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Interestingly, along the Arthur River logging track Herrmann has mapped gabbro and serpentinite proximal to the basic volcanics but separated by a mudstone/tuff sequence as at Huskision. Hence, there is evidence that part of the ultramafic intrusion may swing NE across the Arthur River, in the area of Dalco Creek, in the same way as the regional structure.

Further south, mudstone and greywacke with chert, dolomitic sandstone and occasionally pillowed basaltic lava and tuff correlate with rocks in the Mt. Bischoff - Cleveland area and probably belong to the Crimson Creek Argillite.

5. DISCUSSION OF RESULTS

Contamination from Bischoff and Magnet Mines is the first thing that is apparent in the stream geochemistry. Despite this, several obvious patterns of enhancement have been recognised and are covered by the gridding.

The large grid covering the Dalco-Happy Day Creek area appears to have been put down to cover anomalous Cu/Zn and Sn stream geochemistry. Costeaning produced values which averaged 378 ppm Cu and 955 ppm Zn over 60m supporting the encouraging soil geochemistry in this area. The geology is suspected to be similar to that in the upper reaches of the Heazlewood River viz. basic volcanics/mudstone but insufficient work has been carried out to allow further comment.

South of the area gridded to cover BAB there is a prominent Pb anomaly with associated Zn and minor Cu that does not appear to have resulted from contamination produced by Magnet Mine. If so, follow up work is required to explain the anomaly. This same stream, which is a major tributary of Magnet Creek and the Arthur River has a pronounced Sn anomaly. But, like most of the tin anomalies in this area it occurs downstream from the tertiary basalt capping suggesting that tin is being derived from gravels being eroded from below the basalt. A long train of anomalous Sn in Deep Gully Creek may also have accumulated following erosion and retreat of the basalt cover.

6. RECOMMENDATIONS

- (i) Exploration and assessment of the Happy Day Creek area covered by Grid E was never completed and high soil and costean Cu/Zn values were never explained. Mapping of the grid is required to establish the geological environment followed by additional costeaning. A final appraisal may depend on results