



Mines Safety Significant Incident Report No. 172

Runaway underground charge-up vehicle after brakes malfunction

Summary of incident

A Getman charge-up vehicle tramping up the decline at an underground mine had parked and the operator alighted to assist another worker. The operator then reversed down the decline to speak to his offside. He engaged the park brake but it failed to apply when the engine was turned off and the charge-up vehicle rolled backwards. The service brake also failed to stop the vehicle. The charge-up offside successfully wedged rocks under a wheel and the vehicle came to rest against the decline wall.

No-one was injured and there was no serious damage to the charge-up vehicle.

Probable causes

The charge-up vehicle was examined in situ by maintenance fitters but there were no obvious defects. The vehicle was then towed to the surface where the park brake and service brake were tested. No apparent faults were found during initial testing and the brake malfunction could not be replicated.

Further investigation identified faults in the wiring of the park brake and de-clutch electrical circuits. The park brake, de-clutch solenoids and a number of switches were wired back-to-front, and other wiring associated with the brake system was incorrect. Wiring faults not related to the brake system were also found.

The investigation determined that the electrical system of the charge-up vehicle had been rewired by a third-party contractor but the maintainers had not been provided with a manual adequately identifying brake valve locations and associated wiring diagrams and specifications. Consequently, the rewiring did not meet the manufacturer's specifications and had led to the brake system failures.

Action required

Ensure all maintainers, including contractors, are provided with adequate information, such as service manuals from the original equipment manufacturer (OEM), so that vehicles are maintained within specifications (e.g. electrical wiring, valve positioning).

A handwritten signature in black ink, appearing to read 'S. Ridge'.

Simon Ridge

STATE MINING ENGINEER

12 September 2011