemination		tr							◎			
Murta Area	3TPs558	ditto	○					△			○		△	
(South)	3TPs561	ditto		tr	tr			○		△	△			
	3VPs531j	veinlet	△	tr				△	○	◎	△		△	tr
	3VPs531h	diss., veinlet	○	tr							◎			
	3VPs536-1	dissemination	△								◎	○		
	3VPs536b	ditto	tr	○							△		?	
	3SPs803	ditto	○								○	tr		
	3SPs815	ditto	△	tr			○				◎		△	
	3SPs816	ditto	○								◎			
Ibañez-	3SPs819	ditto	△	tr							○		△	
Murta Area	3SPs823	ditto	○	tr							◎			
(North)	3MPs802	ditto	◎	tr							◎		△	
	3MPs803	ditto	△	tr							△			
	3MPs812	ditto	○								○	tr		
	3MPs703	massive, veinlet	△	○				○	◎		tr			
Chile	3MPs712	diss., massive		○		tr	◎	○	△		○			
Chico-	3MPs726	diss., veinlet	◎								△		tr	
Chacabuco	3MPs729	diss., massive	△	○	△	△	△	◎	◎	△	△			
Area	3YPs704	dissemination									△		△	
	3YPs716	massive	tr	△	△			◎	○	△	△			
	3YPs718	massive, veinlet	○	tr			△				tr			

Abbreviation : Py;pyrite, Cp;chalcopyrite, Bo;bornite, Cc/Dig;chalcocite/digenite As;arsenopyrite
Ga;galena, Zn;sphalerite, Po;pyrrotite Ht/Li;hematite/limonite, Ja;jarosite
Mg/Ma;magnetite/martite, Ox.Cu;oxidized copper ore

Abundance of minerals : ◎;Abundant, ○;Common, △;Rare, tr;Trace, ?; Uncertain

Table 10 List of Alteration Minerals Determined by X-Ray Diffraction (1)

Area	Sample	Minerals determined												
		Qz	Pl	Kf	Chl	Ka	Cal	Py	Dol	Ser	Al	Pyr	Sp	Ja
	3FX401	◎	○											
	3FX444-1	◎	○	?										
	3FX444-2	◎	○			?				△				
Alto	3FX444-3	◎	◎	○										
Cisnes-El	3TX420	◎	◎	○										
Toqui Area	3VX450	◎	○	○										
	3VX454	◎								△				
	3YX409	◎	○	○										
	3FX454					△		★			◎	◎		
Cerro	3FX457	◎			★			★			○			
Aguja	3FX461	◎						?			◎			
Alteration	3FX468	◎	○							△				
Zone	3MX403a	◎	◎	○		△				△				
	3FX503	◎	○	△						△				
	3FX506	◎		○						△				
	3FX548	◎		○						★				
Ibañez-	3FX549	◎		○										
Murta Area	3FX564	○		○				○						
(South)	3SX503	◎		○										
	3SX520	◎		○						△				
	3SX525			○						○				
	3SX526	◎	○		△					△				

Abbreviation : Qz;quartz, Pl;plagioclase, Kf;Potash feldspar, Chl;chlorite, Ka;kaolinite, Cal;calcite, Py;pyrite, Dol;dolomite, Ser;sericite Al;alunite, Pyr;pyrophyllite, Sp;sphalerite, Ja;jarosite

Peak Intensities : ◎;Abundant, ○;Common, △;Rare, ★;Trace, ?; Uncertain

Table 10 List of Alteration Minerals Determined by X-Ray Diffraction (2)

Area	Sample	Minerals determined												
		Qz	Pl	Kf	Chl	Ka	Cal	Py	Dol	Ser	Al	Pyr	Sp	Ja
Ibañez-Murta Area (South)	3TX554	◎		○									?	
	3TX558	◎		△									△	
	3VX531a	◎		○						★				
	3VX531b	◎		○			?			★				
	3VX531j	◎		○						?				
Ibañez-Murta Area (North)	3FX801	◎	○	○										
	3FX806	◎	○	○						△				
	3FX813	◎	○							★				
	3FX823	◎	○	○										
	3FX826	◎	○	○										
	3FX832	◎	○	○						△				
	3FX835	◎								○				
	3FX836	◎	○	○										
	3FX840	◎	○	○						○				
	3FX843	◎	○	○						△				
	3FX845b	◎	○							?				
	3MX802	◎		○										
	3MX803a	◎	○	△										
	3MX803b	◎		○										
	3MX805	◎		○										
	3MX806	◎	○	○						★				
	3MX809	◎		○										
	3MX813	◎	△	○										

Abbreviation : Qz;quartz, Pl;plagioclase, Kf;Potash feldspar, Chl;chlorite, Ka;kaolinite, Cal;calcite, Py;pyrite, Dol;dolomite, Ser;sericite, Al;alunite, Pyr;pyrophyllite, Sp;sphalerite, Ja;jarosite

Peak Intensities : ◎;Abundant, ○;Common, △;Rare, ★;Trace, ?; Uncertain

Table 10 List of Alteration Minerals Determined by X-Ray Diffraction (3)

Area	Sample	Minerals determined												
		Qz	Pl	Kf	Chl	Ka	Cal	Py	Dol	Ser	Al	Pyr	Sp	Ja
Ibañez-Nurta Area (North)	3MX 816	◎	○	○										
	3MX 824	◎	○	○										
	3MX 830	◎	○	○										
	3MX 831	◎	◎	○										
	3MX 839	◎	○	○				△		△				
	3MX 841	◎	○	○										
	3PX 800	◎	◎	○										
	3PX 803	◎	◎											
	3PX 805	◎	○	○										
	3SX 803	◎	△	○										
	3SX 808	◎	○	○						△				
	3SX 810	◎	○	○										
	3SX 813	◎	○	○						△				
	3SX 815	◎	○	○						○				
	3SX 820	◎	○	○										
	3SX 823	◎		○										
	3SX 825	◎		○										
	3SX 832	◎												
	3SX 833	◎	○	○										
	3SX 839	◎		○				★		△				
	3SX 841	◎		○				△						
	3SX 844	◎		△										
	3SX 846	◎	○	○										
	3SX 849	◎		○										

Abbreviation : Qz;quartz, Pl;plagioclase, Kf;Potash feldspar, Chl;chlorite, Ka;kaolinite, Cal;calcite, Py;pyrite, Dol;dolomite, Ser;sericite, Al;alunite, Pyr;pyrophyllite, Sp;sphalerite, Ja;jarosite

Peak Intensities : ◎;Abundant, ○;Common, △;Rare, ★;Trace, ?; Uncertain

Table 10 List of Alteration Minerals Determined by X-Ray Diffraction (4)

Area	Sample	Minerals determined												
		Qz	Pl	Kf	Chl	Ka	Cal	Py	Dol	Ser	Al	Pyr	Sp	Ja
	3SX 852	◎		○										
	3SX 854	◎	○	○						△				
	3SX 862	◎	○	△										
	3SX 864	◎	○	○										
	3SX 868	◎	△	○										
	3SX 871	◎	△	○										
	3TX 810	◎	○	○				★		△				
	3TX 814	◎	○	○										
	3TX 818	◎	○	○						★				
	3TX 820	◎								○				
Ibañez-	3TX 826	◎	○							△				
Murta Area	3TX 830	◎	○							△				
(North)	3TX 839	◎	○	○						△				
	3TX 846	◎								△				
	3Vx842a	○	○							△				
	3VX842b	◎		○										
	3VX842c	◎	○						○	★				
	3VX 835	◎	◎							△				
	3YX 803	◎	○	○						△				
	3YX 806	◎	○	○						△				
	3YX 813	◎	○	○										
	3YX 823	◎	★					★		★				
	3YX 824	◎	○	○										
	3YX 829	◎	○	○										

Abbreviation : Qz;quartz, Pl;plagioclase, Kf;Potash feldspar, Chl;chlorite, Ka;kaolinite, Cal;calcite, Py;pyrite, Dol;dolomite, Ser;sericite, Al;alunite, Pyr;pyrophyllite, Sp;sphalerite, Ja;jarosite

Peak Intensities : ◎;Abundant, ○;Common, △;Rare, ★;Trace, ?; Uncertain

Table 10 List of Alteration Minerals Determined by X-Ray Diffraction (5)

Area	Sample	Minerals determined												
		Qz	Pl	Kf	Chl	Ka	Cal	Py	Dol	Ser	Al	Pyr	Sp	Ja
Chile	3MX 712	◎	○		△					△				
Chico-	3MX 729	◎								△				
Chacabuco	3MX 732	△				?	△	★	○					
Area														
	3TX 718	◎	◎	○										
	3TX 720	◎	○	○										
Lake	3TX 725	◎		○		★								○
Jeinimeni	3TX 736	◎	○	○						?				
Alteration	3TX 741	◎	△	○			?							
Zone	3TX 746	◎		○										
	3YX 766	◎		△						△				
	3YX 776	◎	◎			★				△				

Abbreviation : Qz;quartz, Pl;plagioclase, Kf;Potash feldspar, Chl;chlorite, Ka;kaolinite, Cal;calcite, Py;pyrite, Dol;dolomite, Ser;sericite, Al;alunite, Pyr;pyrophyllite, Sp;sphalerite, Ja;jarosite

Peak Intensities : ◎;Abundant, ○;Common, △;Rare, ★;Trace, ?; Uncertain

Table 11 Results of Radioactive Age Determination (K-Ar Method)

Area	Sample No.	Age±2σ (Ma)	Rock type	Isochron	Event	Kwt%	Ar atm%
Alto Cisnes-El Toqui Area	3FD433	78±3	Rhyolite	feldespar	Primary	3.256	6
	3TD402	124±8	Granite	biotite	〃	0.761	47
	3VD419	53.7±1.5	Andesite	biotite	〃	6.924	17
Ibañez-Murta Area (South)	3SD550	93±2	Tonalite	biotite	〃	6.830	11
Ibañez-Murta Area (North)	3TD801	94±2	Tonalite	biotite	〃	5.629	8
Chile Chico-Chacabuco Area	3MD705	115±5	Tonalite	amphibole	〃	0.906	22