Analysis of scales in geothermal well from near top of the Quaternary Kakkonda granite

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Deposition of heavy metal sulfide with silica scales in production wells hasbeen observed from the deep geothermal reservor (about 2000-3000m depth) near deep-seated granite in the Kakkonda geothermal area, Japan. There are two patterns of sulfide deposition. 1) Scales including chalcocite(Cu2S),bornite(Cu5FeS4), chalcopyrite(CuFeS2), galena(PbS), loellingite(FeAs2) and native antimony(Sb) are found in Well-13, near top of the Kakkonda granite. 2) Scales including galena(PbS), Sphalerite (ZnS) and Pyrite(FeS2) are found in Well-19, adge of the Kakkonda granite. The difference of scales are estimated to be based by sulfide fugasity , original solution etc.