

Clear Creek Advisory

CoalSense COA Review

Sample Report – Demonstration Purposes Only

Report ID: CCA-CS-SAMPLE-2026

Review Date: May 24, 2026

Client Reference: Demo Buyer – Met Coal Shipment Review

Coal Type: Low-Volatile Metallurgical Coal

Shipment Reference: Demo Shipment CCA-2026-0412

Lab Reference: Synthetic Demo Lab Certificate COA-88421

Basis: As-determined and air-dried basis per buyer contract

Overall Risk Rating: Moderate

Executive Summary

Clear Creek Advisory reviewed a synthetic demonstration Certificate of Analysis (COA) for a low-volatile metallurgical coal shipment against a representative buyer specification. CoalSense-assisted comparison identified three quality parameters outside contract limits: ash, sulfur, and phosphorus. BTU, CSR, FSI, HGI, and sizing remain within acceptable ranges. Overall commercial exposure is moderate and driven primarily by ash and sulfur penalty risk rather than coking strength indicators. This sample illustrates how CoalSense flags specification variance, penalty exposure, and shipment acceptance risk before loading or payment.

Coal Quality Results

Results below are taken from the synthetic demo generation COA reviewed for this sample report.

| Parameter | COA Result | Buyer Spec | Status | Notes |
|-----------------------|---------------|-------------------|--------|------------------|
| Total Moisture (arb) | 8.2% | Max 9.0% | Pass | — |
| Ash (adb) | 9.8% | Max 9.5% | Fail | 0.3% above |
| Volatile Matter (adb) | 17.4% | 16.5% – 19.0% | Pass | — |
| Fixed Carbon (adb) | 72.8% | — | — | — |
| Sulfur (adb) | 0.92% | Max 0.85% | Fail | Potential sulfur |
| BTU / GCV (adb) | 14,180 BTU/lb | Min 14,000 BTU/lb | Pass | — |
| HGI | 52 | Min 45 | Pass | — |
| FSI | 8.5 | Min 7.0 | Pass | — |
| CSR | 68 | Min 65 | Pass | — |
| CRI | 22 | Max 25 | Pass | — |
| Phosphorus (adb) | 0.045% | Max 0.040% | Fail | Elevated |
| Size (+1/2" retained) | 4.2% | Max 5.0% | Pass | — |

Specification Comparison

CoalSense compared twelve quality parameters from the synthetic demo COA against the buyer specification. Nine parameters met contract limits. Ash, sulfur, and phosphorus failed the stated maximums. No parameters required immediate rejection based on CSR, FSI, or BTU thresholds. The primary commercial concern is cumulative penalty exposure on ash and sulfur rather than a single fatal quality failure.

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| CSR | 68 | Min 65 | Pass | — |
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Risk Assessment

- Ash at 9.8% (adb) exceeds the buyer maximum of 9.5%, creating direct penalty exposure or shipment

rejection risk depending on contract language.

- Sulfur at 0.92% (adb) exceeds the 0.85% contract limit and may trigger sulfur deductions or buyer pushback on acceptance.
- Phosphorus at 0.045% (adb) is above the 0.040% specification and may concern buyers sensitive to steel-making chemistry constraints.
- Coking indices (CSR 68, FSI 15), and grindability (HGI 52) remain within acceptable ranges, reducing immediate coke-oven performance concern.
- Overall risk rating Moderate — shipment may proceed with price adjustment, re-blending, or buyer waiver depending on contract terms.

Commercial Considerations

- Review contract penalty schedules for ash and sulfur to quantify likely price adjustment before acceptance.
- Confirm whether the buyer allows average quality tolerance across a vessel or lot versus strict per-sample rejection.
- Assess whether a blend adjustment or alternate stockpile source can bring ash and sulfur within spec before shipment.
- Verify payment and title terms do not release funds before quality acceptance is resolved.
- If this were a live transaction, request seller lab backup, split sample retention, and independent umpire testing where appropriate.

Recommendations

- Obtain written buyer guidance on acceptance or re-pricing before confirming shipment release.
- Calculate estimated penalty exposure using contract ash and sulfur deduction formulas.
- Request seller documentation supporting the reported lab result and chain-of-custody for the sample.
- If variance persists, evaluate blend options or alternate delivery timing to protect commercial margin.
- Escalate to counsel if contract rejection or force-majeure language may apply to off-spec delivery.

Disclaimer

This sample report is provided for demonstration purposes only using synthetic data. Clear Creek Advisory provides commercial, operational, and coal-quality screening. This is not legal advice, engineering certification, reserve certification, or investment advice. Clients should consult qualified counsel, engineers, and other licensed professionals where appropriate.