Operations abroad

*International Geological Expedition in Mongolia**

Within the framework of the International Geophysical Expedition in Mongolia our survey operations were continued by engaging a Geological Mapping Team (sub-contracted by the Hungarian Geological Survey) and a Complex Geophysical Team.

The geophysical tasks were related to geological mapping. Detailed geophysical exploration by integrate methods was conducted on several occurrences of fluoritic, sulphidic and polymetallic ores and rare metals in order to obtain precise knowledge of geological structure and to determine the extent of mineralization. Good results were furnished by the analysis of IP decay curves and by the investigation of dynamic parameters permitting conclusions to be made on textures of mineralization. In addition to surface geophysical methods geophysical logs were also run in exploratory wells.

A regional survey as well as geological mapping in scales of 1:50,000 and 1:10,000 and related geophysical activities in the N. Kerulen district were completed in 1980. A detailed exploration of ore occurrences revealed in this area will continue.

*Seismic Prospecting in Greece***

Through the good offices of NIKEX, Hungarian Foreign Trading Company for Products of Heavy Industry, ELGI signed a contract with the Public Petroleum Corporation of Greece (DEP) with a view to conducting a seismic reflection survey. The survey was carried out in an area of approximately 1800 km^2 encircled by the towns Thessaloniki, Yiannitsa, Veroia and Katerini in northern Greece. The area covers the Thessaloniki basin located at the southern end

* Zsille A.
** Kónya A.

of the Vardar belt with Paleozoic and Mesozoic rocks cropping out along its margins. The depth of the basin exceeds 4000 metres.

The measurements were performed along lines marked out by DEP at the outset with a DFS—IV, then with a DFS—V seismic instrument.

The total output amounted to 446 km of seismic profiles with 1200% coverage using a geophone spacing of 50 metres. The bulk of lines ran in a plane area with heights from 5 to 20 metres above sea level. On the basis of experimental measurements 30 m deep holes were utilized for shots.

The expedition offered an opportunity to conduct a trial of our R—10 type mobile seismic pre-processing centre under formerly unknown conditions (for details refer to Annual Report 1978). This centre, which is mounted on a truck, endured well the long journey and climatic conditions differing substantially from those of Hungary.

*Prospecting for water in Libya**

NIKEX and OVIBER established a joint drilling enterprise in Libya under the name NIKEX—OVIBER DRILLING COMPANY. This company won a tender inviting bids for 30 irrigation wells on the Jefara plain, approximately 80 km S—SW of Tripoli in the Wadi-Abu-Shaybah district. According to drilling performed in adjacent areas and first of all to earlier French geophysical results, the water-bearing complex is fissured, karstified limestone of Triassic age lying at depths 100—300 m below the surface. This reservoir limestone possesses porosity and hydrodynamic properties changing rapidly both vertically and horizontally, thus the customer defined VES measurements with $AB_{max} = 3000—4000$ metres at the sites of planned wells and between them aimed at inferring on the thickness and the extent of fissures of the target complex. Operations and processing of survey results were performed by ELGI under a sub-contract. A preliminary report on survey results was issued 2 weeks after field operations were concluded. In this preliminary report 4 fundamental types were distinguished within an area of some 60—80 km² according to top and bottom depth and resistivity of the target complex. One borehole is to be sunk over each type, and a final report will be compiled with the knowledge of their geological, hydrogeological data and geophysical logs run in these holes.

Logging operations in these wells will also be performed by ELGI using a home-produced K—600 logger.

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* Draskovits P., Nemesi L.

The present stock of our *Library* amounts to 22 515 volumes of books and periodicals, as well as 25 776 miscellaneous items.

In 1980, our stock was increased by 652 books, 460 volumes (2107 items) of periodicals, 810 documentary publications, 180 folders on instruments. (The total stock of the Library decreased compared with 1979 due to planned stock reduction: the collection of periodicals by 545 volumes, other documentary publications by 6035 items.)

Our collection of periodicals was enlarged by 14 new titles. As a result of international exchange of publications the Library received 756 new publications and dispatched 2204 publications to 552 addresses in 58 countries.

Our Library services were offered in the past year to 5623 readers/borrowers.

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In 1980 ELGI issued the following publications:

1. Annual Report of the Hungarian Geophysical Institute "Loránd Eötvös" for 1979
2. Geophysical Transactions, Vol. 26
3. Annual Report 1978 (Geophysical Observatory, Tihany)
4. Bulletin of KAPG Working Group 3.3 (Study of Earth Tides) No. 3.