



# HYDROMINING

## RIO TINTO ALCAN

**PROJECT:** Weipa - Dewater and Desilt 55meg Dam

**SCOPE:** Maxitool Dredging was engaged to de-silt the 55meg Dam at Rio Tinto Alcan's Bauxite Mine in Weipa. This process was to allow for other works to be carried out on the pump pick / suction points. The dam is the main water feed dam for the process plant.

**CHALLENGES:** We initially conducted a Hydrographic Survey of the dam, using our purpose designed RC boat. Once we determined the silt build up level, We proceeded to de-water the dam at a rate of 1000l/s taking approximately 7 hours. Once the dam was de-watered we deployed the high pressure water cannons & HY85 Dragflow pumps. We had an initial window of 24 hours to complete the de-watering & de-silting of the 55meg dam.

**ACHIEVEMENTS:** During the de-watering process we discovered an inverted sump, in other words there was a concrete wall around the suction pipes and as shown on the drawings. These indicated a sump of approximately 400mm deep below the finished floor level of the dam. We over come this by repositioning the Drag flow pumps, into a an area supported by 2 sides, while not as effective as a sump, it did produce a good end result.

A successful outcome was achieved. The Client was able to carryout the required suction pipe maintenance and the process plant was able to operate all three pumps to design capacity.



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