SAP Service and Asset Manager (SSAM) Deep Dive

Choose Your Own Mobility Adventure

Vicki Hlinovsky
Business Process Lead (EAM)
Sunwater

Jeff Albert
Asset Technology Lead
Fortescue

Agenda

- Introductions
- Devices, Versions and Implementation
- App Features
- Distribution Model
- Security
- Monitoring
- Business Process & Master Data
- LIVE DEMO
- Take Aways

Fortescue

sunwater

About us

sunwater

Sunwater is a Queensland Government-owned corporation that supplies about 40 per cent of the water used commercially in the state. This equates to more than 1300 gigalitres (GL) a year for irrigation, industrial and urban usage. We own, operate and build bulk water infrastructure and undertake a variety of complex and often interdependent projects. These range from the design and construction of new and improved water infrastructure to the digital transformation of the way we work to ensure operational efficiency.

Our purpose is to deliver water for prosperity for the communities of regional Queensland we serve, and we understand our assets are important part of many communities and their overall economic wellbeing.

Fortescue

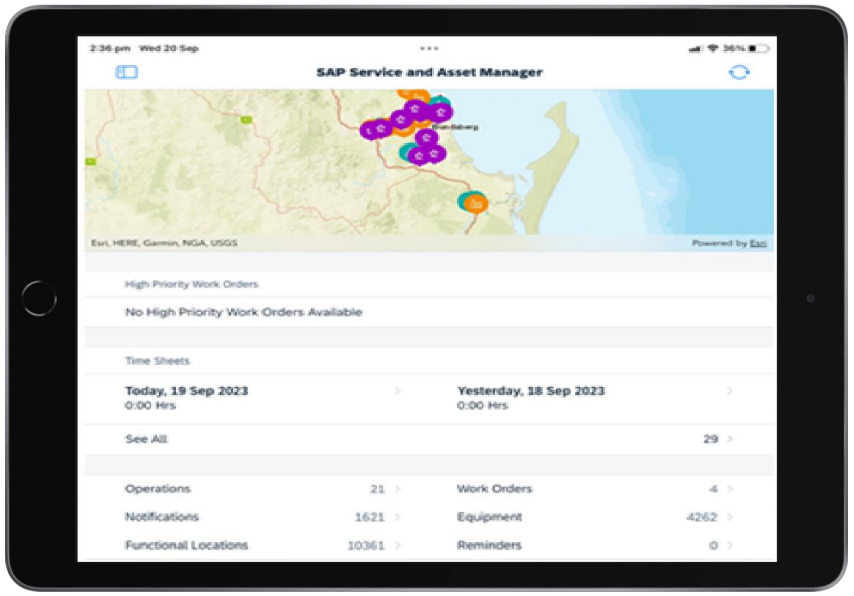
Fortescue is a global metals and green energy company, recognised for its culture, innovation and industry-leading development of infrastructure, mining assets and green energy initiatives. It operates with two divisions – Metals and Energy. Fortescue Energy is comprised of Fortescue Future Industries (FFI) and WAE Technologies.

FFI is leading the green industrial revolution, acquiring and developing technology solutions for hard-to-decarbonise industries, while building a global portfolio of renewable green hydrogen and green ammonia projects. FFI is also leading the global effort to help decarbonise hard-to-abate sectors and is developing and acquiring the technology and energy supply to help decarbonise the Australian iron ore operations of one of the world's largest producers of iron ore, Fortescue Metals, by 2030 (Scope 1 and 2 terrestrial emissions).

Devices and Versions

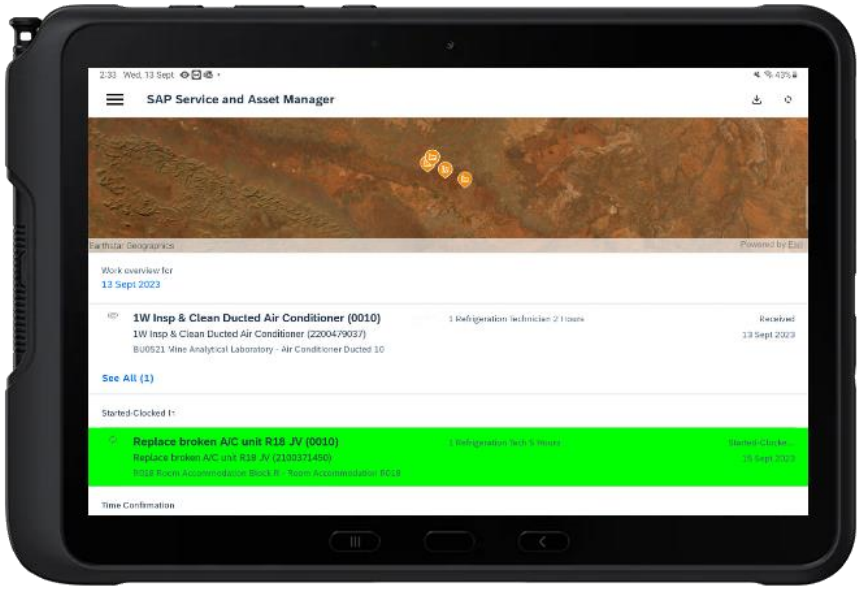
sunwater

- Go-live in 2020 with SAM 4.0
- Upgraded in 2021 to SAM 2010
- Upgraded in 2023 to SSAM 2205
- iPads with tough covers
- Company policy to use Apple products
- App deployed via InTune



Fortescue

- Go-live in 2023 with SSAM 2205
- Upgrading to 2210
- Company policy to use Android products
- Samsung Galaxy Active Tab4 6GB (rugged device)
- Rugged cover
- Shoulder strap
- App deployed via Intune



Implementation Methods

sunwater	Fortescue
• Pilot with 2 users from each region • Staged roll out depot by depot • Face to face training with two trainers • Deploy to device via InTune using AD Groups	• Proof of Concept with SSAM 2020 • Pilot with SSAM 2205 • Implemented SSAM 2205 • 4 specific departments with gradual roll out across the business

Application Features

What do users do in the app?

sunwater

- Map showing geo tagged Functional Locations, Equipment, Work Orders and Notifications
- Time Confirmations
- Navigate Asset Hierarchy
- Display Functional Location and Equipment master data, classification, characteristics, linear data and documents
- Display related Notifications attached to Functional Locations and Equipment
- Create Notifications
- Edit Notifications
- Receive Work Orders
- Download, mark up and upload PDF Work Instructions on Work Orders
- Start, hold and complete Operations
- Enter Measurement Documents on Functional Location, Equipment and PRTs

Fortescue

- Notification, Work Orders, Time Confirmations
- Functional Locations, Equipment, Measuring Points and Measurement Documents
- Map showing geo tagged Functional Locations, Equipment
- Work overview for daily operations to be executed
- Clock In Clock Out, to Start and Time Confirmations
- Set Work Orders and Operations as Favourites
- Overview Screen shortcuts to quickly navigate to key business processes
- Vehicle Stock Lookup, used for Warehouse stock

Distribution Model

How is data sent to the app?

sunwater

- Syclo User Attributes for:
  - Planner Group for Technical Objects & Notifications
  - Work Centre for Technical Objects
  - Work Centre for Notifications
  - Measuring Point Category

Attribute Name	Enabled	Value
PLANNERGROUP	☑	760
TECHOBJWC	☑	7600
MPCATEGORY	☑	C
MPCATEGORY	☑	M
NOTIFWC	☑	1000AMPN
NOTIFWC	☑	1000WARE
NOTIFWC	☑	1000OCWR
NOTIFWC	☑	1000SURV
NOTIFWC	☑	1000DS
NOTIFWC	☑	7600
NOTIFWC	☑	7600CI
NOTIFWC	☑	7600CO
NOTIFWC	☑	7600EL
NOTIFWC	☑	7600ME
NOTIFWC	☑	7600OM

- Operations using Requirements Assignment

Components | Reqmnts Assignment | Relationships

Capacity cat. 002 Person

Spl	Dispat...	Person	Work	W...	Normal ...	D...
1	☑	HLINOVSKY	40.0	HR	40.0	HR

Fortescue

- Parameter ID's used to download;
  - Work Order Operations
  - Notifications
  - Time Confirmations
  - Functional Locations
  - Equipment

User Edit Goto System Help

Maintain User Profile

Password TOTP Registration

User JALBERT User with Business Partner Assignment (Business Partner:)

Changed By JALBERT 20.09.2023 12:00:06 Status Revised

Address | Parameters

Parameters

SET/GET Parameter ID	Parameter value	Short Description
AGR	SSAM-MT	Work Center
PBR		Personnel Area
PER		Personnel Number (HR)
WRK	1002	Plant

Security

How are users authorised?

sunwater	Fortescue
• Single Sign On (SSO) • One branded app • Scan QR code to bring down meta data • Network account • Log on via Email address • SAP S/4HANA account with appropriate roles assigned to Business Role • Cloud Services account • Syclo User Profile and Attributes • Active Directory Groups	• Single Sign On (SSO) • 4 branded apps Demo, DEV, QAS, PRD • Log on via Email address • Network account • Log on via Email address • SAP S/4HANA account with appropriate roles • Gateway account with appropriate roles • Active Directory Groups • Pin code for the user to login to SSAM

Monitoring

How do support staff monitor use?

sunwater

- Mobile Services on BTP
- Gateway Statistics
- Payload Trace
- Report on Time Confirmations via Asset Manager
- Report on number of Syncs per User per Month
- Report on Sync Length per User
- Microsoft Team screen sharing

Fortescue

- Mobile Services on BTP
- Gateway Traces
- Reporting
  - Are Users manually syncing?
  - User Sync Start Time and End Time
  - User Sync times (0-3, 3-7, greater than 7 minutes)
  - Security Roles
  - Gateway Alias/Email
- ConnectWise

Business Process and Master Data

sunwater

Mobile app exposes weaknesses in Business Processes and Master Data, for example:

- Supervisors TECO Work Orders too early leading to sync errors when users try to complete Operations
- Had to review Catalog Profiles and associated Damage and Object Parts for creating Notifications
- Had to create more Work Centres and update Functional Locations, Equipment, Maintenance Items and Task Lists to reduce volume of data sent to device
- Had to expand Task Lists to accommodate one Operation per person per job

Fortescue

Minimal business process change:

- Ensure the work order data shown on the device is the same as how they search in SAP
- Removing the need to print and scan work orders
- Using the tablet to complete PDF documents
- Documents added at header level and not operation level

LIVE DEMO

sunwater

Fortescue

Key Takeaways

sunwater

- Be prepared to modify your business processes
- Be prepared to modify your master data
- Do a pilot with a cross section of users before roll out
- Staged roll out works best with limited trainers, also gives support staff time to work through any issues
- No app is perfect, learn to adapt

Fortescue

- Have key stakeholders involved e.g. Tradesperson, Supervisors
- Develop the app to stakeholders requirements
- Keep in touch with the stakeholders
- Rigorous testing
- Stage the roll out

How to Connect with us

Email:
Phone:
LinkedIn:
Twitter Handle:

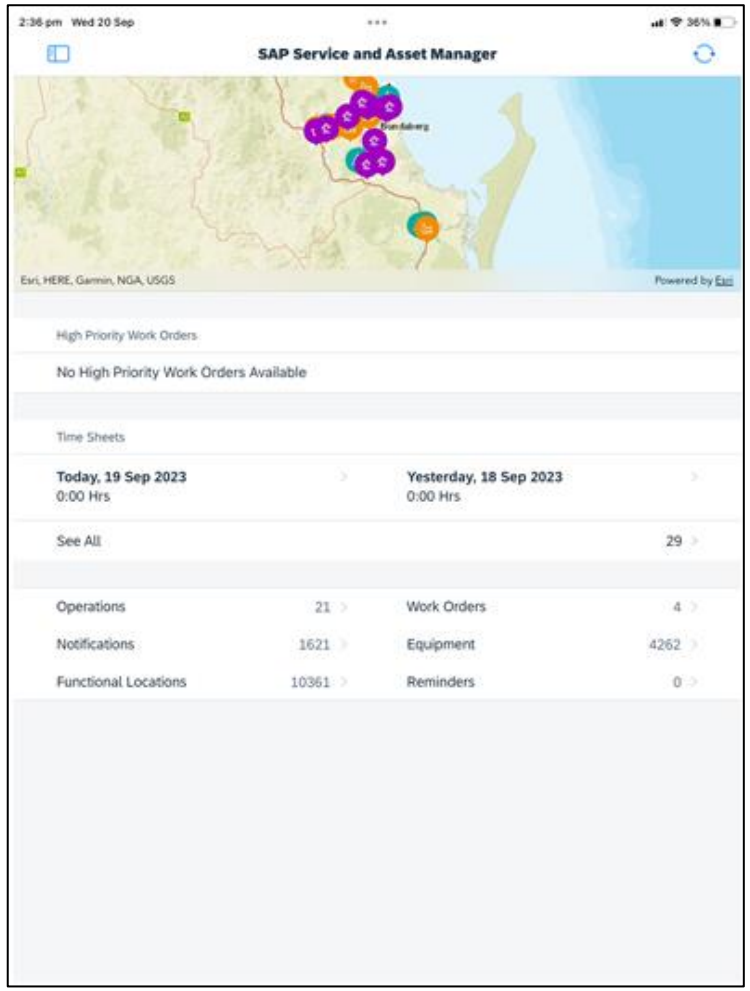
DEMO SCREENS

sunwater

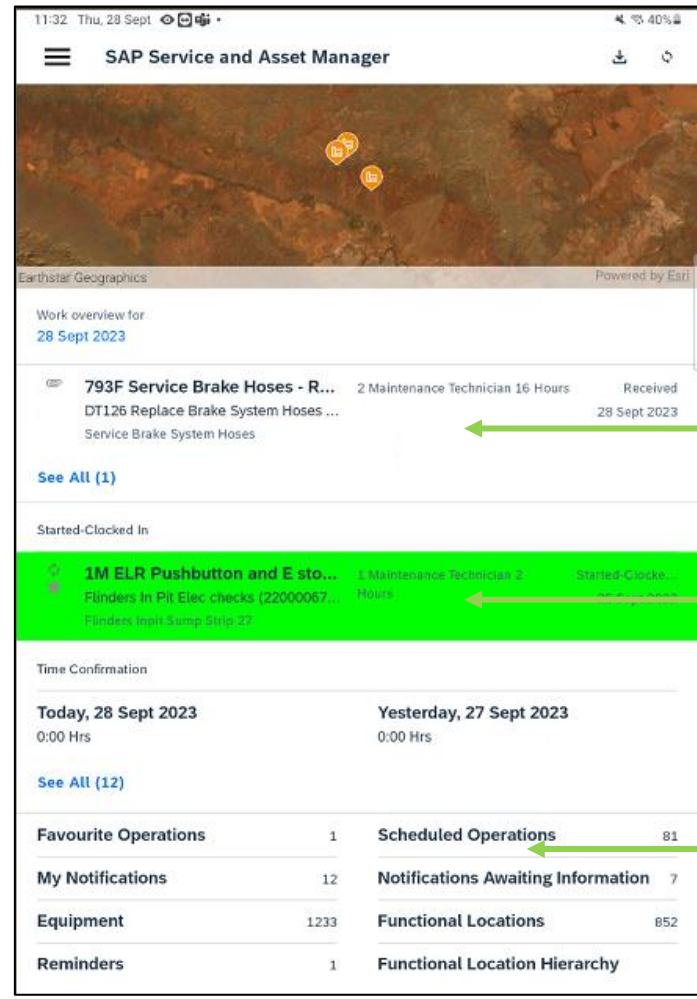
Fortescue

Home Screen

sunwater



Fortescue



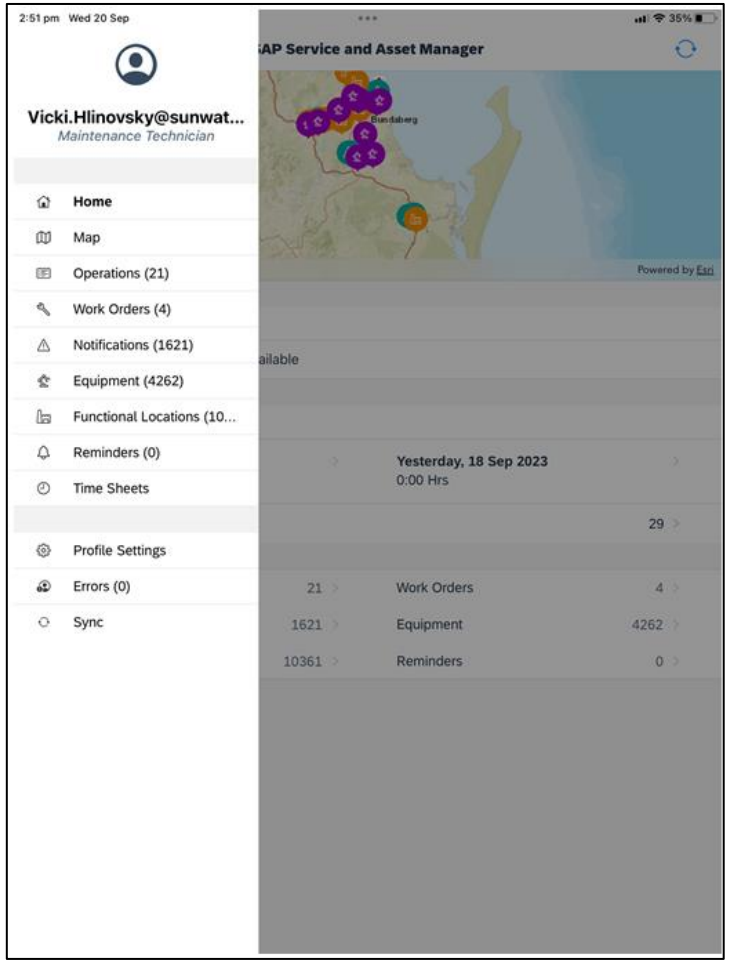
Work overview for the day

Current operation working on

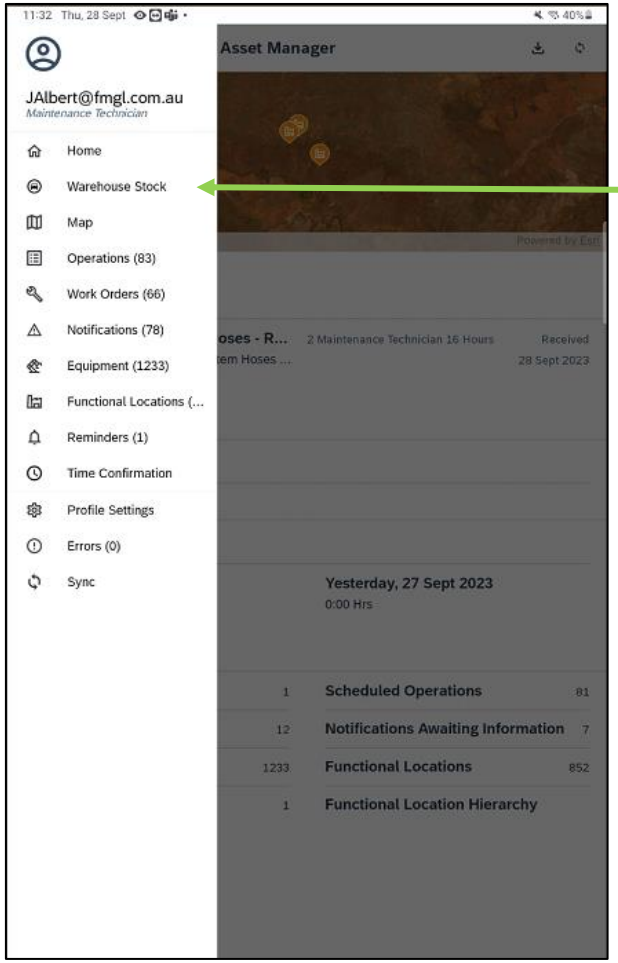
Quick shortcuts

Side Swipe Menu

sunwater



Fortescue

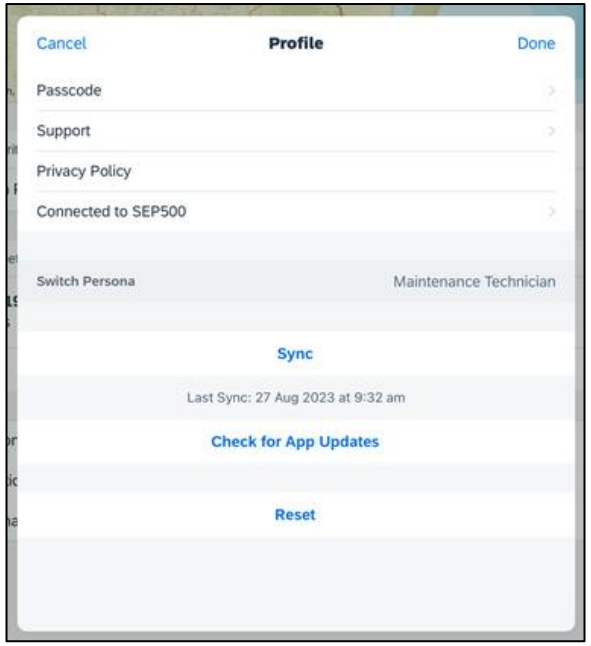


Warehouse stock to see what stock is available

Profile Settings

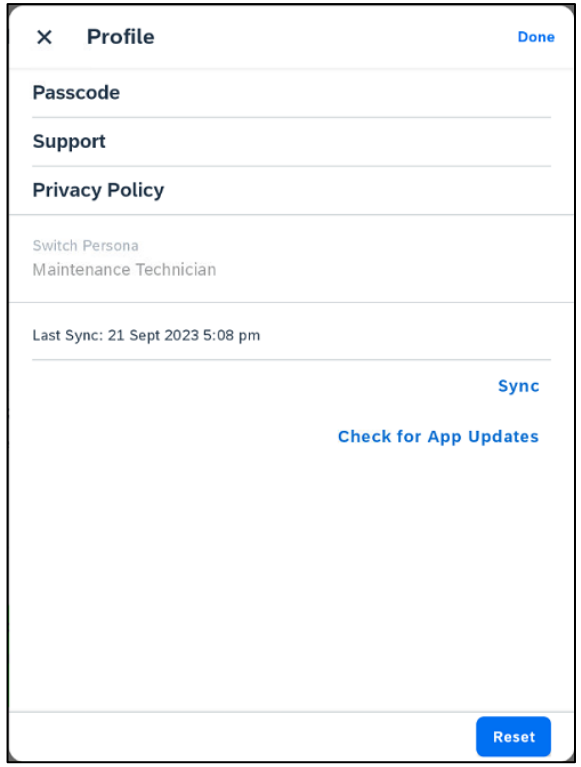
sunwater

- Support – users can send an email to ICT Help Desk
- Connected to indicates which client the app is currently connected to (eg. Dev, QAS, Prod)
- Sync
- Last Sync Date and Time
- Check for App Updates
- Reset



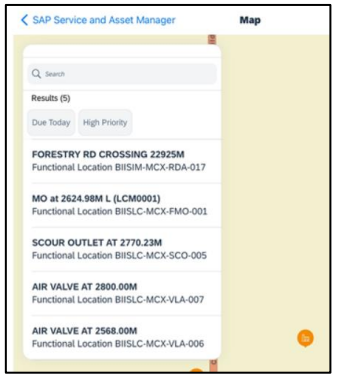
Fortescue

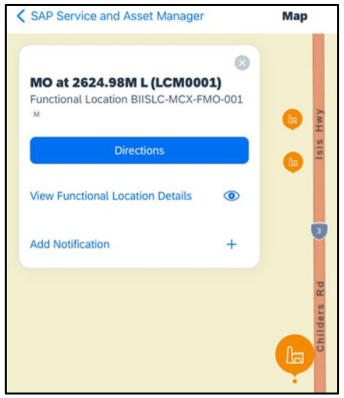
- Support – Email or Phone Asset Management for help

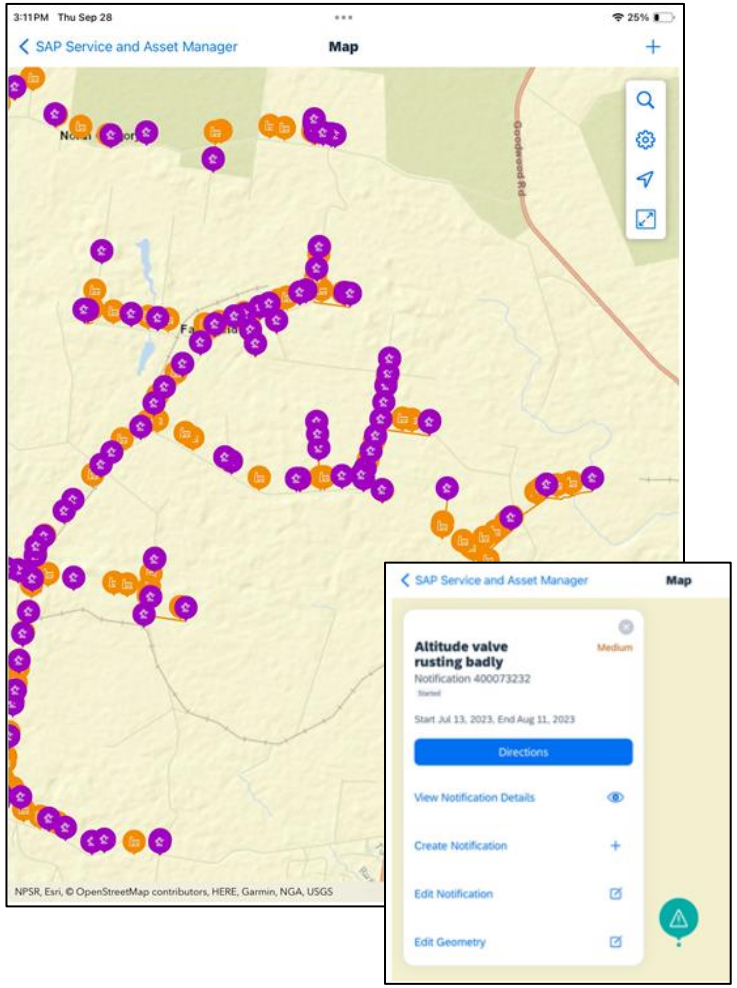


Map

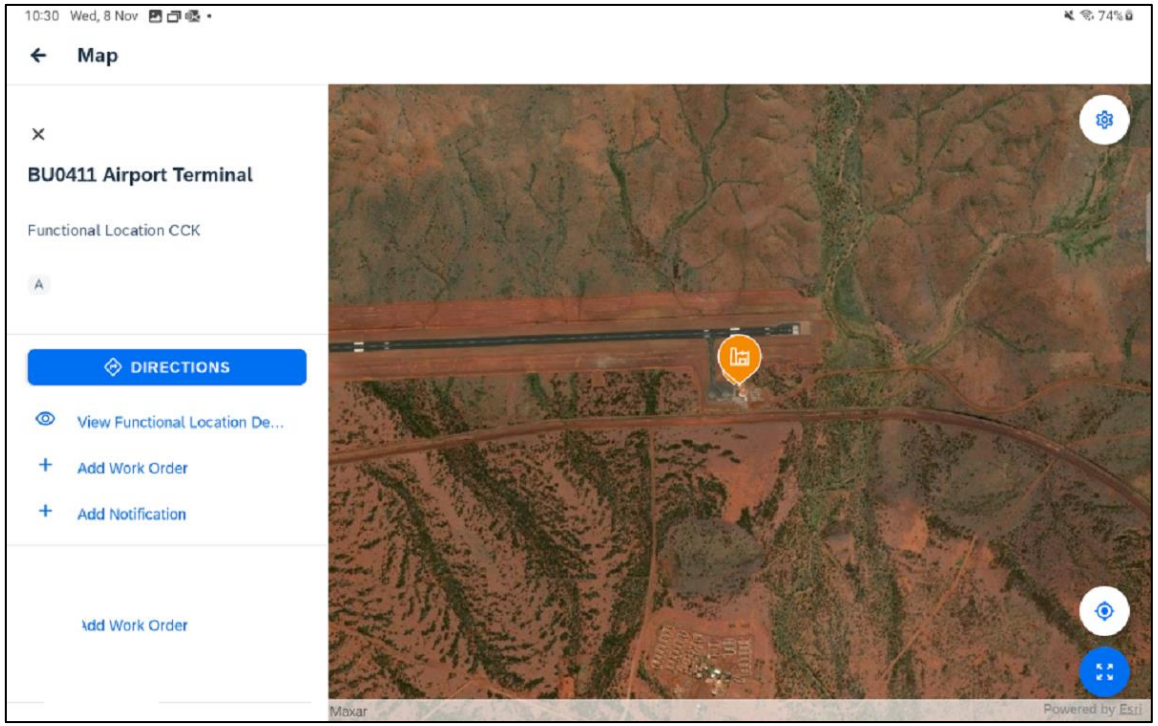
sunwater





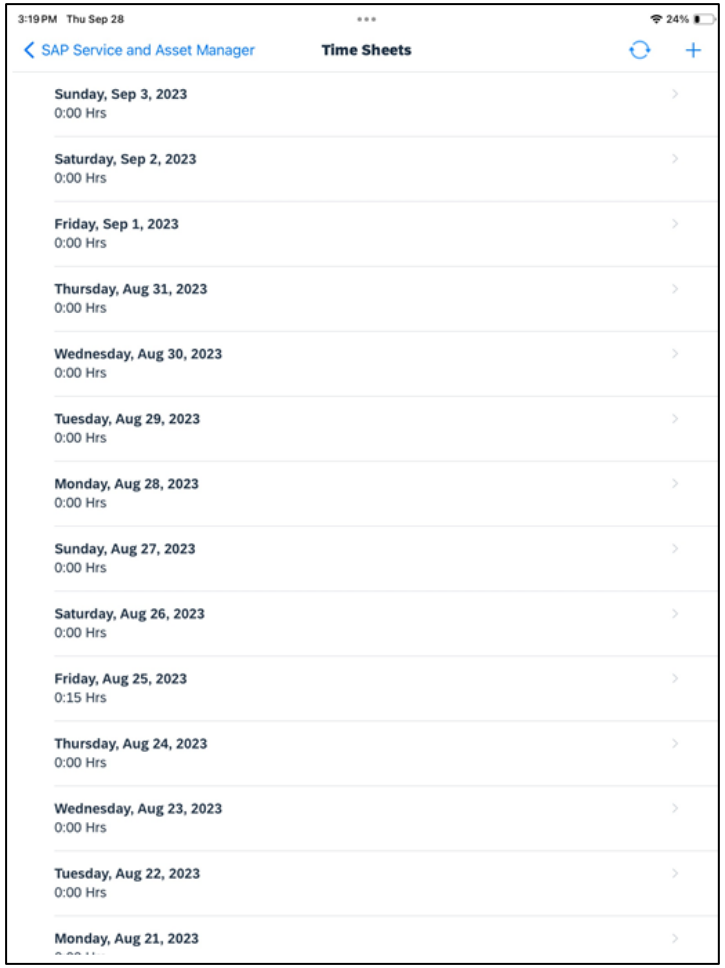


Fortescue

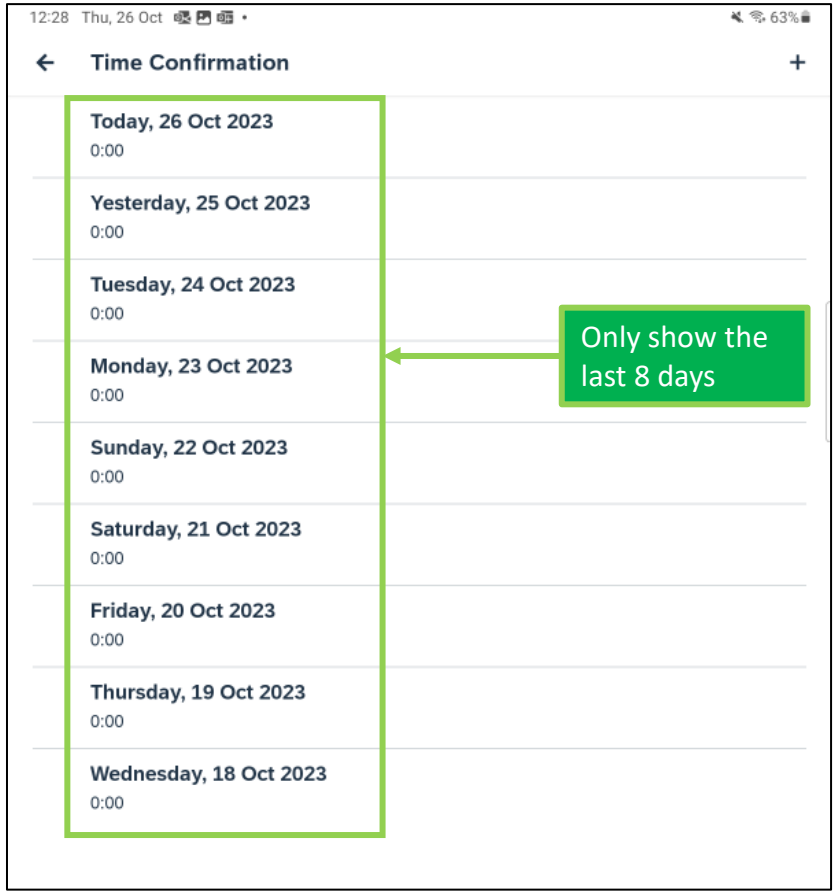


Time Confirmations

sunwater



Fortescue

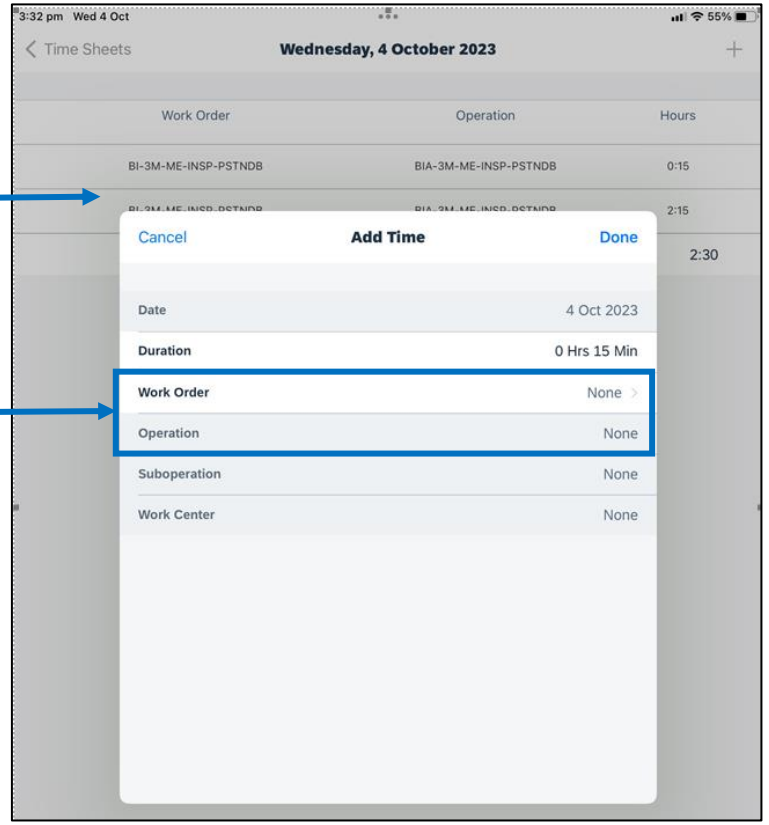


Add Time Confirmation

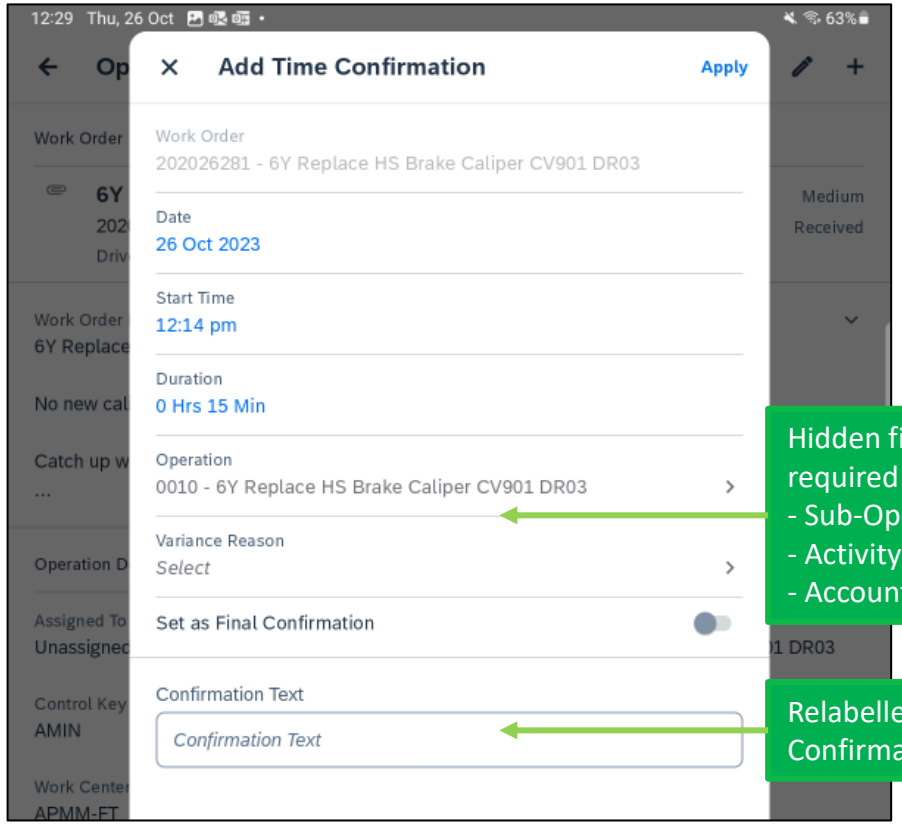
sunwater

View Time Confirmations already entered

Only shows assigned Work Orders & Ops



Fortescue



Hidden fields not required
- Sub-Operation
- Activity Type
- Account Indicator

Relabelled Notes to Confirmation Text

Operations List

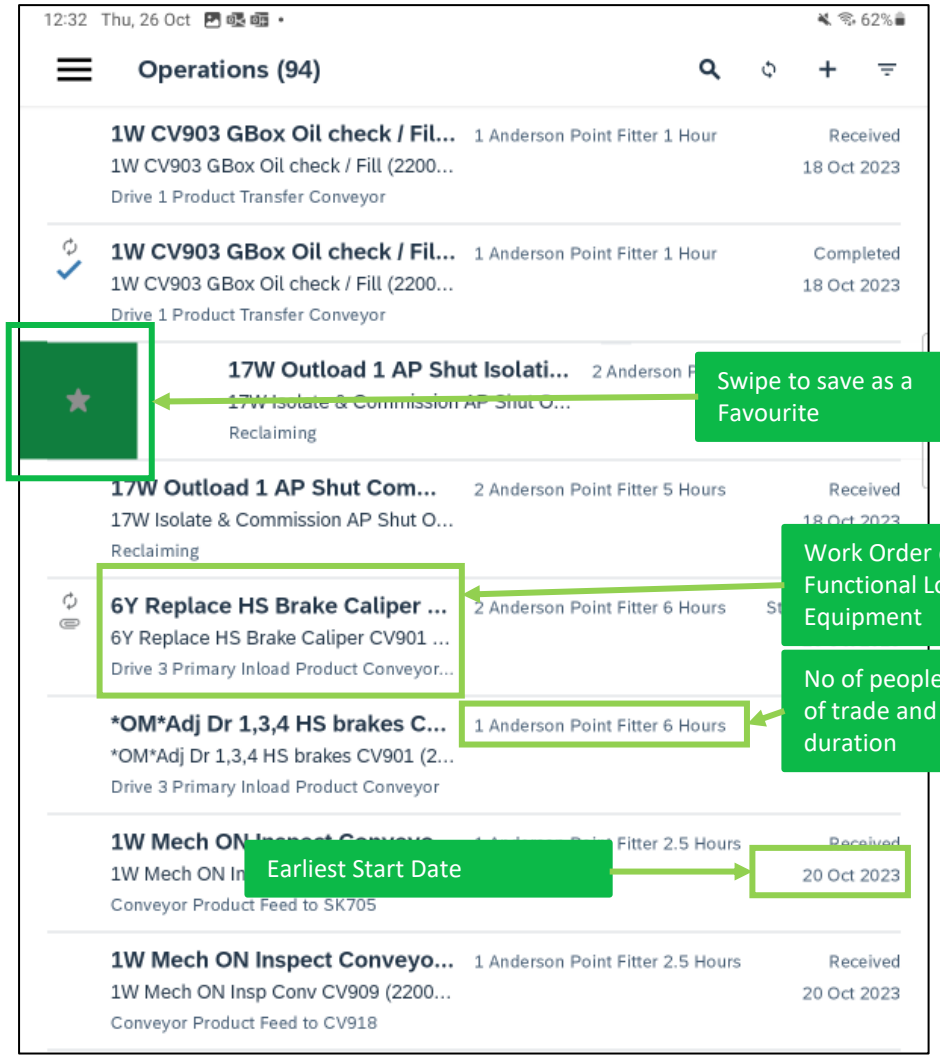
sunwater

Fortescue

Search for Operations by Description

Sort by Operation End Date

Start, Hold and Complete Operations and add Time Confirmations



Swipe to save as a Favourite

Work Order description Functional Location & Equipment

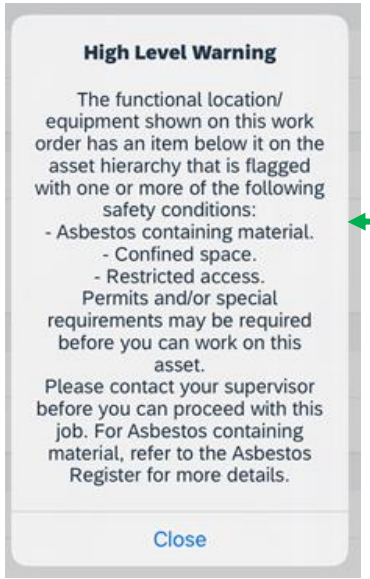
No of people, type of trade and duration

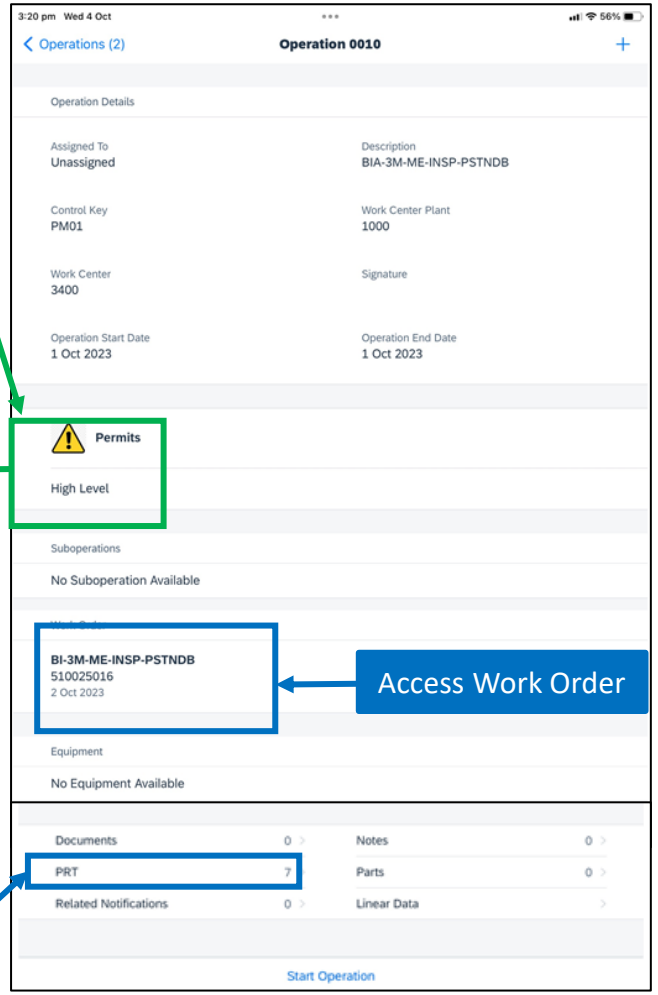
Earliest Start Date

Operation Display

sunwater

Permits from WO

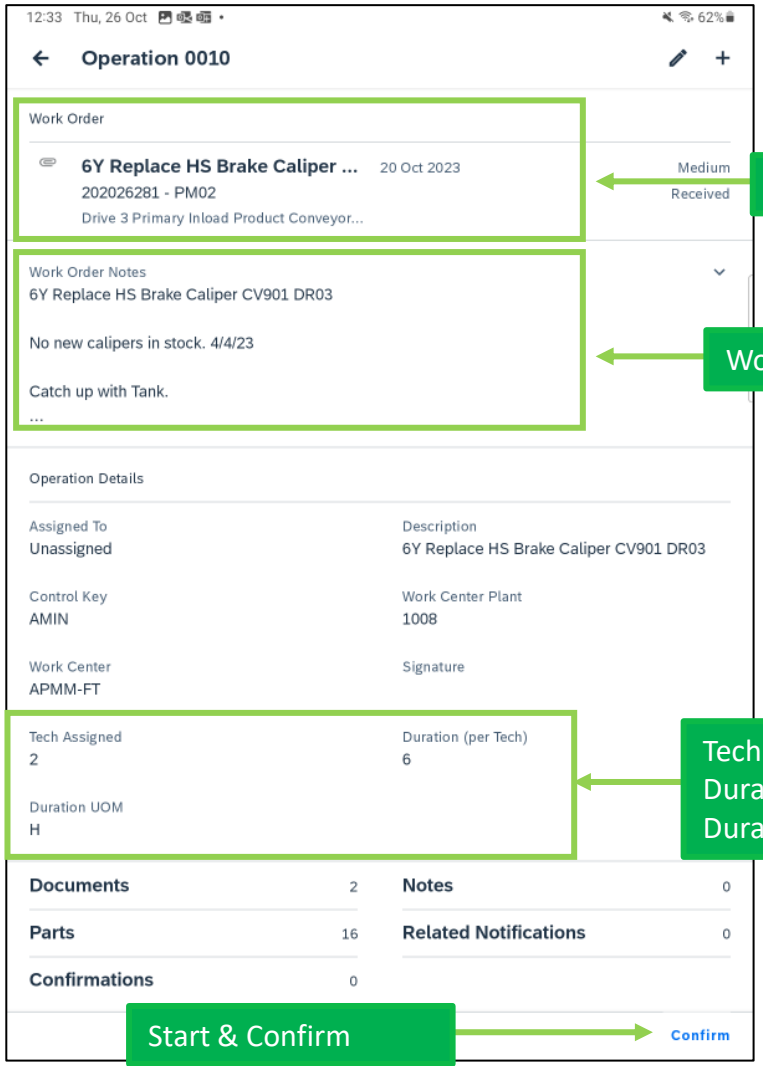




Access Work Order

Open PRTs

Fortescue



Move Work Order

Work Order Long Text

Tech Assigned
Duration
Duration UoM

Start & Confirm

PRT – Measuring Points

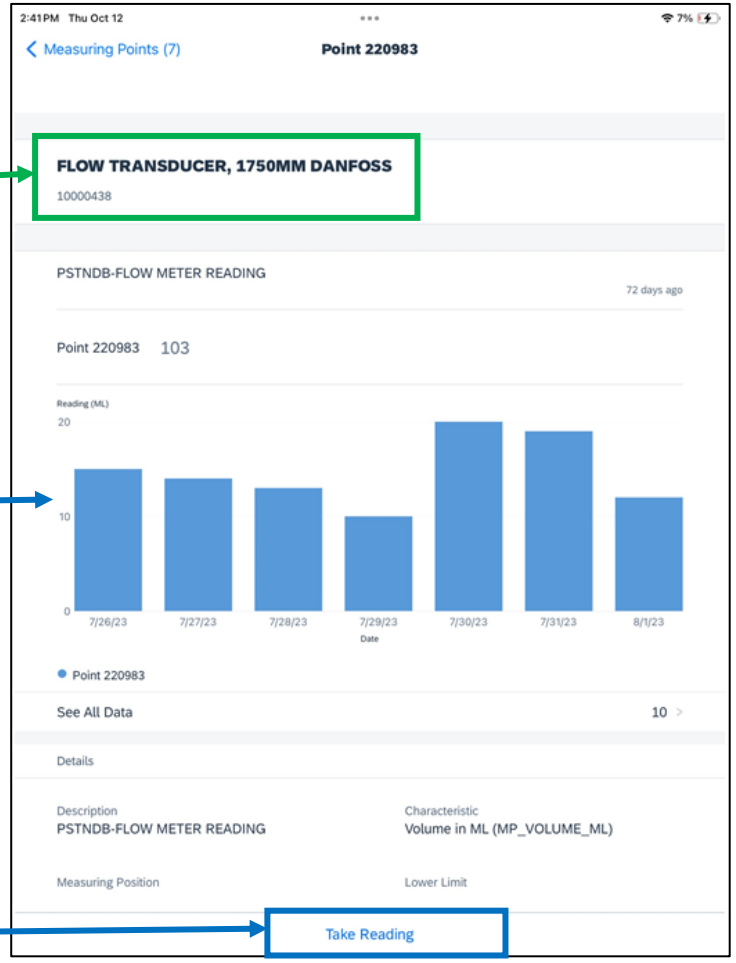
sunwater

Fortescue

Added FLOC/EQ & Description

View last 10 readings on a graph

Take Reading

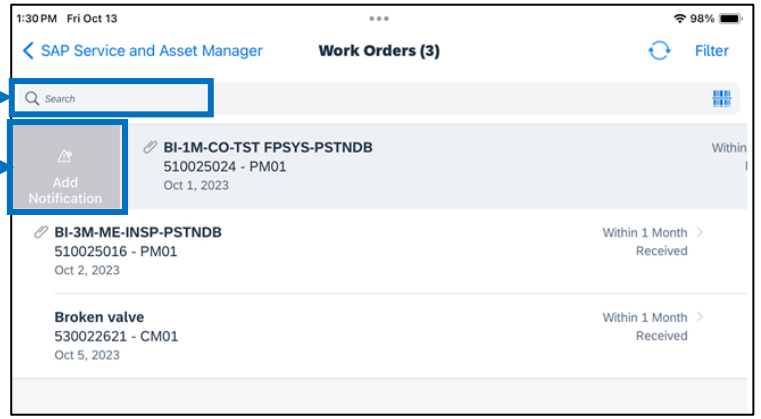


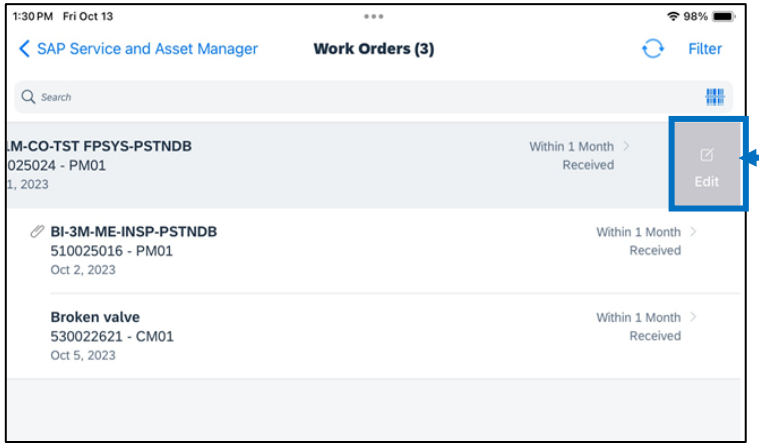
Work Order List

sunwater

Search

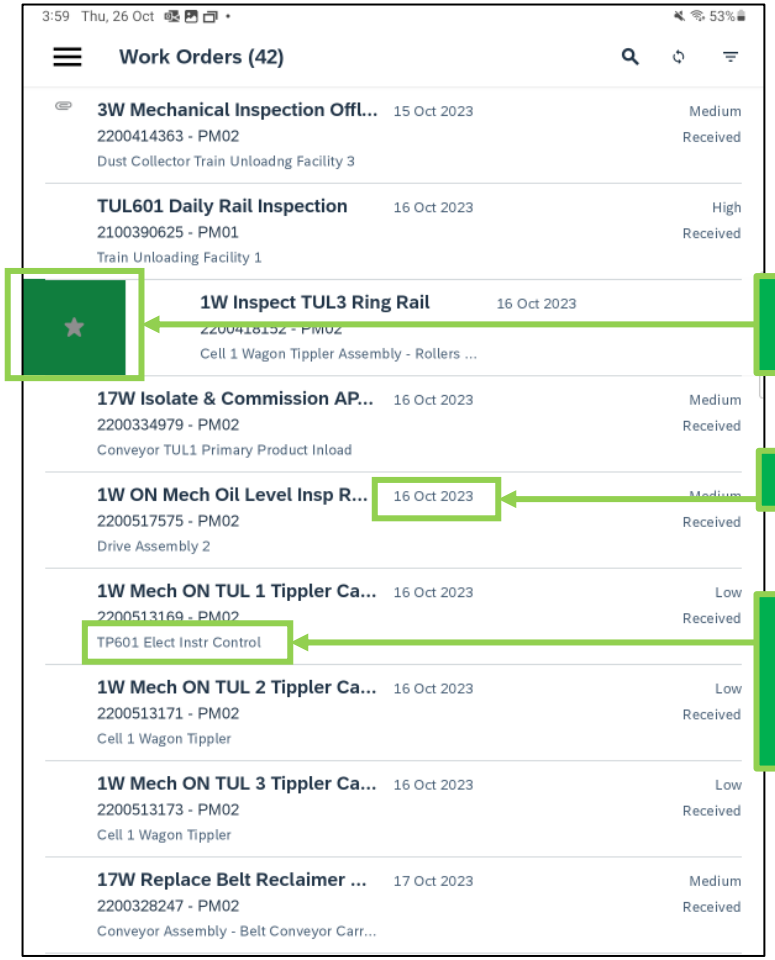
Swipe left to right to Add Noti





Swipe right to left to Edit WO

Fortescue



Swipe to save as a Favourite

Basic Start Date

Functional Location and Equipment description

Work Order Display

sunwater

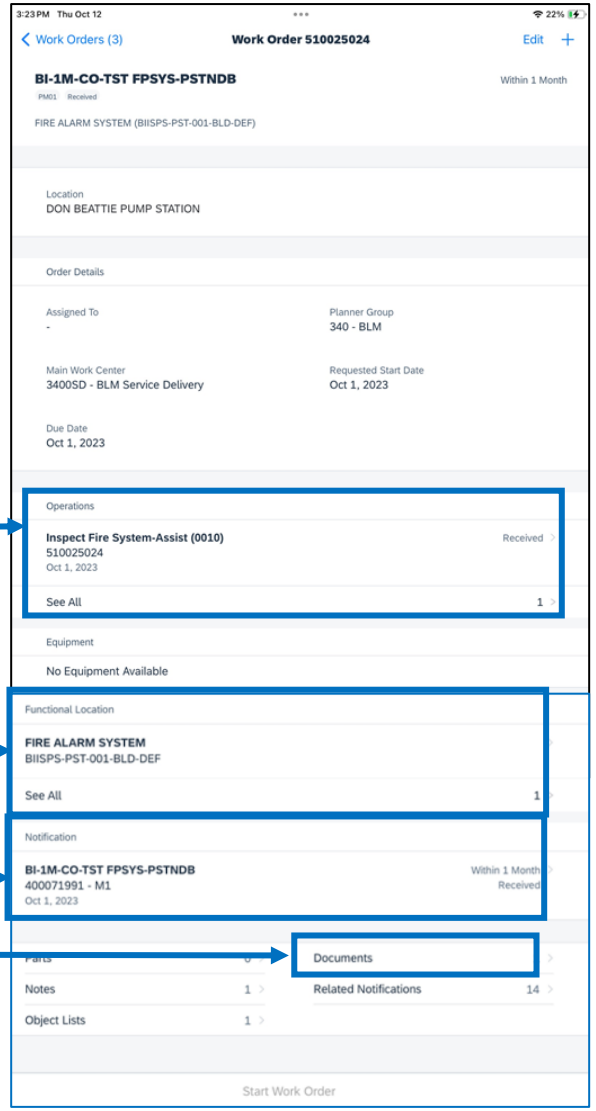
Fortescue

Access Operations

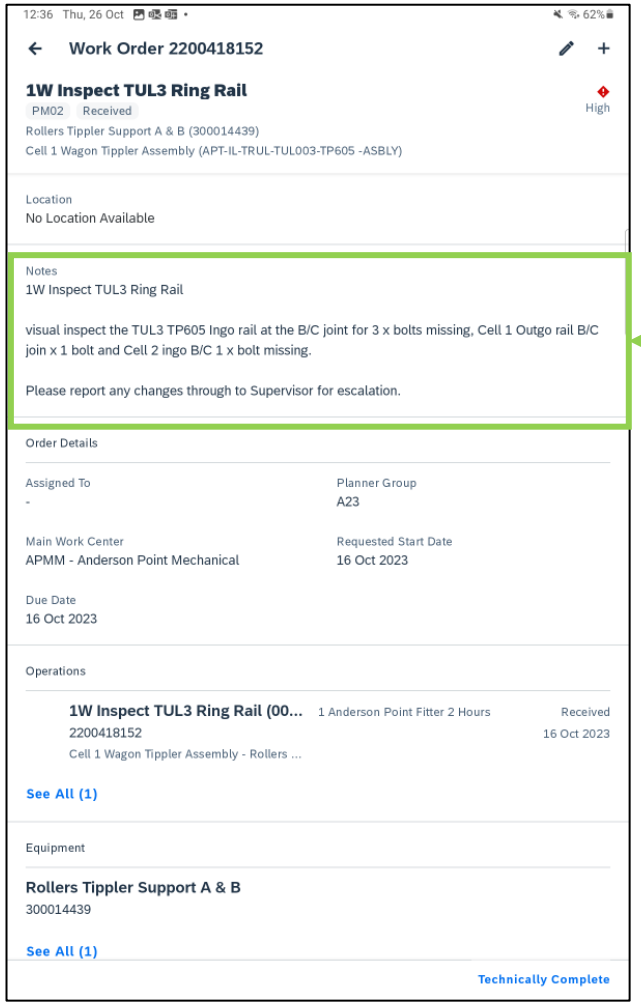
Access Functional Location

Access Notification

Access Documents



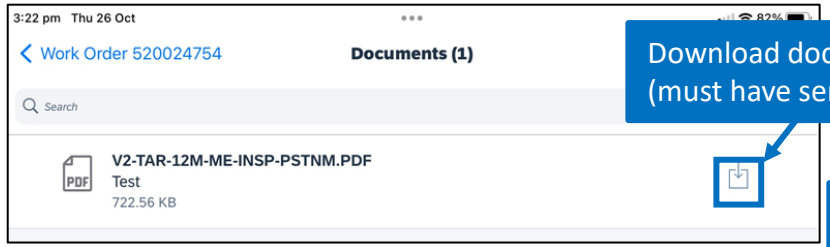
Work Order Notes (Long Text)



Work Order Long Text

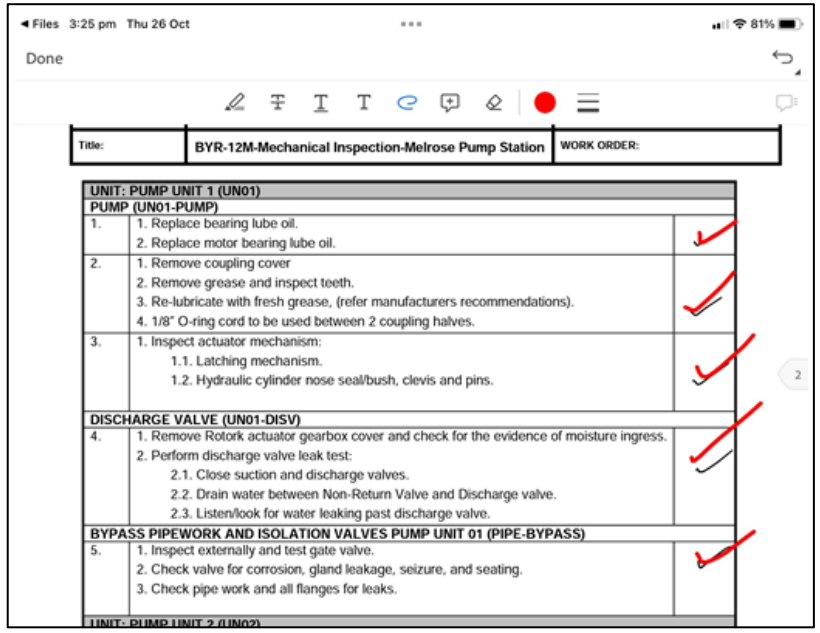
Work Order - Documents

sunwater



Download document (must have service)

Icon changes to Open once downloaded



Save to device (or One Drive for shared documents) and edit in Adobe

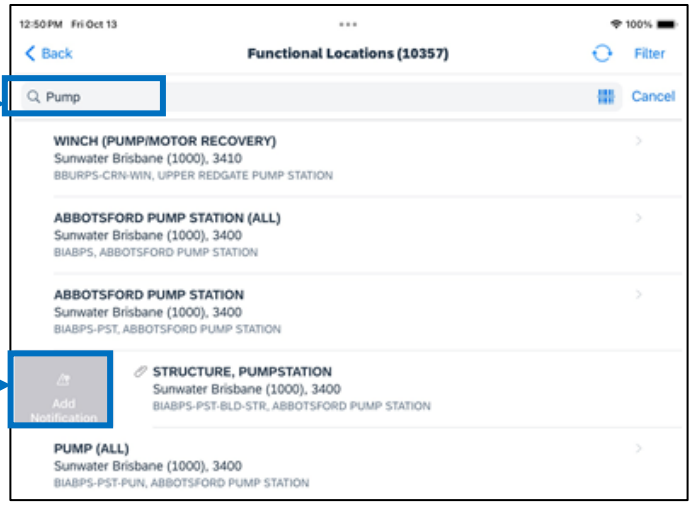
Fortescue

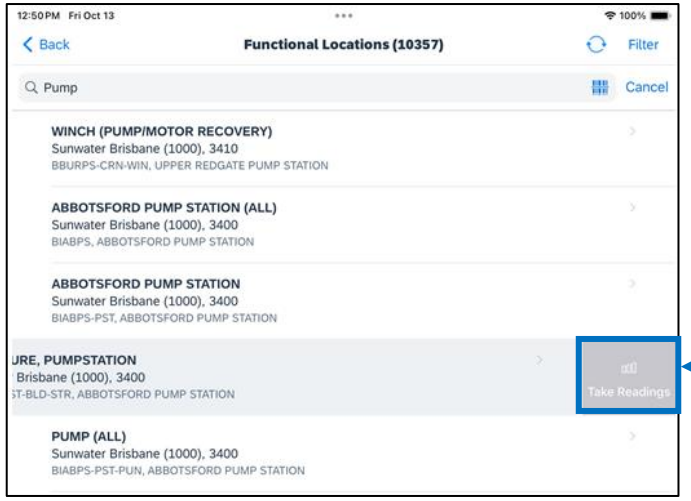
Functional Location List

sunwater

Search by Description or FLOC Label

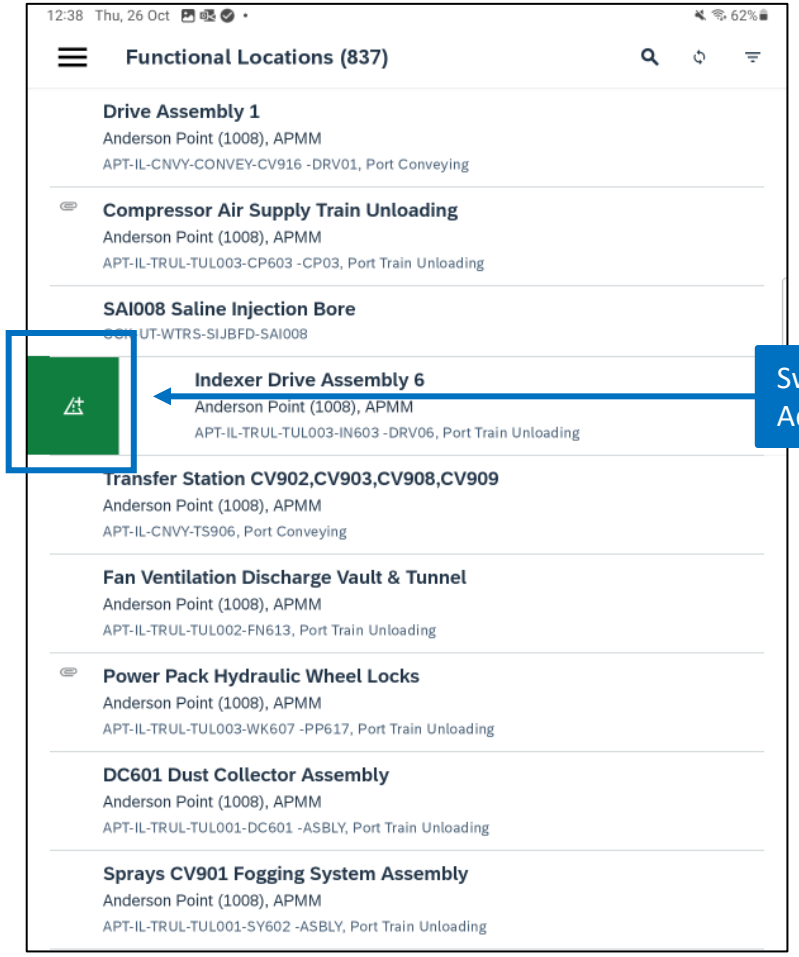
Swipe left to right to Add Notification





Swipe right to left to Take Readings

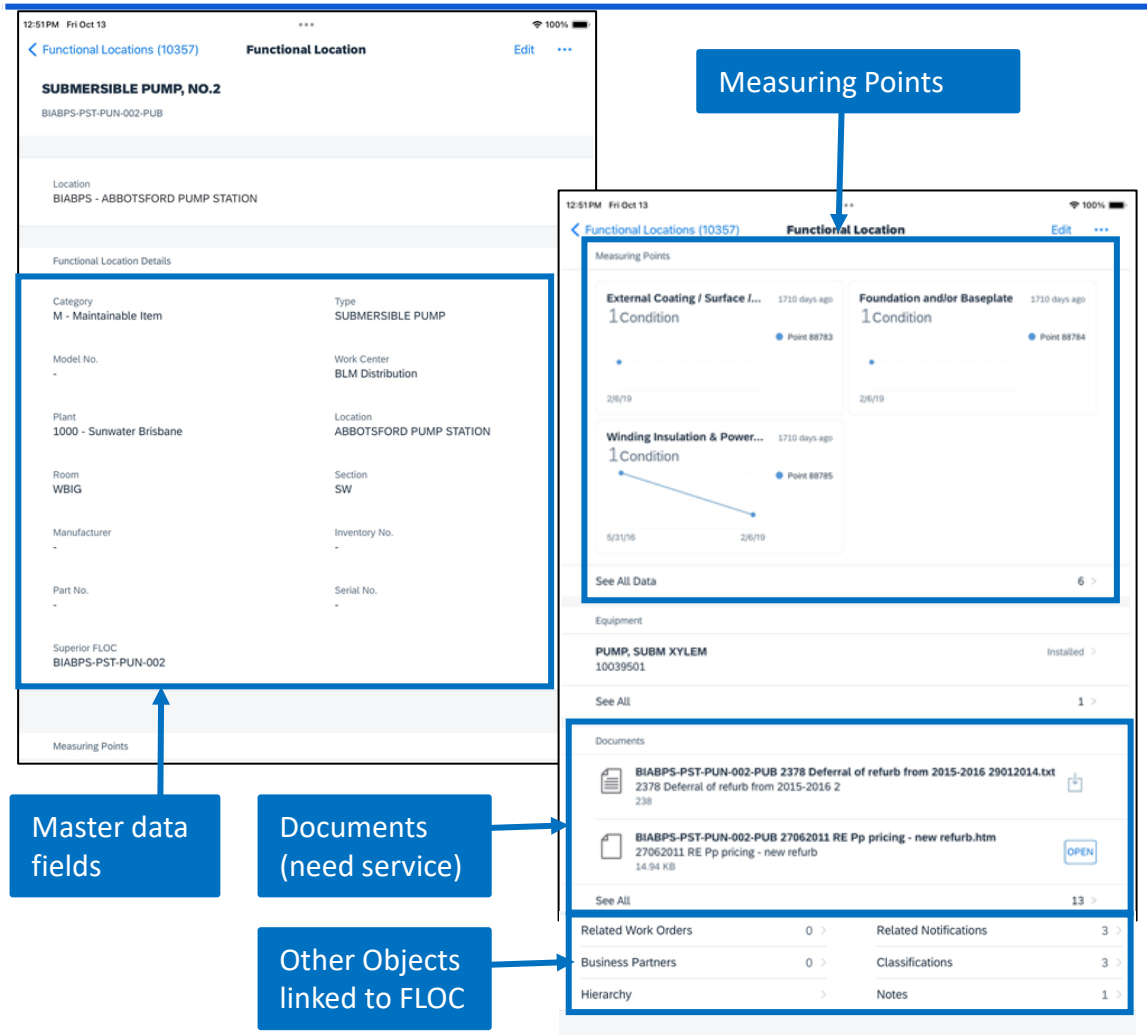
Fortescue



Swipe left to right to Add Notification

Functional Location Display

sunwater



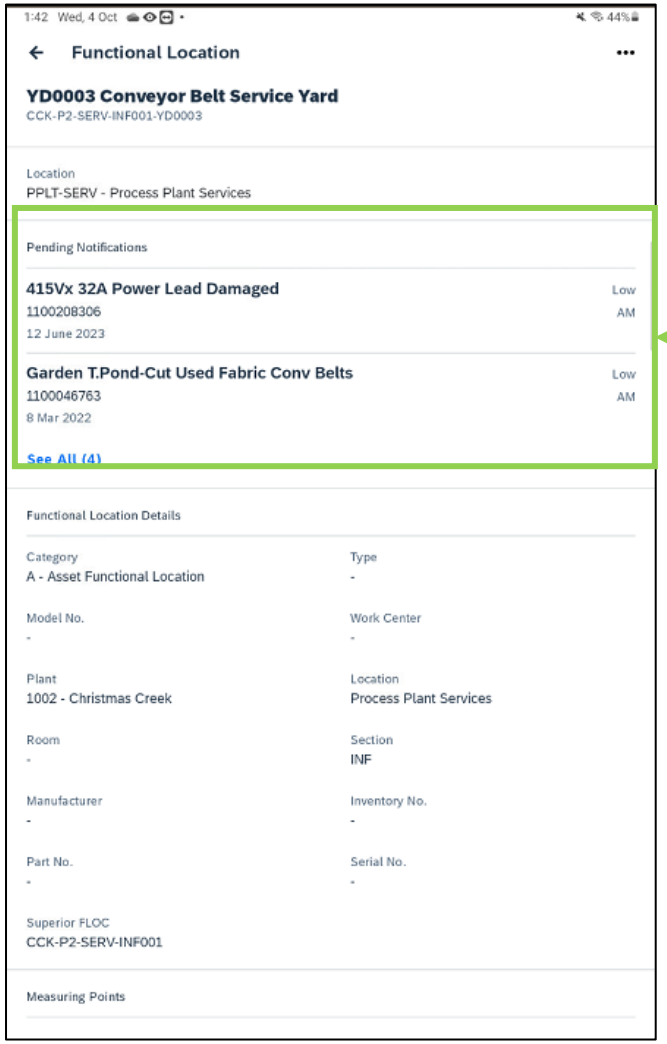
Measuring Points

Master data fields

Documents (need service)

Other Objects linked to FLOC

Fortescue

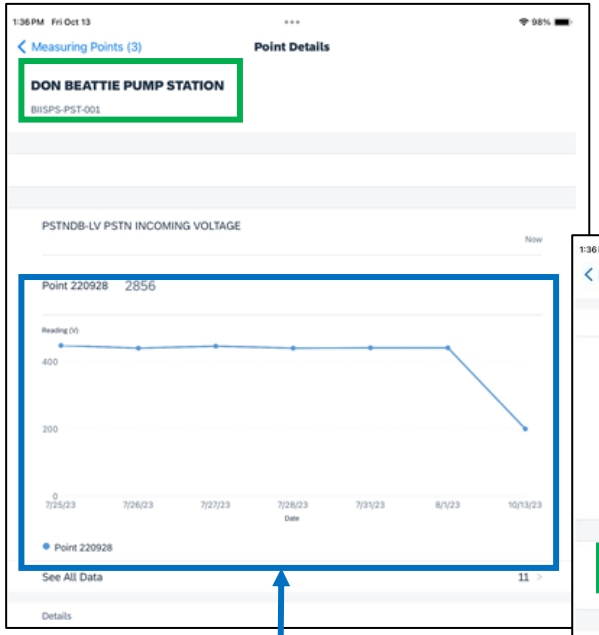


Outstanding Notifications

Functional Location – Measuring Points

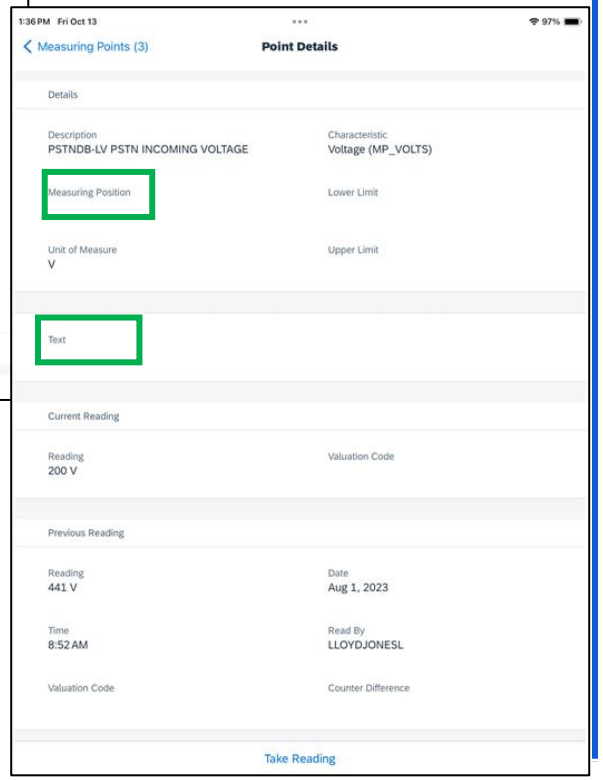
sunwater

Fortescue



Last 10 readings

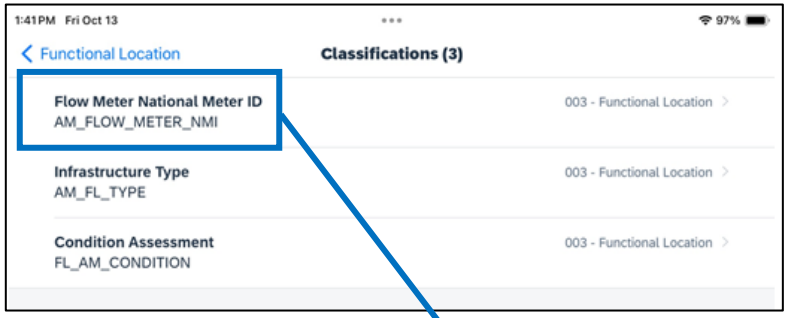
Enhancement Fields:
FLOC/EQ & Description
Measuring Position
Text

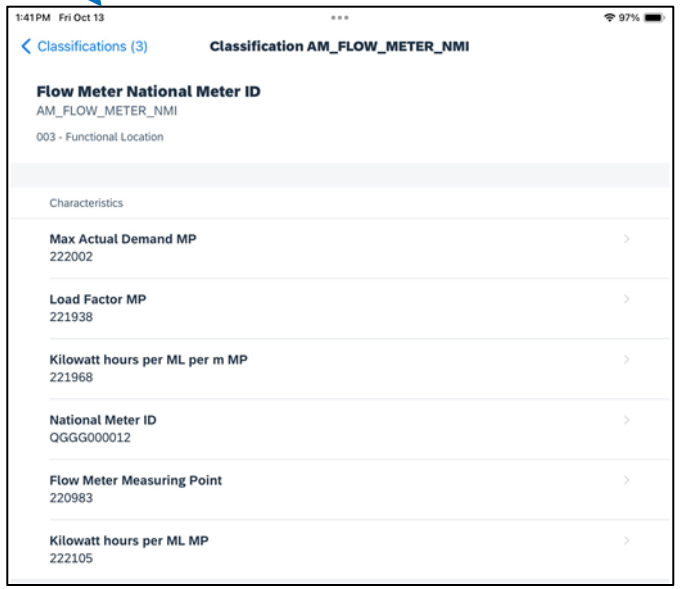


Functional Location Display – Class/Characteristics

sunwater

Fortescue





Linear Data

sunwater

Related Work Orders	0	Related Notifications	0
Business Partners	0	Classifications	2
Hierarchy		Linear Data	
Notes	1		

2:12 pm Thu 9 Nov 100%

Functional Location

Linear Data

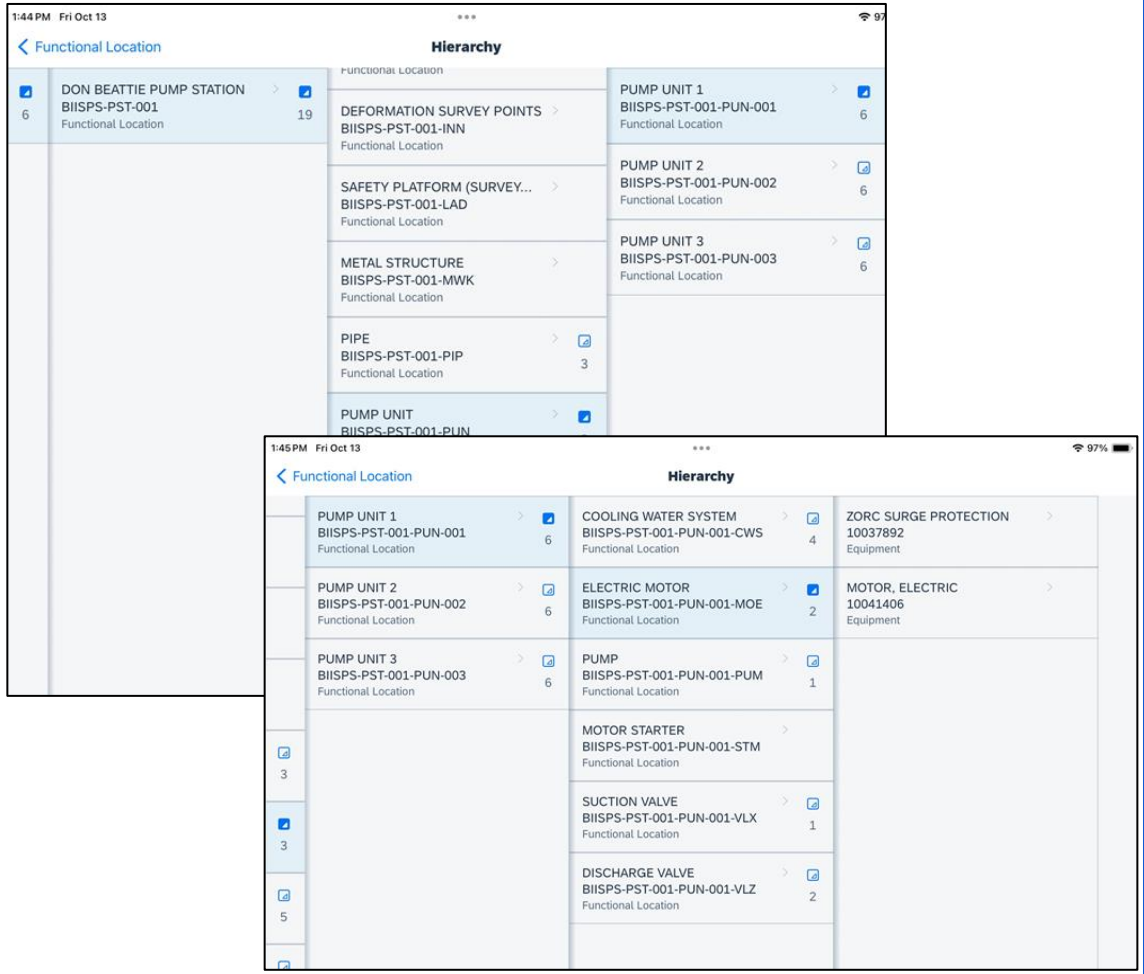
Details

Linear Reference Pattern BIWOAU-MCX	Length 1640 M
Start Point 0 M	End Point 1640 M
Start Marker	End Marker
Distance From Start Marker -	Distance From End Marker -
Offset 1 -	Offset 2 -

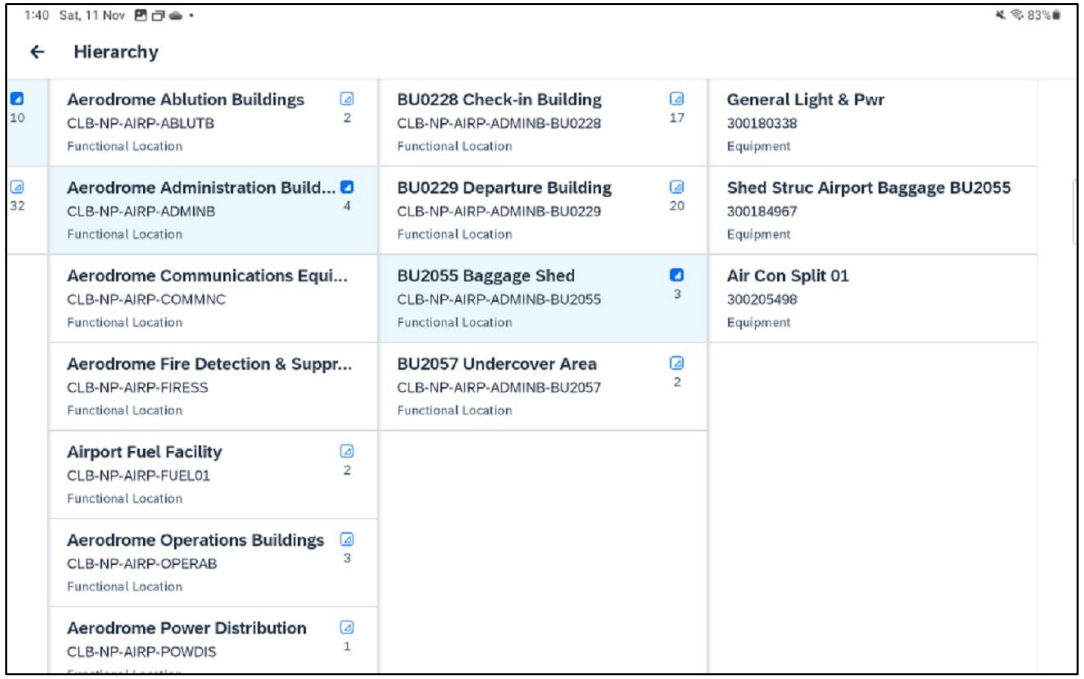
Fortescue

Asset Hierarchy

sunwater



Fortescue



Equipment List

sunwater

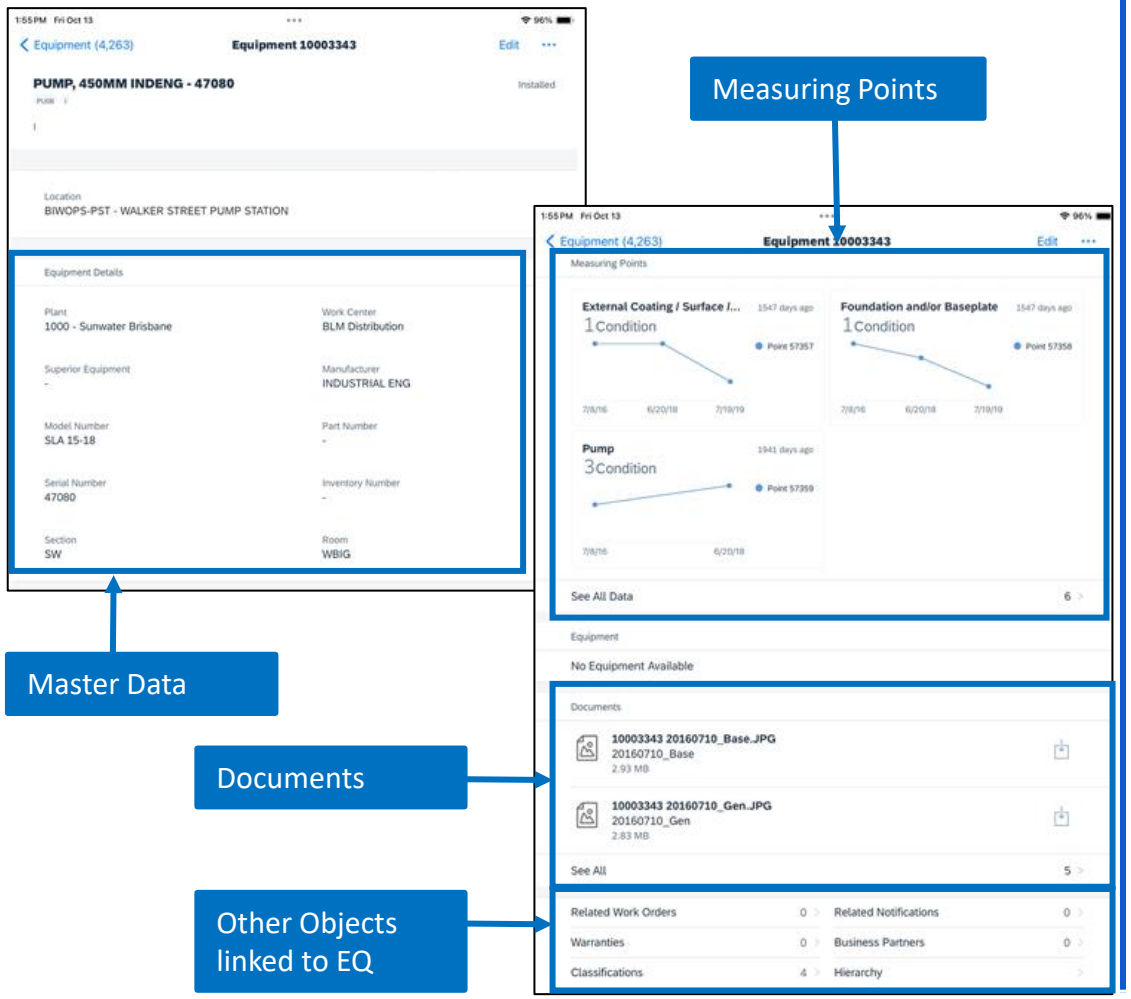
Search

Swipe left to right to Create Noti

Fortescue

Equipment Display

sunwater



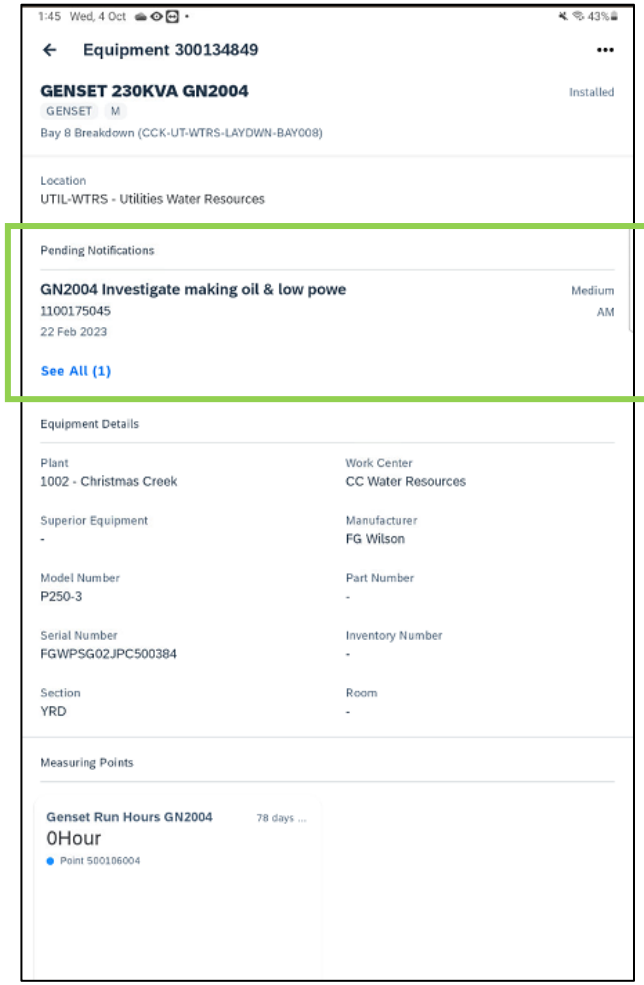
Measuring Points

Master Data

Documents

Other Objects linked to EQ

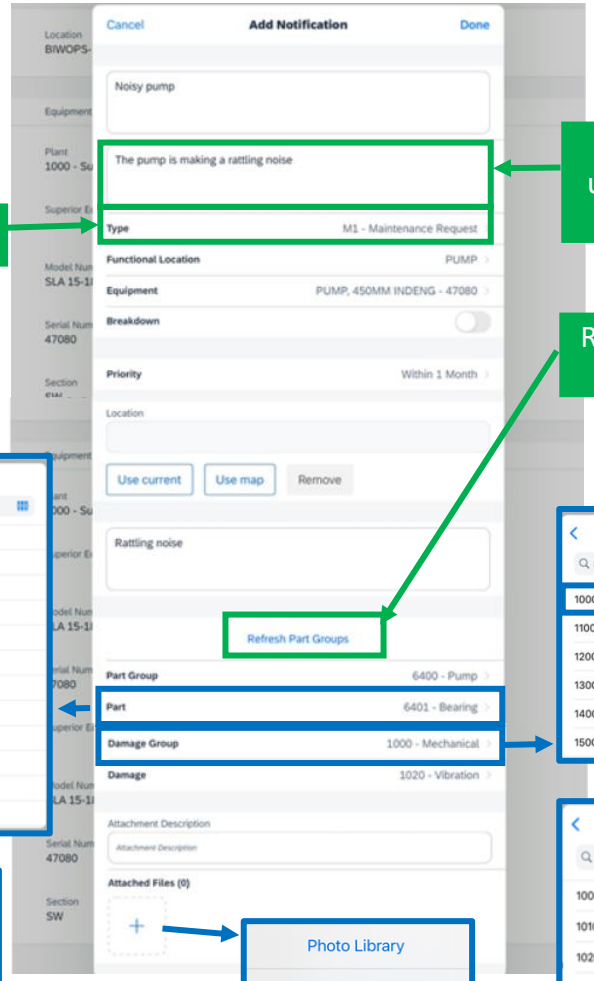
Fortescue



Outstanding Notifications

Notification Creation

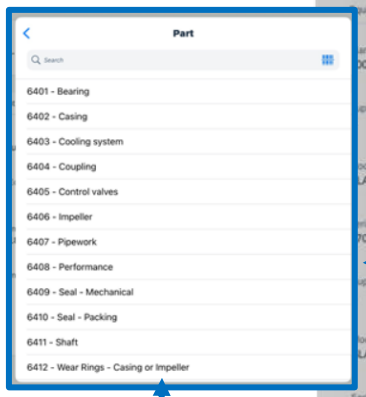
sunwater



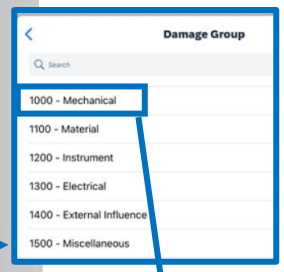
Defaulted Type to M1

Moved Long Text under Description & made bigger

Refresh Object Part & Damage Codes



Object Parts linked to Catalog Profile on FLOC/EQ



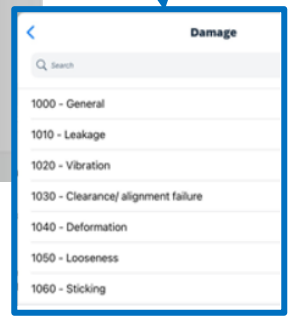
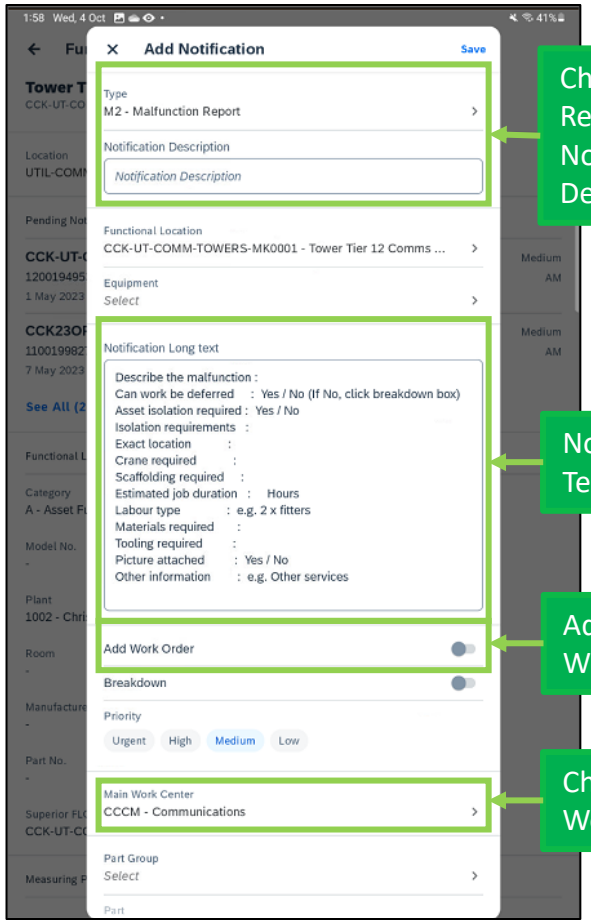


Photo Library

Take Photo

Files

Fortescue



Change the flow Relabelled to Notification Description

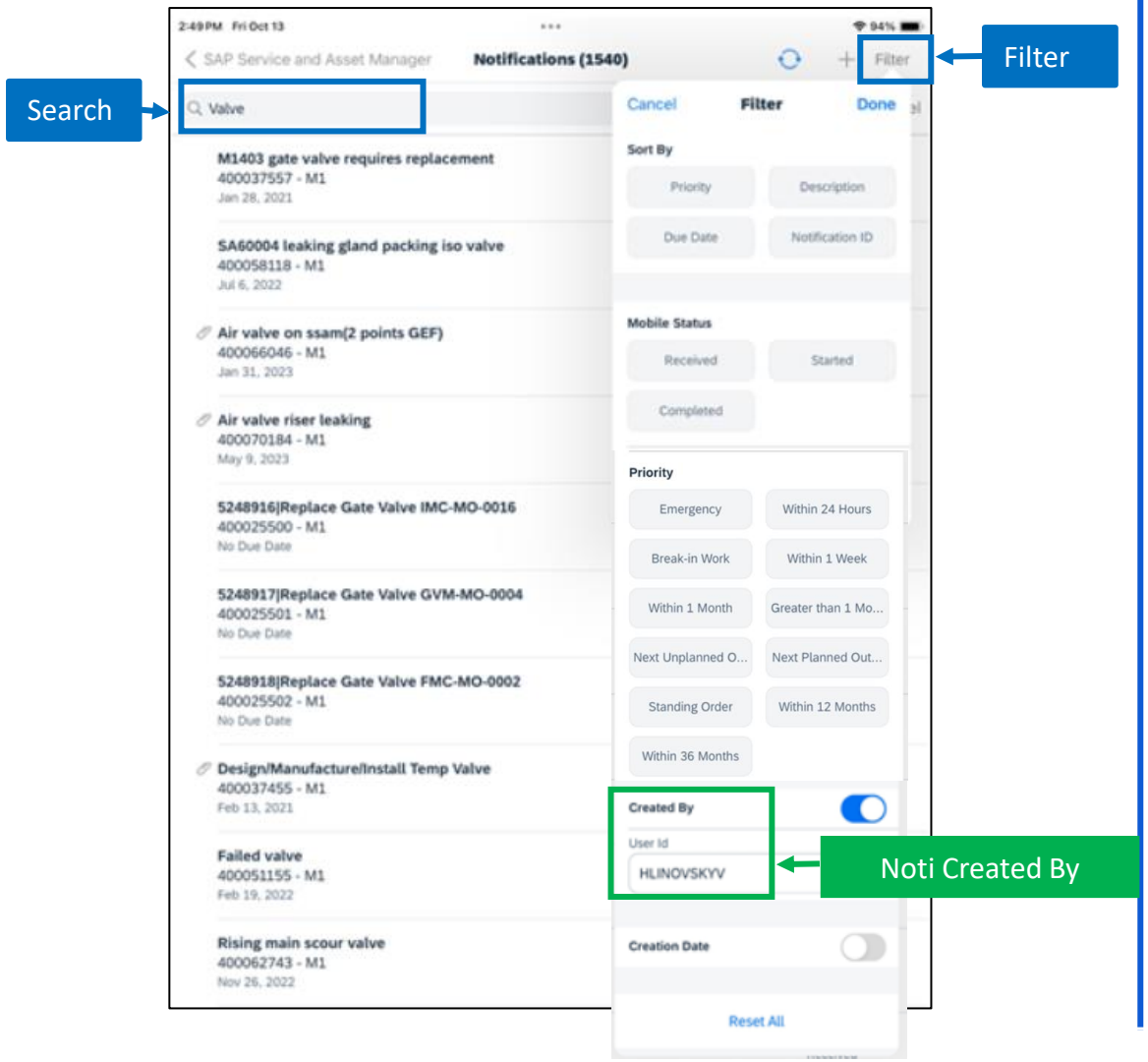
Notification Long Text Template

Add Breakdown Work Order

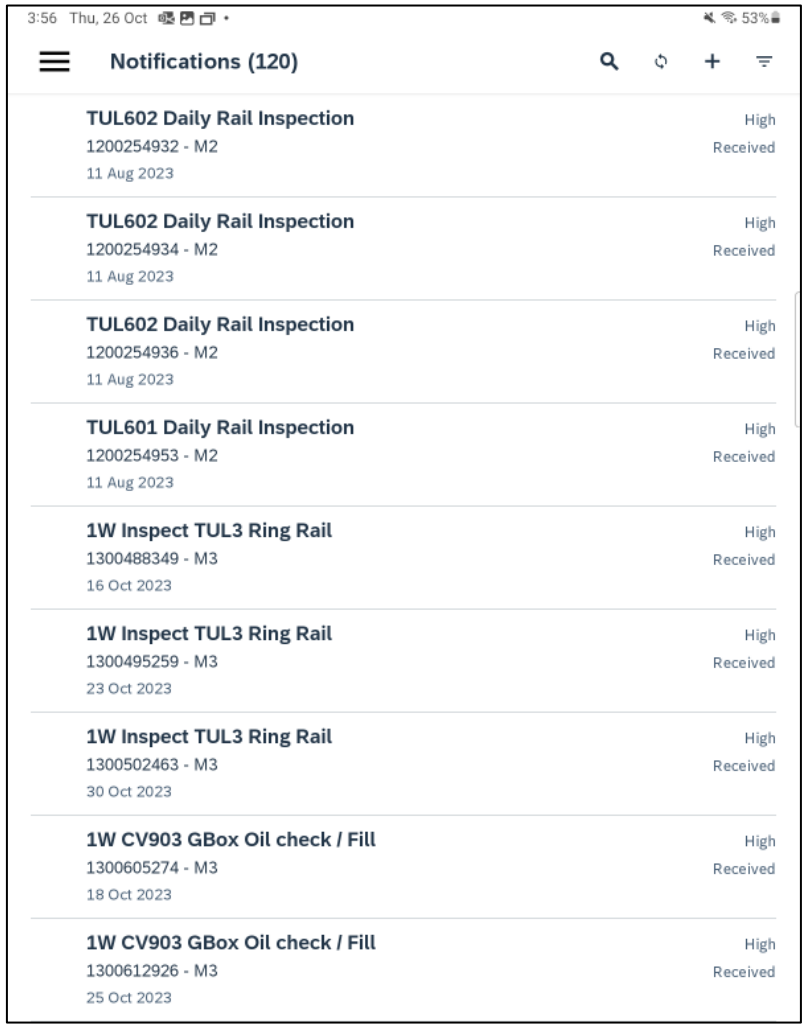
Change Main Work Centre

Notification List

sunwater

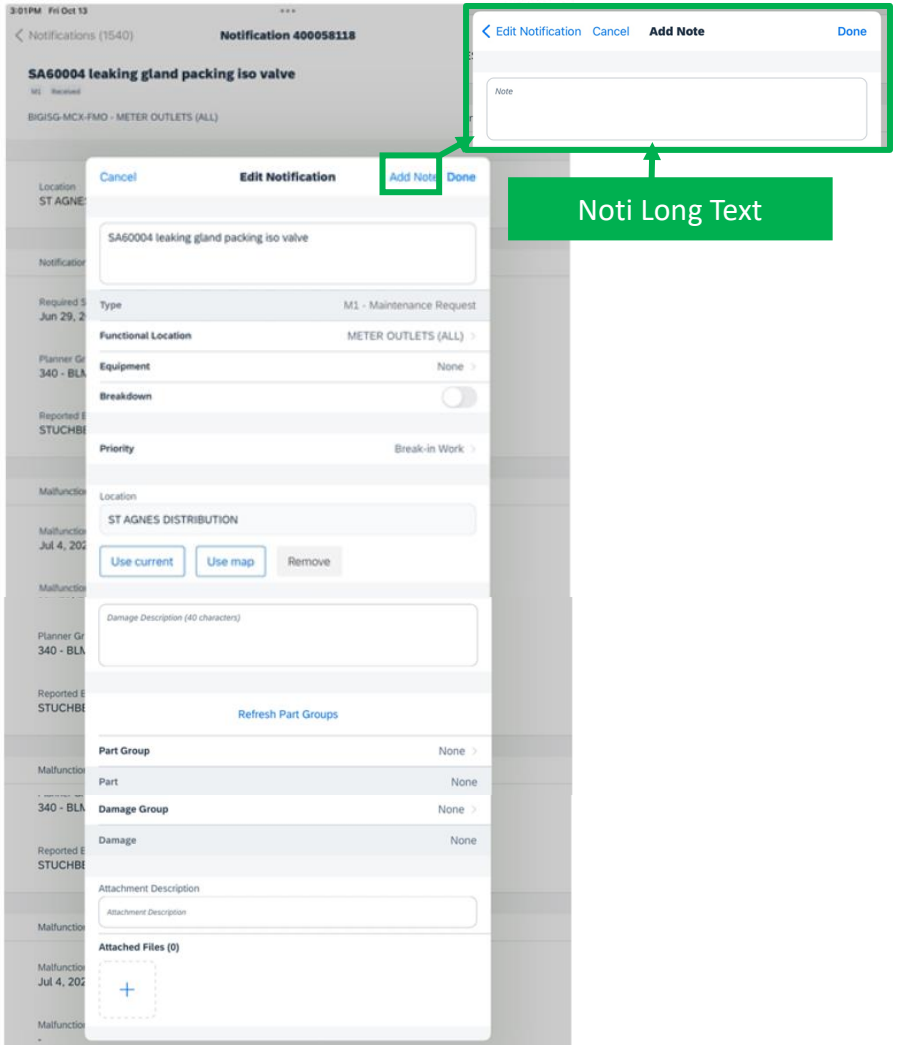


Fortescue

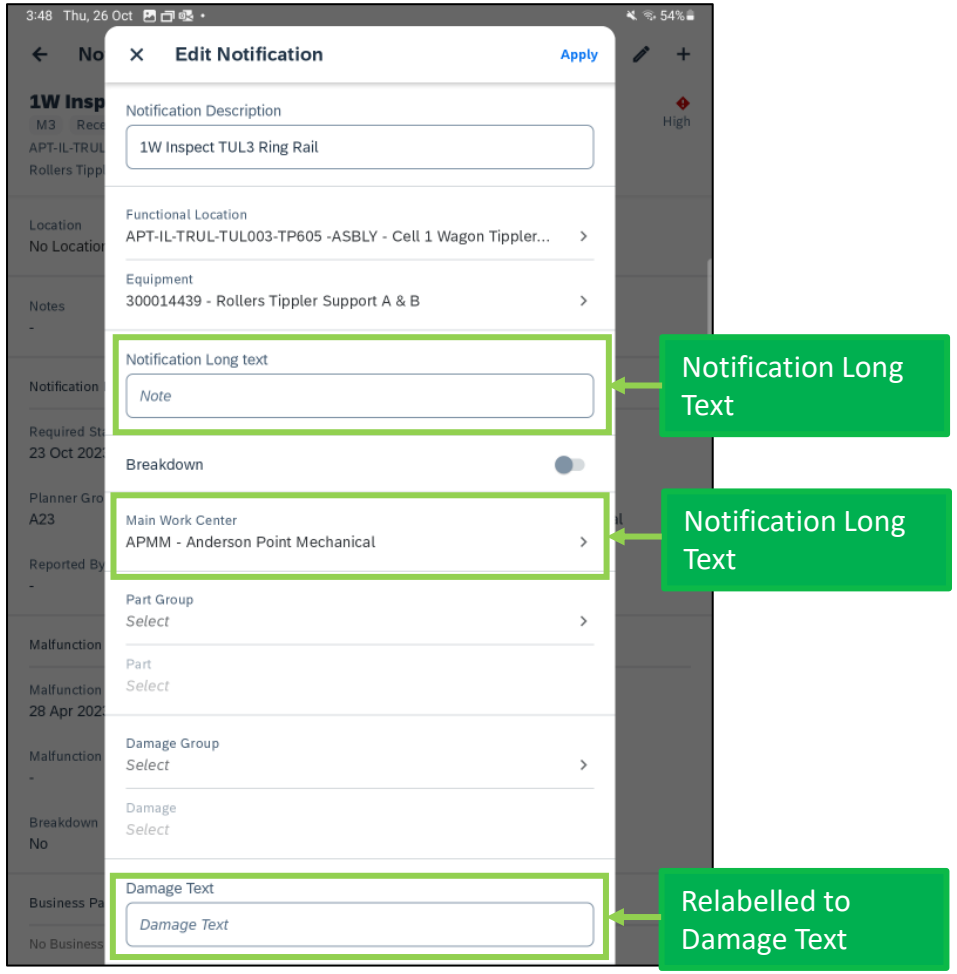


Notification Edit

sunwater

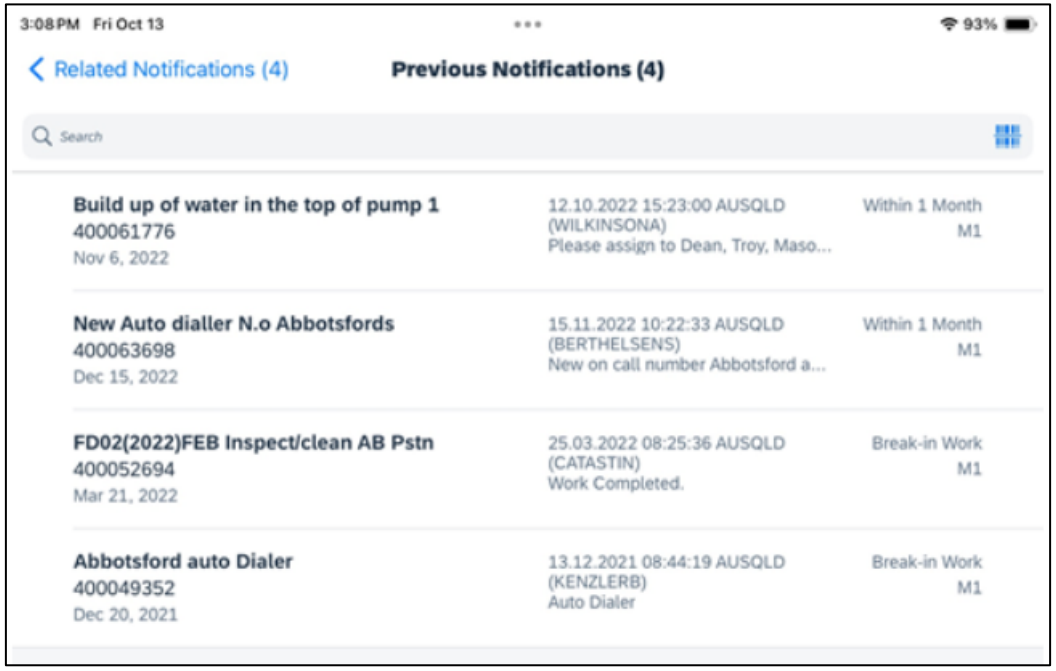


Fortescue



Related Notifications

sunwater



Fortescue