Studi Geologi dan Geokimia Menggunakan Metode Sedimen Sungai Sebagai Penentu Prospek Emas di Pulau Seram, Maluku = Geological and Geochemical Studies Using Stream Sediments Method as a Determinant of Gold Prospects in Seram Island, Maluku

Azky Ramaniya Sukardi, author

Abstrak

Daerah penelitian terletak pada Pulau Seram merupakan salah satu wilayah yang memiliki potensi prospek komoditas emas dikarenakan ditemukannya indikasi mineralisasi emas. Hal ini juga dikorelasikan berdasarkan penelitian sebelumnya bahwa daerah penelitian merupakan endapan emas orogenik. Subjek utama penelitian ini adalah conto sedimen sungai aktif. Penelitian ini dilakukan menggunakan analisis statistik dan geologi. Analisis statistik dilakukan untuk mengetahui sebaran anomali dan juga asosiasi unsur yang terdapat pada daerah penelitian. Sedangkan untuk analisis geologi dilakukan dengan mengintegrasi conto sedimen sungai aktif dan conto konsentrat dulang yang berasal dari PSDMBP dengan melakukan analisis petrografi, morfografi dan morfometri Hasil penelitian menunjukkan persebaran anomali yaitu Cu, Pb, Zn, Fe, Mn, Li, Co, Na, Bi, Sr dan Ba sebesar 44.255ppm, log 1.900ppm, 148.605ppm, 4.734ppm, log 3.189ppm, 27.302ppm, 41.374%, 7609.713ppm, 53.807ppm, log 1.480ppm, log 1.592ppm, 184.198ppm, log 1.924ppm dan 263.139ppm. Berdasarkan analisis multivariat, didapatkan 4 kelompok asosiasi unsur yaitu : Cu-Zn-Rb-Ba-(Fe), Cu-Co-Fe, Na-Sr dan Fe-Mn. Unsur yang digunakan sebagai pathfinder untuk deposit emas adalah unsur Cu, Pb, Zn, Fe, Mn, Na, Bi, Co, W, Rb, Sr dan Ba sehingga terdapat 4 daerah prospek pada daerah penelitian. Persebaran anomali pada daerah penelitian diinterpretasikan terjadi akibat faktor geologi berupa transportasi, erosi, serta pelapukan dari litologi dan mineral bijih yang terdapat pada daerah penelitian.

.....The research area, Seram Island, is one of the areas that has potential prospects for the commodity gold due to the indications of gold mineralization were found. This also correlated with based on previous research, the research area is an orogenic gold deposit. The main subject of this research is sediment stream samples. This research was conducted using statistic and geological analysis. Statistic analysis was carried out to determine the distribution of anomalies and also the elemental associations found in the study area. Meanwhile, geological analysis was carried out by integrating active river sediment samples and pan concentrate samples originating from PSDMBP by conducting petrographic, morphographic and morphometric analysis. The results showed an anomalous distribution of Cu, Pb, Zn, Fe, Mn, Li, Co, Na, Bi , Sr and Ba of 44.255ppm, log 1.900ppm, 148.605ppm, 4.734ppm, log 3.189ppm, 27.302ppm, 41.374%, 7609.713ppm, 53.807ppm, log 1.480ppm, log 1.592ppm, 184.198ppm, log 1.924ppm and 263.139ppm. Based on multivariate analysis, 4 groups of elemental associations were obtained, namely: Cu-Zn-Rb-Ba-(Fe), Cu-Co-Fe, Na-Sr and Fe-Mn. The elements used as pathfinder for gold deposit are the elements Cu, Pb, Zn, Fe, Mn, Na, Bi, Co, W, Rb, Sr and Ba ââso that there are 4 prospect areas in the study area. The distribution of anomalies in the study area is interpreted to occur due to geological factors in the form of transportation, erosion, and weathering of lithology and ore minerals found in the study area.