Republic of the Philippines
Department of Environment and Natural Resources
ENVIRONMENTAL MANAGEMENT BUREAU
DENR Compound, Visayas Avenue, Diliman Quezon City 1116
Telephone Nos.: (632) 927-1517, 928-3725; Fax No.: (632) 920-2258
Website: http://www.emb.gov.ph

JUN 13 2019

ECC-CO-1801-0001

Mr. Augusto C. Villaluna
Vice President for Operations
RIO TUBA NICKEL MINING CORPORATION
29th Floor NAC Tower, 32nd Street
Bonifacio Global City, Taguig City

Subject : **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear Mr. Villaluna:

This refers to your application for amendment of the Environmental Compliance Certificate (ECC) for the proposed **Gotok Limestone Quarry Project** located in Barangays Sandoval, Rio Tuba and Iwahig, Municipality of Bataraza, Province of Palawan.

After satisfying the requirements of the Presidential Decree No. 1586 and its implementing rules and regulations and upon recommendation of the Environmental Impact Assessment Review Committee (EIARC), the Department through EMB, has decided to grant an ECC to the above-mentioned project superseding the previously issued ECCs.

With the issuance of the ECC, you are expected to fully implement the measures presented in the Environmental Performance Report and Management Plan (EPRMP) intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Likewise, environmental considerations shall be incorporated in all phases and aspects of the project.

This Certificate does not create any right nor shall be used as an authorization to implement the project, you may proceed with the implementation only after securing all the necessary and relevant permits from other pertinent Government Agencies. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

Very truly yours,

By the Authority of the Secretary:

ENGR. METODIO U. TURBELLA
Director

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR056453

cc:
EMB MIMAROPA	BMB	NCIP
MGB Central Office	FMB	PCSD
DENR MIMAROPA	DOLE-BWC MIMAROPA	LGU – Province of Palawan
MGB MIMAROPA	DOH MIMAROPA	LGU – Municipality of Bataraza

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ENVIRONMENTAL COMPLIANCE CERTIFICATE

(Issued under Presidential Decree No. 1586)

ECC-CO-1801-0001

THIS IS TO CERTIFY THAT THE PROPONENT, **Rio Tuba Nickel Mining Corporation**, as represented by its Vice President for Operations, Mr. Augusto C. Villaluna, is granted this Environmental Compliance Certificate (ECC) for the **Gotok Limestone Quarry Project** located in Barangays Sandoval, Rio Tuba and Iwahig, Municipality of Bataraza, Province of Palawan by the Department of Environment and Natural Resources (DENR) through the Environmental Management Bureau (EMB).

SUBJECT to the conditions and restrictions set out herein labeled as Annexes A and B. This Certificate shall supersede the following ECCs:

1. ECC Ref. Code 0201-021-313 issued on 10 July 2002; and
2. ECC Ref. Code 0701-002-3721 issued on 01 February 2007.

This Certificate is issued with the following details:

PROJECT DESCRIPTION

This Certificate shall cover the limestone quarry operation with an annual extraction rate of 725,000 WMT within the Mineral Production Sharing Agreement (MPSA) No. 213-2005-IVB and crushing operation within the MPSA No. 114-98-IV. The total project area to include its crushing facilities and common facilities with Coral Bay Nickel Corporation is 51.10 hectares bounded by the coordinates delineated in the EPRMP.

The project shall have the following components:

Quarry Operation	13 ha quarry area, quarry stockpile area, top soil stockpile area, sill collector sumps and access roads
Crushing Plant Operation	250 TPH crushing plant, crushed limestone shed, crusher feed area, crushed limestone stockpile area, access road, and water settling/recycling ponds
Haul road	6.80 km road connecting the quarry and crushing plant areas
Magazine Area	0.5 ha located within MPSA 114-98-IV

This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, and its Implementing Rules and Regulations. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for its

cancellation and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (₱50,000.00) for every violation thereof without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from reevaluating and correcting any deficiencies or errors that may be found after issuance hereof.

Issued at DENR, Quezon City, Philippines, this _____.

Recommending Approval:

ENGR. ESPERANZA A. SAJUL
Chief, EIAM Division

Approved by the Authority of the Secretary:

ENGR. METODIO U. TURBELLA
Director

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR056453

STATEMENT OF ACCOUNTABILITY

I, **Augusto C. Villaluna**, ***Vice President for Operations***, representing **Rio Tuba Nickel Mining Corporation** with office address located in **29th Floor NAC Tower, 32nd Street, Bonifacio Global City, Taguig City,** take full responsibility in complying with all conditions in this Environmental Compliance Certificate (ECC).

Signature

TIN 110 - 703 - 740

TAGUIG CITY

Subscribed and sworn to before me this 9th of July, 2019, the above-named affiant taking oath presenting Pp.#: EC 5723936 5 issued on Oct. 17, 2015 at DFA Manila.

Notary Public

Doc. No. 316
Page No. 64
Book No. I
Series of 2019

CHRISTINE JOANNE F. DE CLARO-NAVARRO
Appointment No. 95 (2018-2019)
Notary Public for and in the City of Taguig
Until December 31, 2019
Roll No. 55216
PTR No. A 4285551 / 16 January 2019 / Taguig City
IBP Life Member Roll No. 018905 / OR No. 032319 / 05 Feb 2018
MCLE Compliance No. VI-0019624, until 14 April 2022
28F NAC Tower, 32nd St., BGC, Taguig City

Annex A

I. CONDITIONS

ENVIRONMENTAL MANAGEMENT

All commitments, appropriate mitigating/enhancement measures and monitoring requirements contained in the Environmental Performance Report and Management Plan (EPRMP), particularly in the Environmental Management Plan (EMP) and Environmental Monitoring Plan (EMoP), as approved by the EMB, shall be instituted to minimize any adverse impact of the Project to the environment throughout its implementation, including the following:

1. The proponent shall continue to observe appropriate quarrying and vegetative restoration practices, land use, soil and water management, which shall include but not limited to the following:

    a. Proper stockpiling and disposal of materials generated from the quarry site, silt materials scooped-out from the settling ponds, and other solid waste in permanent, stabilized areas away from any water body and drainage systems, as well as maintained in safe and non-polluting conditions;

    b. Strictly effect stabilization and erosion control of all side slopes of the roads and nearby gullies, creeks and rivers affecting impact areas, as well as those of siltation ponds;

    c. Use the recovered topsoil for re-soiling or as soil cover on waste dumps and other disturbed areas for rehabilitation and revegetation. Temporary stockpiles shall be properly maintained and managed; and

    d. Provision of necessary storm drainage and diversion canals, culverts, and other flood control measures to adequately receive and channel the silt-laden runoff away from natural receiving bodies of water.

2. Continue implementation of an effective Information, Education and Communication (IEC) Program to inform and educate all stakeholders, especially its contractors, workers, and local residents about the following:

    a. Mitigating measures embodied in its EPRMP, the conditions stipulated in this Certificate and the environmental and human safety features of the project for greater awareness, understanding and sustained acceptance of the project;
    b. Disaster risk reduction management measures and climate change related issues/concerns; and
    c. Schedule of blasting operations and safety protocols.

    Submit a report of IEC implementation to the EMB Central Office and EMB MIMAROPA as part of the semi-annual Compliance Monitoring Report (CMR);

3. Continue implementation of Social Development and Management Plan with indigenous people (IP) and non-IP as well as other existing agreements with the affected communities.

4. Maintain a reforestation and carbon sink program using endemic/ indigenous species to offset greenhouse gas (GHG) emissions of the project in line with the DENR's thrust for GHG emissions reduction programs and National Greening Program. The program shall be submitted to EMB Central Office and EMB MIMAROPA thirty (30) days upon receipt of this Certificate;

5. Maintain and further enhance the 40 meters wide buffer zone measured landward along the river system/ stream banks' high water line and along the entire periphery of the project;

6. Implementation of cave management program exclusive and limited to the project area which will include buffer zone maintenance and protection of caves from blasting activities;

7. Controlled blasting operation shall be implemented to minimize ground vibration, air blast and potentially dangerous flyrocks. Sirens shall be sounded before and after blasting to announce start and end of blasting activity. Blasting activity should be undertaken during day time only;

GENERAL CONDITIONS

8. The proponent shall comply with the environmental management and protection requirements of the pertinent provisions of the Philippine Mining Act of 1995 (RA No. 7942) and its Revised Implementing Rules and Regulations (DAO No. 2010-21), Harmonization of the Implementation of the Philippine Environmental Impact Statement System and the Philippine Mining Act of 1995 (DAO No. 2015-02) and Guidelines on Public Participation under the Philippine Environmental Impact Statement System (DAO No. 2017-15).

9. The proponent shall ensure that its contractors and sub-contractors strictly comply with the relevant conditions of this Certificate;

10. Submission of a CMR through EMB Central Office Online (CMR-Online) System together with report on SDMP;

II. RESTRICTIONS

11. No activities shall be undertaken other than what were stipulated in the final EPRMP.

12. In case of transfer of ownership of this project, these same conditions and restrictions shall apply and the transferee shall be required to secure an amendment of this ECC with the EMB Central Office within fifteen (15) days from the transfer of ownership.

O.R. No. : 8082545
Date : 01/10/2018
Processing Fee : Php 5,010.00

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR056453

Annex B

PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on its surrounding areas and the environment, the following have been recommended by the this Office to the parties and authorities concerned for appropriate action.

RECOMMENDATIONS TO CONCERNED GOVERNMENT AGENCIES	RESPONSIBLE AGENCY
1. Proponent shall comply with the following: a. Sanitation Code of the Philippines b. Building Code of the Philippines c. Ecological Solid Waste Management Act	LGUs concerned
2. Labor Code of the Philippines and occupational health and safety standards for mining activities.	DOLE-BWC/DENR-MGB
3. Tree cutting permit	DENR Regional Office
4. Water Rights Permit	NWRB
ENVIRONMENTAL PLANNING RECOMMENDATIONS	
5. Preference for employment shall be given to qualified local residents. Adequate public information on jobs available for local residents in the affected areas shall be provided;	
6. The proponent to conduct Biodiversity Monitoring System/Program as well as analysis in coordination with the DENR and PCSD;	
7. An independent third party shall be commissioned to undertake an environmental audit and submit a report every three (3) years. The result of third party environmental audit, including auditing of risks and hazards of the Project, shall be submitted to EMB Central Office; and	
8. A continuing study on the effects of the project on health of workers and affected residents shall be conducted every five (5) years. The results of the study shall be submitted to the Department of Health (DOH).	

For dissemination and proper action of the agencies concerned.

ENGR. ESPERANZA A. SAJUL
Chief, EIAM Division

ENGR. METODIO U. TURBELLA
Director

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
SENR056453

MPP-pb on Gold

Annex 6

MINERAL PRODUCTION SHARING AGREEMENT

No. 213 - 2005 - IVB

This **MINERAL PRODUCTION SHARING AGREEMENT** is made and entered into in Quezon City, Philippines, this _____ day of APR 2 8 2005 by and between:

THE REPUBLIC OF THE PHILIPPINES, herein referred to as the **GOVERNMENT**, represented in this act by the Secretary of the Department of Environment and Natural Resources, with offices at the Department of Environment and Natural Resources Building, Visayas Avenue, Diliman, Quezon City

and

RIO TUBA NICKEL MINING CORPORATION, a corporation duly organized and existing under the laws of the Republic of the Philippines, herein referred to as the **CONTRACTOR**, with office at 2nd Floor Solid Mills Bldg., Dela Rosa St., Legaspi Village, Makati City, and represented in this act by its President, **MANUEL B. ZAMORA, JR.**, as authorized by its Board of Directors (please refer to ANNEX "A")

WITNESSETH:

WHEREAS, the 1987 Constitution of the Republic of the Philippines provides in Article XII, Section 2 thereof that all lands of the public domain, waters, minerals, coal, petroleum and other natural resources are owned by the State and that their exploration, development and utilization shall be under the full control and supervision of the State;

WHEREAS, the Constitution further provides that the State may directly undertake such activities, or it may enter into a Co-Production, Joint Venture, or Mineral Production Sharing Agreement with Filipino citizens, or cooperatives, partnerships, corporations or associations at least sixty per centum of whose capitalization is owned by such citizens;

WHEREAS, pursuant to Republic Act No. 7942, otherwise known as "The Philippine Mining Act of 1995," which took effect on 09 April 1995, the Secretary of the Department of Environment and Natural Resources is authorized to enter into Mineral Production Sharing Agreements in furtherance of the objectives of the Government and the Constitution to bolster the national economy through sustainable and systematic development and utilization of mineral lands;

WHEREAS, the Government desires to avail itself of the financial resources, technical competence and skill, which the Contractor is capable of applying to the mining operations of the project contemplated herein;

WHEREAS, the Contractor desires to join and assist the Government in the development and utilization for commercial purposes of certain limestone and other associated mineral deposits existing in the Contract Area (as herein defined);

WHEREAS, the Contractor has access to all the financing, technical competence, technology and environmental management skills required to promptly and effectively carry out the objectives of this Agreement;

NOW, THEREFORE, for and in consideration of the foregoing premises, the mutual covenants, terms and conditions hereinafter set forth, it is hereby stipulated and agreed as follows:

SECTION I

SCOPE

1.1. This Agreement is a Mineral Production Sharing Agreement entered into pursuant to the provisions of the Act and its implementing rules and regulations. The primary purpose of this Agreement is to provide for the development and commercial utilization of limestone and other associated mineral deposits existing within the Contract Area, with all necessary services, technology and financing to be furnished or arranged by the Contractor in accordance with the provisions of this Agreement. The Contractor shall not, by virtue of this Agreement, acquire any title over the Contract/Mining Area without prejudice to the acquisition by the Contractor of the land/surface rights through any mode of acquisition provided for by law.

1.2. The Contractor shall undertake and execute, for and on behalf of the Government, sustainable mining operations in accordance with the provisions of this Agreement, and is hereby constituted and appointed, for the purpose of this Agreement, as the exclusive entity to conduct mining operations in the Contract Area.

1.3. During the term of this Agreement, the total value of production and sale of minerals derived from the mining operations contemplated herein shall be accounted for and divided between the Government and the Contractor in accordance with Section VI hereof.

SECTION II

DEFINITIONS

As used in this Agreement, the following words and terms, whether singular or plural, shall have the following respective meaning:

2.1. Act refers to Republic Act No. 7942, otherwise known as the "Philippine Mining Act of 1995."

2.2. Agreement means this Mineral Production Sharing Agreement.

2.3. Associated Minerals mean other ores/minerals, which occur together with the principal ore/mineral.

2.4. Bangko Sentral means Bangko Sentral ng Pilipinas.

2.5. Budget means an estimate of expenditures to be made by Contractor in mining operations contemplated hereunder to accomplish the Work Program for each particular period.

2.6. Bureau means Mines and Geosciences Bureau.

2.7. Calendar Year or Year means a period of twelve 12) consecutive months starting with the first day of January and ending on December 31, while "Calendar Quarter" means a period of three consecutive months with the first calendar quarter starting with the first day of January.

2.8. Commercial Production means the production of sufficient quantity of minerals to sustain economic viability of mining operations reckoned from the date of commercial operation as declared by the Contractor or as stated in the feasibility study, whichever comes first.

2.9. Constitution or Philippine Constitution means the 1987 Constitution of the Republic of the Philippines adopted by the Constitutional Convention of 1986 on October 15, 1986 and ratified by the People of the Republic of the Philippines on February 2, 1987.

2.10. Contract Area means the area onshore or offshore delineated under the Mineral Production Sharing Agreement subject to the relinquishment obligations of the Contractor and properly defined by latitude and longitude or bearing and distance.

2.11. Contract Year means a period of twelve (12) consecutive months counted from the Effective Date of this Agreement or from the anniversary of such Effective Date.

2.12. Contractor means Rio Tuba Nickel Mining Corporation or its assignee or assignees of interest under this Agreement: Provided, That the assignment of any of such interest is accomplished pursuant to the pertinent provisions of the implementing rules and regulations of the Act.

12

2.13. Declaration of Mining Feasibility means a document proclaiming the presence of minerals in a specific site, which are recoverable by socially acceptable, environmentally safe and economically sound methods specified in the Mine Development Plan.

2.14. Department or DENR means the Department of Environment and Natural Resources.

2.15. Director means the Director of Mines and Geosciences Bureau.

2.16. Effective Date means the date of execution of this Agreement by the Contractor and by the Secretary on behalf of the Government.

2.17. Environment means all facets of man's surroundings: physical, ecological, aesthetic, cultural, economic, historic, institutional and social.

2.18. Exploration means searching or prospecting for mineral resources by geological, geophysical and geochemical surveys, remote sensing, test pitting, trenching, drilling, shaft sinking, tunneling or any other means for the purpose of determining the existence, extent, quality and quantity of mineral resources and the feasibility of mining them for profit.

2.19. Force Majeure means acts or circumstances beyond the reasonable control of the Contractor including, but not limited to war, rebellion, insurrection, riots, civil disturbances, blockade, sabotage, embargo, strike, lockout, any dispute with surface owners and other labor disputes, epidemics, earthquake, storm, flood or other adverse weather conditions, explosion, fire, adverse action by the Government or by any of its instrumentality or subdivision thereof, act of God or any public enemy and any cause as herein described over which the affected party has no reasonable control.

2.20. Foreign Exchange means any currency other than the currency of the Republic of the Philippines acceptable to the Government and the Contractor.

2.21. Government means the Government of the Republic of the Philippines or any of its agencies and instrumentalities.

2.22. Gross Output means the actual market value of the minerals or mineral products from each mine or mineral land operated as a separate entity, without any deduction for mining, processing, refining, transporting, handling, marketing or any other expenses: Provided, That if the minerals or mineral products are sold or consigned abroad by the Contractor under C.I.F. terms, the actual cost of ocean freight and insurance shall be deducted: Provided further, That in the case of mineral concentrates which are not traded in commodity exchanges in the Philippines or abroad such as copper concentrate, the actual market value shall be the world price quotation of the refined mineral products contained thereof prevailing in the said commodity exchanges, after deducting the smelting, refining, treatment, insurance, transportation and other charges incurred

13

in the process of converting mineral concentrates into refined metal traded in those commodity exchanges.

2.23. Mine Development refers to work undertaken to prepare an ore body or a mineral deposit for mining, including the construction of necessary infrastructure and related facilities.

2.24. Minerals mean all naturally occurring inorganic substances in solid, liquid, gas or any intermediate state excluding energy materials such as coal, petroleum, natural gas, radioactive materials and geothermal energy.

2.25. Mineral Products mean materials derived from mineral ores/rocks and prepared into marketable state by metallurgical processes which include beneficiation, cyanidation, leaching, smelting, calcination and other similar processes.

2.26. Mining Area means that portion of the Contract Area identified by the Contractor as defined and delineated in a Survey Plan duly approved by the Director/Regional Director concerned for purposes of development and/or utilization and sites for support facilities.

2.27. Mining Operations means mining activities involving exploration, feasibility study, environmental impact assessment, development, utilization, mineral processing and/or mine rehabilitation.

2.28. Notice means notice in writing, telex or telecopy (authenticated by answer back or confirmation received) addressed or sent as provided in Section 13.2 of this Agreement.

2.29. Ore means naturally occurring substance or material from which a mineral or element can be mined and/or processed for profit.

2.30. Pollution means any alteration of the physical, chemical and/or biological properties of any water, air and/or land resources of the Philippines, or any discharge thereto of any liquid, gaseous or solid wastes or any production of unnecessary noise or any emission of objectionable odor, as will or is likely to create or render such water, air, and land resources harmful, detrimental or injurious to public health, safety or welfare or which will adversely affect their utilization for domestic, commercial, industrial, agricultural, recreational or other legitimate purposes.

2.31. Secretary means the Secretary of the Department of Environment and Natural Resources.

2.32. State means the Republic of the Philippines.

2.33. Work Program means a document which presents the plan of major mining operations and the corresponding expenditures of the Contractor in its Contract Area during a given period of time, including the plan and expenditures for development of host and neighboring communities and

of local geoscience and mining technology, as submitted and approved in accordance with the implementing rules and regulations of the Act.

SECTION III

TERM OF AGREEMENT

3.1. This Agreement shall have a term of twenty five (25) years from Effective Date, and may be renewed thereafter for another term not exceeding twenty five (25) years. The renewal of this Agreement, as well as the changes in the terms and conditions thereof, shall be upon mutual consent by the parties. In the event the Government decides to allow mining operations thereafter by other Contractor, this must be through competitive public bidding. After due publication of notice, the Contractor shall have the right to equal the highest bid upon reimbursement of all reasonable expenses of the highest bidder.

SECTION IV

CONTRACT AREA

4.1. Size, Shape, and Location of Contract Area - This Agreement covers a total area of Eighty Four and 5,364/10,000 hectares (84.5364 hectares), situated in Bataraza, Palawan and bounded by the following technical description (please refer to ANNEX "B" - 1:50,000 scale Location Map/Sketch Plan):

Corner	Latitude	Longitude
1	8°35'50"	117°27'45"
2	8°36'50"	117°27'45"
3	8°36'20"	117°28'15"
4	8°35'50"	117°28'15"

4.2. Survey Plan of the Contract Area - The Contractor shall submit for approval by the Regional Director concerned, a survey plan for the Contract Area within sixty (60) days from the effectivity of this Agreement.

SECTION V

OPERATING PERIOD

5.1 Timetable - The Contractor shall commence development and commercial utilization activity immediately upon approval and registration of this Agreement. The Contractor shall conduct mining operations and other activities for the duration of the Operating Period in accordance with the duly approved Work Program and Budget, and Environmental

Compliance Certificate (please refer to ANNEXES "C" and "D"). Failure by the Contractor to undertake commercial utilization within the period in accordance with the said Work Program shall be considered a substantial breach of the Agreement.

5.2 Commercial Operation Work Program and Budget - During the Operating Period, the Contractor shall submit to the Director, through the Regional Director concerned, Work Programs and Budgets covering a period of three (3) years each, which shall be submitted not later than thirty (30) days before the expiration of the period covered by the previous Work Program.

The amount to be spent by the Contractor during the Operating Period under the term of this Agreement shall not be less than that specified in the approved Work Program, such that during the first three (3) years of the Operating Period, this amount shall be as follows:

First Contract Year	PhP 51,515,000.00
Second Contact Year	PhP 51,515,000.00
Third Contract Year	PhP 51,515,000.00

Should the Government wish to propose a revision to a certain specific feature in the Work Program or Budget, it shall, within thirty (30) days after receipt thereof, provide a Notice to the Contractor specifying in reasonable detail its reasons therefore. Promptly thereafter, the Government and Contractor will meet and endeavor to agree on the revision proposed by the Government. In any event, any portion of said Work Program or Budget as to which the Government shall fail to notify the Contractor of proposed revision shall, in so far as possible, be carried out as prescribed herein. If the Government should fail within sixty (60) days from receipt thereof to notify Contractor of the proposed revisions, the Work Program and Budget proposed by the Contractor shall be deemed to be approved.

It is recognized by the Government and the Contractor that the details of any Work Program may require changes in the light of changing circumstances. The Contractor may make such changes: Provided, That it shall not change the general objective of the Work Program: Provided further, That changes which entail a variance of at least twenty percent (20%) shall be subject to the approval of the Director.

The Government's approval of a proposed Work Program and Budget will not be unreasonably withheld.

5.3 Expansion and Modification of Facilities - The Contractor may make expansions, modifications, improvements, and/or replacements of the mining facilities and may add new facilities as the Contractor may consider necessary for the operations: Provided, That such plans shall be embodied in an appropriate Work Program approved by the Director.

16

5.4 Reporting

a. Quarterly Reports - Beginning with the first Calendar Quarter following the approval of this Agreement, the Contractor shall submit, within thirty (30) days after the end of each Calendar Quarter, to the Director, through the Regional Director concerned, a Quarterly Report stating the tonnage of production in terms of ores, concentrates, and their corresponding grades and other types of products; value, destination of sales or exports and to whom sold; terms of sales and expenditures.

b. Annual Reports - During the Operating Period, the Contractor shall submit, within sixty (60) days from the end of each Calendar Year, to the Director through the Regional Director concerned, an Annual Report indicating in sufficient detail:

b.1. The total tonnage of ore reserves whether proven, probable, or inferred, the total tonnage of ores, kind by kind, broken down between tonnage mined, tonnages transported from the minesite and their corresponding destination, tonnages stockpiled in the mine and elsewhere in the Philippines, tonnages sold or committed for export (whether actually shipped from the Philippines or not), tonnages actually shipped from the Philippines (with full details as to purchaser, destination and terms of sale), and if known to the Contractor, tonnages refined, processed or manufactured in the Philippines with full specifications as to the intermediate products, by-products or final products and of the terms at which they were disposed;

b.2. Work accomplished and work in progress at the end of the year under consideration in relation to the Work Program, including the investment actually made or committed; and

b.3. Profile of work force, including management and staff, stating particularly their nationalities, and for Filipinos, their place of origin (i.e., barangay, town, province, region).

The Contractor shall also comply with other reporting requirements as provided in the implementing rules and regulations of the Act.

SECTION VI

FISCAL REGIME

6.1. General Principle - The fiscal regime of this Agreement shall be governed by the principle according to which the Government expects a reasonable return in economic value for the utilization of non-renewable mineral resources under its national sovereignty while the Contractor expects a reasonable return on its investment with special account to be taken for the high risk of exploration, the terms and conditions prevailing

elsewhere in the industry and any special efficiency to be gained by a particularly good performance of the Contractor.

6.2. Registration Fees - Within fifteen (15) days upon receipt of the notice of approval of the Agreement from the Regional Office concerned, the Contractor shall cause the registration of this Agreement with the said Regional Office and pay the registration fee at the rate provided in the existing rules and regulations. Failure of the Contractor to cause the registration of this Agreement within the prescribed period shall be sufficient ground for cancellation of the same.

6.3. Occupation Fees - Prior to registration of this Agreement and at the same date every year thereafter, the Contractor shall pay to the Municipal/City Treasurer concerned an occupation fee over the Contract Area at the annual rate provided in the existing rules and regulations. If the fee is not paid on the date specified, the Contractor shall pay a surcharge of twenty five percent (25%) of the amount due in addition to the occupation fees.

6.4. Share of the Government - The Government Share shall be the excise tax on mineral products at the time of removal and at the rate provided for in Republic Act No. 7729 amending Section 151 (a) of the National Internal Revenue Code, as amended, as well as other taxes, duties and fees levied by existing laws. The Excise Tax shall be paid to the nearest Bureau of Internal Revenue Office in the province concerned.

For purposes of determining the amount of the herein Government Share, the Contractor shall strictly comply with the auditing and accounting requirements prescribed under existing laws and regulations.

The Government Share shall be allocated in accordance with Sections 290 and 292 of Republic Act No. 7160, otherwise known as "The Local Government Code of 1991."

6.5. Pricing of Sales - The Contractor shall endeavor to obtain the best achievable price for its production and pay the lowest achievable marketing commissions and related fees. It shall seek to strike a balance between long-term sales comparable to policies followed by independent producers in the international mining industry.

The Contractor shall likewise seek a balanced distribution among consumers. Insofar as sales to Contractor's affiliates are concerned, prices shall be at arm's length standard and competing offers for large scale and long-term contracts shall be procured. Before any sale and/or shipment of mineral product is made, existing and future marketing contract(s)/sales agreement(s) shall be submitted to the Director, copy furnished the Regional Director concerned, for registration. At the same time, the Contractor shall regularly inform the Director in writing of any revisions, changes or additions in said contract(s)/agreement(s).

The Contractor shall reflect in its Monthly/Quarterly Report on Production, Sales and Inventory of Minerals, as well as in the Integrated Annual Report, the corresponding registration number(s) of the marketing contract(s)/agreement(s) governing the export or sale of minerals.

6.6. Associated Minerals - If minerals other than limestone are discovered in commercial quantities in the Contract Area, the value thereof shall be added to the value of the principal mineral in computing the Government share.

SECTION VII

ENVIRONMENTAL PROTECTION AND MINE SAFETY AND HEALTH

7.1. The Contractor shall manage its Mining Operations in a technically, financially, socially, culturally and environmentally responsible manner to achieve the sustainable development objectives and responsibilities as provided for under the implementing rules and regulations of the Act.

7.2. The Contractor shall ensure that the standards of environmental protection are met in the course of the Mining Operations. To the extent possible, control of pollution and the transformation of the mined-out areas or materials into economically and socially productive forms must be done simultaneously with mining.

7.3. An Environmental Compliance Certificate (ECC) shall be secured first by the Contractor prior to the conduct of any development works, construction of production facilities and/or mine production activities in the Contract Area.

7.4. The Contractor shall submit within thirty (30) Calendar days after the issuance and receipt of the ECC, an Environmental Protection and Enhancement Program (EPEP) using MGB Form No. 16-2 covering all areas to be affected by development, utilization and processing activities under this Agreement. The Contractor shall allocate for its initial environment-related capital expenditures approximately ten percent (10%) of the total project cost or in such amount depending on the environmental/geological condition, nature and scale of operations and technology to be employed in the Contract Area.

7.5. The Contractor shall submit, within thirty (30) days prior to the beginning of every calendar year, an Annual Environmental Protection and Enhancement Program (AEPEP), using MGB Form 16-3, which shall be based on the approved EPEP. The AEPEP shall be implemented during the year for which it was submitted. To implement its AEPEP, the Contractor shall allocate annually three to five percent (3%-5%) of its direct mining and milling costs depending on the environmental/geologic condition, nature and scale of operations and technology employed in the Contract Area.

10.1. The Contractor shall establish a Contingent Liability and Rehabilitation Fund (CLRF), which shall be in the form of the Mine Rehabilitation Fund (MRF) and the Mine Waste and Tailings Fee (MWTF).

The MRF shall be based on the financial requirements of the approved EPEP as a reasonable environmental deposit to ensure satisfactory compliance with the commitments/strategies of the EPEP/AEPEP and availability of funds for the performance of the EPEP/AEPEP during the specific project phase. The MRF shall be deposited as Trust Fund in a government depository bank and shall be used for physical and social rehabilitation of areas affected by mining activities and for research on the social, technical and preventive aspects of rehabilitation.

The MWTF shall be collected based on the amounts of mine waste and mill tailings generated during the conduct of Mining Operations. The MWTF collected shall accrue to a Mine Waste and Tailings Reserve Fund and shall be deposited in a government depository bank for payment of compensation for any damages caused by the Mining Operations.

7.6. The Contractor shall set up mitigating measures such as mine waste and mill tailings disposal system, mine rehabilitation or plan, water quality monitoring, etc. to minimize land degradation, air and water pollution, acid rock drainage and changes in hydrogeology.

7.7. The Contractor shall set up an Environmental and Safety Office at its minesite manned by qualified personnel to plan, implement and monitor its approved EPEP.

7.8. The Contractor shall be responsible in the monitoring of environmental, safety and health conditions in the Contract Area and shall strictly comply with all the rules and regulations embodied under DAO No. 2000-98, otherwise known as the "Mine Safety and Health Standards."

7.9. The Contractor shall be responsible for the submission of a final mine rehabilitation and/or decommissioning plans, including its financial requirements and incorporating the details and particulars set forth in the Implementing rules and regulations of the Act.

SECTION VIII

RIGHTS AND OBLIGATIONS OF THE PARTIES

8.1. Obligations of the Contractor:

a. To exclusively conduct sustainable Mining Operations within the Contract Area in accordance with the provisions of the Act and its Implementing rules and regulations;

b. To construct and operate any facilities specified under the Mineral Agreement or approved Work Program;

c. To determine the exploration, mining and treatment process to be utilized in the Mining Operations;

d. To extract, remove, use and dispose of any tailings as authorized by an approved Work Program;

e. To secure all permits necessary or desirable for the purpose of Mining Operations;

f. To keep accurate technical records about the Mining Operations, as well as financial and marketing accounts, and make them available to Government representatives authorized by the Director for the purpose of assessing the performance and compliance of the Contractor with the terms of this Agreement. Authorized representatives of other Government Agencies may also have access to such accounts in accordance with existing laws, rules and regulations;

g. To furnish the Bureau all the data and information gathered from the Contract Area and that all the books of accounts and records shall be open for inspection;

h. To allow access to Government during reasonable hours in inspecting the Contract Area and examining pertinent records for purposes of monitoring compliance with the terms of this Agreement;

i. To hold the Government free and harmless from all claims and accounts of all kinds, as well as demands and actions arising out of the accidents or injuries to persons or properties caused by Mining Operations of the Contractor and indemnify the Government for any expenses or costs incurred by the Government by reason of any such claims, accounts, demands or actions;

j. In the development of the community:

j.1. To recognize and respect the rights, customs and traditions of indigenous cultural communities over their ancestral lands and to allocate royalty payment of not less than one percent (1%) of the value of the gross output of minerals sold;

j.2. To coordinate with proper authorities in the development of the mining community and for those living in the host and neighboring communities through social infrastructure, livelihood programs, education, water, electricity and medical services. Where traditional self-sustaining income and the community activities are identified to be present, the Contractor shall assist in the preservation and/or enhancement of such activities;

j.3. To allot annually a minimum of one percent (1%) of the direct mining and milling costs necessary to implement the activities undertaken in the development of the host and neighboring communities. Expenses for community development may be charged against the royalty payment of at least one percent (1%) of the gross output intended for the concerned indigenous cultural community;

j.4. To give preference to Filipino citizens who have established domicile in the neighboring communities, in the hiring of personnel for its mining operations. If necessary skills and expertise are currently not available, the Contractor must immediately prepare and undertake a training and recruitment program at its expense; and

j.5. To incorporate in the Mining Feasibility Study the planned expenditures necessary to implement (j.1) to (j.3) of this Section;

k. In the development of Mining Technology and Geosciences:

k.1. In the course of its operations, to produce geological, geophysical, geochemical and other types of maps and reports that are appropriate in scale and in format and substance which are consistent with the internationally accepted standards and practices. Such maps shall be made available to the scientific community in the most convenient and cost effective forms, subject to the condition that the Contractor may delay release of said information for a reasonable period of time which shall not exceed three (3) years;

k.2. To systematically keep the data generated from the Contract/ Mining Area such as cores, assays and other related information, including economic and financial data and make them accessible to students, researchers and other persons responsible for developing mining, geoscience and processing technology subject to the condition that the Contractor may delay release of data to the science and technology community within a reasonable period of time which shall not exceed three (3) years;

k.3. To transfer to the Government or local mining company the appropriate technology it may adapt in the exploration, development and commercial utilization of the minerals in the Contract Area;

k.4. To allocate research and development budget for the advancement of mining technology and geosciences in coordination with the Bureau, research institutions, academe, etc.; and

21

k.5. To replicate data, maps and reports cited in (k.1) and (k.2) and furnish the Bureau for archiving and systematic safekeeping which shall be made available to the science and technology community for conducting research and undertaking other activities which contribute to the development of mining, geoscience and processing technology and the corresponding national pool of manpower talents: Provided, however, that the release of data, maps and the like shall be similarly constrained in accordance with (k.1) and (k.2) above;

l. To incorporate in the Mining Feasibility Study the planned expenditures necessary to implement all the plans and programs set forth in this Agreement; and

m. To pay all other taxes and fees mandated by existing laws, rules and regulations.

8.2. Rights of the Contractor:

a. To conduct Mining Operations within the confines of its Contract/Mining Area in accordance with the terms and conditions hereof and without interfering with the rights of other Contractors/Lessees/Operators/ Permittees/Permit Holders;

b. Of possession of the Contract Area, with full right of ingress and egress and the right to occupy the same, subject to surface and easement rights;

c. To use and have access to all declassified geological, geophysical, drilling, production and other data relevant to the mining operations;

d. To sell, assign, transfer, convey or otherwise dispose of all its rights, interests and obligations under the Agreement subject to the approval of the Government;

e. To employ or bring into the Philippines foreign technical and specialized personnel, including the immediate members of their families as may be required in the operations of the Contractor, subject to applicable laws and regulations: Provided, That if the employment connection of such foreign persons with the Contractor ceases, the applicable laws and regulations on immigration shall apply to them. Every time foreign technologies are utilized and where alien executives are employed, an effective program of training understudies shall be undertaken. The alien employment shall be limited to technologies requiring highly specialized training and experience subject to the required approval under existing laws, rules and regulations;

f. To enjoy easement rights and use of timber, water and other natural resources in the Contract Area subject to pertinent laws, rules and regulations and the rights of third parties;

g. Of repatriation of capital and remittance of profits, dividends and interest on loans, subject to existing laws and Bangko Sentral ng Pilipinas rules and regulations; and

h. To import when necessary all equipment, spare parts and raw materials required in the operations in accordance with existing laws and regulations.

8.3. Obligations of the Government:

a. To ensure that the Contractor has the Government's full cooperation in the exercise of the rights granted to it under this Agreement;

b. To use its best efforts to ensure the timely issuance of necessary permits and similar authorizing documents for use of the surface of the Contract Area; and

c. To cooperate with the Contractor in its efforts to obtain financing contemplated herein from banks or other financial institutions: Provided, That such financing arrangements will in no event reduce the Contractor's obligation or Government rights hereunder.

SECTION IX

ASSETS AND EQUIPMENT

9.1. The Contractor shall acquire for the Mining Operations only such assets that are reasonably estimated to be required in carrying out such Mining Operations.

9.2. All materials, equipment, plant and other installations of a movable nature erected or placed on the Contract Area by the Contractor shall remain the property of the Contractor. The Contractor shall have the right to remove and re-export such materials and equipment, plant and other installations from the Philippines, subject to existing rules and regulations. In case of cessation of Mining Operations on public lands occasioned by its voluntary abandonment or withdrawal, the Contractor shall have a period of one (1) year from the time of cessation within which to remove its improvements; otherwise, all social infrastructures and facilities shall be turned over or donated tax free to the proper government authorities, national or local, to ensure that said infrastructures and facilities are continuously maintained and utilized by the host and neighboring communities.

23

SECTION X

EMPLOYMENT AND TRAINING OF PHILIPPINE PERSONNEL

10.1. The Contractor agrees to employ, to the extent possible, qualified Filipino personnel in all types of mining operations for which they are qualified; and after Commercial Production commences shall, in consultation and with consent of the Government, prepare and undertake an extensive training programme suitable to Filipino nationals in all levels of employment. The objective of said programme shall be to reach within the timetable set forth below the following targets of "Filipinization:"

	Unskilled (%)	Skilled (%)	Clerical (%)	Professional (%)	Management (%)
Year 1	100	100	100	70	70
Year 3	100	100	100	80	80
Year 5	100	100	100	90	90
Year 7	100	100	100	100	95
Year 10	100	100	100	100	95
Year 15	100	100	100	100	95

10.2. Cost and expenses of training such Filipino personnel and the Contractor's own employees shall be included in the Operating Expenses.

10.3. The Contractor shall not discriminate on the basis of gender and shall respect the right of women workers to participate in policy and decision-making processes affecting their rights and benefits.

SECTION XI

ARBITRATION

11.1. The Government and the Contractor shall consult with each other in good faith and shall exhaust all available remedies to settle any and all disputes or disagreements arising out of or relating to the validity, interpretations, enforceability, or performance of this Agreement before resorting to arbitration as provided for in Section 11.2. below.

11.2. Any disagreement or dispute which can not be settled amicably within a period of one (1) year from the time the issue is raised by a Party shall be settled by a tribunal of three (3) arbitrators. This tribunal shall be constituted as follows: one to be appointed by the Contractor and the other to be appointed by the Secretary. The first two appointed arbitrators shall consider names of qualified persons until agreement on a mutually acceptable Chairman of the tribunal is selected. Such arbitration shall be initiated and conducted pursuant to Republic Act No. 876, otherwise known as the "Arbitration Act."

24

In any event, the arbitration shall be conducted applying the substantive laws of the Republic of the Philippines.

11.3. Each party shall pay fifty percent (50%) of the fees and expenses of the Arbitrators and the costs of arbitration. Each party shall pay its own costs and attorney's fee.

SECTION XII

SUSPENSION OR TERMINATION OF CONTRACT, TAX INCENTIVES AND CREDITS

12.1. This Agreement may be suspended for failure of the Contractor: (a) to comply with any provision or requirement of the Act and/or its implementing rules and regulations; (b) to pay taxes, fees and/or other charges demandable and due the Government.

12.2. This Agreement terminates or may be terminated for the following causes: (a) expiration of its term, whether original or renewal; (b) withdrawal from the Agreement by the Contractor; (c) violation by the Contractor of the Agreement's terms and conditions; (d) failure to pay taxes, fees/or charges or financial obligations for two (2) consecutive years; (e) false statement or omission of facts by the Contractor; and (f) any other cause or reason provided under the Act and its implementing rules and regulations, or any other relevant laws and regulations.

12.3. All statements made in this Agreement shall be considered as conditions and essential parts hereof, and any falsehood in said statements or omission of facts which may alter, change or affect substantially the fact set forth in said statements shall be a ground for its revocation and termination.

12.4. The Contractor may, by giving due notice at any time during the term of this Agreement, apply for its cancellation due to causes which, in the opinion of the Contractor, render continued mining operation no longer feasible or viable. In this case, the Secretary shall decide on the application within thirty (30) days from notice: Provided, That the Contractor has met all the financial, fiscal and legal obligations.

12.5. No delay or omissions or course of dealing by the Government shall impair any of its rights under this Agreement, except in the case of a written waiver. The Government's right to seek recourse and relief by all other means shall not be construed as a waiver of any succeeding or other default unless the contrary intention is reduced in writing and signed by the party authorized to exercise the waiver.

12.6. In case of termination, the Contractor shall pay all the fees and other liabilities due up to the end of the year in which the termination becomes effective. The Contractor shall immediately carry out the restoration of the Contract Area in accordance with good mining industry practice.

25

12.7. The withdrawal by the Contractor from the Mineral Agreement shall not release it from any and all financial, environmental, legal and fiscal obligations under this Agreement.

12.8. The following acts or omission, *inter alia* shall constitute breach of contract, upon which the Government may exercise its right to terminate the Agreement:

a. Failure of the Contractor without valid reason to commence Commercial Production within the period prescribed; and/or

b. Failure of the Contractor to conduct mining operations and other activities in accordance with the approved Work Programs and/or any modification thereof as approved by the Director.

12.9. The Government may suspend and cancel tax incentives and credits if the Contractor fails to abide by the terms and conditions of said incentives and credits.

SECTION XIII

OTHER PROVISIONS

13.1. Any terms and conditions resulting from repeal or amendment of any existing laws or regulation or from the enactment of a law, regulation or administrative order shall be considered a part of this Agreement.

13.2. Notice

All notices, demands and other communications required or permitted hereunder shall be made in writing, telex or telecopy and shall be deemed to have been duly given notice, in the case of telex or telecopy, if answered back or confirmation received, or if delivered by hand, upon receipt or ten days after being deposited in the mail, airmail postage prepaid and addressed as follows:

If to the Government:

THE SECRETARY
Department of Environment and Natural Resources
DENR Building, Visayas Avenue
Diliman, Quezon City

If to the Contractor:

THE PRESIDENT
Rio Tuba Nickel Mining Corporation
2nd Floor, Solid Mills Bldg.
Dela Rosa St., Legaspi Village
Makati City

Either party may substitute or change such address on notice thereof to the other party.

13.3. Governing Law

This Agreement and the relation between the parties hereto shall be governed by and construed in accordance with the laws of the Republic of the Philippines. The Contractor hereby agrees and obliges itself to comply with the provisions of the Act, its implementing rules and regulations and other relevant laws and regulations.

13.4. Suspension of Obligation

a. Any failure or delay on the part of any party in the performance of its obligation or duties hereunder shall be excused to the extent attributable to *Force Majeure* as defined in the Act: Provided, That the suspension of Mining Operations due to *Force Majeure* causes shall be subject to approval by the Director.

b. If Mining Operations are delayed, curtailed or prevented by such *Force Majeure* causes, then the time for enjoying the rights and carrying out the obligations thereby affected, the term of this Agreement and all rights and obligations hereunder shall be extended for a period equal to the period involved.

c. The Party, whose ability to perform its obligations is affected by such *Force Majeure* causes, shall promptly give Notice to the other in writing of any such delay or failure of performance, the expected duration thereof and its anticipated effect and shall use its efforts to remedy such delay, except that neither Party shall be under any obligation to settle a labor dispute: Provided, That the suspension of obligation by the Contractor shall be subject to prior approval by the Director.

13.5. Amendments

This Agreement shall not be annulled, amended or modified in any respect except by mutual consent in writing of the herein parties.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement, as of the day and year first above written

THE REPUBLIC OF THE PHILIPPINES

BY:

RMDD-0010840

MICHAEL T. DEFENSOR
Secretary
Department of Environment and Natural Resources

RIO TUBA NICKEL MINING CORPORATION
TIN: 000-142-665-000

BY:

MANUEL B. ZAMORA, JR.
President

SIGNED IN THE PRESENCE OF:

JOSE S. SARET
(Signature over Printed Name)

DEINRADO SIMON D. DIMALIBOT
Undersecretary
Mining and Legal Affairs
(Signature over Printed Name)

ACKNOWLEDGMENT

Republic of the Philippines)
Quezon City) s s

Before me, a Notary Public for and in the City of Quezon, personally appeared **MICHAEL T. DEFENSOR**, with Community Tax Certificate No. 15653147 issued on January 5, 2005 at Quezon City, in his capacity as Secretary of the Department of Environment and Natural Resources, and **MANUEL B. ZAMORA, JR.**, with Community Tax Certificate No. 14673093 issued on January 21, 2005 at Makati City, in his capacity as President, of Rio Tuba Nickel Mining Corporation, both known to me and to me known to be the same persons who executed the foregoing instrument consisting of twenty one (21) pages, including this acknowledgment page, and acknowledged to me that the same is their voluntary acts and deeds.

IN WITNESS WHEREOF, I have hereunto set my hand and affix my notarial seal, this 11 MAY 2005 day of __________.

JEWELYN J. D. VALENTON CARREON
NOTARY PUBLIC
Notary Public until Dec. 31, 2005
IBP O.R. No. 617618; 1-7-05, Mla.
PTR O.R. No. 3607635; 1-7-05, Mla.
TIN No. 204905051

____

Doc. No. 237
Page No. 49
Book No. I
Series of 2005

Republic of the Philippines
(Republic Act No. 7611)
PALAWAN COUNCIL FOR SUSTAINABLE DEVELOPMENT

PCSD

SEP CLEARANCE

No. GLQ-052721-028

Pursuant to the mandate of the Palawan Council for Sustainable Development (PCSD) under Republic Act 7611 and concurred by the Department of Environment and Natural Resources (DENR) as provided in its Memorandum of Agreement with PCSD dated 29 December 1994, this SEP Clearance is issued to:

GOTOK LIMESTONE QUARRY EXPANSION

Name of Project

Barangay Sandoval and Iwahig, Bataraza, Palawan

Project Location (Street, Sitio, Barangay, Municipality)

RIO TUBA NICKEL MINING CORPORATION (RTNMC)
Represented by Engr. Cynthia E. Rosero
RTNMC Resident Manager

Name of Proponent

Rio Tuba Export Processing Zone, Barangay Rio Tuba, Bataraza, Palawan

Address of Proponent

This Clearance is issued this 27th day of May 2021 in Puerto Princesa City.

VICTORINO DENNIS M. SOCRATES
Vice Chair, PCSD

PALAWAN COUNCIL FOR SUSTAINABLE DEVELOPMENT STAFF
RELEASED
DATE: 06-07-21
TIME: 10:38 am
BY:

O.R. No. : 7063218
Date : 6/7/2021
Amount : 5,000.-

Not Valid Without PCSD Official Seal

(PLEASE SEE OVERLEAF FOR THE TERMS AND CONDITIONS OF THIS CLEARANCE)

Vision: Palawan, an innovative and dynamic global center of sustainable development
Mission: PCSDS as the driver of environmental conservation and inclusive development in Palawan, a biosphere reserve and science-for-sustainability site, guided by the Strategic Environmental Plan

HEAD OFFICE:
PCSD Building, Sports Complex Road
Santa Monica Heights, Puerto Princesa City, Palawan, Philippines
☎ (+6348) 434-4235 Trunkline*(+6348) 434-4234Telefax
Email: oed@pcsd.gov.ph • Website: www.pcsd.gov.ph| www.pkp.pcsd.gov.ph

METRO MANILA LIAISON OFFICE:
Room 109, G/F Westria Residences
#77 West Avenue, 1104 Quezon City, Philippines
Tel. No: (+632) 376-2061 / (+632) 376-2775

TERMS AND CONDITIONS

This Clearance is issued subject to the terms and conditions stipulated below:

1. Confine development within the 46.9 hectare applied area with the following technical description:

Point	Latitude	Longitude	Point	Latitude	Longitude
1	117.463	8.597	30	117.471	8.606
2	117.463	8.600	31	117.471	8.603
3	117.463	8.602	32	117.471	8.602
4	117.463	8.602	33	117.468	8.602
5	117.463	8.603	34	117.468	8.598
6	117.464	8.603	35	117.466	8.598
7	117.463	8.604	36	117.465	8.598
8	117.464	8.605	37	117.465	8.598
9	117.463	8.604	38	117.465	8.598
10	117.464	8.603	39	117.465	8.597
11	117.464	8.602	40	117.464	8.597
12	117.465	8.601	41	117.464	8.597
13	117.466	8.602	42	117.464	8.597
14	117.466	8.602	43	117.463	8.597
15	117.467	8.603	44	117.463	8.597
16	117.466	8.603	45	117.463	8.597
17	117.466	8.603	46	117.463	8.597
18	117.466	8.604	47	117.463	8.600
19	117.466	8.604	48	117.463	8.599
20	117.466	8.605	49	117.463	8.599
21	117.465	8.605	50	117.464	8.599
22	117.464	8.605	51	117.464	8.599
23	117.464	8.606	52	117.464	8.600
24	117.465	8.606	53	117.465	8.601
25	117.467	8.606	54	117.464	8.601
26	117.468	8.605	55	117.464	8.601
27	117.470	8.605	56	117.463	8.600
28	117.470	8.605	57	117.463	8.600
29	117.469	8.606			

2. The proponent shall delineate and mark on the ground the boundary of the allowed quarry area;
3. Existing caves within the limestone quarry area, shall be protected and excluded from the cutting and quarry operations. The following should be conducted to ensure cave integrity and protect cave-dependent wildlife/organism from unnatural activities and human disturbance:
   - A peripheral buffer zone of 50 meters surrounding the cave/s shall be ground delineated/demarcated and excluded from quarrying and other human activities;
   - Conduct inventory of flora and fauna found within the cave and formulate a Cave Management Plan;
   - Photo-Catalog speleothems to monitor physical damage or vandalism;
4. Ensure that the dust and noise generated by blasting operations do not exceed government standards on these parameters. Regular monitoring of ambient air and noise level during blasting operations shall be conducted; the results thereof shall be submitted to PCSD/S semi-annually;

5. Siltation/sedimentation ponds shall be constructed within and around the limestone quarry in order to minimize contamination of adjacent water bodies. The proponent shall ensure that the water quality of the impacted water bodies shall be within the established government standards. Related thereto, regular water quality monitoring shall be done by the project proponent (monthly), and the multi-partite monitoring team (quarterly), the reports thereof shall be regularly submitted to PCSD/S;
6. The endemically rare or ecologically endangered wildlife species within the limestone quarry which include among others: *Molave, Antipolo, Amugis, Malamanga, Malacafe, Binunga and Bago* tree species, shall be conserved through balling/replanting, cloning, gene banking, and other means. These species shall be propagated for use in the proponent's reforestation activities and be made available for use of PCSD and other concerned government agencies;
7. Prior to clearing/quarry operations, the proponent shall secure a cutting permit (duly endorsed by PCSD) from the concerned government agencies;
8. As part of the social development and management program (SDMP) and consistent with its corporate social responsibility, the proponent shall identify and spearhead activities that will ensure the protection of the remaining intact natural forest adjacent to the limestone quarry and support activities/programs relating to watershed protection and conservation;
9. Submit to PCSD, within one (1) year upon issuance of this clearance the *Final Mine Rehabilitation and Decommissioning Plan* (FMRDP) of the Gotok Limestone Quarry;
10. Secure necessary permits/clearances from concerned agencies before project operation commence;
11. Strictly comply with the mitigating measure stipulated in the PEAR;
12. Any expansion of the project is subject to a separate SEP Clearance;
13. In case there is a need for additional condition(s) to ensure environmental integrity and public safety as a result of regular monitoring/inspection, the same shall be imposed by PCSD.
14. This SEP Clearance shall not be transferred EXCEPT when documents showing the transfer of ownership, operating agreements or rights over the project are submitted and evaluated;
15. The issuance of the SEP Clearance is subject to a post-condition that the corresponding ECC, FPIC, license, permit and other similar instruments must be subsequently secured, a copy of which will be furnished to the PCSD;
16. This project (its documents, structures, equipment and operation) is subject to monitoring or actual inspection by the ECAN Board (by itself or through its SMT) and PCSDS at any time of the day or night with or without prior permission.

Non-compliance with any of the above conditions shall be sufficient cause for the suspension or cancellation of this clearance and/or the imposition of penalty of fine in the amount of not less than ONE HUNDRED THOUSAND PESOS (Php100,000.00) for every violation with additional ONE HUNDRED THOUSAND PESOS (Php100,000.00) for every attending aggravating circumstance enumerated under Section 23.6 of PCSD Administrative Order No. 06, as amended by PCSD Resolution No. 21-760. You may however waive your right to participation in the adjudication proceedings under Section 24 of PCSD Admin Order No. 6, as amended, by signing your admission to the alleged violations and your conformity to the imposition of fines.

CONFORME

I, _____, proponent/grantee of the foregoing Clearance, hereby certify that I have read and understood the Terms and Conditions for which this SEP Clearance is issued and I hereby express my conformity thereto and my commitment to abide by the provisions of Republic Act 7611, PCSD Administrative Order No. 06, as amended, and other PCSD policies related thereto.

_____
Signature over Printed Name
Date Signed: _____

FEASIBILITY STUDY

Proposed Gotok Limestone Quarry Expansion

Rio Tuba Nickel Mining Corporation

May 2022

Certificates and Consents

I, Ronelbert Suguitan of Bataraza, Palawan, Philippines hereby make the following statements:

I am the OIC, Resident Mine Manager of Rio Tuba Nickel Mining Corporation with business address at 29th Floor, NAC Tower Bldg. 32nd St. Bonifacio Global City, Taguig City 1634.

I am a licensed Mining Engineer with registration number 2534 issued by the Philippine Professional Regulation Commission.

I am a graduate of Bachelor of Science in Mining Engineering from the Mapua Institute of Technology in 1994.

I am a Competent Person accredited by the Competent Person Accreditation Committee of the Philippine Society of Mining Engineers in adherence to the PMRC with accreditation Number EM-ACP-052-0002534

I have worked as a Mining Engineer of Rio Tuba Nickel Mining Corporation for 26 years.

This Technical Report prepared under my responsibility is in compliance to the EPRMP requirements of expanding the ECC boundaries of the limestone quarry.

To the best of my knowledge, experience and information, I believe that this Technical Report contains all scientific and technical information that are required to be presented to make it credible and not misleading.

Signed by:

RONELBERT SUGUITAN
Licensed Mining Engineer
PRC Lic. No. 0002534
PTR No. 1001758
Issued on 10 January 2022
Issued in Bataraza, Palawan

Table of Contents

List of Tables

List of Figures

1 Summary

Rio Tuba Nickel Mining Corporation's (RTNMC) is currently operating its limestone quarry within a 13-hectare limits bounded by its ECC-0201-021-313. The project involves the proposed expansion of the limestone quarry ECC within its MPSA-213-2005-IVB.

The annual production target for this feasibility study is estimated at 420,000 WMT of limestone for sale to the Hydrometallurgical Processing Plant (HPP) of Coral Bay Nickel Corporation (CBNC) as well as the milklime production plant of Graymont Philippines Inc. (GPI).

1.1 Location

RTNMC's quarry operation is located in Sitio Kulantuod, Bgy. Iwahig, municipality of Bataraza, in the province of Palawan. The quarry is approximately 850 aerial km from Manila and bounded by 8°36'00" - 8°36'30" North latitude and 117°27'45" - 117°28'15" East longitude. The Limestone Crushing Plant, is also within Bataraza; particularly in Barangay Rio Tuba, near the Mine Office and Nickel Processing Plant.

From Manila, the site can be accessed via a direct flight using a private plane to the Rio Tuba airstrip. It can also be accessed by first taking a commercial flight to Puerto Princesa City, and then by taking a small single engine plane from there to the Rio Tuba air strip. A commercial flight will take an hour and fifteen minutes approximately; the subsequent small plane trip from Puerto Princesa Airport will take 45 minutes. Upon arrival at the airstrip, a 10-minute drive over land will be needed to get to the quarry. Rather than taking a small plane from Puerto Princesa, a land trip from the same city to Rio Tuba will take 5 hours on average.

1.2 Ores or minerals to be produced

Limestone is the mineral commodity mined at the quarry. The limestone is then hauled to the Limestone Crushing Plant (LCP) to produce two products: high-grade limestone which is specified to be larger in size, and low-grade limestone which is of finer size.

The grade specifications of saleable Limestone products are as follows:

ORE CLASSIFICATION	% $CaCO_3$	diameter
Limestone		
High-Grade	≥92%	30mm to 80mm
Low-Grade	<92%	≤ 30mm

Table 1. RTNMC limestone ore classification

1.3 Planned mine and mill capacity

RTNMC plans to quarry 420,000 WMT of limestone annually. This tonnage will be processed in the limestone crushing plant and sold.

Top Soil/Overburden Removal:
From the time the Gotok Limestone Quarry has started its operation, the overburden has all been stripped from the quarry area, and so for the purposes of this Feasibility Study, no more overburden stripping will be performed.

Limestone Quarrying:

The Quarrying and the Crushing operations will be performed in two phases annually: The Dry Season Phase, which is from December to May, and the Wet Season Phase, which is from June to November.

I. Quarrying	Period (WMT/sem.)	Monthly (WMT/mo.)	Daily (WMT/day)
Dry Season	315,000	52,500	1,750
Wet Season	210,000	35,000	1,167
II. Crushing			
Dry Season	252,000	42,000	1,400
Wet Season	170,400	28,400	947
III. Annual Total/Average			
Quarrying	525,000	43,750	1,458
Crushing	422,400	35,200	1,173

Table 2. Limestone quarry and crushing plant capacity.

1.4 Estimated life of mine

An exploration report covering the remaining and expansion areas of the limestone quarry (see section 3.3) was released by Mr. Henry R. Salvado, Ferdinand Jumawan and Michael Angelo Tan at the end of 2019. The report stated that the remaining mineral resources within the MPSA-213-2005-IVB is:

Resource Categories	**Volume (m3)**	**Tonnage (WMT)**	**Grade (%CaCO3)**
Measured	4,087,789	9,729,000	94.45
Indicated	6,133,390	14,597,000	94.51
TOTAL	**10,221,179**	**24,326,000**	**94.49**
Inferred	5,215,260	12,413,000	94.31

Table 3. Gotok limestone quarry resources estimate as of end 2019.

Within the blocked resources, a quarry plan was designed taking into account the environmental sensitivities in the area. Using conventional polygon method, the reserves in the untouched expansion area were derived using the constraints of the final quarry design. The resulting Ore Reserves estimation of the proposed expansion area as of end December 2020 is as follows:

Proved and Probable Ore Reserves - Quarry Expansion

CaCO3 Range	**WMT**	**%CaCO3**	**%MgO**	**%SiO2**
High Grade	6,243,576	95.61	0.89	0.91
Low Grade	165,821	86.89	1.56	4.59
Total	**6,409,397**	**95.38**	**0.91**	**1.01**

Cutoff: *High Grade, (>=90%)*
Low Grade, (>= 80%, <90%)
Drill Hole Intercepts with no assay not included

Table 4. Gotok limestone quarry expansion Ore Reserves estimates as end December 2020.

With the projected annual quarry run of mine of 525,000 WMT, the remaining reserves within the proposed expansion area is estimated to last more than 10 years.

1.5 Volume of investment

RTNMC shall use its existing current assets and non-current assets to capitalize an estimated value of Php 310,562,456. This amount shall be spent in redeveloping the quarry, procuring and replacing equipment, and maintaining the current economic value of the Limestone Crushing Plant.

1.6 Market

RTNMC sells limestone as two types: Higher Grade 30mm – 80mm and the finer sized ≤30mm low grade product.

	$CaCO_3$ Content	**Diameter**	**Remarks**
High Grade	≥ 92.00%	30 mm to 80 mm	Exclusively sold to GPI
Low Grade	< 92.00%	≤ 30 mm	Exclusively sold to CBNC

Table 5. Limestone types sold by RTNMC.

y

All types of limestone are sold locally to the processing plants in Bataraza. Coral Bay Nickel Corporation buys low grade limestone as a neutralizing agent in its HPAL process. Graymont Philippines Inc. on the other hand buys high grade limestone for its milklime production operations.

1.7 Production costs

The processes involved in the production of RTNMC's limestone are summarized in the following simplified chart below:

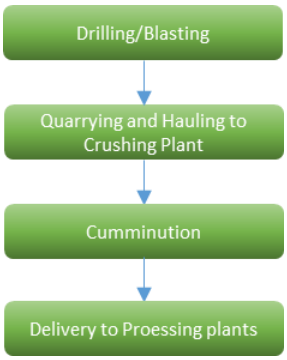


Figure 1. Simplified process flow of RTNMC's quarry and crushing operations

The actual drilling and blasting processes are carried out by RTNMC's contractor CONEX, albeit with direct supervision from RTNMC's engineers.

The hauling of limestone from the Quarry to the limestone crushing plant is executed by RTNMC's mining contractor, Bataraza Consolidated Inc (BCI).

The comminution process is done via RTNMC's limestone crushing plant. The personnel manning the plant are all RTNMC employees.

The hauling of finished limestone products from the crushing plant to the processing plants are done via RTNMC's own equipment.

The summary of the projected average yearly operating cost (includes depreciation cost and supervision costs) is shown in the following table and figure:

Activity/ Cost Component	Php 000s
Breaking (drilled and Blasted)	37,798
Stockpiling and Maint. at Quarry Site	12,271
Transport to RTN Plantsite	44,472
Stockpiling/Crushing/Washing/Screening - GPI	6,460
Production: 30-80mm	4,111
Delivery to GPI	6,358
Stockpiling/Crushing/Washing/Screening - CBNC	12,928
Production: <30mm	5,485
Delivery to CBNC Yard	7,942
Feeding	7,988
Share on Fixed Cost	106,575
Depreciation	54,167
Taxes, Fees and Royalties	21,558
Total Cost, Php	**328,113**

Table 6. Breakdown of average annual operating cost.

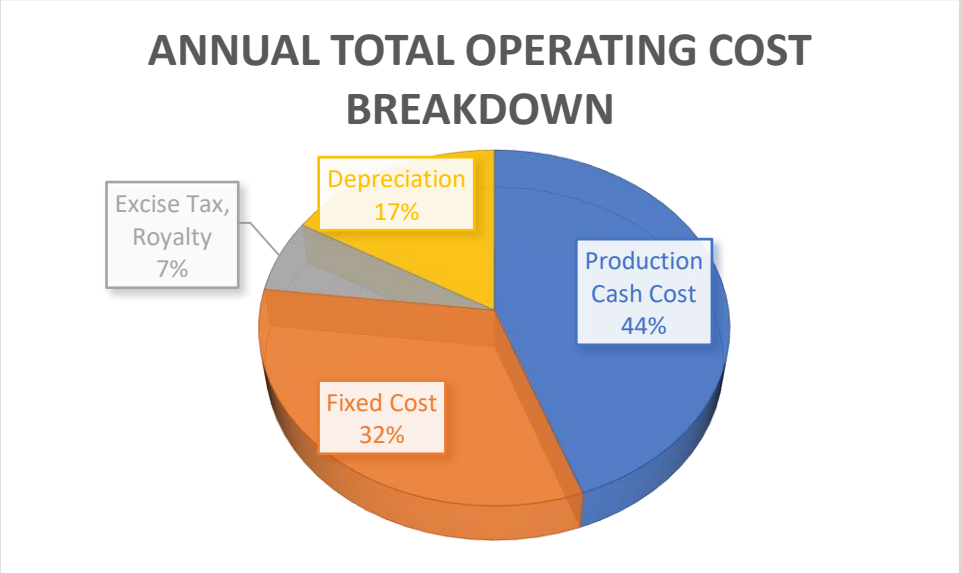


Figure 2. Annual Operating cost breakdown.

1.8 Employment: Number, Nationality Positions and Pay

As of December 2020, the limestone quarry and crushing operations employs 106 RTNMC and 64 contractor employees. All employees are Filipino citizens, with the largest ethnic group being those coming from the Visayan provinces.

The total annual compensation of RTNMC employees alone is estimated at 18 million pesos per year excluding company benefits.

1.9 Profitability

With a projected total Capital Investment of Php 310,562,456 in the Economic Evaluation performed (section 6), the following pertinent economic calculations describe the profitability of the project given the Economic evaluation's assumptions:

Capital Expenditure	310,562,456
Average Annual ROI	26.07%
NPV at 15% discount rate	261,002,656
Payback Period (years)	3.44
IRR	36.53%

Table 7. Summary of project profitability

1.10 Sources of Financing

RTNMC has operated its nickel operations since the 1970's. As such, over the decades RTNMC has built up considerable physical assets in the form of production facilities, road networks, its own townsite, its own wharf, and has purchased a sizeable and serviceable fleet of hundreds of equipment ranging from the smallest pickup truck to heavy equipment like tracked excavators and front-end loaders. The value of all of RTNMC's existing assets as of end 2019 is Php 3,691,268,046. In order to expand and operate the Gotok limestone quarry and continue the operations of the crushing plant, a total project cost of Php 310,562,456 is projected to finance, refleet and redevelop the limestone quarry and crushing operations.

1.11 Relation of Project to National Economy

The economic contributions of RTNMC's Gotok Limestone Quarry and Crushing Plant Operations to the municipality of Bataraza are significant:

1.11.1 Generation of direct employment to the locality

The limestone operation ensures the direct employment of about 170 people annually as regular and contractual employees of RTNMC and its contractors.

With the number of people employed, and with the majority of this worker population married and with families, the effect of the limestone quarry and the crushing plant are already noteworthy.

In addition to these, the technical knowledge transferred to its employees by way of training and experience contributes to the competence in various fields of the said personnel that have been employed by the limestone operation.

1.11.2 Economic viability support to nearby larger industries

Furthermore, Coral Bay Nickel Corporation (CBNC), which is a hydrometallurgical plant that refines raw limonitic nickel ore into an intermediate downstream product of mixed Nickel Sulfide, sources its limestone directly from RTNMC's quarry. Without the supply of limestone from RTNMC's quarry, CBNC will have to source its limestone across the sea from Bohol or Malaysia. This of course translates into much increased costs.

1.11.3 Social Development Program and Corporate Social Responsibility

Moreover, with the continuous operation of the quarry since the start of its operation in the 2005, the quarry's host barangays of Iwahig and Sandoval have benefited from the Social Development Program with regard to infrastructure, education, livelihood opportunities and livelihood assistance. More recently, beginning the first five-year cycle where the SDMP of

the limestone operations was made distinct from the RTNMC's nickel operations, Brgy Ocayan is now included as secondary impacted barangay.

1.11.4 Contributing driver of economic activity in the area

The operation of the quarry needs various services (such as material handling and hauling services), materials and supplies (fuel, oil and lubes, personal protective equipment, tires etc.). These are primarily sourced from local sources if available. This consumption of local goods and services contributes to the economic activity in the area. Moreover, the employment of personnel enables more spending in the region by means of the salaries provided by said employment.

1.11.5 Payment of various taxes, permit fees to the government

The operation of the quarry, generates tax revenue of various types such as Income taxes, excise taxes, withholding taxes, property taxes, etc. These are included in the figures shown below in the Annual Tax Return of RTNMC for 2020:

Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU

ANNUAL REPORT ON TAXES, FEES AND ROYALTIES PAID AND WITHHELD BY MINING CONTRACTORS/OPERATORS AND EXPLORATION PERMITTEES

INSTRUCTIONS:
1. Submit accomplished form to MGB Central Office copy furnished MGB Regional Office within SIX (6) months after each year of operation.
2. This report form must be accomplished by all mining contractors/operators or the exploration permittees.
3. Do not leave any line unanswered. Write NA if not applicable or 0.00 if no payment was made.

1. ADMINISTRATIVE DATA:		
Name of Project/Tenement No.:	Name of Mining Contractor/Operator/Permittee:	
RIO TUBA NICKEL MINING CORPORATION		
Location of Project:	Address of Mining Contractor/Operator/Permittee:	
BATARAZA, PALAWAN		
Tax Identification Number: 000-142-665-0000	Type of Operation: ( ) Exploration (/) Mining	
2. TAXES AND FEES PAID (FOR GOTOK PROJECT)		**2020 (Tentative)**
2.1 National Taxes and Fees		
2.1.1 Income Tax	P	25,057,885.87
2.1.2 Excise Tax on Minerals		14,411,076.67
2.1.3 Customs Duties/Fees		
2.1.4 Value Added Tax (net Output Tax)		
2.1.5 Capital Gains Tax		
2.1.6 Documentary Stamp Tax		
2.1.7 Other National Taxes and Fees:		
2.2. Local Taxes and Fees		
2.2.1 Local Business Tax		6,886,873.12
2.2.2 Real Property Tax		2,770,187.64
2.2.3 Occupation Fees		6,375.00
2.2.4 Community Tax		-
2.2.5 Registration Fees		
2.2.6 Permit Fees		
2.2.7 Wharfage Fees		
2.2.8 Sand & Gravel Tax		
2.2.9 Extraction Fees		
2.2.10 Other Local Taxes and Fees:		2,000.00
3. WITHHELD TAXES		
Withheld tax on Payroll		4,593,173.70
Withheld tax on Royalty to IPs		720,553.83
Withheld tax on Dividends		4,838,400.00
Withheld tax on Profit Remittance to Mother Company		
Withheld tax on Interest Income		
Withheld tax on Interest Payments		
Withheld tax on Royalty For Transfer of Technology		
Other Withheld Taxes:		
Final Tax on Other Payments		
Expanded Withholding Tax		2,880,942.29
TOTAL TAXES AND FEES PAID DURING THE YEAR	P	61,967,068.12
4. ROYALTY PAYMENTS		
Government/Mineral Reservation		-
Claimowners and/or Surface Owners		-
Indigenous Peoples		3,602,769.17

RECEIVED
Date: FEB 24 2021
Name/Signature:
Division/Section:
MINES AND GEOSCIENCES BUREAU - MIMAROPA REGION

5. CERTIFICATION
I hereby certify that all information in this report are complete, true and correct to the best of my knowledge and belief.

MARY CAROLINE V. LAGMAN (Name & Signature of Reporting Official) | Accounting Manager (Official Position) | 02/22/2021 (Date)

Republic of the Philippines)
MAKATI CITY)S.S

Subscribed and sworn to before me this FEB 23 2021 day of February 2021; the affiant exhibiting her driver's license no. N01-95-188936 issued at Makati City on 30, 2021.

Doc No. 358
Page No. 73
Book No. 8
Series of 2021

NOTARY PUBLIC
My Commission Expires on December 31, ____
PTR No.: 142-11-2019 Makati City
IBP No. VI-002622 August 13, 2019

Figure 3. 2020 Annual Report on Taxes, Fees and Royalties.

2 Economic Feasibility

2.1 Market Study:

Limestone is a vital component in the High-Pressure Acid Leach (HPAL) process. Used as a neutralizing agent for the high pH environment of the HPAL process, RTNMC's market for its limestone products are CBNC and GPI. While the demand for limestone is directly correlated with CBNC's targeted production of nickel sulfide, CBNC's production capacity is consistently maintained at more than 20,000 tons of Ni content, regardless of the price of nickel. This means that the demand for Limestone as a neutralizing agent is pretty much constant. The HPAL process in which the Limestone is involved in as a neutralizing agent is shown below:

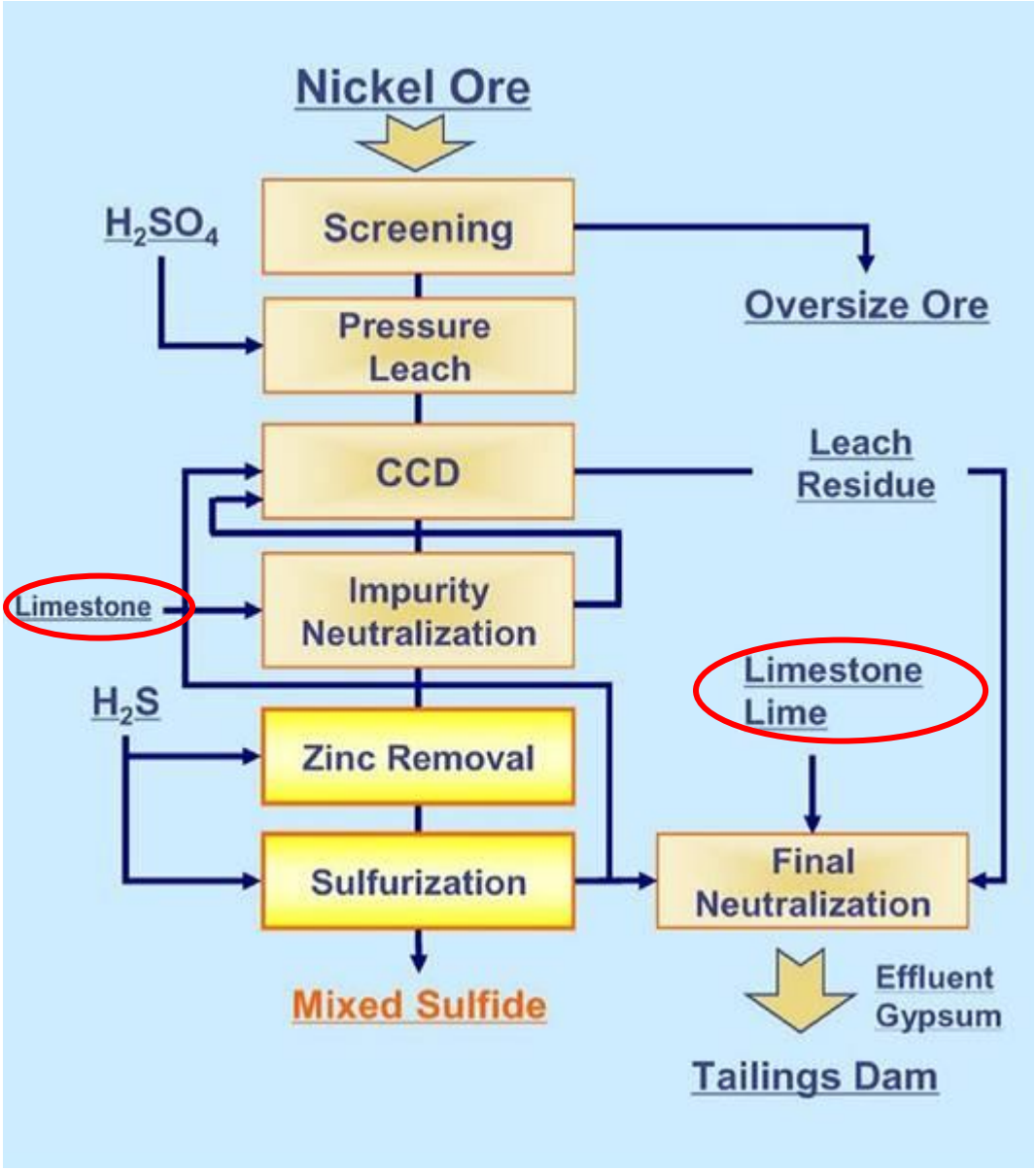


Figure 4. Coral Bay Nickel Corporation HPAL process.

2.1.1 World demand and prices of the ore

RTNMC currently sells the products of the Limestone operation exclusively to Coral Bay Nickel Corporation (CBNC) and Graymont Philippines Inc. (GPI) - formerly Unichamp Mineral Philippines Inc. (UMPI).

As depicted in the previous sub-section 2.1, limestone is vital to the High Pressure, Acid Leaching process, and is indispensable. Therefore, for as long as there is demand for Nickel, the HPAL plant continue to operate, and the demand for limestone to neutralize the acidic environment of the HPAL process will always be there too.

The selling price of RTNMC's limestone is tied directly to how much it costs to quarry, transport and reduce its size to its final size specifications, and is regardless of grade (for as long as the minimum specifications for product demand is met).

The main contributing factors to the price of limestone are illustrated in the Figure 5 below:

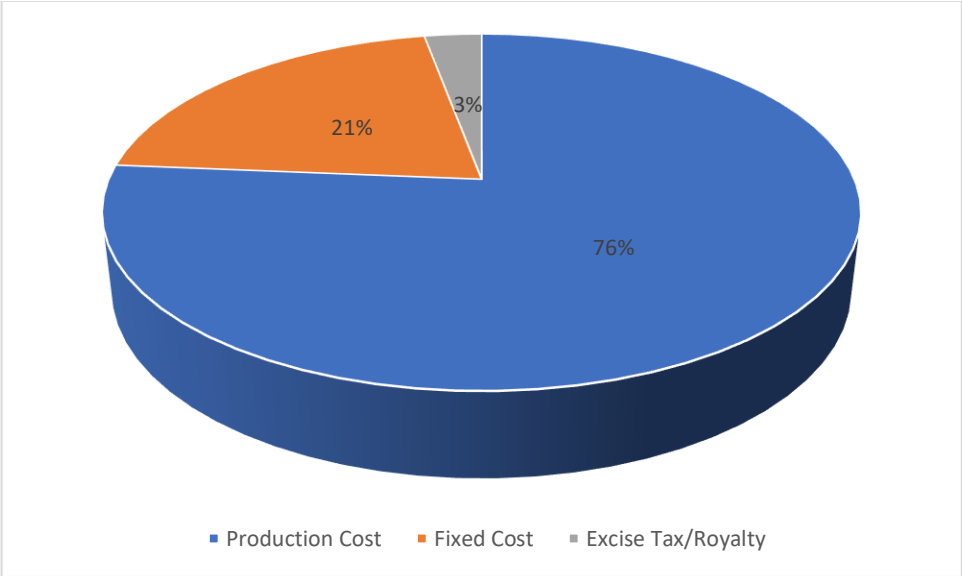


Figure 5. Selling Price Contributing Factors

Given that the annual tonnage requirement for Limestone is constant, what will change the production cost would be the following factors:

2.1.1.1 Cost of blasting

The cost of blasting is on a per ton basis, with four components computed from a 2018 baseline:

Cost Component	Base Price/Index Percentage	2018 Baseline
Labor	11%	320 Php
Fuel	32%	42.33 Php
ANFO	38%	30.29 Php
Explosives/Spare Parts/Tools/Access	18%	52.67 Php
	100%	

Table 8. Blasting unit cost components.

The base unit cost is given a cumulative discount of 1 Php/unit cost for every 5,000 MT increase in blasting volume, starting from <20,000 MT to >50,001 MT.

3.1.) The *Labor* component is based on the most recent Wage Order / Implementing Rules of previous wage orders relevant to the municipality, as released by the National Wages and Productivity Commission.

3.2.) The *Fuel* component is based on the Total Landed Cost derived from price circulars of RTNMC's Fuel Supplier Petron.

3.3.) The *ANFO* component pertains to the cost of explosives as relayed by the contractor CONEX.

3.4.) The *Explosives/Spare Parts/Tools/Access* component is equivalent to the Foreign Exchange rate for US Dollars to Php.

For the purpose of this feasibility study, an average price of **72.00 Php/MT** will be assumed to be used during the duration of the operation, which is the most recent price for the blasting agreement.

2.1.2 Local demand and prices of product for the last five years

Table 9 below shows the historical production of limestone for the last five years. The decreasing trend is a result of the depletion of the current reserves. This reduction in production raised the current market price to its current levels.

	Market	WMT	Sales Rate Php/WMT
2016	CBNC	300,280	749.22
	UMPI/GPI	193,599	788.00
2017	CBNC	353,040	850.90
	UMPI/GPI	196,963	848.00
2018	CBNC	323,780	868.71
	UMPI/GPI	182,873	923.00
2019	CBNC	251,780	1009.00
	UMPI/GPI	129,126	998.00
2020	CBNC	237,040	1009.00
	UMPI/GPI	122,895	998.00

Table 9. Sales vs. Price/WMT 2016 – 2020.

2.2 Forecast of future prices

As mentioned previously in section 2.1.1 and its subsections, the two major contributors to the movement of the selling price are the cost of labor and the cost of fuel. For the purpose of this study, both the labor and fuel costs are kept constant throughout the life of mine.

The pricing scheme are as follows:

	GPI (+30mm-80mm)	CBNC (-30mm)
PhP/WMT	998.00	1009.00

Table 10. Selling prices in Php/WMT for GPI and CBNC products.

2.3 Availability of raw materials, fuel and power and other service facilities

The raw materials in the production of crushed limestone are the limestone rocks which abound in the vicinity of the host barangays, the expansion ore reserves is projected to be more than enough to meet the requirements of CBNC and GPI for the next 10 years.

The quarry itself will not require electric power inasmuch as all quarrying equipment will be engine driven. For the crushing facilities however, RTNMC has in-house power generating equipment.

Other related service facilities are presently available in the Rio Tuba Nickel Mine. These are listed in the following table:

a.)	Assay Laboratory
b.)	Mechanical/Motor pool/Repair Shop
c.)	Machine Shop
d.)	Electrical Shop
e.)	Carpentry Shop
f.)	Pier and Sea craft Maintenance Shop
g.)	Dry Docking Facility
h.)	Fuel Storage Facility
i.)	Pier Jetty/Causeway
j.)	Township
k.)	Domestic Water Supply Facility
l.)	Explosive Magazine

Table 11. RTNMC services facilities.

RTNMC also owns one 700 kW and two (2) units of 350 kW generator sets for its power requirements.

The pier site power plant also maintains one unit of 75KW Caterpillar generator to provide electricity requirement of the pier facilities for dry-docking maintenance and barge loading operations

2.4 Availability of technical and skilled worker

RTNMC has been operating in Bataraza for more than 40 years. The company has groomed two generations of competent and highly skilled workers both from the local populace as well as emigrating professionals from all over the country.

For its limestone quarry and crushing operations, the following table shows RTN's skilled and technical personnel:

Staff	Designation	Educational Attainment
RODOLFO T. CAMPOS	Manager, Limestone, Port & Materials Handling Division	BS in Mining Engineering
SERGIO B. CULANAG	Limestone Quarry Operations Manager	BS in Mining Engineering
DANILO C. LUCION	Crushing Plant Manager	BS in Mechanical Engineering
Supervisor		
CARMELO Q. UBAY	Mine Supervisor	BS in Civil Engineering
ERIC R. RIOVEROS	Mine Supervisor, Limestone Screening/Crushing Section	BS in Electrical Engineering
JAYPE OLAC	Mine Supervisor, Limestone Screening/Crushing Section	BS in Petroleum Engineering
HERBERT DELA CRUZ	Mine Supervisor, Limestone Screening/Crushing Section	BS in Industrial Engineering
CARL IVAN TANANGONAN	Electrical Supervisor/Planner	BS in Electrical Engineering
FRANCIS MABUNGA	Mechanical Supervisor/Planner	BS in Mechanical Engineering
Technical		
ARSENIO, JR. ONOD	Panel Switch Board Operator	BS in Electronics & Communications Engineering
JOSEPH CAMPOS	Panel Switch Board Operator	
ANICETO MORALES, JR.	Panel Switch Board Operator	BS in Elementary Education
DAN MARK FERNANDEZ	Panel Switch Board Operator	BS in Information Technology
AUGIE LUCHANA	Safety Officer	BS in Mining Engineering
Ma. Christinne Eloisa Blanco	Environment Officer	BS in Environmental Planning & Management
Venice Teresa Guian	Community Relations Officer	BSED - Biology

Table 12. Pool of technical and skilled personnel - Limestone Quarry and Crushing Operations.

3 Details of the Project

3.1 Location and accessibility of mineral property.

As previously mentioned, the Gotok Limestone Quarry is located at Sitio Gotok, Barangay Iwahig, Municipality of Bataraza, Province of Palawan (**Figure 6**). It is within the geographical coordinates 8°36'00" to 8°36'30" North Latitude and 117°27'45" to 117°28'15" East Longitude.

Corner	Latitude	Longitude
1	8˚35'50"N	117˚27'45"E
2	8˚36'20"N	117˚27'45"E
3	8˚36'20"N	117˚28'15"E
4	8˚35'50"N	117˚28'15"E

Table 13. MPSA coordinates for the Gotok limestone quarry project.

The project site is accessible from Puerto Princesa City via the south road passing through the Municipalities of Ursula, Aborlan, Española, and Brooke's Point. Travel time is approximately five hours. A bus company and commercial utility vans service the route. The private airplane of RTNMC flies directly to Rio Tuba from Puerto Princesa Airport.

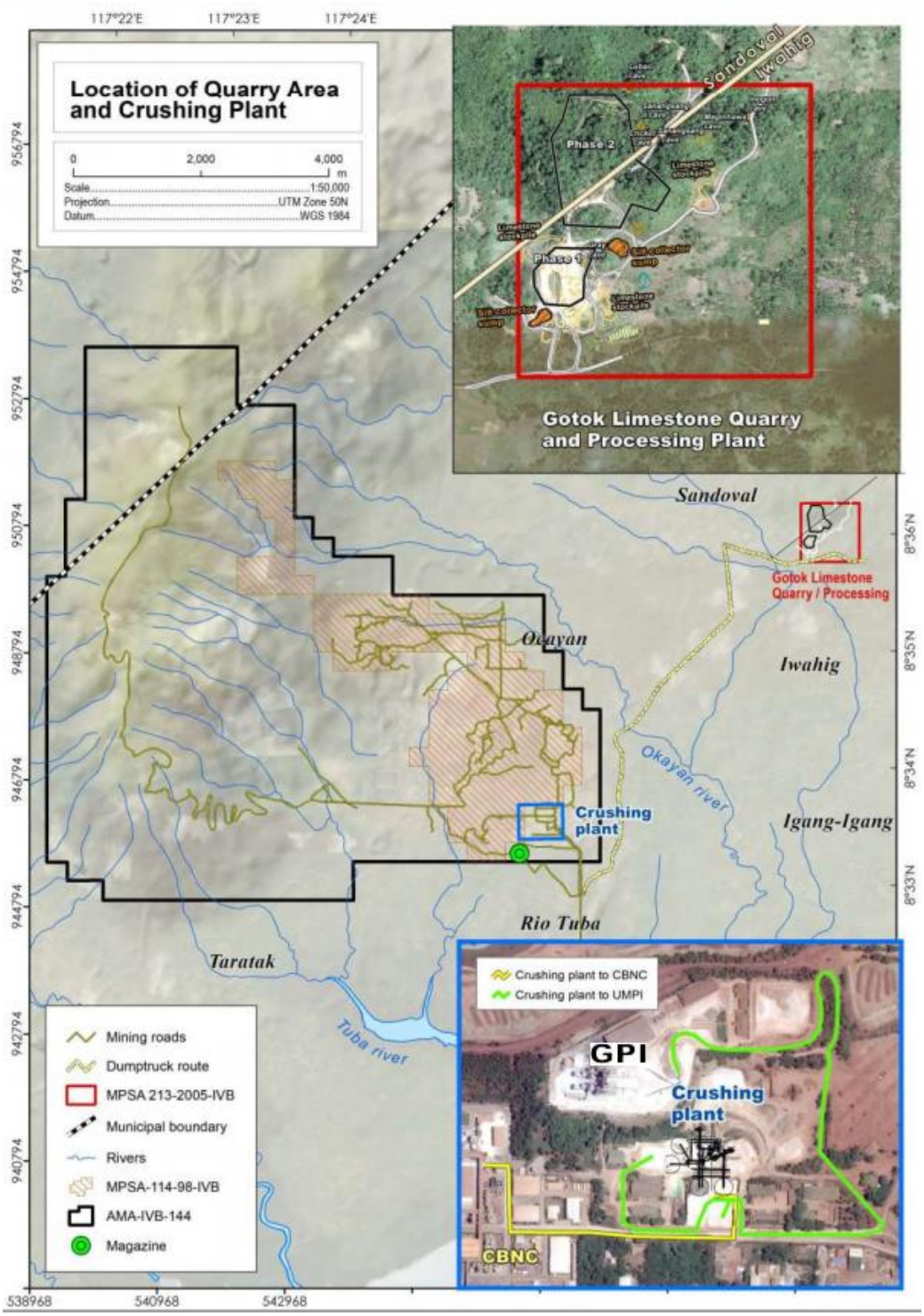


Figure 6. Project location map.

3.2 History of mining claims and mining operations, if any.

The subject limestone area consisting of only (1) mining claim of 81.0 hectares was applied by Rio Tuba Nickel Mining Corp. (RTNMC) for a Mineral Production Sharing Agreement (MPSA) on October 17, 2000. This particular mining claim is separate and located some 8 km away from RTNMC's MPSA area for nickel operation located in Bgy. Rio Tuba Bataraza, Palawan.

The permit, denominated as MPSA 213-2005-IVB, was granted on April 28, 2005. It has a total area of 84.5364 hectares situated in barangays Iwahig and Sandoval, Bataraza, Palawan.

The commercial production of limestone started in June 2005. The annual production from 2005-2020 had an annual average of around 276,000 tons per year (**Figure 7**).

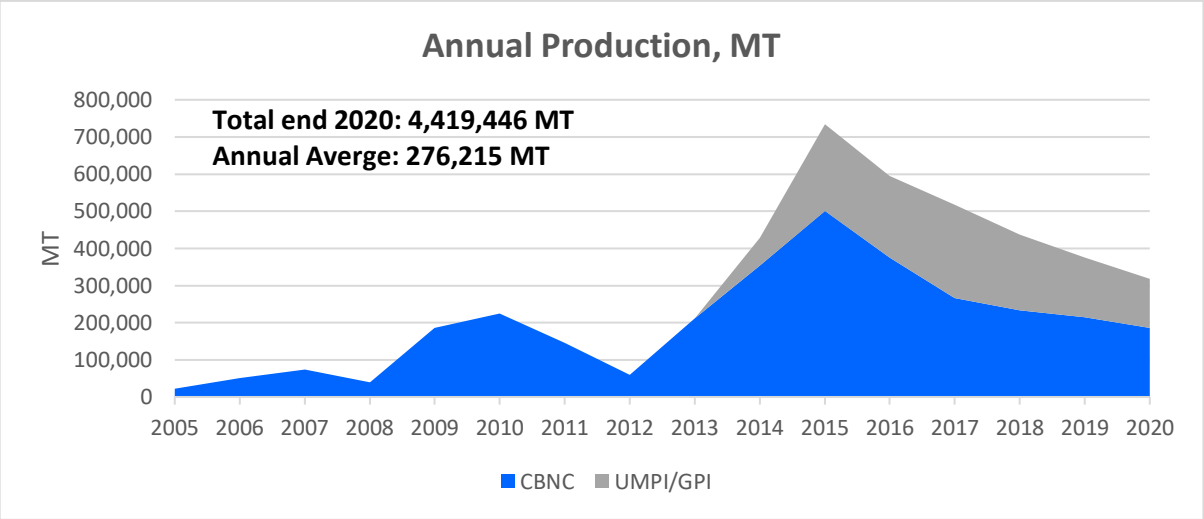


Figure 7. 2005 – 2020 limestone production.

3.3 Geologic setting

3.3.1 Regional Geology

A team comprising Cordillera Exploration Company Inc. (CExCI) Geologists Mr. Joel Diaz and Ferdinand Jumawan, and Taganito Mining Corporation (TMC)'s Mr. Didik Lasconia performed a geologic exploration on the Gotok limestone quarry in 2015; in order to confirm the nature of the deposit and to detail its characteristics.

The oldest rocks surrounding the claimed area are highly folded, well-bedded sandstone, shale/siltstone and mudstone. These rocks are part of the Panas Formation. They outcrop extensively to the northeast, west, and south of the Gotok limestone area and are characterized by low undulating hills. Road cut exposures reveal that the sandstone is brown to dark gray, thinly bedded and friable.

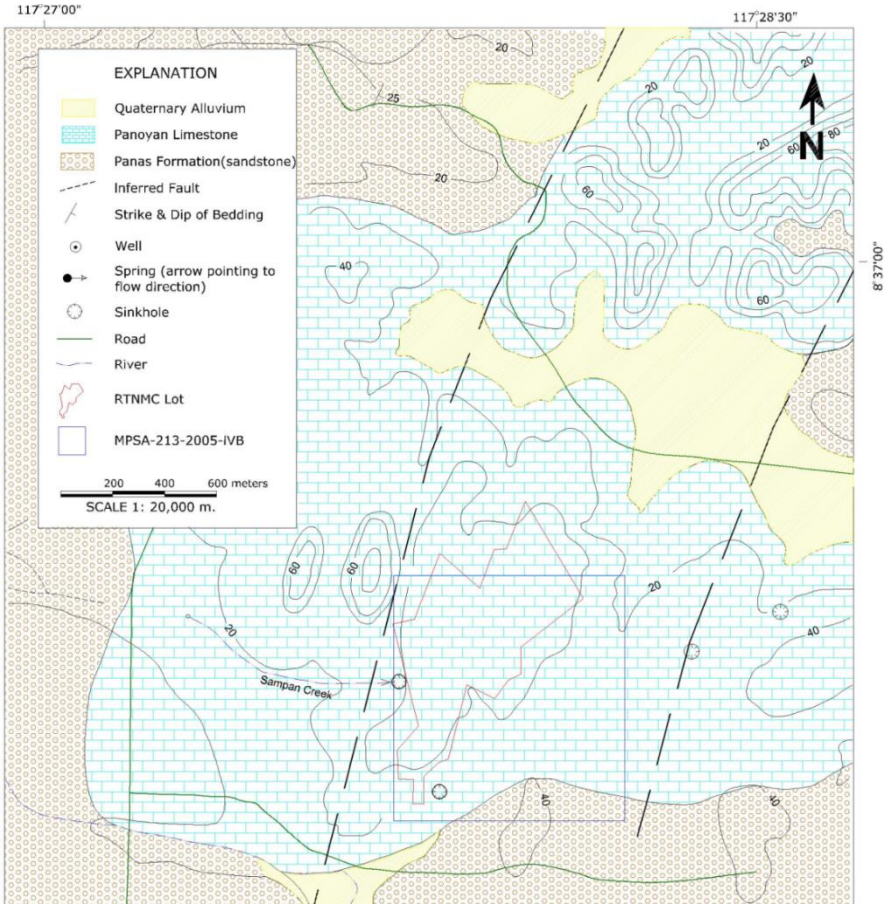


Figure 8. Gotok foothills regional geology.

Creamy white to beige, massive, coralline limestone unconformably overlies the sandstone, shale/siltstone and mudstone layers. This limestone belongs to the Panoyan Limestone member of the Iwahig Formation. It occurs as steep karstic hills that rise above the low-lying terrain. It regionally dips to the southeast and is pockmarked by sinkholes that are more than 20 meters in diameter. This limestone occupies almost all of the area bounded by MPSA-213-2005-IVB and is the intended quarry source. Quaternary alluvial sediments consisting of poorly sorted, consolidated and unconsolidated gravel, sand, silt and clay mantle the low-lying areas particularly north and west of Gotok area.

3.3.2 Geology of the Mineral Property

There are three (3) limestone localities in the vicinity of the RTNMC mining tenements that form part of the Middle Miocene limestone units mapped by JICA (1988) (**Figure 9**).

The Limestone bodies appear as conspicuous hills east of the Bulanjao mountain range with peaks of 130 meters at most. They are located in Gotok, Mount Sarap and Sarong, to the east and southeast of RTNMC.

The geological map from the quadrangle mapping done by UP NIGS identified a late Oligocene to early Miocene Ransang Limestone where the Gotok quarry is located. This formation lies comfortably on the Pandian Formation which is the strongly indurated to mildly metamorphosed equivalent of the Eocence syn-rift turbidities of the Panas formation in southern Palawan (**Figure 10**).

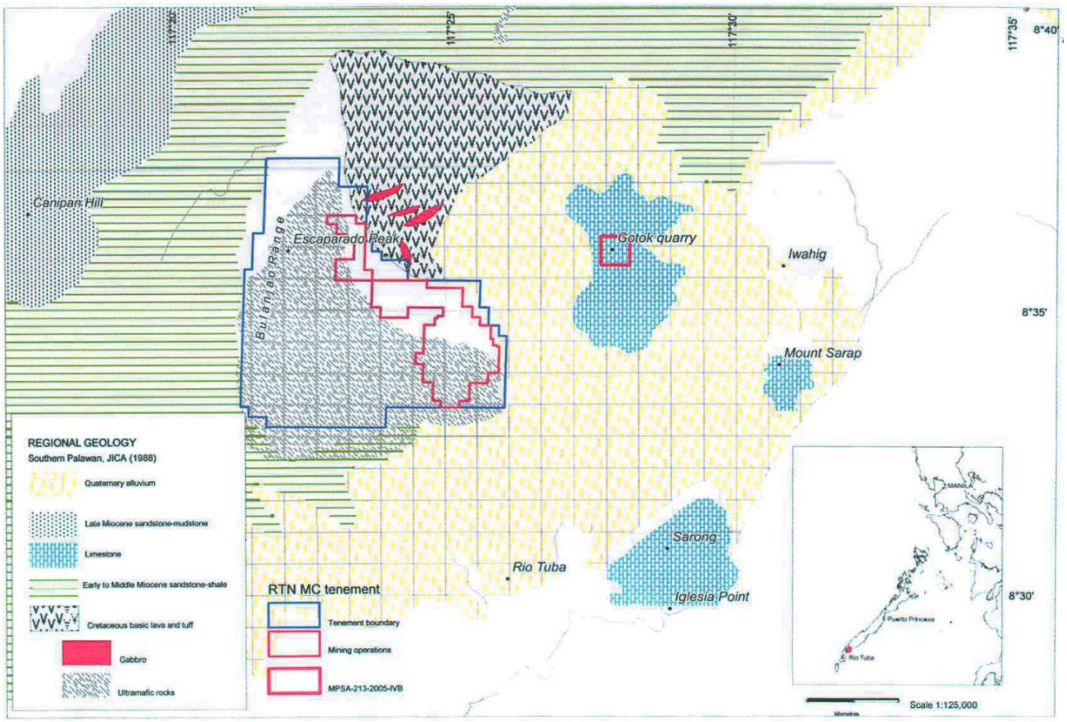


Figure 9. JICA Middle Miocene limestone map.

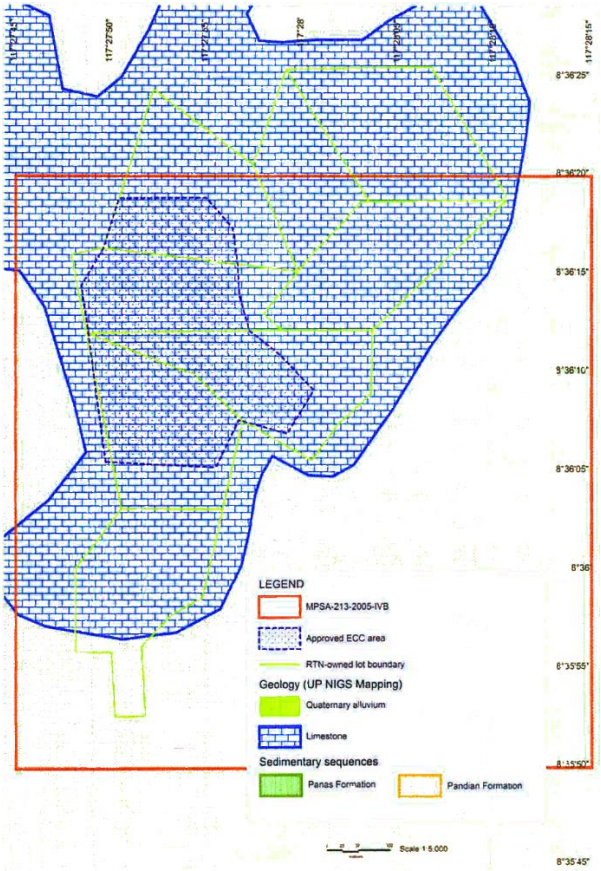


Figure 10. UP NIGS Gotok foothill geologic map.

The limestone in the Gotok Quarry site can be characterized as massive (reefal) limestone composed of skeletal grains (corals, pelecypod, gastropod?) as allochems, variably crystalline sparite as cement and medium to dark-gray, fine-grained micrite as matrix.

The limestone descriptions utilized are adapted from Folk (1959) and Folk (1962) and (Dunham, 1962) from Folk (1974) and Turner (2003) and summarized below:

	%allochems	Representative rock terms	*1959 terminology*
Over 2/3 mud lime matrix	0-1%	MICRITE AND DISMICRITE	*MICRITE AND DISMICRITE*
	1-10%	FOSSILIFEROUS MICRITE	*FOSSILIFEROUS MICRITE*
	10-50%	SPARSE BIOMICRITE	*BIOMICRITE*
	>50%	PACKED BIOMICRITE	
Subequal spar and lime mud		POORLY WASHED BIOSPARITE	
Over 2/3 spar cement	Poor sorting	UNSORTED BIOSPARITE	*BIOSPARITE*
	Good sorting	SORTED BIOSPARITE	
	Rounded and abraded	ROUNDED BIOSPARITE	

Folk classification

Textural Features			Limestone Type
Mud absent	Grain supported		GRAINSTONE
Carbonate mud present			PACKSTONE
	Mud supported	>10% grains	WACKESTONE
		<10% grains	MUDSTONE
Components organically bound during deposition			BOUNDSTONE

Dunham classificatior

Table 14. Limestone Classification Table.

In general, the limestone in Gotok can be classified, in terms of their constituents, either as unsorted biosparite or packed biomicrite depending on the amount of sparite cement or micrite matrix. Biosparite and biomicrite corresponds to grainstone and packstone based on their textural features, respectively; although locally boundstone and crystalline limestone also occur.

3.4 Stage of Development

3.4.1 Extent of exploration works

A total of thirty-seven hole were drilled in the Gotok quarry between 2011 to 2020. Summarized below are some details of the drillholes and shown in **Figure 11** are its respective locations in the quarry site.

HOLE ID	PTM Y	PTM X	PTM Z	DEPTH	DIP	AZIMUTH	Drill Start	Drill End
DH1	951298.10	386079.37	42.95	75.05	-90	0	11/17/11	11/29/11
DH2	951412.81	386014.51	91.79	85	-90	0	12/06/11	12/15/11
DH3	951560.11	386292.18	61.28	85	-90	0	12/27/11	01/04/12
ARS DH4	951505.14	385910.87	105.35	79	-90	0	02/15/14	03/23/14
ARS DH5	951360.51	385890.30	85.84	65	-90	0	03/27/14	04/20/14
ARS DH6	951430.26	386106.17	87.85	68	-90	0	04/23/14	05/09/14
ARS DH7	951564.60	386021.95	94.86	75	-90	0	05/12/14	05/28/14
ARS DH8	951280.83	386143.64	72.74	53	-90	0	06/04/14	06/15/14
ARS DH9	951490.90	386040.65	89.78	70	-90	0	06/23/14	07/07/14
RTN DH11	951352.66	386240.09	86.10	82	-90	0	10/25/15	11/01/15
RTN DH12	951407.53	386276.47	101.19	101	-90	0	11/06/15	11/19/15
RTN DH13	951594.66	386399.14	84.00	84	-90	0	11/30/15	12/06/15
RTN DH14	951590.38	386150.87	130.00	53	-90	0	12/11/15	12/18/15
GEX-03	951511.36	386271.61	59.39	125	-90	0	11/18/19	11/27/19
GP1-4	951536.01	386348.97	64.38	100	-90	0	11/18/19	11/27/19
GP2-1	951290.99	386057.29	40.06	40	-90	0	11/18/19	11/18/19
GP2-10	950781.70	386012.45	22.60	35	-90	0	11/18/19	11/18/19
GP2-11	951335.43	386467.27	19.05	35	-90	0	11/18/19	11/18/19
GP2-12	951515.45	386508.53	19.07	35	-90	0	11/18/19	11/18/19
GP2-2	951404.60	385934.65	24.62	45	-90	0	11/18/19	11/18/19
GEX-01	951326.75	386244.84	69.43	85	-90	0	11/20/19	11/27/19
GP1-5	951100.29	385971.03	32.31	80	-90	0	11/28/19	12/04/19
GEX-02	951425.76	386400.95	48.38	75	-90	0	11/29/19	12/06/19
GP1-6	950979.66	385847.33	30.13	55	-90	0	12/05/19	12/07/19
GP2-9	950784.54	385780.47	21.28	45	-90	0	12/08/19	12/16/19
GPR-1	951606.68	386011.43	114.18	180	-40	0	12/08/19	12/16/19
GPR-2	951585.35	386183.42	122.64	250	-40	0	12/08/19	12/16/19
GPR-3	951589.01	386330.61	63.51	250	-30	0	12/08/19	12/21/19
GP2-3	951170.61	386184.56	43.44	75	-90	0	01/20/20	01/20/20
GP2-4	950966.64	386155.13	28.32	40	-90	0	01/20/20	01/20/20
GP3-2	951428.77	386180.24	54.77	47	-90	0	01/20/20	01/20/20
GP2-5	950822.34	386163.65	22.84	40	-90	0	01/22/20	01/22/20
GP2-8	951165.20	386314.08	25.25	40	-90	0	01/26/20	01/26/20
GP2-7	950970.62	386305.58	25.19	40	-90	0	01/27/20	01/27/20
GP2-6	950834.35	386280.67	28.65	45	-90	0	01/29/20	01/29/20
GP3-1	951205.60	386498.94	21.97	35	-90	0	01/30/20	01/30/20
GP3-3	951518.14	386455.53	26.58	35	-90	0	02/04/20	02/04/20

Table 15. Gotok exploration drillholes.

There were four drilling campaigns conducted, the first started in the latter part of 2011 including DH1 to DH3, conducted by CDSI. The second campaign began in the first quarter of 2014 comprised by DH4 to DH9 and conducted by ARS. The third includes DH11- DH14, and the last with 24 holes conducted by JCP in November 2019 to February 2020.

The last drilling campaign is done to test the continuity of the limestone deposit outside the current ECC area.

An in-situ bulk density measurement was also carried out by RTNMC. The resulting in-situ bulk density is 2.38 WMT/BCM.

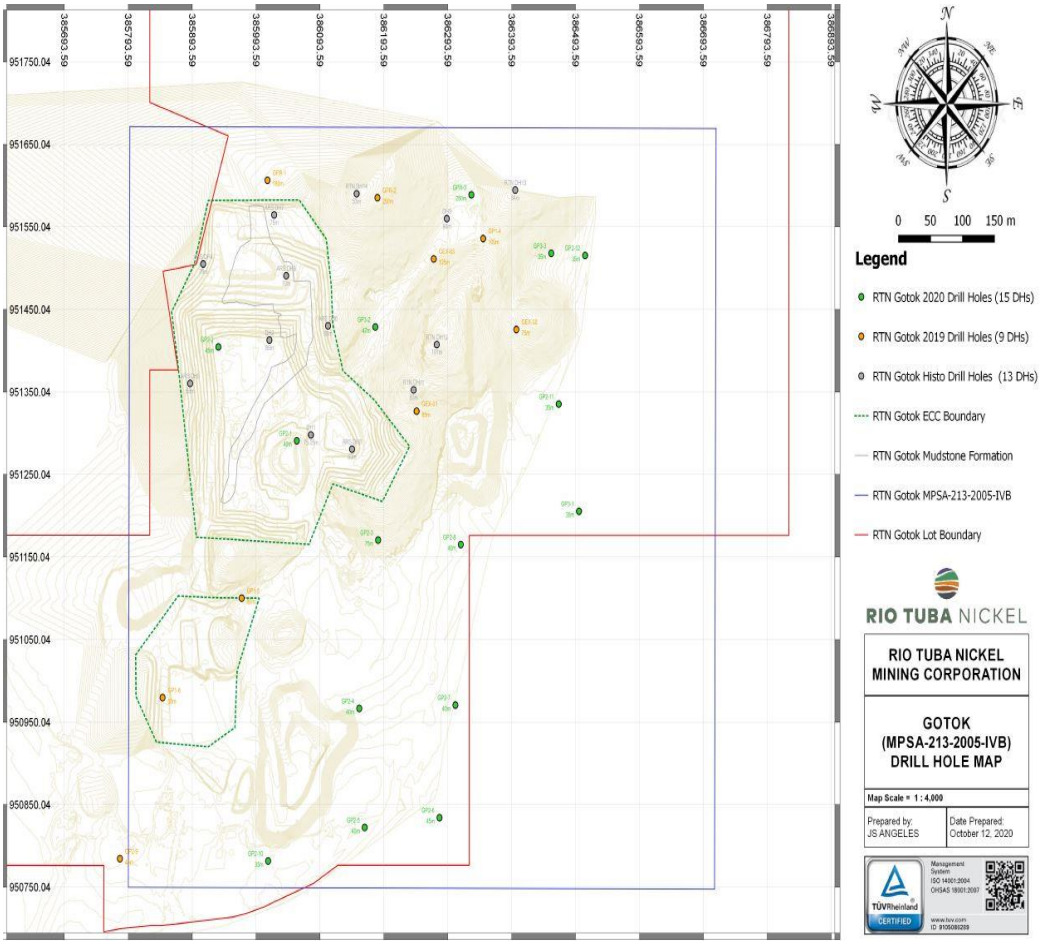


Figure 11. Drillhole location map.

3.4.2 Mineral Resources Estimate

The resource comprises all limestone material within the MPSA area. The resource is classified as measured, indicated and inferred resource following the PMRC standard. Resource calculation from the generated blocks shows a total resource of 24.3 Million Metric Tons with an average grade of 94.49 % $CaCO_3$ for the measured and indicated category.

The estimated limestone resources is summarized in the table below whose tonnage has been rounded off to the nearest 1,000 tons.

Resource Categories	Volume (m^3)	Tonnage (WMT)	Grade (%$CaCO_3$)
Measured	4,087,789	9,729,000	94.45
Indicated	6,133,390	14,597,000	94.51
TOTAL	**10,221,179**	**24,326,000**	**94.49**
Inferred	5,215,260	12,413,000	94.31

Table 16. Gotok limestone quarry resource estimates as of end 2019.

3.4.3 Mine planning and design

The pit design is shown in the following figure:

	Shattered zone	Massive zone
Over all Pit slope	39.81 deg	45.00 deg
Bench Height	5.00 m	5.00 m
Berm width	5.00 m	4.00 m
Width of Haul road	10.00 m	10.00 m

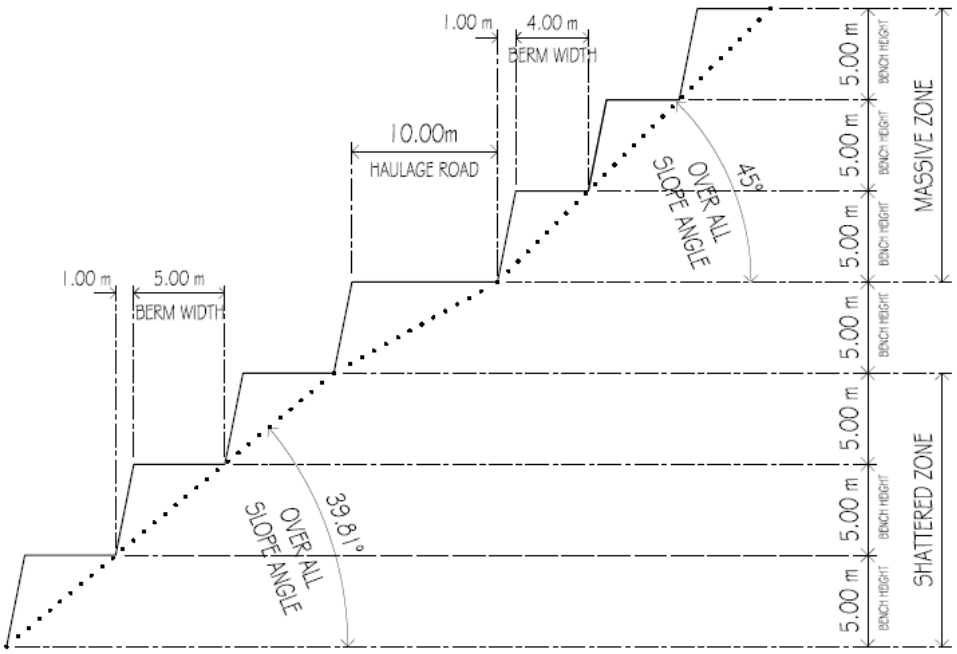


Figure 12. Gotok quarry pit design.

3.4.4 Modifying factors

The Mineral Reserves' tonnage and grade to be mined are adjusted using modifying factors to take into account historical mining recovery.

Having been in operation for many years, RTNMC has established its mining extraction and mining recovery factor of 80% derived from actual experience.

This value takes into consideration the presence of a mudstone intrusion in the limestone orebody, presence of voids and the erosion of fine-grained materials.

3.4.5 Quantity and quality of mined ore

Rio Tuba Nickel Mining Corporation plans to mine enough ore for its two buyers Coral Bay Nickel Corporation and Graymont Philippines Inc.

In this Mining Feasibility Study, the demand from the aforementioned companies is as follows:

Company	Annual Requirement in WMT (Based on averaged actual consumption)
Coral Bay Nickel Corporation	300,000
Graymont Philippines Inc.	120,000
Total	**420,000**

Table 17. Annual demand of Gotok limestone.

3.4.5.1 *Ore product classification*

As shown in **Table 18**, the product classification will be:

	$CaCO_3$ Content	**Diameter**	**Comments**
High Grade	≥ 92.00%	30 mm to 80 mm	Exclusively sold to GPI
Low Grade	< 92.00%	≤ 30 mm	Exclusively sold to CBNC

Table 18. Types of limestone sold by RTNMC.

3.4.5.2 *Cut-Off Grade determination*

Graymont Philippines Inc. uses limestone to produce Slaked Lime ($Ca(OH)_2$). For this process, the optimum calcium carbonate content of the limestone feed must be at least 92.00% by mass. Grades less than this mean that there would be a larger amount of interfering minerals in the slaking process. For Graymont Philippines Inc. therefore, the cut-off grade is 92% $CaCO_3$.

CBNC uses limestone to neutralize the acidic by-products of its HPAL process. To CBNC, the cut-off grade is much lower at 85% $CaCO_3$.

It should be noted though that the cut-off grades and the grade content of the limestone do not influence the pricing scheme in anyway, as the pricing scheme is on a per tonnage basis. The cut-off grades merely determine the specifications of the limestone supply.

3.4.5.3 *Ore reserves*

Ore reserves are estimated using classic polygon method and incorporating Area of Influence (AOI) in determining the spatial influence of each drillhole. The remaining reserves is based on the volume of

The minable reserve of the area contained within 11.37 has. as of end December 2020 is then as follows;

Proved and Probable Ore Reserves - Quarry Expansion

$CaCO_3$ Range	**WMT**	**%$CaCO_3$**	**%MgO**	**%SiO_2**
High Grade	6,243,576	95.61	0.89	0.91
Low Grade	165,821	86.89	1.56	4.59
Total	**6,409,397**	**95.38**	**0.91**	**1.01**
Cutoff:	*High Grade, (>=90%)*			
	Low Grade, (>= 80%, <90%)			
	Drill Hole Intercepts with no assay not included			

Table 19. RTNMC's Gotok Limestone reserves as of end December 2020.

The above Ore Reserves is based on the planned design limits (**Figure 14**) of the quarry expansion and down to elevation 15 masl. From operational experience, accounting for voids, dilution and recovery, a factor of 80% may be simply applied to the above reserves in order to project reasonable production output tonnage.

3.5 Plan of Operations

3.5.1 Mining plan

3.5.1.1 Mining method

As mentioned, The RTNMC Gotok Quarry operation employs conventional open pit bench mining. The mining operations also employs drilling and blasting operations.

Hydraulic excavators with ~2 cubic meter bucket capacity are utilized for the loading operation along with dump trucks with 15-18 cubic meter dumpbox capacity which are utilize for hauling from the quarry to plantsite or stockpiles.

3.5.1.2 Mining rate/Production volume

RTNMC's Gotok Quarry produces enough limestone to sustain the daily needs of both plants,. CBNC and GPI.

Due to frequent and sometimes incessant rainfall for extended period of time during the wet season, producing ample amounts of dry limestone that the crushing plant can process becomes impossible without stockpiling beforehand.

The production schedule is therefore divided into two seasons: the Dry season and the Wet season.

During the Dry season, the quarry and crushing operations produces limestone more than what both plants can consume. This excess limestone is stockpiled and covered with tarpaulin for use during the wet season.

The production volume, as shown in **Table 20**, during both seasons is as follows:

	Period (WMT/sem.)	Monthly (WMT/mo.)	Daily (WMT/day)
I. Quarrying			
Dry Season	315,000	52,500	1,750
Wet Season	210,000	35,000	1,167
II. Crushing			
Dry Season	252,000	42,000	1,400
Wet Season	170,400	28,400	947
III. Annual Total/Average			
Quarrying	525,000	43,750	1,458
Crushing	422,400	35,200	1,173

Table 20. Limestone quarry and crushing plant capacity.

3.5.2 Description of the process

The production of Limestone products has two major operations, the Limestone Quarry Operation and the Limestone Crushing Plant Operation.

The following flowchart summarizes the flow of mining operations:

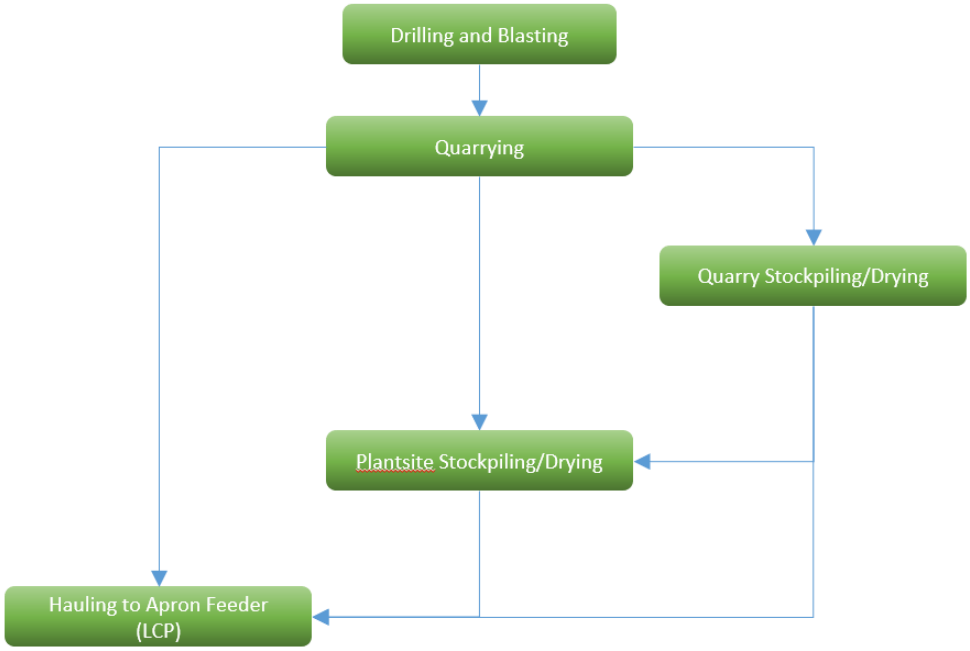


Figure 13. Gotok Limestone Quarry Operation flowchart.

3.5.2.1 *Clearing and grubbing*

First, the more sizeable and thicker trees are cut down by logging teams. The logs are inventoried and are reported to the DENR. With only stunted and unusable growth remaining, then together with the topsoil layer, is pushed back using bulldozers. These accumulated materials are loaded by backhoes unto trucks and hauled to designated stockpiles for future rehabilitation use.

3.5.2.2 *Overburden waste handling*

The thin topsoil layer practically serves as the overburden. The overburden is maintained in designated zones for future rehabilitation use.

3.5.2.3 *Limestone mining*

The mining operation in the Gotok Limestone Quarry follows a 15-year Production Plan that will mine until a depth of 15 meters above sea level.

The final pit design for the current operations is shown **Figure 14**:

Given the mining rate shown in the **Table 20**, an ISOPAC map is created by the mining engineering department that shows the mining plan. Following the mining plan, the drill holes for the blasting operation are drawn out.

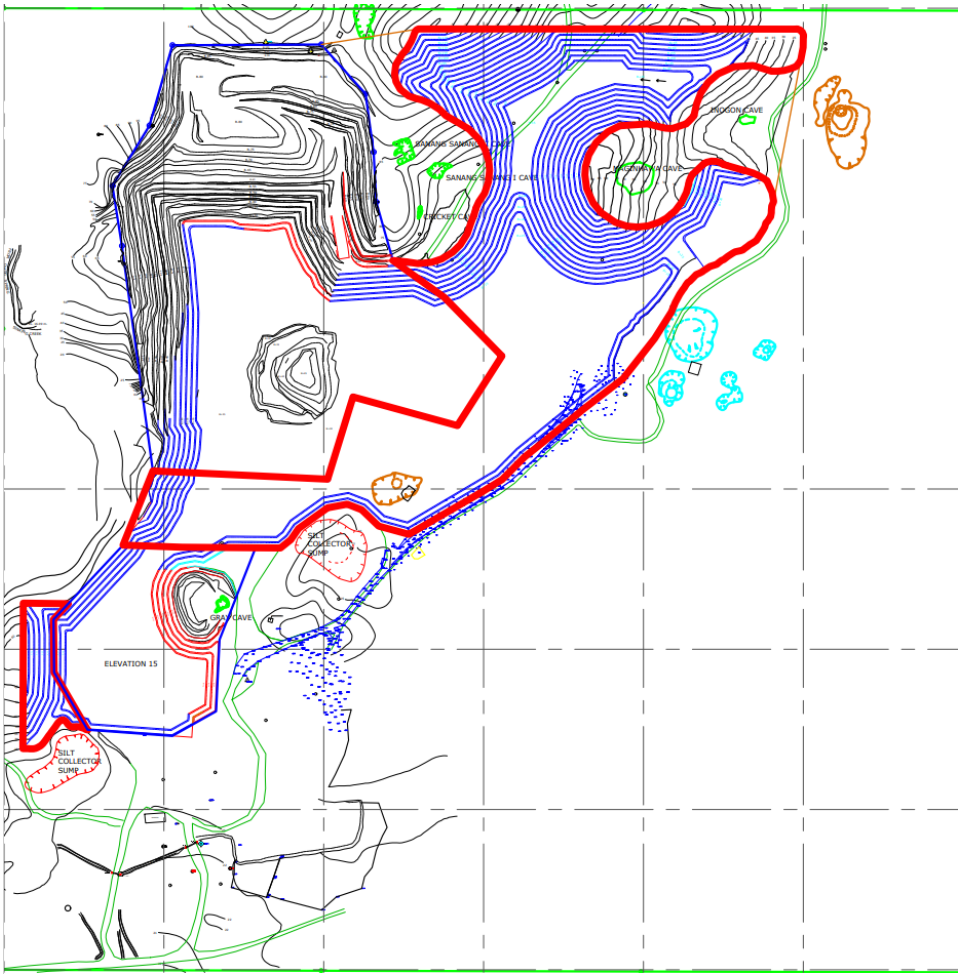


Figure 14. Gotok Limestone quarry final pit design.

The blasting pattern specifications are as follows

- Staggered echelon pattern
- Distance spacing of 3.0m apart.
- Design burden of is 3m.
- Drill hole diameter is 3.0 inches (76mm).
- Bench height is 5m.
- Blast hole depth is 5.5m, inclusive of a 0.5 m sub-drill to prevent hard toes.
- Charging of the 5.5 m drill hole consists of a primer using 1kg 50mm dynamite, a column charge of Ammonium Nitrate Fuel Oil (ANFO), and 25mm limestone for stemming.

The blasting operation is performed twice a month, while drilling is performed in non-active benches in preparation for the next blasting operation.

To produce 19,200 DMT, 300 holes need to be drilled, at 64 DMT per hole using a 0.2 to 0.4 kg/m^3 power factor.

Secondary breaking using a rock breaker equipment is necessary for oversized boulders.

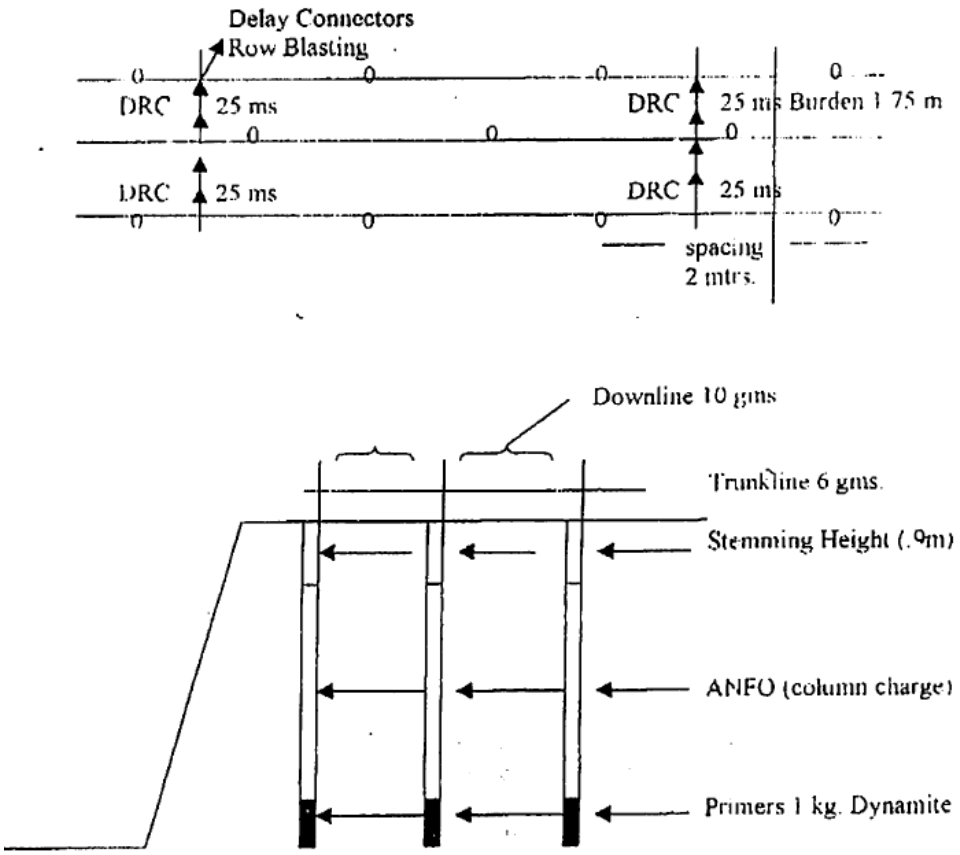


Figure 15. Cross sectional details of the drilling and blasting patterns.

3.5.3 Stockpiling/Dozing

After blasting, the blasted materials are loaded onto dump trucks by backhoe excavators. These trucks haul the limestone onto steep slopes and dump the ore over the edge with the assistance of a safety spotter. A size distribution is achieved by gravity separation as brought about by the difference in momenta of the varying particle sizes. The resulting stockpile therefore has a semi-stratified nature that has a rougher, coarser particle size near the bottom and finer materials near the top of the stockpile, as shown in the following figure.

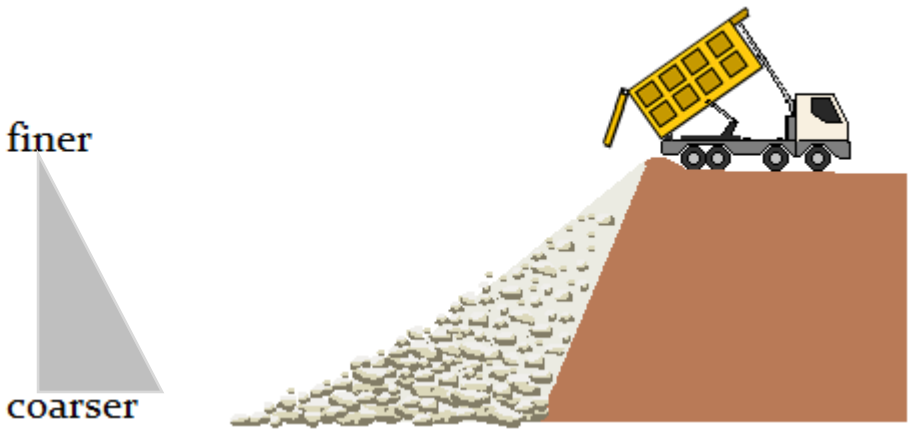


Figure 16. Size distribution due to gravity separation.

3.5.4 Loading/Transportation

The stockpiled material will be loaded using a Wheel Loader or backhoe onto Dump trucks. The material will then be hauled and dumped either at a stockpile which is adjacent to the RTNMC crushing plant, or directly onto the crushing plant hopper.

3.5.5 Waste dumpsite

The waste materials that will be generated are expected to be minimal in volume considering that only the top soil will be treated as waste. And, most of this topsoil will be utilized as top layering materials for rehabilitation/revegetation of mined out quarry benches. A designated waste dumpsite for temporary storage pending availability of fully mined out areas for rehabilitation/revegetation will be provided and maintained.

3.5.6 Progressive quarry rehabilitation

Progressive quarry rehabilitation will be undertaken as soon as the quarry benches have reached its final quarry /pit limit. The schedule of rehabilitation will more or less follow the quarrying stages. The rehabilitation method is described in the succeeding section.

3.5.7 Crushing

The material will be fed to a receiving hopper/apron feeder of the limestone crushing plant using a wheel loader or by direct dumping by dump trucks. The limestone feed is reduced further in size from about 20 inches (500mm) to the specified product sizes by a series of crushers, screens and water-based separators.

Figure 17. Limestone Crushing Plant.

The crushed materials will be temporarily stockpiled at the crushed ore discharge area prior to its hauling to the CBNC & GPI plant site. This process flow is depicted in the following flowchart:

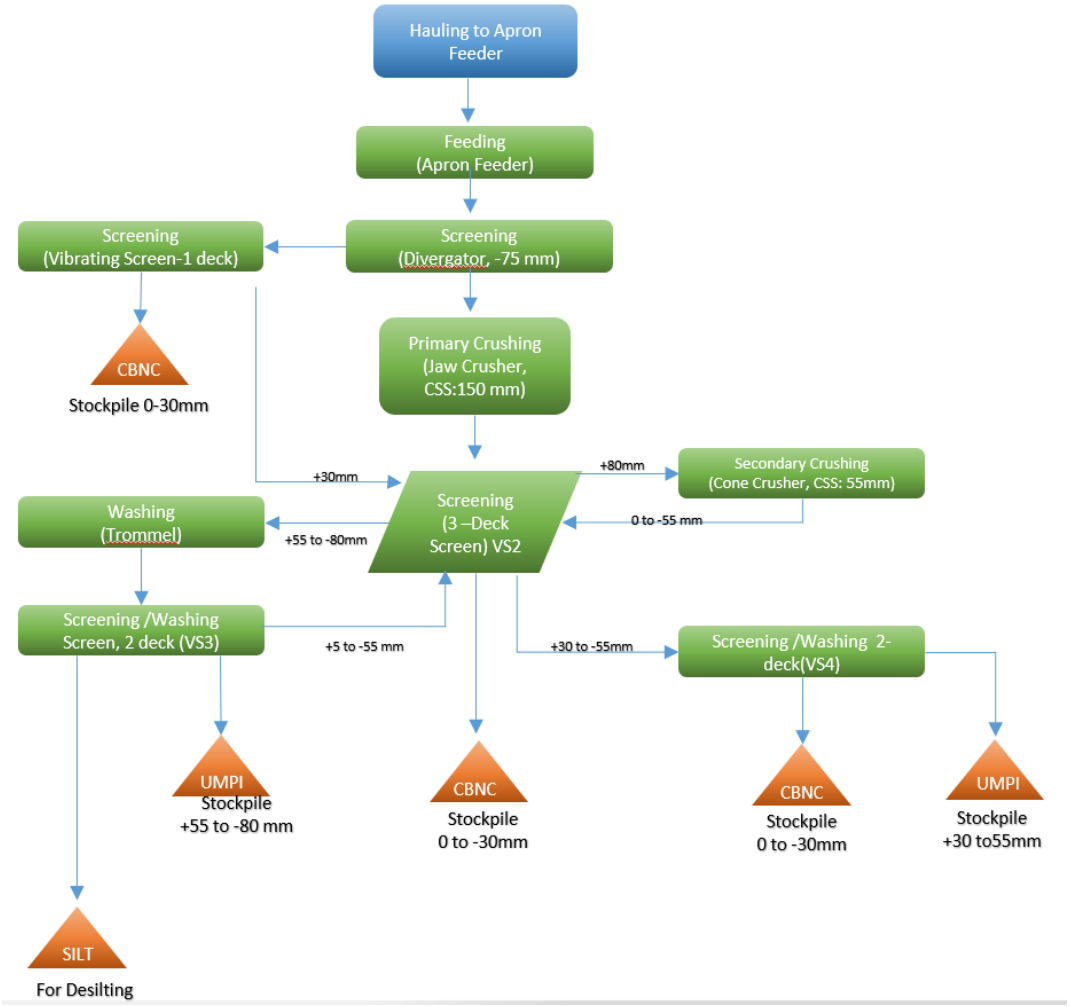


Figure 18. Limestone Crushing Plant material flow diagram.

3.5.8 Work schedule

The following figure shows the Long-Range Plan for the Gotok Limestone Quarry until 2032.

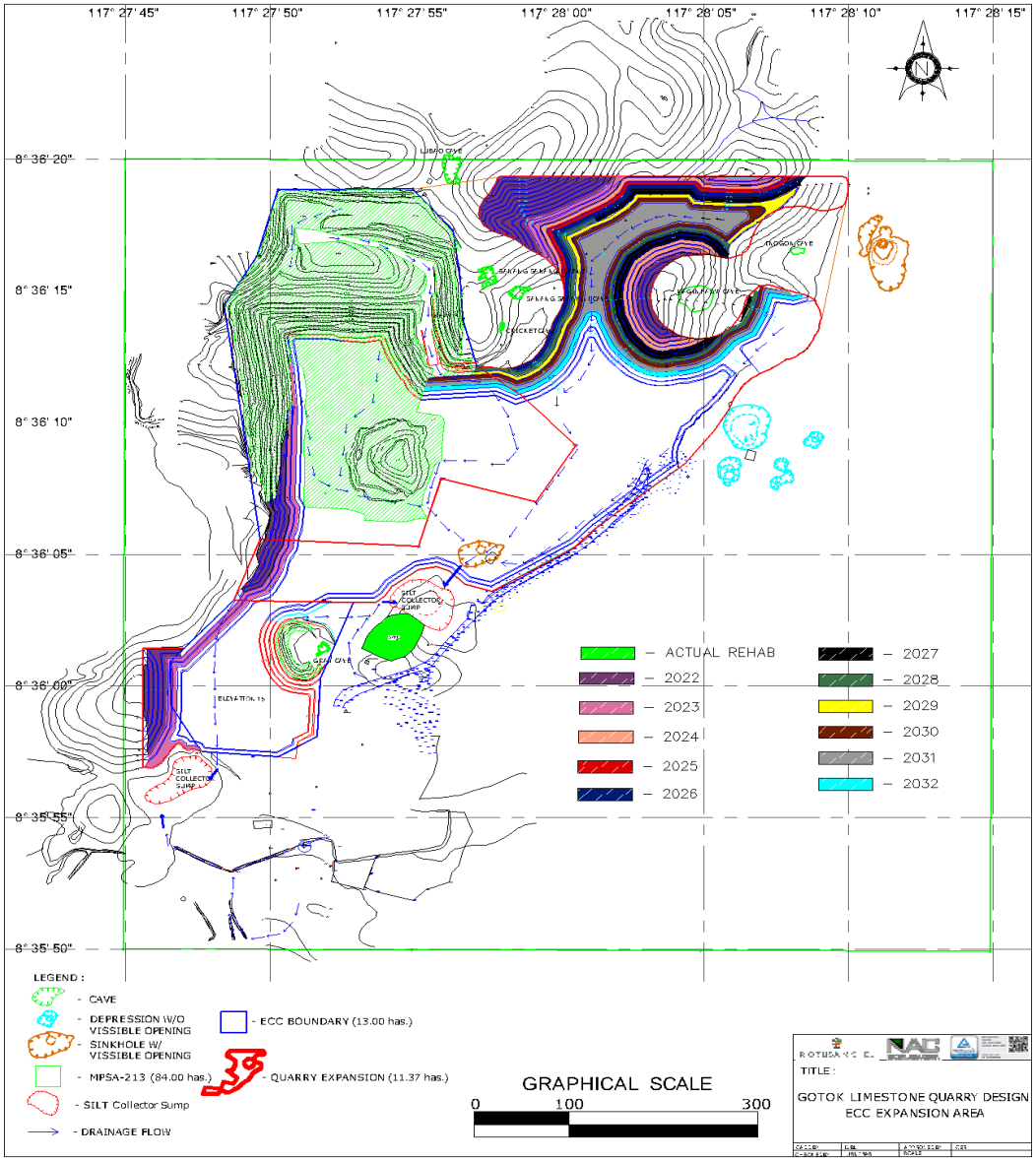


Figure 19. Gotok Limestone Quarry Long Range Plan.

3.6 Environmental Protection and Management Plan

Environmental impacts of RTNMC's mining operations were identified to be one of four major categories; land resources, water resources, air quality and noise. Environmental management plans revolve mainly in addressing the negative impacts brought about by operations to these categories.

3.6.1 Land resources

RTNMC, which is committed to the protection of the environment, has long been implementing its environmental management plans designed to control and minimize the adverse effects of the company's existing operations on the environment. Some of the measures adopted for implementation regarding mitigating of impacts on land resources area are as follows:

- In all mining plans, the area of exposed bare soil shall be kept to minimum. This requires cleaning of vegetation in segments, only when needed, and immediate rehabilitation of used-up areas. Maximum effort shall be made to save existing vegetation.
- Provision of proper drainage system.
- Mine rehabilitation.
- Reforestation.

3.6.1.1 Progressive rehabilitation

All newly disturbed areas are immediately considered for rehabilitation. Rehabilitation of mined-out areas is an integral part of mining activity and is being undertaken progressively as areas are mined.

3.6.1.2 Rehabilitation standard

The objective of rehabilitation is to restore or reclaim disturbed areas to a safe stable non-erodible condition thereby establishing a land use capability that is functional and proximate to the land use prior to the disturbance made in the mine area. With this in mind, standards set by DENR and its implementing agencies shall be adapted including the conditionalities contained in the Environmental Compliance Certificate (ECC). Likewise, internationally accepted best environmental practices in mining shall be followed whenever applicable.

3.6.1.3 Rehabilitation methods

3.6.1.3.1 Pre-mining preparation

Mine development and construction started in 2005. Prior to actual ore mining, the area is generally subjected to the following: clearing of vegetation, overburden removal/stripping, and proper benching of pit walls. Setting up of benches and terraces are good techniques for pit wall stabilization in preparation of subsequent rehabilitation. Likewise, proper drainage systems are provided to minimize soil erosion.

3.6.1.3.2 Final land form design

For the mined-out areas, the same shall be rehabilitated and revegetated for conversion into a forest land. Rehabilitation method is described in the succeeding pages.

3.6.1.3.3 Surface preparation

Surface preparation starts by backfilling small craters with loose materials nearby in order to maintain a relatively consistently level topography.

After backfilling, a 30-cm top soil is spread all over the target area and regarded to the same topographic configuration. Adequate drainage system is then provided within the reclaimed land surface.

3.6.1.3.4 Revegetation method

As practiced by RTNMC, fast growing and heat tolerant pioneer species will be used for the revegetation activities. Field planting is normally implemented during the onset of rainy season after surface preparation. Distance between plants shall be

maintained at 2 m interval. Climax species can also be used in the revegetation activities. Planting shall start three (3) years after the pioneer/reforestation species have established. Consequently, the pioneer species have already developed the necessary cover for the growth and survival of shade- loving climax species. At the periphery of the rehabilitated areas, fruit bearing trees shall be planted to become source of food for some wildlife species thriving in the area including birds.

3.6.1.3.5 Maintenance

The newly rehabilitated areas will be monitored closely to ensure high survival rate of plant species. Grass cutting, watering during dry months, reapplication of fertilizer and fencing shall be conducted until the seedlings have grown. Dead seedlings shall be replaced to have a sufficient cover for the climax species. RTNMC strictly employs the activities indicated in its Annual Environmental Protection and Enhancement Program (AEPEP).

A schematic diagram showing the various phases of mined-out area rehabilitation is presented in **Figure 20.**

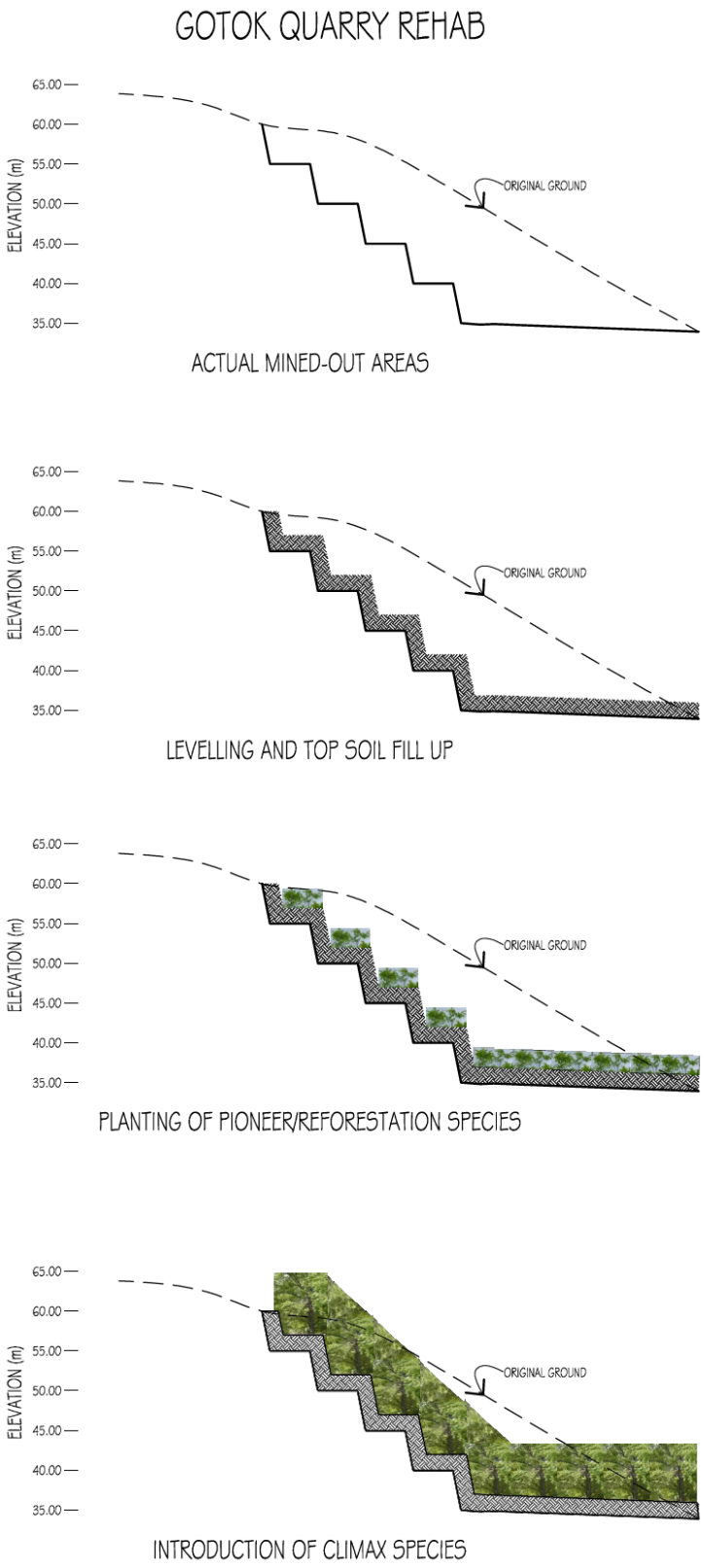


Figure 20. Phases of mine-out area rehabilitation.

3.6.2 Water resource

3.6.2.1 Quarry Drainage

Operation of the limestone quarry is expected to increase siltation and sedimentation in the area and the low-lying area not far from the quarry site. During the monsoon season,

the disturbed earth in the road construction and the exposed hill will be susceptible to erosion. Sediments will settle in the low-lying areas and fill them up in the long run. Succession will convert this place from a wetland to a terrestrial ecosystem. The stagnant water will find its own level and flood other low-lying areas. This endless cycle is a natural event since the topography is rolling.

3.6.2.2 Waste Disposal

The operations in the Gotok limestone quarry and crushing plant generate approximately 1,068 m^3 of solid wastes consisting mainly of domestic and industrial wastes annually. These include canteen wastes, human wastes, used batteries, used drums, used oil and used oil filters. The solid waste management plan currently being implemented includes collection of domestic wastes, segregation into bio and non-biodegradable and disposal to GP-28. It is a mined-out pit with a holding capacity of 240,000 m3 which can fill-up within 20 years. Meanwhile, surface water contamination with oil and grease will likely occur from leaks and spillages.

3.6.2.3 Ground/Surface water

The quarry activities will not involve the use of groundwater and will therefore not compete with any user of groundwater in the area. There are no wells in the vicinity of the quarry site. The water source of residents in the area is already supplied by the level II water system of RTNMC and CBNC. The project will also not compete with users of water from Ocayan and Iwahig rivers since both the quarry and crushing plant operations will not utilize the water from the said rivers.

3.6.2.4 Sediments Pond

Two (2) silt collector sumps (SCS) were constructed at the quarry site to retain silt/sediment that may be produced during rains. These are located at the eastern and southern sides of the quarry area. The water quality of the nearby creeks will not experience any adverse impact since surface runoff from the quarry does not reach these creeks. The surface runoff is collected in the SCS and readily infiltrates into the ground. The Gotok Drainage Map is shown in Annex 4. The wastewater from the crushing area is directed to a settling pond. Overflow of the pond is discharged into the Rio Tuba River after it passes thru Upper Kinurong and Lower Kinurong settling ponds. Rio Tuba River is the catch basin of both the industrial and domestic waste in the area.

3.6.3 Noise

The noise sources are the heavy equipment such as bulldozers, pay loaders, hauling trucks as well as the blasting process.

Job rotation of personnel is implemented wherein personnel is tasked to perform duties at the point source equipment for maximum of four (4) hours and then then another four (4) hours doing activities where noise level is permissible.

Likewise, vehicle plying the haulage route has proper scheduling of equipment operation to avoid disturbance to the nearby communities. Meanwhile, the blasting activity has specific schedule.

The blasting process is done only once a week, and only during daylight hours in order to minimize disturbance in the community.

Provision of Personnel Protective Equipment (PPE) - All personnel assigned at the crushing plant are prescribed and issued to wear appropriate PPE such as ear muff model: 2000H with Noise Reduction Rating of 21 decibel per specification when used as directed.

Strict adherence on the Equipment Operation and Maintenance Procedures to ensure all equipment are in good running condition thus eliminating the possibility of contributory noise cause from worn parts and mis-operation.

Proper monitoring of noise level especially during blasting activity around the quarry area and nearby communities.

3.6.4 Air quality

3.6.4.1 Dust suppression

Dust suppression techniques are used to reduce particulate emissions and to hinder generation of fugitive dust (Total Suspended Particulates or TSP).

Other control measures being implemented are as follows:

Quarry Area

- Progressive rehabilitation and maintenance of the vegetation along the buffer zones.
- Maintenance of vegetative cover along peripheries of the quarry area.
- Water spraying along hauling road and access roads is regularly conducted wherein local residents are contracted for this activity as source of their income.
- Two (2) street sweepers were stationed in the first one hundred meeting access highway road from the quarry wherein road water spraying is also conducted.
- Regular road maintenance is also being conducted.
- Lastly, implement a lower drop height during limestone loading and speed limit of service vehicles, hauling trucks and other heavy equipment.
- Covering hauling trucks with tarpaulin or canvas to prevent the unwanted discharge of materials and dusts when plying from quarry to crushing and to delivery to CBNC & GPI.

Crushing Plant Area

- Progressive rehabilitation and maintenance of the vegetation along the buffer zones.
- Maintenance of vegetative cover along peripheries of the quarry area.
- Water spraying along hauling road and access roads is regularly conducted wherein local residents are contracted for this activity as source of their income.
- Two (2) street sweepers were stationed in the first one hundred meeting access highway road from the quarry wherein road water spraying is also conducted.
- Regular road maintenance is also being conducted.
- Lastly, implement a lower drop height during limestone loading and speed limit of service vehicles, hauling trucks and other heavy equipment.
- Covering hauling trucks with tarpaulin or canvas to prevent the unwanted discharge of materials and dusts when plying from quarry to crushing and to delivery to CBNC & GPI.

3.7 Mine Safety and Health Plan

The company submits annually to the Mines and Geosciences Bureau a Safety and Health Program. The annual program is enumerated below and is summarized in **Table 21**.

PROGRAM	ACTIVITY	Unit of MEASUREMENT
Leadership and Administration	QESH Policy	As need arises
	Safety Statistics Board	Monthly
	CSHC Meeting	Monthly
Organization Rules and Policy	Formulation of Safety Procedures	As need arises
	Review of Safety Procedures	As need arises
	Employees Safety Manual/Handbook	As need arises
Safety Meetings	Toolbox Meeting	Daily
	Safety Coordination Meeting	Weekly
	Deparment/Section Safety Meeting	Monthly
	Service Contractor's Meeting	Monthly
Management and Employee Training	Regular Training Courses (BOSH, COSH, LCM)	
	Refresher Training Courses	Twice a year
	Employee Safety Seminar	Annually
Planned Inpection	Safety Inspection in all active areas	Daily
	Group Safety Patrol/Audit	Weekly
	Ocular Inspection	Monthly
	Joint Contractor's Audit	Monthly
Accident/Incident Investigation	Review of Accident/Incident Investigation Procedure	As need arises
	Accident/Incident Investigation	
	Review of Near-miss Investigation Procedure	Updated
	Near-miss Investigation	
Accident/Incident Analysis	Preparation of Safety Statistics	Monthly
	Review of Accident/Incident Report	Monthly
	Property and Equipment Damage Anaysis	Monthly
Health and Control Services	Health Hazard Control	Monthly, Quarterly
	Medical Examination	Annually
	Provison of Dental and Medical Services	As need arises
	Health Maintenace Program	As need arises
	Workplace Medical Consultation	As need arises
	First Aid Emergency	Monthly Inspection
	Health Promotion	Monthly
	Formulation ofEmergency Response and Preparedness Plan	
	Protective and Rescue Equipment	Annually
	Conduct of Emergency Drill	Quarterly
Personal Protectie Equipment	Review of PPE Policy	Annually
	Procurement of PPE	
Safety Promotions	Safety Bulletin Board Program	Monthly
	Review of Safety Statistics and Accident/Incident	Monthly
	Safety Program	Daily, Monthly, Quarterly
	Group safety Performance	Monthly
	Safety Incentive Bonus	Monthly
	Housekeeping Promotion	Monthly
Others	COVID19 Supplies	Annual

Table 21. Annual Safety and Health Program.

3.7.1 Leadership and administration

The workforce for Safety Section for Gotok limestone operation will consist of one (1) full time Safety Engineer and one (1) full time Safety Inspector. Both Safety Engineer and the assigned Safety Inspector has the responsibilities for the implementation of safety and health standards for Gotok limestone quarry site and Limestone Crushing Plant.

The company maintains ten (10) full time Safety Inspectors who reports to the company's Safety Engineer. The safety section shall be under the direct supervision and control of the Project Manager.

3.7.2 Organizational rules and policy

Safety and health related rules and regulations are based on the company's General Safety Rules and Regulations. The rules and regulations are primarily based on the "Mine Safety and Health Standards" of MGB. Review of rules shall be periodically done and revisions will be implemented once they are deemed inapplicable to certain operations.

3.7.3 Safety meetings

The company maintains a series of safety and health related meetings to ensure that its safety and health concerns are fully addressed. These meeting are enumerated below:

3.7.3.1 The Central Safety and Health Committee Meeting

Monthly Central Safety & Health Committee meeting will be held on the 4th week of every month to discuss issues relating to the OHS programs and concerns for Gotok Limestone Quarry and Limestone Crushing operations.

3.7.3.2 Departmental/Sectional meetings

Departmental/sectional meetings will be scheduled every month to discuss OSH issues including other safety concerns of employees.

3.7.3.3 Production safety meeting

Production meeting will be also held thrice every week to discuss production and safety related concern

3.7.3.4 Tool box meeting

Safety pep talks or tool box meetings are being done before the start of each shift to discuss safety reminders and job safety instruction. Supervisors and safety engineer and inspector will jointly conduct this important activity.

3.7.4 Management and employee training

The company has its annual In-house training program for all employees especially on safety such as OSH Mandatory Safety Orientation and Basic Occupational Safety and Health (BOSH). Other safety-related trainings such as Loss Control Management (LCM), PROSAFE (Fire Safety) and Standard First Aid & Basic Life Support were also scheduled once approved by the Management and these will be attended by the Department Managers/Supervisor as well as the Safety Manager/Engineer and Inspector. These trainings are designed to equip the attendees with knowledge, skills and updates on different aspect of safety.

General Safety and Health orientations are conducted for all newly hired employees. Included in the orientations are trainings on Defensive Driving, Basic Life Support, First Aid and Fire Prevention Control.

3.7.5 Planned inspections

General Safety and Health orientations are conducted for all newly hired employees. Included in the orientations are trainings on Defensive Driving, Basic Life Support, First Aid and Fire Prevention Control.

3.7.6 Accident/Incident investigation/analysis

Accidents/Incidents whether on equipment or personnel are properly reported and investigated within the shift. Standard forms are used duly signed by the Supervisor/

Foreman concerned. Included in the report are the persons and/or equipment involved, the conditions and sequence of events, and the contributing factors which led to the accident/incident.

Initial investigation of the accident, near miss or incident is the responsibility of the immediate supervisor. A spot report shall be generated after the initial investigations following the Root Cause Analysis. A detailed report shall be submitted by the concerned department to safety office within 72 hours.

Safety Inspector on duty will also conduct a full investigation of the incident, near miss or incident and immediately inform the Safety Engineer on the details of the incident/accident.

Should there be an accident, near misses / incident, the personnel involved or colleague who witnesses the accident or incident shall report the accident, near misses / incident in detail to the immediate supervisor or to the Safety Office during the shift.

A final narrative report will be prepared by the Safety Engineer for submission to the Resident Mine Manager. Any Lost Time Accident shall be investigated and reported within 24 hours to the Resident Mine Manager thru the Safety Engineer. The Mines and Geosciences Bureau – MIMAROPA Region must be informed within twenty-four (24) hours by the Resident Mine Manager of any fatal accident within the limestone quarry operation of RTNMC. Any fatal accident must be reported immediately to the Municipality of Bataraza Police Office for investigation.

A copy of medical report from RTNFI hospital for accidents cases must submitted by the Resident Doctor of RTNFI hospital to the safety office for reference. The Admin– Personnel Department must be informed and given a copy of the accident report to assist the victim and processing of necessary documents. If the accident involves a service contractor, the immediate supervisor of the service contractor will conduct the initial investigation and submit the report to their Safety Office.

A duly filled-up similar standard accident report form from the service contractor must be submitted to RTNMC Safety Office. The recommended counter measures shall be monitored and followed-up to ensure implementation.

3.7.7 Accident/Incident Analysis

All information and data related to the accident/incident are carefully analyzed to determine the exact cause/s, and measures are recommended to prevent the recurrence of same or similar accident/incident. To have a proper analysis on the root cause(s) and recommendations of safety measures to prevent the recurrence of the same, involved department shall conduct the root cause analysis (RCA) as much as possible within 24 hours in coordination with the other involved department and safety section. Losses are determined / quantified for improvement to prevent similar losses in the future.

3.7.8 Health control and services

To ensure the wellbeing of the employees of this company (RTNMC) when it comes to safety and health, the assigned OH Nurse has the responsibility to check and secure good and well hygienic workplace. The OHN shall also give employees a safety and health education and awareness during toolbox meeting prior to exposure or proceeding to their assigned duties and responsibilities.

To render a high standard of emergency medical services to all employees when accident will occur, the assigned first aider for each department or section must be put to test in a form of drill to test their response, readiness and ability to rescue the injured employee or personnel. First aid kit is also complete and ready to use at all time at the designated areas. All employees should undergo a thorough medical screening or examination including all newly hired employees to ensure that they are all physically and mentally fit to work. Pre-employment and annual medical examinations of employees are conducted. Return to Work Medical Examination and Drug/Alcohol Free Workplace Program and Malaria Eradication are also undertaken. Illnesses are diagnosed and treated in a hospital operated under a foundation, which is financed by the company as its benefactor/donor.

3.7.9 Emergency preparedness program

Emergency Response Team has been organized to react in case of emergencies with proper coordinating bodies. Evacuation areas are also established for emergency purposes.

In general, emergency response procedures on the significant emergency issues were further discussed on Emergency Preparedness and Response Plan.

3.7.10 Personal Protective Equipment (PPE)

All employees are provided with the necessary PPEs as required in their job assignments and these are free of charge to all employees. Examples of PPEs issued to employees are skull guards, eye goggles, hand gloves, reflectorized vests, earplugs, body harnesses, safety shoes, rain boots, umbrellas, and raincoats.

3.7.11 Safety promotion

Safety & health Incentives in the form of Cash Awards are given to each employee who garnered at least twenty (20) man days in a month without accident. The amount differs according to the workplace category as follows:

- Most Hazardous - PhP 0.75
- More Hazardous - PhP 0.50
- Hazardous - PhP 0.25

To further promote and develop safety awareness among company employees & service contractors' employees, a variety of promotional and incentive techniques will be organized to be implemented. Awards may be in the form of tokens or safety souvenirs for every million safe man-hours worked without lost time accident at the sole discretion of the Resident Mine Manager. Also, maximum publicity shall be attached to the presentation and a high level of recognition shall be given to the recipients of the awards.

Community consultations are also done from time to time as the need arises.

3.8 Community Development Plan

The objective of the Gotok Limestone Operations SDMP is to develop the mining community by implementing programs and projects, in partnership with the host and neighboring communities. The end goal is to create responsible, self-reliant and resource-based communities capable of developing, implementing and managing community development

programs in a manner, consistent with the principles of people empowerment and sustainable development.

The limestone operations SDMP used to be implemented alongside RTNMC's nickel operations. In 2018, the limestone operation finally detached from the nickel setup and had its own five-year program. The project beneficiaries now encompass three impact barangays (from two), Indigenous Cultural Communities within these barangays and other ICCs in non-impact barangays.

The SDMP has three components, as can be interpreted in DAO 2010-21 Sec. 134:

i. **Community Development/Assistance (SDMP Proper)** – RTNMC assists in the development of the host and neighboring communities in accordance with its SDMP to promote the general welfare of the inhabitants living therein.

ii. **Information, Education and Communication (IEC)** – RTNMC is very active in its efforts for greater public awareness and understanding of responsible mining and geosciences.

iii. **Development of Mining Technology and Geosciences (MTG)** – RTNMC has and is continually developing its program for the advancement of mining technology and geosciences; the aim of which is to build up resources and mineral discoveries, improve operational efficiency, resource recovery, enhance environmental protection and mine safety.

The objective of the first five-year cycle is to create a significant 10% Social and Economic Progress of Partner Communities.

3.8.1 Community Development and Assistance

The SDMP Comprehensive Program Structure is formulated to:

- Improve understanding of local community development processes
- To support lasting improvement in the quality of life enjoyed by mining communities
- To facilitate community empowerment through participatory development processes
- To build local capacities and development resources
- To foster constructive working relationships among communities, companies, and governments
- To reduce conflict in mining/quarrying communities

With the above, the SDMP was designed as a comprehensive approach to improve the well-being of the locality. It is now formulated wherein sustainable community development projects are adopted in order to contribute to the advancement of the country by responding to the Sustainable Development Goals.

It would also be focusing on the achievement of Minimum Basic Needs of a family within the locality. In this manner, poor communities will be strengthened and capacitated in order to stand on their own and contribute to the development of the municipality and the country.

The projects will target the indicators and dimensions of poverty such as increased access to sufficient electric source, healthcare facilities, improved income and self-sufficiency. It also

aims to develop new technologies that will support and enhance quarry and mineral processing operations in the country and can likewise be embodied by DHNC Programs. Community, schools and public education programs are also aimed to promote participative action with local communities living in and around the area.

It is understood that to transform the communities to become fully enabled and self-sustained, the improvement on indicators and dimensions of poverty is necessary. The following illustration shows the SDMP development framework:

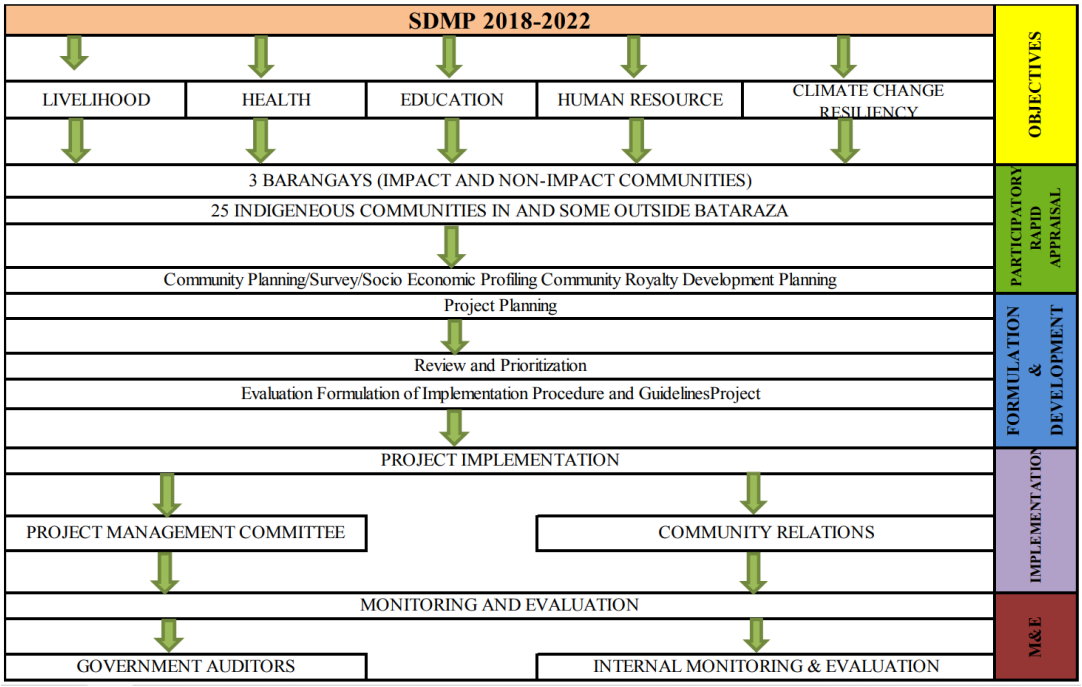


Table 22. SDMP development framework.

In addition to the SDMP Proper, both companies also use the IEC and MTG programs to develop the community.

3.8.2 Information, Education, Communication (IEC)

The IEC will serve as an important tool in SDMP promotion for creating supportive environments and strengthening community action, in addition to playing an important role in changing behavior. The IEC intends to intensify awareness on quarry operations alongside RTNMC safety, environment and rehabilitation programs.

The objectives that conducting IEC seeks to achieve are the following:

a. Awareness raising
b. Community Empowerment
c. Advocacy
d. Capability Building
e. Inter-agency collaboration

The strategies that the IEC program uses are the following:

1. Conducting Community Programs in Impact Areas

2. Conducting School Programs
3. Conducting Public Education Programs

3.8.3 Mining Technology and Geosciences (MTG)

The goal is to develop new technologies that will support and enhance quarry and mineral processing operations in the country and can likewise be embodied by DHNC Programs.

To do this, RTNMC through the DMTG budget, shall facilitate the conduct various researches on technology development, agro-industrial breakthroughs and community-participated activities on geohazard and disaster preparedness.

For this current implementation phase, **Table 23** shows annual budget for the current operations.

CATEGORY	2018	2019	2020	2021	2022	Total
DHNC	3,555,034	3,555,034	3,555,034	3,555,034	3,555,034	17,775,169
IEC	711,007	711,007	711,007	711,007	711,007	3,555,034
DMTG	474,005	474,005	474,005	474,005	474,005	2,370,023
Grand Total	**4,740,045**	**4,740,045**	**4,740,045**	**4,740,045**	**4,740,045**	**23,700,225**

Table 23. Gotok Limestone operations SDMP Project Cost.

3.9 Socio-Economic Impact

For the Year 2021, the breakdown of the Annual Budget for the DHNC (Php 3,343,361) is portrayed by **Figure 21**:

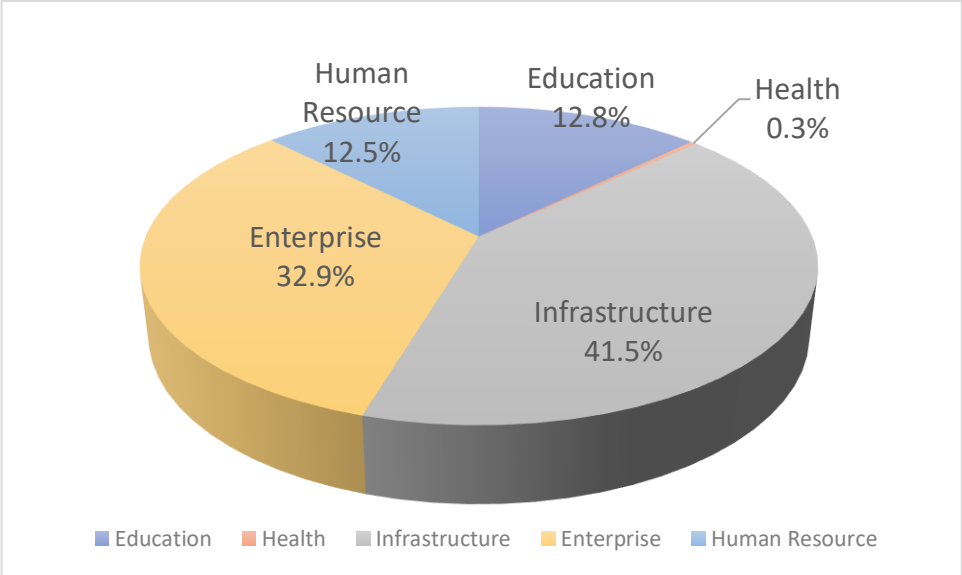


Figure 21. Budget breakdown for 2021 SDMP – DHNC.

With the implementation of the Social Development and Management Program, RTNMC IS expecting and are aiming to continue achieving the following Socio-Economic Impacts:

3.9.1 Local empowerment

It was determined in a 2015/2016 survey that among all barangays in Bataraza, Barangays Taratak and Malitub are the only ones with less than 40% of their school-aged residents who currently studying.

By incessantly providing scholarships as well as top notch primary and secondary education in the form of the La Salle Supervised ***Leonides S. Virata Memorial School*** as part of corporate social responsibility, it is made sure that the SDMP does its part in ensuring that the students of the host communities are equipped and are relevant in the opportunities offered by modern Philippine society.

In addition to scholarships, the SDMP also adopted several schools around Bataraza and constantly assist the said schools in supplies and equipment.

3.9.2 Sustainability and self-reliance

Those in far flung provinces are often marginalized in terms of job opportunities and equipment for local industries. The SDMP allocates the second-most sizeable proportion of the SDMP budget for Livelihood improvement.

One of the key ultimate motives of the Livelihood Improvement initiative is to make sure that the host communities become self-reliant and have other sustainable means of income and economy long after the mine has closed and the mine pit rehabilitated.

3.9.3 Preservation of Socio-cultural factors and values

The Community Relations recognize that it is very important that Socio-Cultural Development is not left behind and is improved along with other key initiatives of the SDMP.

Inasmuch as the people of Bataraza are of different faiths, the SDMP respects this fact and invests in the intensification of different faiths and socio-cultural practices equally. The SDMP spends for the construction of different places of worship, as well as their maintenance and repair.

3.9.4 Health and Sanitation Improvement

The general health of host barangays is improved by the investment in Barangay health workers, the operation of Barangay Health Centers, and regular medical aid missions.

In order to improve sanitation, the installation of new toilets as well as the improvement of sources of potable water is regularly performed.

Moreover, as part of Corporate Social Responsibility, RTNMC and CBNC operate a state-of-the-art hospital called the RTNFIH (Rio Tuba Nickel Foundation Inc. Hospital). Subsidies for hospital services in the RTNFIH is granted by the SDMP for indigents.

3.10 Equipment Needed

The following table shows the list of equipment needed to operate the limestone operation:

EQUIPMENT	MAKE/ MODEL	QUALITY
PRODUCTION EQUIPMENT*		
A. Dump trucks	VOLVO/FMX-420 or Equivalent	15 units
B. Wheel Loader	VOLVO L- 150F	4 units
C. Track Excavators	VOLVO EC460B	3 units
D. Bulldozer	KOM/ D85EX-15	1 units
DRILLS		
Air Track Drill Machine*	Furukawa 200/Soosan SD7000	3 units
OTHER EQUIPMENT		
A. Fuel Lorry	VOLVO FM 64R	1 unit
B. Maintenance Truck	ISUZU NPR 22	1 unit
C. Road Grader	VOLVO G930	1 unit
D. Truck Trailer	VOLVO FM 64R	1 unit
E. Air Compressor*	HINO 100	1 unit
*Some equipment will be outsourced through mining contractors		
**Note: Drilling & Blasting Contractor's Equipment (CONEX)		
Jaw Crusher	700 mm x 50 mm 95 mm Discharge	1 unit
Roll Crusher	Kurimoto 3624 Double Roll	1 unit
Vibrating Screen	Triple Deck with 75 mm Opening	2 units
	NFS 1230 1200 mm x 3000 mm Single Deck	1 unit
	1200 mm x 3650 mm w/ 25 mm opening , single deck	1 unit
Cone Crusher	TC1000T, Terex Jacques	1 unit
Jaw Crusher	JW-42 Terex Jacques	1 unit
Apron Feeder		1 unit
Scalping Divergator	AE1412	1 unit
Vibrating Screen	Double Deck Horizontal Screen	1 unit
	Triple Deck 6' x 16'	1 unit
Water Washing Spray System		1 unit

Table 24. List of inhouse and contractor's equipment and infrastructures for the different phases of operation and maintenance activities.

4 Financing Requirements

4.1 Investments

The proposed mining project will be implemented using the existing assets of Rio Tuba Nickel Mining Corporation which are currently being utilized in the on-going Limestone mining operations located within the area covered by 213-2005-IVB. It is projected that at the end of 2021, the value of these facilities are as follows (**Table 25**):

Existing Company Facilities for Gotok Quarry and Crushing Operations as of end Dec 2021 (projected)	
Drying Cushing Plant modification	108,812,330.29
Upgrading Plantsite Feeders & transformer	8,916,389.90
Total	117,728,720.19

Table 25. RTNMC's Limestone Operations Facilities/Assets by end 2021.

Aside from existing facilities, RTN also needs to acquire additional equipment for limestone operations. These are:

Quarry		**Unit Cost**	**Total Cost**
Bulldozer	1	23,744	23,744
Hydraulic Excavator	1	8,370	8,370
Breaker	1	8,370	8,370
Boulder Trucks	3	8,180	24,541
Crushing/Screening Plant			
Wheel Loader	1	17,869	17,869
Wheel Loader	2	17,869	35,738
Dump Trucks	4	7,049	28,194
Wheel Loader	2	17,869	35,738
TX-Aux	1	8904	8,904
Total			**191,468**

Table 26 Additional Equipment CAPEX for limestone Operations, Php 000s.

The total project cost, existing facilities, planned acquisitions and development, is estimated to cost around Php 311 million.

4.1.1 Exploration cost

The project area has been fully explored by drilling during the previous years. Except for subsequent development drilling budgeted under operations, no exploration expenditures are included in the additional CAPEX.

4.1.2 Fixed investments

Included in the CAPEX were acquisition of new mining equipment to replace existing old units and to augment the present mining equipment fleet**.**

4.1.3 Engineering and administration cost during equipment installation and building construction.

None, as related minor engineering and administration activities done in-house are expected to be minimal and chargeable to existing mining operations.

4.1.4 Interest during installation and construction

None, as the needed project funding will be sourced internally from Rio Tuba Nickel Mining Corporation.

4.1.5 Trial or test run costs

None. Trial mining is not needed considering that the same project area was previously subjected to actual commercial production for the last 15 years (2005 - 2020). Likewise, even today the Limestone Crushing Plant is fully functional and produces the required limestone feeds of both CBNC and UMPI on a daily basis.

4.1.6 Contingencies

None.

4.1.7 Estimated working capital

None. Given that both the Gotok Limestone Quarry and the Limestone Crushing Plant have been in continuous operation since 2005, no working capital is necessary. Moreover, the quarry has been fully developed and all facilities needed for its profitable operation has already been in place.

4.2 Details of Quarrying and Beneficiation Costs

The following table depicts the Total Quarrying and Beneficiation Costs:

Activity/ Cost Component	
Breaking (drilled and Blasted)	37,797,921
Stockpiling and Maint. at Quarry Site	12,270,846
Transport to RTN Plantsite	44,472,053
Stockpiling/Crushing/Washing/Screening - GPI	6,460,435
Production: 30-80mm	4,111,112
Delivery to GPI	6,358,230
Stockpiling/Crushing/Washing/Screening - CBNC	12,927,503
Production: <30mm	5,485,255
Delivery to CBNC Yard	7,942,031
Feeding	7,987,566
Depreciation	54,167,140
Equipment	38,293,687
Facilities	15,190,803
Development	682,650
Total Cost, Php	**413,130,714**

Table 27. Annual Direct Cost.

4.3 Details of Overhead Costs

Inasmuch as the Gotok Limestone Quarry and the Limestone Crushing Plant are all part of RTNMC's operations, all Overhead Costs are credited to the overall operation, and the Limestone Crushing Plant and its Limestone Quarry do not have separate Overhead Costs. Instead, the Limestone Operation takes a share in the Overhead costs.

The details of these overheads are estimated as follows:

RTNMC Overhead Costs	
EPEP Cost	19,483
SDMP	4,740
Fixed Costs (Admin, C	82,353
Total, Php 000s	**106,575**

Table 28. Limestone operation average annual overhead cost (x Php 1000)

4.4 Details of Marketing Costs

Given that the demand for the limestone is ensured and that the only consumers for the limestone products are CBNC and GPI, there are no Marketing Costs. Even the delivery of the limestone from the crushing plant to the plants of both companies are credited to the Limestone Crushing Plant Operation.

4.5 Environmental Protection and Mine Safety and Health Costs.

All of the Limestone operation's environmental mitigating measures that will be implemented throughout the life of the quarry with its corresponding annual projected costs are presented in **Table 29.**

Table 30 on the other hand shows the annual safety and health expenses.

A. Land Resource	
Revegetation of Mined-out	4228
Maintenance/Enhancement	221
Reforetation of areas outside MPSA	2824
Nursery Operation	199
B. Water Resource and Quality	
Maintenance of Siltation Ponds	5926
Solid Waste Management	58
Hazardous Waste Management	90
Water Quality Monitoring	420
C. Noise and Vibration	
Noise and Vibration Level Monitoring	181
D. Air Quality	
Dust Control - Road Watering Quarry	1290
Dust Control - Envi	720
Dust Control - Street Sweeping	1190
Air Quality Monitoring	154
E. Conservation Values	
Environmental Awareness	80
Biodiversity Conservation	156
F. Environmental Research	
Various Studies	540
G. Others	
MMT Validation and Inspection; MRFC Meetings	600
Other Inspection Audits; Training and Linkages	606
TOTAL, Php 000s	**19,483**

Table 29. Limestone operation environmental protection costs.

Program	Annual Budget
Leadership and Administration	29
Organization Rules and Policy	41
Safety Meetings	34
Management and Employee Training	119
Planned Inpection	41
Accident/Incident Investigation	4
Accident/Incident Analysis	3
Health and Control Services	1,695
Emergency Preparedness Program	58
Personal Protectie Equipment	72
Safety Promotions	274
Others	350
Total, Php 000s	**2,719**

Table 30. RTNMC annual safety and health expenses.

4.6 Community Development Costs.

4.6.1 Social Development and Management Program (SDMP)

The SDMP of the Gotok limestone MPSA used to be implemented alongside RTNMC's nickel operations. In 2018, the limestone operation finally detached from the nickel setup and had its own five-year program.

The project beneficiaries now encompass three impact barangays, Indigenous Cultural Communities within these barangays and other ICCs in non-impact barangays.

The overall annual project cost of this first SDMP cycle is as follows:

CATEGORY	2018	2019	2020	2021	2022	Total
DHNC	3,555,034	3,555,034	3,555,034	3,555,034	3,555,034	17,775,169
IEC	711,007	711,007	711,007	711,007	711,007	3,555,034
DMTG	474,005	474,005	474,005	474,005	474,005	2,370,023
Grand Total	**4,740,045**	**4,740,045**	**4,740,045**	**4,740,045**	**4,740,045**	**23,700,225**

Table 31. Gotok Limestone operations SDMP Project Cost.

Implementation of the SDMP is achieved through Annual SDMP (ASDMP) comprising sub-programs that contribute to the 5 five year SDMP.

Except for the year 2022, which is the last year of the SDMP 1st cycle, the average annual SDMP obligation is estimated as follows:

= 1.5% x Average TOC (over 9 years)
= 1.5% x (Php 174,495,000 / 1.015)
= **Php 2,579,000**

The annual Total SDMP fund shall then be distributed further into the Development of Host and Neighboring Communities (75% of ASDMP), Information, Education and Communication (IEC) campaigns and programs (15% of ASDMP), and for the development of Mining Technology and Geosciences (10% of ASDMP).

4.6.2 CSR Projects

In addition, as part of RTNMC's social responsibility (CSR), the company allots community development projects such funding for the RTNFI Hospital, LSVM School, Indigenous Learning System and various Community Relations Assistance.

4.7 Sources of Financing

As previously mentioned, RTNMC has substantial financial positions and assets amounting to Php 3.7 Billion that it can use to finance this project.

5 Employment

5.1 Employment Figures

As of end December 2020, Gotok quarry and crushing plant operations directly employs a total of 106 employees and 64 Contractors. The breakdown is as follows:

Employment Figures for the Gotok Quarry as of End December 2020

Regular		
	Staff	3
	Supervisor	9
	Technical	4
	RF	6
Non Reg (Project Based)		
	Skilled	33
	Semi-Skilled	3
	Unskilled	48
Sub Total (RTN)		**106**
Contractors		
Consolidated Explosives Group Corp.		12
Batarasa Consolidated, Inc. (BCI)		52
Total (RTN & Contractors)		**170**

Table 32. RTNMC employment details for the limestone quarry and crushing plant operations.

5.2 Detailed List of Key Personnel and their Qualifications

5.2.1 Division/Department manager

- Must be a licensed mining engineer with minimum ten (10) years related experience in quarry and mill operations.

5.2.2 Quarry/Crushing Section Manager

- Graduate of any Engineering course but preferably in Mining Engineering
- Male, 27-40 years old
- With five to ten years related experience.

5.2.3 Quarry/Crushing Supervisor

- Graduate of any Engineering course but preferably in Mining Engineering
- Male, 21-35 years old
- Preferably a resident of Bataraza or nearby towns of Palawan
- With at least 1 year experience in earthworks

5.2.4 Safety Engineer

- Mining Engineering Graduate
- 21-30 years old
- Preferably a resident of Bataraza
- License Safety Engineer

5.2.5 Environmental Officer

- College Graduate
- 21-30 years old
- Preferably a resident of Bataraza
- Licensed PCO

5.2.6 Community Relations Officer

- College Graduate
- 21-30 years old
- Preferably a resident of Bataraza

5.2.7 Switch board operator

- Graduate of any Engineering course but preferably in Electrical Engineering
- Male, 21-35 years old

5.2.8 Heavy equipment operators and dump truck drivers

- High school graduate
- 21-45 years old
- Preferably a resident of Bataraza or nearby towns of Palawan
- Must pass all company examinations/screening tests

5.2.9 Samplers/Utility

- Preferably high school graduate
- Can read and write legibly
- Preferably a resident of Rio Tuba or nearby barangays

5.3 Personnel Policies with Respect to Pay Scales and Allowances

The company will not employ foreign nationals for the quarry project. Below is the projected salary scale of the quarry.

Updated estimation on pay scale policy

Rank	Designation	Hiring Rate		Maximum Rate	
		Daily	Monthly	Daily	Monthly
RF-1	Utility	320	8,347	495	11,607
	Toolkeeper	320	8,347	495	11,607
RF-2	Weighbridge Operator	332	8,660	495	12,911
RF-3	DT/VT Driver	366	9,546	573	14,946
	HE Operator	366	9,546	573	14,946
	Welder/Mechanic	366	9,546	573	14,946
	Industrial Electrician	366	9,546	573	14,946
RF-4	Lead Welder/Mechanic	424	11,059	697	18,180
T-1	Panel Switch Board Operator	541	14,100	966	25,200
S-1	Supervisor	541	14,100	966	25,200
S-2	Electrical Supervisor/Planner	713	18,600	1,376	35,900
	Mechanical Supervisor/Planner	713	18,600	1,376	35,900
M-1	Section Manager	1,562	40,753	2,194	57,217
M-3	Division Manager	2,844	74,179	3,731	97,309

Notes: **RF** - Rank and File **T** - Technical
S - Supervisory **M** - Management

Table 33. Gotok limestone operations employment pay scale.

5.4 RTNMC's Table of Organization

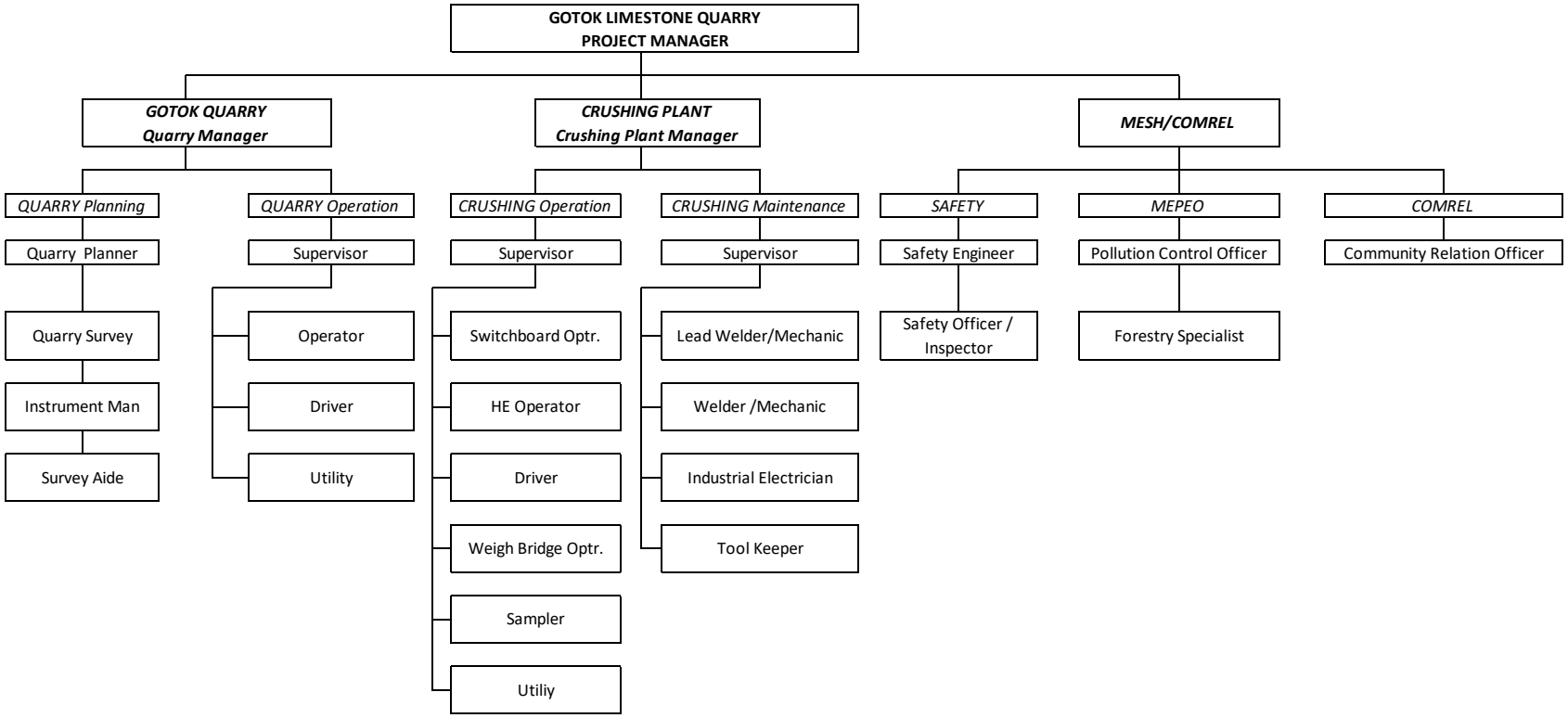


Figure 22. RTNMC's updated Table of Organization for limestone and crushing operations.

6 Economic Balance

6.1 Cost Analysis

The total capitalized asset value of the project is estimated at **Php 311 Million.** The following notable assumptions were made in forming the Economic Evaluation:

Fixed Cost Assumptions:

- **General/Admin Expenses** – General/Admin costs will be shouldered by RTNMC, and the Limestone Operation will be charged as part of its Fixed Costs.

Direct Cost Assumptions:

- **Salaries and Wages** – For the purposes of this analysis, the salaries and wages are kept constant throughout the life of mine.
- **Equipment, FOL costs** – FOL costs are also kept constant throughout the life of mine.

Royalties and Excise Taxes:

- **Royalties to Indigenous Peoples** – Assumed to be 1% of the gross revenue; as is the current government policy.
- **Excise Taxes** – Assumed to be 4% of the gross revenue as is the current government policy.

6.2 Return on Investment

With a total capitalization value of about Php 311 million, the following table shows the chief economic indicators pertaining to the project's feasibility:

Average Annual Production Tonnage	420,000
Average Annual Revenue, Php 000s	413,196
Total Revenue for 10-year period, Php 000s	4,131,960
Average Annual Total Operating Cost, Php 000s	305,260
Average Annual Return on Investment	26.1%
Average Annual Net Income after Tax, Php 000s	80,952
Average Annual Net Cash Inflow/(Outflow), Php 000s	108,844
Total Net Cash Inflow (disc: 15%)	1,088,441
Net Present Value of Total Net Cash Inflow	261,002,656
Internal Rate of Return	37%
Payback Period, years	3.44

Table 34. Economic evaluation summary.

		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Crushed Limestone Delivery/Feeding												
Stockyard to UMPI			120,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Stockyard to CBNC			300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Total Sales Tonnage, WMT												
Gross Sales Revenue												
GPI			119,760,000	99,800,000	99,800,000	99,800,000	99,800,000	99,800,000	99,800,000	99,800,000	99,800,000	99,800,000
CBNC			311,400,000	311,400,000	311,400,000	311,400,000	311,400,000	311,400,000	311,400,000	311,400,000	311,400,000	311,400,000
Gross Revenue, Php			431,160,000	411,200,000	411,200,000	411,200,000	411,200,000	411,200,000	411,200,000	411,200,000	411,200,000	411,200,000
Costs												
Breaking (drilled and Blasted)			37,797,921	37,797,921	37,797,921	37,797,921	37,797,921	37,797,921	37,797,921	37,797,921	37,797,921	37,797,921
Stockpiling and Maint. at Quarry Site			12,270,846	12,270,846	12,270,846	12,270,846	12,270,846	12,270,846	12,270,846	12,270,846	12,270,846	12,270,846
Transport to RTN Plantsite			44,472,053	44,472,053	44,472,053	44,472,053	44,472,053	44,472,053	44,472,053	44,472,053	44,472,053	44,472,053
Stockpiling/Crushing/Washing/Screening - GPI			6,460,435	6,460,435	6,460,435	6,460,435	6,460,435	6,460,435	6,460,435	6,460,435	6,460,435	6,460,435
Production: 30-80mm			4,111,112	4,111,112	4,111,112	4,111,112	4,111,112	4,111,112	4,111,112	4,111,112	4,111,112	4,111,112
Delivery to GPI			6,358,230	5,298,525	5,298,525	5,298,525	5,298,525	5,298,525	5,298,525	5,298,525	5,298,525	5,298,525
Stockpiling/Crushing/Washing/Screening - CBNC			12,927,503	12,927,503	12,927,503	12,927,503	12,927,503	12,927,503	12,927,503	12,927,503	12,927,503	12,927,503
Production: <30mm			5,485,255	5,485,255	5,485,255	5,485,255	5,485,255	5,485,255	5,485,255	5,485,255	5,485,255	5,485,255
Delivery to CBNC Yard			7,942,031	7,942,031	7,942,031	7,942,031	7,942,031	7,942,031	7,942,031	7,942,031	7,942,031	7,942,031
Feeding			7,987,566	7,987,566	7,987,566	7,987,566	7,987,566	7,987,566	7,987,566	7,987,566	7,987,566	7,987,566
Share on Fixed Cost			106,575,312	106,575,312	106,575,312	106,575,312	106,575,312	106,575,312	106,575,312	106,575,312	106,575,312	106,575,312
SDMP Costs			4,740,045	2,939,710	2,929,622	2,929,622	2,929,622	2,363,705	2,363,705	2,307,581	2,295,079	2,295,079
EPEP Costs (15% Direct Cost)			19,482,503	19,323,547	19,323,547	19,323,547	19,323,547	19,323,547	19,323,547	19,323,547	19,323,547	19,323,547
FMRDP Costs												
Other Expenses (Admin, CRA etc.)			82,352,764	84,312,055	84,322,143	84,322,143	84,322,143	84,888,060	84,888,060	84,944,183	84,956,686	84,956,686
Depreciation			54,167,140	54,167,140	53,484,490	53,484,490	53,484,490	15,190,803	15,190,803	11,393,102	10,547,087	10,547,087
Equipment			38,293,687	38,293,687	38,293,687	38,293,687	38,293,687				10,547,087	10,547,087
Facilities			15,190,803	15,190,803	15,190,803	15,190,803	15,190,803	15,190,803	15,190,803	11,393,102		
Development			682,650	682,650								
Taxes, Fees and Royalties												
Excise Tax			17,246,400	16,448,000	16,448,000	16,448,000	16,448,000	16,448,000	16,448,000	16,448,000	16,448,000	16,448,000
Royalty			4,311,600	4,112,000	4,112,000	4,112,000	4,112,000	4,112,000	4,112,000	4,112,000	4,112,000	4,112,000
Others												
Total Cost, Php			328,113,402	326,055,697	325,373,047	325,373,047	325,373,047	287,079,360	287,079,360	283,281,659	282,435,645	282,435,645
Gross Income/Loss			103,046,598	85,144,303	85,826,953	85,826,953	85,826,953	124,120,640	124,120,640	127,918,341	128,764,355	128,764,355
Income Tax	25%		25,761,649	21,286,076	21,456,738	21,456,738	21,456,738	31,030,160	31,030,160	31,979,585	32,191,089	32,191,089
Net Income/Loss After Tax			77,284,948	63,858,227	64,370,215	64,370,215	64,370,215	93,090,480	93,090,480	95,938,755	96,573,266	96,573,266
Annual ROI @ Ini Inv: Php	310,562,456		24.9%	20.6%	20.7%	20.7%	20.7%	30.0%	30.0%	30.9%	31.1%	31.1%
Ave. Annual ROI:	26.1%											
Add Back: Non-Cash Charges			54,167,140	54,167,140	53,484,490	53,484,490	53,484,490	15,190,803	15,190,803	11,393,102	10,547,087	10,547,087
Depreciation												
Capital Expenditures												
Equipment		(191,468,436)									(52,735,436)	
Facilities (book value end 2021)		(117,728,720)										
Development		(1,365,300)										
Total CAPEX		(310,562,456)	-	-	-	-	-	-	-	-	(52,735,436)	-
Projected Net Cash Inflow/Outflow		(310,562,456)	131,452,088	118,025,367	117,854,704	117,854,704	117,854,704	108,281,283	108,281,283	107,331,857	54,384,918	107,120,354
Annual Present Value @	15%	(310,562,456)	114,306,164	89,244,134	77,491,381	67,383,810	58,594,617	46,812,987	40,706,945	35,086,975	15,459,588	26,478,513
Net Present Value		261,002,656										
Payback Period, years	3.4											
Internal Rate of Return	**37%**											

Table 35. Ten (10) year limestone operation economic evaluation.

7 Development Schedule

As the quarry and modified crushing and screening plant have been in operations since 2014, the development required is only for permitting and clearing/road construction operations. After a year of permitting and redevelopment, the quarry can commence normal operations.

Figure 23 shows the development and production schedule of the quarry starting from 2021.

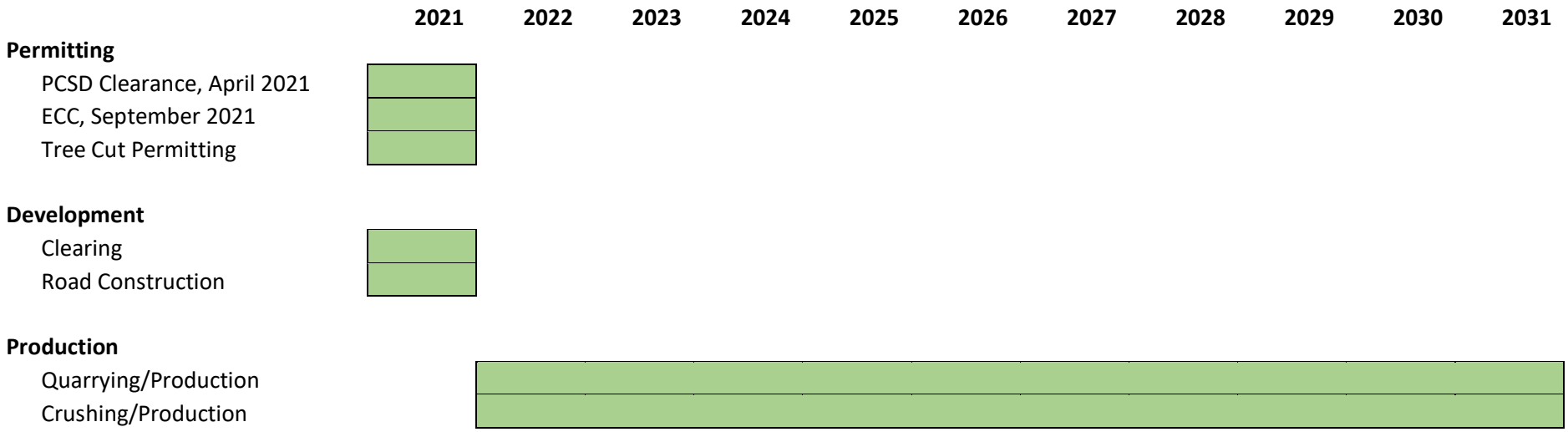


Figure 23. Development and production schedule.

FINAL EXPLORATION REPORT:

Gotok Limestone Project
Covering MPSA No. 213-2005-IVB
in Bataraza, Palawan
of
Rio Tuba Nickel Mining Corporation

By:

Henry R. Salvado
Registered Geologist, PRC License No. 808
Competent Person Accreditation, No. 14-02-01

Michael Angelo C. Tam
Mine Geologist, Rio Tuba Nickel Mining Corp.
Registered Geologist, PRC License No. 1958

November 20, 2020

CERTIFICATE OF COMPETENT PERSON

As a Competent Person and author of the report titled "Final Exploration Report: Gotok Limestone Project Covering MPSA No. 213-2005-IVB in Bataraza, Palawan of Rio Tuba Nickel Mining Corporation" dated November 20, 2020, to which certificate applies, I, Henry R. Salvado do hereby certify that:

1. I, Henry R. Salvado VP for Environmental Engineering of MCK Perez Development and Consultancy Corporation with business address at MCK PEREZ Building, No. 69A Road 1 Cor. Road 8, Project 6, Quezon City 1100, National Capital Region, Philippines.
2. I graduated with a Bachelor of Science degree in Geology from Adamson University in 1981
3. I am a Registered License Geologist with PRC Geologist License Number 808
4. I am an active member of the Geological Society of the Philippines.
5. I am a Competent Person accredited by the Competent Person Accreditation Committee of the Geological Society of the Philippines in adherence to the PMRC with accreditation Number 14-02-01 (Appendix A).
6. I have worked as a geologist in the mining industry for more than 30 years since my graduation.
7. My most recent personal inspection of the Gotok Limestone Project Covering MPSA No. 213-2005-IVB in Bataraza, Palawan was in November 17, 2020.
8. I am independent from Rio Tuba Nickel Mining Corporation.
9. The Technical Report under my responsibility have been prepared in compliance with the PMRC
10. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make Technical Report not misleading.

LIMITATION, WARRANTY AND CLOSURE

This report "**Final Exploration Report: Gotok Limestone Project Covering MPSA No. 213-2005-IVB in Bataraza, Palawan of Rio Tuba Nickel Mining Corporation**"– was prepared by me in my capacity as Competent Person with Jeddalyn P. Panol and Michael Angelo C. Tan as geologists of RTNMC. This report is based on available data and information provided by Rio Tuba Nickel Mining Corporation as of November 20, 2020. All professional opinions, interpretation and conclusions made in this Report were done in accordance with geo-scientific principles and practice and industry standards.

This Report is to form part of a Mining Project Feasibility Study for submission to the Mines and Geosciences Bureau and is not meant for public disclosure. Any disclosure for some other purpose/s based on this report should obtain our consent.

The contents of the Report are valid from the date of signing by the undersigned. However, in the event that any new geological information, exploration results and ore deposit models will arise that may have direct or indirect implication on the mineral resources inventory as declared in this Report, the said inventory may be rendered inaccurate and should therefore be appreciated or treated with caution.

Consequently, the Mineral Resources inventory in this Report should not be relied upon after elapsed period of one year without the professional review, technical verification and updating by the authors or another Competent Person/s.

This warranty is in lieu of other warranties, either expressed or implied.

HENRY R. SALVADO
Signed November 20, 2020

CERTIFICATION

I, Ferdinand T. Jumawan of Makati City, Philippines hereby make the following statements:

I am a Senior Exploration Geologist of Cordillera Exploration Company, Inc. (CExCI) with business address at 29th Floor, NAC Tower Bldg. 32nd St. Bonifacio Global City, Taguig City 1634.

I am a licensed Geologist with registration number 1282 issued by the Philippine Professional Regulation Commission.

I am a graduate of Bachelor of Science in Geology from the University of the Philippines in 1991; and a holder of a Master of Science Degree in Igneous Petrology and Geochemistry from the National Institute of Geological Sciences in the Philippines in 2000 and Master of Science Degree in Metamorphic Petrology from Kumamoto University in Japan in 2003;

I am responsible for the preparation of Sections 4, 7, 8, 9 and 10 of this Technical Report.

I have been professionally active in my capacity as Exploration Geologist for over 20 years, and have worked on several deposits, including zeolite, limestone, nickel, chromite, platinum, copper, and gold.

To the best of my knowledge, experience and information, I believe that this Technical Report contains all scientific and technical information that are required by the PMRC to be presented to make it credible and not misleading.

Signed by:

Ferdinand T. Jumawan
Licensed Geologist
PRC Lic. No. 1282
PTR No. A-4817546
Issued on 17 January 2020
Issued in Taguig City

CERTIFICATION

I, Michael Angelo C. Tan of Davao City, Philippines hereby make the following statements:

I am a Senior Mine Geologist of Rio Tuba Nickel Mining Corporation with business address at 29th Floor, NAC Tower Bldg. 32nd St. Bonifacio Global City, Taguig City 1634.

I am a licensed Geologist with registration number 1958 issued by the Philippine Professional Regulation Commission.

I am a graduate of Bachelor of Science in Geology and Bachelor of Science in Geotechnical Engineering from Mapua University in 2012.

I am responsible and collaborated with my co-authors in the preparation of Sections 4, 7, 8, 9, 10, 12 and 13 of this Technical Report.

I have been professionally active in my capacity as an Exploration Geologist for over 9 years, and have worked on several deposits, including limestone, nickel, copper and gold;

To the best of my knowledge, experience and information, I believe that this Technical Report contains all scientific and technical information that are required by the PMRC to be presented to make it credible and not misleading.

Signed by:

Michael Angelo C. Tan
Licensed Geologist
PRC Lic. No. 1958
PTR No. 5513552C
Issued on 15 January 2020
Issued in the Municipality of Bataraza

EXECUTIVE SUMMARY

Rio Tuba Nickel Mining Company (RTNMC) has title to several mineral properties located in the municipalities of Bataraza and Rizal in Southern Palawan. MPSA 114-98IV-Amended 1 is a tenement for its nickel mining operations. MPSA 213-2005-IVB, which was approved on 28 April 2005, covers a limestone area at barangays Iwahig and Sandoval, Bataraza, Palawan. The scope of this work is only concerned with MPSA 213-2005-IVB covering the limestone resources. Previously, a comprehensive technical report on the exploration and resource estimation of the Gotok limestone entitled, **"A COMPREHENSIVE TECHNICAL REPORT ON THE EXPLORATION RESULTS AND MINERAL RESOURCES OF GOTOK LIMESTONE PROJECT, Barangays Iwahig and Sandoval, Bataraza, Palawan, Philippines Covered by MPSA No. 213-2005-IVB"** was submitted to the Mines and Geosciences Bureau-IV in April 2017.

RTNMC utilized the Gotok limestone quarry to supply limestone to Coral Bay Nickel Corporation (CBNC) and Unichamp Mineral Philippines Incorporated (UMPI). The required limestone specifications are the following:

Parameters	**RTNMC/CBNC**	**Unichamp**
Wt% $CaCO_3$ *(minimum)*	93	95
Wt% MgO *(maximum)*	1	1.25
Wt% SiO_2 *(maximum)*	2.0	2.0
% moisture	4	3

The exploration work done in 2017 by RTNMC together with CExCI and TMC geologists relogged and reinterpreted the previous drilling data gathered in 2011, 212, 2014 and 2015. The depositional environment of the limestone in the Gotok area is shallow marine, which should be close to lagoon as evidenced by mudstone occurring in a channel-like geomorphic feature, which is possibly a paleo-channel. The limestone in the Gotok quarry site can be characterized as reefal limestone composed of skeletal grains (corals, pelecypod, gastropod?) as allochems, variably crystalline sparite as cement and medium to dark-gray, fine-grained micrite as matrix.

This present exploration work and resource estimation is an update on the previous report in 2017 and as a requirement for the expansion of the area covered by the previous ECC issued to RTNMC.

RTNMC completed 24 drill holes between the latter part of 2019 and early 2020 located around the vicinity of the ECC area where the Gotok quarry operation is located. The spatial distribution of the drill holes is random with their location no nearer than 50m to 100m between them.

The estimation of the resources was done by RTNMC supervised by CP Geologist Henry Salvado using the following parameters and assumptions and the categories as described by the PMRC (2007):

- The computation of the limestone resource is confined within MPSA-213-2005-IVB to include the remaining resources within the ECC area of the Gotok quarry operation at the end of 2019.
- The estimation of the limestone resource used the conventional polygon method where the midpoint between nearby surrounding drill holes are interconnected to create a Voronoi polygon which correspond to an area of influence.
- The size of the limestone blocks used in the estimation are 100m x 100m whose area of influence is $\leq 10{,}000\ m^2$ and are categorized as measured resources. *The Measured mineral resource is when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt that the tonnage and grade of the mineralization can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit (PMRC, 2007).*
- Limestone blocks in the indicated category was estimated using 200m x 200m block size or an area of influence $>10{,}000\ m^2$ to $\leq 40{,}000\ m^2$. *The Indicated category is when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralization (PMRC, 2007).*
- Inferred resources include limestone blocks greater than 200m x 200m block size or any area of influence greater than $40{,}000\ m^2$. *The Inferred category is where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data quantity and quality are insufficient to allow the geological and/or grade continuity to be confidently interpreted (PMRC, 2007).*
- Volume is corrected using geologic log data that quantify core recovery and RQD which diminishes volume due to cavities and/or voids from 0 elevation up to the existing topography;
- The bulk density utilized is 2.38 WMT/m^3 based on the study done by RTNMC;
- No cut off grades were used in the estimation done by RTNMC as all the $CaCO_3$ values are above the accepted $CaCO_3$ grade;

Resource Categories	Volume (m^3)	Tonnage (WMT)	Grade (%$CaCO_3$)
Measured	4,087,789	9,729,000.00	94.45
Indicated	6,133,390	14,597,000.00	94.51
Total	**10,221,179**	**24,326,000.00**	**94.49**
Inferred	5,215,260	12,413,000.00	94.31

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

A. CP Certificates of Henry Salvado
B. MPSA-213-2005-IVB
C. Approved survey plan MPSA-213-2005-IVB
D. ECC-0201-021-313
E. Annual Report on Taxes, Fees and Royalties Paid and Withheld by Mining Contractors / Operators and Exploration Permittees" submitted to the Mines and Geosciences Bureau - Region IVB on March 22, 2019
F. Graphical correlations of the limestone units
G. Preliminary Core Logs, Drilling Performance and Core Photographs by Nablo (2020a; 2020b) of JCP Geo-Ex Services
H. Gotok Limestone Bulk Density Experiment using Weighbridge Data – Result
I. Resource Calculation

List of Photos

1. Drill hole location of GP1-4
2. Drill hole Collar of GP1-4
3. Drill Hole Collar of GEX-03
4. Drill hole collars of GP3-2
5. Core of DDH GEX-01 Box 1 to 12 after Logging and Sampling
6. Core of DDH GEX-01 Box 13 to 21 after Logging and Sampling
7. RTNMC Core Storage Facility
8. Gotok Limestone Core at RTNMC Core Storage Facility

1. INTRODUCTION

This technical report presents the latest results of the exploration activities conducted at the Gotok project site in Bataraza, Palawan. This is an update on the previous report entitled, "A Comprehensive Technical Report on the Exploration Results and Mineral Resources of Gotok Limestone Project Barangays Iwahig and Sandoval, Bataraza, Palawan, Philippines" that was submitted to the Mines and Geosciences Bureau-IV in April 2017 (hereinafter referred to as "2017 Comprehensive Technical Report"), however expanding the coverage to include areas outside the present ECC but within the approved MPSA No. 213-2005-IVB.

Rio Tuba Nickel Mining Corporation (RTNMC), a Philippine Company listed in the Philippines Stock Exchange (PSE), commissioned this report as represented by its Vice-President Operations Rommel C. Cruz and Resident Mine Manager Cynthia E. Rosero.

This report is made in compliance with the requirement of the Mines and Geosciences Bureau – IV and Environmental Management Bureau (EMB) to submit a Philippine Mineral Reporting Code (PMRC)-compliant report on the mineral resources disclosed by the Company from the results of its exploration works for the purpose of securing an expansion of the area covered by its Environmental Compliance Certificate (ECC-0201-021-313).

RTNMC has title to several mineral properties located in the municipalities of Bataraza and Rizal in Southern Palawan. The scope of work for this report is only concerned with the limestone resources within Barangays Iwahig and Sandoval, Municipality of Bataraza covered by MPSA 213-2005-IVB.

Work on this updated resource estimation was commenced by RTNMC and some of the technical staff of Nickel Asia Corporation's other subsidiaries starting with the 2017 Comprehensive Technical Report.

The main author of this report, Henry R. Salvado visited the mine site for a total duration of 4 for the period from November 17 to November 20, 2020 to gather more information and verify the data provided by RTNMC's Technical Staff.

Members of the RTNMC Technical Staff involved in this updated Gotok limestone resource estimation are the following:

1. Cynthia E. Rosero, Mining Engineer
2. Ronel A. Suguitan, Mining Engineer
3. Michael Angelo L. Tan, Geologist
4. John Aldrich S. Angeles, Geologist
5. Joemar A. Gaudiano, Civil Engineer
6. Salustiano G. Menguin, Geodetic Engineer

The Issuer's representative is Mr. Michael Angelo C. Tan, Senior Geologist for Operations. The report generally follows the format outlined in the PSE Implementing Rules and Regulations (IRR) for the 2007 Philippine Mineral Reporting Code. It also adopted the mineral resource classification as outlined in the PMRC.

The resource estimate presented herein updates the previous resource estimation that includes areas drill-tested outside of the original ECC but still within the boundaries of MPSA-213-2005-IVB.

2. RELIANCE ON OTHER EXPERTS

For the preparation of this report, the Author relied on the data provided by RTNMC's Engineering Staff. Other data, particularly on taxation, royalties and other information relevant to accounting, the Audited Financial Statement for the Year Ended 2018, as presented in the Independent Auditor's Report (SGV), have been used.

The veracity of the technical data and accounting figures are only as good as what was provided to the author and cited in available published reports.

3. TENEMENT AND MINERAL RIGHTS

An Application for Mineral Agreement (AMA) over a limestone area in Barangay Iwahig and Sandoval in the Municipality of Bataraza, Province of Palawan and designated as AMA-IVB-118, was filed by Rio Tuba Nickel Mining Corporation (RTNMC) on October 17, 2000 with the Mines and Geo-Sciences Bureau Region IV in Manila. The mineral agreement application was approved on April 28, 2005 and designated as MPSA 213-2005-IVB (Appendix B). RTNMC will quarry the limestone and use it for processing low-grade nickel ores at the hydrometallurgical plant in Rio Tuba, Bataraza, Palawan.

MPSA-213-2005-IVB is defined by corner points shown in Table 1 as reflected in the original MPSA-213-2005-IVB document (Appendix B). However, there was a typographical error in the original MPSA document where in Point 2 Latitude was erroneously typed as 8°36'50" when it should have been 8°36'20". The error has been rectified in the approved survey plan conducted last May to June 2014, and signed approved by MGB-Region IVB Director (Appendix C). The final coordinates of MPSA-213-2005-IVB is shown in Table 2.0 and plotted on Figure 1. There is only one (1) claim that is encompassed by MPSA-213-2005-IVB and covers a total area of eighty-four and 5,364/10,000 (84.5364) hectares.

Table 1.0 Geographic Coordinates of MPSA-213-2005-IVB as shown in the Original document

Corner Points	Latitude	Longitude
1	8°35'50"	117°27'45"
2	8°36'50"	117°27'45"
3	8°36'20"	117°28'15"
4	8°35'50"	117°28'15"

Table 2.0 Rectified Geographic Coordinates of MPSA-213-2005-IVB

Corner Points	Latitude	Longitude
1	8°35'50"	117°27'45"
2	8°36'20"	117°27'45"
3	8°36'20"	117°28'15"
4	8°35'50"	117°28'15"

An Environmental Compliance Certificate (ECC-0201-021-313) was granted on 10 July 2002 to cover the limestone quarry operations which started operations in late 2005. The ECC area is within MPSA-213-2005-IVB. A copy of MPSA-213-2005-IVB and ECC-0201-021-313 are attached as appendices B and D. The agreement is issued under the Mining Act of 1995 (Republic Act No. 7942). The agreement has a term of twenty-five (25) years from "Effective Date", and may be renewed thereafter for another term not exceeding twenty-five (25) years. MPSA 213-2005-IVB is dated 28 April 2005 and shall be in effect until 27 April 2030.

RTNMC owns 100% of the mineral rights on the basis of MPSA-213-2005-IVB contract signed with the Philippine Government. Mining leases are issued as agreements between the Government of the Republic of the Philippines and the company.

RTNMC is the sole holder of the MPSA with the government which was approved in 2005. RTNMC also holds title to the lands that are included in the quarry area. In 2004, RTNMC has ownership of approximately 34 hectares of land that is mostly within the applied area. Total landholdings have been increased to about 116 hectares by 2015. The 13-hectare limestone quarry is located at the northern part of the tenement area. Figure 2 shows the lot owned by RTNMC relative to the coverage of MPSA 213-2005-IVB.

For clarification of the net revenue that may be derived from the project, a scanned copy of the 2018 "Annual Report on Taxes, Fees and Royalties Paid and Withheld by Mining Contractors / Operators and Exploration Permittees" submitted to the Mines and Geosciences Bureau - Region IVB on March 22, 2019 is included as APPENDIX E.

4. GEOGRAPHIC FEATURES

4.1. Location and Accessibility

The Gotok Limestone Project located in Barangay Iwahig and Sandoval in the town of Bataraza, Palawan. The project site is 1.5 km on a barangay and quarry road from the main highway of Bataraza and is about 7 kilometers north north-east of RTNMC mine site. The Town of Bataraza is located on the southernmost tip of Palawan Island, approximately 225 kilometres (140 mi) from Puerto Princesa City (Figure 1).

Bataraza is bounded in the east by the Sulu Sea, in the west by a great mountain range, extending from Mount Mantalingahan (the highest peak in the province) to Mount Malitub, which serves as the divider between Bataraza and Rizal, and in the south-west by the South China Sea.

Bataraza can be reach by an all weathered road from Puerto Princesa City, the capital city of Palawan province by an all weathered road. It is about 225 kilometers from Puerto Princesa and takes about five to six hours drive. Puerto Princesa is serviced by regular flights from Manila. It also has a seaport that can service local and international vessels. RTNMC has a small 6-seater private plane that can ferry supplies and personnel from Puerto Princesa to Rio Tuba in Bataraza. A private airstrip is maintained by RTNMC on site. Coral Bay Nickel Corporation (CBNC), an RTNMC-partner company that operates a nearby nickel processing plant, owns a larger jet that can fly direct from Manila or via Puerto Princesa to Rio Tuba and vice-versa.

Figure 1.0 Location Map of MPSA 213-2005-IVB

4.2. Physiography

4.2.1. Topography

The area surrounding Gotok is bordered by the Escapardo Peak of the Mount Bulanjao range. It is characterized by steep, rugged topography to the west and some gently rolling hills to the north, east and south. The hills exhibit subdued karst-like features such as sinkholes, caves, springs, and disappearing streams. A similar limestone area adjoins the Gotok limestone to the north and northeast.

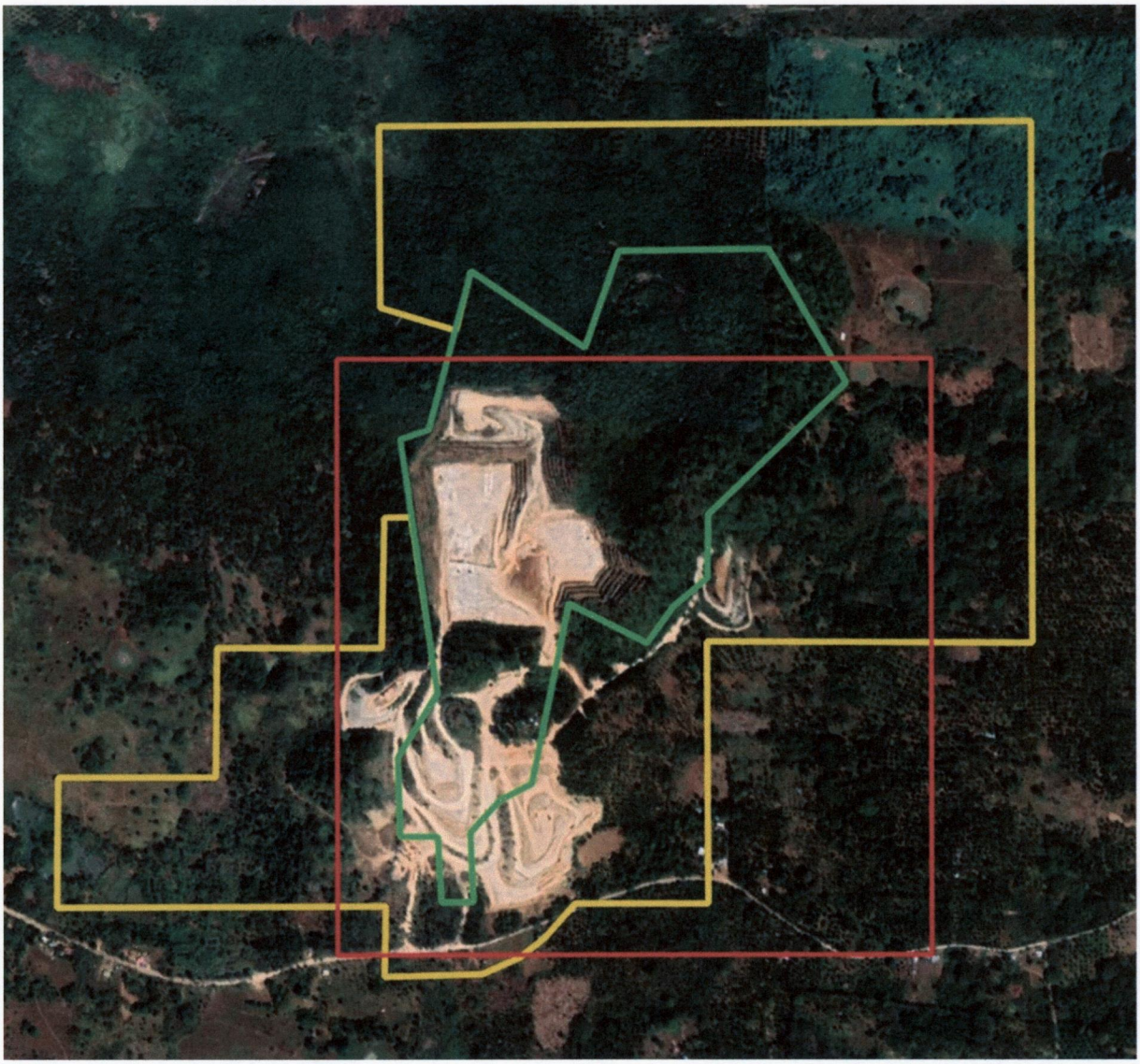


Figure 2. Boundary of RTNMC-owned lands within MPSA-213-2005-IVB (in red). A total of 116 hectares of land is owned by RTNMC. Acquired landholdings of RTNMC by 2004

4.2.2. Drainage

The drainage pattern of the study area is strongly influenced by the occurrence of several volcanic vents near the summits. Some minor creeks

drain to the south and southwest towards Okayan river while the Iwahig river is the major drainage system present to the north and northeast of Gotok.

4.2.3. Climate and Vegetation

The climate of the Philippines is generally influenced by the complex interaction of various factors such as the geography and topography of the country. According to the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA), the climate of the Philippines can be divided into two (2) major seasons based on temperature and rainfall - the rainy season and dry season. The Coronas System of Climate Classification is the most used in the Philippines, with four (4) types described as follows:

Type I – These are areas generally shielded by mountain ranges but are open to rains brought in by habagat and tropical cyclones. It has two pronounced seasons: dry from November to April and wet throughout the rest of the year. The maximum rain period is from June to September. Palawan and Mindoro belong to this type of climate classification.

Type II - Regions of this climate are along or near the eastern coast. This climate type is characterized by the absence of a dry season but with a pronounced maximum rain period from December to February. Minimum monthly rainfall occurs between March to May. Some of the areas that belong to this climate are Catanduanes, Sorsogon and large portions of Eastern Mindanao.

Type III – These are areas sheltered from trade winds but are open to Habagat and are frequented by tropical storms and cyclones. Seasons are not very pronounced but are relatively dry from one to three months, usually from December to February or March to May. Areas under this type include the western part of Cagayan, Isabela and parts of Northern Mindanao.

Type IV – This type is characterized by more or less evenly distributed rainfall throughout the year. This type resembles type II because it has no dry season. Areas with this climate include Batanes, Albay, Bohol and most of Central, Eastern and Southern Mindanao, including the Sarangani Province and General Santos City.

The climate influencing the area is characterized by no very pronounced maximum rain period with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This climate is classified as Type III of the Modified Coronas Classification (Fig. 3) used by the Philippine Atmospheric, Geophysical and Astronomical Services Administration – Department of Science and Technology (PAGASA-DOST).

Four land cover/vegetation types were identified and mapped within the MPSA. The land use/vegetation types are as follows:

- ***Forest***
  Forest is the dominant vegetation of the hilly area in the northern and middle parts of the MPSA. Forest tree species are: Molave (Vitex parviflora), Shorea sp., Antipolo (Artocarpus blancoi), Amugis (Koordersiodendron pinnatum), Malamanga, Malacafe, Binunga (Macaranga tanarius), Bago (Gnetum gnemon) and Kamias (Averrhoa bilimbi).
- ***Shrubland***
  The Shrubland exists in the Tree Cutting Permit area and on the sideslope of the hill in the mid-eastern part of the MPSA. Two small patches of shrubland exist adjacent to the Bare area and Coconut plantations in the southern part of the MPSA. Shrub/plant species are: Binunga (M. tanarius), Hagimit (Ficus minahassae), Samburagot and Comote-camotehan (vine).

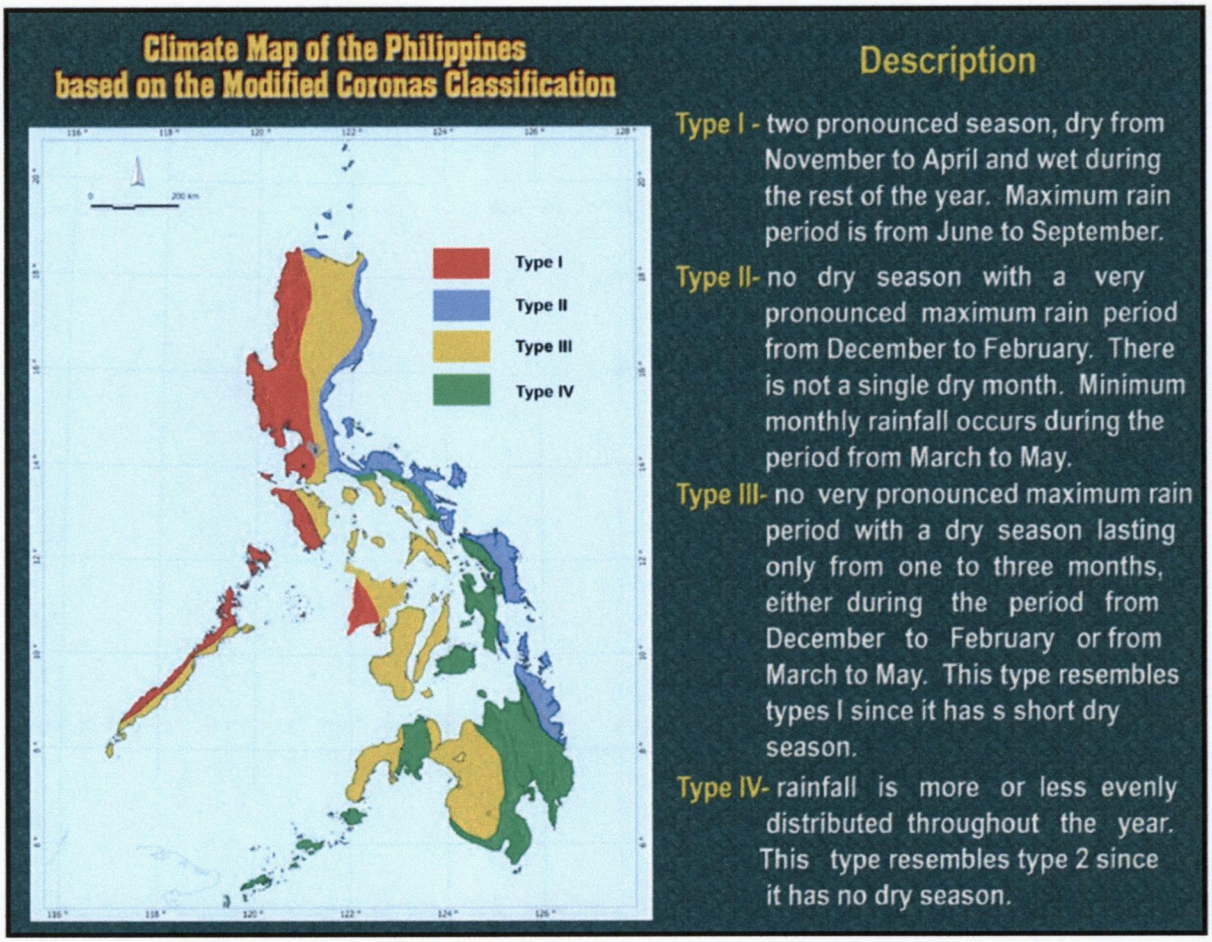


Figure 3.0 Climate Map of the Philippines

- ***Coconut and Fruit trees***
  The Coconut plantations with fruit trees such as Rambutan (Nephelium lappaceum), Cashew (Anacardium occidentale), Bignay (Antidesma bunius), Jackfruit (Artocarpus heterophylla), Guava (Psidium guajava), Banana (Musa sapientum) with Pineapple exist in the southern part of the MPSA.
- ***Bare area (RTNMC, 2016).***
  The Bare areas are the active quarry zone in the middle part of the Tree Cutting Permit area and used as stockpile area of the limestone boulders in the southern part of the MPSA.

4.2.4. Land Use and infrastructure

Based on the 2009-2019 Comprehensive Land Use Plan (CLUP) of Bataraza, the project site is classified as a mineral development area (Fig. 4). On the other hand, the Environmentally Critical Areas Network (ECAN) maps of the Palawan Council for Sustainable Development (PCSD) further identified the site as a multiple-use zone. The ECAN is a graded system of protection and development control over the whole of Palawan to serve as the main strategy of the Strategic Environmental Plan (SEP).

Palawan in general has more than half of its total forest cover considered as secondary with only a quarter as primary forest. Only 0.1% of Palawan is classified as mining area. According to the PCSD (2010), the forest cover in Bataraza is 15,792 hectares. In addition, Bataraza showed more than 1,000 hectares increase in mangrove forest cover in 2009.

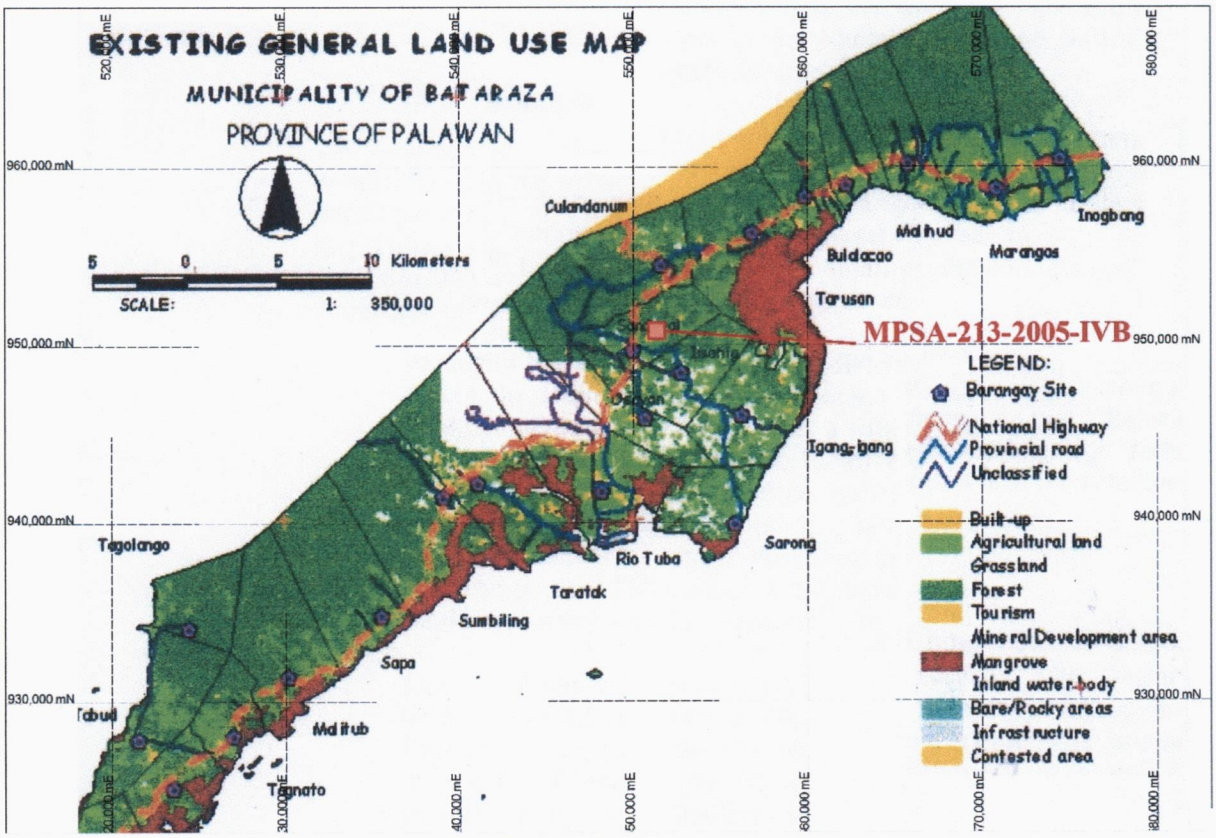


Figure 4. General Land Use Map of Bataraza, Palawan

4.2.5. Socio Economic Environment

The Municipality of Bataraza is a first-class municipality consisting of 22 barangays, located in the southern end of Palawan. The Municipality base on the

2015 census, has a population of 75,468. The 5 to 9 age group bracket has the highest population of 10,428 individuals and the 75 to 79 age group brackets with the lowest at 372 individuals. Those aged 15 up to 64, roughly, the economically active population and actual or potential members of the work force, constitute a total of 56.89% (42,935) with the median age at 20 years old.

The main industries in Bataraza include farming, fishing, mining and nickel processing. Recently, there has been a shift to planting oil palm.

Barangay Rio Tuba hosts a nickel laterite mine of RTNMC and a nickel processing plant by CBNC. RTNMC also operates the Gotok limestone quarry. These companies implement community development assistance programs such as infrastructure developments to include tribal halls, multi-purpose halls, gymnasiums, road graveling and improvement, day care centers, school buildings, educational assistance, classroom improvement, health center's, sanitary toilets and water systems, among others. Medical missions and assistance are also conducted. Finally, livelihood support extended include multipurpose pavement, post-harvest warehouse, marketplace, farm equipment, fishing boats and other implements.

These aim to foster a socio-economic environment where people are empowered, sustainable and self-reliant long after all the mining operations have ceased.

4.2.6. Environmental Feature

The area surrounding Gotok is bordered by the Escapardo Peak of the Mount Bulanjao range characterised by steep, rugged topography to the west and some gently rolling hills to the north, east and south. The hills exhibit subdued karst-like features such as sinkholes, caves, springs, and disappearing streams. A similar limestone area adjoins the Gotok limestone to the north and northeast.

4.2.7. Flood and Landslide Susceptibility

Flood susceptibility mapping in the Municipality of the Bataraza showed that the MPSA area and vicinity is has no flooding hazards. Flood Hazards are confined to the major drainage and along the drainage system the coast.

Landslide susceptibility mapping in the Municipality of the Bataraza (Fig. 6) showed that the quarry area is moderately susceptible to landslides during extreme weather conditions such as strong rainfall and typhoon. Care must be taken during these extreme weather condition in the quarry site.

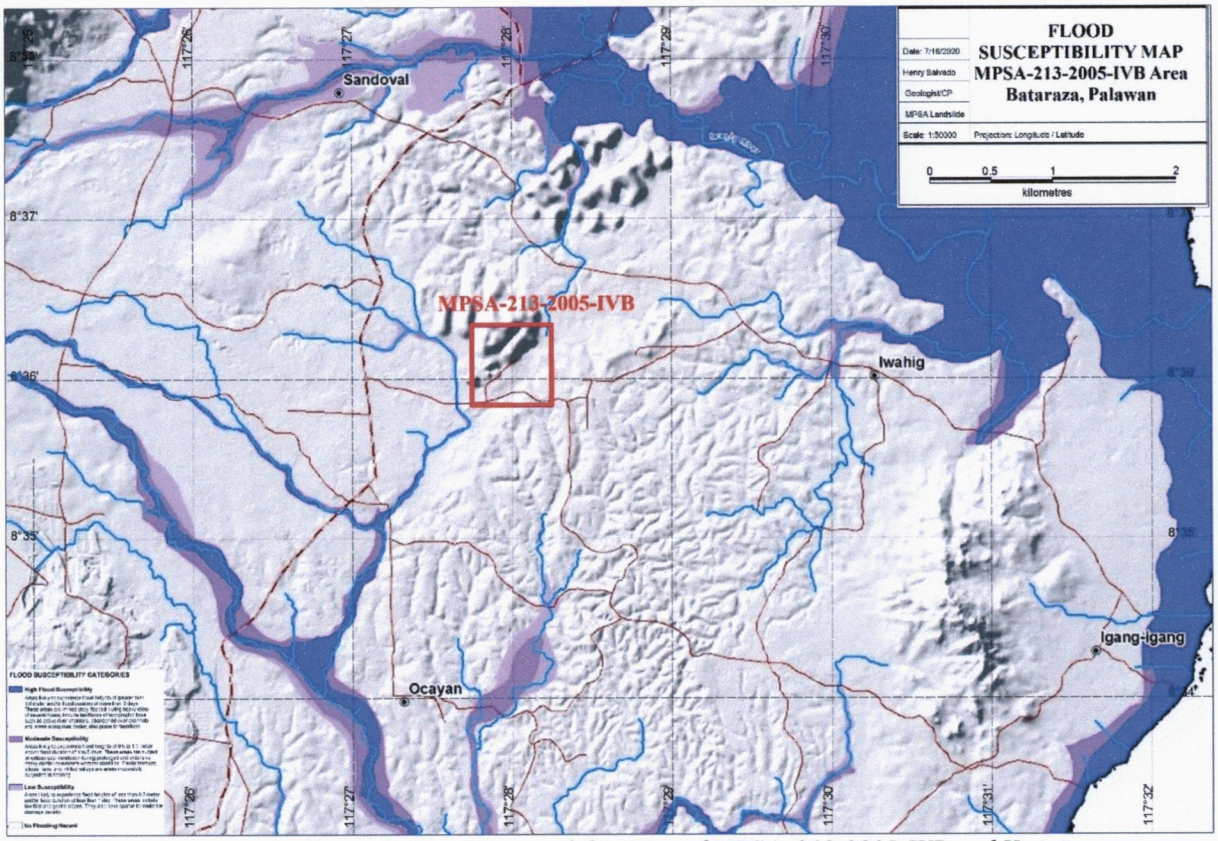


Figure 5. Flood Susceptibility Map of MPSA -213-2005-IVB and Vicinity

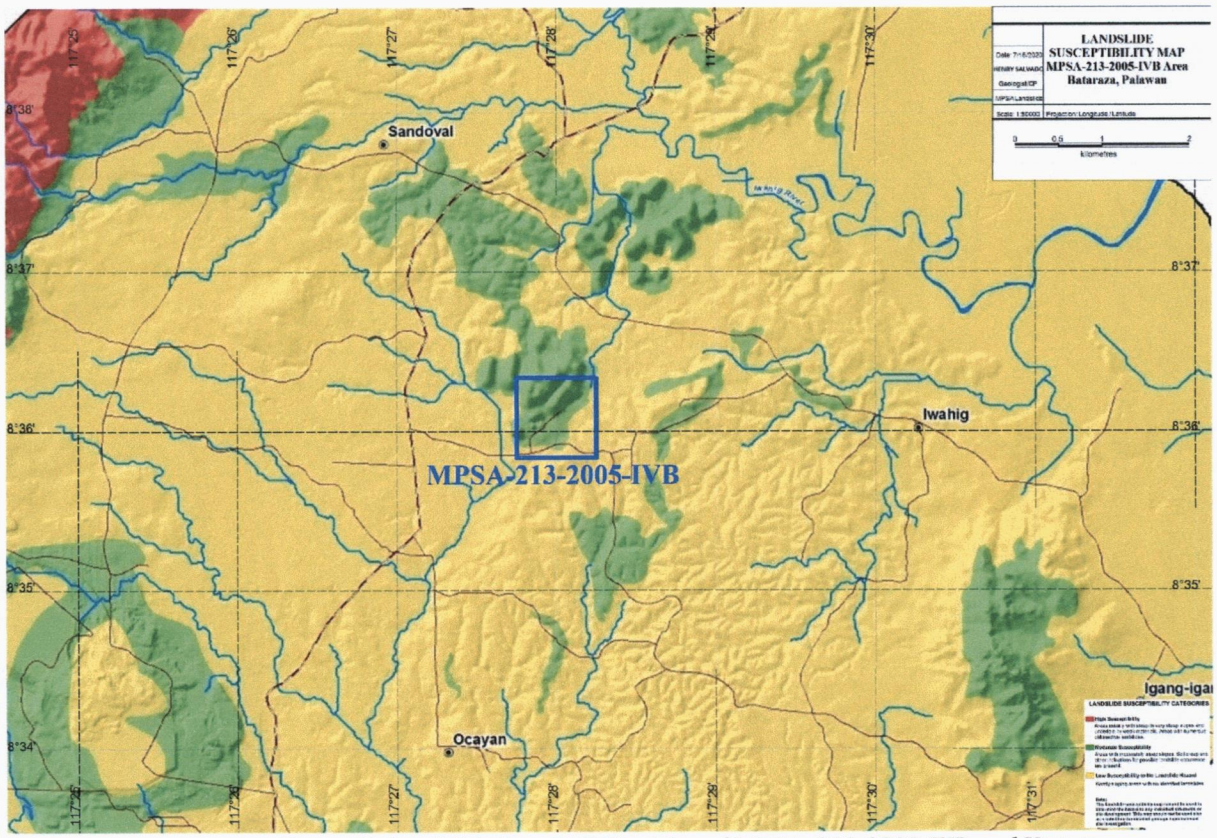


Figure 6. Landslide Susceptibility Map of MPSA -213-2005-IVB and Vicinity

5. PREVIOUS WORK AND FINDINGS

The present exploration and resource estimation work documented in this report started from the 2017 Comprehensive Technical Report on The Exploration Results and Mineral Resources of Gotok Limestone Project, submitted to the Mines and Geosciences Bureau-IV in April 2017.

RTNMC supplied limestone to Coral Bay Nickel Corporation (CBNC) and Unichamp Mineral Philippines Inc. (UMPI). These companies have different grade requirements for limestone shown in Table 3.

Table 3. Limestone specifications required from RTNMC by CBNC and UMPI.

Parameters	RTNMC/CBNC	Unichamp
Wt% $CaCO_3$ *(minimum)*	93	95
Wt% MgO *(maximum)*	1	1.25
Wt% SiO_2 *(maximum)*	2.0	2.0
% moisture	4	3

Based on the grade requirements of the CBNC and UMPI, a reclassification of the limestone resources according to grade intervals had been necessary in order to quantify the volumes of limestone blocks that would satisfy the requirements of each end-user. The grade ranges are:

- "≥95.00%" $CaCO_3$
- ≥90.00% ≤ 94.99% $CaCO_3$
- "<89.99%" $CaCO_3$

Prior to 2017, the exploration done on the area were documented in a 2000 internal memorandum on an initial geochemical sampling of the limestones in Gotok authored by E.C. Rosero and the initial Geological Report done on June 2004 by Davee Drake B. Medina. The report submitted by Mr. Medina apparently became the sole geological study as basis for the "Project Feasibility Study for Gotok Limestone Quarry Project" authored by Engr. Jose S. Saret with Hatch Associates, Inc. as consultants.

The drilling program done during the development of the Gotok Limestone Quarry in 2011 and in 2014 provided additional information to the quarrying operations.

From August to December 2015, an additional drilling program consisting of 4 holes were spudded outside the 13-hectare ECC. After synthesis of all geological data gathered from these drilling programs, geological mapping and re-logging exercises, a revised geological interpretation was made. Additional limestone resources were computed, which then became the basis for the revised Mining Feasibility Study that was done in November 2015.

6. PRODUCTION HISTORY

Table 4 Below shows the summary of production of the Gotok limestone quarrying operations previously reported in the 2017 Comprehensive Technical Report. At the end of 2016, total production was 2,518,037 WMT.

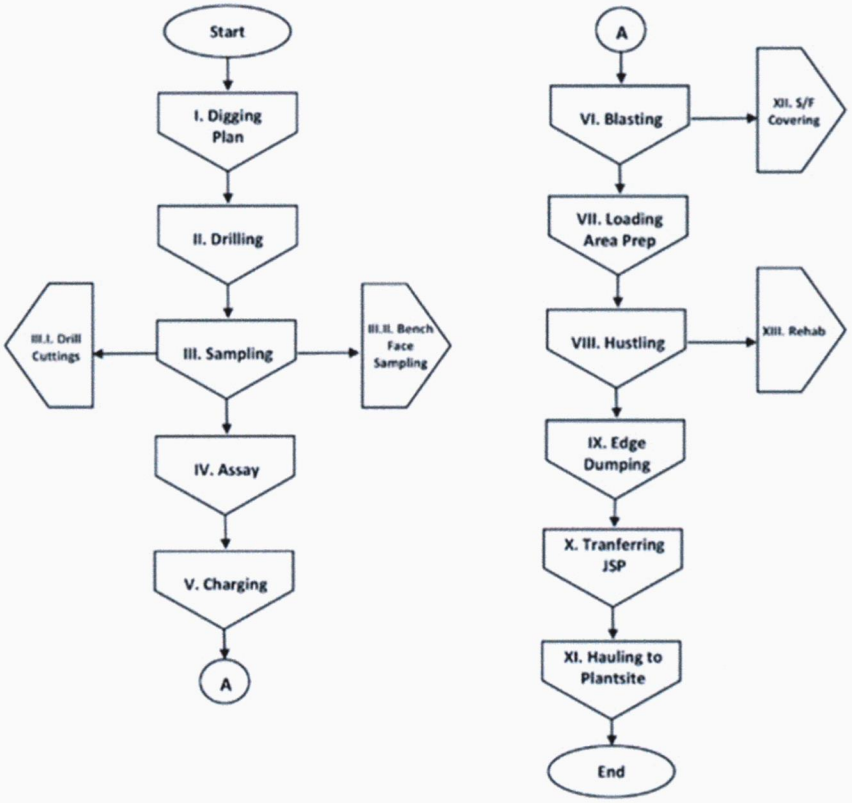
Table 4. Updated summary of production at the Gotok Quarry in WMT.

YEAR	TOTAL
2004	0
2005	22,421
2006	50,675
2007	73,480
2008	39,480
2009	186,238
2010	224,865
2011	145,991
2012	58,980
2013	211,560
2014	428,979
2015	593,280
2016	482,088
2017	528,667
2018	480,373
2019	373,535
TOTAL	**3,900,612**

The limestone quarrying operations was confined within the boundaries of the 13-hectare ECC area delineated within MPSA-213-2005-IVB.

Illustrated in Fig. 7 below is the quarrying operation flowchart at Gotok.

Figure 7. Quarrying operations flowchart.



RTNMC employs conventional open pit bench mining for its Gotok Quarry operation. The mining operations also employ drilling and blasting process for grade control and material size reduction.

The thin topsoil layer practically serves as the overburden. The overburden is maintained in designated zones for use in rehabilitation.

Backhoe excavators are used for the ore-loading operation at the benches. The ores are hauled using dump trucks with 10-15 cubic meter dump boxes. The ore loading operation from the quarry to the plant site utilizes hydraulic excavators with approximately 2 cubic meter buckets.

A blasting pattern of staggered echelon array with a spacing of 3.0 meters is carried out. The blasting operation is performed once a week, while drilling is performed in non-active benches in preparation for the next blasting operation.

After blasting, the blasted materials are loaded onto dump trucks by tracked backhoe excavators. These trucks haul the limestone onto steep slopes and dump the ore over the edge with the assistance of a safety spotter. A size distribution is achieved by gravity separation as brought about by the difference in momenta of the varying particle sizes. The resulting stockpile therefore has a semi-stratified nature that has a rougher, coarser particle size near the bottom and finer materials near the top of the stockpile.

The stockpiled materials are loaded onto dump trucks using a wheel loader or backhoe. The material will then be hauled and dumped either at a stockpile which is adjacent to the RTNMC crushing plant, or directly onto the crushing plant hopper.

The mined limestone is fed to a receiving hopper/apron feeder using a wheel loader or by direct dumping by dump trucks. The limestone feed is reduced further in size from about 500mm to the specified product sizes by a series of crushers, screens and water-based separators. The crushed materials are temporarily stockpiled at the crushed ore discharge area.

The waste materials generated are minimal in volume considering that only the top soil are treated as waste. And most of this topsoil will be utilized as top layering materials for revegetation of mined out quarry benches. A designated waste dumpsite for temporary storage pending availability of fully mined out areas for rehabilitation/revegetation is provided and maintained.

Progressive quarry rehabilitation will be undertaken as soon as the quarry benches have reached its final quarry/pit limit. The schedule of rehabilitation will more or less follow the quarrying stages.

7. REGIONAL GEOLOGY

7.1. Regional Geologic Setting

Palawan island is thought to be a continental fragment rifted from the Asian mainland during the opening of the South China Sea in early Oligocene to Miocene. As such, the rocks in Palawan, particularly in the northeastern part are markedly different from the arc-related rocks to the east (Rangin and Pubellier, 1990; Gabo et al., 2009; Yumul et al., 2009).

Palawan is surrounded by several major tectonic features, directed away from the island. The Palawan Trough in northwest offshore Palawan is interpreted as an extinct trench of the Cagayan arc system. The Palawan ophiolite, which occurs between the trough and the Cagayan Arc is considered an obducted oceanic fragment from the subduction at the Palawan trough (Fig. 8, PHIVOLCS, 2017; Yumul et al., 2009).

Palawan is a northeast-southwest trending island in west-central Philippines where the northeaster part contains rocks of continental affinity while the southwestern section of the island is floored by ophiolitic and melange units (Encarnación et al., 1995 and references therein). The ophiolite is believed to be thrusted upon the continental fragment. It is interpreted to be a trapped oceanic lithosphere from the subduction at the Palawan trough.

The ophiolite units at the southern part of Palawan form the oldest rock units in the Bataraza area. It is composed of serpentinised peridotite, dunite, and harzburgite. These ultramafic assemblages comprise the Bulanjao Range and referred to as the Beaufort Ultramafic Complex (MGB, 2010) which forms part of the Palawan Ophiolite.

The Espina Formation which is Late Cretaceous to Early Eocene in age overlies the ultramafic rocks. It is composed of basalt flows, pillow lavas and chert. The Paleocene to Early Eocene Panas Formation in turn overlies the Espina Formation. It is composed of folded and well-bedded sequences of sandstone, shale, siltstone and mudstone. The rocks that comprise the Panas Formation are in thrust fault contact with the Beaufort Ultramafic Complex.

The Sumbiling Limestones are carbonate units around the Bataraza area described as a sequence of calcisiltite, calcirudite, sandstone and shale. However, some younger limestone units are described by JICA (1988) and MGB (2010) belonging to the Ransang Limestone or the Panoyan Limestone member may be correlated to the limestone east of RTNMC's mine operations. It is described as massive to bedded limestone, including calcarenites and calcisiltites. The Sumbiling Limestone generally unconformably overlies the Espina Formation and intertongues with the Panas Formation. The Gotok Quarry operation of RTNMC sits on these limestone units.

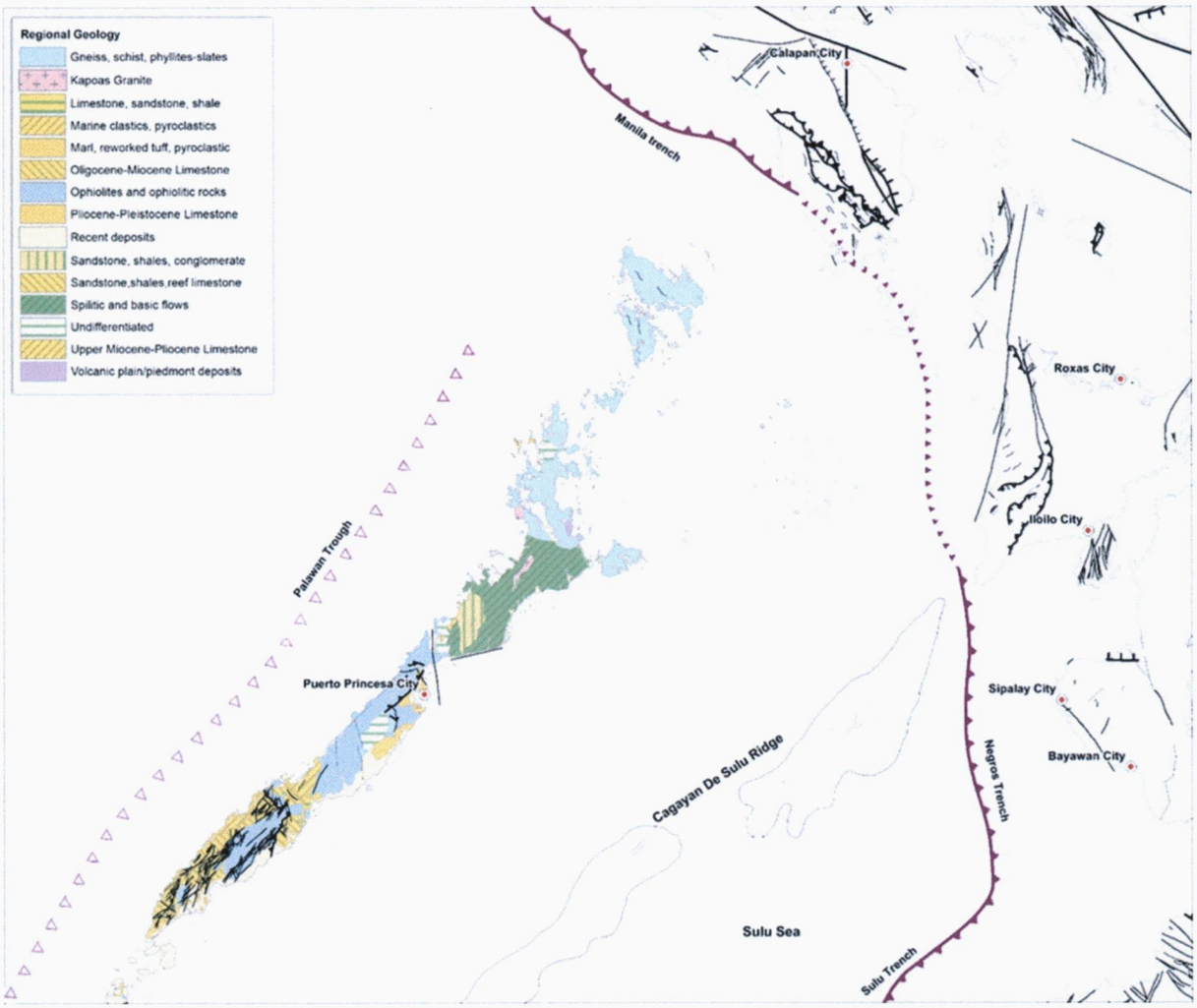
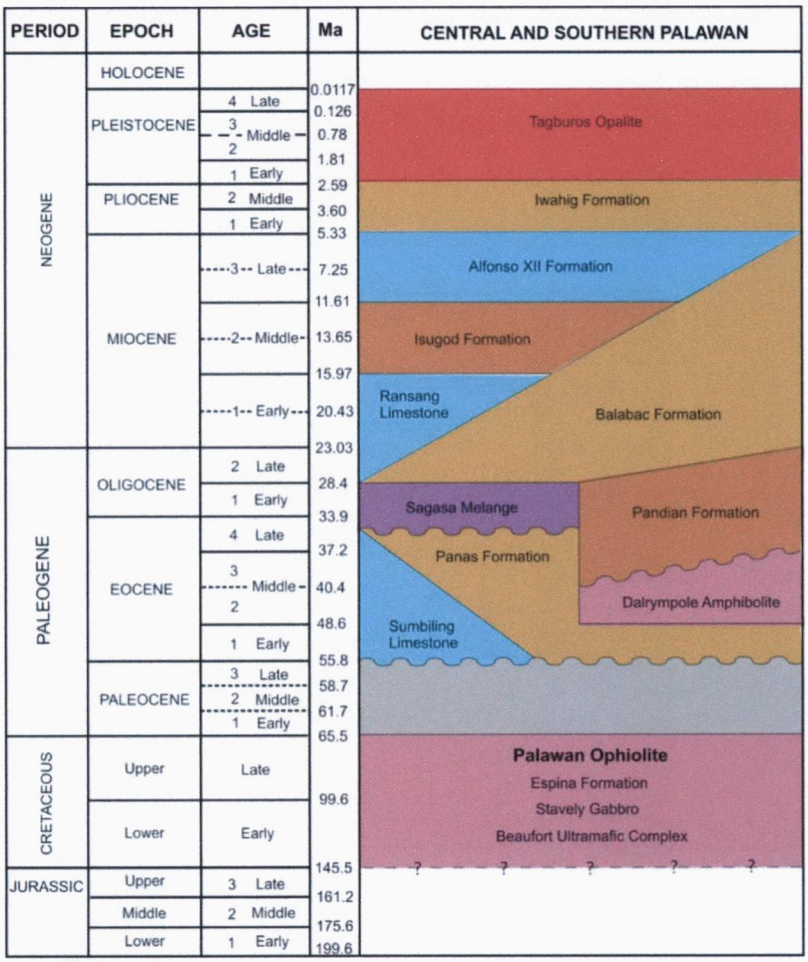


Figure 8. Regional tectonic settings and geology of Palawan and vicinity (MGB, 2010; PHIVOLCS, 2017; Yumul et al., 2009).

7.2. Regional Stratigraphy

Regional geologic and stratigraphic framework of southern Palawan is presented in Figure 9 (MGB, 2010).

The Gotok limestone quarry is developed in one of the three limestone bodies found in the vicinity of the RTNMC mining operations. These limestone bodies are interpreted to be part of the Panoyan Limestone, a lower member of the Iwahig Formation. This contrasts to the previous interpretation that the limestone is part of the older Ransang Limestone. The sediments mapped below the limestone is believed to be part of the Panas Formation.



Geologic Time Scale adopted from International Commission on Stratigraphy (2009)

Figure 9. Stratigraphic Column of Central and Southern Palawan

7.1. Regional Structures

Palawan is surrounded by several major tectonic features, albeit directed away from the island. To the northwest is the southern edge of the Manila Trench where it continues on land and expressed as major thrust fault structures in southwest Mindoro and western part of Panay island in Antique. Further to the southeast and south are the Negros and Sulu Trenches Fig. 8.

The Palawan Trough in northwest offshore Palawan is interpreted as an extinct trench of the Cagayan arc system. The Palawan ophiolite, which occurs between the trough and the Cagayan arc is considered an obducted oceanic fragment from the subduction at the Palawan trough.

In central Palawan, the Ulugan Bay Fault divides the island (MGB, 2010). Several thrust faults are present which define terrane boundaries between the obducted ophiolitic slab and the Palawan platform. Further to the south, numerous faults and linear features within the ophiolitic units are indicated that may represent adjustments and deformations associated with the oceanic crust emplaced on land.

There are no major regional structures that transect the Gotok Limestone Quarry area except for a localized fault that cut across the quarry area.

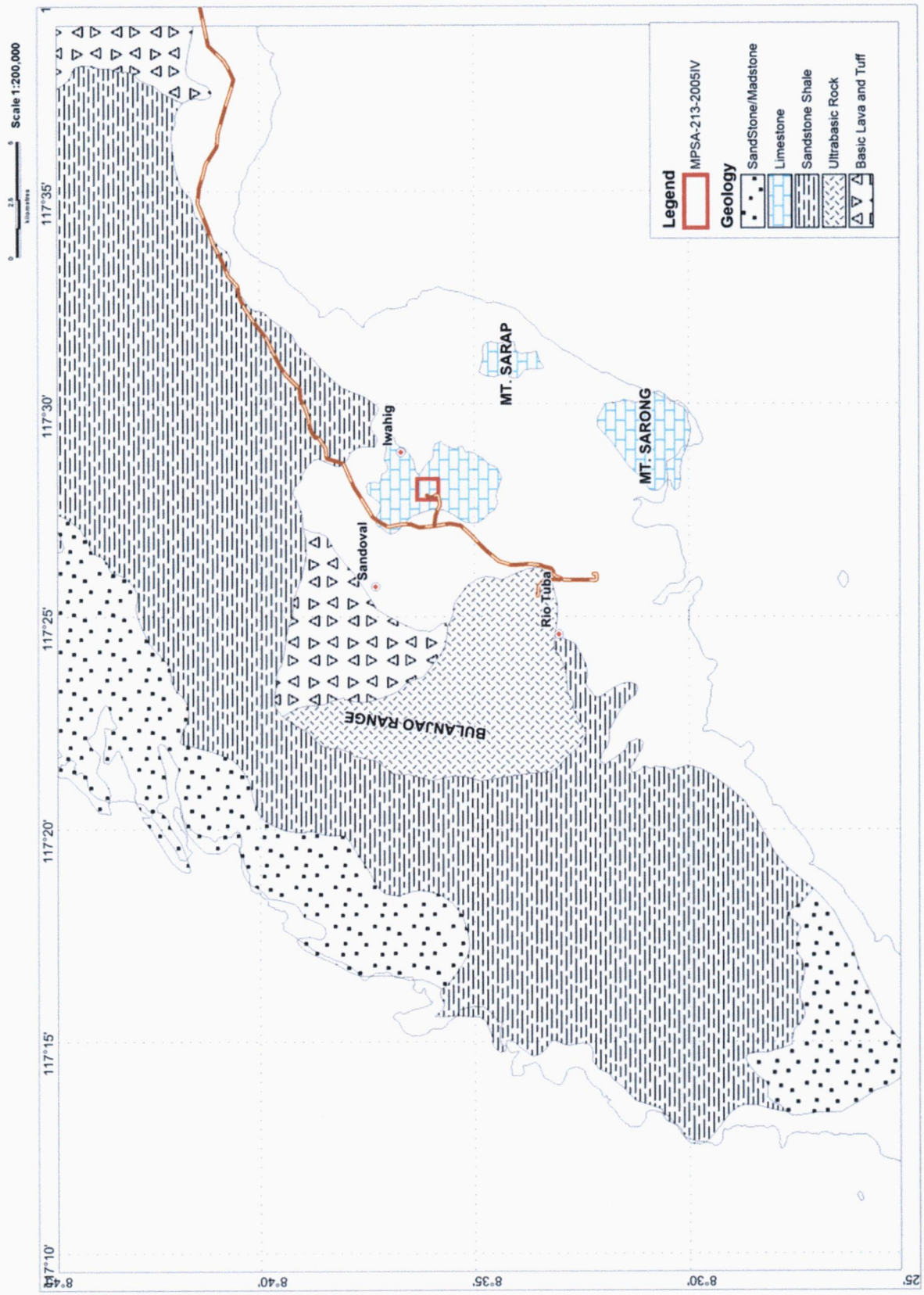


Figure 10. Geology of southern Palawan (JICA, 1988). The MPSA where the Gotok quarry operation is located is situated is one of the three limestone body, Mounts Gotok, Sarap and Sarong.

7.2. Prospects and or Deposits

The mineral commodity, being limestone, has been formed naturally from a long process of erosion and deposition. Limestone is a sedimentary rock composed primarily of calcium carbonate, CaCO3, most commonly formed in warm, shallow marine waters. Limestones can form from the accumulation of shells, corals, algal, and fecal debris. Aside from the limestone body quarried in Gotok, several hills consisting of limestones are present in the area to include Mount Sarap and Mount Sarong (Fig.10).

The southern part of Palawan is floored by large bodies of ultramafic rocks that may host metallic deposits of chromite and platinum-group minerals. Nickeliferous laterite deposits are abundant in the southern part of Palawan as evidenced by several nickel laterite mines in Aborlan, Narra and Quezon. At Rio Tuba, RTNMC has been operating as a nickel laterite mine since 1969. It has a stake in Coral Bay Nickel Corporation which operates a Hydrometallurgical Processing Plant which processes low grade nickel laterite ores to produce mixed nickel and cobalt sulphides.

8. MINERAL PROPERTY GEOLOGY

8.1. Geography

There are three (3) limestone localities in the vicinity of the RTNMC mining tenements that form part of the Middle Miocene limestone units. The limestone bodies are conspicuous hills east of Bulanjao mountain range with peaks of 130 meters at most. They are located in Gotok, Mount Sarap and Sarong, to the east and southeast of RTNMC. These outcropping limestone bodies have been previously identified as late Oligocene to early Miocene Ransang Limestone (see Fig. 10) but this work correlates these limestones, particularly that at Gotok to the Panoyan Limestone member of the younger Iwahig Formation.

8.2. LOCAL GEOLOGY

There are three (3) limestone localities to the east and southeast of RTNMC's mining tenements. The limestone bodies occur as isolated, gently rolling hills with peaks of 130 meters at most. They are located in Gotok, Mount Sarap and Sarong (Fig. 10).

A geologic map of the Gotok quarry is presented in Figure11 (adapted from Olfindo, 2015; RTNMC, 2020).

The distribution of the limestone within the MPSA is quite extensive. A geologic survey conducted around the Gotok quarry was done and representative specimens were taken which served as reference for any mapping done within the MPSA area. Structures include local faults as contact between sediments and limestone trending NE and dipping SE and in the central part of the quarry, sheared sediments in fault contact (trending NW and dipping SW) with the limestone is also observed.

The limestone in the Gotok quarry site can be characterized as reefal limestone composed of skeletal grains (corals, pelecypod, gastropod?) as allochems, variably crystalline sparite as cement and medium to dark-gray, fine-grained micrite as matrix. The limestone descriptions previously utilized are adapted from Folk (1959) and Folk (1962) and (Dunham, 1962) in Folk (1974) and Turner (2003) and summarized in Table 4 below:

Table 5. Limestone Descriptions Utilized in this Report

Folk classification			
	%allochems	Representative rock terms	1959 terminology
Over 2/3 lime mud matrix	0-1%	MICRITE AND DISMICRITE	MICRITE AND DISMICRITE
	1-10%	FOSSILIFEROUS MICRITE	FOSSILIFEROUS MICRITE
	10-50%	SPARSE BIOMICRITE	BIOMICRITE
	>50%	PACKED BIOMICRITE	
Subequal spar and lime mud		POORLY WASHED BIOSPARITE	BIOSPARITE
Over 2/3 spar cement	Poor sorting	UNSORTED BIOSPARITE	
	Good sorting	SORTED BIOSPARITE	
	Rounded and abraded	ROUNDED BIOSPARITE	

Dunham classification			
Textural Features			Limestone Type
Mud absent	Grain supported		GRAINSTONE
Carbonate mud present			PACKSTONE
	Mud supported	>10% grains	WACKESTONE
		<10% grains	MUDSTONE
Components organically bound during deposition			BOUNDSTONE

The limestones in Gotok can be classified, in terms of their constituents, as unsorted biosparite to packed biomicrite depending on the amount of sparite cement or micrite matrix. This is equivalent to grainstone and packstone based on their textural features,

although locally boundstone and crystalline limestone also occur. Towards the northern part, the limestones are bedded with a NE strike and SE dip.

Moderate- to dark-gray calcareous siltstone-mudstone was observed in the central portion of the quarry. Further northward, the calcareous siltstone-mudstone grades to NE-trending, SE-dipping biomicrite. Towards the north wall (pit limit) of the quarry, medium-bedded crystalline biosparite of similar orientation is observed.

The rock types exposed may indicate reef flank facies and shallow water with open circulation. Together with the gross morphology of lithologies exposed in the Gotok quarry, it can be further characterized as a patch reef (margin).

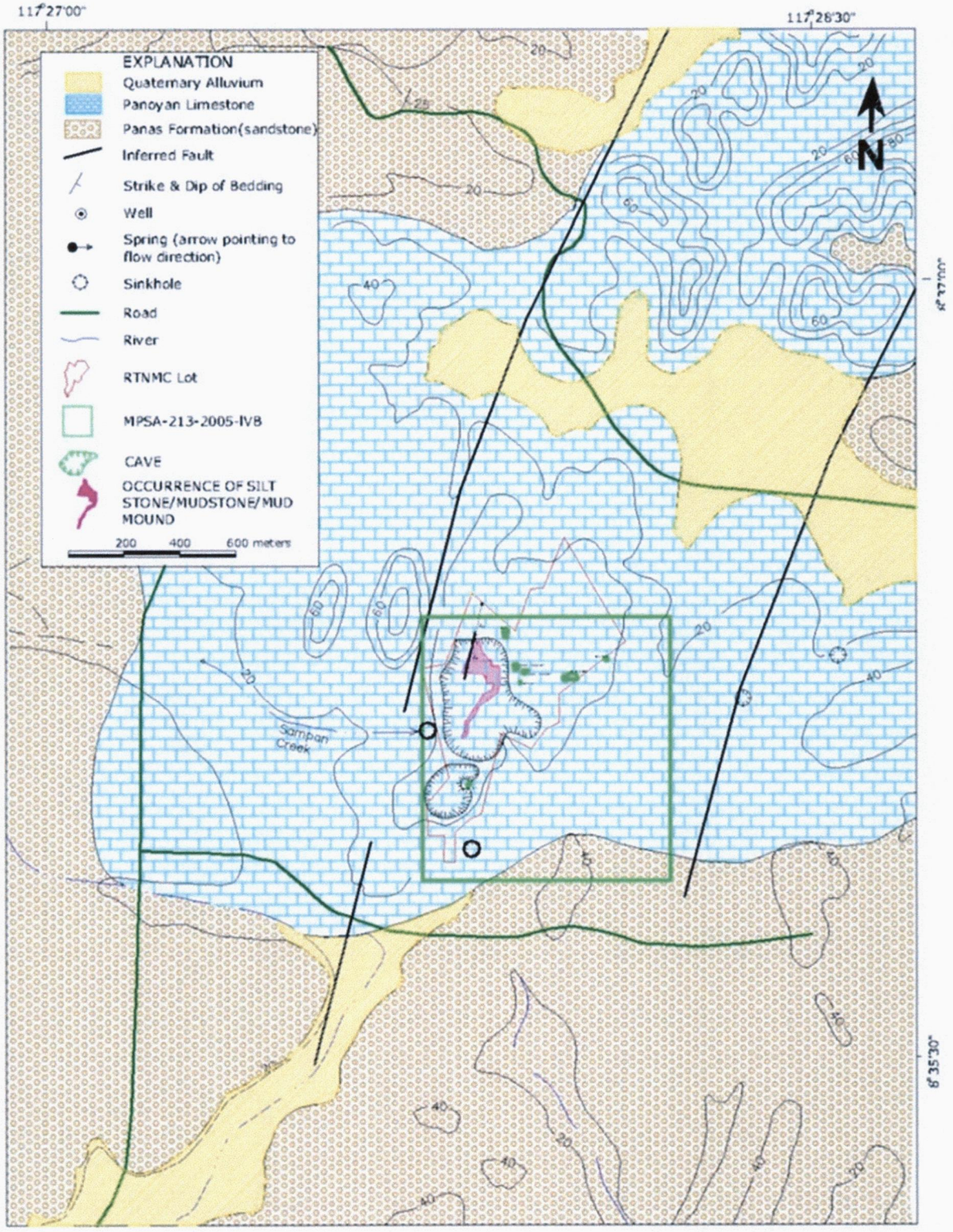


Figure 11. Geologic map of the Gotok limestone quarry and vicinity as mapped by RTNMC and Olfindo (2015).

8.3. Geologic Structures

There are no observed major or regional structures that transect the Gotok Limestone Quarry area. A local fault was observed in the Gotok property which formed a localized contact between limestone and mudstone, trending NE and dipping SE and in the central part of the quarry, sheared sediments in fault contact (trending NW and dipping SW) with the limestone is also observed.

9. MINERALIZATION

The mineral commodity, being limestone, has been formed naturally from a long process of erosion and deposition.

In general, sedimentary rocks are formed by depositing, compacting, and cementing of sediment grains and/or precipitation of crystals from an aqueous solution. The type of sedimentary rock formed is controlled by two factors, namely a) type of sediment, and b) depositional environment.

There are five (5) primary depositional environments (Fig. 12). These are: 1) lakes and river systems; 2) alluvial fans and deserts; 3) shorelines; 4) continental margins (shelves, slopes and rises); and 5) deep ocean floors.

The limestone in the Gotok quarry site can be characterized as reefal limestone composed of skeletal grains (corals, pelecypod, gastropod?) as allochems, variably crystalline sparite as cement and medium to dark-gray, fine-grained micrite as matrix.

Structures observed within the quarry area include local faults as contact between sediments and limestone trending NE and dipping SE and in the central part of the quarry, sheared sediments in fault contact (trending NW and dipping SW) with the limestone is also observed.

Evidences observed and collected from the field visits that were done from the period June 2015 to July 2016 suggest that the depositional environment of the limestone in the Gotok area is shallow marine, which should be close to lagoon as evidenced by mudstone occurring in a channel-like geomorphic feature, which is possibly a paleo-river.

10. EXPLORATION

10.1. Geologic Mapping

Field mapping outside the ECC area was conducted by RTNMC geologists to determine the continuity of the limestone deposits outside the quarry area. Limestone nomenclature in the 2017 Comprehensive Technical Report followed Folk's (1962) nomenclature where the type of limestone is based on the proportion of the components, if any, of lime mud matrix, sparite cement and organic constituents.

Rock identification from the recent drill cores also utilized a more simplified nomenclature that is based on the grain size of the calcareous sedimentary rocks (e.g.,

calcilutite, calcirudite, etc.). Massive limestone units identified are simply logged as limestone.

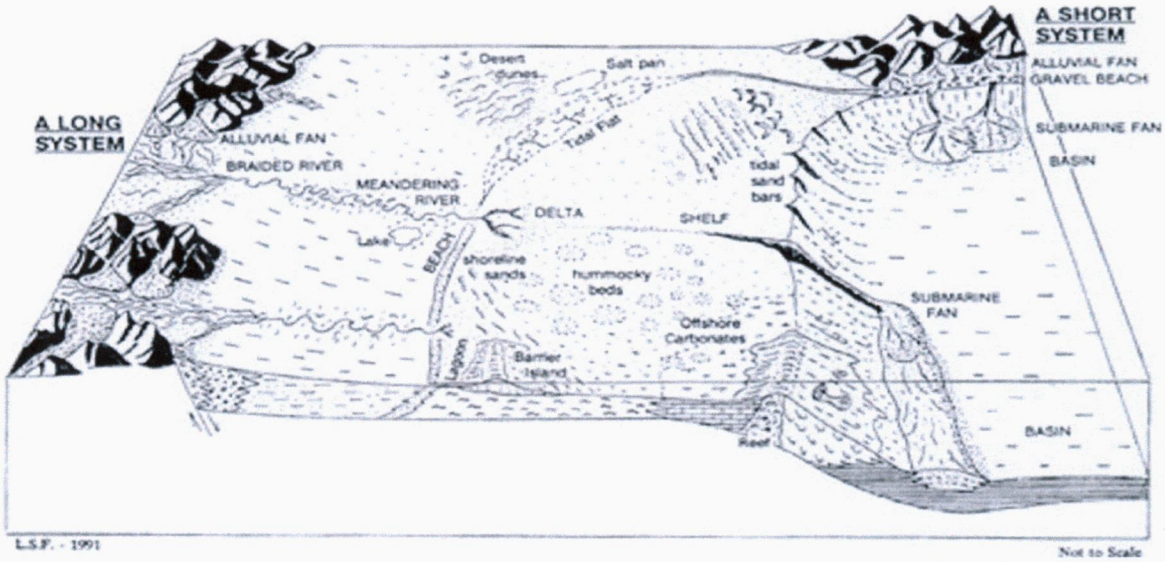


Figure 12. Five depositional environments of sedimentary rocks. The limestone units in southern Palawan in the vicinity of RTNMC is believed to be in the marginal marine environments, which extends from the shelf towards the shallower part of the basin. The occurrence of mudstones within the limestone body suggest a terrestrial source that may be equivalent to a near shore environment.

In general, the limestones intercepted by the drill holes include calcilutite, marl and calcareous to non-calcareous mudstone. Calcite crystals are also noted occurring within the cavities or as recrystallized portions of massive limestones. In some instances, silica in the form of quartz also occurs as minor veinlets.

At the quarry site, quarrying operations exposed a notable calcareous and non-calcareous mudstone body that may represent a previously buried river channel. Similarly, isolated mudstone units are also identified in the drill cores which may represent paleochannels and/or contribution of terrestrial sediments during deposition.

Graphical correlations of the limestone units are shown in the APPENDIX F. The topography is based on the as built survey by the end of December 2019 (Fig. 13).

Similar to what was observed in the existing quarry site, mudstone units also occur at depth. These mudstone units are interpreted to be continuous units correlable to the mudstones in the adjoining drill holes or as isolated lenses. The northern part of the MPSA has intersected a significant mudstone body in the subsurface and manifested in the quarry site.

Further to the south and southeast part of the MPSA, the occurrence of mudstone diminishes.

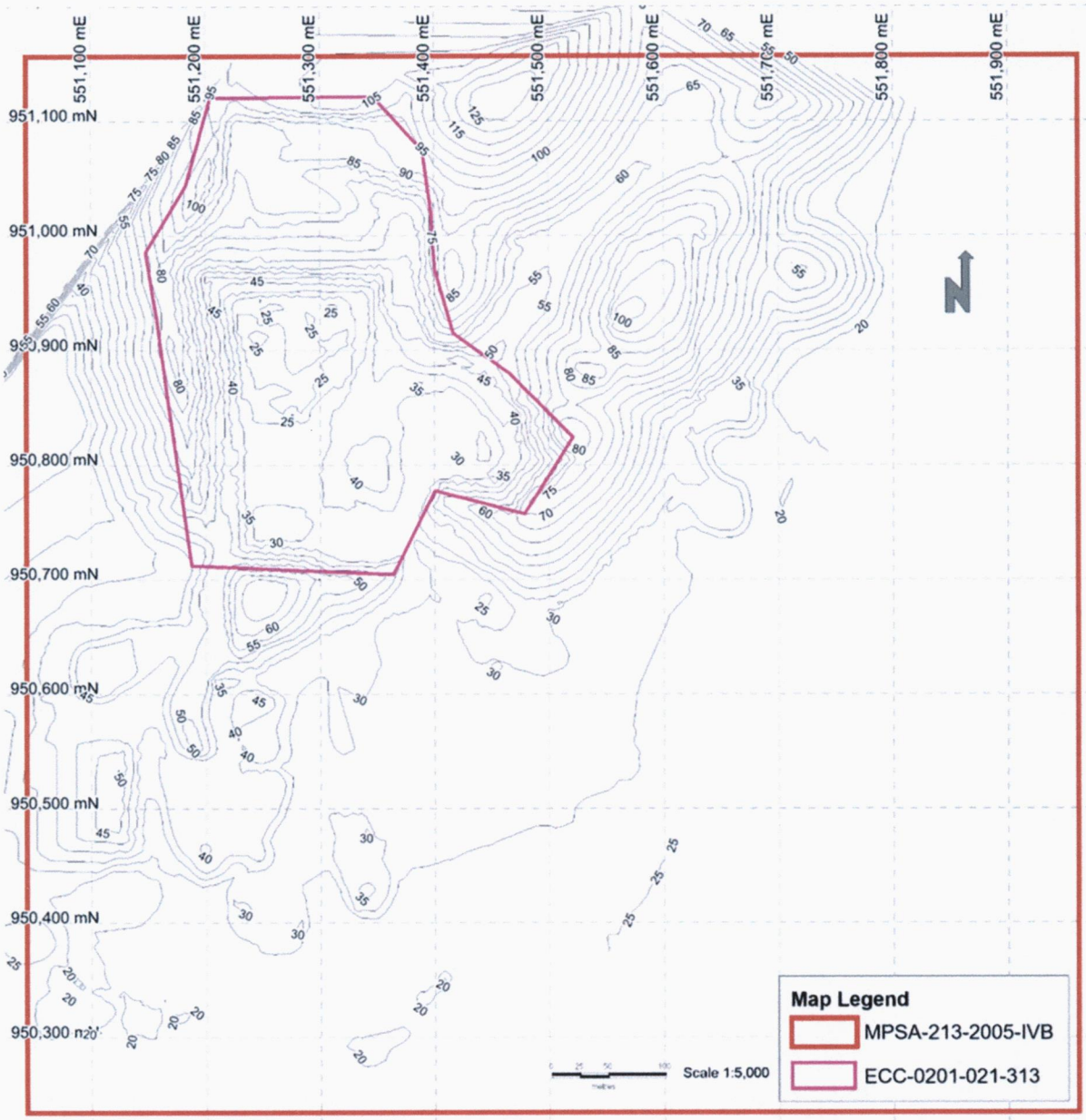


Figure 13. Topographic map of MPSA-213-2005-IVB at end 2019.

10.2. Bulk sampling

Sampling of drill cores are discussed in Section 10.6.

Bulk sampling of a predetermined limestone block was conducted for determining the in-situ bulk density. Details of which is presented in Appendix I.

10.3. Exploration Geochemistry

Geochemical data derived from the analysis of drill core samples are examined to determine any recognizable relationships and trends. Tabulated below are some descriptive statistics of the geochemistry of the Gotok dataset. The dataset still includes geochemical data from the previous 2011, 2012 and 2015 drilling albeit of

the lower intervals or end of holes (APPENDIX G). Latest drill core results from the 2019-2020 drilling program are included in the database.

Parameters	%$CaCO_3$	%SiO_2	%MgO	%Fe
data points	2806	2806	2806	2806
null/no data	175	33	36	2561
n, with values	2631	2773	2770	245
min	0.39	0.01	0.01	0.12
max	99.66	54.23	7.83	10.9
mean	87.2289	4.728536	0.947054	1.496898
standard deviation	18.54317	6.99407	0.558646	1.75972
mode	95.24	0.67	0.7	0.6
median	94.86	1.38	0.76	0.84
First Quartile, Q1	88.425	0.7	0.67	0.5
Second Quartile(=median), Q2	94.86	1.38	0.76	0.84
Third Quartile, Q3	96.01	6.34	0.98	1.4
90th Percentile	96.82	14.69	1.611	3.442
95th Percentile	97.435	19.96	2	4.392
IQR, Interquartile Range (= Q3-Q1)	7.585	5.64	0.31	0.9
Upper Inner Fence, UIF (= Q3 + (1.5*IQR))	107.3875	14.8	1.445	2.75
Lower Inner Fence, LIF (= Q1 - (1.5*IQR))	77.0475	-7.76	0.205	-0.85

Table 6. Summary descriptive statistics of the Gotok drill core assay results.

Based on its frequency distribution shown in Figure 14 below, the data distribution is skewed and does not follow normal distribution. $CaCO_3$ exhibits skewed to the left distribution where more values with higher than 80% $CaCO_3$ are noted. On the other hand, MgO and Fe show skewed to the right distribution where most values are <2% and <4%, respectively. SiO2 similarly display skewed distribution with most samples fall below 5%. However, there are significant number of samples whose SiO2 content are between >10% to <40%. These are predominantly the mudstone samples. Fe in the samples are quite low where majority of the samples are below 4%. However, only 245 samples had their iron content analysed.

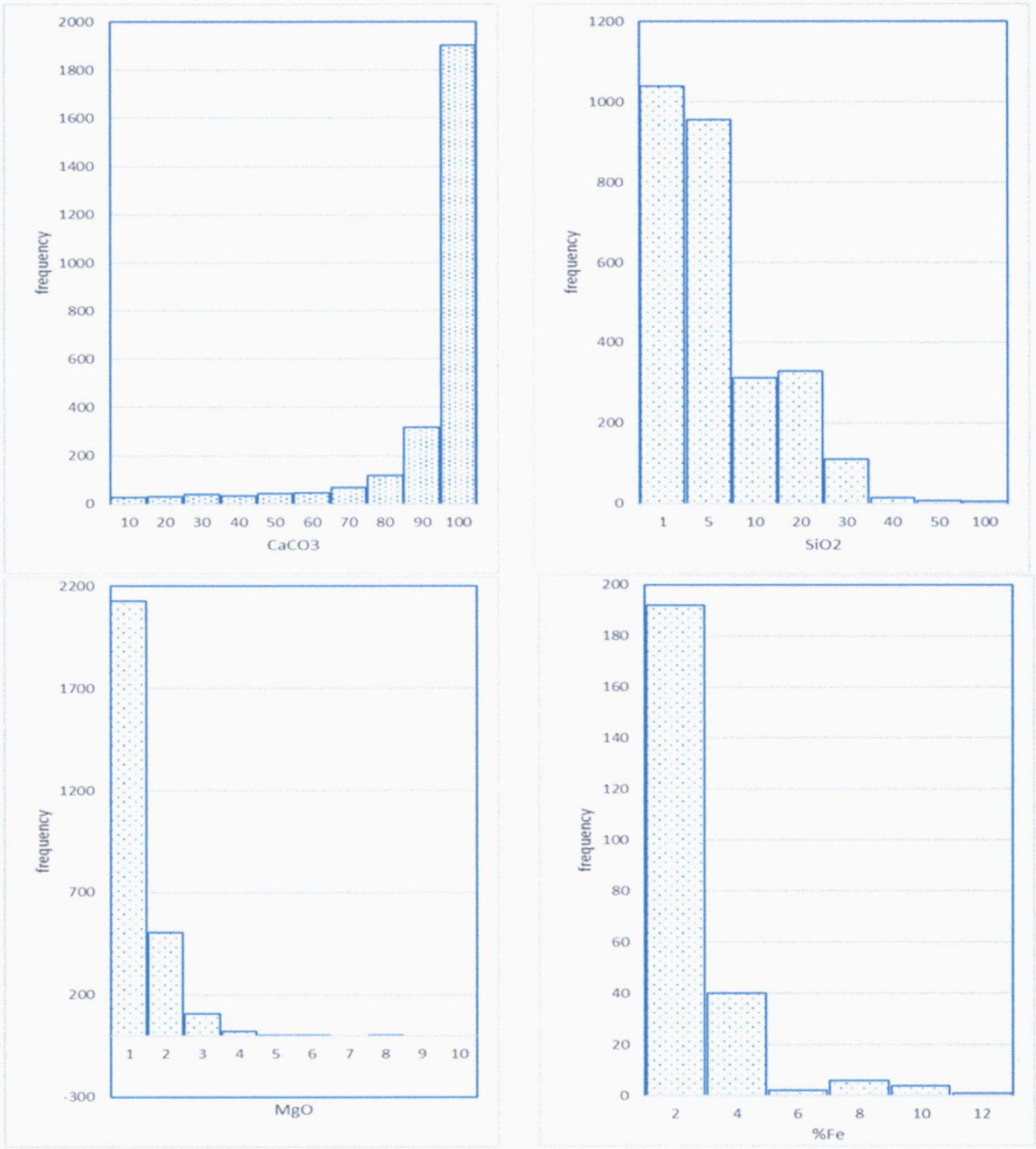


Figure 14. Frequency distribution of CaCO3, SiO2, MgO and Fe.

Binary diagrams may show correlation between compositions of the various lithologies logged in the cores. $CaCO_3$, the principal composition of limestones is used in the x-axis to determine variations and trends in composition with respect to the other compounds analysed.

Shown below in Fig. 16 are the binary diagrams of $CaCO_3$ vs SiO_2, MgO and Fe. Most of the samples logged as limestones in drill cores have SiO2 content of less than 10%. However, the SiO_2 content of the mudstones show two trends with one having a slightly flat trend and another more pronounced negative correlation with increasing $CaCO_3$.

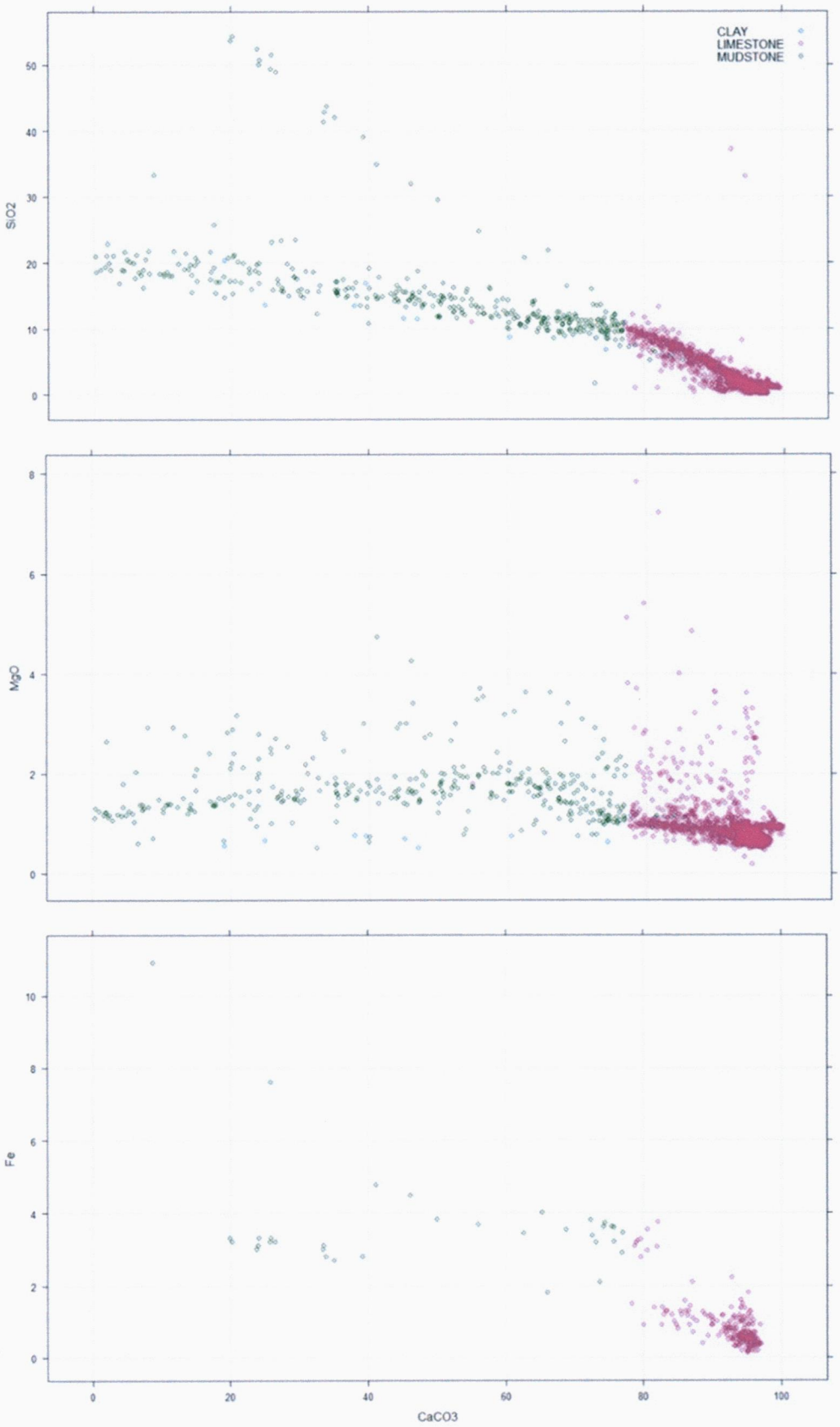


Figure 15. Variation in composition of Gotok drill core samples with CaCO3 [PINK – limestone, GREEN – mudstone and BLUE – clay]. The lower inner fence value and the lithology as identified in the core logs coincide.

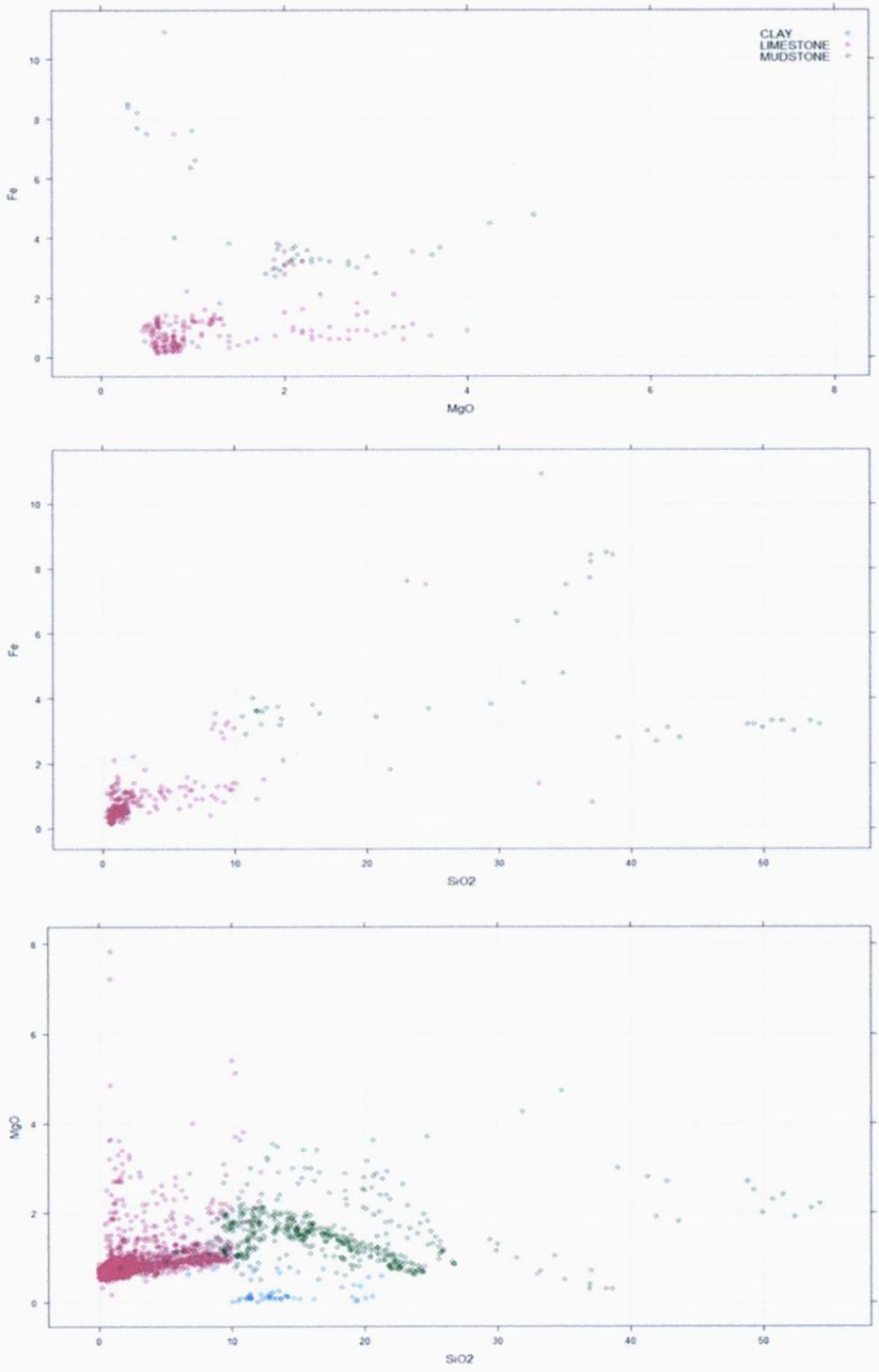


Figure 16. Compositional variation diagrams of Gotok samples. In terms of the variation of the composition of the Gotok drill cores with other elements/compounds, no clear trends are recognized

MgO is predominantly below 4%, and that there is no clear correlation with $CaCO_3$ content of both limestone and mudstone. Some slight increase in MgO is observed in limestones but this may be due to contaminants such as sediments or simply a change in chemical composition of the limestone during deposition. There is an apparent negative correlation of Fe with increasing $CaCO_3$ content. This only reflects that the limestones have low Fe contents compared to the mudstones.

There seems to be no clear correlations of the composition of the Gotok samples in terms Fe, SiO_2 and MgO (Fig. 16).

The median value of $CaCO_3$ is 94.86%. This represents the central value of the Gotok dataset. The First Quartile (Q1) is 88.425% and the Third Quartile (Q3) is 96.01%. This means that 50% of the dataset is within this range. Thus, the composition of the limestone required by CBNC and UMPI, who are the principal end users of the limestones, can easily be met.

Median values for SiO_2 and MgO are 1.38% and 0.76%, respectively. The median value of SiO2 and MgO is below the required cut-off by CBNC and UMPI. However, it is important to monitor the silica content of the quarried material to ensure that its chemistry is within specifications considering that statistically, 50% of the limestones in the dataset have silica content ranging from 0.70% to 6.34%, above the cut-off grade of 2%. The required MgO content will easily be met.

Both mudstones and the identified clay from the drill cores have almost similar compositions in terms of $CaCO_3$ and SiO_2 (Fig. 17). The calcareous mudstone geochemistry overlaps with the low $CaCO_3$ limestones. Based on the drill logs, the overlap in SiO_2 and $CaCO_3$ compositions represent mixed compositions of marl, mudstone and limestone in a sample interval. This is equivalent to the mixed micrite, sparite and occasional mudstone logged in pre-2015 drill cores.

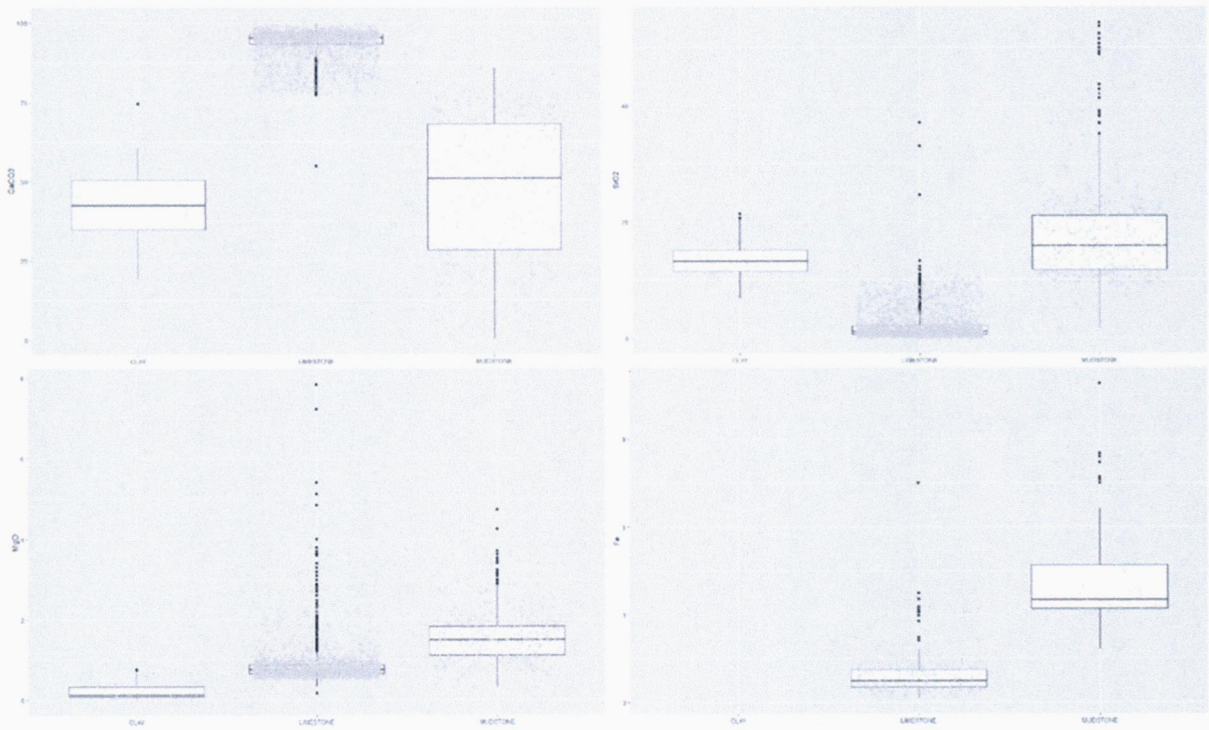


Figure 17. Tukey's boxplots of geochemical compositions of the Gotok drill core samples. Limestone compositions in terms of $CaCO_3$ is markedly different from the mudstones and clay; there is however overlap in compositions of the latter two.

The Upper Inner Fence (UIF) in Tukey's boxplots was used to constrain geochemical anomalies, if there are any. Geochemical anomalies identified by this method signify that these values belong to a different population because they originate from another process or source (Riemann et al., 2005).

The UIF value of the CaCO3 is >100wt% as shown in the Table 5. Hence, $CaCO_3$ has no meaningful anomalies. On the other hand, values between the Q1 and Lower Inner Fence (LIF) are more significant since limestone is essentially a monomineralic rock composed mostly of $CaCO_3$. Thus, values which are low background in character are most likely reflecting a different lithology such as limestone vis-à-vis mudstone/siltstone or significant presence of contaminants such as clays, sandstone fragments or silica.

Examination of the cores particularly its lithology and their geochemistry would reveal poor correlation of MgO and a slight increase in SiO_2 with decreasing $CaCO_3$ (below Q1). Thus, the relationship of low background CaCO3 (<77%) with MgO and SiO_2 shows that lithology is the primary control in $CaCO_3$ variation.

10.4. Diamond Drilling and Sampling

A total of 24 drill holes were drilled to test for the continuity of the limestone deposit outside of the ECC area (Fig. 18). The latest drill holes supplement the 4 drill holes outside the ECC area previously reported in the 2017 Comprehensive Technical Report.

RTNMC contracted JCP-Geo-Ex Services for the Gotok Quarry Drilling Project. The drilling method is a rotary diamond drilling, wire-line triple-tube system. The Contractor's drill rigs include Longyear LY44, TONE, and TOHO which used PQ- and HQ-sized rods. No NQ-sized rods were utilized unlike the previous drilling program implemented. The larger diameter cores greatly improved recovery of the core samples. All the holes drilled were vertical.

Tabulated in Table 7 below are the pertinent technical descriptions of the completed drill holes in the latter part of 2019 until early February 2020 reported by JCP Geo-Ex Services. Picture 1.0 Show the author and RTNMC geologist at the site of drill hole GPX-4 and Picture close up of the drill collar.

Picture 1. Drill hole location of GP1-4

Picture 2. Drill hole Collar of GP1-4

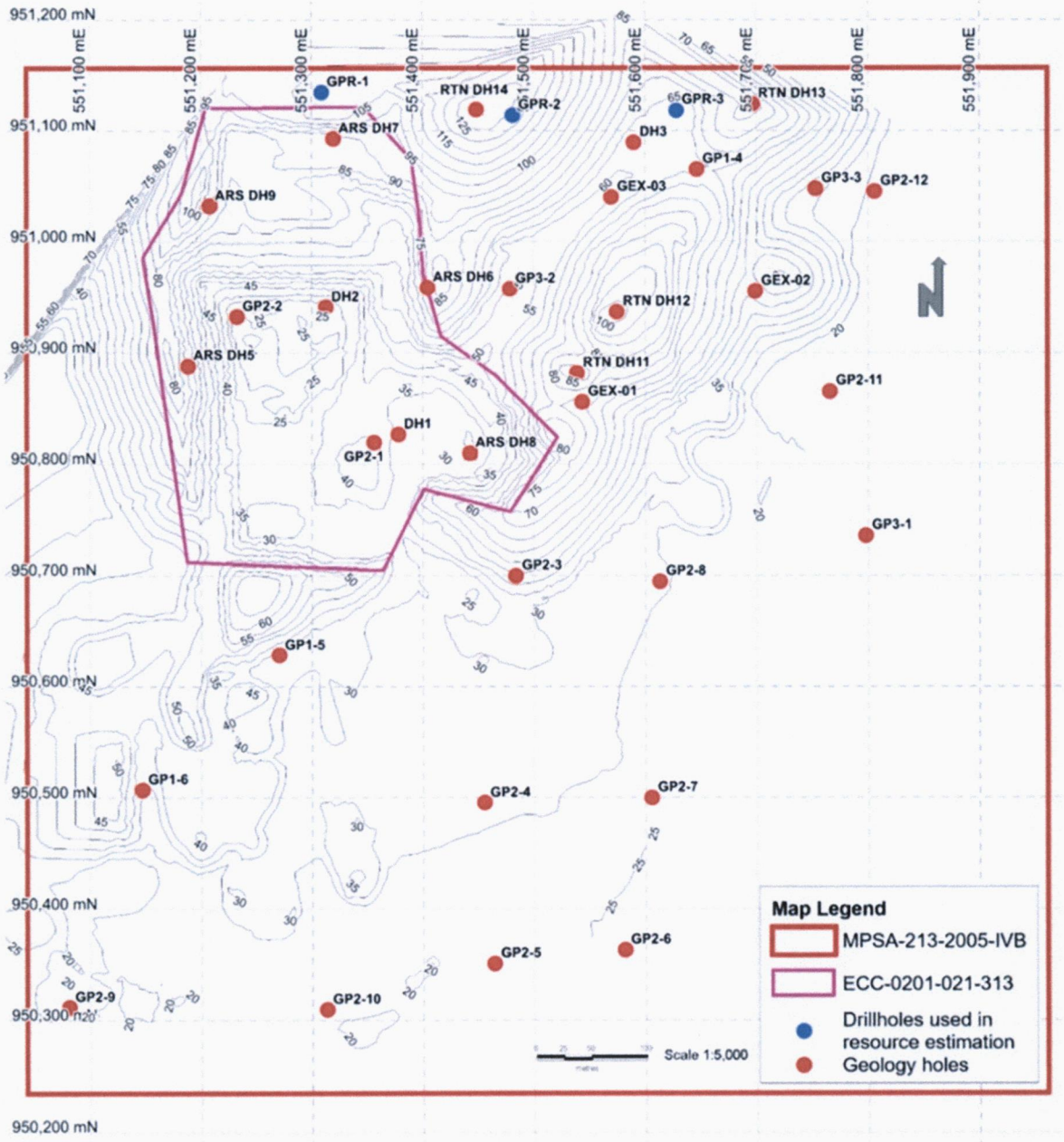


Figure 17. Location of drill holes in MPSA-213-2005-IVB. Drill holes in red were used in the estimation of the resources within the MPSA. Three geology holes in the northern part of the tenement were completed to test actual thickness of the limestone deposit below the 0-meter elevation.

Table 7. Drill hole collar location statistics (2019-2020 Drilling).

DHID	PTM_N	PTM_E	ELEV	AZI	DIP	EOH	%REC	Drilling Date
GEX-01	951326.75	386244.84	69.431	0	-90	85	94	2019.11.20 to 2019.11.27
GEX-02	951425.76	386400.95	48.383	0	-90	75	91	2019.11.29 to 2019.12.06
GEX-03	951511.36	386271.61	59.392	0	-90	125	94	2019.11.18 to 2019.11.27
GPR-01	951606.68	386011.43	114.179	0	-90	180	91	2019.11.23 to 2019.12.07
GPR-02	951585.35	386183.42	122.636	0	-90	250	87	2019.12.11 to 2019.12.29

GPR-03	951589.01	386330.61	63.505	0	-90	250	95	2019.11.18 to 2020.01.06
GP 1-4	951536.01	386348.97	64.377	0	-90	100	93	2019.12.09 to 2019.12.21
GP 1-5	951100.29	385971.03	32.306	0	-90	80	94	2019.11.29 to 2019.12.04
GP 1-6	950979.66	385847.33	30.125	0	-90	55	93	2019.12.05 to 2019.12.07
GP 2-9	950784.54	385780.47	21.281	0	-90	45	97	2019.12.08 to 2019.12.16
GP2-1	951290.994	386057.286	40.061	0	-90	40	94	2020.01.28 to 2020.01.29
GP2-2	951404.604	385934.645	24.619	0	-90	45	98	2020.01.26 to 2020.01.27
GP2-3	951170.61	386184.559	43.435	0	-90	75	93	2020.01.20 to 2020.01.22
GP2-4	950966.644	386155.134	28.317	0	-90	40	98	2020.01.24 to 2020.01.25
GP2-5	950822.344	386163.65	22.837	0	-90	40	93	2020.01.22 to 2020.01.25
GP2-6	950834.351	386280.672	28.649	0	-90	45	93	2020.01.29 to 202.01.31
GP2-7	950970.62	386305.58	25.187	0	-90	40	96	2020.01.27 to 2020.01.28
GP2-8	951165.203	386314.076	25.249	0	-90	40	89	2020.01.26 to 2020.01.27
GP2-10	950781.704	386012.451	22.601	0	-90	35	93	2020.01.26 to 2020.01.27
GP2-11	951335.427	386467.272	19.048	0	-90	35	96	2020.02.01 to 2020.02.01
GP2-12	951515.446	386508.531	19.074	0	-90	35	89	2020.02.01 to 2020.02.01
GP3-1	951205.604	386498.942	21.97	0	-90	35	94	2020.01.30 to 2020.01.31
GP3-2	951428.765	386180.235	54.767	0	-90	47	96	2020.01.23 to 2020.01.24
GP3-3	951589.01	386330.61	63.505	0	-90	35	93	2020.02.04 to 2020.02.05
						1,832m	93.5%	

In addition to the latest drilling, data from some previous drill holes are included in the database used to estimate the resource. These are tabulated in Table 8 below.

DHID	PTM_N	PTM_E	ELEV	AZI	DIP	EOH	Drilling Date
ARS DH4	951505.139	385910.872	105.35	0	-90	79	2014.02.15 to 2014.03.23
ARS DH5	951360.505	385890.295	85.84	0	-90	65	2014.03.27 to 2014.04.20
ARS DH6	951430.256	386106.165	87.85	0	-90	68	2014.04.23 to 2014.05.09
ARS DH7	951564.595	386021.945	94.86	0	-90	75	2014.05.12 to 2014.05.28
ARS DH8	951280.8	386143.6	72.74	0	-90	53	2014.06.04 to 2014. 06.15
ARS DH9	951490.897	386040.652	89.78	0	-90	70	2014.06.23 to 2014. 07.07
DH1	951298.0958	386079.3661	42.95	0	-90	75.05	2011.11.17 to 2011.11.29
DH2	951412.8098	386014.5061	91.79	0	-90	85	2011.12.06 to 2011.12.15
DH3	951560.1	386292.2	61.28	0	-90	85	2011.12.27 to 2012.01.04
RTN DH11	951352.6557	386240.085	86.1	0	-90	82	2015.10.25 to 2015.11.01
RTN DH12	951407.5257	386276.465	101.19	0	-90	101	2015.11.06 to 2015.11.19
RTN DH13	951594.6557	386399.135	84	0	-90	84	2015.11.30 to 2015.12.06
RTN DH14	951590.3757	386150.865	130	0	-90	53	2015.12.11 to 2015.12.18

Table 8. List of previous drill holes completed prior to 2017 which were used in the present resource calculation. Intervals utilized in the calculation are the remaining intervals below the present Gotok limestone quarry topography.

Layout of the drill holes are arbitrarily placed to get the widest spatial coverage that would still meet the requirements of the PMRC in categorising the estimated resource. Distances between drill holes are not nearer than 50 to 100 meters apart.

10.4.1. Collar Survey

Location of the drill collars was surveyed by RTNMC survey team. The Survey team conducted the actual layout and survey of the drill collars to get the actual geographic coordinates and elevation. The survey team utilized Topcon GTS255 Total Station. The team also did the topographic survey of the area and produced the topographic map. No downhole survey is needed as all the holes are vertical. The coordinates of the drill holes are tabulated in Table 7 and plotted in Figure 18. Picture 3 and 4 shows drill hole collars of GEX-03 and GP3-2

Picture 3 Drill Hole Collar of GEX-03

Picture 4 Drill hole collars of GP3-2

10.4.2. Drill Core Logging

Prior to 2017, geologists from Cordillera Exploration Co., Inc. (CExCI) and Taganito Mining Corporation (TMC) relogged the old drill cores stored at the RTNMC core shed. The recent drill holes were logged by the geologist of the drilling contractor and data such as recovery and rock quality designation (RQD) were preserved in the log sheets. RTNMC most likely rechecked and validated the logs and they themselves sampled the drill cores. The data from the paper logs were transferred to a spreadsheet. The recent logging procedures have vastly improved the preservation of pertinent information including noting down core recoveries, RQDs, identification of cavities, core losses, among others compared to the logging done in the previous drilling program reported in the 2017 Comprehensive Technical Report. Picture 5 and 6 shows core of DDH GEX-01 after logging and sampling.

Picture 5 Core of DDH GEX-01 Box 1 to 12 after Logging and Sampling

Picture 6 Core of DDH GEX-01 Box 13 to 21 after Logging and Sampling

A compilation of the preliminary core logs, drilling performance and core photographs are contained in two reports by Nablo (2020a; 2020b) of JCP Geo-Ex Services (APPENDIX G). All drill hole cores are stored in the core storage facility of RTNMC at its mine site in Barangay Rito Tuba, Bataraza, Palawan as shown in photographs 7 and 8

Picture 7 RTNMC Core Storage Facility

Picture 8 Gotok Limestone Core at RTNMC Core Storage Facility

10.4.3. Drill Core Sampling

Sampling of drill cores used half-core cut along the long axis of the core at 1-meter intervals. The half-core cuts are then bagged in plastic sample bags and tagged with their respective sample ID. Samples from the same drill hole are then placed in a sack tagged with its respective Hole ID. The tagged sacks are then transported via an RTN-owned vehicle to the RTN assay laboratory for sample preparation and analysis. A sample accountability form is submitted along the bagged samples during delivery from drill site to assay laboratory.

10.4.4. Sample Preparation and Analysis

The analytical procedure for the determination of $CaCO_3$, MgO and SiO_2 from the drilling is by XRF method. CaO is determined by stoichiometric calculations. Sample from the limestone drilling program are handled according to the flow chart in Fig. 19. Illustrated below is the laboratory procedure from the sample preparation, analysis, storage and disposal.

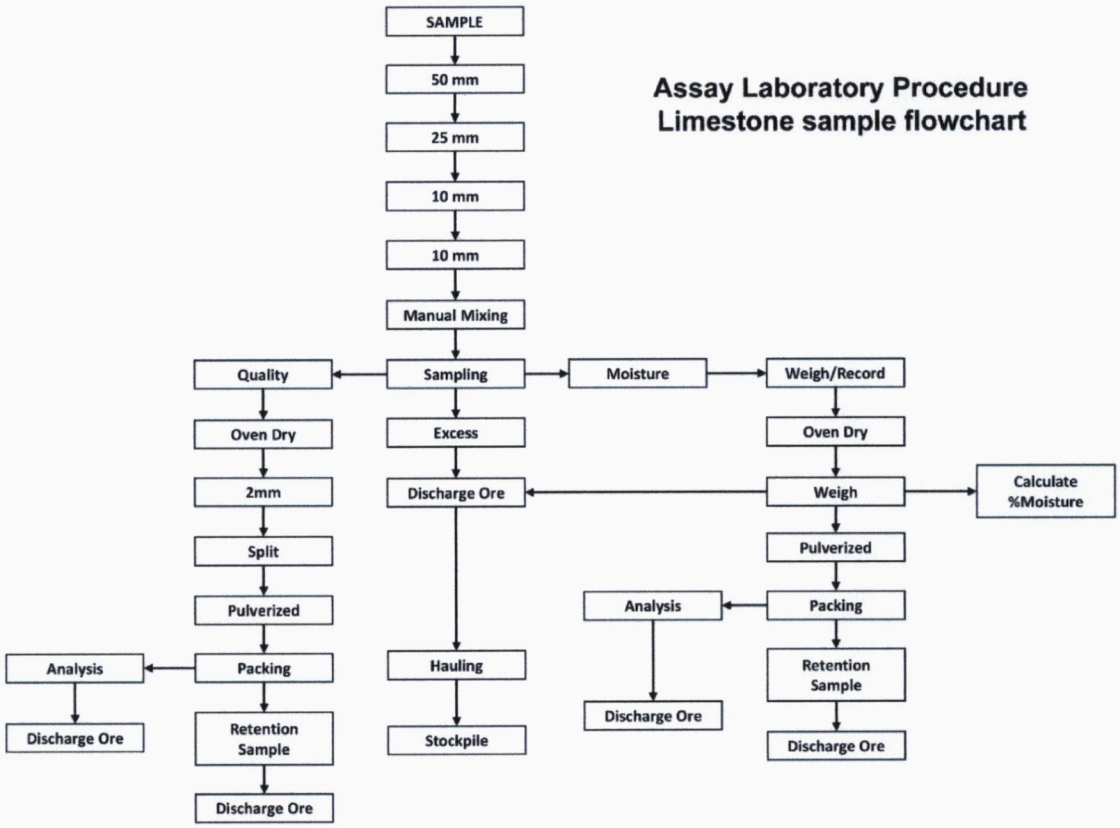


Figure 19. Assay laboratory flowchart for received limestone samples.

Tabulated below in Table 9 and illustrated in Fig. 20 are the sample preparation procedures and analysis employed.

Table 9 Sample Preparation Procedures

Drilling	
Sample	Plastic bag
Crushing	by roll crusher -25 mm, over 100 mm boulder is passed into Jaw crusher -50 mm by roll crusher -10mm
Mixing	manually, 3 times
Reduction	about 2.0 kg
Drying	at 105°C +/- 5° C by electric oven for 12 hours (NO Moisture)
Grinding	by sample grinder (-2 mm)
Reduction	by riffle divider JIS #10 (3 times or until 100 g left)
Grinding	by top grinder (-100 mesh)
Packing	4" x 6" plastic bag
Mixing	manually by shaking the plastic bag vigorously
Analysis	CaO, SiO_2, MgO
Instrument	XRF

10.4.5. Sample QC & QA

RTNMC did not implement any field Quality Assurance Quality Control (QAQC) protocols such as the insertion of field duplicates and certified reference materials on the drill core samples submitted to the Assay Laboratory. It relied mainly on the laboratory QAQC implemented which does repeat and standards analyses at regular intervals.

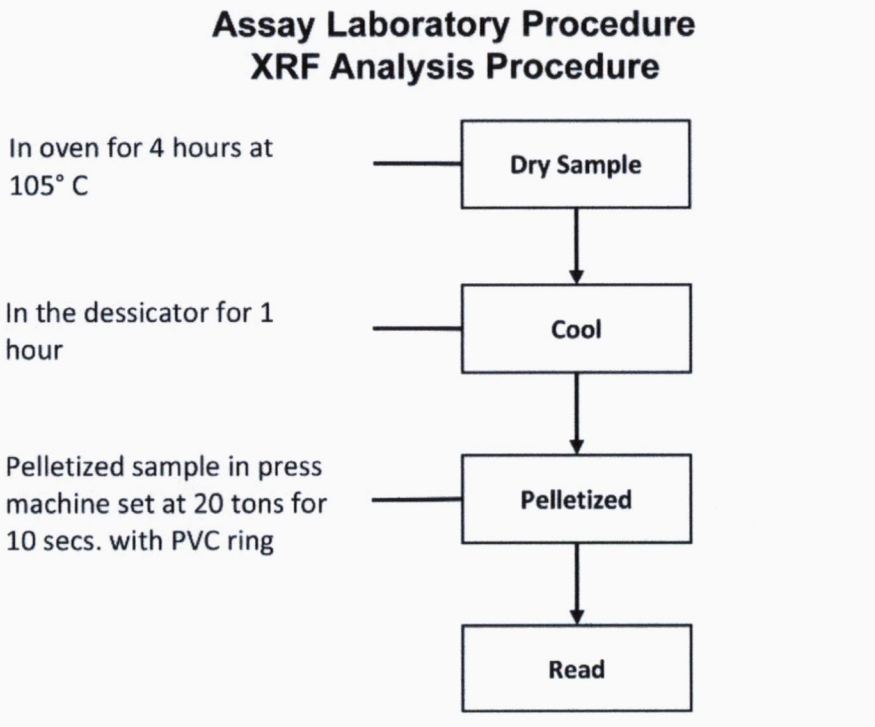


Figure 20. XRF Analysis procedure.

10.4.6. Result of Analysis

Results of the chemical analysis from the drill core samples has been described fully in Section 10.3. The complete Gotok database was considered in the estimation of the resource. Holes GPR-01, GPR-02 and GPR-03 are geology holes and were not utilized in the resource estimation.

10.4.7. Density Measurement

An in-situ bulk density measurement was carried out by RTNMC. The procedures and computation for the in-situ bulk density measurement are described in detail in a report entitled, "Gotok Limestone Bulk Density Experiment using Weighbridge Data – Result." A copy of the report is attached as APPENDIX H. The resulting in situ bulk density is **2.38 WMT/bcm.**

11. MINERAL RESOURCE ESTIMATE

11.1. Historical Resource Estimate

The previous mineral resource estimate reported for the Gotok Limestone Project confined within MPSA-213-2005-IVB is presented below.

Resource Categories	Within ECC		Outside ECC Within MPSA	
	Tonnages	Grade	Tonnages	Grade
Measured	1,293,095	95.55	-	-
	5,156,839	93.10	-	-
Indicated	-	-	511,937.50	95.47
	-	-	210,682.50	94.37
Total			722,620	95.15

Table 10. 2017 Mineral Resources at Gotok MPSA-213-2005-IVB.

	Within ECC		Outside ECC Within MPSA	
Inferred	4,821,553	73.54	Under Process	Under Process

Table 11. 2017 Inferred Resources at Gotok MPSA-213-2005-IVB.

11.2. Database Used

The accuracy of the resource estimates can only be as accurate as the data that have been supplied to the CP from which the estimates reported here were based on. Unlike the assumed value for bulk density used in 2017, RTNMC have made a proper determination used in the resource estimate reported here.

The drill holes utilized in the resource estimation are listed in Tables 7 and 8 except for 3 holes prefixed with GPR- which were primarily geology holes that tested the continuity of the limestone body at depth, past elevation zero meters above mean sea level.

11.3. Integrity of Data

The collection, compilation and handling of data was of industry standard.

11.4. Data Validation and Verification

Drill hole database used was validated and verified on Mapinfo/Discover drillhole module. There was gap in the sampling interval which was attributed to lost core during drilling activity. Encoded result of analysis was verified from the hard copy of result of analysis. Random check on sampling interval was undertaken on core in the core storage house and from core photographs. Drill hole log was verified on the core at the core storage and from drill core photographs.

11.5. Average Grade and Cut-off

The average grade of $CaCO_3$ on the core samples from diamond drilling is at 87.23% $CaCO_3$ with a median value of 94.86% $CaCO_3$. As shown in figure 13 there were only a few samples with less than 80% $CaCO_3$. Samples with low $CaCO_3$ are Mud, Calcareous Mud, Marl and Calcareaous Marl samples and can be eliminated during actual mining. With the high $CaCO_3$ content of the limestone body no cut-off grade was used in the resource calculation.

11.6. Mineral Resource Estimation (Methodology)

Conventionally, the mineral resource is estimated by drawing the drill holes in sections and compositing assay values based on grade or lithology over a certain interval. In this case, no compositing was done as the estimation was based on the 1m sampling interval projected over the area of influence of the drill hole obtaining a volume of a certain grade. The area is influenced by the draped topography especially near the surface. The tonnage is estimated by multiplying the volume by a resource tonnage factor that includes in situ bulk density and core recovery which takes into account the cavities, voids and spaces developed in limestone bodies. This more or less is a classical polygon method. The area of influence of a drill hole is defined instead by a voronoi polygon as the drill holes serving as data points are not regularly spaced.

The estimation of the resources was done by RTNMC under the supervision of the CP using the following parameters and assumptions and the categories as described by the PMRC (2007):

- The computation of the limestone resource is confined within MPSA-213-2005-IVB to include the remaining resources within the ECC area of the Gotok quarry operation at the end of 2019;

- The estimation of the limestone resource used the conventional polygon method where the midpoint between nearby surrounding drill holes are interconnected to create a voronoi polygon which correspond to an area of influence;
- The size of the limestone blocks used in the estimation are 100m x 100m whose area of influence is $\leq$ 10,000 m^2 and are categorized as measured resources. The Measured mineral resource is when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt that the tonnage and grade of the mineralization can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit (PMRC, 2007). Geologic mapping of the area exhibit continuity of the deposit between drill holes with a very high confidence level.
- Limestone blocks in the indicated category was estimated using 200m x 200m block size or an area of influence >10,000 m2 to $\leq$40,000 m2. The Indicated category is when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralization (PMRC, 2007).
- Inferred resources include limestone blocks greater than 200m x 200m block size or any area of influence greater than 40,000 m2. The Inferred category is where a mineral concentration or occurrence has been identified and limited measurements and sampling completed, but where the data quantity and quality are insufficient to allow the geological and/or grade continuity to be confidently interpreted (PMRC, 2007).
- Volume is corrected using geologic log data that quantify core recovery and RQD which diminishes volume due to cavities and/or voids from 0 elevation up to the existing topography;
- The bulk density utilized is 2.38 WMT/m^3 based on the study done by RTNMC;
- No cut off grades were used in the estimation done by RTNMC;

11.7. Mineral Resource Estimate

The resource comprises all limestone material within the MPSA area. The resource is classified as measured, indicated and inferred resource following the PMRC standard as discussed in the previous section.

Resource calculation from the generated blocks shows a total resource of 24.3 **Million Metric Tons with an average grade of 94.49 %** $CaCO_3$ of the measured and inferred category. The estimated limestone resource is summarized in the table below whose tonnage has been rounded off to the nearest 1,000 tons.

Table 12. Gotok Limestone Mineral Resource

Resource Categories	Volume (m^3)	Tonnage (WMT)	Grade (%CaCO3)
Measured	4,087,789	9,729,000.00	94.45
Indicated	6,133,390	14,597,000.00	94.51
Total	**10,221,179**	**24,326,000.00**	**94.49**
Inferred	5,215,260	12,413,000.00	94.31

The actual steps in the estimation of the resource is detailed in APPENDIX J. The resource classification utilized by RTNMC is a function of drilling density where the area of influence over an area is controlled by the distance between two adjacent drill holes.

Limestone resources estimated in the MPSA area have an average grade that is at or above the required grade requirements of the end-users, UMPI and CBNC in terms of $CaCO^3$. The silica and magnesia content of the raw materials should be monitored to ensure they all pass the specifications required by the end-users.

12. INTERPRETATIONS AND CONCLUSIONS

RTNMC completed a drilling program that sought to delineate and estimate the limestone resources within its MPSA-213-2005-IVB. Unlike the previous drilling conducted in Gotok, vast improvements on logging procedures and drilling were instituted that allowed for better observation and preservation of data. Large-diameter holes were drilled which greatly improved core recoveries and larger surface area to observe geologic features such as lithologies, compositions (such as included fragments, matrix, etc.) and structures (such as recovery, RQD).

In situ bulk density measurement was conducted to establish a field determined bulk density value for the limestone, instead of an assumed value as reported previously.

Although the drilling program was contracted to a third party, RTNMC staff were on hand to monitor progress and procedures in core drilling, handling and sampling.

Sampling, sample preparation and chain of custody procedures instituted for the handling of the drill core samples are deemed adequate and replicable. However, there is a need to strengthen the field QAQC procedures to check on laboratory performance.

Based on the parameters presented in the previous section, RTNMC is reporting the following resource estimation of the limestones within its MPSA-213-2005-IVB.

Resource Categories	Volume (m^3)	Tonnage (WMT)	Grade (%$CaCO_3$)
Measured	4,087,789	9,729,000.00	94.45
Indicated	6,133,390	14,597,000.00	94.51
Total	**10,221,179**	**24,326,000.00**	**94.49**
Inferred	5,215,260	12,413,000.00	94.31

The authors consider the resource estimation in this report as being more realistic considering that the bulk density is based on actual measurements done in the field.

Similarly, combined examination of the geochemical composition of the samples with the geologic logs would suggest that lithology has a direct correlation with the $CaCO_3$ content. The overall objective of the work done is to provide the basis for the estimation of the limestone resource contained within MPSA--213-2005-IVB including the remaining resources at the Gotok quarry confined within ECC-0201-021-313. The authors deem the objective has been attained and adequately reported in this document.

13. RECOMMENDATIONS

There is a need to further strengthen the QAQC protocols implemented in the assaying of the core samples or any samples for that matter. Some field QAQC should be implemented in the form of inserting field duplicates, blanks and certified reference materials at certain intervals in the sample stream to check laboratory performance in terms of sample preparation and analysis. This is aside from the established laboratory checks currently being implemented.

Inferred resources should be upgraded to Indicated resource category and eventually to Measured resource category through progressive infill drilling and sampling.

Continuous sampling on working face and compare with the modeled limestone grade distribution to fully understand actual grade variations with respect to changes in the physical properties of the limestone mined from the site. This will give a better constraint on grade and limestone property and type distribution and correlation.

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GOTOK LIMESTONE QUARRY EXPANSION PROJECT
Pre-Scoping Survey Report

1.0 INTRODUCTION

The proposed Expansion Project of RTNMC intends to increase the project coverage of the Gotok Limestone Quarry from the initially approved 13-hectare area to 84.5 hectares, which technically covers the entire MPSA (No.213-2005-IVB) of RTNMC, and amend the annual production capacity from 725,000 WMT to 420,000 WMT. The proposed downgrade in the total annual production capacity is consistent with the projected mine life cited in Feasibility Study for the Gotok Limestone Quarry operations duly received by the Mines and Geosciences Bureau (MGB). The Environmental Compliance Certificate (ECC-CO-1801-001) was granted to RTNMC in June 13, 2019 covering the following components:

- Quarry site within 13-hectare area, quarry stockpile area, topsoil stockpile area, silt collector sumps and access roads;
- Crushing Plant Operation – 250 TPH crushing plant, crushed limestone shed, crusher feed area, crushed limestone stockpile area, access road, and water settling/recycling ponds;
- Haul road – 6.80 km road connecting the quarry and crushing plant areas; and
- Magazine area – 0.5 ha located with MPSA 114-98-IV.

In compliance with DAO 2017-15 or the *Guidelines on Public Participation Under the Philippine Environmental Impact Statement (EIS) System,* Gaia South prepared this Pre-Scoping Report to determine the level of awareness of the local stakeholders about the proposed expansion project. Furthermore, this pre-scoping activity was conducted to guide RTNMC in its on-going and future information campaign in relation to the project.

Specifically, the Pre-Scoping Survey was accomplished in line with the following objectives:

1. To validate impact community's level of awareness about the proposed Gotok Limestone Quarry Expansion Project;
2. To determine the aspirations and perception of the impact communities towards the proposed project;
3. To evaluate the general performance of RTNMC in terms of conducting the IEC particularly for the proposed project;
4. To recommend directions for improvement and future community information drive for proposed Project; and
5. To encourage community participation in all stages of the ECC application process for the proposed Project.

2.0 METHODOLOGY

The field activities were conducted between June 25-27, 2022.

A household perception survey was conducted which includes the interview of the head of the household using a survey tool that defines their basic profile, what they know about RTNMC's Gotok Limestone operation, their perception about the possible impacts of the proposed expansion project, community awareness on the social programs of RTNMC, and validation of the sources of information about the proposed project.

The Pre-Scoping Survey covered the three (3) impact barangays of Iwahig, Sandoval, and Rio Tuba. Attached as **Annex 1** is the Pre-Scoping Survey questionnaire.

Using Slovin's formula, a total of 98 (at 90% level of confidence) interviewees were surveyed: Iwahig with 11, Sandoval with 8, and Rio Tuba 79 samples. During the time of survey, Bataraza is still classified under Covid-19 Alert Level II, which further limits access to the community. To further safeguard the team and enumerators from possible Covid-19 exposure, the number of samples was computed at 10% margin of error (MOE) using the total household population based on the 2020 Population Data available at the Philippine Statistics Authority (PSA) website. The interviewees were selected randomly (e.g. every other house within the community). As much as possible, no same interviewee within the same family was surveyed to get varied responses.

Prior to the actual survey, an Enumerator's Training was conducted on June 25, 2021 from 8:00pm to 10:00am at the RTNMC ComRel Training/Conference Room. The training was led by Ms. Liezyl S. Liton-Relleta, Project Director along with Engr. Danica dela Rosa, Senior Technical Consultant of Gaia South. It was attended by 17 selected enumerators from the impact barangay. During the event, the objectives of the survey and content of the Pre-Scoping Survey questionnaire were discussed. Proper collection, quality control, and validation of responses to the questionnaire were done on June 26-27, 2022.

Plate 1. The Enumerators' Training was conducted in June 25, 2022 at the RTNMC ComRel Training/Conference Room

3.0 RESULT OF THE PRE-SCOPING SURVEY

Respondent's position in the family

Out of the ninety-eight (98) respondents, in the three (3) impact barangays, there were fifty-five (55) or 56.12% who were mothers while forty-two (42) or 42.86% were fathers as shown in **Table 1**. There was only one (1) respondent who was identified to be the son and another one (1) a daughter in the family. On a barangay basis, 90.91% of the respondents in Iwahig acknowledged themselves as fathers. On the other hand, majority of the respondents from Sandoval (62.50%) and Rio Tuba (62.03%) were the mothers in the family.

Table 1. Respondents' position in the family

Position in the Family	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Father	10	90.91	2	25.00	29	36.71	**42**	**42.86**
Mother	1	9.09	5	62.50	49	62.03	**55**	**56.12**
Son	0	0	0	0	1	1.27	**1**	**1.02**
Daughter	0	0	1	12.50	0	0	**1**	**1.02**
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Awareness of RTNMC as a private company existing in their area

It can be seen from **Table 2** that there was a unanimous response from all the respondents on their awareness of RTNMC's existence as a private company operating in their area.

Table 2. Awareness of RTNMC as a private company existing in their area

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Yes	11	100.00	8	100.00	79	100.00	**98**	**100.00**
No	0	0	0	0	0	0	**0**	**0**
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Knowledge of activities or projects implemented by RTNMC in their barangay

There were ninety-six (96) or 97.96% of the total respondents in the three (3) impact barangays who stated that they are familiar with activities undertaken or projects implemented by RTNMC in their barangay as can be gleaned from **Table 3**. There were only two (2) respondents from Rio Tuba who responded in the negative.

Table 3. Whether respondents are knowledgeable of activities or projects implemented by RTNMC in their barangay

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Yes	11	100.00	8	100.00	77	97.47	**96**	**97.96**
No	0	0	0	0	2	2.53	**2**	**2.04**
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Activities undertaken and projects implemented by RTNMC

To those who expressed awareness of the activities or projects being implemented by RTNMC in their barangay, a number of responses was given as shown in **Table 4**. Foremost of this is the awarding of scholarship grants to deserving students (25.09%), followed by the provision of livelihood opportunities such as the banana plantation that was started years ago (21.60%) and support to medical needs (14.29%) of the residents in the community. The other activities/projects cited were provision of lighting tools, water supply, solar dryer, repair of barangay halls, solar projects, implementation of social development projects that covered the concerns on livelihood (agriculture and fisheries assistance, tailoring, establishment of banana plantation, etc.), education, public utilities and services, housing programs and facilitation in the conduct of vaccines for protection against COVID, to name some. There were two (2) respondents from Iwahig who mentioned about the construction of the Bahay Tarukan by the RTNMC. The Bahay Tarukan is a place where cultural literacy is conducted for the Palaw'an tribe as well as a place for them to gather for cultural activities.

Table 4. Activities undertaken and projects implemented by RTNMC

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Provision of lighting tools	4	7.84	0	0	0	0	**4**	**1.39**
Provision of water in their faucets	4	7.84	0	0	9	4.33	**13**	**4.53**
Solar projects	4	7.84	2	7.14	0	0.00	**6**	**2.09**
Scholarship	7	13.73	7	25.00	58	27.88	**72**	**25.09**
Construction of Bahay Tarukan	2	3.92	0	0	0	0	**2**	**0.70**
Solar dryer	4	7.84	2	7.14	0	0	**6**	**2.09**
Livelihood (banana plantation, etc.)	11	21.57	10	35.71	41	19.71	**62**	**21.60**
Repair of Barangay Hall	1	1.96	0	0	0	0	**1**	**0.35**
Gym construction	3	5.88	0	0	0	0	**3**	**1.05**
Hand tractor provision	4	7.84	0	0	0	0	**4**	**1.39**
Farm animal dispersal (carabao at cow)	3	5.88	0	0	0	0	**3**	**1.05**
Medical assistance	1	1.96	1	3.57	39	18.75	**41**	**14.29**
Tailoring/sewing projects	2	3.92	0	0	0	0	**2**	**0.70**
Assistance to fishermen	0	0	0	0	0	0	**0**	**0.00**
School construction	1	1.96	1	3.57	0	0	**2**	**0.70**
Provision of agricultural inputs	0	0	4	14.29	1	0.48	**5**	**1.74**
Free hospitalization	0	0	1	3.57	2	0.96	**3**	**1.05**
Social Development and Management Programs	0	0	0	0	16	7.69	**16**	**5.57**
ALS Program	0	0	0	0	1	0.48	**1**	**0.35**
Covid-19 vaccine	0	0	0	0	1	0.48	**1**	**0.35**
Road project	0	0	0	0	13	6.25	**13**	**4.53**
Pabahay Program	0	0	0	0	4	1.92	**4**	**1.39**
Provision of jobs/employment	0	0	0	0	2	0.96	**2**	**0.70**
BHW incentives	0	0	0	0	1	0.48	**1**	**0.35**
Burial assistance	0	0	0	0	8	3.85	**8**	**2.79**
Free electricity	0	0	0	0	2	0.96	**2**	**0.70**
Conduct of IEC activities	0	0	0	0	1	0.48	**1**	**0.35**

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Gift-giving	0	0	0	0	1	0.48	**1**	**0.35**
TESDA Assistance	0	0	0	0	3	1.44	**3**	**1.05**
Community Project and Assistance	0	0	0	0	4	1.92	**4**	**1.39**
Support to sports activities	0	0	0	0	1	0.48	**1**	**0.35**
Total	**51**	**100.00**	**28**	**100.00**	**208**	**100.00**	**287**	**100.00**

Particular knowledge about the proposed Gotok Limestone Quarry Expansion Project

It is worthy to note that there were five (5) or 45.45% of the respondents from Iwahig who mentioned that they were aware that the proposed project covers a large area but only one (1) from Rio Tuba stated the same response. There was no one from Sandoval who knew about the extent of the proposed project's area coverage. The other less mentioned knowledge about the proposed project includes limestone mining and about mining in general. The interviewees likewise said that the provision of appropriate compensation to those who will be displaced or affected will be given and opening up of Mt. Bulanjao to various activities will be pursued. Furthermore, it was specified that more livelihood opportunities will be provided while limestone mining will be carried out from barangays Sandoval to Rio Tuba. It was averred that the extracted limestone will be marketed to Japan and widening of roads as well as more developmental activities will happen in the area **Table 5**.

However, it must be considered that the aforementioned responses were forwarded by only about 25% of the people interviewed and 75% had no idea about the proposed limestone quarry expansion project.

Table 5. Particular knowledge about the proposed Gotok Limestone Quarry Expansion Project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Project covers a large area	5	45.45	0	0	1	1.27	**6**	**6.12**
The project will push through no matter what	1	9.09	0	0	0	0	**1**	**1.02**
Knowledge about the project is limited	2	18.18	0	0	0	0	**2**	**2.04**
About limestone quarrying	0	0	0	0	1	1.27	**1**	**1.02**
About mining	0	0	0	0	4	5.06	**4**	**4.08**
Appropriate compensation to land owners who will be displaced	0	0	0	0	1	1.27	**1**	**1.02**
Project expansion	0	0	0	0	1	1.27	**1**	**1.02**
Soda plant	0	0	0	0	1	1.27	**1**	**1.02**
Opening up of activities in Mt. Bulanjao	0	0	0	0	1	1.27	**1**	**1.02**
Additional income/livelihood	0	0	0	0	1	1.27	**1**	**1.02**
Mining of limestone from Sandoval to Rio Tuba	0	0	0	0	2	2.53	**2**	**2.04**

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Extraction of limestone extraction to be marketed in Japan	0	0	0	0	1	1.27	**1**	**1.02**
Road widening	0	0	0	0	1	1.27	**1**	**1.02**
Many development activities in the area	0	0.	0	0	1	1.27	**1**	**1.02**
No idea	3	27.27	8	100.00	63	79.75	**74**	**75.51**
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Sources of information about the proposed project

It can be gleaned from **Table 6** that majority, (77.78%) of the respondents from Sandoval and 16.46% from Rio Tuba got their information about the proposed project from the ComRel of RTNMC. However, no one from Iwahig mentioned obtaining any information from the RTNMC ComRel. Another source of information of the respondents from Sandoval (11.11%) and Rio Tuba (20.25%) was from friends who work in industries and establishments near RTNMC. Again, this specific source of information was not stated by respondents from Iwahig. Barangay officials (10.10%) and municipal officials (3.03%) were also mentioned to disseminate information to the community regarding the proposed project. There was no respondent from Iwahig who declared these local government officials as information sources.

The radio, local newspaper and IEC materials/pamphlets of RTNMC were pointed out as ways by which 14.14% of the interviewees were able to gain understanding about the proposed project. The friends and neighbors of the respondents (18.18%) also played a big role in disseminating information. The other propagator of information considered by the respondents were the former workers of RTNMC (2.20%) and tribal chieftains (2.02%). There were twelve (12) or 12.12% of the respondents who had no idea or did not provide a response.

On the other hand, with reference to **Table 5,** all respondents from Sandoval mentioned that they are not aware about the proposed project yet provided feedback as to where they got the information. Based on the team's re-validation with the enumerator, the respondents may have referred to their source of knowledge about the general operation of the Gotok Limestone Quarry of RTNMC and projects/programs being done by the Company in their area.

Table 6. Source of information about the proposed project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
ComRel of RTNMC	0	0	7	77.78	13	16.46	**20**	**20.20**
Friends who work in nearby industries/establishments	0	0	1	11.11	16	20.25	**17**	**17.17**
Barangay Officials	0	0	1	11.11	9	11.39	**10**	**10.10**
Municipal Officials	0	0	0	0	3	3.80	**3**	**3.03**
Radio, local newspaper. IEC materials/pamphlets ng RTNMC	1	9.09	0	0	13	16.46	**14**	**14.14**
Neighbors and friends	2	18.18	0	0	16	20.25	**18**	**18.18**
Former workers of RTNMC	2	18.18	0	0	0	0	**2**	**2.02**
Tribal Chieftain	3	27.27	0	0	0	0	**3**	**3.03**
No idea	3	27.27	0	0	9	11.39	**12**	**12.12**
Total	**11**	**100.00**	**9**	**100.00**	**79**	**100.00**	**99**	**100.00**

Reasons for non-awareness of the proposed RNTMC Gotok Limestone Quarry Expansion Project

For the respondents who stated that they were not aware of the proposed RTNMC Gotok Limestone Quarry Expansion Project, a list of reasons was provided. Majority (35 or 52.24%) of the respondents from Rio Tuba declared that no one has said anything to them about the proposed project. This reason was not stated by the respondents from Iwahig and Sandoval. Another reason given by 18 or 26.87% of the respondents from Rio Tuba and none from Iwahig and Sandoval, was that the barangay officials do not provide them with any backgrounder about the proposed project. There were nine (9) or 13.43% who averred that they have no knowledge of whom to approach to get information about the proposed project. Being newly transferred to the area and not aware of anything about the community (1.49%), always out of the house (2.99%) and not working with RTNMC (2.99%) were also the other reasons for the respondents' ignorance about the proposed project (**Table 7**).

Table 7. Reasons for non-awareness of the proposed RTNMC Gotok Limestone Quarry Expansion Project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Newly transferred to the area	0	0	0	0	1	1.49	**1**	**1.49**
No one says anything about the project	0	0	0	0	35	52.24	**35**	**52.24**
Always out of the place of residence	0	0	0	0	2	2.99	**2**	**2.99**
Not aware of whom to approach regarding the proposed project	0	0	0	0	9	13.43	**9**	**13.43**
No information from barangay officials	0	0	0	0	18	26.87	**18**	**26.87**
Not working with RTNMC	0	0	0	0	2	2.99	**2**	**2.99**
Total	**0**	**0**	**0**	**0**	**67**	**100.00**	**67**	**100.00**

Willingness to participate in future meetings or activities initiated by RTNMC regarding the Gotok Limestone Quarry Expansion Project

The willingness to participate in future meetings or activities called for by RTNMC regarding the Gotok Limestone Quarry expansion project was expressed by 94.90% of the total respondents while five (5) or 5.10% did not. When the responses of respondents from each barangay were considered, there were ten (10) or 90.91%% from Iwahig, eight (8) or 100% from Sandoval and seventy-five (75) or 94.94% from Rio Tuba conveyed their interest to be involved in the said activities.

Table 8. Willingness to participate in future meetings or activities initiated by RTNMC regarding the Gotok Limestone Quarry Expansion Project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Yes	10	90.91	8	100.00	75	94.94	93	94.90
No	1	9.09	0	0	4	5.06	5	5.10
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Reasons for non-willingness to participate in future meetings or activities initiated by RTNMC regarding the Gotok Limestone Quarry Expansion Project

One of the reasons given by one (1) respondent from Iwahig for the non- willingness to be part of future meetings or activities with regard to the proposed project was the perceived inaccessibility to benefits that may potentially be generated. There was another respondent from Rio Tuba who deemed that there was no compliance to agreements made in the past on the appropriate compensation for those who were affected as a result of mining activities. Furthermore, there was a respondent from Rio Tuba who indicated that even if they participate in the said meetings and other activities, the company will still have the final say and not listen to their concerns or suggestions.

Table 9. Reasons for non-willingness to participate in future meetings or activities initiated by RTNMC regarding the Gotok Limestone Quarry Expansion Project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
No benefits derived	1	100.00	0	0	0	0.00	1	20.00
Non-compliance to the agreements on land compensation to those who were affected before	0	0	0	0	1	25.00	1	20.00
Even if they participate, the company still has the last say	0	0	0	0	1	25.00	1	20.00
No reason given	0	0	0	0	2	50.00	2	40.00
Total	**1**	**100.00**	**0**	**0**	**4**	**100.00**	**5**	**100.00**

Whether there are details about the proposed project that still needs to be clarified and understood

When asked if there are still other particulars about the project that still needs to be shared to them, there were fifty-one (51) or 52.05% of the respondents who expressed their positive response while 47.96% responded in the negative **Table 10**.

Table 10. Whether there are details about the proposed project that still needs to be clarified

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Yes	7	63.64	0	0	44	55.70	51	52.04
No	4	36.36	8	100.00	35	44.30	47	47.96
Total	**11**	**100.00**	**8**	**100.00**	**79**	**100.00**	**98**	**100.00**

Details about the proposed project that still need to be clarified

There were various items that the respondents enumerated with regard to the aspects and details of the proposed project that still needed to be explained by the company as shown in **Table 11**. Most notable of these was on the possible encouraging or positive impacts that the project will

bring about followed by the information on whether the project will essentially benefit the impact barangays or only those who will be hired by the company to work for the project. There was also a question on the purpose of the proposed project and whether the people from the affected areas will be given employment. Clarifications on the project's environmental impacts and the positive and negative repercussions were also presented for more elucidations. Concerns as to whether the proposed project will run smoothly without problems or complications was an aspect the interviewees wanted to be briefed about. The respondents desired to fully understand the processes and activities that may take place as well as the effects on public health. The uses of limestone and whether limestone reserves shall be depleted were likewise mentioned as attributes of the project to be discussed to them. The extent of the quarrying in terms of area was one of the items the respondents wanted to know aside from why there is a need for an expansion of the quarry site. The respondents wanted to know if there will be social development projects to be implemented in their barangays and whether there will be some provisions for the construction of roads especially in the inner sitios. Moreover, the respondents wanted to be enlightened on the company's stand on responsible mining in relation to the proposed limestone quarry expansion project.

Table 11. Details about the proposed project that still need to be elaborated on or clarified

Response*	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Positive impacts of the proposed project	0	0.00	0	0	19	24.05	**19**	**4.77**
Whether the project will benefit the affected barangay or only those who will be hired to work with the project	2	18.18	0	0	10	12.41	**12**	**2.96**
What is the purpose of the project	4	36.36	0	0	4	5.07	**8**	**2.01**
Whether people from the impact areas will be given employment	0	0	0	0	4	5.07	**4**	**1.00**
Impacts on the environment	0	0	0	0	3	3.80	**3**	**0.75**
Positive and negative impacts	0	0	0	0	2	2,53	**2**	**0.50**
To know whether the proposed project will be run smoothly without problems or complications	0	0	0	0	2	2.53	**2**	**0.50**
Effects on public health	0	0	0	0	2	2.53	**2**	**0.50**
To fully understand the proposed project	0	0	0	0	2	2.53	**2**	**0.50**
Know the uses of limestone	0	0	0	0	1	1.27	**1**	**0.25**
Will the limestone reserve be depleted?	0	0	0	0	1	1.27	**1**	**0.25**
To know why there is a need for expansion	0	0	0	0	1	1.27	**1**	**0.25**

Response*	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
To know whether there is a need to touch Mt Bulanjao	0	0	0	0	1	1.27	**1**	**0.25**
Area/size of quarry site	0	0	0	0	1	1.27	**1**	**0.25**
Negative impacts on adjoining land	0	0	0	0	1	1.27	**1**	**0.25**
Whether there will be social development projects	0	0	0	0	1	1.27	**1**	**0.25**
Whether roads shall be provided especially the sitios	0	0	0	0	1	1.27	**1**	**0.25**
Whether responsible mining will be adopted	0	0	0	0	1	1.27	**1**	**0.25**
No response	4	36.36	8	100	22	27.85	**34**	**8.54**
Total	**11**	**100.00**	**8**	**100**	**79**	**100.00**	**398**	**100.00**

*Note: *multiple responses*

Perceived positive impacts of the proposed RTNMC Gotok Limestone Quarry Expansion Project in the barangay, municipality

There were different impacts mentioned by the respondents which they thought would be beneficial or positive and these can be gleaned from **Table 12**. There were seventeen (17) or 18.25% who averred that there will be a continued implementation of the social development projects which were previously undertaken while 17.48% believed that there will be a continuous increase in the number of people or barangay residents who will gain employment from the company as a result of the project. There was 15. 68% of those surveyed who noted that there will be a sustained assistance of RTNMC in the implementation of environmental projects in the municipality and barangays. There was 10.68% of the respondents who foresaw an increase in local government revenue, while 10.03% projected that there will be a continuous protection and maintenance of the environment because of the monitoring efforts to be done by the government and the company. There was likewise 9.77% who predicted that more business shall flourish and 5.66% expected unification in the barangay. The other positive impacts anticipated were the increased land value, industrialization of the community and cleaner environment.

Table 12. Perceived positive impacts about the proposed project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Continued implementation of social development projects for the community such as infrastructures, health centers, training and livelihood	10	24.39	5	12.50	56	18.18	**71**	**18.25**
Continuous increase in the number of people who will be employed from the barangays	6	14.63	7	17.50	55	17.86	**68**	**17.48**
Continuous assistance of RTNMC in the environmental projects of the barangay/municipality	8	19.51	5	12.50	48	15.58	**61**	**15.68**

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Increased revenue of the barangay and municipality	6	14.63	2	5.00	33	10.71	**41**	**10.54**
There will be continued protection and maintenance of the environment due to the regular monitoring of water, air, etc.	5	12.20	8	20.00	26	8.44	**39**	**10.03**
Continuous increase in business opportunities	1	2.44	5	12.50	32	10.38	**38**	**9.77**
Barangay unity	0	0	3	7.50	19	6.17	**22**	**5.66**
Increased value of land	3	7.32	1	2.50	15	4.87	**19**	**4.88**
Industrialization of the community	2	4.88	1	2.50	14	4.55	**17**	**4.37**
No pollution of the environment	0	0.00	3	7.50	10	3.25	**13**	**3.34**
Total	**41**	**100.00**	**40**	**100.00**	**308**	**100.00**	**389**	**100.00**

Perceived negative impacts

Aside from the positive impacts, the respondents also mentioned some of the anticipated negative effects that might result because of the proposed project. These are shown in **Table 13**. More than one third (34.82%) felt that the proposed project might result to floods and erosion/landslides while 19.64% perceived that the project is dangerous, hazardous and might result to pollution and sickness in the community. The possibility of an increase in the number of migrants was stated by 14.29% of the respondents. Furthermore, the negative effect on livelihood and cultural practices/beliefs and lifestyle might be a possibility as stated by 8.93% of the interviewees. In addition, the occurrence of accidents as a result of mine explosions and road mishaps could be feasible according to 8.93% of those who were involved in the survey. A disturbance in the peace and order situation was not a far-fetched occurrence as pointed out by 7.14% of the respondents. The destruction of agricultural lands consequently decreasing farmer's income (5.36%) and increasing noise pollution (0.89%) were also some of the negative impacts forwarded by the interviewees.

Table 13. Perceived negative impacts about the proposed project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Might result to floods and erosion/landslides	10	90.01	0	0	29	28.71	**39**	**34.82**
Dangerous, hazardous, might result to pollution, poisoning of the environment and sickness in the community	0	0	0	0	22	21.78	**22**	**19.64**
Possible increase in migrants	0	0	0	0	16	15.84	**16**	**14.29**
Might negatively affect livelihood and culture	1	9.09	0	0	9	8.91	**10**	**8.93**
Potential accidents due to mine explosions and road accidents	0	0	0	0	10	9.90	**10**	**8.93**
Might affect the peace and order in the community	0	0	0	0	8	7.92	**8**	**7.14**

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Negative effect on income sources due to detrimental impact on agriculture	0	0	0	0	6	5.94	**6**	**5.36**
Noise pollution and environmental hazard	0	0	0	0	1	0.99	**1**	**0.89**
Total	**11**	**100.00**	**0**	**0**	**101**	**100.00**	**112**	**100.00**

Perception toward the proposed project

There was a majority of respondents in all barangays – Iwahig (72.73%), Sandoval (100%) and Rio Tuba (58.43%) – who opined that the proposed project will enormously bring benefits to the community and its residents. On the other hand, there was 29.63% who felt that the proposed project will slightly set off positive impacts or benefits to the community. There was 0.93% or one (1) respondent who averred that the project will not in any way affect the community. Conversely, there was 5.56% of the people surveyed who thought that the proposed project will cause insignificant damage to the community while one (1) or 0.93% believed that the project will extremely trigger off detrimental effects to the community and its residents. Comparing the overall positive and negative remarks, 92.59% of the respondents considered the proposed RTNMC limestone quarry expansion project to bring about benefits to the residents of the impact barangays while only 6.89% thought otherwise (**Table 14**).

Table 14. Perception toward the proposed project

Response	Barangay						Total	
	Iwahig	%	Sandoval	%	Rio Tuba	%	No.	%
Will immensely benefit the community and its residents	8	72.73	8	100	52	58.43	**68**	**62.96**
Will slightly benefit the community and its residents	3	27.27	0	0	29	32.58	**32**	**29.63**
Will not in any way affect the community	0	0.00	0	0	1	1.12	**1**	**0.93**
Will cause insignificant damage to the community and its residents	0	0.00	0	0	6	6.74	**6**	**5.56**
Will extremely cause detrimental effects on the community and its residents	0	0.00	0	0	1	1.12	**1**	**0.93**
Total	**11**	**100.00**	**8**	**100**	**89**	**100.00**	**108**	**100.00**

4.0 SUMMARY OF FINDINGS

1. Majority (56.12%) of respondents were mothers.

2. One hundred percent of respondents were aware of RTNMC as a private company existing in their area.

3. About 98% of the respondents was aware of the activities or projects implemented by RTNMC in their barangay.

4. Most of the projects or activities undertaken by RTNMC include the provision of scholarship grants, provision of livelihood opportunities and support to medical needs of the residents.

5. There was only 25% of the respondents who expressed having certain knowledge about the proposed project while 75% conveyed ignorance or having no idea.

6. The most mentioned sources of information about the proposed project were the ComRel of RTNMC, friends who work in nearby industries or establishments, radio, local newspaper, and IEC materials of RTNMC, friends and neighbors and tribal chieftains, and barangay and municipal officials. However, it seemed that barangays Iwahig and Sandoval had access to fewer sources of information compared to barangay Rio Tuba.

7. Majority (52.24%) of the respondents blamed their non-awareness about the project to not knowing anybody who had knowledge to say something about the project. Barangay officials were also accused of not sharing information especially to the respondents from Rio Tuba. Being new transferees to the area and always out of their residences were also reasons for the respondents' non-awareness.

8. Almost all (94.96%) of those interviewed were willing to participate in future meetings or activities called for by RTNMC with regard to the proposed project. The reasons given by those who were not willing include their past experiences on the inappropriate compensation given to affected residents and the belief that even if they participate, the company will still be in control and have the last say.

9. The particulars about the proposed project which the respondents wanted to be clarified on include the positive and negative impacts, purpose of the project, employment opportunities, whether the project will operate smoothly without complications/problems, effects on public health, uses of limestone and whether limestone reserves will be depleted, reasons for expansion, area and extent of quarry site, social development projects and adoption of responsible mining practices in relation to limestone quarrying.

10. The positive impacts expected by the respondents were the continued implementation of social development projects, generation of more jobs, more assistance from the company in the implementation of barangay and municipal environmental projects, increased local revenue, continued protection and maintenance of the environment due to monitoring activities and increased business opportunities.

11. The perceived negative impacts include the occurrence of floods, erosion and landslides, pollution, increase in migrants, negative impact on livelihood and culture, incidences of accidents and mine explosions, impact on the peace and order situation, destruction of agricultural lands and noise pollution.

12. Ninety-three percent (92.59%) of the respondents believed that the project will bring positive impacts or benefits to the community while only 6.89% deemed that the proposed project will cause destruction and negative consequences.

5.0 CONCLUSION ND RECOMMENDATIONS

The respondents are familiar with the existence of RTNMC in their area considering a one hundred percent (100%) positive response. The activities and projects which RTNMC has undertaken were also known to 97.96% of the respondents.

However, as far as the proposed project is concerned, only 25% of the interviewees mentioned being knowledgeable while 75%, which is considerably a big portion or three-fourth of the people surveyed, was not cognizant of what the project is about.

The Community Relations Officer of RTNMC played a considerable part in the dissemination of information about the proposed project but it seemed that the focus was given on barangay Rio Tuba and not much on the other impact barangays Iwahig and Sandoval. Neighbors and friends who work in nearby industries or establishments, as well as local government officials and tribal chieftains were also deemed by the respondents as disseminators of information.

Because nobody who is knowledgeable about the proposed project has discussed anything to them, majority of the respondents had no idea about the said project. Furthermore, they were not aware of whom to approach for information. In this regard, to some extent, the barangay officials, though mentioned by some respondents to be a source of information, may have been deficient in spreading to a greater number of their constituents the pieces of information they have regarding the proposed project.

Majority (94.90%) of the respondents were willing to be involved in meetings and other activities called for by RTNMC regarding the proposed project. Because of the little knowledge about the proposed project, the respondents, enumerated a considerable number of details about the project that needed to be clarified and explained to them.

Despite having only one-fourth of the interviewees having knowledge about the proposed project, there was 92.59% of them who still thought that the proposed project will bring positive impacts or benefits to the community while only 6.89% averred that detrimental impacts and damages will occur in the locality.

Given these findings, more information about the proposed project, especially the items forwarded by the respondents for clarification or elucidation should be widely shared and distributed to the three impact barangays and not only to a particular barangay. The disseminators of information as mentioned by the respondents should be tapped and provided with accurate information by RTNMC to ensure that what is communicated by them would be the precise and truthful information about the project. The chieftain or tribal leaders, though mentioned by only a couple of respondents, should be acknowledged as a powerful and convincing communicator of information especially to the members of his tribe.

The reasons mentioned for not being aware about the proposed project should also be taken into consideration as inputs in making decisions on what information tools and strategies should be adopted so that the necessary information will reach a wider audience. The local officials who

have a duty and obligation to inform their constituents on what is happening in their respective communities must also be considered in IEC campaigns. However, to ensure that accurate information is disseminated to these local officials, the ComRel should regularly coordinate with and provide them with the appropriate project description as well as data on any changes relative to the proposed project that may have occurred.

The willingness of the respondents to attend meetings or activities called for by RTNMC should be taken as an opportunity to explain and provide more information to increase community awareness and appreciation of the proposed project. It will also be a good venue to address the concerns and apprehensions of the community by imparting to them during these meetings the plans and mitigating measures for adoption by RTNMC in minimizing. if not eradicating, the potential negative impacts of the Gotok Limestone Quarry Expansion Project.

Annex 1 – Pre-Scoping Survey Questionnaire

Ang survey na ito ay isinasagawa ng isang third party consultancy firm, Gaia South, Inc. kung saan ang resulta ng pag-aaral ay patas, walang pinapanigan at base lamang sa masusi at siyentipikong pag-aaral. Ang lahat ng mga datos ay maayos na idodokumento at bibigyang-pansin. Ito ay naaayon sa DAO 2017-15 *(Guidelines on Public Participation Under the Philippine Environmental Impact (EIS) System).*

Ang panayam na ito ay patungkol sa kaalaman ng mga residente sa direct impact barangay sa operasyon ng Rio Tuba Nickel Mining Corporation ("RTNMC") at proyekto nitong *Gotok Limestone Quarry Expansion Project.*

Nilalayon ng panayam na ito ang mga sumusunod:

- **Malaman ang kaalaman ng mga tao hinggil sa kompanyang RTNMC;**
- **Upang maidokumento ang mga saloobin, opinyon at rekomendasyon ng mga indibidwal patungkol sa proyektong isasagawa ng RTNMC; at**
- **Upang malaman ang opinion ng mga tao sa maaaring idulot ng proyekto sa estado ng kapaligiran.**

Maraming salamat po.

Pre-Scoping Public Survey
Rio Tuba Nickel Mining Corporation
Gotok Limestone Quarry Expansion Project

GAIA SOUTH INC. Environmental Consultants	*Respondent Code:*		
Pangalan ng Iniinterbyu:			
Katayuan sa Pamilya ng Iniinterbyu:			
Petsa ng Interbyu (mm/dd):		Oras ng simula (hh:mm):	Oras na natapos (hh:mm):
Petsa na bumalik para sa interbyu (mm/dd):		Bilang ng pagbisita:	
Araw na natapos (mm/dd):			

MGA KATANUNGAN:

1. **Kilala nyo po ba ang Rio Tuba Nickel Mining Corporation ("RTNMC") bilang isang pribadong kompanya dito sa inyong lugar?**

   ☐ Oo ☐ Hindi

2. **Mayroon ba kayong alam na aktibidades o proyekto ng RTNMC sa inyong barangay?**

   ☐ Mayroon ☐ Wala

   Kung mayroon, ano o ano-ano ang mga ito?

   _____
   _____
   _____
   _____

3. **Partikular sa pinaplanong proyekto ng RTNMC na *Gotok Limestone Quarry Expansion Project*, ano o anu-ano ang nalalaman ninyo tungkol dito? (Hal. Kagaano kalaki ang sakop ng lugar ng proyekto, ano ang mga pasilidad na itatayo sa lugar, kalian sisimulan ang proyekto, etc.)**

   _____
   _____
   _____
   _____

3.1 Paano o kanino nalaman ang tungkol sa nabanggit na proyekto?

☐ Nalaman mula sa ComRel ng RTNMC

☐ Nalaman mula sa kakilala na nagtatrabaho sa katabing mga industriya/establishments

☐ Nalaman mula sa Barangay Officials

☐ Nalaman mula sa Municipal Officials

☐ Nalaman mula sa radio, local newspaper, IEC materials/ pamphlets ng RTNMC

☐ Nalaman mula sa kapitbahay/kaibigan

☐ Iba pa _____

3.2 Kung wala, anu-ano ang mga dahilan kung bakit hindi alam ang proyekto ng RTNMC na Gotok Limestone Quarry Expansion?

☐ Bagong lipat lamang sa lugar
☐ Walang nagsasabi tungkol sa proyekto
☐ Laging wala sa bahay
☐ Hindi kilala ang mga dapat kausapin hinggil sa proyekto ng RTNMC
☐ Walang impormasyon mula sa barangay officials
☐ Iba pa _____

4. Kayo po ba interesadong makilahok sa mga susunod na pagtitipon o aktibidades na isasagawa ng RTNMC hinggil sa kanilang proyekto na *Gotok Limestone Quarry Expansion* (hal. IEC, Public meetings)?

☐ Oo ☐ Hindi

4.1 Kung hindi, ano ang dahilan?

_____
_____
_____
_____

5. May mga detalye po ba sa pinaplanong proyekto ng RTNMC ang nais ninyong malinawan/ maliwanagan upang lubos na maintindihan ang gagawing proyekto ng RTNMC sa Gotok Limestone Quarry?

☐ Mayroon ☐ Wala

5.1 Kung mayroon, ano-ano ang mga ito?

_____
_____
_____
_____

6. Sa inyong palagay, ano-ano kaya ang magiging epekto ng pinaplanong *Gotok Limestone Quarry Expansion Project* sa inyong barangay, bayan?

6.1 (Positibo o Magandang Epekto)

- ☐ Patuloy na gaganda at maisasayos ang kapaligiran dahil sa regular na pagmonitor sa tubig, hangin atbp.
- ☐ walang polusyon sa kapaligiran
- ☐ patuloy na makatutulong ang RTNMC sa mga pangkapaligirang proyekto ng barangay/bayan
- ☐ patuloy na dadami ang trabaho para sa mga residente (*employment for some local residents*)
- ☐ patuloy na dadami ang negosyo (*increase in business/livelihood*)
- ☐ industrialisasyon ng komunidad (*industrialization of the community*)
- ☐ dadami ang buwis at kita ng barangay at bayan (*increase in tax collection and revenue of barangay/municipality*)
- ☐ tataas ang halaga ng lupa (*increase in land values*)
- ☐ patuloy na magkakaroon ng mga proyekto para sa komunidad: daan, imprastraktura; tulong sa mga paaralan at health centers; pagsasanay sa kabuhayan (*will have more community projects and assistance: roads, infrastructure; assistance to schools, health centers; livelihood development and training*)
- ☐ pagkakabuo-buo ng komunidad (*community solidarity*)
- ☐ iba pa (*others, specify*) _____

6.2 (Negatibo o Masamang Epekto)

- ☐ mapanganib; peligroso; baka magresulta sa polusyon; paglalason ng kapaligiran; magkasakit ang mga tao (*dangerous / too risky; might cause pollution; might poison the environment; might cause sickness*)
- ☐ negatibong maaapektuhan ang aking pinagkakakitaan / mababawasan ang aking kita/ masisira ang tanim (*will negatively affect my source of livelihood / less earnings / damage crops*)
- ☐ baka dumami ang mga tao at dayo sa aming mga barangay (*might bring in more people and settlers to our communities*)
- ☐ baka magresulta sa pagbaha at pagguho ng lupa (*might cause flooding / landslides*)
- ☐ baka maapektuhan ang pamumuhay at kultura (*might affect our way of life / culture*)
- ☐ baka magka-aksidente gaya ng mga pagsabog at aksidente sa daan (*might cause accidents like chemical explosion, traffic accidents, etc.*)
- ☐ baka magdulot ng panganib sa katahimikan (*peace and order*)
- ☐ iba pa *(others, specify)* _____

7. Sa inyong palagay, ang pinaplanong *Gotok Limestone Quarry Expansion Project* ay

- ☐ makakatulong ng malaki sa komunidad at sa mga residente nito *(will help a lot the community and local residents)*
- ☐ makakatulong ng bahagya *(will be able to help but not much)*
- ☐ walang maitulong para sa komunidad *(will not help the community at all)*
- ☐ makakasama nang bahagya sa komunidad *(will be slightly detrimental to the community)*
- ☐ makakasama nang malaki sa komunidad (*will be largely detrimental to the community*)

MARAMING SALAMAT PO!

Signature and Full Name of Interviewer: _____

Date: _____

Checked by:

Signature and Full Name of Evaluator: _____

Date: _____

RIO TUBA NICKEL

Information, Education and Communication Campaign

for the proposed

Proposed Expansion of the Gotok Limestone Quarry Project

Barangay Rio Tuba, Sandoval and Iwahig
Municipality of Bataraza
Province of Palawan
September 20, 21, and 28, 2021

RIO TUBA NICKEL

Mga Tatalakayin

- Impormasyon tungkol sa Proyekto
- Proseso ng Proyekto
- Kasalukuyang Operasyon
- Pinaplanong Operasyon
- Pinaplanong Expansion
- Mga Pasilidad
- Pagkontrol ng Polusyon at Dumi
- Rehabilitation Program
- Iba pang detalye
- Benepisyo ng Proyekto

RIO TUBA NICKEL

Impormasyon tungkol sa Proyekto

Pangalan ng Proyekto

Proposed Expansion of the Gotok Limestone Quarry Project

RIO TUBA NICKEL

Impormasyon tungkol sa Proyekto

- Ang Gotok Limestone Quarry ng RTNMC ay nag susuplay ng crushed limestone sa CBNC at GPI

- Ang proyekto ay may sariling Environmental Compliance Certificate (**ECC-CO-1801-0001**) na iginawad sa RTNMC noong ika-13 ng Hunyo 2019 na sumasaklaw sa operasyon ng 13-ha limestone quarry sa loob ng MPSA No. 213-2005-IVB at crushing plant

- Ginawaran din ito ng SEP Clearance (No. GLQ-052721-028) ng PCSD noong ika-27 ng Mayo taong 2021.

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Impormasyon tungkol sa Proyekto

Laki at lugar ng Proyekto

Ang MPSA ay may kabuuang lawak na **84.5 ha.** Base sa ECC at SEP Clearance, **13 ha** lamang ang kasalukuyang **quarry area** ng RTNMC. Ito ay matatagpuan sa **Barangay Iwahig** at **Sandoval.** Habang ang Crushing Plant ay matatagpuan sa **Barangay Rio Tuba, Bataraza, Palawan.**

Lokasyon ng Proyekto

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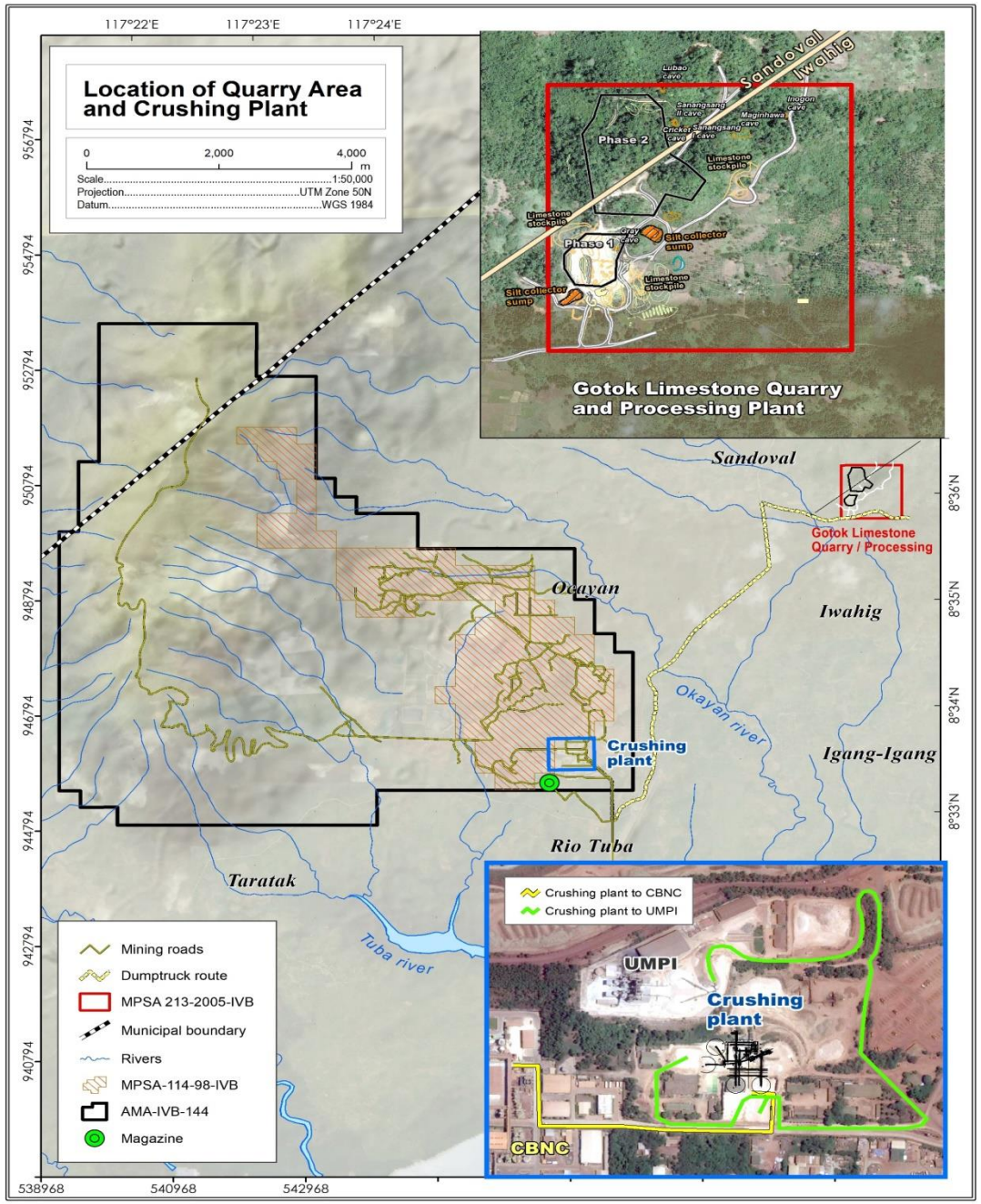

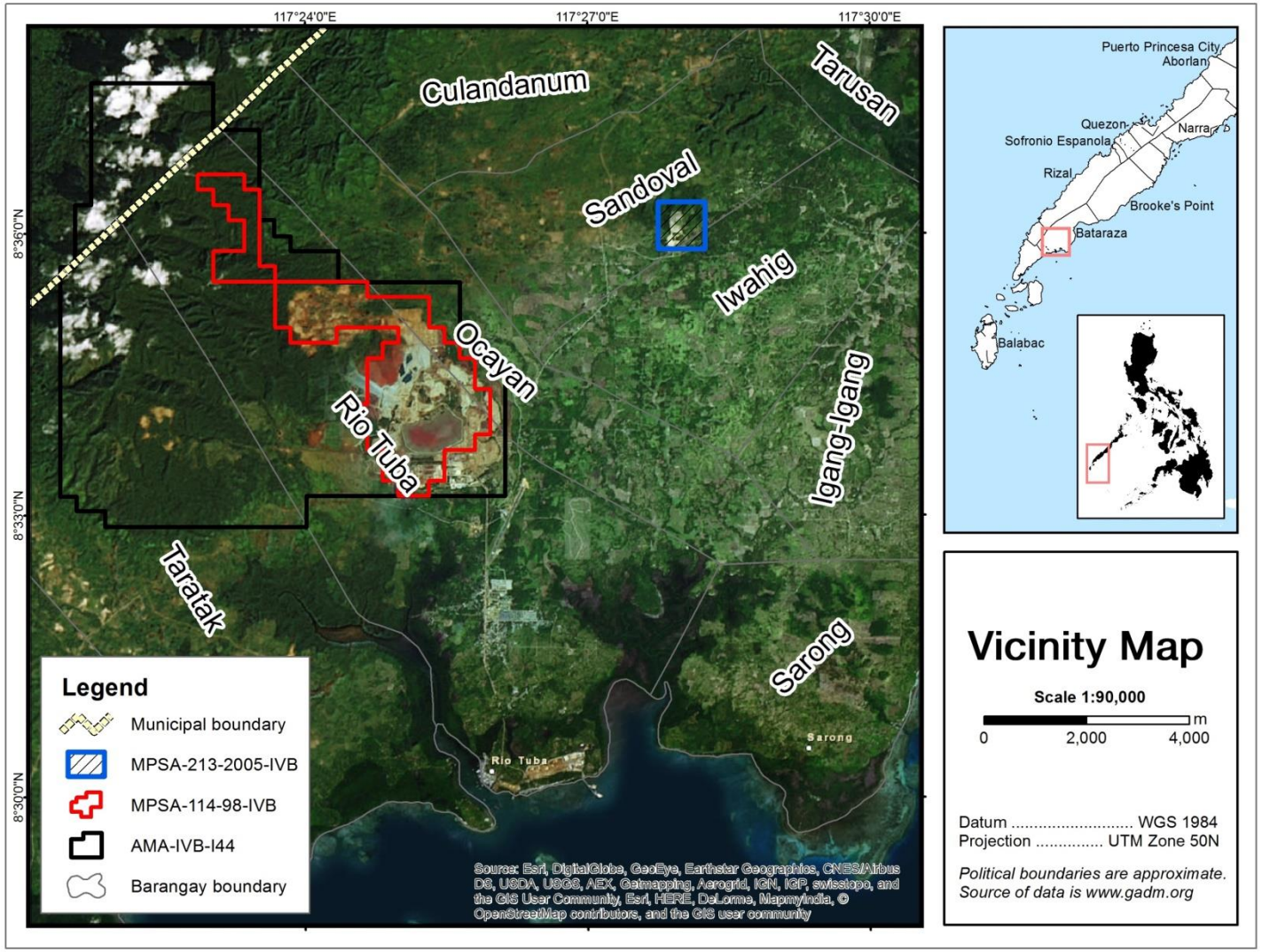

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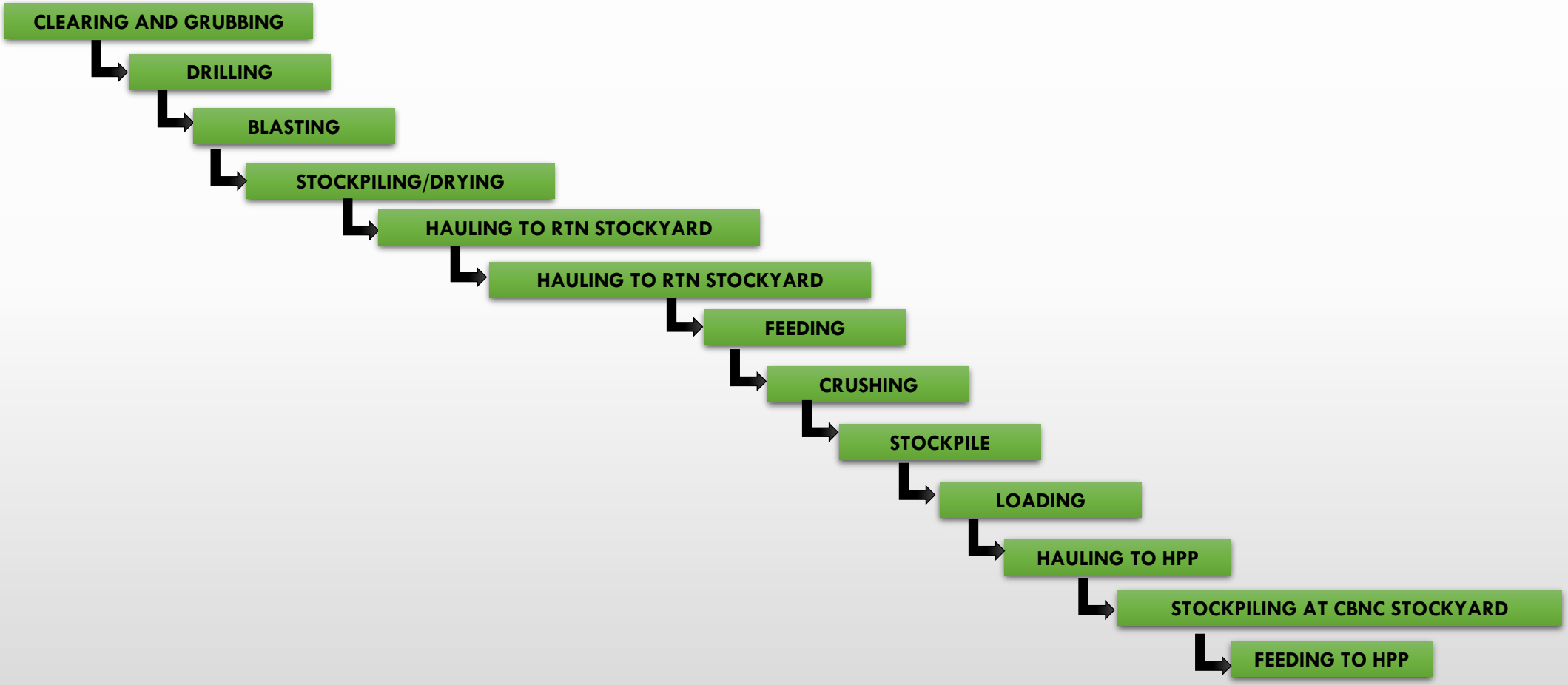
Proseso ng Limestone Quarrying at Operasyon ng Crushing Plant



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Kasalukuyang at Planong Operasyon

	Kasalukuyan	Planong Proyekto
Quarry Area	13 ha	59.9 ha
Annual Production Rate	725,000 WMT/yr	*(same)*
Mine Life	2021	2033
Water Requirement	14 m^3 kada araw (road watering) 1,044 m^3 kada araw para sa washing plant	(Same)
Power Requirement	1,670,438 kW-hr	(Same)
Fuel Requirement	1,566, 100 liters	1,440,000 liters
No. of Manpower	170 (RTNMC and its contractors)	170 (RTNMC and its contractors)

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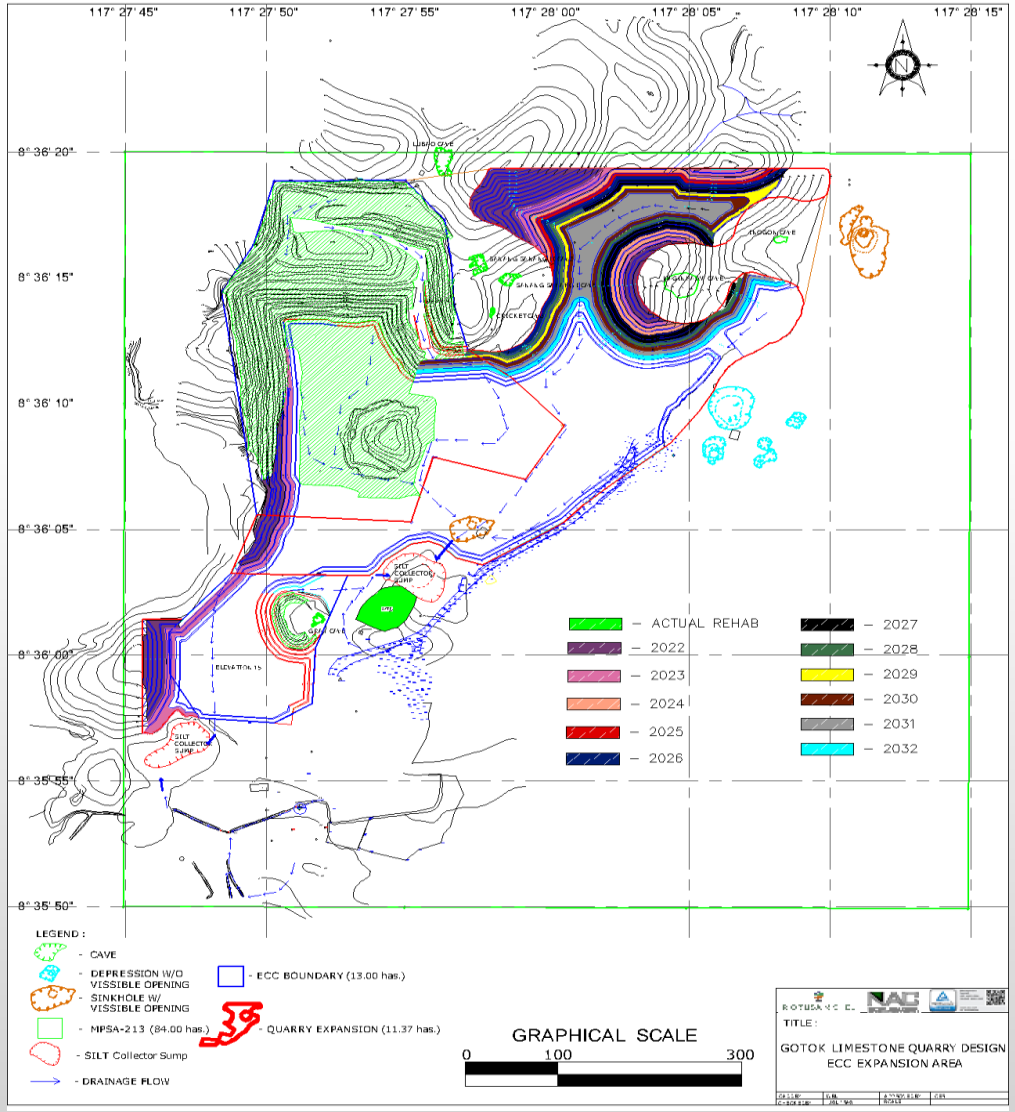
Pinaplanong Expansion Project



Year	Quarrying (WMT)	Crushing (WMT)
2022	725,000	698,000
2023	725,000	702,000
2024	725,000	708,000
2025	725,000	709,000
2026	725,000	715,000
2027	725,000	716,000
2028	725,000	710,000
2029	725,000	714,000
2030	725,000	719,000
2031	725,000	715,000
2032	725,000	725,000
2033	600,000	600,000

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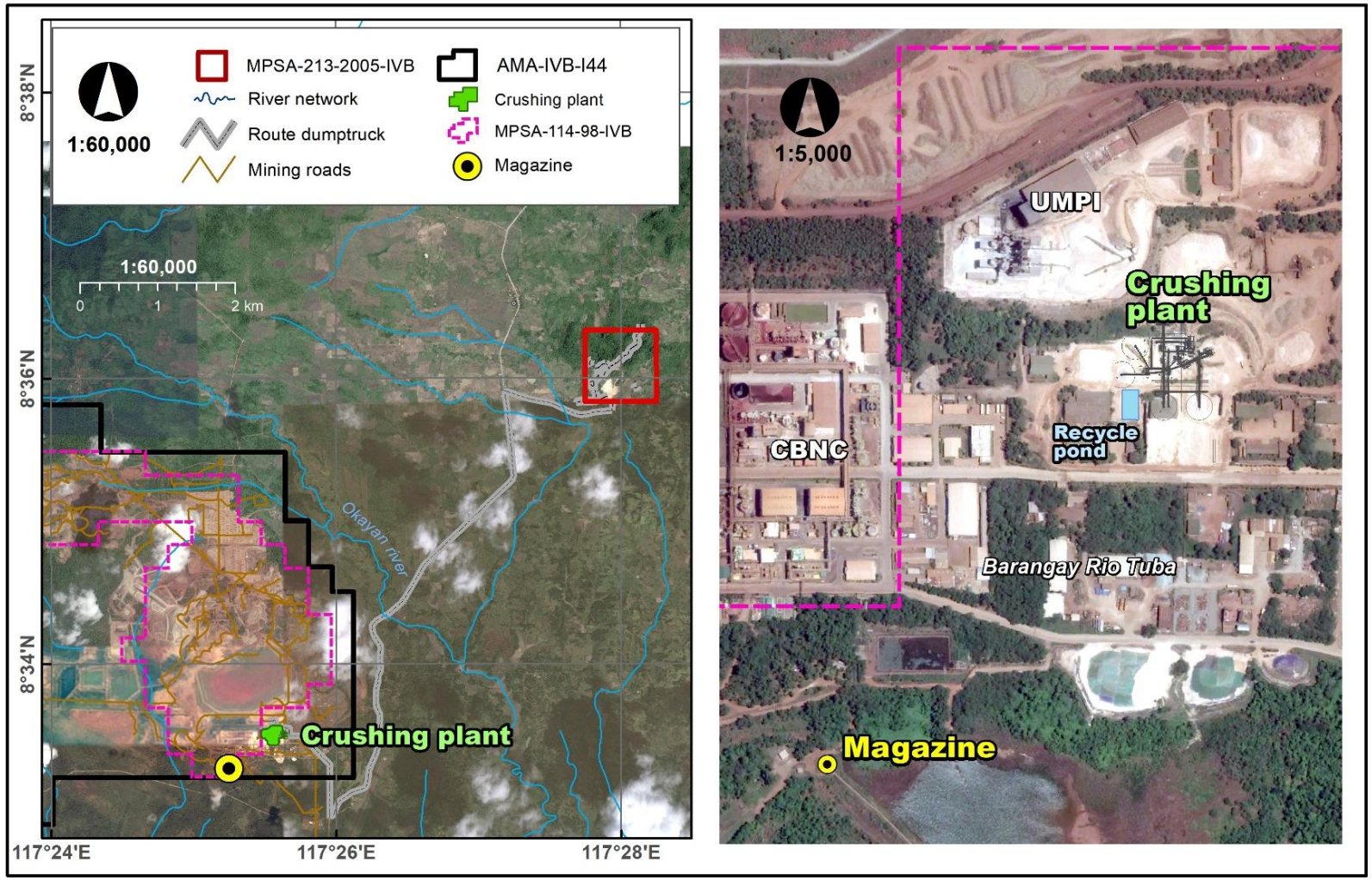
Mga Pasilidad

Quarry & Crushing Plant



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Pagkontrol ng Polusyon at Dumi

- ✓ basura at iba pang materyales **36m^3** **kada taon**
  - ➢ Paghihiwalay sa nabubulok at di nabubulok
  - ➢ Pagtatapon sa **GP-28** (mined-out pit na may **kapasidad na 240,000 m^3** na kayang mapuno sa loob ng 20 taon)

- ✓ wastewater – **1,044 m^3 kada araw**
  - ➢ settling/recycling pond at pakakawalan papunta sa Upper Kinurong

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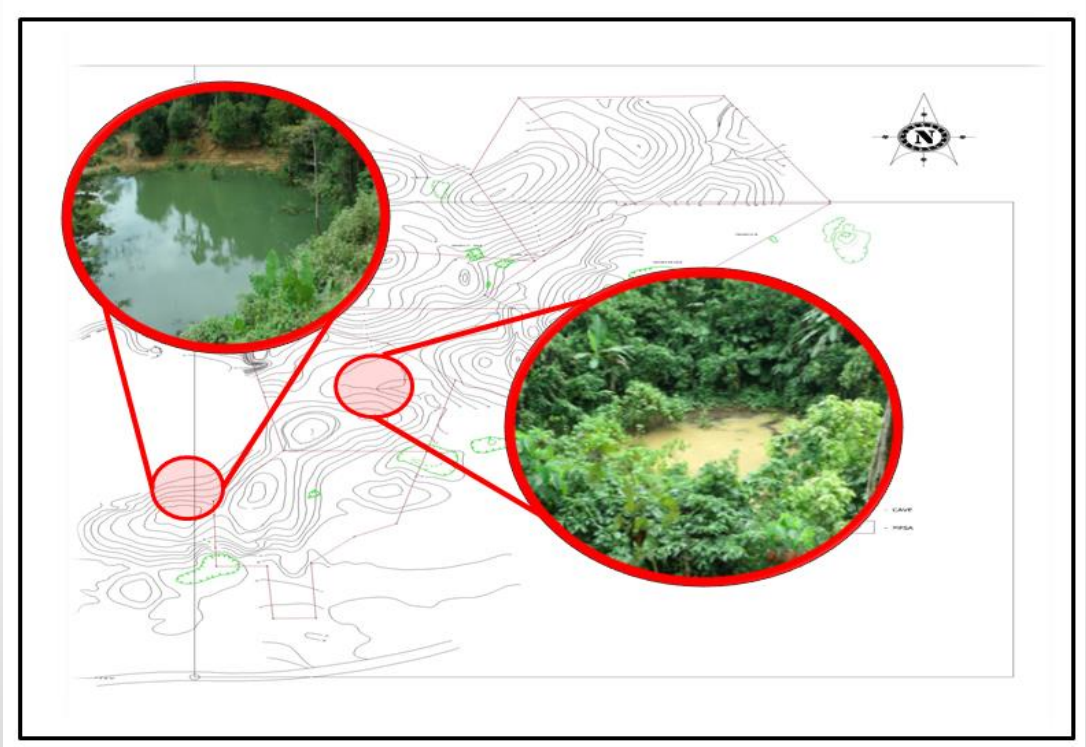
Pagkontrol ng Polusyon at Dumi

Quarry Area



Silt collector sumps

Water spraying of the hauling road

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Pagkontrol ng Polusyon at Dumi

Crushing Plant & Magazine Areas

Water settling/recycling pond

Constructed berm at the Magazine area

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Rehabilitation Program

- Nursery Operation

Soil Potting

Wildling Collection

Seedling Maintenance

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Rehabilitation Program

- Nursery – Production of Large Planting Materials

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Rehabilitation Program

- Nursery – Clonal Rehabilitation Facility

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Rehabilitation Program

- Watering Activity

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Rehabilitation Program

- Revegetation

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Rehabilitation Program

RIO TUBA NICKEL

Rehabilitation Program

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Development Schedule

Activities	2021												2022 (Year 1)												2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D											
A. Permitting																																			
PCSD SEP Clearance																																			
ECC Amendment																																			
Tree Cutting Permit																																			
B. Development																																			
1. Tree Cutting/Clearing																																			
2. Road Construction/Quarry Development																																			
C. Production																																			
3. Quarrying/Production																																			
4. Crushing/Production																																			

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Kinakailangang bilang ng manggagawa

Manpower	Existing Operation	Expanded Operation
Per Project Component		
Quarrying and Transport	92	92
Crushing plant operation	63	63
Transport to CBNC and GPI	8	8
Feeding station of CBNC	6	6
TOTAL	**170**	**170**

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Benepisyo ng Proyekto

- ✓ Ang pagpapahaba ng buhay/haba ng mina ay nangangahulugan ng patuloy na pangangailangan sa mga lokal na mangaggawa
- ✓ Pagpapatuloy ng mga proyekto mula sa Social Development and Management Program (SDMP) at pondo ng Corporate Social Responsibility (CSR) ng RTNMC
- ✓ Pagtulong sa lokal na ekomiya sa pamamagitan ng pagtangkilik ng RTNMC sa mga lokjal na produkto at serbisyo
- ✓ Pagbabayad ng buwis at tamang bayarin sa pagkuha ng permit mula sa gobyerno


MARAMING SALAMAT PO