

# Weekly Site Report

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BLACK ROCK WEEKLY REPORT

Weekly PSD Report  
EPIROC SA

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## Weekly Service Report – Black Rock Mine Operations

<b>Report type:</b>	Weekly	<b>Submitted to:</b>	Sello Taku and Sipho
<b>Week Date:</b>	21 Augustus 2025	<b>End Date</b>	27 Augustus 2025
<b>Reported By:</b>	Philip Moller		
<b>BEV:</b>			
<b>Service Tech:</b>	Ivan Phiri	<b>Service Tech:</b>	Lukas Serumola
<b>Service Tech:</b>	Patricia Mazinyo	<b>Service Tech Assistant:</b>	Patrick Yoko
<b>Specialist:</b>	Frikkie van der Walt		
<b>Field Service:</b>			
<b>Service Tech:</b>	Alpheus Mareke	<b>Service Tech:</b>	Mathews Mosemane
<b>CAS Project:</b>			
<b>Team Leader:</b>	Bradley Nast	<b>Service Tech:</b>	Phineas Sibanda
<b>Service Tech:</b>	Julius Manamela	<b>Service Tech:</b>	Joseph Mampa
<b>Certiq Project:</b>			
<b>Team Leader:</b>	Segunda Fernando	<b>Service Tech:</b>	
<b>Mobilaris:</b>			
<b>Team Leader:</b>	Rupert Grobler		

### Report Summary

#### General Summary

The purpose of this report is to give an overview of all the Epiroc activities at Blackrock Mine Operations (BRMO).

#### BEV - Critical Issues Summary

- Buckets of ST14 machines in poor condition. Audit to be done.

- Looking into mirror damages on MT42B trucks. Looking at the design and placement of the mirror. Going to order a new bracket and install and set tension of mirror bracket to deflect if bumped.
- Critical spares list review process started. Waiting on response from BR for a meeting date.
- DT150 – Long standing times because of support equipment and tools needed to do the job.
- DT171 – Long down due to waiting parts. Parts delivered 25/08/2025

### CAS L9 Implementation - Critical Issues Summary

- All fleet in NCH3 is currently operating on CAS level 9, except for DT109. The machine has issues with gears and only engages 1<sup>st</sup> gear. Currently busy with fault finding.

### Certiq & Mobilaris - Critical Issues Summary

- Machine availability to review the installation and collect evidence for the commissioning documents
- CAS level 9 trainings to be completed.

### BEV – MH4.0 Upgrades

- MH4.0 software upgrades project update to be sent for approval.

### Passport 360 Compliance

- BEV Technicians: **96%**
- CASL9 (Gloria): **98%**
- CASL9 (Nch2): **97%**
- CAS L9 (Nch3): **97%**
- Certiq & Mobilaris N2: **97%**
- Certiq & Mobilaris Gloria: **98%**
- Epiroc SLA: **84% - Contract stopped. Pack to be archived**

## BEV Report

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### Weekly machine utilization summary:

*Thursday 21 August 2025:*

1. FL 98 - Afternoon shift: Electrical breakdown – No feedback. (49min)  
Afternoon shift: Electrical breakdown – No feedback. (2H52min)
2. FL 99 -
3. FL 107 - Morning shift: Mechanical breakdown – No feedback. (01H03min)
4. FL 108 - Morning shift: Half arrows – At boiler shop. (40min)
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 - Morning shift: Tyre breakdown – Replaced tyre. **(4H49min)**  
Night shift: Tyre breakdown – Insert lock rings on tyre rim. (24min)

9. DT 149 -
10. DT 150 - Morning shift: Mechanical breakdown. Boisy busy fault finding. Re-occurring issue where machine goes to neutral. Door limit switch possibly the issue. **(22H25min)**
11. DT 162 - Afternoon shift: Electrical breakdown – No feedback. (1H30min)
12. DT 163 - Afternoon shift: Mechanical breakdown – Seat/chassis. No feedback on what was repaired. (1H31min)
13. DT 171 – Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Waiting for part. Stores did not want to make it a breakdown order. Part coming with normal line haul. **(4D23H27min)**

### *Friday 22 August 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 -
4. FL 108 -
5. FL 112 -
6. FL 113 – Morning shift: Tyre breakdown – Replace tyre. **(1D20H52min)**
7. DT 146 - Morning shift: Mechanical breakdown - Busy with service. Waiting for hydraulic oil to be refilled. Hydraulic oil still at station underground. Struggling to get Manitou to assist. Christo can assist tomorrow morning. **(11H42min)**
8. DT 147 -
9. DT 149 -
10. DT 150 - Afternoon shift: Mechanical breakdown – Suspension cylinder nut loose. Waiting for manitou to remove tyre and waiting BRMO to bay tool for tighten the nut. **(Ongoing)**
11. DT 162 -
12. DT 163 - Afternoon shift: Electrical breakdown - There was no power going to the seat. Found the short and reconnected the wire. There is now power going to the seat, but the seat does not want to work. Suspect the seat got damaged by the short-circuit. Need to change seat. (1H59min)
13. DT 171 - Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Waiting for part. Stores did not want to make it a breakdown order. Part coming with normal line haul. (5D23H27min)

### *Saturday 23 August 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 -
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 -
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 – Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Waiting for part. Stores did not want to make it a breakdown order. Part coming with normal line haul. (6D23H27min)

### *Sunday 24 August 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 - Morning shift: Boiler shop – Fit new extinguisher brackets. (56min)
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 -
8. DT 147 - Morning shift: Mechanical breakdown - Fault finding on bucket not tipping and tailgate. Replace solenoid valve. **(1D03H07min)**
9. DT 149 -
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 – Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Waiting for part. Stores did not want to make it a breakdown order. Part coming with normal line haul. **(7D23H27min)**

### *Monday 25 August 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 - Morning shift: 3rd Party Supplier Fault: STRATA Breakdown. **(5H04min)**
4. FL 108 -
5. FL 112 -
6. FL 113 -
7. DT 146 - Morning shift: 3rd Party Supplier Fault –Petroman. (30min)
8. DT 147 -
9. DT 149 - Morning shift: Mechanical breakdown – Camera self-ready when doing fault finding. (1H18min)
10. DT 150 -
11. DT 162 - Morning shift: 3rd Party Supplier Fault –Petroman. (29min)
12. DT 163 -
13. DT 171 - Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Part arrived today from Epiroc. (25/08/2025). **(8D23H27min)**

### *Tuesday 26 August 2025:*

1. FL 98 -
2. FL 99 -
3. FL 107 -
4. FL 108 -
5. FL 112 - Afternoon shift: Aircon – No fault was found. (25min)
6. FL 113 – Afternoon shift: 3rd Party Supplier Fault: Auto Electrical System - 24v: STRATA. (2H05min)
7. DT 146 -
8. DT 147 -
9. DT 149 - Morning shift: Mechanical breakdown – Camera issue again. Need to change camera. (2H12min)

- Afternoon shift: Mechanical – Hydraulic system overheats. Coolers are blocked and need to be cleaned. **(17H09min)**
10. DT 150 -
  11. DT 162 -
  12. DT 163 - Morning shift: Mechanical – Seat need to be changed, reported earlier in the week that there was a short and it damaged the seat. (2H13min)
  13. DT 171 - Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Part arrived 25/08/2025. Not received underground. **(9D23H27min)**

### Wednesday 27 August 2025:

1. FL 98 -
2. FL 99 - Afternoon shift: Electrical down - standing with BMS fault, found S43 BMS fuse tripped caused by a broken pack plug insulator. Reset fuse, temporarily fixed the plug and recovered the machine to the workshop. (2H22min)
3. FL 107 -
4. FL 108 -
5. FL 112 - Morning shift: Aircon – No fault was found. **(3H16min)**  
Afternoon shift: Aircon – No fault was found. **(12H28min)**
6. FL 113 -
7. DT 146 -
8. DT 147 -
9. DT 149 -
10. DT 150 -
11. DT 162 -
12. DT 163 -
13. DT 171 - Ongoing breakdown (17/08/2025): Mechanical breakdown – Hydraulic valve block cracked. Part arrived 25/08/2025. Not received underground. **(10D23H27min)**

### Planned work for the coming week:

- Onboarding of artisans to assist with the DC/DC campaign.
- S2 engine software standardisation to be completed.

#### SERVICES:

Maintenance Schedule Sept 2025				
Monday	Tuesday	Wednesday	Thursday	Friday
1-Sep-25	2-Sep-25	3-Sep-25	4-Sep-25	5-Sep-25
DT0161	DT0163	DT0148	DT0171	DT0150
FL0113	FL0091	FL0107	FL0101	FL0056

## Battery and Charger Status Report

### General summary

#### ST14 – B4 battery packs

- We currently have 10 x ST14 – B4 battery packs and 6 x ST14 machines operational underground. This is equal to the committed ratio of 1.6 batteries per machine.

#### MT42 – B5 battery packs

- We currently have 12 x MT42 – B5 battery packs operational underground. This is above the committed ratio of 1.6 batteries per machine.

#### 160 kW Chargers

- Charger 4 Module 1 is removed. Module is faulty and needs to be replace.
- Charger 5 Module 4 is removed. Module is faulty and needs to be replace.
- Charger 7 one Module is switch off. It trips mini sub braker when it is switch on.
- Charger 8 one Module is switch off. It trips mini sub braker when it is switch on.
- Post 3,6 and 7 CCS connector cables need to be replaced.

#### General

- Damage audits have been completed on battery packs, communication for repairs and battery upkeep was sent to BRMO with the respective quotations to ensure adequate battery upkeep.
- There are more noted charger stops; this is being investigated with initial indications being worn out charger and CCS battery inlet connectors. DCDC campaign to kick off once technicians are onboarded.

Table 1: Battery pack availability for week 10 2025

Battery Type	Battery ID	Status	Comment
B4 - ST14	VPY-00011	Working	
B4 - ST14	VPY-00031	Breakdown	TMS will be replaced by new one. Waiting TMS
B4 - ST14	VPY-00051	Working	
B4 - ST14	VPY-00048	Working	
B4 - ST14	VPY-00049	Working	
B4 - ST14	VPY-00088	Working	
B4 - ST14	VPY-00086	Working	



B4 - ST14	VPY-00076	Working	
B4 - ST14	VPY-00083	Working	
B4 - ST14	VPY-00041	Working	
B5 - MT42	VPX-00016	Working	
B5 - MT42	VPX-00015	Surface	Battery on surface. Waiting to go down.
B5 - MT42	VPX-00023	Working	
B5 - MT42	VPX-00017	Working	
B5 - MT42	VPX-00010	Working	
B5 - MT42	VPX-00050	Working	
B5 - MT42	VPX-00031	Working	
B5 - MT42	VPX-00036	Working	
B5 - MT42	VPX-00028	Working	
B5 - MT42	VPX-00026	Working	
B5 - MT42	VPX-00024	Working	
B5 - MT42	VPX-00048	Working	
B5 - MT42	VPX-00044	Surface	On machine: 8997901500

## FST Report Summary

Field Service on site:

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## CAS Report Summary

<b>Report Type:</b>	Weekly	<b>Project Leader:</b>	Hennie van Niekerk
<b>Start Date:</b>	06-Aug-2025	<b>Report By:</b>	Bradley Nast
<b>End Date:</b>	13-Aug-2025	<b>Contract No:</b>	BPE145D

## Critical Issues

1. Request received to delay L9 switch-on and software standardization until BRMO financial year end conclusion.
2. Team will continue with software standardization in the interim.

### Progress Update

1. All machine installations/up at NCH2 have been completed.
2. Team aims to upgrade software on various machines to ensure conformity etc, to be planned.
3. Status updates etc. to be distributed in due course.

## CertiQ & Mobilaris Report Summary

### General summary

NCH 2 and Gloria are in the project phase. Installations are complete and commissioning is in progress. NCH3 is on a support contract, However the contract has lapsed.

#### NCH2:

25 machines scoped for the smart enablement project:

- 3 Machines are scrapped
- 4 Machines are routing for signature by the Black Rock project team,
- 6 Machines are complete, and Commissioning documents are signed.
- 2 machines work in a section with no Wi-Fi. Can't test and commission. Issue raised with Wayne
- 1 Machine not is use. Reason not clear.
- 10 machines are under investigations.

#### Gloria:

13 machines scoped for the smart enablement project:

- 3 machines completed and commissioned.
- 8 machines under investigations.
- 2 machines, ECU not giving out date. It was report to Black Rock. Replacement is expected.

#### NCH3:

1. **Support contract expired.**