

VALID UNNAMED MINERALS, UPDATE 2009-02

Users making reference to this compilation should refer to the primary source (Dorian G.W. Smith & Ernest H. Nickel (2007): A System of Codification for Unnamed Minerals: Report of the Subcommittee for Unnamed Minerals of the IMA Commission on New Minerals, Nomenclature and Classification. Canadian Mineralogist v. 45, p.983-1055), and to this website. Additions and changes to the original publication are shown in blue print; deletions are "greyed out and struck through".

<u>IMA Code</u>	<u>Primary Reference</u>	<u>Secondary Reference</u>	<u>Comments</u>
UM1886-01-OC:HNNa	*Bull. Soc. Minéral. 9, 51	Dana (7th) 2, 1104	Probably an oxalate but if not is otherwise similar to lecontite
UM1892-01-F:CaY	*Am. J. Sci. 44, 386	Dana (7th) 2, 37	Low analytical total because F not reported; unlike any other known fluoride
UM1910-01-PO:CaFeMg	US Geol. Surv. Bull. 419, 1	Am. Mineral. 34, 513	(Ca,Fe,Mg)Fe ³⁺ ₂ (PO ₄) ₂ (OH) ₂ ·2H ₂ O; some similarities to mitridatite
UM1913-01-AsO:CaCuV	*Am. J. Sci. 35, 441	Dana (7th) 2, 818	Possibly As-bearing calciovolborthite
UM1922-01-O:CuHUV	*Izv. Ross. Akad. Nauk [6], 16, 505	Dana (7th) 2, 1048	Some similarities to sengierite
UM1926-01-O:HNbTaTIU	*Bol. Inst. Brasil. Sc., 2, 56	Dana (7th) 1, 807	(Y,Er,U,Th,Fe ³⁺) ₃ (Ti,Nb,Ta) ₁₀ O ₂₆ ; some similarities to samarskite-(Y)
UM1927-01-O:CaTaTIW	*Gornyi Zhurn. 12, 740	Dana (7th) 1, 741	No chemically similar minerals are known
UM1936-01-F:AlCaHMgNaS	*Accad. Sci. Lett. Arti, Modena Att. [5], 1, 33	Dana (7th) 2, 127	(Na,K) ₉ (Mg,Ca) ₇ (Al,Fe) ₁₃ [(S,Si)O ₄](F,Cl) ₃₆ (OH) ₁₀ ·11H ₂ O
UM1940-01-SO:AIHP	Am. Mineral. 25, 213	Dana (7th) 2, 634	Al ₄ (SO ₃) ₄ (P ₂ O ₅)O ₆ ·24H ₂ O; resembles alunogen in appearance but has some compositional similarities to sanjuanite
UM1941-01-F:AlCaHMgNa	*Dokl. Akad. Nauk SSSR 33, 140	Am. Mineral. 28, 283	NaCaMgAl ₃ F ₁₄ ·4H ₂ O; later, the name "boldyrevite" was proposed but never formally accepted by the IMA; some gross compositional similarities to ralstonite
UM1941-02-SiO:AlCaFeMn	*Mad. Tet. Arama Enst. Mecmuasi 6, 208	Mineral. Abst. 10, 123	(Fe,Mn) ₉ Al ₄ Si ₁₃ O ₄₀
UM1943-01-AsO:Bi	Am. Mineral. 28, 536	Dana (7th) 2, 907	Perhaps a polymorph of rooseveltite
UM1943-02-OH:Bi	Am. Mineral. 28, 521	Mineral. Abst. 9, 5	Bi(OH) ₃ ; diffraction pattern not similar to any Bi ₂ O ₃ polymorph
UM1948-01-O:HMn	Am. Mineral. 33, 695; 35, 485	Hey (1962), 7.2.4a	(Mn,Fe,Al,Na)Mn ₃ O ₇ ; might be disordered cryptomelane; also some similarities to busierite and birnessite
UM1949-01-PO:Fe	Am. Mineral. 34, 513		FePO ₄ ; referred to as a "dufrenite-like mineral"
UM1949-02-PO:FeMn	Am. Mineral. 34, 513		Referred to as a "dufrenite-like mineral"; later described more fully as UM1982-08-PO:FeHMn; transferred to Invalid list
UM1949-03-PO:FeMn	Am. Mineral. 34, 513	ICDD 15-0442	Dufrenite-like mineral". No chemical analysis; perhaps kidwellite; X-ray powder diffraction pattern later reported as mixture; transferred to Invalid list
UM1954-01-O:HU	Am. Mineral. 39, 1018		UO ₃ ·2H ₂ O; alteration product of ianthinite; possibly a polymorph of (para)schoepite.
UM1954-02-SiO:HKMnNa	*Trud. Mineral. Muz. Akad. Nauk SSSR 6, 117.	Mineral. Abst. 13, 209.	(K,Na) ₄ Mn ₄ Si ₆ O ₂₂ ·H ₂ O; similar to chingluisite, but colour is different (tarnish ?)
UM1955-01-PO:FeHMn	Am. Mineral. 40, 50		Mineral "B"; XRD pattern similar to that of ernstite
UM1955-02-SiO:AlCaFeHMg	*Trud. Mineral. Muz. Akad. Nauk SSSR 7, 70.	Mineral. Abst. 13, 209.	(Ca,Fe ²⁺)(Fe ³⁺ ,Mg,Al) ₂ [Si ₂ Al ₂]O ₁₀ (OH) ₂ ; perhaps an Fe-analogue of clintonite
UM1955-03-SiO:FeMn	*Smirnov (1955), 18	Am. Mineral. 43, 793	(Mn,Fe,Mg) ₃ Si ₂ O ₇ ; composition is analogous to synthetic Mn ₃ Si ₂ O ₇ (Glaser, Centralbl. Mineral. Abt. A, 81) after removing calcite & bustamite impurities; also similar to tephroite
UM1955-04-OH:U	Bull. Soc. fr. Minéral. Crist. 78, 1		UO ₂ .84·H ₂ O
UM1956-01-O:HPbU	Am. Mineral. 41, 539		Mineral "C"; XRD pattern similar to wölsendorfit
UM1956-02-SiO:CaHU	Am. Mineral. 41, 539		CaUSiO ₆ ·H ₂ O; mineral "B"; the Ca-analogue of kasolite
UM1957-01-SiO:U	Am. Mineral. 42, 222		Mineral "X"; X-ray powder diffraction and optical data
UM1957-02-SiO:AlFeHMnREE	*Sci. Rept. Tohoku Univ., ser.3, 5, 345	Eur. J. Mineral. 18, 569	Mn ²⁺ (REE)AlAlFe ²⁺ SiO ₄ Si ₂ O ₇ (OH); unnamed member of allanite subgroup of the epidote group
UM1958-01-PO:CaMn	Am. Mineral. 43, 1148		Mineral "B"; possibly a member of the wylieite group
UM1958-02-PO:Fe	Am. Mineral. 43, 1148		Mineral "A"; some similarity to azovskite; incomplete optical properties and X-ray powder diffraction data
UM1958-03-SiO:AlCaFeKNa	*Akad. Nauk SSSR, Kola Filial 1 (1958), 146	Am. Mineral. 44, 909.	(K,Na) ₄ Ca ₂ (Al,Fe)(Si,Al) ₆ (O,OH,F) ₁₈ ·0.6NaCl; mineral "no. 3"
UM1958-04-SiO:AlHK	*Akad. Nauk SSSR, Kola Filial 1 (1958), 146	Am. Mineral. 44, 909	K ₂ Al ₃ Si ₇ O ₁₈ (OH,F) ₃ ; mineral "no. 4"
UM1958-05-AsO:HU	Jahr. geol. Landes. Baden-Wurtemberg 31, 17	Aufschluss 9, 279	(UO ₂)H(AsO ₃)·H ₂ O; mineral "D"
UM1959-02-CO:HNa	*Semenov (1959)	Mineral. Abst. 15, 363	Na ₂ CO ₃ ·H ₂ O; has the composition of thermonatrite, but optical properties different
UM1959-03-S:CuGeNi	Fortsch. Mineral. 37, 87	Mineral. Abst. 15, 290	(Ni,Cu) ₂ GeS ₄ ; mineral "S"
UM1959-04-SiO:AlH	*Zap. Vses. Mineral. Ob. 88, 554	Mineral. Abst. 14, 501	"Analogue of allevardite"; possibly rectorite
UM1959-05-SiO:FeHTh	US Geol. Surv. Bull. 1072-H, 491	Mineral. Abst. 15, 45	"A hydrated thorite-like mineral"
UM1960-01-AsO:CaHPbU	CSIRO Minerag. Invest. Tech. Paper 2, 44	ICDD 15-0530	Mineral "D"; X-ray powder diffraction and optical data; may be related to zeunerite
UM1960-02-F:KMg	*Bull. Acad. Roy. Sci. Outre-Mer 6, 964	Hey (1963) 8.4.1b	No X-ray powder diffraction data but composition is unique; Povarennykh used the name "kamaflogite" for this compound; formula: KMgF ₃
UM1960-03-O:CaFeHMgPbU	CSIRO Minerag. Invest. Tech. Paper 2, 47	ICDD 15-0444	Mineral "G"; X-ray powder data. Minor Al, As Cu, Si, Th & V reported
UM1960-04-O:HU	CSIRO Minerag. Invest. Tech. Paper 2, 39	ICDD 15-0569	Mineral "B"; X-ray powder data; minor Ca and trace Al, Cu, Fe, Si & Th reported
UM1960-05-PO:CaFeHU	CSIRO Minerag. Invest. Tech. Paper 2, 48	ICDD 15-0443	Mineral "H"; unique X-ray powder diffraction data
UM1960-06-SiO:Be	*Dokl. Earth Sci. 133, 812	Am. Mineral. 46, 241	X-ray powder data unlike those for any other beryllium silicate

UM1960-07-SiO:CaHU UM1960-08-SiOPO:CaCeFeHLA UM1960-09-VO:Ca	CSIRO Minerag. Invest. Tech. Paper 2, 37 Mineral. Mag. 32, 389 CSIRO Minerag. Invest. Tech. Paper 2, 46	ICDD 15-0529 ICDD 15-0609	Mineral "A"; X-ray powder diffraction and optical data X-ray powder data (not reported) indicate the structure may be similar to monazite Mineral "F"; X-ray powder diffraction data; minor U, Pb, Mg & Si reported
UM1961-01-As:IrOsPt UM1961-02-AsO:FePbZn UM1961-03-Bi:Pd	Mineral. Mag. 32, 833 *Jahr. geol. Landes. Baden-Wurtemberg 4, 7 *Geol. Rudn. Mest. (1961) (5), 64	Am. Mineral. 47, 418. Am. Mineral. 47, 810	Pt(Ir,Os) ₂ As ₄ ; no X-ray powder data but composition is unique Qualitative compositional, and optical data only; might be zinggartrellite Pd ₅ Bi ₂ ; X-ray powder diffraction and some chemical data; d-values correspond to those of sobolevskite
UM1961-04-E:CuPtSn	Mineral. Mag. 32, 833		No X-ray powder data but composition is unique; suggested formula: Pt ₄ Cu ₄ Sn ₃ ; but perhaps tatyanaite
UM1961-05-F:OPb UM1961-06-O:Mn UM1961-07-S:FeNi UM1961-08-Sb:BiPd UM1961-09-Sb:CuPd	Science 133, 2017 Am. Mineral. 46, 355 Mineral. Mag. 32, 833. Mineral. Mag. 32, 833 Mineral. Mag. 32, 833	Am. Mineral. 46, 1021	X-ray powder diffraction data identical to synthetic Pb ₂ OF ₂ X-ray powder diffraction and chemical data; possibly related to romanechite (Fe,Ni) ₂ S; no X-ray powder diffraction data but composition is unique Pd ₈ Sb ₄ Bi ₃ ; or perhaps a Bi-rich sudburyite; no X-ray data; transferred to Invalid list Pd ₂ CuSb; no X-ray powder diffraction data; composition is similar to UM1990-48-Sb:CuPd but optics are different Pd ₈ CuSb ₃ ; no X-ray powder diffraction data but composition is unique Pd ₅ Bi ₂ Te ₈
UM1961-10-Sb:CuPd UM1961-11-Te:BiPd	Mineral. Mag. 32, 833 *Geol. Rudn. Mest. (1961) (5), 64	Am. Mineral. 47, 809	
UM1962-01-CO:AlCaH	*Kwart. Geol. Warsaw 5, 539-570	Mineral. Abst. 17, 766	A polymorph given a temporary, working name "beta-alumohydrocalcite"; this name was rejected by the IMA
UM1962-02-SiO:AlCaFeMgTi	Geochim. Cosmochim. Acta 26, 1085		"Mokoia SW"; in the Mokoia carbonaceous chondrite; said to resemble terrestrial chlorites or serpentines
UM1962-03-SiO:AlFeMg	Geochim. Cosmochim. Acta 26, 1085		"Mokoia HT"; in the Mokoia carbonaceous chondrite; said to resemble terrestrial chlorites or serpentines
UM1962-04-SiO:AlFeMg	Geochim. Cosmochim. Acta 26, 1085		"Murray F"; in the Mighele carbonaceous chondrite; said to resemble terrestrial chlorites or serpentines
UM1962-05-SiO:AlFeMgNi	Geochim. Cosmochim. Acta 26, 1085		"Haripura M"; in the Haripura carbonaceous chondrite; said to resemble terrestrial chlorites or serpentines
UM1962-06-SiO:CaFeMg UM1962-07-SiO:FeMg	Acta Geol. Hungarica 7, 315 Geochim. Cosmochim. Acta 26, 1085	Mineral. Abst. 16, 399	X-ray diffraction data suggests the mineral has the talc structure "Orgueil LM"; in the Orgueil carbonaceous chondrite; said to resemble terrestrial chlorites or serpentines
UM1962-08-SO:HNa	Proc. Ann. Mtg. MSA, 162A	Hey (1962), 25.1.4a	Na ₂ SO ₄ ·7H ₂ O
UM1963-01-AsO:MgU	Bull. Soc. fr. Minéral. Crist. 86, 17	Mineral. Abst. 16, 457	U,Mg-arsenate with distinctive X-ray powder diffraction pattern; later described under the name seelite: Mineral. Record (1993) 24, 463. Transferred to Invalid list
UM1963-02-PO:AlCaH UM1963-03-PO:HU	Am. Mineral. 48, 1144 *Voprosy Priklad. Radiogeol. Sbornik (1963) 174-177	Am. Mineral. 50, 265.	CaAl ₃ (PO ₄) ₂ (OH) ₅ ·H ₂ O; appears to be a polymorph of crandallite (UO ₂) ₃ (PO ₄) ₂ ·12H ₂ O; appears to be a P-analogue of trögerite
UM1963-04-SiO:BaTi UM1963-05-SiO:BeHREEY	*Trudy IMGRE, 16, 141 *Kristallografiya 8, 677	Am. Mineral. 50, 265 Am. Mineral. 49, 443	Some resemblance to bario-orthojoaquinite (UO ₂) ₃ (PO ₄) ₂ ·12H ₂ O; distinctive X-ray powder diffraction pattern
UM1964-01-CO:HZn	Can. Mineral. 8, 92	Am. Mineral. 50, 267	Zn ₅ (CO ₃) ₂ (OH) ₆ ·H ₂ O; powder pattern is similar to but distinct from that of hydrozincite; compositional similarities to brianyoungite
UM1964-02-CO:MnNa UM1964-03-S:NiSe UM1964-04-Se:Ni UM1964-05-SiO:Fe	*Kristallografiya 9, 109 Geologi (Helsinki) 16 (5), 53 Geologi (Helsinki) 16 (5), 53 Nature, Phys. Sci. 201, 596	Am. Mineral. 49, 1154	Probably a carbonate Ni ₃ (S,Se) ₄ ; possibly just a Se-bearing polydymite Ni(Se,Te) ₂ ; possibly not distinct from kullerudite
UM1965-01-E:AgAu UM1965-02-E:AgAu UM1965-03-E:AgAuCu UM1965-04-E:AuCu UM1965-05-E:AuCu UM1965-06-E:CuSn UM1965-07-E:CuSn	Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933 Trans. Inst. Mining Metall. 74, 933	Am. Mineral. 58, 347 *Zap. Vses. Mineral. Ob. 102, 437	Ag ₂ Au Au ₃ Ag ₂ AuAgCu Au ₇ Cu ₃ Au ₃ Cu ₄ Cu ₆ Sn ₅ ; described again several times subsequently Cu ₃ Sn
UM1965-08-OH:FeMgNi UM1965-09-S:Cr UM1965-10-S:CuFeGeZn UM1965-11-S:IrOsRu	Am. Mineral. 50, 1708 Geochim. Cosmochim. Acta 29, 1131 Bull. Soc. fr. Minéral. Crist. 88, 432 Trans. Inst. Mining Metall. 74, 933	Am. Mineral. 51, 1816 Minerals Sci. Eng. 4, 3	Same group but distinct from desautelsite & pyraurite with Ni replacing Mn CrS Cu ₂ (Zn,Fe)GeS ₄ ; the zinc analogue of briartite (Ru,Os,Ir) _{1+x} S ₂
UM1966-01-As:CoNIS UM1966-02-E:FeNi UM1966-03-S:AsCoNi UM1966-04-S:AsPb UM1966-05-SeO:BaHPbU	Mineralium Deposita 1, 113 Am. Mineral. 51, 37 Mineralium Deposita 1, 113 Neues Jb. Mineral. Mh. (1966), 353 C.R. Acad. Sci. Paris, Ser. D, 263, 465	Mineral Abst. 69-1531 Mineral Abst. 69-1531 Mineral. Abst. 20, 69-559 Mineral. Abst. 18, 125	(Co,Ni,Fe) ₂ As ₂ S Fe _{0.94} Ni _{0.06} ; Tetragonal unit cell; different from tetrataenite Mineral Y; (Co,Ni) ₄ (S,As) ₁₁ Pb ₁₁ As ₈ S ₃₁ Some similarities to guilleminite
UM1966-06-SiOPO:CaFFeHMnNaPREEY	*Zap. Vses. Mineral. Ob. 95, 339	Mineral. Abst. 18, 125	Later described under the name proshchenkoite-(Y): Mineral. Mag. 72 (2008), 1071

UM1967-01-AsO:CeFeHY UM1967-02-AsO:Mn	USGS Prof. Paper 575-B, 108 Can. Mineral. 9, 301	Am. Mineral. 53, 349	(Y,Ce) ₆ Fe ³⁺ ₂ As ₄ O ₂₂ •14H ₂ O Ineligible (abstract only); mineral No.10; later described under the name magnussonite: Mineral. Mag. 42, (1978), 129
UM1967-03-Bi:PbPd UM1967-04-E:CuPdSbSn UM1967-05-E:PbPd	*Zap. Vses. Mineral. Ob. 96, 432 *Zap. Vses. Mineral. Ob. 96, 432 *Zap. Vses. Mineral. Ob. 96, 432	CIM Sp. Vol. 23, 177 CIM Sp. Vol. 23, 177 CIM Sp. Vol. 23, 177	Pd ₃ Pb ₃ Bi (CIM Sp. Vol. 23, 182) (Pd,Cu) _{4.75} (Sn,Sb) (CIM Sp. Vol. 23, 188) Compositionally indistinguishable from plumbopalladinite but with discrepancies in VHN & reflectance properties (CIM Sp. Vol. 23, 184)
UM1967-06-O:HNb UM1967-07-O:HMnNb UM1967-08-PO:CaCl UM1967-09-SiO:AlHKNa UM1967-10-SiO:AlHNa UM1967-11-SiO:HMnNaZr UM1967-12-SiO:HNazr UM1967-13-SiO:FeHNazr	*Semenov (1967), 30 Econ. Geol. 62, 186 Can. Mineral. 9, 286 *Semenov (1967), 14 *Semenov (1967), 14 *Semenov (1967), 3 *Semenov (1967), 3 *Semenov (1967), 3 *Semenov (1967), 14	Am. Mineral. 54, 1496 Mineral. Abst. 19, 126 Am. Mineral. 53, 1777 Am. Mineral. 54, 1497 Am. Mineral. 54, 1222 Am. Mineral. 54, 1222 Khomyakov (1995)	Nb ₂ O ₅ •5H ₂ O PbMn ₅ O ₁₁ •5H ₂ O Ca ₅ (PO ₄) ₃ Cl; a monoclinic polymorph of chlorapatite (K,Na)AlSi ₂ O ₆ •H ₂ O; probably a zeolite NaAlSiO ₄ •H ₂ O; probably a zeolite (Na,K,Ca) ₂ MnZrSi ₄ O ₁₂ •6H ₂ O; some similarities to gaidonnayite NaZrSi ₄ O ₁₀ (OH)•2H ₂ O (Na,X) ₂ (Zr,Fe ³⁺)Si ₃ (O,OH) ₉ •nH ₂ O; mineral "M36"; perhaps the "HFe-analogue" of gaidonnayite (Na,X) ₂ (Zr,Mn ³⁺)Si ₃ (O,OH) ₉ •nH ₂ O; mineral "M35"; perhaps the "H,Mn-analogue" of gaidonnayite (equivalent to UM1967-11?)
UM1967-14-SiO:HMnNaZr	*Semenov (1967), 14	Khomyakov (1995)	(Na,X) ₂ (Zr,Mn ³⁺)Si ₃ (O,OH) ₉ •nH ₂ O; mineral "M35"; perhaps the "H,Mn-analogue" of gaidonnayite (equivalent to UM1967-11?)
UM1968-01-Bi:Pd UM1968-02-OH:CrV	*Dokl. Akad. Nauk SSSR 170, 183 Bull. Geol. Soc. Finland 40, 125	Mineral. Abst. 18, 125 Mineral. Abst. 20, 69- 1536	Bi ₃ Pd (see also Am. Mineral. 56, 358) (Cr,V) ₄ •3H ₂ O
UM1968-03-SO:FeHMg UM1968-04-SiO:CaZn UM1968-05-Te:Bi	*Geol. Geofiz. (1968) (6), 15 Am. Mineral. 53, 231 *Dokl. Earth Sci. 181, 443	Am. Mineral. 63, 599 Am. Mineral. 54, 1218	(Mg,Fe ²⁺)Fe ³⁺ ₂ (SO ₄) ₄ •15•5H ₂ O; a Mg-analogue of römerite ~(Zn,Pb)CaSi ₃ O ₈ Bi ₂ Te ₅
UM1969-01-E:CuPbPdSn UM1969-02-MoO:CaHNau	*Zap. Vses. Mineral. Ob. 98, 708 *Zap. Vses. Mineral. Ob. 98, 679	CIM Sp. Vol. 23, 177 Mineral. Abst. 21, 70- 3433	Pd ₁₂ Sn ₅ PbCu ₂ ; Sn content in error in secondary reference (CIM Sp. Vol. 23, 186) (Ca _{0.4} Na _{0.6})(UO ₂) ₄ (MoO ₄) ₄ (OH) ₂ •10-13H ₂ O to Na ₂ (UO ₂) ₅ (MoO ₄) ₅ (OH) ₂ •8H ₂ O; "Group B"
UM1969-03-MoO:CaHNau	*Zap. Vses. Mineral. Ob. 98, 679	Mineral. Abst. 21, 70- 3433	Na(UO ₂) ₄ (MoO ₄) ₄ (OH)•12H ₂ O; Group "C"
UM1969-04-MoO:CaHU	*Zap. Vses. Mineral. Ob. 98, 679	Mineral. Abst. 21, 70- 3433	Suggested formula: (Ca _{0.9} Na _{0.1})(UO ₂) ₄ (MoO ₄) ₄ (OH) ₂ •14H ₂ O, does not balance exactly; "Group A"
UM1969-05-PO:CaHREE UM1969-06-S:AgBiCu UM1969-07-S:AgSbTe	*Semenov (1969), 41 *Zap. Vses. Mineral. Ob. 98, 452 *Altai Izv. Akad. Nauk Kaz. SSR, Ser. Geol., 26, 74	Am. Mineral. 55, 2136 Am. Mineral. 57, 1313 Am. Mineral. 58, 1114	(Ce,Ca)PO ₄ •H ₂ O; other REE present; similarities to rhabdophane-(Ce) (Cu,Ag) ₂ Bi ₅ S ₁₃ ; some similarities to pavonite and benjaminite Ag ₁₀ Sb ₂ Te ₅ ; mineral "U"
UM1969-08-S:AgSbTe	*Altai Izv. Akad. Nauk Kaz. SSR, Ser. Geol., 26, 74	Am. Mineral. 58, 1114	Ag ₈ SbTe ₂ S ₅ ; mineral "X"
UM1969-09-S:AgTe	*Altai Izv. Akad. Nauk Kaz. SSR, Ser. Geol., 26, 74	Am. Mineral. 58, 1114	Ag ₁₁ Te ₃ S ₄ ; mineral "Z"
UM1969-10-S:AgTe	*Altai Izv. Akad. Nauk Kaz. SSR, Ser. Geol., 26, 74	Am. Mineral. 58, 1114	Ag ₅ Te ₂ S ₃ ; mineral "Y"
UM1969-11-S:BiPb UM1969-12-SiO:AlFeHK UM1969-13-SiO:AlHNa UM1969-14-SiO:FeHMn UM1969-15-Te:Ag UM1969-16-SiO:HNazr	Schweiz. Mineral. Petrog. Mitt. 49, 97 *Semenov (1969), 106 *Semenov (1969), 96 *Semenov (1969), 103 Geol. Soc. Am. Mem. 109, 107 *Semenov (1969)	Am. Mineral. 55, 533 Am. Mineral. 55, 2138 Am. Mineral. 55, 2139 Am. Mineral. 55, 2138 Am. Mineral. 55, 1067 Khomyakov (1995)	Pb ₈ Bi ₆ S ₁₇ ; compositional similarities to lillianite (Na,Ca,K)(Fe,Mg)Al ₂ Si ₄ O ₁₃ •2H ₂ O; may be a zeolite (Na,Li)Al ₄ (AlSi ₃)O ₁₀ (OH) ₈ ; probably an Na-analogue of cookeite (Mn,Fe) ₉ Si ₁₂ O ₃₀ (OH) ₆ •10H ₂ O; "Red Mn-silicate" No known silver tellurides with similar diffraction lines Formula given as H ₃ NaZrSi ₆ O ₁₆ •nH ₂ O, but compositionally rather variable; Khomyakov's mineral "M37"
UM1970-01-As:NiPd	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₃ Ni ₄ As ₃
UM1970-02-Bi:PbPd	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₃ Pb ₂ Bi
UM1970-03-Bi:Pd	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₂ Bi; but compound Pd ₂ Bi is not known in the synthetic system; (CIM Sp. Vol. 23, 186)
UM1970-04-E:CuPbPdSbSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	~(Pd,Pb,Sb) ₅ CuSn
UM1970-05-E:CuPdPtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	(Pd,Pt) ₂ SnCu (CIM Sp. Vol. 23, 183)
UM1970-06-E:CuPdPtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	(Pd,Pt,Cu) ₃ Sn (CIM Sp. Vol. 23, 185); see also UM1973-08-E:AsPdPtSn
UM1970-07-E:CuPdSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₃ SnCu (CIM Sp. Vol. 23, 186)
UM1970-08-E:CuPdSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₅ Cu ₂ Sn ₂ ; some similarities to cabriite
UM1970-09-E:PbPdPtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	(Pd,Pt) ₃ (Pb,Sn)
UM1970-10-E:PbPdSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₈ SnPb

UM1970-11-E:PtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₃ Pt ₂ Sn ₂ ; the mineral may be a Pt-bearing atokite (CIM Sp. Vol. 23, 192)
UM1970-12-E:PtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pd ₃ Pt ₃ Sn ₂ ; the mineral may be Pt-bearing atokite (CIM Sp. Vol. 23, 192)
UM1970-13-E:PtSn	Geokhimiya No. 10, 1155	Geochem. Internat. 7, 788	Pt ₃ Pd ₂ Sn ₂
UM1970-14-O:CrFeMgTiV	Norg. Geol. Unders. 266, 86	Am. Mineral. 57, 1004	~(Mg,Fe)Ti ₃ (V,Cr,Fe) ₂ O ₁₀
UM1970-15-O:Pb	Mineralium Deposita 5, 86	Am. Mineral. 55, 1813	Pb ₉ O ₁₆ ; mineral "X"
UM1970-16-OH:GeMn	Neues Jb. Mineral. Abh. 114, 89	Am. Mineral. 56, 1488	(Mn,Fe)(Ge,Sn)(OH) ₆ ; unnamed mineral "B"; Ge-analogue of wickmanite
UM1970-17-PO:Fe	Carnegie Inst. Wash. Year book 68, 330	Am. Mineral. 55, 1814	Fe ₄ (PO ₄) ₃ ; some similarities to lipscombite
UM1970-18-S:As	Am. Mineral. 55, 1338		Equivalent to synthetic alpha-As ₄ S ₄ ; a polymorph of realgar
UM1970-19-S:As	Am. Mineral. 55, 1338		Equivalent to synthetic beta-As ₄ S ₄ ; a polymorph of realgar
UM1970-20-S:AsSbTI	Bull. Soc. fr. Minéral. Crist. 93, 66	Mineral. Abst. 21, 70-3428	Tl(As,Sb) ₁₀ S ₁₆ ; mineral is amorphous and compositionally somewhat similar to bernardite
UM1970-21-S:BiPbTe	*Geol. Geofiz. (1970) (11), 123	Am. Mineral. 56, 1839	Proposed formula: (Bi,Pb) ₃ TeS is clearly in error; composition is much closer to Bi ₃ Te ₂ S ₂ ; mineral "M"
UM1970-22-S:BiTe	*Geol. Geofiz. (1970) (11), 123	Am. Mineral. 56, 1839	Proposed formula: Bi ₉ Te ₂ S ₂ is clearly in error; composition is much closer to Bi ₉ Te ₄ S ₂ ; mineral "K"
UM1970-23-S:BiTe	*Geol. Geofiz. (1970) (11), 123	Am. Mineral. 56, 1839	Proposed formula: Bi ₁₅ TeS ₄ is clearly in error; composition is much closer to Bi ₁₅ Te ₂ S ₈ or Bi ₆ TeS ₃ ; Mineral "P"
UM1970-24-S:CuFe	Econ. Geol. 65, 590	Am. Mineral. 56, 632	(Fe,Cu)S
UM1970-25-S:CuFeH	Am. Mineral. 55, 2110		2(Fe,Cu)S•1.47[Fe(OH) ₂]; a vallerite-type mineral
UM1970-26-S:CuZn	Am. Mineral. 55, 1021	Mineral. Abst. 21, 70-3390	Cu ₃ ZnS ₄
UM1970-27-Te:BiPd	*Yushko-Zakharova et al. (1970)	CIM Sp. Vol. 23, 177	Pd ₂ Bi ₂ Te ₃ ; see CIM Sp. Vol. 23, 181
UM1971-01-AsO:CuFeS	Mineral. Record 2, 214	Am. Mineral. 57, 1005	Mineral "6a"; some similarities to tyrolite
UM1971-02-AsO:Fe	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 15, 63	Am. Mineral. 57, 1315	The X-ray powder diffraction pattern has similarities to that of sincoisite, suggesting that it might be an As-analogue of the latter
UM1971-03-CO:CeLa	Bull. Geol. Soc. Finland 43, 62		X-ray powder diffraction pattern has some similarities to that of borcarite
UM1971-04-O:FeNbTiYZr	Earth Planet Sci. Lett. 12, 145	Am. Mineral. 58, 141	~Fe(REE,Ca)ZrTi ₂ (Nb,U,Th)O ₁₁ ; "Phase I"; similarities to zirconolite
UM1971-05-S:AgBiCu	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	(Ag,Cu,Pb) ₃ Bi ₇ S ₁₂ ; "Phase II"; not distinct from benjaminite
UM1971-06-S:AgBiCu	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	AgCu ₄ Bi ₇ S ₁₃ ; "Phase IV"
UM1971-07-S:AgBiCuPb	Internat. Geol. Rev. 13, 1628	Am. Mineral. 57, 1314	X-ray powder diffraction data suggest affinities with benjaminite; poor quality analytical data
UM1971-08-S:AgBiCuPb	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	~(Cu,Ag,Pb) ₃ Bi ₇ S ₁₂ ; "Phase III"; some similarities to makovickite
UM1971-09-S:AgBiCuPb	Can. Mineral. 10, 871	Mineral Abst. 23, 72-2327	Ag ₄ Cu ₆ Bi ₁₂ Pb ₁₈ S ₄₁ ; mineral "A";
UM1971-10-S:AgBiCuPb	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	Ag ₅ Cu ₂ PbBi ₁₃ S ₂₄ ; phase "V"
UM1971-11-S:AgBiCuPb	Soc. Mining Geol. Japan Spec. Issue 2, 35	Am. Mineral. 57, 1316	(Ag,Cu) ₄ PbBi ₆ S ₁₂ ; phase "VI"
UM1971-12-S:BiCu	Mineralium Deposita 6, 111	Am. Mineral. 57, 326	~Cu ₈ Bi ₆ S ₆ ; mineral "II"
UM1971-13-S:BiCuFePb	Can. Mineral. 10, 871	Mineral Abst. 23, 72-2327	Bi ₄ Cu ₈ Fe ₁₀ Pb ₁₂ S ₃₇ ; mineral "B"
UM1971-14-S:BiCuFePb	*Vest. Mosk. Univ. Geol. Ser. 1971 (3), 60	Zap. Vses. Mineral. Ob. 102, 442	(Cu,Fe) ₃ Pb ₇ Bi ₁₂ S ₂₀
UM1971-15-S:BiCuPb	Mineralium Deposita 6, 111	Am. Mineral. 57, 326	~Cu ₈ Bi ₃ Pb ₃ S ₂₁ ; mineral "I"
UM1971-16-S:CoFeNi	Tscherm. Mineral. Petrog. Mitt. 16, 215	Mineral Abst. 23, 72-1408	Distinctly different from pentlandite and cobalt-pentlandite
UM1971-17-S:Mo	Nature Phys. Sci. 234, 177	Am. Mineral. 57, 1559	MoS ₂ .85-3.1
UM1971-18-S:MoPbSb	*Trudy Inst. Geol. Nauk AN KazSSR 31,162	Zap. Vses. Mineral. Ob. 102, 440	Pb ₈ Mo ₆ Sb ₂ S ₂₃
UM1971-19-SO:AlCu	Mineral. Record 2, 214	Am. Mineral. 57, 1004	Some similarities to cyanotrichite
UM1971-20-SiO:Mo	Nature Phys. Sci. 234, 177	Am. Mineral. 57, 1559	Possibly a Mo-analogue of chrysocolla
UM1971-21-SiO:AlCaMgTi	Am. Mineral. 56, 2053	Mineral. Mag. 72, 839	Ca ₄ (Mg ₇ AlTi ³⁺ ₂ Ti ⁴⁺ ₂)O ₄ [Si ₅ Al ₇ O ₃₆]; Ti ³⁺ -bearing Mg-analogue of rhönite
UM1971-22-SiO:CaClFeHMgMnNaNbZr	Tscherm. Mineral. Petrog. Mitt. 16, 105	Cryst. Reports 52, 47	Na ₁₂ Ca ₅ (Ce,La,Y,Ca)Zr ₃ (Zr,Nb) _{0-0.9} (Fe,Mn) ₃ [Si ₉ O ₂₄₋₂₆ (OH) ₁₋₃] ₂ [Si ₃ O ₉] ₂ Cl _{0.7-1.4} ; described originally as "eudialyte" but subsequently more detailed work has shown that it differs from eudialyte in having Zr in both M3 & M4 sites
UM1972-01-AsO:BaCaU	Aufschluss 23, 279	Am. Mineral. 58, 561	Mineral "F"
UM1972-02-AsO:Ca	Aufschluss 23, 279	Am. Mineral. 58, 561	X-ray powder diffraction pattern and composition suggest this could be an As-analogue of rapidcreekite (and hence may contain CO ₂ & H ₂ O)
UM1972-03-AsOSO:Cu	Aufschluss 23, 279	Am. Mineral. 58, 561	Distinctive X-ray powder data; microchemical tests +ve for Cu, arsenate and sulphate
UM1972-04-Bi:PtTe	*Yushko-Zakharova et al. (1972), 58	Zap. Vses. Mineral. Ob. 103, 614	Pt _{0.8} BiTe
UM1972-05-BiO:AlCaP	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 16, 53	Am. Mineral. 59, 1139	The X-ray powder diffraction pattern has some similarities to that of preisingerite and the mineral is assumed to contain oxygen
UM1972-06-CO:CaK	Schweiz. Mineral. Petrog. Mitt. 52, 93	Am. Mineral. 58, 139	Possible formula: K ₂ Ca(CO ₃) ₂ •4H ₂ O, by analogy with associated mineral K ₂ Mg(CO ₃) ₂ •4H ₂ O (baylissite)
UM1972-07-MoO:BiW	*Ann. Rept. Univ. Leeds Res. Inst. African Geol. 16, 53	Mineral. Abst. 24, 73-1946	Isostructural with uraninite; X-ray diffraction pattern also very similar to koechlinite; perhaps BiWMoO ₆
UM1972-08-O:CaFeNdTiYZr	Nature 236, 215	Am. Mineral. 58, 141	(Fe,Ca,YREE)(Ti,Zr)O ₅ ; mineral "Y"; similarities to zirconolite and to tranquillityte

UM1972-09-S:AgBiPbSb	*Mater. Genet. Eksp. Mineral. 7, 49	Am. Mineral. 60, 163	Diffraction pattern has similarities to that of franckeite; compositional similarities to vikingite and cosalite
UM1972-10-S:BiCuNi	*Dokl. Akad. Nauk SSSR 203, 1382	Am. Mineral. 58, 348.	Mineral "B"; Ni present but not determined - perhaps (Cu,Ni) ₂ BiS ₃ or Cu(Ni,Cu)BiS ₃ ; there are distinct similarities to muckeite
UM1972-11-S:BiPbTe UM1972-12-S:FeMnZn	Can. J. Earth Sci. 9, 1596 Meteoritics 7, 429	Am. Mineral. 58, 967 Am. Mineral. 58, 806	PbBiTeS (Fe _{0.54} Zn _{0.25} Mn _{0.16})S; the Fe-dominant end-member later described as rudashevskiyte; transferred to Invalid list
UM1972-13-SCO:CaFeH UM1972-14-SiO:CaHREE	Am. Mineral. 57, 1037 *Lunts (1972), 98	Zap. Vses. Mineral. Ob. 102, 457	(FeS) ₂ (CaCO ₃ +H ₂ O) _{0.84} ; Designated "Type I"
UM1972-15-SiO:FeHNaZr	*Semenov (1972)	Zap. Vses. Mineral. Ob. 102, 456	(REE,Ca)Si(O,OH,F) ₄ ·0.3H ₂ O; metamict, X-ray amorphous; perhaps related to cerite
UM1972-16-Te:AgPbPd UM1972-17-Te:BiPbPd UM1972-18-SiO:AlCaFeMgTi	*Izv. Akad. Nauk SSSR, Ser. Geol. #11, 85 *Izv. Akad. Nauk SSSR, Ser. Geol. #11, 85 Tschem. Mineral. Petrog. Mitt. 18, 17	CIM Sp. Vol. 23, 177 CIM Sp. Vol. 23, 177 Mineral. Mag. 72, 839	Composition close to Na ₂ FeZr ₂ Si ₆ O ₂₀ Possible formula: (Pd,Ag) ₃ (Ag,Pb)(Te,Se); (CIM Sp. Vol. 23, 184) Pd(Pb,Te,Bi); (CIM Sp. Vol. 23, 184) Ca ₄ (Fe ²⁺ ·10Ti ₂)O ₄ [Si ₈ Al ₄ O ₃₆]; substantial solid solution towards rhönite of which it is the Fe ²⁺ analogue
UM1973-01-As:NiPd UM1973-02-As:PbPdPtSn	*Trudy TsNIGRI 108, 96 *Trudy TsNIGRI 108, 96	Am. Mineral. 61, 179 Am. Mineral. 61, 179	~(Ni,Pd) ₇ As ₃ (Pd,Pt) ₅ (As,Sn,Pb) ₂ ; compositionally, appears to be the As-dominant analogue of palarstanide, but latter is trigonal
UM1973-03-As:PdSbSn UM1973-04-AsS:IrPt UM1973-05-Bi:AgPd	*Trudy TsNIGRI 108, 96 *Geochimica 2, 76 *Sci. Rept. Tohoku Univ., ser.3, 12, 69	Am. Mineral. 61, 179 Am. Mineral. 65, 813 Zap. Vses. Mineral. Ob. 104, 617	Pd ₈ (As,Sn,Sb) ₃ ; compositionally similar to arsenopalladinite but orthorhombic (Pt,Ir) ₂ As ₅ S ₃ (Ag,Pd) ₂ Bi
UM1973-06-CO:MgH	*J. Japan. Assoc. Mineral. Petrol. Econ. Geol. 68, 353	Am. Mineral. 62, 596	Mg ₅ (CO ₃) ₄ (OH) ₂ ·8H ₂ O
UM1973-07-E:AgAuCu	*Geol. Rudn. Mest. 15 (6), 32	Zap. Vses. Mineral. Ob. 104, 617	Au ₃ AgCu
UM1973-08-E:AsPdPtSn UM1973-09-E:FeIrPt UM1973-10-E:FeIrRh UM1973-11-E:FeIrRh UM1973-12-E:NiPdPtSbSn UM1973-13-E:PbPdPtSn UM1973-14-E:PbPdPtSn UM1973-15-E:PbPdSn UM1973-16-S:AgCuFeTe	*Trudy TsNIGRI 108, 96 *Geochimica 2, 76 Am. Mineral. 58, 189 Am. Mineral. 58, 189 *Geochimica 1, 23 *Trudy TsNIGRI 108, 96 *Trudy TsNIGRI 108, 96 *Trudy TsNIGRI 108, 96 *Trudy TsNIGRI 108, 96 *Vest. Mosk. Univ. Geol. Ser. (3) 58	Am. Mineral. 61, 179 Am. Mineral. 65, 813 CIM Sp. Vol. 23, 177 CIM Sp. Vol. 23, 177 Am. Mineral. 60, 738 Am. Mineral. 61, 179 Am. Mineral. 61, 179 Am. Mineral. 61, 179 Zap. Vses. Mineral. Ob. 103, 619	~(Pd,Pt) ₃ (Sn,As); tetragonal, therefore not atokite; see also UM1970-06-E:CuPdPtSn Possible formula: Pt ₂ IrFe; perhaps the Ir-analogue of tulameenite (Rh,Ir)Fe; isotropic (CIM Sp. Vol. 23, 181) Similar to UM1973-10-E:FeIrRh but anisotropic (CIM Sp. Vol. 23, 181) ~(Pt,Pd,Ni) ₅ (Sn,Sb) ₂ ; perhaps related to rustenburgite and/or UM1971-/-E:PdPtSn (Pd,Pt) _{4.5-5.5} (Sn,Pb,As) ₂ ; perhaps a Pb-bearing atokite Pd ₂₀ Pt ₃ Pb ₂ Sn ₇ ; similarities to atokite Pd ₂₂ Pb ₄ Sn ₅ ; similarities to atokite (Ag,Fe,Cu) ₅ Te ₂ S
UM1973-17-S:FeNi	Am. Mineral. 58, 195	Mineral. Abst. 24, 73-4083	(Fe,Ni) ₉ S ₁₁ ; appears to be a dimorph of smythite
UM1973-18-S:FeNi	Am. Mineral. 58, 195	Mineral. Abst. 24, 73-4083	(Fe,Ni) ₉ S ₁₁ ; said to be violarite-like
UM1973-19-S:FePb UM1973-20-S:IrOs UM1973-21-Sb:NiPdPtSn UM1973-22-Te:AgHgPd UM1973-23-Te:AgPd UM1973-24-Te:AgSb	*Issled. Oblast Rudn. Mineral. (1973), 156. *Geochimica 4, 254 *Geochimica 1, 23 Can. Mineral. 12, 193 Internat. Geol. Rev. 15, 1284 Can. Mineral. 12, 55	Am. Mineral. 59, 1140 Am. Mineral. 65, 812 Am. Mineral. 60, 739 Am. Mineral. 60, 947 Am. Mineral. 59, 384	Compositional data are qualitative but appear distinctive (Ir,Os) ₂ S ₂ (Pd,Pt,Ni) ₂ (Sb,Sn); perhaps a Sb-analogue of paolovite AgHgPdTe (Pd,Ag) ₄ Te ~AgSbTe ₂
UM1974-01-As:PdSb UM1974-02-Bi:AsPdPtSb UM1974-03-CO:BaCaMg UM1974-04-CO:HNa	*Geochimica 3, 169 Neues Jb. Mineral. Mh. (1974), 514 Geol. Fören. Förh. 96, 375 Aufschluss 25, 613	Am. Mineral. 61, 182 Am. Mineral. 60, 739 Am. Mineral. 60, 738 Zap. Vses. Mineral. Ob. 106, 86	Pd ₂ (As,Sb) (Pt,Pd)(Bi,Sb,As); probably the Pt-analogue of sobolevskite (Ba,Ca,Mg)CO ₃ Na ₄ H ₂ (CO ₃) ₃ ·1.5H ₂ O; inferred from X-ray powder diffraction pattern matching that of the K-analogue
UM1974-05-E:AsPdSn UM1974-06-O:CuH UM1974-07-S:AgBiCu UM1974-08-S:AgCuTe UM1974-09-S:BiCuPb UM1974-10-S:CrFeMn UM1974-11-S:CuFeIrNi UM1974-12-S:IrNiRh UM1974-13-S:IrRh UM1974-14-S:NiOs UM1974-15-Sb:Pd UM1974-16-Se:CoFe	*Zap. Vses. Mineral. Ob. 103, 582 *Karinthin 80, 99 *Minerogenezis (Bulg. Acad. Sci.), 419 Mineralium Deposita 9, 325 Minerogenezis (Bulg. Acad. Sci.), 419 Am. Mineral. 59, 465 *Acta Geol. Sinica 2, 202 *Acta Geol. Sinica 2, 202 *Acta Geol. Sinica 2, 202 *Acta Geol. Sinica 2, 202 *Geochimica 3, 169 *Ingeniero Geol. Univ. Nacl. Mayor de San Marcos, 16, 65	Am. Mineral. 64, 1333 Am. Mineral. 66, 439 Am. Mineral. 63, 427 Am. Mineral. 61, 178 Am. Mineral. 63, 427 Am. Mineral. 61, 184 Am. Mineral. 61, 184 Am. Mineral. 61, 184 Am. Mineral. 61, 184 Am. Mineral. 61, 182 Am. Mineral. 60, 738	Compositional similarities to palarstanide X-ray powder diffraction data are distinct Ag ₃ Cu ₃ Bi ₂ Se Ag ₅ CuTeS ₂ Compositionally similar to gladiite but different reflectance values (Mn,Fe)Cr ₂ S ₄ ; the Mn-analogue of daubréelite (Ir,Ni,Fe,Cu)S or perhaps Ir(Ni,Fe,Cu) ₂ S ₃ (Ir,Rh,Ni)S (Ir,Rh)S ₂ (Os,Ni)S ₂ ; the mineral could be Ni-bearing erlichmanite PdSb; similar to sudburyite but reflected light characteristics differ (Co,Fe)S ₂ ; not a Fe ²⁺ -bearing hastite, the latter mineral having been discredited. Can. Mineral. 47 (2009), 969 Pd ₂ (Te,As); Te & As present in nearly equal atomic proportions (Pd,Ni)(Te,Bi) (Pd,Ni)(Te,Sb,Bi) Pd(Te,Sb,Bi) ₂ ; may be related to merenskyite Pd ₂ Sb ₂ (Te,Bi)
UM1974-17-Te:AsPd UM1974-18-Te:BiNiPd UM1974-19-Te:BiNiPdSb UM1974-20-Te:BiPdSb UM1974-21-Te:BiPdSb	*Geochimica 3, 169 *Geochimica 3, 169 *Geochimica 3, 169 *Geochimica 3, 169 *Geochimica 3, 169	Am. Mineral. 61, 182 Am. Mineral. 61, 182 Am. Mineral. 61, 182 Am. Mineral. 61, 182 Am. Mineral. 61, 182	

UM1974-22-Te:NI ₃ Sb	*Geochimica 3, 169	Am. Mineral. 61, 182	Ni ₂ SbTe ₂ ; transferred to Invalid list
UM1974-23-Te:Pd	*Geochimica 3, 169	Am. Mineral. 61, 182	PdTe ₃
UM1974-24-Te:Pd	*Geochimica 3, 169	Am. Mineral. 61, 182	Pd ₃ Te; compositionally similar to keithconnite but reflected light characteristics differ
UM1974-25-Te:PdPt	Econ. Geol. 69, 257	Am. Mineral. 61, 179	(Pd,Pt) _{3-x} Te ₅
UM1974-26-Te:PdPt	Econ. Geol. 69, 257	Am. Mineral. 61, 179	~(Pt,Pd)Te ₂ ; possibly related to moncheite-merenskyite series
UM1974-27-Te:PdPt	*Geochimica 3, 169	Am. Mineral. 61, 182	(Pd,Pt) ₃ Te; compositional and other similarities to keithconnite but also to synthetic Pd ₂ Te ₃
UM1974-28-S:BiPbTe	Neues Jb. Mineral. Monat. (1974), 316		(Bi,Pb) ₅ Te ₃ (S,Se) ₄
UM1974-29-S:BiPbTe	Neues Jb. Mineral. Monat. (1974), 316		(Bi,Pb) ₅ TeS ₅
UM1975-01-As:AgCoNiPdS	*Mineral. Polonica 6, 87	CIM Sp. Vol. 23, 177	~(Pd,Ag) ₄ (Co,Ni,Cu) ₃ (As,S) ₄ ; but might be the Co-analogue of majakite (CIM Sp. Vol. 23, 190)
UM1975-02-As:AgCuNiPdS	*Mineral. Polonica 6, 87	CIM Sp. Vol. 23, 177	~Pd ₃ (Ag,Cu,Ni)As ₂ S (CIM Sp. Vol. 23, 190)
UM1975-03-As:AgCuPdS	*Mineral. Polonica 6, 87	CIM Sp. Vol. 23, 177	~(Pd,Ag,Cu) ₃ (As,S) ₂ (CIM Sp. Vol. 23, 190)
UM1975-04-As:NiPdS	*Mineral. Polonica 6, 87	CIM Sp. Vol. 23, 177	~(Pd,Ni)(As,S); (CIM Sp. Vol. 23, 190)
UM1975-05-As:Pd	Can. Mineral. 13, 321	Am. Mineral. 62, 1061	Pd ₅ As ₂
UM1975-06-As:Pd	*Mineral. Polonica 6, 87-91	CIM Sp. Vol. 23, 177	PdAs ₂ (CIM Sp. Vol. 23, 184)
UM1975-07-As:PdSn	Nat. Inst. Metall. Rept. No. 1726, 1	Am. Mineral. 64, 1333	(Pd,Pt) ₂ (As,Sn)
UM1975-08-AsOSO:FeHPb	Aufschluss 26, 369	Am. Mineral. 62, 175	Pb ₂ Fe(AsO ₄)(SO ₄)(OH); diffraction pattern is similar to that of heyite
UM1975-09-O:BaCrFeMgTiV	Phys. Chem. Earth 9, 295	Am. Mineral. 61, 1055	Possibly related to a mineral described under the unapproved name mongshanite (see Am. Mineral. 73, 441)
UM1975-10-O:CaFeMgTi	Phys. Chem. Earth 9, 295	Am. Mineral. 61, 1055	~Ca ₂ Ti ₂ (Fe,Mg) ₂ O ₉
UM1975-11-S:AgSbTe	*Parilov <i>et al.</i> (1975), 66	Zap. Vses. Mineral. Ob. 106, 85	Ag ₁₂ Sb ₂ Te ₃ S ₆ ; compositional similarities to benleonardite
UM1975-12-S:BiCu	*Dokl. Akad. Nauk SSSR 222, 183	Am. Mineral. 61, 1055	Cu ₄ BiS ₄
UM1975-13-S:BiPb	*Geol. Rudn. Mest. 17, 30	Zap. Vses. Mineral. Ob. 106, 86	Pb ₄ Bi ₆ S ₁₃ ; with different d-values from cannizzarite; and previously referred to as "cannizzarite-B" (Schweiz. Mineral. Petrog. Mitt. 49, 97)
UM1975-14-S:CuFeNi	Contr. Mineral. Petrol. 52, 57		(Fe _{0.73} Ni _{0.19} Cu _{0.07})S
UM1975-15-S:CuIrRh	Dokl. Akad. Nauk SSSR 225, 1408	Am. Mineral. 62, 175	Ir _{0.91} Cu _{0.74} Rh _{0.39} S ₃ ; might, perhaps, be a Cu-bearing kashinite
UM1975-16-SO:HKZn	*Repub. Rwandaise, Bull. Serv. Géol. (1975) #8, 1	Am. Mineral. 62, 175	K ₂ Zn(SO ₄) ₂ ·2H ₂ O; known synthetically
UM1975-17-Sb:PdPt	Mineralium Deposita 10, 71	CIM Sp. Vol. 23, 177	(Pt,Pd) ₃ Sb ₂ (CIM Sp. Vol. 23, 192)
UM1975-18-SiO:Mn	*Mineral. Polonica 6, 75	Am. Mineral. 66, 220	X-ray pattern of synthetic alpha-MnSiO ₃
UM1975-19-Te:HgPd	*Dokl. Earth Sci. 224, 97	CIM Sp. Vol. 23, 177	(Pd,Hg)Te; could be Hg-bearing kotulskite (CIM Sp. Vol. 23, 182); some similarities to UM1966-/-Te:HgPd
UM1975-20-Te:Pd	*Dokl. Earth Sci. 224, 97	CIM Sp. Vol. 23, 177	Significantly low analytical total makes formula uncertain; perhaps Pd ₃ Te ₄ ; (CIM Sp. Vol. 23, 183)
UM1975-21-Te:BiPbSse	Econ. Geol. 70, 1092		PbBi ₂ (Te,Se) ₂ (S,Se) ₂
UM1975-22-SiO:HNazr	*Trudy Mineral. Muz. Akad. Nauk SSSR 24, 120	Khomyakov (1995)	(Na,Ca) ₂ Zr ₂ Si ₄ O ₁₂ (OH,O) ₃ H ₂ O; similarities to keldyshite; mineral "M34"
UM1976-01-As:BiPd	Can. Mineral. 14, 410		Pd ₂ (As,Bi); hexagonal and distinct from palladobismutharsenide
UM1976-02-As:IrPtRhRuS	Econ. Geol. 71, 1399	Am. Mineral. 62, 598	~(Ru,Rh,Pt,Ir) ₂ (As,S) ₃
UM1976-03-As:NiPd	*Trudy TsNIGRI 122, 96	Zap. Vses. Mineral. Ob. 107, 340	Pd _{1.19} Ni _{0.71} As
UM1976-04-AsOSO:CuFeHPb	Aufschluss 27, 369	Am. Mineral. 62, 1061	Pb(Fe,Cu) ₂ (AsO ₄)(SO ₄)(OH)
UM1976-05-BO:HMgNaSU	*Mitteilungsbl. Landesmuseums "Joanneum", Abt. Mineral. 44, 35	Am. Mineral. 62, 1261	(Na,Mg) ₂ (UO ₂) ₂ BO ₃ (OH) ₃₋₄ ·nH ₂ O; Mineral "B"; may be a variety or different hydrate of UM1976-06-BO:HMgNaMgSU; later report does not include S (Aufschluss 59, 47)
UM1976-06-BO:HMgNaSU	*Mitteilungsbl. Landesmuseums "Joanneum", Abt. Mineral. 44, 35	Am. Mineral. 62, 1261	Mineral "A"; may be a variety or different hydrate of UM1976-05-BO:HMgNaMgSU
UM1976-07-BO:HMgNaSU	*Mitteilungsbl. Landesmuseums "Joanneum", Abt. Mineral. 44, 35	Am. Mineral. 62, 1261	Mineral "C"; distinctive X-ray powder pattern and qualitative composition
UM1976-08-Bi:PdSbTe	Econ. Geol. 71, 1451	Am. Mineral. 62, 598	Pd ₃ (Bi,Sb) ₂ Te; probably Te- and/or Sb rich varieties of sobolevskite Pd(Bi,Te,Sb); transferred to Invalid list
UM1976-09-BiOTeO:HPd	Econ. Geol. 71, 1429	CIM Sp. Vol. 23, p.177	Perhaps (Pd,Pt,Bi)BiTeO ₄ ·2H ₂ O; (CIM Sp. v.23, 182)
UM1976-10-E:AgAuHg	Dokl. Earth Sci. 227, 121		Ag ₁₀ Au ₅ Hg
UM1976-11-O:NbU	*Rev. Asoc. Geol. Argentina 31, 232	Am. Mineral. 63, 1284	Distinctive X-ray powder pattern and qualitative composition
UM1976-12-S:AgTe	Lithos 9, 253	Am. Mineral. 63, 424	(Ag ₄ TeS); mineral "B"; formula is identical to that of cervelleite but, unlike cervelleite, it is distinctly anisotropic
UM1976-13-S:AsCoCuFeNi	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 341	(Cu,Co,Fe,Ni) ₃₃ As ₈ S ₂₆
UM1976-14-S:BiCuPbSe	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	(Bi,Pb,Cu) ₄ (S,Se) ₅ ; distinct compositional similarities to nordströmite
UM1976-15-S:CuSe	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	Cu ₄ (S,Se) ₃ ; perhaps a Se-bearing spionkopite or Se-bearing geerite
UM1976-16-S:IrRhSb	CIM Bull. 69, 111-119	CIM Sp. Vol. 23, p.177	(Rh,Ir)SbS; see CIM Sp. Vol. 23, 180
UM1976-17-S:IrRhSb	CIM Bull. 69, 111-119	CIM Sp. Vol. 23, p.177	(Ir,Rh)SbS; (CIM Sp. Vol. 23, 190); possibly a Rh-bearing tolovkite
UM1976-18-S:RhRu	Econ. Geol. 71, 1399	Am. Mineral. 62, 598	(Rh,Ru)S; perhaps (Rh,Ru) ₁₇ S ₁₅ which is known synthetically and as the mineral miassite: Zap. Vser. Mineral. Ob. 130 (2001) (2), 41
UM1976-19-S:Ru	Econ. Geol. 71, 1399	CIM Sp. Vol. 23, p.177	Reported as close to RuS ₂ but empirical formula is closer to (Ru,Ir,Os,Rh,Pt) ₃ (S,As) ₄ ; see CIM Sp. Vol. 30, 180

UM1976-20-S:SbTI	Schweiz. Mineral. Petrog. Mitt. 56, 69	Nowacki <i>et al.</i> (1982), 689	TISb ₁₁ S ₁₇ ; amorphous
UM1976-21-SO:AlCuHNI	Am. Mineral. 61, 366		X-ray powder diffraction data are distinct from those of woodwardite & carboydite
UM1976-22-SO:AlFeH	*Dokl. Akad. Nauk SSSR 228, 185	Am. Mineral. 69, 1194	(Al,Fe) ₂ (SO ₄) ₃ ·1.2H ₂ O
UM1976-23-Sb:BiPdTe	Econ. Geol. 71, 1159		Pd(Sb,Te,Bi); could be a Te- & Bi-rich variety of sudburyite
UM1976-24-Se:BiPbS	Geol. Surv. Canada, Pap. 76-1, 311	Zap. Vses. Mineral. Ob. 107, 342	(Bi,Pb) ₁₉ (Se,S) ₁₆
UM1976-25-SiO:AlKNa	Mineral. Mag. 40, 721		(K,Na)AlSi ₅ O ₁₂ ; observed in a meteorite; might possibly be a glass
UM1976-26-SiOSO:AlCaCIHNa	*Soveshch. Molodykh Uchen. Mineral. Geokhim., Primorsk Otdel, Vses. Mineral. Ob., Na'nevost. Geol. Inst. Vladivostok, (1970), 81	Am. Mineral. 62, 596	Triclinic and pseudo-orthorhombic; the code is based on the reported dimorphic relationship with lazurite
UM1976-27-Sn:PdSb	*Trudy TsNIGRI 122, 107	Zap. Vses. Mineral. Ob. 107, 340	Pd ₂ (Sn,Sb); probably Sb-bearing paolovite; transferred to Invalid list
UM1976-28-Te:AgBiPb	*Geol. Rudn. Mest. (1976), 111	Am. Mineral. 62, 597	Mineral "B"; Ag _{0.15} Pb _{1.18} Bi _{1.88} Te ₄ ; might be Pb-rich rucklidgeite but stoichiometry is rather different
UM1976-29-Te:BiNi	Econ. Geol. 71, 1206	Am. Mineral. 62, 597	Ni ₅ (Te,Bi) ₈
UM1976-30-Te:BiPbS	*Geol. Rudn. Mest. (1976), 111	Am. Mineral. 62, 597	PbBi ₄ Te ₄ (S,Se) ₃ ; mineral "C"; described again later from several other localities
UM1976-31-Te:BiPdSb	Econ. Geol. 71, 1429	Am. Mineral. 62, 597	Pd ₅ (Bi,Sb) ₂ Te ₄ ; "Phase A"; little data but formula is distinctive
UM1976-32-Te:BiPdSb	Econ. Geol. 71, 1429	Am. Mineral. 62, 597	Pd ₅ (Te,Bi,Sb) ₂ ; "Phase B"
UM1976-33-Te:Pd	Econ. Geol. 71, 1429	CIM Sp. Vol. 23, p.177	PdTe ₂ ; "Phase C"; intergrown with Bi-bearing merenskyite (CIM Sp. Vol. 23, p.183)
UM1977-01-AsO:U	Aufschluss 28, 177		Mineral "D"; a U-arsenite; d-values reported but no quantitative compositional data
UM1977-02-CO:AlCaH	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Ca ₃ Al ₂ O ₆ ·3CaCO ₃ ·32H ₂ O
UM1977-03-COSiO:CaCIH	*C. R. Soc. Phys. Hist. Nat. Genève 12, 30	Am. Mineral. 64, 658	Ca ₁₀₋₁₁ (CO ₃) ₇ (SiO ₄)Cl ₁₋₂ (OH) ₁₋₂
UM1977-04-E:CuFeNiPtSb	Can. Mineral. 15, 380	CIM Sp. Vol. 23, 177	Pt ₁₀ Fe ₃ Ni ₃ Cu ₃ Sb; "Alloy 2"; X-ray powder diffraction pattern is said to be unique
UM1977-05-E:HgPb	*Z. Angew. Geol. 23, 535	Am. Mineral. 64, 652	Hg _{0.8} Pb _{0.2} ; deposited from natural gas and could be considered anthropogenic
UM1977-06-E:IrOsPtRu	Can. Mineral. 15, 59	CIM Sp. Vol. 23, 177	(Ir,Os,Ru,Pt,Rh); No X-ray powder diffraction pattern; (CIM Sp. Vol. 23, p.191)
UM1977-07-O:AlCaFeH	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Ca(Al,Fe) ₂ O ₄ ·nH ₂ O
UM1977-08-O:AlCaH	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Ca ₂ Al ₂ O ₅ ·nH ₂ O
UM1977-09-O:AlCaH	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Ca ₄ Al ₂ O ₇ ·nH ₂ O
UM1977-10-PO:CaCIKMg	Mineral. Mag. 41, 33		A phosphate with distinctive X-ray powder diffraction pattern
UM1977-11-S:CuFeKNI	Earth Planet. Sci. Lett. 35, 421		K ₆₋₉ CuFe ₁₉ Ni ₀₋₆ S ₂₈ ; perhaps related to djerfisherite
UM1977-12-S:PbPdSe	*Kovalenker (1977), 39	Zap. Vses. Mineral. Ob. 107, 342	PdPb(S,Se)
UM1977-13-SiO:AlBaCaH	*Dokl. Akad. Nauk SSSR 234, 1445	Am. Mineral. 70, 878	(Ca,Ba)Al ₂ Si ₃ O ₁₀ (OH) ₂ .6; described as the Ca-analogue of edingtonite
UM1977-14-SiO:CaH	*Geol. Surv. Israel Bull. 70, 1	Am. Mineral. 63, 425	Ca ₂ SiO ₄ ·H ₂ O
UM1978-01-E:AgAurOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ir,Au,Pt,Os,Ru,Ag); (CIM Sp. Vol. 23, 191); apparent Au-content possibly derived from surrounding envelope
UM1978-02-E:CuPbSn	*Grønlands Geol. Undersøgelse Bull. 127, 1	Am. Mineral. 66, 439	Close to Cu ₃ (Sn,Pb) ₂
UM1978-03-E:IrOsPt	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ir,Pt,Os); (CIM Sp. Vol. 23, 190); possibly related to UM1977-06-E:IrOsPtRu and/or UM1978-07-E:IrOsPtRu
UM1978-04-E:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ru,Pt,Ir,Os) alloy; (CIM Sp. Vol. 23, 180)
UM1978-05-E:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ru,Pt,Os,Ir) alloy; (CIM Sp. Vol. 23, 180)
UM1978-06-E:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ru,Os,Ir,Pt); (CIM Sp. Vol. 23, 190)
UM1978-07-E:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ir,Pt,Os,Ru); (CIM Sp. Vol. 23, 190); possibly related to UM1977-06-E:IrOsPtRu and/or UM1978-03-E:IrOsPt
UM1978-08-O:AlCaCrFeMgTi	Proc. 9th Lunar Planetary Sci. Conf. 1, 1331	Am. Mineral. 65, 812	(Ti ³⁺ ,Cr,Al,Ca,Mg,Fe)(Ti) ₂ ·3O ₇
UM1978-09-O:CuHPbSbSi	Grønlands Geol. Undersøgelse Bull. 126, 1		(Sb,Cu) ₂ (Pb,Fe,Ca)(Si) _{0.4} (O,OH,H ₂ O) _{9.6} ; similarities to bindheimite and monimolite
UM1978-10-O:U	*Erzmetall 31, 13	Am. Mineral. 63, 1284	U ₃ O ₇ , equivalent to synthetic alpha-U ₃ O ₇
UM1978-11-S:AgBiCuTe	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Ag ₃ CuBiTe ₂ S ₂
UM1978-12-S:AgBiCuTe	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	(Ag,Cu,Bi) ₆ Te ₂ S
UM1978-13-S:BiTe	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Bi ₃ Te ₂ S ₂
UM1978-14-S:CuFePtRh	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Rh,Cu,Pt,Fe) ₂ S ₂ ; (CIM Sp. Vol. 23, 181)
UM1978-15-S:IrOsPtRhRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ru,Ir,Rh,Os,Pt) ₃ S ₂ ; (CIM Sp. Vol. 23, 180)
UM1978-16-S:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ir,Pt,Os,Ru) ₂ S ₂ ; (CIM Sp. Vol. 23, 191); possibly related to UM1973-20-S:IrOs
UM1978-17-S:IrOsPtRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Pt,Os,Ru,Ir) ₂ S ₃ ; (CIM Sp. Vol. 23, 193)
UM1978-18-S:IrOsRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ru,Ir,Os) ₅ S ₈ ; (CIM Sp. Vol. 23, 180)
UM1978-19-S:IrOsRu	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Ir,Os,Ru) ₃ S ₂ ; (CIM Sp. Vol. 23, 191)
UM1978-20-S:PtRh	Can. Mineral. 16, 641	CIM Sp. Vol. 30, 175	(Rh,Pt,Fe,Ir) _{14.83} S _{17.17} ; (CIM Sp. Vol. 23, 180); possibly related to UM1976-18-S:RhRu
UM1978-21-Sb:Pd	Am. Mineral. 63, 1166	CIM Sp. Vol. 30, 175	PdSb ₂ ; (CIM Sp. Vol. 23, 183)
UM1978-22-SiO:FeHMg	Am. Mineral. 63, 1000		(Mg,Fe) ₁₇ Si ₂₀ O ₅₄ (OH) ₆ ; a polymorph of chesterite
UM1978-23-Te:Ag	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Ag ₁₀ Te ₃ ; formula given in secondary reference is in error
UM1978-24-Te:Bi	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Bi ₃ Te ₄
UM1978-25-Te:Bi	*Przeglad Geol. 26, 337	Am. Mineral. 64, 1332	Bi ₃ Te ₅
UM1979-01-AsO:CaCu	Aufschluss 30, 213	Am. Mineral. 65, 209	Cu,Ca-arsenate with minor Fe, Sb & Zn and distinctive d-values
UM1979-02-AsO:CuFe	Aufschluss 30, 213	Am. Mineral. 65, 209	Cu,Fe-arsenate with minor Ca & Sb and distinctive d-values
UM1979-03-AsO:Fe	Aufschluss 30, 213	Am. Mineral. 65, 209	Orthorhombic Fe-arsenate with minor Cu and distinctive d-values
UM1979-04-AsO:Fe	Aufschluss 30, 213	Am. Mineral. 65, 209	Monoclinic Fe-arsenate with minor Cu & Al and distinctive d-values

UM1979-05-CO:AlCaHy	Mineral. Record 10, 99	Mineral. Record 21, 363	"UK32"; hydrous carbonate of Ca-Y-Al; transferred to Invalid list
UM1979-06-O:CaHmN	Nature 280, 137	Am. Mineral. 65, 812	Described as the Ca-analogue of birnessite and hence Ca ₂ Mn ₁₄ O ₂₇ ·9H ₂ O
UM1979-07-PO:CaFeHREESiTh	*Mineral. Polonica 10, 1	Am. Mineral. 67, 417	(Th,Fe ²⁺ ,Ca,Fe ³⁺ ,REE)(PO ₄ ,SiO ₄)(OH); mineral "U-1"; appears to be related to cheralite but with Th > Ca
UM1979-08-PO:CCaFeHREESiTh	*Mineral. Polonica 10, 1	Am. Mineral. 67, 417	(Th,Fe,Ca,REE)(PO ₄ ,SiO ₄ ,CO ₃)·0.5H ₂ O; mineral "U-2"; appears to be related to brockite but with Th > Ca
UM1979-09-PO:FeH	*Mineral. Polonica 10, 1	Am. Mineral. 67, 417	Mineral "U-4"; X-ray diffraction pattern similar to that of synthetic Fe ²⁺ ₃ (H ₂ O)(PO ₄) ₂ ; Am. Mineral. 60, 454
UM1979-10-PO:FeHREETH	*Mineral. Polonica 10, 1	Am. Mineral. 67, 417	(Fe ²⁺ _{1-x} ,Th _{1-x} ,REE,Fe ³⁺) ₂ x(PO ₄) ₂ ·1-3H ₂ O; mineral "U-3"; perhaps related to ningyoite with Fe replacing Ca and Th replacing U
UM1979-11-S:AgAsAuSe	*New Zealand J. Geol. Geophys. 22, 339	Am. Mineral. 67, 416	Empirical formula: ~(Ag,Au) ₇ (S,Se,As) ₅
UM1979-12-S:AgAsAuSe	*New Zealand J. Geol. Geophys. 22, 339	Am. Mineral. 67, 416	Empirical formula: ~(Ag,Au) ₇ (S,Se,As) ₆
UM1979-13-S:AgAsAuSe	*New Zealand J. Geol. Geophys. 22, 339	Am. Mineral. 67, 416	Empirical formula close to (Ag,Au) ₇ (S,Se,As) ₆
UM1979-14-S:AgPbSb	Am. Mineral. 64, 432		Ag ₂ Pb ₁₈ Sb ₁₂ S ₃₇
UM1979-15-S:AgSbTe	*Medd. Grønland, Greenland Geoscience 2, 1	Am. Mineral. 66, 1280	Ag ₈ Sb(S,Te); mineral "C"; perhaps Te-bearing polybasite or benleonardite
UM1979-16-S:AsPbSb	*Dokl. Akad. Nauk SSSR 248, 447	Dokl. Earth Sci. 248, 131	Pb ₈ Sb ₆ As ₈ S ₂₉ ; mineral "X"
UM1979-17-S:BiCuFe	*Godishnik. Vissk. Minno-Geol. Inst. Sofia 26, 143	Am. Mineral. 70, 879	Empirical formula: ~Cu ₁₈ Fe ₄ BiS ₁₆
UM1979-18-SO:CuHZn	Am. Mineral. 64, 446-448		(Zn,Cu) ₅ (SO ₄) ₂ (OH) ₆ ·6H ₂ O; the Zn-analogue of ktenasite
UM1979-19-Sb:Rh	CIM Sp. Vol.30, 175	Am. Mineral. 69, 411	RhSb
UM1979-20-SiO:AlCaFeHKMgMnNaTi	Mineral. Record 10, 99	Mineral. Record 21, 363	(Na,Ca,K) _{0.35-0.45} (Fe ²⁺ ,Mg,Al,Mn,Ti) _{3.10-3.23} (Si,Al) ₄ O _{10-n} H ₂ O;"UK29"; transferred to Invalid list
UM1979-21-SiO:AlHNaV	Clay Minerals 14, 241	Am. Mineral. 65, 1070	Described as a vanadium mineral of the montmorillonite group
UM1979-22-SiO:CeLaNd	Neues Jb. Mineral. Abh. 137, 42	Zap. Vses. Mineral. Ob. 111, 243	(Ce,La,Nd) ₂ Si ₆ O ₁₅
UM1980-01-E:CuZn	*Soobshch. Akad. Nauk Gruz. SSR 97, 133	Am. Mineral. 66, 639	Cu ₃ Zn
UM1980-02-E:CuZn	*Soobshch. Akad. Nauk Gruz. SSR 97, 133	Am. Mineral. 66, 639	Cu _{4.45} Zn
UM1980-03-F:AlHO	Am. Mineral. 65, 1057		Al ₁₆ (F,OH) ₄₈ ·12-15H ₂ O
UM1980-04-PO:CaHREETH	Mineral. Polonica 11, 123	Am. Mineral. 68, 850	Ca _{1-x} ,Th _{1-x} ,REE ₂ x(PO ₄) ₂ ·2H ₂ O; Perhaps related to ningyoite and UM1979-10-PO:FeHREETH
UM1980-05-S:BiCuPb	11th IMA Sulfosalt Volume, 109	Am. Mineral. 70, 880	~Pb ₅ (Cu,Fe) ₁₅ Bi ₉ Sb ₃ S ₃₄ ; mineral "2"
UM1980-06-S:BiPb	11th IMA Sulfosalt Volume, 109	Am. Mineral. 70, 880	~Pb ₃ Bi ₄ S ₉ ; mineral "1"
UM1980-07-S:BiTe	11th IMA Sulfosalt Volume, 127	Am. Mineral. 70, 881	Bi ₃ Te _{2.27} So _{7.3} ; mineral "F"
UM1980-08-S:ClPbSb	11th IMA Sulfosalt Volume, 83	Am. Mineral. 70, 1333	Pb ₃ Sb ₈ S ₁₄ Cl _{4.5} ; "Phase A"
UM1980-09-S:ClPbSb	11th IMA Sulfosalt Volume, 83	Am. Mineral. 70, 1333	Pb ₇ Sb ₈ S ₁₆ Cl _{3.4} ; "Phase B"
UM1980-10-S:ClPbSb	11th IMA Sulfosalt Volume, 83	Am. Mineral. 70, 1333	Pb ₂ Sb ₂ S _{4.76} Cl _{0.31} ; "Phase C"
UM1980-11-S:CuIrPtRh	*Dokl. Akad. Nauk SSSR 252, 1452	Am. Mineral. 66, 1279	(Cu,Ir,Rh,Pt) ₃ S ₄ ; possibly related to cuproiridite
UM1980-12-S:CuZn	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. 1980 (2), 38	Zap. Vses. Mineral. Ob. 112, 704	(Zn _{0.75} Cu _{0.34} Fe _{0.02})S
UM1980-13-S:IrRh	*Dokl. Akad. Nauk SSSR 252, 1452	Am. Mineral. 66, 1279	Near Ir ₃ Rh ₃ S ₈ ; authors' proposed formula ((Ir _{1.54} Pt _{0.93} Rh _{1.41})S ₄) is at variance with their compositional data
UM1980-14-Sb:AsSn	*SoOb. Akad. Nauk Gruz. SSR 97, 133	Am. Mineral. 66, 639	Sn(Sb,As) ₄
UM1980-15-SiO:REETi	Earth Planet Sci. Lett. 48, 97	Am. Mineral. 70, 879	(REE,Ca)(Ti,Fe)SiO ₅ ; a REE-analogue of titanite
UM1980-16-Te:Bi	*Zap. Vses. Mineral. Ob. 109, 230	Am. Mineral. 66, 439	Significant deviations from proposed formula Bi ₂ Te; many similarities to hedleyite
UM1980-17-TeO:CuPb	*Dokl. Akad. Nauk SSSR 253, 1448	Am. Mineral. 66, 436	PbCu(TeO ₃)O
UM1980-18-VO:Cu	Am. Mineral. 65, 1146		Cu ₄ V ₂ O ₉ ; known synthetically
UM-1980-19-SiO:FeHNaTi	Khomyakov (1980)	Khomyakov (1995)	H ₃ Na ₃ (Fe, Ti)Si ₆ O ₁₈ ; probably the Fe-analogue of tinalite
UM1981-01-AsTe:Ru	*Izv. Akad. Nauk SSSR, Ser. Geol. 1981, (2), 103	Zap. Vses. Mineral. Ob. 112, 704	RuAsTe
UM1981-02-Bi:AsPbPd	CIM Sp. Vol. 23, 175	Am. Mineral. 69, 409	~(Pd,Pb,Pt) ₃ (Bi,As,Te); listed in CIM Sp. Vol. 23, 187 as un1979-3 but unpublished at that time
UM1981-03-Cl:BiPd	*Zap. Vses. Mineral. Ob. 110, 86	Am. Mineral. 66, 1279	Pd ₄ Bi ₅ Cl ₃
UM1981-04-E:AgAuHg	Neues Jb. Mineral. Abh. 141, 217	Am. Mineral. 68, 473	~Ag ₆ 1Au ₂₅ Hg ₁₄
UM1981-05-E:CrFe	*Dokl. Akad. Nauk SSSR 256, 958	Zap. Vses. Mineral. Ob. 112, 704	Cr ₂ Fe
UM1981-06-E:CrFeNiSi	*Dokl. Akad. Nauk SSSR 256, 958	Zap. Vses. Mineral. Ob. 112, 704	Fe ₃ (Cr,Ni,Si)
UM1981-07-E:FeIrNiOsRu	Mineral. Mag. 44, 225	Mineral. Petrol. 60, 185	(Ni,Ru,Fe,Os,Ir)
UM1981-08-E:FeIrPtRhRu	Bull. Minéral. 104, 508	Am. Mineral. 67, 1079	Low analytical totals (~70%) suggest oxygen is probably present
UM1981-09-S:AsPbSb	*Zap. Vses. Mineral. Ob. 110, 480	Bull. Geol. Soc. Finland 55, 3	Pb ₂ Sb ₂₀ As ₈ S ₁₉ ; mineral "Y"
UM1981-10-S:AsPbSb	*Zap. Vses. Mineral. Ob. 110, 480	Bull. Geol. Soc. Finland 55, 3	PbSb ₆ As ₂ S ₆ ; mineral "Z"
UM1981-11-S:BiPb	*Akad. Nauk SSSR, Inst. Geol, Yakut Filial, Sibirsk Otdel (1981) 5	Am. Mineral. 68, 1041	Compositionally indistinguishable from UM1980-08-S:BiPb but there are discrepancies in powder diffraction data
UM1981-12-S:CoFe	*Ann. Geol. des Pays Héliéniques 32, 534	Am. Mineral. 70, 218	Close to (Co,Fe) ₄ S ₃ but empirical formula reported is incorrect
UM1981-13-S:CoFeNiRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1080	(Fe,Ni,Rh,Co) ₉ S ₈ ; perhaps simply Ni- and Rh-rich pentlandite

UM1981-14-S:CuFeIrNiRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1081	(Fe,Ni,Ir,Rh,Cu,Pt,Co) _{1.06} S _{0.94} ; cf. UM1981-13-S:CuFeIrNiRh
UM1981-15-S:CuFeIrNiRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1080	(Rh,Fe,Ni,Cu,Ir) ₅ ; cf. UM1976-18-S:RhRu and miassite
UM1981-16-S:CuFeIrNiRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1080	(Fe,Rh,Ni,Cu,Ir) ₅
UM1981-17-S:CuIrPtRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1080	Pt(Rh,Ir)CuS ₄
UM1981-18-S:CuSn	Mineral. Zhurn. 3 (5), 79	Zap. Vses. Mineral. Ob. 112, 704	Cu ₆ CuSn ₂ S ₈ ; Cu-analogue of chatkalite
UM1981-19-S:CuSnZn	Mineral. Zhurn. 3 (5), 79	Zap. Vses. Mineral. Ob. 112, 704	Cu ₆ ZnSn ₂ S ₈ ; Zn-analogue of chatkalite
UM1981-20-S:NiSbSnTe	Econ. Geol. 76, 1686	Am. Mineral. 67, 1079	Approximately (Ni,Cu) ₄ (Sn,Te,Sb) ₅
UM1981-21-Se:BiCuPb	Can. Mineral. 19, 341	Am. Mineral. 71, 847	Bi ₉ Cu ₄ Pb ₂ Se ₁₈ ; mineral "A"
UM1981-22-Se:BiTe	Can. Mineral. 19, 341	Am. Mineral. 71, 847	Bi ₂ Se ₂ Te; mineral "B"
UM1981-23-Si:Mg	*Zap. Vses. Mineral. Ob. 110, 186	Am. Mineral. 67, 416	Mg ₂ Si; some concern about the possibility of sample contamination
UM1981-24-SiO:CaU	*Bulgarski Akad. Nauk, Sofia, Dokl. 34, 1693	Am. Mineral. 68, 1040	~(Ca,K,Ba)U ₈ Si ₂ O ₂₁ ; "Group #1"
UM1981-25-SiO:CaU	*Bulgarski Akad. Nauk, Sofia, Dokl. 34, 1693	Am. Mineral. 68, 1040	~(Ca,Mg,K,Ba)U ₇ Si ₄ O ₂₁ ; "Group #2"
UM1981-26-SiO:CaU	*Bulgarski Akad. Nauk, Sofia, Dokl. 34, 1693	Am. Mineral. 68, 1040	~(Ca,K,Mg)U ₃ Si ₁₁ O ₂₉ ; "Group #5"
UM1981-27-SiO:HU	Am. Mineral. 66, 610		Qualitative chemistry, X-ray powder diffraction pattern.
UM1981-28-SiOCaU	*Bulgarski Akad. Nauk, Sofia, Dokl. 34, 1693	Am. Mineral. 68, 1040	~(Ca,K,Ba)U ₅ Si ₁₁ O ₃₃ ; "Group #4"
UM1981-29-Te:BiRh	Bull. Minéral. 104, 508	Am. Mineral. 67, 1079	Rh(Te,Bi) ₂ ; may be related to synthetic alpha-RhTe ₂ or synthetic RhTeBi
UM1981-30-Te:BiSe	Can. Mineral. 19, 341	Am. Mineral. 71, 847	Bi ₄ Se ₃ Te ₃ ; mineral "C"
UM1981-31-Te:Pd	CIM Sp. Vol. 23, 175	Am. Mineral. 69, 410	Pd ₈ Te ₃ ; (CIM Sp. Vol. 23, 188)
UM1982-01-As:CuPd	Econ. Geol. 77, 1511	Am. Mineral. 69, 409	(Pd,Cu) ₇ As ₂ ; similarities to UM1974-01-As:PdSb
UM1982-02-AsO:CuNiPd	Econ. Geol. 77, 1511	Am. Mineral. 69, 409	Possible formula: (Pd,Cu,Ni) ₁₈ AsO ₄ 4H ₂ O
UM1982-03-AsO:HMnZn	Am. Mineral. 67, 1043		(Mn,Zn) ₅ AsO ₄ (OH) ₇ •2H ₂ O
UM1982-04-AsO:HMnZn	Am. Mineral. 67, 1043		(Mn,Zn) ₃ Zn ₂ AsO ₄ (OH,O) ₆ ; duplicate entry; transferred to Invalid list
UM1982-05-Bi:PdTe	Econ. Geol. 77, 1511	Am. Mineral. 69, 1195	Pd ₇ (Bi,Te) ₈ ; suggested stoichiometry not reported in phase equilibrium studies of Pd-Bi-Te system
UM1982-06-C:Si	Dokl. Akad. Nauk SSSR 262, 204	Dokl. Earth Sci. 262, 163	Reported with powder data as β-SiC but composition ~ Si ₃ C ₄ ; may be same mineral reported in Geol. Soc. Am. Bull. 69, 1633 (Conf. Abst.)
UM1982-07-OH:FeSn	*Marshukova, 1982, 189	Zap. Vses. Mineral. Ob. 114, 485	FeSnO(OH) ₅ ; closely related to natanite
UM1982-08-PO:FeHMn	Schweiz. Mineral. Petrog. Mitt. 62, 343	Am. Mineral. 69, 213	Approximate formula assuming water by difference: FeMnPO ₅ •2H ₂ O; similarities to UM1949-01-PO:Fe
UM1982-09-S:AsCoFeNi	*Vokes & Strand (1982), 118	Am. Mineral. 69, 213	(Co,Ni,Fe,Cu) ₂ As ₂
UM1982-10-S:AsSbTI	Nowacki <i>et al.</i> (1982), 689		Tl(Sb,As) ₇ S ₁₁ ; compositionally very similar to chabournéite
UM1982-11-S:CuFeSb	Neues Jb. Mineral. Mh. (1982), 201	Am. Mineral. 68, 850	Cu ₆ FeSb ₄ S ₁₃ ; possible a tetrahedrite-like mineral with Cu & Fe ordered 1:1
UM1982-12-S:CuFeSn	*Dokl. Akad. Nauk SSSR 264, 182	Am. Mineral. 69, 814	Cu ₃ FeSnS ₅
UM1982-13-S:MoPb	Can. Mineral. 20, 281	Am. Mineral. 68, 473	~(Pb,Bi,W,Fe) ₂ MoS ₂
UM1982-14-Si:CrFeTi	*Izv. Akad. Nauk Kirgiz SSR 5, 25	Am. Mineral. 69, 214	(Cr,Fe,Ti) ₃ Si
UM1982-15-SiO:AlBaH	Mineral. Mag. 46, 365	Am. Mineral. 68, 642	Probably related to known synthetic zeolite (Am. Mineral. 49, 656)
UM1982-16-SiO:AlCaFeTi	Bull. Minéral. 105, 364	Am. Mineral. 68, 1040	Compositional similarities to schorlomite
UM1982-17-SiO:CaTiU	*Bulgarski Akad. Nauk, Sofia, Dokl. 35, 203	Am. Mineral. 68, 1041	~CaU ₁₀ Si ₁₀ Ti ₅ O ₅₁
UM1982-18-SiO:ThTiU	*Bulgarski Akad. Nauk, Sofia, Dokl. 35, 203	Am. Mineral. 68, 1041	Empirical formula: ~(U,Th) ₄ Ti ₇ Si ₄ O ₃₀ ;
UM1982-19-SiO:TiU	*Bulgarski Akad. Nauk, Sofia, Dokl. 35, 203	Am. Mineral. 68, 1041	Empirical formula: ~U ₂ Ti ₄ SiO ₁₄ ; compositional similarities to orthobrannerite
UM1982-20-Te:AgAuFePb	*Novye Dannye Mineral. 30, 140	Am. Mineral. 70, 879	(Au,Ag)Fe ₂ (Te,Pb) ₄ ; mineral "1"
UM1982-21-Te:AuCuFePb	*Novye Dannye Mineral. 30, 140	Am. Mineral. 70, 879	Au(Fe,Cu)(Te,Pb); mineral "12"
UM1982-22-Te:AuCuFePb	*Novye Dannye Mineral. 30, 140	Am. Mineral. 70, 879	Au ₃ (Fe,Cu)(Te,Pb); mineral "2"
UM1982-23-Te:AuCuPb	*Novye Dannye Mineral. 30, 140	Am. Mineral. 70, 879	Au ₅ Cu ₃ (Te,Pb); mineral "8"
UM1982-24-Te:AuCuPb	*Novye Dannye Mineral. 30, 140	Am. Mineral. 70, 879	Au ₅ Cu(Te,Pb) ₂ ; mineral "5"
UM1982-25-Te:BiPd	Econ. Geol. 77, 1511	Am. Mineral. 69, 1195	Pd ₇ (Te,Bi) ₈ ; suggested stoichiometry not reported in phase equilibrium studies of the Pd-Bi-Te system
UM1982-26-Te:BiSSe	*Tikho-oceaniskaya Geol. 5, 113	Am. Mineral. 70, 878	Bi ₁₃ (Te,S,Se) ₈
UM1983-01-As:AgCu	*Z. Angew. Geol. 29, 86	Am. Mineral. 72, 227	(Cu,Ag) ₂ As
UM1983-02-As:Cu	Tscherm. Mineral. Petrog. Mitt. 32, 111	Am. Mineral. 70, 219	Cu ₂ As; mineral "x"
UM1983-03-As:NiRh	*Zap. Vses. Mineral. Ob. 112, 554	Am. Mineral. 69, 1195	RhNiAs
UM1983-04-BO:FeMgMnSb	Geol. Fören. Förh. 105, 335	Am. Mineral. 71, 231	(Mg,Mn) ₂ (Mn ³⁺ ,Sb ³⁺ ,Fe ³⁺)(BO ₃)O ₂ ; possibly Sb-bearing orthopinakiolite
UM1983-05-E:CoFe	*J. Japan. Assoc. Mineral. Petrol. Econ. Geol. 78, 467	Am. Mineral. 70, 879	Fe ₂ Co; distinct from wairauite
UM1983-06-GeO:AlCFeHKS	Tscherm. Mineral. Petrog. Mitt. 31, 97	Am. Mineral. 69, 568	K(Fe,Al) ₃ Al(Ge,Si,Al) ₃ O ₁₀ (Cl,OH) ₂ ; Ge-analogue of biotite
UM1983-07-O:FeNaTi	Neues Jb. Mineral. Mh. (1983), 375	Am. Mineral. 69, 1194	Na ₂ FeTi ₇ O ₁₆ ; probably the Fe-analogue of freudenbergite
UM1983-08-PO:BaCCaHREeTh	J. Less Common Metals 93, 433	Am. Mineral. 70, 439	(Ca,Ba,Th,REE)(PO ₄ ,CO ₃)•H ₂ O
UM1983-09-S:BiPbTe	*Istanbul Earth Sci. Rev. 3, 53	Am. Mineral. 70, 219	Pb _{1.22} Bi _{3.22} S _{2.22} Te _{1.00}
UM1983-10-S:BiSe	*Uzbek Geol. Zhurn. #6, 82	Am. Mineral. 70, 878	Bi ₂ Se ₃ ; "Phase III"
UM1983-11-S:BiSeTe	*Uzbek Geol. Zhurn. #6, 82	Am. Mineral. 70, 878	~Bi ₄ Te ₃ (S,Se) ₂ ; "Phase I"
UM1983-12-S:CuFe	*Mineral. Rudn. Mest. (1983), 109	Am. Mineral. 75, 435	Close to Cu ₂ FeS ₃ (not the reported Cu ₂ Fe ₃ S ₃)
UM1983-13-S:CuPd	Zap. Vses. Mineral. Ob. 112, 3	Zap. Vses. Mineral. Ob. 114, 485	Pd ₄ CuS ₂

UM1983-14-S:IrNi	Zap. Vses. Mineral. Ob. 112, 3		Ir ₂ Ni ₄ S ₇
UM1983-15-S:MoPb	*Dokl. Akad. Nauk Uzbek SSSR #12, 30	Am. Mineral. 70, 879	Mo _{0.791} Pb _{0.132} Fe _{0.073} Sb _{0.02} S _{2.000}
UM1983-16-SO:CaHNa	*Kali u. Steinsalz, 8, 374	Am. Mineral. 70, 439	Na ₂ Ca ₂ (SO ₄) ₃ ·3H ₂ O; perhaps related structurally to eugsterite & hydroglauberite
UM1983-17-Se:CuPb	*Novye Dannye Mineral. 31, 140	Am. Mineral. 70, 219	PbCuSe
UM1983-18-SiO:AlFeHMg	Mineral. Mag. 47, 238	Am. Mineral. 69, 1195	~(Mg,Fe)Al ₄ Si ₄ O ₁₂ (OH) ₈ ; compositional similarities to magnesiocarpholite
UM1983-19-SiO:AlH	Econ. Geol. 78, 422	Am. Mineral. 69, 213	(Al ₂ O ₃) _{2-4.5} (SiO ₂) ₃₋₅ (H ₂ O) _{0-1.5} ; mineral "2"; composition very variable
UM1983-20-SiO:AlH	Econ. Geol. 78, 422	Am. Mineral. 69, 213	Al ₂ Si ₂ O ₇ ·4H ₂ O; mineral "1"; composition very similar to kaolinite, endellite, etc.
UM1983-21-SiO:AlH	Econ. Geol. 78, 422	Am. Mineral. 69, 213	(Al) _{1.25-2} (Si) _{1-1.205} O _{0-0.3} (H ₂ O); mineral "3"; composition very variable
UM1983-22-SiO:BaCFeGaGe	Tscherm. Mineral. Petrog. Mitt. 31, 97	Am. Mineral. 69, 568	BaFe ₃ Ga(Si,Ge)O ₄ (Si ₂ O ₇)Cl
UM1983-23-SiO:BaFeHMnTi	Southeastern Geol. 24, 13	Am. Mineral. 69, 409	(Ba,Ca,K,Na) ₃ (Fe ²⁺ ,Mn) ₇ Ti ₂ Si ₈ O ₂₄ (O,OH) ₇
UM1983-24-SiO:CaNa	Neues Jb. Mineral. Mh. (1983), 49	Am. Mineral. 69, 214	Na ₂ Ca ₂ Si ₃ O ₉ ; a dimorph of combeite
UM1983-25-SiO:U	Geol. Balcanica 13 (4), 63	Zap. Vses. Mineral. Ob. 114, 486	U ₄ SiO ₁₀
UM1983-26-SiO:U	Geol. Balcanica 13 (4), 63	Zap. Vses. Mineral. Ob. 114, 486	U ₂ SiO ₆
UM1983-27-SiO:U	Geol. Balcanica 13 (4), 63	Zap. Vses. Mineral. Ob. 114, 486	USi ₂ O ₆
UM1983-28-SiO:U	Geol. Balcanica 13 (4), 63	Zap. Vses. Mineral. Ob. 114, 486	USi ₄ O ₁₀
UM1983-29-Te:BiSSe	*Uzbek Geol. Zhurnal #6, 82	Am. Mineral. 70, 878	Bi ₃ (Te,Se,S) ₂ ; "Phase II"
UM1983-30-AsO:FeHMgMnZn	Mineral. Mag. 47, 381	Am. Mineral. 69, 814	(Mn,Mg,Fe ³⁺ Al) ₁₅ (AsO ₃)(AsO ₄) ₂ (OH) ₂₃ ; said to be distinct from arakiite (Mineral. Record, 31 (2000), 253)
UM1984-01-As:AgAuCuNiPdS	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Ideally Pd ₅ (As,S) ₂ or Pd ₃ (As,S); similarities to UM1975-05-As:Pd
UM1984-02-As:AgNiPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	(Ni,Ag,Pd) ₂ As ₃
UM1984-03-As:Ni	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Ni ₃ As ₅
UM1984-04-As:NiPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	(Ni,Pd) ₃ As ₄
UM1984-05-As:Pd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₃ As ₅
UM1984-06-As:Pd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₂ As ₃
UM1984-07-As:Pd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₄ As ₃
UM1984-08-As:PdS	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₈ As ₂ S; possibly a sulphur-substituted stilwaterite
UM1984-09-AsO:ClHMn	Am. Mineral. 69, 800		Mn ₁₀ As ₆ O ₁₈ (OH)Cl; probably related to magnussonite
UM1984-10-AsS:CuPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₂ Cu ₂ As ₅ S ₇
UM1984-11-AsS:CuPd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₂ Cu ₂ As ₆ S ₅
UM1984-12-AsS:Pd	Chem. Erde 43, 27	Am. Mineral. 74, 1218	Pd ₈ As ₆ S ₃
UM1984-13-C:Cr	*Geol. Geofiz. (1984) (4), 38	Am. Mineral. 73, 442	Cr ₂ C
UM1984-14-CH:CINOV	*Austral. J. Chem. 37, 761	Am. Mineral. 70, 881	C ₃₃ H ₃₅ Cl ₃ N ₄ OV
UM1984-15-E:CrFeIrOsRu	Econ. Geol. 79, 491	Am. Mineral. 74, 1217	(Ru,Os,Ir) ₅ (Fe,Cr,Ni) ₆
UM1984-16-E:CrFeMnNi	*Geol. Geofiz. (1984) (4), 38	Am. Mineral. 73, 442	(Fe,Cr,Ni,Mn)
UM1984-17-E:FeIrOsPtRu	Econ. Geol. 79, 491	Am. Mineral. 74, 1217	(Os,Ir,Ru,Pt) ₂ Fe ₃
UM1984-18-E:FeNiPt	Econ. Geol. 79, 491	Am. Mineral. 74, 1217	(Fe,Ni) ₃ Pt; some Cr, Cu, Ir & Os may also be present; described again later from several other localities
UM1984-19-E:FeOs	Econ. Geol. 79, 491	Am. Mineral. 74, 1217	Os ₂ Fe ₃
UM1984-20-O:CrFeHTiV	Am. Mineral. 69, 388		(Fe ³⁺ ,Cr ³⁺ ,V ³⁺)Ti ₂ O ₆ ·nH ₂ O; perhaps related to pseudobrookite or crichtonite group
UM1984-21-PO:AsCu	*Dokl. Akad. Nauk SSSR 279, 197	Am. Mineral. 71, 847	Cu ₃ (PO ₄ ,AsO ₄) ₂ ; probably the phosphate-analogue of lammerite
UM1984-22-S:AsCuSbSn	*Izv. Akad. Nauk SSSR Ser. Geol. 5, 91	Am. Mineral. 70, 880	Cu(Sn,As,Sb) ₅
UM1984-23-S:BiCuPb	*Trudy Inst. Geol. Komi Filial, Akad. Nauk SSSR #45, 60	Am. Mineral. 70, 880	Pb ₃ Cu ₃ Bi ₆ S ₁₇
UM1984-24-S:BiCuPbSe	*Izv. Akad. Nauk SSSR Ser. Geol. 5, 91	Am. Mineral. 70, 880	PbCu ₇ Bi ₁₁ (S,Se) ₂₁
UM1984-25-S:BiCuSe	*Izv. Akad. Nauk SSSR Ser. Geol. 5, 91	Am. Mineral. 70, 880	Cu _{3+x} Bi _{5-x} (S,Se) ₉
UM1984-26-S:BiPb	*Trudy Inst. Geol. Komi Filial, Akad. Nauk SSSR #45, 60	Am. Mineral. 70, 880	Pb ₂ Bi ₃ S ₇
UM1984-27-S:CIPbSb	*Dokl. Akad. Nauk SSSR 277, 1464	Am. Mineral. 71, 1281	Pb ₂ Sb ₃ SnCl
UM1984-28-S:Cr	*Geol. Geofiz. (1984) (4), 38	Am. Mineral. 73, 442	CrS; transferred to Invalid list
UM1984-29-S:CuFePbSb	*Rend. Soc. Ital. Mineral. Petrol. 39, 657	Am. Mineral. 71, 231	Pb ₂ (Cu,Fe) ₄ (Sb,As) ₂ S ₉
UM1984-30-S:CuFeSn	*Zap. Vses. Mineral. Ob. 113, 443	Am. Mineral. 72, 227	Cu ₂ Fe ₂ Sn ₃ S ₇ ; stannite group
UM1984-31-S:CuFeSn	*Izv. Akad. Nauk SSSR Ser. Geol. 5, 91	Zap. Vses. Mineral. Ob. 115, 616	Cu ₈ Fe ₂ Sn ₃ S ₁₂
UM1984-32-S:CuPbSb	Can. Mineral. 22, 219		Pb ₂ CuSb ₃ S ₇ ; mineral "JC"
UM1984-33-S:PbSbTe	*Proc. Australasian Inst. Min. Metall. #289, 309	Am. Mineral. 71, 1281	~Pb ₅ (Sb,Te,As) ₃ S ₉
UM1984-34-Sb:AsCoNi	Neues Jb. Mineral. Mh. (1984), 145	Am. Mineral. 70, 439	(Co,Ni)(Sb,As) ₂ ; Co-analogue of nisbite and seinajokite
UM1984-35-SiO:AlCaFeKMg	*Dokl. Akad. Nauk SSSR 276, 1208	Am. Mineral. 71, 846	~(K,Na) ₂ Ca ₂ Mg ₂ (Fe,Mg) ₃ (Si,Al) ₁₂ O ₃₀ ; perhaps a member of the osumilite group
UM1984-36-SiO:CaNaZr	Geochim. Cosmochim. Acta 47, 1833	Am. Mineral. 70, 439	Empirical formula: ~(Zr,Na,Ca) ₃ Si ₆ O ₁₇
UM1984-37-SiO:CrMn	*Geol. Geofiz. (1984) (4), 38	Am. Mineral. 73, 445	Mn ²⁺ ₃ (Cr ³⁺ ,Mn ³⁺) ₂ Si ₃ O ₁₂ ; a garnet
UM1984-38-SiO:TiU	*Geokhim. Mineral. Petrol. (Bulgarian Acad. Sci.) 18, 43	Am. Mineral. 71, 1281	Possibly U ₃ Ti ₃ SiO ₁₄
UM1984-39-SiO:U	*Dokl. Belg. Akad. Nauk 37, 1359	Am. Mineral. 71, 1281	U ₃ SiO ₈
UM1984-40-Te:AgBi	Can. Mineral. 22, 13	Am. Mineral. 70, 439	Ag ₃ BiTe ₂
UM1984-41-Te:AuSb	Geol. Fören. Förh. 106, 245		AuSbTe

UM1985-01-Bi:PdSb	*Dokl. Akad. Nauk SSSR 284, 438	Am. Mineral. 72, 228	Pd2SbBi; intermediate between sudburyite and sobolevskite
UM1985-02-E:AlZn	*Zap. Vses. Mineral. Ob. 114, 90	Am. Mineral. 71, 1278	(Zn,Cu)Al2
UM1985-03-E:AlZn	*Zap. Vses. Mineral. Ob. 114, 90	Am. Mineral. 71, 1278	(Zn,Cu)2Al
UM1985-04-E:CuNiSn	*Dokl. Akad. Nauk SSSR 285, 203	Am. Mineral. 72, 227	~Cu2Ni2Sn3
UM1985-05-E:CuSn	*Dokl. Akad. Nauk SSSR 285, 203	Am. Mineral. 72, 227	(Cu,Pb)5Sn2
UM1985-06-O:CrFeMgTi	*Contr. Mineral. Petrol. 91, 245	Am. Mineral. 73, 444	(Fe ²⁺ ,Mg,Ti,Cr)6O7; mineral "H"; perhaps a wüstite-type compound
UM1985-07-OH:AlCuSZn	Mineral. Mag. 49, 583		Specimen "H858"; composition close to zincwoodwardite, but unit cell different
UM1985-08-OH:Fe	Mineral. Mag. 49, 139		Epsilon-FeOOH
UM1985-09-PO:CaFeHMn	Can. Mineral. 23, 247		(Mn,Fe ³⁺ ,Fe ²⁺ ,Mg,Ca,Na)7Ca2(PO4)6
UM1985-10-S:AgBiPb	*Izv. Akad. Nauk SSSR, Ser. Geol. (1985), 65	Am. Mineral. 73, 443	PbAg4Bi4S9
UM1985-11-S:AgBiPb	*Izv. Akad. Nauk SSSR, Ser. Geol. (1985), 65	Am. Mineral. 73, 443	PbAg4Bi6S12
UM1985-12-S:AgBiPb	*Izv. Akad. Nauk SSSR, Ser. Geol. (1985), 65	Am. Mineral. 73, 443	PbAg12Bi12S25; compositionally very similar to matildite
UM1985-13-S:AgCu	Austral. J. Earth Sci. 32, 311		Ag6Cu3S4; no data
UM1985-14-S:AgCuFe	*Ann. Soc. Geolog. Pol. 53, 143	Am. Mineral. 73, 443	Cu(Fe,Ag)S2
UM1985-15-S:AgCuFe	*Ann. Soc. Geolog. Pol. 53, 143	Am. Mineral. 73, 443	(Fe,Cu)Cu2(Ag,Cu)3S4
UM1985-16-S:AgCuFe	*Ann. Soc. Geolog. Pol. 53, 143	Am. Mineral. 73, 443	FeCu3Ag6S7
UM1985-17-S:AgCuFe	*Ann. Soc. Geolog. Pol. 53, 143	Am. Mineral. 73, 443	Cu5.28Fe0.55Ag1.17S4
UM1985-18-S:AgCuFe	*Ann. Soc. Geolog. Pol. 53, 143	Am. Mineral. 73, 443	FeCu2(Ag,Cu)2S5
UM1985-19-S:AgHg	Austral. J. Earth Sci. 32, 311		Ag4HgS2; no data
UM1985-20-S:AsCuSbSeTe	*Dokl. Akad. Nauk SSSR 280, 476	Am. Mineral. 71, 847	Cu ¹⁺ 10Cu ²⁺ 2(Te,As,Sb)4(S,Se)13; possibly Se-bearing goldfieldite
UM1985-21-S:ClCuPb	Austral. J. Earth Sci. 32, 311		(Cu,Pb)2S2Cl2; no data
UM1985-22-S:ClCuPb	Austral. J. Earth Sci. 32, 311		(Pb,Cu)2S2Cl2; no data
UM1985-23-S:CuFeInZn	Bull. Minéral. 108, 245	Am. Mineral. 71, 846	(Zn,Fe)2Cu3In3S8
UM1985-24-SO:HU	*Thermochimica Acta 86, 383	Am. Mineral. 73, 1498	U10(SO3)O30·25H2O
UM1985-25-SiO:AlCaMgPb	Mineral. Mag. 49, 579		Perhaps Pb7(Ca,Mg)Al3Si5O22(OH)
UM1985-26-SiO:CaMgPbZn	Mineral. Mag. 49, 721		Pb2Zn5Ca4Mg2Si7O27
UM1985-27-SiO:FeU	*Dokl. Bolg. Akad. Nauk 38, 1171	Am. Mineral. 73, 933	Possible formula: U4FeSi3O15
UM1985-28-SiO:FeU	*Dokl. Bolg. Akad. Nauk 38, 1171	Am. Mineral. 73, 933	Possible formula: U5Fe2Si5O22
UM1985-29-SiO:FeU	*Dokl. Bolg. Akad. Nauk 38, 1171	Am. Mineral. 73, 933	Possible formula: U4FeSi4O21
UM1985-30-SiO:FeU	*Dokl. Bolg. Akad. Nauk 38, 1171	Am. Mineral. 73, 933	Possible formula: UFe6Si2O12·5H2O (assuming H2O present)
UM1985-31-TiO:AlCaFeMnSi	*Zap. Vses. Mineral. Ob. 114, 34	Am. Mineral. 71, 846	(Fe,Mn,Ca)3(Fe,Ti,Al)2(Ti,Si)3O12; interpreted as a titanate garnet
UM1986-01-As:AuPdTe	Neues Jb. Mineral. Mh. 1986, 423	Am. Mineral. 75, 711	~(Pd,Au)4(As,Te)
UM1986-02-As:PdSbSn	Proc. 13th Gen. Mtg. IMA, Varna, Bulgaria (1982), 165	Am. Mineral. 74, 1218	Pd11As2(Sb,Sn)2
UM1986-03-As:PdSn	Proc. 13th Gen. Mtg. IMA, Varna, Bulgaria (1982), 165	Am. Mineral. 74, 1218	Pd6SnAs
UM1986-04-As:PdTe	Neues Jb. Mineral. Mh. 1986, 423	Am. Mineral. 75, 711	Pd3As; may be the same as "guanglinter"
UM1986-05-AsO:HMn	Am. Mineral. 71, 1515		Mn3As2O4(OH)4; a polymorph or manganarsite
UM1986-06-AsO:HMn	Am. Mineral. 71, 1515		Mn3As2O4(OH)4; a polymorph or manganarsite
UM1986-07-Bi:PbPdPtRhTe	Lithos 19, 87	Am. Mineral. 72, 1027	Some compositional similarities to polarite
UM1986-08-C:W	*Kuangwu Xuebao 6, 349	Am. Mineral. 74, 948	WC
UM1986-09-CO:CaHNaSrY	Rocks & Minerals 61, 182	Mineral. Record 21, 363	Sr3NaCaY(CO3)6·3H2O; "UK37A"; dimorphous with donnayite-(Y)
UM1986-10-CO:ClHMgMnZn	Mineral. Record 17, 126	Am. Mineral. 72, 228	Mg5(Zn,Mn)3(CO3)2(OH,Cl)12·H2O
UM1986-11-CO:Zn	Mineral. Record 17, 126	Am. Mineral. 72, 228	X-ray powder diffraction pattern appears to be distinctive; probably a carbonate, possibly hydrated
UM1986-12-E:CuFeNiPt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	(Ni,Cu,Fe)3Pt
UM1986-13-E:CuFeNiPt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	(Cu,Fe,Ni)Pt
UM1986-14-E:CuFePt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	PtCu2Fe
UM1986-15-E:CuFePt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	Pt2CuFe
UM1986-16-E:CuFePt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	Cu2Pt3Fe
UM1986-17-E:CuPt	*Geol. Rudn. Mest. (1985) (5), 16	Am. Mineral. 74, 1217	PTCu3
UM1986-18-GaO:FeGeSnZn	*C. R. Acad. Sci. Paris, Ser. II, 303, 811	Am. Mineral. 73, 933	Fe4(Ga,Sn,Fe)4(Ga,Ge)6O20; sapphirine structure
UM1986-19-GeO:AlCaSi	*C. R. Acad. Sci. Paris, Ser. II, 303, 811	Am. Mineral. 73, 933	Ca3Al2(Ge,Si)3O12; garnet structure
UM1986-20-GeO:CaGa	*C. R. Acad. Sci. Paris, Ser. II, 303, 811	Am. Mineral. 73, 933	Ca3Ga2Ge3O12; garnet structure
UM1986-21-NbO:CaH	Rocks & Minerals 61, 182	Mineral. Record. 21, 363	CaNb4O11·12H2O; Mont St. Hilaire "UK56"
UM1986-22-O:BaCeFeKTiV	Neues Jb. Mineral. Mh. 1986, 376	Am. Mineral. 73, 932	(K,Ba)3(Fe,V,Ce)3Ti14O32; compositional similarities to priderite
UM1986-23-O:BaMnU	Mineral. Record 17, 126	Am. Mineral. 72, 228	X-ray powder diffraction pattern appears distinctive; probably an oxide or carbonate, possibly hydrated
UM1986-24-O:Cu	Mineral. Record 17, 126	Am. Mineral. 72, 228	X-ray powder pattern appears to be distinctive; Cu only detected cation; possibly hydroxide, oxalate or nitrate
UM1986-25-P:Ti	Science 234, 189	Am. Mineral. 73, 197	TiP
UM1986-26-PO:HMg	Neues Jb. Mineral. Mh. 1986, 343	Am. Mineral. 73, 444	The very low analytical total suggests H2O and/or CO2 are present
UM1986-27-S:AgBiCu	*Geol. Geofiz. (1986) (10), 60	Zap. Vses. Mineral. Ob. 117, 727	Ag1.3Cu1.7Bi10S16.8; some similarities to UM1971-05-S:AgBiCu
UM1986-28-S:AgBiCuPb	*Geol. Geofiz. (1986) (10), 60	Zap. Vses. Mineral. Ob. 117, 727	Ag1.7CuPb0.7Bi10S15.6; some similarities UM1971-05-S:AgBiCu

UM1986-29-S:AgBiCuPb	*Geol. Geofiz. (1986) (10), 60	Soviet Geol. Geophys. 27, 53	(Ag,Cu) _{2.07} Pb _{2.1} Bi ₁₀ S _{18.2} ; some similarities to makovickyite
UM1986-30-S:AgBiCuPb	*Acta Mineral. Sinica 6, 338	Am. Mineral. 75, 712	(Cu,Ag)Pb ₆ Bi ₇ S ₁₇
UM1986-31-S:AgBiCuPb	*Geol. Geofiz. (1986) (10), 60	Soviet Geol. Geophys. 27 (10), 53	Ag _{0.34} Cu _{0.2} Pb _{0.14} Bi ₂ S _{3.1} ; some similarities to UM1971-05-S:AgBiCu
UM1986-32-S:AgBiCuPb	*Geol. Geofiz. (1986) (10), 60	Soviet Geol. Geophys. 27 (10), 53	Ag _{1.5} Cu _{1.7} Pb _{0.3} Bi ₁₀ S _{16.1} ; some similarities to UM1971-08-S:AgBiCuPb
UM1986-33-S:AgBiCuPbSe	*Kovalenker (1986), 111	Am. Mineral. 74, 949	Approximate formula: (Cu,Ag) ₃ (Bi,Pb) ₇ (S,Se) ₁₂ ; perhaps the Cu-analogue of benjaminite; see also UM1969-06-S:AgBiCu
UM1986-34-S:AgCuPbSb	*Novye Dannye Mineral. 33, 140	Am. Mineral. 74, 950	"Mineral MK"; might be Ag- or Cu-bearing robinsonite
UM1986-35-S:AsBiPbSb	Bull. Minéral. 109, 649	Am. Mineral. 73, 932	(Pb,Ag) ₈ BiAs ₁₁ Sb ₁₁ S ₄₁
UM1986-36-S:AsCuFeGe	*Kovalenker et al. (1986), 91	Am. Mineral. 73, 444	Cu ₁₁ Fe ₄ GeAs ₁₆ ; apparently distinct from renierite
UM1986-37-S:AsCuFePdRh	Lithos 19, 87	Am. Mineral. 72, 1027	Some compositional similarities to cuprorhodsite
UM1986-38-S:AsPdPtRh	Lithos 19, 87	Am. Mineral. 72, 1027	Possibly Pd-bearing platarsite. No X-ray data
UM1986-39-S:AuBiPbTe	*Vest. Ústred. Ústavu Geol. 61, 217	Am. Mineral. 73, 932	~Au(Pb,Cu) ₂ (Bi,Sb,As,Se)Te ₂ S ₃ ; compositional similarities to buckhornite
UM1986-40-S:BiCuPb	*Geol. Geofiz. (1986) (10), 60	Soviet Geol. Geophys. 27 (10), 53	Close to Cu ₃ Pb ₄ Bi ₃ S ₃₆
UM1986-41-S:BiPbTe	*Geol. Geofiz. (1986) (10), 60	Soviet Geol. Geophys. 27 (10), 53	Close to (Pb,Cu,Fe) ₁₀ Bi ₈ (Te,Se) ₄ S ₁₁
UM1986-42-S:CuFe	Meteoritics 21, 23	Am. Mineral. 73, 932	Cu ₂ Fe ₃ S ₅ ; compositionally close to haycockite and isocubanite
UM1986-43-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₁₁ Fe ₂ Sn ₄ S ₁₆ ; mineral "III"
UM1986-44-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₅ Fe ₂ Sn ₂ S ₈ ; mineral "IV"
UM1986-45-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₁₀ Fe ₃ Sn ₃ S ₁₆ ; mineral "V"; similar composition to stannoidite and UM1982-12-S:CuFeSn but tetragonal (pseudocubic)
UM1986-46-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₁₃ Fe ₄ Sn ₃ S ₁₈ ; mineral "VII"; compositional similarities to mawsonite
UM1986-47-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₉ Fe ₂ Sn ₂ S ₁₂ ; compositional similarities to mawsonite
UM1986-48-S:CuFeSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₁₂ Fe ₃ Sn ₃ S ₁₆
UM1986-49-S:CuSn	*Geol. Rudn. Mest. 1986 (2) 67	Am. Mineral. 73, 443	Cu ₁₁ Sn ₅ S ₁₆ ; mineral "VI"
UM1986-50-S:PbTe	Zap. Vses. Mineral. Ob. 115, 459	Am. Mineral. 74, 949	Pb ₂ TeS
UM1986-51-S:Re	Can. Mineral. 24, 329		Re ₂ S ₃
UM1986-52-Sb:AsPd	Neues Jb. Mineral. Mh. 1986, 423	Am. Mineral. 75, 711	~Pd ₃ (Sb,As); close to isomertieite in composition and optics
UM1986-53-Sb:AsPdSn	Proc. 13th Gen. Mtg. IMA, Varna, Bulgaria (1982), 165	Am. Mineral. 74, 1218	Pd ₃ (Sb,Sn,As)
UM1986-54-Sb:PdSn	Proc. 13th Gen. Mtg. IMA, Varna, Bulgaria (1982), 165	Am. Mineral. 74, 1218	Pd ₆ SnSb ₂
UM1986-55-Sb:PdSn	Proc. 13th Gen. Mtg. IMA, Varna, Bulgaria (1982), 165	Am. Mineral. 74, 1218	Pd ₅ (Sb,Sn) ₂
UM1986-56-SbO:CuFeHSiSn	Mineral. Record 17, 383	Am. Mineral. 72, 1027	CuFeSn ₃ (Sb,Si)O ₇ (OH) ₇
UM1986-57-Si:Fe	Acta Mineral. Sinica 6, 63		Fe ₂ Si ₅
UM1986-58-Si:Fe	Acta Mineral. Sinica 6, 63		Fe ₂ Si ₅ ; essentially the same as luobusaite; transferred to Invalid list
UM1986-59-Si:FeTi	Science 234, 189	Am. Mineral. 73, 197	FeTiSi ₂
UM1986-60-SiO:AlGaFeHKMnNaTi	Rocks & Minerals 61, 182	Mineral. Record. 21, 363	(Na,K) ₂ (Mn,Fe,Ca,Ti,Al) ₃ (Si,Al) ₈ O ₂₀ *8H ₂ O; Mont St. Hilaire "UK38" Transferred to Invalid list
UM1986-61-SiO:BBBeCaHY	Rocks & Minerals 61, 182	Mineral. Record. 21, 363	Ca(Y) ₁₋₂ (Si,Be,B) ₄ (O,OH) ₁₀ *2H ₂ O; Mont St. Hilaire "UK48"
UM1986-62-SiO:CaHNaNbTiZn	Neues Jb. Mineral. Abh. 155, 289	Am. Mineral. 73, 933	~(Na,K,Ca,Zn,Fe) ₃ (Nb,Ti) ₆ Si ₂ O ₂₀ *6H ₂ O
UM1986-63-SiO:FeHKMnNa	Rocks & Minerals 61, 182	Mineral. Record. 21, 363	(K,Na) ₂ 5.4(Mn,Fe) _{3.5} 4Si ₈ O ₂₀ *4H ₂ O; Mont St. Hilaire "UK52"
UM1986-64-SiO:NbREETi	Zhang & Tao (1986)	Am. Mineral. 73, 1498	~(Nd,Ce,REE) ₆ Ti ₂₄ Nb ₄ Si ₁₂ O ₉₁
UM1986-65-Te:AgBi	Zap. Vses. Mineral. Ob. 115, 459	Am. Mineral. 74, 949	AgBi ₂ Te ₄
UM1986-66-Te:AsAuPd	Neues Jb. Mineral. Mh. 1986, 423	Am. Mineral. 75, 711	~(Pd,Au) ₈ (Te,As)
UM1986-67-Te:Pb	Zap. Vses. Mineral. Ob. 115, 459	Am. Mineral. 74, 949	Pb ₂ Te ₃
UM1986-68-Te:Pb	Zap. Vses. Mineral. Ob. 115, 459	Am. Mineral. 74, 949	PbTe ₂
UM1987-01-CO:HMgS	Mineral. Mag. 51, 459	Am. Mineral. 73, 1498	Mg ₄ (CO ₃) ₂ (OH) ₄ *6H ₂ O
UM1987-02-O:AlPTiZr	*Dokl. Akad. Nauk SSSR 296, 1458	Am. Mineral. 74, 950	(Al,Ti) ₃ Zr ₂ P ₂ TiO ₅
UM1987-03-O:FePbTiU	Schweiz. Mineral. Petrog. Mitt. 67, 93	Am. Mineral. 74, 1401	Crichtonite group - "REE-free davidite"
UM1987-04-O:Ti	Contr. Mineral. Petrol. 96, 35	Am. Mineral. 75, 1434	TiO _{1.71-1.83} ; perhaps related to Magnéli phases
UM1987-05-OH:AICMg	Clays Clay Minerals 35, 401		Mg ₄ Al ₂ (OH) ₁₂ (CO ₃ ,SO ₄)*3H ₂ O
UM1987-06-S:AgBiPb	*Dokl. Akad. Nauk SSSR 292, 1235	Am. Mineral. 73, 444	AgPbBi ₃ S ₃ ; similarities to matildite
UM1987-07-S:AgBiPb	*Dokl. Akad. Nauk SSSR 292, 1235	Am. Mineral. 73, 444	Ag ₂ Pb ₃ Bi ₂ S ₇
UM1987-08-S:AgBiPb	*Dokl. Akad. Nauk SSSR 292, 1235	Am. Mineral. 73, 444	Ag ₃ Pb ₇ Bi ₃ S ₁₃
UM1987-09-S:AgCu	Mineral. Zhurn. 9 (6), 5	Am. Mineral. 75, 435	~Cu ₉ Ag ₂ S ₁₀
UM1987-10-S:AgFe	Proc. Yorks. Geol. Soc. 46f, 133	Am. Mineral. 73, 1497	Ag ₂ Fe ₁₅ S ₂₀
UM1987-11-S:BiCuPbSb	*Izv. Akad. Nauk SSSR Ser. Geol. 1, 86	Am. Mineral. 73, 444	Pb ₅ Cu ₂ (Sb,Bi) ₁₅ S ₂₃ ; similarities to zinkenite
UM1987-12-SO:AlH	Neues Jb. Mineral. Mh. (1986), 171	Am. Mineral. 73, 932	Al ₃ (SO ₄) ₂ (OH) ₅ *9H ₂ O; compositionally similar to jurbanite & khademite but d-values distinctive
UM1987-13-SO:AlH	*Izv. Akad. Nauk Azerb. SSR Ser. Nauk Zemle (1987) 112	Am. Mineral. 75, 436	Identical powder diffraction pattern to that of Al ₂ (SO ₄) ₃ *12H ₂ O (ICDD 18-0061)
UM1987-14-SO:CIHZn	J. Geophys. Res. B, 92, 11373		Zn ₁₂ (SO ₄) ₃ Cl ₃ (OH) ₁₅ *5H ₂ O
UM1987-15-Se:AgSSb	Mineral. Zhurn. 9 (1), 25	Am. Mineral. 74, 950	AgSb(Se,S) ₂ ; the Se-analogue of miargyrite
UM1987-16-Se:BiPbTe	Can. Mineral. 25, 625	Am. Mineral. 74, 948	(Bi,Pb) ₂ (Se,Te,S) ₃
UM1987-17-Se:BiTe	Can. Mineral. 25, 625		Bi(Se,Te)
UM1987-18-SiO:AlCaHKNa	Mineral. Mag. 51, 231	Am. Mineral. 73, 1498	Perhaps a partially dehydrated K-analogue of laumontite

UM1987-19-SiO:FeHMgMnTi	Mineral. Mag. 51, 247	Am. Mineral. 73, 1498	(Mn ²⁺ , Fe ³⁺ , Fe ²⁺ , Ti, Mg) ₉ Si ₆ O ₂₀ (OH) ₅
UM1987-20-Te:AgAsS	*J. Miner. Slov. 19, 457	Zap. Vses. Mineral. Ob. 119 (5), 70	Ag(As,S)Te; only chemical formula given
UM1988-01-CO:BaMn	J. Mineral. Soc. Japan 18, 347	Am. Mineral. 76, 301	BaMn(CO ₃) ₂
UM1988-02-F:AlHO	Am. Mineral. 73, 855		AlF ₃ ·H ₂ O
UM1988-03-POSiO:AlFeHPbREESr	Ann. Acad. Bras. Cienc. 60 (1988), 223	Zap. Vses. Mineral. Ob. 119 (5), 71	(REE, Pb, Sr)(Al, Fe ³⁺) ₃ (P, Si) ₂ O ₇ (O, OH)(OH) ₅ ; appears to be related to florencite-(La) & plumbogummite
UM1988-04-SiOPO:CaFeHNaNbTi	*Zap. Vses. Mineral. Ob. 117, 696	Am. Mineral. 75, 936	(Na, Ca) ₅ (Ti, Fe ³⁺ , Nb) ₄ Si ₄ P ₂ O ₂₂ (OH) ₄
UM1988-05-S:AgBiCuHgPb	Can. Mineral. 26, 355		(Hg, Ag, Cu) ₅ Pb ₈ Bi ₁₁ S ₂₇ ; mineral "X"
UM1988-06-S:AgBiCuHgPb	Can. Mineral. 26, 355		(Hg, Ag, Cu) ₅ Pb ₂ Bi ₂ S ₅ ; mineral "Y"; close compositional similarities to UM1988-05-S:AgBiCuHgPb
UM1988-07-S:AgBiPbTe	*Rev. Roum. Geol. Geophys. Geogr., Ser. Geol. 32 (3), 8	Zap. Vses. Mineral. Ob. 119 (5), 71	PbBi ₃ .14Ag _{0.09} Te ₃ .89S ₂ .81
UM1988-08-S:AgCu	Mineral. Zhurn. 10 (1), 3	Am. Mineral. 75, 711	Ag _{1.42} Sn _{0.03} Cu _{3.54} S ₅ ; similarities to UM1987-09-S:AgCu
UM1988-09-S:AgCu	Mineral. Zhurn. 10 (1), 3	Am. Mineral. 75, 711	Ag _{2.03} Cu _{2.10} S _{2.99} As _{0.01}
UM1988-10-S:AgCu	Mineral. Zhurn. 10 (1), 3	Am. Mineral. 75, 711	Ag _{2.01} Cu _{4.24} S ₅
UM1988-11-S:AgPbTe	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982), (2), 13	Am. Mineral. 75, 1212	Ag ₄ PbTe ₂ S
UM1988-12-S:AgSn	Mineral. Zhurn. 10 (1), 3	Am. Mineral. 75, 711	Ag _{1.95} Sn _{0.90} S ₃
UM1988-13-S:Bi	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982), (2), 13	Am. Mineral. 75, 1212	Bi ₃ S ₅
UM1988-14-S:Bi	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982) (2), 13	Am. Mineral. 75, 1212	Bi ₃ S ₄
UM1988-15-S:BiPb	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982), (2), 13	Am. Mineral. 75, 1212	BiPb ₂ S ₂
UM1988-16-S:BiSeTe	*Novye Dannye Mineral. 35, 128	Am. Mineral. 77, 209	Bi ₃ Se ₂ TeS
UM1988-17-S:CuFe	*Dokl. Akad. Nauk SSSR 301, 1186	Am. Mineral. 75, 711	Cu _{6.78} Fe _{7.78} S _{15.72} As _{0.28} ; close to chalcopyrite composition
UM1988-18-S:CuFe	*Dokl. Akad. Nauk SSSR 301, 1186	Am. Mineral. 75, 711	Cu _{4.76} Fe _{9.00} S _{13.67} As _{0.33}
UM1988-19-S:CuFeNiPdRu	Can. Mineral. 26, 177	Am. Mineral. 74, 1216	Cu ₂ (Fe, Ru) ₂ (Ni, Pd) ₄ S ₇
UM1988-20-SO:FeH	Kexue Tongbao 33, 1783	Am. Mineral. 76, 670	Fe _{2.67} (SO ₄) ₂ ·14H ₂ O
UM1988-21-Se:AgBiHg	Mineral. Mag. 52, 719	Am. Mineral. 75, 710	(Ag, Bi, Hg) ₂ Se
UM1988-22-SiO:AlCaFFeHKLiMg	*Dokl. Akad. Nauk SSSR 303, 199	Am. Mineral. 76, 1730	Ideally KLiMgAl ₂ Si ₃ O ₁₀ F ₂ ; probably the Mg-analogue of zinnwaldite
UM1988-23-SiO:HKNbTi	*Izv. Vyssh. Uchebn. Zaved., Geologia i Razvedka (1988), 38	Am. Mineral. 75, 1213	K(Nb, Ti) ₃ Si(O, OH) ₁₀ ·1.5H ₂ O
UM1988-24-Te:AgBi	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982), (2), 13	Am. Mineral. 75, 1212	Ag ₈ Bi ₃ Te ₇
UM1988-25-Te:Bi	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1982), (2), 13	Am. Mineral. 75, 1212	Bi ₉ Te ₄
UM1988-26-SiO:AlMg	Phys. Chem. Mineral. 15, 548	Mineral. Mag. 72, 839	Mg ₄ Al ₂ O[Si ₃ Al ₂ O ₁₅]; unnamed Be-free analogue of surinamite
UM1989-01-AsS:CoFeNi	*Zap. Vses. Mineral. Ob. 118 (4), 64	Am. Mineral. 76, 670	(Ni, Fe, Co)AsS; apparently the Ni member of the arsenopyrite group
UM1989-02-AsTe:AgAuPb	Austral. Mineral. 4, 133	Am. Mineral. 76, 1436	Au ₃ (Ag, Pb)As ₂ Te ₃
UM1989-03-C:FeMnSi	*Dokl. Akad. Nauk SSSR 308, 699	Am. Mineral. 76, 669	(Mn, Fe) ₃ (C, Si)
UM1989-04-C:TiV	Can. Mineral. 27, 617	Am. Mineral. 75, 1434	(V, Ti)C; probably the V-analogue of khamrabaevite
UM1989-05-CiOH:FeMn	Can. Mineral. 27, 311		Possibly (Fe, Mn)(OH)Cl
UM1989-06-CO:AlHNa	Clay Minerals 24, 531		Na ₂ AlO ₂ (CO ₃) ₂ ·2.9H ₂ O; compositionally very similar to dawsonite
UM1989-07-CO:CaSr	*Dokl. Akad. Nauk SSSR 304, 1449	*Mineral. Zhurn. 13 (3), 70	(Sr _{0.5} Ca _{0.5})CO ₃ ; known experimentally
UM1989-08-E:CaSi	*Bol. Geol. Miner. 100 (3), 158	Zap. Vses. Mineral. Ob. 120 (4), 111	Approximately SiCa
UM1989-09-E:FeMnSi	*Dokl. Akad. Nauk SSSR 308, 699	Am. Mineral. 76, 669	alpha or beta Mn
UM1989-10-E:FeSiTi	*Bol. Geol. Miner. 100 (3), 158	Zap. Vses. Mineral. Ob. 120 (4), 111	Approximately Si ₅ Fe ₅ Ti ₄
UM1989-11-E:FeSiTi	*Bol. Geol. Miner. 100 (3), 158	Zap. Vses. Mineral. Ob. 120 (4), 111	~Si ₂ (Fe, Ti) ₃
UM1989-12-E:NiSn	Neues Jb. Mineral. Abh. 160, 193	Am. Mineral. 75, 434	(Ni, Cu, Fe) ₈ Sn ₅ ; Cu & Fe are minor constituents
UM1989-13-O:HMn	ICDD 42-1316		MnO ₂ ·nH ₂ O; isostructural and intergrown with ramsdellite
UM1989-14-OC:HMg	Mineral. Mag. 53, 505		Mg(C ₂ O ₄)·2H ₂ O; the alpha modification of glushinskite
UM1989-15-S:AgBiCuFePbSe	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1989) (3), 45	Am. Mineral. 76, 1733	Fe ₃ CuBi(Ag, Pb)(S, Se); mineral "B"; very poor analytical total
UM1989-16-S:AgClPbSb	Eur. J. Mineral. 1, 381	Am. Mineral. 75, 1435	Pb ₈ AgSb ₈ S ₂₀ Cl; mineral "C1"
UM1989-17-S:AgCuPd	*Dokl. Akad. Nauk SSSR 306, 430	Am. Mineral. 76, 1438	Pd ₂ (Cu, Ag) ₂ S ₃
UM1989-18-S:AgFeTe	Neues Jb. Mineral. Abh. 160, 299	Am. Mineral. 76, 670	Ag ₁₀ FeTe ₂ S ₄
UM1989-19-S:AsCuHgSbTiZn	*Geol. Surv. Canada Econ. Geol. Rept. 38	Am. Mineral. 75, 935	CuTiHg ₂ (Sb, As) ₂ S ₆ ; the Sb-analogue of routhierite
UM1989-20-S:AsPt	*Dokl. Akad. Nauk SSSR 306, 430	Am. Mineral. 76, 1438	PTAs ₂ S ₄
UM1989-21-S:BiCuFePbSe	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (1989) (3), 45	Am. Mineral. 76, 1733	(Cu, Fe, Pb, Bi)(S, Se); mineral "A"
UM1989-22-S:BiPb	*Dizhi Kexue, Yichang Dizhi Kuang. Yanj. Sokan, 161	ICDD 42-1403	Pb ₂ Bi ₃ S ₆ ; compositionally very similar to cannizzarite but with different d-values
UM1989-23-S:ClPbSb	Eur. J. Mineral. 1, 381	Am. Mineral. 75, 1435	Pb ₁₇ Sb ₁₈ S ₄₃ Cl ₂ ; mineral "C"

UM1989-24-S:CuFeZn	*Mining Geol. 39, 355	Am. Mineral. 80, 406.	(Zn,Fe,Cu)S; anisotropic; not sphalerite
UM1989-25-S:FeNi	Neues Jb. Mineral. Abh. 160, 46	Am. Mineral. 75, 434	Fe(Ni,Co)S ₂
UM1989-26-Sb:Pd	Mineral. Petrol. 40, 289	Am. Mineral. 76, 1438	Pd ₄ Sb
UM1989-27-Se:AgAsFeS	*Mineral. Zhurn. 11 (6), 3	Am. Mineral. 77, 210	Ag ₁₁ FeAs ₄ (Se,S) _{12.5}
UM1989-28-Se:AgBiCuS	*Mineral. Zhurn. 11 (6), 3	Am. Mineral. 77, 210	(Ag,Cu)Bi ₃ (Se,S) ₅
UM1989-29-Se:Te	*Mineral. Zhurn. 11 (6), 3	Am. Mineral. 77, 210	Te ₃ Se ₄
UM1989-30-SiO:AlBaCaFeHKMgMn	Mineral. Mag. 53, 85		(Ba,Ca)(Mn,Fe,Mg) ₂₂ (Si,Al) ₃₂ O ₇₆ (OH) ₁₆ ·12H ₂ O; the Ba-analogue of bannisterite
UM1989-31-SiO:AlCaCeHLaV	Can. Mineral 27, 565	Can. Mineral 40, 1411	Ca(La,Ce)V ³⁺ Al ₂ (Si ₂ O ₇)(SiO ₄)O(OH); later recognised as an unnamed end-member of the allanite subgroup
UM1989-32-SiO:AlCaFeHREE	Am. Mineral. 74, 750	Can. Mineral. 40, 1411	(Ca _{0.5} 0.5)(Ce,La,Nd)Fe ³⁺ Al ₂ (Si ₂ O ₇)(SiO ₄)O(OH); later recognised as an unnamed end-member of the allanite subgroup
UM1989-33-SiO:BaHMnTi	*Zap. Vses. Mineral. Ob. 118 (4), 81	Am. Mineral. 76, 1439	BaMn ₂ TiO ₅ Si ₂ O ₇ (OH) ₂ ; within the compositional range of hejtmanite but with different symmetry
UM1989-34-SiO:FeKMgMnNa	Bull. Geol. Surv. S. Africa 93, 1	ICDD 47-1841	(K,Na,Sr)(Na,Ca) _{1.3} (Mg,Na,Mn) ₂ (Mg,Fe,Al) ₃ (Si,Al) ₁₂ O ₃₀ ; mineral "X"; similarities to roedderite
UM1989-35-SiO:KTI	Dokl. Earth Sci. 309, 155	Am. Mineral. 77, 451	K ₂ TiSi ₃ O ₉
UM1990-01-As:CuPdPt	Mineral. Petrol. 42, 287	Am. Mineral. 76, 1439	(Pt,Pd) ₁₇ Cu ₈ As ₃
UM1990-02-As:FeIrNiOsRhRu	Can. Mineral. 28, 579	Am. Mineral. 76, 1437	(Ru,Os,Fe,Rh,Ir,Ni) ₃ As
UM1990-03-As:NiPdSb	Can. Mineral. 28, 489		(Pd _{1.35} Ni _{0.56})(As _{0.87} Sb _{0.13}); perhaps Ni-bearing palladoarsenide or Pd-bearing majakite
UM1990-04-As:PdPtSb	Mineral. Petrol. 42, 287		(Pd _{2.37} Pt _{0.61})(As _{0.89} Sb _{0.10}); perhaps Pt-bearing vincentite or guanglinit
UM1990-05-Bi:PbPdPt	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	(Pd,Pt) ₆ PbBi ₇
UM1990-06-Bi:PbPt	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pt(Bi,Pb) ₃
UM1990-07-Bi:Pt	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	PtBi ₄
UM1990-08-Bi:Pt	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pt ₃ Bi ₇
UM1990-09-C:Si	Nature 346, 352	Am. Mineral. 77, 208	β-SiC; a cubic polymorph of moissanite
UM1990-10-CO:BaCaHREESr	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK60"
UM1990-11-CO:BaCaHREESr	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK60A"
UM1990-12-CO:HNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK73"
UM1990-13-CO:HNaREESrY	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK33A"; Sr ₂ Na ₂ (Ce,La)Y(CO ₃) ₆ ·3H ₂ O
UM1990-14-E:AuCuPt	Mineral. Petrol. 42, 287	Am. Mineral. 76, 1439	Cu ₅ (Pt,Au) ₆ ; perhaps Au-bearing hongshiite
UM1990-15-E:CuPdPt	Mineral. Petrol. 42, 287	Am. Mineral. 76, 1439	(Pt,Pd) ₂ Cu ₃
UM1990-16-E:CuRhSn	Can. Mineral. 28, 579	Am. Mineral. 76, 1437	Rh ₂ SnCu
UM1990-17-E:FeIrOsPt	Mineral. Petrol. 42, 249	Am. Mineral. 76, 1439	Pt ₂ (Ir,Os)Fe _{0.65} ; similarities to UM1973-09-E:FeIrPt
UM1990-18-E:FeIrOsRu	Mineral. Petrol. 42, 211	Am. Mineral. 76, 1437	(Ru,Os,Ir) ₂ Fe ₃ ; some similarities to both UM1984-15-E:CrFeIrOsRu & hexaferum
UM1990-19-E:FeIrOsRu	Mineral. Petrol. 42, 211	Am. Mineral. 76, 1437	(Ru,Os,Ir)Fe ₃
UM1990-20-E:NiPtSn	Mineral. Petrol. 42, 287	Am. Mineral. 76, 1439	(Ni,Pt)Sn
UM1990-21-F:AlCaHMgNa	Mineral. Mag. 54, 599	Am. Mineral. 77, 211	(Na,Ca) ₂ (Mg,Al) ₂ F ₆ (OH,O,F); a Ca-bearing ralstonite-like mineral
UM1990-22-MoO:CaHP	*Dokl. Akad. Nauk SSSR 312, 1437	Am. Mineral. 77, 450	[Ca ₂ O ₂ (OH) ₃] _x PMo ₉ O ₂₈ (OH) ₃ (PO) _x
UM1990-23-O:Al	*Dokl. Akad. Nauk SSSR 313, 689	Am. Mineral. 77, 210	Theta-Al ₂ O ₃
UM1990-24-O:Al	*Dokl. Akad. Nauk SSSR 313, 689	Am. Mineral. 77, 210	Delta-Al ₂ O ₃ later re-designated sigma-Al ₂ O ₃
UM1990-25-O:ClPbS	Neues Jb. Mineral. Mh. (1990), 337	Am. Mineral. 76, 1733	Pb ₄ O ₃ (Cl,SO ₄) ₂
UM1990-26-O:HMnNaNb	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mineral "UK68"
UM1990-27-O:Pt	Can. Mineral. 28, 503	Am. Mineral. 76, 1436	PTO
UM1990-28-OHF:Al	Can. Mineral. 28, 147	Am. Mineral. 76, 2025	Al(OH,F) ₃ ; polymorph of gibbsite, nordstrandite, doyleite & bayerite
UM1990-29-OHS:CrFe	Neues Jb. Mineral. Mh. (1990), 269		Fe ₂ S ₂ (Fe,Cr) _{7.5} (OH) ₁₅
UM1990-30-PO:AlFeHZn	Austral. Mineral. 5, 125		"UK1a"; (Fe,Zn)(Fe,Al) ₃ (PO ₄) ₃ (OH) ₂
UM1990-31-S:AgCuFe	*Dokl. Bolg. Akad. Nauk 43, 87	Am. Mineral. 78, 674	(Cu,Ag,Fe) ₆ S ₄
UM1990-32-S:AgPbSb	*Sb. Nar. Muz. Praze, Rada B, 46, 87	ICDD 45-1333	AgPb ₄ Sb ₃ S ₁₀ ; compositionally similar to rayite, but different symmetry
UM1990-33-S:AsCuHg	*Mineral. Zhurn. 12 (2), 84.	ICDD 42-1433	Cu ₁₁ Hg ₅ As ₉ S ₂₅ ; compositionally similar to aktashite but with different d-values
UM1990-34-S:AsIrOsPtRhRu	Contr. Mineral. Petrol. 105, 66	Mineral. Petrol. 60, 185	(Os,Ir,Pt,Ru,Rh,Pd) ₇ (As,S) ₁₂ ; some similarities to erlichmanite
UM1990-35-S:BiCuPbPdSe	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₃ (Bi,Pb) ₄ Cu ₃ (S,Se) ₈
UM1990-36-S:BiPd	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₅ Bi ₆ (S,Se) ₆
UM1990-37-S:CuFeHO	Mineral. Record 21, 363	Am. Mineral. 76, 302	Cu ₃ FeS ₄ ·4H ₂ O; mineral "UK82"
UM1990-38-S:CuFeIrNiPtRh	Mineral. Petrol. 42, 211	Am. Mineral. 76, 1437	(Ni,Fe,Rh,Cu,Ir,Pt)S; appears to be the Ni-analogue of UM1981-16-S:CuFeIrNiRh
UM1990-39-S:CuFeIrNiPtRh	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1437	(Rh,Ir,Pt) ₄ (Ni,Fe,Cu) ₅ S ₆
UM1990-40-S:CuFePdPtRh	Mineral. Petrol. 42, 287	Am. Mineral. 76, 1439	(Pd,Cu,Rh,Pt,Fe) ₃ S ₂
UM1990-41-S:CuPd	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1438	Pd ₇ Cu ₂ S ₄
UM1990-42-S:IrOsPbPt	Mineral. Petrol. 42, 249	Am. Mineral. 76, 1439	(Ir,Pt,Pb,Os) ₂ S ₃ or perhaps (Ir,Pt,Pb,Os) ₃ S ₇
UM1990-43-S:PbPd	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₄ Pb ₂ S ₃
UM1990-44-S:PbPd	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₂ Pb ₂ S ₂
UM1990-45-SO:AlCHMn	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mn ₆ Al ₃ (SO ₄) ₂ (CO ₃) _x (OH) _{17-2x} ·yH ₂ O; mineral "UK76"; transferred to Invalid list
UM1990-46-SO:CuHPb	Austral. Mineral. 5, 125		Cu ₂ Pb ₂ SO ₄ (OH) ₆ ·2H ₂ O; mineral "UK7"
UM1990-47-Sb:CuNi	Can. Mineral. 28, 503	Am. Mineral. 76, 1436	(Ni,Cu) ₂ Sb

UM1990-48-Sb:CuPd	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1438	Pd ₂ CuSb; compositionally similar to UM1961-09-Sb:CuPd but optically distinct
UM1990-49-Sb:Ni	Can. Mineral. 28, 503	Am. Mineral. 76, 1436	Ni ₃ Sb
UM1990-50-Sb:PbPdPt	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1438	(Pd,Pt) ₂ PbSb; close to PdPtPbSb
UM1990-51-Sb:Pd	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₅ Sb ₃
UM1990-52-Se:BiCu	Mineral. Record 21, 133		Cu ₁₁ (Ni,Co) _{0.4} Bi ₂ Se ₁₃
UM1990-53-Se:BiCuHgPb	Mineral. Record 21, 133		Cu ₂ Pb _{0.4} HgBi ₂ Se ₈
UM1990-54-Se:BiCuPb	Mineral. Record 21, 133		CuPb(Ni,Co) _{0.3} Bi ₃ Se ₆ ; strong similarities to UM1981-21-Se:BiCuPb
UM1990-55-Se:BiCuPbPdS	*Dokl. Akad. Nauk SSSR 315, 700	Dokl. Earth Sci. 315, 217	Pd ₆ (Bi,Cu,Pb) ₈ (Se,S) ₉
UM1990-56-Si:FeMn	Mineral. Zhurn. 12, (6), 35	Am. Mineral. 77, 1118	(Mn,Fe) ₇ Si ₂
UM1990-57-Si:FeMn	Mineral. Zhurn. 12, (6), 35	Am. Mineral. 77, 1118	(Mn,Fe) ₅ Si ₃
UM1990-58-SiO:AlBaH	Mineral. Mag. 54, 81	Am. Mineral. 75, 1435	BaAl ₂ Si ₂ O ₈ ·4H ₂ O
UM1990-59-SiO:AlBCHMg	Mineral. Mag. 54, 105	Am. Mineral. 75, 1436	Ca ₂₄ Mg ₈ (BO ₃) ₁₃ Al _{0.75} Si ₃ (O,OH) ₁₂ (CO ₃) ₈ ·8H ₂ O
UM1990-60-SiO:AlCaFe	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK72"; X-ray powder diffraction data
UM1990-61-SiO:AlCaHKMnNa	*Rend. Fisiche Accad. Lincei, Ser. 9, 1 159	Am. Mineral. 77, 673	(Ca,Na,K) ₃ Mn ₂₄ (Si,Al) ₄₀ O ₁₀₀ ·30H ₂ O; distinct similarities to tamarite
UM1990-62-SiO:AlCaKMnNb	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK70"; X-ray powder diffraction data
UM1990-63-SiO:AlMnNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK80"; X-ray powder diffraction data
UM1990-64-SiO:BNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	NaBSiO ₄ ; mineral "UK53"; a monoclinic polymorph of malinkoite
UM1990-65-SiO:CaFFeMnNaNbTiZr	Mineral. Record 21, 363	Am. Mineral. 76, 302	NaCa(Mn,Fe)(Ti,Nb,Zr)Si ₂ O ₇ (O,F) ₂ ; mineral "UK59"; transferred to Invalid list
UM1990-66-SiO:CaFHNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	NaCaSi ₃ O ₇ (F,OH) ₂ ·3H ₂ O; "UK77"
UM1990-67-SiO:CaFeKMnNaZr	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK67"; X-ray powder diffraction data
UM1990-68-SiO:CaFeNaNbTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK74"; transferred to Invalid list
UM1990-69-SiO:CaHKNaTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	(Na,K)CaTi ₂ Si ₁₀ O ₂₅ (OH) ₆ H ₂ O; "UK75"
UM1990-70-SiO:CaMnNaThTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK83"; X-ray powder diffraction data
UM1990-71-SiO:FeHKMnNaTi	Mineral. Record 21, 363	Am. Mineral. 76, 302	(Na,K) ₃ Ti ₂ (Fe,Mn) ₂ ·3Si ₈ O ₂₀ ·4H ₂ O; "UK52A"
UM1990-72-SiO:FeMnNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK79"; X-ray powder diffraction data
UM1990-73-SiO:KMnNaZn	Dokl. Akad. Nauk SSSR 313, 865	Am. Mineral. 77, 451	(K,Na) ₂ Zn ₃ Mn _{1.5} Si ₁₂ O ₃₀ ; may be the K-analogue of shibkovite
UM1990-74-SiO:MnNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	"UK78"; X-ray powder diffraction data
UM1990-75-Te:Ag	Can. Mineral. 28, 489		Ag ₃ Te ₂ ; compare with UM1969-15-Te:Ag
UM1990-76-Te:BiRbPtRh	Mineral. Petrol. 42, 265	Am. Mineral. 76, 1437	(Rh _{1.52} Pb _{0.22} Ir _{0.19} Pt _{0.09})(Te _{2.83} Bi _{0.15})
UM1990-77-Te:BiPb	*Garcia de Orta, Sér. Geol. 13, 35	Am. Mineral. 79, 390	(Bi,Pb,Pd)Te
UM1990-78-SiO:CaClFeHKNaZr	Soviet Phys. Cryst. 35, 814	Cryst. Reports 52, 47	(Ca,Sr,Mn) ₆ Zr ₃ [Si ₃ O ₇ (O,OH) ₂] ₂ [Si ₉ O ₂₃ (O,OH) ₄] ₂ [Si ₁ NaFe(Zr,Ti,Al,Nb)]□[(H ₃ O) ₇ (Na,K) ₅ Cl _{1.5} (O,OH)]; described as a potassium oxonium eudialyte group mineral
UM1990-79-SiO:CaClFeHMnNaNbREEZr	Mineral. Zhurnal 12 (4), 81	Cryst. Reports 52, 47	Na ₁₄ Ca ₅ (Mg,Ca,Mn)Zr ₃ (Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (Si,Nb,Al,Zr) ₂ (Fe,Zr) ₃ (Mn,Na,Ce,La,Y)(Na,H ₂ O,K,Sr)(OH) ₄ ·5(OH,Cl); described originally as "(TR,Fe) eucolite"; subsequent work showed that it differs from eudialyte in the M & N site occupancy
UM1990-80-SiO:CaFeHMnNaNbREEZr	Mineral. Zhurnal 12 (4), 81	Cryst. Reports 52, 47	Na ₁₄ Ca ₄ (Mn,Ca) ₂ Zr ₃ (Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (Si,Nb,Al,Zr) ₂ (Fe,Mn,Al,Ti) ₃ (Na,Ce,La,Y,Mn)(Na,H ₂ O,K,Sr)(OH) ₇ ·8; described originally as "(TR,Mn) eucolite"; subsequent work has showed that it differs from eudialyte in the occupancy of the M & N sites
UM1990-81-O:CaCeHNbTi	*Khomyakov (1990)	Khomyakov (1995)	CaCe(Ti,Nb) ₁₀ O ₂₃ ·17-18H ₂ O; mineral "M1"; compositional similarities to belyankinite
UM1990-82-SiO:AlBaCaHKNaSr	*Khomyakov (1990)	Khomyakov (1995)	(K,Na,Ba,Sr,Ca)Al ₃ Si ₅ O ₁₆ ·4.5H ₂ O; mineral "M14"; compositionally very similar to merlinoite but with a distinct X-ray powder pattern
UM1990-83-SiO:AlBaCaHKNaSr	*Khomyakov (1990)	Khomyakov (1995)	(Ba,K,Sr,Na,Ca)Al ₄ Si ₄ O ₁₆ ·7H ₂ O; minerals "M15 & M17"; compositionally somewhat similar to merlinoite but with a distinct X-ray powder pattern
UM1990-84-SiO:AlBaCaHKNaSr	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ba,K,Sr,Ca)Al ₄ Si ₄ O ₁₆ ·4H ₂ O; mineral "M16"; compositionally somewhat similar to merlinoite but with a distinct X-ray powder pattern
UM1990-85-SiO:AlCaFeHMnNa	*Khomyakov (1990)	Khomyakov (1995)	NaCaMn ₅ Fe ³⁺ ₂ Al ₃ Si ₄ O ₂₂ ·6H ₂ O; mineral "M23"; cryptocrystalline with appearance similar to shafranovskite/zakharovite
UM1990-86-SiO:AlFeHKMnNa	*Khomyakov (1990)	Khomyakov (1995)	(K,Na) ₃ (Fe ³⁺ ,Al,Mn) ₃ Si ₈ O ₂₂ ·7H ₂ O; mineral "M27"; may be equivalent to kalifersite
UM1990-87-SiO:AlHNa	*Khomyakov (1990)	Khomyakov (1995)	Na ₂ AlSi ₄ O ₁₀ (OH) ₄ H ₂ O; mineral "M28"
UM1990-88-SiO:BNa	Mineral. Record 21, 363	Am. Mineral. 76, 302	Mont St. Hilaire mineral "UK53A"; previously thought to be equivalent to malinkoite and entered as UM1990-/-SiO:BNa; later shown to be a polymorph of malinkoite: Dokl. Akad. Nauk. SSSR 319, 879
UM1990-89-SiO:CaFFeHKNa	*Khomyakov (1990)	Khomyakov (1995)	NaKCaFe ³⁺ ₂ Si ₄ O ₁₂ (OH,F) ₂ ·4H ₂ O; mineral "M25"; cryptocrystalline with appearance similar to shafranovskite/zakharovite
UM1990-90-SiO:CaFNaZr	*Khomyakov (1990)	Khomyakov (1995)	Perhaps (Ca,Na) ₁₃ Zr ₂ Si ₈ O ₂₈ (F,OH) ₆ ; mineral "M18"
UM1990-91-SiO:CaHTi	*Khomyakov (1990)	Khomyakov (1995)	Ca ₄ TiSi ₄ O ₁₄ ·2H ₂ O; mineral "M50"
UM1990-92-SiO:FeHMnNaTi	*Khomyakov (1990)	Khomyakov (1995)	Na ₄ (Mn ²⁺ ,Ti,Fe) ₃ Si ₈ (O,OH) ₂₄ ·9H ₂ O; mineral "M19"; appears to be a polymorph of raite
UM1990-93-SiO:FeHNa	*Khomyakov (1990)	Khomyakov (1995)	NaFe ²⁺ ₂ Fe ³⁺ ₃ Si ₄ O ₁₂ (OH) ₅ ; mineral "M22"; cryptocrystalline with appearance similar to shafranovskite/zakharovite
UM1990-94-SiO:FFeHNaTi	*Khomyakov (1990)	Khomyakov (1995)	Na ₄ Fe ²⁺ ₂ Fe ³⁺ ₆ TiSi ₆ O ₂₄ (OH,F) ₄ ·3H ₂ O; mineral "M24"; cryptocrystalline with appearance similar to shafranovskite/zakharovite
UM1990-95-SiO:HNaZr	*Khomyakov (1990)	Khomyakov (1995)	Na ₅ Zr[Si ₆ O ₁₅ (OH)] ₃ ; mineral "M41"
UM1990-96-SiO:NaTh	*Khomyakov (1990)	Khomyakov (1995)	Na ₄ Th ₃ Si ₈ O ₂₄ ; mineral "M33"; X-ray amorphous
UM1990-97-SiO:NaZr	*Khomyakov (1990)	Khomyakov (1995)	Na ₈ ZrSi ₆ O ₁₈ ; mineral "M39"
UM1990-98-CO:BaCaNaREESr	*Khomyakov (1990)	Khomyakov (1995)	(Na,Ca) ₃ (Sr,Ba,Ce) ₃ [CO ₃] ₅ ; similar to burbankite but distinctly biaxial

UM1990-99-SiO:BaCaFFeHMnNaSrTi	*Khomyakov (1990)	Khomyakov (1995)	Na ₂ (Ba,Sr,Ca) ₂ (Fe,Mn)TiSi ₂ O ₉ (F,OH) ₂ •2H ₂ O; compositional similarities to busenite but the symmetry and X-ray powder pattern are distinct.
UM1990-100-SiO:BaCeFeHKNaNbTi	*Khomyakov (1990)	Khomyakov (1995)	Ba ₂ (K,Na) ₄ Ce(Ti,Nb,Fe ³⁺) ₂ Si ₈ O ₂₈ •5H ₂ O; appears to be the K and Ti analogue of ilimaussite-(Ce)
UM1991-04-AsS:CoFeNi	*C. R. Acad. Sci. Paris, Ser. II, 312, 55	Am. Mineral. 79, 1213	(Co,Ni,Fe,Cu)AsS; probably Co-dominant equivalent of UM1989-01-AsS:CoFeNi
UM1991-05-CO:BiCaCl	*Izv. Akad. Nauk SSSR, Ser. Geol. (4), 102	Am. Mineral. 78, 234	Ca(BiO)Cl(CO ₃); apparently a Cl-dominant analogue of kettnerite
UM1991-06-E:CuCu	Eur. J. Mineral. 3, 451		CuAu ₃ ; may be an ordered phase
UM1991-07-E:FePt	*Dokl. Akad. Nauk. SSSR 317, 1458	Zap. Vser. Mineral. Ob. 122 (5), 64	Fe ₃ Pt; only plots of analytical data shown; transferred to Invalid list
UM1991-08-O:Ti	Am. Mineral. 76, 343		A monoclinic polymorph of TiO ₂
UM1991-09-OH:AlCr	*Dokl. Akad. Nauk. SSSR 320, 1455	Am. Mineral. 78, 234	Gamma-(Cr,Al)O(OH)
UM1991-10-PO:BaCaHMgSr	Can. Mineral 29, 87	Am. Mineral. 76, 2025	~(Ca,Mg,Ba)Sr ₂ P ₂ O ₇ (OH) ₂ •1.7H ₂ O
UM1991-11-S:AgBiCu	Mineral. Petrol. 44, 89		(Cu,Ag) ₁₁ Bi ₁₃ S ₂₅ ; compositional similarities to UM1971-06-S:AgBiCu and cuprobismutite
UM1991-12-S:AuBi	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Au) ₄ S ₅
UM1991-13-S:AuBiPb	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Pb) ₅ AuS ₃
UM1991-14-S:AuBiPb	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Pb) ₆ AuS ₃
UM1991-15-S:AuBiPb	*Izv. Akad. Nauk Kaz. SSR, Ser. Geol. (3), 63	Am. Mineral. 79, 1212	(Bi,Pb) ₆ AuS ₄
UM1991-16-S:CuFeTi	Neues Jb. Mineral. Abh. 163, 197	Am. Mineral. 77, 1118	(Cu,Ti,Ag)FeS ₂
UM1991-17-S:IrPtRh	*Dokl. Akad. Nauk SSSR 320, 705	Am. Mineral. 78, 673	(Ir,Pt,Rh) ₂ S ₂
UM1991-18-Sb:BiIrOsPt	Mineral. Zhurn. 13 (1), 31	Am. Mineral. 78, 233	(Pt,Ir,Os) ₂ (Sb,Bi) ₃
UM1991-19-Se:AsCo	Can. Mineral 29, 411		CoAsSe
UM1991-20-Si:Fe	Acta Mineral. Sinica 11, 285	Am. Mineral. 79, 188	Fe ₅ Si ₂
UM1991-21-SiO:AlFeHMg	Eur. J. Mineral. 3, 27		(Fe,Al,Mg) ₆ (Si,Al) ₄ O ₁₀ (OH) ₄ •H ₂ O; a chloritic mineral with interstratified water layers.
UM1991-22-SiO:CaFHK	Yamaguchi Univ. College of Arts Bull. Nat. Sci. Rept. 25, 15	Am. Mineral. 77, 1119	An orthorhombic polymorph of fluorapophyllite
UM1991-23-SiO:CaFeHHfZr	*Mineral. Zhurn. 13 (1), 7	Am. Mineral. 77, 1118	(Ca,Fe)(Zr,Hf) ₅ Si ₄ O ₁₉ •10H ₂ O
UM1991-24-SiO:CaKNaZr	*Dokl. Akad. Nauk SSSR 320, 1220	Am. Mineral. 79, 1010	(Ca,Na,K) ₂ -xZrSi ₃ O ₉ •5H ₂ O; the Ca-analogue of gaidonnayite
UM1991-25-Te:AgPd	Mineral. Petrol. 43, 181		Pd ₆ AgTe ₄
UM1991-26-Te:AsPd	*C. R. Acad. Sci. Paris, Ser. II, 312, 55	Am. Mineral. 76, 1733	Pd ₃ (Te,As)
UM1991-27-Te:BiNiPdPt	Mineral. Petrol. 43, 181		(Pt,Pd,Ni) ₃ (Te,Bi) ₄
UM1991-28-Se:BiTe	Geol. Surv. Finland Sp. Paper 12, 81	Mineral. Mag. 72, 953	Bi ₆ Te ₂ Se
UM1991-29-SiO:FeMgNa	Mineral. Mag. 55, 529	Mineral. Mag. 72, 839	Na ₄ (Mg ₅ Fe ³⁺) ₇ O ₄ [Si ₉ Fe ³⁺ ₃ O ₃₆]; perhaps an Mg-analogue of wilkinsonite
UM1992-02-BOCO:CaHMgNa	*Revista Museo de la Plata 11, 57	Am. Mineral. 80, 187	Probably hydrated borate-carbonate of Na or Na-Mg-Ca
UM1992-03-Bi:CuPdPtSb	*Mineral. Zhurnal 14 (2), 12	Am. Mineral. 80, 406	(Pd,Pt) ₃ (Bi,Sb)
UM1992-04-Bi:Pt	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Pt,Fe)(Bi,Sb)
UM1992-05-CO:CaCeLaNaSr	*Moscow Univ. Geol. Bull. 47, 60	Am. Mineral. 80, 1332	(Sr,Na,Y,REE,Ca,Ba) ₂ (CO ₃) ₂ ; trigonal dimorph of donnayite-(Y)
UM1992-06-E:AgPd	Mineral. Mag. 56, 47	Am. Mineral. 77, 1307	AgPd
UM1992-07-E:AuCuPdPt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pd,Pt,Au) ₂ Cu
UM1992-08-E:AuHg	Can. Mineral. 30, 1033	Am. Mineral. 78, 1110	Au ₈₈₋₉₄ Hg ₆₋₁₂ ; monoclinic
UM1992-09-E:CuFePt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	Pt ₃ (Cu,Fe)
UM1992-10-E:CuPt	*Dokl. Akad. Nauk. SSSR 323, 539	Am. Mineral. 79, 390	PtCu ₅
UM1992-11-E:CuPtSb	*Mineral. Zhurnal 14 (2), 12	Am. Mineral. 80, 406	Pd(Cu,Sb) ₃
UM1992-12-E:IrPtSb	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Pt,Ir,Fe) ₃ Sb
UM1992-13-O:IrPt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Ir,Pt) ₂ O ₂
UM1992-14-PO:CaFeHMn	Mineral. Record 23 (4), 39		~Ca(Fe,Mn,Mg) ₄ P ₄ O ₁₄ (OH) ₂ •7H ₂ O; unknown No. 2a; compositionally similar to jahnsite
UM1992-15-PO:FeHMg	Mineral. Record 23 (4), 39		~(Fe,Mg) ₅ (PO ₄) ₃ (OH)•2H ₂ O; unknown No. 5a
UM1992-16-PO:FeHMg	Mineral. Record 23 (4), 39		~(Mg,Fe) ₅ (PO ₄) ₃ (OH)•2H ₂ O; unknown No. 5b
UM1992-17-PO:FeHMn	Mineral. Record 23 (4), 39		~(Fe,Mn,Ca) ₄ P ₃ O ₁₀ (OH) ₃ •15H ₂ O; unknown No. 2b; compositional similarities to laueite
UM1992-18-PO:FeHMnNa	Mineral. Record 23 (4), 39		~NaFe ₄ Mn ₅ O ₁₈ •10H ₂ O; unknown No. 4
UM1992-19-PO:FeHNa	Mineral. Record 23 (4), 39		NaFePO ₄ •2H ₂ O; unknown No. 1
UM1992-20-PO:FeMn	Mineral. Record 23 (4), 39		Unknown No. 6; X-ray powder diffraction and qualitative compositional data
UM1992-21-S:AgFeSb	*Dokl. Akad. Nauk. SSSR 326, 337	Am. Mineral. 79, 390	(Ag,Fe,Zn,Hg) ₁₂ (Sb,As) ₄ S ₁₃ ; tetrahedrite group
UM1992-22-S:AgPd	Can. Mineral. 30, 109	Am. Mineral. 77, 1307	Pd ₂ AgS ₂
UM1992-23-S:BiCuFePbSb	*Vest. Mosk. Univ. Geol. Ser. 4, 47	ICDD 46-1414	Pb ₂₂ 4Cu _{3.45} (Bi _{15.5} Sb _{15.5}) ₅ S ₆₈ ; X-ray pattern different from that of kobellite
UM1992-24-S:CuFeIrNiPtRh	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Rh,Pt,Ir) ₃ (Fe,Ni,Cu) ₃ S ₈
UM1992-25-S:CuOsPdPtRh	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pt,Cu,Pd,Rh,Os) ₃ S ₂
UM1992-26-S:CuPdPt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pd,Pt) ₃ (Cu,Ni) ₂ S ₂
UM1992-27-S:CuPdPtRh	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pd,Pt) ₂ RhCu ₄ S ₄
UM1992-28-S:Pt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	Pd ₄ S
UM1992-29-S:PtPt	Can. Mineral. 30, 983	Am. Mineral. 78, 1110	(Pd,Pt) ₂ S
UM1992-30-SO:CCuHZn	Mineral. Mag. 56, 215	Am. Mineral. 78, 235	(Zn,Cu) ₇ (SO ₄ ,CO ₃) ₂ (OH) ₁₀ •3H ₂ O; apparently the Zn-analogue of schulenbergitze
UM1992-31-Sb:AsPdRh	*Mineral. Zhurn. 14, (1), 29	Am. Mineral. 79, 1211	(Pd,Rh) ₂ (Sb,As)
UM1992-32-Sb:PdSn	*Geol. Rudn. Mest. (1992) (2), 32	Am. Mineral. 78, 673	Pd ₄ SnSb

UM1992-33-SiO:AlCaFeHMg	Zap. Vser. Mineral. Ob. 121 (5), 81	Am. Mineral. 79, 391	(Ca,Mg,Na) _{0.3} Mg ₃ (Si,Al,Fe ³⁺) ₄ O ₁₀ (OH,F) ₂ •2H ₂ O; similarities to UM1979-20-SiO:AlCaFeHKMgMnNaTi
UM1992-34-SiO:AlCaFeMgV	Can. Mineral. 30, 153	Am. Mineral. 77, 1307	Ca ₈ (V,Mg,Fe) ₄ (V,Al) ₈ Si ₁₂ O ₄₆₋₅₆ (OH) ₀₋₁₀ ; closely related to pumpellyite
UM1992-35-SiO:CaHKMg	*Dokl. Akad. Nauk. SSSR 320, 561	Am. Mineral. 79, 573	K(Ca,Mg) ₆ [Si ₁₁ O ₂₈](OH,F)•10H ₂ O; similarities to fluorapophyllite
UM1992-36-SiO:FeHKMgMnNa	*Dokl. Akad. Nauk. SSSR 322, 589	Am. Mineral. 78, 675	(K,Na)(Mn,Fe,Mg) ₂ Si ₄ O ₁₀ (OH) ₂ •3H ₂ O; probably mica family
UM1992-37-SiO:KTI	Can. Mineral. 30, 1153	Am. Mineral. 78, 1112	K ₂ TiSi ₃ O ₉ ; transferred to Invalid list
UM1992-38-Sn:CuPdPt	Mineral. Petrol. 47, 37	Am. Mineral. 78, 1111	(Pd,Pt) ₄ (Cu,Fe) ₂ (Sn,Sb) ₃
UM1992-39-Te:AgNiPd	Dokl. Bolg. Akad. Nauk 45 (4), 37	Am. Mineral. 79, 1212	(Pd,Ag,Ni) ₃ Te ₄
UM1992-40-Te:CuPd	Dokl. Bolg. Akad. Nauk 45 (4), 37	Am. Mineral. 79, 1212	(Pd,Cu) ₂ Te ₃
UM1992-41-Te:PtRh	Internal Tech. Rept. Medellin, (INGEOMINAS), Hannover (BGR) 216	Explor. Mining Geol. 5, 73	(Pt,Rh,Ir) ₂ Te ₃
UM1992-42-Te:PtRh	Internal Tech. Rept. Medellin, (INGEOMINAS), Hannover (BGR) 216	Explor. Mining Geol. 5, 73	(Pt,Rh) ₄ Te ₅
UM1992-43-Te:Sb	*Rom. J. Mineral. 75, 65	Mineral. Abst. 46, 95M/0900	SbTe ₂
UM1993-01-AsO:CaH	Mineral. Record 24, 11		A hydrous calcium arsenate; the X-ray powder diffraction pattern appears unique
UM1993-02-AsTe:Pd	Can. Mineral. 31, 61	Explor. Mining. Geol. 5, 73	Pd ₈ (As,Te) ₃ ; possible similarities to vincentite and UM1972-/-As:PdTe
UM1993-03-Cl:BiHOPd	Can. Mineral. 31, 31	Am. Mineral. 78, 1317	~Pd ₅ Bi ₄ (Cl,OH) ₅ •7H ₂ O
UM1993-04-E:BiCuHgPdRh	Mineral. Petrol. 47, 263	Am. Mineral. 79, 390	(Pd,Rh)CuHg
UM1993-05-E:CuFeHgPd	Mineral. Petrol. 47, 263	Am. Mineral. 79, 390	(Pd,Cu,Fe) ₃ Hg ₂
UM1993-06-F:CaNaREEY	*Dokl. Akad. Nauk. SSSR 330, 713	Am. Mineral. 79, 1213	(Na,Ca) ₃ (Y,REE) ₃ F ₁₂
UM1993-07-PO:CaCeHLa	*Zap. Vser. Mineral. Ob. 122 (3), 79	Am. Mineral. 80, 632	(Ca,REE)PO ₄ •nH ₂ O
UM1993-08-S:AgAuSb	*Geol. Surv. Finland, Sp. Pap. 18, 37	Mineral. Abst. 45, 94M/3531	Ag ₃ Au ₃ Sb ₁₀ S ₁₀ ; perhaps an Ag-analogue of criddleite
UM1993-09-S:AgHgSb	*Geol. Ore Deposits 35, 297	Am. Mineral. 80, 1331	AgHgSbS ₃
UM1993-10-S:AgSb	*Geol. Ore Deposits 35, 297	Am. Mineral. 80, 1331	Ag ₄ Sb ₂ S ₅
UM1993-11-S:BiClHOPd	Can. Mineral. 31, 31	Am. Mineral. 78, 1317	~(Pd,Pt,Pb) ₈ Bi ₂ (Fe,Ni,Zn) ₅ (H ₂ O,OH,Cl,O) ₁₂
UM1993-12-S:BiCu	Mineral. Petrol. 47, 183	Am. Mineral. 78, 1317	Cu ₃ BiS ₃ ; dimorph of wittichenite
UM1993-13-S:BiCuTI	*Mineral. Zhurnal 15 (1), 75	Am. Mineral. 79, 1211	(Cu,Fe,Tl) ₂ Bi ₂ S ₅
UM1993-14-S:CdIn	*Geol. Rudn. Mest. 35, 547	Am. Mineral. 80, 1330	CdIn ₂ S ₄
UM1993-15-S:CdInZn	*Geol. Rudn. Mest. 35, 547	Am. Mineral. 80, 1330	ZnCdIn ₂ S ₅
UM1993-16-S:CdInZn	*Geol. Rudn. Mest. 35, 547	Am. Mineral. 80, 1330	Zn ₃ CdIn ₂ S ₇
UM1993-17-S:CuFePb	Mineral. Petrol. 47, 183	Am. Mineral. 78, 1317	~Cu ₉ (Pb,Fe) ₆ or perhaps (Cu,Pb,Fe) ₅ S ₃
UM1993-18-S:CuPd	Can. Mineral. 31, 61	Explor. Mining. Geol. 5, 73	Pd ₃ Cu ₂ S ₂
UM1993-19-S:CuPt	Can. Mineral. 31, 61	Explor. Mining. Geol. 5, 73	Pt ₁₂ Cu ₈ S ₅
UM1993-20-S:CuPt	Can. Mineral. 31, 61	Explor. Mining. Geol. 5, 73	Pt ₁₂ Cu ₁₀ S ₄
UM1993-21-S:IrOsRu	Mineral. Petrol. 47, 263	Am. Mineral. 79, 390	(Os,Ir,Ru) ₂ S ₃
UM1993-22-Se:Mo	Can. Mineral. 31, 745	Am. Mineral. 79, 573	Mo ₃ Se ₄
UM1993-23-SiO:AlFeK	Mineral. Mag. 57, 289		K(Fe,Al)Si ₃ O ₈ ; referred to as "ferrian high sanidine" but represents a distinct species
UM1993-24-SiO:CaHMg	*J. Geol. Soc. Japan 99, 679	Am. Mineral. 80, 633	Ca ₂ (Mg,Fe) ₈ Si ₃ O ₃₂ (OH) ₄ ; the Ca-analogue of clinojimthompsonite
UM1993-25-Te:AgAu	*Acta Mineral. Sinica 13, 65	Am. Mineral. 79, 572	AuAgTe ₃ ; mineral "C"
UM1993-26-Te:AgPdSn	Dokl. Akad. Nauk 329, 497		(Pd,Ag) ₂ (Te,Sn)
UM1993-27-Te:AuTI	*Mineral. Zhurnal 15 (1), 75	Am. Mineral. 79, 1211	Au ₃ TI ₂
UM1993-28-Te:Mo	Internal Tech. Rept. Medellin, (INGEOMINAS), Hannover (BGR) 216.	Am. Mineral. 79, 573	Mo ₃ Te ₄
UM1993-29-TeO:AuPb	*Acta Mineral. Sinica 13, 65	Am. Mineral. 79, 572	Mineral "A"; (Au,Pb) ₃ TeO ₂
UM1993-30-TeO:AuPb	*Acta Mineral. Sinica 13, 65	Am. Mineral. 79, 572	Mineral "B"; Au ₄ Pb ₃ Te ₂ O ₁₁
UM1993-31-VO:KU	Aufschluss 44, 291	Am. Mineral. 79, 1214	Qualitative compositional information plus d-values, etc.
UM1994-01-AsO:FeHSTI	Neues Jb. Mineral. Abh. 167, 359	Am. Mineral. 80, 1076	Fe ₂ TiAs ₃ O ₁₂ •4H ₂ O; see also UM1993-/-AsO:FeHSTI
UM1994-02-CO:HNi	Mineral. Record 25, 283	Am. Mineral. 80, 187	(Ni,Mg) ₅ (HCO ₃) ₂ (CO ₃) ₄ •8.4H ₂ O
UM1994-03-CO:HNi	Mineral. Record 25, 283	Am. Mineral. 80, 187	Ni ₄ (CO ₃) ₃ (OH) ₂ •2.5H ₂ O
UM1994-04-F:OREE	C. R. Acad. Sci. Paris, Ser. II, 318, 1333	Am. Mineral. 80, 187	Ce ₄ O ₅ F ₂
UM1994-05-F:OREE	C. R. Acad. Sci. Paris, Ser. II, 318, 1333	Am. Mineral. 80, 187	(Ce,La)OF
UM1994-06-O:AlCo	Mineral. Mag. 58, 247	Am. Mineral. 80, 187	CoAl ₂ O ₄
UM1994-07-O:BaCrFeMgTI	Acta Mineral. Sinica 14, 228	Am. Mineral. 81, 769	BaTi ₅ Fe ₄ Mg ₂ CrO ₁₉
UM1994-08-O:CaFeKMgTI	Acta Mineral. Sinica 14, 228	Am. Mineral. 81, 769	KTi ₅ Fe ₃ Ca ₂ Mg ₂ O ₁₉
UM1994-09-O:CrKTI	Acta Mineral. Sinica 14, 234	Am. Mineral. 81, 766	K ₂ Cr ₂ Ti ₆ O ₁₆ - referred to as a K-Cr priderite
UM1994-10-O:FeIrPtRh	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Pt,Fe,Rh,Ir)O
UM1994-11-O:FeIrPtRh	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Rh,Fe,Ir) ₃ O
UM1994-12-O:FePtRh	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Fe,Rh,Pt)O
UM1994-13-O:FeMnRu	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Ru,Mn,Fe)(O,OH) ₃
UM1994-14-O:FeIrPtRh	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Fe,Pt,Rh,Ir)O
UM1994-15-O:FePt	Econ. Geol. 89, 1454		(Pt,Fe) ₂ O
UM1994-16-O:FePt	Econ. Geol. 89, 1454		(Pt,Fe) ₃ O
UM1994-17-O:FePt	Econ. Geol. 89, 1454		(Pt,Fe) ₄ O
UM1994-18-O:FePtRh	Econ. Geol. 89, 1454	Am. Mineral. 80, 847	(Rh,Fe,Pt)O

UM1994-19-PO:CuHMOPb	Mineral. Record 25, 203	Am. Mineral. 79, 1214	Pb ₂ Cu(Mo,As,Cr)O ₄ (PO ₄)(OH); Pb-analogue of molybdoformacite
UM1994-20-S:AgSn	Resource Geol. 44, 369	Am. Mineral. 80, 1075	(Ag,Pb) ₁₂ Sn ₂ S ₁₁
UM1994-21-S:AgTe	Mineral. Polonica 25, 21	Am. Mineral. 81, 1016	Ag ₃ TeS ₄ ; compositional similarities to UM1969-09-S:AgTe
UM1994-22-S:CuFe	*J. Magnetism Magnetic Mater. 132, 31	Am. Mineral. 80, 186	CuFe ₃ S ₄
UM1994-23-S:Re	Nature 369, 51	Am. Mineral. 80, 406	ReS ₂ ; later described under the name rheniite: Zap. Ross. Mineral. Ob. 134 (5), (2005), 32; transferred to Invalid list
UM1994-24-S:Rh	*Zap. Vser. Mineral. Ob. 123 (2), 41	Am. Mineral. 80, 1330	Rh ₁₁ S ₉
UM1994-25-SiO:AlCaFeHREEV	Bull. Nat. Mus. Tokyo, ser. C, 20, 1	Eur. J. Mineral. 18, 569	CaREEV ³⁺ AlFe ²⁺ Si ₄ O ₄ Si ₂ O ₇ O(OH); unnamed member of allanite subgroup of the epidote group corresponding to the hypothetical name 'vanadoallanite'
UM1994-26-SiO:AlCaTi	Meteoritics 29, 673	Am. Mineral. 80, 633	Ca ₃ Ti(Al,Ti) ₂ (Si,Al) ₃ O ₁₄
UM1994-27-SiO:AlK	*J. Mineral. Soc. Japan 23, 171	Earth Planet. Sci. Lett. 176, 259	KAlSi ₃ O ₈ ; K-feldspar composition with hollandite structure
UM1994-28-SiO:MgHPb	Mineral Wealth 91, 33	Am. Mineral. 81, 520	~Mg ₂ Pb ₃ Si ₂ O ₈ (OH) ₂ ·3.5H ₂ O; later described under the name britvinite: Zap. Ross. Mineral. Ob. 136 (6) (2006), 18; transferred to Invalid list
UM1995-01-Bi:AgPdTe	*Dokl. Akad. Nauk 341, 666	Am. Mineral. 83, 188	(Pd,Ag) ₃ (Bi,Te)
UM1995-02-CO:BaCaClFKMgNaSr	Dawson <i>et al.</i> 1995	Mineral. Mag. 61, 779	(Na ₂ Ba,Ca,Sr,Mg,K ₂)CO ₃ ; "phase X"
UM1995-03-CO:Pb	Mineral. Mag. 59, 305	Am. Mineral. 82, 821	Pb ₃ O ₂ CO ₃ ; X-ray powder diffraction data reported in Am. Mineral. 49 (1964), 1184
UM1995-04-E:CuSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 81, 1015	Cu ₆ Sn ₅ ; transferred to Invalid list
UM1995-05-E:FeMn	*Dokl. Akad. Nauk. 341, 511	Am. Mineral. 82, 821	Fe ₆ Mn
UM1995-06-E:FeSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	Fe ₁₀ Sn
UM1995-07-E:PbSbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	Sb(Sn,Pb)
UM1995-08-E:PbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	PbSn
UM1995-09-E:PbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	PbSn ₇
UM1995-10-E:PtRhRu	Can. Mineral. 33, 1023	Am. Mineral. 81, 768	Pt ₂ Ru ₂ Rh
UM1995-11-E:SbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	SbSn ₂
UM1995-12-E:SbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	Sb ₂ Sn ₃
UM1995-13-E:SbSn	Moscow Univ. Geol. Bull. 50 (6), 65	Am. Mineral. 82, 821	Sb ₃ Sn ₄
UM1995-14-N:Si	Meteoritics 30, 387	Am. Mineral. 81, 253	Si ₃ N ₄ ; the beta dimorph of nierite
UM1995-15-O:Al	Clay Minerals 30, 39	Am. Mineral. 80, 1331	Al ₂ O ₃ ; the chi alumina polymorph
UM1995-16-O:AuClH	*Geol. Ore Deposits 37, 32	Am. Mineral. 81, 768	AuO(OH,Cl)·nH ₂ O
UM1995-17-O:CaHTiUY	Mineral. Record 26, 123	Am. Mineral. 81, 1016	Semi-quantitative analysis with distinct X-ray powder pattern
UM1995-18-O:CuPd	Mineral. Mag. 59, 455	Am. Mineral. 81, 1284	(Pd,Cu)O
UM1995-19-O:Y	*Dokl. Akad. Nauk 340, 681	Am. Mineral. 81, 766	Y ₂ O ₃
UM1995-20-OH:AlMgMnNi	*Dokl. Akad. Nauk 342, 781	Am. Mineral. 81, 519	Mn ⁴⁺ (O,OH) ₂ (Mg,Ni,Al,OH) ₂ ·nH ₂ O
UM1995-21-PO:AlCaHMgNa	Mineral. Record 26, 449	Am. Mineral. 81, 519	(Na,Ca) ₂ Mg ₂ Al ₁₀ (PO ₄) ₉ (OH,O) ₁₂ ·4H ₂ O; appears to be an Mg-analogue of burangaite
UM1995-22-PO:AlCuFFeHV	Mineral. Record 26, 449	Am. Mineral. 81, 1285	Cu(Al,V,Fe) ₅ (PO ₄) ₄ (F,OH) ₅ ·7H ₂ O; designated "unknown #1"; later described under the name nevadaite: Can. Mineral. 42 (2004), 741; transferred to Invalid list
UM1995-23-PO:BaHMgSr	Zap. Vser. Mineral. Ob. 124 (1), 90	Am. Mineral. 81, 1285	(Mg,Mn) ₅ (Ba,Sr,Ca)(PO ₄) ₄ ·8H ₂ O; the hexagonal dimorph of rimkorolgit
UM1995-24-S:AsNiSe	*Acta Mineral. Sinica 15, 425	Am. Mineral. 81, 1515	Ni ₃ As ₃ (S,Se) ₄
UM1995-25-S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	Pb ₂ Bi ₂ TeS ₃
UM1995-26-S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	Pb ₂ Bi ₃ Te ₂ S ₃
UM1995-27-S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	Pb ₂ Bi ₅ Te ₅ S ₂
UM1995-28-S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	PbBi ₄ Te ₂ S ₂
UM1995-29-S:BiPbTe	*Zap. Vser. Mineral. Ob. 124 (6), 24	Am. Mineral. 81, 1285	PbBi ₄ Te ₃ S
UM1995-30-S:CuFeIrNiRh	Can. Mineral. 33, 509	(Ir,Rh)(Fe,Ni,Cu) ₂ S ₃ ; appears to be the Fe-dominant analogue of UM1974-11-S:CuFeIrNi	
UM1995-31-S:CuIrPdRhRu	Can. Mineral. 33, 509	Am. Mineral. 81, 518	(Rh,Cu,Pd,Ru,Ir) ₃ S ₂ ; "unknown #2"
UM1995-32-S:FeRu	Mineral. Petrol. 54, 249	Am. Mineral. 81, 768	(Fe,Ru) ₂ S ₂ ; might be a Ru-bearing pyrite
UM1995-33-S:Rh	Can. Mineral. 33, 1023	Am. Mineral. 81, 768	Rh ₅ S ₄ ; similarities to UM1976-18-S:RhRu
UM1995-34-SO:Fe	Mineralium Deposita 30, 78	Am. Mineral. 80, 1331	FeS ₂ O ₃
UM1995-35-SO:FePb	Mineralium Deposita 30, 78	Am. Mineral. 80, 1331	Fe ₃ PbSeO ₁₄
UM1995-36-SOSiO:AlHPb	*Periodico Mineral. 64, 309	Am. Mineral. 82, 821	Pb ₂ 7(Al,Mn)(Si ₆ O ₁₅) ₂ (SO ₄) ₂ O ₁₀ (OH) ₂₄
UM1995-37-Se:CuHgSb	*Acta Mineral. Sinica 15, 418	Am. Mineral. 81, 1515	(Cu,Hg) _{1-0.7} (Sb) _{0-0.3} (Se,S)
UM1995-38-Se:CuSb	*Acta Mineral. Sinica 15, 418	Am. Mineral. 81, 1515	CuSbSe ₂
UM1995-39-Se:Pd	*Dokl. Akad. Nauk 344, 91	Am. Mineral. 82, 1040	Pd ₃ Se ₂
UM1995-40-SiO:AlHMg	Lithology & Mineral Resources 30 (3), 221	Zap. Vser. Mineral. Ob. 125 (6), 88	Regularly interstratified chrysotile and hydrotalcite layers
UM1995-41-SiO:AlSr	Z. Krist. 210, 741	Am. Mineral. 81, 767	SrAl ₂ Si ₂ O ₈ ; a triclinic polymorph of slawsonite
UM1995-42-SiO:BaCaFeKMnNaSrTi	*Kristallografiya 40, 217	Am. Mineral. 81, 766	(K,Ba,Sr) ₂ Na(Na,Fe,Mn,Ca) ₂ Ti ₃ Si ₄ O ₁₈ ; K-analogue of barytolamprophyllite
UM1995-43-SiO:BTH	*Dokl. Akad. Nauk 342, 361	Am. Mineral. 81, 769	Th ₆ B ₈ Si ₇ O ₃₈
UM1995-44-Sn:Pd	*Dokl. Akad. Nauk 344, 91	Am. Mineral. 82, 1040	PdSn ₂
UM1995-45-Te:BiSSe	Neues Jb. Mineral. Abh. 169, 305	Am. Mineral. 81, 519	Bi ₃ Te ₂ (Se,S) ₂ ; previously equated erroneously with UM1976-30-Te:BiPbS
UM1995-46-E:AuPdPt	S. Afr. J. Geol. 98 (2), 168	Am. Mineral. 81, 1016	(Pt,Au) _{0.66} Pd _{0.34} ; transferred from Invalid list
UM1996-01-As:PdSbTe	Mineral. Mag. 60, 672	Am. Mineral. 82, 209	Pd ₈ (As,SbTe) ₃
UM1996-02-As:PdTe	Geol. Surv. Finland Sp. Paper 26, 63	Can. Mineral. 42, 563	Pd ₁₁ Te ₂ As ₂ ; appears to be the As-analogue of miessite
UM1996-03-AsO:AlFeGaHPbS	Can. Mineral. 34, 1305		PbGa ₃ (AsO ₄ ,SO ₄) ₂ (OH) ₆ ; the Ga-analogue of segnitite
UM1996-04-AsO:CaGaGeH	Can. Mineral. 34, 1305		Ca(Ga,Fe,Al)(AsO ₄) ₂ (OH) ₆ ; the Ga-analogue of arsenocrandallite
UM1996-05-E:AgAuPd	Geol. Surv. Finland Sp. Paper 26, 63		AuAgPd
UM1996-06-E:AuCuPd	Geol. Surv. Finland Sp. Paper 26, 63		Au ₄ (Pd,Cu)

UM1996-07-E:AuCuPd	Geol. Surv. Finland Sp. Paper 26, 63		Au7CuPd
UM1996-08-E:CuFePt	Geol. Surv. Finland Sp. Paper 26, 63		Pt6FeCu; intermediate between UM1992-09-E:CuFePt & isoferroplatinum
UM1996-09-E:CuPt	Geol. Surv. Finland Sp. Paper 26, 63		Pt2Cu
UM1996-10-E:CuPt	Geol. Surv. Finland Sp. Paper 26, 63		Pt5Cu2
UM1996-11-E:CuPt	Geol. Surv. Finland Sp. Paper 26, 63		Pt7Cu
UM1996-12-E:FePt	Mineral. Petrol. 56, 25	Am. Mineral. 81, 1515	Very close to Pt4Fe3
UM1996-13-E:FePt	Mineral. Petrol. 56, 25	Am. Mineral. 81, 1515	Very close to Pt2Fe
UM1996-14-E:HgPbPdPt	Explor. Mining Geol. 5, 73		(Pd,Pt)2(Pb,Hg)
UM1996-15-E:PdPt	Geol. Surv. Finland Sp. Paper 26, 63		Pt4Pd
UM1996-16-O:Al	Clays Clay Minerals 44, 658	Am. Mineral. 82, 623	Eta-Al2O3; polymorph of corundum
UM1996-17-O:CrFeNbTiV	Mineral. Mag. 60, 403	Am. Mineral. 82, 209	(V,Cr,Ti)2(Ti,V ⁴⁺ ,Nb)Os; perhaps related to berdesinskiite
UM1996-18-O:FeIrPtRh	Explor. Mining Geol. 5, 73		(Ir,Fe,Rh,Pt)2O3
UM1996-19-O:FeIrPtRh	Explor. Mining Geol. 5, 73		(Ir,Fe,Rh,Pt)O
UM1996-20-O:FeIrPtRh	Explor. Mining Geol. 5, 73		(Ir,Fe,Rh,Pt)3O7
UM1996-21-O:FeMnZn	Materials Res. Bull. 31, 1587	Am. Mineral. 82, 1041	(Zn,Mn)Fe2O4; tetragonal dimorph of franklinite
UM1996-22-O:FePt	Explor. Mining Geol. 5, 73		~(Pt,Fe)2O3
UM1996-23-O:FePt	Explor. Mining Geol. 5, 73		~(Pt,Fe)O2
UM1996-24-O:FePt	Explor. Mining Geol. 5, 73		~(Pt,Fe)3O4
UM1996-25-OH:AICMg	*Kristallografiya 41, 1024	Am. Mineral. 82, 1041	Mg4Al2(OH)12(CO3)3H2O; similar composition to UM1987-05-OH:AICMg but different cell dimensions
UM1996-26-PO:FeGaHPb	Can. Mineral. 34, 1305		PbGa(Fe,Al)(PO4,SO4)2(OH)6; P-analogue of gallobeudantite
UM1996-27-S:AgBiPbSb	Neues Jb. Mineral. Mh. (1996), 377	Am. Mineral. 82, 1264	~(Pb,Ag)3(Sb,Bi)5S8
UM1996-28-S:AgPbTe	*Acta Petrol. Mineral. 15, 80	Am. Mineral. 82, 209	(Ag,Pb)3(S,Te); mineral designated "M3"
UM1996-29-S:AgTe	*Acta Petrol. Mineral. 15, 80	Am. Mineral. 82, 209	Ag(S,Te)2; mineral designated "M1"
UM1996-30-S:BiCuPb	Mineralium Deposita 31, 1	Am. Mineral. 81, 1016	Cu2Pb6Bi8S19
UM1996-31-S:CuFeGe	Can. Mineral. 34, 1305		Cu7(Ge,Fe,As)S12; transferred to Invalid list
UM1996-32-S:CuPb	Acta Mineral. Sinica 16, 304	Am. Mineral. 83, 402	CuPbS2
UM1996-33-S:CuPdPt	Explor. Mining Geol. 5, 73		(Pd,Pt)Cu2S2
UM1996-34-S:PbTe	*Acta Petrol. Mineral. 15, 80	Am. Mineral. 82, 209	Pb(S,Te)2; mineral designated "M4"
UM1996-35-S:Sb	J. Mater. Sci. 31, 6507	Am. Mineral. 84, 1687	Sb2S3; possibly a new polymorph of stibnite
UM1996-36-Sb:Au	Econ. Geol. 91, 1239		Au2Sb3; distinct from aurostibite
UM1996-37-SbO:CaFHNa	Mineral. J. 18, 155	Am. Mineral. 82, 1264	(Na1.00Ca0.80Mn0.01)Sb2.00[Os.69F0.89(OH)0.36]; probably Na- & F-dominant analogue of roméite
UM1996-38-SiO:AlCaHNa	Austral. J. Mineral. 2 (1), 11-20	Am. Mineral. 82, 210	A Na-Ca zeolite
UM1996-39-SiO:BaClFeNbTi	Mineral. Mag. 60, 473	Am. Mineral. 82, 433	Ba4(Nb,Ti,Fe)8Si4O28Cl; a Nb-dominant analogue of baotite
UM1996-40-SiO:BaFFeHKNaTi	Can. Mineral. 34, 779	Am. Mineral. 82, 430	(Ba,K,Na)FeTi2Si2O9(F,O,OH)2; similarities to bafertisite
UM1996-41-SiO:CCaCeFFeNbPbThTiU	Can. Mineral. 34, 779	Am. Mineral. 82, 433	~(Ce,Ca,K,Na,Ba)Pb2(Fe,Al,Mn,Zn)(Nb,Ti,Zr,Th,U)5(SiO2)6(CO2)9(F,OH,O); possibly a silicocarbonate
UM1996-42-Te:Pt	Geol. Surv. Finland Sp. Paper 26, 63		PTe
UM1997-01-As:FeIrNiS	J. Petrol. 38, 1419		~(Ir,Fe,Ni,Rh)3(As,S)2
UM1997-02-As:IrOs	J. Petrol. 38, 1419		~(Ir,Os)2As
UM1997-03-As:IrOsTe	Eur. J. Mineral. 9, 457	Am. Mineral. 82, 1263	(Ir,Os)(As,Te)
UM1997-04-As:IrSSe	Zap. Vser. Mineral. Ob. 126 (6), 23	Am. Mineral. 83, 1349	Ir(As,Se,S)2
UM1997-05-As:NiOs	J. Petrol. 38, 1419		~(Ni,Os)2As
UM1997-06-AsO:CaCuH	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-07-AsO:CaH	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	Ca(H2AsO4)2; later named svenekite : J. Czech Geol. Soc. 48, 149
UM1997-08-AsO:CaHMg	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern; it dehydrates to picropharmacoilite
UM1997-09-AsO:CaHMgZn	J. Czech Geol. Soc. 42 (4), 77		(Mg,Ca,Zn)5(AsO4)2(AsO3)2(OH)2*4H2O; X-ray diffraction pattern distinctive
UM1997-10-AsO:CaV	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-11-AsO:CuH	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-12-AsO:CuH	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-13-AsO:CuH	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-14-AsO:FeH	J. Czech Geol. Soc. 42 (4), 77		An arsenate with a distinct X-ray powder diffraction pattern
UM1997-15-AsO:FeH	J. Czech Geol. Soc. 42 (4), 77		A secondary Fe-arsenate with a distinct X-ray powder diffraction pattern
UM1997-16-AsO:HMg	J. Czech Geol. Soc. 42 (4), 77		A secondary Mg-arsenate with a distinct X-ray powder diffraction pattern
UM1997-17-AsO:HMg	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	MoAs2O9*3H2O; transferred to Invalid list
UM1997-18-AsO:HNIU	J. Czech Geol. Soc. 42 (4), 77		Ni(UO2)2(AsO4)2*6-8H2O; X-ray powder diffraction pattern distinctive
UM1997-19-AsO:HU	J. Czech Geol. Soc. 42 (4), 77		(H3O)2(UO2)2(AsO4)2*8H2O; X-ray powder diffraction pattern distinctive
UM1997-20-AsO:HU	J. Czech Geol. Soc. 42 (4), 77		U ⁴⁺ (HAsO4)2*4H2O; X-ray powder diffraction pattern distinctive
UM1997-21-AsO:HZn	J. Czech Geol. Soc. 42 (4), 77		A hydrated zinc arsenate with a distinct X-ray powder diffraction pattern
UM1997-22-Cl:KNa	*Zap. Vser. Mineral. Ob. 126 (5), 78	Am. Mineral. 83, 1349	Assumed to be a chloride; d-values appear to be distinctive
UM1997-23-CO:CaCuHU	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	Ca5Cu(UO2)4(CO3)6(OH)8*4H2O
UM1997-24-CO:CaCuHU	J. Czech Geol. Soc. 42 (4), 77	Am. Mineral. 84, 687	Ca2Cu(UO2)2(CO3)2O3*3H2O
UM1997-25-CO:CaCuHU	J. Czech Geol. Soc. 42 (4), 77		A uranyl carbonate with a distinct X-ray powder diffraction pattern
UM1997-26-CO:CaFREE	*Acta Mineral. Sinica 17, 239	Am. Mineral. 83, 910	(Ce,La)Ca[CO3]2F; a trigonal polymorph of synchysite-(Ce)
UM1997-27-CO:CaHKSU	J. Czech Geol. Soc. 42 (4), 77		KCa3[UO2][CO3]3[SO4]F*10H2O; X-ray powder diffraction pattern distinctive
UM1997-28-CO:CaHMg	Am. Mineral. 82, 812		(Mg,Ca)CO3*3H2O
UM1997-29-E:CuFeOsRu	J. Petrol. 38, 1419		(Os,Ru)(Cu,Fe)
UM1997-30-E:CuPtSb	Can. Mineral. 35, 1		(Pt,Cu,Sb)
UM1997-31-O:AlCrFeMg	Neues Jb. Mineral. Mh. (1997), 163	Am. Mineral. 83, 189	Tetragonal Mg(Al,Cr,Fe)2O4; a component of the discredited mineral donathite

UM1997-32-O:CaNbREETI	*Acta Mineral. Sinica 17 (3), 270	Am. Mineral. 83, 910	(REE,Nb,Ca) ₂ Ti ₃ O ₉
UM1997-33-O:FeHglrOsRu	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Ru,Fe,Hg,Os,Ir) ₂ O ₉ ; perhaps related to UM1999-12-O:FeIrOsPtRu
UM1997-34-O:FeIrOsRu	Can. Mineral. 35, 611	Am. Mineral. 84, 197	(Ru,Os,Ir,Fe) ₂ (O) ₂₋₃ ; of dubious validity because of very poor totals
UM1997-35-O:HPbU	J. Czech Geol. Soc. 42 (4), 77		Probably a hydrated oxide; X-ray powder diffraction pattern distinctive
UM1997-36-O:HU	J. Czech Geol. Soc. 42 (4), 77		Probably a hydrated oxide; X-ray powder diffraction pattern distinctive
UM1997-37-PO:BiHU	J. Czech Geol. Soc. 42 (4), 77		Bi ₄ (UO ₂)(PO ₄) ₂ O ₄ ·2H ₂ O; given 'working name' "phosphate-walpurkite"; transferred to Invalid list
UM1997-38-S:AsIrOs	J. Petrol. 38, 1419		~(Ir,Os) ₂ (S,As) ₃
UM1997-39-S:BiPbTe	Austral. J. Mineral. 3, 119	Am. Mineral. 83, 1119	PbBi ₄ Te ₄ S ₃ ; transferred to Invalid list
UM1997-40-S:CuFeIrNiOsRh	Can. Mineral. 35, 611	Am. Mineral. 83, 402	(Fe,Cu,Ni)(Os,Ir,Rh) ₂ S ₄ ; very poor analytical total
UM1997-41-S:CuFeKNiPbTi	Can. Mineral. 35, 1421	Am. Mineral. 84, 193	(K,Tl,Pb) ₆ (Fe,Cu,Ni) ₂ S ₂₇
UM1997-42-S:CuFeKNiPbTi	Can. Mineral. 35, 1421	Am. Mineral. 84, 193	(Tl,K,Pb) ₆ (Fe,Ni,Cu) ₂ S ₂₇
UM1997-43-S:Fe	*J. Trace and Microprobe Techniques 15, 515	Am. Mineral. 83, 910	FeS ₃
UM1997-44-S:FeK	Mineral. Mag. 61, 779		(K)1-2(Fe)2-3(S)3-4; substantial grain to grain compositional variations
UM1997-45-SO:CuHU	J. Czech Geol. Soc. 42 (4), 77		A uranyl sulphate later equated with pseudojohannite; transferred to Invalid list
UM1997-46-SO:FeHKMgU	J. Czech Geol. Soc. 42 (4), 77		(Mg,Fe,K ₂) ₂₋₃ (UO ₂) ₆ (SO ₄) ₃ (OH) ₁₂ ·9-16H ₂ O; X-ray powder pattern distinctive
UM1997-47-SO:FeHMgU	J. Czech Geol. Soc. 42 (4), 77		(Mg,Fe) ₂₋₃ (UO ₂) ₆ (SO ₄) ₃ (OH) ₁₂ ·4-16H ₂ O; X-ray powder diffraction pattern distinctive
UM1997-48-SO:HPbU	J. Czech Geol. Soc. 42 (4), 77		A hydrated uranyl lead sulphate with distinct X-ray powder diffraction pattern
UM1997-49-SIO:AlFeMg	Nature 387, 486	Am. Mineral. 83, 188	(Mg,Fe ³⁺)(Al,Cr,Mn) ₂ (Mg,Fe ²⁺) ₂ Si ₃ O ₁₂ ; acronym "TAPP" (tetragonal almandine-pyrope phase) used
UM1997-50-SIO:CaHU	J. Czech Geol. Soc. 42 (4), 77		Ca ₂ (UO ₂) ₂ (Si ₂ O ₅) ₃ ·10H ₂ O; X-ray powder diffraction pattern distinctive
UM1997-51-SIO:CeCrLaNdTi	*Russian Geol. Geophys. 38, 405	Am. Mineral. 83, 403	(Ce,La,Nd) ₄ (Mg,Fe,Ca)Cr ₂ (Ti,Al,Nb) ₂ Si ₄ O ₂₂ ; perhaps a Cr-analogue of chevkinite-(Ce)
UM1997-52-SIO:FeMg	Science 277, 1084	Am. Mineral. 83, 402	(Mg,Fe)SiO ₃ ; a high-pressure ilmenite-type mineral
UM1997-53-SIO:FeMg	Science 277, 1084	Am. Mineral. 83, 402	(Mg,Fe)SiO ₃ ; a high-pressure perovskite-type mineral
UM1997-54-Te:AsIrOs	Eur. J. Mineral. 9, 457	Am. Mineral. 82, 1263	(Ir,Os)(Te,As)
UM1997-55-Te:BiPd	Econ. Geol. 92, 490	Am. Mineral. 83, 655	Approximately Pd ₃ (Te,Bi) ₂
UM1997-56-Te:IrOsRu	Eur. J. Mineral. 9, 457	Am. Mineral. 82, 1263	(Ru,Ir,Os)Te
UM1997-57-Te:RhRuSb	Can. Mineral. 35, 1	Am. Mineral. 82, 1263	(Ru,Rh)(Te,Sb) ₂
UM1998-01-AsSb:CoFeNi	Can. Mineral. 36, 855		(Fe,Co,Ni)SbAs
UM1998-02-BOSIO:AlFeMg	Can. Mineral. 36, 399	Am. Mineral. 84, 993	(Fe,Mg) ₂ Al ₁₂ (Al,Fe) ₂ Si ₄ B ₂ (B,Al) ₂ O ₃₇ ; the Fe-analogue of wendringite
UM1998-03-Cl:TI	Lithology & Mineral Resources 33, 525	Am. Mineral. 84, 993	TlCl
UM1998-04-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₆ Ce ₁₄ (CO ₃) ₂₀ F ₁₄ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₈ S ₆ -I"
UM1998-05-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₆ Ce ₁₄ (CO ₃) ₂₀ F ₁₄ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₈ S ₆ -II"
UM1998-06-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₆ Ce ₁₆ (CO ₃) ₂₂ F ₁₆ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₁₀ S ₆ -I"
UM1998-07-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₆ Ce ₁₆ (CO ₃) ₂₂ F ₁₆ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₁₀ S ₆ -II"
UM1998-08-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₄ Ce ₁₁ (CO ₃) ₁₅ F ₁₁ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₇ S ₄ -I"
UM1998-09-CO:CaCeF	Mineral. Mag. 62, 55	Am. Mineral. 83, 1119	Ca ₄ Ce ₁₁ (CO ₃) ₁₅ F ₁₁ ; regularly interstratified bastnasite-(Ce)/synchysite-(Ce), designated "B ₇ S ₄ -II"
UM1998-10-CO:CoHNI	Clay Minerals, 33, 285	Am. Mineral. 84, 687	Ni ₆ Co ₂ (CO ₃)(OH) ₁₆ ·4H ₂ O; some similarities to combainite
UM1998-11-O:AuHSb	C.R. Acad. Sci. Paris, Ser. D, 326, 533	Am. Mineral. 84, 197	Au ₂ SbO ₂ (OH)
UM1998-12-S:AgBiCuPb	Mineral. Zhurn. 20 (4), 14	Am. Mineral. 86, 378	Ag ₅ CuBi ₄ Pb(S,Se) ₁₁
UM1998-13-S:CuFeNi	J. Petrol. Mineral. Econ. Geol. 93, 369	Mineral. Abst. 52, 01M/0724	Cu ₂ Fe ₆ Ni ₂ S ₈ ; designated mineral "Y"; later described under the name sugakiite: Can. Mineral. 46, 233; transferred to Invalid list
UM1998-14-S:CuFeNi	J. Petrol. Mineral. Econ. Geol. 93, 369	Mineral. Abst. 52, 01M/0724	Cu ₂ Fe ₅ Ni ₂ S ₈ ; designated mineral "Z"; similarities to UM1975-14-S:CuFeNi
UM1998-15-S:CuFeZn	*Geol. Ore Deposits 40, 228	Am. Mineral. 84, 197	Cu ₂ Fe ₃ Zn ₅ S ₁₀
UM1998-16-S:FeNi	J. Petrol. Mineral. Econ. Geol. 93, 369	Mineral. Abst. 52, 01M/0724	Fe ₈ Ni ₃ S ₈ ; designated mineral "X"; similarities to UM1975-14-S:CuFeNi & UM2002-25-S:FeNi
UM1998-17-SO:AlHNaPSr	*Dokl. Akad. Nauk 359, 223	Am. Mineral. 84, 1687	Alunite group
UM1998-18-Se:AgBi	Neues Jb. Mineral. Mh. (1998), 36	Am. Mineral. 83, 1349	Ag ₃ BiSe ₃
UM1998-19-SIO:BBaBeCaFPb	Mineral. Mag. 62, 77	Am. Mineral. 83, 1119	(Pb,Ba,K) ₄ Ca ₂ Si ₈ (B,Be) ₂ (Si,B) ₂ O ₂₈ F; Pb-analogue of hyalotekite
UM1998-20-SIO:BeCaHREEY	Can. Mineral. 36, 793		Ca(Y,Ce,Nd,Tb,Er)Be ₂ Si ₂ (O,OH) ₁₀
UM1998-21-SIO:CaCeCtHMnNaZr	*Dokl. Akad. Nauk 362, 784	Am. Mineral. 84, 1198	Na ₁₆ Ca ₆ (Mn,Ce) ₃ Zr ₃ (Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (OH,Cl) ₄ ; probably a eudialyte group mineral
UM1998-22-Te:BiFeNiPd	*Vest. Českého Geol. Ústavu 73, 117	Am. Mineral. 84, 1197	Pd ₂ (Ni,Fe)BiTe ₆
UM1998-23-Te:BiNiPdSb	*Vest. Českého Geol. Ústavu 73, 117	Am. Mineral. 84, 1197	PdNi(Sb,Bi)Te ₂
UM1999-01-As:CuIrPdPtRh	Can. Mineral. 37, 1117	Am. Mineral. 85, 1325	(Pt,Rh,Cu,Pd,Ir) ₄ As
UM1999-02-As:NIrh	Can. Mineral. 37, 1131	Am. Mineral. 85, 1325	(Rh,Ni) ₇ As ₄ ; data do not allow distinction from Ni,Pt-bearing polkanovite; transferred to Invalid list
UM1999-03-As:NIrh	Can. Mineral. 37, 1131		(Rh,Ni) ₂ As; data do not allow distinction from Ni,Pt-bearing polkanovite; transferred to Invalid list
UM1999-04-AsO:CaYREE	Can. Mineral. 37, 961		(Nd,Pr,La,Ca,Y)AsO ₄
UM1999-05-AsO:REE	Can. Mineral. 37, 961		(La,Ce,Pr,Nd)(As,V)O ₄
UM1999-06-AsO:REE	Can. Mineral. 37, 961		(Y,Ce,Nd,Th,Ca)(As,P)O ₄ ; same as chernovite-(Y); transferred to Invalid list
UM1999-07-E:AuCuPt	Eur. J. Mineral. 11, 363		CuPt _{0.3} Au _{1.0}

UM1999-08-E:AuHgPd	Eur. J. Mineral. 11, 363		Pd _{0.7} Au _{0.3} Hg _{0.1}
UM1999-09-E:AuPd	Dokl. Earth Sci. 369, 1161	Am. Mineral. 85, 1845	Pd ₃ Au ₂
UM1999-10-E:CuPtSb	*Zap. Vser. Mineral. Ob. 128 (5), 79	Am. Mineral. 86, 377	Pt(Cu,Sb)
UM1999-11-I:CuS	*Dokl. Earth Sci. 369, 1166	Am. Mineral. 85, 1845	Cu(I,S)
UM1999-12-O:FeREETI	Can. Mineral. 37, 177		(Ce,Nd,Pr,La) _{1.4} Ti ₂ O ₆
UM1999-13-O:HlRrh	Can. Mineral. 37, 1117	Am. Mineral. 85, 1325	(Ir,Rh)O(OH)•H ₂ O
UM1999-14-O:HPd	Mineral. Mag. 63, 345	Am. Mineral. 85, 265.	Probably PdO•3H ₂ O
UM1999-15-O:IrOsRu	Can. Mineral. 37, 1131		(Ru,Ir,Os,Fe)O; perhaps related to UM1997-34-O:FeIrOsRu
UM1999-16-O:PbPd	Can. Mineral. 37, 1507	Am. Mineral. 85, 1564	Pd ₉ PbO ₁₀ ; properties differ from those of "palladinite"; cf. UM1995-18-O:CuPd
UM1999-17-O:PbV	Can. Mineral. 37, 1507	Am. Mineral. 85, 1564	Pb ₄ V ₂ O ₉ ; composition different from that of chervetite
UM1999-18-OH:Pd	Mineral. Mag. 63, 345	Am. Mineral. 85, 265	Probably Pd(OH) ₂ ; may be hydrated
UM1999-19-PO:FeKMnNa	Meteor. Planet. Sci. 34, 285	Am. Mineral. 84, 1688	(K,Na)(Fe,Mn) ₄ (PO ₄) ₃ ; perhaps the K-dominant analogue of galleite
UM1999-20-S:AgAsPbSbTI	*Resource Geol. Spec. Issue 20, 31	Am. Mineral. 86, 378	(Ti,Ag) ₂ Pb ₆ (As,Sb) ₁₆ S ₃₁
UM1999-21-S:AgCu	Natura Carpatica 40, 9	Mineral. Abst. 53, 02/1959	AgCu ₄ S ₄
UM1999-22-S:CuFeInSnZn	*Resource Geol. 49, 89	Am. Mineral. 85, 628	(Zn,Cu,Fe) ₁₃ (In,Sn) ₃ S ₁₆ ; similarities to sakuraite
UM1999-23-S:CuFeSnZn	*Resource Geol. 49, 75	Am. Mineral. 85, 628	Cu ₆ (Fe,Cu,Zn)Sn ₃ S ₁₀ ; distinctly similar to kuramite
UM1999-24-S:CuMn	Dokl. Earth Sci. 369, 1166	Am. Mineral. 85, 1845	(Cu,Mn) ₃ (S,I) ₂
UM1999-25-S:CuIrNiRh	Can. Mineral. 37, 1099		(Ir,Rh)(Ni,Cu) ₂ S ₄
UM1999-26-S:CuPtRh	Can. Mineral. 37, 1117	Am. Mineral. 85, 1325	(Cu,Rh,Pt)S
UM1999-27-S:FeIrNiOsRu	Eur. J. Mineral. 11, 363		(Ni,Fe,Os,Ru,Ir) ₇ S ₅ ; PGE content very variable
UM1999-28-SO:HMg	*Zap. Vser. Mineral. Ob. 128 (4), 99	Am. Mineral. 85, 1564	MgSO ₄ •4H ₂ O; probably a dimorph, provisionally referred to as "ß-starkeyite"
UM1999-29-SeO:ClCuHPb	Can. Mineral. 37, 1493	Am. Mineral. 85, 1563	Pb ₄ (Cu,Zn)Cl ₃ [SeO ₃](OH,Cl); could also be considered a chloride
UM1999-30-Si:AlFe	*Zap. Vser. Mineral. Ob. 128 (2), 80	Am. Mineral. 85, 876	(Al,Fe)Si
UM1999-31-Si:REE	*Zap. Vser. Mineral. Ob. 128 (2), 80	Am. Mineral. 85, 876	(Ce,La,Nd,Gd,Pr)Si
UM1999-32-SiO:	Science 284, 1511	Am. Mineral. 85, 265.	SiO ₂ polymorph; later named seifertite: Eur. J. Min. 20 (2009), 523; transferred to Invalid list
UM1999-33-SiO:AlHKNa	Cryst. Reports 44, 776		K ₇ Na ₅ Al ₁₂ Si ₂₀ O ₆₄ •24H ₂ O; a zeolite - the Na-K analogue of merlinoite
UM1999-34-SiO:Ca	Earth Planet. Sci. Lett. 173, 1	Am. Mineral. 85, 876	CaSiO ₃
UM1999-35-SiO:Ca	Earth Planet. Sci. Lett. 173, 1	Am. Mineral. 85, 876	CaSi ₂ O ₅
UM1999-36-SiO:CaCeHMnNaNbSrZr	*Cryst. Reports 44, 765	Am. Mineral. 85, 1846	Na ₁₇ Mn ₃ Ca ₂ Zr ₃ Si ₂₆ O ₇₂ (OH,F,Cl) ₄ ; an Mn-rich eudialyte group mineral
UM1999-37-SiO:CaClFeHMnNaREESrTiZr	*Z. Krist. 47, 246	Am. Mineral. 85, 265	A Ti-rich member of the eudialyte family; later described under the name dualite: Zap. Ross. Mineral. Ob. 136 (2007) (4), 31; transferred to Invalid list
UM1999-38-WO:CrV	*Aufschluss 50, 23	Am. Mineral. 84, 1687	Possible formula: (V,Cr)WO ₄ (?); distinctive X-ray powder diffraction pattern; could alternatively be an oxide
UM2000-01-E:AuCuFePd	Mineralium Deposita 35, 762		Au ₂ (Cu,Pd,Fe) ₃
UM2000-02-E:AuCuHgSn	*Zap. Vser. Mineral. Ob. 129 (2), 54	Am. Mineral. 88, 933	Cu ₃ AuHg _{0.4} Sn _{0.7}
UM2000-03-E:AuCuHgSn	*Zap. Vser. Mineral. Ob. 129 (2), 54	Am. Mineral. 88, 933	Cu ₃ Au _{1.8} HgSn
UM2000-04-E:AuCuPd	Can. Mineral. 38, 1251		Au _{0.69} Pd _{0.23} Cu _{0.08} , or approximately Au ₂ (Pd,Cu)
UM2000-05-E:AuSn	Schweiz. Mineral. Petrog. Mitt. 80, 291	Am. Mineral. 86, 1537	AuSn ₂
UM2000-06-E:BiNb	Zap. Vser. Mineral. Ob. 129 (5), 1		Bi _{0.45-0.52} Nb _{0.40-0.45} Cu _{0.02-0.03} Zn _{0.01-0.02}
UM2000-07-E:CrFeNi	Can. Mineral. 38, 585		(Ni,Fe,Cr)
UM2000-08-E:CrFeNi	Can. Mineral. 38, 585		(Fe,Ni,Cr)
UM2000-09-E:CuFeNiPtRh	Can. Mineral. 38, 585		(Pt,Rh) _{0.55} (Fe,Cu,Ni) _{0.45} ; similarities to tetraferroplatinum
UM2000-10-E:CuNiZn	Zap. Vser. Mineral. Ob. 129 (5), 1		Cu _{0.65} Zn _{0.21} Ni _{0.14}
UM2000-11-E:CuPbSn	Zap. Vser. Mineral. Ob. 129 (5), 1		Sn _{0.61-1.00} Pb _{0-0.38} Cu _{0-0.18} ; a wide range of Sn-Pb-(Cu) compositions
UM2000-12-E:CuPbSn	Zap. Vser. Mineral. Ob. 129 (5), 1		Pb _{0.64} Sn _{0.23} Cu _{0.13}
UM2000-13-E:CuPbSn	Zap. Vser. Mineral. Ob. 129 (5), 1		Sn _{0.51-0.60} Cu _{0.40-0.49} Pb _{0-0.05}
UM2000-14-E:FeIrNi	Can. Mineral. 38, 585		~ Ir(Ni,Fe) ₂
UM2000-15-E:FeIrNi	Can. Mineral. 38, 585		~ Ir(Ni,Fe) ₄
UM2000-16-E:FeIrNi	Can. Mineral. 38, 585		~ Ir ₂ (Fe,Ni)
UM2000-17-E:FeIrNi	Can. Mineral. 38, 585		~ Ir ₃ (Ni,Fe) ₂
UM2000-18-E:FeIrNiOs	Can. Mineral. 38, 585		~ (Ir,Os)(Ni,Fe)
UM2000-19-E:FeNiPtRh	Can. Mineral. 38, 585		(Pt,Rh) _{0.64} (Fe,Ni) _{0.36}
UM2000-20-E:PbPdTe	Mineralium Deposita 35, 762		Pd ₂ (Pb,Te)
UM2000-21-E:Ti	Earth Planet. Sci. Lett. 177, 237		A tetragonal polymorph of Ti-metal
UM2000-22-O:AgFeH	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₄ Fe ₉ O ₁₆ •8H ₂ O, assuming monovalent state of Ag shown by authors; anal. #8
UM2000-23-O:BiFeHPbSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Pb(Fe,Cu) ₂ (Sb,Bi) ₆ O ₁₃ •3H ₂ O, assuming Sb & Bi are trivalent as shown by authors; anal. #9
UM2000-24-O:BiFeHSSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Fe ₄ (Sb,Bi) ₁₅ O ₂₇ (SO ₄)(OH), assuming Sb & Bi are trivalent as shown by authors; anal. #10
UM2000-25-O:BiFeHSSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Fe ₂ Sb ₉ Bi ₉ O ₃₀ (SO ₃) ₂ •26H ₂ O, assuming Sb & Bi are trivalent as shown by authors; anal. #11
UM2000-26-O:BiFeHSSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Fe ₁₀ Sb ₈ Bi ₅ O ₃₄ (SO ₃) ₂ (OH) ₄ •42H ₂ O, assuming Sb & Bi are trivalent as shown by authors; anal. #12
UM2000-27-O:BiPd	Eur. J. Mineral. 12, 431	Am. Mineral. 86, 199	A solid solution series from Pd ₅ Bi ₄ O ₅₅ to Pd ₂₉ Bi ₃₁ O ₄₀
UM2000-28-O:BiPdSb	Eur. J. Mineral. 12, 431	Am. Mineral. 86, 199	A solid solution series from Pd(Sb,Bi) ₂ O ₂ to Pd ₂ (Sb,Bi)O
UM2000-29-O:FeHMnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		Pb(Fe,Mn) ₁₅ O ₂₆ •14H ₂ O, approximately, assuming tetravalent state of Mn shown by authors; anal. #5
UM2000-30-O:FeHMnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		Pb(Mn,Fe) ₅ O ₁₀ •3H ₂ O, approximately, assuming tetravalent state of Mn shown by authors; anal. #6

UM2000-31-O:FeHMnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		Pb ₃ (Mn,Fe) ₁₈ O ₃₆ (OH)•7H ₂ O, approximately, assuming tetravalent state of Mn shown by authors; anal. #7
UM2000-32-O:FeHPbSbSiSn	Zap. Vser. Mineral. Ob. 129 (5), 60		PbSn ₃ (Si,Fe,Sb) ₈ (OH)•11H ₂ O, approximately, assuming trivalent state of Sb shown by authors; anal. #13
UM2000-33-O:FeHPbSbSiSn	Zap. Vser. Mineral. Ob. 129 (5), 60		PbSn ₃ (Sb,Fe,Si) ₅ O ₁₅ •17H ₂ O, approximately, assuming trivalent state of Sb shown by authors; anal. #14
UM2000-34-O:FeHSbSn	Zap. Vser. Mineral. Ob. 129 (5), 60		Sn ₄ Sb ₅ Fe ₅ O ₂₂ (OH) ₂ •15H ₂ O, approximately, assuming trivalent state of Sb shown by authors; anal. #15
UM2000-35-O:FeNbScTaTi	Can. Mineral. 38, 907		(Sc,Fe ²⁺ ,Fe ³⁺ ,Mn)(Ti,Sn,Zr) _{1.5} (Nb,Ta,W) _{1.33} O ₈ ; a rutile-group mineral
UM2000-36-O:HFePb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbFe ₄ O ₇ •5H ₂ O; anal. #1
UM2000-37-O:HMnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbMn ₅ O ₁₁ •7H ₂ O, approximately, assuming tetravalent state of Mn shown by authors; anal. #2
UM2000-38-O:MnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbMn ₆ O ₇ ; anal. #3
UM2000-39-O:MnPb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbMn ₇ O ₈ ; anal. #4
UM2000-40-O:PdSb	Eur. J. Mineral. 12, 431	Am. Mineral. 86, 199	Pd ₅ Sb ₂ O ₄
UM2000-41-O:Ti	Science 288, 321	Am. Mineral. 85, 1846	A TiO ₂ polymorph; might be considered a zirconium-free srilankite
UM2000-42-P:CrFeNi	Am. Mineral. 85, 1082		(Fe,Ni) ₅ CrP ₃
UM2000-43-P:CrFeNi	Am. Mineral. 85, 1082		(Fe,Ni) ₄ Cr ₂ P ₃ ; evidently the same as andreyivanovite (Am. Mineral 93, 1295); transferred to Invalid list
UM2000-44-S:AgAsPbSb	*J. Czech Geol. Soc. 45, 63	Am. Mineral. 86, 941	Pb ₉ Ag(Sb,As) ₁₃ S ₂₉
UM2000-45-S:AgAsSb	*J. Czech Geol. Soc. 45, 63	Am. Mineral. 86, 942	Ag ₂ SbAs ₄ S ₄
UM2000-46-S:BiCuPb	Eur. J. Mineral. 12, 899	Am. Mineral. 86, 199	Cu _{0.3} Pb _{0.3} Bi _{0.7} S ₁₂ ; "phase 88.6"; a bismuthinite derivative
UM2000-47-S:CuFePdPt	Can. Mineral. 38, 1251		PTPd(Fe,Cu)S
UM2000-48-S:CuPdPt	Can. Mineral. 38, 1251	Am. Mineral. 86, 941	(Pd,Cu,Pt) ₃ S ₃ ; (Table 7, anal. #3)
UM2000-49-S:FePdPt	Can. Mineral. 38, 1251	Am. Mineral. 86, 941	(Pt,Pd,Fe) ₃ S ₂ ; (Table 7, anal. #1 & #2); close to UM2000-51-S:PtPt
UM2000-50-S:FeRh	Can. Mineral. 38, 1251		(Fe _{0.79} Rh _{0.11} Cu _{0.04} Pt _{0.01})S
UM2000-51-S:PtPd	Can. Mineral. 38, 1251	Am. Mineral. 86, 941	(Pt,Pd) ₃ S ₂ ; possibly related to UM1992-26-S:CuOsPdPtRh
UM2000-52-SO:Ag	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₂ SO ₄ , assuming the valence state of Ag shown by the authors; anal. #21
UM2000-53-SO:Ag	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₆ (SO ₃) ₄ O ₃ , assuming the valence state of Ag shown by the authors; anal. #22
UM2000-54-SO:AgBiFeSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₄ Fe ₈ (Sb,Bi) ₂ O ₁₅ (SO ₄) ₂ , assuming trivalent Sb & Bi and monovalent Ag as shown by authors; anal. #18
UM2000-55-SO:AgBiFeSb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₁₂ Fe ₁₈ (Sb,Bi) ₃ O ₃₀ (SO ₄) ₅ , assuming trivalent Sb & Bi and monovalent Ag as shown by authors; anal. #19
UM2000-56-SO:AgCu	Zap. Vser. Mineral. Ob. 129 (5), 60		~Ag ₂₆ Cu ₄ (SO ₃) ₂₀ O ₁₇ •3H ₂ O or perhaps (Ag,Cu) ₃ [S(O,OH) ₄] ₂ ; anal. #20
UM2000-57-SO:AgHPb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Pb ₇ Ag ₄ O ₅ (SO ₄) ₅ •7H ₂ O, assuming the valence state of Ag shown by the authors; anal. #23
UM2000-58-SO:FeHPb	Zap. Vser. Mineral. Ob. 129 (5), 60		~Pb ₄ Fe ₂ O ₅ (SO ₄) ₂ •10H ₂ O; anal. #17
UM2000-59-SO:FeHPbSbSn	Zap. Vser. Mineral. Ob. 129 (5), 60		~Pb ₄ Fe ₄ Sn ₅ Sb ₂ (SO ₃) ₄ O ₂₁ (OH) ₂ •36H ₂ O, assuming trivalent state of Sb shown by authors; anal. #16
UM2000-60-Si:Fe	Can. Mineral. 38, 585	Am. Mineral. 86, 199	Fe ₃ Si ₇
UM2000-61-SiO:	Science 288, 1632	Am. Mineral. 86, 378	A monoclinic SiO ₂ polymorph
UM2000-62-SiO:AlNa	Science 287, 1633	Am. Mineral. 85, 1564	NaAlSi ₃ O ₈ ; a shock-induced albite polymorph
UM2000-63-SiO:BaHKNaNbSrTi	*Dokl. Akad. Nauk 371, 336	Am. Mineral. 86, 379	(H ₃ O) ₄ Na ₂ K(Sr) _{0.4} (Ba) _{0.3} (H ₂ O) _{0.8} (Ti) _{4.5} (Nb) _{3.5} (OH) _{4.5} (O) _{3.5} Si ₁₆ O ₄₈ •4.2H ₂ O; nenadkevichite-labuntsovite group
UM2000-64-SiO:BFHKMg	J. Czech Geol. Soc. 45, 3	Am. Mineral. 86, 940	(K,Na)Fe ³⁺ ₃ (Mg ₂ Fe ³⁺ ₄)Si ₆ O ₁₈ (BO ₃) ₃ (OH) ₃ O; a K-dominant analogue of tourmaline
UM2000-65-SiO:CaCe	*Zap. Vser. Mineral. Ob. 129 (1), 99	Am. Mineral. 86, 378	CaCe ₂ (SiO ₄) ₂
UM2000-66-SiO:CaClFeHMnNaNbSrZr	*Cryst. Reports 45, 930	Am. Mineral. 86, 940	Zr ₃ (Ca,Mn) ₆ (Fe,Mn,Ti) ₃ (Na,Sr) ₁₅ Si ₂₄ O ₆₆ (Nb,Si) ₂ Cl(OH) ₁₀ •H ₂ O; a eudialyte-group mineral; later described under the name taseqite: Neues Jb. Mineral. Mh. (2004), 83; transferred to Invalid list
UM2000-67-SiO:CaClFeHMnNaNbZr	*Cryst. Reports 45, 219	Am. Mineral. 86, 940	Zr ₄ (Ca,Na,Mn,Fe) ₆ (Fe,Mn,Ti) ₃ Na ₁₇ Si ₂₅ O ₇₅ (Al,Nb,Ti)Cl(OH) ₄ •H ₂ O; a eudialyte-group mineral
UM2000-68-SiO:CaHKNaNbTi	*Dokl. Chem. 375, 263	Am. Mineral. 86, 1114	□ ₄ KNa(Ca,Na) ₂ (Nb,Ti) ₈ Si ₆ O ₄₈ (OH,O) ₈ •11H ₂ O; appears to be related to labuntsovite
UM2000-69-SiO:FeHPb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbFe ₁₈ Si ₃ O ₃₄ •9H ₂ O; anal. #27
UM2000-70-SiO:FeHPb	Zap. Vser. Mineral. Ob. 129 (5), 60		Approximately (Fe,Pb) ₁₀ Si ₂ O ₁₉ •6H ₂ O; anal. #24
UM2000-71-SiO:FeMg	*Joannea Mineral. 1, 53	Am. Mineral. 86, 1114	~(□)(Fe,Mg,Mn,Al,Zn) ₅ Si ₁₂ O ₃₀ ; appears to be related to the osumilite group
UM2000-72-SiO:KLIZr	*Zap. Vser. Mineral. Ob. 129 (3), 66	Am. Mineral. 86, 378	KLi ₃ Zr ₂ Si ₁₂ O ₃₀ ; an osumilite-group mineral
UM2000-73-SiO:Pb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbSi ₆ O ₁₃ ; anal. #25
UM2000-74-SiO:Pb	Zap. Vser. Mineral. Ob. 129 (5), 60		PbSi ₉ O ₁₉ ; anal. #26
UM2000-75-Te:AsFePd	Mineralium Deposita 35, 762		(Pd,Fe,Pt,Cu,Ni) ₄ (Te,As)
UM2000-76-Te:CuFePdPt	Mineralium Deposita 35, 762		(Pd,Pt,Fe,Cu) ₅ Te
UM2000-77-Te:FePbPd	Mineralium Deposita 35, 762		(Pd,Pb,Fe,Cu,Ni) ₇ Te ₄
UM2000-78-Te:Pd	Can. Mineral. 38, 1251	Am. Mineral. 86, 941	Pd ₂ Te
UM2000-79-O:CaFeMnNbREETHiZr	Can. Mineral. 38, 961		(Ca,Ce,La,Th,Y)Zr(Ti,Nb,Mn,Fe) ₂ O ₇ ; a REE-dominant analogue of zirconolite
UM2000-80-SiO:CaCeFFeHMnNaNbTiZr	Cryst. Reports 45, 591	Cryst. Reports 52, 47	Zr ₃ (Mn,Ca,Ce)(Na,Ca,Ce)[Si ₃ O ₉] ₂ [Si ₉ O ₂₇] ₂ [Fe _{1.55} (Zr,Na)(□,Ti,Nb)] ₃ [Si,Al]Na ₁₄ (OH,O) ₄ (F,Cl)•H ₂ O; Mn,Na-ordered analogue of eudialyte
UM2001-01-As:HgPbPd	*Zap. Vser. Mineral. Ob. 130 (5), 21	Am. Mineral. 87, 1512	Pd ₁₁ (Pb,Hg)As ₂
UM2001-02-As:IrNiPdRhS	Can. Mineral. 39, 591		~(Ni,Fe,Cu) ₄ (Rh,Pd,Ir,Pt,Ru) ₈ S ₇ As ₁₀

UM2001-03-C:MoS	Am. Mineral. 86, 852		(Mo,Fe,Ni)(S,As) ₂ C ₈
UM2001-04-E:AgAuCu	Can. Mineral. 39, 889.		Au ₃ Ag _{0.71} Cu _{0.23} ; composition "Z"
UM2001-05-E:AuCu	Can. Mineral. 39, 889.		Au ₂ Cu _{0.96} Ag _{0.04} or Au ₂ (Cu,Ag)
UM2001-06-E:CrFeNi	Dokl. Earth Sci. 378, 491		Fe ₇₃ Cr ₁₆ Ni ₁₁
UM2001-07-E:FeSn	*Geochem. Internat. 39, 604	Am. Mineral. 87, 182	Fe ₃ Sn
UM2001-08-O:CaNbREESITaTiY	Mineral. Mag. 65, 509	Am. Mineral. 87, 998	(Y,REE,Ca,Th)(Nb,Ti,Si,Ta) ₂ (O,OH) ₆ ; the Y-analogue of niobo-aeschnyrite-(Ce)
UM2001-09-O:CaNbREESITaY	Mineral. Mag. 65, 509	Am. Mineral. 87, 998	(Ca,Y,REE)(Ti,Nb,Si) ₂ (O,OH) ₆ ; the Ti-dominant analogue of vigezzite
UM2001-10-O:Ti	Science 293, 1467	Am. Mineral. 87, 357	TiO ₂ ; a monoclinic polymorph of rutile
UM2001-11-O:Ti	Earth Planet. Sci. Lett. 192, 485		Not distinct from UM2000-41-O:Ti; transferred to Invalid list
UM2001-12-S:AgBiCuPb	Can. Mineral. 39, 1641	Am. Mineral. 87, 1735	Cu ₂ Ag _x Pb _{10-2x} Bi _{12+x} S ₂₉ (x=1.23 - 1.49)
UM2001-13-S:AsCuSbZn	*Geol. Kazakhstan (5-6), 75	Am. Mineral. 88, 934	(Cu,Zn,Fe) _{3.23} (As,Sb) _{0.82} S ₃ ; compositionally near tennantite but anisotropic
UM2001-14-S:AsCuSbZn	*Geol. Kazakhstan (5-6), 75	Am. Mineral. 88, 934	(Cu,Zn) ₃ (Sb,As) ₃
UM2001-15-S:CuFePtRh	Dokl. Earth Sci. 378, 491	Am. Mineral. 87, 183	(Rh,Pt,Fe,Cu) ₉ S ₁₀
UM2001-16-S:CuSnZn	Mineral. Mag. 65, 351		(Zn,Fe) ₆ Cu ₆ Sn ₅ S ₁₂
UM2001-17-S:PtSn	Can. Mineral. 39, 1397	Am. Mineral. 87, 998	PTSnS
UM2001-18-Si:CuFePt	*Dokl. Earth Sci. 378, 464	Am. Mineral. 87, 182	(Cu,Pt,Fe) ₄ Si
UM2001-19-SiO:AlCaMgNa	Contr. Mineral. Petrol. 142, 119	Am. Mineral. 87, 767	(Na,Mg,Ca)(Mg,Al)Si ₂ O ₆ ; Na-analogue of omphacite
UM2001-20-SiO:CaClFeHKNaZr	Cryst. Reports 46, 647	Am. Mineral. 87, 357	Na ₂₇ K ₈ Ca ₁₂ Fe ₃ Zr ₆ Si ₅₂ O ₁₄₄ (O,OH,H ₂ O) ₆ Cl ₂ ; later described under the name rastsvetsaevite: Zap. Ross. Mineral. Ob. 135 (2006) (1), 49; transferred to Invalid list
UM2001-21-SiO:CaFeHKNaSrTiZr	*Cryst. Reports 46, 752	Am. Mineral. 87, 767	(Na,Sr,K) ₃ Ca ₁₂ Fe ₃ Zr ₆ Ti ₅ O ₁₄₄ (O,OH,H ₂ O) ₉ Cl ₃ ; later named labyrinthite: Zap. Ross. Mineral. Ob. 135 (2) (2006), 38. Transferred to Invalid list
UM2001-22-SiO:CaHKMnTi	*Cryst. Reports 46, 415	Am. Mineral. 87, 183	K ₃ Ca(K,Ca,Ba,□)Mn ₈ Ti ₈ Si ₁₆ O ₄₈ (O,OH) ₈ •10H ₂ O; appears to be the same as gutkovaite-Mn; transferred to Invalid list
UM2001-23-SiO:CaHU	*Dokl. Akad. Nauk 378, 201	Am. Mineral. 87, 767	Ca(UO ₂) ₂ (SiO ₃ OH) ₂ •5H ₂ O
UM2001-24-Te:BiSe	Neues Jb. Mineral. Mh. (2001), 289	Am. Mineral. 87, 182	Bi ₄ Te ₂ Se
UM2002-01-BiSb:Pd	Can. Mineral. 40, 277		Pd ₂ BiSb; "Un?"; (Table 7, anal. 17 & 18); apparently the same as UM1985-01-Bi:PdSb. Transferred to Invalid list
UM2002-02-COH:FeNi	*Acta Geol. Hungarica 45, 373	Am. Mineral. 88, 1628	(Fe ²⁺ ,Ni) ₆ Fe ³⁺ ₂ CO ₃ (OH) ₁₆ ; Fe ²⁺ -analogue of reevesite
UM2002-03-O:AuHgPd	Can. Mineral. 40, 1451		~(Pd,Au,Hg) ₉ O ₅ ; (Table 9, anal. 4)
UM2002-04-O:CaNaNbREETaTiTh	Can. Mineral. 40, 1609		(Na,Ca,REE,Th) ₂ (Nb,Ti,Ta) ₂ (O,OH) ₇ ; the Na-analogue of pyrochlore.
UM2002-05-O:CrTiV	Neues Jb. Mineral. Mh. (2002), 541	Am. Mineral. 88, 1628	(Cr,V) ₂ Ti ₂ O ₇
UM2002-06-O:CrTiV	Neues Jb. Mineral. Mh. (2002), 541	Am. Mineral. 88, 1628	(Cr,V) ₂ Ti ₄ O ₁₁
UM2002-07-O:CrTiV	Neues Jb. Mineral. Mh. (2002), 541		~Pd ₄ Cu ₅ O ₉ ; Cr-analogue of berdesinskiite with which it apparently forms a series
UM2002-08-O:CuPd	Can. Mineral. 40, 1451		~Pd ₄ Cu ₅ O ₉ ; (Table 9, anal. 7 & 8)
UM2002-09-O:HW	Austral. J. Mineral. 8 (2), 55	Am. Mineral. 89, 470	WO ₃ •0.5H ₂ O; known synthetically
UM2002-11-O:PdPtSe	Can. Mineral. 40, 1451		~(Pd,Pt,Se) ₇ O ₃ ; (Table 9, anal. 1, 2 & 3)
UM2002-12-OS:CuFe	*Geol. Ore Deposits 44, 385	Am. Mineral. 88, 934	A Cu-Fe oxysulphide? ~(Cu,Fe)SO?
UM2002-13-S:AgAuSe	Zap. Vser. Mineral. Ob. 136 (6), 61		(Ag,Au) ₅ (S,Se) ₂ or perhaps Ag ₃ Au ₂ (S,Se) ₂
UM2002-14-S:AgCuSbTeZn	Annual Univ. Mining Geol. "St'Rilski", Sofia, 45 (1), 39	Zap. Vser. Mineral. Ob. 133 (6), 45	(Cu _{1.75} Ag _{1.29} Zn _{0.26})(Sb _{0.44} Te _{0.33})S _{2.93} ; some similarities to tetrahedrite-group
UM2002-15-S:BiCuFePb	*Vest. Mosk. Univ. Ser. 4, Geol. (3), 37	Am. Mineral. 88, 1628	Cu ₅ Fe ₆ Pb ₆ Bi ₂ S ₂₁ ; compositional and other similarities to UM1971-13-S:BiCuFePb
UM2002-16-S:CrFeHO	Meteor. Planet. Sci. 37, 577	Am. Mineral. 88, 254	~FeCr ₂ S ₄ but with some oxygen and/or water present
UM2002-17-S:CrHO	Meteor. Planet. Sci. 37, 577	Am. Mineral. 88, 254	~CrS ₂ •(O,H ₂ O); "phase A"
UM2002-18-S:CrHO	Meteor. Planet. Sci. 37, 577	Am. Mineral. 88, 254	~CrS ₂ •2(O,H ₂ O); "phase B"
UM2002-19-S:CuFeIrNiPtRh	Can. Mineral. 40, 277		~(Ni,Cu,Fe) ₁₀ (Rh,Pt,Ir) ₅ S ₁₆
UM2002-20-S:CuFeIrNiPtRh	Can. Mineral. 40, 357		(Fe,Ni,Cu) _{1.67} (Rh,Ir,Pt,Os) _{1.09} S ₃
UM2002-21-S:CuFeK	*Geol. Ore Deposits 44, 385	Am. Mineral. 88, 934	KCu ¹⁺ ₁₉ Cu ²⁺ ₁₈ Fe ²⁺ ₁₀ S ₃₈
UM2002-22-S:CuFeNa	Meteor. Planet. Sci. 37, 577		Na _{4.5} (Fe,Cu) ₂₅ S ₂₆ ; misidentified as chalcopyrite and perhaps related to djerfisherite
UM2002-23-S:CuFeZn	*Resource Geol. 52, 67	Am. Mineral. 88, 254	Zn ₂ (Fe,Cu) ₃ S ₃
UM2002-24-S:CuNiRh	Can. Mineral. 40, 357		(Rh,Cu,Ni) ₄ S ₃
UM2002-25-S:FeGaMnZn	Meteor. Planet. Sci. 37, 577		(Fe,Zn,Mn,Ga) ₃ S; misidentified as sphalerite
UM2002-26-S:FeNi	*Dizhi Keiji Qingbao 21 (2), 51	Am. Mineral. 88, 1627	(Ni,Fe) _{8.86} S ₈ ; hexagonal dimorph of pentlandite; similarities to UM1998-16-S:FeNi
UM2002-27-S:Rh	Can. Mineral. 40, 435		RhS; perhaps same as UM1981-/-S:Rh[1] reported with inadequate data
UM2002-28-Se:AsCoCuNi	Can. Mineral. 40, 225		~(Co,Ni,Cu)(Se,As) ₂ ; some similarities to UM1991-19-Se:AsCo
UM2002-29-Se:AsCoCuNi	Can. Mineral. 40, 225		~(Co,Ni,Cu) ₇ (Se,As) ₉
UM2002-30-Se:BiPd	Can. Mineral. 40, 1451		~Pd ₃ (Se,Bi); (Table 7, anal. 5)
UM2002-31-Se:CdHg	Can. Mineral. 40, 989		Cd ₂ Hg ₃ Se ₅ ; possibly a member of a ss series between CdSe & HgSe
UM2002-32-Se:CdHg	Can. Mineral. 40, 989		CdHgSe ₂ ; possibly a member of a ss series between CdSe & HgSe
UM2002-33-Se:CdHg	Can. Mineral. 40, 989		Cd ₂ HgSe ₃ ; possibly a member of a ss series between CdSe & HgSe
UM2002-34-Se:CdHg	Can. Mineral. 40, 989		Cd ₄ HgSe ₅ ; possibly a member of a ss series between CdSe & HgSe
UM2002-35-Se:CdHg	Can. Mineral. 40, 989		Cd ₉ HgSe ₁₀ ; possibly a member of a ss series between CdSe & HgSe
UM2002-36-Se:CuHgPd	Can. Mineral. 40, 419	Am. Mineral. 88, 254	~Cu ₂ (Hg,Ag) ₂ (Pd,Pt) ₃ Se ₆
UM2002-37-Se:HgPd	Can. Mineral. 40, 1451		~(Pd,Hg) ₃ Se; (Table 7, anal. 6)
UM2002-38-Se:Pd	Can. Mineral. 40, 1451		Pd ₉ Se ₂
UM2002-39-SiO:AlCaFeHMg	*Dokl. Akad. Nauk 382, 374	Am. Mineral. 88, 1179	Lizardite-saponite regular interstratification
UM2002-40-SiO:AlCaHKMgNa	J. Phys. Chem. B106, 10277	Am. Mineral. 88, 1180	(Mg,Ca,Na,K) _{7.5} (Al _{12.6} Si _{15.2})O ₁₂₈ •65H ₂ O; the Mg-analogue of the tetragonal polytype of tschernichite?
UM2002-41-SiO:AlFeHMgMnTiZn	Geochem. Internat. 40, 1225	Am. Mineral. 88, 1629	Ca _{0.02} (Fe _{2.23} Mn _{1.06} Mg _{0.52} Zn _{0.17} Ti _{0.08})(Si _{5.94} Al _{0.06})O ₁₅ (OH) _{1.74} O _{0.26} •nH ₂ O; considered to be the Fe-dominant analogue of sepiolite.
UM2002-42-SiO:CaFeTi	Mineral. Petrol. 76, 1	Am. Mineral. 88, 934	(Ca,Fe) ₃ TiSi ₂ O ₉ ; the Ti-dominant analogue of baghdadite

UM2002-43-SiO:CaHNaZr	Cryst. Reports 47, 748		(Ca,Na) _{0.67} ZrSi ₃ O ₉ ·[H ₂ O,H ₃ O] ₃ ; related to calchilairite by cation deficiency and a halved c dimension
UM2002-44-SiO:Fe	Am. Mineral. 87, 1257		Fe ₂ SiO ₄ ; a silicate with the spinel structure
UM2002-45-Te:AgBiPdSb	Can. Mineral. 40, 277		~(Pd,Ag)(Te,Sb,Bi); "Un3"
UM2002-46-Te:BiNiPdSb	Can. Mineral. 40, 651		(Pd,Ni) ₄ (Sb,Te) ₅
UM2002-47-Te:NiPdSb	Can. Mineral. 40, 651		(Pd,Ni) ₃ (Te,Sb) ₄
UM2002-48-Te:NiPdSb	Can. Mineral. 40, 651		(Ni,Pd) ₂ (Te,Sb) ₃
UM2002-49-Te:NiPdSb	Can. Mineral. 40, 651		(Ni,Pd) ₃ (Te,Sb) ₄
UM2002-50-Te:PtRhS	Can. Mineral. 40, 435		(Rh,Pd,Pt) ₃ (Te,S) ₂
UM2002-51-Se:PtPt	Econ. Geol. 97, 1127		Pd ₉ Pt ₅ Se ₂ or perhaps (Pd,Pt) ₅ Se
UM2002-52-SiO:AlFeMg	Internat. Geol. Rev. 44, 859	Mineral. Mag. 72, 839	Mg ₄ (Mg _{1.5} Fe ²⁺ _{0.3} Fe ³⁺ _{1.6} Al _{8.5})O ₄ [Si _{1.7} Al _{10.3} O ₃₆]; unnamed Al-analogue of sapphirine
UM2003-01-AsO:AlCuFeMg	Mineral. Record 34 (4), 315		~(Cu,Al,Fe,Mg) _{3.6} (As,S,Si,P)O ₄ ; inferior data; similarities to clinoclase, gilmairite, cornubite and cornwallite
UM2003-02-AsSnIRu	Can. Mineral. 41, 331		~(Ru,Ni) ₂ (S,As) ₃
UM2003-03-E:AgAuCuZn	Proc. 15th Internat. Conf. X-ray Diff. & Cryst. Chem. Minerals (St. Petersburg), 368	Dokl. Earth Sci. 395A, 448	(Cu,Au,Ag) ₄ Zn; a Lunar mineral
UM2003-04-E:C	*C. R. Geosci. 335, 889	Am. Mineral. 89, 896	A cubic carbon polymorph; distinct from diamond
UM2003-05-E:CuFeIrPtRh	Can. Mineral. 41, 597		~Cu ₄₅ Fe ₁₉ Pt ₁₆ Rh ₁₂ Ir ₈
UM2003-06-E:FeIrNiOsRu	Can. Mineral. 41, 597		~Ni ₆₀ Ru ₂₁ Os ₉ Ir ₄ Fe ₄ Rh ₁ Cu ₁
UM2003-07-E:FeIrOsPtRu	Neues Jb. Mineral. Abh. 179, 143		~Os ₅ Pt ₃ IrRuFe
UM2003-08-O:AlCaFeREEScTlV	Can. Mineral. 41, 561	Am. Mineral. 89, 251	(Ca,Ce)Sc(Ti,V,Fe,Al) ₂₀ O ₃₈ ; crichtonite-group
UM2003-09-O:BaFePbTi	Mineral. Mag. 67, 957		(Ba,Pb,K) ₂ Ti ₆ Fe ²⁺ ₂ O ₁₆ ; a hollandite-type structure
UM2003-10-O:CrFe	Geochim. Cosmochim. Acta 67, 3937	Am. Mineral. 89, 897	FeCr ₂ O ₄ ; later described under the name xieite: Chinese Science Bulletin 53 (2008), 3341; transferred to Invalid list
UM2003-11-O:CrFe	Proc. Nat. Acad. Sci. (USA) 100 (25) 14651	Am. Mineral. 89, 1578	FeCr ₂ O ₄ ; another high-pressure orthorhombic polymorph of chromite
UM2003-12-O:Pd	Mineral. Mag. 67, 453		Pd-oxide of variable composition clustering near Pd ₂ O
UM2003-13-S:AgAuCu	Eur. J. Mineral. 15, 147		Ag ₆ AuCu ₂ S ₅
UM2003-14-S:AgBiFeTe	Eur. J. Mineral. 15, 147		Ag ₁₆ FeBiTe ₃ S ₈
UM2003-15-S:AgCuTe	Neues Jb. Mineral. Mh. (2003), 321	Am. Mineral. 89, 897	Ag ₂ Cu ₂ TeS
UM2003-16-S:AgFeTe	Eur. J. Mineral. 15, 147		Ag ₉ FeTe ₂ S ₄
UM2003-17-S:AgTe	Eur. J. Mineral. 15, 147		Ag ₆ TeS ₂
UM2003-18-S:CuFeHNaO	*Dokl. Earth Sci. 389, 219	Am. Mineral. 88, 1628	Cu(Fe _{0.75} Cu _{0.25})(S _{1.99} As _{0.01})(NaOH) _{0.23} (KOH) _{0.02} nH ₂ O
UM2003-19-S:CuFe	*Dokl. Earth Sci. 389, 219	Am. Mineral. 88, 1628	(Cu _{0.96} K _{0.04})(Fe _{0.6} Cu _{0.4})(S _{1.98} O _{0.02})
UM2003-20-SO:CuHZn	*Erzgräber 17 (1), 1	Am. Mineral. 89, 470	(Cu,Zn) ₄ (SO ₄)(OH) ₆ ·4H ₂ O; probably the Cu-dominant analogue of namuwite
UM2003-21-Se:AsPdPt	Mineral. Mag. 67, 453		Empirical formula: ~(Pd,Pt) ₃ (Se,As)
UM2003-22-Si:AlCaFe	Am. Mineral. 88, 1817		(Al,Fe,Ca) ₁₁ Si ₉
UM2003-23-Si:AlCaFe	Am. Mineral. 88, 1817		(Al,Fe,Ca) ₃ Si ₂
UM2003-24-Si:AlFe	Am. Mineral. 88, 1817		(Fe,Al) ₂ Si ₃
UM2003-25-Si:Ca	Am. Mineral. 88, 1817		CaSi ₂
UM2003-26-Si:FeTi	Am. Mineral. 88, 1817		TiFe ₂ Si ₄
UM2003-27-SiO:AlCsFFeHLi	Am. Mineral. 88, 1832		CsFe ²⁺ ₃ (Si ₃ Al)O ₁₀ (F,OH) ₂ ; the Cs-analogue of fluorannite
UM2003-28-SiO:AlCsFFeHMg	Am. Mineral. 88, 1832		Cs(Mg,Fe) ₃ (Si ₃ Al)O ₁₀ (F,OH) ₂ ; the Cs-analogue of fluorphlogopite
UM2003-29-SiO:AlCsFLi	Am. Mineral. 88, 1832		CsLi ₂ AlSi ₄ O ₁₀ (F,OH) ₂ ; the Cs-analogue of polyolithionite; Later described under the name sokolovaitite: New Data on Minerals 41, 5
UM2003-30-SiO:AlFLiRb	Am. Mineral. 88, 1832		RbLi ₂ AlSi ₄ O ₁₀ (F,OH) ₂ ; perhaps the Rb-analogue of polyolithionite or lepidolite (voloshinite)
UM2003-31-SiO:AlHLiRb	Am. Mineral. 88, 1832		RbFe ²⁺ ₃ (Si ₃ Al)O ₁₀ (OH,F) ₂ ; the Rb-analogue of annite
UM2003-32-SiO:Ca	Z. Krist. 218, 811		CaSiO ₃ ; A naturally-occurring high-pressure polymorph of the synthetic compound "wollastonite-II"
UM2003-33-SiO:CaFFeHKMnNaNbZr	Can. Mineral. 41, 1	Am. Mineral. 89, 252	K ₂ (Na,Ca)(Fe ²⁺ ,Mn) ₇ (Zr,Nb) ₂ Si ₈ O ₂₆ (OH) ₄ F; the Fe-dominant analogue of zircophyllite
UM2003-34-SiO:CaFFeMnNaNbTiZr	Mineral. Mag. 67, 749		(Na,Ca) ₂ (Fe ²⁺ ,Mn)(Zr,Ti)Si ₂ O ₇ (O,OH,F); appears to be the Fe ²⁺ -dominant analogue of lävenite
UM2003-35-SiO:CaFHKMnNa	*Dokl. Chem. 391, 177	Am. Mineral. 89, 470	Ca _{4.5} Mn _{0.45} Fe _{0.05} Na ₃ K ₃ Si ₁₂ O ₃₀ F _{2.8} (OH)·1.2H ₂ O; later described under the name fluorcanasite: Zap. Ross. Mineral. Ob. 138 (2) (2009), 52; transferred to Invalid list
UM2003-36-SiO:CaNa	Am. Mineral. 88, 1605		Incommensurate interlayering of kosmochlor- and diopside-rich slabs
UM2003-37-SiO:HMnSbZn	Can. Mineral. 41, 201		~(Mn,Zn) ₁₀ Sb ₂ Si ₃ O ₃₀ ·9H ₂ O
UM2003-38-SiO:AlFeHMgMnTi	Mitt. Öster. Mineral. Ges. 148, 194		(Mg,Fe,Ti,Mn) ₆ (Si,Al) ₃ O ₈ (OH) ₈ ; probably related to carlosturianite
UM2003-39-SiO:CaClFeHfNaNbSrTaTiZr	Cryst. Reports 48, 216	Cryst. Reports 52, 47	Na ₁₂ (Na,K,Mn,Sr) ₂ Ca ₅ (Ca,Mn)(Zr,Hf) ₃ (Fe,□,Ta) ₃ (Si,Nb,W)(Si,Al,Ti)Si ₂₄ O ₇₂ (OH,O) _{3.5} Cl·1.2H ₂ O; a eudialyte group mineral with Ta dominant in one of the M sites
UM2004-01-As:FeIrPtSSb	Geol. Geofiz. 45, 1128		(Pt,Ir,Fe)(As,Sb,S); perhaps a compositional variant of UM2004-02-As:FePtSb
UM2004-02-As:FePtSb	Geol. Geofiz. 45, 1128		(Pt,Fe)(As,Sb)
UM2004-03-AsO:HU	Erzgräber 18, 24	Am. Mineral. 90, 1232	(UO ₂)H(AsO ₃)·H ₂ O. Same as UM2003-03-E:AgAuCuZn; transferred to Invalid list
UM2004-04-AsTe:Pd	Mineral. Petrol. 82, 137		Pd ₅ AsTe; "Un.4"
UM2004-05-Bi:Pd	Can. Mineral. 42, 499		Pd ₃ Bi; similarities to UM1981-02-Bi:AsPbPd
UM2004-06-E:AgCuHgPdTe	Can. Mineral. 42, 563		Pd _{1.06} (Cu _{0.40} Hg _{0.34} Te _{0.11} Ag _{0.09}) _{20.94} ; some similarities to potarite

UM2004-07-E:AgHg	Can. Mineral. 42, 1745	Ag ₂ Hg; anal. #8
UM2004-08-E:AuCuPd	Can. Mineral. 42, 563	Cu ₂ PdAu
UM2004-09-E:CuFeNiPt	Dokl. Earth Sci. 396 (4), 508	(Cu,Ni,Fe) ₃ Pt; Table 1, anal. 22; appears to be the Cu-analogue of UM1986-12-E:CuFeNiPt
UM2004-10-E:CuNiPt	Dokl. Earth Sci. 396 (4), 508	Pt(Cu,Ni) ₄ ; Table 1, anal. 19
UM2004-11-E:CuPdPt	Dokl. Earth Sci. 396 (4), 508	(Pd,Pt)Cu ₃ ; Table 1, anal. 17. Apparently equivalent to nielsenite (Can. Mineral. 46, 709); transferred to Invalid list
UM2004-12-E:CuPdPt	Dokl. Earth Sci. 396 (4), 508	(Pd,Pt)Cu ₄ ; Table 1, anal. 15 & 16
UM2004-13-E:CuPdPt	Dokl. Earth Sci. 396 (4), 508	(Pt,Pd)Cu ₆ ; Table 1, anal. 20
UM2004-14-E:CuPdPt	Dokl. Earth Sci. 396 (4), 508	(Pt,Pd) ₂ Cu ₉ ; Table 1, anal. 21 & 23
UM2004-15-E:CuPdTe	Can. Mineral. 42, 563	Pd(Cu,Te); possibly the same mineral as UM1975-/-E:CuFePdPt
UM2004-16-E:FePd	Can. Mineral. 42, 563	Pd ₃ Fe
UM2004-17-I:Rh	Dokl. Earth Sci. 395A, 448	RhI ₃ ; a Lunar mineral
UM2004-18-O:AlCaGdThTiZr	Dokl. Earth Sci. 394, 39	Am. Mineral. 89, 1578
UM2004-19-O:AlCeGdZr	Dokl. Earth Sci. 394, 39	CaGd ₃ ThAlTi ₃ Zr ₃ O ₂₁ ; a Lunar mineral
UM2004-20-O:AlGdLaThTiZr	Dokl. Earth Sci. 394, 39	(Gd,Ce) ₄ Zr ₄ Al ₂ O ₁₇ ; a Lunar mineral
UM2004-21-O:CaFeGdZr	Dokl. Earth Sci. 394, 39	(Gd,Th,La) ₃ ThAl ₃ Ti ₃ Zr ₂ O ₂₅ ; a Lunar mineral
UM2004-22-O:CuFePdPt	Can. Mineral. 42, 325	Ca ₂ GdFe ₅ ZrO ₁₅ ; a Lunar mineral
UM2004-23-O:CuFePdPt	Can. Mineral. 42, 325	~(Pd,Pt) ₃ CuFe ₄ O ₁₁
UM2004-24-O:CuPd	Can. Mineral. 42, 325	~(Pd,Pt) ₄ Cu ₂ Fe ₂ O ₉
UM2004-25-O:FeHPt	Can. Mineral. 42, 325	~PdCu ₂ O ₃
UM2004-26-O:FeMnTi	Neues Jb. Mineral. Mh. (2004), 97	~PtFe ₃ O ₅ (OH)·7H ₂ O
UM2004-27-O:GdTi	Dokl. Earth Sci. 394, 39	(Mn ²⁺ ,Fe ³⁺) ₂ Ti ₃ O ₉ ; alteration product of pyrophanite and Mn-analogue of pseudorutile
UM2004-28-O:GdTiZr	Dokl. Earth Sci. 394, 39	Gd ₂ Ti ₄ O ₁₁ ; a Lunar mineral
UM2004-29-OH:FePt	Can. Mineral. 42, 325	Gd ₂ ZrTiO ₇
UM2004-30-PO:BeCaFeHMg	Dokl. Chem. 398, 191	~PtFe ₄ O(OH) ₁₂
UM2004-31-S:AgAuCuTe	Neues Jb. Mineral. Abh. 179, 295	Ca ₂ Be ₄ (Fe,Mg) ₅ (PO ₄) ₆ (OH) ₄ ·6H ₂ O; a Mg-rich triclinic polymorph of greifensteinite
UM2004-32-S:AgCuFePdPtSnTe	Can. Mineral. 42, 439	(Ag,Au,Cu) ₉ Te ₂ S ₃
UM2004-33-S:AgCuHgSe	Can. Mineral. 42, 1745	(Pd,Pt) ₅ (Ag,Cu,Fe) ₄ SnTe ₂ S ₂ ; the Ag-analogue of oulankaite
UM2004-34-S:AgCuTe	Neues Jb. Mineral. Abh. 179, 295	~(Ag,Cu) ₈ Hg ₃ (S,Se) ₇ ; anal. #9
UM2004-35-S:AsCuFePdPtSb	Geol. Geofiz. 45, 1128	(Ag,Cu) ₁₂ Te ₃ S ₂
UM2004-36-S:AsFeOsPtRh	Geol. Geofiz. 45, 1128	Fe(Pd,Pt) ₃ (S,Sb,As) ₃
UM2004-37-S:Au	Dokl. Earth Sci. 395A, 448	(Rh,Pt,Os,Fe) ₂ (S,As) ₃ ; conceivably a boweite compositional variant
UM2004-38-S:CoCuFeNiPtRh	Can. Mineral. 42, 423	AuS; a Lunar mineral, known synthetically
UM2004-39-S:CoCuFePtRh	Can. Mineral. 42, 423	~(Pt _{1.00} Cu _{0.90} Rh _{0.46} Co _{0.28} Fe _{0.19} Ni _{0.15} Ir _{0.22}) ₂ Se ₅ S ₄
UM2004-40-S:CuFeIrPbPdRh	Can. Mineral. 42, 499	~(Fe _{0.55} Pt _{0.11} Cu _{0.09} Co _{0.05} Rh _{0.04} Ni _{0.02}) ₅
UM2004-41-S:CuFeIrPbPt	Geol. Geofiz. 45, 1128	(Cu,Fe,Pb)(Rh,Ir,Pd) ₂ S ₄
UM2004-42-S:CuFePdPtRh	Geol. Geofiz. 45, 1128	Pb(Cu,Fe) ₃ (Pt,Ir) ₃ S ₁₆ ; the Pt-dominant analogue of inaglyite
UM2004-43-S:CuIrOs	Ann. Naturhist. Mus. Wien 105A, 1	(Cu,Fe,Pt,Rh,Pd) _{1+x} S ₃ ; Cu-dominant with very variable metal proportions
UM2004-44-SO:AlHNiZn	New Data on Minerals 39, 32	(Os,Ir) ₂ CuS
UM2004-45-Se:AgHgPd	Can. Mineral. 42, 1745	(Zn,Ni)Al ₄ (SO ₄)(OH) ₁₂ ·3H ₂ O; the Zn-analogue of nickelalumite
UM2004-46-Se:PdS	Dokl. Earth Sci. 396 (4), 546	~(Ag,Cu) ₆ Hg ₂ Pd ₂ Se ₃ ; anal. #10
UM2004-47-SiO:AlCaNa	Earth Planet Sci. Lett. 219, 1	(Pd _{0.96} Pt _{0.01} Cu _{0.07})(Se _{0.51} So _{0.45}); perhaps related to palladseite
UM2004-48-SiO:AlCICaNaS	Cryst. Reports 49, 635	(Na,Ca) ₃ (Si,Al) ₆ O ₁₁ ; a Martian mineral
UM2004-49-SiO:AlCsFHKLI	Can. Mineral. 42, 883	(Na,Ca) ₃ (Si ₆ Al ₆)O ₂₄ (SO ₄) _{1.7} Cl _{1.3} ; a 12-layer polymorph of tounkite (cancrinite group)
UM2004-50-SiO:AlFeGd	Dokl. Earth Sci. 394, 39	(Cs,K)(Al,Li) _{2.6} (Si,Al) ₄ O ₁₀ (F,OH) ₂ ; a Cs-dominant analogue of polyolithionite
UM2004-51-SiO:CaClFFeHNbTi	Dokl. Akad. Nauk 399, 791	GdFe ³⁺ AlSiO ₆ ; a Lunar mineral
UM2004-52-Te:AsPd	Mineral. Petrol. 82, 137	Na ₁₆ Ca ₆ (Fe,Mn) ₃ Zr ₃ (Ti,Nb) ₅ Si ₂₆ O ₇₂ FClo _{0.5} nH ₂ O
UM2004-53-Te:AsPd	Mineral. Petrol. 82, 137	Pd ₇ (As,Te) ₂ or perhaps Pd ₁₀ (As,Te) ₃ ; "Un.1 & Un.2"
UM2004-54-Te:NiPdSb	Can. Mineral. 42, 667	Pd ₉ (Te,As) ₄ or perhaps Pd ₇ (Te,As) ₃ ; "Un.3"
UM2004-55-Te:PdRh	Can. Mineral. 42, 563	(Pd,Ni) ₂ (Te,Sb) ₃
UM2004-56-OS:BiCuPb	Aufschluss 55, 332	(Pd,Rh) ₃ Te ₂
UM2005-01-As:PbPdSnTe	Can. Mineral. 43, 1663	PbCu ₄ Bi ₄ S ₂ (O,OH,H ₂ O) ₁₆
UM2005-02-AsO:AlHMgPScSi	Micro (2005), 81	Pd ₅ (As,Te,Sn,Tb) ₂ ; similarities to UM1996-02-As:PtTe & UM1975-05-As:Pd
UM2005-03-AsSiO:CaCoHNi	*Erzgräber 19, 51	(Sc,Al,Mg)(As,P,Si) ₄ O ₂ H ₂ O; a Sc-analogue of metavariscite
UM2005-04-Bi:Bi:Pd	Can. Mineral. 43, 637	(Co,Ni,Ca,Mg) ₂ SiAs ₂ O ₉ ·2.5H ₂ O
UM2005-05-Ge:Pd	Can. Mineral. 43, 637	Close to Pd ₅ Bi ₃ ; given the working name "bismuthpalladinite"
UM2005-06-O:AsHPdPtSbTe	Mineral. Mag. 69, 981	Close to Pd ₂ Ge
UM2005-07-O:AsHHgPdSbTe	Mineral. Mag. 69, 981	~(Pd,Sb,Pt,As,Bi,Te,Fe) ₄ O·nH ₂ O; variable composition; probably inhomogeneous
UM2005-08-O:AsHHgPdSbTe	Mineral. Mag. 69, 981	~(Pd,Sb,Hg,As,Te,Fe) ₂ O·nH ₂ O; variable composition; probably inhomogeneous
UM2005-09-O:AsHgPdSbTe	Mineral. Mag. 69, 981	~(Pd,Hg,Sb,As,Bi,Te) ₃ O·nH ₂ O; variable composition; probably inhomogeneous
UM2005-10-O:AsPdSbTe	Mineral. Mag. 69, 981	~(Pd,Sb,As,Te,Hg) ₃ O; variable composition; probably inhomogeneous
UM2005-11-O:AsPdSbTe	Mineral. Mag. 69, 981	~(Pd,Sb,As,Te) ₆ O; variable composition; probably inhomogeneous
UM2005-12-O:AsPdSbTe	Mineral. Mag. 69, 981	~(Pd,Sb,As,Te) ₅ O; variable composition; probably inhomogeneous
UM2005-13-O:BiHPdTe	Mineral. Mag. 69, 981	~(Pd,Sb,As,Te) ₄ O; variable composition; probably inhomogeneous
UM2005-14-O:BiHPdTe	Mineral. Mag. 69, 981	~(Pd,Te,Bi) ₆ O·nH ₂ O; variable composition; probably inhomogeneous
UM2005-15-O:BaFe	Eur. J. Mineral. 17, 623	~(Pd,Te,Bi) ₅ O·nH ₂ O; variable composition; probably inhomogeneous
UM2005-16-O:CaFe	Eur. J. Mineral. 17, 623	BaFe ³⁺ ₁₂ O ₁₉
UM2005-17-O:CuFePdPt	Can. Mineral. 43, 637	CaFe ³⁺ ₄ O ₇
UM2005-18-O:FeIrRh	Can. Mineral. 43, 637	~(Pd,Pt) ₂ (Cu,Fe) ₂ O ₃ ; (Table 11, anal. #1)
UM2005-19-O:IrOs	Can. Mineral. 43, 637	(Rh,Ir,Fe) ₄ O ₅ – an approximate formula; (Table 11, anal. #10)
		(Os,Ir,Fe)(OH,O) ₃ ; (Table 11, anal. #9)

UM2005-20-OH:CuIrOsRh	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Rh,Cu,Ir,Os)(OH) ₂ ; (Table 12, anal. #5)
UM2005-21-OH:FeIrPtRh	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Ir,Fe,Rh,Pt)(OH, ₂ O) ₃ ; (Table 12, anal. #1 & #2)
UM2005-22-OH:IrPtRh	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Rh,Ir,Pt)(OH) ₃ ; (Table 12, anal. #3)
UM2005-23-S:AsPt	Can. Mineral. 43, 1687		Pt ₃ As ₂ S ₃ or Pt(S,As) _{2-x} ; some similarities to platarsite
UM2005-24-S:FeIrNi	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	(Fe,Ni,Ir)S; isotropic; cf: UM1981-16-S:CuFeIrNiRh
UM2005-25-Sb:BiPd	Can. Mineral. 43, 637	Am. Mineral. 90, 1947	Close to Pd ₉ (Sb,Bi) ₂ ; (Table 8, anal. #8 & #9)
UM2005-26-Se:AgBiCu	Can. Mineral. 43, 899	Am. Mineral. 91, 224	(Cu,Ag) ₂ Bi ₂ Se ₄ ; perhaps the Cu-analogue of bohdonowiczite or Se-analogue of emplectite
UM2005-27-SiO:AlCa	Can. Mineral. 43, 857	Am. Mineral. 91, 220	Ca(Al,Fe,Mg)[AlSi]O ₆ ; clinopyroxene with Ca-tschermak's molecule dominant
UM2005-28-SiO:AlCaFeHMn	Contr. Mineral. Petrol. 150, 212		~Ca(Mn,Fe)Si ₂ O ₆ ·2H ₂ O
UM2005-29-SiO:GCaGIFeHKNaNbZr	Dokl. Akad. Nauk 400, 640	Am. Mineral. 90, 1467	(Na,Ce) ₉ (Ca,Na,K) ₁₂ Zr ₃ Fe ₂ (Nb,Si)Si ₂ O ₇₂ (CO ₃)Cl _{0.5} ·0.5H ₂ O. Later named mogodivite; transferred to Invalid list
UM2005-30-SiO:CCiCaHKMnNaNbZr	Dokl. Akad. Nauk 403, 636	Dokl. Chem. 403, 148	Na ₁₂ (K,Sr,Ce) ₃ Ca ₆ Mn ₃ Zr ₃ Nb ₃ (Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (O,OH) ₄ (H ₂ O,CO ₃ ,Cl) ₂ ; a K-analogue of kentbrooksit; later named andrianovite: Zap. Ross. Mineral. Ob. 137 (2) (2008), 43-52. Transferred to Invalid list.
UM2005-31-SiO:CuH	*Erzgräber 19, 1	Am. Mineral. 91, 710	Cu ₁₁ SiO ₄ (OH) ₁₈ ·9H ₂ O
UM2005-32-SiOCO:CaH	Dokl. Akad. Nauk 405A, 1347		Ca ₄ (Si ₂ O ₆)(CO ₃)(OH) ₂ ; a dimorph of fukalite. Coding changed from the original entry
UM2005-33-Te:AgBiPd	Can. Mineral. 43, 1355		AgPd ₂ (Te,Bi) ₅ ; designated "Un1". Coding changed from the original entry
UM2005-34-Te:PdPt	Mineral. Mag. 69, 981		(Pd,Pt) ₉ Te. Coding changed from the original entry
UM2005-35-VO:CaFePSiTh	Can. Mineral. 43, 1663		(Th,Ca,Fe)(V,Si,P)O ₄ ; perhaps related to huttonite and monazite group. Coding changed from the original entry
UM2005-36-SiO:AlBaCaCIFeHKMnNaREESrTiZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{9.32} Na _{5.86} K _{0.53} Ba _{0.36} Sr _{0.15}][Ca _{5.22} Sr _{0.49} Ce _{0.16} Mn _{0.13}][Zr _{2.42} Ti _{0.54} Hf _{0.02} Nb _{0.02}][Na _{1.48} (Fe _{0.10} H ₂ O) _{0.1}][Si _{1.0} (OH) _{1.0}][Si _{0.44} Al _{0.06} (OH) _{0.50}][Si ₃ O ₉] ₂ [Si ₉ O _{26.25} (OH) _{0.75}] ₂ Cl _{1.0} ·1 H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-1" (sample no. 31 in secondary reference)
UM2005-37-SiO:AlBaCaCIFeHKMnNaREESrTiZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{9.26} Na _{2.12} K _{1.20} Ba _{0.46} Sr _{0.48}][Ca _{5.76} Ce _{0.24}][Zr _{2.92} Ti _{0.08}][Na _{0.62} (Fe _{0.23} Mn _{0.11} (H ₂ O) _{0.34})][(Si _{0.57})(Si _{0.21} Al _{0.19} Nb _{0.03})(OH) _{1.44}][Si _{0.45} (Ti _{0.21})(Si _{0.34} (O,OH) _{0.34} (OH) _{1.06})]Si _{0.19} (OH) _{0.57}][Si ₃ O ₉] ₂ [Si ₉ O ₂₇] ₂ Cl _{1.05} ·0.8H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-2" (sample no. 32 in secondary reference)
UM2005-38-SiO:AlBaCaCIFeHKMnNaNbREESrTiYZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{10.85} Na _{3.3} Sr _{0.48} K _{0.21} Ce _{0.2} Y _{0.1} Ba _{0.04}][Ca _{2.1} Na _{0.9}][Ca _{2.4} Mn _{0.3}][Zr _{2.97} Hf _{0.03}][Fe _{1.32} Mn _{0.6} O _{1.44} (H ₂ O) _{1.80}][(Ti _{0.22} Nb _{0.02})(Si _{0.23})(Si _{0.19} (OH) _{0.42})](Si _{0.44} (Nb _{0.1} Al _{0.1} (Nb _{0.04})(OH) _{0.44})]Si ₃ O ₉] ₂ [Si ₉ O _{26.01} (OH) _{0.99}] ₂ Cl _{1.0} ·1.19H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-3" (sample no. 33 in secondary reference)
UM2005-39-SiO:AlBaCaCIFeHKMnNaNbREESrTiYZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{11.61} Na _{3.0} Sr _{0.63} Ce _{0.22} K _{0.2} Y _{0.05} Ba _{0.03}][Ca _{2.25} Na _{0.75}][Ca _{2.4} Mn _{0.6}][Zr _{2.98} Hf _{0.02}][Fe _{1.06} Mn _{0.3} Mn _{0.3} (H ₂ O) _{1.43} (OH) _{0.79}][(Ti _{0.16} Al _{0.07} Mg _{0.03} (Si _{0.17} (OH) _{0.17})](Si _{0.50})(Si _{0.31})(Nb _{0.18} Ta _{0.01})(OH) _{0.81}][Si ₃ O ₉] ₂ [Si ₉ O _{26.14} (OH) _{0.86}] ₂ Cl _{1.0} ·0.63H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-4" (sample no. 34 in secondary reference)
UM2005-40-SiO:AlCaCIFeHKMnNaNbREESrTiYZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{9.58} Na _{5.25} Ce _{0.63} K _{0.3} Y _{0.19} Sr _{0.05}][Ca ₃][Ca _{1.71} Mn _{1.29}][Zr _{2.96} Hf _{0.04}][Fe _{1.0} Fe ₂ ²⁺ _{0.35}](Fe ₃ ^{0.57} Zr _{0.32} Mn _{0.22})(O,OH) _{1.77} (H ₂ O) _{1.34}][Zr _{0.18} (Si _{0.5} (OH) _{0.5})](Nb _{0.41})(Al _{0.2} Ti _{0.05})(Si _{0.18} (OH) _{0.93})]Si ₃ O ₉] ₂ [Si ₉ O _{26.28} (OH) _{0.72}] ₂ Cl _{0.2} ·1.45H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-5" (sample no. 35 in secondary reference)
UM2005-41-SiO:BaCaFeHKMgMnNaNbREESrTiYZr	Eur. J. Mineral. 17, 875	Cryst. Reports 52, 47	[(H ₃ O) _{8.53} Na _{3.51} Sr _{0.55} Ce _{0.45} Y _{0.3} Ba _{0.15} K _{0.06}][Ca _{2.25} Sr _{0.45} Na _{0.3}][Ca _{2.4} Mn _{0.6}][Zr _{2.97} Hf _{0.03}][(Mn _{0.64} Fe _{0.38})(O _{0.3} (H ₂ O) _{0.72})](Si _{0.49})(Si _{0.41})(Nb _{0.1} (OH) _{0.9})](Si _{0.29})(Si _{0.2})(Ti _{0.1} Mg _{0.07} Nb _{0.02})(OH) _{1.06}]]Si ₃ O ₉] ₂ [Si ₉ O _{26.52} (OH) _{0.48}] ₂ ·2.12H ₂ O; described as a decationized and hydrated eudialyte group mineral—"Hydrated eudialyte-6" (sample no. 36 in secondary reference)
UM2006-01-COPO:FNa	Mineral. Mag. 70, 211		(Na,□) ₅ PO ₄ (CO ₃ ,F,Cl); an ephemeral mineral
UM2006-02-E:HgPdPt	Can. Mineral. 44, 385		(Pt,Hg) ₂ Pd
UM2006-03-O:BeTiV	Can. Mineral. 44, 1147		(Be,□)(V,Ti) ₃ O ₆ ; distinct similarities to kyzylkumite
UM2006-04-O:CrHMnNb	Australian J. Mineral. 12, 59		Pb ₂ CrMn ₂ (O,OH,H ₂ O) ₈ ; valency of Mn in doubt
UM2006-05-O:CaFeKMNNaREESrTiZr	Eur. J. Mineral. 18, 493	Am. Mineral. 92, 705	(Sr,Na,K,REE)(Ca,Zr,Mn)(Ti,Fe) ₁₈ Fe ₂ O ₃₈ ; a member of the crichtonite-group
UM2006-06-O:CaFeKMNNaREESrTiZr	Eur. J. Mineral. 18, 493	Am. Mineral. 92, 705	(Sr,Na,K,REE)(Zr,Ca,Mn)(Ti,Fe) ₁₈ Fe ₂ O ₃₈ ; a member of the crichtonite-group
UM2006-07-O:CaFeKMNNaREESrTiZr	Eur. J. Mineral. 18, 493	Am. Mineral. 92, 705	(Na,Sr,K,REE)(Ca,Zr,Mn)(Ti,Fe) ₁₈ Fe ₂ O ₃₈ ; a member of the crichtonite-group
UM2006-08-O:CaFeKMNNaREESrTiZr	Eur. J. Mineral. 18, 493	Am. Mineral. 92, 705	(Na,Sr,K,REE)(Zr,Ca,Mn)(Ti,Fe) ₁₈ Fe ₂ O ₃₈ ; a member of the crichtonite-group
UM2006-09-O:CaFeMnREESrTiZr	Eur. J. Mineral. 18, 493	Am. Mineral. 92, 705	(REE,Sr)(Ca,Mn,Zr)(Ti,Fe) ₁₈ Fe ₂ O ₃₈ ; a member of the crichtonite-group
UM2006-10-S:AsIrOs	Mineral. Petrol. 87, 1		(Ir,Os) ₃ As _{0.85} S; Table 3, anal. 5-6
UM2006-11-S:CuFeGeZn	Can. Mineral. 44, 1481		Cu ₈ Fe ₂ ZnGe ₂ Si ₂ ; appears to be the germanium analogue of stannoidite
UM2006-12-Sb:Pd	Mineral. Petrol. 87, 1		Pd ₂₀ Sb ₇ ; compositionally similar to stibopalladinite but with distinctly different optical characteristics
UM2006-13-SiO:AlBFFeHNa	Eur. J. Mineral. 18, 583		NaFe ₂ ²⁺ ₃ Al ₆ Si ₆ O ₁₈ (BO ₃) ₃ (OH) ₃ F; the F-analogue of schorl

UM2006-14-SiO:AlCaHMnREE	Eur. J. Mineral. 18, 569		CaREE AlAlMn ²⁺ SiO ₄ Si ₂ O ₇ (OH); unnamed member of allanite subgroup of the epidote group
UM2006-15-SiO:AlFHMgMnREE	Eur. J. Mineral. 18, 569		Mn ²⁺ REE MgAlMn ²⁺ SiO ₄ Si ₂ O ₇ (OH); unnamed member of dollaseite subgroup of the epidote group
UM2006-16-SiO:BaFeHKMgMnNaNbTi	Dokl. Earth Sci. 410, 1062		K _{3.58} Na _{2.06} Ba _{1.65} (H ₂ O) _{1.58} (Mn _{0.42} Mg _{0.20} Fe _{0.16})[Ti _{6.75} Nb _{0.65} ((OH) _{0.9} O _{0.1}) ₈ (Si ₄ O ₁₂) ₄ ·11.5H ₂ O; labuntsovitte group
UM2006-17-SiO:CaClFFeHMnNaZr	Cryst. Reports 51 (2), 205		Na ₁₅ (Ca ₃ Mn ₃)Zr ₃ (Fe,Zr) ₃ Si ₃ [Si ₃ O ₉] ₂ [Si ₉ O ₂₇] ₂ O ₂ (OH,F,Cl) ₃ ·2H ₂ O; a eudialyte group mineral
UM2006-18-SiO:CaClFFeHMnNaZr	Dokl. Akad. Nauk 409, 807	Am. Mineral. 92, 1540	Na ₁₅ Ca ₃ (Mn,Fe) ₃ Zr ₃ (Zr,Na) ₃ (Si,Nb)(S,Ti,Si)(Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (O,OH) ₅ (Cl,F,H ₂ O); a eudialyte group mineral with Zr dominant in two sites
UM2006-19-VO:AsHMn	Can. Mineral. 44, 229		Mn ₇ (VO ₄ ,AsO ₄) ₂ (OH) ₈ ; appears to be the V-analogue of allactite
UM2006-20-VO:AsHMnSi	Can. Mineral. 44, 229		(V,As,Si) ₄ Si ₂ (Mn,Mg) ₂ O ₁₉ (OH) ₃ ₈
UM2006-21-VO:AsHMnSi	Can. Mineral. 44, 229		(V,As,Si) ₄ Si ₂ (Mn,Mg) ₂ O ₂₅ (OH) ₂₂
UM2006-22-SiO:V	Mineral. Petrol. 87, 171		(V ³⁺ SiO ₃ (OH); the presence of hydroxyl is based only on consistently low analytical totals
UM2006-23-PO:AlBiCaFeH	J. Czech Geol. Soc. 51 (1-2), 159		(Ca,Bi)(Fe,Al) ₃ (PO ₄)(PO ₃ OH)(OH) ₆ ; "UNK11"; the Ca-analogue of zairite or the Fe-analogue crandallite.
UM2006-24-PO:AlCuFeH	J. Czech Geol. Soc. 51 (1-2), 159		(Fe,Cu, \square) ₃ (Al,Fe) ₃ (PO ₄) ₃ (OH) ₅ ·4H ₂ O; "UNK8"; compositional similarities to turquoise or perhaps a Cu-rich variety of childrenite
UM2006-25-PO:AlFeHZn	J. Czech Geol. Soc. 51 (1-2), 159		Zn(Fe,Zn,Al) ₄ (PO ₄) ₃ (OH) ₄ ; "UNK3"; compositionally similar to UM1990-30-PO:AlFeHZn; it may be an orthorhombic polymorph of zinclipscombite
UM2006-26-PO:CuFeH	J. Czech Geol. Soc. 51 (1-2), 159		(\square ,Cu)Fe ³⁺ ₆ (PO ₄) ₂ (PO ₃ OH) ₂ (OH) ₈ ·4H ₂ O; "UNK10"
UM2006-27-PO:FeHZn	J. Czech Geol. Soc. 51 (1-2), 159		ZnFe ³⁺ ₂ (PO ₄) ₂ (OH) ₂ ·4H ₂ O; "UNK7"
UM2006-28-SiO:CaHMnNaZr	Dokl. Earth Sci. 410, 1075		Na ₃₃ Ca ₁₂ Zr ₆ Mn ₃ (Mn,Nb,Ti) ₂ Si ₅₀ O ₁₃₂ (O,OH) ₁₂ (OH,H ₂ O,Cl) ₁₀ ; a eudialyte-group mineral with doubled c cell dimension
UM2006-29-SiOPO:AlCaFHSr	J. Czech Geol. Soc. 51 (1-2), 159		(Ca,Sr) ₃ Al ₇ (SiO ₄) ₃ (PO ₄) ₄ (F,OH) ₃ ·16.5H ₂ O; "UNK1"
UM2006-30-S:AgBiCuPbSe	Axis 2 (4), 1		Cu _{0.44} Ag _{0.78} Pb _{1.37} Bi _{2.70} (S _{5.73} Se _{0.26} Te _{0.01}); "UN1"
UM2006-31-S:AgBiCuPbSe	Axis 2 (4), 1		Cu _{0.20} Ag _{0.88} Pb _{1.06} Bi _{2.94} (S _{5.55} Se _{0.44} Te _{0.01}); "UN2"
UM2006-32-SiO:CaClFFeHMnNaSTiZr	Dokl. Earth Sci. 409A, 985	Cryst. Reports 52, 47	Na ₁₅ (Ca ₃ (Mn,Fe))Zr ₃ (Zr,Na) ₃ (Si,Nb)(S,Ti,Si)(Si ₃ O ₉) ₂ (Si ₉ O ₂₇) ₂ (O,OH) ₅ (Cl,F,H ₂ O); described as a hyperzirconium sulphate analogue of eudialyte
UM2006-33-Te:AgBiNiPdPt	Mineral. Petrol. 86, 109		Ag _{0.40} Pd _{0.37} Ni _{0.11} Cu _{0.05} Pt _{0.04} Fe _{0.03} (Te _{0.87} Bi _{0.13})
UM2006-34-N:Ga	Chinese Sci. Bull. 51, 1101		GaN; cell and qualitative compositional data
UM2006-35-PO:HPbREEY	J. Geosci. 54, 15		Pb(REE) ₃ (PO ₄) ₃ (OH) ₂ ·1-2H ₂ O; Ce is the dominant REE
UM2007-01-As:CuPd	Acta Petrol. Mineral. 26, 418		(Pd,Cu) ₇ As ₃ ; Table 5, sample 70-11-8
UM2007-02-As:NiPd	Acta Petrol. Mineral. 26, 418		(Pd,Ni) ₇ As ₄ ; Table 5, sample 23-181; cf. UM1990-03-As:NiPdSb
UM2007-03-As:NiRh	Acta Petrol. Mineral. 26, 418		Rh ₃ Ni _{3.57} As ₃ ; Table 7, sample 89-35-1; similarities to UM1983-03-As:NiRh (RhNiAs)
UM2007-04-As:Pd	Acta Petrol. Mineral. 26, 418		Pd ₄ As; Table 5, sample 70-2-8
UM2007-05-As:PtTe	Acta Petrol. Mineral. 26, 418		Pd ₇ (As,Te) ₂ ; similarities to UM2004-52-Te:AsPd; Table 6, sample 70-2-9
UM2007-06-As:Rh	Acta Petrol. Mineral. 26, 418		Rh ₇ As ₃ ; a typographical error of Ru for Rh appears in the source reference (Table 5, sample 69-7)
UM2007-07-AsO:BaFeHK	Can. Mineral. 45, 485		(Ba,K)Fe ³⁺ ₆ (AsO ₄) ₅ (O,OH) ₃ ·3H ₂ O; published formula is incorrect
UM2007-08-AsO:FeHSn	Can. Mineral. 45, 485		Sn ₉ Fe ₈ (AsO ₄) ₄ O ₂₄ ·9H ₂ O; published formula is incorrect
UM2007-09-Bi:PdPtSb	Neues. Jb. Mineral. Abh. 183 (2), 173		(Pd,Pt)(Bi,Sb); analytical formula reported was incorrect; Table 4, anal. 96
UM2007-10-E:CuPtSn	Neues. Jb. Mineral. Abh. 183 (2), 173		Pt ₅ Cu ₃ Sn ₂ ; Table 2, anal. 58; compositionally distinct from tatyanaite
UM2007-11-E:FeIrNiOsRu	Can. Mineral. 45, 631		(Ir,Ru,Os) ₃ (Fe,Ni) ₂ ; Table 4, no. 0325137
UM2007-12-E:FeIrNiOsRu	Can. Mineral. 45, 631		(Ru,Ir,Os)(Fe,Ni); Table 4, no. 0325135 & 0325138
UM2007-13-E:FeIrNiOsRu	Can. Mineral. 45, 631		(Ru,Ir,Os) ₃ (Fe,Ni); Table 4, no. 0325131
UM2007-14-E:FeIrNiOsRu	Can. Mineral. 45, 355		(Os,Ir,Ru) ₄ (Ni,Fe) ₇ or perhaps (Os,Ir,Ru)(Ni,Fe) ₂ ; "UN#3"
UM2007-15-E:FeIrNiPt	Can. Mineral. 45, 631		(Fe,Ni) ₂ (Pt,Ir); Table 4, no. 98c121
UM2007-16-N:Ti	Acta Petrol. Mineral. 26, 418		Ti ₇ N ₃ ; Table 9, sample 57-7-1-2
UM2007-17-PO:CaClCuHNa	Eur. J. Mineral. 19, 75		NaCaCu ₅ (PO ₄) ₄ Cl·nH ₂ O (n~4.5); a slightly different hydrate or polymorph/polytype closely related to sampleite
UM2007-18-PO:CaCimn	Can. Mineral. 45, 901		Mn ₃ Ca ₂ (PO ₄) ₃ (Cl,F,OH); the Mn-dominant analogue of apatite
UM2007-19-PO:CaFeHMg	Can. Mineral. 45, 293		Ca(Fe ²⁺ ,Mn ²⁺)Mg ₂ Fe ³⁺ ₂ [PO ₄] ₄ (OH) ₂ ·8H ₂ O
UM2007-20-S:AgBiCu	Izv. Akad. Nauk Kaz., Ser. Geol. (2007) (1),		(Cu,Ag) ₄ BiS ₃
UM2007-21-S:AsIrRh	Acta Petrol. Mineral. 26, 418		(Rh,Ir) ₃ (S,As) ₇ ; Table 8, sample 76-12-2-22
UM2007-22-S:AsRu	Acta Petrol. Mineral. 26, 418		Ru ₃ (S,As) ₇ ; Table 10, sample 71-2-14
UM2007-23-S:BiPbTe	Can. Mineral. 45, 417		Pb ₃ Bi ₄ Te ₄ S ₅ ; Table 4, sample 99/89B
UM2007-24-S:BiPbTe	Can. Mineral. 45, 417		Pb ₅ Bi ₄ Te ₄ S ₇ ; Table 4, sample LA 12/B
UM2007-25-S:BiPbTe	Can. Mineral. 45, 417		Pb ₃ Bi ₂ Te ₂ S ₄ ; Table 4, sampleLA 12/C
UM2007-26-S:CuFeIrNiPtRh	Acta Petrol. Mineral. 26, 418		(Ir,Cu,Ni,Pt,Rh,Fe) ₉ S ₁₁ ; Table 1, sample 70-1-2-5
UM2007-27-S:CuFeIrNiRh	Acta Petrol. Mineral. 26, 418		(Ni,Fe,Cu,Rh,Ir) ₁₁ S ₉ ; Table 1, sample 70-16-7; similarities to UM2002-26-S:FeNi
UM2007-28-S:CuFeIrNi	Acta Petrol. Mineral. 26, 418		(Ni,Ir,Fe,Cu) ₈ S ₉ ; Table 1, samples 96-6-2-3 & 76-3-6; similarities to UM1974-11-S:CuFeIrNi
UM2007-29-S:CuFeIrNi	Acta Petrol. Mineral. 26, 418		(Ir,Ni,Fe,Cu) ₈ S ₉ ; Table 1, sample 71-14-3-4; similarities to UM1974-11-S:CuFeIrNi
UM2007-30-S:Fe	Acta Petrol. Mineral. 26, 418		Fe ₃ S ₂ ; Table 2, sample 32-22; perhaps the Fe-analogue of heazlewoodite
UM2007-31-S:Ti	Acta Petrol. Mineral. 26, 418		Ti ₇ S ₃ ; Table 9, sample 57-6-1-3
UM2007-32-Sb:BiCuPtSn	Neues. Jb. Mineral. Abh. 183 (2), 173		(Pt,Cu) ₃ (Sb,Bi,Sn) ₄ ; Table 4, anal. 29
UM2007-33-Se:CuRhS	Acta Petrol. Mineral. 26, 418		(Rh,Cu) ₉ (Se,S) ₁₁ ; Table 9, sample76-12-20; note Rh value omitted from table assumed by difference

UM2007-34-SeO ₂ TeO ₂ :BiH	Eur. J. Mineral. 19, 255		Bi ₃ (TeO ₆) ₂ (SeO ₃)(OH)•3H ₂ O
UM2007-35-SiO ₂ :AlCaFFeMgREE	Can. Mineral. 45, 1073		(Ce,La) ₃ CaAl ₂ (Fe ³⁺ ,Al)(Fe ²⁺ ,Mg)[Si ₂ O ₇][SiO ₄] ₃ O(OH) ₂ ; an Fe ³⁺ -Fe ²⁺ -analogue of västmanlandite-(Ce)
UM2007-36-SiO ₂ :AlCaFFeMgREE	Can. Mineral. 45, 1073		(Ce,La) ₃ CaAl ₂ (Fe ³⁺ ,Al)(Mg,Fe ²⁺)[Si ₂ O ₇][SiO ₄] ₃ O(OH) ₂ ; an Fe ³⁺ -analogue of västmanlandite-(Ce)
UM2007-37-SiO ₂ :CaFREEY	Can. Mineral. 45, 1073		(Ca,Ce) ₂ (Y,Nd,Ce) ₃ (SiO ₄ ,PO ₄) ₃ (F,OH); the fluorine analogue of britholite-(Y)
UM2007-38-SiO ₂ :ClFFeHMgREE	Can. Mineral. 45, 1073		(Ce,La,Ca) ₃ (Fe,Mg)(SiO ₄) ₃ (SiO ₃ OH) ₄ (F,Cl,OH) ₃ •nH ₂ O(?); very close to a somewhat hydrated, F-dominant cerite-(Ce) with also abnormal Cl content; designated unnamed mineral "E sample A37"
UM2007-39-SiO ₂ :ClFHMgREE	Can. Mineral. 45, 1073		(Ce,La,Ca) ₃ Mg(SiO ₄) ₃ (SiO ₃ OH) ₄ (Cl,F,OH) ₃ •nH ₂ O(?); very close to a somewhat hydrated, Cl-dominant cerite-(Ce) with substantial F and Mg replacing Fe; designated unnamed mineral "E sample UU318/77 M"
UM2007-40-SiO ₂ :FMgREEY	Can. Mineral. 45, 1073		(Y,Ce,Nd) ₄ MgSi ₄ O ₁₄ F ₂ ; perhaps the Mg-analogue of rowlandite-(Y); designated unnamed mineral "D"
UM2007-41-SiO ₂ :FeMgREEW	Can. Mineral. 45, 1073		(Ce,La,Nd,Ca) ₅ Mg(Fe ³⁺ ,Al) ₃ WSi ₅ O ₂₆ ; a rare W-bearing silicate designated unnamed mineral "C"
UM2007-42-Te:AsPd	Acta Petrol. Mineral. 26, 418		Pd ₇ (Te,As) ₂ ; Table 6, sample 76-12-2; similarities to UM1991-26-Te:AsPd
UM2007-43-Te:Pd	Acta Petrol. Mineral. 26, 418		Pd ₅ Te ₂ ; Table 6, sample 16-2-5; typographic error in reported Pd content
UM2007-44-SiO ₂ :CaFREEY	Can. Mineral. 45, 1073		(Ca,Ce) ₂ (Nd,Y,Ce) ₃ (SiO ₄ ,PO ₄) ₃ (F,OH); Table 5, #430644; the Nd analogue of fluorbritholite-(Ce)
UM2007-45-PO ₄ :AlHCaKNaSiTh	Zap. Ross. Mineral. Ob. 136 (1), 3	Geol. Ore Deposits 49, 758	~[X,Na,K,Ca,Mg]Th ₂ (P,Si,Al)O ₄ •3H ₂ O; metamict; only one analysis--Table 6, anal. 3
UM2007-46-SiO ₂ :CaHREETHTi	Zap. Ross. Mineral. Ob. 136 (1), 3	Geol. Ore Deposits 49, 758	~(Ti,Th,REE,Ca)Si ₂ O ₄ (O,OH) ₂ •4-6H ₂ O; metamict and rather variable in composition; Table 4, anal. 4, 7, 8 & 9
UM2007-47-SiO ₂ :HKNaTh	Zap. Ross. Mineral. Ob. 136 (1), 3	Geol. Ore Deposits 49, 758	~(Na,K,X) ₄ Th ₃ [Si ₈ (O,OH) ₂₄] ₉ H ₂ O; metamict and rather variable in composition; Table 5, analyses 1-6
UM2007-48-SiO ₂ :HNaSrThTi	Zap. Ross. Mineral. Ob. 136 (1), 3	Geol. Ore Deposits 49, 758	~(Na,Sr,X) ₇ TiThSi ₈ O ₂₂ (O,OH) ₁₋₂ •6H ₂ O; metamict and rather variable in composition; Table 4, anal. 1, 5 & 6
UM2007-49-SiO ₂ :HNaSrThTi	Zap. Ross. Mineral. Ob. 136 (1), 3	Geol. Ore Deposits 49, 758	~(Na,Sr,Ba,Ca,X) ₄ TiThSi ₈ O ₂₂ (OH) ₅ H ₂ O; metamict and rather variable in composition; Table 4, anal. 2 and 3
UM2008-01-As:IrNi	Mineral. Petrol. 92, 31		(Ni,Ir) ₃ As; Table 8, #6 & p.44 (Ni ₂ 45Ir ₀ 40Fe ₀ 11Cu ₀ 02Os ₀ 01Ru ₀ 01)As ₁ 01
UM2008-02-As:IrNi	Mineral. Petrol. 92, 31		(Ni,Ir) ₂ As; p.44, para. 2
UM2008-03-AsS:IrOs	Mineral. Petrol. 92, 31		(Ir,Os) ₅ As ₄ S ₃ ; Table 8, #17
UM2008-04-AsS:IrOsRu	Mineral. Petrol. 92, 31		(Os,Ir,Ru) ₇ As ₅ ; Table 8, #13
UM2008-05-BO:FHMgSi	Eur. J. Mineral. 20, 951		Mg ₂ (BO ₃) _{1-x} (SiO ₄)(OH,F) _{1-x} ; the (OH)-dominant analogue of pertsevite
UM2008-06-Bi:AgAuTe	Dokl. Earth Sci. 421A, 919		(Au,Ag)(Bi,Te)
UM2008-07-CO ₂ :AlBCaHSSI	J. Mineral. Petrol. Sci. 103, 47		Ca ₆ (Al,Si) ₂ (CO ₃ ,SO ₄) ₂ [B(OH) ₄](OH,O) ₁₂ •26H ₂ O; the CO ₃ -dominant analogue of charlesite
UM2008-08-CO ₂ :BaCaNaREESr	Can. Mineral. 46, 753		(Na,Ca) ₃ (Ba,Ce,La,Sr,Nd) ₁₀ (CO ₃) ₁₅
UM2008-09-E:AgAuCu	Dokl. Earth Sci. 421A, 919		CuAu ₃ Ag ₂
UM2008-10-E:AuNi	Dokl. Earth Sci. 421A, 919		Ni ₃ Au
UM2008-11-E:AuPd	Neues Jh. Mineral. Abh. 184 (3), 329		Au ₃ Pd; synthetic alloy is known
UM2008-12-E:CuFeIr	Mineral. Petrol. 92, 31		Ir ₂ (Cu,Fe) ₃ ; Table 4, #9
UM2008-13-E:CuFeIrNiOsRu	Mineral. Petrol. 92, 31		(Os,Ru,Ir)(Ni,Cu,Fe); Table 4, #5
UM2008-14-E:CuFeIrNiOsRu	Mineral. Petrol. 92, 31		(Os,Ir,Ru)(Cu,Fe,Ni); Table 4, #6
UM2008-15-E:CuFeIrNiOsRu	Mineral. Petrol. 92, 31		(Os,Ir,Ru)(Cu,Ni,Fe) ₂ ; Table 4, #11
UM2008-16-E:CuFeIrOsRu	Mineral. Petrol. 92, 31		(Ru,Os,Ir) ₃ (Cu,Fe) ₂ ; Table 4, #7
UM2008-17-E:CuFeOsRu	Mineral. Petrol. 92, 31		(Os,Ru) ₃ (Cu,Fe) ₄ ; Table 4, #10
UM2008-18-E:CuIrNi	Mineral. Petrol. 92, 31		Ir(Ni,Cu) ₅ ; Table 4, #4
UM2008-19-E:CuPdPt	Dokl. Earth Sci. 421A, 919		(Pd,Pt) ₄ Cu
UM2008-20-E:FeIrNi	Mineral. Petrol. 92, 31		Ir(Ni,Fe) ₃ ; Table 4, #2
UM2008-21-E:FeIrNiRu	Mineral. Petrol. 92, 31		(Ir,Ru) ₂ (Ni,Fe) ₃ ; Table 4, #3
UM2008-22-E:FePt	Can. Mineral. 46, 343		Pt ₄ Fe; analyses show a range around this formula and include minor Cu, Ni and other PGE (Table 1 & Fig. 6)
UM2008-23-E:FePt	Can. Mineral. 46, 343		Pt ₅ Fe; analyses show a range around this formula and include minor amounts of other PGE (Table 1 & Fig. 6)
UM2008-24-E:IrNiOsRu	Mineral. Petrol. 92, 31		(Os,Ir,Ru) ₂ Ni; Table 4, #1
UM2008-25-E:PdPt	Dokl. Earth Sci. 421A, 919		Pt ₃ Pd
UM2008-26-F:AlCaNa	Fjölrít náttúrufræðistofnunar Nr. 52, 1		Na ₂ Ca ₃ Al ₂ F ₁₄ ; "mineral HG"; X-ray powder data and formula only
UM2008-28-F:AlHMgO	Fjölrít náttúrufræðistofnunar Nr. 52, 1		MgAlF ₅ •2H ₂ O; "mineral HR"; X-ray powder data and formula only
UM2008-27-F:AlHO	Fjölrít náttúrufræðistofnunar Nr. 52, 1		AlF ₃ •3H ₂ O; "mineral HU"; X-ray powder data and formula only
UM2008-29-F:CoFeHN	Fjölrít náttúrufræðistofnunar Nr. 52, 1		NH ₄ (Fe,Co) ₂ F ₆ ; "mineral HD"; X-ray powder data and formula only
UM2008-30-F:FeHO	Fjölrít náttúrufræðistofnunar Nr. 52, 1		Fe ³⁺ F ₃ •3H ₂ O; "mineral HI"; X-ray powder data and formula only
UM2008-31-F:FeHOSi	Fjölrít náttúrufræðistofnunar Nr. 52, 1		FeSiF ₆ •6H ₂ O; "mineral HT"; X-ray powder data and formula only
UM2008-32-GeO ₂ :AlFSi	Acta Mineral. Sinica 28, 15	Am. Mineral. v.94, 1078	Al ₃ (Ge,Si) ₄ O ₂₀ F ₃ ; low total suggests presence of (OH) or H ₂ O
UM2008-33-O:BaSiTi	Am. Mineral. 93, 154		Ba(Si,Ti) ₃ O ₇
UM2008-34-O:BaSiTi	Am. Mineral. 93, 154		Ba(Ti,Si) ₂ O ₅
UM2008-35-O:BaTi	Am. Mineral. 93, 154		BaTi ₃ O ₇
UM2008-36-O:CuFeNiPdPtSi	Can. Mineral. 46, 329		(Pd,Pt,Cu,Fe,Si)O; analyses "A" & "B", Table 4.
UM2008-37-PO ₄ :BaKScZr	Can. Mineral. 46, 1131		(K,Ba) ₂ (Sc,Zr) ₅ (PO ₄) ₆ ; Table 3, #3

UM2008-38-POSiO:HScZr	Can. Mineral. 46, 1131	ZrSc(SiO ₄)(PO ₄)·H ₂ O; Table 3, #4
UM2008-39-S:AgBiPb	N. Jb. Miner. Abh. 185, 199	PbAg ₂ Bi ₂ S ₅ ; exsolution product of galena-matildite ss
UM2008-40-S:AgBiPb	N. Jb. Miner. Abh. 185, 199	Pb ₈ Ag ₁₁ Bi ₁₁ S ₃₀ ; exsolution product of galena-matildite ss
UM2008-41-S:AsIrOsRu	Mineral. Petrol. 92, 31	(Ru, Ir, Os) ₃ AsS ₂ ; Table 8, #12
UM2008-42-S:AsPbSb	Mineralium Deposita 43, 383	Pb(As,Sb) ₂ S ₄ ; Table 4; a new sulphosalt? perhaps the As-analogue of twinnite
UM2008-43-S:BiTe	Mineral. Mag. 72, 953	Bi ₆ Te ₂ S; close compositional similarities to UM1982-26-Te:BiSSe
UM2008-44-S:CuFeIrNiOs	Mineral. Petrol. 92, 31	(Ni, Ir, Cu, Os, Fe) ₃ S ₄ ; Table 6, #10
UM2008-45-S:CuFeIrNiOsRhRu	Mineral. Petrol. 92, 31	(Ir, Ni, Cu, Os, Fe, Ru, Rh)S or perhaps (Ir, Os, RuRh) ₃ (Ni, Cu, Fe) ₄ S ₇ ; Table 6, #7
UM2008-46-S:CuIrNiOs	Mineral. Petrol. 92, 31	(Ni, Ir, Os, Cu)S; Table 6, #9, 11 & 12
UM2008-47-S:CuIrNiRh	Mineral. Petrol. 92, 31	(Ir, Rh)(Ni, Cu)S; Table 6, #4
UM2008-48-S:CuIrOsRu	Mineral. Petrol. 92, 31	(Os, Ir, Ru) ₂ CuS ₅ ; Table 6, #13
UM2008-49-SO:FeNa	Fjörlit náttúrufræðistofnunar Nr. 52, 1	Na ₃ Fe(SO ₄) ₃ ; mineral "EN"; X-ray powder data and formula only
UM2008-50-SO:HMgNa	Fjörlit náttúrufræðistofnunar Nr. 52, 1	Na ₂ Mg ₃ (SO ₄) ₂ (OH) ₂ ·4H ₂ O; "mineral SH"; X-ray powder data and formula only
UM2008-51-Se:HgPdPt	Terra Nova 20, 32	(Pt, Pd) ₂ HgSe ₃
UM2008-52-SiO:AIBCaFFeHLiMgNa	Crystal. Repts. 53, 223	(Ca, Na, X)(Al, Li, Fe, Mg) ₃ Al ₆ [Si ₆ O ₁₈](BO ₃) ₃ (OH, O) ₃ (F, O); compositionally close to, but distinct from, liddicoatite
UM2008-53-SiO:SrTiZr	Am. Mineral. 93, 1153	Sr ₄ ZrTi ₄ (Si ₂ O ₇) ₂ O ₈ ; an orthorhombic polymorph of rengerite
UM2008-54-Te:AgAsAu	Mineral. Petrol. 93, 273	(Ag, Au)AsTe ₂
UM2008-55-Te:BiPdSb	Mineral. Petrol. 92, 129	Pd ₈ Te ₄ (Bi, Sb) ₅ ; some similarities to kotulskite

