

Title: Structural mapping using PALSAR data in the Central Gold Belt, Peninsular Malaysia

Author/Authors: Amin Beiranvand Pour, Mazlan Hashim

Abstract: The Central Gold Belt (CGB) of Peninsular Malaysia has been investigated to map structural elements associated with gold mineralization using the Phased Array type L-band Synthetic Aperture Radar (PALSAR) satellite remote sensing data. Gold mineralization in this belt is structurally controlled and associated with steeply dipping faults and fold hinges. Adaptive local sigma and directional filters were applied to PALSAR data for tracing structural elements associated with gold mineralization. Structural features along the Bentong-Raub Suture Zone have been identified as highly potential areas for gold prospecting. Four sets of lineaments trending N-S, NE-SW, NNW-SSE and ESE-WNW were identified. Results of this study demonstrate the applicability of PALSAR remote sensing data to assist gold exploration in the CGB particularly in reducing costs related to exploration for epithermal and polymetallic vein-type mineralization in tropical environments.