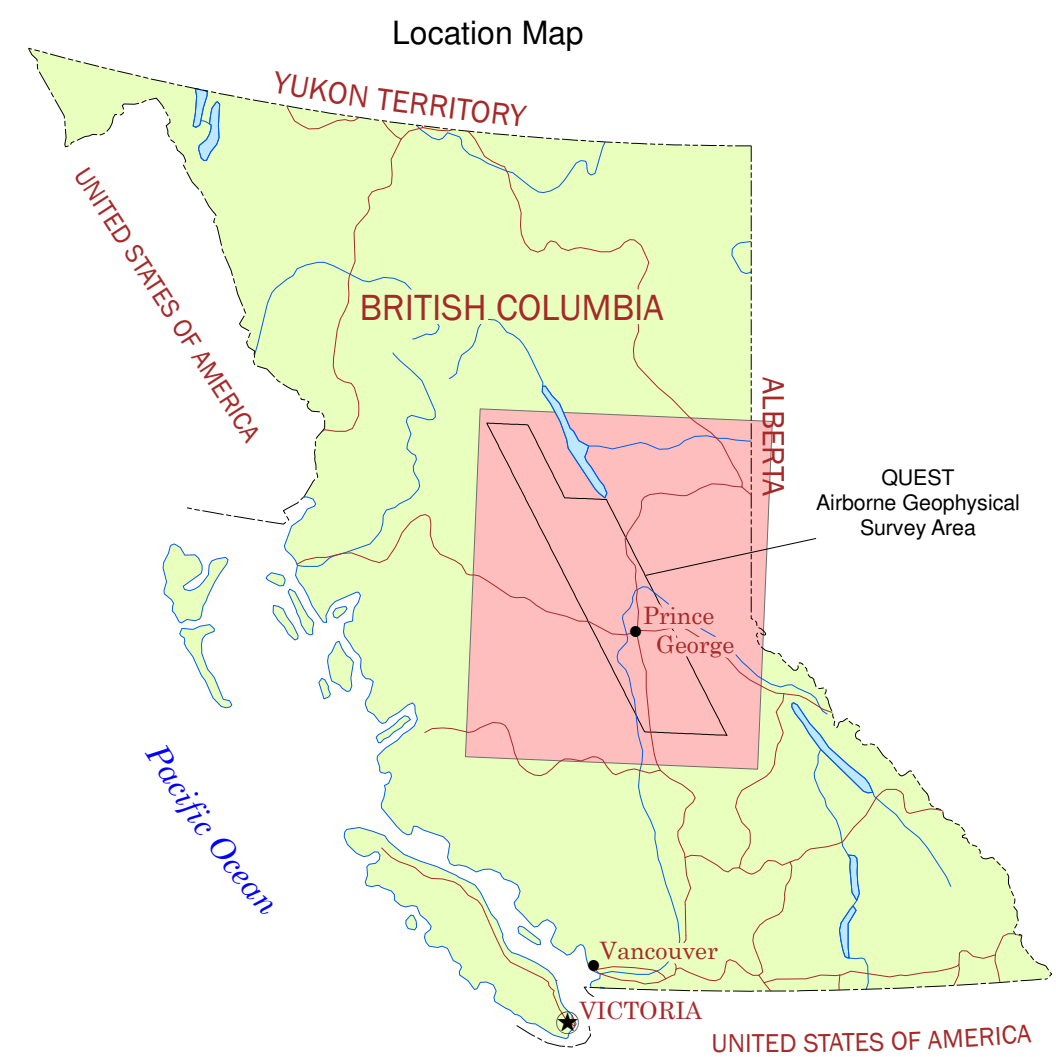
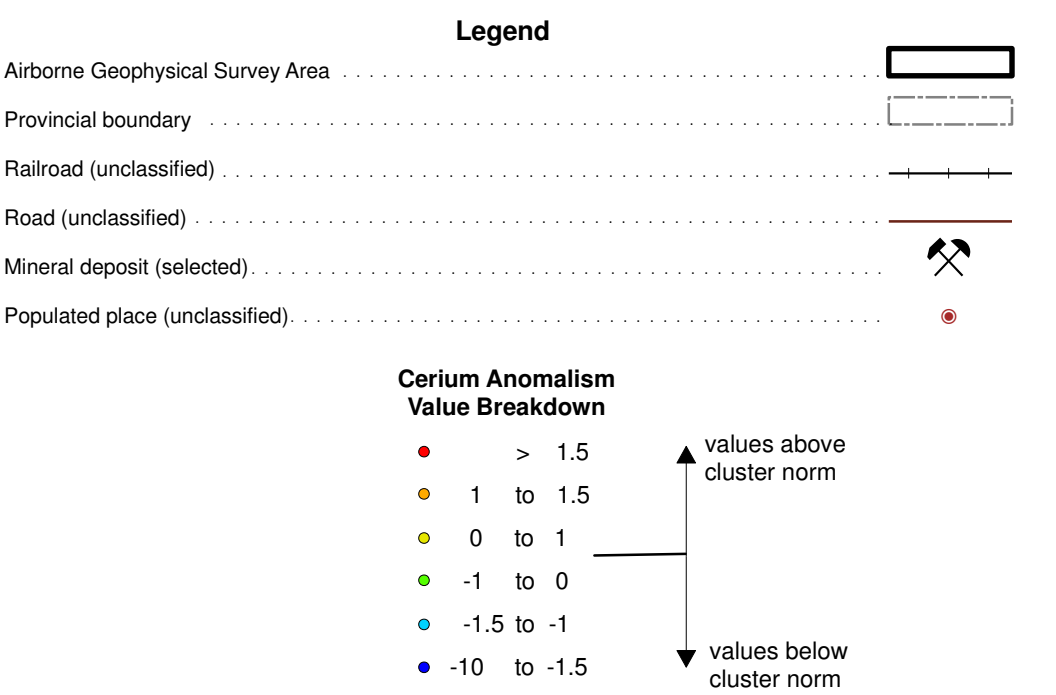
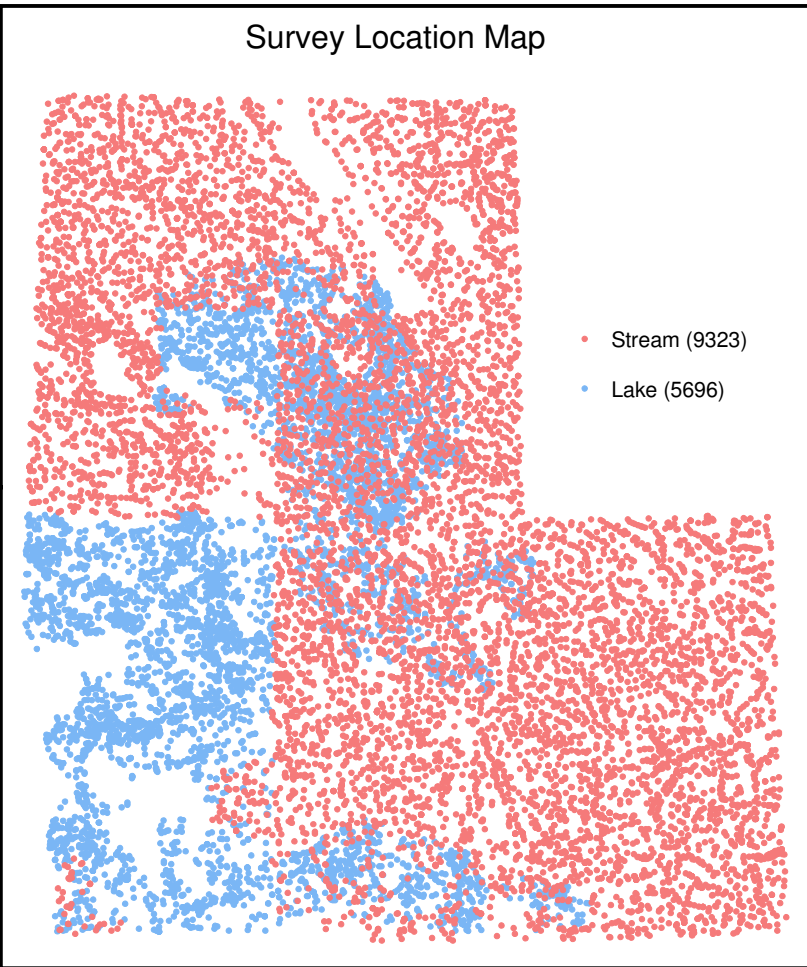


Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an "as is" basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering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



National Topographic System Index

18M SPENCER RIVER	08E DOUGLASS RIVER	09F WINE RIVER	09G MILL RIVER	09H SEATTLE RIVER	09I CHICAGO RIVER
18A LAKE	08C MCCONNELL RIVER	09C MCCONNELL RIVER	09B MCCONNELL RIVER	09A MCCONNELL RIVER	08D MCCONNELL RIVER
18P RIVER	08W MCCONNELL RIVER	09W MCCONNELL RIVER	09D MCCONNELL RIVER	09F MCCONNELL RIVER	09E MCCONNELL RIVER
02R TERRACE	02S JANZEN LAKE	03R FRASER RIVER	03J MCCONNELL RIVER	03M MCCONNELL RIVER	03L MCCONNELL RIVER
10R DOUGLASS RIVER	02Z WYSEMAN LAKE	03P MCCONNELL RIVER	03G MCCONNELL RIVER	03N MCCONNELL RIVER	03K MCCONNELL RIVER
10A DOUGLASS RIVER	02D COOLA LAKE	03C MCCONNELL RIVER	03S MCCONNELL RIVER	03A MCCONNELL RIVER	03D MCCONNELL RIVER
10P DOUGLASS RIVER	02W MCCONNELL RIVER	03W MCCONNELL RIVER	03D MCCONNELL RIVER	03F MCCONNELL RIVER	03E MCCONNELL 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 SroSOM 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 SroSOM-derived BMU "vector" was analysed using K-means to produce 20 classes. 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., (2006) An Investigation Using SroSOM for the Analysis of QUEST Stream Sediment and Lake-Sediment Geochemical Data. September 2009, Geoscience BC, Report 2009-14. CSIRO Exploration and Mining Report 2009/963, 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). 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 82N, 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). Geoscience BC, Report 2007-4, 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 82J). 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 82C & 83F). Geoscience BC, Report 2006-4, 463 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., Mackinnon, D.G., Desjardins, P.J., and Corney, R.T. (2005). Digital Geology 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

Acknowledgments

Cartography by Flor Ma, Geoscience BC
Numerical analysis by CSIRO, Australia - www.csiro.au
Geoscience BC is funded through grants from the Provincial Government of British Columbia. QUEST is funded in partnership with the Northern Development Initiative Trust - www.nditrust.ca



Geoscience BC is an industry-led, industry-focused not for profit society that works to attract mineral and oil and gas investment to British Columbia through collection and marketing of geoscience data.
www.geosciencebc.com

MAP 2009-14-12
GEOCHEMISTRY - CSIRO SOM ANALYSIS
Cluster-Normalized Cerium Anomalism

QUEST PROJECT
1:250 000 NTS SHEETS 83A,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
Universal Transverse Mercator Projection, Zone 10
Horizontal Datum: North American Datum 1983
Mean magnetic declination 2009: 19° 18' 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 Cerium Anomalism. Geoscience BC, Map 2009-14-12, scale 1:500,000.