A. I-4-2 Polished section

i i						
Sample No.	Location	Geological Unit	Rock Type			
NO - 304	G 4	St	Sphalerite - pyrite ore			
NO - 314	IC - 4	St	Pyrite ore			
NO - 369	G 4	Ph	Ag-galena-sphalerite ore			
NO - 401	G 4	Jm	Ag - galena - sphalerite ore			
TP - 203	G 4	Ph	Sphalerite - magnetite ore			
TP - 211	G 4	Ph	Sphalerite_pyrite ore			

Abbreviations

Cp : Chalcopyrite

G1 : Galena

Sp : Sphalerite

Py : Pyrite

Po : Pyrrhotite

Mg : Magnetite

Hm : Hematite

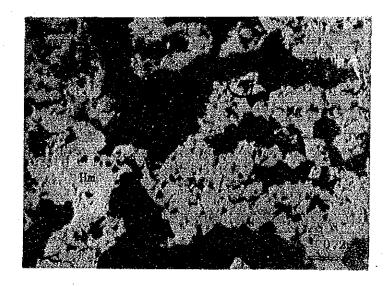
Bis: Bismuthinite

Tet: Tetrahedrite



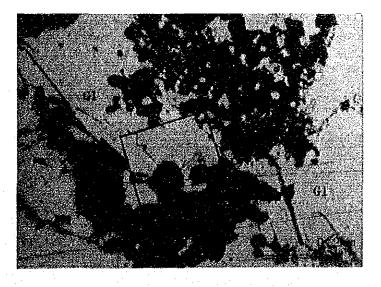
Sample No. NO-304

Rock Type: Zn pyrite ore

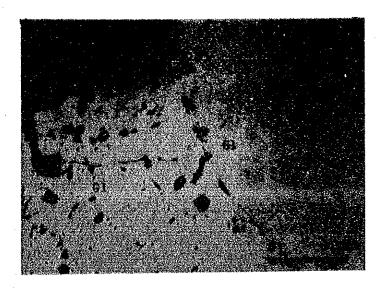


Sample No. NO-314

Rock Type: Pyrite ore

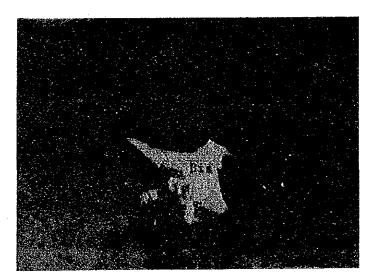


Sample No. NO-369
Rock Type: Ag-Pb-Zn ore



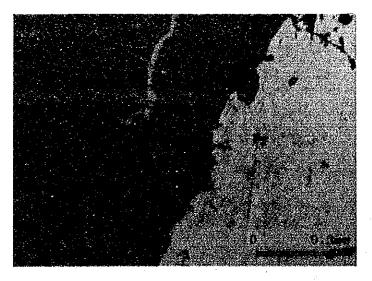
Sample No. NO-401

Rock Type: Ag-Pb-Zn ore



Sample No. TP-203

Rock Type: Zn magnetite ore



Sample No. TP-211

Rock Type: Zn pyrite ore

A. I-4-3 EPMA analysis

Sample No.	Result of EPMA Analysis
NO-304	Sphalerite contains a lost of chalcopyrite dots.
·	In sphalerite, small grains of galena are contained.
	As iron minerals, iron-hydroxide is observed as well
	as pyrite.
NO-369-(1)	Tetrahedrite and Pb-Sb-Cu sulfide (bournite) are
	determined in galena.
NO-369-(2)	Same sample as the above. A small amount of Ag is
.''	clarified to be contained in tetrahedrite.
mp 000	
TP-203	Magnetite, sphalerite and bismuthinite are determined
	occurring in this sample.
TP-211	Chalcopyrite veinlet cuts sphalerite.
	Chalcopyrite of exsolution texture occurs as lattic
	strips and small dots.

(EPMA: Electron probe microanalysis)

Abbreviations

Gl : Galena

Sp : Sphalerite

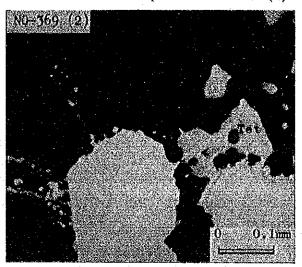
Tet: Tetrahedrite

Bis: Bismuthinite

Sample No. NO-369 (2)



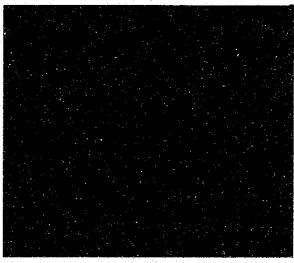
Cu X-ray image



Absorbed electron image



Sb X-ray image

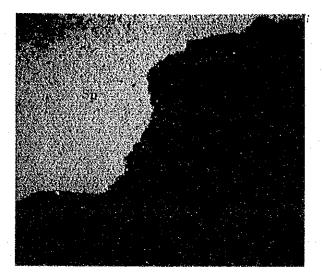


Ag X-ray image



Pb X-ray image

Accelerating voltage: 15 KV Electron absorbed current: 0.1 uA



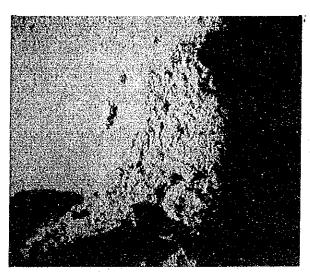
Zn X-ray image



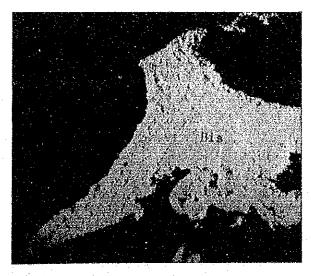
Absorbed electron image



Fe X-ray image



S X-ray image

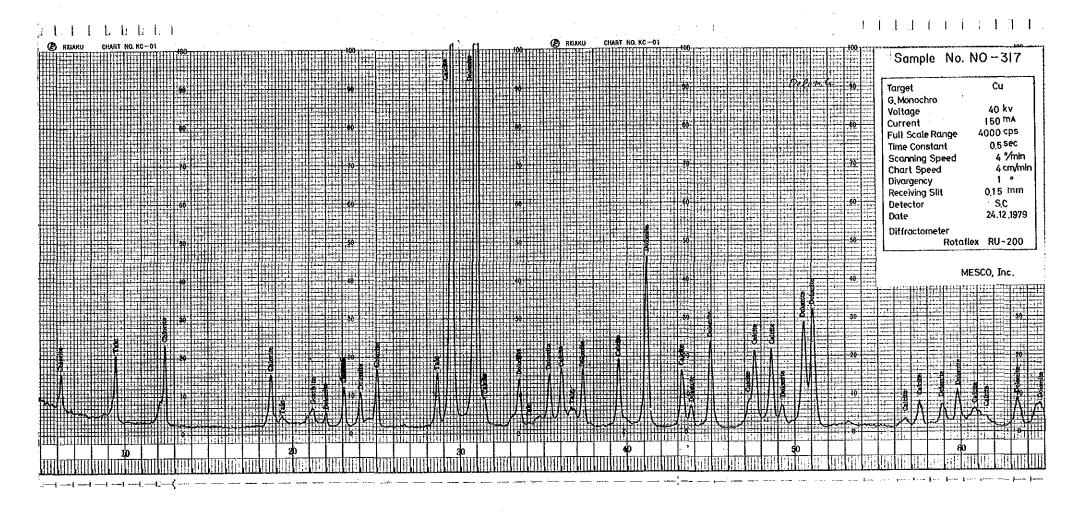


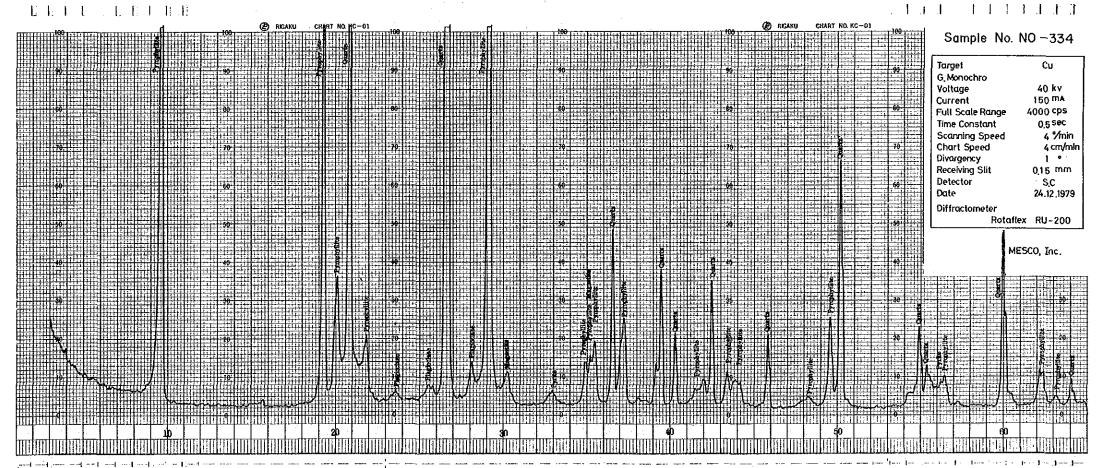
Bi X-ray image

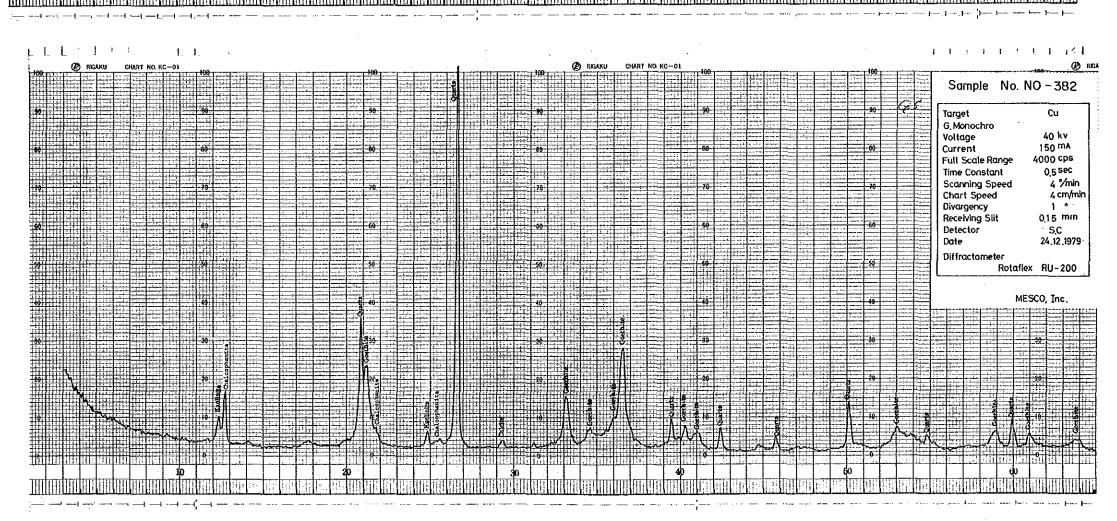
Accelerating voltage: 25 KV

Electron absorbed current: 0.2 uA

A. I-5 Charts of X-ray diffraction test







A. I-6 Assay results of ore samples

(1) Ore samples

						r		
No.	Sample No.	Location	Geological Index	Cu (%)	Pb (%)	Zn (%)	Ag(o/t)	Soluble Zn in Hcl
1	NO-304	IC-5	St-Ls	0.53	0.12	32.03	56	
2	NO-306	IC-5	St-Sk	4,05	0.06	0.90	147	-
3	NO-307	IC-5	St-Or	0.33	0.45	21.62	50	·. -
4	NO-308	IC-5	St-Or	0.65	0.18	32.43	84	-
5	NO-314	IC-4	St-Sk	0.12	0.03	5.00	5	etters
6	NO-315	IC-4	St-Sk	0.06	0.02	5.95	3	-
7	NO-320	G4	St-Or	0.03	1.75	2,90	17	-
8	NO-342	G4	Cz-Gs	0.01	0.05	0.04	1 .	-
9	NO-346	G4	St-Sk	0.05	0.05	0.03	2	-
10	NO-351	G4	St-Gs	0.47	0.02	0.10	32	
11	NO-352	G4	St-Sk	0.66	0.45	0.80	128	-
12	NO-361	G3	Jm-Or	0.01	0.02	0.01	tr	·
13	NO-369	G4	Ph-Or	0.13	2.85	11.80	672	-
14	NO-401	G4	Jm-Or	0.53	30.90	30.30	257	- '
15	NO-402	G4	Jm-Sk	0.28	16.72	9.20	145	
16	NO-403	G4	Jm-Sk	0.26	20.44	8.50	168	-
17	NO-404	G4	Jm-Sk	2.70	0.20	0.44	120	
18	NO-405	G4	Jm-Or	0.74	0.01	0.04	15	-
19	SO-226	G4	Ph-Sk	0.01	0.05	0.05	5	-
20	SO-228	G4	St-Ls	0.01	0.01	0.02	5	
21	TO-227	G4	Cz-Or	0.06	4.20	5.35	52	
22	TP-201	G4	Ph-Or	0.30	0.32	25.63	25	25,58
23	TP-202	G4	Ph-Or	0.04	0.05	3.50	3	3.18
24	TP-203	G4	Ph-Or	0.28	0.07	27.70	9	27.14
25	TP-204	G4	Ph-Or	0.09	0.04	12.64	4	12.64
26	TP-205	G4	Ph-Or	0.01	0.03	0.60	2	0,60
27	TP-206	G4	Ph-Or	0.01	0.05	0.27	1	0.26
28	TP-207	G4	Ph-Or	0.19	0.05	22.75	9	21.79
29	TP-208	G4	Ph-Or	0.14	0.05	17.02	4	17.00
30	TP-209	G4	Ph-Or	0.64	0.15	30,13	68	30.09
31	TP-210	G4	Ph-Or	0.42	0.40	30.40	95	26.39
32	TP-211	G4	Ph-Or	0.22	0.10	28.43	20	28.04
33	TP-212	G4	Ph-Or	0.34	0.04	17.72	13	17.65
34	TP-213	G4	Ph-Or	0.18	0.14	17.72	55	12,95
35	TP-214	G4	Ph-Or	0.23	0.05	20.40	6	19.17
36	TP-215	G4	Ph-Or	0.05	0.88	8.80	27	8.65
				<u> </u>		<u> </u>		

Abbreviation

Jm Jumasha formation	Or Ore
Ph Pariahuanca formation	Sk Skarn
Cz Carhuz formation	Gs Gossan
St Santa formation	Ls Limestone

(2) Composite samples

No.	Composite Samples No.	No. of Original Samples	Ag Grade (g/t)
1	IC-501	TC501	2
2	IC-502-03	IC-502, 503	10
3	IC-504-06	IC-504, 505, 506	3
4	IC-507-08	IC-507, 508	10
5	IC-509	IC-509	25
6	IC-510	IC-510	3
7	IC-511	IC-511	18
8	IC-512	IC-512	8
9	IC-514-16	IC-514, 515, 516	15
10	IC-517-18	IC-517, 518	18
11	IC-519-20	IC-519, 520	275
12	IC-601-02	IC-601, 602	3
13	IC-603-06	IC-603, 604, 605, 606	6
14	IC-607-10	IC-607, 608, 609, 610	10
15	IC-611-13	IC-611, 612, 613	10
16	IC-614-16	IC-614, 615, 616	- 6
17	IC-617-19	IC-617, 618, 619	1
18	IC-620-22	IC-620, 621, 622	3.
19	IC-623-26	IC-623, 624, 625, 626	40
20	IC-627-30	IC-627, 628, 629, 630	17
21	IC-633-34	IC-633, 634	6
22	IC-635-38	IC-635, 636, 637, 638	26
23	IC-639-43	IC-639, 640, 641, 642, 643	10
24	IC-644-46	IC-644, 645, 646	15

Composite samples were prepared using original samples in proportion to the sampling lengths.

A. I-7 Assay results of geochemical samples

GEOLOGICAL INDEX

Qt Quaternary Cd Celendin formation Jm Jumasha formation Ph Pariahuanca formation St Santa formation Cm Chimu formation Ig Igneous rocks

SEDIMENTARY ROCK

Do Dolostone

Ls Limestone

Mr Marl

Qz Quartzite

IGNEOUS ROCK

Dc Dacite, Porphyrite

Ry Phyolite, Quartz porphyry, Granite porphyry

Dr Diorite

Tn Tonalite, Granodiorite, Granite

Ald Altered rock

MINERALIZATION

Or Ore

Gs Gossan

Assay Results of Geochemical Samples

(1) Rock Samples

No.	Sample No.	Location	Geological Index	Cu (ppm)	Pb (ppm)	Zn (ppm)
1	NO-301	IC-5	St-Ls	12	66	490
. 2	NO-302	IC-5	St-Ls	7	43	93
3	NO-303	IC-5	St-Gs	0.17(%)	0.53(%)	1.34(%)
4	NO-310	IC-5	St-Ls	19	40	249
5	NO-311	IC-5	Cm-Qz	152	427	77
6	NO-312	G4	St-Gs	0.49(%)	0.18(%)	0.35(%)
7	NO-313	G4	St-A1d	9	166	25
8	NO-317	G4	St-Gs	0.01(%)	0.04(%)	2.16(%)
9	NO-323	IC-5	St-Ls	9	36	34
10	NO-325	IC-5	St-Gs	0.06(%)	0.06(%)	0.31(%)
11	NO-329	G4	St-Ls	9	33	35
12	NO-330	G4	St-Ls .	5	40	33
13	NO-332	G4	Ig-Ry	5	23	8
14	NO-333	G4	Cm-Gs	221	40	28
15	NO-334	G4	Ig-Ry	1	10	8
16	NO-335	G4	Cm-Qz	2	7	10
17	NO-341	G4	Jm-Ls	5	43 .	13
18	NO-343	G4	Ig-Ry	4	10	63
19	NO-345	G4	St-Ls	7	40	77
20	NO-347	G4	St-Ls	18	60	40
21	NO-350	G4	Ig-Tn	25	10	36
22	NO-364	G4	Cd-Mr	.13	63	101
23	NO-375	-G3	St-Ls	13	156	157
24	SO-206	G4	St-Ls	7	33	16
25	SO-208	G4	Ig-Ry	3	195	17
26	SO-217	G4	Jm-Ls	5	33	11
27	SO-218	G4	Ph-Ls	6	50	44
28	SO-219	G4	St-Ls	11	46	29
29	SO-220	G4	St-Ls	11	43	27
30	SO-221	G4	St-Ls	5	40	13

(1) Rock Samples

No.	Sample No.	Location	Geological Index	Cu (ppm)	Pb (ppm)	Zn (ppm)
31	SO-222	G4	Ph-Ls	10	40	30
32	SO-223	G4	Ph-Ls	- 6	36	30
33	SO-224	G4	Ph-Ls	7	40	100
34	SO-227	G4	lg-Dr	24	36	116
35	SO-229	G4	Ph-Ls	5	36	69
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(2) Gossans

No.	Sample No.	Location	Geological Index	Cu (%)	Pb (%)	Zn (%)	Ag (g/t)*
36	IC-501	IC-4	St-Gs	0.02	0.12	0.03	2
37	IC-502	IC-4	St-Gs	0.06	0.05	0.04	
38	IC-503	IC-4	St-Gs	0.07	0.09	0.04	10
39	IC-504	IC-4	St-Gs	0.02	0.03	0.15	
40	IC-505	IC-4	St-Gs	0.01	0.02	0.20	3
41	IC-506	IC-4	St-Gs	0.02	0.03	0.23	
42	IC-507	IC-4	St-Gs	0.50	0.06	3.25	
43	IC-508	IC-4	St-Gs	0.33	0.03	10.50	10
44	IC-509	IC-4	St-Gs	0.65	0.05	13.00	25
45	IC-510	IC-4	Qt-Gs	0.07	0.02	0.05	3
46	IC-511	IC-3	St-Gs	0.03	0.85	1.60	18
47	IC-512	IC-3	St-Gs	0.53	0.05	2.20	8
48	IC-514	IC-4	St-Gs	0.02	0.06	0.04	
49	IC-515	IC-4	St-Gs	0.02	0.15	0.03	1.5
50	IC-516	IC-4	St-Gs	0.02	0.04	0.04	
51	I.C-517	IC4	St-Gs	0.05	0.06	0.03	
52	IC-518	IC-4	St-Gs	0.04	0.05	0.02	18
53	IC-519	IC-4	St-Gs	0.07	0.06	0.03	
54	IC-520	IC-4	St-Gs	0.03	0.50	0.03	275
55	IC-601	IC-5	St-Gs	0.02	0.75	3.40	
56	IC-602	IC-5	St-Gs	0.10	0.02	0.12	3
57	IC-603	I.C-5	St-Gs	0.01	0.03	0.61	
58	IC-604	IC-5	St-Gs	0.02	0.05	1.10	
59	IC-605	IC-5	St-Gs	0.08	0.13	3.10	6
60	IC606	IC-5	St-Gs	0.02	0.12	3,20	*•
61	IC-607	IC-5	St-Gs	0.01	0.04	1.85	
62	IC-608	IC-5	St-Gs	0.01	0.04	1.08	
63	IC-609	IC-5	St-Gs	tr	0.06	0.80	10
64	IC-610	IC-5	St-Gs	tr	0.10	0.90	
65	IC-611	IC-5	St-Gs	0.03	0.06	2.08	
66	IC-612	IC-5	St-Gs	tr	0.11	1.00	10
67	IC-613	IC-5	St-Gs	tr	0.03	0.70	

(2) Gossans

No.	Sample No.	Location	Geological Index	Cu (%)	Рь (%)	Zn (%)	Ag (8/t)*
68	Ic-614	IC-5	St-Gs	tr	0.04	0.75	
69	IC-615	IC-5	St-Gs	tr	0.04	0.65	6
70	IC-616	IC-5	St-Gs	tr	0.05	1.06	
71	IC-617	IC-5	St-Gs	0.01	0.04	2.30	
72	IC-618	IC-5	St-Gs	tr	0.02	2,45	1
73	IC-619	IC-5	St-Gs	0.01	0.10	1.50	
74	IC-620	IC-5	St-Gs	0.01	0.12	1.60	
7 5	IC-621	IC-5	St-Gs	0.01	0.08	2.10	3
76	IC-622	IC-5	St-Gs	tr	0.10	0.80	
77	IC-623	IC-5	St-Gs	0.18	0.20	2.30	
78	IC-624	IC-5	St-Gs	0.09	0.10	2.90	40
79	IC-625	IC-5	St-Gs	0.41	0.15	2.10	
80	IC-626	IC-5	St-Gs	0.31	0.04	3.40	
81	IC-627	IC-5	St-Gs	0.01	0.04	0.50	
82	IC-628	IC-5	St-Gs	0.24	0.05	0.90	17
83	IC-629	IC-5	St-Gs	0.19	0.04	1.50	τ,
84	IC-630	IC-5	St-Gs	0.13	0.05	1.90	
85	IC-631	IC-5	St-Gs	0.02	0.10	0.60	
86	IC-632	IC-4	St-Gs	0.01	0.15	0.60	
87	IC-633	IC-5	St-Gs	0.01	0.05	1.10	6
88	.IC-634	IC-5	St-Gs	0.01	0.06	1.50	
89	IC-635	TC-5	St-Gs	0.01	0.06	1.40	
90	IC-636	IC-5	StGs	0.01	0.07	1.40	26
91	IC-637	IC-5	St-Gs	0.01	0.08	1.70	
92	IC-638	IC-5	St-Gs	0.01	0.05	1.20	
93	IC-639	IC-5	St-Gs	0.01	0.14	3.50	_
94	IC-640	IC-5	St-Gs	0.01	0.19	1.80	10
95	IC-641	IC-5	St-Gs	0.01	0.22	1.10	
96	IC-642	IC-5	St-Gs	0.01	0.28	1.50	
97	IC-643	IC-5	St-Gs	0.01	0.55	3,50	
98	IC-644	IC-5	St-Gs	0.01	0.08	1.10	
99	IC-645	IC-5	St-Gs	0.02	0.10	1.50	15

(2) Gossans

		and the second second	and the second s				
No.	Sample No.	Location	Geological Index	Cu (%)	Рь (%)	Zn (%)	Ag (g/t)£
100	IC-646	IC-5	St-Gs	0.03	0.40	2.30	15
101	IC-647	IC-5	St-Gs	0.02	0.15	0.14	-
102	IC-648	IC-5	St-Gs	0.15	0.04	0.27	***
103	IC-649	IC-5	St-Gs	0.46	0.01	0.05	_
104	IC-650	TC-5	St-Gs	0.39	0.02	0.09	-
105	IC-651	IC-5	St-Gs	0.04	0.72	1.80	_
106	IC-652	IC-5	St-Gs	0.01	0.04	0.09	
107	IC-653	IC-5	St-Gs	0,33	0.04	0.04	
108	IC-654	IC-5	St-Gs	0.03	0.60	4.80	_

^{*} Assays of Ag have been done using composite samples.

(3) Stream Sediments

No.	Sample No.	Location	Cu (ppm)	Pb (ppm)	Zn (ppm)
1	SD-201	G4	27	24	181
2	SD-202	G4	19	15	93
3	SD-203	G4	8	6	81
4	SD-204	G4	69	72	415
5	SD-205	G4	165	33	162
6	SD-206	G4	9	24	61
7	SD-207	G4	13	12	55
8	SD-208	G4	16	24	221
9	SD-209	G4	17	39	89
10	SD-210	G4	11	18	75
11	SD-211	G4	24	26	44
12	SD-212	G3	8	56	30
13	SD-213	G3	19	58	204
14	SD-214	G3	7	108	160
15	SD-215	G3	19	23	100
16	SD-216	G3	13	15	43
17	SD-217	G3	11	26	100
18	SD-218	G3	4	Tr	105
19	SD-219	G3	19	29	87
20	SD-220	G3	11	41	73

APPENDICES PART I GEOPHYSICAL DATA

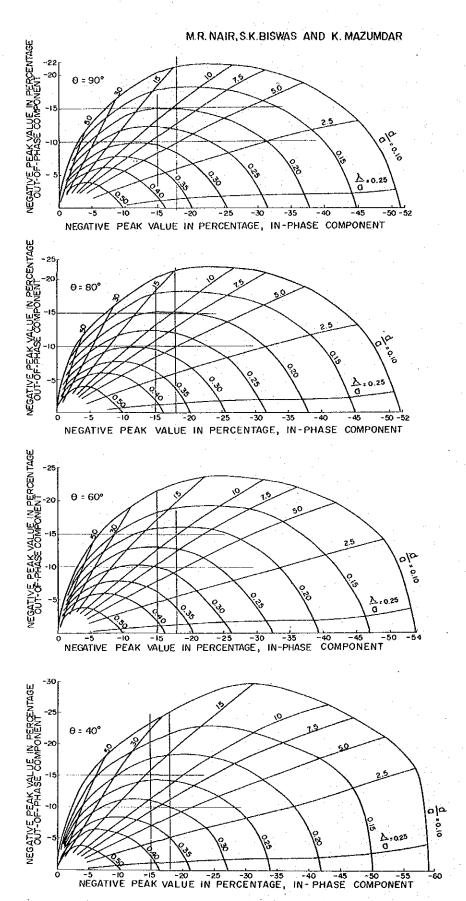
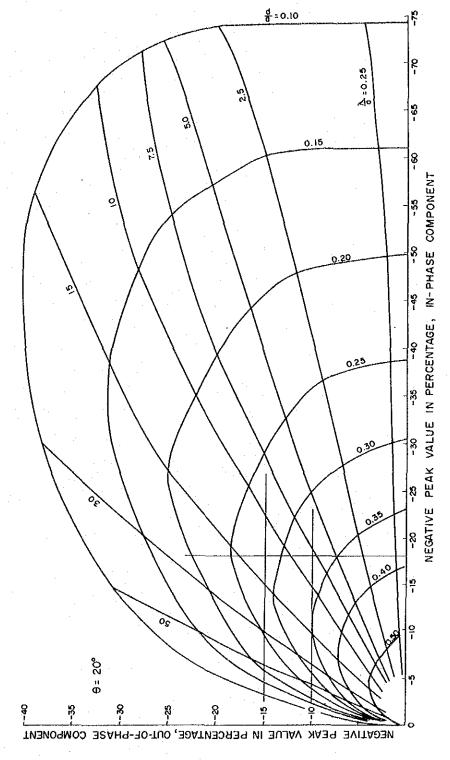


Fig. I-21. Phase diagram of the negative peak response of horizontal-loop profiling over conducting half-plane

M.R. NAIR, S.K. BISWAS AND K. MAZUMDAR



horizontal-loop profiling over conducting half-plane Fig. II-21. Phase diagram of the negative peak response of

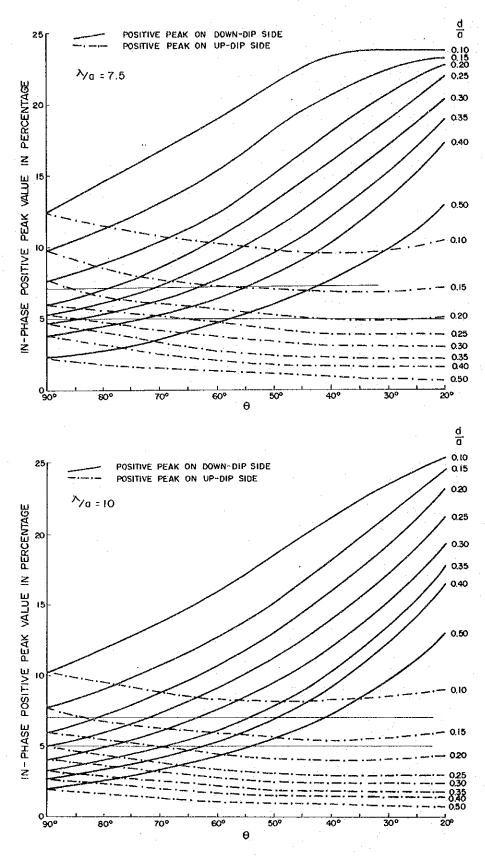


Fig. I-22. Variation of the in-phase positive peak response with the dip and depth of conducting half-plane

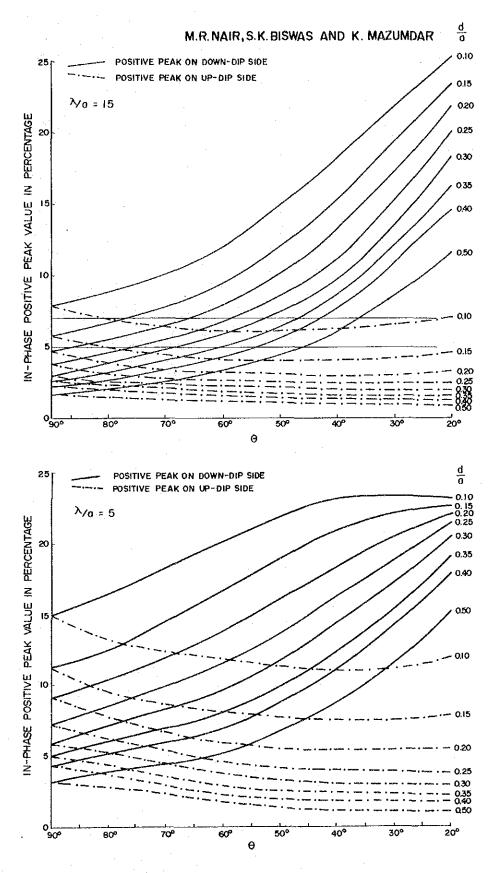


Fig. II-22. Variation of the In-phase positive peak response with the dip and depth of conducting half-plane

ELECTROMAGNETIC RESPONSE OF TILTED CONDUCTING HALF-PLANES

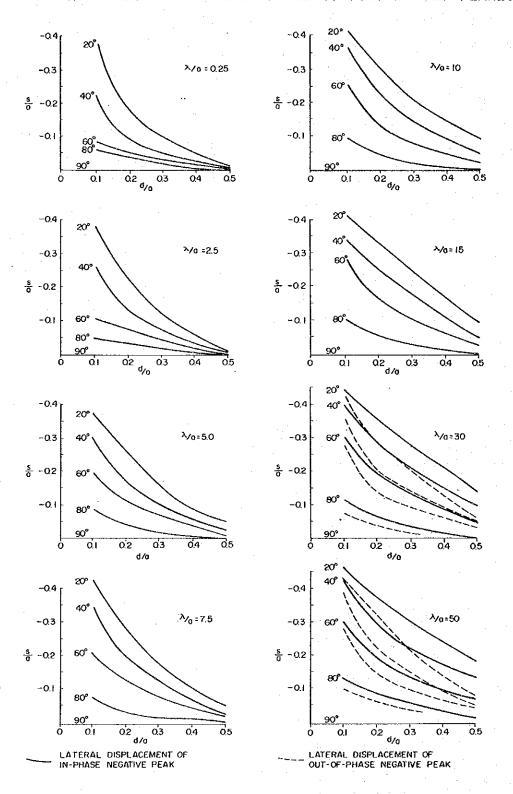


Fig. II-23. Lateral displacement of the negative peak response from the top edge of the conductor

APPENDICES PART II DRILLING DATA

A. III-1 Microscopic observation of the thin sections

(E)

Microscopic Observation	The rock shows granular texture. Main constituent minerals are quartz and carbonates. Both of them are very fine-grained less than 0.05 mm in size. Carbonates are euhedral and quartz is subhedral. Quartz is a little more aboundant than carbonates in quantity.	(St) This rock is nearly same as the sample CB-01-008, though carbonates are contained more abundant. Glassy material is contained in part.	This rock is composed of carbonates and minor amount of felsic minerals. Carbonates are usually very fine-grained about 10 µm, but in recrystallized parts the grain size is up to 0.5 mm. The recrystallized carbonates have close coexisting relation with clay minerals seemed to be kaolinite and quartz. Fine-grained opaque minerals occur in dotted-form.	(St) Main constituent minerals are carbonates and quartz. Carbonates show various grain size from 0.5 mm to 0.02 mm and veinlet-form in parts. Quartz shows euhedral grains and makes aggregates. Opaque minerals, most of them seemed to be crystals of sphalerite, are scattered in the rock.	The rock shows fine clastic texture. As fragment, anhedral quartz of about 0.1 mm across and euhedral carbonates of 0.05 mm across are observed. Fine-grained matrix is composed of sericite and clay minerals which make banded structure. Opaque minerals occur in dotted-form.	The rock is composed of fine-grained felsic minerals with carbon-aceous materials. Quartz grains and opaque minerals, both of them being about 0.05 mm in size, are scattered. Sphalerite can
Rock Type	Calcareous sandstone (Cz)	Pb-Zn-bearing siderite (St)	Pb-Zn-bearing siderite (St)	Pb-Zn-bearing siderite (Calcareous shale (St)	Pb-Zn-bearing altered rock (St)
Sample No.	CB-01-008	CB-01-032	CB-01-039	CB-01-053	CB-01-100	CB-01-151

	Sample No.	Rock Type	Microscopic Observation
<u> </u>	CB-03-100	Dolomite (St)	Carbonates are main minerals, which show euhedral various grain sizes from 0.5 mm to 5 µm. Relicts of oolitic texture can be observed in the carbonates aggregates. Banded structure also can be seen. Opaque minerals occur in dotted-form.
	CB-03-105	Galena-sphalerite dis- semination ore (St)	Main minerals are sphalerite, quartz, chlorite, carbonates (seemed to be siderite) and opaque minerals. Two types of sphalerite occur. One is coase-grained and dark brown color, which exists with carbonates and opaque minerals (most of them being pyrite). The other is fine-grained and light color, which exists with quartz and chlorite.
	CB-03-108	Silicified rock in ore body (St)	This rock is composed of opaque minerals, subhedral quartz, carbonates and minor amount of sphalerite. Brown colored sphalerite is seen included in opaque minerals.
	CB-03-111	Silicified rock in ore body (St)	This is nearly same as the sample CB-03-108. While, brownish sphalerite occurs in quartz-carbonates aggregates in part.
	CB-03-117	Galena-sphalerite-pyrite brecciated ore (St)	Sphalerite is main mineral on this section, which shows zonal structure and various colors from red to colorless. It coexists with opaque minerals and quartz-kaolinite aggregates. Quartz is euhedral and coexists with fibrous minerals seemed to be kaolinite and very fine-grained carbonates.
	CB-03-118	Galena-sphalerite-pyrite brecciated ore (St)	This rock is nearly same as the sample CB-03-117.
	CB-03-121	Dolostone (St)	This rock is composed of fine-grained carbonates and minor amount of quartz. The grain size is about 10 µm. Carbonates are stained in light brown color. Two types of carbonate veins are developed. One is yellow stained carbonate vein with sphalerite, and the other is colorless carbonate vein with felsic minerals. The later makes drusy parts.

A II-2 Microscopic observation of the polished sections

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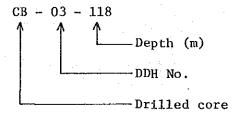
Sample No.	Rock Type	Microscopic Observation
CB-01-032	Pb-Zn dissemination ore	Sphalerite, galena and pyrite are observed. Galena is dominant in this section. Ore minerals are scattered as dots of less than 0.2 mm in size.
CB-01-039	Pb-Zn dissemination ore	This rock shows the same appearance as sample CB-01-032. Galena is dominant occurring in dotted-form.
CB-01-151	Pb-Zn dissemination ore	Observed ore minerals are galena, sphalerite, pyrite and arsenopyrite. They occur as dotted-form. Galena has close coexisting relation with pyrite and arsenopyrite.
CB-03-105	Galena-sphalerite dis- semination ore	This is mainly composed of sphalerite, galena and pyrite, with accessory pyrrhotite and chalcopyrite. In reflected light sphalerite is grey, pyrite is pale yellow and galena is white. The grain size of sphalerite is about 1.0 mm to 0.1 mm in diameter and the large crystals include a small amount of chalcopyrite dots. The crystals of galena show subhedral to anhedral forms and occupy between idiomorphic crystals of pyrite.
CB-03-106	Galena-sphalerite-pyrite ore	Main constituent minerals are pyrite and sphalerite, as accessories; galena, chalcopyrite and pyrrhotite. Sphalerite forms a large crystal, upto 0.8 mm across, which contains exsolution bodies of chalcopyrite, galena and pyrrhotite.
CB-03-108	Galena-sphalerite— pyrite ore	Pyrite is the most abundant as ore minerals. Marcasite, arsenopyrite, galena and sphalerite are observed in pyrite mass. Pyrite shows an aggregate of subhedral grains. Arsenopyrite is euhedral. Pyrite seems to have replaced pyrite occurring in the aggregate of pyrite. Minor amount of sphalerite also occurs in aggregate of pyrite.

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(2)	Microscopic Observation	Constituent minerals are pyrite, pyrrhotite, sphalerite and arsenopyrite in the order of abundance. Accessory minerals are galena and chalcopyrite. Sphalerite is medium-grained euhedrol crystals, upto 0.3 mm across, and contain a small amount of inclusions. Galena and chalcopyrite coexist with pyrrhotite of minor amount.	This is composed of pyrite, sphalerite, pyrrhotite and minor amount of galena and chalcopyrite. Sphalerite forms anhedral crystals and occupies between idiomorphic crystals of pyrite.	The most abundant mineral is pyrrhotite, and next aboundant minerals are pyrite, sphalerite and galena. Sphalerite is usually 0.15 mm across and forms euhedral crystals containing many exsolution bodies of pyrrhotite.	Main constituent minerals are pyrite, sphalerite, galena and marcasite. Sphalerite shows anhedral crystals and occupies between large idiomorphic crystals of pyrite. Galena is hypidiomorphic and occurs in coexisting with sphalerite.	It is composed mainly of pyrite and sphalerite accompanied with galena and chalcopyrite. Pyrite shows mostly euhedral crystals upto 0.4 mm across containing a minor amount of galena. Sphalerite shows anhedral and does not contain exsolution bodies of chalcopyrite.
	Rock Type	Pb-Zn-bearing pyrrhotite- pyrite ore	Galena-sphalerite- pyrrhotite-pyrite ore	Pb-Zn-bearing pyrite- pyrrhotite ore	Galena-sphalerite-pyrite brecciated ore	Galena-sphalerite-pyrite brecciated ore
	Sample No.	CB-03-111	CB-03-113	CB-03-115	CB-03-117	CB-03-118

A. II-3 Photomicrographs

A. II-3-1 Polished section

Sample Number	Rock Type
CB - 01 - 151	Pb - Zn dissemination ore
CB - 03 - 105	Galena - sphalerite dissemination ore
CB - 03 - 113	Galena - sphalerite - pyrrhotite - pyrite ore
CB - 03 - 115	Pb - Zn - bearing pyrite - pyrrhotite ore
CB - 03 - 117	Galena - sphalerite - pyrite brecciated ore
CB - 03 - 118	Galena - sphalerite - pyrite brecciated ore



Abbreviations

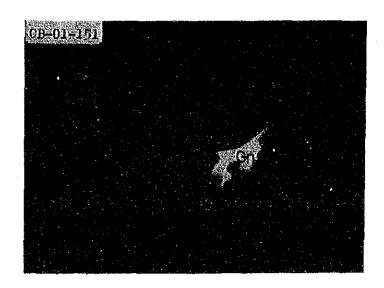
G1 : Galena

Sp : Sphalerite

Py : Pyrite

Po : Pyrrhotite

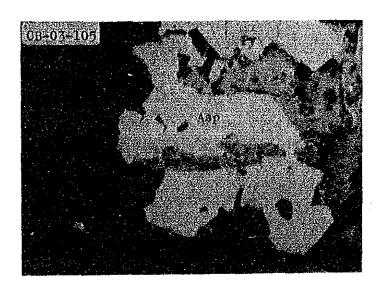
Asp : Arsenopyrite



Sample No. CB-01-151

Rock Type: Pb-Zn

dissemination ore



Sample No. CB-03-105

Rock Type: Galena-sphalerite

dissemination ore



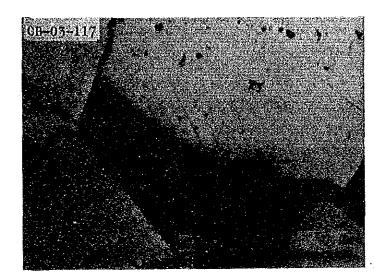
Sample No. CB-03-113

Rock Type: Galena-sphaleritepyrrhotite-pyrite ore



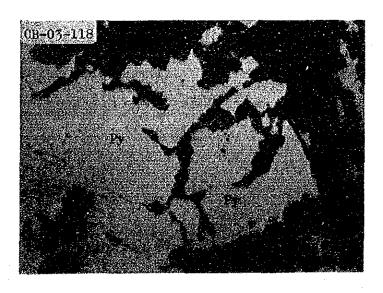
Sample No. CB-03-115

Rock Type: Pb-Zn - bearing pyrite-pyrrhotite ore



Sample No. CB-03-117

Rock Type: Galena-sphaleritepyrite brecciated ore

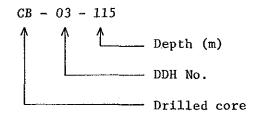


Sample No. CB-03-118

Rock Type: Galena-sphaleritepyrite brecciated ore

A. II-3-2 EPMA analysis

Sample Number	Result of EPMA Analysis
CB - 03 - 115	Sphalerite and galena are seen in pyrrhotite, and small grains of pyrrhotite are contained in sphalerite

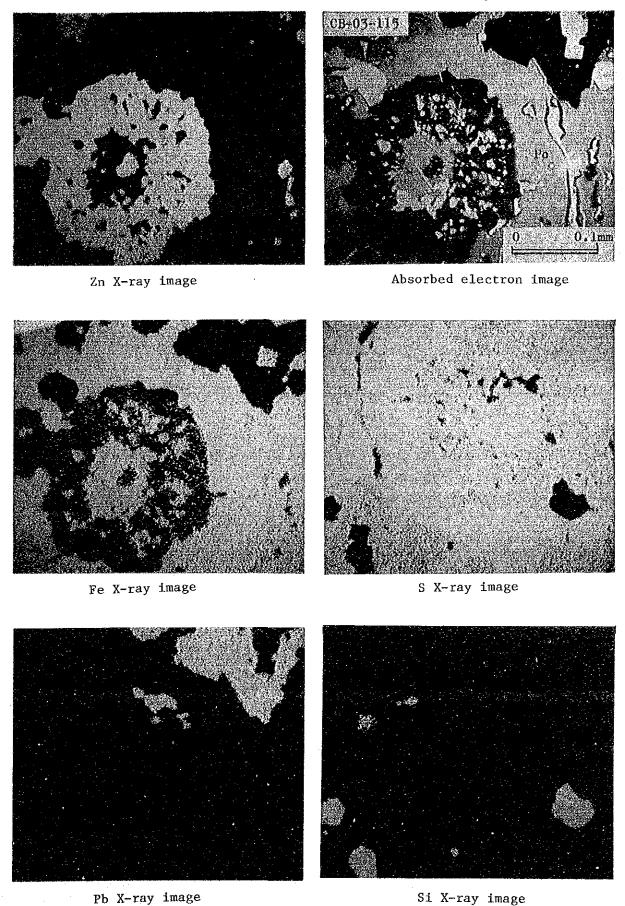


Abbreviations

G1: Galena

Sp : Sphalerite

Po : Pyrrhotite



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A. II-4 Charts of X-ray diffractiontest

