

**Table S1.** Mineral phases detected by the XRD analysis listed in order of decreasing abundance. In italic minerals present in minor/trace amount.

Sample	Mineral phases
ROV6	quartz, K-feldspar, sulfur, anorthoclase, plagioclase, <i>phyllosilicates</i>
ST2BNR1	K-feldspar, quartz, sulfur, <i>barite</i>
ST2BNR3	K-feldspar, sulfur, quartz, <i>barite, illite, kaolinite, rutile</i>
ST9BNR2B (inner)	quartz, pyrite, illite, <i>calcite</i>
ST9BNR2B (outer)	quartz low, <i>pyrite, gypsum</i>
ST9BNR2C (inner)	K-feldspar, quartz, plagioclase, <i>phyllosilicates</i>
ST9BNR2C (outer)	quartz, K-feldspar <i>illite, sulfur</i>