CERTIFICATE OF TRANSLATION
OF
JOHN HOLDEN

I, John Holden, of the City of Bogotá D.C., Colombia, SOLEMNLY AFFIRM:

1. That I am a Spanish to English translator for HOLDEN TRADUCCIONES S.A.S. and I am fluent in the written and spoken languages of Spanish and English;

2. That I am certified to translate Spanish into English by the Faculty of Humanities of Universidad Nacional de Colombia;

3. That attached hereto and marked as Exhibit "**A**" to this, my Certificate, is a photocopy of the original Spanish *CERTIFICADO DE IDONEIDAD PROFESIONAL EN TRADUCCIÓN E INTERPRETACIÓN OFICIAL* No. 0394 dated Bogotá, February 17, 2014; and

4. That attached hereto and marked as Exhibit "**B**" to this, my Certificate, is the true, correct and full translation into English of the above-mentioned Spanish CERTIFICATE OF PROFESSIONAL SUITABILITY IN OFFICIAL TRANSLATION AND INTERPRETATION No. 0394 dated Bogotá, February 17, 2014.

I solemnly affirm this thirteenth [13th] day of January, 2017 that the above content of this, my Certificate, is true.

Translator's Seal

John Holden
Certified Translator

EXHIBIT 'A'

UNIVERSIDAD NACIONAL DE COLOMBIA

SEDE BOGOTÁ
FACULTAD DE CIENCIAS HUMANAS
SECRETARÍA ACADÉMICA

Expide a

John Holden

C.E. 393853 de Bogotá

EL CERTIFICADO DE IDONEIDAD PROFESIONAL EN TRADUCCIÓN E INTERPRETACIÓN OFICIAL No. 0394,

de ESPAÑOL a INGLÉS y de INGLÉS a ESPAÑOL,

una vez aprobados los exámenes escritos y orales de Traducción e Interpretación Oficial
realizados el 30 de noviembre de 2013
y según el Acta de Examen firmada por los dos jurados examinadores y los miembros de la Comisión de acuerdo con el modelo operativo de preparación, aplicación y evaluación de Exámenes de Traducción e Interpretación Oficial, y en cumplimiento del artículo 33 de la Ley 962 del 8 de julio de 2005, de la Resolución 312, acta Nº 27, de noviembre de 1998 y
de la Resolución 410, acta Nº 25, de agosto de 2008 del Consejo de la Facultad de Ciencias Humanas.

Dado en Bogotá a los (17) días del mes de febrero de 2014.

RAFAEL ARTEAGA DIAZ
Comisión de Traducción e
Interpretación Oficial

JUANA MAHISSA REYES M.
Comisión de Traducción e
Interpretación Oficial

AUGUSTO CARRILLO SABOGAL
Facultad de Ciencias Humanas
Secretario Académico

RODOLFO SUÁREZ ORTEGA
Departamento de Lenguas Extranjeras
Director

Este es el formato oficial de los certificados de idoneidad expedidos a partir del 12 de septiembre de 2011. Cualquier otro certificado de idoneidad expedido por la Universidad Nacional de Colombia en cualquier fecha posterior al 14 de marzo de 2011 con formato distinto no es válido.
Comisión del Examen de Traducción e Interpretación Oficial

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL - INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17 - 02 - 2014

EXHIBIT 'B'

UNIVERSIDAD NACIONAL DE COLOMBIA

BOGOTA SEAT
FACULTY OF HUMANITIES
ACADEMIC SECRETARIAT

Hereby issues to

John Holden

ID No. 393853 of Bogotá

CERTIFICATE OF PROFESSIONAL PROFICIENCY IN OFFICIAL TRANSLATION AND INTERPRETATION No. 0394,

from SPANISH to ENGLISH and from ENGLISH to SPANISH,

having passed the written and oral exams of Official Translation and Interpretation held on November 30, 2013
and according to the Exam Minutes signed by the two examining juries and the members of the Commission according to the operating model for the preparation, application and evaluation of the Official Translation and Interpretation Exams, and pursuant to Article 33 of Law 962 of July 8, 2005, of Resolution 312, Minutes No. 27 of November 1998 and Resolution 410, Minutes No. 25 of August 2008 of the Council of the Faculty of Humanities.

Delivered in Bogotá on the seventeenth (17th) of February 2014.

(illegible signature)
RAFAEL ARTEAGA DÍAZ
Official Translation and Interpretation Commission

(illegible signature)
JUANA MAHISSA REYES M.
Official Translation and Interpretation Commission

(illegible signature)
AUGUSTO CARRILLO SABOGAL
Faculty of Humanities
Academic Secretary

(illegible signature)
RODOLFO SUÁREZ
Foreign Languages Department
Director

This is the official form of the certificates of proficiency issued as of September 12, 2011. Any other certificate of proficiency issued by Universidad Nacional de Colombia on any date subsequent to March 14, 2011 in a different format is invalid.
Official Translation and Interpretation Exam Commission

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL - INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17 - 02 - 2014

Ministerio de Relaciones Exteriores
República de Colombia

TARJETA DE REGISTRO DE FIRMA
TRADUCTORES OFICIALES

PRIMER APELLIDO	SEGUNDO APELLIDO	PRIMER NOMBRE	SEGUNDO NOMBRE
HOLDEN		**JOHN**	

IDIOMAS
ESPAÑOL - INGLES - ESPAÑOL

RESOLUCIÓN O CERTIFICADO DE IDONEIDAD
0394 DE 17/02/2014

DIRECCIÓN, CIUDAD Y DEPARTAMENTO
CALLE 81A # 8-43 AP. 401 BOGOTA, CUNDINAMARCA

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FIRMA

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL - INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17-02-2009

RÚBRICA Y SELLO

SIXTY-NINTH NOTARY PUBLIC
METROPOLITAN DICTRICT OF QUITO

Dr. Miguel Angel Tito Ruilova
NOTARY PUBLIC

PUBLIC DEED NUMBER

2016	17	01	69	PO4250	FAC: 001-002-000030896

MINING EXPLORATION CONTRACT
OF THE FRUTA DEL NORTE PROJECT

GRANTED BY THE
MINISTRY OF MINES

IN FAVOR OF
AURELIAN ECUADOR S.A.

VALUE: UNDETERMINED

I DELIVERED 2 COPIES

PF.

In the city of San Francisco de Quito, Metropolitan District, Capital of the Republic of Ecuador today, WEDNESDAY the fourteenth (14th) of December two thousand sixteen, before me, Dr. **MIGUEL ANGEL TITO RUILOVA,**

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL
CERTIFICADO DE IDONEIDAD No. 0394
17 - 02 - 2014

SIXTY-NINTH NOTARY OF THE QUITO CANTON, appear, able-bodied, freely and aware, for the signing of this **MINING EXPLORATION CONTRACT,** on the one part, the Ecuadorian State through the **MINISTRY OF MINES,** represented by Mr. **JAVIER FELIPE CORDOVA UNDA,** bearer of citizen identity card number [redacted] acting in his capacity as Minister, appointed by Executive Decree number five hundred and seventy-nine of February twenty-eighth two thousand fifteen, attached hereto as enabling document, according to the attributions established in articles six and seven of the Mining Law, which party shall be hereinafter referred to as the State; and, on the other part, **AURELIAN ECUADOR** S.A., represented by Mr. **RONALD FRANCIS HOCHSTEIN,** bearer of Canadian passport number [redacted], in his capacity as Executive President and legal representative, as evidenced by the appointment attached hereto as enabling document, duly authorized by the Board of Directors by minutes dated December second two thousand sixteen, which party shall be hereinafter referred to as the Mining Concessionaire. Those appearing before me are of Ecuadorian and Canadian nationality and fluent in the Spanish language, respectively, domiciled in this city of Quito, of legal age, legally capable of contracting and being bound, who I swear that I know by virtue of the fact that they showed me th ir

citizen identity card, voting certificate and passport, photostat copies of which asked to be attached hereto, duly certified and authorizing me, pursuant to a seventy-five of the Organic Law of Administration of Identity and Civil Status, to obtain their information in the Sole Personal Registry, in custody of the Director-General of the Civil Registry, Identification and Identification Card Issuance, through the agreement entered into by this Notary Public's Office, which is attached hereto as an enabling document. The parties, having once been warned by me, the Notary, as to the effects and results of this public deed, and having been examined separately and independently to determine that they appear for the granting of this public deed without coercion, threats, intimidation, nor promise or seduction, ask me to execute the following minutes as a public deed, which literally reads as transcribed by me below:

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL - INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17 / 02 / 2014

|Notary Public: Kindly incorporate the following Mining Exploitation Contract in the roll of deeds carried by your Notary as set forth in the following clauses:

FRUTA DEL NORTE PROJECT
EXPLOITATION CONTRACT

PARTIES

Pursuant to the provisions of Articles thirty-nine and forty-one of the Mining Law there appear for the signing of this Mining Exploitation Contract, on the one part, the Ecuadorian State through the MINISTRY OF MINES, represented by Mr. Javier Córdoba Unda in his capacity as Minister, appointed by Executive Decree No. five hundred and seventy-nine of the twenty-eighth of February, two thousand fifteen, attached as qualification, according to the powers set forth in Articles six and seven of the Mining Law, hereinafter referred to as the **"State"**; and on the other part, AURELIAN ECUADOR S.A., represented by Mr. Ronald Francis Hochstein, in his capacity as Chief Executive Officer and legal representative, as evidenced by the appointment attached as qualification, duly authorized by the minutes of the Board at the meeting held on the second of December, two thousand sixteen, hereinafter referred to as the **"Mining Concessionaire"**. The parties agree to enter into this Contract in accordance with the following clauses:

CHAPTER ONE: BACKGROUND

1.1. The Mining Concessionaire owns the Mining Concession called La Zarza, code five zero one four three six, resulting from the material accumulation of the mining concessions called La Zarza, Colibrí, Duquesa Dos and Sachavaca Dos; approved by Resolution No. MM-CZM-S-dos mil quince-one thousand two hundred and ninety-four-RM of the Ministry of Mines, dated twenty-ninth of December, two thousand fifteen, and registered in the Mining Register of Zamora Chinchipe on the thirteenth of January, two thousand sixteen.

1.2. By Communication No. MM-DM-OF-two thousand fifteen-zero five three of the twenty-fourth of July, two thousand fifteen, the Minister of Mines provided and notified the Mining Concessionaire regarding the resumption of negotiations of the Mining Exploitation Contract and appointed its negotiating team.

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1.3. By Ministerial Resolution No. two hundred and sixty-two of the eighteenth of April, two thousand eleven, published in Official Gazette No. four hundred and forty-four of the tenth of May, two thousand eleven, the Minister of Non-Renewable Natural Resources approved the Model Mining Exploitation Contract in accordance with Article forty-one of the Mining Law.

1.4. By Communication LG-Q-five hundred and twenty five-zero one six dated the fifth of December, two thousand sixteen, the Mining Concessionaire submitted the General Work and Investment Plan to the Minister of Mines.

1.5. On the thirteenth of December, two thousand sixteen, the Negotiating Teams of the Parties approved and entered into the Final Negotiation Report.

1.6. By Communication No. LG-Q-two hundred and thirteen-zero sixteen of the sixteenth of June, two thousand sixteen, the Mining Concessionaire submitted its application to the Ministry of Mines for the declaration of the start of the exploitation stage of the La Zarza mining concession.

1.7. By Communication No. ARCOM-Z-CR-two thousand sixteen-zero eight nine seven-OF of the seventh of July, two thousand sixteen, the Executive Director of the ARCOM sent the preliminary report for the declaration of the start of the exploitation stage; and, by Communication No. ARCOM-ARCOM-thousand sixteen-one four three eight-OF of the thirteenth of December two thousand sixteen issued the enabling report for the subsequent signing of the Mining Exploitation Contract pursuant to Article Nine literal c) of the Mining Law.

1.8. The Head of the State Negotiating Team submitted the Final Negotiation Report to the Minister of Mining for his information and approval on the thirteenth of December, two thousand sixteen.

1.9. By Communication No. MM-DM-two thousand sixteen-zero four seven nine-ME of the thirteenth of December two thousand sixteen of the thirteenth of December, two thousand sixteen, the Minister of Mines issued his approval of the Final Negotiation Report and of the text of the Mining Exploitation Contract agreed by the Parties.

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1.10. By Resolution No. MM-CZM-S-two thousand sixteen-zero five nine seven-RM of the thirteenth of July, two thousand sixteen, the Minister of Mines declared the Start of Exploitation Stage, which was registered in the Mining Register of Zamora Chinchipe on the twenty-first of July, two thousand sixteen.

SECTION TWO: LEGAL FRAMEWORK OF THE CONTRACTING

2.1 The legal framework

The Law Applicable to this Contract is the Constitution of the Republic of Ecuador, International Treaties and Conventions ratified by Ecuador, the Mining Law, decrees and regulations, ordinances, agreements and resolutions; as well as the other acts and decisions of the public authorities relating to mining matters granted to the Mining Concessionaire (hereinafter the **"Applicable Law"**). It also includes the specific sectoral legislation (hereinafter the **"Specific Sectoral Legislations"**), whose legal stability is granted under the Investment Contract entered into between the Mining Concessionaire and the State and which is detailed in Appendix J.

2.2 Documents of this Contract

Qualifying Documents: The qualifying documents for this Contract are as follows:

a) Certified copies of Executive Decrees Nos. five hundred and fifty-eight and five hundred and fifty-nine of the thirteenth of February, two thousand fifteen and twenty-eighth of February, two thousand fifteen, respectively, whereby the Ministry of Mines is created and Mr. Javier Córdova Unda is appointed Minister of Mining;

b) Appointment of the legal representative of the Mining Concessionaire;

c) Certified copy of the Mining Concession title;

d) Resolution No. MM-CZN-S-two thousand sixteen-zero five nine seven-RM of the thirteenth of July, two thousand sixteen, whereby the Minister of Mines declared the initiation of the Exploitation Stage;

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e) Copy of the Taxpayer Registration Number of the Mining Concessionaire;

f) Certificate with the history of ownership of the Mining Concession evidencing its validity and the existence of liens, pledges, security assignments and contracts of the Mining Concession granted by the Mining Registry;

g) Environmental license for the exploitation phase and the beneficiation stage; and

h) Certification of the validity of the authorization of productive use of water, issued by the Sole Water Authority.

2.3 Appendices:

The following appendices are an integral part of this Contract:

Appendix A: Specifications and delimitation of the Mining Concession, Contract Area, Areas of Related Activities and Protected Area.

Appendix B: General Work and Investment Plan agreed between the Parties.

Appendix C: Method to be used to calculate and apply Windfall Tax, Royalties and Sovereign Adjustment.

Appendix D: Approval of the Final Negotiation Report.

Appendix E: Instructions for auditing, calculation of royalties and profits of the metallic mining activities and accounting regulations for large-scale metallic mining for mining exploitation contracts.

Appendix F: Letters of intent and / or agreements reached with the ports and electricity authorities, etc. for developing the necessary infrastructure.

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Appendix G: Favorable pronouncement of the State Attorney-General authorizing the Ecuadorian State to submit disputes arising under this Contract to international arbitration.

Appendix H: List of consultants.

Appendix I: Detail of the pre-operational investments.

Appendix J: Specific Sectoral Legislation

SECTION THREE: NATURE AND INTERPRETATION OF THIS CONTRACT

3.1 Nature

This Mining Exploitation Contract is an administrative Contract governed by Applicable Law and is ancillary to the Mining Concession previously granted by mining title to the Mining Concessionaire by the Ecuadorian State.

3.2 Interpretation

In the event of any inconsistency between this Contract and Applicable Law, the latter provisions shall prevail over this Contract.

The terms of this Contract shall be interpreted according to Applicable Law, in a literal sense, in its context, and whose purpose clearly reveals the intention of the Parties. The titles and order of the clauses and sub-clauses are for identification and reference purposes only.

Any tolerance regarding non-compliance with the obligations under this Contract shall under no circumstances imply a waiver of the subsequent right to claim its fulfillment or compensation or change or alteration of its provisions and such fact shall not constitute a precedent for the interpretation of this Contract or source of rights in favor of the Party that breached its obligations.

3.3 Rules of Interpretation

In the event that it is necessary to interpret any provision of this Contract the following criteria shall apply:

3.3.1 When the terms are defined in Applicable Law, such definition shall be observed, unless there is a definition in this Contract that do not expressly contradict it or complement it, in which case the definition of the Contract shall prevail.

3.3.2 If they are not defined in Applicable Law, the provisions of the Contract shall be observed in their literal and obvious sense, in accordance with the contractual purpose and the intention of the contracting Parties.

3.3.3 In their absence or insufficiency the rules contained in Volume IV, Title XIII of the Civil Code, "The interpretation of the Contract" shall apply.

3.3.4 In the event of inconsistencies or conflicts between the provisions of this Contract and its Appendices, the provisions of the text of the Contract shall prevail and if the inconsistencies are between the texts of the appendices of the Contract, the rules of interpretation of the Civil Code and those of this Contract shall be followed.

3.3.5 Defined terms are written with the first letter capitalized and shall have the meaning given in subsection three point five of this Section.

3.3.6 Words written in the singular shall include the plural and vice versa, and those written in one gender shall include the other two, to the extent required by the context of this Contract.

3.3.7 References to either Party shall include their legal heirs or assigns, in the terms and conditions set forth in this Contract.

3.4 Language

This Contract has been prepared and signed by the Parties in Castilian Spanish and shall be deemed the only valid version for all purposes.

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Communications exchanged between the Parties and any information required by Applicable Law, shall be written in Castilian Spanish, including those reports of a technical nature that are to be submitted to the competent authority even if, due by their highly specialized nature, they have been prepared in another language, in which case the Mining Concessionaire shall submit with Castilian Spanish translation thereof, at its own expense.

Mining Concessionaire's accounts shall also be kept in Castilian Spanish.

3.5 Definitions

In this Contract, the following capitalized terms shall have the meanings indicated below:

3.5.1 Environment: The environment is understood to be a global system consisting of natural and social components, formed in turn by biophysical elements in their dynamic interaction with human beings, including their socio-economic and socio-cultural relations.

3.5.2 Financial Year: The twelve months comprised between the first of January and the thirty-first of December, as established in Article Seven of the Internal Tax System Law.

3.5.3 Sovereign adjustment: Pursuant to the provisions of Article Four Hundred and Eight of the Constitution of the Republic and of the Specific Sectoral Legislation, this is the non-tax monetary contribution determined, collected and audited by the Internal Revenue Service to be to be made by the Mining Concessionaire to the Ecuadorian State when applicable, in order to guarantee the minimum percentage of the State's economic benefit in the exploitation of the minerals to be exploited.

3.5.4 ARCOM: The Mining Regulation and Control Agency created pursuant to Article Eight of the Mining Law, attached to the Line Ministry whose powers are set forth in Article Nine of the Mining Law.

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3.5.5 Contract Area: The geographical space specified in Appendix A, as amended, corresponding to the area of the Mining Concession, where the Mining Concessionaire must perform the mining operations, work and tasks involved in preparing and developing the deposit and extraction the minerals therefrom. Pursuant to Article Thirty-Nine of the Mining Law, this area shall not exceed five thousand hectares. The Mining Concessionaire may request the establishment of the easements over and administrative protection of this area that may be necessary and according to Applicable Law.

3.5.6 Area of Related Activities: The necessary space, outside the Contract Area, specified in Appendix A, as amended, in which the civil infrastructure (camps, warehouses, magazines), tailings deposits, waste dumps, mills, power plants and others represented graphically in Appendix A, or other representative structures, directly related to the performance of mining activities under the Contract. Since it is an area related to the performance of this Contract, without being necessarily located within the Mining Concession, both this area, and everything within it, is protected by the State in accordance with Applicable Law and this Contract, and the Mining Concessionaire may request the establishment of any easements and administrative protections that may be necessary. During the term of this Contract and its renewals, the Line Ministry shall not grant concessions over this Area.

3.5.7 Protected Area: The spatial environment specified in Appendix A and its amendments corresponding to the areas of mining concessions of the Mining Concessionaire where the State grants special protection to the Mining Project as a protected zone. Over such area the Mining Concessionaire is empowered to require protection of the State through the expeditious and timely granting of precautionary measures, easements or administrative protection in favor of the Mining Concessionaire. Those areas that are under concession or that are subsequently granted in concession to third parties that are within such area are excluded from this Protected Area.

3.5.8 Area of Influence of the Mining Project: Includes the space where potential socio-environmental impacts may be caused by

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the mining activities inside and outside of the Mining Concession, as established in the Environmental Impact Assessment (EIA) approved by the National Environmental Authority and defined according to the Environmental Regulation of Mining Activities.

3.5.9 National Environmental Authority: The Ministry of the Environment, and its decentralized agencies around the nation, in charge of monitoring, supervising and auditing the socio-environmental management, which will conduct the assessment, approval of environmental studies, licensing and monitoring of mining activities throughout Ecuadorian territory in accordance with Applicable Law.

3.5.10 Beneficiation: This is the set of physical, chemical and/or metallurgical processes undergone by the minerals product of the exploitation in order to raise the concentration thereof.

3.5.11 Best Practices of the International Mining Industry: Best practices are understood to be the safe and reliable procedures, standards and methods generally used in the international mining industry by prudent operators under conditions and circumstances similar to those experienced in relation to the Mining Project and in consideration of the geographical location of this Project.

3.5.12 Shutdown of Operations: Termination of mining activities or dismantling of the facilities used in any phase of the mining activity, unless they are of public interest, including environmental remediation according to the closure plan duly approved by the National Environmental Authority.

3.5.13 Commercialization: Consists in the sale of minerals or entering into other agreements aimed at transferring any product resulting from the mining activities.

3.5.14 Mining Concession: That which is detailed in the Section One of this Contract, including its amendments.

3.5.15 Mining Concessionaire: Aurelian Ecuador S.A.

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3.5.16 Commercialization Contracts: The mineral sales contracts signed by the Mining Concessionaire with third parties for the processing, refining and sale of the mineral (doré or concentrate).

3.5.17 Construction: The mining activity dedicated to establishing facilities for: extraction, processing, beneficiation, transportation, energy supply and road access to the mine and its associated facilities.

3.5.18 Consultant: national or foreign individuals or legal entities, independent and reputable with regard to the subject matter of the consultation, for the purposes of Clause twenty-three point three.

3.5.19 Pollution: The presence in the environment of one or more pollutants or a combination thereof, in concentrations such and permanence such that they cause negative conditions for human life, health and the wellbeing of man, flora, fauna or the ecosystems, producing a significant deterioration in the habitat of living beings, the air, water, soil, countryside or natural resources in general.

3.5.20 Contract: This Mining Exploitation Contract, as amended.

3.5.21 Environmental Damage: The irreversible negative environmental impact present in a determined space and time, caused during the development of projects or activities, which lead in the short-, medium- or long-term to an imbalance in the functions of the ecosystems and which upset the supply of the goods and services that the ecosystems contribute to society.

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3.5.22 EIA (Environmental Impact Assessment): A technical and interdisciplinary ecosystemically-focused study related to new or existing activities, works or projects that can potentially generate environmental impacts and that are undertaken by public or private entities. Its purpose is to compare the environmental conditions against the development of the economic activity, in order to predict, identify, quantify, evaluate, assess, mitigate and compensate the environmental impacts that this work, activity or project will cause to the

environment and also measure the load and recovery capacity (acceptable limit of change) to the ecosystem that is to be altered. The EIAs shall be conducted prior to the development of the projects or when changes are made to those already existing.

3.5.23 Exploitation: The phase of the mining activity that encompasses the mining operations, works and tasks involved in the preparation and development of the deposit, and the extraction and transportation of the minerals.

3.5.24 Extraction: Removal of the mineral ore.

3.5.25 Effective Date: The date of registration of this Contract in the Mining Registry carried by ARCOM.

3.5.26 *Force Majeure* or Act of God: For purposes of this Contract, a *Force Majeure* event or Act of God means any event or circumstance that **(i)** is impossible to resist or be reasonably controlled by the Party obliged to fulfill the obligation in question or that is unforeseeable by such Party or which, even if foreseeable by it, cannot be avoided, in whole or in part, by the exercise of due diligence by such Party; **(ii)** occurs after the date of entering into this Contract, and **(iii)** that causes the obstruction, delay or partial or total suspension or termination of the fulfillment of the obligations of any Party under the provisions of this Contract. This definition includes, but is not limited to, the provisions of the Ecuadorian Civil Code, including earthquakes, tsunamis, floods, landslides, tropical or exceptionally fierce storms, fires, explosions, stoppages, strikes, civil war, uprisings, civil unrest, acts of war (declared or undeclared), acts of sabotage, acts of terrorism and acts or omissions of any government authority, agency or entity. For the purposes of this Contract the term Act of God shall have the same meaning as *Force Majeure*. It is understood that the State may not invoke an act or omission of an Ecuadorian state body or authority as a *Force Majeure* event or Act of God, unless such act or omission is caused by other facts or circumstances which in turn constitute *Force Majeure* or Act of God, according to this definition.

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3.5.27 Smelting: The process of melting ores, concentrates or their precipitates, in order to separate the metal product that is sought from other minerals that accompany it.

3.5.28 Audited report: The report referred to in Article Thirty-Nine of the Mining Law, whose content is provided in the Mining Reserves and Resources Qualification Legislation.

3.5.29 Environmental Impact: All the positive, negative, direct, indirect, cumulative or otherwise, alterations, among other features, that a private or public economic, work or project activity, or any of its actions, produces on the environment, its components, interactions and relations.

3.5.30 Investments: The necessary costs incurred by the Mining Concessionaire directly or indirectly, through related parties or loans from third parties, whether domestic or foreign, for the development of the Mining Project within Ecuador or overseas, according to the General Work and Investment Plan needed to explore, build, develop, produce, procure, operate, transport, maintain and increase mineral production in the Mining Concession and in the Contract Area. This definition includes pre-operational investments in the Mining Concession and the Contract Area made prior to the Effective Date to meet the purpose of this Contract, as detailed in Appendix I. It also includes those Investments made in the Mining Project within or outside the Contract Area and which, by way of example, are described in subsection eight point one point nine.

3.5.31 Environmental License: Environmental licenses are administrative authorizations granted by the competent environmental authority attesting to the fact that the regularization process of a project, work or activity has been duly fulfilled and, therefore, that the mining titleholder is legally and regulatorily authorized to perform its activities, but subject at all times and during all phases of the lifecycle thereof to compliance with applicable environmental regulations, the conditions approved in the EIA, the Environmental Plan and those established by the competent environmental authority.

3.5.32 Primary Mineral: Includes the primary product (metal) or raw material that is part of all the primary and altered mineral ores.

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related to the type of deposit of interest, the product (metal) that is of greatest economic importance being deemed primary for effects of the definition. In this Contract the primary mineral to be extracted from the Mining Concession is gold, which will be produced in the form of occurs in the form of doré bars and/or gold concentrate.

3.5.33 Secondary Mineral: Includes the secondary product(s) (metal or metals) or raw materials that are part of all the primary and altered mineral ores, that make up the type of deposit of interest, the products (metals) that are of lesser economic importance, including Rare Earth, being deemed secondary for effects of the definition. In this Contract it is silver, which will be contained in doré bars and in the gold concentrate to be extracted from the Mining Concession and includes all other mineral, without limitation, extracted from the Mining Concession and commercialized by the Mining Concessionaire together with or separately from the Primary Mineral.

3.5.34 Line Ministry: The Ministry of Mines or the State Secretariat that assumes the stewardship of public policies and the planning of the geological mining area, according to Applicable Law.

3.5.35 Party: The Ecuadorian State through the Line Ministry or the Mining Concessionaire, individually and severally.

3.5.36 Environmental Liability: The environmental damage and / or negative environmental impacts that are not, respectively, repaired or restored, or that which has been previous addressed but inadequately or incompletely and that continues to be present in the environment, constituting a threat to any of its components, generated by a mining activity.

Environmental Liabilities must be declared by the National Environmental Authority in accordance with Applicable Law.

3.5.37 General Work and Investment Plan: The plan attached as Appendix B, as amended, which describes the construction and assembly and the exploration, exploitation, processing, transportation and marketing activities of the Primary Mineral and of the Secondary Minerals that will be produced in the

Contract Area and which contains a detailed description of the type of mine proposed, the plant and technical characteristics, the exploitation process and processing volume, a referential description of the investments necessary to perform all the tasks under this Contract, in relation to the details of the mine and the processes.

3.5.38 Annual Work and Investment Plan: The document describing the schedule of activities that the Mining Concessionaire plans to perform in the respective Financial Year, as well as the Investment budget, costs and expenses estimated for the performance of these activities and the deadlines for their performance, including its amendments in the terms established in Section nineteen. The activities, budgets and timelines will serve as references and will be related to the General Work and Investment Plan, as amended, agreed by the Parties.

3.5.39 Term: When the deadlines or terms are indicated in days in this Contract, it is understood that these are business days, thus excluding Saturdays, Sundays and those declared holidays from the calculation. If the deadline is established in months or years, these will be counted from the day following the day on which the notice or order is served. If in the month of expiry there is no day equivalent to that in which the day count begins, it is understood that the period expires on the last day of the month. For example, the two-month term that begins on the thirty-first of December this year will end on the twenty-eighth of February next year.

3.5.40 Annual Environmental Program and Budget: The annual program and budget for environmental activities that must be submitted to and approved by the National Environmental Authority, and which includes all the aspects determined in Applicable Law.

3.5.41 Mining Project: The area of one or more adjoining mining concessions, belonging to the same title holder, whose intention is to perform activities aimed at discovering, evaluating and quantifying a deposit and who, for technical and operating reasons and because of the specific characteristics of the mining deposit, performs a series of mining operations,

works and tasks in order to prepare and develop the deposit and to extract and transport the minerals.

3.5.42 Refining: The process used to convert the metallic products into high-purity metals.

3.5.43 Royalty: The consideration paid by the Mining Concessionaire to the State on the sale of Primary Mineral and Secondary Minerals extracted under this Contract and whose value is determined as provided in Section Fifteen of this Contract.

3.5.44 Tailings deposit: Technical civil works built to safely contain the tailings from a mineral beneficiation plant.

3.5.45 Tailings: Waste material from the concentration circuits and beneficiation plants.

3.5.46 Environmental Remediation: A set of measures and actions to restore environmental damages caused by negative environmental impacts or environmental damage resulting from the development of mining activities.

3.5.47 Full Reparation: All the actions, processes and measures which, when fully applied, tend to reverse environmental damages and liabilities, by reestablishing the quality, dynamic, ecological balance, life cycles, structure, functions and evolutionary process of the affected ecosystems; as well as the measures and actions that facilitate the restitution of the rights of people and communities affected, compensation and indemnification of the victims, rehabilitation of those affected, measures and actions to ensure non-recurrence and which dignify the people and communities affected.

3.5.48 Subcontractor: The individual or legal entity who contractually assumes before the Mining Concessionaire the commitment to make certain parts or units of the work, service provision or supply of goods under the Contract that governs its performance.

3.5.49 Rare Earth: Oxides of a series of metallic elements, from lanthanum to lutetium and three other elements yttrium, thorium and scandium. For purposes of the implementation of this

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Contract, the Parties understand that these elements are not especially rare in the crust of the earth; it is their concentrations that are rare.

3.5.50 Transport: The process of mobilizing the material or mineral concentrate, depending on the mining phase or process.

3.5.51 Deposit: A mineral deposit whose degree of concentration or mineral grade makes its exploitation economically profitable.

CHAPTER TWO: THE PURPOSE, TERM AND AMENDMENTS

SECTION FOUR: PURPOSE

4.1 This purpose of this Contract is to determine the terms, conditions and deadlines for the preparation and development (construction and installation) of the Deposit or Deposits located in the Contract Area, as well as the stages of extraction, exploitation, beneficiation, transportation and marketing of all commercially exploitable minerals encountered or subsequently encountered there, in accordance with the terms and conditions set forth herein and those set forth in the Applicable Law.

4.2 The Contract determines the obligations of the Mining Concessionaire in terms of environmental management, the presentation of guarantees, community relations, payment of royalties, the Shutdown of Operations, determination of the Base Price, the Concessionaire's rights and form of dispute resolution.

4.3 The Ecuadorian State and the Mining Concessionaire shall share in the profits resulting from the performance of this Contract in the terms established in the Applicable Law and this Contract.

4.4 During the performance of this Contract the Mining Concessionaire shall perform the activities set forth in the General Work and Investment Plan and may consider others which in its opinion are required. If new reserves are added in addition to those established in the Audited Report, they shall form part of this Contract and shall be regulated under the same terms.

4.5 The Mining Concessionaire, at its sole risk and liability, shall perform the activities under the General Work and Investment Plan, as well as

all activities that they be required in the EIA and the Environmental Management Plan, including all those necessary for the Shutdown of Operations.

SECTION FIVE: TERM OF THE CONTRACT

This Contract has a term of twenty-five years counted as of the Effective Date, which may be extended according to Applicable Law and as set forth below:

5.1 If (i) additional resources are found in the Contract Area as a result of the Exploration activities included in the Annual Work and Investment Plans, and (ii) the term of the Contract, taking into account existing facilities is not sufficient for its exploitation, the Mining Concessionaire shall be entitled to an extension of the term of the Contract.

5.2 A request for extension must attach a report including a technical, and economic assessment, assessment of additional resources and reserves and estimated terms of investment and exploitation, as applicable (hereinafter referred to as **"Extension Request"**).

5.3 Within one hundred and twenty days, the Line Ministry shall decide on the Extension Request in terms of the reserves or the term required for its exploitation. In absence of an agreement on the reserves or term required, the Mining Concessionaire may refer the dispute pursuant to the procedure set forth in subsection twenty-four point one and, failing agreement, to the procedure set forth in subsection twenty-four point three, regarding the existence of additional reserves or regarding the term required for the extraction and exploitation of those reserves. Should the Mining Concessionaire initiate the aforementioned procedure, the term of the Contract and of the Concession will not be extended until the Consultant issues its decision in favor of the Mining Concessionaire.

5.4 If the approval of the Line Ministry is obtained within the term set forth in subsection five point three or based on the opinion of the Consultant, the additional reserves will be incorporated under this Contract, and the term of this Contract will be extended for the additional time required according to the report, as appropriate, or opinion of the Consultant, in accordance with Applicable Law.

5.5 In these cases, the State, in accordance with Applicable Law, will renew the Mining Concession for the additional period required for the performance of this Contract.

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In the event that the term of the Mining Concessionaire is renewed pursuant to this Section, the term of the Mining Concession will also expire upon expiry of the term of this Contract.

SECTION SIX: AMENDMENTS TO THE CONTRACT

The Parties shall enter into an amending addendum to this Contract in the following cases:

6.1 Incorporation of other minerals other than the Primary Mineral and Secondary Minerals.

6.2 Modification of the Contract Area.

6.3 Reduction or partial waiver of the Mining Concession area or enlargement or material accumulation of mining concessions.

6.4 Modification of the Contract Term.

6.5 Implementation of Correction Factors, if necessary.

6.6 By agreement of the Parties for any purpose.

6.7 Due to the assignment and transfer of the Mining Concession that is the object of this Contract.

CHAPTER THREE: RIGHTS AND OBLIGATIONS OF THE PARTIES

SECTION SEVEN: OBLIGATIONS OF THE PARTIES

7.1 Under this Contract and Applicable Law the Mining Concessionaire is obliged to:

7.1.1 Pay the Royalties according to the terms agreed in this Contract;

7.1.2 Comply with the economic, tax, profit-sharing, accounting and auditing obligations;

7.1.3 Provide all assistance and information required by the control authorities in their inspections, controls and audits;

7.1.4 Submit all plans, programs and budgets and reports as required;

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7.1.5 Perform the activities described in the General Work and Investment Plan and the Annual Work and Investment Plan, as amended;

7.1.6 Take out the necessary insurance policies and keep them current;

7.1.7 Keep current all required guarantees;

7.1.8 Fulfill obligations regarding environmental management.

7.1.9 Comply with Environmental Repair or Remediation, as required by the National Environmental Authority;

7.1.10 Submit and fulfill the plan for Shutdown of Operations;

7.1.11 Implement and maintain a community relations plan and carry out the information procedures set forth in Title IV, Chapter Three of the Mining Law;

7.1.12 Give preference to the domestic industry, in order to stimulate national development, provided the quality, prices and availability are similar or better than those offered by overseas suppliers and comply with the Mining Concessionaire's internal procurement policies and standards. The Mining Concessionaire shall particularly endeavor to promote the development of small and medium-sized suppliers in the Area of Influence of the Mining Project, through education and training plans;

7.1.13 Perform all activities permitted by this Contract in a technical and rational manner, according to the policies, guidelines and plans established by the Line Ministry under Article Six of the Mining Law, applying the Best Practices of the International Mining Industry;

7.1.14 Perform its tasks using methods and techniques identified in the EIA, the Environmental Management Plan and the Environmental License to minimize and, whenever possible, prevent damage to the Environment and natural or cultural heritage;

7.1.15 Deliver to the different State institutions, as appropriate, all the technical, environmental and research information related to the activities under this Contract, as may be required by Applicable Law;

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7.1.16 Obtain and maintain the corresponding Environmental License for performing the activities;

7.1.17 Build or expand at its expense, all the infrastructure established in the General Work and Investment Plan, as amended.

7.1.18 Register this Contract in the Mining Registry within thirty days from the date of its signing;

7.1.19 Provide the competent State security officials and other public officials authorized by the Line Ministry, the National Environmental Authority and ARCOM, the information necessary for the performance of their duties and obligations that are related to the Mining Concession and this Contract, in accordance with Applicable Law;

7.1.20 Preserve the mental and physical health and lives of its technical personnel and workers, applying the mining safety and industrial hygiene standards and providing them with the health services;

7.1.21 Keep the Internal Occupational Health and Mining Safety Regulations approved and in force;

7.1.22 Maintain its accounting records in Castilian Spanish;

7.1.23 Coordinate its community activities with the state agencies responsible for the sustainable development of the Area of Influence of the Mining Project, in accordance with its community relations plan;

7.1.24 Apply the Best Practices of the International Mining Industry in similar projects in the design, construction and installation of the mine, plant and other civil works needed to begin performing the activities under this Contract;

7.1.25 Maintain education and training programs in accordance with the proposals in the General Work and Investment Plan;

7.1.26 Contribute to the development of national technical education and specialized studies in the mining industry;

7.1.27 Provide reasonable accommodation facilities, food and transport for the inspectors and other State officials related to the performance of this Contract. Such inspections shall not interfere in any event with the normal development of the operations of the Mining Concessionaire. The Mining

Concessionaire assumes no liability for any damages incurred by such officials and their property or equipment; and

7.1.28 Allow the State's use of the roads, airports, heliports, sea and river ports built and under the control of the Mining Concessionaire, in the event of declaration of a State of Exception where Applicable Law so provides;

7.2 State Obligations

During the execution of this Contract the State shall:

7.2.1 Comply with and enforce the provisions of this Contract and Applicable Law;

7.2.2 Collaborate and coordinate with the Mining Concessionaire in order to achieve the best possible conditions for the normal performance of the mining activities under this Contract, in particular, but without limitation, in relation to: public safety, public infrastructure, utilities, purchase or imposition of easements on land required for the Mining Project;

7.2.3 Timely and expeditiously attend to requests, proposals or requirements subject to its authority, within the terms established in Applicable Law and this Contract. The Line Ministry shall decide on the requests, proposals or requirements, within the terms or deadlines established for each case in this Contract and when not specified, within fifteen days after the Line Ministry receives the respective application, proposal or request from the Mining Concessionaire. If the Line Ministry fails to pronounce within the respective terms or deadlines, it shall be understood that the Line Ministry has approved the respective request, proposal or request, observing the procedure established and pursuant to the provisions of Article twenty-eight of the Law for the Modernization of the State;

7.2.4 Guarantee the right to legal certainty in accordance with the Constitution of the Republic of Ecuador. The State acknowledges that the Mining Concessionaire and the Mining Project have the protections and guarantees established in Applicable Law; and neither the State nor the Line Ministry shall issue any act contrary to Applicable Law that interferes with the rights of the Mining Concessionaire under this Contract;

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7.2.5 Promptly and timely grant precautionary measures and administrative protection to the Mining Concessionaire when it required, in accordance with Applicable Law;

7.2.6 Collaborate with the Mining Concessionaire in its relations with public sector entities and third parties related to the performance of this Contract, especially, but not limited to the development of infrastructure projects associated with the Mining Project, such as ports, roads, hydroelectric plants, transmission lines;

7.2.7 Using the mechanisms provided by Applicable Law to guarantee the continuity of the activities under this Contract;

7.2.8 Distribute the percentage of profits and Royalties in accordance with the provisions of Applicable Law;

7.2.9 The State shall ensure that the concessions and, in general, the licenses of other strategic sectors that are granted subsequent to the signing of this Contract are granted in a coordinated manner that is compatible with the exercise of the rights of the Mining Concessionaire, for which purpose the relevant public institutions shall take the measures necessary to such effect;

7.2.10 Cooperate and coordinate directly with the Armed Forces and the National Police to regulate and control access to the Contract Area, especially the facilities and infrastructure, and implement any kind of controls it considers necessary to prevent the entry of outsiders to the operation; and

7.2.11 The State shall facilitate the processes for obtaining visas for foreign nationals of the Mining Concessionaire who have to fulfill activities in the country related to the performance of this Contract.

SECTION EIGHT: RIGHTS OF THE PARTIES

8.1 Rights of the Mining Concessionaire

The Mining Concessionaire, apart from the rights established in the Constitution and Applicable Law, shall be entitled to:

8.1.1 Freely perform all activities under this Contract Run at its own expense and risk;

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8.1.2 Freely commercialize within or outside the country, the Primary Mineral and Secondary Minerals obtained in the process of beneficiation and processing;

8.1.3 Perform any Exploration activity pursuant to the provisions of this Contract and Applicable Law. The Parties declare that no Exploration activity will be subject to the provisions of Article Thirty-Eight and One Hundred and Eleven of the Mining Law;

8.1.4 Receive the benefits set forth in this Contract and Applicable Law, guaranteeing observance of Article Four Hundred and Eight of the Constitution of the Republic;

8.1.5 Suspend the deadlines due to *Force Majeure* or Act of God or other conditions specified in Applicable Law and this Contract;

8.1.6 Receive prompt and timely responses to all requests to the Ecuadorian State and the competent authorities for public services that it may require for the performance of this Contract, particularly the generation, transmission and distribution of energy, roads, port infrastructure and water, among others, in accordance with Applicable Law;

8.1.7 Request and receive immediate assistance of the police and military authorities to avoid personal injury or property damage if threats arise, including those related to illegal mining activities, which endanger or interfere with the activities covered by this Contract or the safety of the people who work under this Contract or the assets of the Mining Concessionaire;

8.1.8 Request and receive, through the ARCOM, prompt and timely granting of precautionary measures and administrative protection for the Mining Concessionaire, when so required, in accordance with Applicable Law;

8.1.9 Build and install beneficiation, smelting and refining plants, waste storage deposits, buildings, camps, pipelines, pumping stations and power plants, plumbing, workshops, electricity transmission lines, power plant, electricity self-generation systems, ponds, building materials quarry, communication systems, roads, railroad lines and other local transport systems, canals, docks, sea and river ports, and other shipping means and, in general, perform all necessary construction, development and operation activities of the Mining Project, within or outside the Contract Area and the Area of related Activities, subject to the provisions of Applicable Law, in

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accordance with the General Work and Investment Plan and Annual Work and Investment Plans;

8.1.10 Obtain from the State the provision of the public electricity service for its mining operations as an industrial consumer. The State shall ensure that the prices and rates that are set and applied to the provision of this service, under its control and regulation, are fair and equal to those provided to other industrial consumers.

8.1.11 The Mining Concessionaire is free to contract and acquire, at its all responsibility and risk, all the works, goods or services needed to carry out the activities covered by this Contract, in accordance with the provisions of this Contract and Applicable Law;

8.1.12 Use and freely exploit the mining and metallurgical waste resulting from the activities covered by this Contract, in accordance with Article Forty-Three of the Mining Law;

8.1.13 Build, modify, improve, replace or expand any infrastructure of the Mining Project, subject to compliance with Applicable Law, this Contract and the obtaining of all required permits and licenses;

8.1.14 In accordance with Article One Hundred and Twenty-Two of the Mining Law, retain the right of ownership of buildings, machinery, installations and other work elements that can be removed according to the environmental management plans and at its own expense;

8.1.15 Request and obtain the constitution of any easements as may be necessary for the performance of mining activities under this Contract, in accordance with the provisions of the Mining Law and its General Regulations;

8.1.16 Maintain, control and operate bank accounts in Dollars or any other foreign currency, both in Ecuador and abroad, and maintain funds deposited overseas in these accounts without restriction;

8.1.17 Maintain and control physical gold deposits, both in Ecuador and abroad, and pay or guarantee obligations to third parties with such products;

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8.1.18 Freely dispose of, distribute, remit or retain abroad without restriction, its annual net income after all legal and tax deductions established in Applicable Law;

8.1.19 Enjoy and demand respect for its rights and guarantees established in the Constitution of the Republic, including but not limited to: equality, non-discrimination, freedom to contract, protection of applicable international treaties, presumption of innocence, among others;

8.1.20 Submit disputes arising from this Contract to the dispute resolution mechanism set fort in the twenty-fourth Section of this Contract, which shall not be construed as a waiver or limitation of the right or protection held by the Mining Concessionaire under the Agreement between the Government and the Government of the Republic of Ecuador for the promotopn and Reciprocal Protection of Investment.

8.1.21 Suspend mining and investment activities under subsection nine point one;

8.1.22 Other rights under Applicable Law and this Contract; and

8.1.23 Obtain, pursuant to the unnumbered articl following Article twenty-six of the Organic Code of Production, Commerce and Investments, the legal stability of the Specific Sectoral Regulations detailed in Appendix J, which is declared to be essential for the processing of this Contract.

8.2 Rights of the State

The State shall be entitled to:

8.2.1 Receive the benefits set forth in this Contract and Applicable Law, guaranteeing observance of Article Four Hundred and Eight of the Constitution of the Republic;

8.2.2 Monitor, audit, intervene and control, through the Line Ministry and ARCOM, the activities to be performed by the Mining Concessionaire under the protection of this Contract, for which it may request reports on the performance of the Annual Work and Investment Plan and other activities under this Contract at the frequency required by the Line Ministry or ARCOM, in accordance with Applicable Law;

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8.2.3 Suspend the operations based on the conditions provided in the Mining Law;

8.2.4 Receive technical and economic information produced by the Mining Concessionaire on the performance of activities related to this Contract, in accordance with Applicable Law; and

8.2.5 Other rights under Applicable Law and this Contract.

CHAPTER FOUR: INITIATION OF PERFORMANCE OF MINING EXPLOITATION OPERATIONS

SECTION NINE: SUSPENSION OF ACTIVITIES

9.1 Mining Concessionaire's Right to Suspend Activities

During the term of this Contract or any of its renewals or extensions, the Mining Concessionaire shall have the right to suspend, at any time, the mining activities and Investments related to such activities, subject to payment of a financial compensation, according to the provisions of Applicable Law, in the event that the Mining Concessionaire reasonably determines that the technical or market (national and international) conditions, including economic conditions, render the project technically or economically unsustainable. Such compensation shall be equivalent to a basic unified remuneration per mining hectare of the Contract Area, pain annually, in proportion to the time that the suspension of activities lasts. The compensation shall be paid to the Internal Revenue Service and verified by the ARCOM. The compensation will be calculated and paid according to the following formula:

From zero to three months' suspension of activities, no compensation shall apply;

From three to six months' suspension of activities, twenty-five percent (25%) of a basic unified remuneration shall apply per mining hectare apportioned according to the time that the suspension lasts;

From six to twelve months' suspension of activities, fifty percent (50%) of a basic unified remuneration shall apply per mining hectare apportioned according to the time that the suspension lasts; and

From twelve and more months' suspension of activities. One hundred percent (100%) of a basic unified remuneration shall apply per mining hectare apportioned according to the time that the suspension lasts.

The compensation shall be paid according to whichever occurs first between:

1. The date of each anniversary of each year of suspension of activities; or

2. The date on which operations are resumed.

9.1.1 Any suspension of activities will apply from the time the Line Ministry has been notified by the Mining Concessionaire. Such notice shall explain in detail the reasons that led to the suspension, and the estimated duration of the suspension.

9.1.2 In the event that a dispute settlement procedure is initiated under this Section, the suspension of activities shall continue until the final decision of the dispute.

9.1.3 In addition to the above provisions, the Mining Concessionaire may suspend the activities and investments for a period equal to the duration of any event of *Force Majeure* or Act of God, in accordance with the Section Twenty-Five of this Contract.

9.1.4 The Mining Concessionaire may at any time halt operations for engineering, maintenance or other technical reasons, scheduled or otherwise, in the ordinary course of business, and this shall not be subject to the provisions in this Section.

9.2 State's Right to Suspend Activities

9.2.1 The mining activities can only be suspended by the State in accordance with the provisions of Article Fifty-Eight of the Mining Law. In any event, the order to suspend mining activities will be issued exclusively by the Line Minister, by reasoned decision.

9.2.2 The suspension shall be reasonable and proportional to the alleged cause and shall be ordered solely and exclusively, in the event that the Mining Concessionaire enters into a mining concession with third parties, or when this is required to protect the life and health of the miners or of the communities located in the perimeter of the Contract Area, on an exceptional basis, provided there is no other preventive measure available to allow the normal development of the mining operations, in view of the public interest in the continuity of the work and will be in effect only for the strictly necessary time until the cause that motivated is remedied or a guarantee is offered by the Mining Concessionaire or a remediation plan acceptable to the Line

Ministry is submitted, prior submission to the Line Ministry of the report by the competent authorities that expressly certifies that the grounds for which the suspension was established have been overcome, subject to inspection by ARCOM and the corresponding resolution of the Line Ministry, the suspension will be terminated. Public officials who have applied and ordered the suspension shall be liable in accordance with Applicable Law.

9.2.3 Suspensions ordered by the State will apply as of the time the Mining Concessionaire has been notified by the Line Ministry. This notice will explain in detail the reasons that led to the suspension, and the estimated duration of the suspension. The Mining Concessionaire may initiate the dispute resolution procedure contained in the Section Twenty-Four herein, regarding the events that led to the suspension of activities.

9.3 Deadline Extension

The cases of suspension considered in subsection nine point one of Section Nine, the Mining Concessionaire shall be entitled to an extension of the term of this Contract, equal to the duration of the suspension, in which case the Mining Concessionaire shall seek approval of the Line Ministry and an Amending Addendum shall be entered into. If so required, the Mining Concessionaire may ask the Line Ministry for an extension or renewal of the term of the Mining Concession, in accordance with Applicable Law.

9.4 Continuity of the Environmental Management

Even in the event of suspension of activities for any of the reasons set forth in Section Nine, the Mining Concessionaire shall be responsible for the fulfillment of the environmental management in the Contract Area established in the Environmental Management Plan.

CHAPTER FIVE: ENVIRONMENTAL MANAGEMENT

SECTION TEN: ENVIRONMENTAL OBLIGATIONS

10.1 Environmental License

The Mining Concessionaire, prior to the commencement of mining activities under this Contract shall obtain an Environmental License issued by the National Environmental Authority to fulfill the purpose of this Contract, as established in Applicable Law.

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10.2 Environmental Liability of the Mining Concessionaire

10.2.1 The Mining Concessionaire shall conduct its operations in observance of the sustainable development, conservation and Environmental protection guidelines, according to the Constitution of the Republic of Ecuador and Applicable Law. The Mining Concessionaire shall expressly apply the National Plan for Good Living.

10.2.2 If determined, after due process, that an Environmental Liability has been caused by the Mining Concessionaire and that it is responsible for same, the State shall demand an indemnity and compensation from the Mining Concessionaire that is proportional to the Environmental Liability, in the terms approved by the National Environmental Authority, applying the principle of strict liability covered by the provisions of Article Three Hundred and Ninety-Six of the Constitution of the Republic. The Mining Concessionaire shall not be liable for any environmental liabilities caused by illegal mining or artisanal mining activities, authorized by the Line Ministry or other third-party activities not authorized by the Mining Concessionaire.

CHAPTER SIX: RELATIONS WITH THE COMMUNITIES

SECTION ELEVEN: OBLIGATIONS TO THE COMMUNITIES

In regard to the relations with the communities in the Area of Influence of the Mining Project, the Mining Concessionaire shall:

11.1 Submit to the Line Ministry the community relations plan implemented by the Mining Concessionaire, which should be brought into line, in so far as is applicable, with the National Plan for Good Living and the local development plans prepared under the approved EIA and the Environmental Management Plan and comply with Applicable Law; and which in turn is coordinated with the State agencies responsible for the sustainable development of the Area of Influence of the Mining Project, as applicable.

CHAPTER SEVEN: GUARANTEES AND INSURANCE

SECTION TWELVE: GUARANTEES

12.1 Guarantees

12.1.1 Environmental Guarantee

The Mining Concessionaire, subject to obtaining the respective Environmental License, shall submit and keep updated the financial guarantees required under Applicable Environmental Legislation.

The execution of the above guarantees shall be as provided in Applicable Law.

12.1.2 Investment Guarantee:

Since the Mining Concessionaire has made the Advanced Royalty payment, no other investment guarantee is required for entering into this Contract.

12.1.3 Reimbursement of the Advance Royalty payment:

Since the Parties have agreed to an Advance Royalty payment by the Mining Concessionaire, if the Mining Project fails to enter the Commercialization phase for circumstances attributable to the action or fault of the Mining Concessionaire, the State shall not be obliged to reimburse any amount corresponding to the Advance Royalty payment.

On the other hand, if the Mining Project fails to enter the Commercialization phase for circumstances attributable to the State or any authority, dependency, government entity or *Force Majeure*, the State shall be obliged to reimburse the Mining Concessionaire the part of the Advance Royalty payment that has not been duly accredited.

In the event of disputes relating to the payment, withholding, repayment or reimbursement of Advance Royalties, as provided in this Section and subsection fifteen point fourteen, the Mining Concessionaire may initiate the dispute resolution mechanism contained in Section Twenty-Four of this Contract.

SECTION THIRTEEN: INSURANCE POLICIES

13.1 The Mining Concessionaire shall be solely responsible for taking out all the insurance policies required to comply with this Contract, whether such policies are available on the national or international market or obtained through reinsurance. The Mining Concessionaire shall take out insurance to cover assets located in the country with an insurance company duly authorized by the Superintendence of Companies, Securities and Insurance, except for those risks for which coverage cannot be obtained in the country.

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The Mining Concessionaire shall require all its Subcontractors or suppliers of goods and services to take out the insurance policies they deem necessary for the full performance of this Contract.

CHAPTER EIGHT: ECONOMIC, FINANCIAL AND TAX MATTERS

SECTION FOURTEEN: PROFIT-SHARING OF THE STATE AND THE MINING CONCESSIONAIRE

14.1 The Parties expressly acknowledge and agree that in accordance with Article four hundred and eight of the Constitution and in accordance with Article ninety-three of the Mining Law, the State shall participate in the economic benefits obtained from the exploitation of the mineral subject to this Contract in a percentage of at least fifty percent in accordance with Applicable Law.

SECTION FIFTEEN: ROYALTIES

15.1 Royalties, determination of percentage, method of calculation, method of payment and verification.

15.2 The Mining Concessionaire agrees to pay a Royalty to the State during the term of this Contract according to the terms set forth in Article Ninety-Three of the Mining Law, Article Eighty-Two of the General Regulations of the Mining Law and in this Contract.

15.3 **Royalty Percentage:** The Mining Concessionaire shall pay a Royalty of five percent calculated on the Net Income (in accordance with the Instructions for Auditing and Calculation of Royalties and Benefits of Metal Mining Activities, which are explained in Appendix E) actually received from the sales of Mineral Products (Primary Mineral and Secondary Minerals) extracted from the Contract Area, the International Price of the Primary Mineral being used for such calculations, in accordance with the aforementioned instructions, namely gold, according to the value set in the respective Commercialization Contract.

15.4 The Royalty calculation shall be made for each shipment made, and the payment thereof shall be made to the State every six (6) months. The payment due shall be calculated as the sum of the Royalties calculated for each shipment made during the six months in question, based on the Instructions for Auditing and Calculation of Royalties and Benefits of Metal Mining Activities, the Net Income (for metals payable) and the Royalty percentage applicable to each shipment.

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15.5 The Mining Concessionaire shall inform the Line Ministry and ARCOM regarding the date of the commencement of production and the first commercial sale of the Mineral Products (Primary Mineral and Secondary Minerals) extracted from the Contract Area. For the purposes of this notification "start of production" shall be understood to be the date on which the Mining Concessionaire notifies the State that the beneficiation plant has achieved eighty-five percent of its capacity, according to its designed capacity, for a continuous period of three (3) months.

15.6 For the purposes of this Section, the term "Mineral Products" shall be understood to mean either the Primary Mineral and/ or the Secondary Minerals or any marketable product derived from the mineral extracted from the Contract Area and/or other mineral products that are further processed as part of the mining operation related to the Contract Area.

15.7 **Calculation of the Royalty:** The Royalty shall be calculated on the net income actually perceived by the Mining Concessionaire for the sales of Mineral Products, in respect of the International Price of sale, in accordance with the Instructions for Auditing and Calculation of Royalties and Benefits of Metal Mining Activities, subsection fifteen point three and Appendix C.

15.8 **Royalty payment:** Royalties shall be paid twice-yearly, in accordance with Applicable Law.

15.9 **Verification:** For verification purposes the State shall take into account the information reflected in the tax returns filed by the Mining Concessionaire with the Internal Revenue Service as well as that which is submitted in the semiannual production reports filed with the ARCOM and reports of the audits made by the State in accordance with this Contract and Applicable Law.

15.10 **Deductibility of Royalties:** The amount accrued as Royalties will be accepted as a deductible expense when calculating the tax base for Income Tax for the Financial Year to which such Royalties correspond.

15.11 **Advance Royalty:** Pursuant to Article Eighty-Two (82) of the General Regulations of the Mining Law advance royalties are agreed in this Contract in an amount of sixty-five million United States dollars.

15.12 The Mining Concessionaire is committed to the Line Ministry, to pay the royalty percentage on the Net Income actually received for the commercialization of the Mineral Products.

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15.13 Payment of the Advance Royalty: The Advance Royalty will be paid as follows: The first disbursement of twenty-five million United States dollars will be made on the date of the signing of this Contract. The second disbursement of twenty million United States dollars will be paid one (1) year following the date of the signing of this Contract; and the third disbursement of twenty million United States dollars will be paid two (2) years following the date of signing of this Contract

15.14 Settlement of the Advance Royalty: All payments made by the Mining Concessionaire in respect of the Advance Royalty shall be charged to the Royalties payable by the Mining Concessionaire as of the commencement of the exploitation of minerals in the Contract Area in accordance with Section Fifteen. At the close of each six-month period a provisional settlement of the accrued Royalties will be made which will be accredited against the Royalty payable by the Mining Concessionaire in an amount equal to the lesser of (i) fifty percent of the Royalties payable by the Mining Concessionaire for that six-month period, and (ii) ten percent of the Advance Royalty, as detailed in Appendix E. This limit will apply until the Advance Royalty is fully settled.

SECTION SIXTEEN: NON-TAX MONETARY CONTRIBUTION:

16.1 Sovereign Adjustment: To comply with the provisions of article four hundred and eight of the Constitution of the Republic, the entire term of the Mining Concession, not only the base of each fiscal year, will be considered for the basis of calculation, fiscal analysis, auditing or control of the Sovereign adjustment.

16.2 Free Cash Flow (FCLi) for calculating the Sovereign Adjustment: FCL will be calculated using the information contained in the statement of income of the audited annual financial statements of the Mining Concessionaire prepared subject to International Financial Reporting Standards (IFRS) and in accordance with the following formula:

$$FCL_i = UN + NM\ expenses - NM\ Earnings + INTx(1-U)x(1-T) - \Delta CTN - IAF$$

Where:

FCL_i = Free Cash Flow for every year i

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UN = Net Income of the company recorded subject to IFRS in the income statement

NM Expenses = Nonmonetary expenses: costs deducted to arrive at net income not involving cash flow, including but not limited to the depreciation of fixed assets, amortization of goodwill or intangible assets, non-cash stock - based compensation expenses, etc.

NM Earnings = Non-monetary earnings: earnings considered to arrive at net income not involving cash flow.

INT = Interests incurred.

U = Labor Profit-Sharing Rate corresponding to workers and the State.

T = Tax rate for Income Tax.

ΔCTN = Annual Change in Net Working Capital (current assets less current liabilities), excluding short-term investments in other companies.

IAF = Capital Expenditures (CAPEX): Net investment in fixed assets (total investment in fixed assets, minus net income after tax from the sale of fixed assets), excluding acquisitions or divestments of shares, concessions or participation interests in other companies.

These items shall be determined in accordance with the current tax legislation.

SECTION SEVENTEEN: TAX OBLIGATIONS AND LABOR PROFIT-SHARING

17.1 Tax Obligations

The Mining Licensee shall pay all applicable taxes, as follows: income tax, value-added tax (VAT), windfall tax, on currency remittance tax, as well as the fees, dues and contributions and any others it is obliged to pay in accordance with Applicable Law.

17.2 Windfall Tax

17.2.1 The Windfall Tax is that which is determined in Article One Hundred and Sixty-Four of the Tax Equity Reform Law and applies to the Mining Concessionaire under this Contract. The tax rate is seventy percent.

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17.2.2 For the purposes of this tax, extraordinary revenue shall be that which is perceived by the Mining Concessionaire where such income is generated in the sale of the Primary Mineral and Secondary Minerals at prices in excess of the Base Price as established in subsection seventeen point three, perceived after the month in which the pre-operational preparation and development investments in the Contract Area, made prior to the start of production, have been fully recovered, as explained in Appendix C of this Contract and in accordance with Applicable Law. The Tax will be applicable in the month of May of the financial year in which the pre-operational investments in the preparation and development of the Contract Area are recovered, and as of such date the return and payment shall be made monthly.

17.2.3 In the event that the Windfall Tax is applicable to products other than the gold and silver extracted from the Mining Concession subject to this Contract, the Parties agree that it will be necessary to enter into the corresponding amending addenda thereto in order to establish a Base Price and net sales price.

17.3 Base price

The Base Price for the Primary Mineral and Secondary Minerals will be established monthly using for such effect the information available at that time. The calculation shall be made according to the calculation formula contained in Article eighty-six point one of the General Regulations of the Mining Law and Appendix C of this Contract and will use the U.S. Consumer Price Index published by the Central Bank of Ecuador, or the entity that replaces it, or in absence thereof, the indices published by U.S. Bureau of Labor Statistics.

17.4 Form of Calculation and Payment

The Mining Concessionaire, in accordance with the calculation method contained in subsection eighty-six point one of the General Regulations of the Mining Law and Appendix C for calculating the Windfall Tax, shall compare the gross sales price after the adjustments referred to in the Commercialization Contracts with the Base Price. The invoice will be issued once the definitive settlement pursuant to the Commercialization Contracts is available. In other words, the gross sales price prior to the adjustments referred to in the Commercialization Contracts will not be considered as a basis for calculating the Windfall Tax. The Windfall Tax shall be paid in the month following that on which the definitive settlement is available.

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17.5 Refund of Value-Added Tax

Pursuant to the reform of the Organic Law of the Internal Tax Regime, contained in the Organic Law of Incentives for Public-Private Associations and Foreign Investment, the Mining Concessionaire shall be entitled to the refund of Value-Added Tax paid as of the first of January, two thousand eighteen. The refund of Value-Added Tax shall be made according to the general mechanism applicable to exporters.

SECTION EIGHTEEN: CORRECTION FACTORS

18.1 Events and Correction Methods

In the event, subsequent to entering into this Contract, that any of the events described below occurs and causes an imbalance in the economy of this Contract for the Mining Concessionaire, then at the justified request of the latter and subject to prior negotiation and agreement of the Parties or, failing that, according to the mechanism set forth in subsections eighteen point two and eighteen point three, a correction factor shall be applied to absorb the increased economic burden for the Mining Concessionaire:

18.1.1 Changing rates of applicable taxes, their calculation formula or determination or creation of new taxes, provided that such rates or calculation formulae or determination or new taxes are not stabilized through an Investment Contract, in accordance with the Organic Code for Production, Trade and Investment.

18.1.2 Changes in Applicable Law.

18.1.3 Changes in the labor profit-sharing percentage on net profits, provided no Investment Contract is in force that has stabilized such percentage.

18.1.4 Imposition, elimination or modification of levies, royalties, signing bonuses, surface rights, patents, copyrights, conservation fees, compensation payments and/or any other levies, non-tax contributions or shares, including modifications to the sovereign adjustment percentage.

18.1.5 Change in the currency and/or exchange regime as provided in Article Ninety-Four of the Organic Monetary and Financial Code published in Official Registry, Second Supplement No. three hundred and thirty-two of the twelfth of September, two thousand fourteen.

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18.1.6 Increase in the electricity tariff applicable to the Mining Concessionaire over ten cents of one United States dollar per kilowatt hour.

According to this Section, the correction factors shall consist of any available measure available to the State for quickly, adequately and effectively absorbing or compensating the economic imbalance caused to the Mining Concessionaire by the above events which may include, without limitation, the amendment of this Contract, the amendment or repeal of regulations, economic compensation, or others, according to the established procedure and Applicable Law.

18.2 Mechanism for applying a correction factor

It is up to the Mining Concessionaire to prove: (i) the occurrence of any of the events mentioned in the preceding subsection, (ii) its economic impact on the economic balance of the Contract, and (iii) how the requested correction factor will absorb the alleged economic imbalance. To do this, the Mining Concessionaire shall include a detailed economic study of the impact of the alleged event and the effect of the requested correction factor.

The correction factor shall always respect the minimum percentage of fifty percent of the Sovereign Adjustment for the State's participation in the benefits of the exploitation of the mineral resources subject to this Contract.

The sole purpose of this correction factor is to compensate any economic imbalance that may arise.

Once the justified request for a correction factor is submitted, the Parties will have a period of thirty days to negotiate and reach an agreement on the correction factor. If the Parties fail to reach an agreement within the prescribed period or any further period agreed upon, either Party may call for the intervention of a Consultant and/or any other mechanism provided for Dispute Resolution in Section Twenty-Four of this Contract to determine (i) the occurrence of the event giving rise to the requirement of the correction factor and (ii) the correction factor to be applied. The determination by the Consultant or by the Arbitrators shall be final and binding on the Parties; and shall be incorporated into this Contract.

18.3 Method of Calculation of the Compensation caused by the Economic Imbalance.

The imbalance in the economy of this Contract shall be determined as follows:

The profit of the Mining Concessionaire, for the purposes of applying the correction factors, will be estimated based on the annual cash flows of the Mining Concessionaire after payment of all the obligations under this Contract, including the payment of the Sovereign Adjustment of previous years, adjusted to present value of the Financial Year in course, according to the following formula:

$$CBC_n = \sum_{i=1}^{n} [BC_i * (1 + r)^{n-i}]$$

Where:

n = Calculation of the Financial Year in course
i = Years following the events described in Section eighteen point one
CBC_n = Present value of the estimated profits of the Mining Concessionaire in the year n
BC_i = Profits of the Mining Concessionaire in each year i
r = Mining Concessionaire's discount rate

The estimated profits of the Mining Concessionaire in every year of the term of this Contract will include the following:

$$BC_i = FCL_i$$

Where:
FCL_i = Estimated Cash Flow of the Mining Concessionaire in each year i, including Sovereign Adjustment payments made.

The estimated Cash Flow of the Mining Concessionaire will be based on the budget and financial model then in effect and will be calculated as revenues less costs. Costs will include all, but not be limited to, the following:

- Operating Costs
- Royalties
- Taxes
- Profit-sharing
- Sovereign Adjustment
- Capital Expenditures
- Costs of dismantling and environmental repair
- Financing costs and interest
- Working capital.

The economic imbalance of this Contract will be the difference in the present value of the estimated profits of the Mining Concessionaire, prior to and after the occurrence of the events described in Section eighteen point one.

CHAPTER NINE: THE GENERAL PLAN AND ANNUAL WORK AND INVESTMENT PLANS

SECTION NINETEEN: GENERAL WORK AND INVESTMENT PLAN AND ANNUAL WORK AND INVESTMENT PLANS

19.1 The General Work and Investment Plan

19.1.1 The General Work and Investment Plan shall contain the estimated and reference deadlines, terms and conditions for the stages of construction and assembly, Extraction, Exploitation, Beneficiation, Transportation and Commercialization agreed by the Parties, as set forth in Appendix B this Contract.

19.1.2 The Mining Concessionaire undertakes to comply with the General Work and Investment Plan in order to optimize the recovery of reserves in accordance with the Audited Report.

19.1.3 The Mining Concessionaire guarantees that the performance of its activities under the General Work and Investment Plan will be made giving priority to the rational use of natural resources.

19.1.4 The Mining Concessionaire shall be entitled to modify, amend or supplement the General Work and Investment Plan, for which it shall notify the Line Ministry of such changes and the justified reasons that support such an amendment. The Line Ministry may ask the Mining Concessionaire for any additional information it requires regarding the modification, amendment or supplement.

19.1.5 In the event that the proposed changes in turn require the modification of other documents or permits issued by competent authorities, the Mining Concessionaire will be responsible for complying with the requirements provided by Applicable Law in each case.

19.2 The Annual Work and Investment Plan

19.2.1 The Mining Concessionaire shall submit to the Line Ministry an Annual Work and Investment Plan containing the schedule of

activities and the investments, costs and expenses budget for the respective Financial Year. The Annual Work and Investment Plan shall be largely based on the General Work and Investment Plan.

19.2.2 The Annual Work and Investment Plan shall be submitted to the Line Ministry before the fifteenth of February of the Financial Year in which the aforementioned Annual Work and Investment Plan is to be implemented.

19.2.3 The Mining Concessionaire shall be entitled to modify, amend or supplement the Annual Work and Investment Plan without requiring prior approval of the Line Ministry, but shall notify the Line Ministry in respect of such modifications made to the Annual Work and Investment Plan, subject to obtaining the permits and authorizations required under Applicable Law.

19.3 Performance reports of the Annual Work and Investment Plan

19.3.1 By the thirtieth of April each year the Mining Concessionaire shall submit a report to the Line Ministry on the performance of the Annual Work and Investment Plan of the prior Financial Year, together with the Mining Concessionaire's financial statements for the same period.

19.3.2 The performance report of the Annual Work and Investment Plan does not exempt the Mining Concessionaire from the obligation to submit the other reports provided for in this Contract and in Applicable Law.

CHAPTER TEN: THE SHUTDOWN OF OPERATIONS

SECTION TWENTY: OPERATIONS SHUTDOWN

20.1 Activities involved in the Operations Shutdown

In the event of the Shutdown of Operations under this Contract, the Mining Concessionaire shall appropriately dismantle its camps, housing, machinery, equipment, infrastructure and other constructions, according to the stipulations of the Environmental License and the Environmental Management Plan granted by the National Environmental Authority for the Operations Shutdown phase.

20.2 Operations Shutdown Plan

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No less than two years prior to the scheduled definitive shutdown of operations and mining activities under this Contract, the Mining Concessionaire shall submit an application for an environmental permit to the National Environmental Authority, containing the Operations Shutdown plan, pursuant to the provisions of Article Eighty-Five of the Mining Law and Article One Hundred and Twenty-Four of the Environmental Regulations for Mining Activities, containing at least the requirements set forth in the following sub-section.

20.3 Minimum content of the Operations Shutdown Plan

20.3.1 A description of the work involved in the Operations Shutdown;

20.3.2 Environmental Repair or Remediation of the negatively impacted area;

20.3.3 Plan for verifying compliance with the Environmental Repair or Remediation of the negatively impacted area;

20.3.4 The social impacts and their compensation plan;

20.3.5 Submission of the guarantees required by Applicable Law;

20.3.6 Plan to incorporate new forms of sustainable economic development of the communities located in the Direct Area of Influence of the Mining Project.

CHAPTER ELEVEN: INSPECTIONS, CONTROLS AND AUDITS

SECTION TWENTY-ONE: INSPECTIONS, CONTROLS AND AUDITS

21.1 Inspections, controls and audit:

Without prejudice to the faculties and competences of the State entities when they wish to conduct inspections, controls and audits of the activities performed by the Mining Licensee under this Contract, the Mining Licensee shall provide reasonable and necessary facilities for verifying or ensuring the Mining Concessionaire's compliance with all Applicable Law and its obligations under this Contract.

The exercise of this power of inspection by the State entities shall be such that they do not interfere with the normal performance of the operations of the Mining Concessionaire, nor involve a burden or cost for the latter.

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CHAPTER TWELVE: ASSIGNMENT AND TRANSFER OF THE MINING CONCESSION

SECTION TWENTY-TWO: ASSIGNMENT AND TRANSFER

22.1 Prior Authorization for Assignment and Transfer

22.1.1 Notwithstanding the provisions of subsection twenty-two point three in accordance with Article One Hundred and Twenty-Five of the Mining Law, Articles Fifty-Eight, unnumbered after Fifty-Eight and Fifty-Nine of the General Regulations of the Mining Law and of the Instructions for the Authorization of Assignment and Transfer of Mining Rights and of Security Assignment of Mining Rights, the Mining Concessionaire may assign and transfer the its rights under the Mining Concession or this Contract, in accordance with Applicable Law. The Mining Concessionaire shall be entitled to receive State authorization, except when there are reasonable doubts regarding the technical and financial capacity of the assignee to build and operate the Mining Project according to this Contract. The assignee shall be deemed to have the required technical and financial capacity if (i) it is capable on its own or through third parties, acting jointly and severally, to guarantee its obligations to comply with the activities set forth in this Contract and in the Mining Concessionaire's contract to operate the Mining Project; and (ii) it has been obtained, or there is no impediment to its obtaining, all State authorizations required for the performance of this Contract.

22.1.2 The assignment and transfer of the Mining Concession regarding which this Contract is entered into, shall entail the assignment and transfer of the Exploitation Contract, for which the relevant amending addendum must be entered into, which shall be subject to the formalities required by Applicable Law.

22.2 Liability

In the event of the assignment and transfer of the Mining Concession, the assignee shall be liable before the State and third parties for the obligations, guarantees and commitments arising from this Contract, as well as those in force prior to its signing, without the State having any obligation whatsoever in respect of other commitments undertaken by the Mining Concessionaire with previous mining concessionaires who have acted as assignors.

22.3 Security Assignment

22.3.1 Authorization of the Security Assignment

i. Should the Mining Concessionaire require financing for the development, construction, commissioning, operation and decommissioning of the Mining Project (including, without limitation, the financing of the project, equipment, streaming and bonds or the refinancing thereof) and for such purposes needs to assign as security the mining rights in favor of the banks, financing institutions, including their transferees or authorized assigns (hereinafter referred to as the **"Lenders"**) or their agents or trustees to fund, in any way, the Mining Project (hereinafter and together with the Lenders referred to as the **"Security Assigns"** and each a **"Security Assign"**), shall request authorization for such Security Assignment from the Line Ministry, as provided in Articles Seventeen and One Hundred and Twenty-Eight of the Mining Law, in the unnumbered article following number Fifty-Eight of the General Regulations of the Mining Law and in the Instructions for the Authorization of Assignment and Transfer of Mining Rights and of Security Assignment of Mining Rights.

ii. For financing purposes, the Mining Concessionaire may also provide a complete package of guarantees as a pledge, mortgage, assignment or otherwise (including a security assignment over fixed and intangible assets, a pledge over movable property and shares, including shares in the capital of the Mining Concessionaire). The Security Assign will take precedence over the rights under the Mining Concession, as well as over the assets of the Mining Concessionaire and of the Mining Project that are the subject to the guarantee under the financing contract, in accordance with Applicable Law. The Line Ministry undertakes to provide all the support required by the Security Assign to preserve its interests.

iii. The Mining Concessionaire shall be entitled to receive the authorization of the Security Assignment by the Line Ministry, in accordance with Applicable Law and the process described below, provided that the following support documentation is attached to the request:

a) An exact determination of the mining right that is subject to the Security Assignment or transfer, the name or designation of the mining concession, area, place and date of granting and registration of the mining title;

b) An accurate determination and identification of the individual or legal entity to whom the mining rights must be assigned.

c) Reasons for the Security Assignment.

iv. Once the Security Assignment has been authorized it will be registered in the Mining Registry.

v. Once the request is submitted to the Line Ministry, the latter will forward same to the ARCOM, which will issue its report within a maximum term of thirty (30) days. With such report in hand the Line Ministry will issue and notify the corresponding resolution within a maximum term of sixty (60) days, counted as of the request of the Security Assignment. Upon expiry of such term without a pronouncement by the Line Ministry, the requested Security Assignment shall be deemed approved and the Mining Registry shall register same at the request of the Mining Concessionaire or the Security Assign.

vi. Should there be a change of the Security Assign for any reason, the Mining Concessionaire shall notify the Line Ministry of such change and register the new holder of the Security Assignment as such with the Mining Registry.

vii. At the request of the Mining Concessionaire or of the Security Assign, the Line Ministry shall enter into, within a reasonable period that allows for the timely financing and performance of the Mining Project, a direct contract with the Security Assign. Such direct contract will contain the terms usually employed in this kind of agreement, such as the right to be notified regarding the causes or the initiation of an administrative procedure to extinguish the mining rights, the faculty of the Security Assign to subrogate in the rights and obligations that may correspond to the Mining Concessionaire in the Mining Proyect, in the Mining Concession and in this Contract, the right to perform and pay by novation, subrogation or other manner the obligations that this Contract and the Mining Concession impose on the Mining Concessionaire and, in general, the right to assume the legal and contractual position of the Mining Concessionaire in this Contract and in the Mining Concession in the event of default of the Mining Concessionaire.

22.3.2 Terms and Conditions of the Security Assignment

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i. The Security Assignment constitutes a guarantee over the mining rights arising from the Mining Concession and from this Contract. It will be privileged and will have priority over other obligations or titles of the Mining Concessionaire, in accordance with Applicable Law.

ii. No payment of taxes or authorization or registration duties of any kind shall apply to: (i) the Security Assignment of the Mining Concession, including assignments to new security assigns; and (ii) assignments of the Mining Concession arising from the foreclosure of the Security Assignment or of any other security granted by the Mining Concessionaire or any of its parent companies over their stock or assets.

iii. As a result of a Security Assignment, the Security Assign is not subrogated to the financial, technical, environmental and social obligations undertaken by the Mining Concessionaire and will be the sole and exclusive obligation of the Mining Concession to comply with same. However, once the Security Assignment is executed, the Security Assign will be subrogated to such obligations, including those that are pending on the date of execution of the Security Assignment.

iv. When the State detects any breach that could lead to the termination of the Contract or revocation, termination or expiration of the Mining Concession, it shall notify same to the Security Assign for the same periods and terms established for the Mining Concessionaire by Applicable Law.

v. Should a process of liquidation or bankruptcy of the Mining Concessionaire have been initiated while a Security Assignment is in force, the Security Assign may intervene to remedy the cause that gave rise to such process and avoid the liquidation or bankruptcy of the Mining Concessionaire and, in any event, the cause of termination under subsection twenty-three point one (f) below shall not apply. In such cases, the Security Assignment shall be deemed foreclosed and the provisions of subsection twenty-two point three point three below shall apply.

22.3.3 Foreclosure of the Security Assignment

i. The Security Assign in whose favor the Security Assignment was granted, shall be entitled to foreclose the Security

Assignment or any other security right granted to it in relation to the Mining Project, the Mining Concession and this Contract, without the need for the authorization of the Mining Concessionaire or the Line Ministry.

ii. For the purposes of foreclosing the Security Assignment for the benefit of the Security Assign, it will suffice that latter notify the Line Ministry and the Mining Registry, including: (i) a sworn statement confirming (A) that the Mining Concessionaire has breached its obligations under the financing contracts and consequently that the Security Assign is foreclosing the Security Assignment granted in its favor and subject to the terms of the respective financing contracts; (B) that the Mining Concessionaire is formally aware of the breach; and (C) the Security Assign has designated the Mining Concessionaire or other person, in its representation, to continue with the construction or operation of the Mining Project; and (ii) a request that the Mining Registry register the Security Assign, or its designee, as the Mining Concessionaire. Opposition by the Mining Concessionaire to the assignment of the Mining Concession to the Security Assign or its designee, may not result in any delay or refusal by the Mining Registry to register such assignment.

iii. Once the Security Assignment is foreclosed and the mining rights have been assigned, the Security Assign will become the owner of the mining rights over the Mining Concession and this Contract.

iv. Upon execution of the Security Assignment, the Security Assign may designate before the Mining Registry a third party with whom a contract has been entered into to operate the Mining Project, or to whom the Mining Concession and this Contract have been assigned.

CHAPTER THIRTEEN: TERMINATION OF THIS CONTRACT AND THE EXPIRY OF THE MINING CONCESSION

SECTION TWENTY-THREE: TERMINATION OF THE CONTRACT

23.1 This Contract shall terminate for one or more of the following reasons:

a) Expiry of the Term of the Mining Concession and its extensions, according to the provisions of Chapter I, Title VI of the Mining Law;

b) Total waiver of the Mining Concessionaire, in accordance with the provisions of Chapter II, Title VI of the Mining Law;

c) Declaration of the termination of the Mining Concession, in accordance with the provisions of Chapter III, Title VI of the Mining Law;

d) Declaration of the annulment of the Mining Concession, in accordance with the provisions of Chapter IV, Title VI of the Mining Law;

e) Enforcement of an arbitration award;

f) Liquidation or bankruptcy of the Mining Concessionaire, judicially declared and executed, unless there is an assignment or transfer of mining rights to the Mining Concession or this Contract during the process of liquidation or bankruptcy;

g) At any time before the expiry of the term, by mutual agreement of the Parties; and

h) For material breach of contractual obligations, according to the following procedure:

23.1.1 The non-breaching Party shall notify the breaching Party of the existence of material breach of one or more of its obligations under this Contract, indicating in the notification the type of breach and that the breaching Party shall have a term of ninety days to refute the alleged breach, fulfill the unmet obligation or correct the fault or breach. Such term shall be extended when remediation actions so require, provided that the remediation or compliance actions are initiated within the aforementioned period.

23.1.2 In the event that the breaching Party fails to refute the breach, to correct the breach or has not initiated remediation actions within the term prescribed in the preceding paragraph, to the satisfaction of the non-breaching party, the latter may notify its decision to terminate this Contract, in which case the breaching Party shall have ninety (90) days to submit the Dispute to the

mechanism established in Section Twenty-Four of this Contract.

The effects of termination of the Contract shall be suspended for as long as resolution of the arbitration process is pending.

23.2 Effects of the Termination of the Contract

23.2.1 Following the termination of the Mining Contract, the Concessionaire:

a) Shall immediately suspend the exploitation work of the Mining Project, subject to completion of all ongoing processes in accordance with Applicable Law and the Best Practices of the International Mining Industry.

b) In the case of an express order of the Line Ministry, it shall comply with Operations Shutdown plan and Full Reparation, as determined by the National Environmental Authority and Applicable Law, insofar as the Mining Project is actually shut down and is no longer operated by the State or by a third party. In this case the Mining Concessionaire shall conduct the corresponding environmental audit for the change of operator, who shall take charge of operations within a maximum period of ninety days.

23.2.2 Upon termination of the Contract the State:

a) Will return or foreclose, according to Applicable Law, the environmental guarantees that have been granted.

b) Will continue to exploit the Deposit if it is in its interest, in accordance with the provisions of Applicable Law.

c) Withhold the Advance Royalty in cases of termination based on the grounds set forth in subsection h of subsection twenty-three point one.

d) Exercise all other powers established in Applicable Law.

CHAPTER FOURTEEN: DISPUTE RESOLUTION

SECTION TWENTY-FOUR: DISPUTE RESOLUTION

24.1 Mandatory Direct Negotiations

In all disputes related to the application, interpretation, performance, breach, termination or any other circumstances relating to this Contract, the Parties shall attempt to reach a direct settlement between themselves. To do so, the affected Party shall submit a request for direct negotiations. To this end, the affected Party shall submit the dispute to the legal representative of the other Party. If within thirty days after having submitted the dispute, or within the term agreed by the Parties, the dispute has not been resolved, the procedure set forth in the following paragraphs shall be followed.

24.2 Optional Mediation

If a direct settlement cannot be reached between the Parties pursuant to the preceding paragraph, either Party may submit the disputes to mediation (i) by any mediation center registered with the Council of the Judiciary, or (ii) through the arbitration procedure provided in subsection twenty-four point four of this Contract.

24.3 Consultancy

24.3.1 If the event of technical disputes expressly provided for in this Contract and that have not been settled amicably between the Parties according to subsections twenty-four point one or twenty-four point two herein, either Party may optionally refer the disputes to a Consultant. The Consultant may not rule on the application of tax regulations.

24.3.2 To this end, the Party concerned shall notify the other Party of its decision to submit the dispute to the opinion of a Consultant.

24.3.3 In order to select the Consultant, the Parties shall mutually agree on the latter from among the Consultants listed in Appendix H, within seven days from the notification date contained in subsection twenty-four point three point two. If the

Parties do not reach an agreement on the appointment of the Consultant before the aforementioned deadline, the requesting Party shall require a Notary Public of the city of Quito to draw lots for the appointment of the Consultant and ask the Notary to notify the other Party with at least forty-eight hours prior to the date of the draw. If the Consultant does not accept the assignment, the above procedure shall be repeated. Only in the event that none of the Consultants listed in Appendix H are selected because of the matter to be treated, will each Party submit to the other a list of three names of candidates within thirty days from the submission of the notice to the other Party of its decision to submit the dispute to the opinion of a Consultant. If one or more of the proposed Consultants appears on both lists, the Consultant shall be selected from among those that appear in both lists. If there are no matching candidates or there is more than one matching candidate, and the Parties fail to agree on the nomination of the Consultant within seven days following the submission of lists, the Consultant shall be appointed by lot before a notary public, from among the lists submitted by the Parties.

24.3.4 The Consultant shall be nominated and appointed on the basis of criteria of impartiality and expertise in the subject matter of the Consultancy.

24.3.5 Once the procedure is initiated, there shall be no direct meeting between one of the Parties and the Consultant without the consent of the other Party. No communications may be sent to the Consultant without them also being sent to the other Party. The Parties shall present their arguments to the Consultant within thirty days following the date of her/his appointment. The Parties shall provide the Consultant all the information, in writing or at oral hearings, together with the evidence they consider she/he may reasonably required to reach her/his opinion.

24.3.6 The appointed Consultant shall prepare and deliver the opinion to the Parties within sixty days following the date of acceptance of the appointment, within which period the Consultant may ask the Parties for any additional information she/he deems necessary for issuing her/his opinion.

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24.3.7 The Parties may request further information or clarification of the opinion within fifteen days counted as of the date of its notification.

24.3.8 The opinion of the Consultant shall be final and binding on the Parties.

24.3.9 However, within fifteen days of notification of the opinion or the extension or clarification, the Parties may seek a review of the decision under the arbitration provisions of subsection twenty-four point four of this Contract, but only in the following cases:

a) If the Consultant exceeded her/his mandate;

b) If corruption, connection or conflict of interest on the part of the Consultant is evidenced regarding the subject matter of the dispute; and

c) If either of the Parties was denied the right to defense, according to the terms specified in this Section.

24.3.10 The commencement of the arbitration will suspend the decision of the Consultant.

24.3.11 The expenses and fees required for the intervention of the Consultant shall be borne by the requesting party, unless the Parties have agreed on a different distribution of costs and fees.

24.4 Arbitration

24.4.1 All disputes that have not been settled through direct negotiations under subsection twenty-four point one, or by mediation under subsection twenty-four point two, or which have not been submitted to the opinion of a Consultant under subsection twenty-four point three of this Contract shall be finally settled by an ad-hoc arbitration under the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL) of nineteen seventy-six. The arbitration shall

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be administered by the Permanent Court of Arbitration in The Hague.

24.4.2 Place of Arbitration

The place of arbitration shall be Santiago, Chile.

24.4.3 Language

The language of the procedure will be the Castilian Spanish. Either Party may submit oral or documentary evidence in a language other than Castilian Spanish, provided this Party provides the other Party with a Castilian Spanish translation of such testimony or documentary evidence within no more than five Business Days.

24.4.4 Arbitration at Law

The arbitration shall be at law and the regulations applicable to the grounds of the dispute, will be Ecuadorean Law.

24.4.5 Incorporation of the Arbitral Tribunal

The Arbitral Tribunal shall consist of three members. Each Party shall appoint one arbitrator and the third, who shall be the President of the Arbitral Tribunal, shall be appointed by mutual agreement of the Parties. If a Party fails to appoint an arbitrator or if they fail to reach agreement on the appointment of the President within sixty days from the notification of the initiation of the procedure, the appointment will be made by the Secretary of the Permanent Court of Arbitration based in The Hague who will act as the nominating authority. Unless otherwise agreed, the arbitrators shall not have the same nationality as the Parties.

The arbitration provided in this Section shall be deemed the choice of means for the resolution of disputes arising out of this Contract.

24.5 Exclusion of certain matters from the scope of the arbitration and attribution of jurisdiction to the national courts and tribunals.

Disputes over matters that are not subject to settlement out of court and, are therefore not arbitrable in accordance with Applicable Law in force on the Effective Date, may not be settled by arbitration and shall be resolved by the competent courts of Ecuador.

24.6 Costs

The costs of the procedure shall be covered in equal parts, unless the Tribunal, in its ruling, decides otherwise.

24.7 Enforcement of the Award

The Award rendered by the Arbitral Tribunal shall be binding on the Parties and may be enforced by the courts and tribunals of the Republic of Ecuador.

CHAPTER FIFTEEN: GENERAL PROVISIONS

SECTION TWENTY-FIVE: *FORCE MAJEURE* AND ACT OF GOD

25.1 General aspects

25.1.1 Neither Party shall be held liable for the breach, suspension or delay in performing of the obligations under this Contract, nor shall it be obliged to compensate the other Party for the damages that may be caused to it when the breach, suspension or delay is caused by circumstances of *Force Majeure* or Act of God duly verified pursuant to the provisions of this Section.

25.1.2 The Party alleges *Force Majeure* or Act of God, shall notify the other Party as soon as possible after becoming aware of this fact, with an indication as to the estimated duration of the suspension and shall submit the respective justifications. The *Force Majeure* or Act of God shall involve the number of days being justified and shall apply to the rights and obligations affected by such event.

25.2 Mitigation Measures

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25.2.1 The Party affected by the *Force Majeure* event or Act of God is obliged to take all measures that are within its power to mitigate and remedy its consequences and to resume activities as soon as possible.

25.2.2 Within a reasonable period after having confirmed the *Force Majeure* event or Act of God that has caused the suspension or delay in performance of the obligations under this Contract, provided that the event was not caused by the State, there is imminent danger to life or health of the workers and the Mining Concessionaire has not adopted commercially reasonable measures and which it could have legally taken to eliminate or mitigate such *Force Majeure* or Act of God or its direct or indirect effects, the State may, at its sole discretion and within days of submitting the respective notification to the Mining Concessionaire, adopt and begin to implement any reasonable measures that it deems necessary to preserve the life and health of the workers. The State shall desist from any measure it has adopted as soon as the immediate danger to the life or health of workers has ended.

25.3 Termination of the Event

When the Party affected by the *Force Majeure* event or Act of God is able to resume the performance of its obligations under the Contract, that Party shall notify the other within the following ten business days following the date on which the *Force Majeure* event or Act of God has ceased.

25.4 Compensation of the Term

The suspension caused by an event of *Force Majeure* or Act of God will lead to the revision of the Annual Work and Investment Plan and the Annual Environmental Program and Budget submitted by the Mining Concessionaire. The Mining Concessionaire may request of the Line Ministry the suspension of the term of the Concession for the duration of the impediment. To such effect, the Line Ministry, within a maximum term of thirty days, counted as of the submission of the respective request an by reasoned resolution, will admit

such petition if the *Force Majeure* event or Act of God is proven; or deny the petition if the *Force Majeure* event or Act of God if found not to have been proven. In the event that the Line Ministry does not admit or denies the petition within the aforementioned term, it shall be understood that the request has been favorably attended and therefore that the term of the Mining Concession is suspended.

Any dispute arising from a declaration of *Force Majeure* or Act of God, shall be submitted to the dispute resolution mechanism set forth in Section Twenty-Four.

SECTION TWENTY-SIX: STATE'S RIGHT TO INFORMATION AND CONFIDENTIALITY OBLIGATION

26.1 Protected information.

All information acquired or developed during the performance of this Contract and all the drafts and the final version of any drawings, designs, engineering drawings and other plans, technical or scientific reports, models, data, drilling results, cores, records, reports, files, studies or other information, materials and documents prepared or obtained during the term of this Contract, shall be owned by the Party that acquired or developed it (hereinafter referred to as "Protected Information").

26.2 Ownership of Intellectual and Industrial Property Rights.

The Mining Concessionaire represents that it is the authorized titleholder or licensee of the intellectual and industrial property rights to any work, document and information to be used by it in the operations under this Contract.

26.3 Rights to Use Exclusive Information of the Contractor.

During the term of this Contract, the State shall be entitled to use any work, document or information of the Mining Concessionaire that is submitted to the Line Ministry, which is directly associated with the performance of this Contract and subject to the confidentiality commitment provided in this Section. Upon termination of this Contract, the Parties may agree to grant to the State a royalty-free,

irrevocable, non-negotiable and transferable license to use the material that has been generated thanks to the joint and indivisible participation of the Parties. Interpretations of the profiles or tests or other data, and all the recommendations and descriptions of deposits based on such interpretations are opinions based on inferences from measures, empirical relationships and assumptions, and such inferences and assumptions are not infallible, and with respect to which competent specialists may disagree. Consequently, the Mining Concessionaire cannot guarantee the results or the accuracy, correctness or completeness of any such interpretations or descriptions and recommendations and shall in no case be held responsible for the usage that the State may make of the interpretations, recommendations, forecasts, opinions or plans made by the Mining Concessionaire.

26.4 Intellectual Property Developed.

All the inventions, improvements, technologies or discoveries and creations that may be created, conceived and developed by the Mining Concessionaire without the contribution of the State, on occasion of this Contract, shall belong to the Mining Concessionaire, unless otherwise agreed in writing by the Parties. In the event that inventions are developed during the performance of the Contract that are subject to intellectual property rights, which resulted from the joint and indivisible participation of the State and the Mining Concessionaire, the Parties shall agree on the admissibility and terms of joint applications and the moral and economic rights that may correspond jointly or individually to them.

26.5 Confidential Information

All the information and precedents that the Mining Concessionaire hands over to the State through the Line Ministry or other State agencies or dependencies under this Contract and Article 39 of the Mining Law shall be deemed confidential and the personnel of the Line Ministry or the State agency who receive it shall be bound to keep it in the strictest reserve. By way of example, that which is related to the Commercialization Contracts, General Work and Investment Plan and the Annual Work and Investment Plan, among others, shall be deemed confidential information and precedents

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SECTION TWENTY-SEVEN: SUBCONTRACTORS OF THE MINING CONCESSIONAIRE

27.1 To fulfill the purpose of the Contract the Mining Concessionaire may use Subcontractors, at its own sole risk and account, and shall be solely liable for fulfillment of the obligations under this Contract.

27.2 The Mining Concessionaire shall indemnify and hold the State and its respective officers, employees, agents and other representatives, harmless from and against any claims that may arise from such outsourcing and any labor claims that may be brought by any employee, worker, or Subcontractor's representative, and from and against any injury, death, damage or loss of any kind or nature that may arise, directly or indirectly related to the performance of this Contract or the obligations assumed under this Contract.

27.3 The selection of Subcontractors, negotiation of the terms and conditions of the subcontracts, their adjudication and signing shall be the exclusive responsibility of the Mining Concessionaire.

SECTION TWENTY-EIGHT: REGISTRATION, VALUE AND EXPENSES

28.1 Expenses

The expenses incurred in the execution of this Contract and its registration shall be covered by the Mining Concessionaire.

28.2 Amount

By nature, this Contract is for an unspecified amount.

28.3 Registration of the Contract

Within thirty days following the date of signing of this Contract, the Mining Concessionaire shall register it in the Mining Register carried by ARCOM, in accordance with Applicable Law.

28.4 Counterparts

Once this Contract is registered in the Mining Registry carried by ARCOM, the Mining Concessionaire shall deliver ten (10) certified

copies of this Contract to the Line Ministry, which within thirty days following the Effective Date, will deliver copies of this Contract to the Comptroller-General, the Attorney-General, the Ministry of the Environment, the Internal Revenue Service and the Central Bank of Ecuador.

SECTION TWENTY-NINE: GENERAL PROVISIONS

29.1 Entire Agreement

29.1.1 This Contract and each of its sections and provisions are valid, conform to law and constitute binding obligations for the Parties pursuant to the terms of this Contract and Applicable Law; and it does not violate any constitutional, legal or regulatory provisions applicable to the Parties.

29.1.2 This Contract contains the entire agreement reached by the Parties; therefore, it cannot be modified, except by amending addenda entered into by the Parties in the terms set forth in this Contract and Applicable Law.

29.2 Severability

This Contract is valid according to Applicable Law in Ecuador. Should any part or section of this Contract be found by any court, judge or tribunal to violate Applicable Law or to be invalid or unenforceable thereunder, this Contract shall be deemed fully valid and shall be deemed modified only in the part declared to be in violation of such law or invalid or unenforceable thereunder. As such, the contractual provisions that are not declared illegal, invalid or unenforceable shall be fulfilled in accordance with the provisions of this Contract.

29.3 No waiver

The fact that either Party fails to require of the other the fulfillment of any of its obligations under this Contract, shall not be deemed a waiver of the rights of such Party to claim such breach and, therefore, at any time thereafter it may sue such breach without any grounds existing for declaring that there has been a tacit waiver of the right to claim because it was not immediately exercised. Therefore, any waiver

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of rights shall be issued in writing by the waiving Party and communicated to the other Party.

29.4 Notices and Communications

Every order, approval, declaration or notice of any kind between the Parties that may be required, expressly authorized or furnished under this Contract (hereinafter referred to as "Communication") shall be in writing and delivered to the address set forth in this Section or by other means of communication or other addresses previously agreed between the Parties. The Communication shall be signed by a duly authorized representative of the Party sending the Communication.

29.4.1 Communications between the Mining Concessionaire and the State:

Any Communication from the Mining Concessionaire to the State shall be addressed as follows:

SEÑOR
MINISTRO DE MINERÍA

Address: Pedro Ponce Carrasco E nueve-veinticinco y Av. Seis de Diciembre, edificio Multiapoyo, Piso doce. Quito-Ecuador

SEÑOR
REPRESENTANTE LEGAL

Address: Avenida Amazonas N treinta y siete-veintinueve y Unión Nacional de Periodistas, edificio Eurocenter, piso cinco. Quito-Ecuador

29.5 Change of Designation by a Party

29.5.1 By prior notice, either Party may at any time change the designation of the person called upon to receive communications, the office address in Ecuador authorized to receive such communications or the mailbox designated for such purpose.

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29.5.2 In the event of any change in the address under this Contract, the Party making such change shall notify this fact immediately to the other Party in accordance with the provisions of this Section. Once such notice is made, the relevant part of this Section shall be deemed modified, even without the express consent of the other Party.

Notary Public, kindly complete any other formalities of style and legalize the qualifying documents required for the perfect validity of this public deed.

The parties ratify the inserted minutes, which are signed by Attorney Sayda Rosales Argoti, bearer of professional credential number seventeen dash two thousand and nine dash three hundred and eighty-five of the Pichincha Lawyers' Forum.

For the granting of this public deed the respective legal principles were observed and read as it was by me, the Notary, to the parties, they ratify same and sign together with me, as a single act, incorporating this public deed into the protocol of this Notary Public's Office together with its enabling documents, to all of which I bear witness.

(illegible signature in the original)
MR. JAVIER FELIPE CÓRDOVA UNDA
MINISTER OF MINES
ID (handwritten) 170678110-9

(illegible signature in the original)
MR. RONALD FRANCIS HOCHSTEIN
Pssport No. 17-2009-385 (handwritten) HK118326

(illegible signature in the original)
DR. MIGUEL ÁNGEL TITO RUILOVA
SIXTY-NINTH NOTARY PUBLIC OF THE QUITO CANTON

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GOBIERNO NACIONAL DE
LA REPÚBLICA DEL ECUADOR

Ministerio
de Minería

1 Credential No. 17-2009-385
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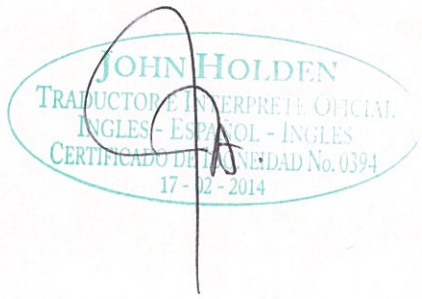
APPENDIX A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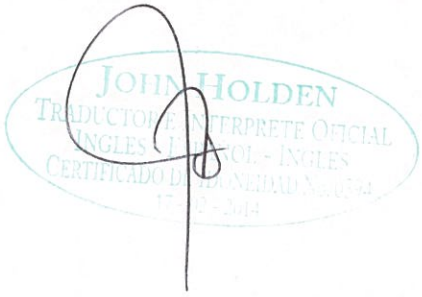
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MAP OF CONTRACT AREA AND PROTECTION AREA

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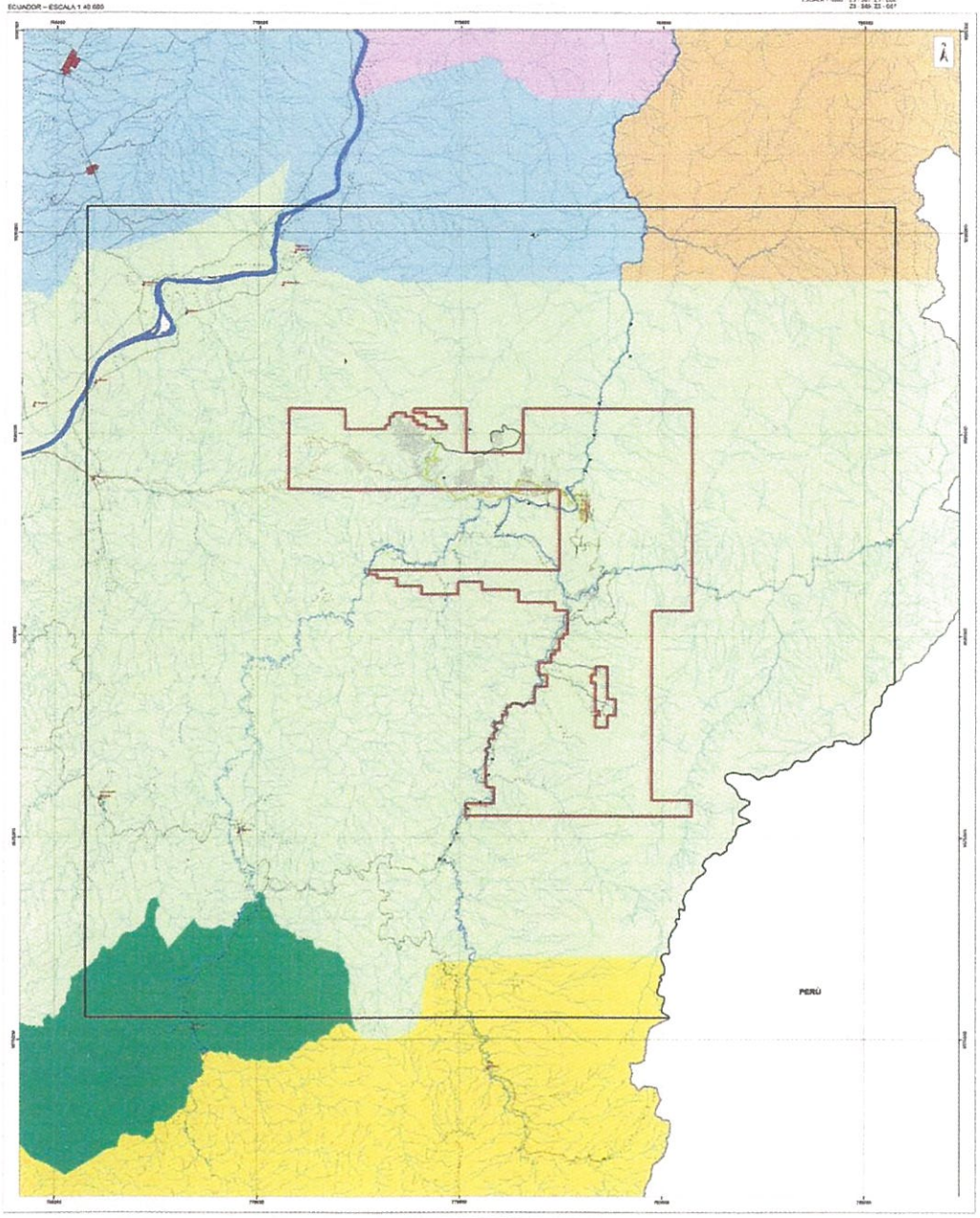

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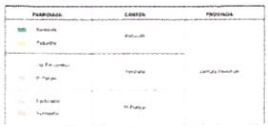
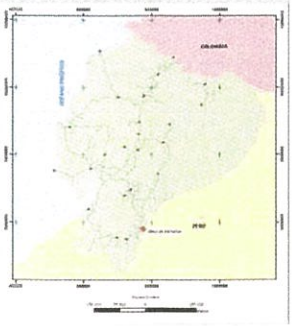


La Zarza accumulated Title Area

Protection Area

NOTE: The area of related activities that are yet to be defined

LOCATION OF THE ZONE UNDER STUDY WITH RESPECT TO CONTINENTAL ECUADOR



SIGNOS CONVENCIONALES

ESCALA GRÁFICA

LUNDIN GOLD

MAP OF CONTRACT AREA AND PROTECTION AREA

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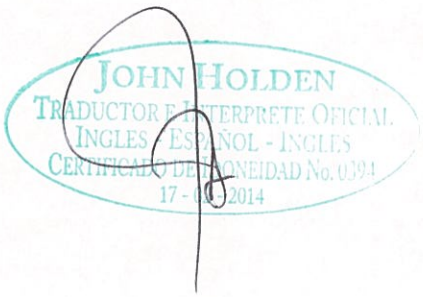
APPENDIX B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AURELIAN ECUADOR S.A.

Fruta del Norte Project

General Work and Investment Plan

Exploitation Agreement – Appendix B

August 2016

CONTENTS

TABLES

FIGURES

1.0 INTRODUCTION

1.1 Introduction

This General Work and Investment Plan (hereinafter referred as the "Plan") has been prepared pursuant to Section 18 of the Exploitation Agreement between the Government of Ecuador and Aurelian Ecuador S.A. and relates to the development of the Fruta del Norte Mining Project (hereinafter referred as the "Project", "Mining Project" or "FDN". The Plan has been prepared based on information available to Aurelian Ecuador S.A. as disclosed in its audited technical report entitled "Informe Técnico para el Paso a la Etapa de Explotación de la Concesión La Zarza", which was current to the effective date of May 30, 2016. The information included in this Plan and upon which this Plan is based is preliminary and based upon a variety of assumptions. Since the completion of the technical report, Aurelian Ecuador S.A. has and will continue to modify, supplement and update the information underlying the Plan and may, as it deems necessary and material, modify, supplement or update the Plan pursuant to Section 18.1.4 of the Exploitation Agreement. Any modification, supplement or update to the Plan could result in a change to the Project and may involved an increase or decrease in the size and timing of the aggregate investment and production.

1.2 Other Potential Investments

This report is limited to the development and operation of the currently defined FDN Mineral Reserve. While it is understood that there is potential to expand the Mineral Resource, and hence potentially increase the Mineral Reserve and mine life, through additional drilling, a plan and budget to undertake such work is not currently defined.

Due to the greater depth below surface of the potential Mineral Resource such a program can only be economically undertaken from underground drifts, some of which may be developed as part of the current plan.

It is intended to define such future programs in the Annual Work and Investment Plans as required.

1.3 Project Location

The FDN deposit is hosted on the La Zarza concession, which is situated between approximately 9575900N to 9586000N and 781000E to 771000E of UTM zone 17S (PSAD 1956 datum) and totals approximately 4,660 hectares.

The project also includes two construction material concessions (Colibri 2 and Colibri 4) which are contiguous with the La Zarza concession. These concessions total approximately 237 hectares.

Figure 1-1: Location Plan

Note: Map sourced from Mappery.com, 2016, and amended by Amec Foster Wheeler

2.0 MINERAL RESOURCE ESTIMATES

2.1 Introduction

A total of 246 drill holes were used in the estimate. The central core, located in the northern half of the deposit, was drilled at 35 m to 50 m spacing; the south half of the deposit was drilled on 100 m spaced sections. The effective date of the current Mineral Resource model is 1 December, 2015.

2.2 Classification of Mineral Resources

Mineral Resources were classified into the Indicated or Inferred categories based on drill hole spacing and the apparent continuity of mineralization.

Variography has suggested a range of 35 m at 75% of the total sill. Infill drilling was designed at 35 m spacing. In general, areas of 35 m spacing or shorter were classified into the Indicated category. Other factors that were taken into consideration include the search distance to the nearest composite, estimation by the first-pass search ellipse, visual examination and general considerations of drill fan spacings. Classification was done in GEMS software guided by a 17.5 m (for 35 m spacing) distance buffer generated in Leapfrog software.

The types of rock were logged and grouped in 13 lithological units. These units were then divided into four main geological domains based on lithology, alteration and grade criteria.

The Xh_Vn domain is dominated by the occurrence of hydrothermal eruption breccia

The Xp_Ip domain is dominated by the occurrence of phreatomagmatic breccia and feldspar porphyry

The M_South volcanic domain is located to the south of Xp_Ip and Xh_Vn

- The Silica_Halo envelopes the top and bottom of the three other domains. The Silica_Halo domain hosts some gold mineralization but not with sufficient grades and thicknesses to be modelled as Mineral Resources.

Parts of the Xh_Vn and Xp_Ip domains were classified as Indicated Mineral Resources. All of the M_South domain was classified as Inferred Mineral Resources. Due to the lack of exposures of mineralization for inspection on the surface or underground, there are no Measured Mineral Resources at this time.

2.3 Mineral Resource Statement

Mineral Resources are reported inclusive of Mineral Reserves at a block cut-off grade of 3.5 g/t Au, assuming underground mining methods. Mineral Resources that are not

Mineral Reserves do not have demonstrated economic viability. No Measured Mineral Resources have been declared.

Mineral Resources are summarized in Table 2-1, are inclusive of Mineral Reserves, and have been classified using the 2014 Canadian Institute of Mining and Metallurgy (CIM) Definition Standards for Mineral Resources and Mineral Reserves (the 2014 CIM Definition Standards).

Table 2-1: Mineral Resource Statement

Category	Tonnage (Mt)	Grade (g/t Au)	Contained Metal (Moz Au)	Grade (g/t Ag)	Contained Metal (Moz Ag)
Indicated	23.8	9.61	7.35	12.9	9.89
Inferred	11.6	5.69	2.13	10.8	4.05

Notes:

1. The Qualified Person for the estimate is Mr. David Ross, P.Geo., an employee of RPA. The estimate has an effective date of 31 December 2015.
2. Mineral Resources are reported inclusive of Mineral Reserves; Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
3. Mineral Resources are reported at a cut-off grade of 3.5 g/t Au; which was calculated using a long-term gold price of US$1,500/oz.
4. Mineral Resources are constrained within underground mineable shapes that assume a minimum thickness of 2 m; metallurgical recovery of 94%; total operating costs of US$145/t milled (mining cost of US$60/t milled; process costs of US$35/t milled; G&A costs of US$15/t milled; surface infrastructure costs of US$28/t milled; concentrate transport and treatment costs of US$7/t milled); royalties of US$71/oz and selling costs of US$65/oz.
5. Numbers may not sum due to rounding.

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3.0 MINERAL RESERVE ESTIMATES

3.1 Block Models

The Mineral Reserve Block Model was prepared by combining the Resource Block Model and the Geotechnical Block Model.

- The Resource Block Model was provided by RPA (November 2015) and consisted of density, grades (gold, silver, arsenic, mercury, lead, sulphur and antimony), rock types (geometallurgical resource domains), resource confidence categories and other impurities. It was built in GEOVIA GEMS software

- The Geotechnical Block Model was developed by SRK. It utilized assessments of lithology, alteration and structure to model three domains that encompassed Poor, Fair–Poor, and Good–Fair rock mass conditions (Figure 3-1). This model was built in Leapfrog®.

The Inferred Mineral Resources grades were set to zero for the purposes of Mineral Reserve estimation.

3.2 Reserve Estimation Assumptions

Mining Methods

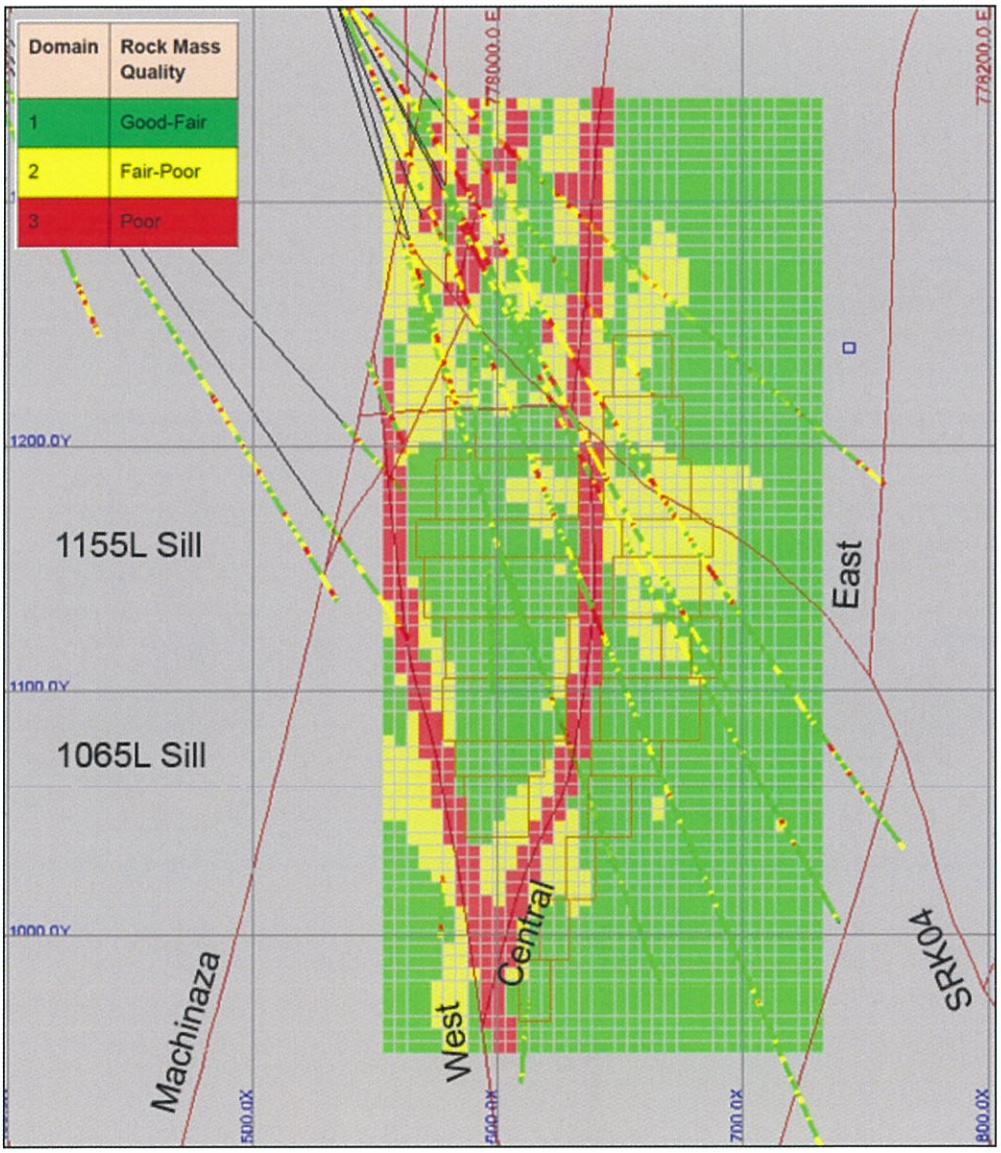
The mining methods for FDN will be long-hole transverse stoping (TS) in Fair to Good ground, and drift-and-fill (D&F) stoping in Poor ground and are described in further detail in Section 4. Dilution was applied following the geotechnical recommendations. Figure 3-1 illustrates the current classification of ground conditions as Good, Fair and Poor.

The deposit was divided into horizons that were classified both vertically and by mining method (Figure 3-2).

The top D&F horizons (DF-1245 and DF-1270) will be the crown pillar areas. The D&F south area at elevation 1170, is a high-grade zone within Poor domain rock quality. The upper part of horizon TS-1080 (stopes between elevation 1155L and 1170L) will be a sill pillar with 15 m high stopes. The bottom horizons (below 1080L) will be mined as D&F.

The recommended dimensions for TS are 12 m wide x 20 m long x 25 m high. D&F was designed with vertical cuts of 4 m each.

Figure 3-1: Representative Vertical Section through the Geotechnical Block Model for Stope Design



Note: Figure prepared by SRK, 2016.

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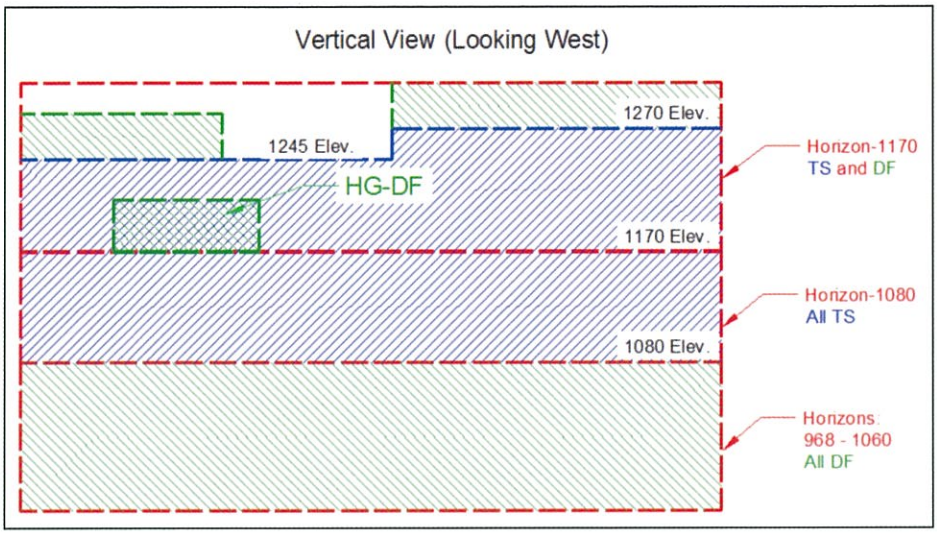
Figure 3-2: Horizon Distribution



Note: Figure prepared by SRK, 2016.

TS Method Dilution

The dilution material for lateral stopes was assumed to be zero grade on one side and the grade from the resource block model on the other side. A summary of the dilution estimate is presented in Table 3-1.

Table 3-1: TS Grade Dilution Factors

Dilution	Regular TS		Sill Pillar TS	
	Starting Stope (Primary)	Lateral Stope (Secondary)	Starting Stope (Primary)	Lateral Stope (Secondary)
Ore	13.6%	7.3%	14.4%	7.7%
Waste	2.5%	7.3%	2.5%	7.7%
Total Operational Dilution	16.1%	14.6%	16.9%	15.4%
Grade Dilution (factor)	97.6%	93.2%	97.6%	92.9%

Note: Dilution percent is calculated as additional tonnage over insitu tonnage.

The total maximum dilution reaches to 16.9% (sill pillar starting stope); for scheduling and reporting purposes the waste dilution is applied (a maximum of 7.7% in sill pillar lateral stopes) so as not to duplicate tonnage because of the stope arrangement at FDN.

The grade dilution factor applied is a factor by which grades are adjusted because of dilution, in this case the waste reduces the grades because it adds no content for the following elements: gold, silver, mercury, lead, sulphur and antimony.

D&F Method Dilution

The D&F dilution estimate includes the primary, secondary and tertiary drifts. Results for estimates of D&F dilution are presented in Table 3-2. A grade dilution factor of 95.3% was used for D&F.

Table 3-2: D&F Grade Dilution Factors

Stope Type: Primary		Stope Type: Lateral (Secondary)		Stope Type: Lateral (Tertiary)	
Total Operational Dilution	11.0%	Total Operational Dilution	9.4%	Total Operational Dilution	9.9
Ore	9.0%	Ore	4.7%	Ore	4.9
Waste	2.0%	Waste	4.7%	Waste	9.9

Mining Losses

For TS primary and secondary stopes, the geometry of the production ring blast results in shoulders that can only be partially blasted, resulting in losses. The load-haul-dump machine (LHD) will have difficulty mucking the stope corners and near the walls, particularly under remote control operation. This will result in an additional loss.

It is assumed that one ore truck per day will be misclassified as waste, resulting in an overall loss of 1.3%. Sometimes skins are left in the secondary stopes; an overall loss of 2.7% has been allowed for this type of loss.

Unplanned stope failures and safety issues were also considered to account for further losses. Higher values were estimated for secondary and sill pillar stopes.

Overall, in primary TS stopes, the total losses are estimated at 8.8%, resulting in a mining recovery factor of 91.2%. In secondary TS stopes, the total losses are estimated at 11.9%, resulting in a mining recovery factor of 88.1%.

Sill pillar mining recovery is assumed at 50%.

For D&F areas, the mining recovery was assumed as 100%.

Summary of Dilution-Mining Recovery & Grade Dilution

The final LOMP weighted-average dilution applied in the estimation (including TS, D&F and development) is 5.63%.

The final LOMP weighted-average mining recovery applied to the estimate is 90.9%.

The grade dilution factor (the factor by which the drop in grade from insitu to diluted and mining recovered is reported) varies depending on the mining method and extraction sequence. The weighted-average grade dilution factor applied (the weighted average dilution of 5.63% and weighted average mining recovery of 90.9%) is 95.14%. This is estimated using the ratio of:

(Diluted & mining recovered)/(Insitu).

Throughput Rate

The process plant feed is anticipated to start in February 2020. Throughput for the initial three years was assumed to be 3,320 t/d, and then is expected to reach 3,500 t/d.

Cut-off Grades

Cut-off grades (COGs) are used to identify whether material is classified as ore (at or above the COG) or waste (below the COG). The COG is a function of operating costs, dilution, metal prices, royalties and process recoveries.

Cut-off grades were estimated for each mining method (TS and D&F) using the technical and financial information provided in Table 3-3 and Table 3-4. The cut-off grade data were calculated using metallurgical recoveries and other data that were fixed as of December 2015 for mine design and planning purposes. Silver is not used as an input when calculating cut-off grades.

Two different COG have been estimated, the breakeven COG (BECOG) and the mill COG (MCOG). The BECOG is one of the key parameters needed for mine and stope design. The estimate of BECOG considers mining, processing, royalties and overhead operating costs. The BECOG calculation is shown in Table 3-5.

The MCOG is applied after the stopes and the accesses are defined, at this stage there could be some low grade material that has to be mined and hauled to surface. A decision has to be made whether to send this material to the process plant or to the waste dump. If the material has enough grade to pay for processing and other surface costs, it is sent to the processing plant (the mining cost is considered a sunk cost). The MCOG calculation is shown in Table 3-6.

Table 3-3: Operating Cost Detail by Mining Method

Area	TS (US$/t)	D&F (US$/t)	Comments
Mining cost	61.0	80.0	Preliminary mine cost NCL (main mining consultant) estimate, includes backfill
Process costs	34.5	34.5	Process plant, tailings transport to tailing storage facility (TSF), Concentrate transport not included
Surface Infrastructure	25.8	25.8	Includes Hollín Borrow Pit, WTP, reclaim water, assay laboratory, surface infrastructure
G&A costs	15.5	15.5	Site G&A included but no other indirect costs
Total Operating Cost (US$/t)	**136.8**	**155.8**	
Dilution Factor	10%	10%	Preliminary waste dilution estimates
Diluted Cost (US$/t)	**150.5**	**171.4**	**Calculated**
Concentrate Transport & Treatment	6.7	6.7	Estimated by Lundin
Cost Inflation Factor	0.0	0.0	Was not applied
Total Cost (US$/t) Treated	**157.2**	**178.1**	

Note: Data current at December 2015.

Table 3-4: Financial Parameters

Item	Unit	Value
Gold Price	US$/oz	1,250
Payable	%	100
Gold Payable	US$/oz	1,250
Selling Cost	US$/oz	65.90
Royalty	US$/oz	71.1
Gold Process Recovery	%	93.9
Release Revenue	US$/oz	1,045

Table 3-5: Breakeven Cut-off Grade

$$BECOG\ (g/t) = \frac{(\text{Mining Cost} + \text{Process Cost} + G\&A) \times \text{Dilution}}{(\text{Product Price} - \text{Selling Cost} - \text{Royalty}) \times \text{Process Recovery}}$$

Table 3-6: Mill Cut-off Grade

$$MCOG\ (g/t) = \frac{(\text{Process Cost} + G\&A) \times \text{Dilution}}{(\text{Product Price} - \text{Selling Cost} - \text{Royalty}) \times \text{Process Recovery}}$$

The calculated COGs are listed in Table 15-7.

Table 3-7: Mining Methods Cut-off Grade

COG		TS	D&F
BECOG	g/t	4.7	5.3
MCOG (1)	g/t	2.7	2.7

Note: (1): MCOG: The marginal cut-off grade. Mining costs are excluded in this calculation

A BECOG of 4.7 g/t Au was used for TS and an elevated BECOG of 6.8 g/t Au was used for D&F. An elevated BECOG was used for D&F due to many factors related to mine scheduling. A MCOG value of 2.7 g/t Au, excluding the mining costs, was used where production development was already built.

3.3 Mineral Reserves Statement

Mineral Reserves were classified using the definitions in CIM (2014). No Proven Reserves are reported. Mineral Reserves have an effective date of 30 April, 2016 and are summarized in Table 3-8.

Table 3-8: Probable Mineral Reserves Statement

Material Source	Tonnes (kt)	Au (g/t)	Au (koz)	Ag (g/t)	Ag (koz)
Transverse Long-Hole Stope	8,404	8.97	2,423	10.4	2,813
Drift & Fill	5,533	11.15	1,984	16.9	3,003
Development >4.7 g/t Au	1,158	9.70	361	11.6	434
Development >2.7 g/t Au	394	3.72	47	7.4	94
Total	***15,490***	***9.67***	***4,816***	***12.7***	***6,344***

1. The Qualified Person for the Mineral Reserve estimate is Mr. Alejandro Sepúlveda, RM CMC, an NCL employee.
2. Mineral Reserves have an effective date of 30 April 2016. All Mineral Reserves in this table are Probable Mineral Reserves. No Proven Mineral Reserves were estimated.
3. Mineral Reserves were estimated using a US$1,250/oz gold price. Mining cost assumptions for transverse stoping (TS) US$61.0/t; mining costs for drift-and-fill (D&F) stoping US$80/t. Other costs and factors common to both mining methods were process and other costs US$75.8/t, dilution factor 10%, concentrate transport and treatment charges of US$6.7/t. A royalty of US$71.1/oz/t Au and a gold metallurgical recovery of 93.9% was assumed.
4. Gold cut-off grades were 4.7 g/t for TS and 5.3 g/t (elevated to 6.8 g/t) for the D&F.
5. Silver was not used in the estimation of cut-off grades but is recovered and contributes to the revenue stream. The average silver metallurgical recovery is 81.6%. The silver price assumption was US$20/oz.
6. Tonnages are rounded to the nearest 1,000 t, gold grades are rounded to two decimal places, and silver grades are rounded to one decimal place. Tonnage and grade measurements are in metric units; contained gold and silver are reported as thousands of troy ounces.
7. Rounding as required by reporting guidelines may result in summation differences.

3.4 Factors that May Affect the Mineral Reserves

Factors that may affect the Mineral Reserves include:

- Long-term commodity price assumptions
- Long-term exchange rate assumptions
- Long-term consumables price assumptions.

Other factors that can affect the estimates include changes to the Mineral Resources model input parameters, constraining stope designs, cut-off grade assumptions, geotechnical and hydrogeological factors, metallurgical and mining recovery assumptions, and the ability to control unplanned dilution.

Commencement of operations will require grant of the environmental licence.

4.0 MINING

4.1 Overview

The following key considerations influenced the mine design:

- The host rock for the deposit appears competent but the resource zone is less competent with a small portion in poor rock (less than 10%). Geomechanically, the rock mass quality varies from Poor to Fair (RMR range 40 to 55), with the intact rock strength averaging 60 MPa. The deposit is also relatively close to surface (within 140 m of surface in some locations)

- Given the variable conditions likely to be encountered, a range of methods and or support regimes was considered appropriate for FDN. The primary methods of extraction selected are TS in the better ground conditions and D&F in the more geotechnically-challenging areas

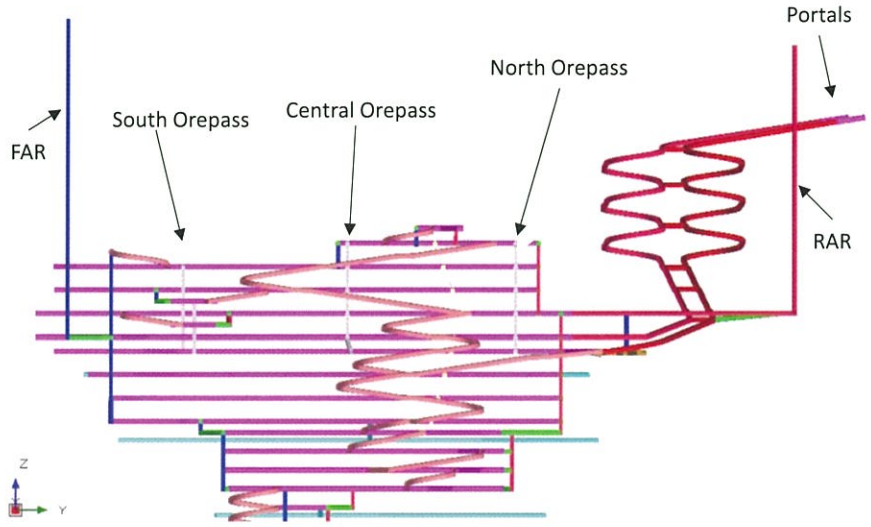
- Incorporation of backfill to reduce the risk of geotechnical failure and maximize extraction

- Consideration of dewatering requirements and proximity of the Machinaza River.

4.2 Mine Development Layout

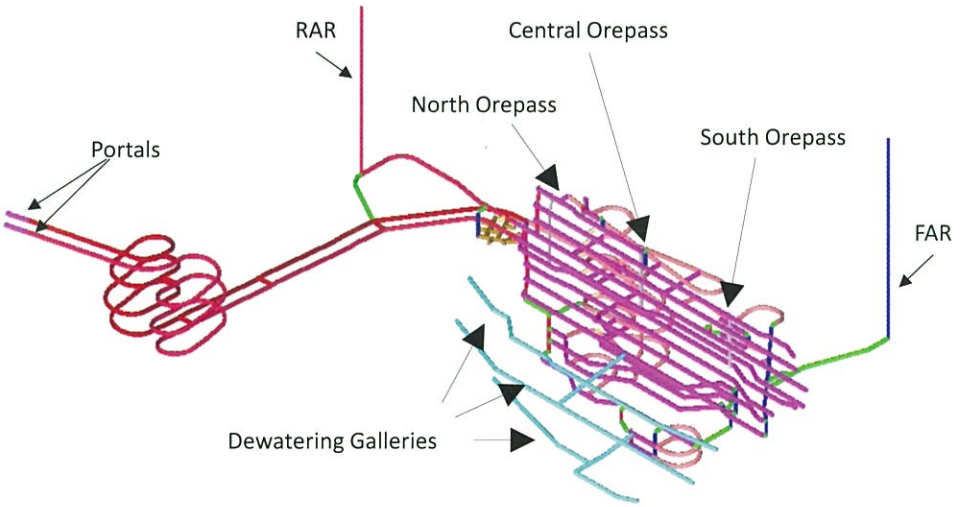
The mine will be developed based on a decline access and mining of the ore body using TS and D&F mining methods. Ventilation will be provided through the declines and through two ventilation shafts. Figures 4-1 and 4—2 illustrate the general mine layout.

Figure 4-1: Schematic Long Section of Mine Development Layout Looking West



Note: Figure prepared by SRK, 2016.

Figure 4-2: Isometric View of Mine Development Layout (looking northeast)



Note: Figure prepared by SRK, 2016.

The following sections provide greater detail on the mine design.

4.2.1 Portals

Portals will likely be constructed using a cut and cover method for the first 34 m from surface at a nominal gradient of 14%. They are estimated to be 20 m apart (25 m from axis). It is likely that these designs will be modified in later stages of design to leverage the ventilation opportunities that a twin portal/decline allows.

4.2.2 Twin Declines

Each of the declines are anticipated to be 5.0 m wide by 5.5 m high with an arched back. These dimensions will provide enough clearance for loaded 40 t capacity haulage trucks to move safely. The declines are expected to be developed at a nominal gradient of -15%. Cross cuts may be established nominally each 250 m with some closer together depending on ground conditions and infrastructure requirements. The distance between the two declines is nominally 25 m (centre to centre).

The declines will use a spiral to gain depth to maximize the distance from the surface, so that a vertical distance of approximately 155 m below the Machinaza River can be obtained.

4.2.3 Mine Ramp and Level Access

The mine ramp dimensions are estimated to be 5.0 m wide by 5.5 m high with an arched back. The mine ramp will be located central to and will be approximately 50 m offset from the main workings to the east of the deposit. The ramp configuration will be an elongated spiral, with straight sections and an inner turning radius of 50 m; the ramp will cross structures as perpendicular as possible while maintaining operational functionality. Where this is not possible, additional support will be required and the advance rate will be adjusted (related to rock quality domains).

The ramp configuration will enable haulage trucks to achieve higher average haul speeds and maintain safety standards. The ramp will be developed nominally at a -15% gradient. The ramp is designed to flatten out at each level access in order to provide easier turning conditions for mobile equipment.

4.2.4 Levels (Headers) and Haulage

The level dimensions are expected to be 5.0 m wide by 5.5 m high with an arched back. These should be the same dimensions as the ramp and will provide sufficient clearance for the mobile equipment. Levels will be developed for the transverse stope horizons (TS-1170L and TS-1080L) from the mine ramp to the haulage drifts at a 25 m vertical spacing, except for the 1155L and 1170L which are at 15 m (sill pillar). For D&F areas and horizons, the vertical spacing will be 20 m. Levels will contain additional development for items such as escape way accesses, electrical substations and storage.

Levels will be developed to access the strike extents of the deposit and connect the development to the return air raise (RAR) in the north and fresh air raise (FAR) in the south in order to establish flow-through ventilation.

4.2.5 Transverse Stope Cross-Cuts

The cross-cuts for the TS are expected to be 5.0 m wide by 5.0 m high, with a flat back. Slot (vertical) development is assumed to be four by four, slashed out to a 12 m stope width. Stope cross-cuts are required to access sill development from the haulage drifts, as well as connecting sill development within a given stope line separated by waste. The cross-cuts will generally be oriented in a west–east direction. In an effort to minimize the development requirements, primary and secondary cross-cuts will be developed using a pitchfork design. Sill development dimensions should be 5.0 m wide by 5.0 m high with a flat back. Development will be centrally located within a given stope. The top development in a stope will initially serve as the drill horizon for the stope below, and then as the mucking horizon for the stope above. The bottom development in a stope will serve as the mucking horizon for the stope above.

4.2.6 Drift and Fill Access (Pivots)

The D&F access (pivot) dimensions are assumed to be 4.0 m wide by 4.0 m high with a flat back. Pivots will be required to access every lift of D&F, and they will be slashed when a D&F lift is developed and backfilled. They are developed from level drifts (headers) at ±15% gradient.

4.2.7 Development Quantities

Lateral (horizontal) development includes ramps, re-mucks, electrical substations, sumps, level accesses, ventilation accesses and haulages and will total about 180,640 m. Vertical metres include raise bores and drop raises, and totals an estimated 981 m.

4.2.8 Southern Exploration Decline

From 2011–2012, Aurelian Ecuador S.A. (at that time controlled by Kinross) constructed a 5 m wide x 5.5 m high exploration decline, which reached a length of 600 m. This facility was assessed for inclusion in the 2016 FS mine plan, was dewatered, and inspected to check the rehabilitation needs and any requirements to continue with construction. As a result of a review of the costs of rehabilitating and utilizing this decline, it was determined that use of the decline was cost-prohibitive. The southern exploration decline is not included in the current mine plan.

4.3 Construction Philosophy

Due to the specialized nature of the construction or development phase and the lack of skilled mining labour regionally, an experienced, qualified mining contractor will be

required to develop the declines. Initially this will require standard construction equipment such as excavators and a shotcrete machine when establishing the portal. For the twin declines, conventional drill, blast, load, haul and bolter equipment and support equipment will be required to achieve high speed development.

Contract mining will continue until the critical underground infrastructure has been constructed. The contractor will then demobilize. There will be a transition period as Owner mining equipment is introduced when access to additional ventilation and the mineralized zone is reached. FDN will start to use its own equipment and operators in Year 2 of the mine construction period. Owner mining will eventually operate both development and production equipment.

Other contractors will be required from time to time with specialized equipment such as a raise boring machine. Underground infrastructure will be built with a combination of mine contractors and Owner mining.

4.4 Mine Production Plan

Criteria and assumptions used in preparing the production plan include:

- The mine will operate 360 d/a with five days allowed for delays due to weather conditions
- The plant is scheduled to operate 365 d/a
- Production will be a combination of TS and D&F methods
- The process plant is designed to treat 3,500 t/d.

4.4.1 Sequence and Schedule

The mine development was sequenced and scheduled to meet the following criteria:

- Development will be done "just in time", hence only the required development will be ready before a production unit is activated
- Production will start as soon as possible
- Ventilation circuits will be established as soon as possible
- The dewatering galleries will be developed six months prior to production areas.

The lateral development rarely reaches 500 m/month with the exception of later in the mine life. This is associated with higher production from D&F and less from TS later in

the mine life. Excluding the D&F, the lateral development requirement averages between 133 m/month and 266 m/month.

The TS sequence was configured as follows:

- Production face advance from west to east (retreating from the west fault)
- Horizontally stopes should grow from a centre line (starting point, primary stope) to the north and south in an arrow fashion
- Vertically the same criteria will be followed, but each stope in a row (west to east direction) must finish its production cycle.

The macro-sequence was configured to meet the geotechnical recommendations for the location of the starting and closure points. For TS this is horizon-1170 and horizon-1080.

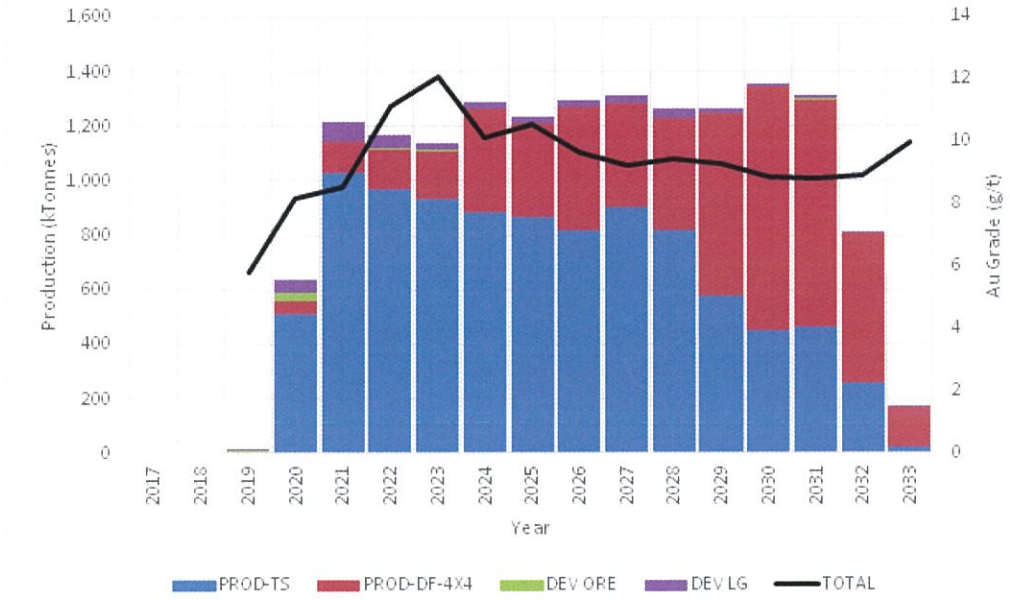
The D&F sequence was configured as follows:

- From the main infrastructure levels, a pivot drive will be developed to access each D&F slice vertically
- From the pivot a header drive (D&F-Header) will access the mineralized zone in the west boundary
- From the headers each 24 m (south–north direction) a primary drift will be developed
- After the primary drift is backfilled another drift will be developed to the north side and the same process will be repeated.

The maximum active stopes reach 12 units in 2024 and 2025. The D&F areas have up to four drifts producing ore at any given time, it is assumed that for each six drifts there is one primary; and for each access pivot there are one or two areas available. The maximum number of active areas for D&F is 18 in 2024.

The production plan is summarized in Figure 4-3.

Figure 4-3: Mine Production Plan



Note: Figure prepared by NCL, 2016.

4.4.2 Plant Feed Plan

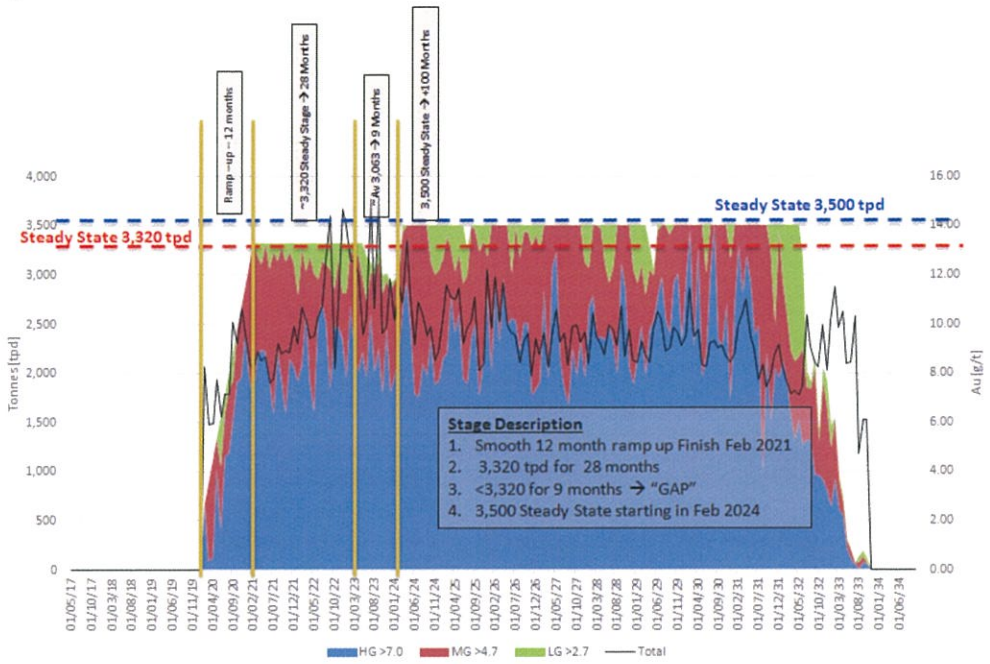
Calendar year dates noted in this section are provisional, and used for illustrative purposes only.

The plant feed was estimated from production from the mine as follows:

- Ore is taken from the mine to the three stockpiles:
  - High grade (HG): >7.0 g/t Au
  - Medium grade (MG): >4.7 g/t Au
  - Low grade (LG): >2.7 g/t Au
- Ore from the stockpiles feeds the plant. HG feed is the preferred feed and when the HG is exhausted, MG would be treated, and lastly the LG.

Plant ramp-up was assumed to be 12 months. Because of mine production plan (stockpile generation) and the ramp-up, the plant feed is anticipated to start in February 2020 (Figure 4-4). Throughput is initially estimated at 3,320 t/d for three years and then at 3,500 t/d.

Figure 4-4: Mine to Plant Feed Production Plan



Note: Figure prepared by NCL, 2016.

There are some gaps in the planned flow of feed so as not to delay the plant start-up. There are anticipated gaps in production as seen in Figure 4-4, particularly towards the last four months of 2023 and first quarter of 2024 when the plant is scheduled to treat about 3,250 t/d. Other minor gaps can also be identified after February 2024 when the plant is operating at 3,500 t/d. Detailed mine planning and optimization needs to be done to minimize these gaps.

Table 4-1 is a summary of the projected annual production rates showing gold and silver production and the contaminant elements.

Table 4-1: Projected Plant Feed by Year with Penalty Elements

Year	Ore-DR (t)	Au-DR (g/t)	Ag-DR (g/t)	As-DR (ppm)	Hg-DR (ppm)	Pb-DR (ppm)	S-DR (%)	Sb-DR (ppm)
2020	594,944	8.47	9.2	319	1.1	166	1.9	30
2021	1,204,939	8.65	10.5	386	1.0	244	2.3	29
2022	1,211,800	10.89	13.6	538	1.1	326	3.1	40
2023	1,160,895	11.97	12.4	677	1.1	318	3.0	44
2024	1,250,327	10.36	12.6	526	1.3	327	2.8	38
2025	1,270,316	10.37	13.2	349	1.4	271	2.3	29
2026	1,277,500	9.76	12.9	329	1.5	243	2.1	29
2027	1,277,500	9.39	11.8	370	1.5	313	2.3	36
2028	1,281,000	9.39	12.6	376	1.7	361	2.1	41
2029	1,257,592	9.34	15.5	356	2.0	304	2.3	48
2030	1,277,500	9.21	14.2	306	1.4	197	2.0	34
2031	1,277,500	9.01	12.9	265	1.2	195	1.9	30
2032	977,300	8.07	11.9	286	1.3	200	2.0	27
2033	170,510	10.00	12.7	457	1.7	317	2.4	42
Total	***15,489,622***	***9.67***	***12.7***	***394***	***1.4***	***272***	***2.3***	***35***

Note: DR = diluted and recovered

4.5 Backfill

The following paste backfill capacities and strength targets were set:

- The paste plant has been designed to cater for a nominal throughput of 70 m³/h and is expected to operate at an average utilization rate of approximately 60%
- Main pour target strength of 300 kPa after 14 days with a plug pour target strength of 434 kPa after three days
- The nominal design production rate of the CRF plant is 180 m³/h
- CRF target strength of 3 MPa to 5 MPa after seven days.
- The final paste recipe is expected as follows:
  - Main pour: 50% aggregate, 6.58% binder content (Guapan Type IP binder), 77.8%m
  - Plug pour: 50% aggregate, 12.4% binder content (Guapan Type IP binder), 77.8%m.

The final CRF recipe is based on previous testwork and has been benchmarked against similar projects. The recipe contains 5% binder.

4.5.1 Paste Plant and Paste Delivery

The paste plant will be located approximately 1.3 km southeast of the process plant site, on the right bank of the Machinaza River, slightly north of the northern border of the deposit.

All tailings leaving the process plant will be thickened to about 55% solids. When no paste fill is required underground, the entire tailings stream will be pumped to the tailings storage facility (TSF). When paste fill is scheduled for underground, approximately half of the tailings stream will be pumped 3.4 km to the paste plant for further dewatering. Excess process water will be pumped back from the paste plant to the process plant using a second pipeline.

The paste plant will be a batch-type backfill plant. The tailings received at the paste plant will be dewatered through a series of dewatering technologies. First the tailings will be fed to a 15 m diameter high rate thickener and from there the tailings will be fed to one of two vertical plate pressure filters to achieve a final moisture content of 20%. The filter cake will be stored temporarily, and when required will be batch-fed to the paste plant batch mixer.

Aggregate from the Hollín Borrow Pit will be crushed, screened and transported to the paste plant aggregate stockpile. When required, the aggregate will be conveyed to an aggregate weigh hopper and batch-fed to the paste plant batch mixer.

Dry binder will be stored in three 250 m^3 storage silos positioned in a horizontal configuration near surface elevation. Binder will be screw-fed from the silos, transported via a bucket elevator into the paste plant mixing building and discharged into a binder weigh hopper located above the batch mixer. Seven days of cement storage has been provided.

The batches of filter cake, tailings, aggregate and binder will be weighed independently before being fed to the paste plant twin shaft batch mixer. Slump control water will be added to the mix to control the slump which will be monitored via power draw on the mixer shafts. The paste recipe target yield stress will vary depending on the part of the underground mine requiring paste fill.

After being mixed for a predetermined period of time, and meeting the power draw specification, cemented paste fill will drop from the mixer into a paste hopper. A piston pump will pump paste fill on a continuous basis down a drill hole for deposition underground at the nominal design flow rate of 70 m^3/h.

The underground paste fill distribution system will include two surface to underground cased drill holes to supply paste to the underground workings. Once underground, the paste fill will travel through a network of pipelines to reach the location where the paste is needed. Two dedicated inter-level drill holes (one duty and one standby) will be drilled

to connect all levels between 1270L and 1105L as a means of transferring paste fill to the various working levels. Paste fill will only be used to backfill bulk TS stopes.

4.5.2 Cemented Rock Fill Plant

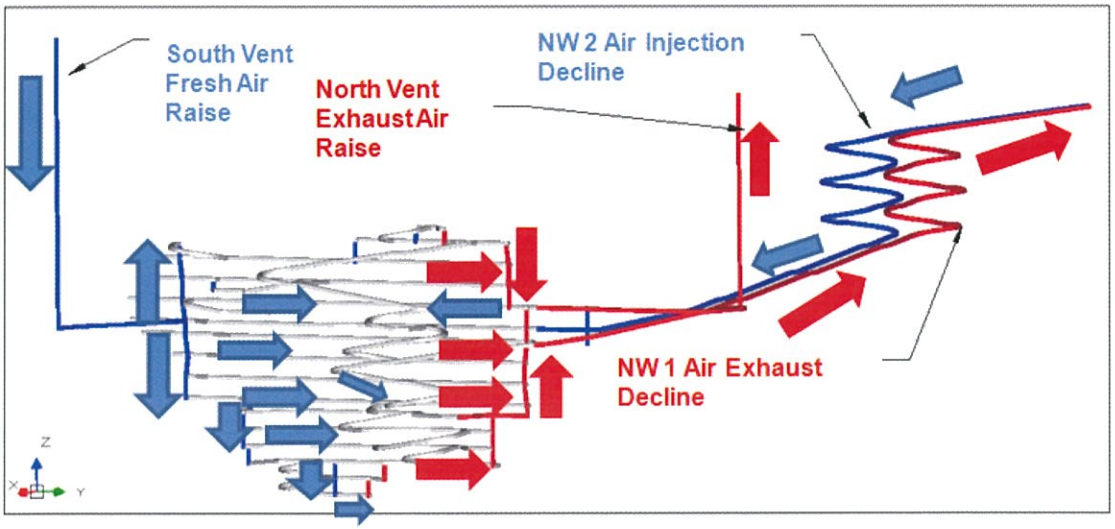
CRF is comprised of crushed rock, cement (binder) and trim water. A loader will dump crushed rock into aggregate bins at the CRF plant. An extracting conveyor will take the aggregate to the main incline conveyor which will transport the aggregate up to the mixer level, and discharge directly into the mixer. Binder from bulk silos will be screw fed into a binder dosing hopper where the product is weighed, then discharged into the mixer. A process water tank and pump will send water to the water dosing hopper where the water is weighed then discharged into the mixer. The CRF from the mixer will be discharged into a mine truck which will transport the CRF underground.

4.6 Ventilation

The main ventilation system is designed to accommodate the initial ore production rate and the ramp-up to the required tonnes per day. The ventilation system proposed is a mechanical exhaust ventilation system (pull) where fresh air will enter by suction through a 5.0 m wide x 5.5 m high injection ramp and a 5.0 m diameter main FAR. The contaminated air will be extracted from the underground mine through a 5.0 m wide x 5.5 m high exhaust and access ramp and a 5.0 m diameter main RAR with exhaust fans that will be installed in the airways (one fan unit per airway). Ventilation on the levels flows from the FAR to the RAR, as well as air coming from the ramp via the level accesses. Regulators located in the FAR and RAR will be used to control the air coming onto each level. Auxiliary fans will be used to push air into the sills for drilling, blasting and mucking activities.

A figure showing the anticipated schematic ventilation layout is included as Figure 4-5.

Figure 4-5: Ventilation Schematic



Note: Figure prepared by NCL, 2016.

During production, ventilation regulators placed on the intake and exhaust raises on each level will provide a balanced air flow on each production level. Auxiliary fans located in the haulage drifts will direct air off the haulage drift and into the individual stopes.

The ventilation system is balanced using regulators and fan volumes. Doors were not used because they hinder production in a truck haulage mine.

4.6.1 Initial Development

During the development of the declines, a blowing or forced air system will be used to ventilate the declines. This forced air system will be used with the cross cut connections established between the twin declines.

The main fan will be installed on surface at the portal collar of the NW2 decline and then, approximately every 250 m connections with the NW1 decline will be established. The NW1 decline will be used as the exhaust air route. The NW2 decline will be ventilated directly from the main ventilation fan using a booster to impel fresh air to the face with the exhaust air returning through the cross-cut connection and the NW2 decline.

This system will be used until the development of the north RAR system from 1195L to surface is complete.

4.6.2 Production Start

Stope production in the northern area will begin six months before the final ventilation circuit can be established connecting the south ventilation raise. A temporary ventilation circuit will be used including the intake through the two declines and exhausting the air through the RAR.

The total air required prior to full production was estimated on a month-by-month basis, with a peak of 178 m^3/s.

4.6.3 Full Production Requirement

Air Requirement

The ventilation air requirement dimensioning is based on Chilean and Ecuadorian regulations using the higher value of the following estimates:

- Number of people/diesel horse power (hp) equipment
- Explosives consumption.

For the purposes of the ventilation system design, a value of 450 m^3/s was used; this value allows for approximately 17% in losses and leakage.

The intake side of the main ventilation system will deliver 450 m^3/s into the mine; 328 m^3/s will be delivered by the FAR and 122 m^3/s will be provided by the NW2 decline. A main extraction fan will be located near the bottom of the 5.0 m diameter raise bore hole (RAR) providing 388 m^3/s exhaust air flow, a secondary fan, in parallel, will be located in the NW1 decline exhausting 62 m^3/s of air to surface. Variable speed drives (VSD) will be used to control the fan outputs and allow for a phased approach to the mine ventilation requirements, as well as energy management.

Production Level Ventilation

Once a level has access to both the intake and exhaust raises, level ventilation will be controlled via plank-type regulators on the RAR and FAR accesses. The regulators will be adjusted to provide the air volume required for operating equipment on the level. Based on the air volume requirements per level, the regulators will be adjusted to supply approximately 75 m^3/s of air.

Auxiliary Ventilation

Up to three 30 hp axial fans are allotted for each active production level for auxiliary ventilation. Based on the stope sequencing, these auxiliary fans ventilate the active

stopes and will not all be operating at the same time. Auxiliary fans will be hung in the haulage drift, forcing air into the accesses. Exhaust air will exit these accesses, will be pulled into the haulage-level air stream, and exhausted off the level through the exhaust raise.

The maintenance service facility that will be located off the ramp on 1170L will be ventilated via a raise connecting to the 1195L main access level to the RAR.

4.7 Underground Infrastructure Facilities and Services

4.7.1 Shops and Warehouses

It is proposed to keep material handling as simple as possible, relying on mobile equipment for transport instead of permanent infrastructure and facilities. Minimal storage will be developed underground. Much of the supplies such as ground support, cables can be stored on surface in covered areas or sheds and brought underground as needed. Underground storage areas will be located strategically and will service the daily/weekly operational requirements.

Haul trucks will be repaired in a surface maintenance facility. LHDs, drills, explosive carriers and scissor trucks will be repaired/maintained underground in a service facility located on 1170L or driven/hauled to the surface shop for major work. The underground service facility will contain two service bays with a wash bay located nearby. There will be a small warehouse and office. Fuel and oils will be located close by and contained in a satellite station (SatStat) arrangement. A mobile repair and servicing (fuel and oil) truck will be required to service underground equipment not brought to surface.

4.7.2 Automation and Communications

The radio communication system is based on laying leaky cable feeder antenna through the main tunnels and access ramps at various levels to ensure coverage in the areas of greatest traffic of people and vehicles.

A fibre-optic network will provide a communication highway for control and data management systems inside the mine.

4.7.3 Fuel Supply and Storage

The total estimated daily underground fuel consumption for diesel mobile equipment is about 13,500 L. Most of the mobile equipment, trucks and Load-Haul-Dump equipments (LHDs), and vehicles parked on surface will be fuelled from the surface facility. The rest of the fleet will be fuelled by the fuel/service vehicles or at the underground service facility.

4.7.4 Compressed Air

The air compressor system will consist of two compressors in operation and one on standby. An air accumulator will be store compressed air to regulate the air pressure. Compressed air will be used by in shotcrete operation, jacklegs, pumps, the explosives charger, refuge station, and garage, as well as for miscellaneous purposes.

The main pipe will run from the centralized air unit (located on the surface close to the portals) to the mining ramps. A total of about 4,000 m of pipe will be required for the main branch. Secondary pipes feeding the equipment in the drifts will be fed by 75 mm diameter pipe and a total of approximately 12,500 m will be required for the life of mine.

4.7.5 Dewatering

All the water flow generated in the mine (infiltrated, industrial and paste fill water) will be managed in a single dewatering system. The system assumes that water flows running on ramps, declines and drifts is collected by gravity in a sump on each production level. Where gravity flow is not possible, a sump pump will be used to conduct water to the sump.

During the initial stage of development (first three years of pre-production) a temporary dewatering system will be installed; this will be replaced by a definitive dewatering system once the declines are finished. The temporary system will consist of one drainage water sump every 40 vertical m in the declines and ramps. These sumps will receive the water flow from the ramp and will operate as a decanter, promoting solids sedimentation in the sump. Each sump will be equipped with a sump pump which transports water to the next higher sump and so on, cascading the water up until it reaches the portal and is discharged to the surface water treatment plant.

The final dewatering system will be operative from Year 4 (ore production start) until the mine closes. This system includes a main pump station located at 1130L, which will pump water to the water treatment plant on surface (approximately 1410L), and three auxiliary pump stations that will feed the main station. The auxiliary pump stations are located on 1090L, 1030L and 970L. This system is designed to conduct the water flow to the main station at 1130L and then pump it to the surface.

4.7.6 Process Water

The underground process water system has been designed to deliver water for drilling and other equipment via an underground distribution network.

During the construction period, a temporary supply system will be used, distributed by a pipe through the ramp. Once the ramp arrives at 1170L, the permanent system will be used with a pipe descending by the ventilation raise.

4.7.7 Power

The estimated power demand for the mine was determined on the basis of the preliminary mechanical equipment requirements. This includes mining, dewatering, ventilation and low voltage miscellaneous loads. The resulting power demand for the underground loads is estimated to be 5.3 MW.

During the development of the declines, power will come from diesel generators located near the portal area.

In February 2020 permanent power from the grid will be available and underground electrical distribution will then be via two 13.8 kV double ended feeders from a surface substation adjacent to the portals, another surface substation located close to the RAR.

4.8 Blasting and Explosives

Underground magazines for explosives and detonators will be located on a selected level underground and will store approximately 3 days inventory. A more substantial surface magazine will be utilized in addition to this underground facility. A typical underground magazine bay will be 34 m wide x 5.0 m high x 35 m long. The use of emulsion explosives will help to reduce the amount of nitrates/nitrites that may be dispersed into the drainage water system. It is assumed that ground will generally be wet and hence ANFO could be ineffective. The bulk of the explosives used will be bulk emulsion, some cartridge explosives will also be used. The detonator magazine will be close to the explosive magazine. Auxiliary ventilation will be installed as required.

4.9 Mining Equipment

4.9.1 Equipment Requirements

Mine operations will use the same equipment for development for TS and for D&F. Drilling, support, loading and hauling equipment are the same for both methods. Different equipment is required for loading for production because TS is 5 m wide x 5 m high and D&F is only 4 m wide x 4 m high.

The equipment listed is indicative of the type and size of the equipment planned and was used as the basis for the capital cost estimate.

The equipment for each lateral development crew will be primarily made up of a jumbo and bolter. The development drilling equipment fleet has been selected to primarily develop lateral and ramp excavations 5.0 m wide by 5.5 m high, and 5.0 m wide by 5.0 m high in the top and bottom stope cross cuts on a routine basis. Vertical development will be done using raise bore drills and vertical crater retreat (VCR) methodology. In general, raise boring will be contracted out to specialists who will use their own equipment and personnel.

TS production work will be done using radial jumbos for blast holes; drilling in D&F will use frontal jumbos shared with the development work. Loading (mucking) will be done using LHDs and low profile trucks will be used for hauling. Production crews will share emulsion loading vehicles for blasting of the stopes.

The following material-handling equipment is proposed:

- Loading and transportation with 12 yd3 LHDs between TS and stockpiles in the headings of the production levels of the transverse stopes
- D&F stope loading to the stockpiles will be performed using 10 yd3 LHDs
- From the stockpiles, direct load to truck with 12 yd3 LHDs
- Transportation to the process plant on the surface using 45 t trucks.

The proposed mucking/haulage fleet has been primarily selected to accommodate excavations 5.0 m wide by 5.5 m high. For waste haulage and CRF haulage, the same trucks will be used. The haulage trucks will be equipped with ejector boxes to facilitate dumping CRF into stopes and for re-mucking.

The production drilling fleet will be required to drill TS and D&F areas nominally 12 m wide by 20 m long by 25 m high accompanied by scissor lift equipment for cable bolting.

Explosive handling equipment will be required in the development and production processes.

In addition to the development and production equipment, other equipment will be required to support mine operations.

4.9.2 Equipment Numbers

A maximum of four 10 yd^3 LHDs, four 12 yd^3 LHDs and nine 45 t trucks are anticipated to be required for production and development (Table 4-2). Support equipment requirements are included in Table 4-3.

Table 4-2: Main Equipment Fleet

Equipment	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
LHD 10 yd^3	-	1	2	2	3	3	3	3	3	3	3	3	3	3	3
LHD 12yd^3	2	4	4	4	4	4	4	4	4	4	4	4	3	3	2
Truck 45t	2	7	7	7	7	8	8	8	8	8	8	10	10	6	2
Frontal Jumbo	2	4	4	3	3	3	3	3	3	3	4	5	5	3	1
Rammer Jammer	-	-	2	4	4	4	4	4	4	4	4	5	5	5	3
Radial Jumbo	-	2	3	3	3	3	3	3	3	3	3	3	3	3	1
Support Jumbo	2	5	6	5	4	4	4	4	4	4	4	5	5	3	1
Development Explosive Loader	2	2	3	3	3	3	3	3	3	3	4	6	6	6	1
Production Explosive Loader	-	2	3	3	3	3	3	3	3	3	3	3	3	3	1

Table 4-3: Support Equipment Fleet

Equipment Make and Model	Service Life (years)	Units Purchased
Scissor Lift	5	2
Crew Vehicle	3	4
Rescue Vehicle	10	1
Front End Loader	5	1
Shotcrete Sprayer/Hauler	5	2
Shotcrete Transmixer	5	2
Jacklegs	2	10
Scaler	5	5
Boom Truck	5	3
Telehandler	5	2
UG Diamond Drill	5	2
Utility LHD	5	1
Tractors	5	7
Mobile Rock Breaker	5	3
Dozer	5	1
Grader	5	1
Fuel/Lube Truck	5	2

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5.0 PROCESS FACILITIES

5.1 Process Flow Sheet

The FDN process plant feed will need to accommodate recovery of gold in the following forms:

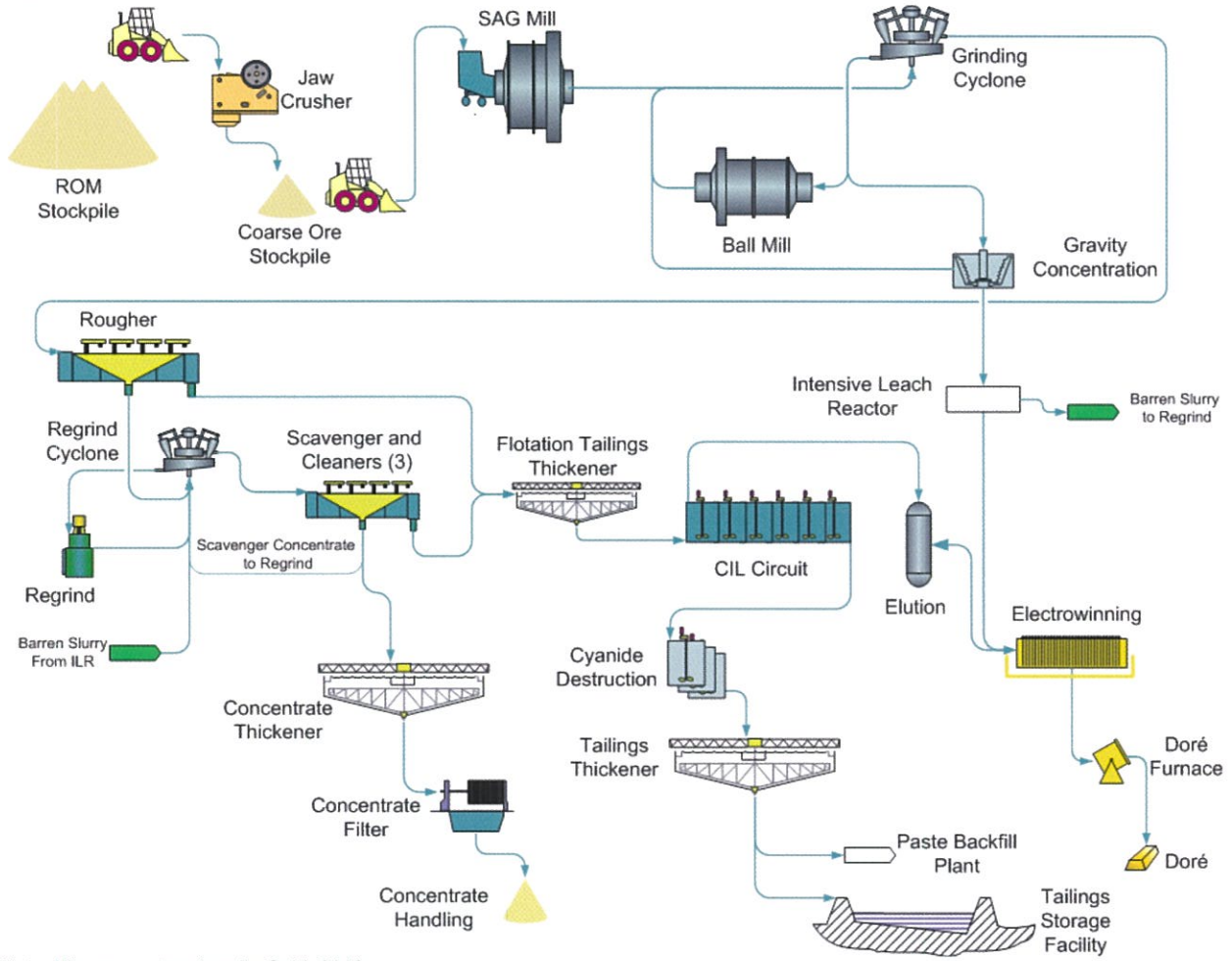
- Fine free gold
- Coarse free gold
- Gold contained in sulphides (refractory)
- Gold contained in other forms (e.g. silicates).

The Gravity Flotation Leach (GFL) flowsheet (Figure 5-1) was selected for the Project because of the nature of the gold in the plant feed. The up-front gravity circuit is essential to recover the coarse free gold and small amounts of fine free gold. The gravity circuit is essential to reduce spikes in coarse gold content in the feed, ensuring that the flotation feed grade stays relatively uniform. The flotation circuit is capable of recovering the gold associated in sulphides (pyrite). The flotation circuit is able to reduce spikes in sulphide gold grade and provide a consistent feed to the CIL circuit. Typically, CIL circuits function best on a uniform feed, this can be provided by the combined gravity and flotation circuits.

Run-of-mine ore (ROM) will be transported to ROM stockpiles. A front end loader will load a bin through a grizzly which will feed the jaw crusher via a vibrating grizzly. The crushed ore will be transferred to a discharge conveyor followed by the stockpile feed conveyor which transfers it to the coarse ore stockpile.

Feed will be reclaimed from the stockpile via a front end loader; transferred to an apron feeder and conveyed to feed the primary SAG mill. Oversize from the SAG mill discharge will be recycled back to the SAG feed. The SAG circuit product will be fed to a cyclone cluster which is in closed circuit with the gravity concentrators and ball mill. Oversize from the gravity concentrator feed screen will be fed into the ball mill discharge which is pumped to the cyclone feed. Undersize will feed the gravity concentrators. Gravity concentrate will report to the intensive leach reactor (ILR) and the gravity concentrator tailings will return to the cyclone feed.

Figure 5-1: Simplified Process Flowsheet



Note: Figure courtesy Lundin Gold, 2016.

The ILR will produce pregnant solution which will be directed to electro-winning cells to produce a gold–silver precipitate. After washing, the barren slurry will report to the flotation regrind circuit.

The overflow from the grinding cyclone will report to the flotation circuit. The flotation circuit will consist of three stages of flotation, and regrind. Rougher and scavenger concentrate combined with ILR barren slurry will be directed to a regrind mill in closed circuit with a cyclone cluster. Final concentrate from the third cleaning stage of the flotation circuit will be thickened, filtered and bagged as product. Overflow from the concentrate thickener will be recycled to the process water tank.

Flotation tailings will be thickened and then report to the leach circuit while the thickener overflow will be recycled to the process water tank. The slurry will continue through pH conditioning before reporting to a series of CIL tanks where the slurry is leached with cyanide. Discharge from the leach train will report to cyanide destruction.

The loaded carbon generated from the CIL tanks will be pumped to the carbon elution and regeneration circuit. Once gold has been eluted, the carbon will be sent to regeneration. After quenching and screening to remove small particles, the reactivated carbon will be reintroduced to the CIL circuit.

Gold eluate will be sent to electro-winning cells using stainless steel cathodes to produce a gold-silver sludge. This is combined with sludge from the separate ILR electro-winning cell, filtered and dried. It is then mixed with fluxes and smelted to produce gold-silver doré.

Slurry discharged from the CIL tanks will report to cyanide destruction. A two-stage Inco SO_2/air process will be employed with the addition of lime. Sulphur dioxide will be provided as sodium metabisulphite. Slurry discharged from cyanide destruction will report to the tailings thickener. Underflow from the thickener will be sent to the tailings storage facility (TSF) or to the paste backfill plant. Overflow from the thickener will be recycled back to the process water tank.

5.2 Energy, Water, and Process Materials Requirements

5.2.1 Reagents

The following reagents are anticipated to be required:

- Primary collector (xanthate)
- Secondary collector (AP208)
- Frother

- Carboxy methyl cellulose (CMC)
- Lime
- Sodium cyanide
- Sodium hydroxide (NaOH)
- Hydrochloric acid (HCl)
- Sodium metabisulphite (SMBS)
- Anti-scalant
- Flocculant.

Reagent mixing will be done in a designated area within the process plant. The design of this area includes features such as section bunding with dedicated sump pumps for individual reagents, segregated ventilation, and dust and fume control around reagents with potential for dust or fume release. The layout and general arrangement of the reagent area accounts for the need to prevent contact of incompatible reagent types. In general, reagent unloading, hopper loading and mixing will be carried out manually.

5.2.2 Air

Two low pressure air blowers will supply the process air needed for all the flotation tank cells. One of these will be operational; the other will be on standby.

Two air blowers will supply the process air needed for all the CIL and cyanide destruction tanks. One of these will normally be operating; the other will be on standby.

Compressed air for plant distribution will be provided by the plant air compressor via the plant air receiver.

Compressed air for instrument use will be provided by the instrument air compressor; and also this can be supplied by the plant air compressor if required. Instrument air will be dried by the instrument air dryer to remove moisture and distributed via the instrument air receiver.

The truck shop air compressor will supply compressed air to the truck shop. The truck shop air will be dried by the truck shop air dryer and distributed via the truck shop air receiver.

Compressed air for the primary crushing area will be supplied by the primary crushing air compressor and distributed via the primary crushing air receiver.

5.2.3 Water

The bulk of the water requirements for the process plant will be met by process water. Process water will be recycled from the thickener overflows and from the TSF as required. Water can also be reclaimed from the plant area sedimentation ponds, if necessary.

The process water tank of total volume 1,050 m^3 will also be used to provide fire water and thus must have a minimum water volume of 500 m^3 at all times. Treated water will be obtained from the water treatment plant and will be primarily utilized in the ADR, ILR and refinery circuits, as well as for gland water due to water quality requirements. Treated water will also generally be used for reagent dilution. Treated water will used for the grinding mill cooling systems and in the mine.

Gland seal water will be supplied from the treated water tank. Gland seal water is supplied to the plant in addition to the paste backfill feed pumps and tailings storage feed pumps.

The domestic water tank will supply the camp, mine and process plant. Domestic water requirements in the plant include the plant safety showers and bathrooms. Domestic water will not be drinkable (potable); drinking water will be supplied as bottled water.

5.3 Production Summary

A production summary for the proposed LOM is provided in Table 5-1.

The concentrate production rate is expected to be 160 t/d at a feed rate of 3,320 t/d and 140 t/d at a feed rate of 3,500 t/d. The results presented in Table 5-2 provide a guide to the predicted concentrate quality; the actual quality could vary from month to month based on ore variability, mine planning and sequencing as well as the geometallurgy.

The total gold expected to be produced as doré varies from 90 koz to 145 koz per year during steady state and is 1,323 koz during the LOM. The doré is expected to contain above 98% precious metals with the remainder made up of base metals and impurities. The precious metals portion is expected to contain approximately 70% gold and 30% silver.

Table 5-1: Production Summary

Description	Unit	Value
Plant Feed		
Length of Production	years	14
Life of Mine Feed	tonne	15,489,622
Average Feed Gold Grade	g/t	9.67
Average Feed Silver Grade	g/t	12.74
Concentrate		
LOM Concentrate Production	tonne	644,804
Average LOM Concentrate Gold Grade	g/t	149.3
LOM Concentrate Contained Fine Gold	tonne	96.3
LOM Average Concentrate Silver Grade	g/t	203.7
Doré		
LOM Gold in Doré Production	M oz.	1.323
LOM Silver in Doré Production	M oz.	0.953
LOM Doré Production	M oz.	2.276
Total Production		
LOM Gold Production (concentrate and doré)	M oz.	4.418
LOM Silver Production (concentrate and doré)	M oz.	5.177
Gold in concentrate/gold in doré	–	70%/30%
Silver in concentrate/silver in doré	–	82%/18%

Table 5-2: Concentrate Quality

Element	Unit	Min	Max
Al	%	0.68	0.89
As	%	0.34	1.1
Ba	ppm	17	60
Be	ppm	<0.2	<0.5
Bi	ppm	8	20
Ca	%	0.09	0.35
Cd	ppm	38	76
Co	ppm	83	106
Cr	ppm	48	196
Cu	%	0.17	0.38
Fe	%	35.2	42.9
Ga	ppm	30	34
K	%	0.3	0.48

Element	Unit	Min	Max
La	ppm	4	5
Li	ppm	8	14
Mg	%	0.04	0.09
Mg	ppm	380	865
Mn	ppm	224	1224
Mo	ppm	<50	80
Na	%	0.01	0.06
Nb	ppm	<1	<1
Ni	ppm	24	89
P	%	<0.03	0.04
Pb	ppm	2,484	6400
S	%	38.7	53.4
Sb	ppm	482	1019
Sc	ppm	1	2
Se	ppm	<12	<12
Sn	ppm	<5	<30
Sr	ppm	9.7	18
Te	ppm	22	59
Ti	%	0.11	0.14
TL	ppm	11	<30
V	ppm	20	54
W	ppm	67	160
Y	ppm	2.9	6
Zr	ppm	13	15.6
Zn	%	0.5	1.291
Hg	ppm	11	14.4

6.0 PROJECT INFRASTRUCTURE

6.1 Introduction

An infrastructure layout plan for the Project is included as Figure 6-1.

6.2 Road and Logistics

6.2.1 Access

The planned route to access the FDN site is by the Troncal Amazonica road to Los Encuentros and from this point to the Project site by a new main access road, including a new bridge across the Zamora River. A section of the road will be public road near the El Pindal village, and another new section of road through the Ecuadorean jungle that will be private (Figure 6-2). After km 15, the new 22 km long road will be used exclusively for access to the Project site. The access control facility will be located at km 15.

The Project will have limited temporary construction roads that will need to be decommissioned after construction. The current temporary road from the exploration camp to the Project will be upgraded in terms of width, gradients and road surface. This road will remain open for exploration activities during operations.

Roads within the mine site will be gravel, consisting of crushed base course and select granular sub-base, and will be engineered for light and/or heavy vehicles as applicable.

6.2.2 Cargo Transport Route

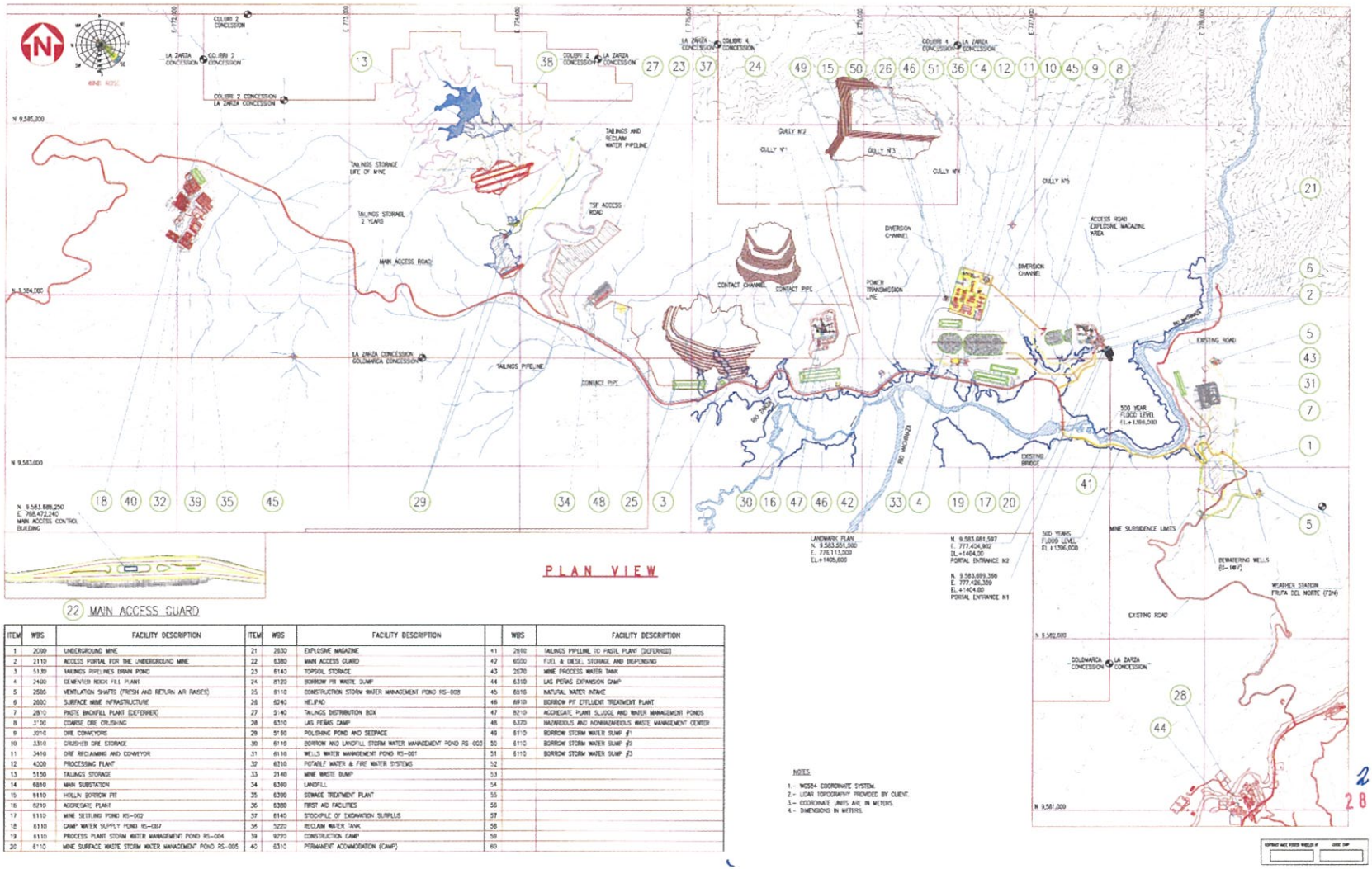
The main port for international cargo arrival will be Guayaquil. The route from the port is: Guayaquil Port, Virgen de Fatima, Cañar, Azogues, Paute, Mendez, Bomboiza, Los Encuentros. This route does not present significant height or weight restrictions, except for those which can be managed by changing poles, cables, and rails. The cargo weight limitation for all bridges is 40 t approximately. The Port of Bolivar may be used as an alternative.

6.2.3 Air Services

The nearest airport for commercial national flights is Loja Airport, located 157 km from the FDN site. The Project will include a helipad near the process plant area for doré transportation.

A space has been reserved at the Project site for an airstrip, but this will not be constructed as part of the initial installations.

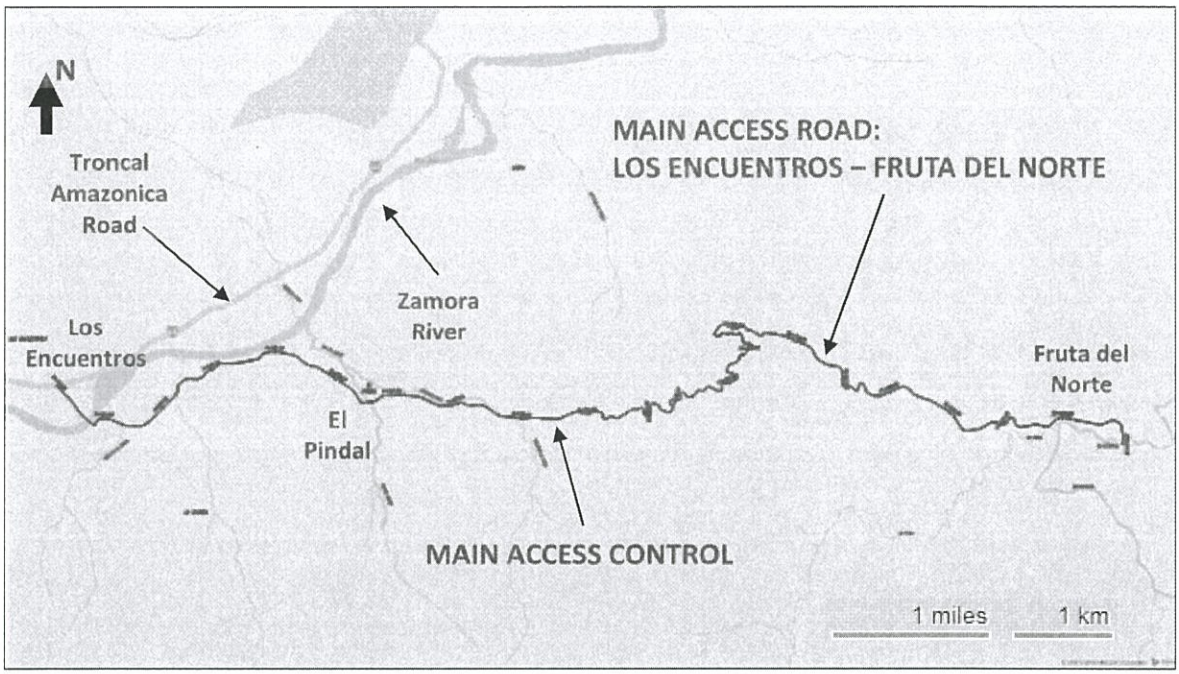
Figure 6-1: On-site Infrastructure Layout Plan



ITEM	WBS	FACILITY DESCRIPTION	ITEM	WBS	FACILITY DESCRIPTION		WBS	FACILITY DESCRIPTION
1	2000	UNDERGROUND MINE	21	2630	EXPLOSIVE MAGAZINE	41	2690	TAILINGS PIPELINE TO PASTE PLANT (DEFERRED)
2	2110	ACCESS PORTAL FOR THE UNDERGROUND MINE	22	6380	MAIN ACCESS GUARD	42	6550	FUEL & DIESEL STORAGE AND DISPENSING
3	5130	TAILINGS PIPELINES DRAIN POND	23	6140	TOPSOIL STORAGE	43	2670	MINE PROCESS WATER TANK
4	2400	CEMENTED ROCK FILL PLANT	24	6120	BORROW PIT WASTE DUMP	44	6310	LAS PEÑAS EXPANSION CAMP
5	2500	VENTILATION SHAFTS (FRESH AND RETURN AIR RAISES)	25	6110	CONSTRUCTION STORM WATER MANAGEMENT POND RS-008	45	6010	NATURAL WATER INTAKE
6	2600	SURFACE MINE INFRASTRUCTURE	26	6240	HELIPAD	46	6810	BORROW PIT EFFLUENT TREATMENT PLANT
7	2810	PASTE BACKFILL PLANT (DEFERRED)	27	5140	TAILINGS DISTRIBUTION BOX	47	6210	AGGREGATE PLANT SLUDGE AND WATER MANAGEMENT PONDS
8	3100	COARSE ORE CRUSHING	28	6310	LAS PEÑAS CAMP	48	6370	HAZARDOUS AND NONHAZARDOUS WASTE MANAGEMENT CENTER
9	3210	ORE CONVEYORS	29	5150	POLISHING POND AND SEEPAGE	49	6110	BORROW STORM WATER SUMP #1
10	3310	CRUSHED ORE STORAGE	30	6110	BORROW AND LANDFILL STORM WATER MANAGEMENT POND RS-003	50	6110	BORROW STORM WATER SUMP #2
11	3410	ORE RECLAIMING AND CONVEYOR	31	6110	WELLS WATER MANAGEMENT POND RS-001	51	6110	BORROW STORM WATER SUMP #3
12	4000	PROCESSING PLANT	32	6210	POTABLE WATER & FIRE WATER SYSTEMS	52		
13	5150	TAILINGS STORAGE	33	2140	MINE WASTE DUMP	53		
14	6810	MAIN SUBSTATION	34	6380	LANDFILL	54		
15	6110	HOLLIN BORROW PIT	35	6390	SEWAGE TREATMENT PLANT	55		
16	6210	AGGREGATE PLANT	36	6380	FIRST AID FACILITIES	56		
17	6110	MINE SETTLING POND RS-002	37	6140	STOCKPILE OF EXCAVATION SURPLUS	57		
18	6110	CAMP WATER SUPPLY POND RS-007	38	5220	RECLAIM WATER TANK	58		
19	6110	PROCESS PLANT STORM WATER MANAGEMENT POND RS-004	39	9220	CONSTRUCTION CAMP	59		
20	6110	MINE SURFACE WASTE STORM WATER MANAGEMENT POND RS-005	40	6310	PERMANENT ACCOMODATION (CAMP)	60		

Note: Figure prepared by Amec Foster Wheeler, 2016.

Figure 6-2: Access Route



Note: Figure courtesy Lundin Gold, 2016

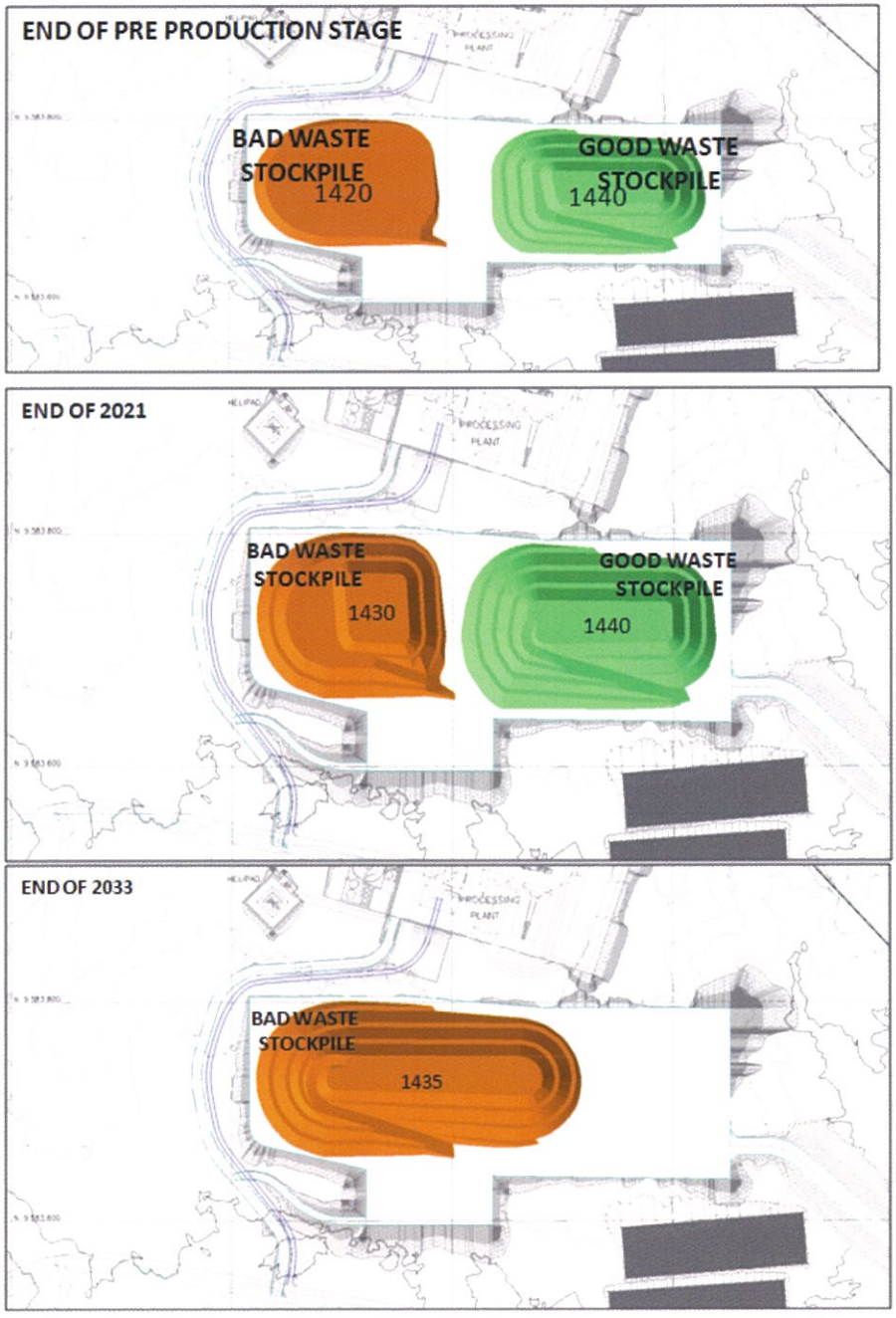
6.3 Waste Rock Storage Facilities

The excavation of the portals, declines, stope access tunnels and ventilation shafts will generate waste rock from a range of lithologies.

Waste from the declines will start coming to surface in 2017. Approximately 2 Mt of waste material will be generated. Of this, about 1.29 Mt (64%) will be returned underground as part of the backfill management strategy. The remaining material (approximately 0.74 Mt) will need to be permanently stored on surface.

The allocated WRSF area, to be located south of the process plant, is sufficient to accommodate this material.

Figure 6-3: End of Period Waste Rock Storage Facility Views



Note: Figure prepared by SRK, 2016.

6.4 Ore and Low Grade Stockpiles

There will be three types of material stockpiled based on grade:

- High-grade (>7 g/t Au) – Almost never stockpiled
- Medium-grade (4.7 g/t Au to 7 g/t Au) – Maximum 30,000 t
- Low-grade (2.7 g/t Au to 4.7 g/t Au) – Maximum 170,000 t late in the mine life (Year 2033).

The initial total stockpile tonnes prior to commissioning of the process plant will be approximately 50,000 t. These stockpiles will be depleted upon closure, and rehabilitated.

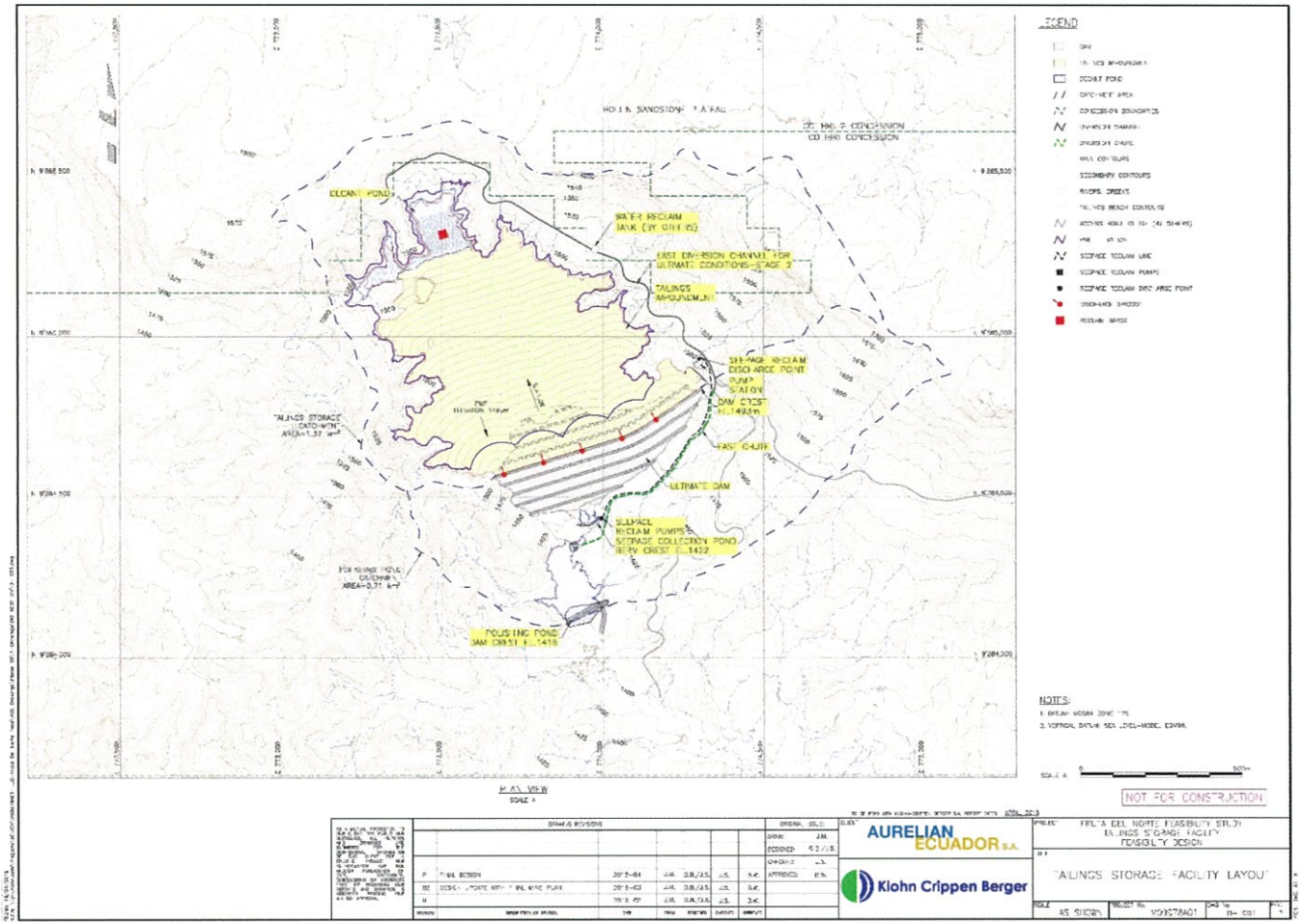
Surface water drainage from the storage area will be diverted to holding ponds.

6.5 Tailings Storage Facility

6.5.1 Proposed Location

The facility will be located in the uppermost portion of the valley, to minimize the catchment area and to maximize the separation distance from the Zarza River downstream. A layout plan of the proposed facility is included as Figure 6-4.

Figure 6-4: Proposed TSF Layout



Note: Figure prepared by Klohn Crippen Berger, 2016.

6.5.2 Design

A starter dam will be initially constructed to elevation 1,462 m to store start-up water for the mill, to create sufficient storage for the tailings in the first year of operation, and to safely contain the probable maximum flood (PMF). The TSF dam will be raised continuously, using the downstream raise method, throughout the service life, until reaching the ultimate elevation at 1,493 masl. Each dam raise will be completed at least one year before the maximum tailings pond elevation required each year.

During operations, the tailings dam crest must be at least 2 m above the predicted intensity–duration–frequency (IDF) storm for the following year. At start-up, the freeboard exceeds this value to account for uncertainties in hydrology and tailings properties during operations.

The tailings dam will be an earth-and-rock-fill structure constructed with a maximum dam height of 63 m measured at the dam centre line. The ultimate dam will have a crest width of 6 m and a length of 700 m at final grade. The dam slopes will be benched for access with inter-bench slopes of 2H:1V, and an overall slope of about 2.4H:1V. As a contingency, the starter dam will have 2.5H:1V inter-bench slopes resulting in an overall slope of 3H:1V.

The body of the dam will be zoned with random sandstone rock-fill forming the downstream shell and compacted saprolite forming a bedding layer for the upstream geosynthetic liner. Fine and coarse filter zones will separate the rock-fill and soil bedding layer to prevent piping. To restrict seepage, the tailings dam and the first 200 m of the tailings basin upstream of the dam toe may be lined with a geomembrane. The liner will be laid directly onto the basin soils, which will be graded, re-compacted and smoothed prior to liner placement. The net hydraulic conductivity of the liner system will be further reduced by the low permeability of the tailings deposited on top of the liner.

The first stage of diversion channels will be constructed to convey non-contact runoff water around the TSF during start up and for the initial five years. New diversion channels will be constructed at a higher elevation for surface water control from five years to the ultimate condition. The diversion channels are designed to convey the 100 year return period peak runoff flows, and will be lined with a reinforced matt to prevent erosion.

Flow from the diversion channels will be routed into a polishing pond downstream of the tailings dam to facilitate settling of suspended solids prior to discharge to the river downstream. The polishing pond will also be used to capture any sediment runoff generated from TSF construction activities.

6.5.3 Operating Philosophy

A total of 12.15 Mt of tailings will be pumped to the TSF at 55% solids over the mine life. The tailings will be discharged into a drop box located near the east abutment of the TSF. Tailings will then be distributed via spigotting.

The sludge produced from the treatment of contact water from the mine at the WTP will be delivered at a rate of 4 m^3/h and stored in the TSF. Sediments removed from ponds located in the mine infrastructure area will also be stored in the TSF and will be delivered at a rate of 8 m^3/h. Sludge will be discharged sub-aqueously into the decant pond. A dedicated pipeline and pumping system for sludge delivery to the TSF will be provided.

Water will be reclaimed to the process plant by a floating pump barge positioned in the tailings pond at the north end of the TSF. The normal operating volume of the reclaim pond will be 100,000 m^3, or as necessary to achieve adequate clarification of the pond water for re-use in the process plant.

The water balance calculations show that the average annual excess (surplus) water increases as the production rate and the surface area of the TSF grow over time. The average monthly total excess water rates range from 60 L/s to 94 L/s during the operating period. This water will be reclaimed to the process plant as required; the excess will be delivered to water treatment plants for release to the environment.

6.6 Hollín Borrow Pit

Aurelian will need to exploit a borrow pit to provide granular materials for construction and mine backfill, from construction through to mine closure.

The Hollín Borrow Pit is anticipated to provide the following granular products:

- Rock fill for the TSF and seepage pond walls
- Fine and coarse filter material for the TSF and seepage pond walls
- Structural backfill for site preparation and platforms
- Road base for internal roads
- Coarse gravel, fine gravel and sand for concrete and shotcrete
- Paste plant aggregate for paste backfill for the mine stopes
- CRF aggregate for cemented rock backfill for the mine stopes.

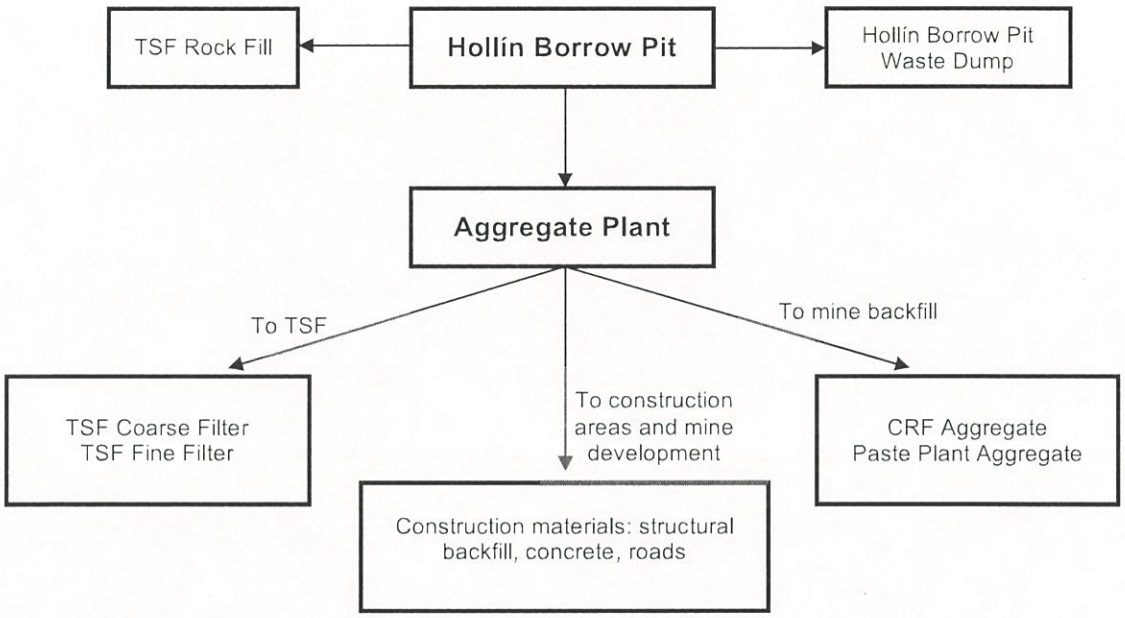
The Hollín Borrow Pit will be exploited as an open pit mine with material extracted by ripping and by using explosives. Rock fill material (ROM) will be delivered direct to the TSF and seepage pond walls; all other materials will be processed through an aggregate plant, which will use screening and crushing/screening to produce the required products (Figure 6-5).

The final Hollín Borrow Pit location for the purposes of the 2016 FS is on top of a plateau that is located northwest of the FDN deposit. The plateau extends south to north, presenting a somewhat irregular surface with a sub-horizontal inclination to the north.

The mining of the Hollín Borrow Pit is expected to be done in sedimentary rocks, mainly siliceous sandstones belonging to the Hollín Formation, but due to the quantity of material required, will extend through the Hollín Formation sandstones into the intrusive rocks of the Zamora Batholith.

In case necessary, external sources for aggregates will be used. External quarries must have all permits required for trading construction aggregates.

Figure 6-5: Hollín Borrow Pit Block Diagram



6.7 Water Management

6.7.1 Water Types Requiring Management

Water types that will require management are summarized in Table 6-1. There are four major management infrastructure types for each water type:

- Diversion works: To divert non-contact storm water, and prevent it from being contaminated by the site during construction and operations. Includes riprap interception works, lined channels, creek riprap discharge works, and slope drainage systems for mass earthworks

- Contact water works: To manage affected and unaffected water during the construction and operations phases. Comprises sumps, water management ponds, chutes (steep slope conduits), energy dissipaters, water treatment plants, pumping systems and emergency discharge works to natural water courses

- Neutral water works: To deal with groundwater from the dewatering wells above the deposit. Consists of a pumping system, a water management pond and a discharge to the Machinaza River

- Secondary and minor drainage networks to be located within the facilities for non-contact and contact water, including small sumps, downspouts, and minor collecting pipes. These works have not been designed to a feasibility level.

Table 6-1: Water Types Requiring Water Management

Water Type	Definition	Examples
Non-contact	Water (either runoff from precipitation or flowing in natural streams) whose quality is not impacted by the project infrastructure and activities.	Off-site rainfall and runoff Runoff diverted by contour channels before reaching a specific area of the Project Runoff collected on site without impact on its quality (for example runoff generated on roofs and kept isolated by means of downspouts and pipes, subsequently returned to a natural stream).
Contact	Water that has come in contact with infrastructure, facilities, materials and equipment, or Project activities that might have had its physical, biological, and/or chemical quality impacted. Depending on the water quality impact, contact water can be categorized as "affected" or "unaffected". Unaffected: Water that is likely to have had a sediment load increase but not subject to chemical/biological impact requiring treatment other than total suspended solids (TSS) removal in order to meet water quality regulations. Requires TSS removal only, prior to discharge to a natural water course; no water treatment plant is required. Affected : Must be sent to a water management pond and a water treatment plant (WTP) prior to being discharged to the environment.	Runoff contacting construction areas where earthworks and deforestation activities may increase the sediment load. Runoff contacting Project site areas during operations but not impacted by the mining activity itself. Underground mine dewatering. Water contacting tailings. Runoff from the crushing area stockpiles, mine waste dump, mine surface infrastructure, process plant, borrow pit, aggregate plant and landfill.
Neutral	Groundwater collected above the orebody at the underground mine. Requires TSS removal and/or primary treatment only (depending on the quality parameters) prior to being discharged into the Machinaza River.	Water from dewatering wells.

6.7.2 Water Infrastructure Design

Water Discharge Quality Criteria

There are two governing regulatory water quality criteria for effluent discharges from any industrial facility in Ecuador:

- Effluent discharge limits
- Instream flow water quality standards depending on assigned use.

The effluent discharge limit set by the Ecuadorian Government is the "end-of-pipe" regulatory requirement that must met under any and all conditions. The instream flow quality standard is based on the water use in the vicinity of a project, and is used to calculate the levels of chemical constituents that may be discharged to the receiving water body. The primary water use in the vicinity of the Project for the Machinaza River is irrigation and livestock.

All water discharges into natural water courses, from water management ponds, water treatment plants or diversion channels, must comply with the Ecuadorian Government water quality criteria requirements. These values apply for construction and operating phases of FDN and make a distinction between discharge into the Machinaza River and discharges to other streams (based on the background water quality).

Water Treatment Plants

Six WTPs are planned:

- Two potable water treatment plants: one will be located at the camp site and the other at the process plant
- A sewage treatment plant will be located at the camp site. The process plant sewage will be managed using septic tanks
- The main effluent water treatment plant (MWTP) will be located at the process plant site and will treat most of the affected contact water from the site
- The Hollín Borrow Pit water treatment plant will be located close to the aggregate plant and will treat affected contact water from the borrow pit area
- An existing compact plant at the site will be moved to the mine portal area and used during the first year of mine dewatering.

The water treatment plants have been sized based on the wettest month in a one-in-100 wet year.

The main characteristics of the MWTP are:

- It will treat affected contact water from the mine dewatering process, runoff from the process plant and mine surface infrastructure platforms, and runoff from the ROM stockpile, mine waste dump and CRF plant areas

- The TSF decant will be mixed with the discharge from this plant
- The high-density sludge (HDS) system will include low sulphate and high sulphate reactors, a clarifier and an ultrafiltration unit (UF)
- It will have a sludge line to pump sludge to the TSF
- The operating capacity will be of the order of 850 m^3/h (including the TSF decant). Through optimization, it was identified that the flows from the TSF and process plant could meet discharge criteria without full treatment. This could result in the capacity of the MWTP being reduced by approximately 40%.

It is expected that mine dewatering during the mine development stage will generate the first affected contact flows requiring treatment, hence the MWTP must be operational during the construction phase. A contingency plan was developed for the site in case of failure of the MWTP.

The Hollín Borrow Pit water treatment plant will be located close to the aggregate plant and will treat affected contact water from the borrow pit area. The operating capacity will be approximately 180 m^3/h. The feed chemistry for the Hollín Borrow Pit water treatment plant has not yet been finalized. However, it is assumed that it will use the same process as the MWTP, but on a smaller scale.

The existing compact plant uses dissolved air flotation (DAF) technology, capable of removal of nitrates, nitrites, TSS, oil and grease, and has an operating capacity of 79 m^3/h.

Water Management Ponds

The water management ponds have been designed as rectangular shapes, with an approximate relationship length/width of 4 to 5:1 in order to prevent short circuits. The ponds will be lined with HDPE membrane in order to prevent seepage. Side slopes of 3:1 (H:V) have been used to ensure stability.

Emergency works are not expected to operate during the LOM for affected contact water ponds. Unaffected water management pond emergency spillways are expected to operate, once or twice during the life of the mine. Emergency works include gravitational structures (spillways), and for the mine waste dump pond an emergency line to the sludge tank of the MWTP.

At this stage of engineering it is planned to remove sediment using perforated (slotted) pipes placed at the base of each pond. Around 33,000 m^3 of sediment is expected annually. Estimating four operations per day per truck, three vacuum trucks operating year round will be required for the pond sediment removal process. During the operations phase, sediments collected from the ponds will be transported either to the

sludge tank located at the MWTP or directly to the TSF basin. During the next stage of engineering an alternative to this disposal will be considered based on field data.

During the early stages of construction neither the MWTP nor the TSF will be available; removed sediment will be placed close to the ponds on the upper side allowing seepage to flow back into the pond.

Diversion Channels

Diversion channels will divert non-contact water around the site. These works will consist of diversion channels with interception structures at the upstream section and discharge structures at the downstream end.

Trapezoidal diversion channels were designed with lining and 0.5% minimum longitudinal slope in order to prevent sediment settling. No bottom width will be narrower than 0.6 m to facilitate construction, and channel side slopes will be 1:1 (H:V). A 1 m wide service/maintenance strip will be kept alongside the channel to allow access during the construction and operation phases.

Interception structures will consist of a riprap revetment at the beginning of the diversion channel and at the downstream end of the creek to be diverted, and riprap protection at any sharp bends or changes in gradient. Discharge structures will consist of a riprap revetment located at the downstream end of the channel and at the receiving creek bed.

6.8 On-site Infrastructure

On-site non-process services such as the camp, greenhouse, sewage treatment plant and mobile equipment will support the operation. There will be fresh water, domestic water and process water systems and a fire detection and protection system.

The utilities and services include compressed air supply and distribution, process control system, closed circuit television (CCTV) system, supervisory control and data acquisition (SCADA) system, waste management systems and fuel storage and distribution.

Mobile equipment for maintenance, operations services and transportation includes tractors and loaders for stockpile re-handling, mobile cranes, buses and utility vehicles.

6.8.1 Site Buildings

The buildings designed for the site include the following:

- Truckshop (two truck bays, one welding bay, tire shop and truck wash). Mobile equipment (equipment and trucks) will be serviced in the mine surface maintenance area, which includes offices and kitchenette

- Mine office building with change house. This will be a two-storey building with offices, meeting rooms and kitchenette on the first floor. The change house will be on the second floor, with an independent access stairway
- Process plant office. This will be a single-storey building with offices for process plant personnel and a kitchenette
- Electrical room and control room
- Workshop
- Canteen
- First aid station and fire station
- Laboratory
- Camp facilities.

6.8.2 Camps and Accommodation

Camp services will include kitchen and mess hall, toilet and shower units for workers, recreation and sports areas, fire station and first aid post, sewage system, water treatment plant, bus shelter, parking, laundry and lockers, warehouse and maintenance, administration office, and guard house.

The camp is expected to have capacity for a peak of approximately 830 people and will include services facilities, and food preparation facilities. The camp facilities will be constructed early in Project construction in order to accommodate construction personnel as the construction manpower grows.

The temporary camp will be located alongside the permanent camp and will provide 1,184 beds in tents. The temporary camp will have only accommodation, toilets, and showers; other services will be provided from the permanent camp. The temporary camp will be closed when operations manpower has reached steady-state.

6.8.3 Greenhouse

There is already a plant nursery on site but this will need to be expanded for closure. The final greenhouse will be built after the Closure Plan has been approved, two years before the planned end of operations. Shelters will be provided with space to grow vegetation, which will be used to cover disturbed areas during closure. These facilities will be built on the temporary construction areas that have previously been disturbed.

6.8.4 Security

The Project access control will be located at km 15 on the access road to the site, which starts at the Troncal Amazonica road near Los Encuentros. This main access control will provide security and control for the site, and will be the only point where authorized personnel will be checked into the site.

Security chain link fence will be provided for those areas that require a physical barrier for security or to prevent the ingress of animals.

6.9 Off-site Infrastructure

Some support facilities would be located off the main Project site. No specific site has been determined, as the actual final location will be subject to more detailed study in a later Project stage. Therefore, the off-site facilities were considered to be conceptually located 12 km from the main Project site. These facilities would include the following:

- Guard house
- Light vehicle shop (Contractor)
- Warehouse and laydown area
- Main office building
- Canteen.

Aurelian has established administration offices in Quito and in Los Encuentros. These existing offices provide administrative and logistics support to the Project, and are not part of the Project capital costs.

6.10 Power and Electrical

The Ecuadorian electrical system is based on a high quality electricity service matrix, the distribution system is called the Sistema Nacional de Distribución (SND, National Distribution System). The SND is controlled by CELEC EP Transelectric, a government institution in charge of power transmission and distribution.

The Project site is located within the supply concession area of the Empresa de Energia Regional del Sur (EERSA, Regional Electric Company of the South). SND has no substation near to the Project with sufficient capacity or reliability to feed the Project. Aurelian Ecuador S.A. is participating in a public infrastructure investment to reinforce the SND matrix in the area, and is contributing to the installation of a transmission line between Taday and Bomboiza, as well as the Taday and Bomboiza substations.

The overall Project power requirements are expected to be met via a 230 kV double circuit transmission line from the Bomboiza substation. The contract for this substation has been awarded and it will be built at the same time as the Taday–Bomboiza transmission line. The Bomboiza substation will be situated approximately 50 km away from the FDN site. A dedicated transmission line will be built from the Bomboiza substation to the Mining Project site. This system will be a public transmission line and substations, owned and operated by CELEC EP or Transelectric, with installation partially paid for by Aurelian Ecuador S.A..

. It is planned to build the FDN main substation on the process area platform. This substation will step down the power to 13.8 kV, and will distribute power throughout the plant site at this voltage.

The annual average power demand is estimated to be about 222,000 MWh.

6.11 Communications

The communications system for the Project will consist of:

- Fibre optic network infrastructure
- Telephony system
- Radio communications
- Mobile telephony
- Internet
- Satellite communications.

The data management system will be connected to the communications systems.

6.12 Fuel

The fuel storage and distribution system will be located just off the main access road, close to the process plant access road. The fuel storage is designed for one week's storage capacity for surface vehicles. It includes supply stations and a transfer tank.

Another fuel storage and distribution system will be provided at the mine surface infrastructure area, to supply the mine trucks with diesel.

6.13 Water Supply

Domestic (non-potable) water for the camp and process plant will be supplied from fresh water intakes in nearby creeks. This water will be for sanitary usage (e.g. showers, toilets, emergency showers).

Aurelian already has a permit for 1.15 L/s for domestic non-potable use (refer to Section 4) and is in the process of obtaining a permit for a second intake point for 1.6 L/s. Both permits will be used for supply of domestic non-potable water during construction.

A water management pond will be located at the permanent camp site which will collect direct precipitation and runoff from the camp area. During construction the pond will be used for unaffected contact water management and domestic non-potable water supply. After the construction phase, the pond will be used for domestic non-potable water supply only. This will be the main domestic non-potable water source. A secondary source will be an intake located in a nearby creek. Lundin Gold is currently applying for a permit for the creek for the main camp. The requested intake flow is 6.3 L/s.

The process plant platform will be located about 5 km east of the main camp area, and a separate source of domestic non-potable water is required. The intended source is a creek located north of the process plant. Lundin Gold is currently applying for this permit. The requested intake flow is 1.1 L/s and the permit is expected to be required only during the Project operations phase.

There will be no potable water produced on site. All drinking water will be bottled and supplied by a local supplier.

Industrial water for construction will be required mainly for concrete mixing, shotcrete application, excavation works and maintenance activities. It is estimated that a peak volume of 9,870 m^3/month and a peak flow of 7.6 L/s of industrial water will be required during the construction phase. Four water management ponds will be used for industrial water supply during construction. The ponds will remain operational through operations as industrial water supply back-up; three of them will receive affected waters during operations.

To maximize water reuse and recycling and minimize demand for external make-up water, TSF effluent and paste plant effluent will be used as make-water for the process plant. Approximately 120 m^3/h will be used as process plant make-up meeting water quality and quantity requirements.

7.0 CONCENTRATE AND DORE

7.1 Introduction

The Project will produce doré bars and gold–silver concentrate. The following details indiciative terms based on marketing studies.

7.2 Market Studies

Potential receivers of gold–silver concentrate product include the following in general:

- Copper smelters
- Gold roasters
- Gold pressure oxidation plants (POX)
- Bacterial leach plants
- Lead smelters
- Commercial buyers (metals traders).

Gold–silver doré bullion is typically sold through commercial banks and metals traders with sales price obtained from the World Spot or London fixes. These contracts are easily transacted, and standard terms apply.

7.3 Typical Treatment and Refining Terms

Typical indicative terms for the treatment and refining for the gold concentrate and dore are as follows:

- Gold–silver concentrate
  - Pay 97.0% gold content
  - Pay 95.0% silver content
  - A treatment charge of US$275/dmt of concentrate is applied
  - Refining charge of US$6.00/oz for gold and US$0.50/oz for silver
  - Penalties for deleterious elements total approximately US$8.00/dmt of concentrate.

- Gold–silver doré
  - Pay 99.9% gold content
  - Pay 99.0% silver content
  - A refining charge of US$0.35/oz is deducted.

7.4 Transport Costs

Doré

A helipad will be built near the process plant area, and helicopter transport will be used to fly doré from site to an international commercial airport in Ecuador. The doré will then be delivered by air to the nearest commercial airport to the refinery by the security contractor. Most refineries will handle the logistics chain from the point of receipt at the mine site through delivery to the refinery.

Doré transport and insurance costs are expected to average US$3.69/oz of gold produced.

Concentrate

It is currently assumed that concentrate will be trucked in a 20 ft container, capable of holding up to 24 t of concentrate, to the selected port of export. A review of the port facilities indicate that either Guayaquil or Bolivar could be used.

The transport cost for concentrate including cargo costs, extra volume surcharge, container prices, temporary storage, external warehousing, and maritime transport is expected to average US$174/wmt.

8.0 TRAINING

8.1.1 Human Resources

The human resources (HR) approach is based on Aurelian Ecuador S.A. established policies and directives, Ecuador's laws and legislative environment, international best practice associated with labour and working conditions, and baseline social conditions within the communities closest to the mine site. The approach also aligns with the Project corporate social responsibility commitments. Information is subject to change as planning advances. Aurelian Ecuador S.A. will continue to develop the Project HR policies and procedures after the feasibility stage.

8.1.2 Training Program

The Project will require approximately 900 employees for the mine and process plant operations (excluding the construction phase).

The requirement for worke force can be broken down as follows:

- 10% unskilled labor
- 65% qualified personnel for mine and process plant operations and other skilled jobs
- 10% specialized technicians (electricians, mechanics, instrumentalists)
- 15% professionals, administration and management positions.

The training strategy for skilled and semi-skilled employees covers four general areas of training:

- Accelerated high school for people that couldn´t finish studies.
- Mining training programs,
  - Introduction to Mining, Health and Safety
  - Emergency response brigades
- Specialization modules
  - Mining: Mining techniques training + real environmental practices
  - Process Plant: Process plant techniques training + real environmental practices
- On-the-job training.

Large-scale mining is an emerging industry in Ecuador, with one large mine currently in construction and four projects in the planning stage. The FDN Project faces several significant challenges, including:

- The lack of modern large scale mining experience in Ecuador from which to draw expertise

- The remote location of the mine presents geographical challenges
- The availability of a skilled and/or adequately educated local work force in surrounding local communities is limited
- Expectations for employment of local people are high.

Due to limited experience in the local population, Aurelian Ecuador S.A. anticipates that experienced expatriates will be required to initially fill management, professional and technical specialist positions. Expatriate positions will be transitioned to Ecuadorian employees as they acquire the necessary skills, competencies and experience.

Initially, Aurelian will develop the surface and underground mine infrastructure using skilled, experienced contract labour, a significant proportion of whom are expected to be expatriates. This contract labour will mainly be used to construct specialized pieces of infrastructure (e.g. declines, raise bores, process plant). During mine construction and operations, training of local labour will be a priority. Over time, there will be a gradual introduction of local labour and transition to the Owner's team, phasing out the use of expatriate labour to the extent possible and practicable.

The primary gap between the available labour supply and the Project demand is for mining-specific occupations. Therefore, the employment strategy will focus on training for skilled and semi-skilled work in mine operations, paste backfill plant and process plant operations. Cultivating a work force for an industry currently in its infancy will require communication and outreach that focuses on building occupational and industry awareness so that individuals have sufficient information to make career decisions.

Aurelian Ecuador S.A. recognizes the potential risks inherent in developing, recruiting and retaining a skilled work force for the Project. Management and the Human Resources Department will actively manage human resource-related risks through the proposed training programs, HR approach, and policies.

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17 - 02 - 2014

9.0 CAPITAL AND OPERATING COSTS

9.1 Capital Cost Estimates

9.1.1 Basis of Estimate

The methodology used in the development of this estimate and the level of engineering definition result in the estimate having an accuracy of ±10% to ±15% including the contingency based on the 80% confidence level. Costs were built in Q1 2016 US dollars.

The cost estimate was divided into the following elements:

- Early Works:
  - The main objective of the Early Works is to build the infrastructure, services and facilities to support the start of construction of the mine declines and to reduce the risk for the basic engineering and remaining earthworks. Also included in the early works are geotechnical investigations and survey work required for detailed engineering.
- Capital costs:
  - Direct costs: costs for productive works and permanent infrastructure. Includes productive infrastructure, services and equipment required for the extractive process
  - Indirect costs: costs needed to support the construction of the facilities included in the direct costs. Includes engineering, procurement and construction management (EPCM) services, EPCM temporary facilities (infrastructure) and construction management, construction camp and associated services, capital spare parts, freight and logistics
  - Owner's costs: costs associated with Aurelian's Project management, geological studies, support infrastructure, safety and environmental, community relations, administration and finance, human resources and others
  - Contingency: includes variations in quantities, differences between estimated and actual equipment and material prices, labour costs and site-specific conditions. Also accounts for variation resulting from uncertainties that are clarified during detail engineering, when basic engineering designs and specifications are finalized
- Sustaining and closure costs:
  - Capital expenditures after the start of operations include costs for the tailings dam wall growth, mine and other equipment replacement, the paste fill plant, and

closure costs. The capital cost estimate includes construction activity costs to Q1 2020. Costs after this are classified as sustaining capital.

The implementation phase is planned to start on 1 July 2017. Any construction before this date is considered Early Works and additional to the capital cost estimate.

The following items were excluded from the capital cost estimate:

- Sunk costs incurred to date, including studies and Early Works
- Taxes (included in the financial model)
- Geotechnical anomalies (must be considered as risk)
- Pre-operations testing and start-up beyond commissioning and loaded test
- Operating costs
- Changes to design criteria
- Work stoppages
- Scope changes or an accelerated schedule
- Changes in national law
- Changes in national duties
- Hydrological issues
- Environmental issues
- Hazardous waste issues
- Closure costs (included in sustaining capital estimate)
- The cost of the mobile fleet required to support plant operations (these are included in the operating costs).

9.1.2 Early Works

The Early Works consist mainly of infrastructure, environmental and preliminary mining works such as the construction of access and on-site roads, platforms, water management infrastructure, the extension of the existing Las Peñas camp, biotic rescue,

archeological rescue, biotic, environmental and archeological monitoring, deforestation, survey, geotechnical drilling and tendering of the mine development work.

The total cost budgeted for the early works, which is scheduled from June 2016 to July 2017 is approximately $32.7 million

9.1.3 Estimated Capital Cost

The estimated capital cost is $668.7 million and the breakdown by year is illustrated in Figure 9.1 and by area is shown in Table 9.1.

Figure 9-1: Capital Investment by Year

Table 9-1: Initial Capital Cost Summary by Area

Description	Amount (US$ M)	% of Total
Underground mine	120.5	18.0
Ore handling	7.5	1.1
Process plant	74.3	11.1
Tailings/ reclaim water facilities	30.8	4.6
On-site infrastructure	121.4	18.2
Off-site infrastructure	71.2	10.6
Aggregate borrow pit	0.4	0.1
Indirect costs	126.1	18.9
Owners costs	49.3	7.4
Contingency	67.3	10.1
Total	***668.7***	***100.0***

Note: Totals may not sum due to rounding

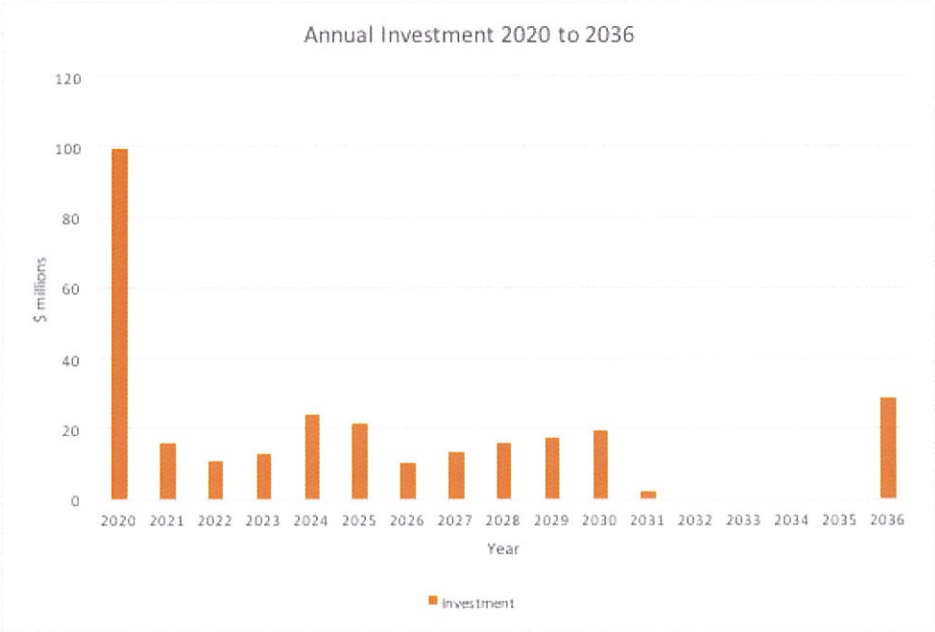
9.1.4 Sustaining Capital

The sustaining capital is for planned future capital works for the Project, mainly the tailings dam wall raises, paste backfill plant, and mine equipment replacement. Closure costs are also included in this category.

The estimated sustaining capital and closure costs total US$291.9 million. The portion of the sustaining capital cost estimate that relates to closure costs is estimated at US$28.8 million.

The anticipated sustaining capital spend by year is shown Figure 9.2.

Figure 9-2: Sustaining Capital Costs by Year Summary



9.2 Operating Cost Estimates

9.2.1 Basis of Estimate

The operating cost estimate was based on Q1 2016 assumptions and has an accuracy of ±10%. All operating cost estimates are in US$ and do not include any foreign exchange calculations.

The general assumptions for the operating costs are shown in Table 9-2

Table 9-2: General Rate Assumptions

Area	Unit	Value
Plant capacity	t/d	3,500
Days per year	days	365
Hours per day	hours	24
Years of operation	years	14
Power	US$/kWh	0.0883
LOM production	tonnes x 1,000	15,477
LOM gold grade	Au g/t	9.67
LOM silver grade	Ag g/t	12.74
Diesel premium (tax excluded)	US$/L	0.352
Diesel #2 (tax excluded)	US$/L	0.320
Gasoline (tax excluded)	US$/L	0.365
Fuel transport	US$/L	0.079
Value-added tax (IVA)	%	12

9.2.2 Operating Cost Summary

The overall life of mine operating cost estimate is US$118/t in Q1 2016, and includes base costs, non-recoverable taxes and leasing. The LOM undiscounted total is estimated to be US$1,828 million. Operating costs are estimated at US$414/oz Au including all site costs and excluding transportation of concentrate and doré, based on the production of 4.42 Moz of gold over the LOM.

A summary of the costs by area is provided in Table 9-3

Table 9-3: Operating Cost Summary

Area	LOM Total US$ (million)	US$/t	US$/oz Au
Mining	934.4	60.30	211.5
Process	516.9	33.40	117.0
Surface infrastructure	142.8	9.20	32.3
G&A	234.2	15.10	53.0
Total	***1,828.3***	***118.00***	***413.8***

Note: Totals may not sum due to rounding

10.0 EXECUTION PLAN

10.1 Execution Plan

The proposed Project schedule is included as Figure 10-1.

10.1.1 Implementation Strategy

The implementation strategy for the Project is dictated by the duration of the construction of the twin declines, which will provide access to the deposit; the estimated duration for this construction is 34 months. It is possible to build all the surface facilities including the process plant and associated infrastructure during this period. Therefore, the construction of the mine access is the critical path and the Early Works to expedite the construction of the access are also critical. The objective of the Early Works is to build access and platforms for the start of construction of the portals and declines, and to provide support facilities. The Early Works have been given special attention in the execution plan because they will need to start very soon, if the proposed Project schedule is to be met.

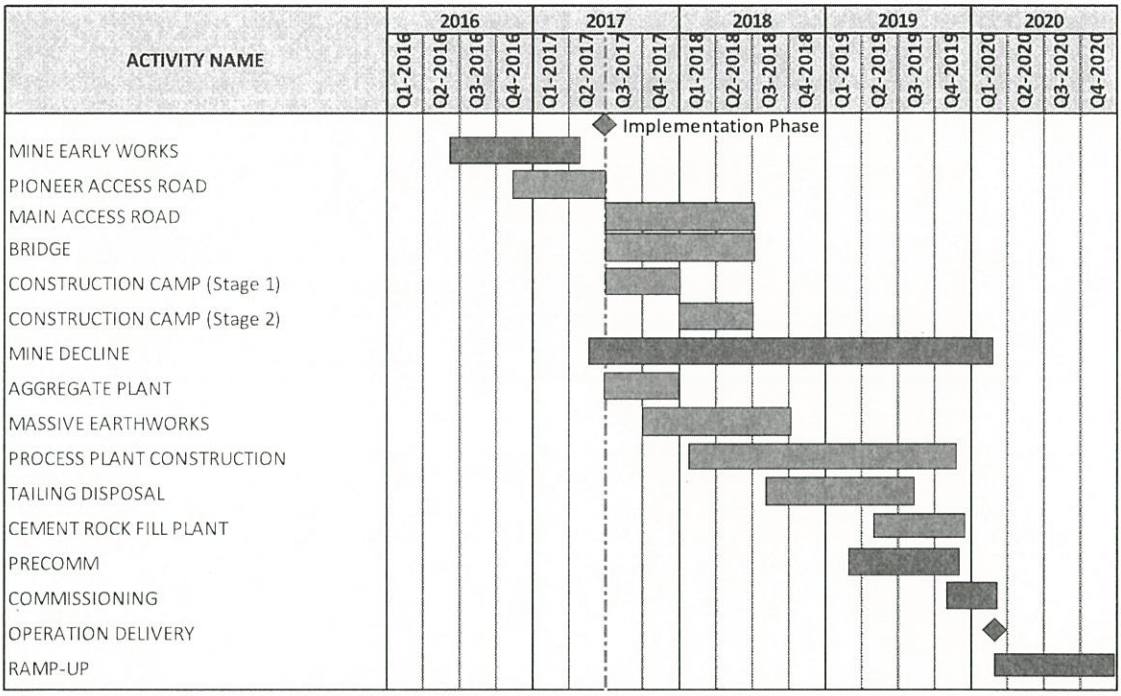
Planned Schedule

The Project schedule entails significant project activity durations, some of which may run concurrently, and includes a duration of 11 months for the engineering, procurement, contracting and preliminary construction of Early Works, 12 months for the construction of the access road and bridge over the Zamora River, 34 months for construction of the twin declines, six months to develop the aggregate borrow pit and plant, nine months for the mass earthworks and 20 months for the construction of the process plant and facilities.

Backfill Plant

The mining operation requires a CRF plant which will provide material for filling early stopes in the mine, and a paste backfill plant for filling later stopes when tailings are available. It is estimated that the paste backfill plant will only be required to be in operation after 2020.

Figure 10-1: Project Schedule



Process Plant

The Project execution plan considers the parallel development of the mine and the construction of the process plant. The process plant will be pre-commissioned by section based on the construction completion. Six months has been allowed for pre-commissioning and includes the start to finish of all sections in the process plant. Sufficient time is allocated for corrections and for ensuring that the electro-mechanical operability of the plant is achieved prior to commissioning.

Commissioning will be staggered with pre-commissioning. It is planned to use low-grade ore from the low-grade stockpile for commissioning, which is expected to be completed in January 2020. Hand-over to the operations team is expected in early February 2020. The ramp-up to full production will start in February 2020 and continue to January 2021 when a throughput of 3,320 t/d will be achieved. The ramp-up period and monthly throughput is dictated by the mine plan. Throughput is expected to be consistent at 3,320 t/d for the next 37 months when the production will increase to 3,500 t/d as the mine develops.

Camps

A new camp will be built before the start of major works to house the construction staff. During the Early Works it is planned to expand the current Las Peñas camp and also to install a temporary camp at the portals. The camps will provide all the services necessary for accommodation, catering and recreation for the construction staff, including domestic and industrial water, power from diesel generators and sewage treatment.

Water Supply

Drinking water will be bottled water.

Construction water will be obtained from the accumulation ponds designed for the water management system. Each contractor will be responsible for extraction, transport, storage and distribution of the water from these ponds to the work site.

Power Supply

During the construction period the permanent power supply will not be available (the permitting and construction of the main supply line will be done in parallel with the construction of the mine and plant facilities). Therefore, it is planned to use diesel generators during the construction period. The permanent power supply is assumed to be available for the start of pre-commissioning of the plant in April 2019.

11.0 CLOSURE

11.1 Closure Plan

Closure planning has been undertaken to a conceptual level, and will be continually updated throughout the Project life. The conceptual Closure Plan has been developed in accordance with Article 125 of the Environmental Regulations for Mining Activities (RAAM) and Title X of the Mining Safety Regulations.

The conceptual Closure Plan defines the closure objectives and goals. The main principle will be passive or preventive care, which requires minimal management and maintenance after closure. The closure activities cover closure aspects related to environmental factors such as soil, air and water which are directly related to the community health and safety. Aspects related to economic and cultural dynamics of the communities have not been considered in the plan.

The definitive closure will be done in accordance with Art. 124 of RAAM, which requires that the definitive Closure Plan must be presented two years prior to cessation of operations.

A Social Impact Management Plan (SIMP) will be developed and implemented to manage socioeconomic impacts of the Project (both positive and negative) throughout all phases of the Project, including closure.

11.2 Closure Plan Objectives and Activities

Aurelian´s closure objectives include the following four goals:

Protect the health and safety of communities

Prevent, minimize and mitigate any adverse environmental impacts

Restore disturbed areas to the condition in which they can be self-sustaining, making possible the land use established in the Closure Plan

Ensure the chemical, physical and hydrological stability of the waste storage areas in the long term, including the TSF and other mine facilities.

The expected closure activities that will be undertaken include:

Dismantling of buildings, equipment, machinery, services and other surface and underground infrastructure

Chemical and physical stabilization of the waste rock dumps and ore stockpiles, and the tailings storage area

Rehabilitation of surfaces that have been affected by earthmoving and storage of ore and waste rock by reshaping and revegetation

Remediation of contaminated soil

Closure of access points and filling in of underground openings

Monitoring.

11.3 Closure Costs

Aurelian has allocated closure costs of $28.8 million in the conceptual Closure Plan. A number of areas that will impact the final closure estimate will be determined during the construction and operations phases, and prior to the final closure plan that is required to be lodged prior to cessation of operations. These areas include confirmation of the necessary quantity of NAG and/or neutralizing material that will available to effectively manage the PAG waste rock in the long term, confirmation of the flows and quality of water requiring treatment post-operations, predictions of the number of years water treatment would likely be required once rehabilitation activities have been completed, evaluation of the water capture and treatment that may be required for the Hollín Borrow Pit and associated WRSF, confirmation of the cyanide destruction process, and consideration of the most applicable cover and rehabilitation materials for the various areas. Lundin Gold will also review opportunities to conduct progressive reclamation. There is an expectation that the final closure costs may be higher than the allocation in the conceptual closure plan when the applicable data have been reviewed and incorporated.

APPENDIX C

This Appendix to the Exploitation Contract contains illustrative and exemplary examples of the method of calculation and application of the Windfall Tax, Royalties and Sovereign Adjustment. The examples used are for illustrative purposes, in order to detail the mechanism for such calculation and are not intended to represent the current or projected income, cash flows, taxes or duties under the Fruta del Norte Mining Project.

WINDFALL TAX

The formula for calculating the Windfall Tax is established in Article 86 of the General Regulations of the Mining Law.

BASE PRICE

The formula for calculating the Base Price is established in Article 86 of the General Regulations of the Mining Law.

For further clarity, the following example contains what would be the Daily Price to be used in calculating the Base Price as at September 30, 2015:

Calculation of the Daily Price to be used in calculating the Base Price		
PD_1	Average LBMA AM/PM Fixed Price for Day 1 (October 1, 2005)	465.55
FI_1	Average US CPI from the beginning of the Period to Calculation Date	1.1945
$PD_1 \times FI_1$	Daily Price adjusted for CPI for Day 1 (October 1, 2005)	556.10

Based on this, the Base Price at September 30, 2015 would be:

PM	1,197.92
Plus: 1 σ	352.96
PB	**1,550.88**

GROSS SALES PRICE

The formula for calculating the Gross Sales Price is established in the unnumbered article following Article 86.1 of the General Regulations of the Mining Law.

For clarity purposes, the following is an illustrative example of the Gross Sales Price:

Calculation of the Gross Sales Price of Gold (USDm, unless otherwise provided)		
	Final settlement of the payable mineral	11.90
CP	Divided by: quantity of gold (ounces)	10,000
PVB	**Gross Sales Price of Gold (USD/oz)**	**1,190**

Calculation of the Gross Sales Price of Silver (USDm, unless otherwise provided)		
IN	Final settlement of the payable mineral	0.07
CS	Divided by: quantity of silver (ounces)	5,000
PVB	**Gross Sales Price of Silver (USD/oz)**	**13.00**

APPLICABILITY OF THE WINDFALL TAX

The formula for determining the applicability of the Windfall Tax is established in Article 86 of the General Regulations of the Mining Law.

The Windfall Tax will be enforceable 48 months after the month in which the pre-operational preparation and development investments made exclusively before the start of production, have been fully recovered from a financial perspective.

To determine what month the investment is recovered, a prorated free cash flow shall be calculated of such year in respect of the investment to be recovered.

$$BA_n > MIR_n$$

Where:

n = Current Year of Calculation
BA = Benefits Accrued through the year n
MIR = Amount of Investment Recoverable in the year n

This calculation shall be made annually as of the year production starts, in accordance with the definition contained in the Mining Exploitation Contract.

Amount of Investment Recoverable (MIR) : The MIR will be equivalent to the total accrued amount of pre-operational preparation and development investments of each Tax Year made exclusively before the start of production in accordance with the provisions of the Mining Exploitation Contract. Additionally, this amount shall be calculated taking into account the total accrued historical costs (excluding impairment, depreciation and amortization costs or other costs that do not involve the expenditure of money), according to the following formula:

$$\mathbf{MIR_n = \sum_{i=1}^{n} C_i}$$

Where:

n = Current Year of Calculation
i = Years elapsed since the date of granting of the concession
MIR = Amount of Investment Recoverable in the year n
C_i = Costs incurred in each year i

Costs incurred (C_i): Costs incurred in each year will include the following:

$$\mathbf{C_i = FCL\ (MIR)_i}$$

Where:

$FCL\ (MIR)_i$ = Free Cash Flow in each year i, whether positive or negative, as defined below:

Accrued Benefits (BA): The BA will be calculated cumulatively, on the basis of annual free cash flows as of the start of production, in accordance with the definition contained in the Mining Exploitation Contract, in accordance with the following formula:

$$\mathbf{BA_n = \sum_{i=1}^{n} B_i}$$

Where:

n = Current Year of Calculation
i = Years elapsed since the date of granting of the concession
BA_n = Accrued until n
B_i = Benefits in each year i

Benefits (B_i): The Benefits in each year will include the following:

$$\mathbf{B_i = FCF\ (BA)_i}$$

Where:

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FCL (BA)$_i$ = Free Cash Flow in each year i, whether positive or negative, as defined below:

Free Cash Flow: The Free Cash Flow will be calculated using the information contained in the income statement of the audited annual financial statements of the Mining Concessionaire prepared according to International Financial Reporting Standards (IFRS) and in accordance with the following formula:

FCL (MIR)$_i$ = UN + NM Expenses - NM Earnings - ΔCTN - IAF

FCL (BA)$_i$ = UN + NM Expenses - NM Earnings - ΔCTN

Where:

UN = Net Income of the company recorded according to IFRS in the income statement.

NM Expenses = Non-monetary expenses: costs deducted to arrive at net income not involving any cash flow, including but not limited to the depreciation of fixed assets, amortization of goodwill or intangible assets, share-based non-cash compensation expenses.

NM Earnings = No-monetary earnings: earnings considered to arrive at net income not involving any cash flow.

ΔCTN = Annual Change in Net Working Capital (current assets less current liabilities), excluding short-term investments in other companies.

IAF = Capital Expenditures (CAPEX): net investment in fixed assets (total investment in fixed assets, minus net income after tax from the sale of fixed assets), excluding acquisitions or divestments of shares, concessions or equity interests in other companies.

Illustrative Example

For further clarity, the following is an illustrative example for determining the application of the Windfall Tax:

Calculation of Recovery of Recoverable Investment (USDm unless otherwise provided)		Previous years	End of year 0	End of year 1	End of year 2	End of year 3
C_i	Annual Recoverable Investments	**See note**	150	100		
MIR_n	Accrued Recoverable Investment	200	350	450	450	450
B_i	Annual Benefits			150	200	101
BA_n	Accrued Benefits			150	350	451
	$BA_n > MIR_n$	No	No	No	No	Yes
	NB: Accrued investments from grant date of the mining concession					

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In the above example, the Accrued Benefits exceed the Accrued Recoverable Investment at the end of year 3. Therefore the application of the Windfall Tax will begin as of year 8, provided the Net Sales Price also exceeds the Base price.

ROYALTIES

Royalties will be calculated in accordance with the Auditing Instructions, Royalty Calculation and Benefits of Metallic Mining Activities.

The following example illustrates the way to calculate Royalties using a fictitious invoice issued on October 1, 2015:

Calculation of Royalties (USDm, unless otherwise provided)		
CG	Quantity of Gold (ounces)	10,000
PO	Multiplied: International Price of Gold (USD/ounce)	2,000
CP	Amount of Silver (ounces)	1,000
PP	Multiplied: International Price of Silver (USD/ounce)	15.00
IBPM	Gross Income from Mineral Products	20.02
GTI	Less: International Transportation Expenses	-0.10
CR	Less: Treatment and Refining Process Charges	-0.40
NSR	Less: Transportation Expenses	-0.10
IIE	Net Income from Smelting	19.40
	Less: Windfall Tax calculated using a Base Price of USD 1,550.88	-2.70
IN	Net Income from Mineral Products	16.70
% Roy	Multiplied: Royalty Percentage (%)	5.0%
	Royalty Payable	**0.80**

Note: In the above example the payment of tax over Windfall Income is assumed

SOVEREIGN ADJUSTMENT

The Sovereign Adjustment will be calculated in accordance with Article 86 of the General Regulations of the Mining Law.

For further clarity, the pre-operational investments contained in Appendix I will be included in the calculation of the Sovereign Adjustment.

The following is an illustrative example of the Sovereign Adjustment:

Calculation of the State's Benefits in any given year (USDm, unless otherwise provided)		
IIE	Plus: Windfall Tax	2.7
IR	Plus: Income Tax	40.0
VAT	Plus: Unrecovered VAT	0.0
U	Plus: 12% Labor Profit-Sharing delivered to the State	15.0
R	Plus: Royalties (State and Municipalities)	1.8
AS_{n-1}	Plus: Sovereign Adjustment paid in previous years	1.0
BE	**State Benefits**	**60.5**

Calculation of the Sovereign Adjustment (USDm unless otherwise provided)		Previous years	Year 0	Year 1	Year 2	Year 3	Year 4
BE	Annual State Benefit	**See Note 1**	20	50	100	60	60

r	Applicable Rate (%)	10%	10%	10%	10%	10%	10%
CBE_n	Accrued State Benefits at present value of year n	50	75	133	246	331	424
BC	Annual Benefits of the Mining Concessionaire	**See Note 1**	-150	150	200	250	250
r	Applicable Rate (%)	10%	10%	10%	10%	10%	10%
CBC_n	Accrued Benefits of the Mining Concessionaire at present value in Year n	-100	-260	-136	50	305	586
CBT	Accrued Economic Benefits	-50	-185	-3	296	636	1,010
	State's Accrued Economic Benefits (minimum %)		50%	50%	50%	50%	50%
	State's Accrued Economic Benefits		-93	-2	148	318	505
AS	Applicable Sovereign Adjustment		0	0	0	0	81

Note 1: Cumulative benefits from grant date of the mining concession

Note 2: The amounts used in the above example are merely illustrative

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APPENDIX D


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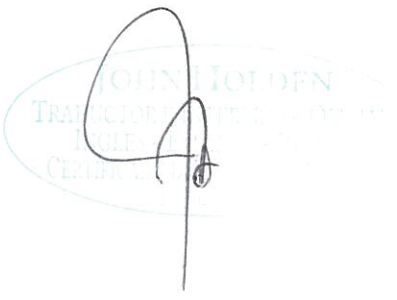

Ministerio de Minería

FINAL NEGOTIATION MINUTES
NEGOTIATION PROCESS FOR THE SIGNING OF THE MINING EXPLOITATION CONTRACT OF THE FRUTA DEL NORTE PROJECT

In the city of Quito D.M. on the 13 day of December, 2016 for the purpose of concluding the negotiation process for signing the Mining Exploitation Contract of the Fruta del Norte project, the members of the Negotiating Teams have assembled - in representation of AURELIAN ECUADOR S.A.: Ronald Hochstein, Pablo Mir and Rodrigo Borja; in representation of the Ministry of Mines: Galo Armas, Henry Troya and Sayda Rosales, General Legal Coordinator; also Carlos Díaz of the Mining Regulation and Control Agency, ARCOM, as an official of one of the entities attached to the Ministry of Mines; and as external advisor Patrick Barnes of Consultants Wood Mackenzie, in order to agree on the signing of the Final Negotiation Minutes, in the following terms:

I. BACKGROUND

The negotiation process for the signing of the Mining Exploitation Contract of the Fruta del Norte project was conducted in accordance with the provisions of the Instructions for the Exploration and Exploitation Stages of Mining Concessions, Negotiation and Signing of Mining Exploitation Contracts, based on which, on November 25, 2015, the first session of the Negotiating Teams initiated the negotiation process subject to the provisions of Article 39 of the Mining Law "The mining concessionaire shall be entitled to apply to the Line Ministry, throughout the period of economic evaluation of the deposit, for its passage to the operational stage and the subsequent signing of Mining Exploitation Contract [...] ". In accordance with Ministerial Resolution No. 2015-048 which establishes the "Instructions for the Exploration and Exploitation Stages of Mining Concessions, Negotiation and Signing of mining Exploitation Contracts," and whose Article 7 states that "at the request of the mining concessionaire pre-contractual negotiations may be initiated during the period of Economic Evaluation of the Reservoir and agreements may be entered into with respect to the [terms, conditions and deadlines for the stages of construction and assembly, mining, transportation and marketing of minerals obtained within the limits of the mining concession] as set forth in Article 41 of the Mining Law."

The negotiation process consisted of four sessions, in which *inter alia,* the following agreements were reached:

The first session of the Negotiating Teams took place on November 25, 2015, since on October 30, 2015 Ministerial Resolution No. 2015-048 was issued, repealing Ministerial Resolution 261, thus allowing the negotiation process to proceed. Therefore the Negotiating Teams were formed and the corresponding team leaders were elected. The pre-contractual agreements prepared by the technical teams of the Ministry of Mines and AURELIAN ECUADOR S.A. were also validated. Finally the economic model requested for the company was analyzed, which was recorded in an exemplary appendix.

The second session of the Negotiating Team took place on December 09, 2015. The technical-administrative situation of the concessions of the Fruta del Norte mining project was discussed, and the appendix related to the economic model was updated, warranting the need to

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validate same with the Internal Revenue Service (*Servicio de Rentas Internas* - SRI) in respect of the conceptualization and implementation of certain taxes.

The third session of the Negotiating Team took place on December 17, 2015. At this session the list of consultants for resolving technical discrepancies that you may arise in the execution of the contract was presented, which will be attached as an appendix. The technical-legal text defined for the exploitation contract was also approved. Finally, the points of the economic model were updated according to the comments made by the SRI in the previous meeting.

The fourth session took place on January 13, 2016, the purpose of which was to endorse all the agreements reached so far and the text agreed on as an intermediate product within the process of negotiating the mining exploitation contract of the Fruta del Norte project and its respective appendices, as established in Article 7 of the Instructions for the Exploration and Exploitation Stages of Mining Concessions, Negotiation and Signing of Mining Exploitation Contracts.

These agreements were endorsed by the Minister of the Ministry of Mines by memorandum No. MM-DM-2016-0028-ME of January 27, 2016 and communicated to the members of the Negotiating Teams on February 26, 2016 through memorandum No. MM-VM-SN-CM- 2016-0013-OF.

Subsequently six more sessions were held, at which specific points related to the outstanding issues prior to the signing of the Mining Exploitation Contract were discussed, as detailed below:

The fifth session of the Negotiating Teams took place on Tuesday July 12, 2016, at which were discussed, *inter alia:* the regulatory development related to Mining Exploitation Contracts in Ecuador; determination of the permits and other authorizations pending the signing of the Contract; and review of the terms of the Mining Exploitation Contract agreed by the teams. The agreements reached in the framework of the points discussed, was the identification of the qualification documents and appendices that will be attached to the contract in order to conclude the negotiation process with the complete documentation.

The sixth session of the Negotiating Teams took place on Tuesday, July 26, 2016 and its purpose was to discuss, *inter alia*, the modification of the sections of the Contract related to the Environmental Management Plan and Environmental Impact Study and consequences of the suspension in terms of environmental effects. Regarding the foregoing the members of the Negotiating Teams agreed that in Section 9.1 of the Exploitation Contract it is necessary to clarify the manner, methodology and circumstances in which the legal figure of the suspension would apply. It was agreed that the legal commission would meet to prepare the section and submit same for approval by the members of the Negotiating Teams.

The seventh session of the Negotiating Teams took place on Tuesday, August 9, 2016, and its purpose was to review the impacts caused by Resolution No. NAC-DGERCGC16-00000204 issued by the SRI on mining projects. It was agreed that the National Under-Secretariat of Mining Contracting would prepare a document explaining the impacts for the three mining projects.

The eighth session of the members of the Negotiating Teams took place on Tuesday, August 23, 2016, at which the roadmap with the issues outstanding prior to the signing of the Mining

Exploitation Contract was presented, identifying those responsible for each activity and the possible time for its fulfillment.

The ninth session of the Negotiating Teams took place on Tuesday , September 6, 2016, at which the final update of the Security Assignment and Suspension sections were discussed. The legal criteria of the attending members were presented and it was agreed that the Legal Commission would meet with a view to preparing a draft of the sections for their respective approval.

The tenth session of the Negotiating Teams took place on Tuesday , September 20, 2016, where, in addition to reviewing the points outstanding prior to the signing of the Mining Exploitation Contract, it was noted that with respect to the issuance of the Environmental License, AURELIAN ECUADOR S.A. was working on the final version of the Environmental Impact Study, subject to revisions requested by the Ministry of the Environment regarding the Community Relations Plan.

The eleventh session of the Negotiating Teams took place on Tuesday, October 4, 2016, at which the definitions worked on by the legal team regarding the start of production were socialized.

The negotiation process for the signing of the Mining Exploitation Contract of the Fruta del Norte project contract involved twelve negotiation sessions, the details of which, recorded in minutes, duly signed by the leaders of the Negotiating Teams, is attached hereto as **Appendix 2.**

The negotiation process also required meetings of the technical, economic and legal commissions, involving members of the Negotiating Teams according to their field of expertise. .

II. Statement of agreements reached

Within the negotiation process for the signing of the Mining Exploitation Contract of the Fruta del Norte project, the following agreements were reached:

a) Royalties

Royalties, determination of percentage, method of calculation, form of payment and verification.

The Mining Concessionaire agrees to pay a Royalty to the State during the term of this Contract in the terms set forth in Article Ninety-Three (93) of the Mining Law, Article Eighty-Two (82) of the General Regulations of the Mining Law.

Percentage of the Royalty: The Mining Concessionaire shall pay as Royalty five percent (5%) calculated on Net Income (in accordance with the Instructions for Auditing, Calculation of Royalties and Benefits of the Metal Mining Activity, which is explained in Appendix E of the Mining Exploitation Contract) actually received from the sales of Mineral Products (Primary Mineral and Secondary Mineral) extracted from the Contract Area, considering for such calculations the International Price of the Primary Mineral, applicable in accordance with such Instructions, i.e., gold according to the value set in the respective Commercialization Contract.

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Royalties shall be calculated for each shipment made, and the payment thereof shall be made to the State every six months. The payment due is calculated as the sum of the Royalties calculated for each shipment occurring during the six months in question, based on the Instructions for Auditing, Calculation of Royalties and Benefits of the Metal Mining Activity, the Net Income (for the payable metals) and the percentage of Royalties applicable to each shipment.

The Mining Concessionaire shall inform the Line Ministry and the ARCOM about the start date of production and the first commercial sale of Mineral Products (Primary Mineral and Secondary Mineral) extracted from the Contract Area. For the purposes of this notification, the term "start of production" shall be understood to be the date the Mining Concessionaire notifies the State that the beneficiation plant has reached 85% of production, according to its design capacity, for a continuous period of three months.

For the purposes of this section, the term "Mineral Products", whether these are the Primary Mineral or the Secondary Mineral, shall be understood to be any marketable product derived from ore extracted from the Contract Area or other mineral products that are further processed as part of the mining operation related to the Contract Area.

Calculation of the Royalty: The Royalty will be calculated on the net income actually perceived by the Mining Concessionaire from sales of Mineral Products, which corresponds to International Sale Price, in accordance with the Instructions for Auditing, Calculation of Royalties and Benefits of the Metal Mining Activity, section fifteen point three (15.3) and Appendix C of the Mining Exploitation Contract.

Payment of Royalties: the payment of Royalties shall be made twice a year, in accordance with Applicable Law.

Verification: For verification purposes the State may take into account the information reflected in the tax returns filed by the Mining Concessionaire with the Internal Revenue Service, as well as that which appears in the semiannual production reports submitted to the ARCOM and audit reports made by the State in accordance with the Mining Exploitation Contract and Applicable Law.

Deductibility of Royalties: The amount accrued as Royalties will be considered as an expense deductible from the calculation base of the Income Tax for the Fiscal Year to which such Royalties correspond.

b) Advance Royalties

Advance Royalties: pursuant to Article Eighty-Two (82) of the General Regulations of the Mining Law, advance royalties will be agreed for a value of sixty-five million United States dollars (USD 65,000,000.00).

The Mining Concessionaire undertakes with the Line Ministry to pay the royalty percentage on net income actually perceived from the marketing of the Mineral Products.

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INGLES - ESPAÑOL
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Payment of the Advance Royalties: The Advance Royalties shall be paid as follows: the first disbursement of twenty-five million United States dollars (USD 25,000,000.00) will be made upon entering into the Mining Exploitation Contract. The second disbursement of twenty million United States dollars (USD 20,000,000.00) will be paid within one year from the date of entering into the Mining Exploitation Contract; and the third disbursement of twenty million United States dollars (USD 20,000,000.00), which will be paid within two years from the date of entering into the Mining Exploitation Contract.

Settlement of Advance Royalties: all the payments made by the Mining Concessionaire in respect of Advance Royalties, will be charged against the Royalties payable by the Mining Concessionaire as of the beginning of the exploitation of minerals in the Contract Area pursuant to Section 15 of the Mining Exploitation Contract. At the end of each six-month period, a provisional settlement of the accrued Royalties will be drawn up, which will be credited in favor of the Royalties to be paid by the Mining Concessionaire, in an amount equal to the lesser of (i) 50% of the Royalties payable by the Mining Concessionaire in that semester, and (ii) 10% of the Advance Royalties, as detailed in Appendix E of the Mining Exploitation Contract. This limit will apply until the Advance Royalties are settled in full.

c) State participation

The Parties expressly acknowledge and agree that in accordance with Article 408 of the Constitution and in accordance with Article 93 of the Mining Law, the State will participate in the economic benefits of the exploitation of the minerals subject to this Contract in a percentage of the least fifty percent (50%) in accordance with Applicable Law.

d) Base Price for determining Windfall Tax

The Base Price for the Primary Mineral and Secondary Mineral will be established monthly using basis for such effect the information available at that time. The calculation will be made according to the calculation formula contained in Article 86.1 of the General Regulations to the Mining Law and Appendix C of the Mining Exploitation Contract and using the Consumer Price Index of United States of America published by the Central Bank of Ecuador, or the entity that replaces it, or in their absence, through the indexes published by Bureau of Labor Statistics of the United States of America.

III. Authorizations

The Environmental Impact Study of the Fruta del Norte project is approved as evidenced in Article 1 of Resolution No. 271 of October 28, 2016 issued by the Under-Secretariat of Environmental Quality of the Ministry of the Environment; as is the respective Environmental License for the phases of Exploitation, Beneficiation, Smelting and Refining of metallic minerals in the operational area of the LA ZARZA concession, code 501436, construction of complementary infrastructure in the COLIBRÍ 2, code 501389 and COLIBRÍ 4, code 501433 concessions and also for the exploitation of construction materials in the COLIBRÍ 4 concession, code 501433, located in Los Encuentros parish, Yantzaza canton, Province of Zamora Chinchipe.

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AURELIAN ECUADOR S.A. is going to enter into an Investment Agreement with the Coordinating Ministry of Production, Employment and Competitiveness represented by Mr. Vinicio Alvarado Espinel, in his capacity as Coordinating Minister of Production, Employment and Competitiveness, and therefore President of the Sectorial Council of Production, the text of which was already agreed with such Ministry.

IV. Conclusion of the negotiation process

The members of the Negotiating Teams acknowledge that the agreements reached will take effect once the Mining Exploitation Contract is entered into.

These Final Negotiation Minutes do not constitute an authorization for the execution of exploitation activities by the Mining Concessionaire.

In accordance with the provisions in the fourth paragraph of Article 8 of the *Instructions for the Exploration and Exploitation Stages of Mining Concessions, Negotiation and Signing of Mining Exploitation Contracts,* the leaders of the Negotiating Teams sign these minutes.

Mr. Galo Armas, M. Sc.
Leader of the Negotiating Team of the Ministry of Mines

Mr. Pablo Mir
Leader of the Negotiating Team of Aurelian Ecuador S.A.

Mr. Henry Troya Figueroa
Secretary

JOHN HOLDEN
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INGLÉS - ESPAÑOL / ESPAÑOL - INGLÉS
CERTIFICADO DE IDONEIDAD No. 0394
17 - 02 - 2014

APPENDIX E


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INGLES-ESPAÑOL - INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17 - 02 - 2014


JOHN HOLDEN

ACCOUNTING REGULATIONS FOR LARGE-SCALE METAL MINING CONTRACTS

(Resolution No. 001)

THE BOARD OF DIRECTORS OF THE MINING REGULATION AND CONTROL AGENCY,

Considering:

That Articles 1, 313, 316 and 408 of the Constitution of the Republic of Ecuador provide that the non-renewable natural resources in the State's territory, in general, products of the subsoil, mineral and hydrocarbons deposits, are its inalienable, non-waivable and imprescriptible patrimony; and that the State reserves the right to administer, regulate, control and manage them according to the principles of environmental sustainability, precaution, prevention and efficiency, as well as to exceptionally delegate in the private initiative and the popular and supportive economy;

That Article 150 of the Mining Law stipulates that the Mining Regulation and Control Agency exercises jurisdiction and regulatory competency and control in mining matters nationwide;

That Articles 39 and 41 of the Mining Law provide that the mining concessionaire must enter into with the State, through the Line Ministry, a mining contract containing the terms, conditions and deadlines for the construction and assembly, extraction, transport and commercialization stages of the minerals obtained within the limits of the mining concession;

That Executive Decree 1062, published in the Official Gazette on Saturday, February 25, 2012, amended the Regulations for the Implementation of the Internal Tax Regime Law and granted the

controlling body of the sector the attribution to issue the relevant accounting regulations;

That Article 8 of the Mining Law determines that the Mining Regulation and Control Agency is the technical-administrative body that is responsible for the exercise of the State's power to monitor, audit, intervene and control the phases of the mining activity;

That Article 9 of the Mining Law grants powers and responsibilities to the Mining Regulation and Control Agency, including the issuing of regulations and technical plans for the proper functioning and development of the sector;

That it is necessary to establish the procedures that allow for the application of the provisions in the Internal Tax Regime Law; and,

That in exercise of the powers granted by the Mining Law, the Regulations for the Implementation of the Internal Tax Regime Law and other relevant legislation,

It hereby resolves:

To issue the following **ACCOUNTING REGULATIONS FOR LARGE-SCALE METAL MINING CONTRACTS**.

Title I
KEY PROVISIONS

Article 1. Purpose of the regulations. The purpose of these regulations is to standardize the presentation of accounting information and the criteria that the mining concessionaires must maintain and apply during the term of the mining exploitation contract, and also to establish the standards and procedures to be observed by the Mining Regulation and Control Agency (*Agencia de Regulación y Control Minero* - ARCOM) in the control and supervision of the aforementioned contracts.

Article 2. Scope of application. These regulations will apply to all mining concessionaires who have entered into a metal mining exploitation contract with the State pursuant to Articles 39 and 41 of the Mining Law.

Chapter I
GENERAL PRECEPTS

Article 3. Applicable tax provisions. For tax purposes, mining concessionaires shall be subject to the applicable legal-tax system, to such effects: 1. Constitution of the Republic of Ecuador. 2. Tax Laws. 3. Tax Regulations. 4. These Regulations, pursuant to Executive Decree 825, O.G. 498 of July 25, 2011.

Article 4. General regulations. The mining concessionaires shall use an accounts plan, systems and procedures that are compatibles with these regulations and carry the accounts of the mining exploitation contract according to the provisions herein. In matters not provided, the International Financial Reporting Standards (IFRS) shall apply.

The financial statements of the mining concessionaires shall be submitted to the control entities, observing the criteria set forth in these regulations, on the date and in the manner prescribed by the regulations applicable to each case.

Article 5. Income of the mining concessionaire from the sale of minerals. The values of the income of the mining concessionaire from the sale of minerals, used for the calculation of income tax, windfall tax, royalties, the labor profit-sharing and sovereign adjustment, shall be consistent with each other, and shall not be lower than those used to calculate the royalty and its limits set out in these regulations, depending on the level of processing of the product sold and in accordance with the actual commercial terms. Any subsequent adjustment or determination by the ARCOM or the Internal Revenue Service (*Servicio de Rentas Internas* - SRI), for the application of the regulations concerning the calculation of royalties or transfer pricing will apply consistently for all corresponding calculations.

Article 6. Accounts. The accounts shall be carried:

- In Spanish.
- In United States dollars.
- According to the principles of accrued and double-entry accounting.

The mining concessionaire shall be responsible for the proper registration of assets, liabilities, equity, revenue, costs and expenses for each mining exploitation and concession contract.

Title II
ACCOUNTING CRITERIA

Chapter I
PROPERTY, PLANT AND EQUIPMENT

Article 7. Property, plant and equipment required for the mining activities under the mining exploitation contract. This shall be deemed to be any tangible, movable or immovable asset constructed or acquired by any title by mining concessionaires, to be used in the activities specified in the mining exploitation contract, with a useful life exceeding one year and whose cost is more than four unified basic remunerations per item, including: real estate, buildings, machinery (including parts and components), facilities, and other work tools and equipment located in the contract area and areas of related activities.

Article 8. Valuation of property, plant and equipment. For accounting purposes, these assets will be recorded at cost or at revalued value, less accumulated depreciation and accumulated impairment losses, where applicable. The cost is considered the fair value of the assets at the date of acquisition or construction. The cost includes:

a) Expenses that are directly attributable to the acquisition of the asset;

b) The cost of the constructed assets, materials and direct labor; and,

c) Any other cost directly related to the location of the asset and its commissioning, so that it can operate in the manner intended by management.

Article 9. Impairment of property, plant and equipment. Impairment will be calculated in accordance with the guidelines contained in the international accounting standard applicable to the impairment of assets. For tax purposes it will be considered non-deductible.

Article 10. Property, plant and equipment components and their useful lives. When parts of an item of property, plant and equipment have different useful lives, they shall be registered as separate items (components) of the property, plant and equipment, as established by the IFRS.

For tax purposes, the analysis of their deductibility shall be performed for each item.

Article 11. Depreciation of property, plant and equipment. These assets are classified as follows when determining their depreciation:

i) **Depreciable property, plant and equipment associated with the mining reserves.** Those assets that are related to the direct operation of the exploited mineral, such as: mill, beneficiation plant, tailing pools, and so on. For accounting purposes, they will be depreciated according to the Units of Production (UOP) method from the beginning of production.

For this purpose, the proven and probable mineral reserves estimated in the feasibility study previously prepared by the mining concessionaire and approved by the Line Ministry will be considered.

For tax purposes, the mining concessionaire shall observe the provisions of the Internal Tax Regime Law and its regulations; and,

ii) **Depreciable property, plant and equipment not associated with mining reserves.** All assets not covered by the above subsection, such as vehicles, machinery, computers, furniture, etc., which for accounting purposes are depreciated linearly over their respective useful lives as of the moment they are available for use.

For tax purposes, the mining concessionaire shall observe the provisions of the Internal Tax Regime Law and its regulations.

Chapter II
COSTS AND EXPENSES

Article 12. Production costs. These are all the costs of extraction, transportation, beneficiation, smelting and refining activities. Production cost includes materials, direct and indirect costs related to production, amortization of intangibles included in the production process, amortization of investments (pre-operational and preparation and development) and depreciation of property, plant and equipment related to the production of inventory.

The most relevant costs that could form part of the production cost, which must necessarily be incurred and are directly related to each contract are detailed below:

- Wages, salaries and benefits of all personnel including the costs of supervising the extraction concessions.
- Food, accommodation and personnel mobilization services.
- Industrial health and safety.
- Insurance of personnel, equipment and facilities.

- Maintenance of camps and their monitoring services.

- Maintenance of access roads to the mines and transport routes (roads and railways), ports and heliports and/or airports.

- Materials, supplies and chemicals consumed in the operation, including their transportation costs.

- Training and coaching of the technical personnel.

- Conservation patents paid in the exploitation phase according to Article 34 of the Mining Law.

- Fees for financial guarantees determined in the legal and regulatory environmental standards and performance bonds for the work and investment plan.

- Easements.

- Costs of the operation and maintenance of plant and machinery, equipment, mechanical and electrical components, including repairs needed for their proper functioning, but that do not increase the value of the assets and facilities owned by the contractor, used in production activities.

- Maintenance of technological systems.

- Costs of drilling, blasting, cleaning, filling and processing of the mineral used in beneficiation plants.

- Confirmatory exploration costs.

- Energy and fuels used in the operations.

- Leasing of machinery, equipment, transportation equipment, helicopters.

- Others not included in the above bullets.

For tax purposes, the mining concessionaire shall observe the provisions of the Internal Tax Regime Law and its regulations.

Article 13. Indirect expenses allocated from abroad to companies resident in Ecuador by their related parties. These expenses will be deductible pursuant to the provisions of the Internal Tax Regime Law and its regulations.

Article 14. Expenses incurred in community relations. Expenses incurred for obligations to the communities in the area of direct and indirect influence as set forth by Article 41 of the Mining Law, and established in the Community Relations Plan mentioned and regulated in the mining exploitation contract or through agreements entered into between the mining concessionaire and the community stakeholders and notified to the Line Ministry and the Mining Regulation and Control Agency, will be considered as deductible expenses when they are attributed to results, always provided that they meet all the requirements established to such effect in the tax regulations in force at the moment that these expenses are made.

Article 15. Distribution of administrative costs among different concessions. Administrative expenses incurred in several concessions before the issuing of these regulations, which have not been distributed among all the concessions, will be assigned based on the amount of the investments made in each mining concession.

Administrative expenses incurred in several concessions after the issuing of these regulations shall be distributed based on an expense allocation study to be drawn up by the mining concessionaire and submitted to the Mining Regulation and Control Agency (ARCOM) for approval. This study may be updated, therefore any amendments thereto must also be submitted to the ARCOM for approval. In the event that the concessionaire cannot demonstrate and identify in its accounting the relationship of such administrative costs with the mining exploitation contract, 80% of the total amount of administrative expenses attributable

to all mining concessions will be established as a maximum percentage to be assigned to the mining concessions subject to the mining exploitation contracts entered into, distributed proportionally to the annual production or, failing that, to the investments made annually in each one of them.

Article 16. Dismantling and environmental restoration costs. The costs of dismantling and environmental restoration of the area affected by the exploitation, beneficiation, smelting or refining of the mineral body will be established according to independent technical reports previously approved by the Mining Regulation and Control Agency, taking into considering what is established in the accounting standards in this regard.

For tax purposes, the dismantling and environmental restoration costs and expenses, including those related to property, plant and equipment, shall only be considered deductible in the period in which they are incurred.

Chapter III
INVESTMENTS

Article 17. Capitalization of investments. Investments will be capitalized once the works involved in the preparation, construction and assembly stage are completed and begin to provide the service for which they were created.

Article 18. Pre-operational investments incurred through the effective date of the mining exploitation contract. Those pre-operational investments made after the publication of the Mining Law, that is, January 29, 2009, apart from being reviewed and approved by the Line Ministry, shall be supported by exploration reports, pursuant to Article 38 of the Mining Law.

Investments made in the prospecting, initial exploration, advanced exploration and economic evaluation phases of the deposit shall be deemed exploration pre-operating expenses and investments.

For tax purposes, provided all the requirements established to such effect in the tax regulations are met, these investments must be straight-line amortized over five (5) years, counted as of the start of production.

Administrative expenses that have been incurred prior to the signing of exploitation contract shall be deemed pre-operational investments and therefore straight-line amortized over five (5) years counted as of the start of production declared by the Line Ministry.

The limits of deductibility of pre-operational administrative expenses incurred after the effective date of these regulations shall be defined by executive decree prior technical report of the Internal Revenue Service (SRI) and ARCOM.

Article 19. Complementary exploration investments during the exploitation phase. These are the costs incurred and directly related to the mining concession subject of the mining exploitation contract included in a declared exploratory investment program, 'complementary exploration' being understood to such effect to be those exploration methods and mining geological work that allow the establishing of new mineralized zones that have not been identified in the mining feasibility study and that can increase resources and reserves in the contract area.

For tax purposes, these investments shall be straight-line amortized over five (5) years, counted as of the start of production, and prior technical report and authorization by the Mining Regulation and Control Agency.

Article 20. Investments in the preparation and development of the deposit. (Amended by Article 1 of Resolution 135-INS-DIR-ARCOM-2014, R.O. 415-S, 13-I-2015). These are costs incurred by mining concessionaires to obtain access to mineral reserves following the approval by the Line Ministry of the start of the exploitation phase and the subsequent signing of the mining exploitation contract in accordance with Articles 39 and 41 of the Mining Law until the extraction or production of the primary mineral and secondary minerals that are to be commercialized. These investments include the construction and

assembly of the mine and investments referred to in the General Work and Investments Plan. They also include those investments incurred by the mining concessionaire in the construction or upgrading of the infrastructure of the Ecuadorian State and that are properly supported in the corresponding agreements. These investments must necessarily be made and related directly to each contract.

For tax purposes, the amortization of these investments will be made in a straight line over a period of five (5) to ten (10) years, at the discretion of the concessionaire, as of the start of production, minus the period of the closing of operations.

Article 21. Impairment of investments. Impairment is calculated in accordance with the guidelines contained in the International Accounting Standard related to asset impairment. For tax purposes it will not be deductible.

Chapter IV
OTHER DEPRECIATION AND AMORTIZATION CONSIDERATIONS FOR TAX PURPOSES

Article 22. Revaluation. Depreciation and amortization generated by the revaluation of assets will not be considered a deductible expense.

Article 23. Accelerated depreciation. The mining concessionaires who have entered into a mining contract in accordance with Article 147 of the Mining Law, may ask the Internal Revenue Service for a special treatment of accelerated depreciation for those fixed assets that have a shorter lifespan, as a result of an increased wear occurring in the operation of a mining project. According the current tax regulations, the Internal Revenue Service, prior report of the Mining Regulation and Control Agency, will qualify or dismiss the request of the mining concessionaire.

Article 24. Only those complementary exploration investments that are recorded in the income statement of the period in which it is confirmed

that the explorations were not successful (i.e., that the proven reserves of the deposit have not been increased) will be deemed deductible expenses

Chapter V
CLOSURE PLAN, ABANDONMENT AND RESTORATION

Article 25. Provisions for closure, abandonment and restoration. The mining concessionaires shall include in their annual work and investments plan, the provisions necessary for the Environmental Management Plan, closure, partial or total abandonment of operations and for the environmental remediation or restoration of the areas affected by the mining activities.

Such dismantling costs are charged to income over the useful life of the mine by the depreciation of the asset according to appropriate accounting techniques. Depreciation is included in the operating costs while the increase of the provision is included as a financing cost.

Costs for restoration following damage in dismantling, which are generated progressively during production, are provisioned at their net present values and are charged to the income of the period as extraction progresses.

Dismantling, restoration and environmental provisions are made at present value at the time that the obligation is known, considering a before-tax discount rate that reflects the market appraisals of the value of money over time and the specific risk of the corresponding liability.

As provided in Article 85 of the Mining Law, in a period of no less than two (2) years prior to the closure or complete cessation of mining activities, the mining concessionaire shall submit the operations closure plan to the Ministry of Environment for approval, so that at the closure or cessation thereof, the physical and chemical stability conditions are implemented and created in the place where the concession operated.

According to the tax regulations, charges to income of the period that are made under these provisions will be considered non-deductible.

Chapter VI
WINDFALL TAX

Article 26. Windfall tax. The provisions of applicable law shall be observed.

Article 27. Base price adjustment. The provisions of applicable law shall be observed.

Chapter VII
ON PAYMENT OF INCOME TAX

Article 28. Income tax payment system. The tax base for the purpose of income tax, shall be determined as follows:

- The mining concessionaires shall pay income tax in accordance with the provisions of the Internal Tax Regime Law and shall not be eligible for the reduced income tax rate on reinvested profits.

- To determine the advance payment of income tax, the applicable legislation or exemption shall be observed.

- Transactions between the mining concessionaire and its related parties shall comply with the arm's-length principle as stipulated in the tax legislation. The transfer-pricing adjustments should be deemed reconciling items in the income tax return. The transfer-pricing adjustments that affect taxable income of more than one period shall be added to the statements corresponding to each affected period.

Chapter VIII
LABOR PROFIT-SHARING

Article 29. Labor profit-sharing payment system. The basis for calculating labor profit-sharing shall be determined as follows:

- The basis for calculating the 15% labor profit-sharing will be determined based on the total income minus all deductible costs and expenses plus transfer-pricing adjustments. Any subsequent adjustments made by the SRI to the concepts mentioned in this paragraph will also apply for the calculation of this labor Profit-sharing.

Chapter IX
VALUE-ADDED TAX (VAT)

Article 30. Determination, declaration and payment of VAT. Shall be subject to the provisions of Title II of the Internal Tax Regime Law and Title II of its regulations.

GENERAL PROVISION

First: The Internal Revenue Service, by general resolution, will establish the information to be submitted by the mining concessionaire as well as the respective terms and forms for effects of its control activities.

FINAL PROVISION

These regulations shall enter into force as of today, February 27, 2012, by an act unanimously approved by the members of the Board of Directors of the Mining Regulation and Control Agency, without prejudice to its publication in the Official Gazette.

Delivered in the Metropolitan District of Quito, on the 27th day of the month of February, 2012.

JOHN HOLDEN
TRADUCTOR E INTERPRETE OFICIAL
INGLES - ESPAÑOL / ESPAÑOL INGLES
CERTIFICADO DE IDONEIDAD No. 0394
17 / 02 / 2014

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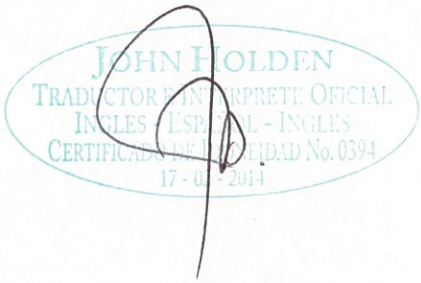
SOURCES OF THIS EDITION OF THE ACCOUNTING REGULATIONS FOR LARGE-SCALE METAL MINING CONTRACTS

1. Resolution 001 (Official Gazette 663, 16-III-2012).

2. Resolution 135-INS-DIR-ARCOM-2014 (Supplement to Official Gazette 415, 13-I-2015).

APPENDIX F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17 - 02 - 2014

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Corporación Eléctrica del Ecuador
TRANSELECTRIC

AURELIAN ECUADOR S.A.
03 AGO 2016
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Ministerio de Electricidad y Energía Renovable

Communiqué No. CELEC-EP-TRA-2016-1449-OFI

Quito, August 1, 2016

Subject: MEETING CONNECTION OF AURELIAN TO THE NATIONAL GRID (SNT).

Mr. Ron Hochstein
Chief Executive Officer
AURELIAN ECUADOR S.A.
His Office

Dear Sirs,

In order to establish the necessary requirements and initiate negotiations for the 230kV connection of the Fruta del Norte project to the Bomboiza substation of the National Grid, I am pleased to invite you to a work meeting between CELEC EP - TRANSELECTRIC and AURELIAN Ecuador on Friday August 5, 2016 at 9:00 at the offices of the Management of CELEC EP – TRANSELECTRIC, tenth floor.

Sincerely,
(illegible signature)
Eng. Geovanny Pardo Salazar
MANAGER CELEC EP - TRANSELECTRIC

cc:

Engineer
Hugo Marcelo Villacis Salazar
Assistant Manager (e), Expansion Projects

Engineer
Jhery Javier Saavedra Tamay
Head of Transmission Expansion Planning

Attorney
Carlos Danilo Luzuriaga López
Assistant Manager (E), Legal

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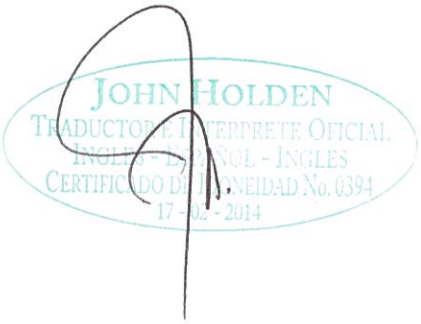
APPENDIX G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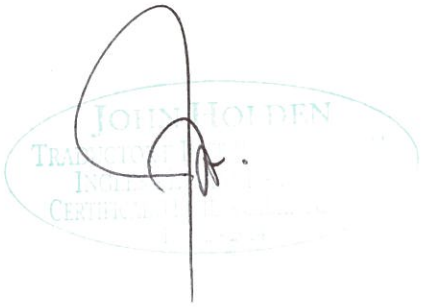

Communiqué No. 08840

Quito DM, 13 DEC 2016

Mr.
Javier Felipe Córdova Unda
MINISTER OF MINING.
MINISTRY OF MINING.
His office

Dear Minister:

Regarding your communiqué No. MM-DM-2016-0936-0F of December 08 2016 received by this Procuracy the same day under No. 06563-2016-AD-DG, and the scope transmitted by communiqué No. MM-DM-2016-0971-0F of December 13, 2016, whereby you request that this institution *"(. ..) issue the respective authorization of International Arbitration Clause of the Fruta del Norte Project Mining Exploitation Contract, based on the provisions of Article 11 of the Organic Law of the Office of the State Attorney General (...)."*

In this regard, it is incumbent on me to state the following:

1. BACKGROUND:

1.1 In your communiqué No. MM-DM-2016-0936-0F and Appendices it is understood that the Ministry of Mining is about to enter into an Exploitation contract for the Fruta del Norte Project, with AURELIAN ECUADOR S.A., in order to determine the terms, conditions and deadlines for the preparation and development (construction and assembly) of the Field or Fields located in the Contract Area, as well as the stages of extraction, exploitation, beneficiation, transportation and commercialization of all the commercially exploitable mineral found or subsequently found there, in accordance with the terms and conditions set forth in Applicable Law.

1.2 By communiqué No. MM-DM-2016-0971 of December 13, 2016 you report that in the Twelfth Session of the Negotiation Process for the signing of the Fruta del Norte Mining Exploitation Contract, held the day December 13, 2016, members of the Negotiating Teams by mutual agreement reviewed the Dispute Resolution clause, eliminating the following text:

"This choice does not limit the right and coverage of the Mining Concessionaire under the Agreement between the Government of Canada and the Government of the Republic of Ecuador for the Promotion and Reciprocal Protection of Investments."

1.3 Based on the foregoing, numerals 23.1, 23.2, 23.3, 23.4, 23.5, 23.6 and 23.7 of CHAPTER FOURTEEN, SECTION TWENTY-THREE of the *"Fruta del Norte Project Exploitation Contract"* will establish the following staggered procedure for the resolution of disputes:

"(...) 23.1 Mandatory Direct Negotiations
In all disputes related to the application, interpretation, performance, breach, termination or any other circumstances relating to this Contract, the Parties shall attempt to reach a direct settlement between themselves. To do so, the affected Party shall submit a request for direct negotiations. To this end, the affected Party shall submit the dispute to the legal representative of the other Party. If within thirty days after having submitted the dispute, or within the term agreed by the Parties, the dispute has not been resolved, the procedure set forth in the following paragraphs shall be followed.

23.2 Optional Mediation
If a direct settlement cannot be reached between the Parties pursuant to the preceding paragraph, either Party may submit the disputes to mediation (i) by any mediation center registered with the Council of the Judiciary, or (ii) through the arbitration procedure provided in subsection twenty-four point four of this Contract.

23.3 Consultancy
23.3.1 If the event of technical disputes expressly provided for in this Contract and that have not been settled amicably between the Parties according to subsections twenty-three point one (23.1) or twenty-three point two (23.2) herein, either Party may optionally refer the disputes to a Consultant. The Consultant may not rule on the application of tax regulations.

23.3.2 To this end, the Party concerned shall notify the other Party of its decision to submit the dispute to the opinion of a Consultant.

23.3.3 In order to select the Consultant, the Parties shall mutually agree on the latter from among the Consultants listed in Appendix H, within seven (7) days from the notification date contained in subsection twenty-three point three point two (23.3.2). If the Parties do not reach an agreement on the appointment of the Consultant before the aforementioned deadline, the

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requesting Party shall require a Notary Public of the city of Quito to draw lots for the appointment of the Consultant and ask the Notary to notify the other Party with at least forty-eight hours prior to the date of the draw. If the Consultant does not accept the assignment, the above procedure shall be repeated. Only in the event that none of the Consultants listed in Appendix H are selected because of the matter to be treated, will each Party submit to the other a list of three names of candidates within thirty (30) days from the submission of the notice to the other Party of its decision to submit the dispute to the opinion of a Consultant. If one or more of the proposed Consultants appears on both lists, the Consultant shall be selected from among those that appear in both lists. If there are no matching candidates or there is more than one matching candidate, and the Parties fail to agree on the nomination of the Consultant within seven (7) days following the submission of lists, the Consultant shall be appointed by lot before a notary public, from among the lists submitted by the Parties.

23.3.4 The Consultant shall be nominated and appointed on the basis of criteria of impartiality and expertise in the subject matter of the Consultancy.

23.3.5 Once the procedure is initiated, there shall be no direct meeting between one of the Parties and the Consultant without the consent of the other Party. No communications may be sent to the Consultant without them also being sent to the other Party. The Parties shall present their arguments to the Consultant within thirty (30) days following the date of her/his appointment. The Parties shall provide the Consultant all the information, in writing or at oral hearings, together with the evidence they consider she/he may reasonably required to reach her/his opinion.

23.3.6 The appointed Consultant shall prepare and deliver the opinion to the Parties within sixty (60) days following the date of acceptance of the appointment, within which period the Consultant may ask the Parties for any additional information she/he deems necessary for issuing her/his opinion.

23.3.7 The Parties may request further information or clarification of the opinion within fifteen (15) days counted as of the date of its notification.

23.3.8 The opinion of the Consultant shall be final and binding on the Parties.

23.3.9 However, within fifteen (15) days of notification of the opinion or the extension or clarification, the Parties may seek a review of the decision under the arbitration provisions of

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subsection twenty-three point four (23.4) of this Contract, but only in the following cases:

a) *If the Consultant exceeded her/his mandate;*

b) *If corruption, connection or conflict of interest on the part of the Consultant is evidenced regarding the subject matter of the dispute; and*

c) *If either of the Parties was denied the right to defense, according to the terms specified in this Section.*

23.3.10 The commencement of the arbitration will suspend the decision of the Consultant.

23.3.11 The expenses and fees required for the intervention of the Consultant shall be borne by the requesting party, unless the Parties have agreed on a different distribution of costs and fees.

23.4 Arbitration

23.4.1 All disputes that have not been settled through direct negotiations under subsection twenty-three point one (23.1), or by mediation under subsection twenty-three point three (23.3), or which have not been submitted to the opinion of a Consultant under subsection twenty-four point three of this Contract shall be finally settled by an ad-hoc arbitration under the Arbitration Rules of the United Nations Commission on International Trade Law (UNCITRAL) of 1976. The arbitration shall be administered by the Permanent Court of Arbitration in The Hague.

23.4.2 Place of Arbitration

The place of arbitration shall be Santiago de Chile, Chile.

23.4.3 Language

The language of the procedure will be the Castilian Spanish. Either Party may submit oral or documentary evidence in a language other than Castilian Spanish, provided this Party provides the other Party with a Castilian Spanish translation of such testimony or documentary evidence within no more than 5 Business Days.

23.4.4 Arbitration at Law

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The arbitration shall be at law and the regulations applicable to the grounds of the dispute, will be Ecuadorean Law.

23.4.5 Incorporation of the Arbitral Tribunal

The Arbitral Tribunal shall consist of three (3) members. Each Party shall appoint one arbitrator and the third, who shall be the President of the Arbitral Tribunal, shall be appointed by mutual agreement of the Parties. If a Party fails to appoint an arbitrator or if they fail to reach agreement on the appointment of the President within sixty (60) days from the notification of the initiation of the procedure, the appointment will be made by the Secretary of the Permanent Court of Arbitration based in The Hague who will act as the nominating authority. Unless otherwise agreed, the arbitrators shall not have the same nationality as the Parties.

The Arbitration provided in this Section shall be deemed the choice of means for the resolution of disputes arising out of this Contract.

23.5 Exclusion of certain matters from the scope of the arbitration and attribution of jurisdiction to the national courts and tribunals.

Disputes over matters that are not subject to settlement out of court and, are therefore not arbitrable in accordance with Applicable Law in force on the Effective Date, may not be settled by arbitration and shall be resolved by the competent courts of Ecuador.

23.6 Costs

The costs of the procedure shall be covered in equal parts, unless the Tribunal, in its ruling, decides otherwise.

23.7 Enforcement of the Award

The Award rendered by the Arbitral Tribunal shall be binding on the Parties and may be enforced by the courts and tribunals of the Republic of Ecuador (...)"

2. LEGAL AND CONSTITUTIONAL GROUNDS:

2.1 Articles 190 – first paragraph – , 225 and 315 of the Constitution of the Republic provide:

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*"**Article 190.** Arbitration, mediation and other alternative procedures for dispute settlement are recognized. These procedures shall be applied subject to the law in those areas where, because of their nature, compromises can be reached."*

*"**Article 225.** The public sector is comprised of the following:*

1. The bodies and agencies of the Executive, Legislative, Judicial, Electoral and Transparency and Social Control Branches of Government.
2. The institutions that comprise the decentralized autonomous system of government.
3. The bodies and institutions created by the Constitution or by law to exercise the powers of the State, to provide public services or to carry out economic activities entrusted to the State.
4. The legal entities created by regulatory acts issued by the decentralized autonomous governments for the provision of public services."

*"**Article 313.** The State reserves the right to administer, regulate, monitor and manage strategic sectors, following the principles of environmental sustainability, precaution, prevention and efficiency.*

Strategic sectors, which come under the decision making and exclusive control of the State, are those that, due to their importance and size, exert a decisive economic, social, political or environmental impact and must be aimed at ensuring the full exercise of rights and the general welfare of society.

The following are considered strategic sectors: energy in all its forms, telecommunications, nonrenewable natural resources, oil and gas transport and refining, biodiversity and genetic heritage, the radio spectrum, water and others as established by law."

2.2 Art. 16 of the Statute of the Administrative Legal Regime of the Executive Function states:

"The Executive Function is organized into the following ministries: (...)

ad) Ministry of Mining (...) "

2.3 Article 11 of the Organic Law of the State Attorney-General states:

***"Art. 11. Arbitration and Mediation.-** Public sector agencies and entities may submit to arbitration procedures at law and to national or international mediation, according to the provisions of the Law on Arbitration and Mediation, or of the international instruments that empower them upon entering into the respective agreement.*

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When a dispute arises, public sector agencies and entities may submit to arbitration at law or mediation, in accordance with the relevant laws. To submit to international arbitration shall also require the authorization of the State Attorney General."

2.4 Articles 4, 41 and 42 of the Law on Arbitration and Mediation establish:

*"**Art. 4.** - Individuals or legal entities with the capacity to compromise may submit to the arbitration regulated by this Law, as long as they meet the provided thereby.*

For the different entities in the public sector to submit to arbitration, in addition to meeting the requirements established by this Law, they shall meet the following additional requirements:

a) Agree on an arbitration agreement, prior to the emergence of the dispute; if one wanted to sign the agreement after the dispute has arisen, the Attorney General must be consulted, which opinion will be mandatory;
b) The legal relationship to which the agreement relates shall be of a contractual nature;
c) The manner of selecting the arbitrators shall be provided in the arbitration agreement; and
d) The arbitration agreement whereby the public sector institution waives the ordinary jurisdiction, shall be signed by the person authorized to contract on behalf of such institution.

Failure to comply with the above requirements will imply the nullity of the arbitration agreement."

*"**Art. 41.** Without prejudice to the provisions of international treaties, arbitration may be international if the parties have so agreed, as long as any of the following conditions are met:*

a) That the parties at the time of entering into the arbitration agreement, have their domiciles in different states;
b) When the place of performance of a substantial part of the obligations or the place where the object of the dispute is more closely related, is situated outside the state in which at least one of the parties is domiciled; or,
c) When the subject of the dispute concerns an international commercial operation that can be negotiated and does not affect or prejudice the national interests of the people."

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*"**Art. 42.-** International arbitration shall be regulated by the treaties, conventions, protocols and other acts of international law executed and ratified by Ecuador.*

Any public or private individual or legal entity, without any restriction, is free to provide directly or by reference to arbitration rules, all matters relating to the arbitration proceedings, including the constitution, processing, language, applicable law, the jurisdiction and the seat of the court, which may be in Ecuador or in a foreign country.

For the State or public sector institutions to submit to international arbitration they shall observe the provisions in the Constitution and laws of the Republic.

For the different entities in the public sector to be able to submit to international arbitration, the express authorization of the highest authority of the respective institution will be required, prior favorable report by the Attorney-General, unless arbitration is provided for in existing international instruments."

3. NATURE:

According to the requirements of Articles 225 and 315 of the Constitution of the Republic, in accordance with Art. 16 of the Statute of the Administrative judicial Regime of the Executive Function, the Ministry of Mining, is an entity of public law, therefore it shall submit to the provisions of public order set forth in the preceding paragraph.

As such, the Ministry of Mining, requires prior authorization of the State Attorney-General, to agree to international arbitration to resolve disputes relating to contracts it enters into on behalf of the Republic of Ecuador with foreign governments, public or private entities.

4. ANALYSIS:

A review of numerals 23.1, 23.2, 23.3, 23.4, 23.5, 23.6 and 23.7 of the TWENTY-THIRD CLAUSE of the "*FRUTA DEL NORTE PROJECT EXPLOITATION CONTRACT*" shows the following:

The Contract and the obligations arising therefrom shall be governed and interpreted by the laws of Ecuador.

Disputes related to the application, interpretation, performance, breach, termination or any other circumstance relating to the Contract shall submit obligatorily submitted by the parties to a process of direct negotiation. If they fail to reach a direct agreement, the parties may submit to an optional mediation.

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The parties have agreed to submit to international arbitration under the Arbitration Rules of the United Nations Commission on International Trade Law UNCITRAL of 1976, all disputes or claims arising from the Contract and not resolved through direct negotiations.

Either party may submit disputes to an optional mediation.

The place of arbitration will be the city of Santiago de Chile, Chile.

The arbitral tribunal shall consist of three arbitrators. Each party shall appoint one arbitrator and the third arbitrator who shall preside the arbitral tribunal, shall be appointed by mutual agreement of the parties. If a party fails to appoint an arbitrator or the parties do not reach an agreement on the designation of the chairman, within 60 days from the notification of the dispute, the appointment will be performed by the Secretary of the Permanent Court of Arbitration in The Hague.

The arbitration shall be in law and shall be conducted in Spanish.

The information held by the Office of the Superintendent of Companies (www.supercias.gob.ec) evidences that the shareholders of the company are Aurelian Resources Corporation and Aurelian Resources, both Canadian, through foreign direct investment, therefore meeting the provisions of Article 41 of the Law on Arbitration and Mediation.

5. PRONOUNCEMENT:

Pursuant to the above analysis, by virtue the provisions of the aforementioned rules, in particular Article 11 of the Organic Law of the Office of the State Attorney-General, Article 42 of the Law on Arbitration and Mediation, the Ministry of Mining is authorized to agree on international arbitration in the "*Fruta Del Norte Project Exploitation Contract*" which it is to enter into with AURELIAN ECUADOR S.A.

This pronouncement refers solely to the provisions regarding the submission to international arbitration, consisting in the twenty-third section of the "*Fruta Del Norte Exploitation Contract*". Therefore, the economic and technical conditions as well as the compliance with legal requirements necessary for the signing and validity thereof are the sole responsibility of the Ministry of Mining.

Additionally, in accordance with the fourth paragraph of Article 42 of the Law on Arbitration and Mediation, the express authorization of the highest authority of the Ministry of Mining must be given prior to the signing of instruments for submission to international arbitration.

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The Office of the State Attorney-General reserves the right to verify the final drafting of the aforementioned provisions, hence, once the documents are signed, a copy must be sent to this entity.

It is further noted that any modification to the text of the provisions under this pronouncement, or the inclusion of any additional stipulation that may affect its sense application or scope, must be authorized by this Office of the Attorney-General.

Sincerely,

(illegible signature)

Dr. Rafael Parreño Navas
STATE ATTORNEY-GENERAL (S)

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APPENDIX H

List of Consultants for Dispute Settlement under the Exploitation Contract

Exploration / Mineralogy / Resource Estimate	Environment / Health & Safety / Permits / Social
- Micon International Limited - Roscoe Postle Associates (RPA) Inc. - SRK Consulting - AMEC Foster Wheeler - Hatch Engineering	- Golder Associates - SRK Consulting - AMEC Foster Wheeler - BGC Consultants - Tetra Tech EBA - AATA International Inc. - AECOM
Engineering - General & Project Management	**Engineering - Mining & Metallurgy**
Engineering: - Fluor - AMEC Foster Wheeler - SRK Consulting - Hatch - Bechtel - SNC-Lavalin - M3 - Mine Development and Associates - NCL - SKM - Worley Parsons - Jacob - Merritt Engineering - Sedgman - Ausenco - Klohn Crippen Berger - Paterson & Cooke - AECOM Tailings Dams / Water Treatment: - AMEC Foster Wheeler - Hatch - Klohn Crippen Berger - Knight Piesold - SRK - Golder Associates - AECOM	Mine Planning / Geotechnical: - AMC Consultants Pty Ltd - Independent Mining Consultants, Inc. - Runge - SRK Consulting - Tetra Tech EBA - M3 Metallurgy / Mineral Processing: - SGS - G & T Metallurgical Services - Kappes, Cassiday & Associates - ALS Chemex

Analysis	Finance / Accounting / Evaluation
Metallurgical analysis: - ALS Chemex - SGS - Intertek - ACME Labs - CESMEC Concentrate / Analysis and mediation Dore: - Walker & Whyte Inc. - Inspectorate Griffith Ltd. - Alfred H. Knight Laboratories Ltd. - ALS Chemex - SGS - Intertek - ACME Labs - CESMEC	Accounting / Evaluation: - Ernst & Young - PricewaterhouseCoopers (PWC) - KPMG - Deloitte Finance / Evaluation: - Goldman Sachs - BBVA - Wood Mackenzie - JP Morgan - Scotia Bank - CIBC - GMP - BMO - Pareto

APPENDIX I

RESUMEN CARGOS DIFERIDOS AURELIAN ECUADOR 2003-2015

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
Costos Directos del Proyecto:	**Direct Project Costs:**														
Gastos de Personal	Personnel Expenses	-	-	-	1,146,015	2,224,627	7,448,123	6,706,991	10,629,925	14,912,523	6,998,531	7,599,875	3,107,578	4,589,872	65,364,060
Gastos de Exploración	Exploration Expenses	804,832	1,756,106	1,603,821	(677,490)	14,714,424	9,171,232	1,849,142	6,016,662	359,978	(1,412,691)	-	-	-	34,186,016
Estudios de Prefactibilidad y Factibilidad	Pre-Feasibility and Feasibility Studies	-	-	-	-	-	-	5,255,897	11,869,632	23,874,781	16,478,972	6,306,854	1,288,144	20,901,790	85,976,070
Costos de Evaluación del Proyecto	Project Evaluation Costs	-	-	-	-	-	-	-	5,324,153	24,033,724	11,401,770	349,796	-	946,437	42,055,880
Servicios y Mantenimiento del Campo	Camp Maintenance and Services	-	-	-	828,175	1,053,097	660,176	6,443,528	3,880,949	12,114,104	(1,155,062)	2,804,463	1,385,327	3,864,358	31,879,115
Otros Costos de Operación	Other Operating Costs	-	-	-	1,574,846	1,560,555	1,466,326	6,597,052	5,282,153	2,765,364	15,158,013	4,594,298	4,133,469	2,475,950	45,608,026
Compras de Activos Fijos	Purchases of Fixed Assets	57,671	179,015	28,301	470,671	636,879	651,887	1,022,295	849,740	2,004,357	3,019,486	150,857	-	107,171	9,178,330
Gastos de La Zarza	Expenses of La Zarza	-	-	-	-	-	-	-	-	2,558,843	2,859,730	1,026,141	798,292	860,337	8,103,343
Subtotal Costos Directos del Proyecto	**Subtotal Direct Project Costs**	**862,503**	**1,935,121**	**1,632,122**	**3,342,217**	**20,189,582**	**19,397,744**	**27,874,905**	**43,853,214**	**82,623,674**	**53,348,749**	**22,832,284**	**10,712,810**	**33,745,915**	**322,350,840**
Costos Indirectos al Proyecto	**Indirect Project Costs:**														
Servicios de Asistencia Técnica y Administrativa	Technical and Administrative Services	-	-	-	-	-	-	2,431,200	4,248,484	4,637,438	7,037,568	1,988,993	-	-	20,343,683
Subtotal Costos Indirectos del Proyecto	**Subtotal Indirect Project Cost**	**-**	**-**	**-**	**-**	**-**	**-**	**2,431,200**	**4,248,484**	**4,637,438**	**7,037,568**	**1,988,993**	**-**	**-**	**20,343,683**
Inversión para Flujo de Caja	**Investment for Cash Flow**	**862,503**	**1,935,121**	**1,632,122**	**3,342,217**	**20,189,582**	**19,397,744**	**30,306,105**	**48,101,698**	**87,261,112**	**60,386,317**	**24,821,277**	**10,712,810**	**33,745,915**	**342,694,523**
IVA Pagado en Bienes y Servicios	**VAT Paid on Goods and Services**	**-**	**-**	**-**	**-**	**-**	**-**	**1,375,480**	**3,710,187**	**7,123,530**	**5,924,501**	**1,776,511**	**372,984**	**2,887,480**	**23,170,673**

APPENDIX J

SPECIFIC SECTOR RULES

1. MINING LAW (Published in the Supplement of Official Gazette No. 517 of January 29, 2009. Last amendment: Official Gazette Supplement No. 744 of April 29, 2016).
2. GENERAL REGULATIONS OF THE MINING LAW (Executive Decree published in Official Gazette Supplement No. 67 of November 16, 2009. Last amendment: Executive Decree published in Official Gazette Supplement No. 635 of November 25, 2015).
3. ENVIRONMENTAL REGULATIONS FOR MINING ACTIVITIES (Ministerial Resolution published in Official Gazette Supplement No. 213 of March 27, 2014. Last amendment: Ministerial Resolution No. 69, published in Official Gazette No. 795 of July 12, 2016).
4. SPECIAL REGULATIONS FOR EXPLOITATION OF GRANULATED AND ROCKY MATERIALS (Executive Decree published in Official Gazette Supplement No. 784 of September 7, 2012).
5. REGULATION OF QUALIFICATION OF MINERAL RESERVES AND RESOURCES (ARCOM Resolution published in Official Gazette Supplement No. 714 of March 17, 2016).
6. REGULATION OF HEALTH AND SAFETY AT WORK IN THE MINING FIELD (ARCOM Resolution published in Official Gazette No. 247 of May 16, 2014).
7. INSTRUCTIONS FOR RECRUITMENT OF ECUADORIAN PERSONNEL IN MINING OPERATIONS (Ministerial Resolution published in the Official Gazette No. 815 of August 9, 2016).
8. INSTRUCTIONS FOR THE AUTHORIZATION OF THE ASSIGNMENT AND TRANSFER OF MINING RIGHTS AND SECURITY ASSIGNMENT OF MINING RIGHTS (Ministerial Resolution published in Official Gazette No. 373 of January 28, 2011. Last amendment: Ministerial Resolution No. 430, published in Official Gazette No. 863 of January 5, 2013).
9. INSTRUCTIONS FOR AUDITING, CALCULATION OF ROYALTIES AND BENEFITS OF METAL MINING ACTIVITIES (MINISTERIAL RESOLUTION published in Official Gazette No. 657 of March 9, 2012. Last amendment: Executive Decree No. 475, published in Official Gazette Supplement No. 385 of November 28, 2014).
10. INSTRUCTIONS FOR REGULATING THE GRANTING OF PERMITS FOR THE INSTALLATION AND OPERATING OF BENEFICIATION, SMELTING, REFINING PLANTS AND CONSTRUCTION OF TAILINGS DAMS NATIONWIDE. (Ministerial Resolution published in Official Gazette No. 554 of July 29, 2015).
11. INSTRUCTIONS FOR OBTAINING LICENSES FOR THE COMMERCIALIZATION OF METALLIC MINERAL SUBSTANCES OR EXPORTING OF NON-METALLIC MINERAL SUBSTANCES. (Ministerial Resolution published in Official Gazette No. 723 of March 31, 2016. Last amendment: Ministerial Resolution No. 15, published in Official Gazette No. 796 of July 13, 2016).
12. INSTRUCTIONS FOR THE CONSTITUTION OF EASEMENTS (ARCOM Resolution published in Official Gazette No. 564 of August 13, 2015. Last amendment: Resolution No. 45, published in Official Gazette No. 709 of March 10, 2016).
13. INSTRUCTIONS FOR THE GRANTING OF CONCESSIONS FOR MINING OF METALLIC MINERALS. (Ministerial Resolution published in the Official Gazette No. 722 of 30 March 2016. Last amendment: Ministerial Resolution No. 30, published in Official Gazette No. 861 of October 13, 2016).
14. VOLUME VI OF THE UNIFIED SECONDARY LEGISLATION TEXT OF THE MINISTRY OF THE ENVIRONMENT (amended by Ministerial Resolution No. 061. Official Gazette No. 316 of May 4, 2015).
15. APPENDICES OF VOLUME VI OF THE UNIFIED SECONDARY LEGISLATION TEXT OF THE MINISTRY OF THE ENVIRONMENT (issued by Ministerial Resolution No. 97, Official Gazette No. 387 of November 4, 2015).
16. DRAFT ORGANIC LAW FOR THE AVOIDANCE OF SPECULATION OVER THE VALUE OF LAND AND DETERMINATION OF TAXES (sent to the National Assembly on December 1, 2016), which contains in its sole reformatory provision the reform of Article 165 of the Reform Law for Tax Fairness in Ecuador, whose text following the reform will read as follows: "Art. 165. Concept of

Extraordinary Revenue (Windfall). For the effects of this tax, extraordinary income is deemed to be that which is perceived by the contracting companies and generated by sales at prices that exceed the base price agreed or that which is provided in the respective contracts. Extraordinary income will only be that which is perceived after the month or, in the case of mining exploitation contracts, 48 months after the month, in which the pre-operational investments in the preparation and development of the area of the mining contract or concession, made exclusively prior to the start of production, declared by the competent body, have been completely recovered from the financial perspective, using current flows. By general resolution within the realm of its jurisdiction, the Internal Revenue Service will establish the procedures, conditions and requirements for calculating the extraordinary income received. Once this reform is passed, it will be included in the Specific Sectoral Legislation.