airmet

NEAR REAL-TIME MULTIPARAMETER MONITORING & DATA CAPTURING

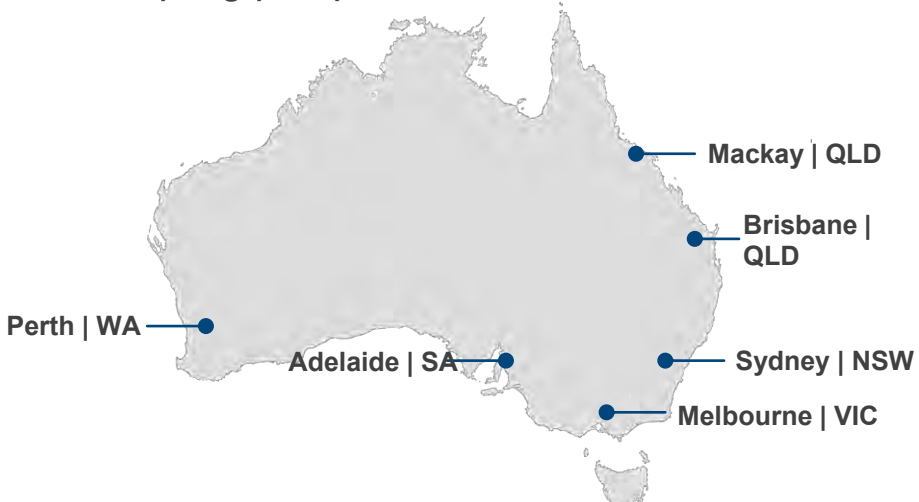
OUTLINE

About Air-Met Scientific
Introducing the AirMetER-AX Monitoring Station
AirMetER-AX Specifications
Equipment Service and Maintenance
AirMetER-AX Applications and Case Studies
LiveSense – Data Portal and Reporting
Future Roadmap
Q & A

ABOUT AIR-MET SCIENTIFIC

A healthy and safe environment is of vital importance to us all. That's why, since 1984, we have made it our mission to deliver reliable measurement and monitoring solutions to OHS and environmental professionals.

> **Local Support:** 6 offices nationally
> **Committed to quality:** ISO 9001 Certified
> **NATA Accredited:**
    > Iso/IEC 17025 – NATA accredited on Calibration of gas detectors including on-site
    > ISO/IEC 17020 – NATA accredited on Overhaul inspections association with explosion protected equipment (Ex i)
    > ISO/IEC 17025 – NATA accredited on calibration and testing of air sampling pumps and flow meters



OUR BRANDS

Partnering with both local and international suppliers to offer industry-leading solutions

OUR CUSTOMERS

Air-Met Scientific is proud to have worked with some of the most successful small, medium and large companies in Australia

INTRODUCING THE AirMetER-AX AIR QUALITY MONITOR

MONITORING PARAMETERS

- 1-7 gases: CO, CO_2, VOC, SO_2, H_2S, O_3, and NO_2
- PM10, PM2.5
- General weather conditions
- Ambient noise

FEATURES

- Modular design for future sensor requirements or expansion
- IP65 rated polycarbonate enclosure
- Datalogging at a minimum of 365 days at one-minute intervals
- Built-in log and forward capability
- Remote data access via Air-Met's secure data portal
- Local service, calibration and onsite support

AirMetER-AX SPECS

General Technical Specification	
Power Requirement	12 VDC
Rated Power	22 Watts
Operating Temperature	0 to 50 degrees Celsius
Operating Humidity	0 – 95% non-condensing
Operating Pressure	880 to 1150 hPa

Particulates Measurement – specifications are based on 20°C and 760 mmHg conditions		
Particulate	**Range**	**Resolution**
PM2.5	0-999 µg/m3	0.1 µg/m3
PM10	0-999 µg/m3	0.1 µg/m3

AirMetER-AX SPECS

Gases Measurement – specifications are based on 20°C and 760 mmHg conditions				
Type	**Range**	**Resolution**	**T90 Response (s)**	**Min. Repeatable Detectable Level**
CO (low range)	0-30 ppm	1 ppb	<30	20 ppb
CO (high range)	0-300 ppm	1 ppm	<25	N/A
CO_2	0-2000 ppm	1 ppm	<40	15 ppm
VOC	0-40 ppm	1 ppb	<10	15 ppb
SO_2	0-10 ppm	1 ppb	<60	20 ppb
H_2S	0-20 ppm	1 ppb	<60	20 ppb
NO_2 (low range)	0-1000 ppb	1 ppb	<80	20 ppb
NO_2 (high range)	0-20 ppm	0.1 ppb	<50	N/A
O_3	0-1000 ppb	1 ppb	<80	20 ppb

Weather Sensor

Integrated climate sensor for weather monitoring

- Wind speed and direction
- Air temperature
- Relative humidity
- Barometric air pressure

AirMetER-AX SPECS

Noise
Integrated noise monitor using Sound Examiner > Range: 30 to 140 dBA > IEC61672-1 Standard and ANSI S1.4-1983 > Class 2 microphone

Enclosure	
Material	Polycarbonate
Dimensions	500 (H) x 400 (W) x 210 (D)
Instrument Weight	11 Kg
Mounting Options	> Pole-mount kit supplied (recommended installation method) > Wall-mount

Communication	
PLC or SCADA Integration	Serial RS232
FTP Upload	Cellular or Ethernet

LOCAL SUPPORT

Experienced and dedicated technicians committed to delivering world-class equipment service, maintenance and technical support.

- Local service agents
- Manufacture and assembled in Melbourne
- Ability to provide on-site service and support
- Local technical support
- Local calibration of all sensor modules including dust
- No down-time service options

AirMetER-AX APPLICATIONS

- Site remediation in Victoria
- PM, VOC, weather monitoring
- Long-term deployment: 12-18 months
- Solar powered with elevated panel
- Custom monthly reporting to client specification

AirMetER-AX APPLICATIONS

- Occupational Hygiene in Construction
- Hazards: RD, RCS, DPM, VOCs, +++
- Data logged on LiveSense
- Communication: Mobile Network, Ethernet, WiFi
- Customisable data display and reporting
- Alerts by SMS and email

AirMetER-AX IN CONSTRUCTION APPLICATION

AirMetER-AX SENSOR CONFIGURATION

- Particulate Matter: PM2.5 and PM10
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Volatile Organic Compounds (VOC) – photo ionisation detector (PID)

AirMetER-AX SENSOR TRIGGER LEVELS

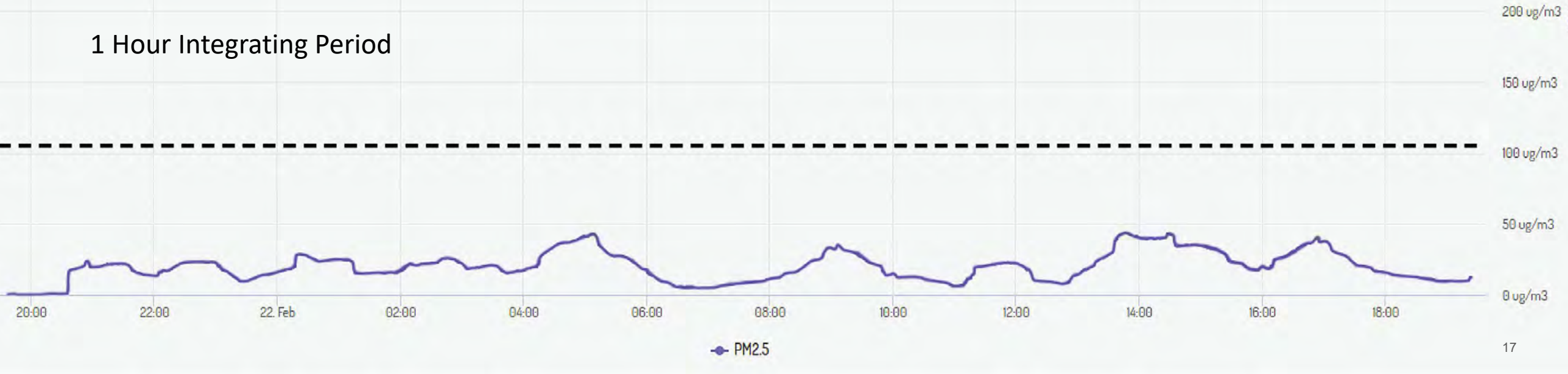
- Particulate Matter: PM2.5: 110 µg/m^3
- Carbon monoxide (CO): 12 ppm
- Nitrogen dioxide (NO_2): 1.2 ppm
- Volatile Organic Compounds (VOC): 128 ppm (corrected for gasoline)

AirMetER-AX – GRAPHED DATA OUTPUT

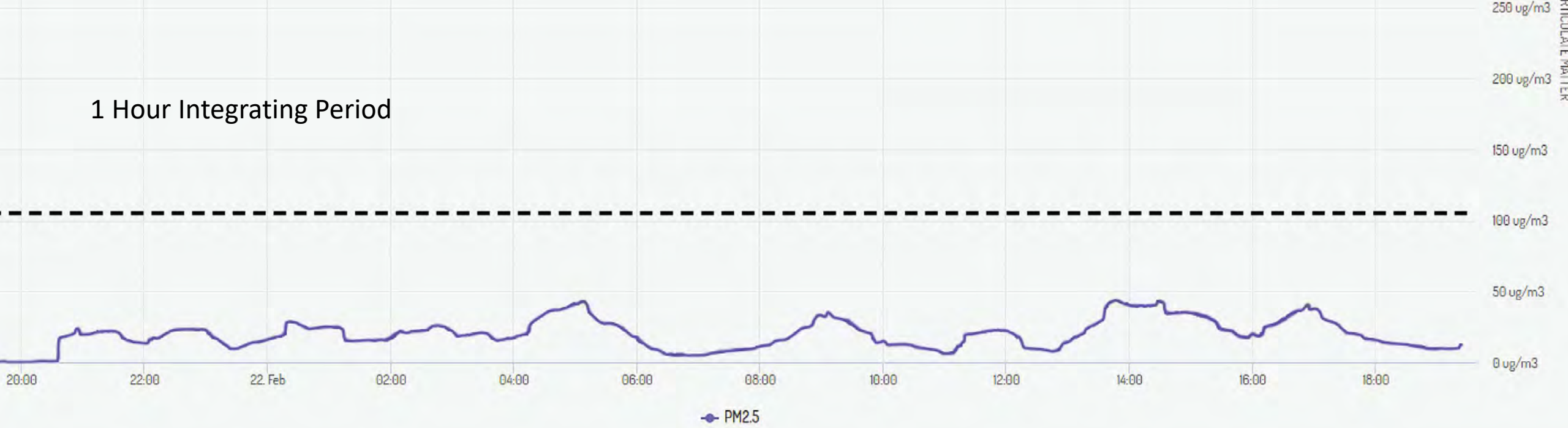
Raw Data

Raw Data

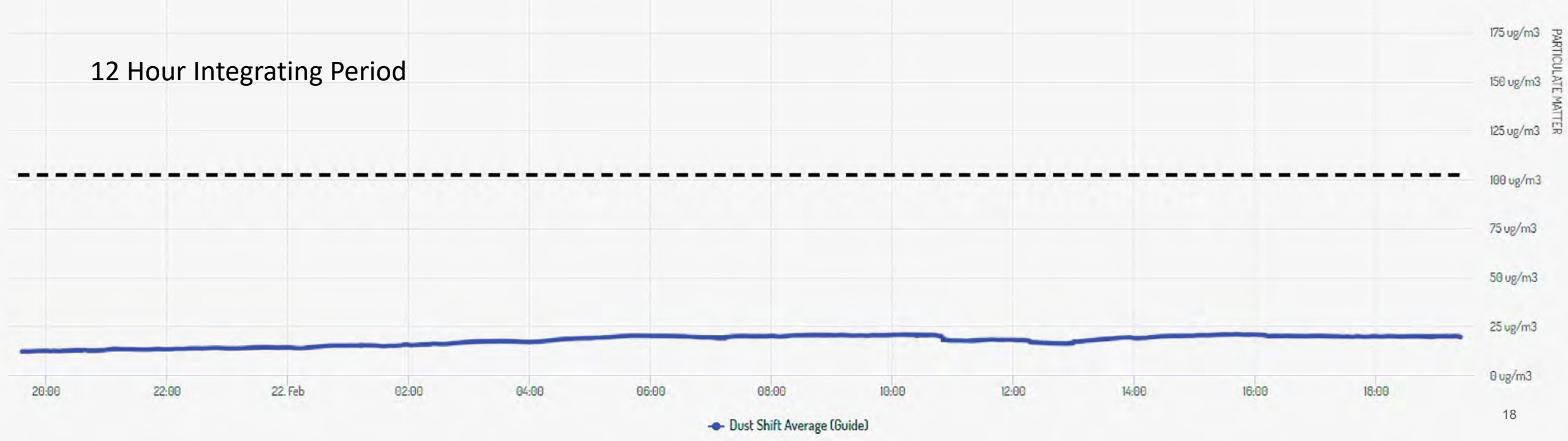
1 Hour Integrating Period



1 Hour Integrating Period



12 Hour Integrating Period



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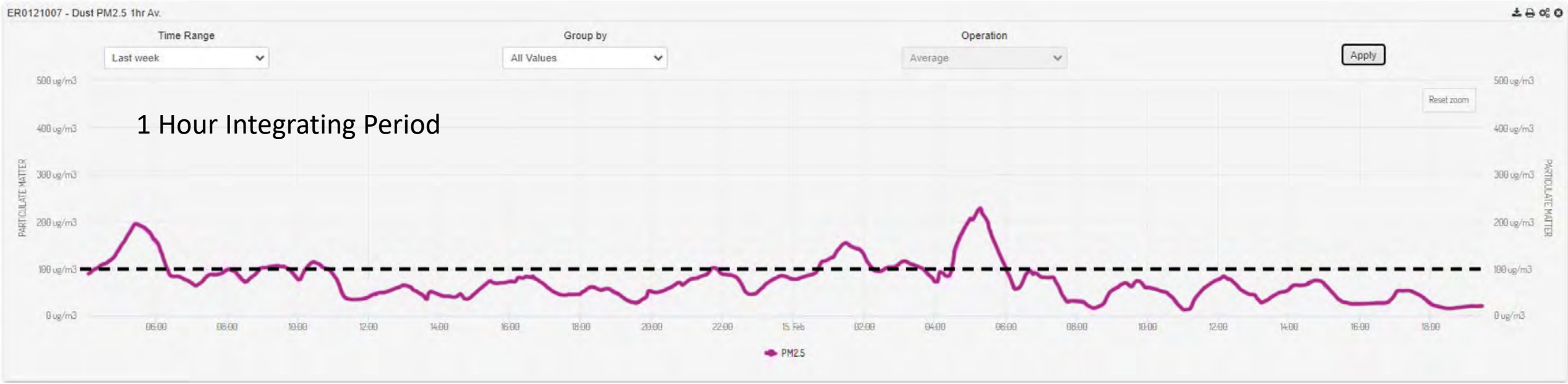
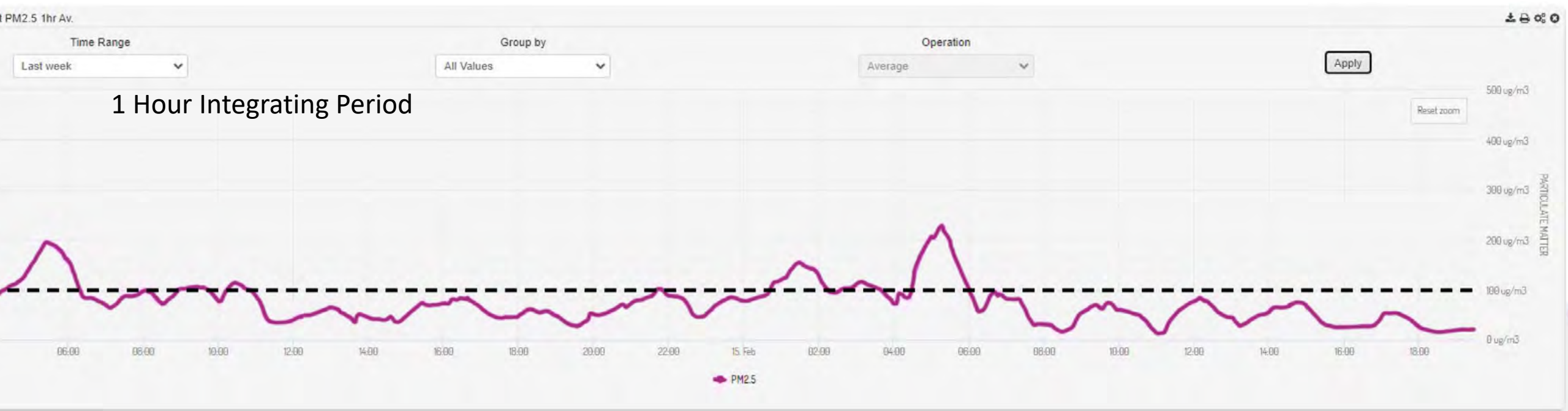



PM2.5 1hr Av.
Time Range
Last week
Group by
All Values
Operation
Average
Apply
1 Hour Integrating Period
Reset zoom
500 ug/m3
400 ug/m3
300 ug/m3
200 ug/m3
100 ug/m3
0 ug/m3
PARTICULATE MATTER
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
15. Feb
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
PM2.5

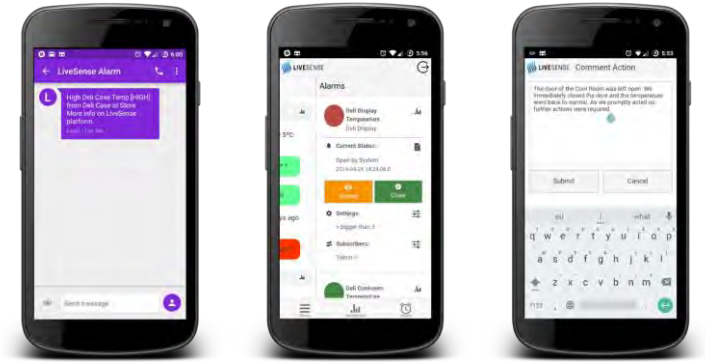
12 Hour Integrating Period
250 ug/m3
200 ug/m3
150 ug/m3
100 ug/m3
50 ug/m3
0 ug/m3
PARTICULATE MATTER
Sunday, Feb 14, 03:33:42
Dust Shift Average (Guide): 23.8378
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
15. Feb
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
16. Feb
Dust Shift Average (Guide)

LIVESENSE – NEAR REAL-TIME VISIBILITY

Air-Met's Secure Data Portal Powered By LiveSense

Near Real-Time Visibility

A simple Dashboard configuration allows the area manager to establish individual key performance indicators per area. A simple colour code allows the user to quickly see what operations are running out of specification.



Near Real-Time Alerts

Authorised users are able to set alarms based on near real-time readings. Notifications can be sent to both, multiple email addresses and mobile phone numbers.

Historical Data

All data is stored and collated on secure external servers and can be accessed via computer, tablet or smart phone. This data is stored and can be easily retrieved or downloaded at any time.

DATA AND SECURITY

- Data is hosted by Amazon Web Services
- Highly scalable, reliable, flexible and secure environment
- Data is stored at Amazon Web Services Sydney Data Centre
- Logical Access Control that are managed by AWS Identity and Access Management (IAM) service.
- SSL and SSH encryption during transmission

REPORTING

- > Customisable reports for traceability
- > Threshold alert management (SMS and/or email)
- > Auto-report generation

AirMetER-AX FUTURE ROADMAP

YOUR PARTNER IN OHS & ENVIRONMENTAL MONITORING EQUIPMENT & SERVICES

THANK YOU & QUESTIONS