

Supplementary Document – References to Canadian Achievements in Hydrogeology

Banner 1: 1880s to 1980s

1. Farvolden, R.N. 1963. Purpose and scope of groundwater investigations in Alberta. In: *Early Contributions to the Groundwater Hydrogeology of Alberta*, Research Council of Alberta Bulletin 12: 1-3.
2. Meyboom, P. 1960. Geology and groundwater resources of the Milk River sandstone in southern Alberta. Research Council of Alberta, Memoir 2.
3. Toth, J. 2005. The Canadian School of Hydrogeology: History and Legacy, *Ground Water* 43(4): 640-644.
4. Brandon, L.V. 1963. Hydrogeologic programme of the Geological Survey of Canada. *Ground Water* 1(2): 20-21.
5. Toth, J. 1962. A theory of groundwater motion in small drainage basins in central Alberta. *Journal of Geophysical Research* 67: 4375-4387.
6. Toth, J. 1963. A theoretical analysis of groundwater flow in small drainage basins. *Journal of Geophysical Research* 68: 4795-4812.
7. Grisak, G.E. and J.A. Cherry, 1975. Hydrologic characteristics and response of fractured till and clay confining a shallow aquifer, *Can. Geotech. J.* 12: 23-43.
8. Keller, C.K., G. van der Kamp, and J.A. Cherry. 1986. Fracture permeability and groundwater flow in clayey till near Saskatoon, Saskatchewan. *Canadian Geotechnical Journal* 23(2): 229-240.
9. Desaulniers, D.E., J.A. Cherry, and P. Fritz. 1981. Origin, age and movement of pore water in argillaceous Quaternary deposits at four sites in south-western Ontario, *J. of Hydrology*, 50: 231-257.
10. Proceedings of the 1962 Hydrology Symposium No. 3. Accessible at [www.iah.ca/K345/]
11. Parsons, P.J. 1960. Movement of radioactive waste through soil. 1. Soil and Ground-water investigations in Lower Perch Lake Basin. Atomic Energy of Canada Limited Publication AECL-1325.
12. Parsons, P.J. 1961. Movement of radioactive waste through soil. 3. Investigating the migration of fission products from high-ionic liquids deposited in soil. Atomic Energy of Canada Limited Publication AECL-1325.
13. Merritt, W.F. 1961. Movement of radioactive waste through soil. II. Measurement of direction and effective velocity of ground water movement. Atomic Energy of Canada Limited Publication AECL-1161.
14. Brown, I.C. (ed.), 1967. *Groundwater in Canada*. Geological Survey of Canada, Economic Geology Report 24, 128 pp., 13 sheets.
15. Freeze, R.A. and P.A. Witherspoon, 1966. Theoretical analysis of regional groundwater flow. 1. Analytical and numerical solutions to the mathematical model. *Water Resources Research* 2(4): 641-656.
16. Freeze, R.A. and P.A. Witherspoon, 1967. Theoretical analysis of regional groundwater flow. 2. Effect of water table configuration and subsurface permeability variation. *Water Resources Research* 3(2): 623-634. Also reprinted in *Physical Hydrogeology: Benchmark Papers in Geology*, vol. 72, 1983, ed. R.A. Freeze and W. Back, 346-357. Stroudsburg, Pennsylvania: Hutchinson Ross Publishing.
17. Freeze, R.A. and P.A. Witherspoon, 1968. Theoretical analysis of regional groundwater flow: 3. Quantitative interpretations. *Water Resources Research* 4 (3): 581-590.
18. Pinder, G.F. and J.D. Bredehoeft, 1968, Application of the digital computer for aquifer evaluation, *Water Resources Research* 4(5): 1069-1093.
19. Frind, E.O., 1970. Theoretical analysis of aquifer response due to dewatering at Welland. *Canadian Geotechnical Journal* 7(2): 205-216.

Banner 2: 1970s – Early 2000s

1. Cherry, J.A. (ed.). 1983. Migration of contaminants in groundwater at a landfill: A case study. *Journal of Hydrology* 63(1/2): 1-77.
2. Tang, D.H., E.O. Frind and E.A. Sudicky. 1981. Contaminant transport in fractured porous media: Analytical solution for a single fracture. *Water Resource Research* 17(3): 555-564.
3. Pankow, J.F. and J.A. Cherry (eds.). 1996. *Dense Chlorinated Solvents*. Waterloo Press, Portland, Oregon.
4. Cherry, J.A. 1972. Geochemical processes in shallow groundwater flow systems in five areas in southern Manitoba, Canada. *Proc. 24th Intern. Geol. Congr., Montreal, Sec. 11*, pp. 208-221.
5. Champ, D.R., J. Gulens and R.E. Jackson. 1979. Oxidation-reduction sequences in groundwater flow systems. *Canadian Journal of Earth Sciences* 16(1): 12-23.
6. Barker, J.F. and P. Fritz. 1981. The occurrence and origin of methane in some groundwater flow systems. *Canadian Journal of Earth Sciences* 18: 1802-1816.
7. Clark, I.D. and P. Fritz. 1997. *Environmental Isotopes in Hydrogeology*. CRC Press. 352 pp.
8. Freeze, R.A. 1975. A stochastic-conceptual analysis of one-dimensional groundwater flow in nonuniform homogeneous media. *Water Resources Research* 11(5): 725-741.
9. Sudicky, E.A. 1986. A natural gradient experiment on solute transport in a sand aquifer: Spatial variability of hydraulic conductivity and its role in the dispersion process. *Water Resource Research* 22(13): 2069-2082.
10. Woodbury, A.D. and E.A. Sudicky. 1991. The geostatistical characteristics of the Borden aquifer. *Water Resource Research* 27(4): 533-546.
11. Freeze, R.A. and J.A. Cherry, 1979. *Groundwater*. Prentice-Hall, 604 pp.
12. Council of Canadian Academies, 2009. *The Sustainable Management of Groundwater in Canada*. Report of the Expert Panel on Groundwater, 254 pp.
13. Rivera, A. (ed.), 2014. *Canada's Groundwater Resources*. Fitzhenry & Whiteside Limited, Markham, Ontario, 804 pp.
14. Lennox, D.H. and V. Carlson, 1967. Geophysical exploration for buried valleys in an Area North of two hills, Alberta. *Geophysics* 32: 331-362.
15. Freeze, R.A. and R.L. Harlan. 1969. Blueprint for a physically-based digitally simulated hydrologic response model. *J of Hydrology* 9: 237-258.
16. Patton, F.D., and D.U. Deere. 1971. Significant geological factors in rock slope stability. *The South African Institute of Mining and Metallurgy*. Reprinted from *Planning Open Pit Mines*, p. 143-151.
17. Dyck, J.H., W.S. Keys and W.A. Meneley. 1972. Application of geophysical logging to groundwater studies in southeastern Saskatchewan. *Canadian Journal of Earth Sciences* 9: 78-94.
18. van Everdingen, R.O. 1972. *Thermal and mineral springs of southern Rocky Mountains of Canada*. Environment Canada, 151 pp.
19. Williams, J.R. and R.O. van Everdingen. 1973. *Groundwater investigations in permafrost regions of North America – A review*. Permafrost: North American contribution [to the] Second International Conference, p. 435-446.
20. Hodge, R.A.L. and J.A. Freeze. 1977. Groundwater flow systems and slope stability. *Canadian Geotechnical Journal* 14(4): 466-476.
21. van der Kamp, G. 1981. Salt-water intrusion in a layered coastal aquifer at York Point, Prince Edward Island. *National Hydrology Research Institute Paper 14, Inland Waters Directorate Series 121*. Ottawa, ON: NHRI.
22. van der Kamp, G. and J.E. Gale. 1983. Theory of earth tide and barometric effects in porous formations with compressible grains. *Water Resources Res* 19(2): 538-544.
23. Hendry, M.J., J.A. Cherry, E.I. Wallick. 1986. Origin and distribution of sulfate in a fractured till in southern Alberta, Canada, *Water Resources Research* 22(1): 45-61.
24. van der Kamp, G., and H. Maathuis. 1991. Annual fluctuations of groundwater levels due to loading by surface moisture. *Journal of Hydrology* 127: 137-152.
25. van der Kamp, G. and M. Hayashi. 1998. The groundwater recharge function of small wetlands in the semi-arid northern Prairies. *Great Plains Research*. 8(1): 39-56.
26. Chapuis, R.P. and M. Aubertin. 2003. On the use of the Kozeny-Carman equation to predict the hydraulic conductivity of soils. *Canadian Geotechnical Journal* 40: 616-628.