

Scope of Work (SoW)

Owner's Project Management & Technical Assurance Services

Nyakabingo Tungsten DFS – Trinity Metals

1. Background

Trinity Metals is undertaking a **Definitive Feasibility Study (DFS)** for the development of a **60 tph tungsten processing facility** at the Nyakabingo Mine, Rwanda.

The DFS is being delivered by **Obsideo Consulting**, whose tender submission defines a **phased, iterative study approach** incorporating:

- Progressive flowsheet development linked to metallurgical testwork
- Iterative mass balance refinement
- Stage-gated engineering maturity
- Parallel Tailings Storage Facility (TSF) trade-off study
- Progressive cost estimation aligned to design maturity

To ensure alignment with Owner expectations, investment requirements, and CPR standards, Trinity Metals requires **Sentinel Partners** to act as the **Owner's Team**, assuming full responsibility for **DFS management, integration, and assurance**.

2. Purpose of Engagement

Sentinel Partners will act as Trinity's **delegated project authority**, responsible for:

- Managing Obsideo's delivery in accordance with their tendered methodology
- Ensuring all DFS workstreams remain **aligned, integrated, and decision-driven**
- Providing **independent technical validation and challenge**
- Controlling **interfaces between metallurgical testwork, design evolution, and cost outputs**
- Delivering a **cohesive, investment-grade DFS**

3. Scope of Services

3.1 DFS Delivery Framework & Control

Sentinel will establish and enforce a **structured DFS execution framework** aligned to Obsideo's staged methodology, including:

- Definition of **stage gates**, aligned with:
 - Flowsheet maturity
 - Testwork completion
 - Design freeze points
- Implementation of:
 - Change control system
 - Design development tracking
 - Assumption register
- Development of a **fully integrated DFS execution plan**, ensuring:
 - Logical progression from testwork → design → costing
 - No premature advancement of engineering without sufficient data maturity

3.2 Management of Obsideo Consulting

Sentinel will act as **contract manager and technical controller** of Obsideo, including:

- Full administration of the DFS contract
- Enforcement of deliverables as defined in Obsideo's tender scope
- Validation of:
 - Deliverable completeness
 - Technical consistency
 - Alignment with agreed methodologies

Critically, Sentinel will:

- Ensure Obsideo adheres to its **iterative design philosophy**, avoiding:
 - Over-design based on incomplete testwork
 - Under-defined assumptions progressing into cost estimates
- Control all **Owner-issued inputs and approvals**

3.3 Metallurgical Testwork Integration (Critical Workstream)

Based on Obsideo's tender approach (where testwork drives design), Sentinel will:

- Oversee the **entire metallurgical testwork program**, including:
 - Sample selection strategy
 - Test program sequencing
 - Laboratory coordination

- Ensure:
 - Testwork is representative of ore variability
 - Results are statistically and technically robust

Most importantly, Sentinel will:

- Enforce **direct linkage between testwork outputs and flowsheet evolution**
- Prevent:
 - Design assumptions not supported by test data
 - Misinterpretation or over-extrapolation of results
- Validate recovery assumptions, reagent regimes, and process stability

3.4 Process Design & Flowsheet Development

Sentinel will provide **active technical challenge** to Obsideo’s process development, including:

- Review of:
 - Comminution circuit selection
 - Gravity/flotation performance assumptions
 - Water balance and recycling strategy
- Validation that:
 - Design reflects real operating conditions (not ideal lab conditions)
 - Equipment sizing aligns with variability and throughput requirements

Sentinel will ensure **formal flowsheet “freeze points”** are only approved when:

- Testwork confidence is adequate
- Mass balances are stable
- Key risks are understood and mitigated

3.5 TSF Trade-Off Study Management

Reflecting the parallel workstream defined in the tender, Sentinel will:

- Structure and control the TSF trade-off study as a **formal decision process**
- Ensure all options are assessed consistently across:
 - Technical viability
 - CAPEX and OPEX
 - Environmental and social impacts
 - Constructability and operational risk

Sentinel will:

- Prevent premature selection of TSF solutions
- Deliver a **clear, evidence-based recommendation** suitable for Board approval

3.6 Cost Estimation & Financial Integrity

Given Obsideo's staged cost development approach, Sentinel will:

- Review cost estimates at each stage of maturity
- Ensure:
 - Alignment between design maturity and estimate accuracy
 - No false precision in early-stage costing

Sentinel will validate:

- CAPEX (target $\pm 15\%$ DFS accuracy)
- OPEX assumptions (reagents, power, labour, maintenance)

Additionally, Sentinel will:

- Benchmark costs against comparable tungsten operations
- Identify:
 - Cost escalation risks
 - Value engineering opportunities

3.7 Schedule & Critical Path Management

Sentinel will:

- Develop and maintain an **integrated Level 3 schedule**, incorporating:
 - Testwork timelines
 - Design progression
 - Review and approval cycles

Special focus will be placed on:

- Managing **testwork-driven critical path risks**
- Avoiding downstream delays caused by late data or rework

3.8 Risk & Opportunity Management

Sentinel will establish a **live DFS risk framework**, including:

- Formal risk workshops aligned with study phases
- Identification of:
 - Metallurgical risks (recovery variability, ore response)
 - Design risks
 - Execution risks

Each risk will include:

- Defined mitigation strategy
- Ownership
- Residual risk assessment

3.9 Reporting & Decision Support

Sentinel will provide structured reporting aligned to Trinity governance:

Weekly

- Progress vs plan
- Testwork updates
- Design changes
- Immediate risks

Monthly

- DFS health (cost, schedule, scope)
- Stage gate readiness
- Key technical decisions required

Decision Papers

- Flowsheet selection
- TSF option selection
- Major capital decisions

These will be **board-ready and defensible**

3.10 DFS Integration & Finalisation

Sentinel will ensure the final DFS is:

- Fully integrated across all disciplines
- Internally consistent (no conflicting assumptions)
- Aligned with:
 - CPR requirements
 - Financing expectations

Sentinel will lead:

- Final DFS review workshops
- Gap analysis prior to issue

- Consolidation into an **investment-grade document**

4. Key Deliverables

- DFS Execution & Governance Plan
- Integrated Schedule
- Metallurgical Testwork Oversight Reports
- Technical Review Memoranda
- TSF Trade-Off Study Report & Recommendation
- Cost Validation Reports
- Monthly Board Reports
- Final DFS Integration & Assurance Report

5. Critical Success Factors

- Testwork and design remain **fully coupled and controlled**
- No advancement of engineering without adequate data maturity
- Clear, defensible TSF decision
- Cost estimates aligned with real design maturity
- Delivery of a **bankable, technically robust DFS**

6. Key Differentiator of This SoW (vs generic PM role)

This is not a passive PM role.

Sentinel is explicitly accountable for:

- **Controlling the technical integrity of Obsideo's methodology**
- **Preventing premature convergence of design and costs**
- **Ensuring metallurgical reality drives engineering decisions**