Gold Mining Operations

Summary Audit Report

for

Jacobina Mineração e Comércio Ltda S.A. (JMC)

Jacobina, Bahia, Brazil

Prepared by **Ferreira & Cerqueira Ltda.**

Jacobina Mine September, 2022

SUMMARY AUDIT REPORT

SUMMARY AUDIT REPORT
FOR GOLD MINING OPERATIONS

Instructions

1. The basis for the finding and/or statement of deficiencies for each Standard of Practice should be summarized in this Summary Audit Report. This should be done in a few sentences or a paragraph.

2. The name of the mine operation, lead auditor signature and date of the audit must be inserted on the bottom of each page of this Summary Audit Report. The lead auditor's signature at the bottom of the attestation on page 3 must be certified by notarization or equivalent.

3. An operation that is in substantial compliance must submit a Corrective Action Plan with the Summary Audit Report.

4. The Summary Audit Report and Corrective Action Plan, if appropriate, with all required signatures must be submitted in hard copy to:

ICMI - International Cyanide Management Code
1400 I Street, NW, Suite 550.
Washington, DC, 20005, USA.
Tel: +1-202-495-4020.

5. The submittal must be accompanied with 1) a letter from the owner or authorized representative which grants the **ICMI - International Cyanide Management Code** permission to post the Summary Audit Report on the Code Website, and 2) a completed Auditor Credentials Form. The letter and lead auditor's signature on the Auditor Credentials Form must be certified by notarization or equivalent.

6. Action will not be taken on certification based on the Summary Audit Report until the application form for a Code signatory and the required fees are received by ICMI from the applicable gold mining company.

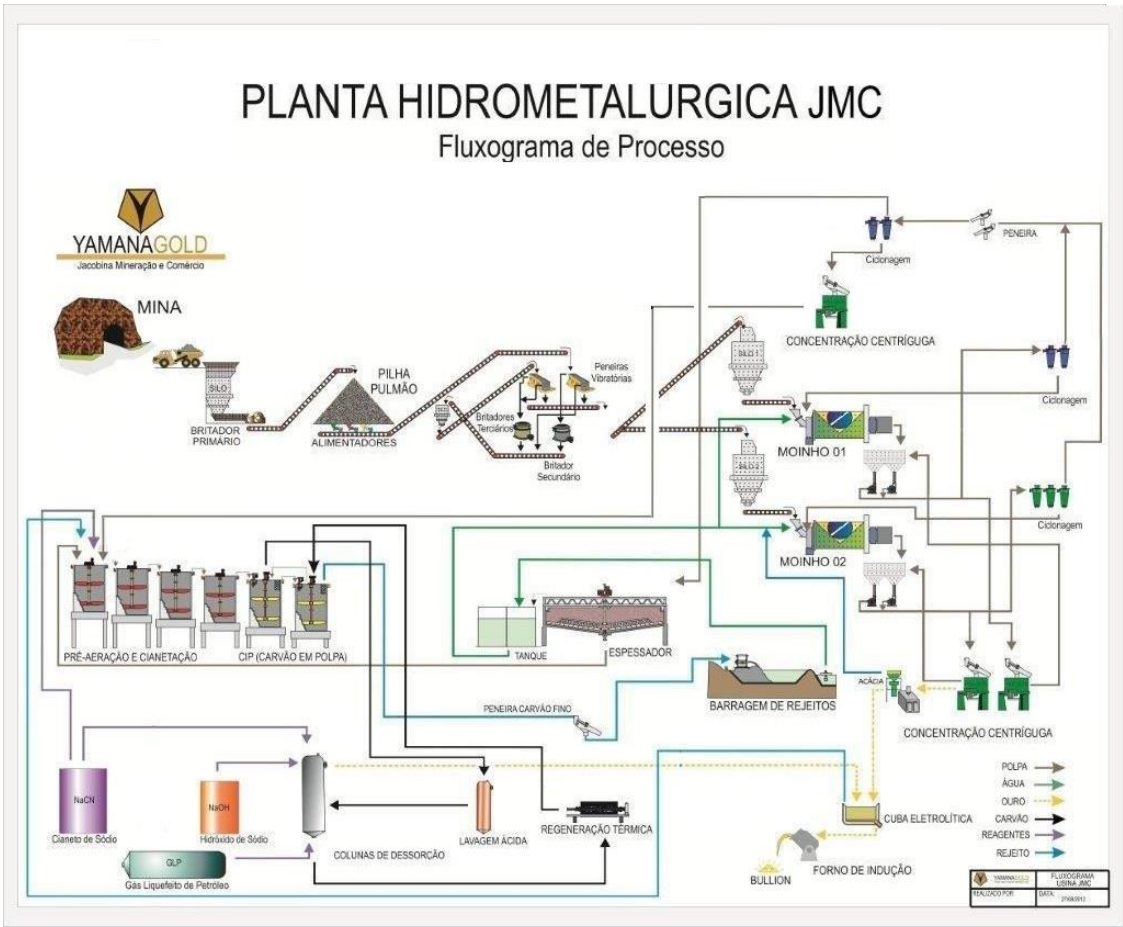
7. The description of the operations should include sufficient information to describe the scope and complexity of the gold mining operation and gold recovery process.

Name of Mine: **JACOBINA MINERAÇÃO E COMÉRCIO Ltda. (JMC)**

Name of Mine Owner: Yamana Gold
Name of Mine Operator: Yamana Gold
Name of Responsible Manager: Edvaldo Alves Amaral Júnior (Plant Manager)
Address: Fazenda Itapicurú s/nº Jacobina
State/Province: Bahia Country: Brazil
Telephone: +55 74 3621 8000

Location detail and description of operation:

Jacobina Mineração e Comércio Ltda hereinafter identified as JMC is located in a complex at mines called Morro do Vento, João Belo, Serra do Córrego, Lagartixa and Canavieiras - Jacobina – Bahia State – Brazil. JMC belongs to Yamana Gold. JMC's metallurgical plant is situated at the Serra da Jacobina, Jacobina City, Bahia State. The administrative complex and operate mining are situated near the Itapicuru Village 10 km from the Jacobina City and 358 km of Salvador northwest



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Currently, the processing plant treats ore from the Canavieiras and João Belo mines. The ore is discharged over a 600 x 600 mm grill placed on a bin (hopper) that feeds the crusher. Material with size over than the opening of grill mesh is broken using a TR-8 Conception model hydraulic breaker. The crushed ore feeds the bins 01 and 02 whose capacity is 1.500 and 2.700 tons, respectively. There are two closed circuits of gravimetric concentration and grinding/classification, which work in parallel. The gravity concentrate goes to the intensive leaching equipment (Acacia) to be leached. The slurry discharge boxes are equipped with centrifugal pumps that feeds the classifiers and sieves prior the gravimetric concentrators. These concentrators works with a wide range of size whose upper limit is 6 mm and there is no lower limit, according to the manufacturer. The Knelsons' concentrate is transferred to a storage tank for later transfer to the intensive leaching equipment Acacia CS 2000 – WAD "Weak Acid Dissociable Cyanide concentrations in the mill are less than 0.5 mg/l. Despite being bellow 0.5 mg/l the milling facilities are inspected, there are maintenance plans, emergency showers, fire extinguishers, secondary containments, such as preventive controls for operational and environmental assurance While the concentrate is prepared inside the reactor (stratification and desliming), the caustic solution preparation of 35% sodium cyanide occurs in another tank. After these two steps ends, the intensive leaching step starts with use of a catalyst agent called commercially of "Leach Aid". The leaching circuit starts at the TK-03 where the pulp with approximately 48% solids is introduced into this tank. In TK-03, sodium cyanide (NaCN) solution is added in order to solubilize the gold in the pulp. The slurry currently passes through 7 tanks (TK-03, TK-04, TK-05, TQ-31, TQ-32, TQ-33, TQ-30) associated in series, mechanically mixed and with air introduction on the bottom. The transfer is via overflow and all tanks has containment basins. From the TQ-30, the pulp is pumped to the activated carbon adsorption step, called CIP (Carbon In Pulp). This step consists of passing the slurry throughout 6 tanks in series at the following sequence: TQ-05, TQ-06, TQ-07, TQ-08, TQ-09 and TQ-10. The CIP tanks are equipped with metallic screen (stainless steel)

called kambalds, whose objective is to keep the activated carbon inside the tanks to adsorb the gold in solution. The ore slurry, at the end of the adsorption circuit, goes to the final tailings pumping station (tailings dam). A final screening step is carried out in order to recover fine carbon particles that could escape from the adsorption tanks. This screening is done using two high-frequency wet sieves (DERRICK model), similar to the equipment used on grinding to remove trash. JMC's operation does not use Cyanide destruction process to reduce Cyanide concentration in tailings pulp.

Auditor's Finding

This operation is:

X in full compliance
□ in substantial compliance *****(see below)
□ not in compliance

with the International Cyanide Management Code.
During the previous three years certification cycle, Jacobina Mineração e Comércio did not experience any significant cyanide related incidents nor any compliance problems related to cyanide management.

***** The Corrective Action Plan to bring an operation in substantial compliance into full compliance must be enclosed with this Summary Audit Report. The plan must be fully implemented within one year of the date of this audit.

Audit Company: Ferreira & Cerqueira Ltda.
Audit Team Leader: Luiz Eduardo Ferreira
E-mail: luizeferreira2015@gmail.com (ICMI qualified lead auditor and TEA
Names and Signatures of Other Auditors: none

Date(s) of Audit: 16~ 20/08/2021 (on-site) 27 ~28/09/2021 (off-site)

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.
I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in

accordance with the " Mining Operations Verification Protocol and using standard and accepted practices for health, safety and environmental audits.

1. PRODUCTION: ***Encourage responsible cyanide manufacturing by purchasing from manufacturers who operate in a safe and environmentally protective manner.***

Standard of Practice1.1: *Purchase cyanide from manufacturers employing appropriate practices and procedures to limit exposure of their workforce to cyanide, and to prevent releases of cyanide to the environment.*

The operation is
X in full compliance with
☐ in substantial compliance with Standard of Practice 1.1
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC only used cyanide manufactured by Proquigel Química S.A. in the last three years that is a Brazilian company that has two facilities at Camaçari and Candeias cities both at the State of Bahia. Proquigel produces solid and liquid cyanide but evidenced that JMC only uses liquid cyanide. Evidenced contracts between on one hand, as seller Proquigel, and, on the other hand, as buyer, JMC for the article liquid sodium cyanide which states that all sodium cyanide provided by Proquigel must be produced in a facility having a current certification under the International Cyanide Management Code. Reviewing pertinent records noted that all cyanide that JMC used last three years have been provided by Proquigel. (Camaçari and Candeias cities).Both Proquigel's facilities are certified by Cyanide Code according to the information available in the ICMI – International Cyanide Management Code website**.** The operation does not purchase cyanide from independent distributors.

2. TRANSPORTATION: ***Protect communities and the environment during cyanide transport.***

Standard of Practice 2.1: *Establish clear lines of responsibility for safety, security, release prevention, training and emergency response in written agreements with producers, distributors and transporters.*

The operation is
X in full compliance with
☐ in substantial compliance with Standard of Practice 2.1
☐ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

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The agreements among the operation, the cyanide producer (Proquigel) and the cyanide transporters used during the last three years (Transportadora Moscato Tr5ansportes Rodoviários and Confins Transportes) were reviewed and evidenced to be within required by the Cyanide Code.
Evidenced that packaging activities are not applicable since.JMC only uses liquid cyanide
The cargo labeling is done in Portuguese, in accordance with the Brazilian road transport legislation.
Evidenced that purchase contract clearly defines that the producer (Proquigel) must add a colorant dye to high concentration of liquid solution prior to delivery to JMC operation. Evidenced that Proquigel uses carmoisine as colorant dye. Besides, noted that JMC inspects when liquid cyanide arrives if it contains the colorant dye through the use of the Check List REG 04-09-3.5-001 - Sodium Cyanide Discharge. Evidenced duly implemented. JMC does not use solid cyanide. There are no cyanide mixi9ng facilities.
There is no temporary storage of cyanide before shipping to JMC.
Evaluation and selection of routes, including community involvement are clearly defined
The cyanide is transported by truck (road transportation), straight from the Proquigel plants at State of Bahia directly to JMC (Jacobina city) at Bahia state.
The transport to the operation, the unloading at the operation, the safety and maintenance of the means of transportation, the security as well as emergency response (throughout transport) responsibilities are clearly defined in purchase contracts
The written agreement addresses all the responsibilities and authorities including the extension to subcontractors, although neither the producer/ transporter are allowed by the operation to subcontract anybody without prior acceptance by the operation. The operation maintains a system to monitor the contracts with the producer and the transporter
Both producer and transporters are certified under the Cyanide Code.

Standard of Practice 2.2: *Require that cyanide transporters implement appropriate emergency response plans and capabilities and employ adequate measures for cyanide management.*

The operation is
X in full compliance with
□ in substantial compliance with
□ not in compliance with
Standard of Practice 2.2

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced, the contract between the operation and the producer and the transporter clearly addresses the requirement that the transporter must be certified by ICMI. The contracted cyanide transporters are certified by ICMI, as evidenced at the ICMI website.

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Evidenced that JMC established an incoming inspection control in order to verify the cyanide related documentation (from origin until the operation) in the reception of cyanide. Evidenced several incoming inspection records that were performed during last three years duly established and maintained
All transport supply chain are certified according to the ICMI website.
The cyanide transporters used during this ICMC recertification period were Transportadora |Moscato and Confins Transportes which are certified by ICMI as evidenced at the ICMI website.

3. **HANDLING AND STORAGE: Protect workers and the environment during cyanide handling and storage.**

Standard of Practice 3.1: Design and construct unloading, storage and mixing facilities consistent with sound, accepted engineering practices, quality control/quality assurance procedures, spill prevention and spill containment measures.

The operation is . X in full compliance with
in substantial compliance with Standard of Practice 3.1
not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC designed and constructed facilities for unloading and storing cyanide in accordance with cyanide producer's guidelines and Brazilian engineering requirements. During the field audit evidenced that unloading and storage area for liquid cyanide is located away from other people of the plant. The access to the process plant is controlled. All doors are locked. The unloading, storage and preparation areas are far from surface waters. During the unloading, only authorized operators are allowed to circulate in these areas. Evidenced duly implemented. The area has a concrete floor constructed in accordance with Brazilian legal requirements. It is far from surface waters and has appropriate drainage system.
In the case of occurrence an incident involving cyanide release in this area, the product is easily recovered by using environmental kits. It was not evidenced incident reports in the last three years.
The alarms are monitored by the supervisory system of the room operation of hydrometallurgy plant..
During the field audit noted that cyanide storage tanks were built on concrete surface. A spill containment pound built under it in case of emergency.
Evidenced during the field audit and reviewing engineering documentation that the containment ponds are constructed on concrete and HDPE, according to specific international and Brazilian standards offering an effective barrier to seepage. HCN detectors and alarm systems are in place as evidenced in the field audit.
JMC does not use solid cyanide. There are no mixing facilities.

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Cyanide storage and distribution tanks are located in the process plant and JMC does not store liquid cyanide anywhere other than these tanks.
Evidenced that JMC has been controlling to access the process plant and the cyanide areas as stated.
During field audit noted that JMC has level indicator and high-level alarm to prevent the overfilling of cyanide storage tanks. The control systems of the 550-TQ-01A and 550-TQ-01B tanks are carried out through a level sensor with pop-up alarms via the control room. The 352-TQ-01 interlock system is automated and interlocked with the pump Cyanide distribution tank is controlled by an automated system and interlocked with a pump through the level.
Evidenced that JMC has been stored sodium cyanide in specific warehouse in a well – ventilated area. HCN detectors alarm systems are in place as evidenced in the field audit. There are no cyanide mixing tanks. The cyanide storage area is isolated and apart from other storage areas and specifically assigned to store on sodium cyanide. Evidenced that they are well maintained, clearly signed, and clean and ordered. Food and tobacco products are not allowed in this area. No incompatible materials such as acids, strong oxiders and explosives are allowed to be stored in cyanide storage area. During the audit in the field, all this information was found implemented as stated.

Standard of Practice 3.2: Operate unloading, storage and mixing facilities usig inspections, preventive maintenance and contingency plans to prevent or contain releases and control and respond to workers exposures.

The operatino is X in full compliance with
in substantial compliance with Standard of Practice 3.2
not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Matters with respect to empty cyanide containers, procedures in place and implemented to prevent empty cyanide containers from being used for any purpose other than holding cyanide; rinse empty cyanide drums, plastic bags and liners with water three times and add the rinse water to the cyanidation process or otherwise dispose of it in an environmentally sound manner; crush empty cyanide drums prior to disposal in a landfill and burn or otherwise dispose of empty wooden crates in an environmentally sound manner; clean any cyanide residue from the outside of cyanide containers that are returned to the vendor and securely close them for ship; Handling cyanide containers without rupturing or puncturing; limiting the height of stacking of cyanide containers are not applicable since JMC does not use solid cyanide.
Evidenced that JMC defined, documented and implemented a procedure to unload the liquid cyanide during the reception. The operators are trained and qualified in this procedure. Records of such training activities and the field audit evidenced that the

operational procedure clearly addresses the steps to be followed and the activity is fully monitored. During field audit evidenced the implementation, as required.
In the event of any real spills, the operational procedure covers the neutralization and cleaning of the spills, which is forced to the drainage system. It was not evidenced any kind of spills (solution) during the field audit.
A qualified operator, using appropriate PPE (including calibrated HCN detectors), is observed full time by a second operator that remains in a safe area. This practice was evidenced in the field audit and concluded that is duly implemented.
Evidenced that purchase contract clearly defines that the producer (Proquigel) shall add a colorant dye to high strnght liquid solution prior to delivery to JMC operation. Evidenced that Proquigel uses carmoisine as colorant dye. Besides, noted that JMC inspects when liquid cyanide arrives if it contains the colorant dye. JMC does not use solid cyanide. There are no cyanide mixing facilities. The transport of liquid cyanide is carried out by isotanks trucks through a carrier certified in the international code of cyanide evaluated by the health, safety, environment and quality system – SASSMAQ of ABIQUIM – Brazilian Chemical Industry Association and strictly comply with the established rules in regulations for road transport of dangerous products according the contract CT 3657 Cyanide – Proquigel supply clause 4 items 4.2, 4.3, 4.6, 4.7 and 4.8 .
The operation inspects all valves as noted in the record identified as REG-04-09-3.5 items 9, 10, 22 and 25 and guarantees correct operation through pop-04-09-3.5-099 item 4.It is defined in the supplier's manual according to the document Sodium cyanide product manual item 6.3 page 22,that all transport of sodium cyanide in solution must be carried out in isotanks. As Cyanide is transported in isotanks there are no empty cyanide containers at JMC. There has been no bulk delivery at JMC. Evidenced that procedure POP-04-09-3.5-088 – Sodium cyanide unloading, in item 4 and sub-items 4.1 to 4.4 deals with the operation of all valves, in addition to REG-04-09-3.5-001 unloading check list 35% items 9, 10, 22, 23 and 25 for check list. The TAG of the process air pressure gauge that is located in the cyanide area is 550-PI-003.

4. OPERATIONS: ***Manage cyanide process solutions and waste streams to protect human health and the environment.***

Standard of Practice 4.1: *Implement management and operating systems designed to protect human health and the environment utilizing contingency planning and inspection and preventive maintenance procedures.*

The operation is
X in full compliance with
☐ in substantial compliance with Standard of Practice 4.1
☐ not in compliance with

JMC developed, defined, implemented and maintained several internal documented procedures for cyanide facilities including unloading and storage facilities, leach plants,

tailings impoundments, in accordance with Standard Practice 4.1.1 such as NaCN Solution Discharge, Neutralization of NaCN, Line decontamination with cyanide solution, Tank decontamination Decommissioning of the metallurgical plant,
Pump and line maintenance with NaCN solution (35%), Maintenance on pH Transmitters, Maintenance on HCN Gas Transmitters, Determination of Free Cyanide, Determination of WAD - Weak Acid Dissociable and Total Cyanide - POP-02-11-3.5-294, Instrumental determination of free, WAD and Total cyanides, , Periodic maintenance of the Cyanide Analyzer, Acacia Operation, Leaching Operation, Elution, Inspection of 35% Cyanide pipelines and tanks, Inspection Checklist- Process Laboratory, Monitoring of surface, underground and liquid effluents, Acid wash and neutralization, Basin drainage and cleaning operation, CIP Operation, Communication Flow, Hydrocycloning, Jacobina Tailings Dam Operation and Construction Manual Power Control and Equipment Blocking, Ultrasonic inspection report on cyanide tanks and pipes, Cyanide Operations,
Verified inspections records and found effective:
JMC plans and procedures define that allowable WAD cyanide concentration limit in open water contained in tailing dams is 50 mg/l. Evidenced that JMC inspects tanks holding cyanide solutions for structural integrity and signs of corrosion and leakage.
During the field audit evidenced the adequacy of all mentioned tanks
Verified that JMC inspects secondary containment for their integrity, the presence of fluids and their available capacity, and to ensure that any drains are closed and, if necessary, locked, to prevent accidental releases to the environment The inspections also consider the presence of fluids and the available capacity of the secondary containment. Records of such inspection were reviewed and noted that inspections of secondary containment, drainage system and locks were duly performed as stated. During the field audit observed that all secondary containments were dry
Evidenced that JMC inspects leak detection and collection systems at leach pads and ponds, as required in the design documents. During field audit noted that all the installations are well maintained.
Evidenced that JMC inspects pipelines, pumps and valves for deterioration and leakage. During field audit noted that pipelines, pumps and valves are well maintained.

Evidenced that JMC inspects pounds and impoundments for the parameters identified as critical to prevent leak and maintenance of the water balance. Records of inspection were assessed and showed in accordance with the requirements. During the field audit noted that pounds and impoundments are well maintained.. Evidenced that he inspections are documented, including the date of the inspection, the name of the inspector, and the observed deficiencies as well as the pertinent records ave been retained as stated. Evidenced that preventive maintenance programs are implemented and activities are documented to ensure that equipment and devices function as necessary for safe cyanide management. They prescribe the specific nature and frequency of preventive maintenance activities. Sampled examples were: Corporative Yamana Maintenance Plan, Electrical Inspection Plan, Mechanical Inspection Plan, Pipeline inspection, Tanks

inspection. Routine and post-rain environmental inspections cover the physical integrity of surface area diversion where containments are checked, such as rainwater channels, containment basins and water bodies can be seen in record identified as REG-04.01-3.5-011- Final Inspection Report. Preventive maintenance records were reviewed and provided evidences that JMC has been performing preventive maintenance as stated. During field audit noted that all the installations are well maintained. JMC has an emergency power resources to operate pumps and other equipment to prevent unintentional releases and exposures in the event its primary source of power is interrupted. There is a back up power generation equipment within a maintenance program and tests. The tailing dam named B2 is in operation since the last three years. The as built drawings of B2 were reviewed. The normal free edge was dimensioned in order to minimize the risk of spillage. In this case, the assumption that the dam will not leak was used. According to document JMC-02-390-C-RL-0149-1 BII tailings dam technical report item 4.3 page 33, the freeboard was defined based on the minimum distance required between the maximum operational level and the height of spillway at each stage, in order to store a 24-hour decamillennial flood, without spillage. Thus, the volume corresponding to the 24-hour decamillennial will be stored in the reservoir. So that there is no risk of spillage at all stages of dam 2, the water level of reservoir always respects the criteria previously determined in the studies and sizing developed by the designer, the execution and operation of the structure strictly follow the project and the their respective specifications. In the operational procedures, there is a daily monitoring of the elevation of water level in the BII dam, in addition the bathymetry of the reservoir is carried monthly, resulting in the volume of water and tailings stored in order to guide the monitoring, there is also a study carried out by the dam designer where the quota x volume of the BI I reservoir is evaluated and in parallel, it is carried out the analyzes to compose the report of the water balance of the dam with the main objective of verifying the water behavior of the reservoir , allowing a better understanding of the input and output variables of B II tailings dam

The document JMC02-390-C-MO-0004-6-operation manual contains all the items to be observed. The environment and safety areas actively participate in the change management process as required by procedure PIS-04-00-3.5-005 item 5 and in the forms themselves (REG 04-02-3.5-211, REG 04-02-3.5 -212 and REG 04-02-3.5-213) require the signature of the members of these areas, in addition to the approval of the change.

In the period from 2017 to July 2021, there were two change managements that are part of the cyanide management as follows: REG-04-02-3.5-211 Change in cyanide feed in leaching and REG-04-02-3.5-213 Addition of Carmoisine dye to the cyanide solution purchased from Unigel. JMC does not buy Carmoisine dye from Unigel/Proquigel , the dye is added by the producer at its production plant. Unigel/Proquigel is the producer and supplier of the sodium cyanide purchased by JMC.

They were reviewed during the audit and the proper implementation was verified.

Evidenced that Operation and Maintenance routinely inspects 35% Cyanide pipelines and tanks, flow transmitters, pumps, level indicator transmitters, pH transmitters, HCN

gas transmitters and flow switch. Specific procedures define inspection and maintenance routines for equipment considered critical for Cyanide management.
The equipment TAG's worksheet related to the Cyanide code principles contains the equipment that is inspected and maintained and their respective location
Sampled examples of the objective evidence verifying that the operation conducts routine inspections to check cyanide pipelines and valves for deterioration and leakage were: Inspection Order 550-TQ-018 of January 29, 2018, 550-BA-01R of March 3, 2018, 550-AR-01 of October 28, 2019, 352-BD-01R of October 28, 2019 , 550-BD-01A of May 9, 2019, 320-550-TQ-01A of July 22, 2021, HGQ Inspection Report # 017/18-REVIS. -00, # 018/18-REVIS. -00,
Safety inspection report on cyanide lines from Meta Ambiental # 202121139
Inspections and environmental monitoring are carried out in water bodies and surface waters with defined intervals, according to PIS-04-02-4.1-170 - monitoring of surface waters, groundwater and liquid effluents and in the environmental monitoring plan on pages 32 and in annex 1 - Surface water matrix page 67. The auditor reviewed all information related to the inspection activities of cyanide facilities defined through JMC's documented plans and procedures as well as the results of pertinent of these inspections and concluded that the inspection sampling criteria practiced by the JMC are consistent, in compliance with legislation and standards nationally and /or internationally recognized and that ensure suitability for it design and quality assurance principles.

Standard of Practice 4.2: *Introduce management and operating systems to minimize cyanide use, thereby limiting concentrations of cyanide in mill tailings.*

The operation is	**X** in full compliance with ☐ in substantial compliance with ☐ not in compliance with ☐ not subject to	Standard of Practice 4.2

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that JMC conducts a program to determine appropriate cyanide addition rates in the Mill and evaluate and adjust addition rates as necessary. Cyanidation tests are usually performed in order to identify opportunities to reduce the cyanide consumption. Observed that JMC has effective controls of cyanide addition based on gold concentrations. There is a pH control duly implemented. Cyanide dosing in the JMC plant circuit is performed automatically by cyanide analyzer. This equipment analyzes, in a short period of time, the cyanide concentration in the pulp and changes the metering pump inverter to reach the set point determined by the engineering team. This process guarantees the stability of cyanide concentrations in the circuit, avoiding overdosing. The documented internal procedure POP-04-09-3.5-005 - Leaching Operation item 4 clearly defines the system to be used. Evidenced properly implemented

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Standard of Practice 4.3: Implement a comprehensive water management program to protect against unintentional releases.

The operation is	**X** in full compliance with ☐ in substantial compliance with ☐ not in compliance with	Standard of Practice 4.3

Summarize the basis for this Finding/Deficiencies Identified:

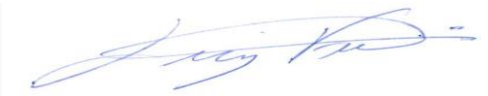
JMC developed a comprehensive, probabilistic water balance in accordance with Brazilian environmental legislation that includes a complete JMC water balance flowchart.that and considers the following matters: the solution addition in the system and the effluent rate at B2 tailings dam. Including mine description, water balance model methodology, water balance model inputs and criteria, climatic hydrological parameters, station date, precipitation, temperature and evaporation,

JMC recycles more than 80% off its wastewater reuse with the operation. The rest is discharged in dam B2 after the specific control process and monitoring. Evidenced that JMC performs the qualitative and quantitative monitoring of surface water, groundwater, wastewater, as well as drinking water as stated by Brazilian regulation laws.

JMC established operational procedures that incorporate inspection and monitoring activities to implement the water balance and prevent overtopping of ponds and impoundments and unplanned discharge of cyanide solutions to the environment; Inspection and monitoring records as well as check list dam safety, geotechnical inspection dams were reviewed and demonstrated that the results are in accordance with Brazilian regulation laws.

The ponds and impoundments designed and operated with adequate freeboard above the maximum design storage capacity determined to be necessary from water balance calculations. There are inspections in place to ensure the control of all parameters. The results were reviewed and showed to be in accordance Brazilian regulation laws. JMC measures the precipitation and compare the results to design assumptions. Records reviewed showed be implemented as stated.

The dam project was conceived in order to minimize the risk of spillage at all stages of heightening. For this purpose, a waiting volume was designed in the reservoir for rain dampening. In all stages, the waiting volume was calculated considering the same criterion, that is, the waiting volume should be sufficient to store a 24-hour decamillennial precipitation. Furthermore, in JMC02-390-C-MO-0004-6-Operation Manual item 13.1 pages 42, 43 and 44 there is identification in the summary table of the precipitation frequency (daily). The dam also has four rain gauges and a meteorological station for monitoring precipitation and other variables.



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The company does not release water into the environment, when referring to BII, that is, tailings dam 2, the only one in operation
The operation has authorization to discharge effluents into surface waters (water bodies), however this discharge is not necessary, when we speak of BII we are referring to tailings dams. As a result, there is no discharge of effluents into streams or any type of water body. All tailings from the operation are directed to tailings dam – BII. The document (Description of the current process describes the steps of the process and contains the process flowchart where it is possible to observe that the tailings from the plant are directed only to the dam. In addition, there is POP-04-09-3.5-391 Tailings pumping operation, in which item 1, page 1, specifies that all tailings from the plant are directed to the Tailings Dam II.
The tailings flow to the Dam is controlled and monitored by the control roomough the PLC (Control Logic Programmer). In addition, there is a software (PI) that contains the daily history of the tailings flows to the dam. In the water data sheet, column N pulp to dam contains the volume of tailings pulp sent daily to the dam. The company does not release water into the environment, when referring to BII, that is, tailings dam 2, the only one in operation

Standard of Practice 4.4: *Implement measures to protect birds, other wildlife and livestock from adverse effects of cyanide process solutions*.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 4.4
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC does not present open water with WAD cyanide exceeding 50mg/l, according the monitoring results audited. Special measure (fencing) was implemented to restrict access by wildlife. Evidenced that JMC's general biodiversity plan defines biannual monitoring of the fauna where 6 points are monitored in the area of influence of the enterprise contemplating the map of the points mentioned above, the schedule for this monitoring is defined, performance indicators with the conclusion of the diagnosis and the results obtained Noted that JMC's Biodiversity Monitoring Campaign carried out in the first half of 2021, to monitor the fauna according to a survey of the general monitoring plan, comparing the results through indicators described on page 135 to page 149, and final considerations considering the results already obtained with the conclusion of this campaign are satisfactory; JMC implemented physical barriers along its length, including treated eucalyptus fence in the dam area, metal blocking siding, walls in concrete structures in the access to administrative areas (central entrance), fence fence in the environmental complex and in the metallurgical plant, in addition to

barbed wire fence throughout the other areas as measures used to restrict access to wild animals and cattle in all open waters of the development

JMC defined, documented and implemented both the Environmental Monitoring Plan as well as PIS -04-02-4.1-170 which defines a system for monitoring surface water, groundwater and liquid effluents. Evidenced that the records of monitoring presented by JMC demonstrate that the cyanide concentration in open water does not exceed 50 mg/l WAD cyanide.

There is no register of wildlife mortality since the last audit. The environmental monitoring plan documents the systematic monitoring of cyanide in the waters contained in the tailings dam 2, on page 40, table 14a, the forms of cyanide that are analyzed and on page 93 defines the monitoring points of industrial effluents that are collected in this dam, that is, points EFLI 06, EFLI 07 and EFLI 09. (PIS 04-02-4.1-170 - monitoring of surface water, groundwater and liquid effluents). Records reviewed showed WAD cyanide concentration less than 50 mg/l.

JMC does not have leach pads.

The place where the samples are collected makes up the entire perimeter of the lake located in the tailings dam B II, these samples are collected monthly, as evidenced in the BII lake water quality report. There are no other process solution storage locations.

. Monitoring is carried out quarterly through point EFLI - 09 effluent collection point in the tailings dam reservoir 2 as defined in PIS-04-02-4.1-170 Monitoring of underground surface water and liquid effluents annex 1 page 19. Evidenced duly implemented

JMC has ordinance 22118 - authorization for fauna management, covered by the general biodiversity plan, including campaigns to monitor the surrounding fauna, which establishes the criteria for procedures related to the monitoring of wild fauna.

JMC's general biodiversity plan, which defines biannual monitoring of the fauna where six points in the area of influence of the enterprise are monitored (page 25) contemplating the map of the points mentioned above (page.28), the schedule of this monitoring is defined (page . 59), performance indicators with the completion of the diagnosis and the results described on page 91 There was no killing of wild animals

JMC does not analyze WAD cyanide concentrations at the tailings discharge point. The pipeline in which the tailings slurry is directed to the dam is contained and restricted to avoid discharges to the environment in the event of an accident ft any type of fauna contact, respectively. In addition there is a monitoring and control of the tailings line pressure to avoid any type of incident/accident. In the PLC – Controllable Logic Programmer System any value outside the specification interrupts the piping of tailings and consequently the power supply to the plant .

The tailings slurry is pumped through piping from the CIP circuit directly to a pumping station located at the plant. From this pumping station, the tailings slurry is pumped directly to the dam.

WAD cyanide concentrations in the tailings slurry at the discharge to the tailings impoundment, which includes the tailings solutions flowing across the beach area to the supernatant pond, do not exceed 50 mg/l. The frequency of measurement of WAD cyanide concentrations in the tailings pulp is performed quarterly by an external

laboratory and monthly by an internal laboratory. In the leach tanks and pumping station, this measurement is not performed.

Standard of Practice 4.5: *Implement measures to protect fish and wildlife from direct and indirect discharges of cyanide process solutions to surface water.*

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 4.5
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC defined, documented and implemented both the Environmental Monitoring Plan as well as PIS -04-02-4.1-170 that define a system for monitoring surface water, groundwater and liquid effluents. Evidenced that JMC does not have any direct discharge of solutions containing cyanide to surface water.
All processed effluents are stored at the TSF – Final Storage Tank and returns to the process.
Evidenced that JMC does not have an indirect discharge to surface water. . Records of surface water from 2018 to 2021 assessed and showed results of concentration of free cyanide below this level (free cyanide does not in excess of 0.022 mg/l downstream of any established mixing zone) During the audit there was no evidence indicating indirect discharge from JMC have caused any concentration in surface waters. JMC does not have any record of indirect discharge to surface water.
In the period from April 2017 to July 2021, there was no case in which the Cyanide WAD was above 0.5 mg/l. Evidenced that internal documented procedure In PIS-04-02-4.1-170 Monitoring of underground surface waters and liquid effluents item 6.10 (immediate actions in case of cyanide contamination) pages 11 and 12 inform the procedures to be followed and the control measures adopted if concentrations are identified of cyanide WAD above the limit (0.5mg/l) determined by the International Cyanide Code. WAD Cyanide concentrations in the mill are less than 0.5 mg/l. Despite being below 0.5 mg/l, the milling facilities are inspected, there are maintenance plans, emergency showers, fire extinguishers, secondary containments, such as preventive controls for operational and environmental assurance WAD Cyanide concentrations in the mill are less than 0.5 mg/l. These values can be seen in the BII lake water quality report, column J of this report. This report presents the results of 66 points sampled along the dam lake and none of them presents results equal to or greater than 0.5 mg/l for Cyanide WAD.

Standard of Practice 4.6: *Implement measures designed to manage seepage from cyanide facilities to protect the beneficial uses of ground water.*

X in full compliance with

The operation is
- □ in substantial compliance with Standard of Practice 4.6
- □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that the secondary containments are covered by a HDPE, and all pipelines are within areas with secondary containment
The monitoring performed by JMC indicates that there is not any contamination of ground water caused by any type cyanide (total, wad or free). There is no standard in Brazil for ground water There is no record of seepage from the operation that has caused cyanide concentrations of ground water to rise above levels protective of beneficial use.
The tailings dam is 100% waterproofed with geomembrana defined according to JMC02-390-C-MO-0004-6 - Operation and Executive Project Manual, item 3.1 and 3.2 pages 7 and 8. Given the characteristics of the tailings to be stored throughout the reservoir (foundation and the upstream face of the dam) are waterproofed using HDPE geomembrana. The geomembrane is anchored to the crest of the dam massif and to the edges of the reservoir and the geomembrane application area is expanded along with the dam rising. The advance of the geomembrane installation is compatible with the heightening of the massif and the tailings beach. The coating has the function of avoiding any contact of the tailings with the soil and the water table, that is, with the entire reservoir and foundation waterproofed with high density polyethylene (HDPE), there is no percolation, removing the possibility of contamination.
Below the Cyanide facilities there is no groundwater capture. There is no capture groundwater for human consumption or livestock. All groundwater management according to PIS-04-02-4.1-170 are for monitoring

Standard of Practice 4.7:Provide spill prevention or containment measures for process tanks and pipelines.

- **X** in full compliance with

The operation is
- □ in substantial compliance with Standard of Practice 4.7
- □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that the cyanide unloading, storage and process solution tanks are provided with spill prevention and containment measures, such as secondary containment and impermeable varnish. Evidenced that according the designs all cyanide unloading, storage and process tanks contain secondary containment sized to hold a volume greater than that of the largest tank within the containment and any piping draining back to the tank, and with additional capacity for the design storm event There are procedure in place and being implemented to prevent discharge to the environment of any cyanide solution. There is a pumping system that is used to pump any effluent or after a rain that

is contained in the secondary containments. All the effluent is pumped back to the process JMC does not have process tanks without secondary containment. During the field audit evidenced that all cyanide process solution pipelines are provided with spill prevention to collect leaks and prevent releases here cyanide pipelines present a risk to surface water.
During the field audit evidenced that none areas where cyanide pipelines present a risk to surface water. All pipelines are within controlled areas, by secondary containments and that all cyanide tanks are made of carbon steel ASTM A-36 and pipelines are made of carbon steel ASTM 53B and ANSI B36.10 or HDPE being constructed of materials compatible with cyanide and high pH conditions. There are no cyanide mixing facilities

Standard of Practice 4.8: *Implement quality control/quality assurance procedures to confirm that cyanide facilities are constructed according to accepted engineering standards and specifications.*

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 4.8
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC conducted quality control and quality assurance programs for new and existing cyanide facilities and modifications. Engineering Manual and several pertinent drawings were reviewed. Evidenced that construction of cyanide facilities and modifications were duly implemented. Verified that JMC implemented developed a quality control and quality assurance programs addressed the suitability of materials and adequacy of soil compaction. JMC retained all records of quality control and quality assurance for cyanide facilities. Evidenced that appropriately qualified personnel reviewed cyanide facility construction and provided documentation that the facility has been built as proposed and approved. Verified the capacitation records of engineering, quality control and quality assurance involved personnel duly maintained
There are no cyanide mixing facilities.
The operation implemented quality assurance and quality control by a duly qualified person during the construction of the tailings dam according to the construction project of heightening prepared by a specialized company, Dam Engenharia, and under the technical responsibility of the engineer Jacqueline V. R, Musman
Evidenced that such programs addressed the suitability of materials and earthworks. Sampled example was: Jacobina Tailings Dam Executive Project 5th Raising Stage - Level 620 meters and identified as BVS-E-J6-MA-001-6 / JMC02-390-C-MO-0004 - Operation and Construction Manual
Evidenced ART - Note of Technical Responsibility issued by CREA - Regional Council of Engineering and Architecture of the State of Minas Gerais # 20210388906 on behalf of Civil Engineer Jacqueline Versiane Ramos Musman,

from Empresa Dam as responsible for the design, specifications and execution of technical drawings of the works hydraulics and dam and dike water resources.

Standard of Practice 4.9: *Implement monitoring programs to evaluate the effects of cyanide use on wildlife, surface and ground water quality.*

The operation is
- **X** in full compliance with
- □ in substantial compliance with Standard of Practice 4.9
- □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC defined, documented and implemented procedures for monitoring programs to evaluate the effects of cyanide activities such as Environmental Monitoring Plan for 2021 ~2025; PIS-04-02-4.1-170 - Monitoring of surface water, groundwater and liquid effluents and General Biodiversity Monitoring Plan. Evidenced that they clearly define sampling points, parameters to be monitoring, frequency, analytical procedures, legal requirements and programs to evaluate the effects of cyanide use in wildlife surface and ground water quality that includes wildlife, surface and ground water quality. Noted that they have been implemented as stated.

All sampling and analytical protocols have been developed by JMC's chemicals lab in accordance with AWWA – American Water and Wastewater Association Standards Methods for the Examination of Water and Wastewater 23rd Edition (2018), of the National Guide for the Collection and Preservation of Samples (2011) of the National Water Agency and the Environmental Company of the State of São Paulo Paulo, and of the ABNT – Associação Brasileira de Normas Técnicas NBR – Norma Brasileira Registrada9898:1987 Standard on preservation and techniques of sampling and other relevant legislation to meet environmental conditions and standards. Sampled example was PIS-04-02-4.1-170 - Monitoring of surface water, groundwater and liquid effluents.

JMC's internal documented procedures specify how and where samples should be taken, describe the sample preservation techniques, describe the chain of custody and cyanide species to be analyzed. It was noted that it is duly implemented. Evidenced sampling conditions (weather, livestock/wildlife activity, anthropogenic influences) and procedures documented in writing by the JMC in accordance with Environmental Monitoring Plan for 2021 ~ 2025; Biodiversity Monitoring Plan and PIS-04-02-4.1-170 - Monitoring of surface water, groundwater and liquid effluents.

JMC does not direct or indirect discharges process water to surface water. There is a monitoring program in the surface and ground water down gradient of the site. Evidenced properly implemented.

Evidenced that JMC inspect for and record wildlife mortalities related to contact with and ingestion of cyanide solutions and until this time there is no register of mortality. Evidenced that the monitoring is conducted at frequencies adequate to characterize the

medium being monitored and to identify changes in a timely manner. Evidenced duly implemented in accordance Brazilian regulation laws.

5. DECOMMISSIONING: ***Protect communities and the environment from cyanide through development and implementation of decommissioning plans for cyanide facilities.***

Standard of Practice 5.1: Plan and implement procedures for effective decommissioning of cyanide facilities to protect human health, wildlife and livestock.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 5.1
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified

JMC established, implemented and maintained documented procedures to decommission cyanide facilities at the cessation of operation such as Metallurgical plant decommissioning - POP-04-09-3.5-290, Mine Closure Plan (PFM) - STE-YAM006-PFM-INT-PDF001-FF-YA, NaCN neutralization - POP--04--09 -3.5-174 and Degraded Areas Recovery Plan - PRAD - STE-YAM005-RAD-INT-PDF003-FF. Evidenced that Update of the Environmental Conceptual Plan for Mine Closure - PFM JMC - STE-YAM006-PFM-INT-PDF001-FF-YA includes a schedule for carrying out its proposed activities; this schedule show the order in which the planned activities will be conducted. Evidenced that the schedules presented are updated, current and protocolled with the pertinent environmental organism.
JMC updates its plans with sufficient frequency to reflect changes in the operation as they affect decommissioning, as well as changes in planned decommissioning techniques and measures. Reviews are performed in PFM – Closing Mining Plan and in documented procedures above-mentioned review format (PFM every five years and procedures every two years. Noted that Mine Closure Plan (PFM) - STE-YAM006-PFM-INT-PDF001-FF-YA was issued in 2018 and next revision scheduled for 2023. Metallurgical Plant Decommissioning - POP-04-09-3.5-290 last revision on September 23, 2020 and next review scheduled for September 23, 2023. Procedure related to neutralization of NaCN - POP--04--09-3.5-174 - last review dated on November 28, 2019, next review scheduled for November 28, 2021 and Degraded Areas Recovery Plan - PRAD - STE-YAM005-RAD-INT-PDF003-FF last revision May 2017, next revision scheduled for 2022.

Standard of Practice 5.2: Establish an assurance mechanism capable of fully funding cyanide related decommissioning activities.

X in full compliance with

The operation is □ in substantial compliance with Standard of Practice 5.2
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

The cost calculation system is defined and documented in POP-04-09-3.5-290 while the closing cost estimates spreadsheet show the corresponding values. Evidenced duly implemented.
Noted that JMC updates its plans and cost estimate with sufficient frequency to reflect changes in the operation as they affect decommissioning, as well as changes in planned decommissioning techniques and measures. As defined in PFM – Closing Mining Plan cost estimate calculations are reviewed each five years.
JMC established a financial mechanism approved by the applicable legal requirements to cover the estimated expenses according to the defined in the Closure Plan Strategy Financial Statements raised in an independet audit carried with specialized consulting.
The recovery and closing costs are captalized and amortized over the life of the mine based on the units produced in relation to total mineral reserves. Evidenced properly implemented.
JMC established self-guarantee financial assurance mechanism approved by applicable legal requirements to cover the estimated expenses according to the defined in the Closing Plan Strategy, according to financial statements drawn up in an independent special audit.
Cost estimates are based on the mine closure plan (PFM-iINT-PDF-001-FFf-YA) reviewed every 5 years and decommissioning procedures with periodic reviews every two years. The company established a financial mechanism approved by the applicable legal requirements to cover the estimated expenses in accordance with the definition of the closure plan strategy, according to the financial statements raised in an independent audit carried out with a specialized consultancy
Evidenced Jacobina Mineração e Comércio Ltda. Financial Statements Referring to the Year Ended in December 31, 2020 and Independent Auditor's Report from Deloitte Touche Tohmatsu Auditores Independentes duly established. Costs estimates for mine closure are based on direct and third-party contractors

6. WORKER SAFETY:Protect workers' health and safety from exposure to cyanide.

Standard of Practice 6.1: Identify potential cyanide exposure scenarios and take measures as necessary to eliminate, reduce or control them.

X in full compliance with
The operation is □ in substantial compliance with Standard of Practice 6.1
□ not in compliance with

SUMMARY AUDIT REPORT

Summarize the basis for this Finding/Deficiencies Identified:

JMC established, documented, implemented and maintained procedures that clearly define methodology for unloading plant operations, entry into confined spaces, and equipment decontamination prior to maintenance in such manner that minimize workers exposures such as POP-04-09-3.5-088 – NaCN unloading, : MCY-00-10-2.4-001 Yamana Maintenance Management System Manual, MEU-04-04-3.4-001 Yamana Management System Specific Manual, REG-04-09-3.5-001 Check list NaCN solution, OP-04-09-3.5-174 - NaCN neutralization, PIS 04-00-4.1—050 Hazardous Chemicals Management, PCS 00-02-3.5-008 PPT – Work Permit, PIS-04-00-3.5-022 Confined Space, PIS 04-00-3.5-013 Waste Management, REG 04-02-3.5-048 Hazardous Chemical Storage Check list, Transport vehicle check list REG 04-02-3.5-092, POP-04-09-3.5-005 Leaching operation, Hydrocycloning - POP-04-14-3.5-220, Draining and cleaning operation of basins - POP 04-09-3.5-342 , Acid wash and neutralization, Elution - POP-04-09-3.5-222, - Tanks decontamination (metallic structure) - POP-04-09-3.5-296, Decontamination of pipeline with cyanide solution Monitoring and measurement devices management, POP-04-09-3. 5-295. All of above-mentioned documented procedures define the use of PPE- Personal Protective Equipment and address pre-work inspections. Evidenced that before unloading cyanide solution the operators shall verify the use of previously defined PPE before starting the above-mentioned operation and register the inspection results in Chek list REG 04-09-3.5-001 - Sodium Cyanide Discharge Evidenced implemented as required by ICMC
JMC reviews proposed process and operational changes and modifications for their potential impacts on worker health and safety, and incorporate the necessary worker protection measures, that were developed by the work force (operators & supervisors) and approved by the responsible manager. All operators and supervisors have been trained in the pertinent operational procedures and, at least, annually (as refreshment), the work force reviews the risk profile, the operational procedures and, when necessary, these ones are updated. Planned job observations are also part of the operation management system.

Standard of Practice 6.2: Operate and monitor cyanide facilities to protect worker health and safety and periodically evaluate the effectiveness of health and safety measures.

SUMMARY AUDIT REPORT

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 6.2
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC's documented procederes OP-04-09-3.5-005 – Leaching and POP-04-09-3.5-224 – Acacia Operation define that the minimum pH value shall be equal or greater than 10.5. During the field audit and reviewing pertinent records verified that the pH has been effectively controlled and monitored (through calibrated pH meter) in the operation. Alarm systems are in place. The pH is controlled through the online addition of soda solution using a calibrated flow meter. JMC do not allow the employees to be exposed to cyanide concentrations, The storage, distribution and dosage areas are monitored by fixed HCN gas meter. In case of a chemical reaction unleashing the formation of HCN exist several resources such as autonomous respirators, mobile and fixed HCN detectors, Reviewing Pertinent records evidence that the parameters have been maintained as stated (below exposure limits). In the event of alarm situation, the operators are ordered to leave the area, only returning when allowed by the supervision, after technical checking. Noted that all the operators use adequate personal protective equipment.

JMC has fixed calibrated HCN detectors in the tank leaching area and the operator also use portable calibrated HCN detectors. Both cases evidenced in the field audit. Beyond these controls, all the operators use adequate personal protective equipment. Reviewing pertinent records evidences were provided that the parameters have been maintained as stated.

JMC defined, documented and implemented internal documented procedure POP-04-09-3.5-256 – Maintenance on HCN gas transmitters that establishes methodology for maintaining, testing and calibrating HCN monitoring equipment. Evidenced that the above-mentioned procedure is in accordance with manufacturer instructions.

Evidenced calibration and maintenance records of portabled HCN detectors duly established and retained for at least one year.

During the field audit that the signage is effective, covering the presence of cyanide, that eating, drinking and smoking is not allowed and also open flames are prohibited as well as the needed PPE in all cyanide areas are indicated. The operation places Cyanide warning signs on storage tanks, distribution tank, pipelines, dam. During the field audit evidenced duly established and maintained

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Evidenced that Purchase Agreement #3657 of 35% sodium cyanide solution signed between JMC (buyer) and Proquigel (seller) that "According to current guideline, published on the ICMI website for the International Cyanide Code, which indicates the need to add dye to cyanide solutions with a concentration above 15% and that, in this case, the dyeing of the solution must occur before the delivery of the product at the destination", Proquigel is responsible for such procedure and thus delivering to JMC a 35% sodium cyanide solution already with the dye added. Additionally, JMC defined and documented a cyanide solution receipt inspection system, which defines the Demand for filling out a record identified as "REG 04.09.3.5 001" – NaCN Solution Receipt. Checklist. Evidenced that item 4 of this checklist refers to checking if the color of the cyanide solution is reddish. Evidenced duly implemented as stated.

Evidenced that all the required auxiliary installations (showers, low-pressure eye wash stations and dry powder or non-acidic sodium bi-carbonate) fire extinguishers located at locations through the operations are maintained, inspected and tested on a regular basis.

During the field audit evidenced that unloading, storage and process tanks all and piping containing cyanide are identified to alert workers of their contents and the direction of cyanide flow in pipes is clearly showed.

JMC implemented an emergency program inside the plant where all cyanide related information is available in Portuguese. It contains information on health, safety, environment, chemistry and physics related to cyanide (FISPQ - Chemical Product Safety Information Sheet)JMC defined and documented procedure to investigate and evaluate any kind of incidents or accidents to determine if the operation's programs and procedures to protect worker health and safety, and to respond to cyanide exposures, are adequate or need revising were not evidenced existence of accidents / incidents cyanide –related during the last three years.

There are no cyanide mixing facilities. The operation retains the calibration records of the HCN meters in a digital and physical folder for a period of at least three years.In case of accidents with victims due to contamination and poisoning by cyanide, requiring emergency care in any area of the Unit, the person who witness the event must: communicate emergencies by radio via channel CH 08 (surface) or Branch 8220/8080 or mobile phone to the number (74) 3621 8080, informing:• Your name and the telephone (extension) from which he is calling; • The type of occurrence (what happened);• The exact location of the occurrence; • The victim's condition (unconscious, injuries, etc.); • Number of victims on site; • The existing risks at the place of occurrence. In case of multiple victims, request medical staff for triage at the scene of occurrence If it is not indicated or if it is impossible to immediately remove the victim from the place, and the requesting person does not have training in first aid; the coordinator of emergencies or the medical coordinator or nursing technician must

maintain the communication with the applicant and instruct the minimum procedures up until the arrival of the emergency response team on site. Contaminated victims are considered to be all people who have had contact directly with the or Cyanide solution or residues thereof, should in these cases be the following immediate measures are taken: • Define the zoning and boundary of hot, warm and cold areas; • Identify and use the necessary PPE – Personnel Protective Equipment compatible with the risk for the service; • Form a team with at least 2 firefighters to rescue the victim from the hot area to the warm area; • If necessary, promote hemostasis of hemorrhages still in the warm area;• Define the location of the warm area for the decontamination of the victim; • Assemble a decontamination station with containment pools and use of water in comfort temperature; use containers with lids to store clothes and contaminated belongings; • Form a team with at least 2 firefighters with PPE to promote the decontamination and stabilization of the victim(s) in the warm area; Assess vital signs, if necessary, promote CPR - Cardiopulmonary Resuscitation in the area warm; • if it is not contraindicated; use nasopharyngeal cannula and/or oropharyngeal in the warm area; • Use a high concentration face mask to administer O2 in concentration higher than 80% in a victim with spontaneous breathing; • Use an aluminized polymer anti-shock blanket to maintain body temperature of the victim after the decontamination process; • Provide ambulances, equipment and trained medical staff in the cold area, to stabilization treatment and removal of decontaminated and intoxicated victims; • Promote the removal of the victim(s) to the outpatient clinic and/or reference hospitals, only after decontamination and stabilization of this in warm and cold areas. Cyanide intoxicated victims are considered to be all people who present physiological and/or hemodynamic alterations, should be the following minimum measures have been taken: • Assess vital signs • Determine the VAS – Visual Analog Scale or the RNS – Numeric Report Scale; When necessary , promote endotracheal intubation; Evaluation of SpO2 – Oxygen saturation Index being less than 95% O2 administration in concentration higher; • If breathing spontaneously, administer 100% oxygen by high-pressure mask.concentration. • If apnea or dyspnea use the manual respirator with reservoir (Ambu); • Establish at least 2 peripheral venous accesses (minimum catheter 14) and maintain with saline 0.9%; • Dilute the contents of Cyanokit® Hydroxocobalamin two vials of 2.5 g lyophilized) in 0.9% saline solution, the initial dose (for adults) being 5 g, (two bottles of 2.5 g) given by IV – intravenous over 15 minutes; depending on the severity of the intoxication and the clinical response, a second dose of 5 g can be given by IV for a 10 g total; The infusion rate for the second 5 g dose can vary between 15 minutes to 2 hours based on patient status; • Contact the local poisoning reference center via telephone described in Annex 05; • Follow the procedures described in training for victims with Products dangerous; • Refer the victim to the reference hospital resource as assessed by the physician responsible for pre-hospital care.Medication in

severe intoxication: • Administer 12.5g (50ml) of sodium thiosulfate in a 25% solution (150ml) during 10 minutes; Administration of sodium thiosulfate improves the ability to hydroxocobalamin to detoxify cells from cyanide poisoning.• The administration of Sodium Thiosulphate should not be done simultaneously and/or in the same line of Hidroxocobalamin, and can be done through a separate line and/or in sequential infusion; this combination is recommended in patients who maintain the high lactate level or signs of cyanide poisoning even after Hydroxocobalamin administration. • Combined cyanide and CO poisoning can be treated with 12.5g sodium per IV; • Consider volume to control hypotension; • Consider vasopressors to control hypotension; • Administer sodium bicarbonate if the patient is hemodynamically unstable and with acidosis (high lactate level); • If necessary, administer anticonvulsants. For Monitoring • Request the following exams, urgently and repeated at least every 2 hours: - Arterial pressure; Oxygen saturation; Pulsometry;- Capnometry; - Carboxymetry; - Electroencephalogram ; Gasometry, methaglobulin and Cardiac enzymes. The actions taken if hydrogen cyanide (HCN) concentrations trigger the 2-ppm and 4-ppm level alarms on the fixed and/or personal HCN monitors with no cases of cyanide poisoning the operation include an system in which HCN with a concentration of 2ppm an alarm of high HCN is generated and concentrations of 4 ppm, un alarm of very high HCN is generated and the siren is alarmed for three minutes to evacuate the area and call the emergency brigade as can demonstrated in the photographic report CIC – Código Internacional de Cianeto 2021 pages 10 and 11 in case of exposure to HCN and the emergency flowchart (extraordinary annex to the PAE – flowchart

Standard of Practice 6.3: Develop and implement emergency response plans and procedures to respond to worker exposure to cyanide.

The operation is
- **X**□ in full compliance with
- □in substantial compliance with Standard of Practice 6.3
- □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced, during field audit that JMC has an emergency office, a Health Care Center fully equipped with emergency shower, water, resuscitator, oxygen, , antidote kits, ambulances, telephone, cell phone, radio channel, specific care center e-mail. Alarm system readily available for use at cyanide unloading and storage locations and elsewhere in the plant.
JMC established several internal documented procedures in order to Inspect its first aid equipment regularly to ensure that it is available when needed, and that materials such as cyanide antidotes are stored and preserved in accordance with Manufacturer's

instruction to ensure that they will be effective when necessary. Noted that documented procedures clearly identify methodology of inspection, frequency, check list to be used and actions to be made if some nonconformity is detected in order to ensure that they will be effective when needed. During the field audit that inspections have been performed and recorded as stated and that for antidote and for drugs the date of validity is verified and recorded.. Noted that it is recorded all inspection performed in specific check lists. This control is performed through the use several check list such as REG-04-02-3.5-013 Check list of Care Medical as well as the kit inspection checklist of cyanide kit, check list of ambulance inspection checklist

JMC defined, documented and maintained internal documented procedure PIS-04-02-3.6-251 – Emergency Involving Cyanide which aims provide information about cyanide poisoning to the JMC Health team, Occupational Physician, Brigadiers, Paramedics and Persons with knowledge of First Aid involved in caring for victims of cyanide poisoning in any presentation

For each emergency scenarios are defined emergency action procedures, levels of responsibility and authority, communication systems, recommendations, disposal of contaminated materials, accident reports, simulated emergency exercises, review of emergency preparation and response procedures, alternative drinking water supplies, water monitoring, and Emergency response training.

Evidenced that JMC has an emergency facility,first aids drugs and materials, oxygen, resuscitator, oxygen as well as the existence of adequate human resources to provide first aid and medical assistance to workers exposed to cyanide within

Verified that internal documented" clearly identifies the methodology for the transfer of patients exposed to cyanide to locally available qualified off site medical facilities. JMC has three ambulances. The competencies for driving ambulance are defined in accordance with Brazilian legislation and Noted that ambulance's drivers were trained ina fifty hours course named Emergency Vehicle Drivers provided by SEST SENAT-Serviço Social do Transporte e Serviço Nacional de Aprendizagem do Transporte

JMC has formalized agreements with treatment and removal units for emergency accidents with cyanide. These units have qualified professional and training in emergency assistance in accidents with cyanide. The units referenced in internal documented procedures PIS-04-00-3.6-062 PAE and PIS-04-02-3.6-251 - Emergency involving cyanide located in the city of Jacobina are: Clínica Santa Bárbara for treatment) and Life Health Plan (for removal).

Evidenced training records about cyanide treatment duly maintained. Sampled examples were:: Hospital Municipal de Saúde de Jacobina, Hospital Serrano, Hospital Clínica Santa Bárbara, Hospital Referência Bahia, Hospital Referência São Paulo and SAMU - Urgent Medical Aid Service

Evidenced internal documented procedure PIS 04-00-3.6-062 - PAE – Emergency Action Plan item 11 establishes that mock emergency drill shall be carried out based on emergency scenarios in accordance with the frequency previously defined and documented. In addition, the simulated must be registered and submitted to an evaluation report to identify any opportunities for improvement or any actual or potential non-compliance for proper treatment.

Verified and reviewed the Annual Emergency Mock Plan for 2019, 2020 and 2021..
Noted that they define matters such as: Type of incident or accident to be tested, date to be performed and emergency procedure to be tested.
Evidenced that they were performed as stated and that involved the locals hospitals as well as others interested parties.in the exercises.

7. EMERGENCY RESPONSE Protect communities and the environment through the development of emergency response strategies and capabilities.

Standard of Practice 7.1: Prepare detailed emergency response plans for potential cyanide releases.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 7.1
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that internal documented procedures PIS-04-00-3.6-062-PAE – Emergency Attendance Plan), PIS-04-02-3.6-251 Emergencies involving cyanide and PCS-00-00-3.6-002 Emergency Preparedness and Response define Emergency Response Plans for potential accidental releases of cyanide, consider scenarios appropriate for its-specific environmental and operating circumstances, including, where applicable the response for all cyanide related emergencies
They consider situations such as Catastrophic release of hydrogen cyanide from storage or process facilities, Transportation accidents, releases during cyanide unloading, Releases during fires and explosions, Pipe, valve and tank ruptures, Overtopping of ponds and impoundments, Power outages and pump failures, Uncontrolled seepage.
Evidenced that plans defined and documented to transportation-related emergencies related consider transportation route(s), physical and chemical form of the cyanide, method of transport (e.g., rail, truck), the condition of the road or railway, and the design of the transport vehicle (e.g., single or double walled, top or bottom unloading.
Evidenced that the emergency plans clearly address specific responses actions such as clearing site personnel and potentially affected communities from the area of exposure, use of cyanide antidotes and first aid measures for cyanide exposure, control of releases at their source, and containment, assessment, mitigation and future prevention of releases.

Standard of Practice 7.2: Involve site personnel and stakeholders in the planning process.

X in full compliance with

SUMMARY AUDIT REPORT

The operation is
- □ in substantial compliance with Standard of Practice 7.2
- □ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that PIS-04-00-3.6-062 – PAE, PIS-04-02-3.6-251 Emergencies involving cyanide and PCS-00-00-3.6-002 Emergency Preparedness and Response were reviewed, approved and communicated to several stakeholders (internal and external), including security and health authorities (local hospitals), public authorities, emergency response supplier (Proquigel) in accordance – Cyanide Code requirements which methodology is defined in internal documented procedure PIS 04.00.3.3-044 – Communications with interested parties

Noted that health authorities (public and private hospitals and clinics were duly involved in the cyanide emergency response planning process through pertinent Attendance Lists

The potentially affected communities are aware of the nature of their risks associated with accidental cyanide releases, and consulted with them directly or through community representatives regarding appropriate communications and response actions

JMC involved local response agencies such as outside responders and medical facilities in the cyanide emergency planning and response process as stated. Sampled examples were: Hospital Municipal de Saúde de Jacobina, Hospital Serrano, Hospital Clínica Santa Bárbara, Hospital Referência Bahia, Hospital Referência São Paulo and SAMU - Urgent Medical Aid Service, Federal Police, Bahia Fire Department,

JMC engaged in consultation and communication with stakeholders the emergency response plans. Noted that they were reviewed, approved and communicated to several stakeholders (internal and external) to keep Emergency Plan current such as the cyanide producer - Proquigel, the cyanide transportation companies – Confins and Moscato, the Accident prevention, response to emergencies disinfection of environments, waste management and recovery, waste collection company - Ambipar

JMC engaged security and health authorities, emergency response suppliers, community representatives. JMC invited specific stakeholders to participate mock emergency drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if necessary) the emergency response plan..

<u>Standard of Practice 7.3</u>: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

The operation is
- **X** in full compliance with
- □ in substantial compliance with Standard of Practice 7.3
- □ not in compliance with

SUMMARY AUDIT REPORT

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that JMC defined, documented and implemented procedures to respond to cyanide related emergencies. Evidenced cyanide related emergency plans such as PIS-04-00-3.6-062 – PAE, PIS-04-02-3.6-251 Emergencies involving cyanide and PCS-00-00-3.6-002 Emergency Preparedness and Response duly defined, documented, maintained and implemented. Responsibilities and authorities are clearly defined and communicated to all involved stakeholders (internal and external). The emergency committee organizational flowchart was evidenced.
Evidenced that internal documented procedure PIS-04-00-3.6-062 – PAE JMC clearly designate primary and alternate emergency response coordinators who have explicit authority to commit the resources necessary to implement the Plan
JMC clearly, defined identied and documented the Emergency Response Team. Noted that the emergency response brigade members are voluntary and passed through a selection process (medical, theoretical and practical), to be assigned as a brigade member. The brigade members were trained and qualified before being assigned as emergency brigade members. They have been trained in accordance with Brazilian Legislation such as NR - Regulatory Standard 23 - Fire Protection and Fire Fighting, NBR 14726/07 as well as Evidenced Emergency Response Teams clearly identified as required.
Evidenced that internal documented procedure PIS-04-00-3.6-062 – PAE clearly defined the required appropriate training for emergency responders. Evidenced emergency responsers have been trained and qualified as required in accordance Brazilian legislation and Cyanide Code requirements.
The emergency brigade master list addresses all the necessary information about the brigade members, including contact details of internal and external stakeholders.
The emergency brigade organizational flowchart clearly defines the role of each member.
The emergency response plans identify the required resources (hardware) that are necessary to each situation. The basic emergency response hardware is consisted of ambulances(complete equipped) , auxiliary equipment (PPEs) for the brigade members, such as chemical/flame resistant overall, chemical gloves, oxygen masks and cylinders, chemical masks. The Proquigel emergency plan covers that situations outside the operation (during transportation), community representatives., in conjunction with Transportadora Moscato and Confins Transportes..
When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if necessary) the emergency response plan. Basically, the external emergency responders are involved in road control the transport and reception of intoxicated people (Hospital Municipal de Saúde de Jacobina, Hospital Serrano, Hospital Clínica Santa Bárbara, Hospital Referência Bahia, Hospital Referência São Paulo and SAMU - Urgent Medical Aid Service) cyanide

supplier (Proquigel), Cyanide transporter (Transportadora Moscato and Confins Transportes).
The emergency response equipment is monthly inspected by the safety officers of the operation. Records of such inspections were evidenced and found in place
When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if necessary) the emergency response plan.

Standard of Practice 7.4: Develop procedures for internal and external emergency notification and reporting.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 7.4
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that contact information for notifying management, regulatory agencies, outside response providers as well as medical facilities of the cyanide emergency is defined and documented. Sampled example was “Emergency Phone Numbers” which includes for instance the following phone numbers: Brigade Emergency Members, leaders, managers, general manager, public authorities, hospitals, cyanide supplier (Proquigel), cyanide transporter (Confins Transportes and Transportadora Moscato), and regulatory agencies INEMA – Instituto do Meio Ambiente e Recursos Hídricos do Estado da Bahia and DRT – Delegacia Regional do Trabalho. Evidenced that the emergency response plans were reviewed, approved and communicated to several stakeholders (internal and external), including security and health authorities, public authorities, emergency response suppliers, community representatives. When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if necessary) the emergency response plan)). The emergency communication loop is clearly flow is clearly defined, tested and implemented as required.
Internal documented procedure PIS-04-02-3.6-251 Emergencies involving cyanide defines methodology and contact information for notifying potentially affected communities of the cyanide related incident and any necessary response measures, and for communication with them. Evidenced that emergency response plans were reviewed, approved and communicated to several stakeholders (internal and external), including security and health authorities, public authorities, emergency response suppliers, community representatives. When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Another implemented control is to perform periodic meetings with stakeholders, in order to discuss and updated (if

necessary) the emergency response plan). The emergency communication loop is clearly defined and also contact information is available in the plan.
Communication procedures with external media were found in place (crisis management).

Standard of Practice 7.5: *Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.*

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 7.5
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that internal documented procedures PIS-04-00-3.6-062 – PAE – Emergency Attendance Plan and PIS-04-02-3.6-251 Emergencies involving cyanide clearly describe specific, remediation measures as appropriate for the likely cyanide release scenarios, such as: recovery or neutralization of solutions or solids, the decontamination of soils or other contaminated media, provision of an alternative drinking water supply, management and/or disposal of spill clean-up debris. They clearly define that is prohibited the use of chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide to treat cyanide that has been released into surface water state treatment as well as define the required monitoring procedures to be implemented in the event of soil and water potential contamination. An environmental monitoring plan is addressed at the emergency response plan. Evidenced that internal documented procedures PIS-04-00-3.6-062 – PAE – Emergency Attendance Plan and PIS-04-02-3.6-251 Emergencies involving cyanide clearly address the potential need for environmental monitoring to identify the extent and effects of a cyanide release, and include sampling methodologies, parameters and, where practical, possible sampling location.
Procedure POP-04-09-3.5-174 Neutralization of NaCN describes the system to guarantee the neutralization of sodium cyanide. In addition, there is PIS-04-02-3.6-251 Emergencies involving cyanide items 10, 11, 12 and 13, pages 8 to 18, which describes the various emergency scenarios and emergency action procedures
Procedure PIS-04-02-3.6-251 Emergencies involving cyanide item 13.8 page 18, Disposal of contaminated material, details how to dispose of materials contaminated with cyanide Procedure POP-04-09-3.5-174 Neutralization of NaCN, item 2.7 page 2, describes the chemical and the amount to be dosed to neutralize the cyanide. The product is stored next to the sodium cyanide tanks.
Procedure POP-04-09-3.5-174 Neutralization of NaCN, item 2.7 page 2, describes the stoichiometric amount to be used for the cyanide neutralization reaction Procedure POP-04-09-3.5-174 Neutralization of NaCN, items 3.9, 3.10 and 3.11 page 3, describes that after neutralization, a sample must be collected, sent to the laboratory and

analyzed for WAD and free cyanide concentrations, if the concentrations are less than 0.5 ppm and 0.01 ppm, respectively, the neutralization was effective.
Procedure POP-04-09-3.5-174 Neutralization of NaCN, items 3.9 and 3.10, page 3, describes how the sample should be taken.
Procedure POP-04-09-3.5-174 Neutralization of NaCN, items 3.11, page 3, describes which analysis must be performed and PIS-04-02-3.6-251 Emergencies involving cyanide item 18 page 19
PIS-04-02-3.6-251 Emergencies involving cyanide item 18 page 19 informs the concentration allowed to guarantee effective neutralization.
The Carrier's Emergency Response Plan includes the decontamination, management and disposal of cyanide-contaminated materials, including the final destination of any discarded material, as described below: Decontamination - Page 51 of the "Carrier's Emergency Response Plan" Management - Page 14 of the “Carrier's emergency response plan” Disposal of materials contaminated with cyanide, including the final destination - Pages 57 and 58 of the “Carrier's emergency response plan”. In addition to being included in the Sodium Cyanide Product Manual, manufacturer's procedure.
According to PIS-04-02-3.6-251 Emergencies involving cyanide item 14.1, 14.2 and 18.3 page 18 and 20 determines that JMC ensures to supply mineral water and other sources of potable water for domestic consumption or similar
During the audit, the occurrence of an event that justified the demand to implement the actions of the procedures mentioned in this item 7.5.1 was not evidenced. from July 2017 to August 2021.
. PIS-04-02-3.6-251 – emergency involving Cyanide, item 11 page 10 details all emergency scenarios involving Cyanide and the form of neutralization. At JMC there is sodium hypochlorite in stock for Cyanide neutralization in case of any exposure of the product as described in POP-04-09-3.5-174 - NaCN neutralization item 4 steps 2 and 3,
The aforementioned procedure POP-04-09-3.5-174 Neutralization of NaCN, item 2, describes step by step how the neutralization must be carried out
Both chemicals (Hydrogen Peroxide and Sodium Hypochlorite) are possible to carry out the neutralization of cyanide, however, JMC only has sodium hypochlorite in stock.
PIS-04-02-3.6-251 “Emergency involving Cyanide” item 18.1, page 19, defines in the event of an accident involving a watercourse, the SSMAC technical team will assess the level of contamination so that the neutralization/monitoring method be defined.
The PIS-04-02-3.6-251 “Emergency involving Cyanide” item 18.2, page 20, defines that drums are sent to the DTR – Depósito Temporário de Resíduos Class I and later for final disposal at the company hired for this purpose. Alternatively, hydrogen peroxide can be used for cyanide neutralization

Standard of Practice 7.6: *Periodically evaluate response procedures and capabilities and revise them as needed.*

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 7.6
□ not in compliance with

SUMMARY AUDIT REPORT

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that JMC defined, documented and implemented internal documented procedures such as PIS-04-00-3.6-062 – PAE – Emergency Attendance Plan), PIS-04-02-3.6-251 Emergencies involving cyanide and PCS-00-00-3.6-002 Emergency Preparedness and Response The above-mentioned emergency response plans have been reviewed, approved and communicated to several stakeholders (internal and external), including security and health authorities, public authorities, emergency response suppliers, community representatives. When performing emergency drills, the operation invites specific stakeholders to participate in the drills. Besides, periodic meetings are performed with stakeholders, in order to discuss and updated (if necessary) the emergency response plans. The emergency communication loop is clearly defined and contact information is available in the plan. Evidenced that JMC reviewed and evaluated the cyanide related elements of its Emergency response Plan at least annually.
Noted that JMC has been planned, conducted, evaluated, mock cyanide emergency drills as required by Brazilian legislation and Cyanide Code requirements. Evidenced implemented as required.Evidenced that JMC evaluates after each emergency drill, the drill results. They are reviewed and discussed among the participants and when necessary, the opportunities of improvement raise-up during the drill are considered as corrective or preventive actions and managed adequately. Reports related to the drills and their reviewed were found in place. Noted that mock emergency drills have been conducted periodically as part of the Emergency Response Plan evaluation process. Evidenced the 2021 Emergency Drill Plan, 2020, Emergency Drill Plan and 2019 Emergency Drill Plan and 2018 Emergency Drill Plan
All JMC internal procedures are valid for a maximum of two years. When incidents related to cyanide occur, the procedures related to the event that occurred are reviewed and when necessary revised.
Evidenced that the PIS-04-02-3.6-251 procedure during the period since the last recertification was reviewed on July 1, 2020 although no cyanide-related incident has occurred. All JMC internal procedures are valid for a maximum of two years. The aforementioned review is number 05 and was reviewed by Marcos Almeida and approved by Leandro Hellstrom, both of them duly qualified.

8. TRAINING: Train workers and emergency response personnel to manage cyanide in a safe and environmentally protective manner.

Standard of Practice 8.1: Train workers to understand the hazards associated with cyanide use.

The operation is
X in full compliance with
☐ in substantial compliance with Standard of Practice 8.1

Jacobina Mine September, 2022

□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that JMC defined, documented and implemented procedures PIS-04-00-3.2-012 - Introductory Training Internal Rules for Execution of Training and use of the new General Training Matrix and PIS-04-00-3.2-012 that define methodology for planning, performing, recording and evaluating effectiveness of training all personnel who may encounter cyanide hazard recognition the cyanide materials present at the operation, the health effects of cyanide, symptoms of cyanide exposure, and procedures to follow in the event of exposure. The material used for this purpose includes all items described above. It is also used materials supplied by Proquigel (cyanide producer). It is defined that annually the Human Resources Area must identify the Training Needs for the following year,
Evidenced that internal documented procedure POP-04-05-3.4-008 - Internal Rules for Execution of Training and use of the new General Training Matrix establishes that cyanide recognition refresher training shall be performed at least yearly. Evidenced implemented as stated..
Evidenced that JMC have been retained training records in accordance Cyanide Code requirements

Standard of Practice 8.2: Train appropriate personnel to operate the facility according to systems and procedures that protect human health, the community and the environment.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 8.2
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Verified that trainings are divided by position and its duration is controlled by procedures such as RH-PRO-161 and RH-PRO-142 related to process plant, maintenance, and to laboratory. Interviews with workers to perform their normal production tasks, including unloading production and maintenance as well as reviews of training records provided evidences that the mentioned above procedures are implemented as stated.
Evidenced that the training elements necessary for each job involving cyanide management are identified in training material.
Evidenced that internal documented procedure POP-04-05-3.4-008 - Internal Rules for Execution of Training and use of the new General Training Matrix establishes that all instructor will be qualified by JMC.. The training records were reviewed and noted that the trainers were qualified as required. All instructors were trained in andragogical

teaching techniques and complies with the code requirements. Evidenced implemented as required.
Reviewing training records and also through interviews during field audit evidenced that employees have been trained prior to working with cyanide are aware of performing theirs tasks including where cyanide can be present.
There is refresher training on cyanide management provided to ensure that employees continue to perform their jobs in a safe and environmentally protective manner in accordance with internal documented procedure POP-04-05-3.4-008 - Internal Rules for Execution of Training and use of the new General Training Matrix establishes that refresher training on cyanide management shall be performed at least yearly. Evidenced properly implemented
JMC defined and documented internal procedure POP-04-05-3.4-008 - Internal Rules for Execution of Training and use of the new General Training Matrix which defines that The training effectiveness evaluations must be carried out within a minimum period of 90 days after the training have been performed. In case of low evaluation result, the employee should be trained again, restarting the entire process. Evidenced implemented as stated.
Evidenced that training records are retained throughout an individual's employment documenting the training they received as well as the above-mentioned training records include employees and trainer names, topics covered and test records as well as the employees demonstrate understanding of the training materials.
Internal documented procedure PIS-04-003-3.2-012 – Training defines that JMC ensures that the employees will be trained and recycled in training to preserve health, safety, environment and community in the general training matrix line 110, briefly describes the issues addressed in Cyanide training frequency and workload recycling training. In addition to the International Cyanide Code, training is available on: Hazardous Chemical Substance line 116, Energy Lockout line 17 and EAP-Emergency Response Plan Management Line 87. Cyanide Operation training is mandatory for all JMC employees (own and third parties). Employees are trained during the admission period (introductory) and in the refresher training held annually. In the general training matrix, there are tabs with the positions and the specific technical training, in which it is possible to see that foe all positions the cyanide training is mandatory. PIS -04-00-3.5-046 – Planned Observation of the Task is the procedure in which it establishes the premises for carrying out planned observations of the task. This is an assessment carried out by supervisors based on the observation of activities, in order to ensure compliance with operational procedures.
Internal documented procedure PIS-04-003-3.2-012 – Training item 4.9 defines that to ensure that the professional is qualified, it must be proven from test and evaluation of effectiveness is carried out through test at the end of each training. The established criterion is the achievement of a grade 7.0 in the content retention assessment JMC's cyanide training is deigned in the foreground, for the preventive action aiming to mitigate the occurrence os possible cases (incidents or accidents) directly involving Cyanide. In this sense therefore the criterion established to determine the effectiveness of training related to the aforementioned items is the score achieved in the assessment

of the knowledge retention test, applied in adequacy to the general program content and its specific ramifications with regard to cyanide management, industrial safety, occupational health and hygiene and environmental protection, Thus, it is possible , through this methodological construction, to address handling, storage, risks and the management in the pre and post occurrence. Efficacy is guaranteed with an average of 7.0. The third party management system is the same for JMC's own employees. There is no distinction in relation to the company and applicability of training. Effectiveness results are related to each participant in a given training. For employees who do not reach the stipulated average, there will be a new assessment that will be applied in due course, either in the next training or in moment s that suit the routine and urgency of the employee.

Standard of Practice 8.3: *Train appropriate workers and personnel to respond to worker exposures and environmental releases of cyanide.*

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 8.3
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

Evidenced that plant operators and maintenance employees have collaborated to elaborate the PIS-04-00-3.6-062 – PAE, PIS-04-02-3.6-251 Emergencies involving cyanide and PCS-00-00-3.6-002 Emergency Preparedness and Response. Records of training were reviewed and noted that the operation and maintenance personnel have been trained in the pertinent internal documented procedures which clearly define the actions to be followed if cyanide is released (all have been trained in the operation's response procedures as required).During the field audit evidenced that they are aware of such procedures.
Evidenced that cyanide response personnel workers including unloading, production and maintenance workers, trained in decontamination and first aid procedures as well as they take part in routine drills to test and improve their response skills. and ensure they are able to perform these tasks if and when required. Training records for rescue team and first aids were found including plant operators and maintenance employees duly implemented
Evidenced that Emergency Response Coordinators and members of Emergency Response Team have been trained in the in the procedures included in Emergency Response plan including the use of necessary response equipment. Evidenced that they were trained un accordance with Brazilian legislation such as ABNT NBR 14276 - Fire Brigade – Requirements, NBR 14023 - Registration of firefighters' activities, NBR 14277 - Installations and equipment for firefighting training – requirements, NBR 14608 - Professional Civil Firefighter, NBR 15219 - Fire emergency plan – requirements as well as and IT – Technical Instruction 17/2016 of the State of Bahia - Fire Brigade updated by Ordinance 057 CG - CBMBA/17 of September 28, 2017 and by Ordinance

No. 012 CG - CBMBA/17 of November 4, 2017./04/ 2017. Evidenced through interviews with Coordinators and members of the Emergency Response Team that they are familiar with their response roles as described in the Emergency Response Plan and other applicable emergency response procedures, as well as with the use of the necessary response equipment. Records of training
In the Emergency Response Plan regarding cyanide were assessed and found to be as stated Verified evidences of communication with community members (Itapicurú and Jaboticaba), medical providers, hospital, and police officer, about the elements of the Emergency Response Plan related to cyanide, duly implemented.
Verified the records of refresher training related to all employees with designated roles or responsibilities in the event of a cyanide exposure and releases have been conducted annually as stated.
Evidenced that JMC uses mock emergency drills to evaluate its response plans and procedures and that mock drills have been used as training tools for designated responders. These mock drills cover the work exposures and environmental releases. Evidenced duly implemented.
Reviewing training records noted that the evaluation of drills considers the adequacy of training. When applicable, training procedures have been revised in response to the outcome of a drill. Evidenced dully implemented
Training records were reviewed and verified that the records retained documenting the cyanide training, including the names of the employee and the trainer, the date of training, the topics covered, and how the employee demonstrated an understanding of the training materials(training effectiveness)

9. DIALOGUE: Engage in public consultation and disclosure.

Standard of Practice 9.1: Provide stakeholders the opportunity to communicate issues of concern.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 9.1
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC defined, documented and implemented procedures DOC-04-00-3.3-041 - SYG Communication Plan (Yamana Management System) and PIS-04-00-3.3-044 - Communication with Stakeholders for providing the opportunity for stakeholders to communicate issues of concern regarding the management of cyanide. Internal newspapers, folders and outdoors are used for updating general informations cyanide related. JMC recently created a JMC Ombudsman Center through toll free phone number 0800 071 3230. The system is available 24 hours a day through a recording center. Every message received is forwarded to the JMC communication team for proper treatment. Additionally stakeholders may contact via e-mail:

jmcfleconosco@yamana.com to send external communications. These new communication channels are being disseminated as follows: Door to door in the surrounding communities, with the distribution of refrigerator magnets for new contacts, posters, outdoors in easily accessible places in the communities and strategic points of JMC

Standard of Practice 9.2: Initiate dialogue describing cyanide management procedures and responsively address identified concerns.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 9.2
□ not in compliance with

Summarize the basis for this Finding/Deficiencies Identified:

JMC defines opportunities for the operation to Interact with the stakeholders and provide them with information regarding cyanide management practices and procedures. JMC informs in its web site relevant information related to its Sustainability Indicators
Verified records of training with police officers, firefighter, and clinics found to be in place

Name of Mine Signature of Lead Auditor Date

Standard of Practice 9.3: Make appropriate operational and environmental information regarding cyanide available to stakeholders.

The operation is
X in full compliance with
□ in substantial compliance with Standard of Practice 9.3
□ not in compliance with

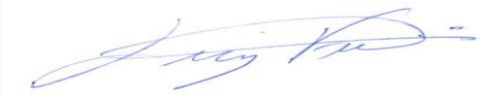
Summarize the basis for this Finding/Deficiencies Identified:

Verified that JMC has a material with simplified information about cyanide management at its Plant, that are available to communities and other stakeholders. Evidenced that JMC held several meetings with cyanide producer (Proquigel), cyanide transporter, municipal organizations, federal, state and municipality polices, municipal secretariat, hospitals, and communities. where the material was also distributed. JMC developed written descriptions of cyanide management activities.
There is no significant percentage of illiterate people in Jacobina. Anyway visits of JMC public relationship representatives to communities (Itapicurú and Jaboticaba) are recorded. In these visits, information like cyanide management and hazards were distributed as stated.

SUMMARY AUDIT REPORT

Although no incidents involving cyanide have occurred in the last three years, the operation, through its public relations process and stakeholder's engagement policies and procedures, have specific communication channels to provide information, as required, related to cyanide related incidents.

The information reported to the aforementioned regulatory agencies relating to confirmed incidents if cyanide release and exposure is made publicity available those agencies according the procedure of each body, through public consultation on the websites of regulatory agencies.

Jacobina Mine  September, 2022