PIT-TO-PORT QUALITY AUDIT

BAUXITE

Clients: *Confidential*

Duration: 3 Months

Project Team:
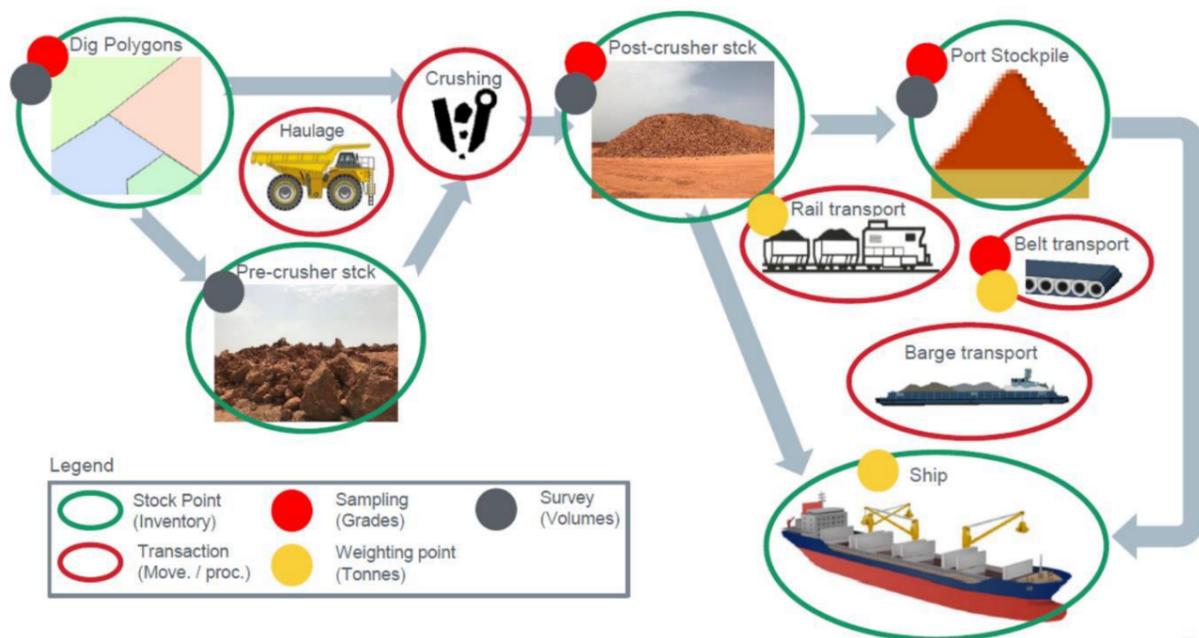
FIG 1: Material Flow

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CLIENT NEED

VBKOM was contracted by a bauxite mine in the Republic of Guinea. Our client required a quality audit to investigate the reasons for a failure in achieving the desired quality between the pit and the port.

APPROACH

The study investigated the operations in the following areas as shown in the simplified material flow in FIG. 1:

• Mine to Stockyard

• Stockyard to Port

• Port Stockyard to Barge

A site visit was conducted which included investigations into sampling methodologies used throughout the production process, grade control practices, mining strategies, mine planning methodologies, and standards and execution. A visit was conducted to the port to review the blending and sampling methodologies at the stockyards and onto the barge(s).

VALUE DELIVERED AND RESULTS

Delivering a comprehensive study report detailing the results from each area of investigation with recommendations and corrective actions as appropriate.

The key purpose of the report was to:

• Identify the source of error

• Provide an opinion of the sampling and reclaiming operations

• Provide recommendations and corrective actions.

KEY RECOMMENDATIONS IDENTIFIED

The key issues and recommendations include:

› Geology
  › Communication between Geology Department and the Resource Geologist to improve grade control
  › Replace grade control sampling methodology

› Mining
  › Adopt standard practical approach to planning and mining the floor contact
  › Develop and update a Planning Standard required for mining material types
  › Improve ROM fragmentation

› Logistics & QA/QC
  › Stockpile Reclaiming methodology at the Plant
  › Replace manual sampling equipment with fit for purpose equipment
  › Implementation of an IMS system to eliminate Human Error Impact on Quality Control throughout the Process