

Mobilization Phase: NTP to First Production (18–36 Months)

**RE-PROCESSING OF ALEXANDER BAY
DMS TAILINGS of 72 840.67 m³ FOR A PERIOD OF
3 YEARS between:**



and



Months 1–3: Project Initiation & Planning (NTP Phase)

- Issuance of Notice to Proceed (NTP) following final investment decision (FID).
- Establishment of project management team and onsite office setup.
- Finalization of contracts with key EPC (Engineering, Procurement, Construction) contractors.
- Pre-construction meetings to finalize health, safety, and environmental (HSE) protocols.
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Months 3–6: Logistics & Site Mobilization

- Mobilization of heavy construction equipment and temporary facilities (workshops, worker accommodation).
- Ordering long-lead items (specialized processing equipment, leaching tanks, magnetic separators).
- Securing access routes for bringing in heavy processing machinery.
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Months 6–18: Infrastructure & Civil Works

- Site preparation: Clearing, grading, and earthworks for the processing plant.
- Construction of onshore infrastructure: Foundations for processing modules, storage warehouses for incoming nodules, and tailings management facilities.
- Installation of utility infrastructure: Power supply, water management systems, and slurry pipelines.
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Months 15–24: SMPP Installation (Structural, Mechanical, Platework, Piping)

- Arrival and installation of critical processing equipment: Crushing/grinding circuits, flotation cells, leaching tanks (for base metals), and refining equipment.
- Implementation of advanced recovery technologies: High-gradient magnetic separation or centrifugal dense medium separation, if required.
- Parallel advancement of structural steelwork and electrical/instrumentation installation.
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Months 24–30: Commissioning & Pre-Production Testing

- "Dry" commissioning: Testing equipment functionality without material.
- "Wet" commissioning: Running water and cleaning agents through circuits to test for leaks and verify pumping systems.
- Testing of slurry handling and material storage handling systems.
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Months 30–33: Cold Commissioning & Trial Production

- Introduction of first batches of seabed materials (nodules or tailings) to the processing line.
- Optimization of metallurgical recovery processes (leaching, flotation).
- Initial, low-volume production to confirm product purity and recovery rates.

Months 33–36: First Production (Service Commencement)

- Ramp-up to continuous, commercial-scale production.
- Final handover from project construction team to operations team.
- First shipment of refined metallic products (e.g. Diamonds).

Key Factors Impacting Timeline

Critical Considerations for South Africa

- **Regulatory Environment:** The timeline assumes environmental authorizations (EIA) and Mining Rights (s22) are already in place before NTP. The Draft Mineral Resources Development Bill (2025) aims to speed up this process.
- **Marine Specifics:** Mobilization of sea-based vessels must account for coastal weather constraints (e.g., Agulhas current, winter storms).
- **Infrastructure (Rail/Port):** If shipping final concentrate, coordination with Transnet for harbor logistics should be integrated into the timeline.
- **Empowerment:** Compliance with Mining Charter targets is required for local procurement of services
- **Modularization:** Utilizing modular, pre-engineered processing units can accelerate the construction timeline by 6–12 months compared to conventional site-built plants.
- **Logistical Challenges:** The location of the onshore processing site (remoteness, access to ports) significantly affects the arrival of long-lead items.

Mr. Zakaria Patel
Operations Manager