"Cherty Dolomite": 454.50 to 476.90m. The main component of this units is white massive dolomite with pelitic dolomite, mica bands, pelitic bands and anhydrite. There are many quartz veins and also weak pyrite-chalcopyrite dissemination is observed.

"Arenite, Argillite and Dolomite with Anhydrite": 386.60 to 454.50m. The upper part is composed mainly of green micaceous to dolomitic argillite with intercalation of thin dolomite layers. The lower part consists of greenish grey argillite with sandstone lenses and grit. Anhydritized patches, veinlets and lenses occur throughout the unit. In the lower part of this unit, weak pyrite-chalcopyrite dissemination is observed at 439.3-442,6m and 443.8-445.0m.

"Interbedded Argillite and Dolomite with Tectono-Breccias": 59.00 to 386.60m. The upper part is composed mainly of greyish white dolomite with considerable amount of conglomerate and small amount of thin argillite layers. The conglomerate is composed of dolomitic argillite and dolomite pebbles and biotitic pelitic matrix. The lower part is composed of green argillite and dolomite alternation with local intercalation of clayey argillite and sandy rocks. The upper part is locally strongly silicified and weakly pyritized. Limonitization by weathering is observed throughout the unit and gossan occurs in some localities.

5-3 Discussions

This borehole is located on the near crest of the rise of the basement (Figs. 1-7, 2-5-2).

As the "Ore Shale horizon" is dolomitic and the "Footwall Formation" is very thin, it is inferred that the basement of this part was palaeo-basement high at the time of ore deposition. Although the deposit is believed to belong to the bornite zone of the zonal distribution of sulfides (Fig. 1-9), the deposit is underdeveloped and it is concluded to have formed very close to the shore.

It is seen from the geologic profile (Fig. 1-7) that the formations higher than the "Ore Shale horizon" is folded harmoniously with the basement. Thus the present topography of the basement is strongly affected by folding after the deposition of the "Upper Roan Group".

Table 2-6-1 Results of Microscopic Observation of Thin Sections

Sample No.	Locality Depth (m)	Forma-tion	Rock Name	Phenocryst/ Crystal Fragment																	Texture
				Qz	Kf	Pl	Ca	Do	Mg	Bi	Mc	Hb	To	Ti	Ap	Ep	Ch	Zr	Op	Tc	
T-101	MJZC-1, 633.20	BSG	Granite	◎	○	○	△			○	○			△	·	△		·	△		granular
T-102	MJZC-1, 645.20	GB	Amphibolite							◎		◎		△		○			·		granular to poikiritic
T-103	MJZC-1, 648.70	BSG	Granite	◎	○	◎				○	○			·	·	○	·	·			granular
T-501	MJZC-5, 716.00	UIL	Magnesite-talc-rock						◎	△	○				○		△		△	◎	equigranular
T-502	MJZC-5, 879.00	UIB	Argillaceous Quartzite	◎	○	○	○			○	△			·	·			·	△		clastic
T-601	MJZC-6, 764.80	UIL	Dolomite	○				◎		○					·				△		equigranular
T-602	MJZC-6, 828.80	UIL	Metasandstone	◎	○	○	△			○	○			·	·				△		clastic to granular
T-603	MJZC-6, 1010.70	BSG	Granite	◎	△	○	△			○	○			·	·	△	△	·	·		granular
T-701	MJZC-7, 909.50	LHI	Metasandstone	◎	○	○	△			△	△		·		·		△	·	·		clastic to granular
T-702	MJZC-7, 964.00	LFC	Argillite*	○		△	△			◎			·		·		△	△	·		

Abbreviations

Abundance of minerals: ◎ ;abundant, ○;common, △;a few, ・;trace

Mineral : Qz;Quartz, Kf;Alkali feldspar, Pl;Plagioclase, Ca;Carbonate, Do;Dolomite, Mg;Magnesite, Bi;Biotite, Mc;Muscovite, Hb;Hornblende, To;Tourmaline, Ti;Titanite, Ap;Apatite, Ep;Epidote, Ch;Chlorite, Zr;Zircon, Op;Opaque minerals, Tc;Talc

*: Biotite matrix of conglomerate

Table 2-6-2 Results of Microscopic Observation of Polished Thin Sections (1)

Sample No.	Locality Depth (m)	Forma-tion	Description	Ore Mineral											Gangue Mineral																
				Cp	Py	Po	Bo	Co	Gn	Bs	Wi	Sp	Mo	Hs	Qz	Kf	Pl	Ca	Dl	Bi	Mc	To	Ti	Ap	Ch	Zr	Tc	Gt	Al	Ru	Am
P-101	MJZC-1, 517.80	LOS	Cp-Po-Py diss. in dol-Arg	○	◎	△									◎		○	◎			○	·	·	·	△			·			
P-102	MJZC-1, 522.70	LFC	Cp diss. in Cgl	◎	△			△							◎	○	◎			○				·	·	·			△		
P-501	MJZC-5, 973.30	LOS	Cp>Po-Do lens in dol-Arg	○	△	○		△	·						◎	○	○	△			◎	△	·	·		·					
P-502	MJZC-5, 977.40	LOS	Cp-Po diss. Do band	◎	△	○						△			○				◎	◎			·		△						
P-503	MJZC-5, 979.40	LOS	Cp>Po diss. in dol-sdy-Arg	◎	△	◎						·			○	△	○	◎		◎		·	·	·	△					·	
P-504	MJZC-5, 982.10	LOS	Cp-Po-Do lamination in dol-Arg	◎	△	◎		·				·			○	△	○	◎		◎	·	·	·	·	△					·	
P-505	MJZC-5, 985.60	LOS	Cp-Py-Po-Do lens in dol-Arg	○	△	○		·							○	△	○	◎		◎		·	·	·	△					·	
P-506	MJZC-5, 987.40	LOS	Po-Py>Cp diss. in dol-Arg	△	◎	△									○	△	○	◎		◎		·	·	·	△	·				·	
P-601	MJZC-6, 875.20	UCD	Cp diss. in dol-Arg	○			○								○		△	○		◎			·		△						
P-602	MJZC-6, 981.10	LOS	Bo diss. in dol-Ss				△		·	·	·		·		◎		△	○		◎	○		·	·		·					
P-603	MJZC-6, 984.20	LOS	Cp diss. in dol-Ss	○			△	·							◎		○	○		◎	○	·	·	·	△	·					
P-604	MJZC-6, 985.70	LOS	Cp diss. in dol-Ss	△											◎	○	○	○		◎	○		·	·	·	·					
P-605	MJZC-6, 988.10	LOS	Bo-Cp diss. in dol-Ss	△			△		·	·					◎	○	○	○		◎	○		·	·		·					
P-606	MJZC-6, 993.10	LOS	Cp diss. in dol-Ss	○			△								◎	○	○	○		◎	○		·	·		·					
P-607	MJZC-6, 995.00	LOS	Bo diss. in sdy-Arg	·			○								◎		△	△		◎	△			△		·					
P-608	MJZC-6, 1006.20	LFQ	Cp-Bo diss. in Ss	○			△	·							◎		△	◎		◎	○		·	·	△						
P-701	MJZC-7, 931.70	LOS	Py>Cp diss. in sl	△	◎										◎		○			◎	○		△	·	△	·					
P-702	MJZC-7, 950.60	LOS	Cp diss. in Do	○								·			△				◎	◎	○			·	○						
P-703	MJZC-7, 958.50	LOS	Cp diss. in micaceous Arg	○																◎	○			△							○
P-704	MJZC-7, 962.90	LOS	Cp diss. in Do-lens	○			○							·	○			○		◎							○		△		◎

Abbreviations

Abundance of minerals: ◎ ;abundant, ○;common, △;a few, · ;trace

Rock : Do;Dolomite, Arg;Argillite, Cgl;Conglomerate, Ss;Sandstone, Sl;Shale, diss;dissemination, Cp;Chalcopyrite, dol;dolomitic, sdy;sandy

Mineral : Py;Pyrite, Po;Pyrrhotite, Bo;Bornite, Co;Cobalt pentlandite, Gn;Galena, Bs;Native Bismuth, Wi;Wittichenite, Sp;Sphalerite, Mo;Molybdenite, Hs;Hessite, Qz;Quartz, Kf;Alkali feldspar, Pl;Plagioclase, Ca;Carbonate, Bi;Biotite, Mc;Muscovite, To;Tourmaline, Ti;Titanite, Ap;Apatite, Ch;Chlorite, Zr;Zircon, Tc;Talc, Al;Allanite, Ru;Rutile, Am;Amphibole

Table 2-6-2 Results of Microscopic Observation of Polished Thin Sections (2)

Hole No.	MJZC-1	MJZC-5	MJZC-5	MJZC-6	MJZC-6
Sample No.	P102	P501	P504	P603	P608
wt.%					
S	33.29	32.45	33.43	32.99	33.14
Fe	0.51	6.79	9.24	0.33	3.69
Cu	1.75	0.13	0.19	0.44	10.42
Co	63.28	52.46	51.22	65.94	50.23
Zn	0.14	0.11	nd	nd	0.56
As	nd	nd	nd	nd	0.31
Ni	1.24	7.17	6.49	0.45	0.92
Total	100.21	99.11	100.57	100.15	99.27
Atom.%					
S	47.80	47.08	47.59	47.45	48.20
Fe	0.42	5.66	7.55	0.27	3.08
Cu	1.27	0.10	0.14	0.32	7.65
Co	49.44	41.41	39.67	51.60	39.75
Zn	0.10	0.08	0.00	0.00	0.40
As	0.00	0.00	0.00	0.00	0.19
Ni	0.97	5.68	5.05	0.35	0.73
Mineral	*Co-Pen	*Co-Pen	*Co-Pen	*Co-Pen	*Co-Pen

by EDS of Link Systems

* Co-Pen: Cobalt Pentlandite

Table 2-6-3 Results of Chemical Analysis of Ore Samples (1)

MJZC－1

Smaple No.	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
LC14323	499.53 ～ 500.03	<0.01	<0.01	<0.01
LC14324	500.03 ～ 500.53	<0.01	<0.01	<0.01
LC14325	500.53 ～ 501.03	<0.01	<0.01	<0.01
LC14326	501.03 ～ 501.53	<0.01	<0.01	<0.01
LC14327	501.53 ～ 502.03	<0.01	<0.01	<0.01
LC14328	502.03 ～ 502.53	<0.01	<0.01	<0.01
LC14329	502.53 ～ 502.90	<0.01	<0.01	<0.01
LC14330	502.90 ～ 503.40	<0.01	<0.01	<0.01
LC14331	503.40 ～ 503.90	<0.01	<0.01	<0.01
LC14332	503.90 ～ 504.40	<0.01	<0.01	<0.01
LC14333	504.40 ～ 504.90	<0.01	<0.01	<0.01
LC14334	504.90 ～ 505.53	<0.01	<0.01	<0.01
LC14335	505.53 ～ 506.03	<0.01	<0.01	0.02
LC14336	506.03 ～ 506.53	<0.01	<0.01	0.02
LC14337	506.53 ～ 507.03	<0.01	<0.01	0.03
LC14338	507.03 ～ 507.53	0.02	<0.01	0.06
LC14339	507.53 ～ 508.03	0.01	<0.01	0.02
LC14340	508.03 ～ 508.20	<0.01	<0.01	0.03
LC14341	508.20 ～ 508.70	<0.01	<0.01	0.05
LC14342	508.70 ～ 509.20	<0.01	<0.01	0.03
LC14343	509.20 ～ 509.70	<0.01	<0.01	0.03
LC14344	509.70 ～ 510.20	0.01	<0.01	0.03
LC14345	510.20 ～ 510.70	<0.01	<0.01	0.03
LC14346	510.70 ～ 511.20	0.02	<0.01	0.04
LC14347	511.20 ～ 511.53	0.02	<0.01	0.04
LC14348	511.53 ～ 512.03	0.07	<0.01	0.05
LC14349	512.03 ～ 512.53	0.05	<0.01	0.02
LC14350	512.53 ～ 513.03	0.32	<0.01	0.02
LC14351	513.03 ～ 513.53	0.32	<0.01	0.01
LC14352	513.53 ～ 514.03	0.11	<0.01	<0.01
LC14353	514.03 ～ 514.53	0.11	<0.01	<0.01
LC14354	514.53 ～ 515.03	0.13	<0.01	0.01
LC14355	515.03 ～ 515.26	0.07	<0.01	<0.01
LC14356	515.26 ～ 515.76	0.25	<0.01	0.02
LC14357	515.76 ～ 516.26	0.10	<0.01	0.01
LC14358	516.26 ～ 516.76	0.19	<0.01	0.01
LC14359	516.76 ～ 516.99	0.21	<0.01	0.05
LC14360	516.99 ～ 517.53	0.92	<0.01	0.02
LC14361	517.53 ～ 518.03	0.19	<0.01	0.02
LC14362	518.03 ～ 518.53	0.12	<0.01	0.05
LC14363	518.53 ～ 519.03	0.31	<0.01	0.06
LC14364	519.03 ～ 519.53	0.23	<0.01	0.11
LC14365	519.53 ～ 520.03	0.07	<0.01	0.07
LC14366	520.03 ～ 520.53	0.05	<0.01	0.04
LC14367	520.53 ～ 520.93	0.02	<0.01	0.02
LC14368	520.93 ～ 521.18	0.02	<0.01	0.04
LC14369	521.18 ～ 521.68	0.38	<0.01	0.01
LC14370	521.68 ～ 522.18	0.48	<0.01	0.01
LC14371	522.18 ～ 522.68	0.59	<0.01	0.01
LC14372	522.68 ～ 523.18	0.61	<0.01	<0.01
LC14373	523.18 ～ 523.53	0.41	<0.01	<0.01
LC14374	523.53 ～ 524.03	0.88	<0.01	<0.01
LC14375	524.03 ～ 524.23	0.72	<0.01	<0.01
LC14376	524.23 ～ 524.53	0.59	<0.01	0.01
LC14377	524.53 ～ 525.03	0.55	<0.01	0.02
LC14378	525.03 ～ 525.53	0.40	<0.01	<0.01
LC14379	525.53 ～ 526.03	0.25	<0.01	<0.01
LC14380	526.03 ～ 526.53	0.24	<0.01	<0.01
LC14381	526.53 ～ 527.03	0.24	<0.01	<0.01
LC14382	527.03 ～ 527.53	0.31	<0.01	0.01
LC14383	527.53 ～ 528.03	0.23	<0.01	0.01
LC14384	528.03 ～ 528.53	0.06	<0.01	<0.01
LC14385	528.53 ～ 529.03	0.09	<0.01	<0.01
LC14386	529.03 ～ 529.53	0.08	<0.01	<0.01
LC14387	529.53 ～ 530.03	0.09	<0.01	<0.01
LC14388	530.03 ～ 530.53	0.07	<0.01	<0.01
LC14389	530.53 ～ 530.83	0.02	<0.01	<0.01

Width (m)	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
2.85	522.18 ～ 525.03	0.62	<0.01	<0.01

Table 2-6-3 Results of Chemical Analysis of Ore Samples (2)

MJZC−5

Smaple No.	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
LC14390	962.91 ～ 963.41	0.02	0.02	<0.01
LC14391	963.41 ～ 963.91	<0.01	<0.01	<0.01
LC14392	963.91 ～ 964.41	<0.01	<0.01	<0.01
LC14393	964.41 ～ 964.91	<0.01	<0.01	<0.01
LC14394	964.91 ～ 965.41	<0.01	<0.01	<0.01
LC14395	965.41 ～ 965.91	<0.01	<0.01	<0.01
LC14396	965.91 ～ 966.41	<0.01	<0.01	<0.01
LC14397	966.41 ～ 966.91	<0.01	<0.01	<0.01
LC14398	966.91 ～ 967.21	<0.01	<0.01	<0.01
LC14399	967.21 ～ 967.77	<0.01	<0.01	<0.01
LC14400	967.77 ～ 968.15	<0.01	<0.01	<0.01
LC18001	968.15 ～ 968.65	<0.01	<0.01	<0.01
LC18002	968.65 ～ 969.15	<0.01	<0.01	<0.01
LC18003	969.15 ～ 969.65	<0.01	<0.01	<0.01
LC18004	969.65 ～ 970.15	<0.01	<0.01	<0.01
LC18005	970.15 ～ 970.65	<0.01	<0.01	<0.01
LC18006	970.65 ～ 971.15	<0.01	<0.01	<0.01
LC18007	971.15 ～ 971.65	0.02	<0.01	<0.01
LC18008	971.65 ～ 972.15	0.05	<0.01	<0.01
LC18009	972.15 ～ 972.65	0.14	<0.01	<0.01
LC18010	972.65 ～ 973.15	1.01	<0.01	<0.01
LC18011	973.15 ～ 974.15	0.71	<0.01	0.03
LC18012	974.15 ～ 974.69	0.10	<0.01	0.02
LC18013	974.69 ～ 975.23	0.07	<0.01	0.02
LC18014	975.23 ～ 975.77	0.02	<0.01	0.02
LC18015	975.77 ～ 976.31	0.12	<0.01	0.01
LC18016	976.31 ～ 976.85	0.42	<0.01	0.01
LC18017	976.85 ～ 977.39	0.06	<0.01	0.02
LC18018	977.39 ～ 977.93	0.24	<0.01	0.01
LC18019	977.93 ～ 978.47	0.02	<0.01	0.02
LC18020	978.47 ～ 979.01	0.13	<0.01	0.02
LC18021	979.01 ～ 979.55	0.04	<0.01	0.04
LC18022	979.55 ～ 980.09	2.26	0.02	0.03
LC18023	980.09 ～ 980.15	0.37	<0.01	0.10
LC18024	980.15 ～ 980.65	1.25	1.25	0.02
LC18025	980.65 ～ 981.15	1.52	0.01	0.03
LC18026	981.15 ～ 981.65	2.38	0.02	0.04
LC18027	981.65 ～ 982.15	2.51	0.03	0.03
LC18028	982.15 ～ 982.65	1.80	0.02	0.03
LC18029	982.65 ～ 983.15	0.67	<0.01	0.03
LC18030	983.15 ～ 983.65	1.15	0.01	0.03
LC18031	983.65 ～ 984.15	0.12	<0.01	0.03
LC18032	984.15 ～ 984.65	0.02	<0.01	0.03
LC18033	984.65 ～ 985.15	0.03	<0.01	0.03
LC18034	985.15 ～ 985.31	0.65	<0.01	0.03
LC18035	985.31 ～ 985.84	1.08	0.01	0.04
LC18036	985.84 ～ 986.37	1.22	<0.01	0.02
LC18037	986.37 ～ 986.90	1.23	0.01	0.02
LC18038	986.90 ～ 987.43	0.73	<0.01	0.01
LC18039	987.43 ～ 987.96	0.13	<0.01	<0.01
LC18040	987.96 ～ 988.49	0.30	<0.01	<0.01
LC18041	988.49 ～ 989.02	0.14	<0.01	0.01
LC18042	989.02 ～ 989.55	0.09	<0.01	<0.01
LC18043	989.55 ～ 990.08	0.10	<0.01	0.01
LC18044	990.08 ～ 990.61	0.10	<0.01	<0.01
LC18045	990.61 ～ 991.14	0.08	<0.01	<0.01
LC18046	991.14 ～ 991.31	0.17	<0.01	<0.01
LC18047	991.31 ～ 991.81	0.09	<0.01	<0.01
LC18048	991.81 ～ 992.31	0.04	<0.01	<0.01
LC18049	992.31 ～ 992.81	0.07	<0.01	<0.01
LC18050	992.81 ～ 993.31	0.10	<0.01	<0.01
LC18051	993.31 ～ 993.81	0.06	<0.01	0.01
LC18052	993.81 ～ 994.31	0.05	<0.01	<0.01
LC18053	994.31 ～ 994.81	0.06	<0.01	<0.01
LC18054	994.81 ～ 995.31	0.05	<0.01	<0.01
LC18055	995.31 ～ 995.81	0.06	<0.01	0.01
LC18056	995.81 ～ 996.31	0.04	<0.01	<0.01
LC18057	996.31 ～ 996.81	0.06	<0.01	<0.01
LC18058	996.81 ～ 997.31	0.06	<0.01	<0.01
LC18059	997.31 ～ 997.81	0.05	<0.01	<0.01
LC18060	997.81 ～ 998.31	0.03	<0.01	<0.01
LC18061	998.31 ～ 998.81	0.16	<0.01	0.02
LC18062	998.81 ～ 999.17	0.09	<0.01	<0.01
LC18063	999.17 ～ 999.47	0.14	<0.01	0.01
LC18064	999.47 ～ 999.97	0.23	<0.01	0.01
LC18065	999.97 ～ 1000.47	0.56	<0.01	<0.01
LC18066	1000.47 ～ 1000.82	0.90	<0.01	<0.01
LC18067	1000.82 ～ 1001.12	2.74	<0.01	0.02
LC18068	1001.12 ～ 1001.47	1.61	<0.01	0.02
LC18069	1001.47 ～ 1001.97	2.16	<0.01	0.02

Smaple No.	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
LC18070	1001.97 ～ 1002.47	1.99	<0.01	0.03
LC18071	1002.47 ～ 1003.46	2.68	<0.01	0.05
LC18072	1003.46 ～ 1003.96	0.42	<0.01	0.02
LC18073	1003.96 ～ 1004.23	0.87	<0.01	0.03
LC18074	1004.23 ～ 1004.73	2.00	<0.01	0.14
LC18075	1004.73 ～ 1005.03	0.42	<0.01	0.32
LC18076	1005.03 ～ 1005.13	0.06	<0.01	0.08
LC18077	1005.13 ～ 1005.68	0.06	<0.01	0.02
LC18078	1005.68 ～ 1006.23	0.06	<0.01	<0.01
LC18079	1006.23 ～ 1006.78	0.06	<0.01	<0.01
LC18080	1006.78 ～ 1007.33	0.06	<0.01	<0.01
LC18081	1007.33 ～ 1007.88	0.06	<0.01	<0.01
LC18082	1007.88 ～ 1008.43	0.07	<0.01	<0.01
LC18083	1008.43 ～ 1008.98	0.13	<0.01	<0.01
LC18084	1008.98 ～ 1009.13	0.07	<0.01	<0.01

Width (m)	Depth (m)		T-Cu (%)	AS-Cu (%)	T-Co (%)
3.10	979.55	982.65	1.93	0.02	0.03
7.88	979.55	987.43	1.18	0.01	0.03
2.64	1000.82	1003.46	2.32	<0.01	0.03
3.91	1000.82	1004.73	1.93	<0.01	0.04
4.76	999.97	1004.73	1.71	<0.01	0.04

Table 2-6-3 Results of Chemical Analysis of Ore Samples (3)

MJZC-6

Smaple No.	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
LC19794	873.77 ~ 874.38	0.51	0.01	<0.01
LC19795	874.38 ~ 874.73	0.47	0.02	0.01
LC19796	874.73 ~ 875.23	0.18	0.03	0.01
LC19797	875.23 ~ 875.73	0.01	0.01	0.01
LC19798	875.73 ~ 876.23	0.01	<0.01	0.01
LC19799	876.23 ~ 876.73	0.03	<0.01	0.01
LC19800	876.73 ~ 877.23	0.01	<0.01	<0.01
LC14201	877.23 ~ 877.60	0.19	0.03	0.03
LC14202	877.60 ~ 878.05	0.07	0.04	<0.01
LC14203	955.15 ~ 955.65	<0.01	<0.01	<0.01
LC14204	955.65 ~ 956.15	0.01	<0.01	<0.01
LC14205	956.15 ~ 956.65	0.02	0.01	<0.01
LC14206	956.65 ~ 957.15	<0.01	<0.01	<0.01
LC14207	957.15 ~ 957.65	0.04	0.02	<0.01
LC14208	957.65 ~ 958.15	0.05	0.02	<0.01
LC14209	958.15 ~ 958.65	0.01	0.01	<0.01
LC14210	958.65 ~ 959.15	0.12	0.01	<0.01
LC14211	959.15 ~ 959.35	0.10	0.01	<0.01
LC14212	959.35 ~ 959.73	1.84	0.04	<0.01
LC14213	959.73 ~ 961.15	0.02	<0.01	<0.01
LC14214	961.15 ~ 961.65	<0.01	<0.01	<0.01
LC14215	961.65 ~ 962.15	<0.01	<0.01	<0.01
LC14216	962.15 ~ 962.65	<0.01	<0.01	<0.01
LC14217	962.65 ~ 963.15	<0.01	<0.01	<0.01
LC14218	963.15 ~ 963.65	<0.01	<0.01	<0.01
LC14219	963.65 ~ 964.15	<0.01	<0.01	<0.01
LC14220	964.15 ~ 964.65	<0.01	<0.01	<0.01
LC14221	964.65 ~ 965.15	0.13	<0.01	<0.01
LC14222	965.15 ~ 965.65	0.38	<0.01	<0.01
LC14223	965.65 ~ 966.15	<0.01	<0.01	<0.01
LC14224	966.15 ~ 966.65	0.01	<0.01	<0.01
LC14225	966.65 ~ 966.95	0.01	<0.01	<0.01
LC14226	966.95 ~ 967.45	<0.01	<0.01	<0.01
LC14227	967.45 ~ 967.95	<0.01	<0.01	<0.01
LC14228	967.95 ~ 968.45	<0.01	<0.01	<0.01
LC14229	968.45 ~ 968.95	0.04	<0.01	<0.01
LC14230	968.95 ~ 969.45	<0.01	<0.01	<0.01
LC14231	969.45 ~ 969.56	<0.01	<0.01	0.01
LC14232	969.56 ~ 970.06		<0.01	<0.01
LC14233	970.06 ~ 970.56	0.01	<0.01	<0.01
LC14234	970.56 ~ 971.06	<0.01	<0.01	<0.01
LC14235	971.06 ~ 971.56		<0.01	<0.01
LC14236	971.56 ~ 972.06		<0.01	<0.01
LC14237	972.06 ~ 972.56	0.04	<0.01	<0.01
LC14238	972.56 ~ 972.96	0.04	0.01	<0.01
LC14239	972.96 ~ 973.46	0.07	0.01	0.01
LC14240	973.46 ~ 973.76	0.08	0.01	<0.01
LC14241	973.76 ~ 974.06	0.08	<0.01	<0.01
LC14242	974.06 ~ 974.36	0.26	<0.01	<0.01
LC14243	974.36 ~ 974.86	0.29	<0.01	<0.01
LC14244	974.86 ~ 975.36	0.21	<0.01	<0.01
LC14245	975.36 ~ 975.86	0.27	<0.01	<0.01
LC14246	975.86 ~ 976.36	0.41	<0.01	<0.01
LC14247	976.36 ~ 976.86	0.22	<0.01	<0.01
LC14248	976.86 ~ 977.36	0.62	<0.01	<0.01
LC14249	977.36 ~ 977.86	0.63	<0.01	<0.01
LC14250	977.86 ~ 978.16	0.52	<0.01	<0.01
LC14251	978.16 ~ 978.46	0.14	<0.01	<0.01
LC14252	978.46 ~ 978.95	0.12	<0.01	<0.01
LC14253	978.95 ~ 979.45	0.43	<0.01	0.01
LC14254	979.45 ~ 979.95	0.16	<0.01	0.01
LC14255	979.95 ~ 980.45	0.22	<0.01	<0.01
LC14256	980.45 ~ 980.95	0.47	<0.01	0.01
LC14257	980.95 ~ 981.10	0.31	<0.01	<0.01
LC14258	981.10 ~ 981.40	0.54	0.02	<0.01
LC14259	981.40 ~ 981.90	1.22	<0.01	<0.01
LC14260	981.90 ~ 982.40	1.13	0.02	<0.01
LC14261	982.40 ~ 982.90	1.46	<0.01	<0.01
LC14262	982.90 ~ 983.40	1.57	<0.01	0.02
LC14263	983.40 ~ 983.95	1.02	<0.01	<0.01
LC14264	983.95 ~ 984.45	0.84	<0.01	<0.01
LC14265	984.45 ~ 984.96	0.44	<0.01	<0.01
LC14266	984.96 ~ 985.46	0.29	<0.01	<0.01
LC14267	985.46 ~ 985.85	0.67	<0.01	0.01
LC14268	985.85 ~ 986.35	0.16	<0.01	<0.01
LC14269	986.35 ~ 986.85	0.05	<0.01	<0.01
LC14270	986.85 ~ 987.35	0.06	<0.01	<0.01
LC14271	987.35 ~ 987.85	0.21	<0.01	<0.01
LC14272	987.85 ~ 988.35	0.16	<0.01	<0.01
LC14273	988.35 ~ 988.85	0.52	<0.01	<0.01
LC14274	988.85 ~ 989.53	0.10	<0.01	<0.01
LC14275	989.53 ~ 990.03	0.25	<0.01	<0.01
LC14276	990.03 ~ 990.53	0.16	<0.01	<0.01
LC14277	990.53 ~ 990.96	0.11	<0.01	<0.01
LC14278	990.96 ~ 991.46	0.42	<0.01	<0.01
LC14279	991.46 ~ 991.96	0.29	<0.01	<0.01
LC14280	991.96 ~ 992.46	0.32	<0.01	<0.01
LC14281	992.46 ~ 992.79	0.32	<0.01	<0.01
LC14282	992.79 ~ 993.29	0.38	<0.01	<0.01
LC14283	993.29 ~ 993.79	0.17	<0.01	<0.01
LC14284	993.79 ~ 994.29	0.41	<0.01	<0.01
LC14285	994.29 ~ 994.79	0.50	<0.01	<0.01
LC14286	994.79 ~ 995.00	0.58	0.01	0.02
LC14287	995.00 ~ 995.68	1.28	<0.01	0.01
LC14288	995.68 ~ 996.18	0.40	<0.01	<0.01
LC14289	996.18 ~ 996.68	0.05	<0.01	<0.01
LC14290	996.68 ~ 996.96	0.75	0.01	<0.01
LC14291	996.96 ~ 997.46	0.61	0.01	<0.01
LC14292	997.46 ~ 997.96	0.03	<0.01	<0.01
LC14293	997.96 ~ 998.46	0.05	<0.01	<0.01
LC14294	998.46 ~ 998.96	0.02	<0.01	<0.01
LC14295	998.96 ~ 999.46	0.15	<0.01	<0.01
LC14296	999.46 ~ 999.96	0.03	<0.01	<0.01
LC14297	999.96 ~ 1000.46	0.11	<0.01	<0.01
LC14298	1000.46 ~ 1001.05	0.02	<0.01	<0.01
LC14299	1001.05 ~ 1001.55	0.27	<0.01	0.02
LC14300	1001.55 ~ 1002.05	0.10	<0.01	0.01
LC15901	1002.05 ~ 1002.96	0.04	<0.01	0.02
LC15902	1002.96 ~ 1003.10	0.08	<0.01	0.01
LC15903	1003.10 ~ 1003.60	0.10	<0.01	0.01
LC15904	1003.60 ~ 1004.10	0.13	<0.01	<0.01
LC15905	1004.10 ~ 1004.60	0.19	<0.01	<0.01
LC15906	1004.60 ~ 1005.10	0.19	<0.01	<0.01
LC15907	1005.10 ~ 1005.60	0.08	<0.01	<0.01
LC15908	1005.60 ~ 1006.10	0.08	<0.01	<0.01
LC15909	1006.10 ~ 1006.60	0.18	<0.01	<0.01
LC15910	1006.60 ~ 1006.43	0.21	<0.01	<0.01
LC15911	1006.43 ~ 1006.93	0.15	<0.01	0.01
LC15912	1006.93 ~ 1007.35	0.11	<0.01	0.01
LC15913	1007.35 ~ 1007.85	0.02	<0.01	<0.01
LC15914	1007.85 ~ 1008.35	0.01	<0.01	<0.01
LC15915	1008.35 ~ 1008.96	<0.01	<0.01	<0.01

Width (m)	Depth (m)		T-Cu (%)	AS-Cu (%)	T-Co (%)
3.35	981.10	984.45	1.14	<0.01	<0.01
1.39	994.29	995.68	0.89	<0.01	0.01

Table 2-6-3 Results of Chemical Analysis of Ore Samples (4)

MJZC-7

Smaple No.	Depth (m)	T-Cu (%)	AS-Cu (%)	T-Co (%)
LC15917	918.96 ~ 919.46	<0.01	<0.01	<0.01
LC15918	919.46 ~ 919.96	<0.01	<0.01	<0.01
LC15919	919.96 ~ 920.46	<0.01	<0.01	<0.01
LC15920	920.46 ~ 920.96	<0.01	<0.01	<0.01
LC15921	920.96 ~ 921.46	<0.01	<0.01	<0.01
LC15922	921.46 ~ 921.96	<0.01	<0.01	<0.01
LC15923	921.96 ~ 922.46	<0.01	<0.01	<0.01
LC15924	922.46 ~ 922.96	0.12	<0.01	<0.01
LC15925	922.96 ~ 923.46	0.19	<0.01	<0.01
LC15926	923.46 ~ 923.89	0.40	<0.01	<0.01
LC15927	923.89 ~ 924.19	0.17	<0.01	0.01
LC15928	924.19 ~ 924.69	0.24	<0.01	<0.01
LC15929	924.69 ~ 924.96	0.23	<0.01	<0.01
LC15930	924.96 ~ 925.46	0.10	<0.01	<0.01
LC15931	925.46 ~ 925.96	0.05	<0.01	<0.01
LC15932	925.96 ~ 926.46	0.04	<0.01	<0.01
LC15933	926.46 ~ 926.96	0.12	<0.01	<0.01
LC15934	926.96 ~ 927.46	0.13	<0.01	<0.01
LC15935	927.46 ~ 927.96	0.09	<0.01	<0.01
LC15936	927.96 ~ 928.46	0.09	<0.01	<0.01
LC15937	928.46 ~ 928.96	0.13	<0.01	<0.01
LC15938	928.96 ~ 929.46	0.08	<0.01	<0.01
LC15939	929.46 ~ 929.96	0.10	<0.01	<0.01
LC15940	929.96 ~ 930.46	0.04	<0.01	<0.01
LC15941	930.46 ~ 930.58	0.04	<0.01	<0.01
LC15942	930.58 ~ 931.08	0.06	<0.01	<0.01
LC15943	931.08 ~ 931.58	0.07	<0.01	<0.01
LC15944	931.58 ~ 932.08	0.06	<0.01	<0.01
LC15945	932.08 ~ 932.58	0.10	<0.01	<0.01
LC15946	932.58 ~ 933.08	0.07	<0.01	<0.01
LC15947	933.08 ~ 933.58	0.04	<0.01	<0.01
LC15948	933.58 ~ 933.88	0.12	<0.01	<0.01
LC15949	933.88 ~ 934.18	0.02	<0.01	<0.01
LC15950	934.18 ~ 934.48	0.15	<0.01	<0.01
LC15951	934.48 ~ 934.98	0.08	<0.01	<0.01
LC15952	934.98 ~ 935.48	0.12	<0.01	<0.01
LC15953	935.48 ~ 935.98	<0.01	<0.01	<0.01
LC15954	935.98 ~ 936.48	<0.01	<0.01	<0.01
LC15955	936.48 ~ 936.64	<0.01	<0.01	<0.01
LC15956	936.64 ~ 937.14	<0.01	<0.01	<0.01
LC15957	937.14 ~ 937.64	<0.01	<0.01	<0.01
LC15958	937.64 ~ 937.94	<0.01	<0.01	<0.01
LC15959	937.94 ~ 938.44	<0.01	<0.01	<0.01
LC15960	938.44 ~ 938.94	<0.01	<0.01	<0.01
LC15961	938.94 ~ 939.44	<0.01	<0.01	<0.01
LC15962	939.44 ~ 939.94	<0.01	<0.01	<0.01
LC15963	939.94 ~ 940.44	<0.01	<0.01	<0.01
LC15964	940.44 ~ 940.94	<0.01	<0.01	<0.01
LC15965	940.94 ~ 941.44	0.01	<0.01	<0.01
LC15966	941.44 ~ 941.94	0.03	<0.01	<0.01
LC15967	941.94 ~ 942.44	<0.01	<0.01	<0.01
LC15968	942.44 ~ 942.73	<0.01	<0.01	<0.01
LC15969	942.73 ~ 943.23	<0.01	<0.01	<0.01
LC15970	943.23 ~ 943.73	0.02	<0.01	<0.01
LC15971	943.73 ~ 944.23	0.02	<0.01	<0.01
LC15972	944.23 ~ 944.73	0.03	<0.01	<0.01
LC15973	944.73 ~ 945.23	0.02	<0.01	<0.01
LC15974	945.23 ~ 945.73	<0.01	<0.01	<0.01
LC15975	945.73 ~ 946.23	<0.01	<0.01	<0.01
LC15976	946.23 ~ 946.73	<0.01	<0.01	<0.01
LC15977	946.73 ~ 947.23	<0.01	<0.01	<0.01
LC15978	947.23 ~ 947.73	<0.01	<0.01	<0.01
LC15979	947.73 ~ 948.45	0.14	<0.01	0.04
LC15980	948.45 ~ 948.76	1.30	<0.01	0.02
LC15981	948.76 ~ 949.06	1.81	<0.01	0.02
LC15982	949.06 ~ 949.56	1.90	<0.01	0.04
LC15983	949.56 ~ 949.75	0.61	<0.01	0.01
LC15984	949.75 ~ 950.05	1.45	<0.01	0.02
LC15985	950.05 ~ 950.55	2.42	<0.01	0.03
LC15986	950.55 ~ 951.05	2.14	<0.01	0.02
LC15987	951.05 ~ 951.13	0.55	<0.01	<0.01
LC15988	951.13 ~ 951.43	1.81	<0.01	0.02
LC15989	951.43 ~ 951.93	0.57	<0.01	<0.01
LC15990	951.93 ~ 952.43	0.46	<0.01	<0.01
LC15991	952.43 ~ 952.93	0.75	<0.01	<0.01
LC15992	952.93 ~ 953.33	1.20	<0.01	0.01
LC15993	953.33 ~ 953.63	0.70	<0.01	<0.01
LC15994	953.63 ~ 954.15	0.95	<0.01	<0.01
LC15995	954.15 ~ 954.67	1.32	<0.01	<0.01
LC15996	954.67 ~ 954.96	0.47	<0.01	<0.01
LC15997	954.96 ~ 955.48	0.82	<0.01	<0.01
LC15998	955.48 ~ 956.00	0.36	<0.01	<0.01
LC15999	956.00 ~ 956.52	0.51	<0.01	0.01
LC16000	956.52 ~ 957.04	0.28	<0.01	<0.01
LC14301	957.04 ~ 957.56	0.11	<0.01	<0.01
LC14302	957.56 ~ 958.08	0.41	<0.01	<0.01
LC14303	958.08 ~ 958.60	0.50	<0.01	<0.01
LC14304	958.60 ~ 959.12	0.14	<0.01	<0.01
LC14305	959.12 ~ 959.64	0.57	<0.01	<0.01
LC14306	959.64 ~ 960.16	0.10	<0.01	<0.01
LC14307	960.16 ~ 960.56	0.12	<0.01	<0.01
LC14308	960.56 ~ 961.11	0.03	<0.01	<0.01
LC14309	961.11 ~ 961.66	<0.01	<0.01	<0.01
LC14310	961.66 ~ 962.06	<0.01	<0.01	<0.01
LC14311	962.06 ~ 962.39	0.26	<0.01	<0.01
LC14312	962.39 ~ 962.84	0.06	<0.01	<0.01
LC14313	962.84 ~ 963.39	0.28	<0.01	<0.01
LC14314	963.39 ~ 963.84	0.02	<0.01	<0.01
LC14315	963.84 ~ 964.39	<0.01	<0.01	<0.01
LC14316	964.39 ~ 965.09	<0.01	<0.01	<0.01
LC14317	965.09 ~ 965.39	<0.01	<0.01	<0.01
LC14318	965.39 ~ 965.84	<0.01	<0.01	<0.01
LC14319	965.84 ~ 966.39	<0.01	<0.01	<0.01
LC14320	966.39 ~ 966.96	<0.01	<0.01	<0.01

Width (m)	Depth (m)		T-Cu (%)	AS-Cu (%)	T-Co (%)
2.98	948.45	951.43	1.78	<0.01	0.02
8.07	948.45	956.52	1.13	<0.01	0.01

PART Ⅲ

CONCLUSIONS AND RECOMMENDATIONS

PART III CONCLUSIONS AND RECOMMENDATIONS

Chapter 1 Conclusions

Drilling was carried out during the second-phase of the Chambishi Southeast area mineral exploration. All five boreholes drilled during this phase attained their objectives by penetrating the ore horizon. The four boreholes designed to obtain basement data reached the basement. The geology and mineralization of the vicinity of known deposits were thus clarified and the following conclusions were reached.

1. MJZC-5 drilled in the northwestern part of this area encountered relatively good ore (width 3.10m T-Cu 1.93% T-Co 0.03%, width 2.64m T-Cu 2.32% T-Co 0.03%). This orebody is believed to be the northwestern extension of the Northern Area Shoot which is the major ore shoot of this area. From this, extension of the northern part of the Northern Area Shoot in the west-northwest direction has become a possibility to be considered seriously.

2. MJZC-6 and MJZC-7 drilled to the west-northwest of MJZC-5 encountered relatively low grade ores and they are considered to be located near the palaeo-basement high at the time of ore deposition. The ore shoot confirmed by NN-75 located between these two boreholes is inferred to be developed in the local depression to the south of NN-75, MJZC-6 and MJZC-7, namely on the southern limb of the palaeo-basement high.

3. MJZC-1 drilled in the southern part of the area encountered relatively low-grade ore. This mineralization, however, is developed immediately below the "Ore Shale" and is believed to be of the same type as that of the currently operating Chibuluma mine. To the east of MJZC-1, MJZC-2 confirmed relatively high-grade ore last year. This brings out the possibility that ore shoot may exist in the unexplored areas to the south of the above two boreholes.

4. MJZC-8 drilled in the southeastern part of the Northern Area Shoot encountered only weakly mineralized zone. This is most likely located at the crest of the palaeo-basement high and is considered to be barren.

Chapter 2 Recommendations for Third Phase Survey

It is concluded from the results of the drilling reported above that the most promising area for discovering new ore deposits is; the area northwest of the Northern Area Shoot, namely south of NN-75, south of MJZC-6 and south of MJZC-7. Next in line of prospectivity is the area south of MJZC-1 and MJZC-2.

The Northern Area Shoot, the most important deposit of the project area, however, has not been prospected sufficiently and drilling along the periphery of the deposit is necessary in order to evaluate the ore reserve of this deposit accurately.

With the above consideration, drilling plan as shown in Figure 1-12 has been formulated for the third phase. The planned depth of the drilling is that of the basement for new areas, but for those with known basement depth, the figures are those designed to reach the footwall of the orebodies.

It is thus recommended that drilling be carried out with high priority for the search for new deposits and that the ore reserves of this area be accurately evaluated by integrated study of the drilling results.

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PHOTOGRAPHS

Photo 1 Photograph of Drilling Cores (1)

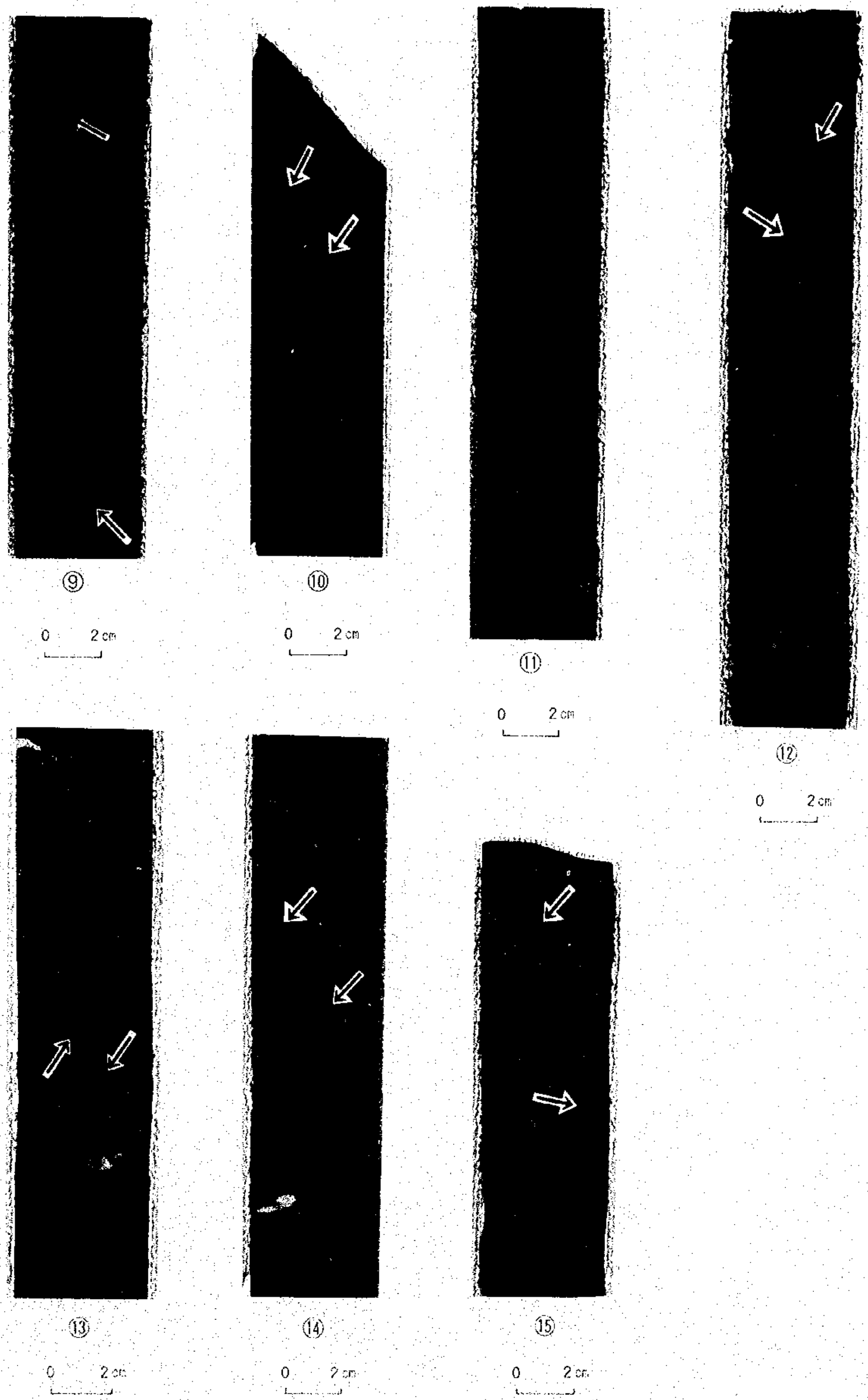
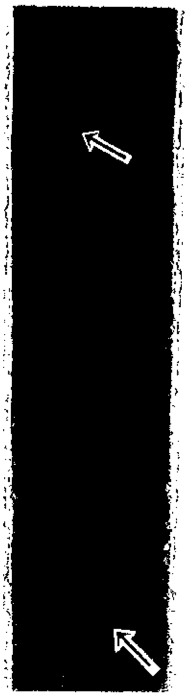


Photo 1 Photograph of Drilling Cores (2)



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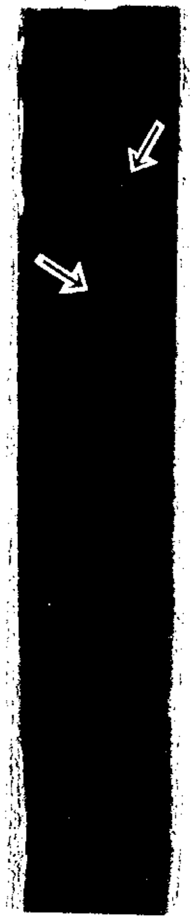

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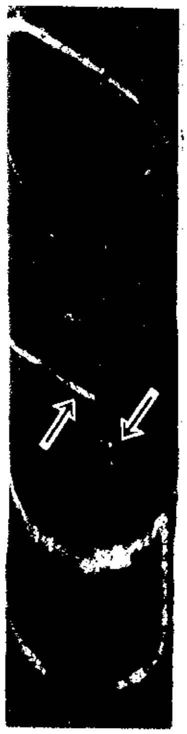

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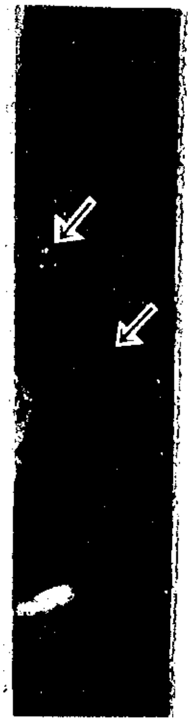

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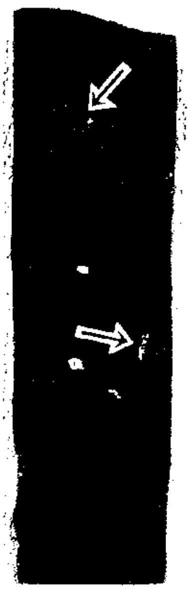

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PHOTO CAPTIONS

①Dissemination of chalcopyrite in pebbly quartzite (MJZC-1, 523.8m, LFQ).

②Conglomerate consisting of granite pebbles (MJZC-1, 589.3m, LQG).

③Pelitic rock with thin dolomitic bands (MJZC-1, 617.3m, LQG).

④Brecciated granite (MJZC-1, 631.4m, BSG).

⑤Amphibolite (MJZC-1, 646.5m, GB?).

⑥Granite (MJZC-1, 648.3m, BSG).

⑦Anhydritic dolomite (MJZC-5, 701.5m, UIL).

⑧Dish structure developed in sandy and dolomitic pelitic rock (MJZC-5, 708.4m, UIL).

⑨Lenses to laminations of chalcopyrite-pyrrhotite-dolomite in Ore Shale (MZJC-5, 987.2m, LOS).

⑩Lenses to laminations of chalcopyrite-pyrrhotite-pyrite and dolomite lenses with chalcopyrite-pyrrhotite-pyrite (MZJC-5, 1002.4m, LOS).

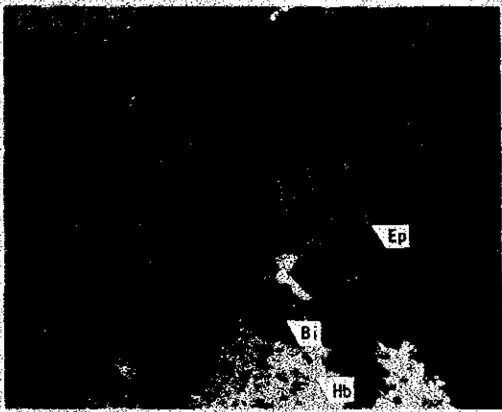
⑪Laminated dolomite considered to be stromatolite (MJZC-6, 758.1m, UIL).

⑫Dissemination of minute chalcopyrite grains in dolomitic sandstone (MJZC-6, 983.7m, LOS).

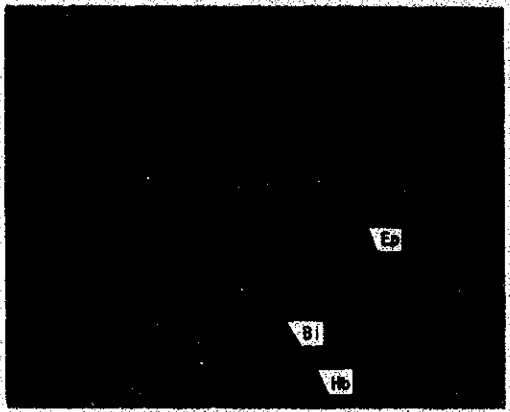
⑬Segregation vein of dolomite. Pyrite-chalcopyrite occur in the vein (MJZC-7, 858.4m, UIB).

⑭Dissemination of chalcopyrite in Ore Shale (MJZC-7, 958.4m, LOS).

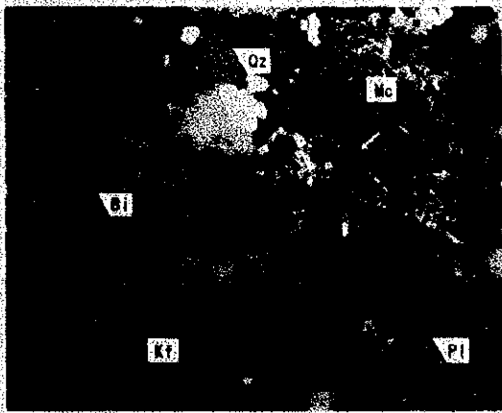
⑮Dissemination of euhedral pyrite and chalcopyrite in sandy pelitic rock (MJZC-8, 444.7m, UIL).



Sample No.:T-102, Locality:MJZC-1, 645.20m



(Opened nicols)



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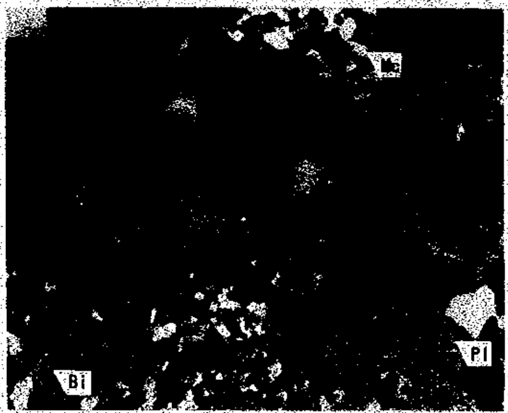

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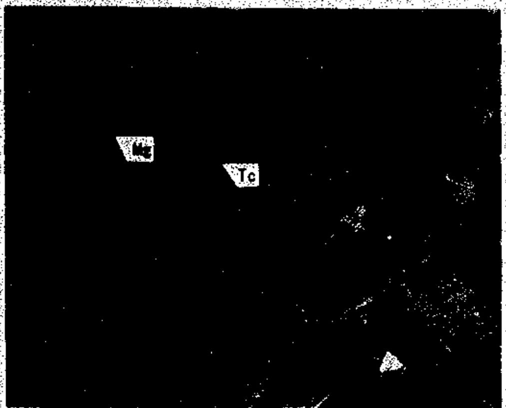
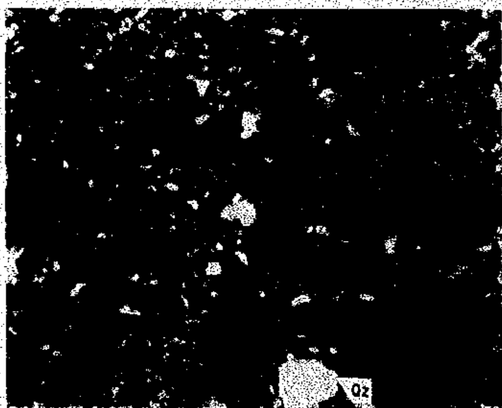


Sample No.:T-501, Locality:MJZC-5, 716.00m

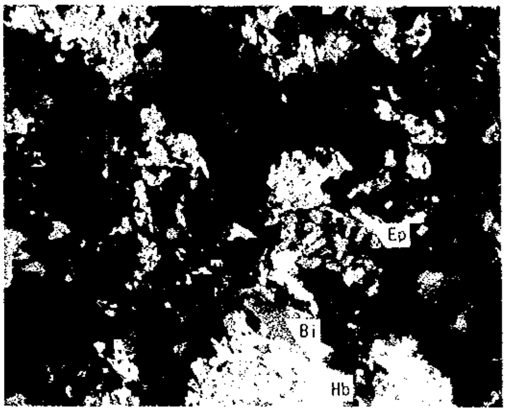


Sample No.:T-502, Locality:MJZC-5, 879.00m

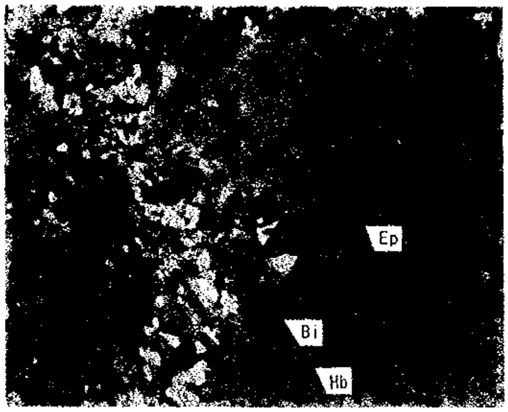
Abbreviations:
Bi:Biotite, Ca:Carbonate, Do:Dolomite, Ep:Epidote, Hb:Hornblende,
Kf:Alkali feldspar, Mc:Muscovite, Mg:Magnesite, Pl:Plagioclase, Qz:Quartz,
Tc:Talc, Zr:Zircon

0 1mm

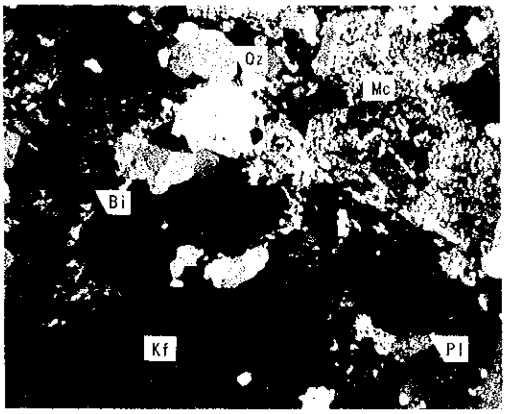
Photo 2 Microscopic Photograph of Thin Sections (1)
(Crossed nicols)



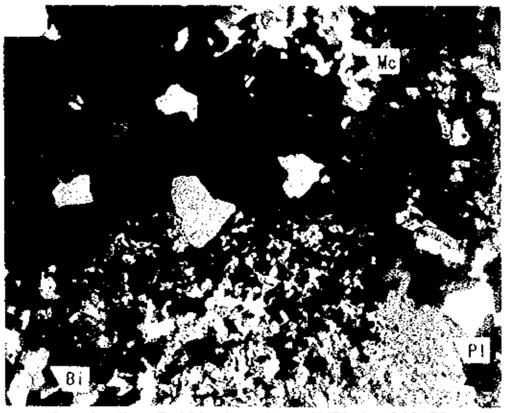
Sample No.:T-102, Locality:MJZC-1, 645.20m



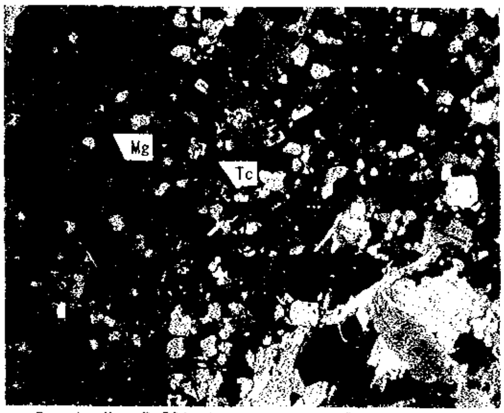
(Opened nicols)



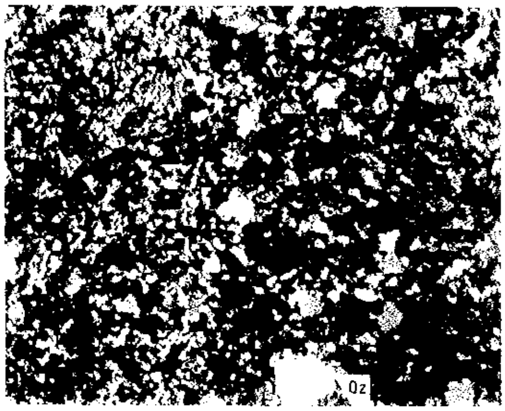
Sample No.:T-101, Locality:MJZC-1, 633.20m



Sample No.:T-103, Locality:MJZC-1, 648.70m



Sample No.:T-501, Locality:MJZC-5, 716.00m

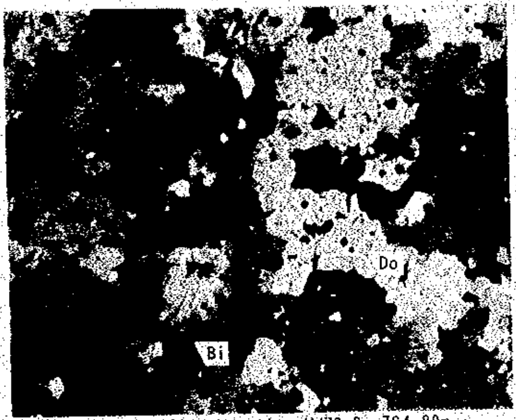


Sample No.:T-502, Locality:MJZC-5, 879.00m

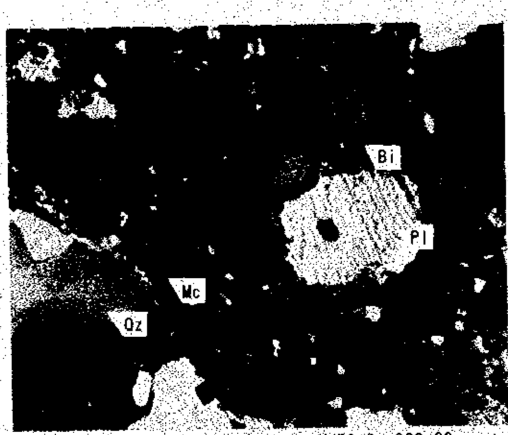
Abbreviations:
Bi:Biotite, Ca:Carbonate, Do:Dolomite, Ep:Epidote, Hb:Hornblende,
Kf:Alkali feldspar, Mc:Muscovite, Mg:Magnesite, Pl:Plagioclase, Qz:Quartz,
Tc:Talc, Zr:Zircon

0 1mm

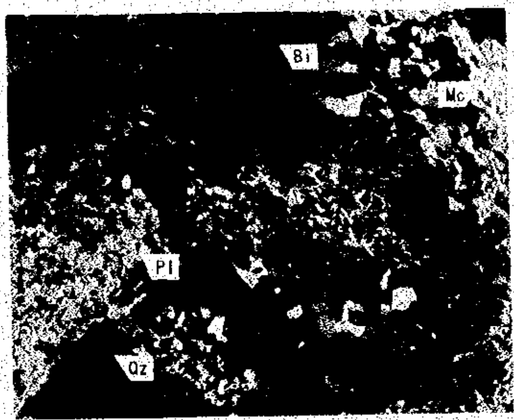
Photo 2 Microscopic Photograph of Thin Sections (1)
(Crossed nicols)



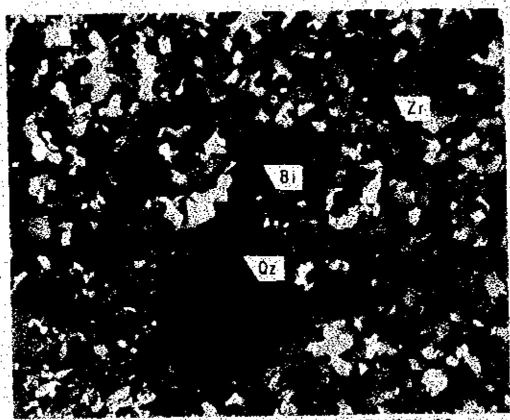
Sample No.:T-601, Locality:MJZC-6, 764.80m



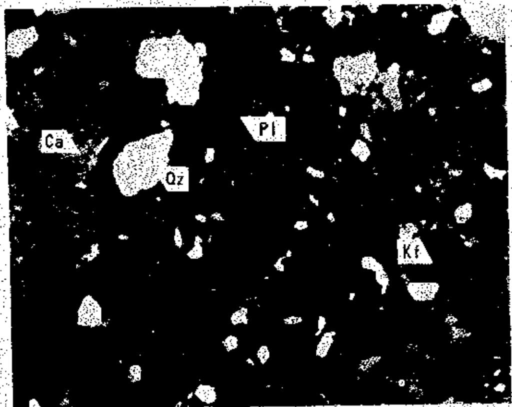
Sample No.:T-602, Locality:MJZC-6, 828.80m



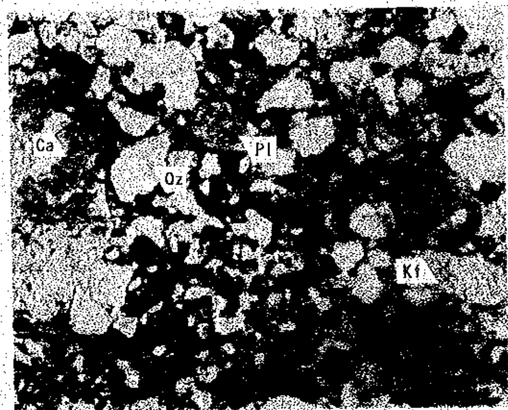
Sample No.:T-603, Locality:MJZC-6, 1010.70m



Sample No.:T-702, Locality:MJZC-7, 964.00m



Sample No.:T-701, Locality:MJZC-7, 909.50m



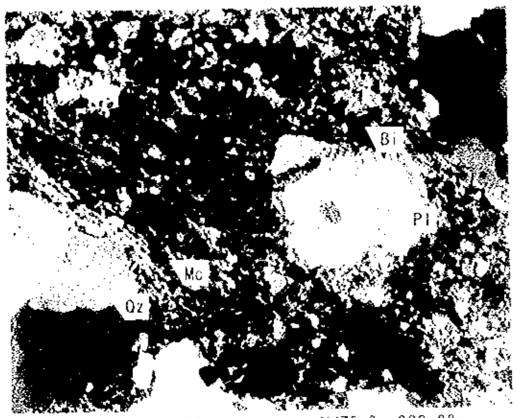
(Opened nicols)

Abbreviations:
Bi:Biotite, Ca:Carbonate, Do:Dolomite, Ep:Epidote, Hb:Hornblende,
Kf:Alkali feldspar, Mc:Muscovite, Mg:Magnesite, Pl:Plagioclase, Qz:Quartz,
Tc:Talc, Zr:Zircon

0 1mm

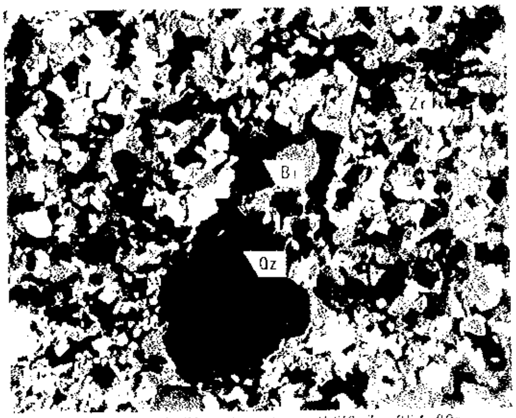
Photo 2 Microscopic Photograph of Thin Sections (2)
(Crossed nicols)

Sample No.:T-601, Locality:MJZC 6 704.80m

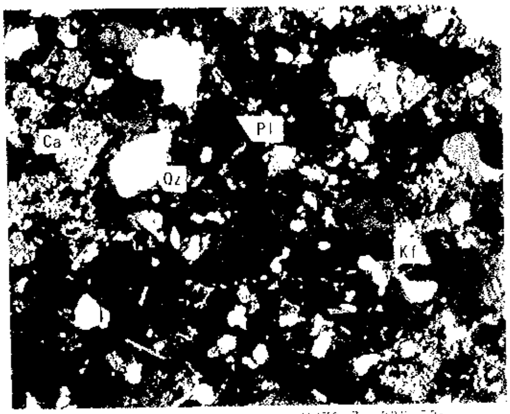


Sample No.:T-602, Locality:MJZC 6, 828.80m

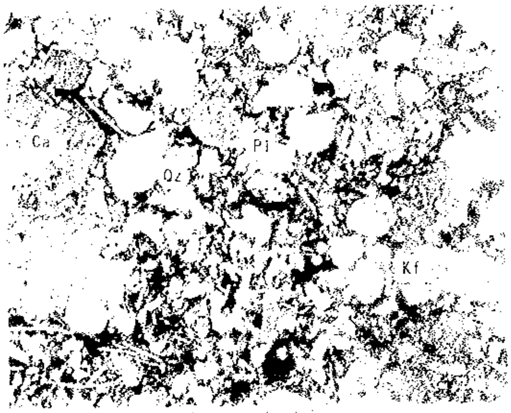
Sample No.:T-603, Locality:MJZC 6 1010.70m



Sample No.:T-702, Locality:MJZC 7, 964.00m

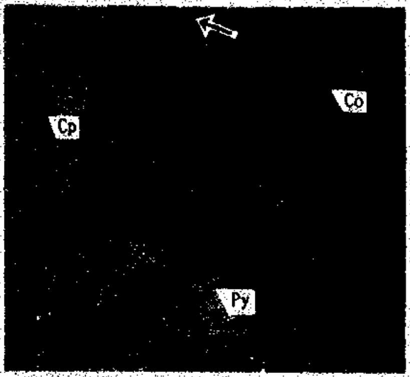


Sample No.:T-701, Locality:MJZC 7, 908.50m



Opened nicols

[illegible]



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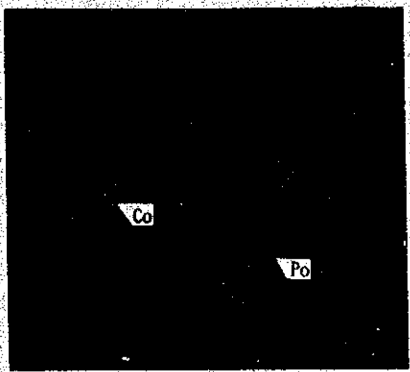
Sample No.: P-501, Locality: MJZC-5



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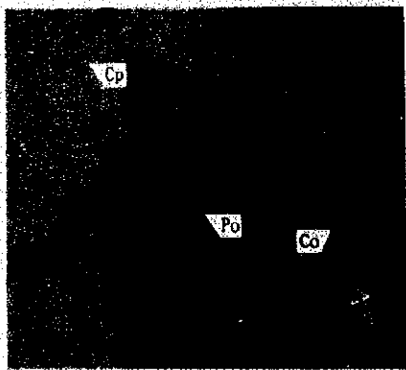

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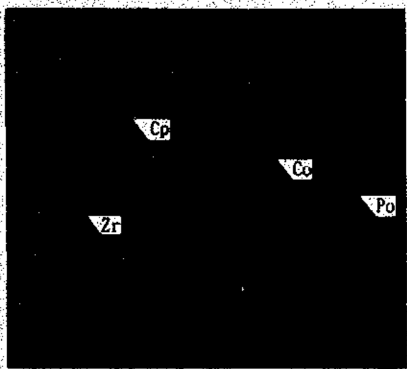


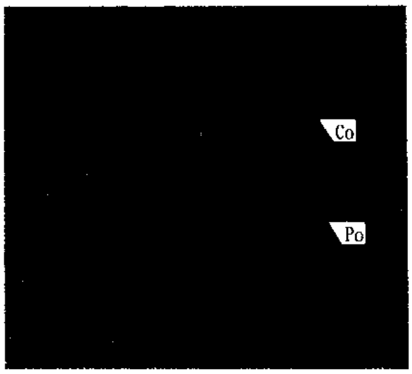
Sample No.: P-505, Locality: MJZC-5

Sample No.: P-602, Locality: MJZC-6

Abbreviation:
At: Ag-Te mineral, Bo: Bornite, Bs: Native bismuth, Co: Cobalt pentlandite,
Cp: Chalcopyrite, Gn: Galena, Mo: Molybdenite, Mz: Monazite, Po: Pyrrhotite,
Py: Pyrite, Wi: Wittichenite, Xn: Xenotime, Zr: Zircon
×: Point analyzed quantitatively by electron probe microanalysis (←)

Photo 3 Microscopic Photograph of Polished Sections (1)

Sample No.: P-102. Locality: MJZC-1



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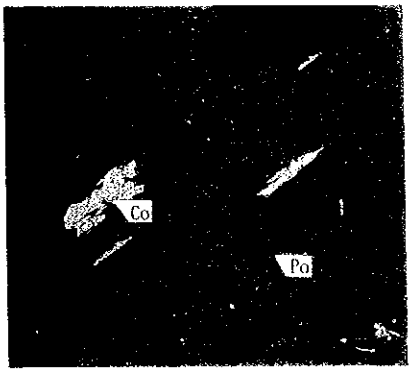

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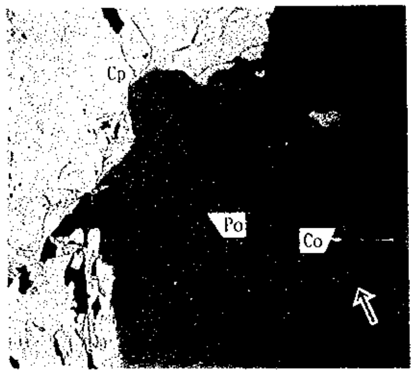

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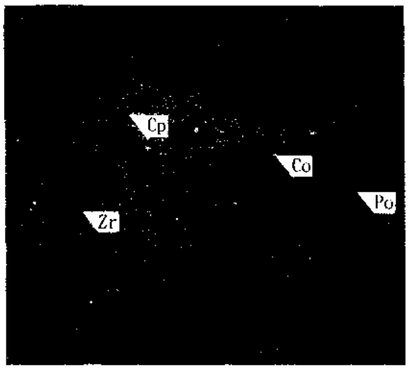

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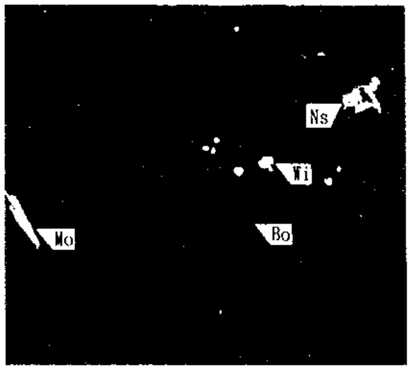
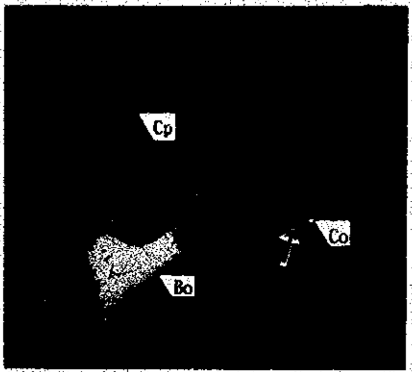


Sample No.: P-602. Locality: MJZC-6

Abbreviation:

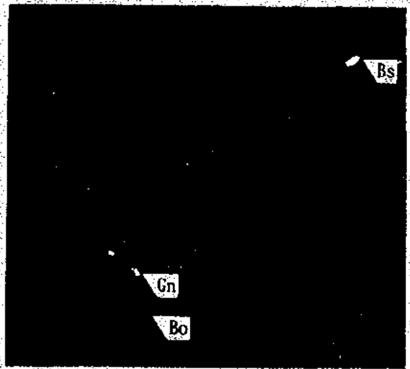
At: Ag-Te mineral. Bo: Bornite. Bs: Native bismuth. Co: Cobalt pentlandite.
Cp: Chalcopyrite. Gn: Galena. Mo: Molybdenite. Mz: Monazite. Po: Pyrrhotite.
Py: Pyrite. Wi: Wittichenite. Xn: Xenotime. Zr: Zircon
×: Point analyzed quantitatively by electron probe microanalysis (←)

Photo 3 Microscopic Photograph of Polished Sections (1)



Sample No.: P-603, Locality: MJZC-6

Sample No.: P-604, Locality: MJZC-6



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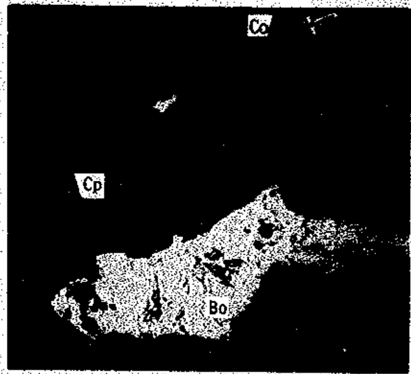

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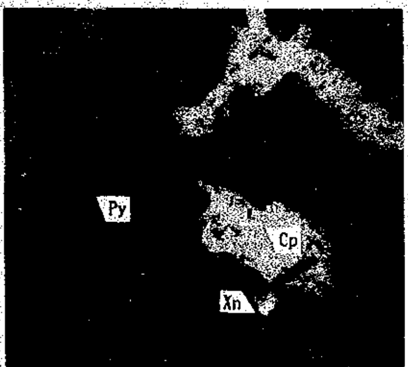
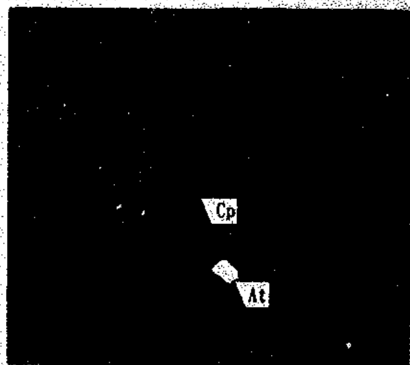


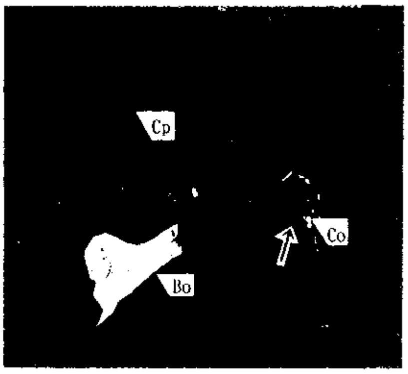
Sample No.: P-701, Locality: MJZC-7



Sample No.: P-704, Locality: MJZC-7

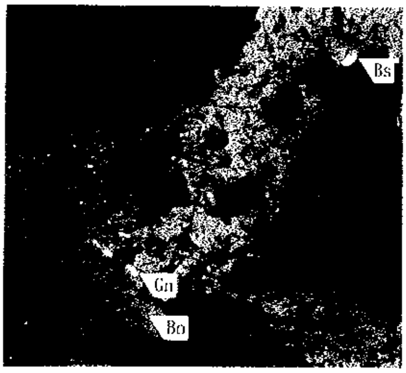
Abbreviation:
At: Ag-Te mineral, Bo: Bornite, Bs: Native bismuth, Co: Cobalt pentlandite,
Cp: Chalcopyrite, Gn: Galena, Mo: Molybdenite, Mz: Monazite, Po: Pyrrhotite,
Py: Pyrite, Wi: Wittichenite, Xn: Xenotime, Zr: Zircon
×: Point analyzed quantitatively by electron probe microanalysis (⟵)

Photo 3 Microscopic Photograph of Polished Sections (2)

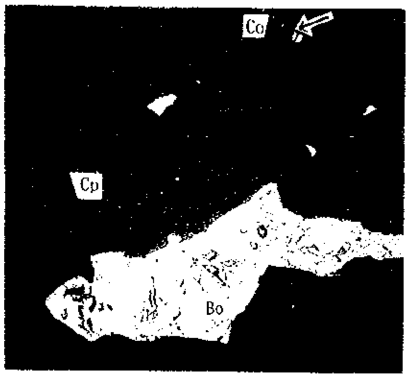


Sample No.: P-603, Locality: MJZC-6

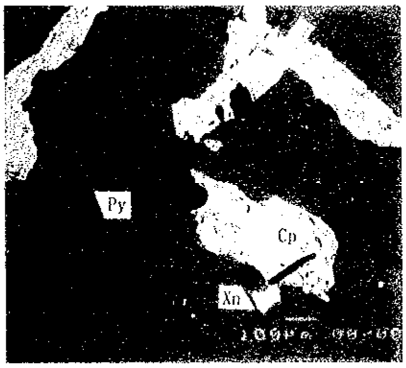
Sample No.: P-604, Locality: MJZC-6



Sample No.: P-605, Locality: MJZC-6



Sample No.: P-608, Locality: MJZC-6



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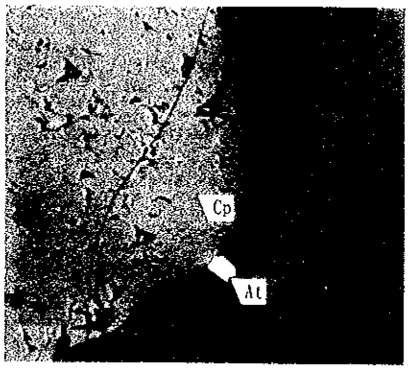


Sample No.: P-704, Locality: MJZC-7

Abbreviation:

At: Ag-Te mineral, Bo: Bornite, Bs: Native bismuth, Co: Cobalt pentlandite,
Cp: Chalcopyrite, Gn: Galena, Mo: Molybdenite, Mz: Monazite, Po: Pyrrhotite,
Py: Pyrite, Wi: Wittichenite, Xn: Xenotime, Zr: Zircon
※: Point analyzed quantitatively by electron probe microanalysis (⟵)

Photo 3 Microscopic Photograph of Polished Sections (2)

APPENDICES

Geologic Log of MJZC-1, 5~8

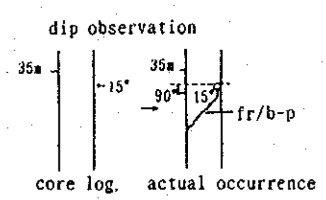
Abbreviations

Lithology

AGL : argillite
alt : altered
AMP : amphibolite
aren : arenaceous
arg : argillaceous
ark : arkose
b : bedding
bk : black
b-p : bedding plane
bre : breccia
brwn : brown
CGL : conglomerate
comp : compact
conv : convolute
cos : coarse
cryst : crystalline
dk : dark
dol : dolomitic
DM : dolomite
feld : feldspar
fr(s) : fracture(s)
Gab : gabbro
grn : green
gry : gray
hd : hard
ig.r : igneous rock
la/l : lamination
LAT : laterite
LS : limestone
mass : massive
medi : medium
mdy : muddy
mica : micaceous
peb : pebble
QZT/Q : quartzite
qzose : quartzose
r : rock
sdy : sandy
seri : sericitic
SH : shale
sh : sheared
sil : siliceous
SS : sandstone
str : structure
whi : white
yel : yellow

Mineralization / Alteration

Anhyd : anhydrite
Bio : biotite
Bo : bornite
Cal : calcite
carb : carbonate
circ : circulation
Cp : chalcopyrite
diss : dissemination
f : fine
F/W : footwall
Gyp : gypsum
Hem : hematite
Ho : hornblende
H/W : hangingwall
irreg : irregular
Limo : limonite
m : mineral
oxi : oxidized
Po : pyrrhotite
Py : pyrite
Qz : quartz
sca : scapolite
str : strong
tex : texture
tremo : tremolite
v : very
w : weak



Drill hole No. : MJZC– 1 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
0m		<Cuttings>										
		red laterite with Bio. feldspar	Limonite.									
5m												
		yel~brown LAT.										
10m												
		brown~red LAT										
15m												
		brown LAT										
20m												
		w-weathered partly Bio. rich AGL or SS										
25m												
30m		brown LAT										
.78		→ Coring										
35m	Gab	dk. grn-gry. v. hd. Gabbro/Amphibolite										
	Gab	← 70 sh. fr	weathered along fracture									
40m												
	Gab	← 75 sh. fr										
45m		– alt. zone whi. clayey										
	Gab											
		Biotilized	Cal. vlts									
	DM	brownish whi. mass. silicified DM										
50m		← 80 v.	Cal v.									

Drill hole No. : MJZC– 1　　Direction : 　(true north)　　Inclination : –　°

Latitude : 　　Longitude : 　　Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
50m	DM											
		← 75 v.	cal v/t weathered, limo. diss in DM									
.5	Gab	grn. alt. Gabbro										
55m		← 70 fr. – limo.										
	Gab	← 55 v.	cal v/ts									
	Gab	Bio. rich										
			silica film net									
60m			Cal. film net, py w. diss									
.5	DM	sil.-DM	v. sil. cal v/t,									
	Gab											
65m												
		← 80 v.	cal v/t with w. sil. zone									
	Gab	← 60 v	cal v/t									
70m	Gab											
		← 65 fr. grn. clayey	silica films									
75m	Gab	dk. grn. mass. comp. Bio.-alt. Gabbro										
		← 60 v.	silica v/t with w. py diss.									
	Gab											
80m .6	DM	← 80 brownish whi. sil.-DM.										
.3		v.	large crystal Cal. vein									
.6	DM		Qz-limo. irreg. v/ts.									
.2	Gab											
		v.	large cryst. Cal v/t with druse									
85m	Gab											
		← 45 sh. fr.										
	Gab	← 80 v.	Qz v/t. with py. diss.									
	Gab	← 80 sh. fr.										
90m	Gab											
95m												
			Bio. & carbonate patch									
100m												

Drill hole No. : MJZC– 1 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

(3)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
100m	Gab	gry~dk.grn GAB. carbonate rich	Bio, irreg. films.									
.5 .8		–DM gry. sili,										
105m	Gab	←45 v.	large cryst. cal vlt (3cm)									
			Bio. irreg. vlts									
110m			cal. film									
	Gab											
115m			carbonate irreg. patch~vlts. Bio. irreg. vlts.									
		←30 v.	large cryst. Cal-Bio > py vlts.									
120m												
	Gab		cal-Bio. film net									
125m												
.7	Gab		Qz.-limo. film net, weathered z.									
.5	DM	brownish. DM. partly silicified	limo. diss.									
130m	DM	muscov.-DM.	porous. str. weathered,									
	SS	←40b gry. hd. S.S.	cal-limo, irreg. vlts.									
135m	AGL	←35b. grnish gry. dol-AGL	Limonitized Dol. vlt~lens.									
		DM. parting										
		dol. lens. conv. l.										
140m												
.3	DM	brown-whi. DM.	silicified partly limonitized Cal. large cryst. vlt.									
.4	Gab	gry. dol-sil. alt. GAB.										
145m		←70	cal vlt.									
	Gab		dol.-irreg. vlts with limo. diss.									
150m		brecciated	dol. film net.									

Drill hole No. : MJZC– / Direction : (true north) Inclination : – °
Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
150m		dk. gry alt. GAB.	silica film, net.									
	Gab		cal. film net.									
		bleached zone	silicified									
		←75 v.	large cryst. cal v/t. with py-limo.									
155m		gry. alt. partly	silica–cal. film net.									
	Gab											
160m		gry. alt.										
		←50 v.	silica, cal. films									
	Gab											
165m	alt.	gry. altered z.	dol. net.									
			cal. films									
	Gab											
170m			silica film net.									
	Gab											
		←60 v.	cal. v/t									
	Gab		silica film									
		←50 v.										
175m	Gab	←70 v.	Bio.–dol. irreg. films									
		gry bleached alt. z.										
	Gab											
.2	alt.	gry-whi. alt. Gab.										
.6	Gab	←45° v.	cal. v/t.									
180m		gry. sil. bleached Gab	silicification (M.)									
	Gab											
			Bio. irreg. films									
185m	Gab	whi. str sil. bleached	str. sili. with limo. diss.									
	AGL	dk. grn. mica-AGL	dol. film~ irreg. lens.									
190m	Q	grnish whi. alt. ←30 b. ang-QZT.	Limo–(Qz) film net. weathered.									
	SS	Dol. parting dol-SS, with pore										
	DM	whi. DM.										
195m	AGL	grn. AGL	weath. limo.									
.4	Q	gry. f~m. QZT,										
		DM										
	SS	←75 v. whi-gry dol-SS	Limo.–dol.–Qz. in frs. Carb.–Qz.–limo v/t.									
	SS	QZTic. partly										
		←10 v. ←60 v.	cal–Bio. v/ts.									
200m	SS	Gab.										

Drill hole No. : MJZC- 1 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
200m	Gab	dk. grn. alt. GAB.										
	Gab	←40 V ←15 V.	cal.-Bio. vlts (3cm)									
	Gab											
205m	Gab	bleached alt. GAB ←15 V. ←60 V.	silicified - cal vlts. (10cm)									
	Gab											
210m												
	alt	whi. spotted altered r.	str. sil. - calcitized, limo. diss									
	Gab	bleached GAB.	cal. vlts.									
215m	Gab	dk. grn. alt. GAB.										
	alt -Gab	whi. altered GAB.	sil. - cal - Bio. - limo. cal vlts.									
220m	Gab											
		←70 frs.	limo. in frs.									
	Gab											
225m	alt	gradually altered.	cal-Bio, vlts.									
	alt	←70 V. str. alt. sil-cal. r	large cryst. cal-limo drusy vlts									
		str limo. porous	irreg. silica vlts ~ patches									
	alt	brownish gry alt. r.	str. sil. - cal.									
230m		V.	cal vein (20cm). limo. diss.									
	alt (Gab?)	comp. hd. alt. r.	cal vlts.									
	DM	sil.-limo.-DM. brecciated.										
235m	alt	v. sil.-Bio. alt. r.										
	DM	brown sil-DM.										
	alt	str. sil. r. limo. diss.										
	AGL	dk. grn brecciated AGL	Limonitization									
240m		grn. alt. Bio. rich										
		←55.6.										
	DM	with grn ang. layers brecciated, drusy partly	str. sil.									
245m		gry. v. sil. r. (ang.-sdy.) partly dolomitic	limo. - cal - vlts.									
	CGL	CGL (AGL pebbles) cemented by limonite	str. sil.									
	AGL	gry. sil. r. (AGL)										
250m	DM	brown-whi. DM. AGL sil.	limo. diss.									

Drill hole No. : MJZC– 1 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
250m	AGL	←30.6. grnish gry. sil-AGL	str. sili, Limo-dol. vlts.									
		–DM parting.										
255m	AGL		Limo. diss.~net brecciated by silicification									
		←45.6. laminated										
260m		gry. sdy. AGL ←45.6. with QTZ layers										
	DM											
.2		←40 AGL										
.8	alt	gry sil. r. (DM?)	Limo. diss									
.1	AGL	←20										
	alt (DM?)	gry-whi. sil. r.										
265m	AGL	grn-whi. w. sil. AGL										
.5	DM	brown porous DM.	str. limo.									
	DM	gry. mass. DM with muscov.										
270m												
	alt.	str. sil.	limo. str.									
		whi. bleached AGL w-sil. limo-dol.										
275m	AGL											
			limo. films									
280m	alt	←15.6. gry. str. sil.										
	AGL	grnish gry. w-sil. AGL										
.2	DM	←20.6. brown oxi. DM.	str. limo.									
.6	AGL	olive grn. mica-AGL										
285m		–DM										
	AGL											
.5		–alt porous sil. r.										
	AGL											
290m	DM	←5.6. brown oxi. DM. with small druse partly sili. arg. partly.	str. limo.									
	AGL	←5.6. grn. soft. mica-AGL	Limo. diss.									
295m	DM	brownish whi. oxi. DM with sil. lens~patch str. sil. partly.										
	AGL	grn. AGL										
	DM	oxi-sil.-DM										
300m	AGL	←5.6. grn. AGL with dol. layer	Limo. partly.									

Drill hole No. : MJZC- / Direction : (true north) Inclination : – °
Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
300m	AGL	←S.b. grn. AGL										
	DM	brown-whi. oxi. DM.										
.4	DM	brecciated DM.	str. limo.									
.3	DM	grnish whi. arg-DM.										
305m	AGL	←S.b. olive grn. AGL with dol. layers										
		←S.b.										
.9	DM	whi. sil.-DM										
.4	AGL	←S.b. AGL-DM, thinly	interbedded (5~10 mm interval)									
310m .2	DM	sdy. DM with arg. layers										
.3	AGL	←S.b. fr.-dol-limo.										
	AGL	grn, mass. AGL	Limo. diss. weathered.									
		brown-whi. oxi. DM.	Limo. in pores									
315m	DM	with grn. arg. layers										
320m	AGL	←S.b. olive grn. AGL	Limo, diss.									
.5	DM	brown-whi. oxi-DM with pores										
			weathering ↓									
325m	AGL	grnish gry. dol-AGL										
.6	DM	←S.b. arg-DM.										
.4	AGL	dol-AGL										
.2	AGL	gry. dol-AGL	↓ gyp. layer dominant									
330m	DM	gry-whi. arg-DM. with arg. layers										
.5	AGL	gry. dol-AGL with dol. lens	gyp. rich									
335m		←S.b. DM. parting										
	AGL	grnish gry. dol.-AGL ←S.b.	Anhyd. patch – gyp. layers									
.7	DM	grnish whi. arg-DM.	gyp. layer rich (flat)									
340m	DM	partly sil. DM, whi. anhyd-DM.	Anhyd. patch rich (338.4~)									
	DM	arg-DM.										
.8	AGL	←S.b. dol-AGL.	gyp. layer, Anhyd. patch ~lens. dominant.									
345m	DM	arg-DM ←S.b. with arg. layers										
	DM	←5~10.b. arg. layers.										
350m												

Drill hole No. : MJZC- 1 | Direction : (true north) | Inclination : – °
Latitude : | Longitude : | Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
350m	DM	whi. anhyd. DM										
.3	AGL	←S.b. gry. dol-AGL with dol. lens										
.4	SS	gry-whi, dol-arg. SS. ←S. with arg-layers –AGL interbedded	Anhyd. patch ~ lens									
355m	SS	←S.b.										
.8	DM	gry. arg-DM.										
.5	AGL	←S.b. gry. sdy-dol. AGL										
360m	AGL	←S.b. with QZTic layer										
.5	DM	whi. anhyd-DM.	Anhyd, lens, flat.									
.8	AGL	dol-AGL										
365m.6	DM	whi. mass. DM. partly arg.	Py. w. diss.									
.3	AGL	–DM dol-AGL										
	AGL	gry. dol-sdy. AGL ←S.b.										
370m	DM	Arg-anhyd. DM										
.6	AGL	dol-AGL										
	DM	←S.b.										
	AGL											
.5	DM	arg-DM.										
	AGL	with dol. parting. ←S, with QZTic lens.										
375m.8	DM	anhyd-DM.										
.4	AGL	dol-sdy AGL										
	DM	gry. arg-DM muscov. rich ←S.b. with arg. layer	Anhyd. lens.									
380m		whi. spotted, anhyd. matrix										
	AGL	dk. gry, sdy. AGL with QZTic layers dol-anhyd, lens, flat.										
	DM	arg-DM.										
385m	AGL	sdy-dol. partly with grits	gyp. layer, Anhyd. lens.									
.7	DM	←10 arg-DM. with arg. layer	Anhyd. flat lens									
.6	AGL	dol-sdy-AGL										
390m .3	DM	arg-DM										
.2	AGL	←S.b. dk. gry. dol-sdy. AGL with s.s. layer	Anhyd.-silica lens.									
395m.7	DM	whi. mass. DM	gyp. layer rich									
	AGL	←S.b. gry dol-AGL with sdy. lens.										
.1		fragmental AGL.	Anhyd.-gyp dominant in matrix.									
.4	DM	whi-red. bre-DM.										
400m	SS	←S.b.										

Drill hole No. : MJZC– / Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
400m	SS	dol-SS										
		dk. grn-gry, sdy-AGL with sdy~dol-QZTic part.	Anhyd. lens ~ vlt.									
	AGL	←5.b. dol, ~ anhyd. layers										
405m		–DM										
	AGL	←5.b.	Anhyd. gyp. layers ~ vlts.									
		–DM										
	AGL	sdy. AGL										
	AGL	–DM										
410m		–DM, ang. ←5~0										
	AGL	gritty AGL										
		←5 b. ←45 v.	Anhyd. vlt.									
415m		with dol-sdy. layers										
		–QZT parting.										
	AGL	←5.b. ←55 fr.–gyp. –QZT. –DM ←5.b.										
420m	AGL	gritty AGL interbedded SS-AGL	Anhyd. layers									
		←5. with cos. grit~ss. layers										
425m												
		←5.b. cos. QZTic layer										
430m		←5										
.7	DM	whi. mass. DM.										
435m	AGL	grn-gry. AGL with silica lens										
.7	DM	whi. pure DM. with silica lens, Anhyd.										
		←5~10.b. ang-DM.										
440m												
		whi. muscov.-DM.	442.5~443.0± minute py·cp. w. diss. Anhyd. patch ~ lens.									
445m			gyp. vlts.									
.9	AGL	←5. interbedded AGL·dol-SS										
.3	SS	grn-gry dol-SS with ang. layers										
450m												

Drill hole No. : MJZC– /　　Direction :　　(true north)　　Inclination : –　°

Latitude :　　Longitude :　　Elevation :

(10)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
450m	SS / DM	dol-SS. with arg. layer										
	SS											
	DM	arg. DM.										
	SS	whi-gry. dol-SS. with dol/arg. layers										
455m		←S.b.										
		–DM										
.9	SS	interbedded with arg.	py. w. diss.									
	DM	arg. DM with S.S./arg. layers with silica lens.										
460m		←S.b.										
.1	AGL	gry. dol-AGL with silica lens										
.5	DM.											
.3	AGL	dol-AGL	Anhyd. lens									
465m	DM	sdy. DM. with arg. layer										
		AGL with QZTic layer										
	DM											
	AGL											
	DM											
	AGL	–DM										
	AGL	grnish gry. sdy-dol. AGL										
470m	DM	pinkish. sdy. DM.										
		pink. QZT. with Bio. with arg. part.										
	Q											
475m												
		Bio. dominant partly.										
480m	AGL	←S.b. AGL-QZT interbed.										
	DM	anhyd-DM.										
	SS	dk. gry. arg-dol-SS. with arg. layers										
		←S.b.	Anhyd. lens~patch									
	DM	arg. DM.										
485m	SS	arg-dol. SS.										
	DM	←s. anhyd-DM.										
	SS	dk. gry. arg-dol-SS. with QZTic layers										
490m		←S.b. arg. layer	silica layer, – liquefied intrusion									
	Q	gry-whi. arg-QZT. with Bio. layer										
.4	AGL	←S.b. with silica layer	py. w. diss.									
	SS	arg-dol.-QZTic. SS.										
		–DM. arg.										
495m	SS	←S.b. AGL parting.										
	SS		gyp.-Anhyd. vlt.									
	Q	arg. QZT.	py. w. diss. partly									
		←S.b. AGL partings arg-QZT										
500m	DM	arg. DM. SS	Anhyd.-gyp. vlts.									

Drill hole No. : MJZC- 1 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

(11)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
500m	SS	dk.gry. dol-arg-SS.										
		v. argillaceous.	Anhyd. flat lens.									
.7	DM	arg-DM. ←5.b.										
.9	SS	arg-QZT ~ SS, dol. with many arg. layers										
505m .1		brownish gry. dol-AGL ←5.b. laminated thinly dk.gry.	py. w. diss. in rim of dol. spot									
		dol. small spot ~ lens.										
		←5.b.										
			$508.^3$ ~ po-(cp) (diss. in dol. spot (rim), thin lens									
510m	AGL											
		←75 fr.-chl.-py. diss.										
		dol. spot φ1~2 cm	$511.^6$, po-Q2-(cp-py) vlts									
		whi-gry. dol-AGL	po≫(cp-py). rim of dol. spot small elongated blebs									
515m .2		bk. shale ←5.b.	many silica-po-(cp-py). thin lens.									
.9	AGL	whi. gry. dol-AGL	$517.^9$ Q2-po-cp. layer (5 cm) po. diss. in b.p., blebs ~ lens with Q2-dol-(cp.)									
.8	DM	gry-whi. arg-DM.										
520m		←5.b. with silica concretion ~	lens with po-py-(cp) rim.									
.9	CGL	gry. sil.-CGL. QZT, Bio-schist, AGL	$520.^9$ ~ $527.^4$ cp. diss. in matrix pebbles (φ, 1~3 cm±)									
		granitic pebbles (pink	feldspar, Q2.)									
.5		pebbly QZT, with arg-layer, flat.										
525m	Q	whi. cos. QZT, with Bio.										
.4	AGL	←5 gry. AGL partings	$527.^4$ ~ $530.^6$ Minute Cp. w. diss.									
		– AGL										
530m ?	Q	bk~dk.gry. arg-QZT. Bio. rich.	Anhyd. lens. poor gyp. film									
.6		– AGL										
	Q	←5.b. arg. layers.										
	Q	– AGL										
535m	Q											
		←5 CGL										
	CGL	QZT, Bio-schist, chert, granite, gneiss, AGL.	pebbles (φ1~3 cm). round ~ irreg. shape									
540m												
		←40. v.	Anhyd, irreg. vlts, poor.									
		v. v.	Q2-Anhyd. vlt. gyp. vlt.									
545m	CGL											
		φ1~5 cm pink sil-Orthoclase fragment rich.										
550m												

Drill hole No. : MJZC- / Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

(12)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
550m	CGL	CGL dk. gry sili. pebbles Qz-anhyd. matrix										
555m												
	Q	bk. AGL, pebble rich. dk. gry.~pinkish. arg-QZT										
		←10. arg. layers pebbly partly										
560m	Q	pinkish pebbly~arg-QZT.										
		←65 dk. grn. arg-QZT.	gyp vlt.									
565m		pebbly partly										
		←65 dk. gry arg-QZT.	gyp. vlt.									
	Q	pebbly partly										
570m		←0~5 arg. layers										
		pebbly QZT.										
575m												
5		arg-QZT.	gyp. vlt. Qz. vein									
		←10. Bio. layers dolomitic partly										
580m	Q	Bio. diss. str.										
		- pebbly.										
	Q	←8 with many arg. layers										
.3		orthoclase fragment pebbly_arg-QZT.										
585m	Q											
.1		pink-whi. CGL feldspathic pebbles										
590m	CGL	small granitic pebb. (ø 0.5~1cm)	(Qz. Bio). v. sil.									
595m												
		←45 sh. fr. whi. bleached.	anhyd. vlt. str. silicified.									
		←50 sh. fr.										
600m	CGL											

Drill hole No. : MJZC- 1 | Direction : (true north) | Inclination : – °

Latitude : | Longitude : | Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
600m	CGL	granite pebbles (φ 3cm ±)										
		granite boulders	Anhyd. vlt. rare									
605m												
.7	AGL	bk. pebbly-sdy. AGL	with granite pebble									
	AGL	bleached AGL whi~reddish soft clayey alt. r.	Qz. vlts. silicified around vlts									
610m			gyp. vlts.									
	AGL	bk. AGL ←55 b. mdy. lens. ←70 sh. fr.										
	AGL	pebbly AGL, dol. with granite pebbles	Qz-dol. vlts. with many whi, small dol. band.									
615m	AGL	bk-dk. grn, sdy, with dol. dot~spot ←35 b.										
620m		v	Anhyd. vlts.									
.5	AGL	←35 gry-whi. sheared Granite										
625m	+											
630m	+											
		←75 v.										
635m	+		Anhyd. vlts									
		←75 v										
	+	←75 ←60 sheared plane										
640m	+	whi. bleached,	str. silicified.									
.1		←35 bk. Biotitized r. (amphibolite?)										
645m	AMP	crs. grain crystal in middle part										
		←20~40. v.	Anhyd. dot~film.									
.9		←5 vein	Anhyd.-Qz (colorless, large crystal) vein including grn. patch.									
	+	grnish gry. large Qz	Bio-grn. alt.									
.8	+	bleached.	sili.									
650m	+	Qz, Bio. rich (φ 5mm ±)	Anhyd. films.									
650.85												

Drill hole No. : MJZC-5 Direction : (true north) Inclination : –

Latitude : Longitude : Elevation :

(1)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
0m	L	<Cuttings> Laterite, brown fragmental, with Qz										
5m	L	dk. brown, fine										
10m	L	grayish brown LAT.										
15m		weakly weathered gry siltstone										
20m		porous	ground water									
25m		dk. gry. hd. siltst. partly weathered										
30m		black hd. siltst./shale										
35m		calcareous										
40m			py. diss. (M~W)									
45m		dk. gry-bk, hd shale partly micaceous & phyllitic										
50m			vein Qz contained									

Drill hole No. : MJZC- 5 Direction : (true north) Inclination : – °
Latitude : Longitude : Elevation :

Depth (m)	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
50m	bk. shale, hd. calcareous	py. w. diss. vein Qz.									
		py. str. diss. with Cp, partly									
55m											
		py w. diss.									
60m	phyllitic										
65m	micaceous (Bio)										
		py. str. diss. partly Qz - py. vein									
70m											
	white Dolomite	py. w. diss.									
75m											
	dk. gry dolomitic shale/AGL.										
80m											
	argillaceous DM.										
85m											
90m											
	whi. DM.										
	gry. arg. DM.										
95m											
100m											

Drill hole No. : MJZC－5　　Direction :　　(true north)　　Inclination : –　°

Latitude :　　Longitude :　　Elevation :

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
100m		grylsh whi. arg-DM										
105m		gry. dolomitic Argillite										
110m		whi. DM										
115m												
120m												
125m		grylsh whi. arg-DM.										
130m												
135m			py. v.w. diss.									
140m		whi. DM.										
145m		brownish whi. DM	weathered py w. diss.									
150m												

Drill hole No. : MJZC-5 Direction : (true north) Inclination : – °

Latitude : Longitude : Elevation :

(4)

Depth (m)	Core Log.	Lithology	Mineralization / Alteration	Samp. No.	Depth (m)	Au ppm	T.Cu %	S.Cu %	Co %	Zn %		
150m		brownish weath. DM										
			py. str. diss.									
155m												
			weathered py. str. diss.									
		dk. gry arg-DM	py. M. diss.									
		whi. DM	py. str. diss.									
160m												
		whi.-gry. Bio. rich micaceous DM w-arg.										
			py. v. str. diss									
165m												
		whi. mica-DM.										
		whi. gry w-arg.-mica. DM	py. w-diss.									
170m												
		whi. pure DM.	py. v. w. diss.									
175m												
		whi-gry arg.-DM.	py. M. diss.									
		whi. pure DM with mica.	py. w. diss.									
180m		grayish whi. w-arg.-DM										
			py. M~w. diss.									
		←35 b. gry. dol-AGL										
			coring ↓									
185m		gry-whi. arg.-DM comp. hd.										
		←30 b. arg-layer sil. hd. DM. partly	py. v. w. diss.									
190m		←30 b. laminated dol-AGL. hd. DM-AGL interbedded										
		conv. lamina.	py. w. diss.									
		gry-whi. sil. DM with arg. layer										
195m		←20 b. dk. gry-gry. AGL. w. sil. hd. comp. dolomitic partly	py-dol veinlets									
			py band/diss. parallel to bedding									
		←20 b. laminated										
200m												