

عنوان مقاله:

Investigation of soil geochemistry data for identifying high anomaly zones in southern Dalli Cu-Au porphyry

محل انتشار:

دومین کنگره بین المللی زمین شناسی کاربردی (سال: 1394)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Sadegh Kianpouryan - *Geochemistry group, Academic Center for Education, Culture and research of IUT branch, Isfahan, Iran*

Mehran Farahmandian - *Geochemistry group, Academic Center for Education, Culture and research of IUT branch, Isfahan, Iran*

Sohrab Afshari - *Geochemistry group, Academic Center for Education, Culture and research of IUT branch, Isfahan, Iran*

Siam Safaei - *Geochemistry group, Academic Center for Education, Culture and research of IUT branch, Isfahan, Iran*

خلاصه مقاله:

Dalli is the only reported Cu-Au porphyry prospect which its mineralization is gold-rich porphyry copper type. There are two major porphyry centers within the Dalli project area termed the South Hill and the North Hill, situated 1.7 kilometers apart along a NE-SW sub volcanic hosted corridor. This study uses a concentration area (C-A) fractal model of soil geochemical dataset to separate mineralization zones in South Hill. The log-log diagrams of fractal models identified 4 population for Cu and Au which anomalous threshold was 561 ppm and 141 ppb for these two elements, respectively. There was a strong correlation between the high potential area and monzonite porphyry with quartz magnetite veining and diorite porphyry which are the host of Cu and Au enrichment. Using borehole samples and detailed geological map, two 3 dimensional block model, for Cu and Au, and a cross section was constructed to compare the surface and subsurface analyses. This comparison shows that the delineated zones of anomaly by C-A fractal model and symbolic map of trenches samples are in agreement with subsurface mineralization and geological models.

کلمات کلیدی:

geochemical anomaly, C-A fractal model, 3 dimensional block model, geological cross section, Dalli South Hill

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/532257>



