NTS MAP AREA 82L Jackaman, W. (2010): QUEST-South regional geochemical data, southern

Paulen, R.C., Bobrowsky, P.T., Lett, R.E., Jackaman, W., Bichler, A.J. and Wingerter, C. (2000): Till geochemistry of the Shuswap Highlands area, B.C. (parts of NTS 82M/3, 82L/13, and 92P/9); BC Ministry of Energy,

Eagle Bay Project: till geochemistry of the Adams Plateau (82M/4) and North Barriere Lake (82M/5) map areas; in Geological Fieldwork 1996,BC Ministry of Energy, Mines, and Petroleum Resources, Paper 1997-1, pages 413-421.

Bobrowsky, P.T., Leboe, E.R., Dixon-Warren, A., Ledwon, A., MacDougall, D. and Sibbick, S.J. (1997): Till geochemistry of the Adams Plateau-North Barriere Lake area (NTS 82M/4 and 5); BC Ministry of Energy, Mines, and Petroleum Resources, Open File 1997-09, 27 pages.

Paulen, R.C., Bobrowsky, P.T., Lett, R.E., Jackaman, W., Bichler, A.J. and Wingerter, C. (2000): Till geochemistry of the Shuswap Highlands area, B.C. (parts of NTS 82M/3, 82L/13, and 92P/9); BC Ministry of Energy, Mines, and Petroleum Resources, Open File 2000-18, 26 pages.

Jackaman, W. (2010): QUEST-South regional geochemical data, southern

NTS MAP AREA 921

British Columbia: Geoscience BC, Report 2010-13, 153 pages.

NTS MAP AREA 92L

Bobrowsky, P.T. and Sibbick, S.J. (1996): Till geochemistry of northern Vancouver Island area (NTS 92L/5, 6W, 11W, 12); BC Ministry of Energy,

Bobrowsky, P.T., Best, M., Dunn, C.E., Huntley, D.H., Lowe, C., Roberts M., Seemann, D.A. and Sibbick, S.J. (1995): Integrated drift exploration studies on northern Vancouver Island (92L); in Geological Fieldwork 1994, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-1,

pages 23-33. Huntley, D.H. and Bobrowsky, P.T. (1995): Surficial geology and drift exploration: Mahatta Creek Map Area (92L/5); in Geological Fieldwork

Kerr, D.E., Sibbick, S.J. and Jackaman, W. (1992): Till geochemistry of the Quatsino map area (92L/12); BC Ministry of Energy, Mines and Petroleum

Resources, Open File 1992-21, 14 pages.

Plouffe, A. (1997): Reconnaissance till geochemistry on the Chilcotin Plateau (92/05 and 12); in Interior Plateau Geoscience Project: summary of geological, geochemical, and geophysical studies; Diakow, L.J, Newell, J.M. and Metcalfe, P., Editors, BC Ministry of Employment and Investment, Open File 1997-2, Geological Survey of Canada, Open File 3448, pages

Plouffe, A. and Ballantyne, S.B. (1994): Regional till geochemistry, Mount Tatlow and Elkin Creek area, British Columbia (920/5 and O/12);

NTS MAP AREA 92P

Bobrowsky, P.T., Paulen, R.C., Little, E., Prebble, A., Ledwon, A. and Lett, R.E. (1998): Till geochemistry of the Louis Creek-Chua Chua Creek area (NTS 92P/1E and 92P/8E); BC Ministry of Energy, Mines and Petroleum Resources, Open File 1998-06, data spreadsheet.

Wingerter, C. (2000): Till geochemistry of the Chu Chua-Clearwater area, B.C. (parts of NTS 92P/8 and 92P/9); BC Ministry of Energy, Mines and Petroleum Resources, Open File 2000-17, 25 pages.

Paulen, R.C., Bobrowsky, P.T., Lett, R.E., Jackaman, W., Bichler, A.J. and Wingerter, C. (2000): Till geochemistry of the Shuswap Highlands area, B.C. (parts of NTS 82M/3 82L/13 and 92P/9); BC Ministry of Energy, Mines and Petroleum Resources, Open File 2000-18, 26 pages.

grain content of till in the Bonaparte Lake map area, south central British Coumbia (NTS 92P); Geological Survey of Canada, Open File 6047, 32 Plouffe, A., Bednarski, J.M., Huscroft, C.A., Anderson, R.G. and McCuaig,

Canada, Open File 6440, CD ROM Plouffe, A., Bednarski, J.M., Huscroft, C.A., Anderson, R.G. and McCuaig, S.J. (2011): Late Wisconsinan glacial history in the Bonaparte Lake map

NTS MAP AREA 93B

NTS MAPAREA 93C

Lett, R.E., Cook, S.J. and Levson, V.M. (2006): Till Geochemistry of the Chilanko Forks, Chezacut, Clusko River and Toil Mountain area, British Columbia (NTS 93C/1, C/8, C/9, C/16); BC Ministry of Energy, Mines and

NTS MAPAREA 93E

Ferbey, T. (2010): Till Geochemistry of the Nadina River map area (093E/15); BC Ministry of Energy, Mines and Petroleum Resources, Open File 2010-7, Geoscience BC, Report 2010-10, 56 pages.

NTS MAP AREA 93F

Lake and Marilla map areas (NTS 93F/5 and F/12); BC Ministry of Energy, Mines and Petroleum Resources, Open File 2002-11, 27 pages.

Survey of Canada, Open File 3687, 1:400 000-scale mapsheet. Plouffe, A. and Williams, S.P. (2001): Quaternary geology data: Manson River (93N), Fort Fraser (93K) and Nechako River (93F), central British

Survey of Canada, Open File 4166, 66 pages.

Weary G.F., Levson, V.M. and Broster, B.E. (1997): Till geochemistry of the Chedakuz Creek map area (93F/7), British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 1997-11, 97 pages.

NTS MAP AREA 93H Bobrowsky, P.T. and Bichler, A. (2001): Till Geochemistry of the Wells-Stony Lake Area, B.C. (NTS 93H/4N and 93H/5S); BC Ministry of Energy, Mines and Petroleum Resources, Open File 2001-10, 32 pages.

NTS MAP AREA 93J Ward, B.C., Leybourne, M.I. and Sacco, D.A. (2011): Drift prospecting within the QUEST Project area, central British Columbia (NTS

Ward, B.C., Leybourne, M.I., Sacco, D.A. (2012): Heavy mineral analysis from till samples within the QUEST Project Area, central British Columbia (NTS 093J); in Geoscience BC Summary of Activities 2011, Geoscience BC, Report 2012-1, p. 59-68.

NTS MAP AREA 93K Plouffe, A. (1995): Geochemistry, lithology, mineralogy, and visible gold grain content of till in the Manson River and Fort Fraser map areas, central

British Columbia (NTS 93K and N); Geological Survey of Canada, Open File 3194, 119 pages. Plouffe, A. (2000): Quaternary geology of the Fort Fraser and Manson

River map areas, central British Columbia; Geological Survey of Canada, Bulletin 554, 62 pages. Plouffe, A. and Ballantyne, S.B. (1993): Regional till geochemistry, Manson River and Fort Fraser area, British Columbia (93K, 93N), silt plus clay and clay size fractions; Geological Survey of Canada, Open File 2593, 210

Plouffe, A. and Williams, S.P. (2001): Quaternary geology data Manson River (93N), Fort Fraser (93K) and Nechako River (93F), central British Columbia; Geological Survey of Canada, Open File 2270, CD-ROM.

Ferbey, T. (2011): Till geochemistry of the Colleymount map area (093L/1). west-central British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 2011-09,45 pages.

Ferbey, T., Levson, V.M. and Lett, R.E. (2009): Till geochemical exploration targets, Babine porphyry copper belt, central British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 2009-4, Geoscience BC, Report 2009-10, 38 pages.

Levson, V.M. (2002): Quaternary geology and till geochemistry of the Babine Porphyry Copper Belt, British Columbia (NTS 93L/9,16, M/1, 2, 7, 8); BC Ministry of Energy, Mines and Petroleum Resources, Bulletin 110,

278 pages. Stumpf, A.J. (2012): Till geochemistry and clast lithology studies of the Bulkley River valley, west-central British Columbia (parts of NTS 093L);

Geoscience BC, Report 2012-11, 59 pages. NTS MAP AREA 93M Ferbey, T., Levson, V.M. and Lett, R.E. (2009): Till geochemical exploration

targets, Babine porphyry copper belt, central British Columbia; BC Ministry

of Energy, Mines and Petroleum Resources, Open File 2009-4,

Geoscience BC, Report 2009-10, 38 pages.

British Columbia; Geoscience BC, Report 2010-13, 153 pages.

Mines, and Petroleum Resources, Open File 2000-18, 26 pages. NTS MAP AREA 82M Bobrowsky, P.T., Leboe, E.R., Dixon-Warren, A. and Ledwon, A. (1997)

NTS MAP AREA 92H British Columbia; Geoscience BC, Report 2010-13, 153 pages.

Jackaman, W. (2010): QUEST-South regional geochemical data, southern

Bobrowsky, P.T. and Meldrum, D. (1994): Preliminary drift exploration studies, northern Vancouver Island (92L/6, 92L/11); in Geological Fieldwork 1993, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1994-1, pages 87-99.

Mines and Petroleum Resources, Open File 1996-07, 201 pages.

1994, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-1, pages 35-48.

Geological Survey of Canada, Open File 2909, 62 pages.

Paulen, R.C., Bobrowsky, P.T., Lett, R.E., Jackaman, W., Bichler, A.J. and

Plouffe, A., Bednarski, J.M., Huscroft, C.A. and McCuaig, S.J. (2009): Gold

S.J. (2010): Glacial sediments geochemistry of the Bonaparte Lake map area (NTS 92P), south central British Columbia; Geological Survey of

area, south central British Columbia: implications for glacial transport and mineral exploration; Canadian Journal of Earth Sciences, v. 48, pages

Ferbey, T. (2009): Till geochemical exploration targets, Redstone and Loomis Lake map areas (NTS 093B/04 and 05), central British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 2009-9, 52 pages.

Petroleum Resources, GeoFile 2006-1, 272 pages.

Levson, V.M. and Mate, D.J. (2002): Till Geochemistry of the Tetachuck

Levson, V.M., Giles, T.R., Cook, S.J. and Jackaman, W. (1994): Till geochemistry of the Fawnie Creek area (93F/03); BC Ministry of Energy, Mines and Petroleum Resources, Open File 1994-18, 40 pages.

Plouffe, A. and Williams, S.P. (1998): Regional till geochemistry, gold and pathfinder elements, northern Nechako River, British Columbia; Geological

Columbia; Geological Survey of Canada, Open File 2270, CD-ROM. Plouffe, A., Levson, V.M. and Mate, D.J. (2001): Till geochemistry of the Nechako River map area (NTS 93F), central British Columbia; *Geological*

093J): potential for porphyry copper-gold, volcanogenic massive sulphide

mineralization and gold-copper veins; in Geoscience BC Summary AR30828,694 pages. of Activities 2010, Geoscience BC, Report 2011-1, pages 73–96. Au-QUARTZ VEINS

(2) Bunker Hill

Koffyberg, A. (2008): Assessment report on the heavy mineral stream sediment, silt stream sediment, rock, till and soil sampling programs, Bunker Hill property; submitted by Clarke Gold Inc. and Bis-Gold Resources Inc., BC Ministry of Energy, Mines and Petroleum Resources, AR30070,143 pages.

Williams, J.D. (2010): Assessment report on prospecting, geochemical and rock sampling on the Nox Fort property in 2008; submitted by Jaxon Minerals Inc., BC Ministry of Energy, Mines and Petroleum Resources, AR30828,694 pages.

Cook, S.J. and Cunn, C.E. (2007): A comparative assessment of soil geochemical methods for detecting buried mineral deposits - 3Ts Au-Ag prospect, central British Columbia; Geoscience BC, Report 2007-7, 226

(4) Blackwater-Davidson (5) Uduk Lake

O'Brien, E.K., Broster, B.E., Giles, T.R. and Levson, V.M. (1995): Till geochemical sampling: CH, Blackwater-Davidson, and Uduk Lake properties, British Columbia: report of activities; in Geological Fieldwork 1994, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-1, pages 207-211.

O'Brien, E.K., Levson, V.M. and Broster, B.E. (1997): Till geochemical dispersal in central British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 1997-12, 114 pages.

(6) White Claim Group Levson, V.M. and Giles, T.R. (1995): Glacial dispersal patterns of

mineralized bedrock: with examples from the Nechako Plateau, central British Columbia; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages

Levson, V.M. and Giles, T.R. (1997): Quaternary geology and till geochemistry studies in the Nechako and Fraser Plateaus, central British Columbia; in Interior Plateau Geoscience Project: Summary of Geological, Geochemical and Geophysical Studies; Diakow, L.J. and Newell, J.M., Editors, Geological Survey of Canada, Open File 3448, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1997-2, pages 121-145.

Levson, V.M. (2002): Quaternary geology and till geochemistry of the Babine Porphyry Copper Belt, British Columbia (NTS 93L/9,16, M/1, 2, 7, 8); BC Ministry of Energy, Mines and Petroleum Resources, Bulletin 110,

Levson, V.M., Cook, S.J., Hobday, J., Huntley, D.H., O'Brien, E.K., Stumpf, A.J. and Weary, G. (1997): Till geochemistry of the Old Fort Mountain area, central British Columbia (NTS 93M/1); BC Ministry of Energy, Mines and Petroleum Resources, Open File 1997-10a, 55 pages.

Levson, V.M., Cook, S.J., Huntley, D.H., Stumpf, A.J. and Hobday J. (1997): Preliminary till geochemistry-Old Fort Mountain area (NTS 93M/1): BC Ministry of Energy, Mines and Petroleum Resources, Open File 1997-18, data spreadsheet.

Plouffe, A. (1995): Geochemistry, lithology, mineralogy, and visible gold grain content of till in the Manson River and Fort Fraser map areas, central British Columbia (NTS 93K and N); Geological Survey of Canada, Open

File 3194, 119 pages. Plouffe, A. (2000): Quaternary geology of the Fort Fraser and Manson River map areas, central British Columbia; Geological Survey of Canada, Bulletin 554, 62 pages.

River and Fort Fraser area, British Columbia (93K, 93N), silt plus clay and clay size fractions; Geological Survey of Canada, Open File 2593, 210 Plouffe, A. and Williams, S.P. (2001): Quaternary geology data Manson River (93N), Fort Fraser (93K) and Nechako River (93F), central British

Plouffe, A. and Ballantyne, S.B. (1993): Regional till geochemistry, Manson

Columbia; Geological Survey of Canada, Open File 2270, CD-ROM. Sibbick, S.J., Balma, R.G. and Dunn, C.E. (1996): Till geochemistry of the Mount Milligan area (Parts of 93N/1 and 93O/4); BC Ministry of Energy,

NTS MAPAREA 930 Sibbick, S.J., Balma, R.G. and Dunn, C.E. (1996): Till geochemistry of the Mount Milligan area (Parts of 93N/1 and 93O/4); BC Ministry of Energy, Mines and Petroleum Resources, Open File 1996-22, 18 pages.

Canada, Open File 3815, CD-ROM.

NTS MAP AREAS 941 AND 94P McNeil, R.J., Kjarsgaard, I.M., Ferbey, T., Levson, V.M., Hickin, A.S.,

Resources, Paper 2007-1, pages 361-372. Plouffe, A., Smith, I.R., McCurdy, M., Friske, P., Ferbey, T., Bednarski, J., Levson, V.M., Demchuk, T.E., Trommelen, M., Day, S. and Hickin, A.S. (2006): Glacial and stream sediments sampling in support of kimberlite

I.R. and Kjarsgaard, I. (2005): Kimberlite indicator minerals in the Fort Nelson area, northeastern British Columbia; in Geological Fieldwork 2004, BC Ministry of Energy, Mines and Petroleum Resources, Paper 2005-1, pages 325-343.

Ministry of Energy, Mines and Petroleum Resources, Geofile 2005-13.

I.R., Demchuk, T.E., Raudsepp, I.M. and Hickin, A.S. (2005): Kimberlite indicator minerals in northeastern British Columbia - a reconnaissance survey; BC Ministry of Energy, Mines and Petroleum Resources, Geofile

Simandl, G.J., Ferbey, T., Levson, V.M., Robinson, N.D., Lane, R., Smith, I.R., Demchuk, T.E., Raudsepp, I.M. and Hickin, A.S. (2006): Kimberlite indicator minerals in northeastern British Columbia - a reconnaissance survey; in Geological Fieldwork 2005, BC Ministry of Energy, Mines and Petroleum Resources, Paper 2006-1, pages 209-230.

PROPERTY-SCALE TILL GEOCHEMICAL SURVEYS ALASKAN-TYPE Pt ± Os ± Rh ± Ir

(1) Grasshopper Mountain

Cook, S.J. and Fletcher, W.K. (1990): Preliminary report on the distribution and dispersion of platinum in the soils of the Tulameen ultramafic complex, southern British Columbia (92H/10); in Geological Fieldwork 1989, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1990-1, pages

Au SKARNS

(2) Bunker Hill Koffyberg, A. (2008): Assessment report on the heavy mineral stream sediment, silt stream sediment, rock, till and soil sampling programs, Bunker Hill property: submitted by Clarke Gold Inc. and Bis-Gold Resources Inc., BC Ministry of Energy, Mines and Petroleum Resources, AR30070,143 pages.

Williams, J.D. (2010): Assessment report on prospecting, geochemical and rock sampling on the Nox Fort property in 2008; submitted by Jaxon Minerals Inc., BC Ministry of Energy, Mines and Petroleum Resources,

Geological Fieldwork 1997, Paper 1998-1, pages 15-1-15-9. (14) Rea (15) Samatosum

pages 301-321. Lett. R.E., Jackaman, W. and Yeow, A. (1999); Detailed geochemical exploration techniques for base and precious metals in the Kootenay Terrane (82 L/13, L/14, M/4, M/5, P/1); BC Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork 1998, Paper 1999-1, pages **EPITHERMAL Au-Ag (LOW SULPHIDATION)**

ALKALIC PORPHYRY Cu-Au (16) CH 10-16

Levson, V.M. and Giles, T.R. (1995): Glacial dispersal patterns of mineralized bedrock: with examples from the Nechako Plateau, central British Columbia: in Drift Exploration in the Canadian Cordillera: Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages

O'Brien, E.K., Broster, B.E., Giles, T.R. and Levson, V.M. (1995): Till geochemical sampling: CH, Blackwater-Davidson, and Uduk Lake properties, British Columbia: report of activities; in Geological Fieldwork 1995-1, pages 207-211.

Kerr, D.E., Sibbick, S.J. and Belik, G.D. (1993): Preliminary results of glacial dispersion studies on the Galaxy property, Kamloops, B.C. (921/9); in Geological Fieldwork 1992, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1993-1, pages 439-443.

exploration at Mount Milligan and Johnny Mountain, British Columbia; in Exploration in British Columbia 1990, BC Ministry of Energy, Mines and Petroleum Resources, pages 135-152.

INTRODUCTION Presented here is a geographically referenced list of drift prospecting surveys that have been conducted in British Columbia. A list of topical studies and special volumes that are relevant to drift prospecting in British Columbia have also been included. These studies and geochemical data will be of interest to explorationists and researchers who are assessing the effectiveness of drift prospecting surveys in the context of their own exploration or research program, who are preparing to design and implement their own survey, or who have generated geochemical data on drift samples and are looking for data from orientation surveys for context and comparison. To be included here, drift prospecting reports and (or) geochemical data must be published and publicly available and have used basal till or glaciofluvial gravels as sample media. These reports and data can be viewed and downloaded from the following websites: British Columbia Geological Survey www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/ Pages/default.aspx Geological Survey of Canada ess.nrcan.gc.ca/esic/geoscan e.php gdr.nrcan.gc.ca/mirage/index_e.php

Mines and Petroleum Resources, Open File 1996-22, 18 pages.

Bednarski, J. (2001): Drift composition and surficial geology of the Trutch map area (94G), northeastern British Columbia; Geological Survey of

McCurdy, M., Smith, I.R., Plouffe, A., Bednarski, J., Day, S., Friske, P. Trommelen, M. and Demchuk, T.E. (2007): Indicator mineral content and geochemistry of stream and glacial sediments from the Etsho Plateau region as an aid to kimberlite and base metal exploration, northeastern BC; in Geological Fieldwork 2006, BC Ministry of Energy, Mines and Petroleum

exploration in northeastern British Columbia; in Geological Fieldwork 2005, BC Ministry of Energy, Mines and Petroleum Resources, Paper 2006-1 pages 337-342. Simandl, G.J., Ferbey, T., Levson, V.M., Demchuk, T.E., Mallory, S., Smith

Simandl, G.J., Ferbey, T., Levson, V.M., Demchuk, T.E., Hewett, T., Smith, I.R. and Kjarsgaard, I. (2005): Heavy mineral survey and its significance for diamond exploration, Fort Nelson area, British Columbia, Canada; BC

Simandl, G.J., Ferbey, T., Levson, V.M., Robinson, N.D., Lane, R., Smith,

NORANDA/KUROKO MASSIVE SULPHIDE Cu-Pb-Zn

(12) Harper

(15) Samatosum

Petroleum Resources, pages 135-152.

INTRUSION-RELATED

Lett, R.E. (2001): Geochemical signatures around massive sulphide deposits in southern British Columbia, Canada; in Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special Publication 185, pages 301-321.

Lett, R.E., Jackaman, W. and Yeow, A. (1999): Detailed geochemical

exploration techniques for base and precious metals in the Kootenay

Terrane (82 L/13, L/14, M/4, M/5, P/1); *in* Geological Fieldwork 1998, *BC* Ministry of Energy, Mines and Petroleum Resources, Paper 1999-1, pages 297-306.

POLYMETALLIC VEINS Ag-Pb-Zn ± Au (9) Cam Gloria Lett, R.E., Bobrowsky, P.T., Cathro, M. and Yeow, A. (1998): Geochemical pathfinders for massive sulphide deposits in the southern Kootenay Terrane; BC Ministry of Energy, Mines and Petroleum Resources,

Lett, R.E. (2001): Geochemical signatures around massive sulphide deposits in southern British Columbia, Canada; In Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special Publication 185,

1994, BC Ministry of Energy, Mines and Petroleum Resources, Paper Ferbey, T. and Levson, V.M. (2001): Ice flow history and surficial O'Brien, E.K., Levson, V.M. and Broster, B.E. (1997): Till geochemical dispersal in central British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Open File 1997-12, 114 pages.

Kerr, D.G. and Bobrowsky, P.T. (1991): Quaternary geology and drift

pathfinders for massive sulphide deposits in the southern Kootenay Terrane; in Geological Fieldwork 1997, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1998-1, pages 15-1-15-9. Kerr, D.G. and Bobrowsky, P.T. (1991): Quaternary geology and drift

Plouffe, A., Anderson, R.G., Gruenwald, W., Davis, W.J., Bednarski, J.M.

and Paulen, R.C. (2011): Integrating ice-flow history, geochronology,

geology, and geophysics to trace mineralized glacial erratics to their

bedrock source, an example from south central British Columbia;

Lett, R.E., Bobrowsky, P.T., Cathro, M. and Yeow, A. (1998): Geochemical

exploration at Mount Milligan and Johnny Mountain, British Columbia; in

Exploration in British Columbia 1990, BC Ministry of Energy, Mines and

Canadian Journal of Earth Sciences, v. 48, pages 1113-1129.

INTRUSION-RELATED Au PYRRHOTITE VEINS

(11) Broken Ridge (Birk Creek) Lett, R.E., Bobrowsky, P.T., Cathro, M. and Yeow, A. (1998): Geochemical pathfinders for massive sulphide deposits in the southern Kootenay Terrane; in Geological Fieldwork 1997, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1998-1, pages 15-1-15-9.

Hicock, S.R. (1995): Glacial geology applied to drift prospecting in Buttle valley, Vancouver Island; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages

for porphyry Cu-Au mineralization; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages 167-180.

PORPHYRY Cu ± Mo ± Au Levson, V.M. and Stumpf, A.J. (1998): Glacial controls on geochemical transport distance and direction in north-central Stikinia: implications for exploration; in Cordillera Revisited: Recent Developments in Cordilleran

Course Notes, pages 68-75.

(21) Gibraltar

427-437.

pages 145-151.

Sibbick, S.J. and Kerr, D.E. (1995): Till geochemistry of the Mount Milligan

area, north-central British Columbia; recommendations for drift-exploration

Stumpf, A.J., Broster, B.E. and Levson, V.M. (1997): Evaluating the use of till geochemistry to define buried mineral targets: a case study from the Bell mine property, (93 L/16, M/1) west-central British Columbia; in Geological Fieldwork 1996, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1997-1, pages 439-456.

Geology, Tectonics and Mineral Deposits; Mustard, P. and Gareau S.,

Editors, Geological Association of Canada, Cordilleran Section Short

(20) Copper Star Ferbey, T. and Levson, V.M. (2010): Evidence of westward glacial dispersal along a till geochemical transect of the Copper Star Cu±Mo±Au occurrence, west-central British Columbia; BC Ministry of Energy, Mines, and Petroleum Resources, Open File 2010-04, 21 pages.

biogeochemistry near a porphyry Cu-Mo deposit: Gibraltar Mine, British Columbia; Geological Survey of Canada, Open File 6755, 25 pages. (22) Highland Valley Bobrowsky, P.T., Kerr, D.E., Sibbick, S.J. and Newman, K. (1993): Drift exploration studies, Valley Copper Pit, Highland Valley Copper Mine, British Columbia (921/6, 7, 10 and 11); in Geological Fieldwork 1992, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1993-1, pages

Plouffe, A., Anderson, R.G. and Dunn, C.E. (2011): Till composition and

BC Ministry of Energy, Mines, and Petroleum Resources, Paper 2001-1, pages 397-410. Ferbey, T. and Levson, V.M. (2001): Ice flow history of the Tahtsa Lake-Ootsa Lake Region; BC Ministry of Energy, Mines, and Petroleum Resources, Open File 2001-8, 1:111 000-scale mapsheet.

Ferbey, T. and Levson, V.M. (2001): Quaternary geology and till

geochemistry of the Huckleberry Mine area; in Geological Fieldwork 2000,

geochemistry, Huckleberry Mine Area: a drift exploration case study; BC Ministry of Energy, Mines, and Petroleum Resources, GeoFile 2001-2. Ferbey, T. and Levson, V.M. (2009): The influence of ice flow reversals on the vertical and horizontal distribution of trace elements in tills, Huckleberry Mine area, west-central British Columbia; in Application of Till and Stream Sediment Heavy Mineral and Geochemical Methods to Mineral Exploration

in Western and Northern Canada; Paulen, R.C. and McMartin, I.,

Editors, Geological Association of Canada, GAC Short Course Notes 18,

Ferbey, T., Levson, V.M. and Lett, R.E. (2012): Till geochemistry of the Huckleberry Mine area, west-central British Columbia (NTS 093E/11); BC Ministry of Energy, Mines, and Petroleum Resources, Open File 2012-2, 52 pages.

Levson, V.M., Meldrum, D.G., Cook, S.J., Stumpf, A.J., O'Brien, E.K. Churchill, C., Broster, B.E. and Coneys, A.M. (1997): Till geochemical studies in the Babine porphyry belt: regional surveys and deposit-scale studies (NTS 93 L/16, M/1, M/8); in Geological Fieldwork 1996, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1997-1, pages 457-

(25) Fish Lake (Prosperity) Plouffe, A. (1997): Reconnaissance till geochemistry on the Chilcotin Plateau (92/05 and 12); in Interior Plateau Geoscience Project: summary of geological, geochemical, and geophysical studies; Diakow, L.J, Newell,

J.M. and Metcalfe, P., Editors, BC Ministry of Employment and Investment,

Open File 1997-2, Geological Survey of Canada, Open File 3448, pages

Plouffe, A. and Ballantyne, S.B. (1994): Regional till geochemistry, Mount

Tatlow and Elkin Creek area, British Columbia (920/5 and 0/12);

Geological Survey of Canada, Open File 2909, 62 pages. Plouffe, A. (1997): Reconnaissance till geochemistry on the Chilcotir Plateau (92/05 and 12): in Interior Plateau Geoscience Project: summary of

geological, geochemical, and geophysical studies; Diakow, L.J, Newell,

J.M. and Metcalfe, P., Editors, BC Ministry of Employment and Investment,

Open File 1997-2, Geological Survey of Canada, Open File 3448, pages

147-157. Plouffe, A. and Ballantyne, S.B. (1994): Regional till geochemistry, Mount Tatlow and Elkin Creek area, British Columbia (920/5 and 0/12); Geological Survey of Canada, Open File 2909, 62 pages.

WSKARNS (2) Bunker Hill

Koffyberg, A. (2008): Assessment report on the heavy mineral stream sediment, silt stream sediment, rock, till and soil sampling programs, Bunker Hill property; submitted by Clarke Gold Inc. and Bis-Gold Resources Inc., BC Ministry of Energy, Mines and Petroleum Resources, AR30070,143 pages.

rock sampling on the Nox Fort property in 2008; submitted by Jaxon Minerals Inc., BC Ministry of Energy, Mines and Petroleum Resources, AR30828,694 pages.

Williams, J.D. (2010): Assessment report on prospecting, geochemical and

RELATED PAPERS Averill, S.A. (2001): The application of heavy mineral indicator mineralogy

in mineral exploration, with emphasis on base metal indicators in glaciated metamorphic and plutonic terrain; *in* Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special Publication 185, pages 69-81.

Averill, S.A. (2011): Viable indicator minerals in surficial sediments for two major base metal deposit types: Ni-Cu-PGE and porphyry Cu; pages 69-77. Geochemistry: Exploration, Environment, Analysis, v. 11, pages 279-291.

Bobrowsky, P.T. (1995): Lithological analysis in drift prospecting studies; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages 113-120.

Energy, Mines

British Columbia Geological Survey

Open File 2013-02

REGIONAL- TO PROPERTY-SCALE DRIFT

PROSPECTING SURVEYS IN BRITISH COLUMBIA

Compiled by T. Ferbey

Published property-scale till geochemistry data

(references are listed by label number)

Property-scale till geochemistry survey in

Regional-scale studies listed used geochemical determinations on

basal till samples to asses the base and precious metal potential of

a particular region. The exception to this is work that was

conducted in northeast British Columbia that used glaciofluvial

gravels, and to a lesser extent basal till samples, to assess this

region's diamond potential. Property-scale surveys were designed

to characterise the clastic dispersal of mineralization in basal till

from known mineralized bedrock sources. References for

property-scale surveys are organized by the mineral deposit type

they were conducted over or around. Data from these detailed

studies are important as they provide a basis for comparing

regional-scale geochemical data to that from known mineralized

sources. This comparison is important in assessing which basal till

samples in a regional-scale program could be considered elevated

and worthy of follow-up work. Till geochemical surveys that are

currently in progress are also included here. References for this

Also included here is a list of references for studies that may not

necessarily have been conducted in British Columbia but that are

relevant to drift prospecting surveys regardless of the glaciated

region or country they are to be conducted in. These studies have a

topical, rather than geographic, focus and can provide invaluable

insight into the design, implementation, and interpretation of drift

prospecting surveys. References are also presented for the five

most recently published volumes on drift prospecting. Papers

within these volumes also have a topical focus and can provide

important background information on the subtleties of drift

prospecting programs, which can vary from one physiographic

region to another, using theory and data from case studies. For

example, preparation for any drift prospecting program in the

Canadian Cordillera would be incomplete without a thorough review

This map and list of references is intended to provide a way of quickly identifying drift prospecting studies and data that are either

geographically or topically of interest to those working in British

Columbia. This publication will be updated annually; we would

A. Plouffe (GSC, Ottawa), B.C. Ward (SFU), and W. Jackaman

(Noble Exploration Services Ltd.) are thanked for their comments,

suggestions, and improvements to this map and list of references

Levson, V.M. (2001): Regional till geochemical surveys in the

Canadian Cordillera: sample media, methods and anomaly

evaluation; in Drift Exploration in Glaciated Terrain, McClenaghan,

M.B., Bobrowsky, P.T., Hall, G.E.M. and Cook, S.J., Editors,

Geological Society, Special Publications 185, pages 45-68.

appreciate being notified of errors or omissions.

ACKNOWLEDGEMENTS

and helping keep it up to date.

REFERENCES

work will be provided as the surveys are completed.

of Levson (2001).

progress (labelled with mine or property name)

COLUMBIA and Natural Gas

DRIFT PROSPECTING DATA

Published regional-scale drift prospecting data

Provincial parks and protected areas; National

Geochemical surveys that used B-horizon soils, lacustrine

Woodjam

sediments, or stream sediments as sample media are not included

(references are listed by NTS mapsheet)

46, pages 279-308. Cook, S.J., Levson, V.M., Giles, T.R. and Jackaman, W. (1995): A comparison of regional lake sediment and till geochemistry surveys: a case study from the Fawnie Creek area, Central British Columbia; Exploration and Mining Geology, Volume 4, no 2, pages 93-110.

Cook, S.J. and Fletcher, W.K. (1993): Distribution and behavior of platinum

in soils, sediments and waters of the Tulameen ultramafic complex.

southern British Columbia, Canada; Journal of Geochemical Exploration,

DiLabio, R.N.W. (1995): Residence sites of trace elements in till; in Drift Exploration in the Canadian Cordillera: Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages 139-148. Kelley, K.D., Eppinger, R.G., Lang, J., Smith, S.M. and Fey, D.L. (2011): Porphyry Cu indicator minerals in till as an exploration tool: example from the giant Pebble porphyry Cu-Au-Mo deposit, Alaska, USA; Geochemistry: Exploration, Environment, Analysis, v. 11, pages 321-334.

prospecting activities in British Columbia; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, pages 277-303. Lett, R.E. (1995): Analytical methods for drift samples; in Drift Exploration in

the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and

Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum

Kerr, D.E. and Levson, V.M. (1995): Annotated bibliography of drift

Resources, Paper 1995-2, pages 215-228. Levson, V.M. (2001): Regional till geochemical surveys in the Canadian Cordillera: sample media, methods and anomaly evaluation, in Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special

Levson, V.M. (2001): Quaternary geology of the Babine Porphyry Copper District: implications for geochemical exploration; Canadian Journal of Earth Sciences, Volume 38, no 4, pages 733-749.

McClenaghan, M.B. (2005): Indicator mineral methods in mineral

Publication 185, pages 45-68.

pages 265-278.

exploration; Geochemistry: Exploration, Environment, Analysis, v. 5, pages McClenaghan, M.B. (2011): Overview of common processing methods for recovery of indicator minerals from sediment and bedrock in mineral exploration; Geochemistry: Exploration, Environment, Analysis, v. 11,

sampling techniques in glaciated shield terrain: a review; in Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special Publication 185, pages 19-43. McMartin, I. and Paulen, R.C. (2009): Ice flow indicators and the importance of ice flow mapping for drift prospecting; in Application of Till

and Stream Sediment Heavy Mineral and Geochemical Methods to Mineral

Exploration in Western and Northern Canada; Paulen, R.C. and McMartin,

McMartin, I. and McClenahgan, M.B. (2001): Till geochemistry and

I., Editors, Geological Association of Canada, GAC Short Course Notes 18, pages 11-26. Miller, J.K. (1984): Model for clastic indicator trains in till; in Prospecting in Areas of Glaciated Terrain, Institute of Mining and Metallurgy, London,

Paulen, R.C. (2001): Glacial transport and secondary hydromorphic metal mobilization: examples from the southern interior of British Columbia; in Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of

Paulen, R.C. (2009): Sampling techniques in the western Canadian

sedimentary basin and the Cordillera; in Application of till and stream

sediment heavy mineral and geochemical methods to mineral exploration in western and northern Canada; Paulen, R.C. and McMartin, I., Editors, Geological Association of Canada, GAC Short Course Notes 18, pages 41-Paulen, R.C. and Lett, R.E. (2005): Till geochemistry - a viable tool for

polymetallic mineral exploration in British Columbia's southern interior; BC

Ministry of Energy, Mines and Petroleum Resources, Geofile 2005-18, 19

London, Special Publication 185, pages 323-337.

Resources, Paper 1995-2, pages 43-52.

Plouffe, A. (1995): Drift prospecting sampling methods; *in* Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum

along Pinchi Fault, north central British Columbia; Water, Air, and Soil Pollution, Volume 80, pages 1109-1112. Plouffe, A. (1998): Detrital transport of metals by glaciers, an example from the Pinchi Mine, central British Columbia; Environmental Geology, Volume 33, no 2-3, pages 183-196.

Plouffe, A. (1995): Glacial dispersal of mercury from bedrock mineralization

from central British Columbia. Canada: in Drift Exploration in Glaciated Terrain; McClenaghan, M.B., Brorowsky, P., Hall, G.E.M. and Cook, S.J., Editors, Geological Society of London, Special Publication 185, pages 287-

Plouffe, A. (2001): The glacial transport and physical partitioning of

mercury and gold in till: implications for mineral exploration with examples

Plouffe, A., Ferbey, T., Levson, V.M. and Bond, J.D. (2012): Glacial history

and drift prospecting in the Canadian Cordillera: recent developments;

Geological Survey of Canda, Open File 7261, 51 pages. Proudfoot, D.N., Bobrowsky, P.T. and D.G. Meldrum (1995): Drift exploration potential maps derived from terrain geology maps; in Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and

Petroleum Resources, Paper 1995-2, pages 23-31. Shilts, W.W. (1995): Geochemical partitioning in till; *in* Drift Exploration in the Canadian Cordillera; Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors, BC Ministry of Energy, Mines and Petroleum

Resources, Paper 1995-2, pages 149-163. Sibbick, S.J. and Fletcher, W.K. (1993): Distribution and behavior of gold in soils and tills at the Nickel Plate mine, southern British Columbia, Canada; Journal of Geochemical Exploration, Volume 47, no 1-3, pages 183-2000.

Bobrowsky, P.T., Sibbick, S.J., Newell, J.M. and Matysek, P.F., Editors (1995): Drift exploration in the Canadian Cordillera; BC Ministry of Energy, Mines and Petroleum Resources, Paper 1995-2, 304 pages. DiLabio, R.N.W. and Coker, W.B., Editors (1989): Drift prospecting; Geological Survey of Canada, Paper 89-20, 169 pages.

Kujansuu, R. and Saarnisto, M., Editors (1990): Glacial indicator tracing;

DRIFT PROSPECTING VOLUMES

Balkema, Rotterdam, 252 pages.

Paulen, R.C. and McMartin, I., Editors (2009): Application of till and stream sediment heavy mineral and geochemical methods to mineral exploration in western and northern Canada; Geological Association of Canada, GAC Short Course Notes 18, 222 pages.

McClenaghan, M.B., Bobrowsky, P.T., Hall, G.E.M. and Cook, S.J., Editors (2001): Drift exploration in glaciated terrain; Geological Society of London, Special Publication 185, 350 pages.