Appendix 3

Microscopic Observation of Polished Sections

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	5256	Turaquiri		7,994,672	560,575	<2	10.2	47	1298	3638	30	<5	<1	<1	479	<5
2	6173	Turaquiri		7,994,834	561,012	30	150	106	9308	940	101	19	<1	11	7963	<5
3	5951	Chultcani		7,975,940	518,637	172	4	9	189	<2	20	6	<1	6	577	7
4	5954	Chultcani		7,975,615	518,000	<2	<.5	13	20	3	13	8	<1	2	1514	<5
5	6141	Chultcani		7,977,141	519,939	9	0.9	13	13	4	24	<5	<1	12	728	<5
6	6451	Chultcani		7,977,120	520,423	<2	0.6	156	129	47	443	5	<1	21	648	<5
7	6938	Chultcani		7,975,631	519,282	<2	<.5	18	5	3	<5	<5	<1	15	681	<5
8	6945	Chultcani		7,976,955	518,959	16	<.5	27	114	19	23	<5	<1	4	147	<5
9	5000	Sonia Susana		7,915,836	517,608											
10	5913	Sonia Susana		7,917,176	517,492	11	2.1	133	73	130	119	8	<1	36	926	8
11	5946	Sonia Susana		7,915,702	517,776	25	2.3	230	8	141	12	<5	<1	1	487	16
12	6042	Sonia Susana		7,917,464	518,747	<2	<.5	44	51	174	14	<5	<1	4	1542	<5
13	4209	Calorno		7,761,977	546,364	2	<.5	127	9	209	8	9	<1	1	1666	<5
14	4786	Calorno		7,759,852	545,574	<2	<.5	28	35	27	1226	<5	<1	<1	517	<5
15	5682	Calorno		7,765,429	547,756	<2	<.5	41	55	50	59	25	<1	6	542	<5
16	6910	Blanca Nieves	Blanca Nieves	8,010,077	505,117	<2	<.5	10	5	3	11	<5	<1	21	100	<5
17	6178	Blanla Nieves	Titicayo	8,016,995	521,124	<2	<.5	13	201	15	<5	<5	<1	2	1321	<5
18	6182	Blanla Nieves	Titicayo	8,017,091	520,984	<2	<.5	33	1889	27	16	<5	<1	<1	925	<5
19	6271	Blanca Nieves	Titicayo	8,016,810	521,278	<2	134.1	38	2020	40	1442	16	<1	6	1156	6
20	6272	Blanca Nieves	Titicayo	8,016,810	521,278	<2	30.3	53	1908	24	23	<5	<1	6	581	9
21	7092	Blanca nieves	Titicayo	8,017,189	520,936	<2	<.5	7	21	12	7	6	<1	<1	1966	<5
22	12361	Blanca nieves	Titicayo			<2	10.3	16	605	23	73	<5	<1	14	4433	10
23	6006	Carangas	Espiritu	7,905,897	539,256	2	84.2	225	92700	60970	74	85	<1	155	547	<5
24	5787	Carangas	San Antonio	7,905,683	539,547	<2	1104	761	15268	223602	106	360	<1	128	115	<5
25	5794	Carangas	San Antonio	7,905,744	539,698	<2	208.8	413	10937	12251	112	176	<1	1	576	<5
26	4992	Carangas	San Francisco	7,913,612	537,344											
27	5749	Mendoza	Mina La Deseada	7,824,459	634,620	40	246.4	196	4283	248	87	34	<1	10	127	<5
28	5751	Mendoza	Mina La Deseada	7,824,508	634,972	88	949	581	6188	4565	65	38	<1	17	48	<5
29	5754	Mendoza	Mina La Deseada	7,824,488	635,461	1044	104	2649	185800	139206	73	46	<1	11	37	<5
30	5755	Mendoza	Mina La Deseada	7,824,487	635,506	1062	104.3	3886	109100	147627	125	37	<1	24	57	<5
31	6344	Mendoza	Mina Guadalupe	7,822,610	635,382	1197	674	65650	727	232	28934	1050	7.7992	4	40	421
32	6385	Mendoza	Mina Maria Luisa	7,820,252	634,770	1422	1240	2390	33400	55825	351	130	<1	14	69	15
33	6332	Mendoza	Iranuta	7,820,909	626,414	<2	<.5	9	13	44	15	<5	<1	<1	847	<5
34	6336	Mendoza	Iranuta	7,822,183	624,333	19	76.7	438	241100	14246	82	100	<1	10	582	<5
35	5488	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	1305	79.8	361	59000	40275	1949	51	<1	107	72	<5
36	5489	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	348	83.8	1358	37700	279334	274	58	<1	1	189	<5
37	5490	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	284	171.1	4097	89500	229006	553	350	<1	18	85	<5
38	5491	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	225	209.5	5051	116800	354923	549	387	<1	33	89	<5
39	5492	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	460	982	5402	82600	292821	1125	368	<1	53	203	<5
40	5495	Panizo	Chinchilhuma Aguilani	7,790,791	567,217	549	338	26705	5613	65781	510	93	<1	10	39	31
41	5496	Panizo	Chinchilhuma Aguilani	7,790,791	567,217	1197	678	47279	1688	35657	888	446	<1	15	<2	83
42	5497	Panizo	Chinchilhuma Aguilani	7,790,791	567,217	660	470	23476	29500	107054	1271	193	<1	15	25	39
43	2897	Sailica	Mina Plasumar	7,712,955	638,256	<2	<.5	11	12	30	10	<5	<1	8	1133	<5
44	2900	Sailica	Mina Plasumar	7,713,150	638,462	<2	<.5	22	31	60	23	<5	<1	2	1301	<5
45	2035	Sailica	Mina Solucion	7,712,783	631,549	4	11.3	1186	1285	1315	252	35	<1	35	20	<5
46	2118	Cachi Unu		7,671,625	616,020	<2	<.5	6	15	15	7	<5	<1	2	1014	<5
47	2119	Cachi Unu		7,671,543	616,050	<2	<.5	6	44	18	56	<5	<1	2	802	<5
48	2012	Sedilla	Eskapa	7,652,176	635,205	<2	15.5	60406	<3	139	<5	<5	<1	1	1453	<5
49	2194	Sedilla	Eskapa	7,648,751	634,086	<2	<.5	7	18	27	8	<5	<1	4	1437	<5
50	2856	Sedilla	Eskapa	7,648,741	633,776	<2	<.5	5	33	38	21	<5	<1	2	1277	<5

Appendix 3-1 Sample List of Labratry Works (Polished Section)

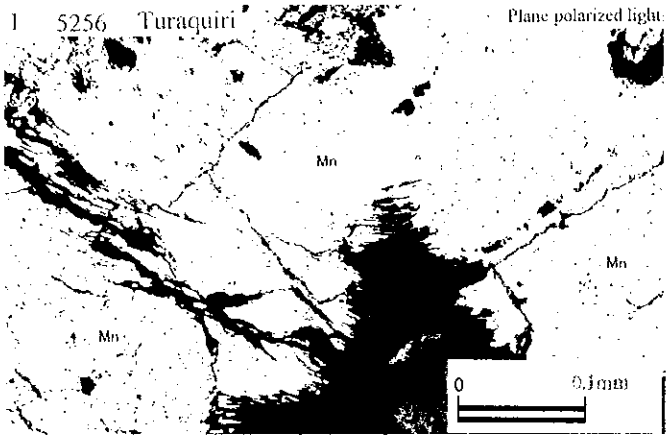
No.	Location		Sample No.	Sample Name	Pyrite	Chalcopyrite	Sphalerite	Galena	Bornite	Covelline	Molybdenite	Enargite	Pyrargyrite	Polybasite	Pearcite?	Tetrahedrite	Tennantite	Freibergite	Electrum		Magnetite	Hematite	Goethite	Mangan oxide	Titanium oxide	Cuprite	Tenorite	Chrysocolla	Cerussite	Remarks
				wk-arg v wd:0.4m Mn	×	×	×																×	◎					○	N60E.Mn v
1	Turaquiri		5256	gn-Ba ore	×		×	○														×								Pb-Ba dump sample
2	Turaquiri		6173	vs-sil and	×	×																								py imp
3	Chullcani		5951	vs-sil tf(an ?)	○	×																×								py imp
4	Chullcani		5954	s-sil lens wth qz	△																	×	◎							sil z:N70E.py imp
5	Chullcani		6141	hyd br																										Fe oxd in mtrx
6	Chullcani		6451	vs-sil alt r	×																									py imp
7	Chullcani		6938	sil v with hem	△																	×								py imp in part
8	Chullcani		6945	s-sil tf	△	△	×				×																			grn Cu py imp
9	Sonia Susana		5000	m-sil wk-arg alt-an	○																									py imp
10	Sonia Susana		5913	m-arg sil z in prpy an	○																	×			×					py imp
11	Sonia Susana		5946	wk-sil m-arg da	△	×																△								py hem imp
12	Sonia Susana		6042	an with m-chl vlt																	○	△	×	△						
13	Calorno		4209	goss in s-arg r	×																	◎	○							py imp
14	Calorno		4786	vs-sil v	△																									
15	Calorno		5682	vs-sil hyd-br pipe																					◎					
16	Blanca Nieves	Blanca Nieves	6910	m-arg v	△																	×								py imp
17	Blanca Nieves	Titicayo	6178	m-sil hyd br	×																	×								py imp
18	Blanca Nieves	Titicayo	6182	vs-arg vg s-limobr-lptf																		×	△							at trench. gossan
19	Blanca Nieves	Titicayo	6271	vs-sil lptf	△																									at trench. py imp
20	Blanca Nieves	Titicayo	6272	vs-sil vlt	△																	×								py imp
21	Blanca Nieves	Titicayo	7092	gossan(hyd-br)																		△	○							
22	Blanca Nieves	Titicayo	12361	gn sp py cp ore	×	×	◎	×	×	×			×	×				×												dump sample
23	Carangas	Espiritu	6006	sp crystall	×	×	◎	○								×								◎						dump sample
24	Carangas	San Antonio	5787	Mn ore	△																			◎						dump sample
25	Carangas	San Antonio	5794	bk qz with py cp	○	○	×	×	×	×		×		×				×					×							dump sample
26	Carangas	San Francisco	4992	py qz v	○		×							×																
27	Mendoza	La Deseada	5749	py qz v	◎			×	×	×				×		×														dump sample
28	Mendoza	La Deseada	5751	gn sp ore	×		○	◎																						dump sample
29	Mendoza	La Deseada	5754	gn sp ore	△	×	○	◎					×	×								×								dump sample
30	Mendoza	La Deseada	5755	en py pb ore	◎		×			×		◎			×								×		△					dump sample
31	Mendoza	Guadalupe	6344	cp py gn st ore	△	×	◎	○								×	×		×											dump sample
32	Mendoza	Maria Luisa	6385	alt an	○																		○						○	py imp ep qz cal
33	Mendoza	Iranuta	6332	gn ore	×			○		×																				dump sample
34	Mendoza	Iranuta	6336	sp gn v in s-arg m-sil da	◎	×	◎	△		×						×														py imp
35	Panizo	Chinchilhuma	5488	sp gn v in m-arg s-sil da	△	×	◎	△								×														py imp
36	Panizo	Chinchilhuma	5489	sp gn v in s-arg da	×	×	◎	◎								×														py imp
37	Panizo	Chinchilhuma	5490	gn sp v in da	○	○	◎	△								△														py imp
38	Panizo	Chinchilhuma	5491	gn sp v	△	×	◎	△								×														py imp
39	Panizo	Chinchilhuma	5492	cp py ore	◎	○	×	×	×	×						△	×									×				dump sample
40	Panizo	Chinchilhuma	5495	sp cp py ore	◎	◎	◎	×		×						×														dump sample
41	Panizo	Chinchilhuma	5496	gn sp ore	△	×	◎	△		×				×		×	×		×											dump sample
42	Panizo	Chinchilhuma	5497	s-sil an	×																									py imp dump sample
43	Sailica	Plasmar	2897	s-arg an	◎																									py imp.E-W.40S/N15W.60E
44	Sailica	Plasmar	2900	s-sil goss v	×																	△	△							skarn?
45	Sailica	Solucion	2035	m-sil fng an	×																									py imp
46	Cachi Unu		2118	m-arg an	×																									py imp
47	Cachi Unu		2119	m-arg an	×																					×	△	△		green Cu imp
48	Sedilla	Eskapa	2012	s~(m)-arg bt da	×																	×								py imp
49	Sedilla	Eskapa	2194	s-sil hyd br	△																									py imp
50	Sedilla	Eskapa	2856		△																									

◎:Abundant, ○:Common △:poor ×:Trace

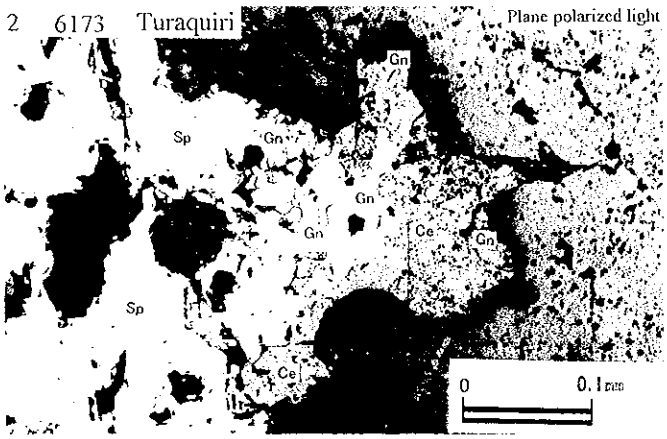
Appendix 3-2 Results of Microscopic Observations of Polished Sections

Photomicrographs of Polished Sections

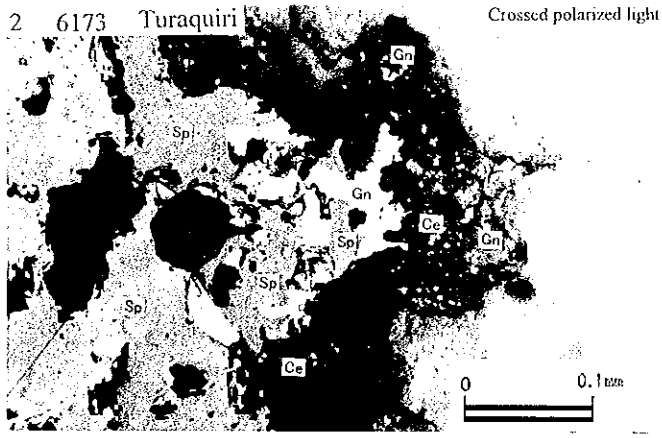
1 5256 Turaquiri Plane polarized light



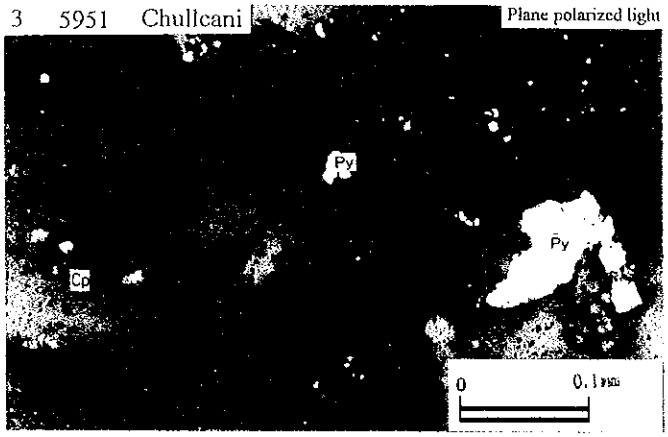
2 6173 Turaquiri Plane polarized light



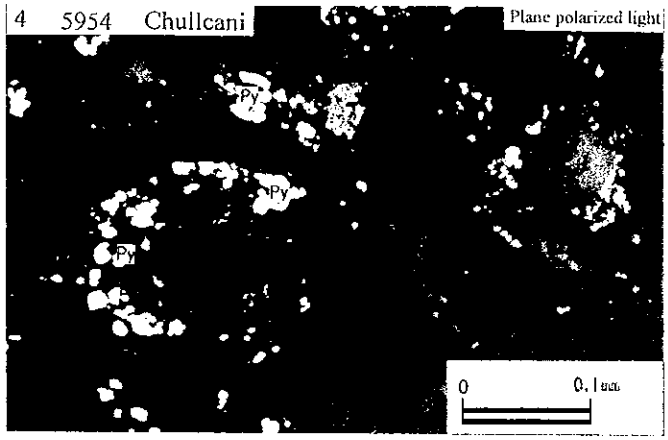
2 6173 Turaquiri Crossed polarized light



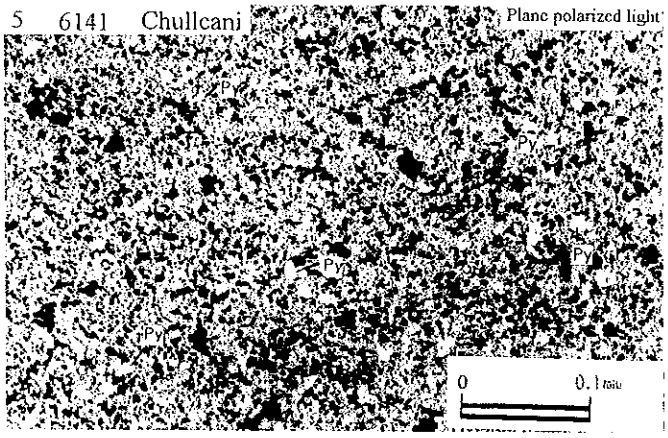
3 5951 Chullcani Plane polarized light



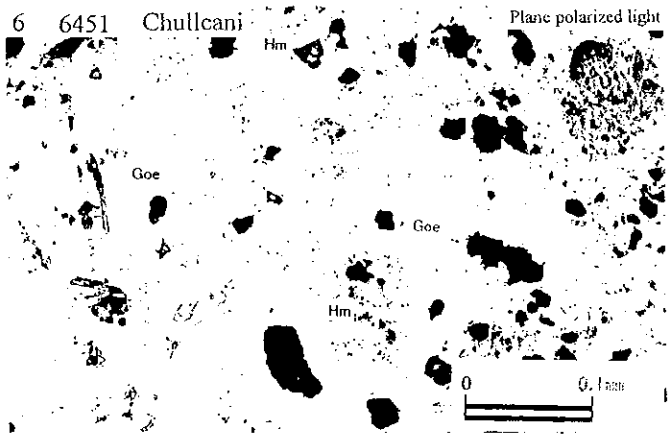
4 5954 Chullcani Plane polarized light

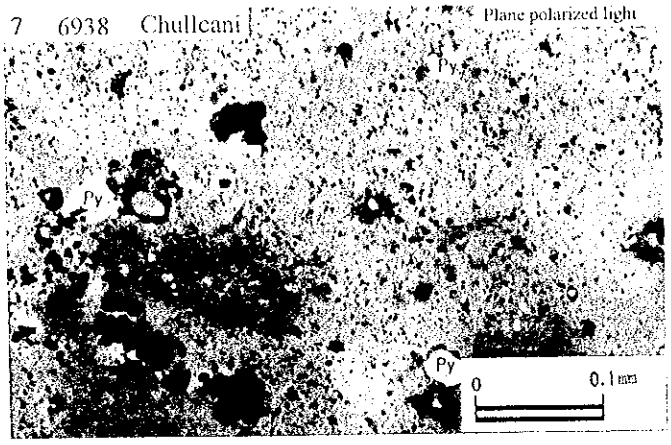


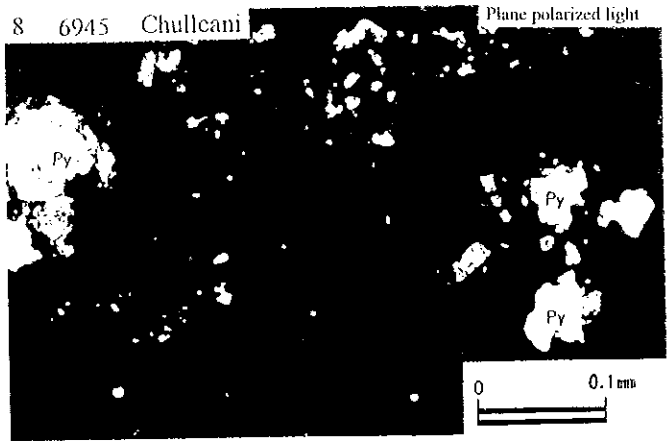
5 6141 Chullcani Plane polarized light

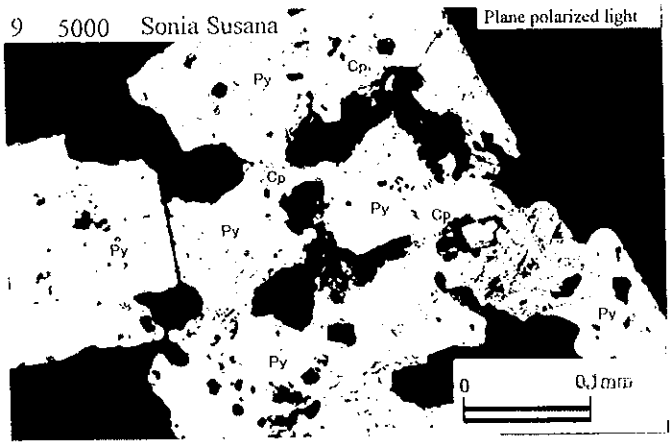


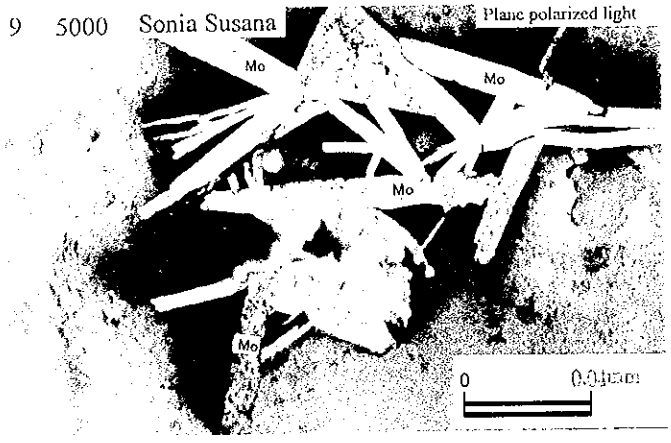
6 6451 Chullcani Plane polarized light

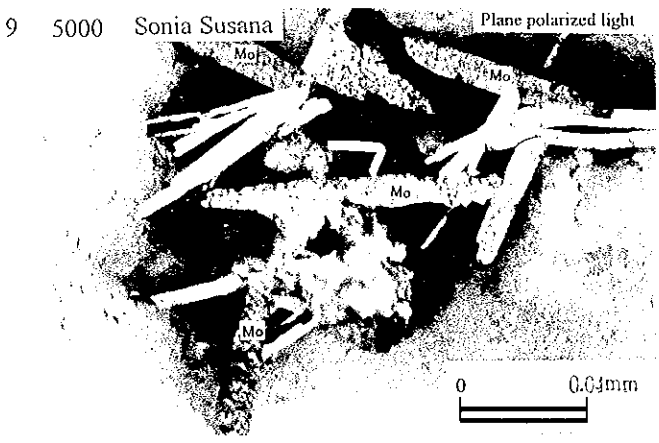


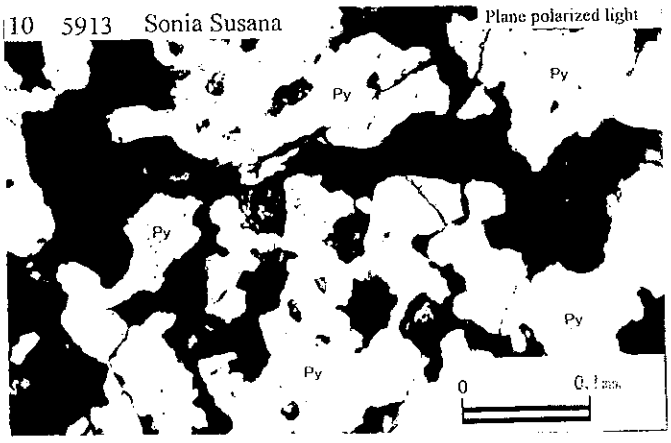

7 6938 Chulleani
Plane polarized light
Py
Py
Py
0
0.1mm


8 6945 Chulleani
Plane polarized light
Py
Py
Py
0
0.1mm

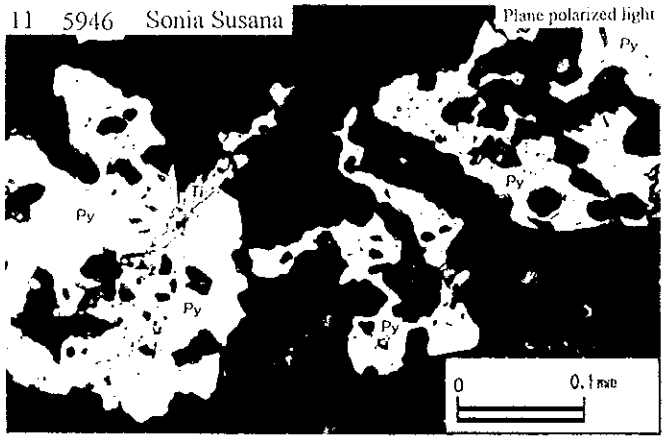

9 5000 Sonia Susana
Plane polarized light
Cp
Py
Cp
Py
Cp
Py
Py
Py
Py
0
0.1mm

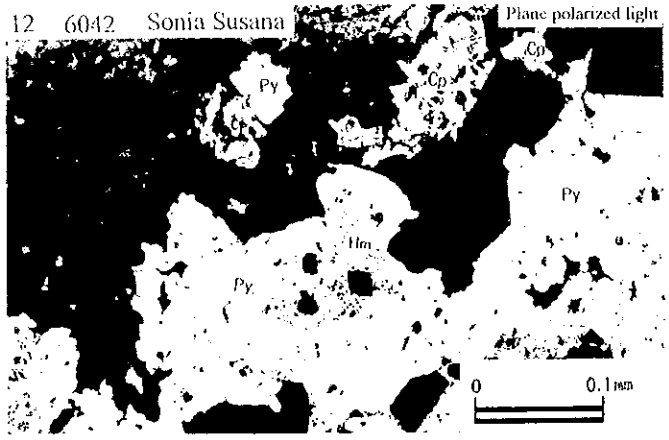

9 5000 Sonia Susana
Plane polarized light
Mo
Mo
Mo
Mo
0
0.04mm

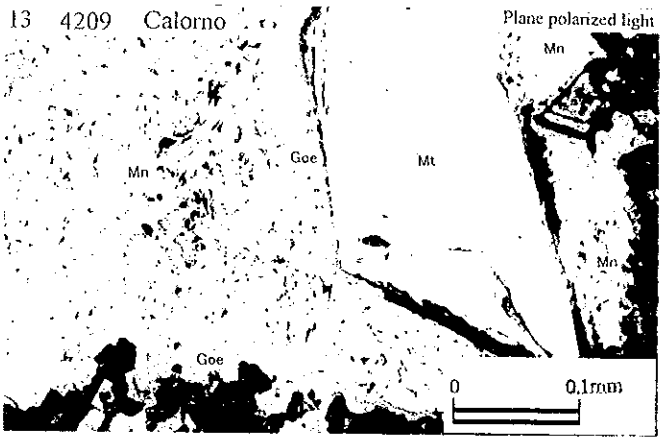

9 5000 Sonia Susana
Plane polarized light
Mo
Mo
Mo
Mo
0
0.04mm

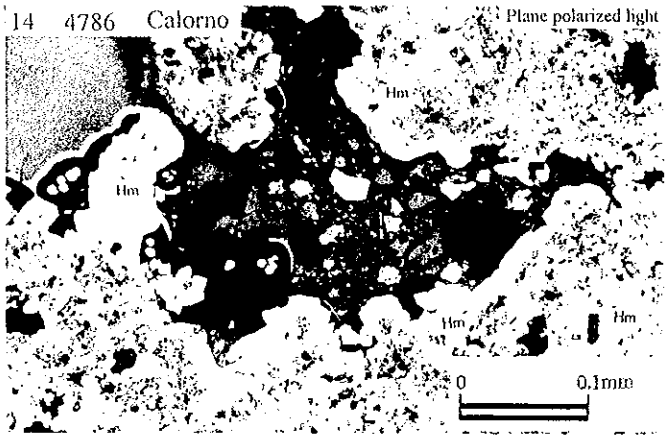

10 5913 Sonia Susana
Plane polarized light
Py
Py
Py
Py
Py
0
0.1mm

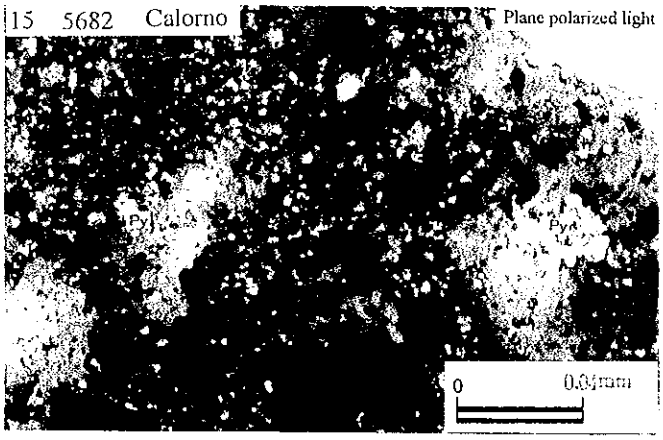
Photomicrographs of Polished Sections

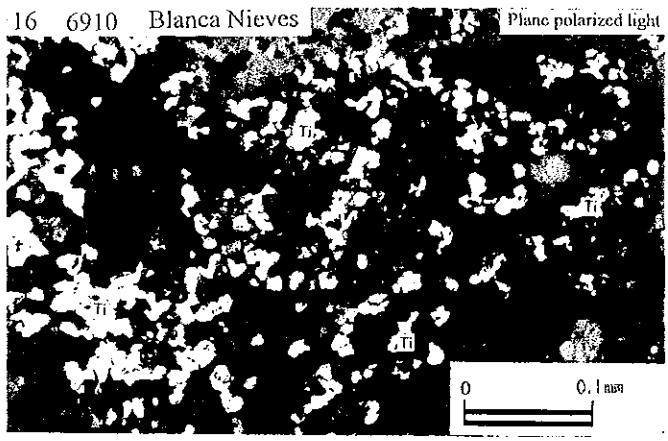


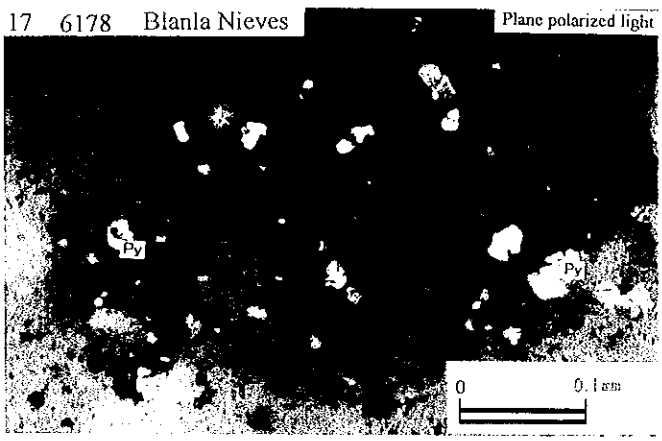


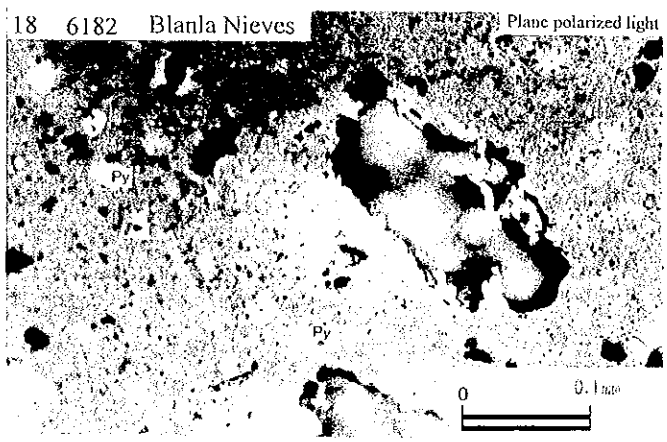


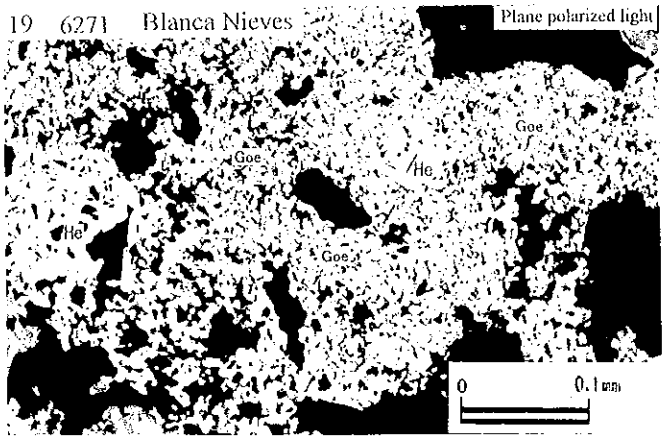


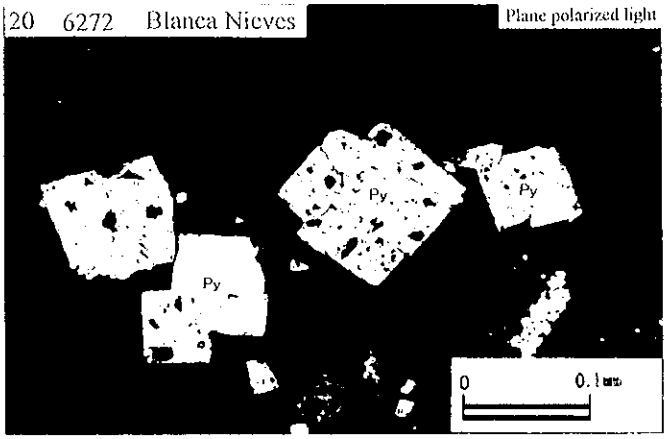


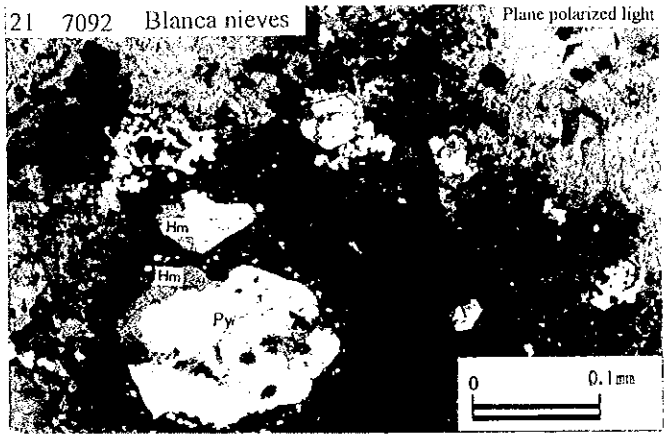







19 6271 Blanca Nieves
Plane polarized light
Goe
He
0
0.1mm


20 6272 Blanca Nieves
Plane polarized light
Py
0
0.1mm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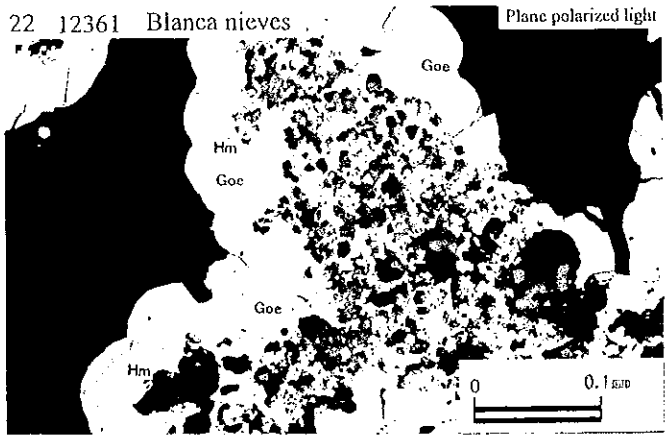
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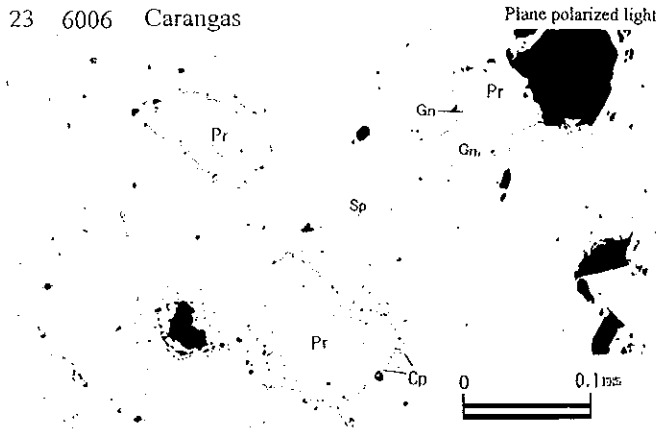
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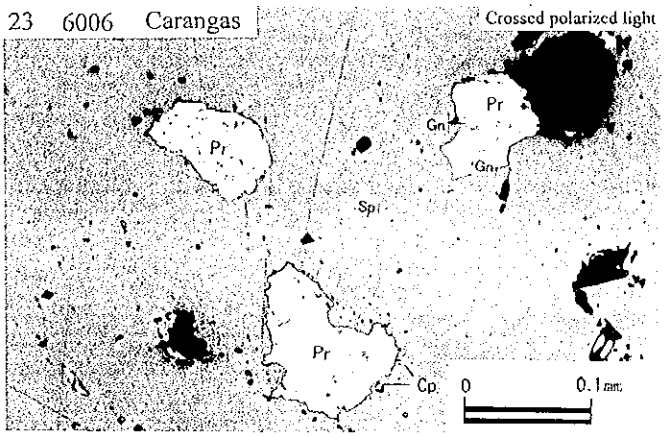
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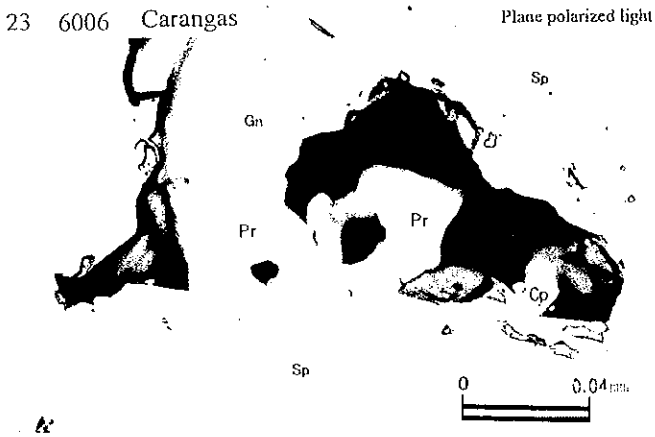
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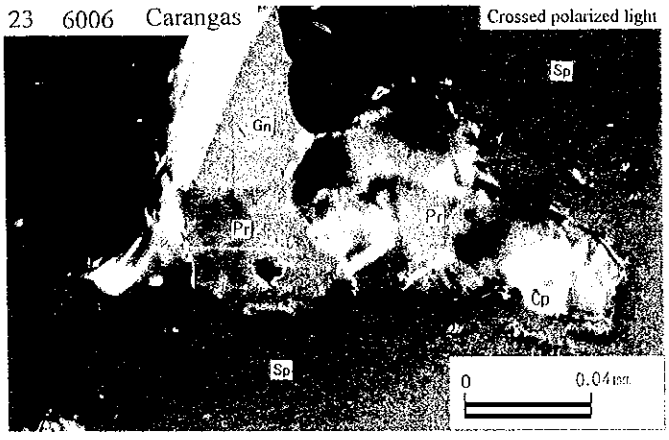
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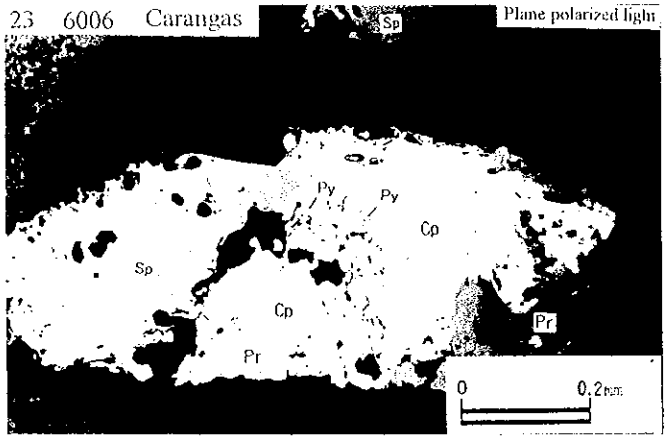
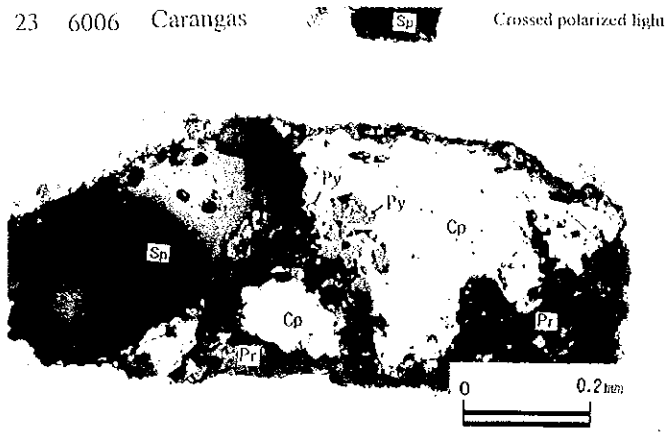
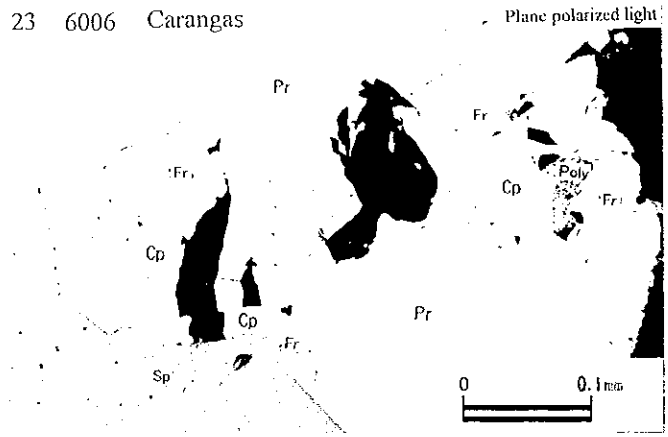
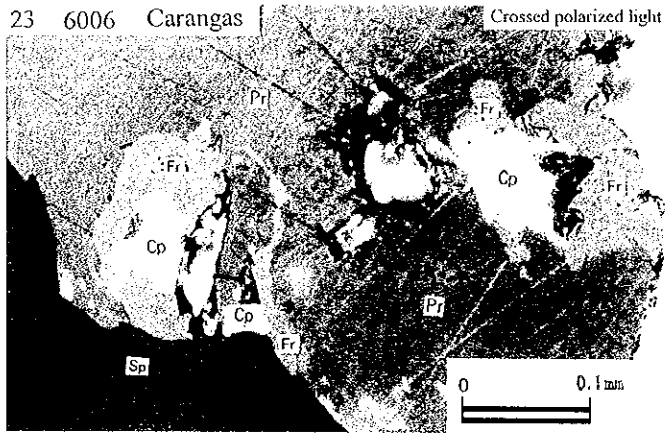
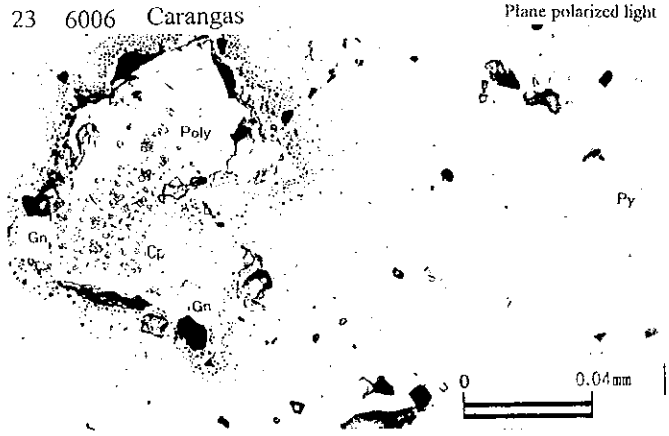
Photomicrographs of Polished Sections

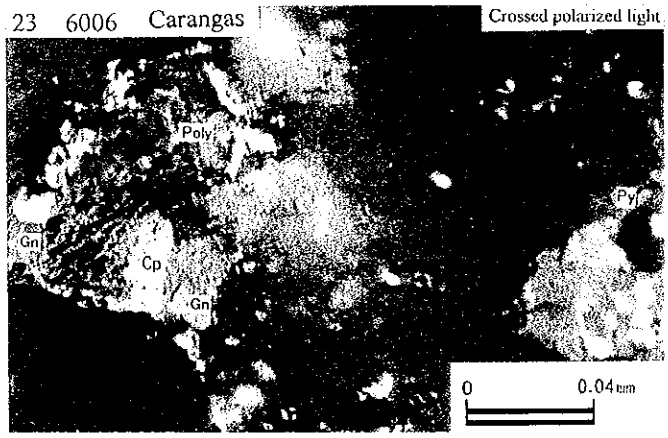


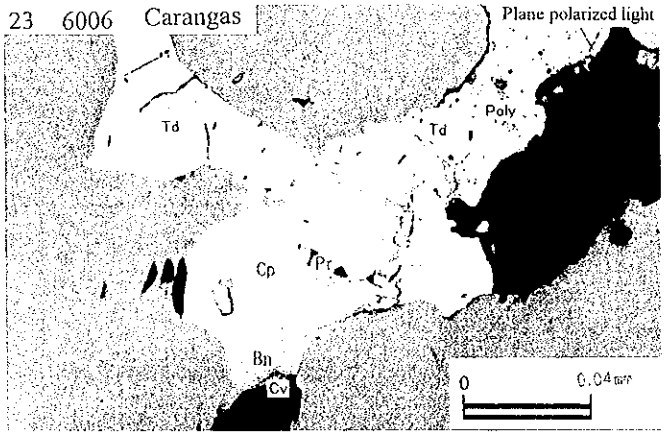


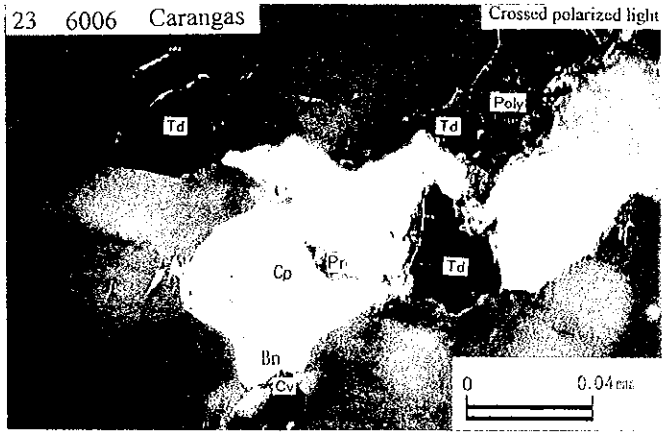




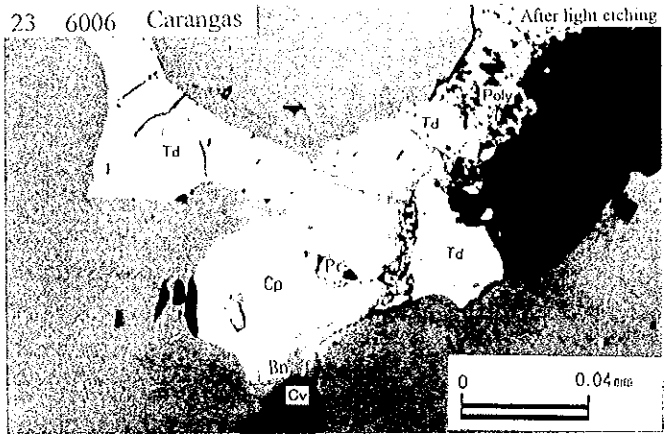


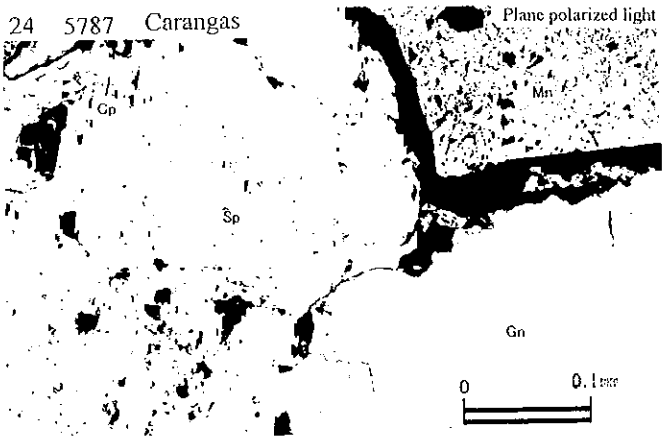


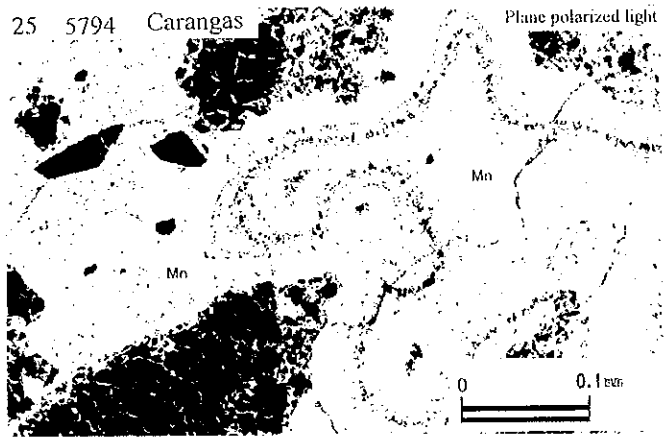


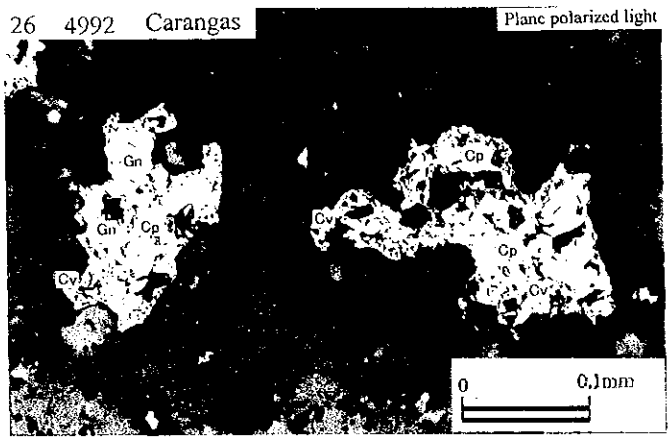


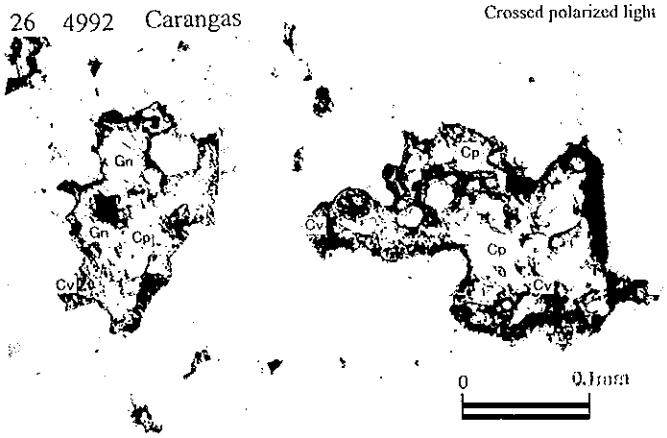
Photomicrographs of Polished Sections

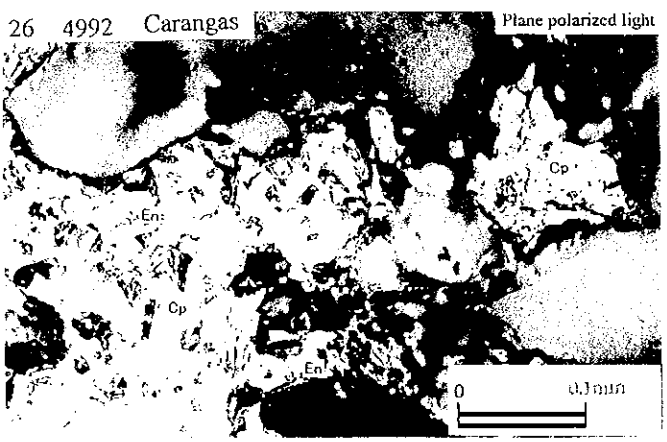


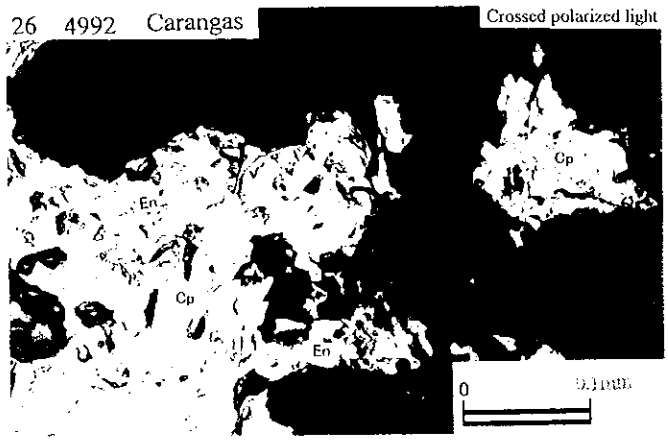


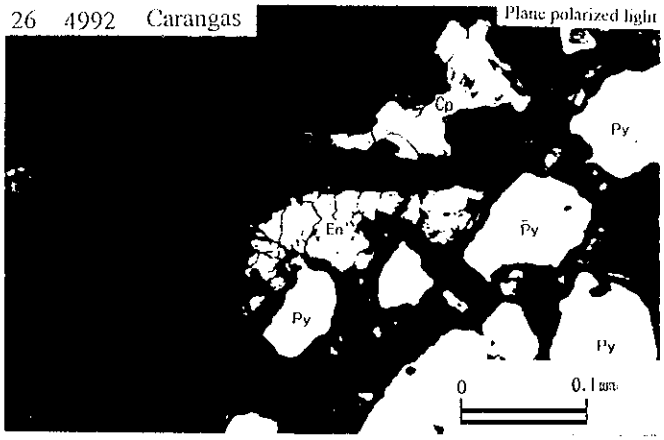








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Plane polarized light
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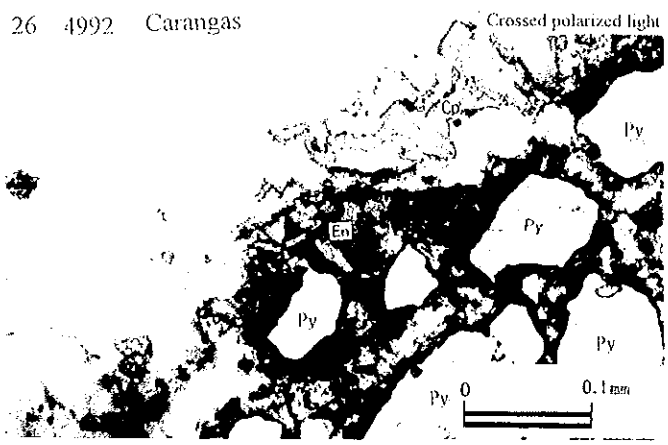
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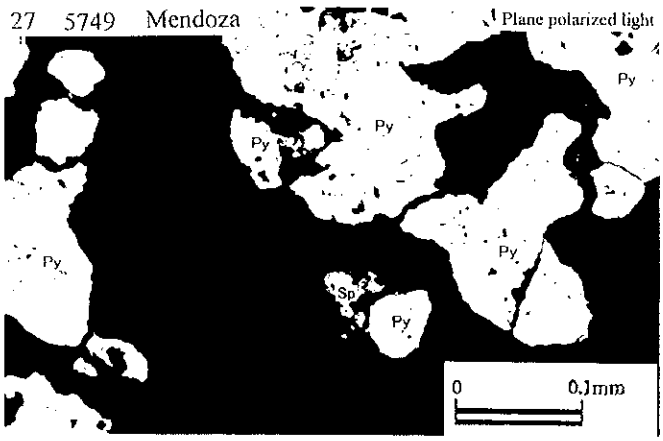
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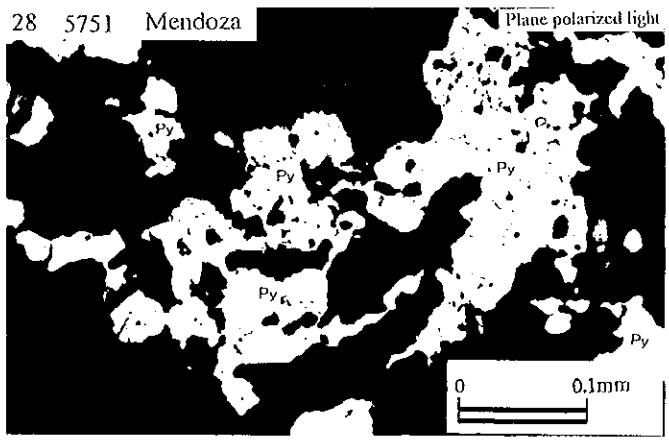
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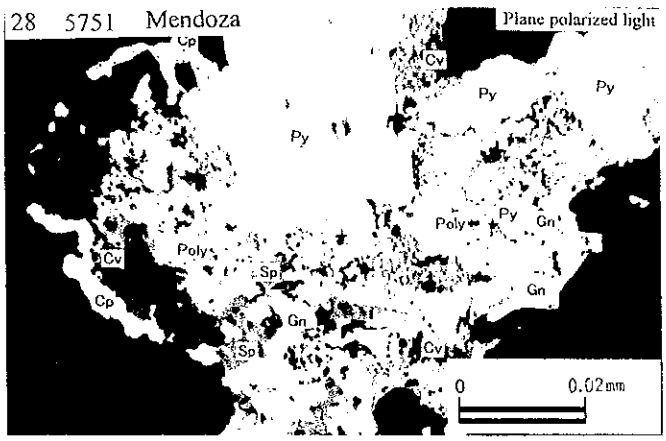
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Plane polarized light
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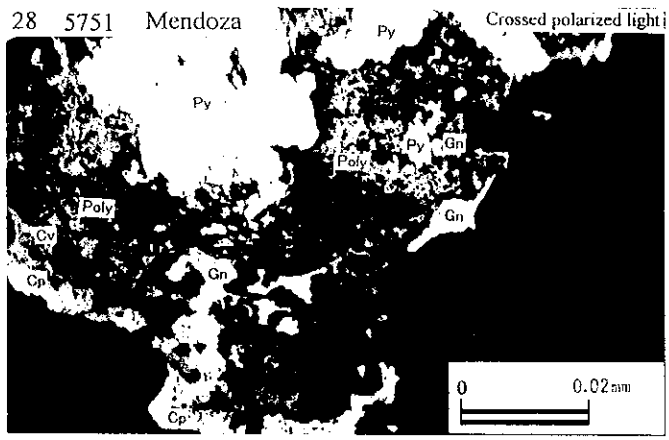
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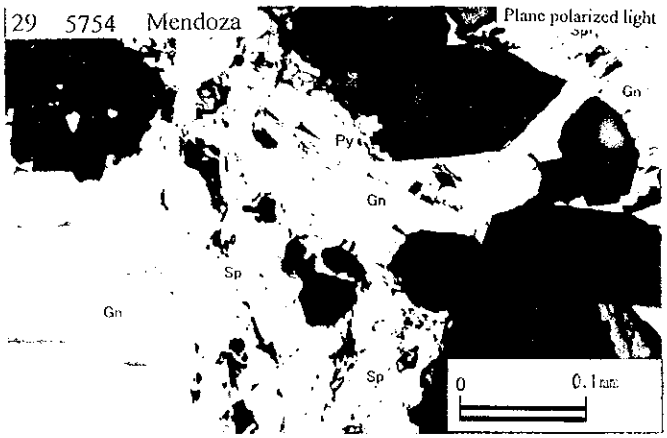
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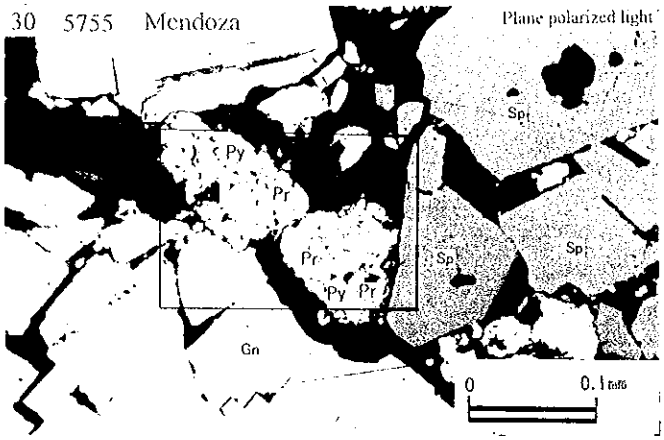
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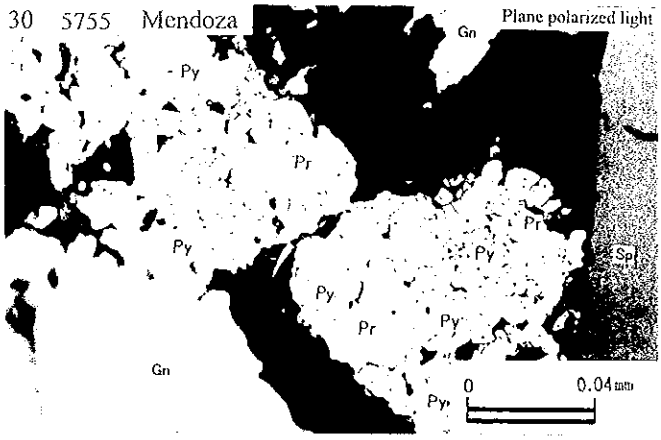
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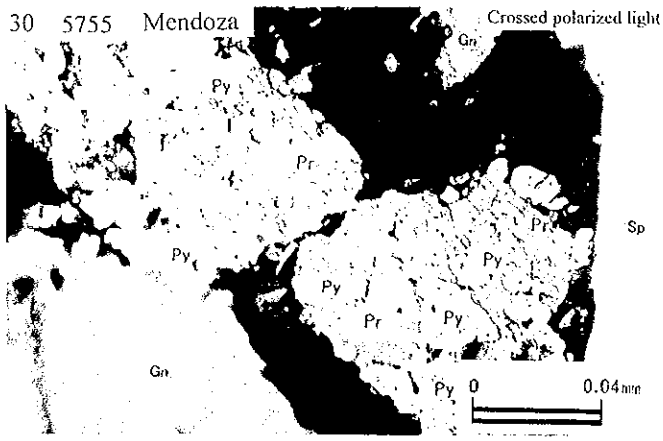
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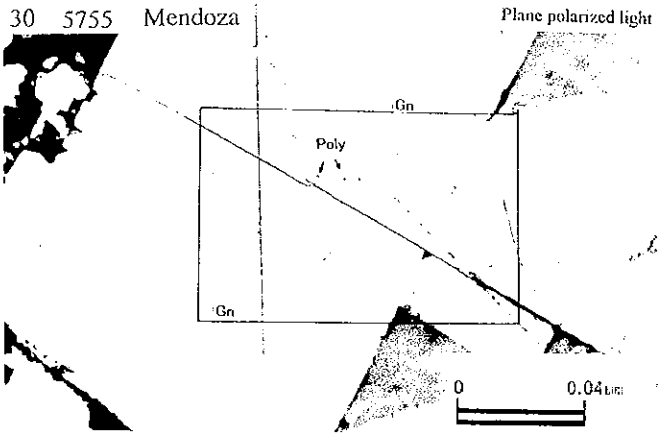
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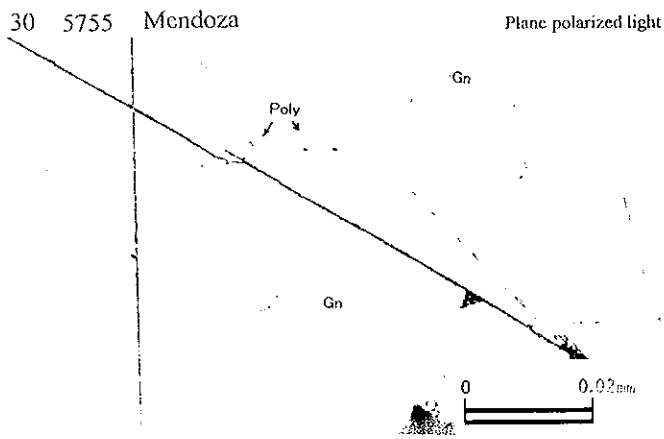
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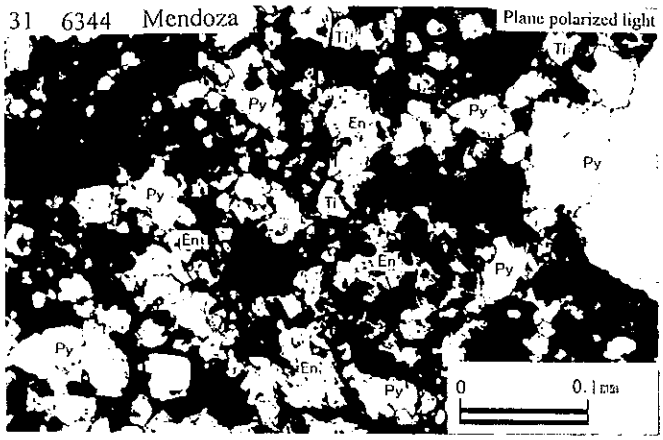
31 6344 Mendoza
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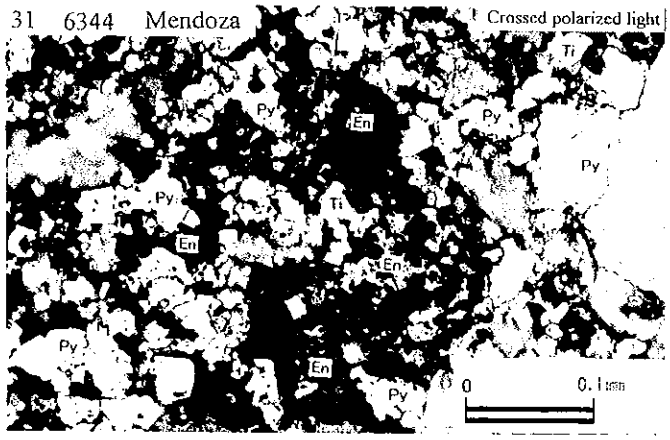
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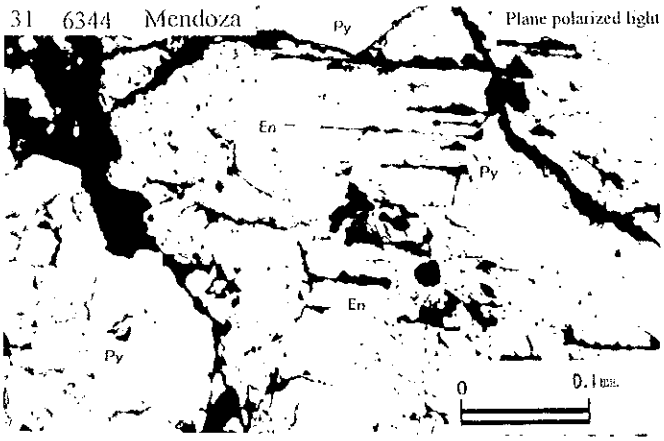
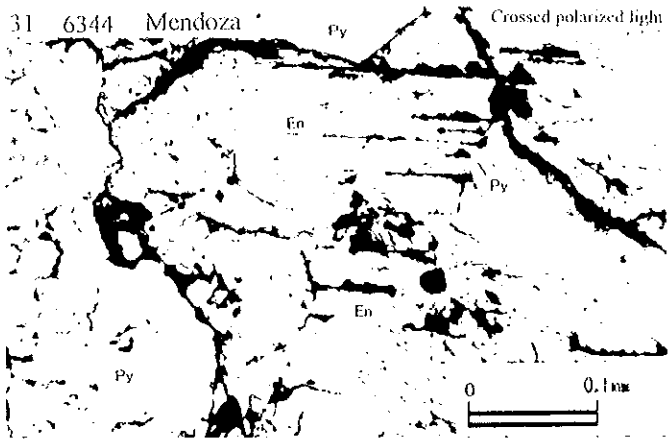
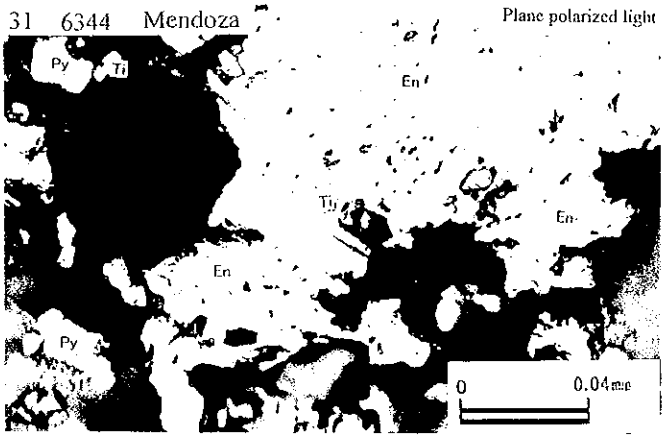
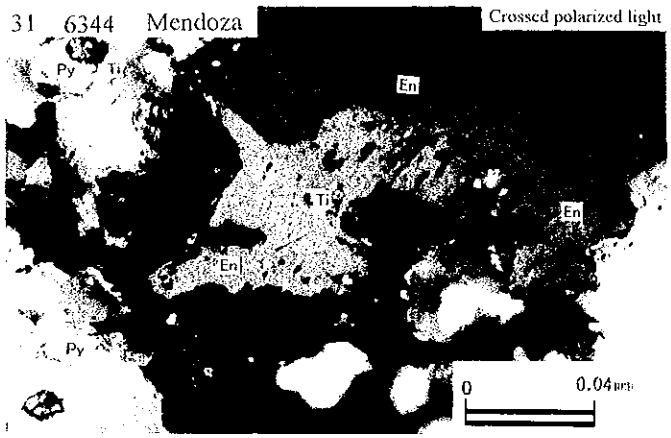
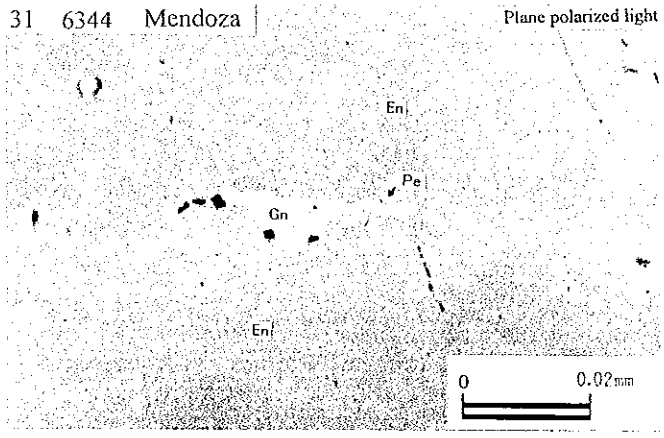
Photomicrographs of Polished Sections

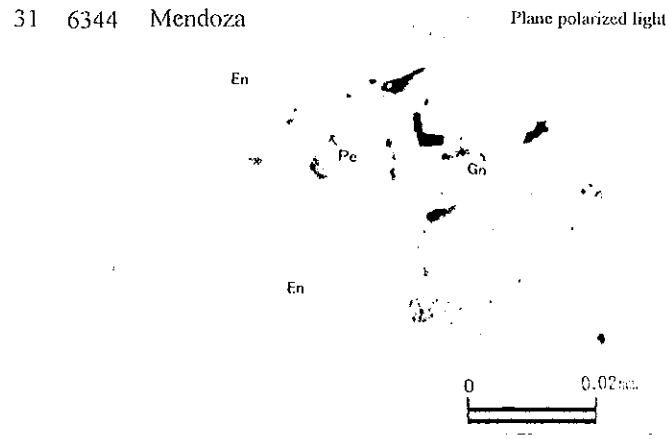


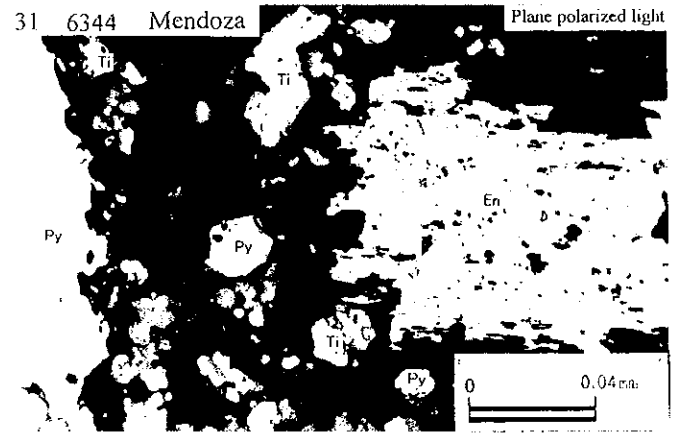


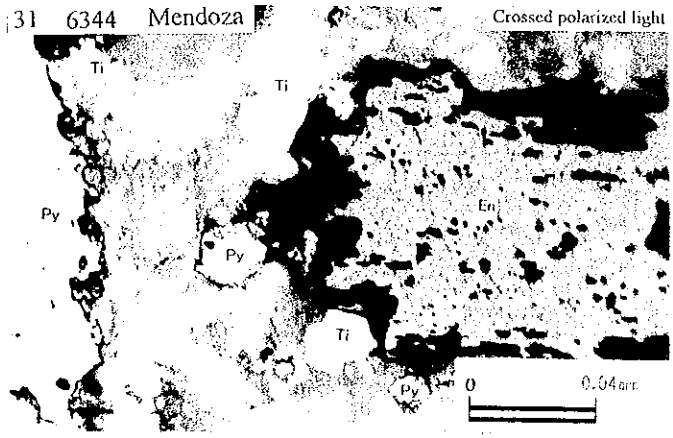




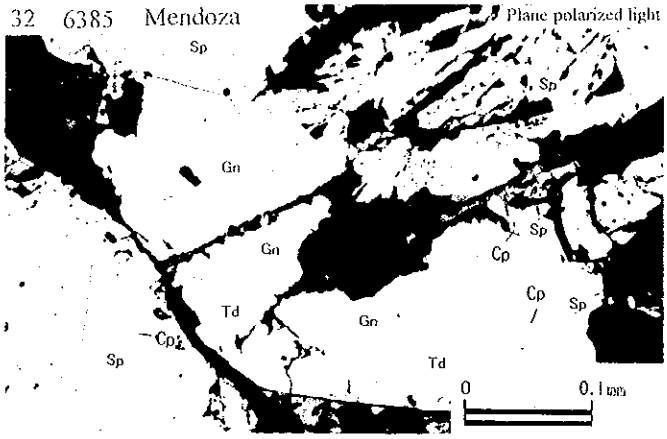


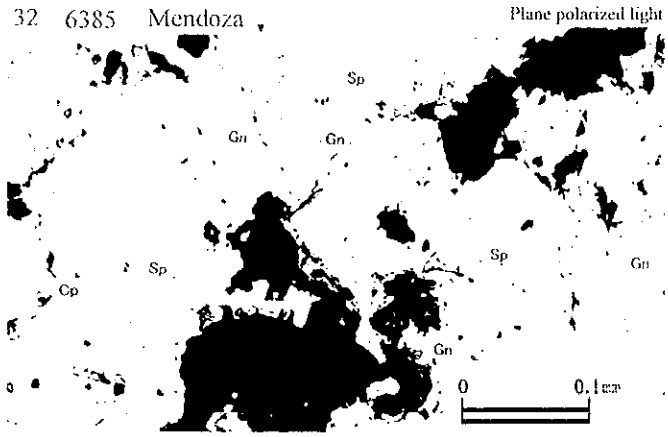


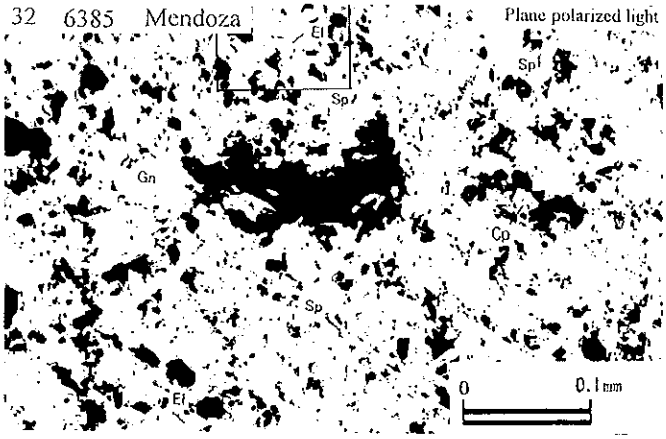


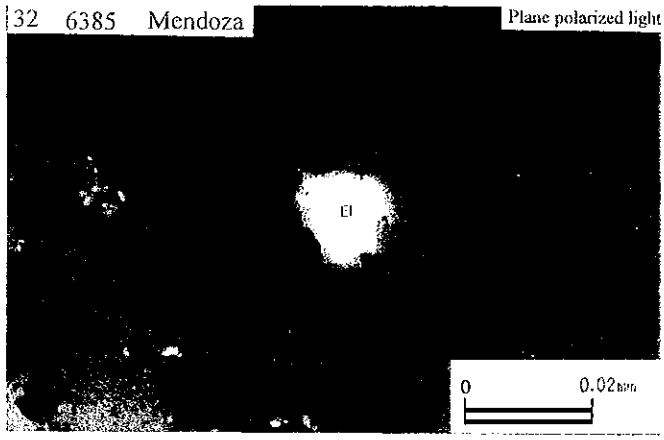


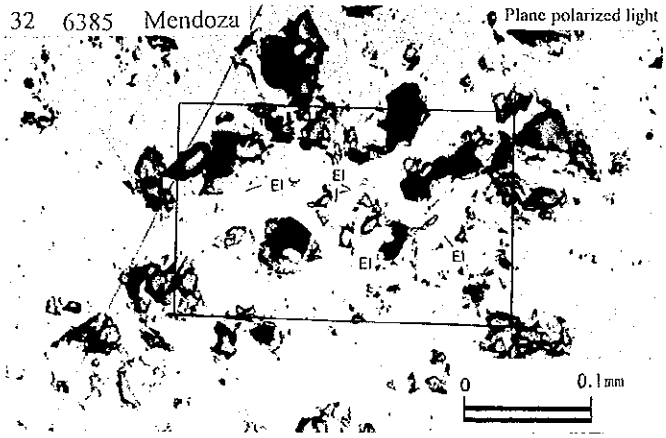
Photomicrographs of Polished Sections

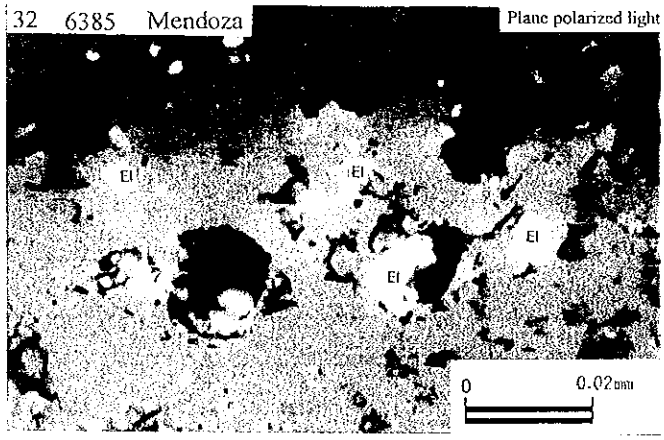


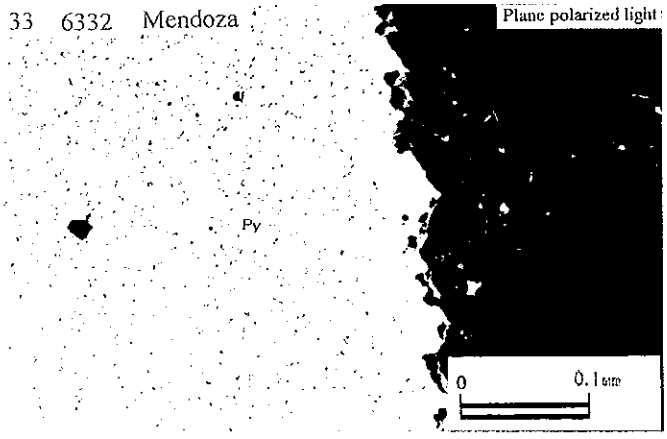




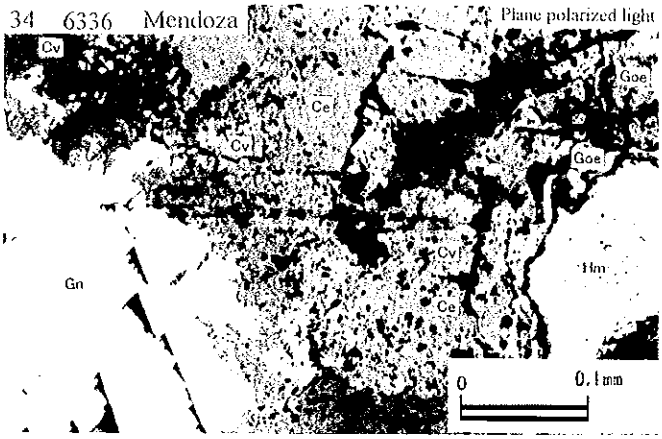


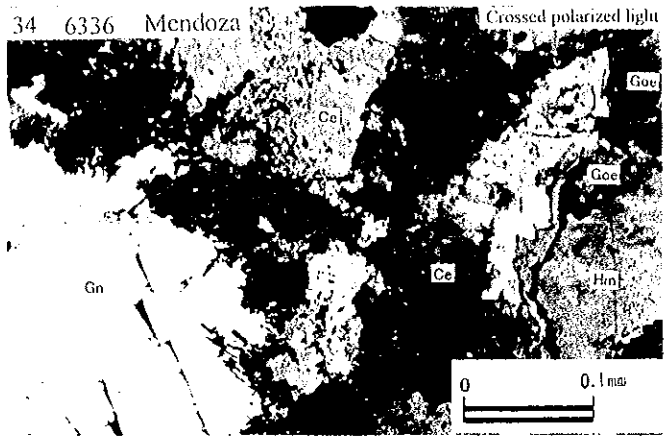


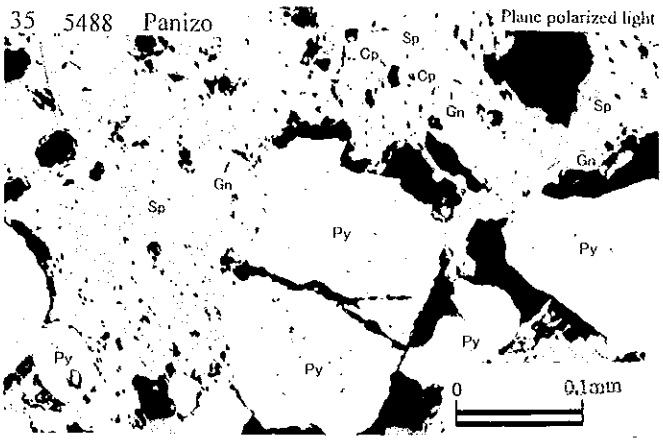


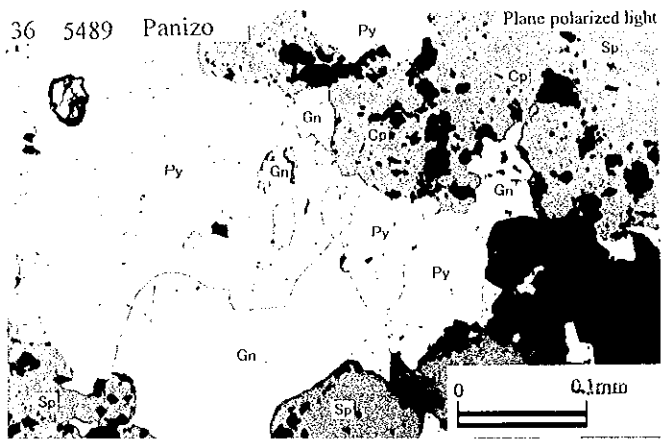


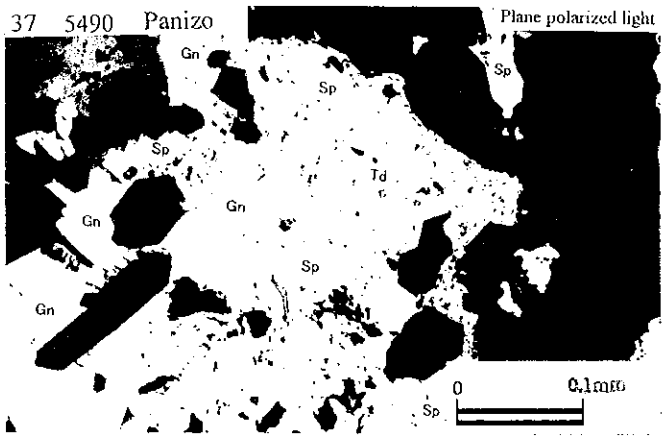
Photomicrographs of Polished Sections

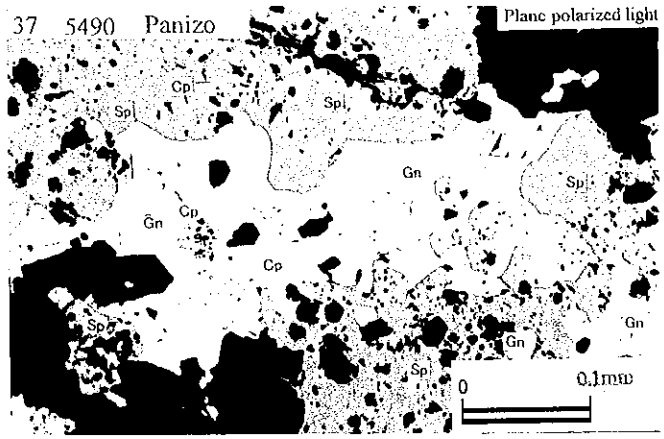


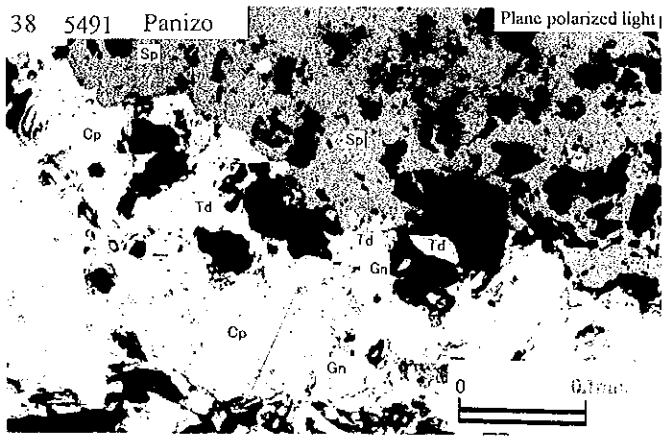


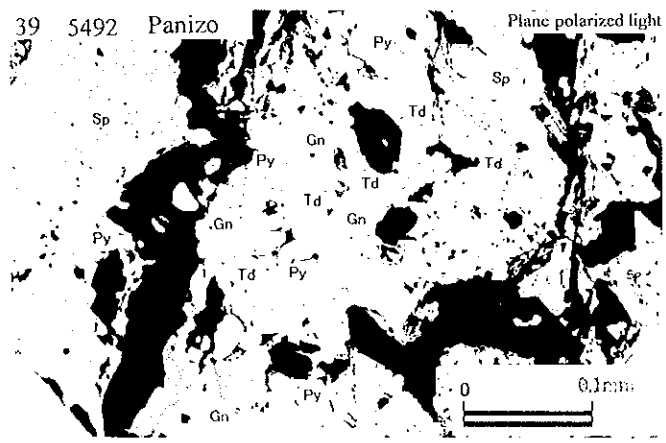


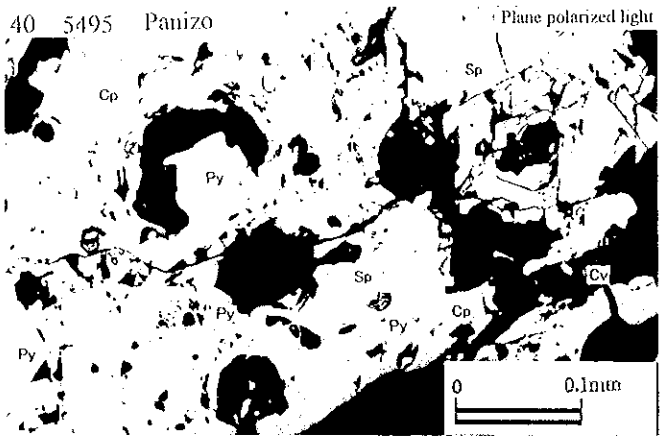











40 5495 Panizo
Plane polarized light
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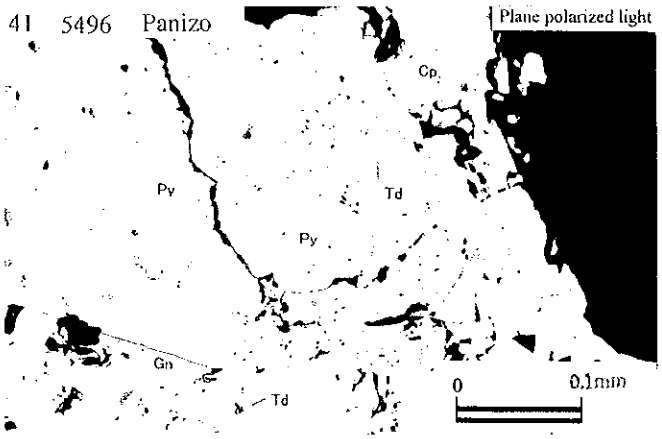
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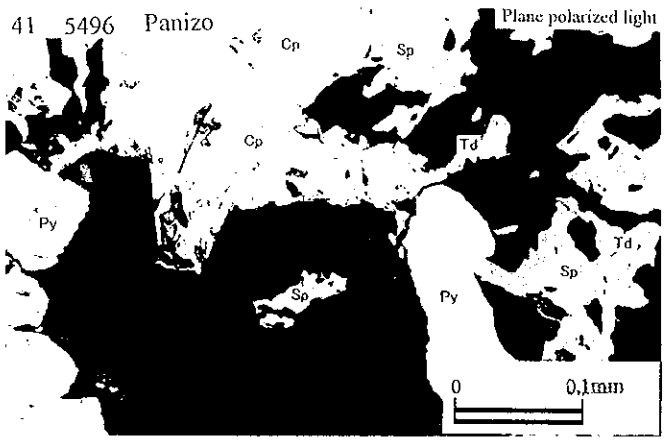
41 5496 Panizo
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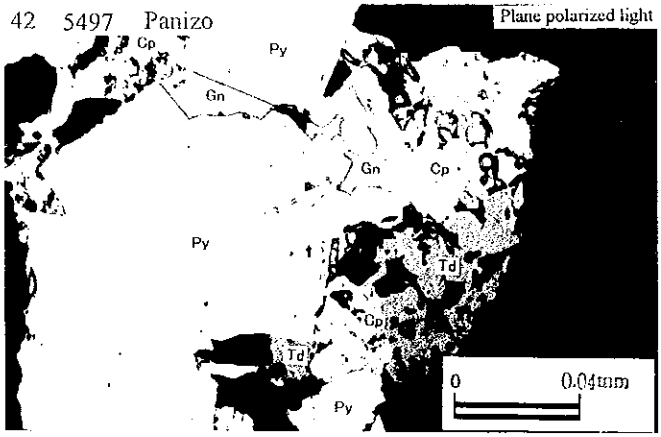
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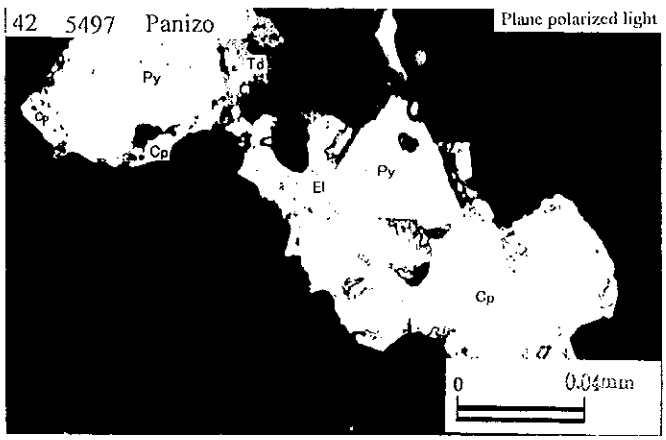
0.04mm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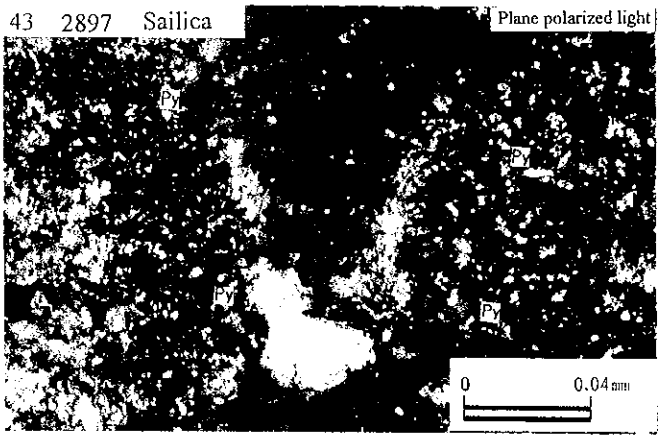
43 2897 Sailica
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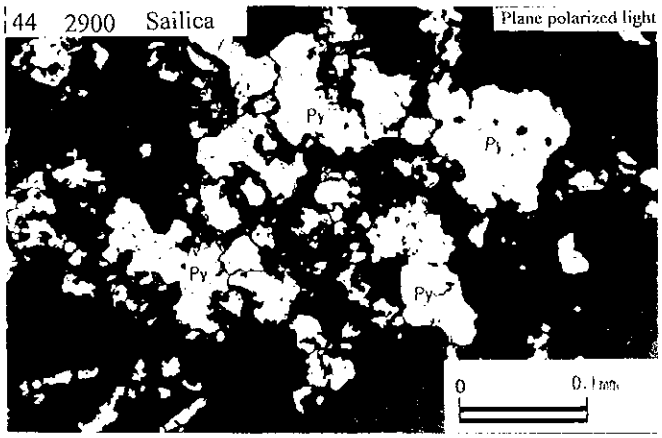
44 2900 Sailica
Plane polarized light
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Py
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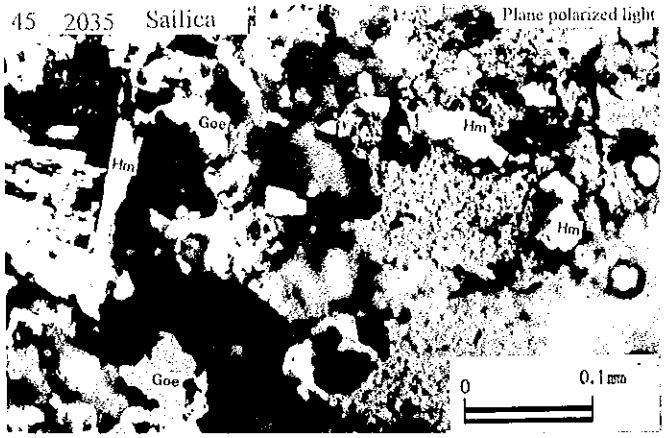
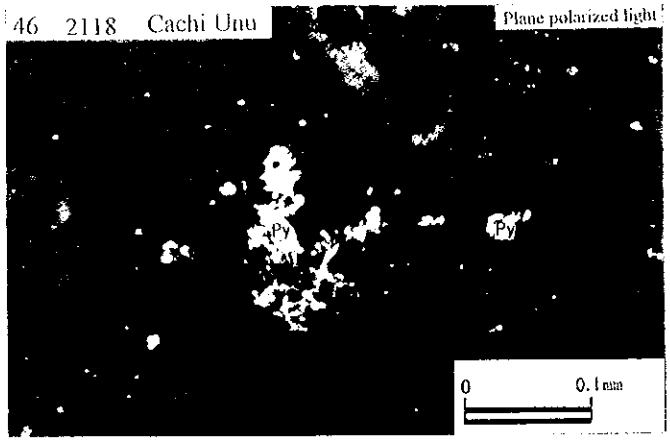
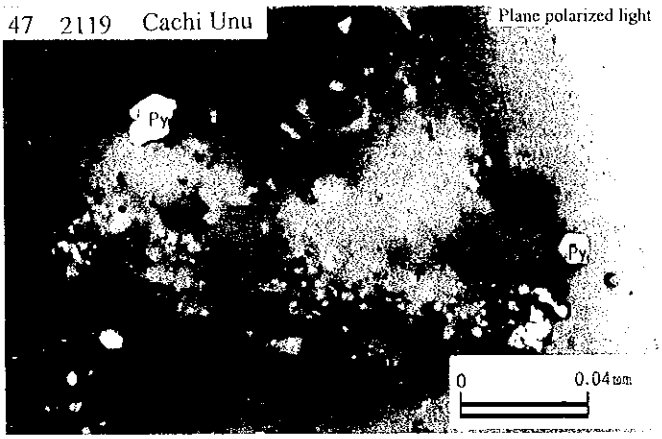
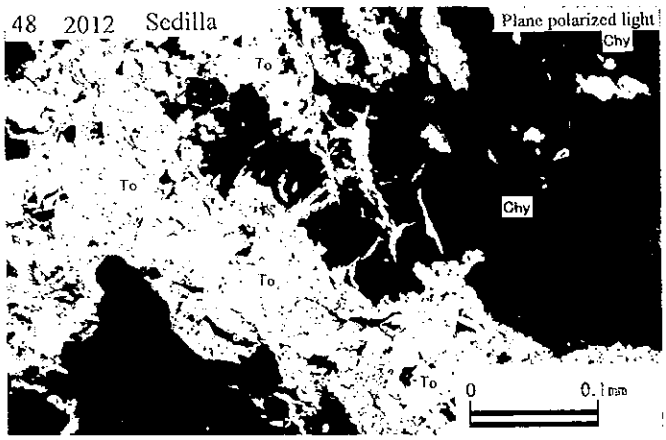
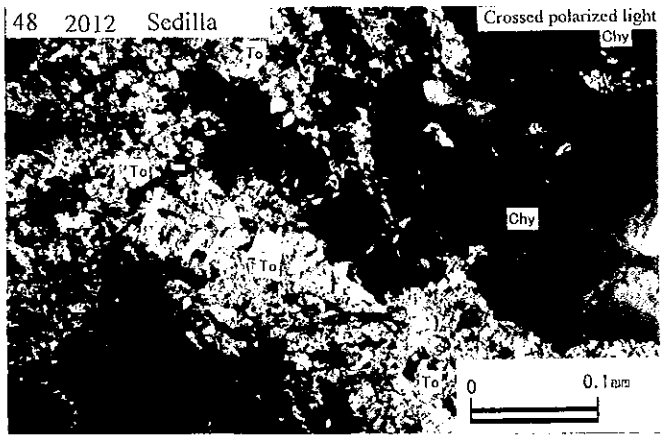
Photomicrographs of Polished Sections

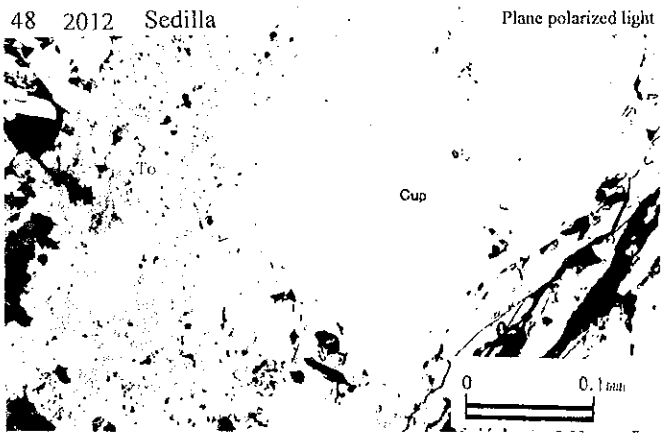


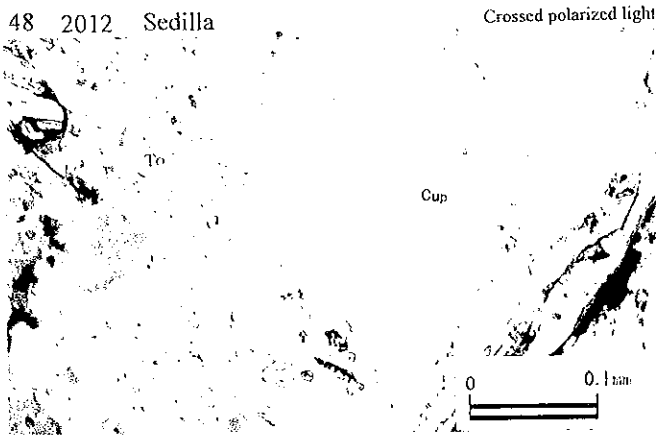




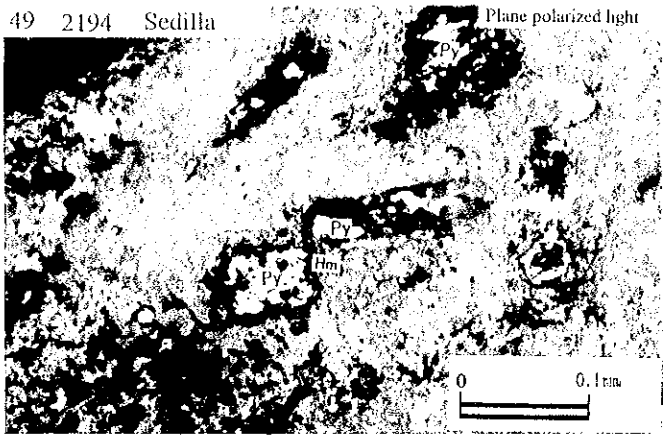


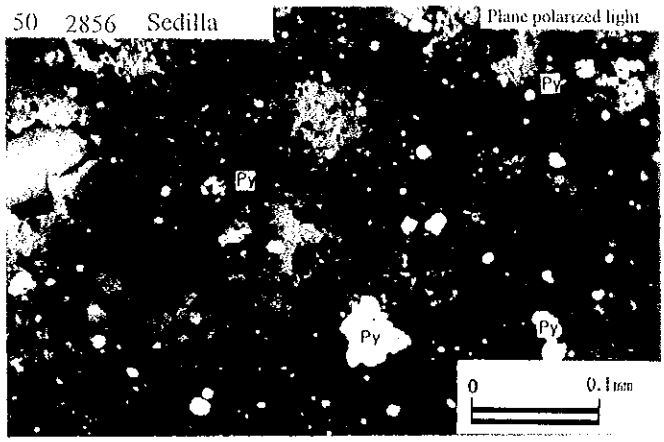






Photomicrographs of Polished Sections





Appendix 4

X-ray Diffraction Analysis

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	6962	Asu Asuni		7,984,285	552,570	<2	<.5	7	6	3	15	<5	<1	11	601	<5
2	6973	Asu Asuni		7,984,085	552,438	<2	<.5	7	4	<2	7	<5	<1	15	189	<5
3	6974	Asu Asuni		7,984,109	552,448	<2	<.5	4	11	7	14	<5	<1	3	521	<5
4	4974	Chullcani		7,976,809	520,095											
5	5157	Chullcani		7,976,343	517,420	<2	<.5	12	17	7	25	9	<1	<1	1658	<5
6	5168	Chullcani		7,976,028	517,580	<2	<.5	11	6	13	11	10	<1	<1	972	<5
7	5169	Chullcani		7,976,428	517,350	<2	<.5	34	19	11	19	8	<1	<1	276	<5
8	5202	Chullcani		7,977,154	518,460	<2	<.5	18	40	204	6	10	<1	<1	1210	<5
9	5283	Chullcani		7,978,280	517,909	<2	<.5	6	48	32	5	<5	<1	<1	1462	<5
10	5548	Chullcani		7,977,310	520,749	<2	<.5	12	56	14	24	8	<1	<1	2488	<5
11	5549	Chullcani		7,977,345	520,548	<2	<.5	21	17	7	11	6	<1	1	1945	<5
12	5565	Chullcani		7,976,611	520,457	<2	<.5	2	81	2	9	<5	<1	<1	1435	<5
13	5566	Chullcani		7,976,780	520,506	<2	<.5	5	23	4	10	13	<1	<1	2365	<5
14	5579	Chullcani		7,976,714	519,520	4	<.5	33	6	31	11	13	<1	1	1576	<5
15	5592	Chullcani		7,976,883	519,970	<2	<.5	21	382	20	16	9	<1	2	2242	<5
16	5596	Chullcani		7,976,056	520,191	<2	<.5	7	232	<2	<5	5	<1	<1	1788	8
17	5953	Chullcani		7,975,823	518,436	<2	<.5	48	29	41	10	7	<1	<1	1705	<5
18	5955	Chullcani		7,975,886	518,239	<2	<.5	20	21	27	14	10	<1	<1	1704	<5
19	5957	Chullcani		7,976,641	519,386	3	<.5	8	61	13	35	12	<1	6	1628	<5
20	5967	Chullcani		7,975,473	518,486	<2	<.5	35	23	14	11	8	<1	<1	1627	<5
21	5970	Chullcani		7,975,455	518,331	<2	<.5	17	19	15	11	10	<1	<1	1390	<5
22	5975	Chullcani		7,975,676	518,859	<2	<.5	3	57	3	10	10	<1	3	1687	<5
23	5977	Chullcani		7,975,778	519,073	3	<.5	9	70	2	7	6	<1	7	1185	5
24	5984	Chullcani		7,976,271	518,457	<2	<.5	18	37	34	17	11	<1	<1	1931	<5
25	5988	Chullcani		7,978,357	521,045	<2	<.5	3	4	9	19	<5	<1	3	1804	<5
26	5993	Chullcani		7,978,065	520,409	<2	<.5	18	7	48	24	<5	<1	2	1080	<5
27	6116	Chullcani		7,977,863	519,563	<2	<.5	15	17	13	9	12	<1	<1	245	<5
28	6122	Chullcani		7,977,050	518,630	8	<.5	29	73	24	23	10	<1	39	1376	<5
29	6126	Chullcani		7,977,222	518,773	9	<.5	31	346	19	22	8	<1	14	792	<5
30	6147	Chullcani		7,977,607	520,100	<2	<.5	6	33	9	8	9	<1	<1	1444	5
31	6258	Chullcani		7,975,565	519,307											
32	6412	Chullcani		7,976,280	520,504	<2	<.5	9	19	15	7	13	<1	<1	1714	<5
33	6452	Chullcani		7,977,120	520,423	<2	<.5	63	23	6	22	<5	<1	5	1954	<5
34	6453	Chullcani		7,977,120	520,423	3	0.7	126	41	48	31	<5	<1	<1	299	<5
35	6466	Chullcani		7,975,470	519,533	<2	<.5	7	5	3	<5	<5	<1	5	3605	<5
36	6469	Chullcani		7,975,447	520,060	<2	<.5	4	53	6	<5	5	<1	3	1261	10
37	6470	Chullcani		7,975,680	520,126	<2	<.5	26	44	9	14	7	<1	<1	1375	<5
38	6903	Chullcani		7,978,228	519,138	<2	<.5	8	17	27	16	9	<1	<1	1407	<5
39	6907	Chullcani		7,977,612	520,369	<2	<.5	9	23	15	51	<5	<1	2	1501	<5
40	6941	Chullcani		7,975,342	519,239	<2	<.5	10	22	5	12	<5	<1	4	1185	<5
41	6960	Chullcani		7,977,938	518,967	<2	<.5	23	17	20	11	<5	<1	1	1973	<5
42	5147	Sonia Susana		7,918,196	511,570	<2	<.5	4	16	9	63	<5	<1	<1	1132	<5
43	5148	Sonia Susana		7,918,183	511,778	<2	<.5	6	26	32	29	<5	<1	2	1433	<5
44	5538	Sonia Susana		7,920,144	512,680	<2	<.5	3	21	13	11	7	<1	<1	911	<5
45	5541	Sonia Susana		7,915,314	515,656	<2	<.5	43	30	91	9	6	<1	<1	343	<5
46	5908	Sonia Susana		7,918,169	516,007	2	<.5	10	12	43	29	<5	<1	<1	310	<5
47	5913	Sonia Susana		7,917,176	517,492	11	2.1	133	73	130	119	8	<1	36	926	8
48	5915	Sonia Susana		7,918,046	517,574	9	2.1	201	18	70	65	5	<1	<1	359	<5
49	5917	Sonia Susana		7,917,208	516,802	5	<.5	31	85	574	12	<5	<1	13	1756	<5
50	5922	Sonia Susana		7,918,905	517,218	18	1	8	311	24	21	13	<1	3	1185	<5

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
51	5923	Sonia Susana		7,919,233	517,759	3	<.5	43	48	329	63	6	<1	<1	1238	<5
52	5925	Sonia Susana		7,919,690	517,954	<2	0.6	131	95	144	56	<5	<1	26	1526	<5
53	5926	Sonia Susana		7,919,966	517,902	4	1.3	74	49	167	19	6	<1	<1	1018	<5
54	5929	Sonia Susana		7,917,633	514,636	<2	<.5	5	14	17	12	<5	<1	<1	2166	<5
55	5931	Sonia Susana		7,917,193	514,589	<2	<.5	2	11	29	6	7	<1	3	1730	<5
56	5932	Sonia Susana		7,917,253	514,422	<2	<.5	3	8	31	7	<5	<1	<1	469	<5
57	5941	Sonia Susana		7,914,550	517,919	<2	<.5	2	13	50	5	6	<1	<1	1516	<5
58	5942	Sonia Susana		7,914,793	517,719	<2	<.5	8	29	56	9	<5	<1	2	813	<5
59	5943	Sonia Susana		7,915,714	517,346	<2	<.5	34	19	120	12	5	<1	2	1080	<5
60	5948	Sonia Susana		7,915,808	517,677	7	1.6	142	64	72	9	5	<1	7	501	6
61	6053	Sonia Susana		7,918,756	518,392	18	0.9	42	132	33	27	5	<1	<1	720	<5
62	6063	Sonia Susana		7,916,593	518,306	136	0.9	109	65	74	17	6	<1	53	473	76
63	6066	Sonia Susana		7,916,864	518,062	3	3.5	102	116	85	15	6	<1	5	564	8
64	6068	Sonia Susana		7,916,566	517,771	<2	1.7	34	453	21	17	11	<1	17	1068	8
65	6090	Sonia Susana		7,919,288	519,946	<2	<.5	9	27	113	7	<5	<1	<1	620	<5
66	6235	Sonia Susana		7,919,057	515,428											
67	6236	Sonia Susana		7,919,122	515,560											
68	6237	Sonia Susana		7,918,271	515,892											
69	6238	Sonia Susana		7,918,414	516,805											
70	6239	Sonia Susana		7,917,536	516,860											
71	6241	Sonia Susana		7,919,835	517,975											
72	6243	Sonia Susana		7,914,405	517,543											
73	4776	Calorno		7,760,822	544,941	<2	<.5	11	6	15	14	11	<1	2	635	<5
74	4777	Calorno		7,760,911	544,947	<2	<.5	7	103	4	37	11	<1	16	774	10
75	5406	Calorno		7,759,225	544,989	<2	<.5	48	19	85	<5	8	1.41	1	1523	<5
76	5426	Calorno		7,762,032	543,626	2	<.5	11	3	5	66	<5	<1	14	1070	<5
77	5427	Calorno		7,762,103	543,475	<2	<.5	<2	<3	5	165	<5	<1	5	1302	<5
78	5618	Calorno		7,763,606	542,011	<2	<.5	4	24	6	20	13	<1	2	590	<5
79	5636	Calorno		7,762,337	541,987	<2	<.5	14	10	22	11	12	<1	3	698	<5
80	5666	Calorno		7,763,133	545,289	2	<.5	43	14	29	18	9	1.1	3	727	<5
81	5677	Calorno		7,766,209	547,562	<2	<.5	93	16	26	17	8	<1	5	349	<5
82	5678	Calorno		7,765,853	547,786	<2	<.5	22	13	8	25	7	<1	32	709	<5
83	5681	Calorno		7,765,428	547,757	<2	<.5	73	26	29	181	16	<1	15	790	<5
84	5685	Calorno		7,764,709	548,442	<2	<.5	4	1042	11	182	<5	<1	2	288	<5
85	5687	Calorno		7,765,919	548,527	<2	<.5	35	20	139	6	6	<1	4	703	<5
86	3476	Loma Llena		7,726,980	571,578	<2	<.5	6	7	5	<5	<5	<1	1	1153	<5
87	3478	Loma Llena		7,727,328	571,650	<2	<.5	13	11	5	<5	<5	<1	1	1112	<5
88	3480	Loma Llena		7,727,307	571,259	<2	<.5	87	9	47	32	<5	<1	<1	911	<5
89	3483	Loma Llena		7,727,366	570,887	<2	<.5	5	11	38	<5	<5	<1	2	1511	<5
90	3495	Loma Llena		7,726,940	571,117	<2	<.5	7	9	5	<5	<5	<1	3	913	<5
91	4307	Loma Llena		7,725,373	571,619	<2	<.5	14	16	15	41	<5	1.01	5	1374	<5
92	4321	Loma Llena		7,725,522	572,149	<2	<.5	<2	3	6	<5	<5	<1	<1	814	<5
93	4743	Loma Llena		7,723,723	572,941	<2	<.5	8	14	6	33	<5	<1	4	1023	<5
94	4748	Loma Llena		7,723,138	572,865	<2	<.5	8	16	15	7	<5	<1	2	939	<5
95	4750	Loma Llena		7,722,755	572,934	<2	<.5	5	10	4	<5	<5	<1	2	752	<5
96	4751	Loma Llena		7,722,671	573,080	<2	<.5	3	18	2	14	<5	<1	1	1476	<5
97	4760	Loma Llena		7,724,743	572,382	<2	<.5	55	16	19	57	<5	<1	2	1169	<5
98	4761	Loma Llena		7,724,772	572,304	<2	<.5	29	16	22	26	<5	<1	5	1038	<5
99	4762	Loma Llena		7,724,781	572,207	3	<.5	7	61	4	9	<5	<1	4	541	<5
100	4765	Loma Llena		7,724,955	572,045	<2	<.5	14	4	6	36	<5	<1	5	900	<5

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
101	4766	Loma Llena		7,725,010	572,005	<2	<.5	7	67	<2	27	9	<1	2	987	10
102	4769	Loma Llena		7,724,636	571,774	<2	<.5	4	<3	<2	<5	<5	<1	2	325	<5
103	4931	Loma Llena		7,721,909	572,086	<2	<.5	2	<3	<2	441	<5	<1	1	528	<5
104	4932	Loma Llena		7,721,918	572,018	<2	<.5	5	<3	<2	80	<5	<1	7	850	<5
105	4940	Loma Llena		7,721,662	572,515	<2	<.5	90	5	3	19	<5	<1	8	1385	<5
106	4950	Loma Llena		7,722,319	572,369	<2	<.5	81	20	177	78	<5	<1	3	2329	<5
107	4953	Loma Llena		7,725,500	571,447											
108	5203	Blanca Nieves	Blanca Nieves	8,011,149	506,374	<2	<.5	44	22	92	<5	<5	<1	3	1332	<5
109	5214	Blanca Nieves	Blanca Nieves	8,010,260	507,149	<2	<.5	12	21	7	<5	<5	<1	4	1344	<5
110	5236	Blanca Nieves	Blanca Nieves	8,010,257	506,179	<2	<.5	18	50	5	11	<5	<1	10	1190	<5
111	6429	Blanca Nieves	Blanca Nieves	8,011,735	507,557	<2	<.5	18	35	22	9	<5	<1	3	952	<5
112	6433	Blanca Nieves	Blanca Nieves	8,011,634	507,339	<2	<.5	12	31	29	7	<5	<1	3	1091	<5
113	6915	Blanca Nieves	Blanca Nieves	8,009,032	504,881	<2	<.5	47	74	21	7	<5	<1	<1	1458	10
114	6922	Blanca Nieves	Blanca Nieves	8,011,033	505,475	<2	<.5	8	45	4	5	<5	<1	5	837	<5
115	6930	Blanca Nieves	Blanca Nieves	8,009,837	505,809	<2	<.5	3	29	9	<5	<5	<1	6	619	<5
116	6933	Blanca Nieves	Blanca Nieves	8,008,722	504,891	<2	<.5	21	17	11	<5	<5	<1	<1	1021	<5
117	4975	Blanca Nieves	Titicayo	8,017,006	520,531											
118	6273	Blanca Nieves	Titicayo	8,016,810	521,278	<2	<.5	4	838	24	20	<5	<1	<1	1273	<5
119	6282	Blanca Nieves	Titicayo	8,016,925	521,267	<2	<.5	34	181	10	6	<5	<1	1	324	<5
120	6283	Blanca Nieves	Titicayo	8,016,875	521,333	<2	<.5	23	6017	77	33	<5	<1	<1	422	<5
121	6435	Blanca Nieves	Titicayo	8,016,905	520,742	<2	11.7	8	682	7	43	8	1.7	4	929	<5
122	6436	Blanca Nieves	Titicayo	8,016,965	520,594	<2	<.5	2	219	3	53	27	1.16	5	188	<5
123	6439	Blanca Nieves	Titicayo	8,017,263	520,088	<2	<.5	73	377	35	21	<5	<1	15	1303	<5
124	6440	Blanca Nieves	Titicayo	8,017,421	519,878	<2	<.5	53	13	160	206	<5	<1	5	1315	<5
125	6445	Blanca Nieves	Titicayo	8,017,144	520,003	<2	3.9	121	49	15	12	<5	<1	26	206	10
126	7004	Blanla Nieves	Titicayo	8,019,592	519,440	5	<.5	42	562	19	44	<5	<1	2	826	<5
127	7007	Blanla Nieves	Titicayo	8,018,823	519,799	<2	<.5	28	24	29	<5	<5	<1	2	2806	<5
128	7010	Blanla Nieves	Titicayo	8,018,436	519,885	<2	<.5	23	19	19	<5	<5	<1	<1	1386	<5
129	7012	Blanla Nieves	Titicayo	8,017,974	520,056	<2	<.5	62	27	15	<5	<5	<1	<1	1577	<5
130	7054	Blanla Nieves	Titicayo	8,017,391	522,263	<2	<.5	43	23	99	<5	<5	<1	<1	1076	<5
131	7061	Blanla Nieves	Titicayo	8,018,072	520,930	<2	<.5	18	18	112	<5	<5	<1	<1	1353	<5
132	7072	Blanla Nieves	Titicayo	8,019,577	519,587	<2	<.5	38	32	37	9	<5	<1	<1	2297	<5
133	7090	Blanca nieves	Titicayo	8,017,084	520,996	<2	<.5	26	1029	45	13	5	<1	<1	786	<5
134	7103	Blanca nieves	Titicayo	8,017,449	520,441	<2	2	28	5069	61	12	<5	<1	3	1164	<5
135	7104	Blanca nieves	Titicayo	8,017,394	520,213	<2	<.5	64	21	60	<5	<5	<1	<1	1557	<5
136	7107	Blanca nieves	Titicayo	8,017,590	520,048	<2	<.5	88	1314	99	172	<5	<1	17	610	<5
137	7109	Blanca nieves	Titicayo	8,017,559	520,664	<2	<.5	16	36	38	<5	<5	<1	<1	1662	<5
138	5893	Carangas	South of Carangas	7,904,183	539,142	<2	<.5	7	11	58	17	9	<1	<1	553	<5
139	6006	Carangas	Espiritu	7,905,897	539,256	2	84.2	225	92700	60970	74	85	<1	155	547	<5
140	6395	Carangas	Espiritu	7,906,159	538,983	<2	5.2	10	815	44	96	46	<1	1	774	<5
141	5903	Culebra	Co. Culebura	7,891,257	530,714	<2	<.5	<2	45	37	16	12	<1	2	926	<5
142	4973	Culebra	Todos Santos	7,897,656	529,538											
143	6024	Culebra	Todos Santos	7,898,170	529,636	<2	1.4	29	1032	2472	91	17	<1	<1	1157	<5
144	6027	Culebra	Todos Santos	7,897,628	528,428	<2	<.5	5	18	35	21	6	<1	1	1036	<5
145	5756	Mendoza	Kancha	7,827,835	636,412	2	0.9	81	277	215	15	<5	<1	16	1122	7
146	5757	Mendoza	Kancha	7,827,602	636,659	2	0.6	10	101	64	11	<5	<1	1	332	<5
147	5759	Mendoza	Kancha	7,827,123	636,927	2	<.5	3	44	25	6	<5	<1	2	1435	<5
148	5760	Mendoza	Kancha	7,827,026	637,080	<2	<.5	17	40	20	10	<5	<1	2	918	<5
149	5766	Mendoza	Kancha	7,827,137	637,956	<2	<.5	6	20	18	12	<5	<1	1	1141	<5
150	5767	Mendoza	Kancha	7,827,225	637,664	<2	<.5	7	14	18	5	<5	<1	7	1281	<5

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
151	5768	Mendoza	Kancha	7,827,245	637,543	<2	<.5	12	26	17	18	7	<1	<1	1201	<5
152	5769	Mendoza	Kancha	7,827,442	638,934	<2	0.6	9	17	37	66	<5	<1	5	119	<5
153	5772	Mendoza	Kancha	7,827,375	638,311	<2	<.5	7	55	28	9	<5	<1	1	448	<5
154	5773	Mendoza	Kancha	7,827,215	638,051	<2	<.5	9	16	32	16	<5	<1	<1	108	<5
155	5774	Mendoza	Kancha	7,826,940	638,224	<2	<.5	4	15	21	11	<5	<1	<1	735	<5
156	5807	Mendoza	Milluniloma	7,828,850	634,977	<2	<.5	3	22	<2	14	<5	<1	2	804	<5
157	5813	Mendoza	Milluniloma	7,827,921	634,066	3	<.5	26	11	66	<5	<5	<1	6	900	<5
158	4969	Mendoza	Mina Maria Luisa	7,819,794	634,676											
159	4970	Mendoza	Mina Maria Luisa	7,819,794	634,676											
160	4971	Mendoza	Mina Maria Luisa	7,819,794	634,676											
161	4972	Mendoza	Mina Maria Luisa	7,819,773	634,746											
162	5855	Mendoza	Mokho	7,823,027	631,062	<2	<.5	5	66	16	6	<5	<1	11	799	<5
163	5858	Mendoza	Mokho	7,822,856	630,311	33	1.7	8	192	8	45	11	<1	7	1349	6
164	5860	Mendoza	Mokho	7,822,914	629,877	38	17.8	8	98	12	13	19	<1	12	7176	<5
165	6344	Mendoza	Mina Guadalupe	7,822,610	635,382	1197	674	65650	727	232	28934	1050	7.8	4	40	421
166	6358	Mendoza	Mina Guadalupe	7,823,167	635,853	411	16.9	372	7498	206	31	12	<1	4	815	<5
167	4967	Mendoza	Iranuta	7,821,894	623,760											
168	4968	Mendoza	Iranuta	7,821,894	623,760											
169	5719	Mendoza	Chorka	7,819,003	622,683	<2	<.5	13	25	40	26	<5	<1	<1	530	7
170	5726	Mendoza	Chorka	7,819,650	624,423	<2	<.5	30	4	26	14	<5	<1	<1	422	<5
171	6320	Mendoza	Iranuta	7,821,894	623,760	<2	0.8	10	49	66	20	<5	<1	<1	84	<5
172	6332	Mendoza	Iranuta	7,820,909	626,414	<2	<.5	9	13	44	15	<5	<1	<1	847	<5
173	6337	Mendoza	Iranuta	7,822,183	624,333	9	12.3	195	36100	3673	134	34	<1	5	789	<5
174	5062	Panizo	Pacoloma	7,798,862	558,107	<2	<.5	29	37	36	206	<5	<1	6	922	<5
175	5075	Panizo	Pacoloma	7,797,688	559,518	<2	<.5	14	8	11	<5	<5	<1	1	869	<5
176	5092	Panizo	Vilasaca	7,803,377	560,961	<2	<.5	38	73	96	44	<5	<1	12	991	10
177	5498	Panizo	Tulco	7,799,607	564,332	<2	<.5	34	20	33	<5	<5	<1	2	1343	<5
178	4394	Panizo	Chinchilhuma	7,791,833	567,411	<2	29.3	38	2444	375	80	8	<1	3	1623	<5
179	4962	Panizo	Chinchilhuma Aguilani	7,790,791	567,217											
180	4963	Panizo	Chinchilhuma Aguilani	7,790,791	567,217											
181	4964	Panizo	Chinchilhuma Aguilani	7,790,791	567,217											
182	4965	Panizo	Chinchilhuma Aguilani	7,790,791	567,217											
183	5115	Panizo	Chinchilhuma	7,791,270	567,616	156	93.2	1305	76700	2570	194	36	<1	15	1228	<5
184	4235	Panizo	Panizo	7,778,660	550,281	<2	<.5	25	26	18	38	8	<1	3	799	<5
185	4249	Panizo	Panizo	7,778,335	553,113	<2	<.5	17	102	14	16	15	<1	2	755	16
186	4285	Panizo	Panizo	7,780,285	553,792	<2	<.5	22	30	15	26	12	<1	2	905	<5
187	4288	Panizo	Panizo	7,779,792	553,723	<2	<.5	10	19	18	17	6	<1	4	939	<5
188	4296	Panizo	Panizo	7,780,109	552,120	<2	<.5	7	16	5	21	7	<1	5	738	<5
189	4327	Panizo	Panizo	7,784,056	552,690	<2	<.5	8	6	15	19	8	<1	7	1185	<5
190	4330	Panizo	Panizo	7,784,152	552,451	<2	<.5	<2	<3	<2	12	<5	<1	3	1761	<5
191	4339	Panizo	Panizo	7,784,543	553,243	<2	<.5	5	<3	3	12	<5	<1	9	1194	<5
192	5033	Panizo	Panizo	7,783,577	552,350	<2	<.5	17	7	<2	48	25	<1	5	3884	7
193	5038	Panizo	Panizo	7,781,584	552,091	<2	<.5	4	9	11	56	12	<1	1	585	<5
194	5044	Panizo	Panizo	7,782,281	553,584	<2	<.5	24	11	6	53	11	<1	4	891	<5
195	5433	Panizo	Panizo	7,779,497	550,085	<2	<.5	6	36	4	49	9	<1	3	579	<5
196	5442	Panizo	Panizo	7,778,489	550,392	<2	<.5	24	24	11	19	8	<1	5	1094	<5
197	5698	Panizo	Panizo	7,779,117	551,900	<2	<.5	26	17	173	15	7	<1	4	955	<5
198	6786	Panizo	Panizo	7,778,228	551,743	<2	<.5	16	20	8	55	12	<1	5	876	<5
199	6799	Panizo	Panizo	7,779,464	551,762	<2	<.5	4	22	14	53	9	<1	5	777	<5
200	2046	Sailica	Mina Plasumar	7,715,177	639,492	<2	<.5	23	64	29	29	52	<1	12	1283	9

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
201	2055	Sailica	Mina Plasumar	7,714,800	639,775	<2	<.5	32	58	72	<5	<5	<1	1	3576	<5
202	2056	Sailica	Mina Plasumar	7,714,860	639,858	<2	<.5	16	9	125	<5	<5	<1	<1	1111	<5
203	2062	Sailica	Mina Plasumar	7,715,958	637,405	<2	<.5	18	22	25	57	9	<1	2	1408	<5
204	2071	Sailica	Mina Plasumar	7,715,420	637,933	<2	<.5	16	9	39	7	<5	1.09	1	1160	<5
205	2889	Sailica	Mina Plasumar	7,712,567	638,007	<2	<.5	12	9	12	11	<5	<1	2	1188	<5
206	2890	Sailica	Mina Plasumar	7,712,618	638,260	2	<.5	9	18	8	<5	<5	<1	2	1950	<5
207	3285	Sailica	Mina Plasumar	7,713,215	638,091	<2	<.5	18	128	30	50	<5	<1	16	582	6
208	3287	Sailica	Mina Plasumar	7,713,722	638,500	<2	<.5	9	25	71	15	<5	<1	2	1191	<5
209	3407	Sailica	Mina Plasumar	7,716,245	638,107	<2	<.5	9	13	21	20	<5	<1	1	1020	<5
210	3416	Sailica	Mina Plasumar	7,717,049	638,953	<2	<.5	9	10	16	7	<5	<1	38	323	<5
211	3423	Sailica	Mina Plasumar	7,717,688	639,549	<2	<.5	3	13	6	12	6	1.68	3	1788	<5
212	3430	Sailica	Mina Plasumar	7,716,749	639,626	28	0.6	45	76	30	1710	105	<1	11	1184	<5
213	6702	Sailica	Mina Plasumar	7,715,628	639,780	46	<.5	36	1338	75	121	260	<1	142	1419	12
214	6704	Sailica	Mina Plasumar	7,715,569	639,538	36	<.5	114	1071	34	439	155	<1	10	1159	<5
215	6707	Sailica	Mina Plasumar	7,715,463	639,086	<2	<.5	6	119	12	67	32	<1	2	1157	<5
216	6713	Sailica	Mina Plasumar	7,715,002	638,322	<2	<.5	4	58	17	19	6	<1	<1	1075	<5
217	6720	Sailica	Mina Plasumar	7,715,834	638,854	<2	<.5	134	429	358	44	84	<1	3	1218	7
218	6732	Sailica	Mina Plasumar	7,714,355	638,603	<2	<.5	48	362	57	65	<5	<1	2	645	15
219	6741	Sailica	Mina Plasumar	7,716,165	639,091	21	<.5	12	23	396	20	8	<1	5	1044	<5
220	6745	Sailica	Mina Plasumar	7,716,289	639,662	<2	1.4	18	418	21	68	59	<1	<1	1088	7
221	2022	Sailica	Mina Solucion	7,712,884	631,868	4	<.5	4	18	526	7	17	<1	<1	1450	<5
222	2024	Sailica	Mina Solucion	7,712,884	631,668	14	1.1	15	266	1374	29	23	<1	1	1365	<5
223	2031	Sailica	Mina Solucion	7,712,846	631,623	<2	<.5	52	18	154	<5	10	<1	1	819	<5
224	2035	Sailica	Mina Solucion	7,712,783	631,549	4	11.3	1186	1285	1315	252	35	<1	35	20	<5
225	6771	Colorado	Bayos	7,706,267	559,828	<2	<.5	14	20	37	210	<5	<1	1	62	<5
226	6772	Colorado	Bayos	7,706,829	558,925	<2	<.5	12	24	16	28	<5	<1	6	942	<5
227	6779	Colorado	Bayos	7,707,062	559,329	<2	<.5	7	<3	4	1293	10	<1	7	1613	<5
228	3433	Colorado	Okhe	7,703,204	568,605	<2	<.5	19	14	18	34	<5	<1	4	998	<5
229	3439	Colorado	Okhe	7,704,005	566,731	<2	<.5	4	<3	<2	<5	<5	<1	3	274	<5
230	3445	Colorado	Okhe	7,703,937	565,447	<2	<.5	16	13	8	137	<5	<1	4	1556	<5
231	3450	Colorado	Okhe	7,704,427	566,179	<2	<.5	8	5	<2	<5	18	1.02	4	1261	<5
232	3456	Colorado	Okhe	7,704,987	567,754	<2	<.5	6	14	6	21	<5	<1	2	890	<5
233	3462	Colorado	Okhe	7,705,896	565,867	<2	<.5	18	16	14	9	<5	<1	3	1153	<5
234	3468	Colorado	Okhe	7,704,886	567,048	<2	<.5	19	9	14	93	5	<1	4	1160	<5
235	2095	Colorado	Perenal	7,700,495	562,007	<2	<.5	18	24	16	21	<5	<1	4	838	<5
236	2097	Colorado	Perenal	7,700,830	562,017	<2	<.5	42	19	10	140	6	<1	3	471	<5
237	6746	Colorado	Colorado	7,697,735	566,029	<2	<.5	23	19	11	27	<5	<1	2	1164	<5
238	6758	Colorado	Colorado	7,696,350	567,477	<2	<.5	4	17	3	6	<5	<1	2	3532	<5
239	2172	Luxsar		7,678,527	596,508	<2	<.5	31	61	78	34	<5	<1	4	962	<5
240	2174	Luxsar		7,678,814	597,144	<2	<.5	42	20	101	<5	<5	<1	2	987	6
241	2177	Luxsar		7,679,115	596,934	<2	<.5	42	20	57	54	<5	<1	7	1142	<5
242	2178	Luxsar		7,679,716	596,207	<2	<.5	5	27	19	6	<5	<1	<1	1281	<5
243	2182	Luxsar		7,679,450	596,329	<2	<.5	6	21	67	<5	<5	<1	4	1438	<5
244	2184	Luxsar		7,679,454	596,686	<2	<.5	40	68	92	<5	<5	<1	3	817	7
245	2187	Luxsar		7,679,827	596,610	<2	<.5	38	11	18	<5	<5	<1	12	716	<5
246	2818	Luxsar		7,678,224	597,594	<2	<.5	16	19	23	11	<5	<1	4	1230	<5
247	2819	Luxsar		7,678,360	597,815	<2	<.5	10	27	15	5	<5	<1	2	894	<5
248	2842	Luxsar		7,679,197	597,230	<2	<.5	41	14	59	<5	<5	<1	3	1166	<5
249	3224	Luxsar		7,678,481	596,349	<2	<.5	14	8	92	5	<5	<1	2	911	<5
250	3234	Luxsar		7,678,612	597,584	<2	<.5	8	14	39	42	<5	<1	3	1055	<5

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
251	2003	Cachi Unu		7,671,624	616,370	<2	<.5	7	24	43	26	<5	<1	2	1094	<5
252	2127	Cachi Unu		7,671,397	616,064	2	<.5	4	14	16	19	<5	<1	4	1205	<5
253	2152	Cachi Unu		7,671,979	616,022	<2	<.5	17	52	32	40	<5	<1	2	717	<5
254	2154	Cachi Unu		7,671,767	616,093	9	<.5	5	1605	24	37	<5	<1	2	1711	36
255	2158	Cachi Unu		7,671,675	616,103	<2	<.5	6	24	20	14	<5	<1	2	1114	<5
256	2163	Cachi Unu		7,671,487	616,118	<2	<.5	9	22	24	37	<5	<1	4	995	<5
257	2165	Cachi Unu		7,671,390	616,416	<2	<.5	16	23	30	<5	<5	<1	2	1145	<5
258	2166	Cachi Unu		7,671,408	616,207	<2	<.5	7	20	18	49	<5	<1	4	855	<5
259	3203	Cachi Unu		7,671,732	615,242	<2	<.5	36	13	56	12	<5	<1	1	1335	<5
260	3204	Cachi Unu		7,671,681	615,443	<2	<.5	10	15	45	20	<5	<1	2	588	<5
261	3208	Cachi Unu		7,671,250	616,321	<2	<.5	5	14	37	7	<5	<1	3	985	<5
262	3211	Cachi Unu		7,671,032	616,436	<2	<.5	3	<3	7	<5	<5	<1	3	1219	<5
263	2169	Sedilla	Co. Chascos	7,660,164	627,053	<2	<.5	19	15	147	<5	<5	<1	<1	1110	<5
264	3239	Sedilla	Co. Chascos	7,657,035	625,184	<2	<.5	9	12	39	7	<5	<1	2	1118	<5
265	3241	Sedilla	Co. Chascos	7,657,018	625,170	<2	<.5	19	15	106	15	<5	<1	1	389	<5
266	3245	Sedilla	Co. Chascos	7,656,682	625,069	<2	<.5	19	12	60	12	<5	<1	3	1134	<5
267	3246	Sedilla	Co. Chascos	7,656,817	625,097	<2	<.5	8	18	27	10	<5	<1	2	1176	<5
268	3249	Sedilla	Co. Chascos	7,656,756	625,183	<2	<.5	12	10	37	14	<5	<1	4	518	<5
269	3253	Sedilla	Co. Chascos	7,656,781	625,316	<2	<.5	7	18	30	30	<5	<1	2	1222	<5
270	3255	Sedilla	Co. Chascos	7,656,926	625,456	<2	<.5	21	15	18	5	<5	<1	2	1342	<5
271	4920	Sedilla	Co. Chascos	7,660,159	626,231	<2	<.5	29	8	119	<5	<5	<1	<1	647	<5
272	4923	Sedilla	Co. Chascos	7,659,738	628,637	<2	<.5	34	3	60	403	34	<1	2	875	<5
273	2013	Sedilla	Eskapa	7,652,176	635,205	<2	0.9	1118	23	106	<5	<5	<1	2	1093	<5
274	2016	Sedilla	Eskapa	7,651,914	635,308	2	5.8	1843	30	135	<5	<5	<1	<1	1445	<5
275	2191	Sedilla	Eskapa	7,648,490	634,504	<2	<.5	5	17	29	48	5	<1	4	1172	<5
276	2198	Sedilla	Eskapa	7,649,722	634,357	<2	<.5	4	19	24	9	11	<1	2	1122	<5
277	2850	Sedilla	Eskapa	7,648,439	634,115	<2	<.5	6	15	20	11	8	<1	3	1330	<5
278	2853	Sedilla	Eskapa	7,648,412	633,591	2	<.5	4	18	3	22	<5	<1	3	1230	<5
279	2854	Sedilla	Eskapa	7,648,545	633,563	<2	<.5	7	24	125	5	<5	<1	3	1330	<5
280	2855	Sedilla	Eskapa	7,648,648	633,594	<2	<.5	<2	21	13	10	<5	<1	8	1201	<5
281	3260	Sedilla	Eskapa	7,648,989	634,310	2	<.5	6	15	15	85	8	<1	4	1043	<5
282	3265	Sedilla	Eskapa	7,649,194	633,996	<2	<.5	4	16	13	69	22	<1	60	607	<5
283	4912	Sedilla	Eskapa	7,649,140	633,115	<2	<.5	6	42	24	164	55	<1	2	607	<5
284	4915	Sedilla	Eskapa	7,648,930	633,522	<2	<.5	3	65	31	110	41	<1	3	2219	<5

Appendix 4-1 Sample List of Laboratory Works (X-ray)

No.	Sample No.	Locality	Rock \ Mineral	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite/Smectite	Plagioclase	Potassium feldsper	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
1	6962	Asu Asuni	vs-sil alt-r qz-phc	◎														×?								
2	6973	Asu Asuni	s-sil hyd-br	×?	◎									×?												
3	6974	Asu Asuni	s-sil hyd-br	◎														×?								
4	4974	Chullcani	m-sil s-arg an		◎		△	◎														△				
5	5157	Chullcani	m-arg m-sil an s-oxd		○			◎														○				
6	5168	Chullcani	m-arg an oxd Mn		○			◎														△				
7	5169	Chullcani	m-arg an oxd		◎			○														△				◎
8	5202	Chullcani	m-prpy an? chl	○			◎			○				○												
9	5283	Chullcani	wk-arg wk-sil an oxd	◎			△							○							○					
10	5548	Chullcani	m-sil m-arg bt hb an		◎													×?				△				
11	5549	Chullcani	hyd br		◎																	○				
12	5565	Chullcani	hyd br		×			△														◎				
13	5566	Chullcani	vs-sil s-arg v		○			×														◎				
14	5579	Chullcani	s-arg wk-sil an	○										○						○						
15	5592	Chullcani	m-arg wk-sil an	◎				○						◎												
16	5596	Chullcani	s-sil s-arg hyd br		◎																	○				
17	5953	Chullcani	m～s-sil m-arg bt an	○						○				△						△						
18	5955	Chullcani	m-sil wk-arg lptf	○			◎							△						△	△					
19	5957	Chullcani	vs-sil alt r (tf?)	◎																		◎				
20	5967	Chullcani	vs-sil an		○		×	◎														○				
21	5970	Chullcani	s～vs sil alt an?		◎			△														◎				
22	5975	Chullcani	s-sil m-arg br	○			△															◎				
23	5977	Chullcani	m-sil s-aln hyd br	◎																		◎				
24	5984	Chullcani	m-arg aln? Wk-sil an	△						△?												◎				
25	5988	Chullcani	sil hyd br		◎													△?								
26	5993	Chullcani	hyd br		◎																					
27	6116	Chullcani	s-arg,m-sil lim an		○			◎									×?					○				
28	6122	Chullcani	s-arg,m-sil z in chl an	×				×									◎					×				
29	6126	Chullcani	s-arg,m-s sil v(w:5m)	×			◎							×						×						
30	6147	Chullcani	s-sil hyd br(w:2m)		△			◎														△				
31	6258	Chullcani	vs-sil hyd br	◎										×												
32	6412	Chullcani	s-arg s-sil an		◎			◎										×?				◎				
33	6452	Chullcani	s-sil hyd br		◎			△														△				
34	6453	Chullcani	s-arg Mn oxd v				△	◎		△?															△	
35	6466	Chullcani	s-sil an	◎																						
36	6469	Chullcani	s-sil s-arg tf		◎																	◎				
37	6470	Chullcani	s-sil hyd br sil v		◎			○														◎				
38	6903	Chullcani	m～vs-sil an							×												◎				
39	6907	Chullcani	s-sil an		◎													×?		×?						
40	6941	Chullcani	vs-sil an	×						×												◎				
41	6960	Chullcani	m-arg m-sil v		×?		△	◎																		
42	5147	Sonia Susana	m-arg tf?	○			△	×						◎												
43	5148	Sonia Susana	m-arg wk-sil da	○			×	◎						○												
44	5538	Sonia Susana	wk-sil s-arg pmtf					△				○			◎											
45	5541	Sonia Susana	s-arg lptf～tfbr				△?	×?		◎				×												
46	5908	Sonia Susana	w-m-sil m-arg lptf py	×			○	×		◎				△												
47	5913	Sonia Susana	m-sil wk-arg alt-an	△						○	△	×		○										◎		
48	5915	Sonia Susana	m-arg alt-tf?				◎			△							△									
49	5917	Sonia Susana	vs-sil w-arg alt-tf	×			◎			×				×			×?									
50	5922	Sonia Susana	vs-sil alt-lptf	○				◎																		

Appendix 4-2 Result of X-ray Diffraction Analysis

No.	Sample No.	Locality	Mineral / Rock	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite/Smectite	Plagioclase	Potassium feldsper	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
51	5923	Sonia Susana	wk-sil m-arg prpy an				◎	○		△				△												
52	5925	Sonia Susana	s-sil wk-arg alt-tf	○			○	○		◎				○												
53	5926	Sonia Susana	w-sil s-arg alt-tf limo	○						○				○			△									
54	5929	Sonia Susana	vs-sil wk-arg alt-r	◎						◎				△												
55	5931	Sonia Susana	vs-sil wk-arg bt an	◎			△?			○				○												
56	5932	Sonia Susana	vs-sil alt bt an				×	×		◎																
57	5941	Sonia Susana	s-arg alt-lptf									◎														
58	5942	Sonia Susana	m-arg qz tf							◎	△															
59	5943	Sonia Susana	s-sil alt-lptf	×						◎				△								△				
60	5948	Sonia Susana	vs-sil m-arg tf~lptf	○			○?			◎				△												
61	6053	Sonia Susana	s-sil m-arg da							◎																
62	6063	Sonia Susana	s-arg lptf							◎																
63	6066	Sonia Susana	m-sil s-arg tf~lptf	×			△			◎				△			×									
64	6068	Sonia Susana	s-sil s-arg da				◎	×		○				×												
65	6090	Sonia Susana	w-sil s-arg lptf				△?			◎				×												
66	6235	Sonia Susana	p-brn fng rhy	◎				◎						○												
67	6236	Sonia Susana	l-gry fng rhy	◎				◎		× ?				△												
68	6237	Sonia Susana	m-arg an	○			○			◎				◎			△									
69	6238	Sonia Susana	m-sil tf	◎																						
70	6239	Sonia Susana	s-sil m-arg alt-tf				○							◎			△							○		
71	6241	Sonia Susana	s-arg alt-tf limo	○			○			◎				○												
72	6243	Sonia Susana	wk-arg alt lptf	×			△	×		◎																
73	4776	Calorno	s-sil hyd-br			×		×															◎			
74	4777	Calorno	ylw-wht s-arg alt-r			△?		◎	△																	
75	5406	Calorno	hb-bt an			○		○?			○				○											
76	5426	Calorno	s-sil r	◎																						
77	5427	Calorno	s-sil s-arg r qz v bxwk	◎																						
78	5618	Calorno	ms-sil wm-arg lptf		△																× ?		◎			
79	5636	Calorno	wht s-sil alt an		×																		◎			
80	5666	Calorno	m-arg lptf		△		◎	△						△?									×			
81	5677	Calorno	s-arg bt an				○					△?														
82	5678	Calorno	wk-sil s-arg hyd-br					◎																		
83	5681	Calorno	vs-arg an		△		×	◎																		
84	5685	Calorno	s-sil s-arg an or an-tf		△																	○				
85	5687	Calorno	m-arg tf~lptf		△			△															◎			
86	3476	Loma Llena	m-arg br oxd		◎		×	△																		
87	3478	Loma Llena	s-arg wk-sil an?		× ?																× ?		◎			
88	3480	Loma Llena	m-arg an oxd											△							○					
89	3483	Loma Llena	m-arg br oxd																		× ?		◎			
90	3495	Loma Llena	s-sil br		○																△		◎			
91	4307	Loma Llena	m-arg br		×		◎	◎																		
92	4321	Loma Llena	s-arg an ? oxd		△																		◎			
93	4743	Loma Llena	m-sil m-arg lptf		△																△		◎			
94	4748	Loma Llena	wk-sil s-arg lptf?		△																		◎			
95	4750	Loma Llena	s-arg m-sil an?		×																		◎			
96	4751	Loma Llena	s-arg m-sil tfbr?		×																		◎			
97	4760	Loma Llena	wk-arg hb bt an		○					◎													△			
98	4761	Loma Llena	m-arg m~s-sil an		△																	×	◎			
99	4762	Loma Llena	s-arg m-sil tfbr														◎						◎			
100	4765	Loma Llena	s-sil tfbr		◎																×					

Appendix 4-2 Result of X-ray Diffraction Analysis

No.	Sample No.	Locality	Mineral / Rock	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite／Smectite	Plagioclase	Potassium feldspar	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
101	4766	Loma Llena	s-arg s-sil tfbr																			◎				
102	4769	Loma Llena	s-sil alunite?		◎															×?							
103	4931	Loma Llena	vs-arg? lptf? hyd br?	◎																						
104	4932	Loma Llena	s-sil wk～m-arg da?	◎														×?								
105	4940	Loma Llena	s-arg,s-(m) sil hyd br?	△	◎									×?												
106	4950	Loma Llena	(m)～s-arg bt an				◎	◎						×												
107	4953	Loma Llena		◎														○				×				
108	5203	Blanca Nieves	w-sil,w-prpy an		○		△	◎						×												
109	5214	Blanca Nieves	wk-sil m-arg an		△																	◎				
110	5236	Blanca Nieves	m-sil wk-arg br		○			◎						△								○				
111	6429	Blanca Nieves	s-sil hyd-br		◎																	◎				
112	6433	Blanca Nieves	m-sil m-arg da-stock?											△								◎				
113	6915	Blanca Nieves	s-sil hyd-br		△																	◎				
114	6922	Blanca Nieves	vs-sil-r (an?)		○																	◎				
115	6930	Blanca Nieves	vs-sil hyd-br		△																	◎				
116	6933	Blanca Nieves	s-sil m-arg limo an		△?																	◎				
117	4975	Blanca Nieves	vs-arg lptf				○														◎					
118	6273	Blanca Nieves	s-sil lptf				◎	△																		
119	6282	Blanca Nieves	s-sil s-arg v wd:2m		△		×	◎													×?	○				
120	6283	Blanca Nieves	vs-sil v wd:3m		×																	◎				
121	6435	Blanca Nieves	vs-sil v wd:5m	×	◎			×														×				
122	6436	Blanca Nieves	s-sil s-arg lptf～tf		◎																					
123	6439	Blanca Nieves	s-sil m-arg tf	◎				×?																		
124	6440	Blanca Nieves	s-arg lptf				◎			△?				◎												
125	6445	Blanca Nieves	s-sil br	◎						×				×						×?						
126	7004	Blanla Nieves	s-sil v		○		△	◎																		
127	7007	Blanla Nieves	m-sil s-arg an											△						◎						
128	7010	Blanla Nieves	m-sil s-arg an		◎			◎													△					
129	7012	Blanla Nieves	m-sil s-arg an					◎																		
130	7054	Blanla Nieves	wk-arg br oxd				△			△				△						◎						
131	7061	Blanla Nieves	m-arg br oxd		◎		○							○						◎						
132	7072	Blanla Nieves	-											△						◎						
133	7090	Blanca nieves	s-arg an					◎										△?				○				
134	7103	Blanca nieves	m-arg an?					◎														×				
135	7104	Blanca nieves	m-arg an	△				◎										×				△				
136	7107	Blanca nieves	s-sil an?	△				◎														△				
137	7109	Blanca nieves	m-arg an		◎		△							○						○						
138	5893	Carangas	m-arg br										△?				◎									
139	6006	Carangas	gn sph py ccp ore	○				×		○				△												
140	6395	Carangas	s-sil s-arg hyd-br												◎											
141	5903	Culebra	s-sil m-arg hyd-br s rich																			◎				
142	4973	Culebra	blu-gry cly							◎																
143	6024	Culebra	wk-arg tfbr	△			◎			○										△						
144	6027	Culebra	m-arg lptf～tfbr	×			◎										×?									
145	5756	Mendoza	vs-sil wk-arg lptf?	◎																		○				
146	5757	Mendoza	vs-arg (tf?～) an							◎			×													
147	5759	Mendoza	vs-sil wk-arg tf～lptf	◎																		◎				
148	5760	Mendoza	vs-sil wk-arg an	×																		◎				
149	5766	Mendoza	vs-sil qz da	○																		◎				
150	5767	Mendoza	wk-sil s～m-arg qz da	○														△?								

Appendix 4-2 Result of X-ray Diffraction Analysis

No.	Sample No.	Locality	Mineral / Rock	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite/Smectite	Plagioclase	Potassium feldsper	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
151	5768	Mendoza	vs-sil wk-arg tf? an?	△																	×	◎				
152	5769	Mendoza	m-arg(aln) wk-sil bt? an	◎	△																	◎				
153	5772	Mendoza	s-sil (s～)m-arg(aln) an	×																		◎				
154	5773	Mendoza	s-sil m-arg qz da	△	◎																	○				
155	5774	Mendoza	m-sil w-m arg(al?) an		○																△	◎				
156	5807	Mendoza	m-sil m-arg da	○				◎														×?				
157	5813	Mendoza	s-arg r,oxid					◎				×														
158	4969	Mendoza	alt an	×						△	◎															
159	4970	Mendoza	qz gth v	◎			△	△														△?				
160	4971	Mendoza	clay					×?		◎																
161	4972	Mendoza	s-arg an?							◎																
162	5855	Mendoza	s-sil r	×				◎														×				
163	5858	Mendoza	s-sil r	◎																		×				
164	5860	Mendoza	s-sil r	◎																		○				
165	6344	Mendoza	gn py ore dump	◎				○														○				
166	6358	Mendoza	s-arg m-sil r							◎																
167	4967	Mendoza	s-arg s-sil tf	△			△			◎					△											
168	4968	Mendoza	s-arg s-sil tf	△			◎	×		○																
169	5719	Mendoza	vs-sil an?														◎									
170	5726	Mendoza	s-arg an				◎			○																
171	6320	Mendoza	s-arg vs-sil tf							◎																
172	6332	Mendoza	alt an	△						×	◎				△											
173	6337	Mendoza	s-sil an				△?			◎																
174	5062	Panizo	m～s-arg z wth s-sil v		○			◎														◎				
175	5075	Panizo	m-sil s-arg tf～lptf				◎														×					
176	5092	Panizo	vs-arg tf～lptf				◎														△					
177	5498	Panizo	m-arg m-sil an																		×?	◎				
178	4394	Panizo	m-arg m-sil br ox-Mn	△				×		◎					△											
179	4962	Panizo	s-arg da	△						○	◎															
180	4963	Panizo	s-arg da	△						◎	○															
181	4964	Panizo	s-arg an?							◎																
182	4965	Panizo	s-arg an							◎	×															
183	5115	Panizo	s-arg br oxd Mn					△		◎						○										
184	4235	Panizo	s-sil v			△		○														◎				
185	4249	Panizo	m-arg sil an?			△		◎													×					
186	4285	Panizo	m-sil m-arg v			○		◎														×				
187	4288	Panizo	m-s sil,m-s arg an			△															×?	◎				
188	4296	Panizo	s-sil z in s-arg,m-sil an			◎												△				○				
189	4327	Panizo	m-arg an sulfur?	○		◎													◎							
190	4330	Panizo	s-arg wk-sil an	×		◎																				
191	4339	Panizo	s-arg an	◎																						
192	5033	Panizo	vs-sil vgy-powder silica	△		◎													△							
193	5038	Panizo	m～s-sil wk-arg bt an			△															×?	◎				
194	5044	Panizo	wk-sil m-arg lptf～tfbr?			○																◎				
195	5433	Panizo	m-arg s-sil an lava			△		◎														×?				
196	5442	Panizo	s-arg m-sil r			△		◎														△				
197	5698	Panizo	s-arg r (an?)				×														◎					
198	6786	Panizo	s-arg w-m silhyd br?	×														◎				×				
199	6799	Panizo	s-sil wk-arg tf? an?	△	△													△				◎				
200	2046	Sailica	m-sil m-arg an		◎			×														○				

Appendix 4-2 Result of X-ray Diffraction Analysis

No.	Sample No.	Locality	Rock \ Mineral	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite/Smectite	Plagioclase	Potassium feldsper	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
201	2055	Sailica	s-arg an				△	◎																		
202	2056	Sailica	s-arg wk-sil an		○		○	◎						○												
203	2062	Sailica	m-sil m-arg an	◎				○		△?				○												
204	2071	Sailica	s-arg an				◎																			
205	2889	Sailica	m-sil,m-arg lit tf		○		△	○?													◎					
206	2890	Sailica	s-arg pumis tf				○	◎														△				
207	3285	Sailica	s-arg an s-oxd	○				◎		△																
208	3287	Sailica	m-arg da? Oxd	◎						×				○						△						
209	3407	Sailica	s-arg an oxd		△		×	◎														×				
210	3416	Sailica	m-arg wk-sil an		◎		×	◎																		
211	3423	Sailica	m-arg wk-sil an oxd	×	◎																	○				
212	3430	Sailica	m-arg an? oxd	△			△	△				○		△												
213	6702	Sailica	m-sil s～m-arg bt an					◎														×				
214	6704	Sailica	m～s-sil s-arg bt hb an		△			◎														×				
215	6707	Sailica	s-arg bt an					◎		×?												△				
216	6713	Sailica	m～s sil wk～m arg bt hb an														○					◎				
217	6720	Sailica	s-arg bt? an?	◎				×														×				
218	6732	Sailica	s～m-arg lptf		△?		◎	◎														△				
219	6741	Sailica	m-arg m-sil an dike?	○			○							◎												
220	6745	Sailica	s-arg an					◎																		
221	2022	Sailica	wk-sil s-arg lptf							◎	○															
222	2024	Sailica	vs-arg tf								◎															
223	2031	Sailica	dio dike?				◎	○																		
224	2035	Sailica	s-sil sph gn dike								◎								×							
225	6771	Colorado	s-arg lptf?					×?														◎				
226	6772	Colorado	vs-arg lptf		△															×?		◎				
227	6779	Colorado	vs-arg m?-sil lptf	◎																						
228	3433	Colorado	m-sil tf oxd							×?												◎				
229	3439	Colorado	s-arg wk-sil tf?	×	◎																					
230	3445	Colorado	s-arg tf?					△														◎				
231	3450	Colorado	m-sil v		◎																					
232	3456	Colorado	st-arg tf		△			△														◎				
233	3462	Colorado	s-arg tf		△?			△														◎				
234	3468	Colorado	m-arg lithic-tf		△?			×														◎				
235	2095	Colorado	s-arg wk-sil lptf				×?	◎														×				
236	2097	Colorado	m-arg m-sil lptf					◎														△				
237	6746	Colorado	vs-arg lptf?～tfbr?					◎														○				
238	6758	Colorado	vs-arg lptf?		△?			◎														△				
239	2172	Luxsar	wk-arg hb an				△?							△						◎						
240	2174	Luxsar	lptf											○								○				
241	2177	Luxsar	hyd br																	×?			◎			
242	2178	Luxsar	hyd br			○																◎				
243	2182	Luxsar	bk mineral v		◎					○?				◎												
244	2184	Luxsar	hyd br			○	△	×?														◎				
245	2187	Luxsar	s-ang hyd br																	×?		◎				
246	2818	Luxsar	s-sil m～w arg da		◎			△?						○												
247	2819	Luxsar	s-sil lptf		△																×?	◎				
248	2842	Luxsar	s-arg lptf				△	○						◎								○				
249	3224	Luxsar	m-arg an oxd																	△		◎				
250	3234	Luxsar	m-arg wk-sil br																	○	△	◎				

Appendix 4-2 Result of X-ray Diffraction Analysis

No.	Sample No.	Locality	Mineral / Rock	Quartz	Cristobalite	Tridymite	Smectite	Kaolinite	Dickite	Sericite	Chlorite	Sericite／Smectite	Chlorite/Smectite	Plagioclase	Potassium feldsper	Sanidine	Pyrophyllite	Anatase	Calcite	Halloysite	Jarosite	Alunite	Pyrite	Palagonite	Goethite	Amesite
251	2003	Cachi Unu	m-sil s-arg tfbr	○				○				◎														
252	2127	Cachi Unu	m-sil m-arg an		◎																	◎				
253	2152	Cachi Unu	wk-sil m-arg lptf or br-an		◎		△?	○									◎					△				
254	2154	Cachi Unu	m-sil wk-arg an	○																		◎				
255	2158	Cachi Unu	wk-arg an		◎			◎		△																
256	2163	Cachi Unu	wk-sil m-arg an			○		◎		×												×				
257	2165	Cachi Unu	m-arg an py imp	△	◎			◎						△												
258	2166	Cachi Unu	m-arg an		◎																	○				
259	3203	Cachi Unu	wk-sil wk-arg br s-oxd		○		△	△?						◎												
260	3204	Cachi Unu	m-arg br wk-oxd				○	◎														△				
261	3208	Cachi Unu	m-sil m-arg tf		△		△	◎																		
262	3211	Cachi Unu	s-sil tf		◎																					
263	2169	Sedilla	wk-arg lptf				○							○?												
264	3239	Sedilla	m-arg an s-oxd																		△	◎				
265	3241	Sedilla	m-arg v wd:0.5m s-oxd		○															△?	◎	◎				
266	3245	Sedilla	wk-arg an oxd		◎															△?	○	○				
267	3246	Sedilla	m-arg an oxd		◎		×?	○						△								△				
268	3249	Sedilla	m-arg an oxd																		△	◎				
269	3253	Sedilla	s-arg an oxd																	×?		◎				
270	3255	Sedilla	m-arg an				×?	◎						△								△				
271	4920	Sedilla	wk-arg px(hb？) an				◎							△												
272	4923	Sedilla	m-arg lptf				○	◎		△?				△												
273	2013	Sedilla	bt an		◎					△				◎												
274	2016	Sedilla	s-arg bt an							×?				◎						○						
275	2191	Sedilla	s～m-arg da				△	◎													×					
276	2198	Sedilla	s-arg bt da				◎																			
277	2850	Sedilla	s-sil m-arg da	○	△									○						△?						
278	2853	Sedilla	s-sil s-arg da		○		△	◎																		
279	2854	Sedilla	m-arg da				◎																			
280	2855	Sedilla	m-arg da	×				◎				○														
281	3260	Sedilla	m-arg wk-sil da oxd									◎		△												
282	3265	Sedilla	m-arg wk-sil da	△			◎?							○						×						
283	4912	Sedilla	m-arg bt da					△		×		◎														
284	4915	Sedilla	(m)～s-arg bt da					△				◎		×												

Appendix 4-2 Result of X-ray Diffraction Analysis

Appendix 5

Fluid Inclusion Analysis

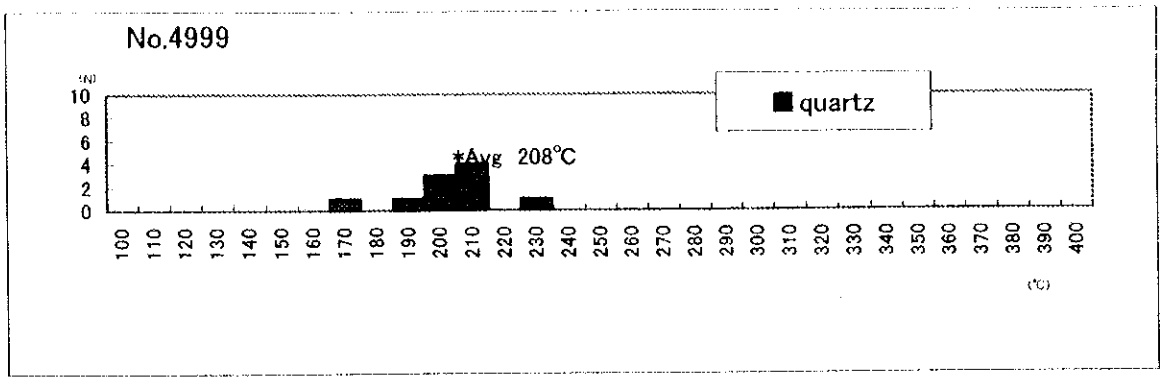
No.	Sample No.	District	Location	UTM (Zone 19)		Au	Ag	Cu	Pb	Zn	As	Sb	Hg	Mo	Ba	Sn
				N	E	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
1	4999	Sonia Susana		7,914,618	517,550											
2	6234	Sonia Susana		7,915,863	517,524											
3	4994	Carangas	San Antonio	7,905,580	539,545											
4	6005	Carangas	Espiritu	7,905,970	539,280	<2	759	423	11691	14458	103	126	<1	14	594	
5	6006	Carangas	Espiritu	7,905,897	539,256	2	84.2	225	92700	60970	74	85	<1	155	547	
6	6006 Qz	Carangas	Espiritu	7,905,897	539,256	2	84.2	225	92700	60970	74	85	<1	155	547	
7	4991	Carangas	San Francisco	7,913,478	537,375											
8	4986	Mendoza	Mina La Deseada	7,824,521	635,185											
9	4987	Mendoza	Mina La Deseada	7,824,508	635,257											
10	6385	Mendoza	Mina Maria Luisa	7,820,252	634,770	1422	1240	2390	33400	55825	351	130	<1	14	69	
11	6389	Mendoza	Mina Maria Luisa	7,819,707	634,899	25	610	1573	31500	4487	97	35	7.385	22	1857	
12	6316	Mendoza	Iranuta	7,822,006	623,464	2	0.6	6	425	503	38	19	<1	5	687	
13	6325	Mendoza	Iranuta	7,821,611	624,219	<2	<.5	3	17	27	24	<5	<1	<1	293	
14	6332	Mendoza	Iranuta	7,820,909	626,414	<2	<.5	9	13	44	15	<5	<1	<1	847	
15	6335	Mendoza	Iranuta	7,822,183	624,333	29	163.3	229	457800	1462	67	72	<1	3	224	
16	6338	Mendoza	Iranuta	7,822,185	623,972	32	157.1	601	211800	4827	278	34	<1	9	453	
17	5489	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	348	83.8	1358	37700	279334	274	58	<1	1	189	
18	5490	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	284	171.1	4097	89500	229006	553	350	<1	18	85	
19	5491	Panizo	Chinchilhuma San Salvador	7,791,850	567,019	225	209.5	5051	116800	354923	549	387	<1	33	89	
20	5497	Panizo	Chinchilhuma Aguilani	7,790,791	567,217	660	470	23476	29500	107054	1271	193	<1	15	25	

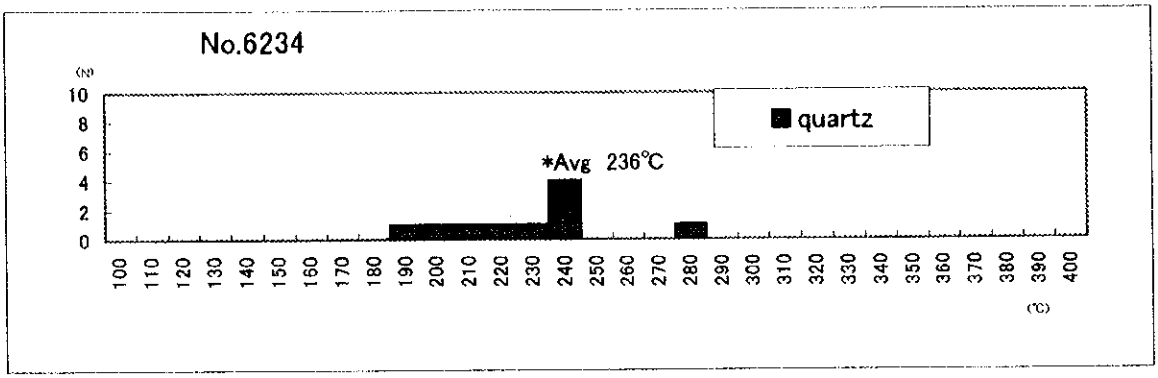
Appendix 5-1 Sample List of Fluid Inclusion Analysis

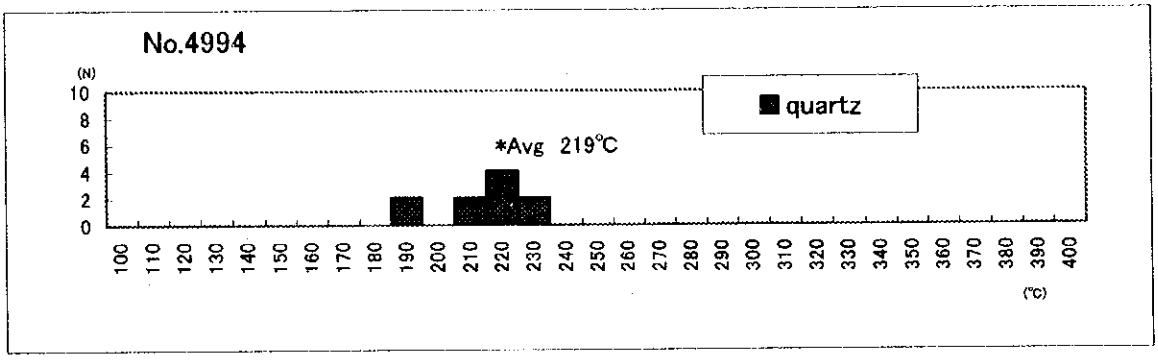
District	sample No.	Host Minerals	Filling temperatures (Th℃) and melting temperatures (Tmice℃)	number of inclusions	Range ℃	Avg. ℃	NaCl in Solusion (wt%)
Sonia-Susana	4999	quartz	Th(℃) 177 206 211 213 216 205 198 213 202 234	10	177 — 234	208	
			Tmice(℃) −0.9 −0.9 −0.8 −0.9 −0.9 −0.9 −0.9 −0.8 −0.9 −0.9	10	−0.9 — −0.8	−0.9	1.5
	6234	quartz	Th(℃) 234 210 289 200 249 248 222 243 217 248	10	200 — 289	236	
			Tmice(℃) −0.8 −0.8 −0.8 −0.7 −0.8 −0.1 −1.2 −1.2 −1.1 −0.6	10	−1.2 — −0.1	−0.8	1.4
Carangas	4994	quartz	Th(℃) 211 228 194 194 221 227 239 229 219 232	10	194 — 239	219	
			Tmice(℃) 0.0 −0.1 0.0 0.0 0.0 −0.1 −0.5 −0.3 −0.1 −0.1	10	−0.5 — 0.0	−0.1	0.2
	6005	quartz	Th(℃) 200 187 194 186 176 181 188 233 213 204	10	176 — 233	196	
			Tmice(℃) −2.4 −2.3 −2.3 −2.5 −2.4 −2.3 −2.3 −1.0 −1.0 −0.9	10	−2.5 — −0.9	−1.9	3.3
	6006	sphalerite	Th(℃) 233 233 229 232 196 195 195 197 193 193	10	193 — 233	210	
			Tmice(℃) −5.5 −5.3 −5.5 −5.4 −1.8 −1.9 −1.7 −1.7 −1.3 −1.6	10	−5.5 — −1.3	−3.2	5.2
	6006Qz	quartz	Th(℃) 241 223 226 211 209 232 210 234 213 221	10	209 — 241	222	
			Tmice(℃) −2.7 −2.7 −2.7 −2.6 −2.5 −2.5 −3.4 −3.3 −3.2 −3.2	10	−3.4 — −2.5	−2.9	4.8
	4991	quartz	Th(℃) 248 251 252 251 254 256 256 253 267 271	10	248 — 271	256	
			Tmice(℃) −0.8 −0.9 −0.8 −0.9 −1.0 −1.2 −1.2 −1.3 −0.8 −0.8	10	−1.3 — −0.8	−1.0	1.7
Mendoza	4986	quartz	Th(℃) 168 205 184 185 192 193 218 178 178 180	10	168 — 218	188	
			Tmice(℃) −0.2 −0.3 −0.1 −0.2 −1.4 −1.5 −0.3 −0.2 0.0 −0.1	10	−1.5 — 0.0	−0.4	0.8
	4987	quartz	Th(℃) 196 193 188 162 192 185 187 185 195 196	10	162 — 196	188	
			Tmice(℃) −3.5 −3.5 −4.5 −3.4 −3.6 −1.5 −1.2 −1.4 −0.9 −1.0	10	−4.5 — −0.9	−2.5	4.1
	6385	quartz	Th(℃) 244 247 243 246 231 239 239 231 230 236	10	230 — 247	239	
			Tmice(℃) −0.2 −0.2 −0.2 −0.2 −0.3 −0.2 −0.2 −0.3 −0.2 −0.2	10	−0.3 — −0.2	−0.2	0.4
	6389	quartz	Th(℃) 279 274 274 274 274 274 272 272 259 270	10	259 — 279	272	
			Tmice(℃) −0.1 −0.2 −0.2 −0.1 −0.2 −0.2 −0.1 −0.1 −0.1 −0.1	10	−0.2 — −0.1	−0.1	0.2
	6316	quartz	Th(℃) 204 211 220 198 234 165 213 233 257 270	10	165 — 270	221	
			Tmice(℃) −1.1 −1.2 −0.9 −1.2 −1.2 −1.2 −1.2 −1.2 −1.2 −1.2	10	−1.2 — −0.9	−1.2	2.0
	6325	quartz	Th(℃) 290 239 240 241 242 249 271 250 271 249 249	11	239 — 290	254	
			Tmice(℃) −0.2 −0.2 −0.2 −0.1 −0.2 −0.1 −0.2 −0.1 −0.2 −0.1	10	−0.2 — −0.1	−0.2	0.3
	6332	Calcite	Th(℃) 309 373 364 310 304 243 264 292 254 253	10	243 — 373	297	
			Tmice(℃) −0.4 −0.4 −0.5 −0.5 −0.2 −0.2 −0.1 −0.1 −0.1 −0.1	10	−0.5 — −0.1	−0.3	0.5
	6335	quartz	Th(℃) 251 249 263 268 254 255 250 242 246 248	10	242 — 268	253	
			Tmice(℃) −0.2 −0.1 −0.2 −0.1 −0.2 −0.2 −0.2 −0.2 −0.3 −0.1	10	−0.3 — −0.1	−0.2	0.3
	6338	quartz	Th(℃) 265 267 249 269 272 271 271 271 259 261	10	249 — 272	266	
			Tmice(℃) 0.0 −0.2 −0.2 −0.2 −0.1 −0.2 −0.1 −0.2 −0.3 −0.3	10	−0.3 — 0.0	−0.2	0.3
Panizo	5489	sphalerite	Th(℃) 208 215 214 235 245 237 238 236 228 229 244 245 247	13	208 — 247	232	
			Tmice(℃) −1.3 −1.3 −1.3 −1.2 −1.2 −1.3 −1.3 −1.3 −1.2 −1.2	10	−1.3 — −1.2	−1.3	2.2
	5490	sphalerite	Th(℃) 241 234 238 261 252 254 299 262 272 246 246	11	234 — 299	255	
			Tmice(℃) −0.9 −0.9 −0.9 −2.4 −2.3 −2.3 −2.3 −2.3 −2.4 −2.3	10	−2.4 — −0.9	−1.9	3.2
	5491	sphalerite	Th(℃) 252 251 251 249 249 230 216 238 251 244	10	216 — 252	243	
			Tmice(℃) −1.4 −1.2 −1.3 −1.3 −1.2 −1.1 −1.3 −1.2 −1.9 −1.2	10	−1.9 — −1.1	−1.3	2.2
	5497	sphalerite	Th(℃) 260 264 262 264 260 266 270 268 263 261	10	260 — 270	264	
			Tmice(℃) −1.6 −2.0 −1.7 −1.7 −1.6 −2.0 −2.2 −2.0 −2.1 −1.9	10	−2.2 — −1.6	−1.9	3.2

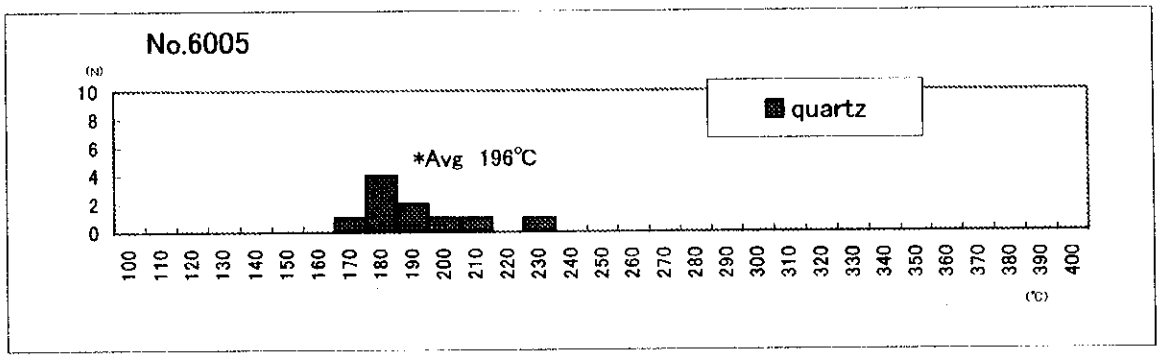
NaCl in Solusion (wt%) = 0+1.76958*(−θ)−4.2384*10^(−2)*(−θ)^2+5.2778*10^(−4)*(−θ)^3

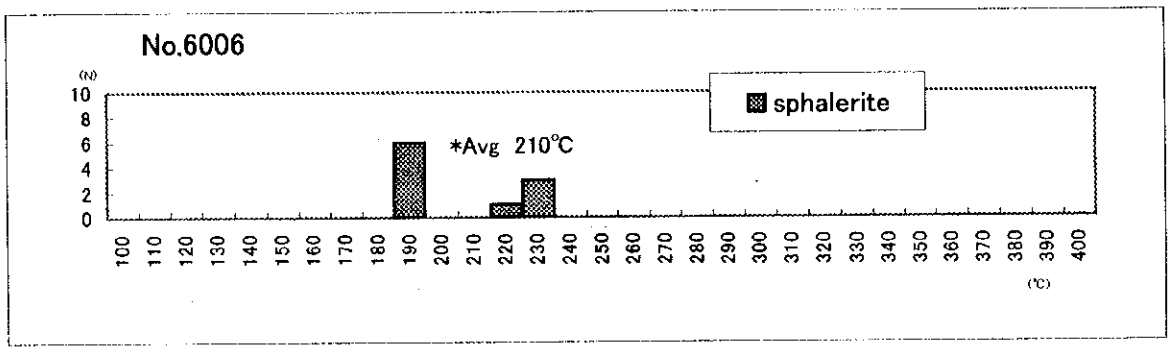
Appendix 5-2 Result of Fluid Inclusion Analysis



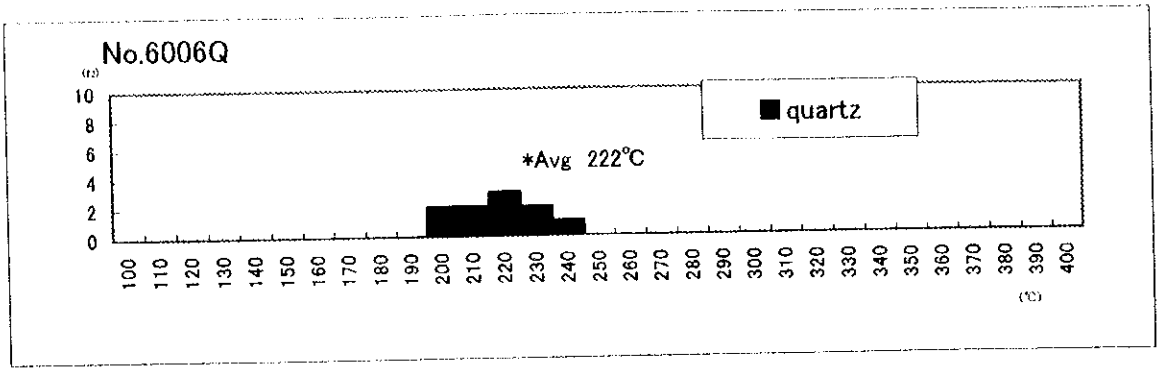


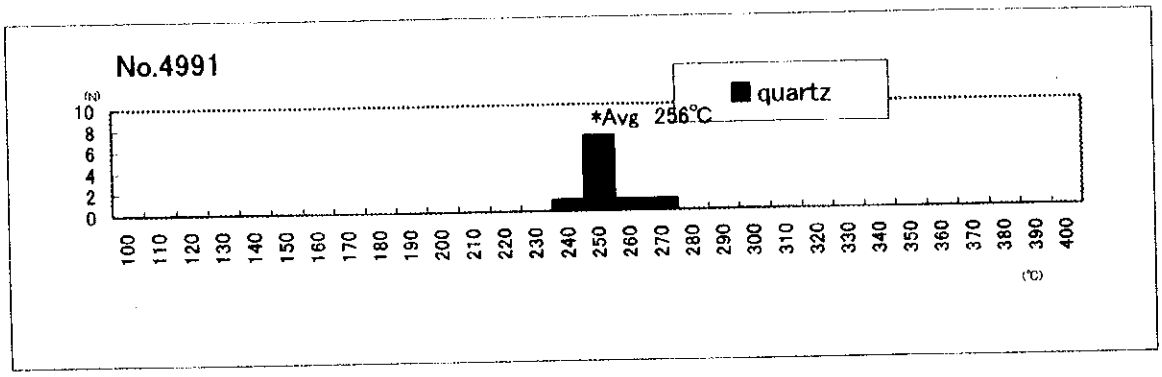


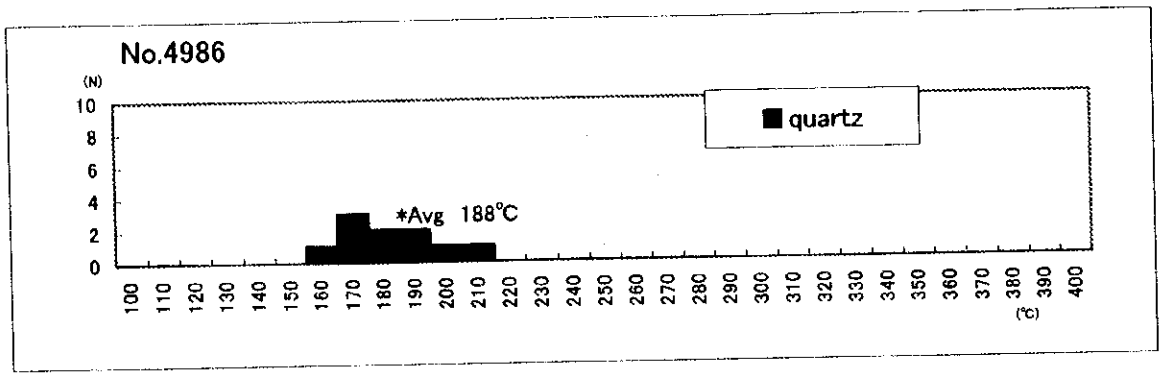


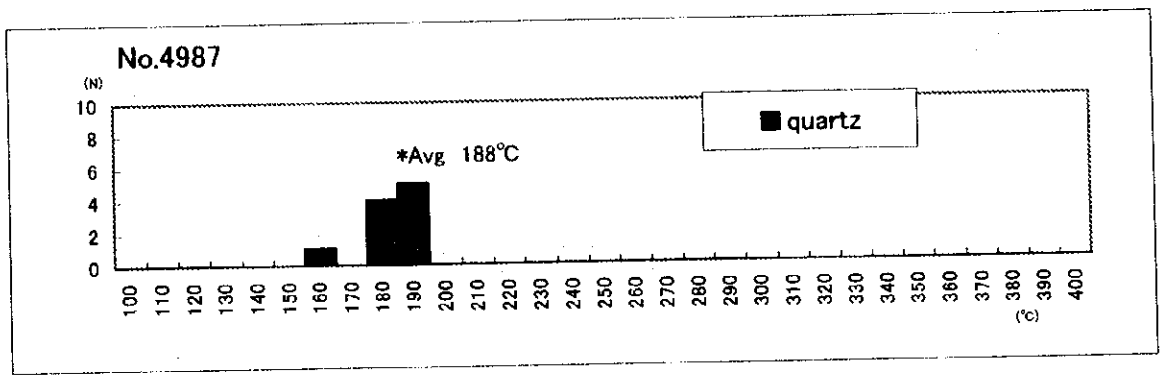


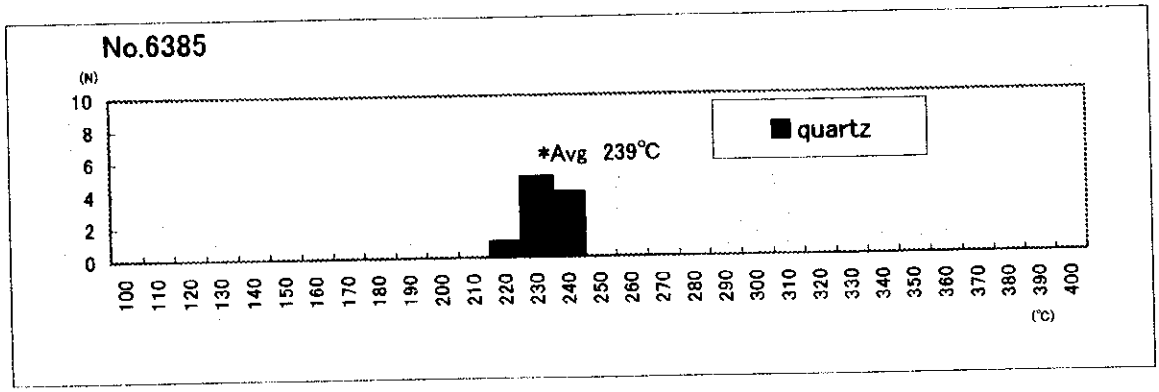
Appendix 5-3 Histogram of the Homogenization Temperature



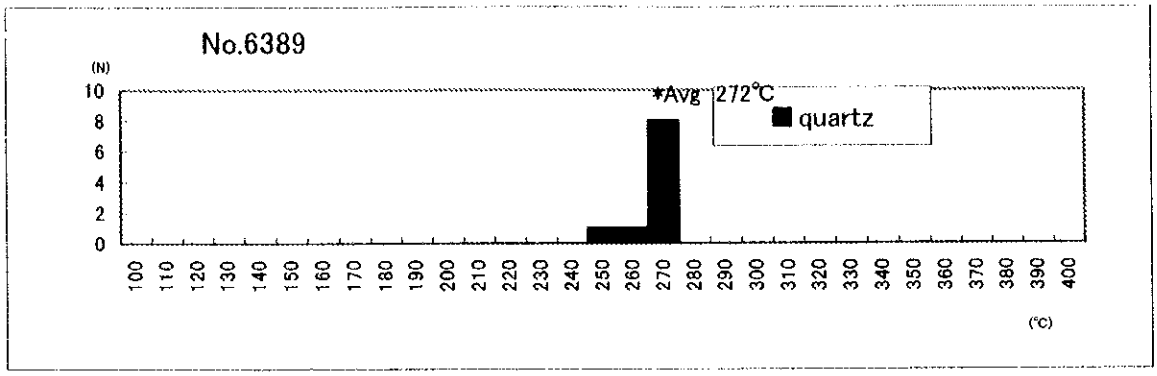


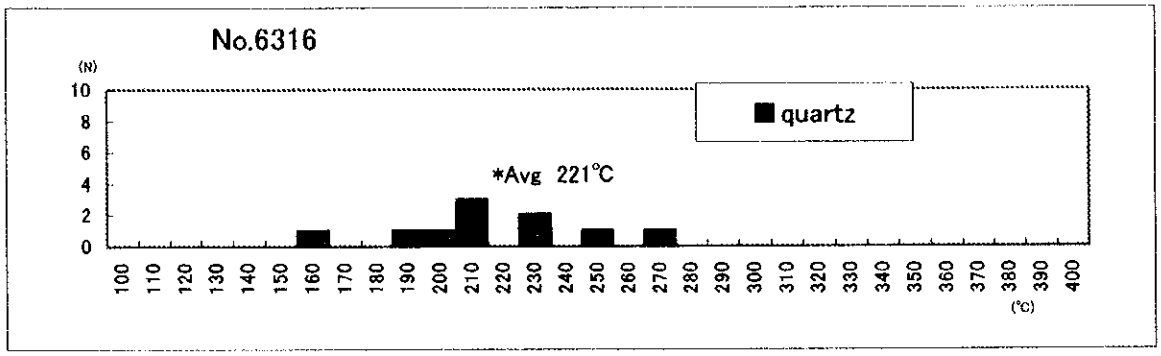


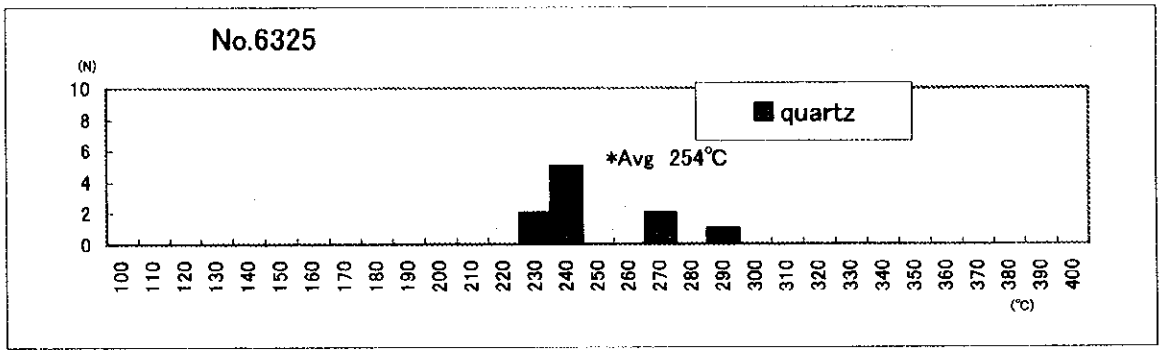


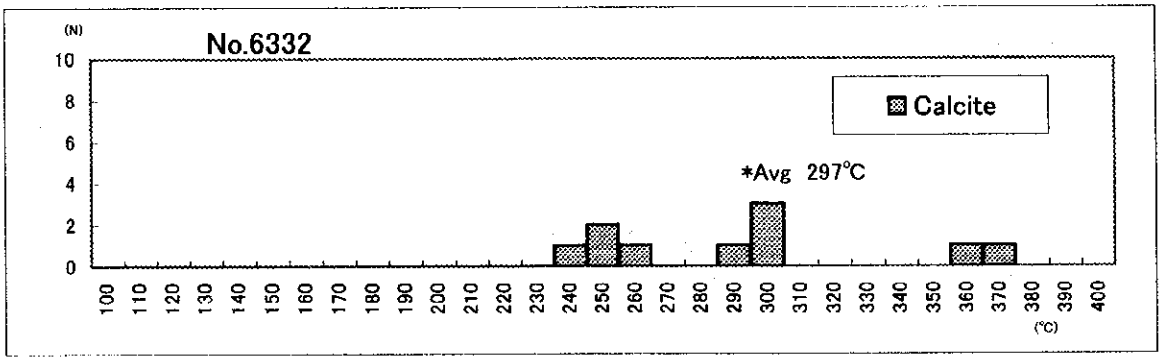


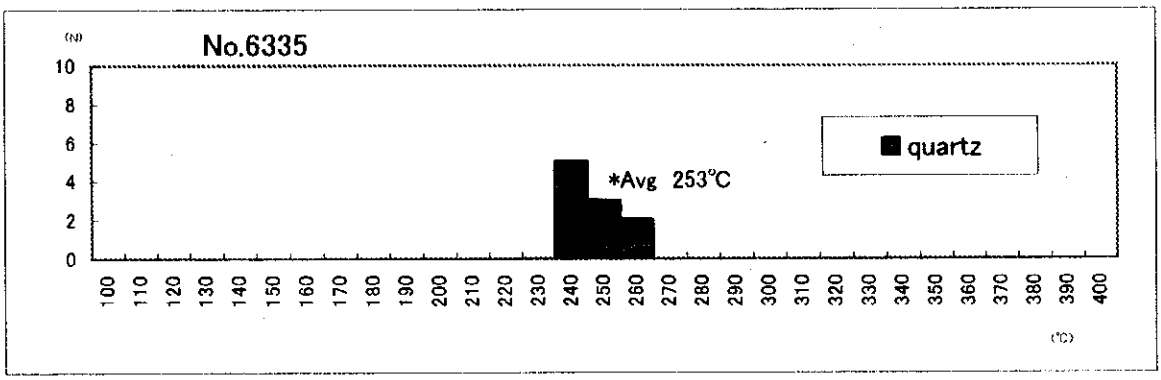
Appendix 5-3 Histogram of the Homogenization Temperature



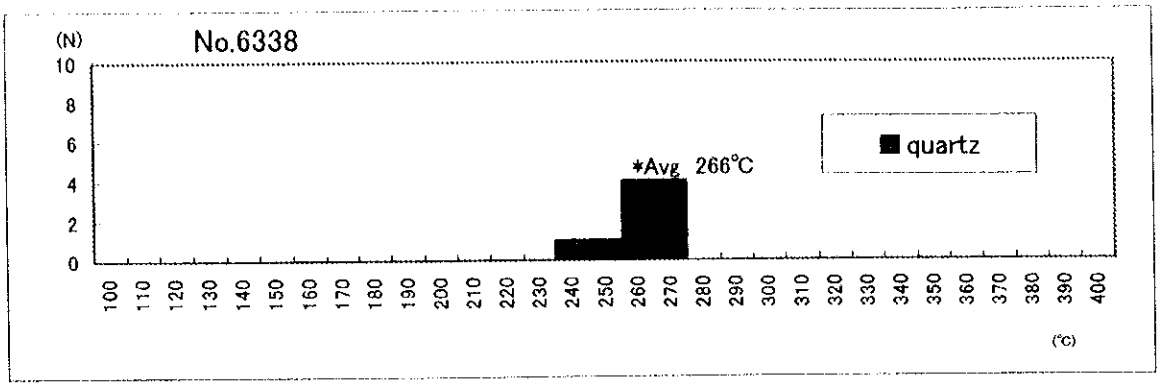


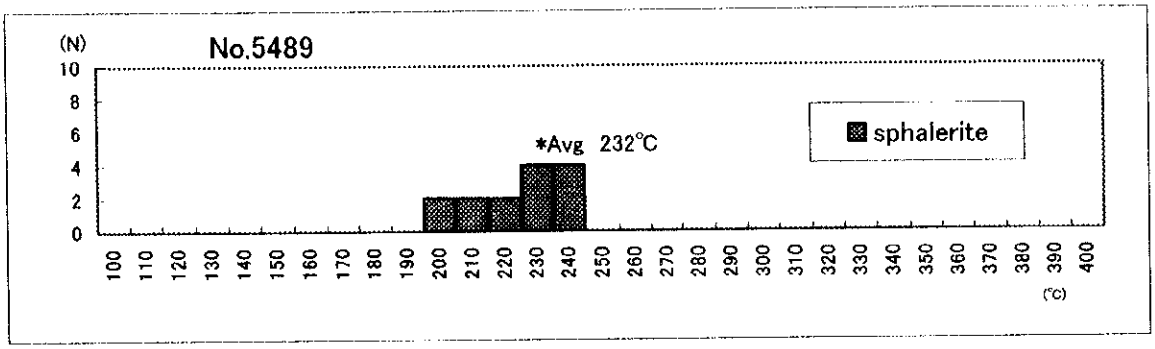


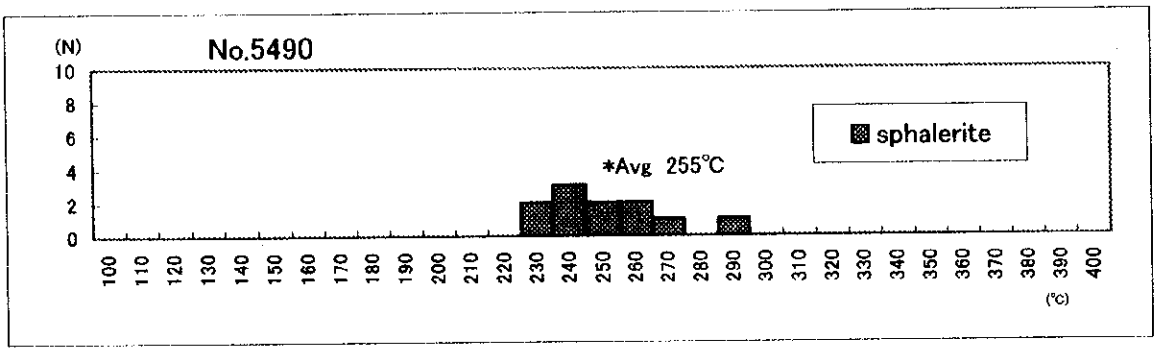


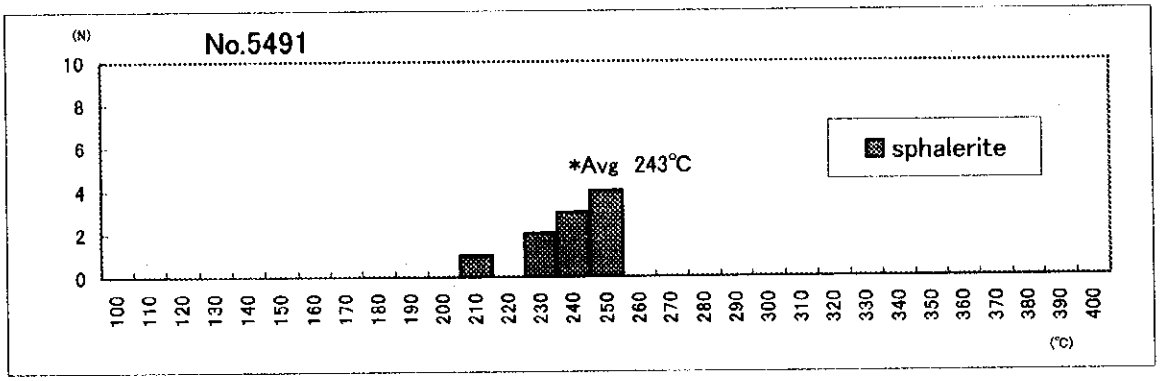


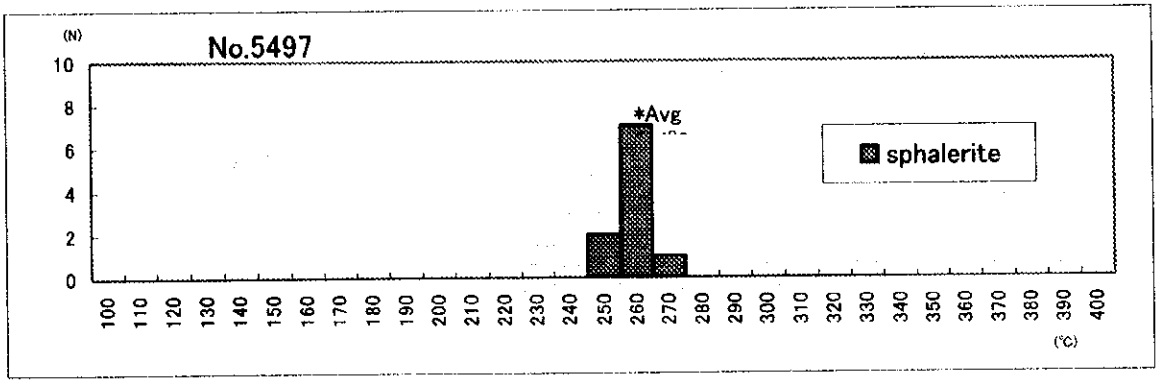
Appendix 5-3 Histogram of the Homogenization Temperature











Appendix 5-3 Histogram of the Homogenization Temperature