Client Kickoff Document

Mining Laboratory Operations Intelligence Platform

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Project Overview

This engagement establishes the kickoff understanding for the Mining Laboratory Operations Intelligence Platform, a business intelligence project designed for a production-support mining laboratory. The laboratory requires improved visibility into sample workload, turnaround time, SLA compliance, re-run activity, pending samples, and operational performance trends. Strantell will transform raw laboratory sample data into a structured analytical model and an executive dashboard suite that supports daily supervision, management review, and operational decision making.

This document is prepared as part of a synthetic Strantell portfolio case study. The client organization, operational data, and project context are representative of a realistic mining laboratory environment and are intended to demonstrate Strantell's consulting methodology, documentation standards, and business intelligence delivery process.

Business Problem

The laboratory currently relies on manually reviewed sample records, spreadsheet-based reporting, and informal operational visibility to understand workload and performance. As sample volume increases, supervisors and managers have limited ability to quickly identify bottlenecks, track turnaround time performance, evaluate SLA compliance, monitor re-run activity, or understand whether pending samples are accumulating in specific departments, areas, instruments, or sample types.

The absence of a centralized performance dashboard creates several operational risks:

- Laboratory leadership may not detect turnaround time issues until they begin affecting production support.
- SLA compliance may be difficult to monitor consistently across sample types, departments, and priorities.
- Re-run activity may create hidden workload that is not visible in standard sample counts.
- Managers may spend excessive time preparing manual reports instead of reviewing operational performance.
- Existing data may contain useful management insight but remain underutilized because it is not structured for analysis.

The purpose of this engagement is to convert laboratory sample data into a reliable business intelligence system that gives management clear, timely, and actionable visibility into laboratory performance.

Project Objectives

The objectives of this engagement are as follows:

- Develop an executive Power BI dashboard that summarizes laboratory workload, turnaround time, SLA compliance, re-run rate, pending samples, and daily operational trends.
- Clean, structure, and model raw laboratory sample data into an analytical dataset suitable for recurring reporting and management review.
- Define and document key performance indicators, including total samples, average turnaround time, SLA compliance percentage, re-run rate, and pending sample count.
- Provide leadership with a repeatable reporting framework that reduces manual reporting effort and improves confidence in operational decision making.

Scope of Work

In Scope

- Review synthetic laboratory sample data, including received timestamps, completed timestamps, sample types, areas, departments, technicians, instruments, priorities, and statuses.
- Clean and prepare the raw dataset for reporting, including date handling, missing value review, categorical standardization, and business rule preparation.
- Build a structured star schema consisting of a sample fact table and supporting dimension tables.
- Develop Power BI measures for operational KPIs, including total samples, average turnaround time, SLA compliance, re-run rate, and pending samples.
- Create an executive summary dashboard with KPI cards, trend charts, filters, data coverage, latest-day snapshot, and supporting operational breakdowns.
- Validate the analytical model for orphan keys, date coverage, null values, and business rule consistency.
- Prepare supporting documentation, including KPI definitions, data model notes, validation summary, and project handoff documentation.

Out of Scope

- Direct connection to live laboratory information management systems, ERP systems, or production databases.
- Real-time dashboard refresh, automated alerts, or production deployment into a client-owned Power BI workspace.
- Development of a full laboratory information management system or replacement of existing operational software.
- Cybersecurity review, network administration, user account management, or general IT support.

- Formal statistical process control, predictive modeling, machine learning, or advanced forecasting beyond the initial executive dashboard scope.
- Use of real client data, confidential operational records, or proprietary production information.

Project Deliverables

Deliverable	Target Completion
Client Kickoff Document	Project Start
Operational Data Assessment Summary	End of Discovery Phase
Cleaned Laboratory Dataset	End of Data Preparation Phase
Star Schema Analytical Model	End of Data Modeling Phase
Power BI Executive Dashboard Prototype	Initial Dashboard Review
KPI Definitions and Business Rules Documentation	Dashboard Review Phase
Validation Summary	Prior to Final Delivery
Technical Findings Report	Final Review Phase
Final Delivery and Handoff Report	Project Completion

Project Schedule

Phase	Estimated Duration
Discovery and Kickoff	1–2 business days
Data Review and Profiling	2–3 business days
Data Cleanup and Preparation	2–4 business days
Data Modeling and Validation	2–3 business days
Dashboard Development	3–5 business days
Client Review and Revisions	2–3 business days
Documentation and Final Handoff	1–2 business days

Roles and Responsibilities

Strantell Responsibilities

- Lead the project kickoff process and confirm project objectives, deliverables, assumptions, and communication expectations.

- Review and prepare the laboratory sample data for business intelligence development.
- Define KPI logic, SLA compliance rules, turnaround time calculations, and dashboard reporting structure.
- Build the analytical model, dashboard visuals, validation checks, and supporting documentation.
- Communicate project progress, risks, required decisions, and open questions in a timely and professional manner.
- Deliver final dashboard files, supporting documentation, and handoff materials according to the agreed project scope.

Client Responsibilities

- Provide available laboratory sample data, report examples, operational context, and known business rules.
- Identify the primary business users, reviewers, and decision makers for the dashboard.
- Confirm KPI definitions, SLA targets, sample type rules, and operational assumptions when requested.
- Review dashboard prototypes and provide timely feedback during the client review phase.
- Clarify operational terminology, department structure, sample workflows, and reporting priorities as needed.
- Approve final deliverables or identify required revisions before project closeout.

Required Data Sources

Data Source	Owner	Status
Raw laboratory sample log	Laboratory Operations	Received
Sample type and SLA rule reference	Laboratory Supervisor	Received
Technician reference list	Laboratory Operations	Received
Instrument reference list	Laboratory Operations	Received
Area and department reference data	Operations Management	Received
Existing manual reporting examples	Laboratory Supervisor	Pending Review
Dashboard screenshot and portfolio image set	Strantell	In Progress

Risks and Assumptions

- The dataset is assumed to be representative of a realistic production-support laboratory workflow, but it is synthetic and does not contain actual client records.
- SLA compliance calculations depend on accurate sample type rules, priority definitions, received timestamps, and completed timestamps.
- Turnaround time calculations assume that received and completed timestamps are recorded consistently and represent the operational lifecycle of each sample.
- Pending sample counts depend on the accuracy of sample status values at the time of data extraction.
- Re-run rate calculations depend on the consistent identification of re-run samples in the source data.
- Dashboard findings should be interpreted as management visibility indicators and not as formal root-cause analysis without additional operational investigation.
- Future production deployment would require additional review of refresh logic, access control, data governance, and client system integration.

Communication Plan

Communication Activity	Frequency
Project Kickoff Meeting	Project Start
Data Questions and Clarifications	As Needed
Written Progress Update	Weekly
Dashboard Prototype Review	Once Prototype Is Ready
Revision Review	After Client Feedback
Executive Review	At Project Completion
Final Handoff	At Project Completion

Project Contacts

Name	Organization	Role
Christian S. Calvo	Strantell LLC	Project Lead and Business Intelligence Consultant
Laboratory Operations Manager	Generic Mining Laboratory	Primary Client Contact
Laboratory Supervisor	Generic Mining Laboratory	Operational Subject Matter Expert
Operations Manager	Generic Mining Laboratory	Executive Reviewer

Acknowledgement

The information contained within this document represents the mutually agreed understanding of the project scope, objectives, responsibilities, and deliverables as of the date indicated below.

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Acknowledged By

Laboratory Operations Manager

Generic Mining Laboratory