

Schedule of Compact Course “*Crustal Rock Stress*”,
held at the Institute of Geonics AS CR, Ostrava, Czech Republic, 13-15 September 2010

Presenters: GEONICS, OS=*Ove Stephansson*, YO=*Yuzo Obara* and AZ=*Arno Zang*

Monday, Sep 13th 2010 – ROCK STRESS BASICS

- 9:00-10:30 Welcome to the Course OS and AZ. Introduction to Rock Stress, Stress Field of the Earth's Crust, and Rock Stress Terminology, OS
- 10:30-11:00 coffee break
- 11:00-12:30 Stress Definition, Rock Fracture I (Introduction, Strength, Failure Criteria), AZ
- 12:30-13:30 lunch break
- 13:30-15:00 Rock Fracture II (Nucleation, Linear and Non-linear Fracture Mechanics), AZ
- 15:00-15:30 coffee break
- 15:30-16:15 Visit to GEONICS Rock Testing Laboratory
- 16:15-17:00 Crustal Stress Models, AZ
- 18:30 Welcome dinner Restaurant Techno-Park, Ostrava Poruba

Tuesday, Sep 14th 2010 – MEASURING STRESS

- 9:00-10:30 Borehole Methods (Elastic Strain Relief Methods, Movies M6.1 and M6.2), OS
- 10:30-11:00 coffee break
- 11:00-12:30 CCBO technique and its applications, Cross-sectional Borehole Deformation Method (CBDM), YO
- 12:30-13:30 lunch break
- 13:30-15:00 Hydraulic Methods (Hydraulic Fracturing, HTPF, Sleeve Fracturing, Movie M7.1), OS
- 15:00-15:30 coffee break
- 15:30-16:30 GEONICS: Rock Stress Measurements and Evaluation – studies in Ostrava-Karvina Mining District (P. Koníček); Use of Inverse Analysis for Rock Stress Evaluation (J. Malík); Visit to GEONICS Laboratory
- 16:30-17:00 Borehole Breakouts and Application to Stresses, OS

Wednesday, Sep 15th 2010 – INTERPRETING STRESS DATA

- 9:00-10:30 Core-Based Methods (Inelastic Strain Recovery, Kaiser Effect) and KTB Stress Data, AZ
- 10:30-11:00 coffee break
- 11:00-12:30 Local Stress Data (Olkiluoto, SAFOD and others), OS
- 12:30-13:30 lunch break
- 13:30-15:00 World Stress Map, OS and European Stress Map (Orientation and Smoothing), AZ; Best Estimate Stress Model and Final Rock Stress Model, OS
- 15:00-15:30 coffee break
- 15:30-16:30 General Discussion about Rock Stress in Science and Engineering, GEONICS, OS, YO, AZ
- 16:30-17:00 Epilogue, Conclusions and Closure, OS and AZ