

# Süreli Yayınlar 1985

## Mining Magazine

### JANUARY 1986

- 7 Panorama  
*BethEnergy's High Power Mountain coal mine comes on stream in West Virginia, U.S.; The U.S.S.R. helps develop Indian coal mines; Slurry pipeline for phosphate concentrates, Utah, U.S.; Massiue coal conveyor system in South Africa.*
- 16 Kidston Gold Mine  
*Re-evaluation turned an "uneconomic" project into Australia's largest gold mine.*
- 24 To İsa  
*An unusual mineral—sepiolite— is mined in Spain with a fleet of reliable and efficient hydraulic excavatoİ-s.*
- 28 Tin in Chfna  
*China possesses considerable tin resources — according to the author arguably the largest in the world. This article discusses the major deposits in the country and their present and future development.*
- 41 Energy in China  
*Energy production in China from coal, hydro-power, oil and gas is growing steadily.*
- 45 Mining Survey  
*The Western World's metal mines. Introduction, Analysis by size, Current operations, New projects and expansions.*

### FEBRUARY 1986

- 102 Panorama  
*Modernization programme at Bingham Canyon mine, Utah, U.S.; More tungsten in West Greenland; Favourable environments for uranium deposits in Nigeria; The tin ores at Bastar, Madhya Pradesh, India.*

- 106 World Highlights
- 112 Dee Mine  
*A compact, efficient openpit operation in the Carlin Gold Belt, Nevada.*
- 132 Sotiel Mine  
*Starting up production in 1983-84, Minas de Almagrera's Sotiel mine in Spain is one of Europe's newest base metal mines.*
- 117 Exploration drill rigs  
*Covering a variety of exploration drilling requirements, there is a wide choice of rigs available.*
- 143 Argentina  
*A discussion of the mineral potential of this South American country and the possibility of mining attaining greater importance-*
- 148 Lithium  
*The resources, production capacity and market prospects for this, the lightest of metals, are reviewed.*
- 153 Technology in Mining  
*A conference and exhibition being held this month in Harrogate, England will look at underground coal mining technology over the next decade.*

### MARCH 1986

- 183 Panorama  
*Modernization plans for China's coal industry; British Geological Survey cooperates in exploration of Bolivian Eastern Lowlands; Eastern bloc countries in seabed minerals search; First international mining history conference.*
- 191 World Highlights

- 200 Trout Lake  
*The Trout Lake mine in Manitoba, Canada is a successful example of an international joint venture, working a number of gold, silver, lead, zinc orebodies by modern methods.*
- 208 WarkworthNo. 1  
*This open cut coal mine in the Hunter Valley, New South Wales, is worked by an interesting combination of bench and strip mining.*

- 217 German Coal Mining Equipment  
*After a review of trends in production methods in the Ruhr coalfield, the products offered by some of the major mining machinery manufacturers are surveyed.*
- 241 Heat Mining  
*An up-to-date account of the Camborne School of Mines geothermal energy research project at Rosemanowes Quarry test site in Cornwall, U.K.*

## Mining E

### JANUARY 1986

- 13 Development of Australia's first major diamond discovery outlined  
*Richard D. Lang*
- 19 Implications for companies and individuals of current changes in exploration strategy  
*Michael Chender*
- 22 Foreign coal is a threat, but US producers are finding ways to compete  
*Steve Krai*
- 24 Homestake's McLaughlin mine: One of the largest US gold mines comes onstream in 1985
- 27 US government's stance on minerals issues draws heavy criticism at mining meetings  
*Steve Krai and Rock Jenkins*
- 29 Degerstrom's large heap-leach operation profitably mines low-grade gold
- 33 Economic and environmental comparison: Borehole mining versus conventional mining of phosphate  
*J. A. Hrabik*
- 40 Processing perlite for use in insulation applications  
*F. L. Jackson*
- 45 Impact of changing energy economics on mineral processing  
*D. A. Dahlstorm*

### FEBRUARY 1986

- 87 Analysis of significant mineral discoveries in the last 40 years and future trends  
*Douglas R. Cook*
- 95 Underground coal mining and attendant subsidence control: Some history, technology, and research  
*C. Y. Chen and Syd S. Peng*
- 99 Events leading to Colombia's Ruiz volcano eruption and its results described  
*Antonio Rivera*
- 101 Dominican Republic exploring its gold deposits  
*Gerald M. Ellis*
- 107 Generalized multiperiod MIP model for production scheduling and processing facilities selection and location  
*R. W. Barbaro and R.V. Ramani*
- 115 Effects of moisture variations and overburden on subsidence  
*CD. Elifrits and N.B. Aughenbaugh*
- 120 Technical Note: Prospects for chemical coal cleaning  
*D.J. Boron and R. Kollrack*

### MARCH 1986

- 168 Domestic iron ore and steel industries can survive, but they are running out of time  
*Steve Krai*

- 171 Unlimited productivity —your operation can achieve it  
*Vincent R. Bovino*
- 175 Summer course and field trips help teachers understand mining industry  
*Charles Morris and Patricia Petty*
- 177 China begins to aggressively exploit its massive coal reserves  
*Maurus Seet Hong Hua*
- 181 Environmental approach to coal refuse disposal  
*A.G. Sciulli, G.P. Bollock, and K.K. Wu*
- 187 Exploration and geologic evaluation of the Los Bronces copper-molybdenum deposit, Chile  
*L.R. Stoiser*
- 195 Evaluation of potential radon exposure from development of Georgia phosphate deposits  
*G.G. Eichholz, J.P. Ambrose, and M.G. Skowroski*

## Industrial Minerals

### JANUARY 1986

- 19 Wollastonite — performance filler potential
- 36 Steetley Talc — More production, more grades
- 41 Pugu Kaolin — a project under development
- 45 The Processor's Dilemma
- 49 Welding's mineral needs
- 52 Foam suppressants — an alternative for dust control
- 55 Sulphur '85

### FEBRUARY 1986

- 16 Sulphur — a sweet or sour future
- 40 Industrial Minerals of Thailand
- 50 Processing Nature to suit industry's needs

- 58 Svenska Kyanite — Europe's new producer of kyanite

- 60 \$ 20 oil forces drilling to rock bottom

### MARCH 1986

- 29 North American potash
- 47 Oil shale-phosphorite — Mediterranean prospect
- 65 Crude iodine output - a review of processes
- 81 Iron from quartz sands — a microbial approach
- 87 Evans Clay kaolin — sales in a flat market
- 97 Seen through glass darkly
- 105 Making the grade — refractory demands
- 113 Mineral standards for drilling fluids
- 121 IM7 Congress abstracts and biographies
- 153 Particles & Fillers — a conference report

## Institution of Mining and Metallurgy

### JANUARY 1986

- A1 Geostatistical ore-reserve estimation of South Yorke'am phosphate deposit, Zin Valley southern Israel  
*E. Miller and D. Gill*
- A8 Non-linear programming technique for analysis of mine ventilation networks  
*S. Bhamidipati and J.A. Procarione*
- A15 Principles of an adaptive concentrator cutoff grade policy  
*W. Schaap*

A22 Open-pit mine planning and computerized evaluation of china clay reserves in Devon and Cornwall

*J.H. Howe, L.J. Smith and C. Varcoe*

A33 Zinc-from mine to market: some views on the industry

*D.A. Temple*

A41 *Technical notes*

Experimental study on the relationship between rock texture and mechanical performance

*D.F. Howarth*

A45 Technological advances and productivity: trends in Sweden's mining industry

*T.J. Carew*

A48 *Discussion*

Guide to financing of mining projects

*O. Potts.*

## FEBRUARY 1986

B1 Major-and minor-element chemistry of biotites in Mole Granite, New South Wales, Australia

*LR. Plimer and J.D. Kleeman*

B6 Metallic sulphide mineralization in salt-dome cap rocks, Gulf Coast, U.S.A.

*J.R. Kyle and P.E. Price*

B17 Hydraulic fracturing effects in the formation of mineral deposits

*W.J. Phillips*

B25 High heat production granites of southwest England and their associated mineralization: a review

*M. Stone and CS. Exley*

B37 Base-metal mineralization associated with mafic and ultramafic rocks, eastern Rhodope massif, Greece

*M. F. Billett and R. W. Nesbitt*

B46 High heat production (HHP) granites, hydrothermal circulation and ore genesis; commentary on September, 1985, IMM conference

## MARCH 1986

CI Differential flotation of copperactivated Cu-Zn minerals with some deactivators

*H. Matsubara, Y. Nakahiro and*

*T. Wakamatsu*

C5 Interaction of beta-mercaptoethanol with sphalerite with special reference to sphalerite-chalcopyrite separation

*D. Jennings and S. Raghavan*

C10 Falconbridge chlorine leach process

*E. O. Stensholt, H. Zachariassen and*

*J.H. Lund*

C17 Structure-activity relationships for copper depressants

*D.R. Nagaraj et al.*

C27 Use of coal and lignite to dissolve manganese dioxide in acidic solutions

*H.A. Hancock and D.J. Fray*

C35 Computer method for simulating relative density distribution analysis with application to gravity separations

*K.A. Lewis and P. Tucker*

C41 Commissioning and operation of the 800 t/h heavy medium cyclone plant at Mount Isa Mines Limited

*K.J. Fiedler, P.D. Munro and J.D. Pease*

C50 *Technical notes*

Flotation of sphalerite without prior activation by metallic ions

*B. Maroufetal.*

C53 Leaching behaviour of Sukinda lateritic nickel ore with sulphuric acid

*L.B. Sukla and R.P. Dos*

C55 Low-temperature treatment of dust from electric-arc furnaces

*D.J. Fray*

C58 Mechanism of the tin sulphide fuming process

*P.A. Wright*

# International Journal of Mineral Processing

## JANUARY 1986

- 3 Selective flotation of phosphates from dolomite using cationic collectors. I. Effect of collector and nonpolar hydrocarbons  
*H. Soto and I. Iwasaki*
- 17 Selective flotation of phosphates from dolomite using cationic collectors. II. Effect of particle size, abrasion and pH  
*H. Soto and I. Iwasaki*
- 29 Synthesis and evaluation of alternative control schemes for a chalcopyrite flotation circuit \*  
*J.E. Atkins, G.W. Barton and R.D. Johnston*
- 43 Effects of froth structure and mobility on the performance and simulation of continuously operated flotation cells  
*G.W. Cutting, S.P. Barber and S. Newton*
- 63 Flottation ionique du cadmium et de l'arsenic par un dithiophosphate dans les solutions concentrées en acide phosphorique (Ionic flotation of cadmium and arsenic (III) by sodium dithiophosphate in concentrated solutions of phosphoric acid)  
*J. Bessiere, M. Bruant, E.A. Djid and P. Blazy*
- 75 An appraisal of partition curves for coal-cleaning processes  
*A. Jowett*
- 97 Determination of fixation of alkylthiocarbonate isotherms on galena by a dynamic method: chromatographic saturation front analysis  
*D. Bauer, M. Caude and J. Pegouret*
- 109 Particle shape effects due to crushing method and size  
*T. E. Dumey and T.P. Meloy*
- 125 Mechanochemical effects in kaolinite grinding. I. Textural and physicochemical aspects.  
*E.F. Aglietti, J.M. Porto Lopez and E. Pereira*
- 135 Mechanochemical effects in kaolinite grinding. II. Structural aspects  
*E.F. Aglietti, J.M. Porto Lopez and E. Pereira*
- 147 *Technical Note*  
A simple method for pyritic sulfur determination in coal using Mössbauer spectroscopy  
*H. Northfleet Neto, A. Bristoti and A. Vasques*
- ## MARCH 1986
- 153 Fluctuations in the slip of the grinding charge in rotary mills with smooth liners  
*L.A. Vermeulen and D.D. Howat*
- 169 Effect of density variations in heavy-media rougher-cleaner-scavenger cells — circuit analysis  
*T.P. Meloy, N. Clark and J.J. Glista*
- 179 The role of impurities and sphalerite in the adsorption of ethyl xanthate and its flotation  
*J. Mielczarski*
- 195 An alternative grindability test. An improvement of the Bond procedure  
*D. G. Armstrong*
- 209 Pressure drop in dense-medium cyclones  
*T.J. Napier-Munn*
- 231 Modelling of batch coal flotation operation  
*M. Vanangamudi and T.C. Rao*
- 245 Complex circuit mass balancing — a simple, practical, sensitivity analysis method  
*B.A. Wills*
- 263 Characterization and dewatering of Australian alumina trihydrate  
*S.J. Puttock, M.S. Wainwright, J.W. McAllister, A.G. Fane, C.J.D. Fell and R.G. Robins*
- 281 Effect of operating variables upon liquid backmixing in a laboratory flotation bank  
*S.G. Wilson and J.A. Frew*

# CIM Bulletin

## JANUARY 1986

- 39 Mechanized narrow vein mining at the Dome Mine, Timmins, Ontario;  
*Brian E. Robertson*
- 45 Frozen fill for underground support;  
*James F. Archibald and Jacques H. Nantel*
- 50 The choice of rockbreakers at Sherritt's Fox Mine  
*John G. Kelly*
- 56 Emergency hoist system at PCS Mining  
*Donald Roberts*
- 61 Prediction of ground control problems for underground coal mining in southern Alberta  
*Ian Rozier*
- 67 Underground mine fire control with inerting systems  
*J.P.L. Bacharach and D.B. Stewart*
- 73 Two steps back, three steps forward  
*Robert B. Parsons*
- 81 Factors affecting the viability of Canada's copper producers  
*W.J.S. Craigen and G.E. Wittur*
- 89 Water quality control at Bell Mine for a supernatant discharge to Babine Lake  
*E. Goodwin*

## FEBRUARY 1986

- 35 Ground geophysical surveys over the Mc Clean uranium deposits, northern Saskatchewan  
*F.L. Jagodits, J.E. Betz, B.R. Krause, N. Saraçoğlu and R.H. Wallis*
- 49 Linkages between Geological Branch studies, geological knowledge, and exploration success in British Columbia  
*A. Sutherland Brown*

- 63 Regional geochemistry and regional geoscience: some general considerations  
*J.A.C. Fortescue*
- 70 Le gisement d'uranium de Cigar Lake: découverte et caractéristiques générales  
*J.P. Fouques, M. Fowler, H.D. Knipping and K. Schimann*
- 83 Introduction to the Valley copper project  
*R.P. Taylor*
- 92 Germanium recovery from Fargo Oil's Lang Bay property  
*P.B. Oueneau, Peter V. Avotins, and Lauch F. Farris*

## MARCH 1986

- 87 Canadian silica resources: a study of the processing of Ontario Potsdam sandstone for glass and foundry sand  
*R.K. Collings and P.R.A. Andrews*
- 93 Beneficiation of aluminum automobile scrap  
*V. İtkin*
- 96 Longwall mining and potash  
*G. Herger*
- 100 International mineral development — a banker's view  
*P.D. Waters*
- 104 Studies of gas sorption and emission on Canadian coals  
*T.h. Patching and M.W. Mikhail*
- 110 Mine planning requirements for Highvale Mine  
*D. Nikols, G. Caraghiaur and P.C. Roxburgh*
- 112 Flurry of tax proposals affects flow-through shares  
*Robert B. Parsons*
- 123 T.L. leaching process; recent applications to difficult-to-treat copper ores  
*Esteban M. Domic*

# Geophysics

## NOVEMBER 1985

- 1664 Generalized pulse-spectrum technique,  
*Y.M. Chen*

- 1676 Acoustic pulse transmission in half-spaces and finite-length cylindrical rods,  
*D.P. Blair*
- 1684 Seismic model studies of the overburden-

- bedrock reflection  
*S.E. Pullan and J.A. Hunter*
- 1689 Velocity inversion using a stratified reference  
*J.K. Cohen and F.G. Hagin*
- 1701 A ray inversion method for refraction analysis  
*G.M. Jones and D.B. Jovanovich*
- 1721 Correction of systematic error in magnetic surveys: An application of ridge regression and sparse matrix theory  
*R.D. Ray*
- 1732 Geophysical investigations of the Cove Fort-Sulphurdale geothermal system, Utah,  
*H.P. Ross and J.N. Moore*
- 1746 Direct phase determination of S-wave velocities from acoustic waveform logs  
*J.D. Ingram, C.F. Morris, E.E. MacKnight, and T.W. Parks*
- 1756 Full-wave acoustic logging: Synthetic microseismograms and frequency-wavenumber

analysis  
*D.P. Schmitt and M. Bouchon*

#### SHORT NOTES

- 1779 Surface-consistent suppression of multiples  
*G. Nedlin*
- 1784 Directional depth migration  
*J.H. Higginbotham, Y. Shin, and D. V. Sukup*

#### DISCUSSIONS

- 1790 On: "Maximum uncertainty of interval velocity estimates" (Z. Hajnal and I.T. Serada)  
*by I. Kesmarky, with reply by authors*
- 1791 On: "The half-slope and straight-slope methods of basement depth determination" (D.A. Rao and H.V.R. Babu)  
*by K. Am with reply by authors*
- 1793 On: "Comparison of P- and S-wave seismic data: A new Method for detecting gas reservoirs" (R.A. Ensley)  
*by D.F. Winterstein with reply by author*

# Geophysical Prospecting

FEBRUARY 1986

- I Transient Finite Integral Point Source Response from a Planar Acoustic Interface: The Causality Approach  
*P. Hubral and M. Tygel*
- II Acoustic Modeling of the Seafloor  
*A.M. Berge, G. Drivenes, R. Kanestrom and B. Beskow*
- 30 A Cross-Hole and Face-to-Borehole In-Seam Seismic Experiment at Invincible Colliery, Australia  
*S.A. Greenhalgh, D. Burns and I. Mason*
- 56 Signal-to-Noise Ratio enhancement in Seismic Multifield Data using Bayesian Statistics,  
*D.A. Waltham and J.F. Boyce*
- 73 Detection of Gas Bubble Boundary Movement,  
*E. Blondin and J.L. Mari*

- 94 Anisotropy and Transverse Isotropy  
*S. Crampin*
- 100 Experimental Evidence of S\*-Wave  
*J. Y. Kim and J. Behrens*
- 109 Low-Pass Filtering of Noisy Schlumberger Sounding Curves. Part I: Theory  
*D. Patella*
- 124 Low-Pass Filtering of Noisy Field Schlumberger Sounding Curves. Part II: Application,  
*N. Ghosh, R.S. Wadhwa, B.S. Shrotri and D. Patella*
- 130 Resistivity and IP Modeling of the Three-Array Down-Hole Prospecting Technique  
*J.P. Busby and Z.K. Dabek*
- 141 Comment "Acoustic Modeling of the Seafloor" by A.M. Berge, G. Drivenes, R. Kanestrom and B. Beskow  
*D. Taylor Smith*
- 143 Reply to Comment by D. Taylor Smith, A.M. Berge, G. Drivenes, R. Kanestrom and B. Beskow