Explosives Inventory Management Presentation



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OUR COMPANY

Magman are a mining technology and software development company and developers of a tablet based paperless explosive magazine inventory management solution. The Magman solution makes blast planning, inventory management, stock replenish, reporting, reconciliation and audit compliance easy and is trusted by 30 mine operators globally.



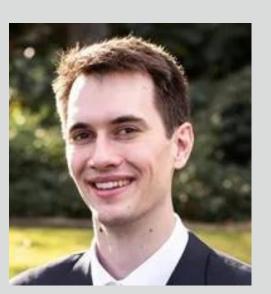


Andrew Rouse

CEO

Andrew has over 25 years experience in the mining industry, spanning across predominantly the underground hardrock and open cut coal sectors across both mine owner and contractor organisations.





Chris Allen

GM

Chris is a senior mining engineer with extensive experience in software development, data management and solution architecture. **Having worked** across contractor and client based mining.



Luke Jackman

SALES

Luke has experience working with Mine operators with a range of software and hardware solutions. He understands the challenges mines face when implementing technology.



OUR MINING TEAM



Eddy Zhang

SOFTWARE

Eddy is a mining engineer with a wide variety of experience in solving problems for many sites...



Rodney Bedgood

ADVISOR

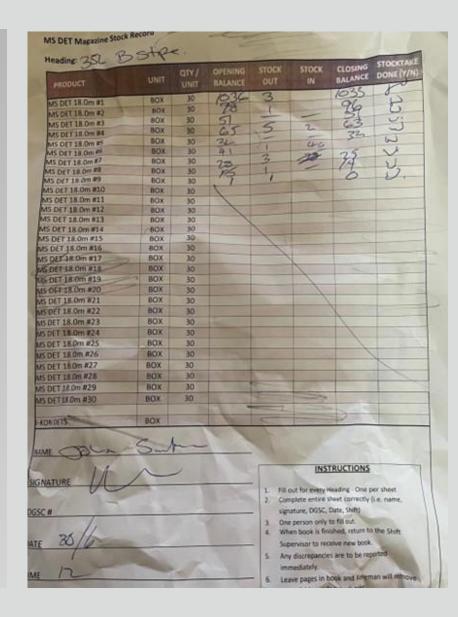
Rodney is an established mining executive with over twenty years of experience spanning management, operational and technical positions across a variety of commodities including lead, zinc, silver, gold, copper, tin and coal...



THE PROBLEM WITH PAPER

HUMAN ERROR

- Counting mistakes when calculating stock levels Ambiguous Handwriting &
- Misinterpretation of written data.
- Database entry errors.
- Multiple points of failure.
- Wasted/increased admin time.
- Stock re-ordering oversights.



REPORTING & RECONCILIATION

- Delayed reporting of stock balances.
- Re-ordering and stock replenish delays.
- Longer shift change over times.
- Communication breakdown.
- Contractor Disputes.





AUDITING & REMEDIATION

- Time consuming Forensic backtracking to identify mistakes/errors in reporting and stock control.
- Production downtime.
- Process accountability tracking.

THE WHY

WA goldminer fined after explosives theft at mine

FOR IMMEDIATE RELEASE

Two Felons Indicted For Stealing Explosive Materials From Mining Company

Explosive device reported missing at mine

Police searching for 200 kg of explosives stolen from business

RCMP has not disclosed the precise type of explosives or where they came from

Austin Davis

Published May 05. 2022 • 2 minute read

Posted Fri 28 Aug 2015 at 8:16am, updated Fri 28 Aug 2015 at 8:35am

Sovernment of Western Australia Reportment of Mines, Industry Regulation and Safety

Dangerous Goods Safety Bulletin No. 0417

Security of explosives

Background

Explosives have recently been found in the possession of members of the public not authorised to possess them. This has raised concerns with the Department of Mines, Industry Regulation and Safety in regards to explosives safety and security.

Industries engaged in the possession and use of explosives are reminded of the need to have appropriate controls and procedures in place to ensure explosives are secure from sabotage, theft, unexplained loss and that there is no unauthorised access.

The requirements for the safe storage and security of explosives are outlined in the Dangerous Goods Safety (Explosives) Regulations 2007, the Australian Code for the Transport of Explosives by Road and Rail, 3rd Edition (AEC3) and Australian Standard 2187 Explosives - Storage, transport and use.

Note: Recently the Western Australian Police and the Department investigated the theft of explosives from a mine site. Despite site records showing discrepancies between the recorded quantities and the actual quantities of explosives stored, these discrepancies were not investigated by the company. The root cause of the theft of the explosives was the illegal conduct of a trusted employee.

Security

Incident Details	Action
Explosives Discrepancy	
Unreconciled Electronic Detonator.	Counts and un

Security

Incident Details	Action
Explosives discrepancy	
At the end of dayshift the Shotfirer could not account for three Boosters at a surface mine overburden shot.	An inve through
Following the loading of a shot at the open cut it was identified that an electronic booster and detonator were missing following the reconciliation before firing could commence. Shot was not fired.	Identifi Ioading



Monday, August 10, 2020

∜SBSNews		
Govt admits e	explosives thefts	
	firmed that plastic explosives f ammunition have been stolen r Force since 2001.	
IPDATED 22 AUGUST 2013	SHARE (f) ()	
The Defence Minister Robert Hill con on notice in Parliament.	firmed the thefts in answer to a question	
But Senator Hill says a precise tally o established because there are more t reconciliation of explosives.	of what has gone missing cannot be than 500 managers responsible for the	

n / Outcomes

s did not reconcile. Searches conducted and internal procedure followed. Evidence gathered ndertaking iCAM investigation.

/ Outcomes

restigation commenced and two days later the three boosters were identified

gh further reconciliation checks.

fied site need to account for actual use each day and not just reconcile at the end of ig a shot, in this case 3 days later. Matter being further investigated.

THE SOLUTION











Key Solution Points

 Magaman is is a tablet & web based stock management system for Explosives & Detonator • Magazines.

Specifically developed for mining to be used by operators, supervisors and administrators Eliminates all calculations

Records are auditable & backed up • to the web

Automatic notification of discrepancies Compliant with legislations - regularly audited by the Mining Regulators

Operators & Interface

Simple & graphical interface on the tablet

Customisable configuration Each operator has a individual

• PIN Check explosives out to a specific location

Can undertake stocktakes of the magazine

Can pre-load stope charge plans or development patterns

THE TABLET









Getac F110 Rugged ATEX (Intrinsically Safe)



3 year bumper to bumper warranty (Inc. accidental damage)



Built to survive underground conditions



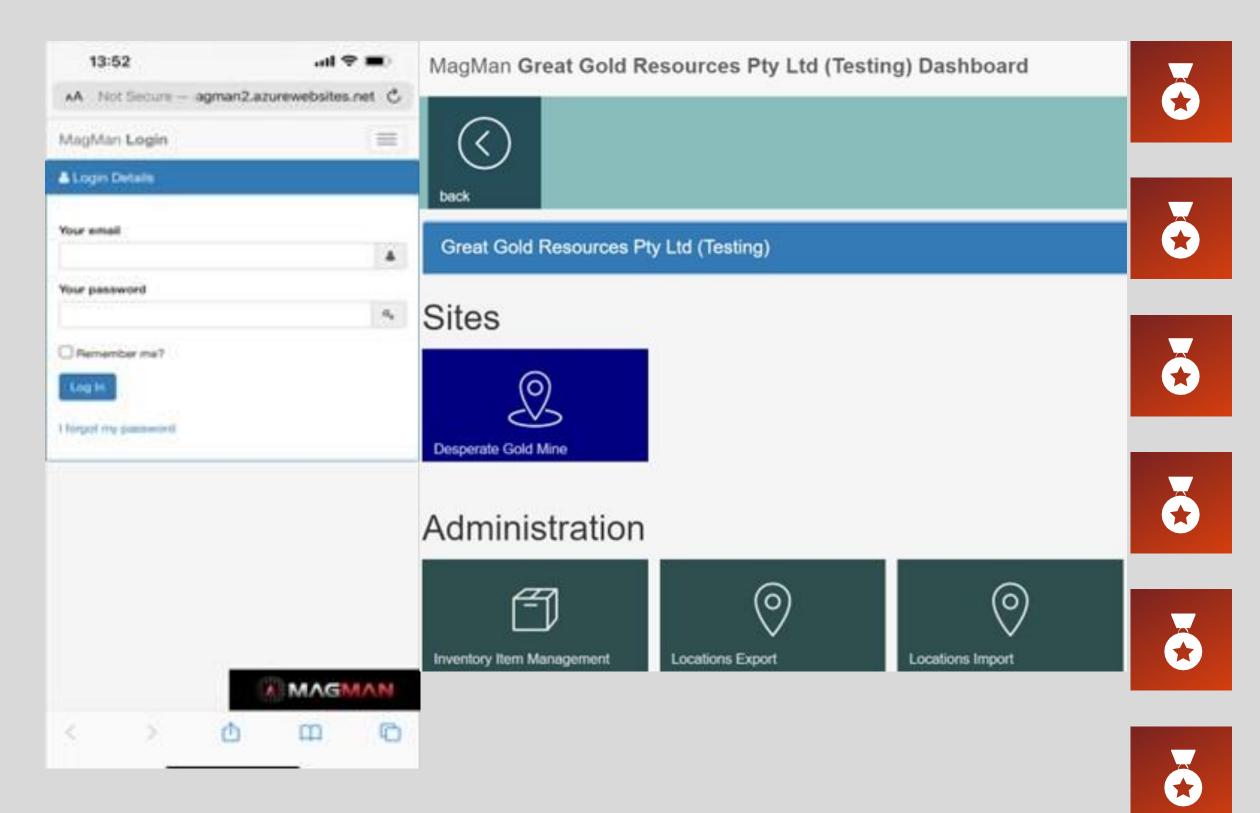
NATA test report for electromagnet emissions



Located in lock box at Mag or carried by charge up operators (with mag keys)

Transactions backed up to the web

WEB PORTAL





Data is backed up to the web server (Azure)

Admins can log in from any device and generate reports including usage reports & stock levels

Ability to complete transactions through the web

Automated email alerts, reorder forecasting

Manage stock items, operators access, email alerts

Can deliver feed into ERP systems



Magman system is delivered with the site electronic magazine setup with users and inventory, tablet and customer interface.

Initial Magman setup package contains:

- Web access

Technical Data

- website

SYSTEM SETUP & TECHNICAL DATA

• Getac F110 tablet

Option of wifi dongle or ethernet

adaptor Test reports

Site integration and online training

sessions Ongoing support

Operates on Windows 10 platform The Database is a Microsoft Azure SQL database Tablet Language : C#.netcore, Universal Windows Program Web Language : Type.script (Java Script) : asp.net.core (Backend

web) SSL for Azure

OUR CUSTOMERS & MARKET PRESENCE

- Over 60 sites deployed and using the Magman solution globally
- 10+ years operation & development
- No direct market competitors except for paper driven inventory management process.



GET CONNECTED WITH US



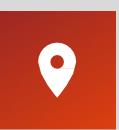
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