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WaterOutlook
LabOnline

www.automation.safegroup.com.au

WaterOutlook LabOnline

ABOUT:

LabOnline is an easy-to-use data solution for internal council laboratories that provides:

- Full chain-of-custody data management.
- Registration of samples live from the field and data entry for on-site measurements.
- Integrated reporting with other data sources captured in WaterOutlook.

BACKGROUND:

Many local government authorities operate their own laboratory facilities to manage the costs and the logistical challenges of having samples analysed by external providers. Finding a data management solution for this can be challenging as the record-keeping requirements, and associated costs, are the same whether the laboratory is large or small.

BUSINESS NEED:

Sample results provided by laboratories are crucial when it comes to demonstrating compliance. Most legislative frameworks require that samples are processed according to rigorous standards, with records audited by national accreditation bodies. This creates record-keeping requirements for lab data that are over and above those for other operational data sets. While the specific requirements can vary by jurisdiction, in general the records must include the who/what/where/when of each step in the sample chain-of-custody:

- Physical collection of the sample from the field.
- Reception at the lab and verifying that the condition of the sample is acceptable.
- Tests performed on the sample and the reference methods used for those tests.
- Verification of process and results by a second member of staff.
- Final certification of results by a supervisor.
- Official reporting of the results to the end client.

Many small labs manage this processing with a mix of paper and spreadsheets, or with Microsoft Access, or similar. Purpose-built tools, though, offer a more robust and scalable means of meeting record-keeping requirements.

LABONLINE SOLUTION:

WaterOutlook and LabOnline solve the above business needs by providing a mobile and cloud solution that is purpose-built to manage chain-of-custody record keeping.

Mobile Data Capture:
The WaterOutlook mobile app captures data in real-time at the sampling location. The app is available for any device running a current edition of iOS, Android, or Windows 10. Samplers can record sample details from the field and notify the lab that a sample is in transit without having to keep track of paper copies. Using their device's camera, users can scan barcodes for capturing sample ID numbers and navigate to specific data entry forms using QR codes.

Database of Tests and Methods:
Every test that the lab offers can be documented and organised in LabOnline. It keeps track of the test method used, the units, enforces standards on data type, as well as formatting conventions for decimal places, significant figures, and uncertainty bounds. For convenience, these are grouped into categories and sub-categories, so that large numbers of test methods can be efficiently managed.

Chain of Custody Management:
All samples in the system are tracked according to their status in the chain-of-custody:

- **In Transit:** Sample has been registered in the field and is awaiting acceptance by lab reception. User, time of sampling, and time of data entry are all automatically logged.
- **Work In Progress:** If the sample is accepted by the lab, at this stage the results are recorded into the system. The staff member who performed each test and the date and time are recorded along with the actual value.
- **Awaiting Check:** Results for all tests have been entered and are awaiting verification from a secondary staff member that all tests have been completed according to designated procedures.
- **Checked:** Sample has been checked and is awaiting final sign-off from a supervisor or administrator-level user.
- **Certified:** Sample is finalised and the results are pushed back to WaterOutlook to be checked against any assigned alert thresholds.
- **Rejected:** If the sample is not in a suitable condition for analysis when it arrives at the lab, the sample can be rejected and the reason for rejection is recorded.

Reporting:
The real value of this data doesn't end with a well-organised lab database: ultimately the sample results inform decision-making for a wide variety of processes within the organisation. LabOnline is a fully integrated with WaterOutlook, meaning that there is no additional handling required to get data from LabOnline into WaterOutlook alerts, queries, dashboards and reports. It can also be combined with data from field staff, SCADA, and other databases to provide comprehensive reporting on compliance and operational activities.

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MOBILE DATA ENTRY EXAMPLE:

Track sampling location

Scan sample IDs from barcode

Log data/time of sample

Record on-site measurements