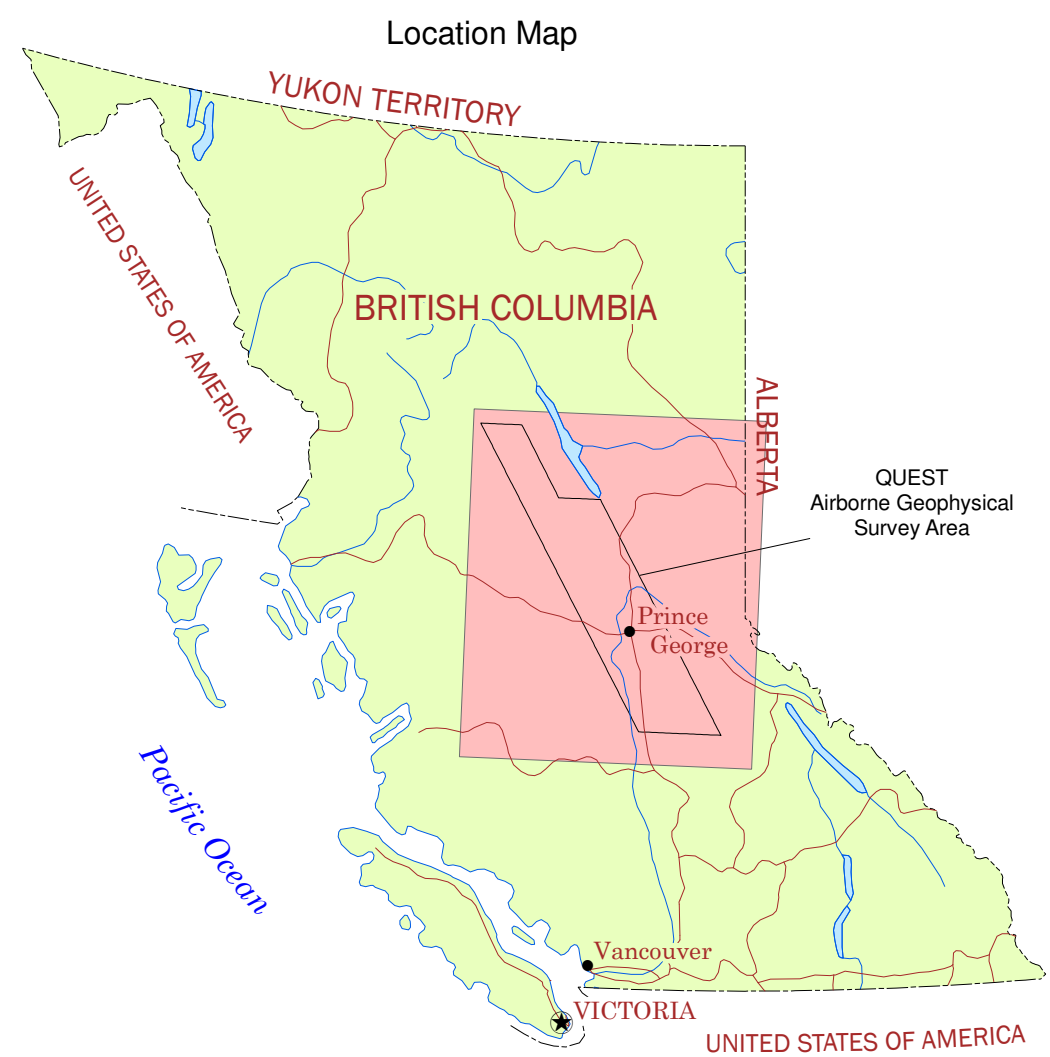
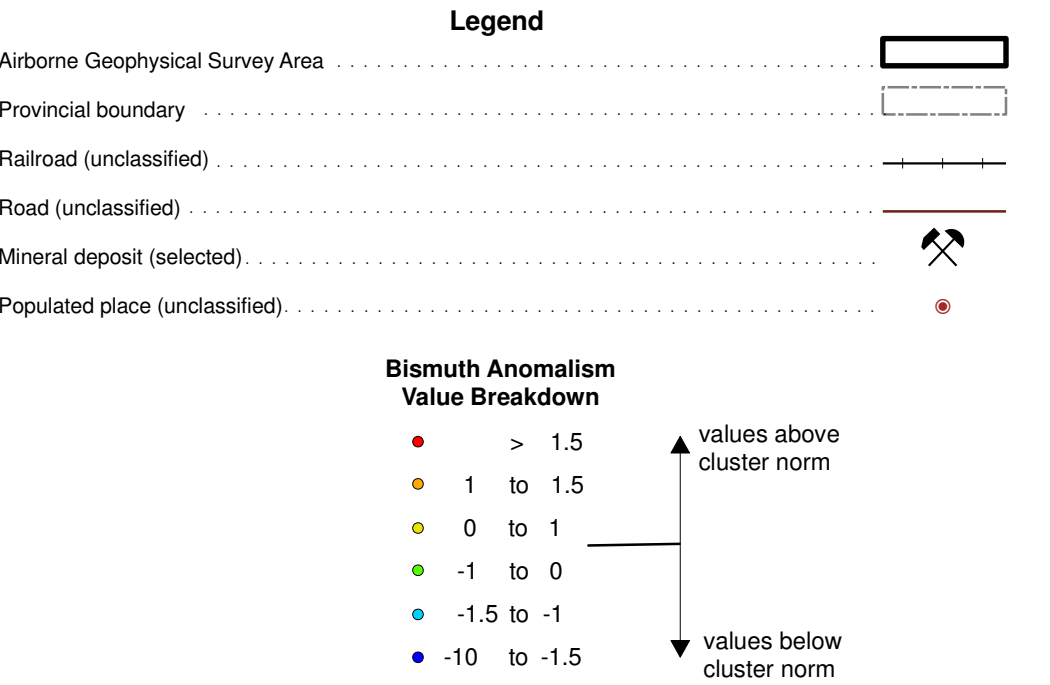
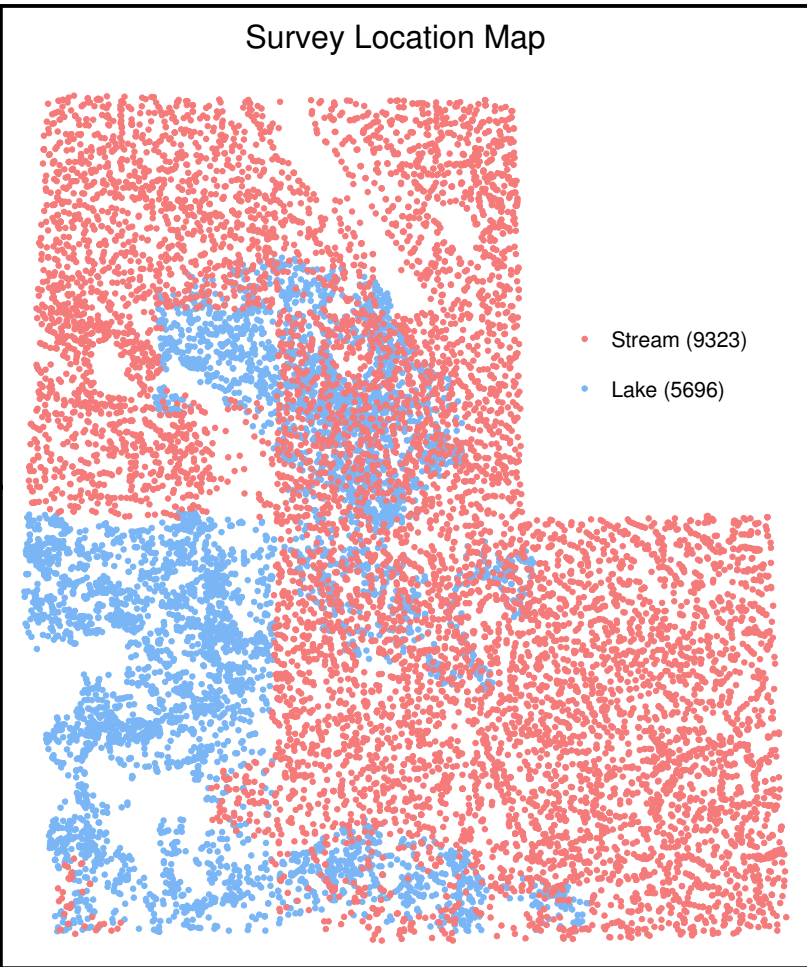


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering any financial or other commitment based upon this information.



National Topographic System Index

18M SPENCER RIVER	08E DUNCANSON RIVER	09F WILHELM RIVER	09G WILHELM RIVER	09H SEATTLE RIVER	09I CHICAGO RIVER
18A LAKE	08C MCCONNELL RIVER	09C MCCONNELL RIVER	09B MCCONNELL RIVER	09A CHICAGO LAKE	08D CHICAGO LAKE
18P RIVER	08W MCCONNELL RIVER	09W MCCONNELL RIVER	09D MCCONNELL RIVER	09F CHICAGO RIVER	09E CHICAGO RIVER
02B TUMBLE RIVER	02C TUMBLE RIVER	02D TUMBLE RIVER	02E TUMBLE RIVER	02F TUMBLE RIVER	02G TUMBLE RIVER
12B TUMBLE LAKE	02W TUMBLE LAKE	02C TUMBLE LAKE	02D TUMBLE LAKE	02E TUMBLE LAKE	02F TUMBLE LAKE
12A TUMBLE LAKE	02W TUMBLE LAKE	02C TUMBLE LAKE	02D TUMBLE LAKE	02E TUMBLE LAKE	02F TUMBLE LAKE
12P TUMBLE LAKE	02W TUMBLE LAKE	02C TUMBLE LAKE	02D TUMBLE LAKE	02E TUMBLE LAKE	02F TUMBLE LAKE
02P TUMBLE LAKE	02W TUMBLE LAKE	02C TUMBLE LAKE	02D TUMBLE LAKE	02E TUMBLE LAKE	02F TUMBLE LAKE



QUEST Geochemistry CSIRO SOM Analysis - Cluster-Normalized Element Anomalism

The leveled and imputed element grids (Barnett and Williams, 2009) were intersected by the sample locations and the values assigned to the sample point. Note, missing element values have been imputed.

The SiroSOM procedure assigns each sample to a best-matching unit (BMU) and samples that are similar tend to be assigned to either the same BMU or nearby BMUs that are close on the self-organized map. To assist with interpretation the SOM-derived BMU "vector" was analysed using K-means to produce 20 clusters. Field samples have been coloured according to the cluster-assignment of their particular BMU.

"Cluster-Normalized" element anomaly maps have been produced with samples normalized to the mean and standard deviation of the K-means cluster to which a sample's BMU belongs. Users are cautioned that normalization by the K-means cluster mean may make intrinsically small numbers anomalous. Specifically, if an element is normally only present in small amounts in a set of samples assigned to a cluster, then the normalization process applied here will make the higher values in this low valued group anomalous.

Data Analysis

Fraser, S.J. and Hodgkinson, J.H. (2009) An Investigation Using SiroSOM for the Analysis of QUEST Stream Sediment and Lake-Sediment Geochemical Data. September 2009, Geoscience BC, Report 2009-14. CSIRO Exploration and Mining Report 2009/983, 64 p.

Geochemistry Data

Labelled Data

Barnett, C. T. and Williams, P. M. (2009). Using geochemistry and neural networks to map geology under glacial cover. Geoscience BC, Report 2009-3.

Original Data

Jackman, W. (2008). Regional Stream Sediment and Water Geochemical Data, Pine Pass, British Columbia (NTS 820). Geoscience BC, Report 2008-7.
Jackman, W. (2008). Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia (parts of NTS 82C, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 00, 01, 02, 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