

# CMRT INSTITUTIONAL OVERVIEW

**Version 1.0**

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## Document Governance

**Purpose:**

To provide banks, regulators, examiners, and institutional partners with a complete overview of the Certified Mineral Reserve Token Standard and the supporting documentation infrastructure used within GMxVault.

**Scope:**

This document covers the definitions, workflow, data integrity controls, asset classification, and institutional use cases for CMRT-backed collateral.

**Approved By:**

GMxVault Standards Committee

**Version History:**

- Version 1.0. Initial publication.
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This document is provided for informational and standards purposes only. It does not constitute legal advice, financial advice, or valuation guidance. Banks retain full responsibility for underwriting decisions, valuation methods, and credit risk assessments. Minex.Global LLC does not determine mineral values and does not participate in credit decision-making.

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## 1. Introduction to the CMRT Standard

The Certified Mineral Reserve Token Standard is an institutional framework that standardizes the documentation, validation, and collateralization of unextracted mineral reserves. It creates a unified collateral documentation system through two synchronized components.

1. The Certified Mineral Reserve Dossier (CMRD). This is the bank-facing collateral file that contains survey data, title evidence, validator certifications, and audit controls.
2. The Certified Mineral Reserve Token (CMRT). This represents one cubic meter of subsurface mineral reserves documented within the CMRD.

Together, the CMRD and CMRT establish a controlled environment for banks to underwrite mineral-backed collateral with reliable documentation and independent validation.

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## 2. Asset Classification and Legal Foundation

Unextracted minerals are real property under state law. The CMRT Standard does not modify the legal character of the underlying property rights. Instead, it ensures that mineral reserve documentation meets institutional standards of completeness, traceability, and auditability.

Banks maintain complete discretion regarding valuation methodology, concentration risk policies, and credit approval criteria.

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### 3. Source Data and Documentation Components

The GMxVault platform assembles a complete collateral dossier using the following required elements.

- Geological surveys conducted by qualified professionals
- Reserve volume calculations
- Mineral composition data
- Chain of title or lease documentation
- Courthouse verification performed by validators
- Borrower attestations
- Independent validator certification
- Survey voxelization into one cubic meter volumes
- Document hashing for audit integrity
- CMRT issuance report
- Pledge event record upon bank acceptance

These components form the CMRD, which serves as the authoritative collateral file.

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### 4. Voxelization and CMRT Creation

Surveyed reserve volumes are divided into cubic meter units called GeoVoxels. Each voxel corresponds directly to one CMRT. The voxel is not an extraction license and does not modify ownership rights. It is a standardized unit of documented mineral volume for collateral sizing and audit reconciliation.

Voxelization ensures uniformity, prevents double-counting, and enables bank examiners to reconcile reserve data with token issuance easily.

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## 5. Chain of Custody and Data Integrity Controls

The CMRT Standard relies on strict data integrity measures to prevent alterations after validation.

- Document hashing at every stage
- Immutable revision history
- Validator signature and timestamp
- Audit logs for all data access
- Version locking of certified dossiers
- CMRT issuance tied directly to validator-approved volume
- Independent verifiability for examiners

These controls provide a transparent, tamper-resistant chain of custody required by institutional credit governance.

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## 6. Banking Use Case and Workflow Integration

Banks engage with the CMRT Standard through the following workflow.

1. Borrower submits documentation directly to GMxVault.
2. Third-party validator performs survey review, title verification, and courthouse checks.
3. GMxVault issues CMRTs equal to the certified reserve volume.
4. Banks receive a complete CMRD with all certification and audit controls.
5. Banks apply their own valuation methods to determine the loan-to-value.
6. CMRTs are pledged to the bank and locked for the duration of the credit facility.

GMxVault does not participate in valuation or credit decision-making.

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## 7. Examiner and Regulatory Alignment

The CMRT Standard supports supervisory expectations across multiple areas.

- Independent verification of collateral information
- Clear documentation trails
- Repeatable underwriting workflows
- Control of conflicts of interest
- Traceable audit logs
- Prevention of overstatement of collateral value
- Verification of property rights
- Integrity of documents relied upon by banks

The separate Examiner Oversight Handbook provides procedural depth for regulators and internal audit teams.

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## 8. Summary and Institutional Advantages

The CMRT Standard addresses long-standing challenges in mineral collateralization by creating a structured, auditable, and regulator-ready documentation system. Key institutional benefits include:

- Standardization of complex subsurface documentation
- Independent verification through accredited validators
- Transparent chain of custody
- Clear pathways for bank underwriting
- Examiner-friendly review structure
- Industry standardization for unextracted mineral reserves

GMxVault establishes a neutral, controlled environment that removes ambiguity and supports responsible credit expansion into mineral-backed collateral.

## Contact Information

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