

NFRA Compliance Validation Report

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Document: mlw81h97-fb3cef93_sample_financial_report.pdf

1. Executive Summary

This report presents the automated compliance validation results for mlw81h97-fb3cef93_sample_financial_report.pdf. The document was processed through a 9-step AI-powered pipeline including OCR extraction, document segmentation, table extraction, financial analytics, and compliance validation against IndAS, SEBI, RBI, and BRSR frameworks.

Key Findings:

- Compliance Score: 37.5%
- Financial Health Score: 83.33%
- Total Findings: 16
- Critical Issues: 0

2. Approach & Methodology

2.1 Pipeline Architecture

The NFRA compliance validation engine employs a 9-step automated pipeline:

Step 1: OCR Extraction

- Technology: Surya OCR v0.17.1 with SegFormer encoder + Transformer decoder
- Accuracy: 99%+ on scanned documents
- Processing: ~2.4s per page with GPU acceleration

Step 2: Hyperlink Extraction

- Extracts PDF annotations, embedded links, and text-based URLs
- Identifies cross-references and embedded files

Step 3: Document Segmentation

- AI-powered section detection using header patterns
- Identifies: Executive Summary, Financial Statements, Notes, Auditor Reports

Step 4: Table Extraction

- Pattern-based financial table detection
- Preserves row/column structure for Balance Sheets, P&L;, Cash Flow

Step 5: LLM Extraction

- Models: Qwen 2.5, Llama-3, Mistral (4-bit quantized)
- Extracts structured financial data with context awareness

Step 6: Financial Analytics

- Calculates 20+ financial ratios (liquidity, profitability, solvency)
- Generates health score (0-100%) with benchmarking

Step 7: Compliance Validation

- Rule-based validation against 4 frameworks (IndAS, SEBI, RBI, BRSR)
- Generates explainable findings with confidence scores

Step 8: Compilation

- Aggregates all results into structured JSON format

Step 9: RAG Indexing

- Vector-based indexing for semantic search and Q&A;

3. Dataset Information

3.1 Document Characteristics

- Filename: mlw81h97-fb3cef93_sample_financial_report.pdf
- Type: Uploaded
- Format: PDF
- Total Pages: 23
- Characters Extracted: 16382 chars

3.2 Document Structure

- Sections Identified: 32
- Tables Extracted: 2
- Hyperlinks Found: 0

3.3 Regulatory Frameworks Applied

- Indian Accounting Standards (IndAS)
- SEBI Disclosure Requirements
- RBI Disclosure Norms for Financial Institutions
- SEBI ESG Framework (BRSR Core)

4. Validation Results

4.1 Compliance Summary

Metric	Value
Overall Compliance Score	37.5%
Total Findings	16
Compliant Rules	0
Non-Compliant Rules	0

4.2 Financial Analytics

- Financial Health Score: 83.33%
- Risk Level: N/A
- Total Metrics Calculated: 0
- Healthy Metrics: 5
- Unhealthy Metrics: 0

4.3 Critical Findings

Finding 1: INDAS_001

Status: COMPLIANT

Framework: IndAS

Confidence: 90%

Explanation: The document contains balance sheet data with total assets of 1,245.8 Crores. This indicates the presence of a balance sheet, which is a mandatory financial statement under IndAS 1. The balance sheet shows the financial position of the entity at the reporting date.

Finding 2: INDAS_002

Status: COMPLIANT

Framework: IndAS

Confidence: 90%

Explanation: The document contains profit and loss statement data with revenue of 450.5 Crores and net profit of 78.45 Crores. This demonstrates the presence of a comprehensive P&L statement as required by IndAS 1, showing the entity's financial performance during the reporting period.

Finding 3: INDAS_003

Status: UNABLE_TO_VERIFY

Framework: IndAS

Confidence: 50%

Explanation: IndAS 1 requires entities to disclose their significant accounting policies as the first note to financial statements. This helps users understand the basis of preparation and measurement principles applied. Without access to the notes section, we cannot verify this disclosure.

Finding 4: INDAS_004

Status: COMPLIANT

Framework: IndAS

Confidence: 95%

Explanation: The document contains auditor information with status: Unqualified Opinion. The presence of an auditor's report is mandatory under the Companies Act and auditing standards. An auditor's report provides independent assurance on the financial statements.

Finding 5: INDAS_005

Status: NON-COMPLIANT

Framework: IndAS

Confidence: 90%

Explanation: No cash flow statement was found in the extracted data. IndAS 7 mandates the presentation of a cash flow statement showing cash flows from operating, investing, and financing activities. This is a critical financial statement for assessing liquidity.

5. Challenges Encountered

5.1 Technical Challenges

- OCR accuracy on low-quality scanned documents
- Complex table structures with merged cells
- Ambiguous section boundaries in unstructured documents
- Large document processing (memory constraints)

5.2 Data Quality Issues

- Incomplete financial disclosures
- Inconsistent formatting across documents
- Missing metadata fields

5.3 Compliance Validation Challenges

- Interpretation of ambiguous regulatory requirements
- Mapping rules to document sections with high confidence
- Handling edge cases in financial calculations

6. Recommendations

6.1 Compliance Recommendations

- Fix 1 non-compliant items
- Verify 9 items that could not be assessed

6.2 General Recommendations

- Ensure all financial statements follow IndAS formatting guidelines
- Include complete auditor reports with signatures
- Provide detailed notes for all material transactions
- Maintain consistent terminology across documents
- Include all required SEBI/RBI disclosures