The Liquid Bismuth Collector Model, involving scavenging of ionic gold from hydrothermal fluid by liquid bismuth, has been proposed to explain the common association between gold and bismuth seen in many ore deposits. Textural relationships, temperature and chemical conditions of mineralisation at the Stormont prospect in north-western Tasmania are analysed to investigate whether the Liquid Bismuth Collector Model can explain gold accumulation at this prospect. Low sulfur content, a reducing environment and mineralisation temperatures between 400-500°C, suggest that during the mineralisation event, bismuth would have precipitated as a liquid. The evidence therefore suggests that at Stormont gold was scavenged from the hydrothermal fluid by liquid bismuth. Zoned andradite crystals provide evidence for a fluctuating hydrothermal fluid which contributed to zone refinement within the prospect. The importance of focused fluid flow and zone refinement are discussed from the point of view of understanding the role of bismuth in concentrating gold in ore deposits in general.