Weekly Site Report

BLACK ROCK WEEKLY REPORT



Contents	
Weekly Service Report – Black Rock Mine Operations	2
Report Summary	2
General Summary	2
BEV - Critical Issues Summary	2
CAS L9 Implementation - Critical Issues Summary	3
Certiq & Mobilaris - Critical Issues Summary	3
BEV – MH4.0 Upgrades	3
Passport 360 Compliance	3
BEV Report	3
Weekly machine utilization summary:	3
Planned work for the coming week:	ô
Battery and Charger Status Report	ô
General summary	ô
FST Report Summary	3
Field Service on site:	8
CAS Report Summary	9
Critical Issues	9
Progress Update10	0
Certiq & Mobilaris Report Summary10	0
General summary	n



Weekly Service Report – Black Rock Mine Operations

Report type:	Weekly	Submitted to:	Sello Taku and Sipho
Week Date:	01 Augustus 2025	End Date	06 Augustus 2025
Reported By:	Philip Moller		
BEV:			
Service Tech:	Ivan Phiri	Service Tech:	Lukas Serumola
Service Tech:	Patricia Mazinyo	Service Tech Assistant:	Patrick Yoko
Specialist:	Frikkie van der Walt		
Field Service:			
Service Tech:	Alpheus Mareke	Service Tech:	Mathews Mosemane
CAS Project:			
Team Leader:	Bradley Nast	Service Tech:	Phineas Sibanda
Service Tech:	Julius Manamela	Service Tech:	Joseph Mampa
Certiq Project:			
Team Leader:	Segunda Fernado	Service Tech:	
Mobilaris:			
Team Leader:	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.



- **DT 150** Multiple issues with gears going to neutral. Found door switch not making contact from time to time.
- Looking into mirror damages on MT42B trucks. Looking at the design and placement of the mirror.
- Critical spares list review process started. Waiting on store stock and quantities.
- Discuss the utilisation of 1 Epiroc artisan to oversee and assist with services. Jada to return feedback.
- CAS level 9 trainings to be completed.

CAS L9 Implementation - Critical Issues Summary

• Behind on Project. The team worked overtime this past weekend to try and catch up. FL90, FL82 and FL80 commissioned over the weekend.

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%

BEV Report

Weekly machine utilization summary:

Friday 01 August 2025:

- 1. FL 98 -
- 2. FL 99 –
- 3. FL 107 Morning shift: Mechanical breakdown No feedback. (01H17min)
- 4. FL 108 -



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    FL 112 -
    FL 113 - Afternoon shift: Breakdown Mechanical – Top up transmission oil. (3H51min)
        Night shift: Electrical breakdown - FL113 BMS error start of shift fixed. (2H25min)
    DT 146 -
    DT 147 -
    DT 149 –
    DT 150 –
    DT 162 –
    DT 163 – Afternoon shift: Breakdown Mechanical – Repaired oil leak. (4H14min)
        Afternoon shift: Electrical breakdown – No feedback. (11min)
        Night shift: Mechanical down – Repaired oil leak. (51min)
    DT 171 –
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Saturday 02 August 2025:

1. FL 98 – Morning shift: 3rd Party Supplier Fault: Auto Electrical System - 24V: STRATA Breakdown. (57min)

Morning shift: Mechanical down: Don't know what was damaged and what was done to

Repair. (23H15min)

- 2. FL 99 Morning shift: Electrical down Aircon leak fixed, however if operator complains again we need to change aircon pump and receiver dryer. (1D01H37min)
- 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 -

Sunday 03 August 2025:

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1. FL 98 -
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- 2. FL 99 –
- 3. FL 107 -
- 4. FL 108 -
- 5. FL 112 -
- 6. FL 113 Morning shift: Mechanical breakdown Oil leak fixed, just need to refill hydraulic oil. (1D08H31min)
- 7. DT 146 Morning shift: Electrical breakdown No feedback. (1H39min)
- 8. DT 147 -
- 9. DT 149 -
- 10. DT 150 -





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11. DT 162 –
12. DT 163 – Morning shift: Mechanical breakdown – Replace O-ring on hydraulic hose. (1D01H16min)
13. DT 171 –
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Monday 04 August 2025:

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    FL 98 –
    FL 99 – Morning shift: Electrical breakdown – Repair lights wiring. (24min)
    FL 107 –
    FL 108 –
    FL 112 -
    FL 113 -
    DT 146 -
    DT 147 -
    DT 150 –
    DT 162 –
    DT 163 –
    DT 171 –
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Tuesday 05 August 2025:

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    FL 98 – Morning shift: Tyre breakdown – Re-torque wheel nuts. (2H03min)
    FL 99 -
    FL 107 -
    FL 108 – Night shift: Electrical breakdown – Module error, changed blown fuse in the A20 box. (12H33min)
    FL 112 -
    FL 113 -
    DT 146 -
    DT 147 – Morning shift: Tyre breakdown – Re-torque wheel nuts. (01H14min)
    DT 149 - Afternoon shift: Electrical breakdown – Aircon not working. Re-gas system. (8H52min)
    DT 162 -
    DT 163 -
    DT 171 -
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Wednesday 06 August 2025:

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    FL 98 –
    FL 99 –
    FL 107 – Night shift: Mechanical breakdown – Replaced hydraulic hose. (13H19min)
    FL 108 –
    FL 112 -
    FL 113 – Afternoon shift: Electrical breakdown – No feedback. (35min)
    DT 146 – Morning shift: Electrical breakdown - HVIL fault after batteries was changed
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7. DT 146 – Morning shift: Electrical breakdown - HVIL fault after batteries was changed. Operators didn't plug the plugs in properly and damage the pin on the cable side and on the battery separately. (16min)



- 8. DT 147 -
- 9. DT 149 Morning shift: Electrical breakdown Top up aircon gas. (1H03min)
- 10. DT 150 -
- 11. DT 162 -
- 12. DT 163 Night shift: Mechanical breakdown DT163 was stuck on 3kmh crawling, only reset the Machine. (14min)
- 13. DT 171 –

Planned work for the coming week:

- DCDC and PSB campaign plan to be actioned. Busy with new passport 360 5-day access pack.
- HD0062 to be rig scanned for the S2 project.

SERVICES:

Week:	11 August 2025	to	17 August 2025	
11-Aug-25	12-Aug-25	13-Aug-25	14-Aug-25	15-Aug-25
Monday	Tuesday	Wednesday	Thursday	Friday
DT0131 - 1000Hrs - 1831579	DT0171 - 500Hrs - 1831581	DT0160 - 500Hrs - 1831587	DT0163 - 250Hrs - 1831599	
N3 CAS 3Monthly Inspection				
DT Mech Wk. Insp	N3 MT42B Mech Daily Inspection	DT Mech Wk. Insp	N3 MT42B Mech Daily Inspection	
D.T BUCKET/CHASSIS/ARTIC Insp	N3 MT42B Load Box / Chassis /A	D.T BUCKET/CHASSIS/ARTIC Insp	N3 MT42B Load Box / Chassis /A	
FL0099	FL0101 - 250Hrs - 1831566	FL0108	FL0082	
N3 CAS 3Monthly Inspection				
	ST14 250 Hours Service		ST14 250 Hours Service	
	N3 FL Diesel Auto Electrician		N3 FL Diesel Auto Electrician	
N3 MT42B Mech Daily Inspection	Loader ST14 Mech Wk. Insp	N3 MT42B Mech Daily Inspection	Loader ST14 Mech Wk. Insp	
N3 MT42B Load Box / Chassis /A	FEL Ins BCKT/S-BLOCK/ARTIC Wk	N3 MT42B Load Box / Chassis /A	FEL Ins BCKT/S-BLOCK/ARTIC Wk	

Monday - FL0099

Tuesday - DT0171

Wednesday - FL108

Thursday - DT0163

Battery and Charger Status Report

General summary

ST14 - B4 battery packs

• We currently have 10 x ST14 – B4 battery packs and 5 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 10 x MT42 – B5 battery packs operational underground. This is above the committed ratio of 1.6 batteries per machine.

160 kW Chargers

- Module 4 was found to be the fault on charger 7, charger module needs to be replaced.
- Charger 1 has a faulty fan that 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.
 Meeting between Epiroc and Black Rock to take place to discuss general wear and tear vs damages.
- There are more noted charger stops; this is being investigated with initial indications being worn out charger and CCS battery inlet connectors.

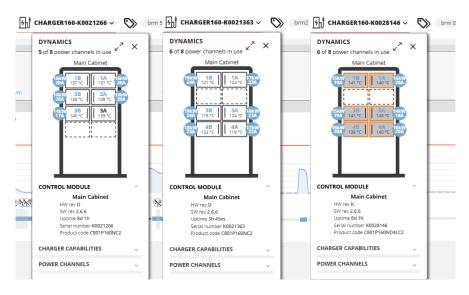


Figure 1: Chargers 2, 5 and 7 are missing 1 module each

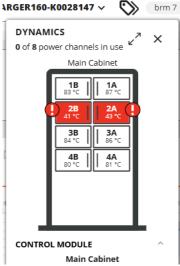


Figure 2: Chargers 1, 8 and 7 have faulty fans that need to be replaced



Table 1: Battery pack availability for week 10 2025

Battery Type	Battery ID	Status	Comment
B4 - ST14	VPY-00011	Working	
B4 - ST14	VPY-00031	Working	
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-00006	Breakdown	Battery overheating. Busy with fault finding. (6D)
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



CAS Report Summary

Report Type: Weekly Project Leader: Hennie van Niekerk

Start Date:01-Aug-2025Report By:Bradley NastEnd Date:06-Aug-2025Contract No: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.

Shaft	Machine ID	Machine Type	Status	Commissioning document	Approval progress (1 - 6)	Comments	Ī
N2	FL0063	Epiroc ST14	Last connected: 31 Mar.	II On hold	0	**Machine scrapped**	
N2	FL0066	Epiroc ST14		© Signed & filed	6	Completed	
N2	FL0086	Epiroc ST14	Machine in order	□ Routing for approval	4	GES to sign	
N2	FL0085	Epiroc ST14	Last connected: 20 Feb.	II On hold	0	Awaiting update from foreman (email sent on 24 Jul)	
N2	FL0077	Epiroc ST14	Last connected: 14 May.	II On hold	0	Awaiting update from foreman (email sent on 24 Jul)	
N2	FL0100	Epiroc ST1030		© Signed & filed	6	Completed	
N2	FL0102	Epiroc ST14		© Signed & filed	6	Completed	
N2	HD0035	Epiroc Boomer 282	Machine not in use	X Not provided	0		
N2	HD0039	Epiroc Boomer 282	Last connected: 04 Jun .	✓ Received	0	**Machine scrapped**	
N2	HD0043	Epiroc Boomer 282	Last connected: 15 Apr.	✓ Received	0	Email sent to Rupert on 07 Aug.	
N2	HD0046	Epiroc Boomer 282	Machine connected - no data	□ Routing for approval	0	Awaiting update from foreman (email sent on 07 Aug)	
N2	HD0053	Epiroc Boomer 282	Machine out of Wi-Fi coverage		0		
N2	RT0036	Epiroc Boltec 235H	Machine in order	□ Routing for approval	5	Engineer to sign	
N2	RT0038	Epiroc Boltec 235H	Last connected: 09 Jul.	II On hold	0	Machine is operational - loses connection	
N2	RT0040	Epiroc Boltec 235H	Machine in order	□ Routing for approval	0		
N2	DZ0013	Epiroc Dozer		© Signed & filed	6	Completed	
N2	FL0068	Epiroc ST14		© Signed & filed	6	Completed	
N2	DT0095	Epiroc MT436LP					
N2	DT0099	Epiroc MT436LP					
N2	DT0120	CAT AD30		X Not provided	0	Machine not available on myEpiroc	
N2	DT0121	CAT AD30		X Not provided	0	Machine not available on myEpiroc	
N2	DT0122	CAT AD30		✓ Received	0	Machine not available on myEpiroc	
N2	DT0128	CAT AD30		X Not provided	0	Machine not available on myEpiroc	

Shaft	Machine ID	Machine Type	Status	C	ommissioning document	Approval progress (1 - 6)	Comments
GLR	DT0094	Epiroc MT436LP		X N	lot provided		**Machine scrapped**
GLR	DT0105	Epiroc MT436LP		X N	lot provided	0	Awaiting update from foreman (email sent on 24 Jul)
GLR	DT0106	Epiroc MT436LP		X N	lot provided	0	Awaiting update from foreman (email sent on 24 Jul)
GLR	DZ0012	Epiroc Dozer	Last connected 24 Jun.	II O	n hold	0	Machine is operational - not connected
GLR	HD0060	Epiroc Boomer 282		⊕ Si	igned & filed	6	Completed
GLR	FL0093	Epiroc ST14		⊕ Si	igned & filed	6	Completed
GLR	FL0081	Epiroc ST14		⊕ Si	igned & filed	6	Completed
GLR	FL0064	Epiroc ST14		⊕ Si	igned & filed	6	Completed
GLR	FL0083	Epiroc ST14	Last connected 19 Jun.	✓ R	eceived	0	
GLR	RT0045	Epiroc Boltec 235	Last connected 23 Jun.	✓ R	eceived	0	
GLR	RT0046	Epiroc Boltec 235		✓ R	eceived	0	
GLR	DT0153	CAT AD30		✓ R	eceived	0	Not listed on myEpiroc
GLR	DT0152	CAT AD30		X N	lot provided	0	Not listed on myEpiroc
GLR	DT0154	CAT AD30		X N	lot provided	0	Moved to Nchwaning 3 Not listed on myEpiroc
GLR	HD0059	Epiroc Boomer 282		✓ R	eceived	0	Not listed on myEpiroc
GLR	RT0027	Epiroc Boltec 235	Last connected 24 Jun.	X N	lot provided	0	



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 review and commissioning in progress. NCH3 is on a support contract.

NCH2:

From the 22 machines:

- 9 Machines, documentations have been sent for signatures,
- 5 machines are in order the project team is currently preparing the commissioning document,
- 8 machines are under investigation

Gloria:

From the 13 machines:

- 4 machines are commissioned
- 6 machines, commissioning documents are sent for signatures
- 1 Machine the engine hours are on the portal are not corresponding with the actual machine hours
- 2 machines are exempted from the project do to the ECU

NCH3:

1. Mobilaris

- a. Primary machines 52.
- b. Primary machines reporting on Mobilaris is 43
- c. Total compliance 82%

2. Certiq

- a. Primary machines 52
- b. Primary machines with kits installed 38
- c. Total number of machines reporting 29
- d. Total compliance 76%

3. Issue log and resolutions

Issues	resolutions
DT0154 machine is online but no data	Change the machine name from the DT0154 to the serial number on the MCG
HD0050 & HD0051 CCI faulty	Raised ACIGN before requesting new part



ACIGN raised.
Quotation submitted for order.