

REFERENCES

Abadjiev, C.B. (1976), Seepage through mill tailings dams, *Proceedings, 12th International Congress on Large Dams*, Mexico, Vol. 1, No. R42, 381-393.

Abadjiev, C.B. (1985), Estimation of the physical characteristics of deposited tailings in the tailings dam of non-ferrous metallurgy, *Proceedings*, *11th International Conference on Soil Mechanics and Foundation Engineering, San Francisco, Vol. 3, 1231-1234.*

Abadjiev, C.B. (1988), Estimation of the physical characteristics of deposited tailings in the tailings dam of non-ferrous metallurgy, *Proceedings*, 11th International Conference on Soil Mechanics and Foundation Engineering, San Francisco, Vol. 3, 1231-1234.

Abadjiev, C.B. (1997), A practical method for estimating the grading of hydraulically deposited tailings across the beach, *Proceedings*, 2nd International Conference on Mining and Industrial Waste Management, Johannesburg.

Airey, D.W., and Wood, D.M. (1987), An evaluation of direct simple shear test on clay, *Géotechnique*, Vol. 37, No. 1, 25-35.

Alarcon-Guzman, A., Leonards, G.A., and Charmeau, J.L. (1988). Undrained monotonic and cyclic strength of sands, ASCE Journal of Geotechnical Engineering, Vol. 114, No. 10, 1089-1109.

Al-Hussaini, M.M., Goodings, D.J., Schofield, A.N., and Townsend, F.C. (1981), Centrifuge modelling of coal waste embankments, *ASCE*, *Journal of the Geotechnical Engineering Division*, 481-499.

Atkinson, J.H. and Bransby, P.L. (1978), *The mechanics of soils. An introduction to critical state soil mechanics*, Maidenhead: McGraw-Hill.

Aubertin, M., Bussiere, B., and Chapuis, R.P. (1996), Hydraulic conductivity of homogenised tailings from hard rock mines, *Canadian Geotechnical Journal*, Vol. 33, No. 3, 470-482.



Aubertin, M., Ricard, J-F, and Chapuis, R.P. (1998), A predictive model for the water retention curve: Application to tailings from hard-rock mines, *Canadian Geotechnical Journal*, Vol. 35, No. 1, 55-69.

Baldi, G., Bellotti, R., Ghionna, V., and Jamiolkowski, M. (1982), Design parameters for sands from CPT, *Proceedings, 2nd European Symposium on Penetration Testing, ESOPT II*, Amsterdam, Vol. 2, 425-432.

Baldi, G., Hight, D. W., and Thomas, G. E. (1988), A re-evaluation of conventional triaxial test methods, *Symposium on Advanced Triaxial Testing of Soil and Rock, ASTM STP 977*, Philadelphia, 219-263.

Baligh, M.M. (1975), *Theory of Deep Site Static Cone Penetration Resistance*, Publication No. R75-56, Department of Civil Engineering, MIT.

Baligh, M.M. (1985), Strain Path Method, ASCE Journal of the Geotechnical Engineering Division, Vol. 111, No. 9, 1108-1136.

Barrett, A.J. (1987), Seepage analysis in tailings impoundments using a finite element model: Two case histories, *Proceedings, International Conference on Mining and Industrial Waste Management, SA/CE*, Johannesburg, 205-210.

Bartlett, C.L., and Van Zyl, D. (1984), Utilising numerical analysis of unsaturated seepage to design tailings management strategy, *Proceedings, 6th Annual Symposium on management of Uranium Tailings, Low-level Waste, and Hazardous Waste*, Fort Collins, Colorado, 627-638.

Bates, R.C., and Wayment, W.R. (1967), Laboratory study of factors influencing water flow in mine backfill, U.S. Bureau of Mines, Report RI 7034.

Been, K. (1980), *Stress Strain Behaviour of a Cohesive Soil Deposited Under Water*, PhD thesis, University of Oxford, UK.

Been, K., and Sills, G.C. (1981), Self-weight consolidation of soft soils: an experimental and theoretical study, *Géotechnique*, Vol. 31, No. 4, 519-535.

Been, K., and Jefferies, M.G. (1985), A state parameter for sands, *Géotechnique*, **35**(2), 99-112.

1 .

j.



Been, K., Crooks, J.H.A., Becker, D.E., and Jefferies, M.G. (1986), The cone penetration test in sands: Part I, state parameter interpretation, *Géotechnique*, **36**(2), 239-249.

Been, K., Conlin, B.H., Crooks, J.H.A., Fitzpatrick, S.W., Jefferies, M.G., Rogers, B.T., and Shinde, S. (1987), Discussion: Back analyses of the Nerlerk berm liquefaction slides, *Canadian Geotechnical Journal*, Vol. 24, No. 1, 170-179.

Been, K., Crooks, J.H.A., Conlin, B.H., and Horsfield, D. (1988), Liquefaction of hydraulically placed sand fills, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No.* 21, 573-590.

Berti, G., Villa, F., Dovera, D., Genevois, R., and Brauns, J. (1988), Disaster of Stava, Northern Italy, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 492-510.

Bentel, G.M. (1981), Some aspects of the behaviour of hydraulic deposited tailings, *Research Project: University of the Witwatersrand*.

Bica, A.V.D., and Clayton, C.R.I. (1998), Experimental study of the behaviour of embedded lengths of cantilever walls, *Géotechnique*, Vol. 48No. 6 731-745.

Biot, M.A. (1941), General theory of three dimensional consolidation, *Journal of Applied Physics*, **12**, 155-164.

Bishop, A.W. (1973), The stability of tips and spoil heaps, *Quarterly Journal of Engineering Geology*, Vol. 6, 335-376.

Bishop, A.W., and Henkel, D.J. (1962), *The measurement of soil properties in the triaxial test*, London: Edward Arnold Publishers Ltd.

Bishop, A.W., Hutchinson, J.N., Penman A.D.M., and Evans, H.E. (1969), Geotechnical investigations into the causes and circumstances of the disaster of 21st October 1966, *A selection of technical report submitted to the Aberfan Tribunal*, Welsh Office, London: H.M.S.O.

Bjerrum, L., and Landva, A. (1966), Direct simple shear tests on Norwegian quick clay, *Géotechnique*, Vol. 16, No. 1, 1-20.



Blackshaw, J. (1951), Mill tailings disposal at Hollinger, *Bulletin, Canadian Institute of Mining and Metallurgy*, June.

Blight, G.E. (1969), Shear stability of dumps and dams of gold mining waste. *Transactions, South African Institution of Civil Engineers*, Vol. 11, No. 3, 49-54.

Blight, G.E. (1970), In-situ strength of rolled and hydraulic fill, ASCE, Journal of the Soil Mechanics and Foundations Division, Vol. 96, No. SM3, 881-889.

Blight, G.E. (1980), Properties of pumped tailings fill, *Journal of the South African Institute of Mining and Metallurgy*, Vol. 79, No. 15, 446-453.

Blight, G.E. (1981), Assessment for environmentally acceptable disposal of mine wastes, *The Civil Engineer in South Africa*, Vol. 23, No. 10, 480-499.

Blight, G.E. (1987), Erosion of the slopes of gold tailings dams, *Proceedings of a Speciality Conference on Geotechnical Practice for Waste Disposal '87, ASCE Geotechnical Special Publication no. 13,* 294-305.

Blight, G.E. (1988), Some less familiar aspects of hydraulic fill structures, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 1000-1027.

Blight, G.E. (1989), Erosion losses from the surfaces of gold-tailings dams, *Journal of the South African Institute of Mining and Metallurgy*, Vol. 89, No. 1, 23-29.

Blight, G.E. (1994), Master profile for hydraulic fill tailings beaches, *Proceedings of the Institution of Civil Engineers: Geotechnical Engineering*, **107**(1), 27-40.

Blight, G.E. (1997), Destructive mudflows as a consequence of tailings dyke failures, *Proceedings of the Institution of Civil Engineers: Geotechnical Engineering*, Vol. 125, 9-18.

Blight, G.E., and Steffen, K.H. (1979), Geotechnics of gold mining waste disposal, *Current Geotechnical Practice in Mine Waste Disposal*, ASCE, New York, 1-53.

Blight, G.E., and Bentel, G.M. (1983), The Behaviour of mine tailings during hydraulic deposition, *Journal of the South African Institute of Mining and Metallurgy*, 73-86.

15.4

. .



Blight, G.E., Vorster, K., and Thomson, R.R. (1985), Profiles of hydraulic-fill tailings beaches, and seepage through hydraulically sorted tailings, *Journal of the South African Institute of Mining and Metallurgy*, Vol. 85, No.5, 157-161.

Brawner, **C.** (1979), Design, construction and repair of tailings dams for metal mine waste disposal, *ASCE*, *Current Geotechnical Practice in Mine Waste Disposal*.

Brawner, C.O., and Campbell, D.B. (1972), The tailing structure and its characteristics: A soils engineer's viewpoint, in G.O. Argall and C.L. Aplin (eds.) *Tailing Disposal Today, Proceedings of the First International Tailing Symposium*, Tuscon: Arizona, 59-101.

Brooks, R.H., and Corey, A.T. (1966), Properties of porous media affecting fluid flow, ASCE, Journal of the Irrigation and Drainage Division, Vol. 92, No. IR2, 61-89.

BS 1377-2:1990, *Methods of test for soils for civil engineering purposes. Classification tests*, British Standards Institution, London.

BS 1377-3:1990, *Methods of test for soils for civil engineering purposes. Chemical and electro-chemical tests*, British Standards Institution, London.

BS 1377-4:1990, *Methods of test for soils for civil engineering purposes. Compaction related tests*, British Standards Institution, London.

BS 1377-5:1990, *Methods of test for soils for civil engineering purposes. Compressibility, permeability and durability tests*, British Standards Institution, London.

BS 1377-6:1990, *Methods of test for soils for civil engineering purposes. Consolidation and permeability tests in hydraulic cells and with pore pressure measurement*, British Standards Institution, London.

BS 1377-8:1990, *Methods of test for soils for civil engineering purposes. Shear strength tests (effective stress)*, British Standards Institution, London.

BS 1377-9:1990, *Methods of test for soils for civil engineering purposes. In-situ tests*, British Standards Institution, London.

Bugno, W.T., and McNeilan, T.W. (1984), Cone penetration test results in offshore California silts, *Symposium on Strength Testing of Marine Sediments; Laboratory and In-situ Measurements, ASTM STP 883*, 55-71.



Burland, J.B. (1990), Rankine Lecture: On the compressibility and shear strength of clays, *Géotechnique*, Vol. 40, No. 3, 329-378.

Caldwell, J.A., and Stevenson, C. (1984) Geotechnical evaluations for tailings impoundments, in Boyce, J.R., Mackechnie, W.R., and Schwartz, K. (eds.) (1984), *Soil Mechanics and Foundation Engineering*, Vol. 1, 433-442.

Caldwell, J.A., Ferguson, K., Schiffman, R.L., and Van Zyl, D. (1984), Application of finite strain consolidation theory for engineering design and environmental planning of mine tailings impoundments, in R.W. Yong, and F.C. Townsend (eds.), *Sedimentation / Consolidation Models - Predictions and Validation, ASCE*, 581-606.

Caldwell, J.A., and Robertson, A. (1986), Geotechnical stability considerations in the design and reclamation of tailings impoundments, *Proceedings of the International Symposium on Geotechnical Stability in Surface Mining*, Calgary: Alberta, 255-258.

Campanella, R.G., Robertson, P.K., and Gillespie, D. (1983), Cone penetration testing in deltaic soils, *Canadian Geotechnical Journal*, Vol. 20, 23-35.

Campanella, R.G., Gillespie, D., Klohn, E.J., and Robertson, P.K. (1984), Piezometer friction cone investigation at a tailings dam, *Canadian Geotechnical Journal*, Vol. 21, No. 3, 551-562.

Carrier, W.D., Bromwell, L.G., and Somogyi, F. (1983), Design capacity of slurried mineral waste ponds, *ASCE, Journal of the Geotechnical Engineering Division*, Vol. 109, No. 5, 699-716.

Casagrande, A. (1965), Role of 'calculated risk' in earthwork foundation engineering: Terzaghi Lecture, *ASCE, Journal of the Soil Mechanics and Foundation Engineering Division*, Vol. 91, No. SM4, 1-40.

Casagrande, L., and McIver, B.N. (1970), Design and construction of tailings dams, *Proceedings, 1st International Conference on Stability in Open Pit Mining*, Vancouver, 181-203.

Castro, G. (1969), *Liquefaction of Sands*, PhD thesis, Harvard University, Cambridge, Massachusetts, USA.

(4)



Castro, G., and Christian, J.T. (1976), Shear strength of soils and cyclic loading, *ASCE*, *Journal of the Geotechnical Engineering Division*, Vol. 102, No. GT9, 887-894.

Castro, G., and Poulos, S.J. (1977), Factors affecting liquefaction and cyclic mobility, *ASCE, Journal of Geotechnical Engineering*, Vol. 103, No. GT6, 501-516.

Chamber of Mines of South Africa (1983), *Handbook of guidelines for Environmental Protection*, Vol. 1/1979, Revised 1983, "The design, operation and closure of metalliferous and coal residue deposits".

Chandler, R.J., and Tosatti, G. (1995), The Stava Tailings Dam failure, Italy, *Proceedings, Institution of Civil Engineers: Geotechnical Engineering*, **113**(2), 67-79.

Chapuis, R.P., and Montour, I. (1992), Évaluation de l'équation de Kozeny-Carman pour prédire la conductivité hydraulique (Evaluation of the Kozeny-Carman equation for predicting hydraulic conductivity), *Proceedings, 45th Canadian Geotechnical Conference, Toronto,* 78.1-78.10.

Chen, H.W., and Van Zyl, D.J.A. (1988), Shear strength and volume-change behaviour of copper tailings under saturated conditions, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 430-451.

Chen, P.K., Keshian, B., and Guros, F.B. (1988), Settlement of uranium mill tailings, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 310-329.

Clark, M., Weitz, T., Banning, W., Turk, D., and Patterson, J. (1989), Montana Tunnels start-up efficiencies improved, expansion considered, *Mining Engineering*, February.

Clayton, C.R.I., Matthews, M.C., and Simons, N.E. (1995), Site Investigation, Second Edition, Blackwell Science.

Consoli, N.C. (1997), Comparison of the measured and predicted performance of tailings sedimentation, *Proceedings of the Institution of Civil Engineers: Geotechnical Engineering*, Vol. 125, No. 3, 179-187.

Consoli, N.C., and Sills, G.C. (2000), Soil formation from tailings: Comparison of predictions and field measurements, *Géotechnique*, Vol. 50, No. 1, 25-33.



Collins, I.E. (1954), Some foundation experiences in the Durban area, *Transactions, South African Institution of Civil Engineers*, Vol. 4, 219.

Cowey, A. (1994), Mining and Metallurgy in South Africa - a pictorial history, MINTEK, 17-36.

Dobry, R., and Alvarez, L. (1967), Seismic failures of Chilean tailings dams, *ASCE, Journal* of the Soil Mechanics and Foundations Division, Vol. 93, No. SM6, 237-260.

Donaldson, G. (1965), The effects of capillary action on the consolidation and shear strength of silt in a hydraulic fill dam, *Proceedings*, 6th International Conference on Soil Mechanics and Foundation Engineering, Montreal, 454-463.

Donaldson, G., Adamson, R., and Clausen, H. (1976), Slimes dams for gold mine tailings and other residues in South Africa, *Proceedings, 12th International Congress on Large Dams*, Vol. 1, ICOLD.

Dunbar, S., Garga, V., and Nguyen, T.S. (1991), Modelling the liquefaction potential of uranium tailings, *Proceedings of the 44th Canadian Geotechnical Conference*, Calgary Alberta, Vol. 1, 13/1-13/9.

East, D.R., and Ulrich, B.F. (1989), The electric piezocone for profiling of mine tailings deposits, in R.J. Watters (ed.), *Proceedings, 25th Symposium on Engineering Geology and Geotechnical Engineering*, Reno, 35-38.

East, D.R., Ransone, J.W., and Cincilla, W.A. (1988), Testing of the Homestake mine tailings deposit, *Proceedings, 2nd International Conference on Case Histories in Geotechnical Engineering,* 495-502.

East, D.R., Cincilla, W.A., Hughes, J.M.O., and Benoit, J. (1988a), The use of the electric piezocone for mine tailings deposits *Proceedings, 1st International Symposium on Penetration Testing, ISOPT-1*, Orlando, Vol. 2, 745-750.

Emerson, W.W., and Self, P.G. (1994), Neutralised tailings and sulphates: Evaluating bulk properties, *Géotechnique*, Vol. 44, No. 3, 495-501.

Emerson, W.W., Peter, P., McClure, S., and Weissmann, D. (1994), Neutralised tailings and sulphates: Settlement, drying and consolidation, *Géotechnique*, Vol. 44, No. 3, 503-512.



Fahey, M., and Fujiyasu, Y. (1994), The influence of evaporation on the consolidation behaviour of gold tailings, *Proceedings, 1st International Conference on Environmental Geotechnics*, Canada, 481-486.

Fan, X., and Masliyah, J. (1990), Laboratory investigation of beach profiles in tailings disposal, *Journal of Hydraulic Engineering*, Vol. 116, No. 11, 1357-1373.

Fell, R. (1988), Mine tailings, dispersants and flocculants, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 711-729.

Finn, W. (1982), Fundamental aspects of response of tailings dams to earthquakes, *Dynamic Stability of Tailings Dams, ASCE*, 46-72.

Finn, W., and Byrne, P. (1976), Liquefaction potential of mine tailings dams, 12th International Congress on Large Dams, Mexico, 153-177.

Finn, W., Lee, K., Maartman, V., and Lo, R. (1978), Cyclic pore pressure under anisotropic conditions, *ASCE, Proceedings, Conference on Earthquake Engineering and Soil Dynamics*, Vol. 1, 457-470.

Follin, S.E., Chedsey, G.L., and Robertson, A.M.G. (1984), Unconventional uses of geotechnical tools for impoundment seepage investigations, *Proceedings*, 6th Symposium on Uranium Mill Tailings Management, Fort Collins: Colorado, 615-625.

Fourie, A. (1988), Beaching and permeability properties of tailings, *Hydraulic Fill Structures,* ASCE Geotechnical Special Publication No. 21, 142-154.

Fox, P.J., and Baxter, C.D.P. (1997), Consolidation properties of soil slurries from hydraulic consolidation test, *Journal of Geotechnical and Geo-environmental Engineering*, Vol. 123, No. 8, 770-776.

Fuller, W.B., and Thompson, S.E. (1907), The laws of proportioning concrete, *Transactions* of the American Society of Civil Engineers, Vol. 59.

Garga, V.K., and McKay, L.D. (1984), Cyclic triaxial strength of mine tailings, *ASCE, Journal* of Geotechnical Engineering, Vol. 110, No. 8, 1091-1105.



Gibson, R.E., and Lumb, P. (1953), Numerical solutions of some problems in the consolidation of clay, , *Proceedings, Institution of Civil Engineers: Geotechnical Engineering*, Vol. 2, No. 1, 182-198.

Gibson, R.E., England, L., and Hussey, M.J. (1967), The theory of one-dimensional consolidation of saturated clays, I: Finite non-linear consolidation of thin homogeneous layers, *Géotechnique*, Vol. 17, No. 3, 261-273.

Gibson, R.E., Schiffman, R.L., and Cargill, K.W. (1981), The theory of one-dimensional consolidation of saturated clays, II: Finite non-linear consolidation of thick homogeneous layers, *Canadian Geotechnical Journal*, Vol. 18, No. 2, 280-293.

Gilchrist, J.D. (1989), Extraction Metallurgy, 3rd Edition, Pergamon Press, 341-342.

Gowan, M.J., and Williamson, J.R.G. (1987), A review of tailings deposition techniques in South Africa and appropriate selection of application, *Proceedings, International Conference on Mining and Industrial Waste Management, SAICE*, Johannesburg, 81-87.

Guerra, F. (1972), Characteristics of tailings from a soils engineer's viewpoint, in G.O. Argall and C.L. Aplin (eds.) *Tailing Disposal Today, Proceedings of the First International Tailing Symposium*, Tuscon: Arizona, 102-137.

Hamel, J.V., and Gunderson, J.W. (1973), Shear strength of Homestake slimes tailings, *ASCE Journal of the Soil Mechanics and Foundation Engineering Division*, Vol. 99, SM5, 427-431.

Han, G., and Wang, D. (1996), Numerical modelling of Anhui debris flow, ASCE, Journal of the Hydraulic Engineering Division, 122(5), 262-265.

Harper, T.G., McLeod, H.N., and Davies, M.P. (1992), Seismic assessment of tailings dams, *Civil Engineering (New York)*, Vol. 62, No. 12, 64-66.

Harr, M.E. (1977), *Mechanics of Particulate Media - A Probabilistic Approach*, McGraw-Hill, 543pp.

Hazen, A. (1892), Physical properties of sands and gravels with reference to their use in filtration, *Report, Massachusetts State Board of Health*.

4 - 4

1.4



Head, K.H. (1984), *Manual of soil laboratory testing, Volume 1:* Soil classification and compaction tests, London: Pentech Press Limited.

Head, K.H. (1984), *Manual of soil laboratory testing, Volume 2*: Permeability, shear strength and compressibility tests, London: Pentech Press Limited.

Head, K.H. (1984), *Manual of soil laboratory testing, Volume 3*: Effective stress tests, London: Pentech Press Limited.

Highter, W.H., and Tobin, R.F. (1980), Flow slides and the undrained brittleness index of some mine tailings, *Engineering Geology*, Vol. 16, No. 1-2, 71-82.

Highter, W.H., and Vallee, R.P. (1980), The liquefaction of different mine tailings under stress controlled loading, *Engineering Geology*, Vol. 16, No. 1-2, 147-150.

Hoare, B., and Hill, H.M. (1970), The hydraulic construction of mine tailings dams, *Canadian Mining Journal*, Vol. 91, No. 6, 51-58.

Hungr, O. (1995), A model for the run-out analysis of rapid flow slides, debris flows, and avalanches, *Canadian Geotechnical Journal*, Vol. 32, No. 4, 610-623.

Hutchinson, I., Ash, W., and Fisher, J. (1985), Cyanide control options - lessons from case histories, *Proceedings, Conference on Cyanide and the Environment*, Vol. 1.

Imai, G. (1980), Settling behaviour of clay suspensions, *Soils and Foundations*, Vol. 20, No. 2, 61-77.

Imai, G. (1981), Experimental studies on sedimentation mechanisms and sediment formation of clay materials, *Soils and Foundations*, Vol. 21, No. 1, 7-20.

Ishihara, K. (1993), 33rd Rankine Lecture: Liquefaction and flow failure during earthquakes, *Géotechnique*, Vol. 43, No. 3, 349-416.

Ishihara, K., Tatsuoka, F., and Yasuda, S. (1975), Undrained deformation and liquefaction of sand under cyclic stresses, *Soil and Foundations*, Vol. 15, No. 1, 29-44.

Ishihara, K, Yasuda, S., and Yoshida, Y. (1990), Liquefaction-induced flow failure of embankments and residual strength of silty sands, *Soils and Foundations*, Vol. 30, No. 3, 69-80.



ISSMFE (1989), International reference test procedure for cone penetration test (CPT), *Report of the ISSMFE Technical Committee on Penetration Testing of Soils - TC 16*, Swedish Geotechnical Institute, Linköping, No. 7, 6-16.

Jaky, J. (1944), The coefficient of earth pressure at rest, *Journal of the Society of Hungarian* Architects and Engineers, Vol. 7, 355-358.

Jefferies, M.G. (1993) Nor-Sand: a simple critical state model for sand, *Géotechnique*, 43(1), 91-103.

Jennings, J.E. (1979), The failure of a slimes dam at Bafokeng: Mechanisms of failure and associated design considerations, *The Civil Engineer in South Africa*, Vol. 21, No. 6, 135-145.

Jennings, J.E., Brink, A.B.A., and Williams, A.A.B. (1973), Revised guide to soil profiling for civil engineering purposes in Southern Africa, *Transactions, South African Institution of Civil Engineers*, Vol. 15, 3-12.

Jerabek, F., and Hartman, H. (1965), Investigations of segregation and compressibility in discharged fill slurry, *Transactions of the Society of Mining Engineers*, March, 18-24.

Jeyapalan, J.K., Duncan, J.M., and Seed, H.B. (1982), Investigation of flow failures of tailings dams, *ASCE, Journal of the Geotechnical Engineering Division*, Vol. 109, GT2, 172-189.

Jeyapalan, J.K., Duncan, J.M., and Seed, H.B. (1982a), Analysis of flow failures of mine tailings dams, ASCE, Journal of the Geotechnical Engineering Division, Vol. 109, GT2, 150-171.

Jones, G.A., and Rust, E. (1982), Piezometer penetration testing, *Proceedings*, 2nd *European Symposium on Penetration Testing*, Amsterdam, 607-613.

Jones, G.A., and Rust, E. (1983), Piezometer probe (CUPT) for subsoil identification, *Proceedings, International Symposium on In-situ Testing*, Paris, Vol. 2, 303-308.

Jones, G.A., Van Zyl, D.J., and Rust, E. (1981), Mine tailings characterisation by piezometer cone, in G.M. Norris, and R.D. Holtz (eds.), *Proceedings, Cone Penetration Testing and Experience*, Session sponsored by ASCE, 303-324.

4 - 1



Kealy, C.D., and Busch, R. (1969), *Determining Seepage Characteristics of Mill Tailings Dams by the Finite Element Method*, US Department, Interior, Bureau of Mines, Report of Investigations 7477.

Kealy, C.D., and Busch, R. (1971), Determining seepage Characteristics of mill-tailings dams by the finite element method, U.S. Bureau of Mines, RI 7477.

Kealy, C.D., and Busch, R. (1979), Evaluation of mine tailings disposal, *Current Geotechnical Practice in Mine Waste Disposal, ASCE*, New York, 181-201.

Keshian, B., Rager, R.E. (1988), Geotechnical properties of hydraulically placed uranium mill tailings, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 227-254.

Kleinmann, R., Crerar, D., and Pacelli, R. (1981), Bio-geochemistry of acid mine drainage and a method to control acid formation, *Mining Engineering*, March, 300-305.

Klohn, E.J. (1980), The development of current tailings dam design and construction methods, *Proceedings, Symposium on Design and Construction of Tailings Dams*, Colorado, A1-A51.

Klohn, E.J. (1984), The Brenda Mines' cycloned-sand tailings dam, ASCE, Conference on Case Histories in Geotechnical Engineering, St Louis, 953-977.

Klohn, E.J., and Maartman, C.H. (1973), Construction of sound tailings dams by cycloning and spigotting, in Aplin, C.L., and Argall, G.O. (eds.) (1972), *Tailings Disposal Today: Proceedings of the 1st International Tailing Symposium, Tuscon: Arizona.*, 232-267.

Klohn, E., Maartman, C., Lo, C., and Finn, W. (1978), Simplified seismic analysis for tailings dams, ASCE, Proceedings, Conference on Earthquake Engineering and Soil Dynamics, Vol. 1, 540-556.

Konrad, J.-M. (1997), In situ sand state from CPT: evaluation of a unified approach at two CANLEX sites, *Canadian Geotechnical Journal*, Vol. 34, 120-130.

Kotzias, P.C., Stamatopoulos, A.C., and Karas, B. (1984), Stability of an erratic tailings deposit, ASCE, Conference on Case Histories in Geotechnical Engineering, St Louis, 755-758.



Kozeny, J. (1931), Grundwasserbewegung bei freim spiegel, fluss und kanalversickering, *Wasserkraft und Wasserwirtschaft*, No. 3.

Kramer, S.L., and Seed, H.B. (1988), Initiation of soil liquefaction under static loading conditions, *ASCE, Journal of Geotechnical Engineering*, Vol. 114, 412-430.

Kuerbis, R., Negussey, D., and Vaid, Y.P. (1988), Effect of gradation and fines content on the undrained response of sand, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 330-345.

Kynch, G.J. (1952), A theory of sedimentation, *Transactions of the Faraday Society*, Vol. 48, 166-176.

Ladanyi, B. (1967), Deep punching of sensitive clays, *Proceedings, 3rd Pan American Conference on Soil Mechanics and Foundation Engineering*, Caracas, Vol. 1, 533-546.

Ladd, C.C. (1991), Stability evaluation during staged construction, *Journal of Geotechnical Engineering*, Vol. 117, No. 4, 540-615.

Lambe, T.W., and Whitman, R.V. (1969), Soil Mechanics., John Wiley & Sons, Inc.

Lappin, A.E. (1997), *Tailings Characterisation and Settlement Prediction*, MSc Thesis, University of Surrey.

Larson, N.B., and Mitchell, B. (1986), Cone penetrometer use on uranium mill tailings, *ASCE, Conference on the Use of In-situ Tests in Geotechnical Engineering, In-Situ* '86, Geotechnical Special Publication No.6, 700-713.

Lo, R.C., Klohn, E.J., and Finn, W.D.L. (1988), Stability of hydraulic sand-fill tailings dams, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No.* 21, 549-572.

Lucia, P.C., Duncan, J.M., and Seed, H.B. (1981), Summary of research on case histories of flow failures of mine tailings impoundments, *Mine Waste Disposal Technology, US Bureau of Mines Information Circular*, IC8857/1981, 46-53.

Lunne, T., Robertson, P.K., and Powell, J.J.M. (1997), Cone Penetration Testing in Geotechnical Practice, Blackie Academic and Professional.

÷х



Mabes, D., Hardcastle, J., and Williams, R. (1977), Physical properties of Pb-Zn mineprocess wastes, *Proceedings, ASCE, Conference on Geotechnical Practice for Disposal of Solid Waste Materials*, 103-117.

Massarsch, K.R. (1979), Lateral earth pressure in normally consolidated clay, *Proceedings*, 7th European Conference on Soil Mechanics and Foundation Engineering, Brighton, Vol. 2, 245-250.

Matyas, E.L., Reades, D.W., and Welch, D.E. (1984), Geotechnical parameters and behaviour of uranium tailings, *Canadian Geotechnical Journal*, Vol. 21, No. 3, 489-504.

McPhail, G.I. (1995), *Prediction of the Beaching Characteristics of Hydraulically Placed Tailings*, PhD thesis, University of the Witwatersrand (WITS), South Africa.

McPhail, G.I., and Blight, G.E. (1997), Entropy, stream power and the prediction of tailings beach profiles, *Proceedings, 2nd International Conference on Mining and Industrial Waste Management*, Johannesburg.

McPhail, G.I., and Wagner, J.C. (1989), Disposal of residues, Chapter 11, in G.G. Stanley (ed.), The *Extractive Metallurgy of Gold in South Africa*, The Chamber of Mines of South Africa, Volume 2, 655-707.

McPhee, J. (1971), Encounters with the Archdruid, Farrar, Straus and Giroux, New York.

McRoberts, E.C., and Nixon, J.F. (1976), A theory of soil sedimentation, *Canadian Geotechnical Journal*, Vol. 13, 294-310.

McWilliams, P.C. (1983), Field determinations of a probabilistic density functions for slope stability analysis of tailings embankments, *Report of Investigations - United States, Bureau of Mines* 8941.

Melent'ev, V.A., Kolpashnikov, N.P., and Volmin, B.A. (1973), Hydraulic Fill Structures, *Energy*, Moscow, English Translation, D. van Zyl (ed.) (1973), 240pp.

Meyerhof, G.G. (1951), The ultimate bearing capacity of foundations, *Géotechnique*, Vol. 2, No. 4, 301-302.

Mittal, H.K. (1974), *Design and Performance of Tailings Dams*, PhD thesis, University of Alberta, Edmonton, Canada.



Mittal, H.K., and Morgenstern, N.R. (1975), Parameters for the design of Tailings dams, *Canadian Geotechnical Journal*, Vol. 12, 235-261.

Mittal, H.K., and Morgenstern, N.R. (1976), Seepage control in tailings dams, Canadian Geotechnical Journal, Vol. 13, 277-293.

Mittal, H.K., and Morgenstern, N.R. (1977), Design and performance of tailings dams, Proceedings, Conference on Geotechnical Practice for Disposal of Solid Waste Materials, ASCE Speciality Conference of the Geotechnical Engineering Division, 475-492.

Mlynarek, Z, Tschuschke, W., Sulikowska, I., and Werno, M. (1991), Predicting the strength parameters of post-flotation sediments using the CPT method, in Sorum (ed.), *Field Measurements in Geotechnics*, Vol. 2, 737-744.

Mlynarek, Z, Tschuschke, W., and Lunne, T. (1994), Technique for examining parameters of post-flotation sediments accumulated in the pond, *Proceedings, 3rd International Conference on Construction on Polluted and Marginal Land*, 17-23.

Miynarek, Z, Tschuschke, W., and Lunne, T. (1995), Use of CPT in mine tailings, *Proceedings, International Symposium on Cone Penetration Testing, CPT*95, Linköping, Vol. 3, 211-226.

Morris, P.H. (1993), Two-dimensional model for sub-aerial deposition of mine tailings slurry, *Transactions of the Institution of Mining & Metallurgy*, **102**, A181-A187.

Muir-Wood, D. (1990), *Soil behaviour and critical state soil mechanics*, New York: Cambridge University Press.

Nelson-Skornyakov, F.B. (1949), Seepage in homogeneous media, Gosudarctvennoe Izd, Sovetskaya Nauka, Moscow.

Nelson, J.D., Shepherd, T.A., and Charlie, W.A. (1977), Parameters affecting stability of tailings dams, *Proceedings, Conference on Geotechnical Practice for Disposal of Solid Waste Materials*, ASCE Speciality Conference of the Geotechnical Engineering Division, 444-460.

Okusa, S., and Anma, S. (1980), Slope failures and tailings dam damage in the 1978 Izu-Ohshima-Kinkai earthquake, *Engineering Geology*, Vol. 16, No. 3-4, 195-224.

1.1

3 · · [



Okusa, S., Anma, S., and Maikuma, H. (1980), Liquefaction of mine tailings in the 1978 Izu-Oshima-Kinkai earthquake, central Japan, *Proceedings, 4th Symposium on Uranium Mill Tailings Management*.

Olsen, H.W. (1966), Darcy's law in saturated kaolinite, *Water Resources Research*, Vol. 2, No. 6, 287-296.

Palmer, B., and Krizek, R.J. (1987), Thickened slurry disposal method for process tailings, *Proceedings of a Speciality Conference on Geotechnical Practice for Waste Disposal* '87, *ASCE Geotechnical Special Publication no.* 13, 728-743.

Pane, V. (1985), Sedimentation and Consolidation of Clays, PhD thesis, University of Colorado, USA.

Papageorgiou, G., Fourie, A.B., and Blight, G.E. (1997), Flow failures and static liquefaction of tailings dams, *Proceedings, 2nd International Conference on Mining and Industrial Waste Management*, Johannesburg.

Papageorgiou, G.P., Fourie, A.B., and Blight, G.E. (1999), Static liquefaction of Merriespruit gold tailings, *Proceedings, 12th Regional Conference for Africa on Soil Mechanics and Geotechnical Engineering*, Durban, South Africa, 61-72.

Parez, L., Bachelier, M., and Sechet, B. (1976), Pression interstitielle developpee au foncage des penetrometers (Pore pressure generation during cone penetration), *Proceedings, 6th European Regional Conference of the European Society of Soil Mechanics and Foundation Engineering*, Vol. 1.2, 533-538.

Patchet, S. (1977), Fill support systems for deep-level gold mines, *Journal of the South African Institute of Mining and Metallurgy*, Sept., 34-46.

Patton, F. (1952), Back-filling at Noranda, *Canadian Mining and Metallurgy Bulletin*, Vol. 45, 191-197.

Peck, R.B. (1969), Advantages and limitations of the observational method in applied soil mechanics, *Géotechnique*, Vol. 19, No 2., 171-187.



Penman, A.D.M. (1994), Tailings dams, some aspects of their design and construction, in K.R. Saxena (ed.), *Geotechnical Engineering: Emerging Trends in Design and Practice*, 247-277.

Pettibone, H., and Kealy, D. (1971), Engineering properties of mine tailings, *ASCE, Journal of the Soil Mechanics and Foundations Division*, Vol. 97, No. SM9, 1207-1225.

Phillips, R., and Byrne, P.M. (1995), Modelling flow slides caused by static loading, *Transportation Research Record*, 1504, 12-21.

Plewes, H.D., McRoberts, E.C., and Chan, W.K. (1988), Downhole nuclear density logging in sand tailings, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 290-309.

Poorooshasb, H.B. (1989), Description of flow of sand using state parameters, *Journal of Computers and Geotechnics*, Vol. 8, 195-218.

Poulos, S.J. (1988), Strength for static and dynamic stability analysis, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 430-451.

Poulos, S.J., Robinsky, E.I, and Keller, T.O. (1985), Liquefaction resistance of thickened tailings, *Journal of Geotechnical Engineering*, Vol. 112, No. 12, 1300-1394.

Randolph, M.F., and Wroth, C.P. (1979), An analytical solution for the consolidation around a driven pile, *Proceedings, International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 3, No. 3, 217-229.

Ripley, E.A., Redmann, R.E., and Maxwell, J. (1982), Environmental impact of mining in Canada, *The National Impact of Mining Series*, Center for Resource Studies, Kingston, Ontario.

Ritcey, G.M. (1989), *Tailings Management, Problems and solutions in the mining industry*, Elsevier, Excerpts.

Rendulic, L. (1936), Prenziffer und Porenwasserdruck in Tonen, *Der Bauingenieur*, Vol. 17, No. 51/53, 559-564.

Robertson, P.K. (1990), Soil classification using the cone penetration test, Canadian Geotechnical Journal, Vol. 28 176-178.

- E

1.



Robertson, P.K., and Campanella, R.G. (1983), Interpretation of cone penetration tests, Part I Sand and Part II: Clay, *Canadian Geotechnical Journal*, Vol. 20, 718-745.

Robertson, P.K., and Hughes, J.M.O. (1986), Determination of the properties of sand from self-boring pressuremeter tests, *ASTM, Proceedings, 2nd International Symposium on the Pressuremeter and its Marine Applications, STP 950.*

Robinsky, E.I. (1975), Thickened discharge - A new approach to tailings disposal, *Bulletin: The Canadian Institute of Mining and Metallurgy*, December, 47-59.

Robinsky, E.I. (1978), Tailing disposal by the thickened discharge method for improved economy and environmental control, *Proceedings, 2nd International Conference on Tailings Disposal*, Denver, 75-92.

Roe, C.H., and Zahl, E.G. (1986), Experiments using low viscosity resins for in-situ sampling of sand and tailing and sample analysis by image processing, *Proceedings of the International Symposium on Geotechnical Stability in Surface Mining*, Calgary: Alberta, 277-282.

Roscoe, K.H. (1970), 10th Rankine Lecture: The influence of strains in soil mechanics, *Géotechnique*, Vol. 20, No. 2, 129-170.

Roscoe, **K.H.**, **and Burland**, **J.B.** (1968), On the generalised stress-strain behaviour of 'wet' clay, in J. Heyman and F.A. Leckie (eds.), *Engineering plasticity*, Cambridge: Cambridge University Press, 535-609.

Roth, W.F. (1991), A Systems Approach to Quality Improvement, Stevens, London.

Rowe, P.W. (1959), Measurement of the coefficient of consolidation of lacustrine clay, *Géotechnique*, Vol. 9, No. 3, 107.

Ruhmer, W.T. (1974), Slimes-dam construction in the gold mines of the Anglo-American group, *Journal of the South African Institute of Mining and Metallurgy*, Vol. 74, No. 7, 273-284.

Rust, E. (1996), *Interpretation of Incomplete Piezocone Dissipation Tests*, PhD thesis, University of Surrey, UK.



Rust, E., Van Zyl, D.J.A., and Follin, S. (1984), Interpretation of piezometer cone testing of tailings, *Proceedings, 6th Symposium on Uranium Mill Tailings Management*, Fort Worth.

Rust, E., Van der Berg, J.P., and Jacobsz, S.W. (1995) Seepage analysis from piezocone dissipation tests, *Proceedings, International Symposium on Cone Penetration Testing*, Swedish Geotechnical Institute, Linköping, Sweden, Vol. 2, No. 2.26, 289-294.

Sandven, R., Senneset, K., and Janbu, N. (1988), Interpretation of piezocone tests in cohesive soils, *Proceedings*, 1st International Symposium on Penetration Testing, ISOPT-1, Orlando, Vol. 2, 939-953.

Sasitharan, S., Robertson, P.K., Sego, D.C., and Morgenstern, N.R. (1993), Collapse behaviour of sand, *Canadian Geotechnical Journal*, Vol. 30, 569-577.

Schiffman, R.L., Pane, V., and Gibson, R.E. (1984), The theory of one-dimensional consolidation of saturated clays: An overview of non-linear finite strain sedimentation and consolidation, in R.N. Yong & F.C. Townsend (eds.), *ASCE, Proceedings, Symposium on Sedimentation and Consolidation Models*, Montreal, 1-29.

Schiffman, R.L., Pane, V., and Sunara, V. (1986), Sedimentation and consolidation, in B.M. Moudgil, and P. Somasumdaran (eds.), *AICE, Conference on Flocculation, Sedimentation and Consolidation*, Cloister Sea Island, 57-124.

Schiffman, R.L., Vick, S.G., and Gibson, R.E. (1988), Behaviour and properties of hydraulic fills, *Hydraulic Fill Structures*, *ASCE Geotechnical Special Publication No. 21*, 166-202.

Schmertmann, J.H. (1978), Guidelines for cone penetration tests, United States Department of Transport, Report FHWA TS-78-209, 145pp.

Schofield, A.N., and Wroth, C.P. (1968), *Critical state soil mechanics*, London: McGraw-Hill.

Scott, M.D., Lo, R.C., Klohn, E.J., Liam Finn, W.D., and Yogendrakumar, M. (1989), Nonlinear dynamic analysis of L-L tailings dam, *Proceedings of the 12th International Conference on Soil Mechanics and Foundation Engineering*, Rio de Janeiro: Brazil, Vol. 3, 1911-1914.

1 A 1



Senneset, K., and Janbu, N. (1985), Shear strength parameters obtained from static cone penetration tests, *Strength Testing of Marine Sediments: Laboratory and In-situ Measurements, ASTM Special Technical Publication STP 883*, 41-54.

Senneset, K., Janbu, N., and Svanø, G. (1982), Strength and deformation parameters from cone penetration tests, Proceedings, 2nd European Symposium on Penetration Testing, Amsterdam, Vol. 2, 863-870.

Senneset, K., Sandven, R., Lunne, T., By, T., and Amundsen, T. (1988), Piezocone tests in silty soils, , *Proceedings*, 1st International Symposium on Penetration Testing, ISOPT-1, Orlando, Vol. 2, 955-966.

Senneset, K., Sandven, R., and Janbu, N. (1989), The evaluation of soil parameters from piezocone tests, *Transportation Research Record, No. 1235*, 24-37.

Seed, H.B., and De Alba, P. (1986), Use of SPT and CPT tests for evaluating the liquefaction potential of sands, ASCE, Use of In-situ Tests in Geotechnical Engineering, Geotechnical Special Publication No.6, Blacksburg, 281-302.

Senevirante, N.H., Fahey, M., Newson, T.A., and Fujiyasu, Y. (1996), Numerical modelling of consolidation and evaporation of slurried mine tailings, *International Journal for Numerical and Analytical Methods in Geomechanics*, Vol. 20, No. 9, 647-671.

Shakesby, R.A., and Whitlow, J.R. (1991), Failure of a mine waste dump in Zimbabwe: Causes and Consequences, *Environmental Geology and Water Sciences*, Vol. 18, No. 2, 143-153.

Sherard, J.L., Dunnigan, L.P., Talbot, J.R. (1984), Basic properties of sand and gravel filters, *ASCE, Journal of Geotechnical Engineering*, Vol. 110, No. 6, 684-700.

Sherard, J.L., Dunnigan, L.P., Talbot, J.R. (1984a), Filters for silts and clays, ASCE, Journal of Geotechnical Engineering, Vol. 110, No. 6, 700-718.

Shields, D. (1974), Innovations in tailings disposal, *Proceedings, 1st Symposium on Mine* and *Preparation Plant Refuse Disposal,* 86-90.

Sills, G.C. (1975), Some conditions under which Biot's equations of consolidation reduce to Terzaghi's equation, *Géotechnique*, Vol. 25, No. 1, 129-132.



Sills, G.C., Hoare, D.L., and Baker, N. (1986), An experimental assessment of the restricted flow consolidation test, in R.N. Yong, and F.C. Townsend (eds.), *ASTM*, *Consolidation of soils: Testing and Evaluation - STP 892*, 7-70.

Singh, S., and Chew, R.Y. (1988), Dynamic strain in silt and effect on ground motions, *Proceedings of the Speciality Conference on Earthquake Engineering and Soil Dynamics II - Recent Advances in Ground-Motion Evaluation*, Park City: Utah, 321-330.

Siriwardane, H.J., and Ho, S.Z. (1985), Plastic deformation and hardening behaviour of a mine tailings material, *Proceedings of the 5th International Conference on Numerical Methods in Geomechanics*, Nagoya: Japan, Vol. 1, 539-546.

Skempton, A.W. (1944), Notes on the compressibility of clays, *Quarterly Journal of the Geological Society*, Vol. 100, 119-135.

Skempton, A.W. (1954), The pore pressure coefficients A and B, *Géotechnique*, 4(4), 143-147.

Siaden, J.A., D'Hollander, R.D., and Krahn, J. (1985), The liquefaction of sands, a collapse surface approach, *Canadian Geotechnical Journal*, Vol. 22, 564-578.

Smith, E.S. (1972), Tailings disposal - Failures and lessons, in Aplin, C.L., and Argall, G.O. (eds.) (1972), *Tailings Disposal Today: Proceedings of the 1st International Tailing Symposium, Tuscon: Arizona.*, 356-376.

Smith, G.M., Abt, S.R., and Nelson, J.D. (1986), Profile prediction of hydraulically deposited tailings, *Transactions of the American Institute of Mining, Metallurgy, and Petroleum Engineers*, Vol. 280, Pt. A, 2024-2027.

Smith, M.E., Bentel, D.L., and Robertze, J.B. (1987), Management guidelines for the construction of gold tailings dams, Proceedings, International Conference on Mining and Industrial Waste Management, SAICE, Johannesburg, 31-38.

Soderberg, R., and Busch, R. (1977), Design guide for metal and non-metal tailings disposal, U.S. Bureau of Mines, IC8755.

Sowers, G.F. (1979), Introductory Soil Mechanics and Foundations: Geotechnical Engineering, Fourth Edition, Macmillan Publishing Co.

1.

1

14

1 · · 1



Stanley, G.G. (ed.) (1987), *The Extractive Metallurgy of Gold in South Africa*, The S.A. Institute of Mining and Metallurgy Monograph Series M7, The Chamber of Mines of South Africa, Volume 1 & 2.

Stokes, Sir George G. (1891), *Mathematical and Physical Paper III*, Cambridge University Press.

Stone, K.J.L., Randolph, M.F., Toh, S., and Sales, A.A. (1994), Evaluation of consolidation behaviour of mine tailings, *Journal of Geotechnical Engineering*, **120**(3), 473-490.

Sugawara, N., and Chikaraishi, M. (1982), On estimation of ϕ ^t for normally consolidated mine tailings by using the pore pressure cone penetrometer, *Proceedings, 2nd European Symposium on Penetration Testing*, Amsterdam, Vol. 2, 883-888.

Sully, J.P. (1985), Geotechnical aspects of remedial design for a gold tailings dam, International Journal for Numerical and Analytical Methods in Geomechanics, Vol. 9, No. 6, 589-598.

Suthaker, N.N., and Scott, J.D. (1996), Measurement of hydraulic conductivity in oil sand tailings slurries, *Canadian Geotechnical Journal*, Vol. 33, No. 4, 642-653.

Suthaker, N.N., and Scott, J.D. (1997), Thixotropic strength measurement of oil sand fine tailings, *Canadian Geotechnical Journal*, Vol. 34, No. 6, 974-984.

Sutherland, H.J., and Rechard, R.P. (1984), Centrifuge simulations of stable tailings dam, *ASCE, Journal of Geotechnical Engineering*, Vol. 110, No. 3, 390-402.

Swarbrick, G.E. (1992), *Transient Unsaturated Consolidation in Desiccating Mine Tailings*, PhD thesis, University of New South Whales, Australia.

Swarbrick, G.E. (1993), An approximate method for the design of tailings dams using subaerial deposition, in R. Fell et. al. (eds.), *Geotechnical management of waste and* contamination, 463-471.

Swarbrick, G.E. (1994), The use of small scale experiments to predict desiccation of tailings, *Proceedings*, 1st International Congress on Environmental Geomechanics, Edmonton Alberta, 563-568.



Swarbrick, G., and Fell, R. (1990), Prediction of desiccation rates of mine tailings, *Proceedings, 3rd International Symposium on the Reclamation Treatment and Utilisation of Coal Mining Wastes*, Glasgow.

Swarbrick, G.E., and Fell, R. (1991), Prediction of the improvement of tailings properties by desiccation, *Proceedings*, 9th Pan American Conference on Soil Mechanics and Foundation Engineering, 995-1008.

Swarbrick, G.E., and Fell, R. (1992), Modelling desiccation behaviour of mine tailings, *Journal of Geotechnical Engineering*, Vol. 118, No. 4, 540-557.

Taylor, D.W. (1948), Fundamentals of Soil Mechanics, Wiley, New York.

Teh, C.I. (1987), An Analytical Study of the Cone Penetration Test, D.Phil. thesis, Oxford, UK.

Terzaghi, K. (1923), Die berechnung der durchlassigkeitsziffer des tones aus dem verlauf der hidrodynamischen spannungserscheinungen, *Akademie Wissenchaften Wien*, No. 132, 125-138.

Terzaghi, K. (1941), Undisturbed clay samples and undisturbed clays, *Journal of the Boston Society of Civil Engineers*, Vol. 28, No. 3, 45-65.

Terzaghi, K. (1943), Theoretical Soil Mechanics, John Wiley and Sons, New York.

Thomas, E. (1971), Cemented fill practice and research at Mount Isa, *Proceedings, Australian Institute of Mining and Metallurgy*, No. 240, 33-51.

Tjelta, T.I., Tiegges, A.W.W., Smits, F.P., Geise, J.M., and Lunne, T.A. (1987), In-situ measurements by nuclear backscatter for an offshore soil investigation, *Norwegian Geotechnical Institute, Publication No. 169*, Oslo.

TMH1 (1986), Standard Methods of Testing Road Construction Materials - Technical Methods for Highways TMH1, National Institute for Transport and Road Research of the Council for Scientific and Industrial Research (CSIR), Second edition.

Torstensson, B.A. (1975), Pore pressure sounding instrument, *Proceedings, ASCE* Speciality Conference on In-situ Measurement of Soil Properties, Raleigh, Vol. 2, 48-54.

÷н

æ

T



Toorman, E.A. (1996), Sedimentation and self-weight consolidation: general unifying theory, *Géotechnique*, Vol. 46, No. 1, 103-113.

Troncoso, **J.H.** (1986), Critical state of tailing silty sands for earthquake loading, *Soil Dynamics and Earthquake Engineering*, Vol. 5, No. 4, 248-252.

Troncoso, J.H., (1988), Evaluation of seismic behaviour of hydraulic fill structures, *Hydraulic Fill Structures, ASCE Geotechnical Special Publication No. 21*, 475-491.

Truscott, S.J. (1923), A Text-Book of Ore Dressing, Macmillan and Co.

Tschuschke, W., Mlynarek, Z, and Massolt, P. (1992), The use of the CPT test for density determination of an embankment constructed from post-flotation sediments, *Proceedings,* 2nd International Conference on Construction on Polluted and Marginal Land, 169-175.

Tschuschke, W., Mlynarek, Z, and Werno, M. (1993), Assessment of subsoil variability with the cone penetration test, *Proceedings, Conference on Probabilistic Methods in Geotechnical Engineering, Canberra*, 215-220.

Tschuschke, W., Mlynarek, Z, and Graf, R. (1994), Geotechnical parameters of postflotation sediments with CPTU, *Special Conference Agricultural University Poznan*, 101-117.

Tschuschke, W., Mlynarek, Z., and Lunne, T. (1995), Application of cone penetration test for evaluation of geotechnical parameters of post-flotation sediments, *Proceedings, International Symposium on Cone Penetration Testing, CPT*95, Linkoping, Vol. 2, 329-336.

Ulrich, B.F., and Valera, J.E. (1995), Experiences using CPT data for assessing liquefaction potential of mine tailings, *Proceedings, International Symposium on Cone Penetration Testing, CPT* 95, Linköping, Vol. 2, 601-606.

USCOLD (1994), *Tailings Dam Incidents*, United States Committee on Large Dams, Denver Colorado.

Vaid, Y.P. (1994), Liquefaction of silty soils, *Ground Failures under Seismic Conditions,* ASCE, Geotechnical Special Publication No. 44.

Vaid, Y.P., and Chern, J.C. (1983), Mechanism of deformation during undrained loading of saturated sands, *Soil Dynamics and Earthquake Engineering*, Vol. 2, No. 3, 171-177.



Van der Berg, J.P. (1995), Monitoring of the Phreatic Surface in a Tailings Dam and Subsequent Stability Implications, MSc Dissertation, University of Pretoria.

Van der Berg, J.P., Jacobz, S.W., and Steenkamp, J.M. (1998), Obtaining material properties for slope stability analysis of gold tailings dams in South Africa, *Proceedings*, 1st *international Conference on Site Characterisation - ISC*'98, Atlanta, Vol. 2, 1189-1194.

Van Genuchten, M.Th. (1980), A close-form equation for predicting the hydraulic conductivity of unsaturated soils, *Journal of the Soil Science Society of America*, Vol. 44, 892-898.

Van Zyl, D. (1987), Seepage and drainage analysis of tailings impoundments - Is it really that simple?, Proceedings, International Conference on Mining and Industrial Waste Management, SAICE, Johannesburg, 211-222.

Van Zyl, D. (1993), Mine waste disposal, in D.E. Daniel (ed.), *Geotechnical Practice for waste disposal*, Chapman Hall, 269-286.

Van Zyl, D.J.A., and Harr, M.E. (1977), Modelling of seepage through mine tailings dams, Proceedings, Conference on Geotechnical Practice for Disposal of Solid Waste Materials, ASCE Speciality Conference of the Geotechnical Engineering Division, 727-743.

Vermeulen, N.J. (2000), Gold tailings under the electron microscope, *Proceedings, SAICE Young Geotechnical Engineers Conference*, Stellenbosch.

Vesic, A.S. (1975), *Principles of Pile Foundation Design*, Soil Mechanics Series No. 38, Duke University, Durham.

Vesic, A.S., and Clough, G.W. (1968), Behaviour of granular materials under high stresses, *Proceedings of the ASCE, Journal of the Soil Mechanics and Foundations Division*, **94**(SM3), 661-688.

Vick, S.G. (1983), Planning, design and analysis of tailings dams, New York: Wiley.

Vick, S.G. (1996), Tailings dam failure at Omai in Guyana, *Mining Engineering*, Vol. 48, No. 11, 34-37.

Vick, S.G., Wilmot, C.I., and Atkinson, G.M. (1985), Risk analysis for seismic design of tailings dams, *ASCE Journal of Geotechnical Engineering*, Vol. 111, No. 7, 916-933.

1

1.6

8

1 .



Vidic, S.D., Beckwith, G.H., and Mayne, P.W. (1995), Profiling mine tailings with CPT, *Proceedings, International Symposium on Cone Penetration Testing, CPT*95, Linköping, Vol. 2, 607-612.

Volpe, R.L. (1979), Physical and engineering properties of copper tailings, *ASCE, Current Geotechnical Practice in Mine Waste Disposal*, 242-260.

Wagener, F. (1997), The Merriespruit slimes dam failure: Overview and lessons learnt, South African Institute of Civil Engineering Journal, Vol. 39, No. 3, 11-15.

Wagener, F., and Wates, J.A. (1982), Geotechnical investigation and design of tailings dams on dolomite, *Transactions, 14th International Congress on Large Dams*, Rio de Janeiro, Vol. 2, 719-736.

Wagener, F, and Jacobsz, S.W. (1999), Penstock failures on gold tailings dams in South Africa, *Proceedings, 12th Regional Conference for Africa on Soil Mechanics and Geotechnical Engineering*, Durban, South Africa, 95-100.

Wagener, F, Van der Berg, J.P., and Jacobsz, S.W. (1997), Monitoring of the seepage regime in tailings dams in practice, *Proceedings, 2nd International Conference on Mining and Industrial Waste Management*, Johannesburg.

Wagener, F, Craig, H.J., Blight, G.E., McPhail, G., Williams, A.A.B., and Strydom, J.H. (1997a), The Merriespruit Tailings Dam Failure – A review, *Proceedings*, 2nd International Conference on Mining and Industrial Waste Management, Johannesburg.

Wagener, F., Craig, H.J., Blight, G., McPhail, G., Williams, A.A.B., and Strydom, J.H. (1998), The Merriespruit tailings dam failure - A review, Proceedings, 5th International Conference on Tailings and Mine Waste, Fort Collins, 925-952.

Wahler, W.A. and Associates (1973), Analysis of coal refuse dam failure, Middle Fork Buffalo Creek, Saunders, West Virginia, *U.S. Bureau of Mines*, *OFR10(1)-7*.

Watermeyer, P., and Williamson, R. (1979), Ergo tailings dam - Cyclone separation applied to a fine grind product, *Proceedings, 2nd International Tailings Symposium*, San Francisco, 369-396.



Wates, J.A. (1983), Tailings disposal, the real cost of excess water in residues, *Journal of the South African Institute of Mining and Metallurgy*, Vol. 25, 257-262.

Wates, J.A. (1991), Design and construction of tailings dams - Some design considerations, *SAICE Geotechnical Division Evening Lecture*.

Wates, J.A., Stevenson, C., and Purchase, A.R. (1987), The effect of relative densities on beaching angles and segregation on gold and uranium tailings dams, Proceedings, International Conference on Mining and Industrial Waste Management, SAICE, Johannesburg, 89-94.

Wates, J.A., Strayton, G., and de Swardt, G. (1999), Long-term integrity of residue deposits, *Proceedings, 12th Regional Conference for Africa on Soil Mechanics and Geotechnical Engineering*, Durban, South Africa, 101-108.

White, H. (1917), Discussion: The construction and maintenance of slimes dams, *Journal of the Chemical Metallurgical And Mining Society Of South Africa*, Vol. 17, No. 12.

Wills, B.A. (1992), Mineral Processing Technology, Fifth Edition, Pergamon Press.

WISE Uranium Project (1998), Safety of tailings dams, http://antenna.nl/~wise/uranium/mdas.html

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Yoshimi, Y., and Goto, S. (1996), Liquefaction resistance of silty sand based on in-situ frozen samples, *Géotechnique*, Vol. 46, No. 1, 153-156.