

Trident FQMS 2.0

Fluid Quality Monitoring System

POSEIDON
SYSTEMS

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There's a better way
to monitor your oil

POSEIDON
SYSTEMS



The **Trident FQMS** is the only all-in-one real time end-to-end solution capable of monitoring the total fluid quality of equipment.

Lubricating Fluids

Cooling Fluids*

Hydraulic Fluids

“ The data and analysis provided by Poseidon Systems’ **Trident FQMS** enabled us to make an informed decision to remove an asset from service that otherwise would have suffered catastrophic failures. This early detection has resulted in improved safety, significant savings in downtime and production costs, savings in consumable costs and reducing our environmental footprint. ”

Steve Baxter – Anglo American

*Available Fall '19

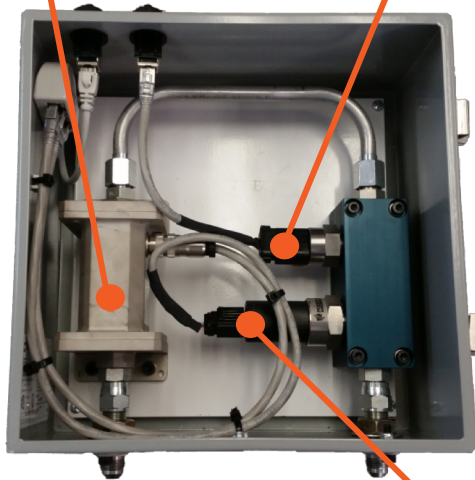


Trident FQMS

The Trident FQMS is the only **all-in-one end-to-end solution** capable of monitoring total fluid quality of mining equipment. The Trident FQMS can be expanded with multiple sensor option as part of a true Industrial IoT Solution.

Wear Debris

Viscosity



Oil Quality
Water RH
Temperature

Easy Installation

Easily installed in-line with filtration loops or bypass loop

Designed for Industrial IoT

Easily integrates additional sensors and connects directly to Poseidon Live (PSL) for monitoring

Real-time Continuous Monitoring

Observe and respond to problems before they become catastrophic problems

Enables Condition Based Maintenance

Reduce the need for offline oil sampling and analysis, optimize oil drain intervals



Trident FQMS Configurations



STANDARD

1 Year Platinum Monitoring

Oil Quality

Wear Debris

Viscometer

Water RH

Fluid Temp

Communications - LAN

OPTIONS

Extended Monitoring Service

Particle Count (ISO, NAS, SAE)

Wireless Vibration

Flow Meter

Pressure

Temperature

Proximity

Level

Speed

Analog & Digital Sensors

Magnetic Filter

Smart Desiccant Breather

Communications - Bluetooth

Communications - Wireless

Communications - Cellular

Special Integrations (Upon Request)

Fluid Quality - Trident QW3100

The Trident QW3100 is the **worlds most advanced online oil quality sensor** and is the only online oil quality sensor with the capability to replace most periodic oil sampling.



Trident
QW3100/
QM3100

Impedance Spectrum Analysis

Provides more information on fluid quality than competing technologies

Integrated Water-in-Oil Sensor

Accurate tracking of water contamination levels

Real-time Continuous Monitoring

Observe and respond to oil problems before they become equipment problems

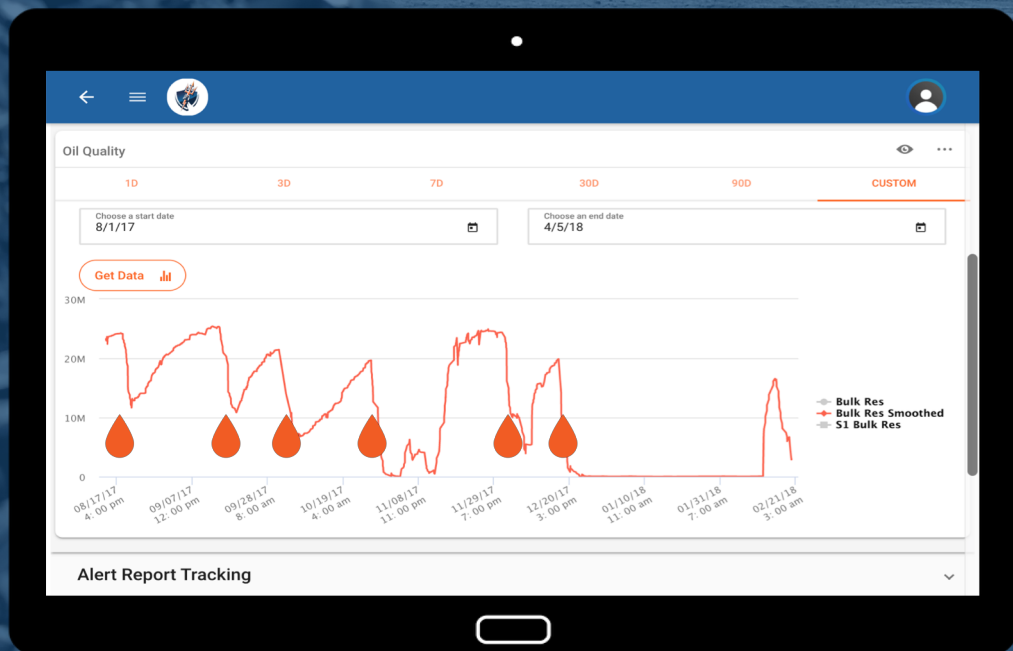
Enables Condition Based Maintenance

Reduce the need for offline oil sampling and analysis, optimize oil drain intervals

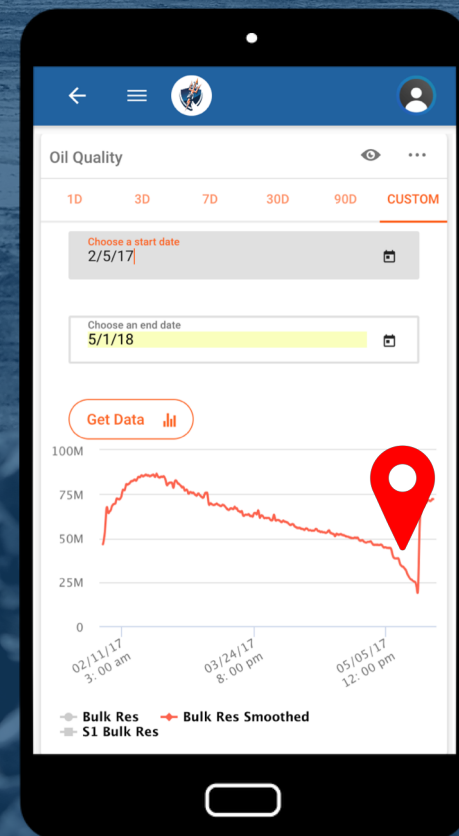
“The QW3100 is the most advanced oil quality sensor we have put on our mining equipment, allowing us to extend the operational life of our oil and reduce oil sampling.”

Steve Baxter – Anglo American





Poseidon Live identified oil change intervals with $>75\%$ oil life remaining.  Using condition based oil changes, the operator can get 50-75% more time between oil changes.



Poseidon Live identified an accelerated degradation of oil quality, upon inspection a coolant leak was discovered before it caused catastrophic engine damage. 

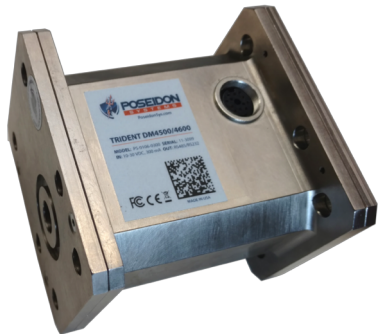
Wear Debris - Trident DM4500/4600

The Trident DM4500/4600 is the **best-in-class** inductive wear debris sensor and provides the earliest detect of mechanical failure within an asset.

Trident
DM4500
(bypass)



Trident
DM4600
(pump/filter
integration)



Inductive Coil Metallic Debris Monitor

Monitor wear levels to determine asset health in an intuitive manner

Best-in-Class Sensitivity

Detects ferrous particles as small as $40\mu\text{m}$ and non-ferrous as small as $150\mu\text{m}$

Real-time Continuous Monitoring

Detect and characterize wear events that my otherwise be missed

Earliest Detection of Mechanical Failure

Detect failure in earliest stages and estimate of remaining useful life

“Debris monitoring is the cat’s meow of condition monitoring!”

Steve Abe - Operations Manager, AES



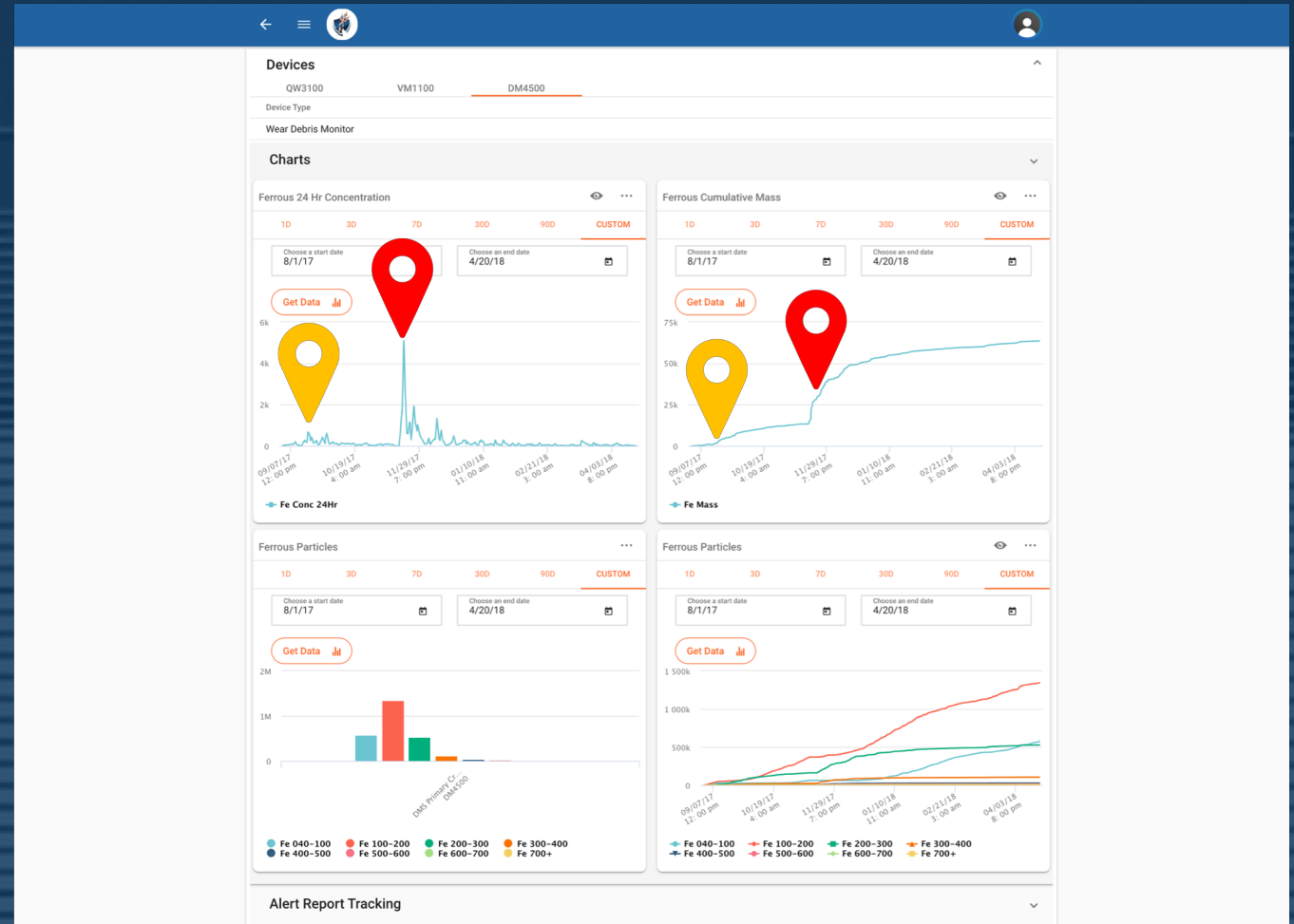
“ It is our belief that metallic debris monitoring provides the earliest, most reliable, most cost effective gearbox condition monitoring solution. We install Poseidon’s products on all Revolution gearboxes and recommend their products to all of our customers. ”

Bruce Neumiller - CEO, Gearbox Express

Poseidon Live identified a high levels of wear debris, detecting an emerging fault within the crusher gearbox, and allowing for scheduled replacement.



This allows operators to identify faults earlier, take lower cost actions, and avoid catastrophic failures and high down time.





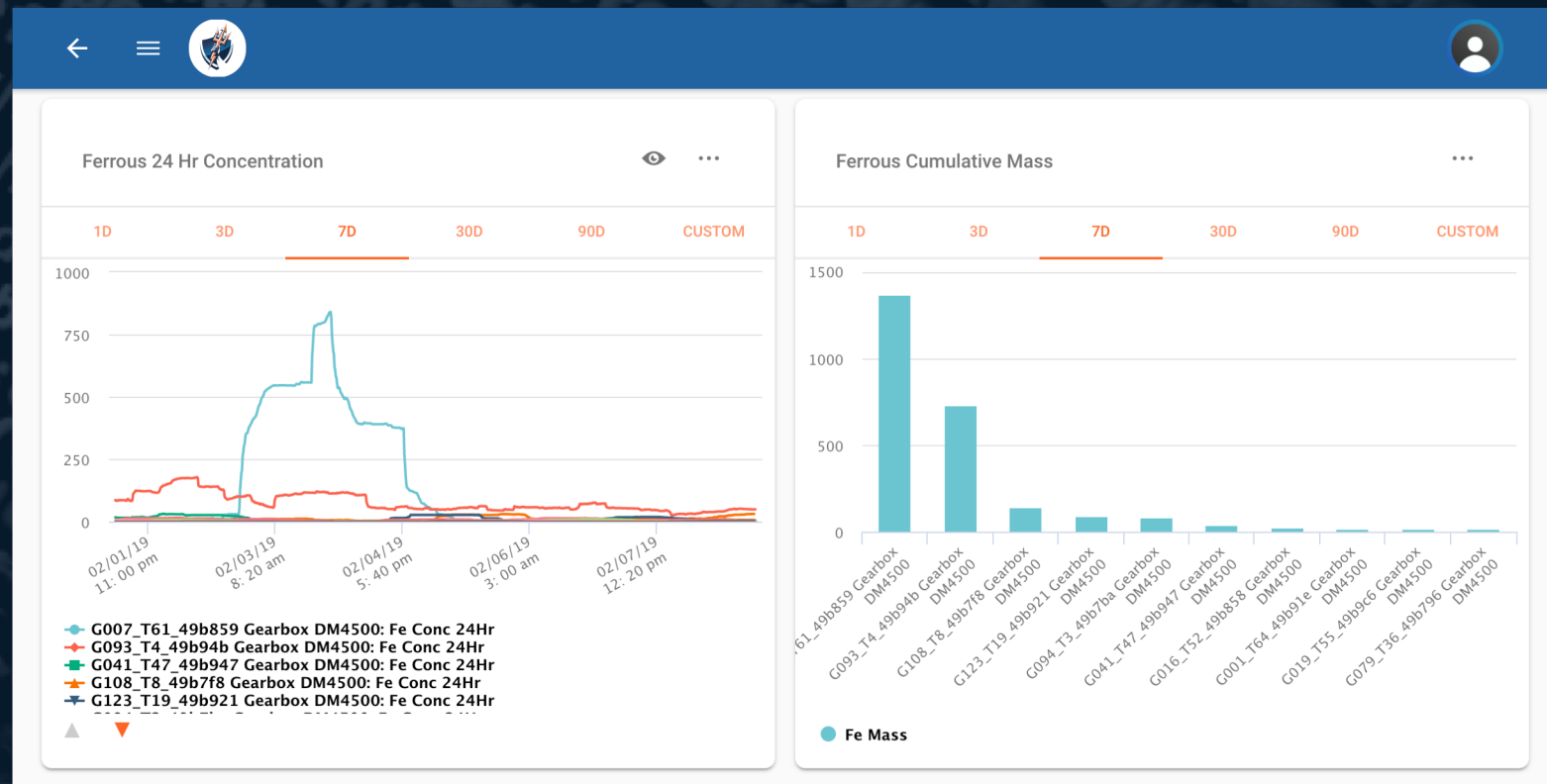
OVER 2,500 ASSETS & COUNTING

Poseidon Live is the leading complete fluid & asset health cloud-based monitoring platform

Poseidon Live (PSL) 2.0:

Updated Modern Interface
Support for Multiple Browsers
Support for New Sensors Types
Customizable Charts/Dashboard
New Asset Health Algorithms
Advanced Watchlist

*PSL 2.0 Available Fall '19





OVER 2,500 ASSETS & COUNTING

Poseidon Live is the leading complete fluid & asset health cloud-based monitoring platform

Service Options	Platinum	Gold	Silver
Full Access to Poseidon Live	■	■	■
Full Asset Data History	■	■	■
Tailored & Custom Alarming/Notifications	■	■	■
Custom Dashboards & Reporting	■	■	
Poseidon Expert Monitoring	■	■	
Monthly Asset Health Report	■	■	
Monthly Consultation	■		
Extended Hardware Warranty	■		

A close-up photograph of oil, likely engine oil, showing numerous small, golden-brown bubbles rising and reflecting light. The background is dark, making the illuminated oil and bubbles stand out.

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to monitor your oil

Visit:

www.poseidonsys.com/FQMS