

host rocks of Mesozoic age, significance of gravity map, anticlinal structures or bumps Importance of multidisciplinary team work and field work to visit some important sections of interest in the K-K Basin hinterland was also suggested After the concluding session of the workshop Dr Rabi Bastia presented mementos to the guests

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National Symposium on Exploration, Mining and Processing of Atomic and Rare Minerals

The above National Seminar was held at Hyderabad on 21st-24th November 2007 It was organized under the joint auspices of premier organizations like NFC, NPCIL, UCIL, AMD, AERB, IREL, ONGC etc The inaugural function of this four day long seminar was held at Taj Krishna, Hyderabad Shri Ramendra Gupta, CMD of UCIL, delivered the welcome address He opined that India's peaking energy demands could only be met by state of the art nuclear technologies (fast reactors, accelerator driven systems etc) Hence the need of the hour is a viable nuclear power programme, which has led to a massive expansion of new uranium mining centres in different parts of the country Extensive exploration by AMD has resulted in the emergence of Tummalapalle in Cuddapah district and Lambapur in Nalgonda district as zones of appreciable uranium reserves Shri R Gupta succinctly summarized the extraction techniques, the flow sheets and the mining methods to be employed for exploitation in Tummalapalle and Lambapur uranium provinces

Dr P Rodriguez, President, Indian Nuclear Society, deliberated in detail on the prospects and consequences of the 1-2-3 nuclear deal between India and the United States of America The chief guest Prof P Rama Rao, Member, AEC, addressed the audience and lucidly explained about the role and mode of functioning of the AEC in India He also presented the INS awards to the meritorious nuclear scientists The other eminent personalities who graced the occasion were Dr S Banerjee, Director,

BARC, Dr S K Jain, CMD, NPCIL, Dr Anjan Chaki, Director, AMD, Shri Sivasubramaniam, CMD, IREL, Dr Suri, associate Director BARC, Prof Grover, Director, SPG, DAE, Shri A L N Rao, Charman, HWB etc

The invited talks by the nuclear scientists were highly informative and thought provoking Dr Anjan Chaki focused on the importance of mining strategic minerals and the utility of integrated geological, geochemical and geophysical methods for optimum exploration Shri Sivasubramaniam dwelt on the processing of heavy beach sand minerals for the production of nuclear grade uranium and thorium Dr Suri threw light on the processing of complex, low grade and secondary sources of rare earths, lithium, uranium and niobium Dr Grover averred that India's energy requirements was heavily dependent on thermal power plants and laid emphasis on the need for a paradigm shift to nuclear technology of fast reactors and fusion systems Shri A L N Rao Provided valuable information on the functioning of Heavy Water plants and pressurized heavy water reactors The Heavy Water plants operating in India in addition to meeting indigenous needs have also been able to export a substantial quantity of heavy water to South Korea, China and USA This was followed by the technical sessions on Exploration, Mining and Processing in which the delegates presented their findings In the technical session on Exploration, P B Marthani from AMD, Hyderabad stressed on the need for targeting unconformity type uranium mineralization in the Proterozoic basins of India, on account of their high grade and large tonnage P S Parihar of AMD opined that as sandstone type uranium deposits occurred in different geologic environments, constituting about 17% of the proved uranium resources, there does exist a huge potential for enhancing the share of this particular type of uranium resource Pandit, S A spoke on syngenetic strata bound carbonate hosted uranium occurrences and quartz pebble conglomerate, black shale calcrete etc and the promise they hold as potential resources of the future Umamaheshwar summarized the exploration strategies adopted like structural

analysis and sedimentary facies analysis in the environs of Cuddapah basin A K Chaturvedi explained the significance of airborne surveys, GIS based studies and Remote Sensing for uranium exploration in India Narasimha Rao dealt on the geophysical techniques used for uranium exploration while Shivkumar talked on the geochemical methods employed for the same Shri Dhana Raju Ex Assoc Director, AMD unfolded strategies for rapid and effective uranium exploration Dr P V Sunder Raju from NGR I spoke on the utility of soil gas helium as an exploratory tool with which the boundary of the uranium bearing province could be properly delineated and thereby facilitate mining strategies

In the technical session on mining Acharya UCIL uncovered the innovations in underground mining methods Ghosh Hazra, UCIL, spoke on mechanized rock bolting and roof support systems Shri Bhowmik, UCIL deliberated on the improvement of ventilation systems in underground mines and Shri Shrivastava focused on prevalent waste management systems that are eco friendly and do not disrupt nature

The technical session on processing had a series of speakers who dealt on bleaching of low grade uranium ore, processing of uranium for producing reactor grade UO₂, recovery of uranium from phosphoric acid, recovery of uranium from reject streams of desalination plants etc

The seminar finally culminated with a fruitful panel discussion by the nuclear energy technocrats and luminaries on the Opportunities for Uranium Exploration in India - Canadian and Australian Perspective

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Liassic Brachiopods from Western Algeria

The Laboratoires de Geologie Lyon, France has brought out recently a document (no 163 2007, 241p, 90 figures, 11 plates) on the Liassic brachiopods from western Algeria (authors Yves Almeras, Serge Elmi,