

Terril (Ted) Wilson

Department of Mining & Geological Engineering
241-B Mines Building
University of Arizona,
Tucson, Arizona 85728
Tel. (520) 621-4689; FAX (520) 621-8330
wilsont@email.arizona.edu

Qualifications: mining and processing of minerals and coal. Design of sampling programs, testing, data interpretation, flowsheet development, equipment selection; plant startup and operation; plant performance evaluation; plant and material handling system modifications to improve performance and efficiency. Construction planning and management. Environmental management.

Education:

Geophysical Engineer, Colorado School of Mines, 1961
M.S., Mining Engineering, Pennsylvania State University, 1973
M.S., Mineral Process Engineering, University of California – Berkeley, 1985
Ph.D., Mining Engineering, University of Kentucky, 1998

Experience:

- Aug.2005 & continuing: University of Arizona, Department of Mining & Geological Engineering, Tucson, Arizona,
Adjunct Assistant Professor – Mining Engineering. Courses instructed:
Mine Examination and Evaluation
Introduction to Earth Engineering
Surface Mine Design
Underground Mine Design
- Jan. 2005 & continuing: ATW, Inc., Fairbanks, Alaska, & Tucson, Arizona: mine & plant performance improvements
- Jan.1998 – Jan 2005: University of Alaska, Department of Mining & Geological Engineering, Fairbanks, Alaska,; Assistant Professor - mining engineering. Courses instructed:
mechanics of materials (traditional)
mine plant design (compressed air systems, pumps and piping, belt conveyor systems, dust collection, hoisting, railroad operations, electric motors and transformer systems, intro. to logic control)
mineral processing – theory and applications (sampling procedures, screening, crushing, grinding, classification, flotation, intro. to SX-EW, solid-liquid separation; industrial plant practice)
environmental management and reclamation (legal framework, surface-, ground-, and process water management, earthwork, recontouring and revegetation, dust control, blasting control, permits, bonding and ISO process)
open pit mining methods (reserve evaluation, net smelter return, break-even strip ratio and pit optimization; truck-shovel and dragline stripping methods, pit phase planning)
underground mining methods (geological and ground control constraints, production planning, adits, shafts and slopes, mine equipment and services, health and safety criteria; case studies)
surveying (plane, GPS, and intro. to underground)
introductory mining engineering and mine safety
- Aug – Dec. 1997: University of Kentucky, Department of Mining Engineering, Lexington, Kentucky,
Instructor – mineral processing.
- 1993 – 1997: T.E. Wilson, P.E., Lexington, engineering services, coal and mineral industries: Mine and process engineering as independent contractor. Coal preparation plant commissioning, Exxon – Carbocol, Colombia, 1996; Ph.D. completion, Univ. of Kentucky
- 1992 – 1993: Southern Peru Copper Company, Ilo, Peru, area chief engineer - smelter, town site and port. Maintenance and repairs for 3,000 tpd smelting plant (traditional reverb. / Pierce-Smith converter integrated with steam power plant). Installation of 3.3 MW emergency generator at smelter. Repairs and new construction for townsite, port and rail facilities. Management of contracts.

1986 – 1991: Island Creek Corp.(subsidiary of Occidental Petroleum Corp.), Lexington, Kentucky, principal engineer – coal processing; performance testing and process modifications for seventeen operating coal preparation plants in Eastern U.S. and China. Management of retrofit construction projects.

1984 – 1985: T.E. Wilson, P.E., Belmont, California; engineering services, coal and mineral industries. Process engineering as independent contractor; M.S. completion, Univ. of California – Berkeley

1979 – 1984: Fluor Mining & Metals, Inc, Redwood City, California; principal engineer, coal development projects – China (Fushun and Huo Lin River); deputy manager, Technical Services Dept., Fluor Australia Pty, Ltd. (coal & minerals projects); feasibility study manager, Tucson, AZ, Division

1975-1979: Kaiser Engineers, Oakland, California, associate engineer: coal production; field test program supervisor (Exxon, eastern Texas; Shell, central Illinois); project engineer: process plant modification – British Columbia

1974 – 1975: Dravo Corporation, Denver, Colorado; facilities planning engineer, coal and copper processing

1972 –1974: Hecla Mining Company, Casa Grande, Arizona; construction field engineer, surface and underground plant facilities for copper production

1970 – 1972: Pennsylvania State University; research assistant: US Bur. of Mines investigation of continuous mining machines for underground coal production

1967 – 1970: Dravo Corporation, Pittsburgh, Pennsylvania; development engineer, iron ore, coal and phosphate ore processing; plant startups – iron ore and coal beneficiation

1966 – 1967: Magma Copper Co., San Manuel, Arizona; ore production & grade control; assistant mine geologist

1964 – 1965: Kaiser Steel Corp., Eagle Mountain, California; assistant metallurgist and plant foreman – iron ore beneficiation and pelletizing

1960 – 1964 (military duty intervening): Climax Molybdenum Co. (AMAX), Climax, Colorado; underground mine operations and repair

1961 – 1963: Lieutenant, U.S. Army, Corps of Engineers; duty in USA and West Germany

Professional Registration

Registered Professional Engineer – Colorado
Pennsylvania

Affiliations

Society for Mining, Metallurgy, and Exploration (SME), USA:
Chair - Professional Engineers' Registration Committee, 2005-06

Accreditation Board for Engineering & Technology (ABET):
Program Evaluator, mining engineering

American Society of Mining and Reclamation

Alaska Miners Association:
Director, Fairbanks Chapter, 2005

Publications:

Wilson, T.E., and Dyhr, T., 2004, Cost Trends – Mine Environmental Operations; Society for Mining & Exploration Annual Meeting, Feb. (in review for publication, 2005)

Wilson, T.E., Milne., C. and Dyhr, T., 2003, Cost Trends – Mine Closure; Society for Mining & Exploration Annual Meeting, Feb. (in review for publication, 2005)

Wilson, T.E., Misra, D., Zhou, W., Dandekar, A., and D'Cunha, N., 2003, Containment of Spilled Petroleum in Soil using Activated Coal; proceedings: American Society of Mining and Reclamation Annual Conference, Billings, MT., June.

Ganguli, R., Wilson, T.E., and Bandopadhyay, S., 2002, STADES: An Expert System for Marine disposal of Mine Tailings, Mining Engineering, V.54, No.4, April

Wilson, T.E. and Leonard III, J.W., 2000, Further Studies on Relating the Breakage Properties of Coal Bore Cores to Preparation Plant Feed, Transactions Society for Mining, Metallurgy and Exploration, Inc., V. 308, Dec.

Sastry, K.V.S. and Wilson, T.E., 1986, Kinetic Behavior of a Continuous Flocculation Tank, Annual Meeting, Society for Mining, Metallurgy and Exploration, Inc., March
Matoney, J.P. and Wilson, T.E., 1977, Size Preparation of Coal for Synthetic Fuel Processes, Annual Meeting, Society for Mining, Metallurgy and Exploration, Inc., March
Ramani, R.V., Falkie, T.V. and Wilson, T.E., 1974, Determination and Description of a Rate Generating Equation for Continuous Miners, Tech. Note, Transactions, American Institute of Mining, Metallurgical and Petroleum Engineers, SME, V. 256