

INNOVATION DRIVING A COMEBACK OF WESTERN AUSTRALIAN LITHIUM PROJECTS

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ABSTRACT

The exploration and development of numerous lithium projects was spectacular with the speed with which the projects were developed. Physical concentration using dense media and flotation with magnetic separation is common followed by hydrometallurgical process routes for the concentrates.

The current dense media separation and flotation circuit regimes are invariably complex and producers loathe divulging their technical know-how. The industry has gone from euphoria and unprecedented optimism for new projects to one of pessimism in a few short years. With the much lower lithium prices in 2020 we found the new producers were struggling to survive financially with some failing.

Subsequently there has been some excellent work undertaken by way of ore characterisation and testing in the plant. There is a good continuous improvement culture at a number of sites. This includes testwork using ore sorting which has provided very encouraging results. If the same progress and culture can be maintained the lithium industry will have a good long term future. Lithium prices have also improved assisting the return to profitability. Examples of these innovations are cited.

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