

COMPREHENSIVE INVOICE ANALYSIS REPORT

Invoice Number:	IMR/25/AEL/003
Supplier:	INPRAVIA MINING RESOURCES PRIVATE LIMITED
Total Amount:	■ 154,614.00
Processing Date:	2025-11-08 12:15:06
Document Type:	B2B_INVOICE
AI Confidence:	45.6%

Validation Status:	■ INVALID
Duplication Status:	■ DUPLICATE
Tests Performed:	16 validation tests
Processing Status:	■ COMPLETED

EXECUTIVE SUMMARY

Invoice Assessment: REQUIRES REVIEW

Processing Confidence: 45.6%

Recommendation: MARK_AS_DUPLICATE

Key Findings:

- 7 validation test(s) failed
- Potential duplicate detected (95.0% confidence)
- 5 AI recommendations provided

Business Impact:

To provide a precise assessment, the specific "Validation Reasoning" and "Duplication Reasoning" are crucial.

Without them, I will proceed with assumed scenarios that represent common issues identified during such analyses, highlighting the potential impact.

Assumed Scenarios for Assessment:

- Validation Reasoning (Assumed): "Invoice failed validation due to discrepancies, such as a mismatch between the invoice details and the corresponding Purchase Order (PO) or Goods Receipt Note... [See AI Reasoning section for full analysis]

INVOICE DETAILS

Field	Value
Invoice Number	IMR/25/AEL/003
Invoice Date	2025-08-31
Supplier Name	INPRAVIA MINING RESOURCES PRIVATE LIMITED
Supplier GSTIN	20AAHCI0488C1Z1
Buyer Name	CONFIDENTIAL
Taxable Value	₹131,029.00
Total Tax	₹23,585.24
Total Amount	₹154,614.00
Payment Terms	

Line Items Details:

Item	HSN Code	Qty	Unit Price	Taxable Value	GST Rate	GST Amount
Item 1: Ambulance (24/7)...	999315	26.00	₹38,827.00	₹38,827.00	18.0%	₹6,988.86
Item 2: Operator 1...	998519	26.00	₹22,827.00	₹22,827.00	18.0%	₹4,108.86
Item 3: Operator 2...	998519	26.00	₹22,827.00	₹22,827.00	18.0%	₹4,108.86
Item 4: Technician 1...	998519	15.00	₹24,927.00	₹14,381.00	18.0%	₹2,588.58
Item 5: Technician 2...	998519	19.00	₹24,927.00	₹18,216.00	18.0%	₹3,278.88
Item 6: Technician 3...	998519	10.00	₹24,927.00	₹9,587.00	18.0%	₹1,725.66
Item 7: Fuel @8KM Per Litre...	998519	0.00	₹0.00	₹4,364.00	18.0%	₹785.52

ARITHMETIC VALIDATION ANALYSIS

Validation Metric	Result
Total Tests Performed	16
Tests Passed	9
Tests Failed	7
Tax-related Failures (Ignored)	1
Critical Non-tax Failures	6
Suggestions Provided	6
Overall Status	■ INVALID
Note	Tax-related validation failures are ignored

■ Valid Checks Log:

Test Name	Expected	Actual	Tolerance	Description
Line Item 1 GST Calculation	6988.86	6988.86	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 2 GST Calculation	4108.86	4108.86	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 3 GST Calculation	4108.86	4108.86	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 4 GST Calculation	2588.58	2588.58	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 5 GST Calculation	3278.88	3278.88	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 6 GST Calculation	1725.66	1725.66	±0.05	taxable_value × gst_rate/100 should equal expected
Line Item 7 GST Calculation	785.52	785.52	±0.05	taxable_value × gst_rate/100 should equal expected
Invoice Taxable Value Sum	131029.00	131029.00	±0.05	Sum of all line item taxable_values should equal expected
... and 1 more valid checks				

Detailed Validation Results:

Test Name	Status	Expected	Actual	Error Message
Line Item 1 Total	■ FAIL	1009502.00	38827.00	Quantity(26) × Unit Price(38827) ≠ Taxable Value
Line Item 2 Total	■ FAIL	593502.00	22827.00	Quantity(26) × Unit Price(22827) ≠ Taxable Value
Line Item 3 Total	■ FAIL	593502.00	22827.00	Quantity(26) × Unit Price(22827) ≠ Taxable Value
Line Item 4 Total	■ FAIL	373905.00	14381.00	Quantity(15) × Unit Price(24927) ≠ Taxable Value
Line Item 5 Total	■ FAIL	473613.00	18216.00	Quantity(19) × Unit Price(24927) ≠ Taxable Value
Line Item 6 Total	■ FAIL	249270.00	9587.00	Quantity(10) × Unit Price(24927) ≠ Taxable Value
Line Item 1 GST Calculation	■ PASS	6988.86	6988.86	
Line Item 2 GST Calculation	■ PASS	4108.86	4108.86	
Line Item 3 GST Calculation	■ PASS	4108.86	4108.86	
Line Item 4 GST Calculation	■ PASS	2588.58	2588.58	

... and 12 more test results

AI Validation Analysis:

DUPLICATION DETECTION ANALYSIS

Analysis Metric	Result
Duplication Status	■ DUPLICATE DETECTED
Confidence Score	95.0%
Recommended Action	MARK_AS_DUPLICATE
Potential Matches Found	7
Analysis Method	Enhanced AI-Powered Detection

Potential Duplicate Matches:

Original Invoice	Match Type	Confidence	Matching Fields	Recommendation
IMR/25/AEL/003	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: IMR/25/AEL/003, Confidence: 95.0%	DUPPLICATE
IMR/25/AEL/003	EXACT_INVOICE_NUMBER_SAME_COMPANY	95.0%	Invoice Number: IMR/25/AEL/003, Confidence: 95.0%	DUPPLICATE
IMR/25/AEL/003	PRODUCT_LINE_DUPLICATION	line_item_similarity: 0.857	line_item_similarity: 0.857	REVIEW REQUIRED
IMR/25/AEL/003	HSN_PATTERN_MATCH	75.0%	hsn_similarity: 1.0, matching HSN codes: 10001599851998519	REVIEW REQUIRED
IMR/25/AEL/003	PRODUCT_LINE_DUPLICATION	line_item_similarity: 0.857	line_item_similarity: 0.857	REVIEW REQUIRED

Analysis Summary:

Invoice Analysis: IMR/25/AEL/003 Supplier: INPRAVIA MINING RESOURCES PRIVATE LIMITED Amount: ■154,614.00 Found 7 potential duplicate(s): 1. IMR/25/AEL/003 (Confidence: 95.0%, Type: EXACT_INVOICE_NUMBER_SAME_COMPANY) 2. IMR/25/AEL/003 (Confidence: 95.0%, Type: EXACT_INVOICE_NUMBER_SAME_COMPANY) 3. IMR/25/AEL/003 (Confidence: 84.3%, Type: PRODUCT_LINE_DUPLICATION) 4. IMR/25/AEL/003 (Confidence: 75.0%, Type: HSN_PATTERN_MATCH) 5. IMR/25/AEL/003 (Confidence: 84.3%, Type: PRODUCT_LINE_DUPLICATION) 6. IMR/25/AEL/003 (Confidence: 84.3%, Type: PRODUCT_LINE_DUPLICATION) 7. IMR/25/AEL/003 (Confidence: 75.0%, Type: HSN_PATTERN_MATCH) ■ CONCLUSION: This invoice appears to be a DUPLICATE.

AI Duplication Analysis:

AI REASONING & RECOMMENDATIONS

AI Analysis Metric	Result
Overall Confidence	45.6%
Analysis Type	Comprehensive Validation & Duplication
Processing Status	Completed Successfully
Recommendations Generated	5

AI-Generated Recommendations:

1. Review invoice calculations for mathematical accuracy
2. Verify data extraction quality from source documents
3. Check for manual entry errors in invoice processing
4. Investigate potential duplicate submission
5. Cross-reference with payment records

Business Impact Assessment:

To provide a precise assessment, the specific "Validation Reasoning" and "Duplication Reasoning" are crucial.

Without them, I will proceed with assumed scenarios that represent common issues identified during such analyses, highlighting the potential impact.

Assumed Scenarios for Assessment:

- Validation Reasoning (Assumed): "Invoice failed validation due to discrepancies, such as a mismatch between the invoice details and the corresponding Purchase Order (PO) or Goods Receipt Note (GRN), incorrect vendor banking details, or missing required approvals."
- Duplication Reasoning (Assumed): "A potential duplicate invoice was identified with the same vendor, amount, and date, indicating it may have been previously paid or is currently in another stage of processing."
- Invoice Amount: \$154,614.00 (This is a significant amount, amplifying the potential impact of any issues).

Business Impact Assessment

Given the assumed scenarios for validation failure and potential duplication for an invoice amount of \$154,614.00, the business impact is substantial across financial, operational, and compliance dimensions.

1.

Financial Risk Level: High

- Direct Financial Loss (Duplication): The most immediate and severe risk is a double payment of \$154,614.00.

This represents a direct loss of capital that would require significant effort and time to recover, potentially incurring legal or administrative costs.

- Incorrect Payment (Validation): If the invoice were paid despite validation failures (e.g., mismatch with PO/GRN, wrong vendor details), the company risks paying for goods/services not received, paying the wrong amount, or paying the wrong entity.

This could lead to irrecoverable funds.

- Fraud Risk: Validation failures, especially concerning vendor details or missing approvals, significantly increase the risk of internal or external fraud, where an unauthorized payment of \$154,614.00 could be made.

- Cash Flow Impact: Holding up legitimate payments due to validation issues can strain vendor relationships and potentially incur late

AI Final Analysis:

Executive Summary

A critical financial risk has been identified for an invoice totaling \$154,614.00 due to potential validation failures and duplication.

Based on common scenarios, this situation presents a High financial exposure, risking direct capital loss from double payment, incorrect payments, or even fraud.

Confidence Assessment: Moderate.

While the potential impact is severe, this assessment relies on assumed scenarios for validation and duplication reasoning.

A precise and definitive assessment requires the specific, actual reasons for these flags.

Key Action Items:

1.

Immediate Investigation: Determine the exact reasons for the validation failure and potential duplication.

2.

Data Verification: Review invoice calculations, data extraction quality, and manual entry for errors.

3.

Payment Reconciliation: Cross-reference with payment records to confirm no prior payment has been made.

4.

Process Review: Enhance controls to prevent similar validation and duplication issues in the future.

Concise Explanation for Business Users

We've flagged a significant financial risk with a \$154,614.00 invoice because it might be incorrect or a duplicate.

This means we could accidentally pay twice, pay the wrong amount, or even pay the wrong vendor, leading to a direct loss of company funds.

We need to immediately investigate the specific problem, verify all details, and ensure this invoice is handled correctly to avoid any financial mistakes.

TECHNICAL DETAILS & DATABASE INFORMATION

Document Classification:

Classification Attribute	Value
Document Type	B2B_INVOICE
Classification Confidence	86.2%
Keywords Detected	invoice, bill, gstin, gst, invoice no, igst, private limited, total, amount
Processing Method	AI-Powered Classification

Database Records Created:

Record Type	Database ID
Document Record	14
Invoice Record	14
Supplier Company	9
Buyer Company	19

Processing Metadata:

- Processing Timestamp: 2025-11-08 12:15:06
- Source Filename: 17.pdf
- Processing Time: Not recorded
- Errors Encountered: 0

This report was generated by the Intelligent Invoice Processing System. All analysis results are based on AI-powered validation and duplication detection algorithms.