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IAEA geological classification of uranium deposits

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In 2009, a working group was created by the IAEA in order to review the various existing classifications and to propose a new or a modified classification to be used internationally. Abundant publications and company data became available with the increase of uranium prices starting in 2005 and the flurry of exploration work which followed. This provided a wealth of information on uranium deposit geology that has been used to revise the classification.

The previous IAEA classification, used in particular in the latest version of the AEN-NEA 2012 Red Book, dates back to 1993. At this time, 582 uranium deposits were recorded in the Agency UDEPO Database. At the end of 2013, 1525 uranium deposits were listed in the database.

Fifteen types of deposits have been retained in the new IAEA classification scheme. In contrast to previous IAEA classifications, they are not listed in order of economic importance, which has changed over time. Instead, they are listed in a geologically meaningful order from primary magmatic high temperature deposits to sedimentary and surficial low temperature deposits.
1. Intrusive
2. Granite-related
3. Polymetallic iron-oxide breccia complex
4. Volcanic-related
5. Metasomatite
6. Metamorphite
7. Proterozoic unconformity
8. Collapse-breccia pipe
9. Sandstone
10. Paleo-quartz-pebble conglomerate
11. Surficial
12. Lignite and coal
13. Carbonate
14. Phosphate
15. Black shale

Within the 15 types, 36 subtypes and 14 classes have been designated. The new classification is described in an IAEA document entitled "Geological classification of uranium deposits and description of selected deposits" to be published in 2014.

see attachment for rest of abstract

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