

# Raisebore Pad Civil Foundations



*TOTAL ENGINEERING SOLUTIONS FOR  
INSTALLATION, CONSTRUCTION, AND  
MAINTENANCE*



# Purpose



- The purpose of this presentation is to show our experience and highlight the success of recent civil projects most notably Raisebore Pad Constructions
- In the last 2 years we have completed 2 successful Raisebore projects.
  - Trittion – Aeris Recourses, 5m Diameter vent fan raise.
  - North Parkes Mines – CMOC – 2 x 5.2m Diameter vent fan raise.
- Below is a basic outline and method of these 2 projects

# Tritton – Aeris Resources



- 100km East of Cobar
- 5M diameter raise
- Worked in conjunction with design engineering firm during design
- MCA Supplied all labour and machinery for project
- 13 Days to complete with a average of 4 personnel
- Project Was completed on Schedule of Rates, price for Labour and machinery hire was 96K
- ZERO Incidents
- RBA and Client Feedback was very positive

# The Excavation

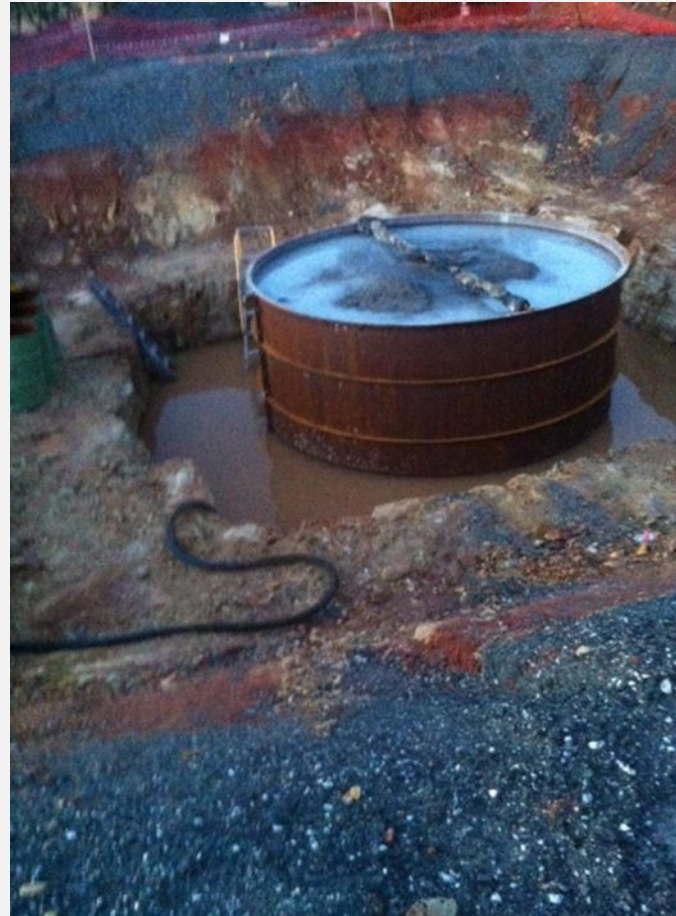


# Blinding and Can Install



- 20m<sup>3</sup> of 25MPA blinding
- Re-useable 6mm rolled can with welded stiffeners.
- 2 halves at 4.5m diameter

# Can Install and Soft Centre



- 43m<sup>3</sup> of 5 mpa concrete



# Removing Can from Soft Centre



# Mesh and Bulk Pour



- 126M of 25mpa concrete



# Installing Top Soft Centre



- Original can gets reused and installed
- 30m<sup>3</sup> of 5MPA concrete
- Reo and formwork installed for 32mpa concrete
- Centre drain formed up for tailings



# Final Pad



- Final Pad with can still in position
- RBA Raisebore Installed



# NPM – Vent Upgrade Civil Works

- North Parkes Mine, CMOC - approx. 23km from North Parkes
- Scope is to
  - Install 1x Exhaust Fan civil pad and sump foundations for raise
  - Install 1x Intake Fan civil pad and sump foundations for raise, this raise is situated in poor ground conditions and 17 25m steel Micro Piles were installed around the outside of the raise to stop any self mining or collapsing of the raise
  - Install access road to and between both vent fan sites
  - Install Fencing around sites
- MCA Engineering supplied all Labour , materials and equipment
- Contract Price was 1.4m
- Schedule was 3 months with an average of 4 personnel
- Zero incidents

# Excavation



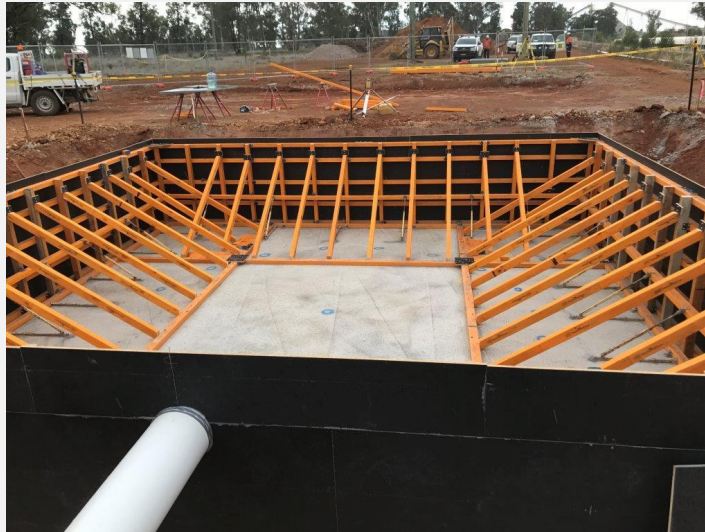
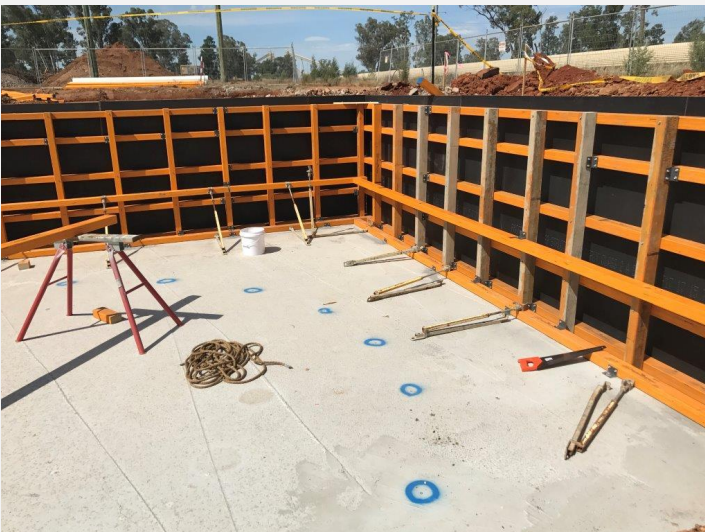
- 5x overflow tailings pits installed.
- Shotcreted to minimise fall in



# Binding and External Framework



- Survey to mark out raise
- Concrete boom pump used for concrete delivery.
- Formwork shutters fabricated off site
- Shutters lifted in with Franna Crane



# External Bulk Pour and Finish



- Bulk pour of 63m<sup>3</sup> 25mpa.
- Capping slab 25MPA to broom finish

# Reo and Internal Can Install



- Steel can fabricated in MCA Workshop for ease of installation.
- 9.2t of Reobar bent and scheduled to design from supplier, then delivered to site.
- Reo installed and fixed on site.
- Steel can installed and strengthened.



# Main Concrete Pour





# Soft centre and finished Product



# Micro Piles (Intake only)



- 17x Micro Piles installed and grouted to strengthen collar
- 150 UC 25m long.
- 32mpa non shrinking grout



# Contact Us



**Ph: 1300 528 535**

[info@mcagroup.com.au](mailto:info@mcagroup.com.au)

[www.mcaengineering.com.au](http://www.mcaengineering.com.au)



## **Head Office**

111 Glenwood Drive

PO Box 3202

Thornton, NSW 2322