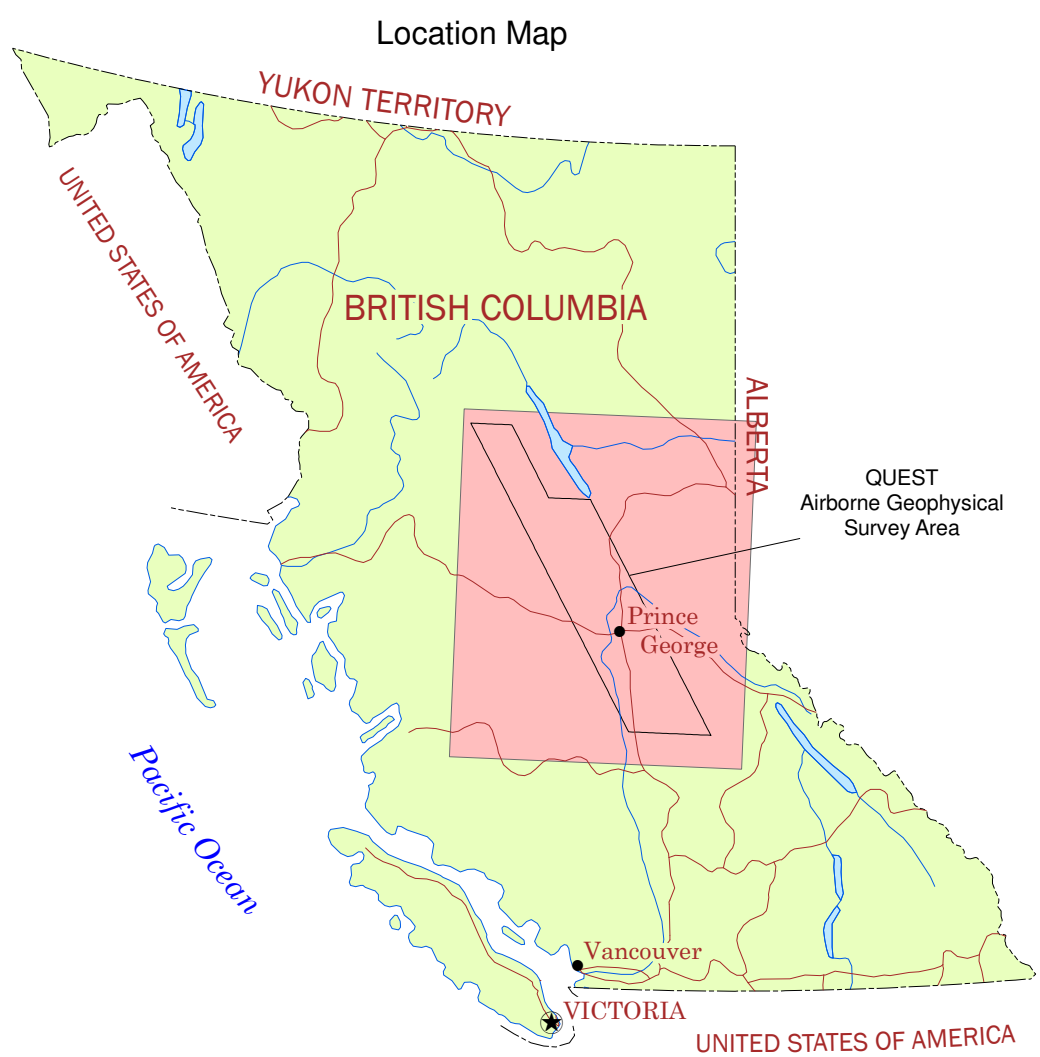
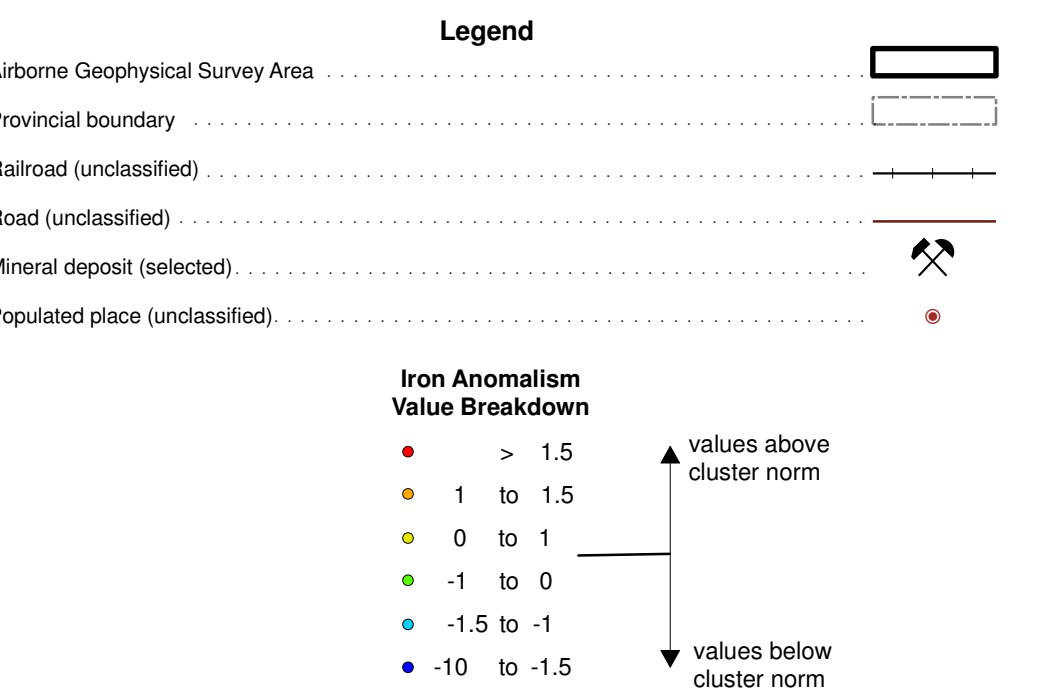
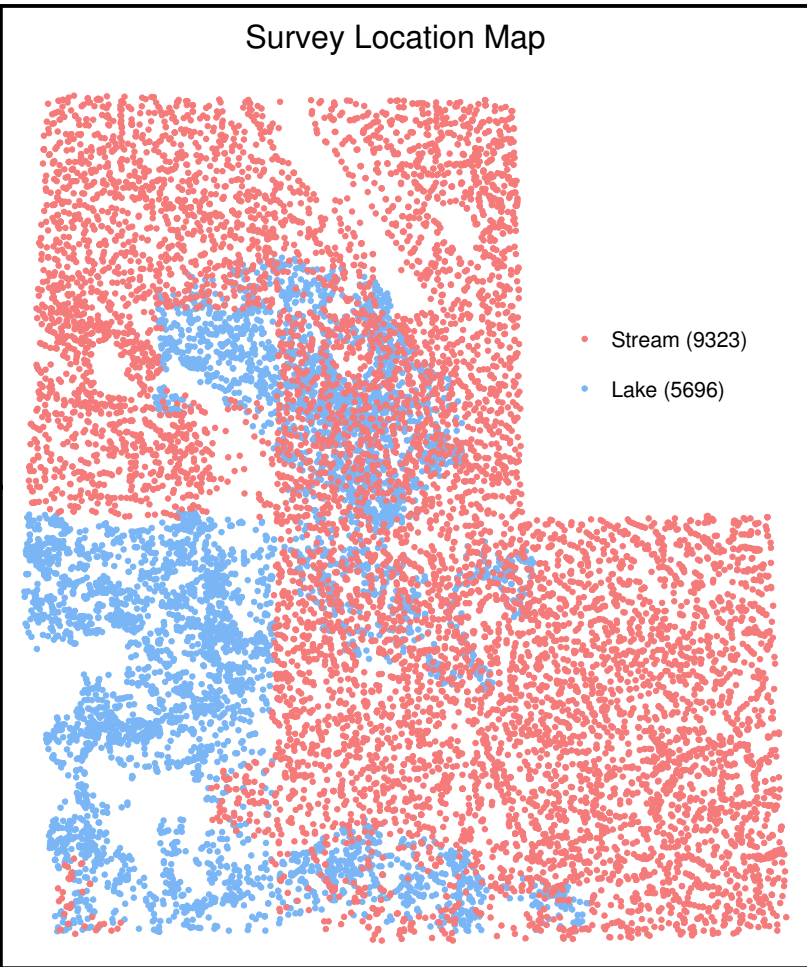


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering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



National Topographic System Index

18M SPENCER RIVER	08E COWICHAN RIVER	08F WHEE RIVER	08G FRITCH RIVER	08H SEATTLE RIVER	08I CHIMANNA RIVER
18A LAKE	08C MCCORMICK RIVER	08D MCCORMICK RIVER	08E MCCORMICK RIVER	08F MCCORMICK RIVER	08G MCCORMICK RIVER
18P RIVER	08M MCCORMICK RIVER	08N MCCORMICK RIVER	08O MCCORMICK RIVER	08P MCCORMICK RIVER	08Q MCCORMICK RIVER
02R TERRACE	02S JANZEN RIVER	02T FRASER RIVER	02U MCCORMICK RIVER	02V MCCORMICK RIVER	02W MCCORMICK RIVER
10H DOUGLAS LAKE	02X WHEATLAND LAKE	02Y MCCORMICK RIVER	02Z MCCORMICK RIVER	03A MCCORMICK RIVER	03B MCCORMICK RIVER
10J DOUGLAS LAKE	03C MCCORMICK RIVER	03D MCCORMICK RIVER	03E MCCORMICK RIVER	03F MCCORMICK RIVER	03G MCCORMICK RIVER
10K DOUGLAS LAKE	03H MCCORMICK RIVER	03I MCCORMICK RIVER	03J MCCORMICK RIVER	03K MCCORMICK RIVER	03L MCCORMICK RIVER
10L DOUGLAS LAKE	03M MCCORMICK RIVER	03N MCCORMICK RIVER	03O MCCORMICK RIVER	03P MCCORMICK RIVER	03Q MCCORMICK RIVER
10M DOUGLAS LAKE	03R MCCORMICK RIVER	03S MCCORMICK RIVER	03T MCCORMICK RIVER	03U MCCORMICK RIVER	03V MCCORMICK RIVER
10N DOUGLAS LAKE	03W MCCORMICK RIVER	03X MCCORMICK RIVER	03Y MCCORMICK RIVER	03Z MCCORMICK RIVER	04A MCCORMICK RIVER



QUEST Geochemistry CSIRO SOM Analysis - Cluster-Normalized Element Anomalism
The levelled 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 SiroSOM-derived BMU "vectors" were 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 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 2009/063, 64 p.

Geochemistry Data
Levelled 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 930); Geoscience BC, Report 2008-7.
Jackman, W. (2008): Regional Lake Sediment and Water Geochemical Data, Northern Fraser Basin, Central British Columbia (parts of NTS 93G, H, I, J, K, N, O, P); Geoscience BC, Report 2008-5.
Jackman, W. (2008): QUEST Project Sample Reanalysis; Geoscience BC, Report 2008-3.

Jackman, W. (2007): Regional drainage sediment and water geochemical data, South Nechako Basin and Cariboo Basin, central British Columbia (parts of NTS 92N, O, P, 93A, B, C); Geoscience BC, Report 2007-6, 332 p.
Lett, R.E.W. and Blumel, B. (2006): Re-analysis of regional geochemical survey stream sediment samples from the McLeod Lake area (NTS map sheet 93J); BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2006-09, 220 p.

Jackman, W. (2006): Regional drainage sediment and water geochemical data, Anahim Lake and Nechako River, central British Columbia (NTS 93C & 93F); Geoscience BC, Report 2006-4, 432 p.
Lett, R.E.W. (2005): Regional Geochemical Survey Database on CD, BC Ministry of Energy, Mines and Petroleum Resources, Geofiles 2005-17.

Topographic Data
Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J., and Cooney, R.T. (2005): Digital Elevation Map of British Columbia: Whole Province; BC Ministry of Energy and Mines, Geofiles 2005-1.
Data Sources
Geoscience BC
www.geosciencebc.com
Ministry of Energy, Mines and Petroleum Resources
www.empr.gov.bc.ca/mining/geoscience

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Numerical analysis by CSIRO, Australia - www.csiro.au
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MAP 2009-14-17
GEOCHEMISTRY - CSIRO SOM ANALYSIS
Cluster-Normalized Iron Anomalism
QUEST PROJECT
1:250 000 NTS SHEETS 93A,B,C,F,G,H,I,J,K,N,O,P
PART OF 1:250 000 NTS SHEETS 82M; 83D,E,L,M; 84D;
92M,N,O,P; 93D,E,L,M AND 94A,B,C,D
1 : 500,000
0 5 10 15 20 25 30 35 40 45 50 km
Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983
Mean magnetic declination 2009: 19°48' E, decreasing 1.6" annually. Readings vary from 17°42' E in the southeast corner to 20°14' E in the northwest corner of the map.
September 16, 2009
Citation:
Geoscience BC (2009): QUEST Project - Geochemistry - CSIRO SOM Analysis: Cluster-Normalized Iron Anomalism; Geoscience BC, Map 2009-14-17, scales 1:500,000.