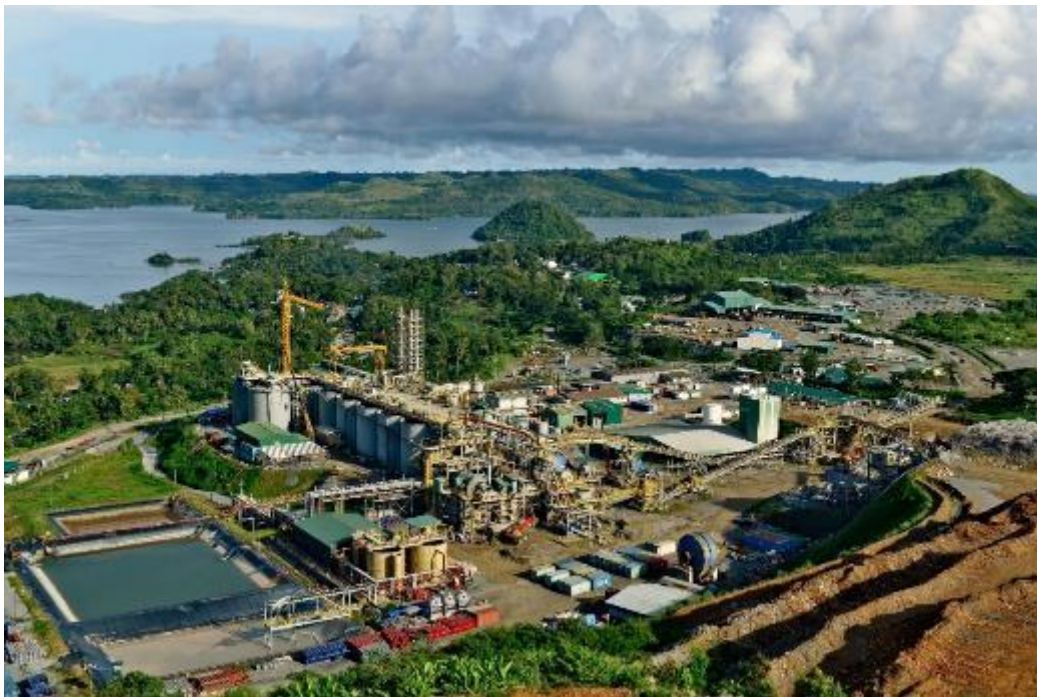


PROJECT DESCRIPTION FOR SCOPING

MASBATE GOLD PROJECT

Processing Plant Expansion



FILMINERA RESOURCES CORPORATION

Main Office:

3F Corinthian Plaza Building
121 Paseo de Roxas, Legaspi Village Makati City

Minesite:

Brgy. Puro, Municipality of Aroroy
Province of Masbate

November 2018

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1.0 PROJECT FACT SHEET

1.1 Basic Project Information

Project Name	Masbate Gold Project
Location	Barangays Amoroy, Balawing, Bangon, Capsay, Lanang, Panique, Puro, and Syndicate, Municipality of Aroroy, Province of Masbate
Project Type	Processing Plant Resource Extractive Industry
MPSA Area No.	Patented Claims and Mineral Production Sharing Agreement (MPSA) Nos. 95-0097-V, 255-2007-V, 256-2007-V, 329-2010-V, and 219-2005-V.
Mineral Processing Permit	MPP-010-2007-V – PGPRC as MPP Holder 2 nd Renewal April 03, 2018
ECC	ECC No. 9804-003-120C
Mining Method	Surface Mining Method (unchanged)
Process	Carbon-In-Leach (CIP) Cyanidation Process (unchanged)
Project Area Covered	2,477 hectares (unchanged)
Production Capacity	Existing Plant Capacity: 7.3 Million MT/y Proposed Plant Capacity: 9 Million MT/y Mine Extraction Rate: 34,500,000 Million MT/y (unchanged)

1.2 Proponent Profile

Project Proponent	FILMINERA RESOURCES CORPORATION (FRC)
Main Office Address	3F Corinthian Plaza Bldg. 121 Paseo de Roxas, Legaspi Village Makati City
Contact Person	Engr. Sulpicio B. Bernardo III Vice President for Operations
Operator	PHILIPPINE GOLD PROCESSING AND REFINING CORPORATION (PGPRC)
Main Office and Project Address	Brgy. Puro, Municipality of Aroroy Province of Masbate
Contact Persons	Raymond Mead President and General Manager Eugene Occeña Mill Manager

1.3 Project Preparer

EPRMP Preparer	AXCELTECHS, INC.
Contact Person	Engr. Paulo Noni T. Tidalgo, EM, RN
Designation	Managing Director
EMB Accreditation	IPCO - 103
Address	10C, 20 Lansbergh Place 170 Tomas Morato Avenue, Quezon City
Contact Number	(+632) 3760043
E-mail Address	management@axceltechs.com

2.0 PROJECT DESCRIPTION

2.1 Project Background

The Masbate Gold Project (MGP) is a joint operation of Filminera Resources Corporation (FRC) and Philippine Gold Processing and Refining Corporation (PGPRC). FRC owns, manages and operates the entire Mineral Processing Sharing Agreement (MPSA) awarded by the government while PGPRC owns and operates the gold processing plant and is responsible for the sale of gold. In 1998, MGP was issued an Environmental Compliance Certificate (ECC) for the entire MPSA that also includes the processing plant. The PGPRC started its construction last November 2007 while mine development started in September 2008. The first gold production of PGPRC started in 2009.

On the initial phase of project operation, FRC was known to be the main proponent of the project. However, when FRC submitted the ECC compliance and monitoring reports, DENR and MGB required PGPRC to secure a separate permit and separate compliance scheme for the processing plant by submitting separate periodic self-monitoring report (SMR) and securing a mineral processing permit. Hence, in addition to the submission of compliance reports provided by FRC, PGPRC also submits the periodic SMRs and provides a separate SDMP as a mineral processing facility through its mineral processing permit (MPP). The SDMP projects provided by FRC and PGPRC were separately identified to the barangay officials and community beneficiaries which provided awareness on the separate management schemes of the two companies under the MGP project operation. Last 2015, FRC applies for the ECC amendment for the Montana Extension Pit Project.

The proposed project expansion covers the increase of throughput ore being processed in the PGPRC plant from 7.3 million metric tons per annum (MTPA) to the proposed 9 million MTPA. The proposed expansion will require an upgrade of plant equipment to improve the processing capacity for low-grade ore to maximize the extraction of gold. It will utilize the existing low-grade stockpile as raw material to better manage the stockpile inside the MGP area.

Mining operation in the community is well known by almost all community members. Previously operated by Atlas Consolidated Mining Development Corporation (ACMDC), mining in Aroroy or presently known as MGP provides major development projects in the community. Inside the MGP area, different support facilities and components were installed under the management of FRC or PGPRC. Presently, the management of FRC and PGPRC continuously provide IEC in the community including the different roles of FRC and PGPRC in the MGP mining operation.

2.2 Project Location

The proposed plant expansion project is located in Barangays Panique and Puro Municipality of Aroroy, Province of Masbate while the mining component is located in Barangays Amoroy, Balawing, Bangon, Capsay, Lanang, and Syndicate, Municipality of Aroroy, Province of Masbate

The project is located about 360 kilometers SE of Manila in the Municipality of Aroroy, Masbate Province (Error! Reference source not found.). The Project is accessible by boat or by commercial plane. The MGP extracts gold ore by Hard Rock terrace or bench type mine and then processes it using the conventional carbon-in-leach (CIL) cyanidation method. The mining component is undertaken by Filminera Resources Corporation (FRC). FRC holds the MGP Environmental Compliance Certificate, the mining tenements (MPSA and Patent Claims), and surface rights of the Project.

Phil. Gold Processing & Refining Corp. (PGPRC) process the ore and holds the Mineral Processing Permit for MGP. It owns and operates the processing plant in the MGP. It is the exclusive buyer and processor of the gold ore mined by FRC.

Error! Reference source not found. locates the existing project components vis-à-vis the barangay boundaries. The most discernible features are the open pit mines, waste rock dumps (WRDs), low-grade ore stockpiles, process plant, roads, tailings storage facility (TSF), airport, causeway, offices and workshops, and accommodations.

Also shown in Error! Reference source not found. is the primary impact area of the project. This impact area is defined by the Project emissions and effluents consisting largely of dust, noise, eroded sediment, and treated wastewater. It is conservatively estimated to extend 300 m from the edge of a Project structure.

The secondary impact area absorbs the indirect impacts or induced changes of the Project. The whole municipality of Aroroy is considered the secondary impact area of the proposed project.

2.3 PROJECT RATIONALE¹

From 2009 to 2017, the MGP processed some 52.5 million dry t of gold ore and produced 47.4 t of 1,000 fineness gold and 40.6 t of 1,000 fineness silver. This provided the following socio-economic benefits:

- Employment to an average of 1,881 personnel annually of which, 1,259 or 67% are Aroroy residents.
- Total tax payments by FRC and PGPRC to the local and national government of P 1.795 billion and P 5.061 billion, or a total of P 6.857 billion.
- Total expenditures under the Social Development and Management Program (SDMP) for infrastructure, education, health, livelihood, and culture to the 8 host barangays of P 380.9 million - The annual average SDMP of the host barangays is nearly twice their combined internal revenue allotment (IRA) and 9 times their development fund.
- Beginning 2014, the SDMP was expanded to assist the other 33 neighboring barangays of Aroroy Municipality. The total expenditures for these barangays until 2017 reached P 68.3 million.
- The MGP also spent P 43.5 million for community development in areas outside of Aroroy.

2.4 Project Alternatives

2.4.1 Mining Method

The depth of the pit and its location will depend on the exploration activities conducted by the company. Further, considering the type and location of mineral to be extracted, the only feasible mining method for the project is surface mining method, thus, there were no other alternative method considered for the project.

2.4.2 Plant Process

The current project operation utilizes the CIL technology, with the growing demand of gold within and outside the country, the company decided to maximize its operation by utilizing technology upgrade. However, since the project is already operating, there were no plans of changing the current plant process.

¹ PARTIAL MINING PROJECT FEASIBILITY STUDY, Engr. Graciano M. Calanog, Jr. 2018

2.5 Project Component

The FRC Processing Plant Expansion Project intends to increase throughput from a nominal 7.3 Million MT/y to 9 Million MT/y of the Masbate Gold Project.

In general, the facilities associated with the Project involves only the expansion of the existing MGP processing plant to treat a throughput of 9.0 Million MT/y at a P80 grind size of 150 μ m with a leach residence time of 24 hours. This will be achieved primarily by the installation of an extra ball mill and associated equipment. Other major equipment upgrades and/or modifications include upgrades to the crushing circuit, pebble crushing circuit, pregnant solution storage, and additional water pumping.

Upgrades/modifications will be confined within the existing permitted area. No additional new area will be needed in the Plant.

There will be no modifications in the mining area

FRC and PGPRC operate the Masbate Gold Project (MGP).

FRC holds the mining rights and the Environmental Compliance Certificate for the project – ECC No. 9804-003-120C. The mining rights include the patented claims and Mineral Production Sharing Agreement (MPSA) Nos. 95-0097-V, 255-2007-V, 256-2007-V, and 329-2010-V. FRC is also the operator of MPSA No. 219-2005-V of Vicar Mining Corporation (VMC). FRC likewise holds Exploration Permit (EP) No. 010-2010-V and a host of MPSA and EP applications.

PGPRC owns and operates the gold process plant through Mineral Processing Permit (MPP) No. 010-2007-V.

The MGP's primary commodity is gold dore which consists mainly of gold and silver. The proportion of each precious metal is dependent on the ore feed grade. As an illustration, in 2016, the gold ore produced is roughly 46% gold and 53% silver. The gold dore is shipped to Switzerland for further refining.

Table 1 presents the existing and proposed project components.

Table 1 - List of Existing and Proposed Project Components

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
Power Plant	<p>A heavy fuel oil power plant supplies power to a high-voltage switchboard which is distributed via 4,160 v to the process plant, TSF, and other ancillary loads. It consists of 3 x 6.4 MW and 3 x 5.5 MW units. The 1 x 5.5 MW unit was installed in 2017 to ensure that 2 units are on standby or maintenance while the 4 units are in operation.</p> <p>The power plant's maximum connected load is 35.5 MW. The average demand, i.e., at normal process plant operation, is 20.5 MW. The design operating conditions of the process plant are 365 days p.a. at 94% availability. -EIS/EPRMP 50MW</p>	PGPRC	No
Open Pit Mines	<p>Source of Gold ore for feed to the PGPRC Process Plant</p> <p>These are the sources of gold ore feed of PGPRC's process plant. They include the Colorado Pit and the Main Vein group of pits which consist of Boston, HMBE (Holy Moses Basalt</p>	FRC	No.

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
	East), HMBW (Holy Moses Basalt West), Main Vein, Panique, Montana Extension Pit and Colorado-Bangon Stage 3 WRD.		
Waste Rock Dumps (WRDs)	<p>These store the waste rocks excavated from the open pit mines. For the Colorado Pit, the WRDs include the Colorado-Bangon to the west and the Syndicate to the east. For the Main Vein group, the WRDs to the west are the HMBW and MV WRDs. The HMBE Stage 3 and HMBE Stage 4 are located eastward</p> <p>The WRDs comprise a total area of 180 ha. With heights ranging from 60 to 145 m, the total tonnage of waste rocks stored is 111,311,270 t.</p>	FRC	No
Low Grade ore stockpiles	<p>This include the Goldbug low-grade stockpile which is located immediately southwest of the Montana Extension Pit and those south of Guinobatan River, namely: the Main, Panique, and HMBE low-grade stockpiles. Their aggregate surface area is 50 ha. The heights range from 40 to 110 m.</p> <p>As at end of 2016, the stockpiles had a total tonnage of 27.79 million t granding 0.57 g/t Au.</p>	FRC	Yes

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
Heavy equipment workshop	Work bays, warehouse, and storage facilities located immediately north of the gold process plant.	FRC	No
Explosives magazine	This consists of two reinforced concrete buildings, one to store ordinary blasting caps and the other for dynamites.	FRC	No
Emulsion plant	Owned and operated by Orica Philippines, Inc., the facility produces bulk explosives for FRC's open pit mines. Apart from the manufacturing unit, the facility includes ammonium nitrate storage, office, workshop and amenities.		No
Mine stormwater drainage	Uncontaminated surface runoff is diverted away from mine workings and facilities. Surface runoff potentially contaminated with oil is contained in a centralized pond that drains to an oil and water separator. Surface runoff from the mine is conveyed to a series of sediment retention structures. Uncontaminated surface runoff is diverted away from mine workings and facilities. Surface runoff potentially contaminated with oil is contained in a centralized pond that drains to an oil and water separator. Surface runoff from the mine is conveyed to a series of sediment retention structures.	FRC	No
Settling pond	These are impoundments created usually by rock gabions which receive and detain mine surface runoff. During the	FRC	No

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
	detention, the sediment suspended in the runoff settles to the bottom of the pond leaving a cleaner pond effluent.		
Gold process plant	<p>The conventional CIL cyanidation plant has crushing, grinding, leaching, adsorption, elution, electrowinning, smelting, office, and storage facilities. Its maximum annual throughput is 9 million t of open pit ore grading at 1 to 1.2. g/t AU.</p> <p>The proposed modification will include:</p> <ul style="list-style-type: none"> -New ball mill to increase milling capacity -Transfer pumps to transfer slurry from existing milling circuit to new ball mill circuit -Improvements to product screen on supplementary crusher for higher throughput -Bigger Drive on coarse ore stockpile conveyor -Bugger drive on mill feed conveyor and minor chute modifications -Larger pebble crusher installation to replace existing pebble crusher -Additional pregnant solution tank to increase gold room stripping capacity 	PGPRC	Yes

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
ROM (run-of-time) pad	This level area receives the run-of-mine ore from FRC's open pits for feed to the primary crusher of the gold process plant.	PGPRC	No
Aggregates plant	The plan has a vibrating grizzly feeder, jaw crusher, cone crusher, product screen, belt conveyors, and control system. It produces gravels, stemming for use in the open pit blast holes, and filter materials for TSF dam construction.	PGPRC	No
Batching plant	This is a semi-stationary wet-type concrete batching plant located near the gold process plant. The plant capacity is 48 m ³ /hour. Its main components are aggregate, cement, and water batcher, four-compartment aggregate storage bin with weighing conveyor, pan type central mixer and swiveling conveyor feeder and hopper.	PGPRC	No
Power plant	This is a 35.5-MW heavy fuel oil power plant. It consists of 3 engines of 6.4-MW individual rating and 3 units of 5.5-MW individual rating. At any time, 4 engines are running and the remaining two function as back-up units.	FRC and PGPRC	No
Guinobatan water reservoir	This was built by the former operator of the MGP, Atlas Consolidated Mining and Development Corporation (ACMDC), to supply water to its gold cyanidation plant. PGPRC continues	PGPRC	No

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
	to draw water from the reservoir for its plant make-up water elution water , and firewater.		
Raw water treatment plant	Water from the Guinobatan River reservoir is treated in this plant. With a daily capacity of 200 m3, the treatment process includes removal of hardness, coagulation and flocculation, and pH adjustment. Three-fourths of the treated water is for the plant equipment cooling water and elution heating water. The balance passes through multimedia filters and chlorination to produce potable water for emergency showers and domestic use.	PGPRC	
Tailings Storage Facility TSF	<p>The facility consists of dams and embankments which form the tailings storage area, emergency spillway, pipelines, and workshop area. Tailings solids settle to the storage bottom. Tailings water is decanted. Some water is pumped back to the gold process plant either for reuse or treatment prior to discharge to Port Barrera.</p> <p>The annual tailings deposition is 7.3 million tons. Currently, the dam height is 44.3m, tailings storage area is 217 ha, and</p>	PGPRC	NO

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
	the free board being maintained is 3m. The ultimate dam height is 62m.		
Decant Water Treatment Plant	Located near the gold process plant, this facility treats the tailings decant water from the TSF at a maximum daily capacity of 16,600m ³ . The primary treatment is destruction and oxidation of free CN and meta-CN complexes to cyanate through application of sulfur dioxide and oxygen. The secondary treatment is molybdenum removal through addition of sulfuric acid and later by ferric chloride to co-precipitate molybdenum and to form flocculants for adsorption and micro-filtration. The treated wastewater is discharged at the causeway.	PGPRC	No
Plant Ponds	These include the raw water pond, process water pond, and event pond of the gold process plant.	PGPRC	No
Causeway	The upgraded causeway, previously operated by ACMDC, receives all incoming cargo for construction or ongoing operations. It also handles inbound and outbound MGP personnel, contractors, and visitors on board the ferry.	FRC and PGPRC	No
Airstrip	Built by ACMDC, the airstrip was upgraded by FRC. It accommodates weekly chartered flights from and to Manila.	FRC and PGPRC	No

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
Helipad	This is located immediately north of the clinic at the dried old tailings pond F.	FRC and PGPRC	No
ComRel/IEC Center	The ComRel Office and IEC Center where the MGP accomplishments are showcased and stakeholder presentations and consultations are held. It is located along the National Highway immediately before entering the main gate of the MGP.	FRC and PGPRC	No
Tank Farms	The HFO fuel tank farm is located at the northwest corner of the dried old tailings ponds A, B, C, D, and E. The diesel fuel tank farm is located near the heavy equipment workshop.	FRC	No
Clinic	Located near the heavy equipment workshop and security office, the clinic has a consultation room, waiting room, and treatment room.	FRC and PGPRC	No
Floral Nursery	This supports the revegetation and rehabilitation activities of the MGP. The capacity is more than 70,000 seedlings. Three community organizations were contracted to provide supplementary seedlings.	FRC and PGPRC	No
Old Tailings Pond	The dried old tailings ponds A, B, C, D, E, and F of ACMDC. The aggregates plant, mining workshop, and helipad are sited at the southern part.	FRC	No

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
General Office	All MGP offices except those of Security and the mill are found at the General Office Building	FRC and PGPRC	No
Process Plant Offices	These include the Plant Security, warehouse, assay laboratory, and mill office.	PGPRC	No
Accommodations	This consists of the guesthouse and dining, staff houses, 300-man camp, and clubhouse.	FRC and PGPRC	No
Sewage Treatment Plant (STP)	Two STPs, one for the 300-man camp and another for the gold process plant area, process the daily sewerage discharge. The physical and biological treatment equipment and processing are screening, influent tank, sequencing batch reactor, and chlorine contact chamber. The sludge is treated through an aerobic sludge digester. Dosing of the system with Ecozyme further breaks down the sewage, fats, and associated odors.	FRC and PGPRC	No
Hazardous Wastes Storage	This consists of bundled, covered, and labeled storage for specific hazardous waste types (i.e., used hydrocarbons, oil contaminated materials, oil filters, used batteries, busted fluorescent lamps, expired paints, and chemicals, etc.). The storage is temporary pending haul-out by accredited DENR-EMB waste hauler or treater. A waste manifest is maintained for individual waste types.	FRC and PGPRC	No

Component	Description	Responsibility	Will require Changes or Modifications under this ECC Amendment
Solid Waste Facility	The MGP segregates its domestic solid wastes into residual, food wastes, biodegradables, recyclables, and shredded paper. Separate storage areas for the recyclables and shredded paper are maintained. The food wastes and biodegradables are kept in separate compost pits inside the old dried tailings pond. Pending the approval of the application for a sanitary landfill by the EMB Region 5 office, the residual wastes are temporarily stored at the old tailings pond.	FRC	No
Roads	These connect the open pit mines, WRDs, low-grade ore stockpiles, process plant area, offices and workshops, causeway, airstrip, and accommodation areas. The roads are regularly sheeted, graded, cleared of vegetation along the sides, and provided with drainage channels.	FRC and PGPRC	No

2.6 Process/Technology Option

2.6.1 Mining Operation (unchanged)

The mine will be a conventional surface mining similar to Hard Rock terrace or bench type mine. Its operations encompass drilling holes with large diameter (32 to 46 cm) blast holes, blasting with either explosive slurries or ANFO (ammonium nitrate/fuel oil), and loading the ore onto large off-road trucks with large cables and hydraulic shovels and wheel loaders. Waste may also require blasting. Waste will be either backfilled to the mined-out pits or placed on waste dumps that exist from past mining activity. The overall stripping ratio is estimated to be less than 2:1.

During the mining operations, the following will be observed.

- Any available and useful topsoil will be stripped (or stockpiled near the pit), using bulldozers, loaders/ excavators and rear dump trucks;
- Competent waste will be drilled and blasted;
- The waste will be excavated in benches using large hydraulic excavators and loaded into rear dump trucks. Material from the initial works will be transported out of the pit and either used to backfill other pits or placed in nearby waste dumps;
- The exposed ore will be drilled and blasted. The ore will be loaded into rear dump trucks by excavator for transport to the process plant hopper;
- sub grade material may be stockpiled separately for possible heap leaching;
- The landform design will be based on a maximum slope of 20 o (about 36%, or 3v:1h). The existing waste dumps from historical mining have angle-of-repose slopes of about 38 o (or 75%), so the slopes will be more stable against the forces of erosion in future;
- The ex-pit and in-pit dumps will be progressively shaped to their final landform, top soiled and seeded with native grass, shrub and tree seed; and
- Drainage structures such as graded banks and rock-lined waterways will direct runoff to sediment dams constructed at the base of the dumps and within the rehabilitated landform.

2.6.2 Plant Process²

PGPRC's gold process plant employs unit processes which are well established and conventional in the gold industry. The process comprises crushing, grinding, leaching and adsorption, elution, electro-winning and smelting, tails detoxification prior to disposal in the TSF, and a reclaim water treatment plant that treats a portion of the TSF decant water prior to discharge to Port Barrera. The plant is designed to treat 7.3 million t of ore per year.

For 2017, the process plant milled a total of 6,963,074 dry t of gold ore with an average grade of 1.19 g/t Au. This is equivalent to a monthly milled ore of 580,256 dry t. The total gold and silver production in 1,000 fineness were 6,253 kg and 6,643 kg respectively.

2.6.2.1 *Crushing*

There are two crushing circuits: the primary and supplementary. The supplementary circuit is operated during a primary crusher shutdown or as required by the plant.

The primary circuit has a C160 jaw crusher which reduces the ore feed to a size of less than 150 mm at 1,000 t/hour. The supplementary circuit has a three-stage crushing which reduces the harder, more competent ore to a size of less than 14 mm at 400 t/hour. The first-stage C125 jaw crusher has a close side setting of 125 mm; the secondary GP200 cone crusher with 50 mm; the tertiary HP4 cone crushers with 14 mm.

The crushed ore discharges into a surge bin.

2.6.2.2 *Grinding and Classification*

This consists of a SAG mill and two regrind ball mills in closed circuit with the hydrocyclones. The target P₈₀ sizing is 150 µm. The required treatment rate is 800 to 1,000 dry t/hour.

The cyclone overflow at – 150 µm discharges into a vibrating trash screen with 0.80 mm aperture to remove woodchips, trash, and oversize materials. At the leach feed tank, 20% lead nitrate (Pb[NO₃]₂) solution is added at 150 kg/t of ore processed.

² Source: EPRMP, Montana Pit Extension, BMP Environment & Community Care, Inc. May 2018

2.6.2.3 *Leaching and Adsorption*

A pre-aeration tank, 5 agitated leach tanks, and 8 agitated adsorption tanks comprise this circuit. At the pre-aeration tank, oxygen gas is injected into the leach feed via three oxygen contactors. This will speed up the process of gold dissolution.

Gold leaching occurs at the next five tanks with the introduction of cyanide solution at 0.45 to 0.50 kg/t. Pulp from the fifth leach tank then flows to the adsorption section.

Regenerated carbon is added to the eighth adsorption tank. The dissolved gold adsorbs onto the surface of the carbon. The loaded carbon is transferred to the preceding tank by a vertical-spindle, recessed-impeller, centrifugal pump. An interstage screen at this tank prevents the transfer of carbon prior to pump activation³. The gold adsorption and loaded carbon transfer are undertaken at each adsorption tank countercurrent to the pulp transfer.

At the first adsorption tank, a recessed impeller pump transfers the slurry to the loaded carbon screen. The slurry passing through the screen gravitates back to the tank. The screened carbon goes to the elution circuit.

Slurry from the eighth adsorption tank discharges into a carbon safety screen. The screen undersize goes to the tails tank. The oversize carbon returns to the eighth tank.

2.6.2.4 *Elution and Carbon Regeneration*

The screened carbon is brought to the acid wash column. HCl at 5% strength is pumped into the column to remove the organic foulants. Subsequently, the carbon goes to the elution column where the carbon is stripped of the adsorbed gold. The Anglo-American Research Laboratory process which uses caustic soda and concentrated cyanide solution at 120°C is employed.

The eluate solution goes to electrowinning and smelting. The eluted carbon is pressure transferred to a dewatering screen. The barren carbon discharges into a kiln feed hopper and then a horizontal rotary kiln where it is reactivated. The kiln is a distillate fired unit with a nominal 500 kg/hour throughput. Carbon will discharge into a carbon quench tank prior to re-introduction to the adsorption tank via the carbon sizing screen.

³ Since carbon is much larger than the ore particles, it can be easily separated by screening.

2.6.2.5 *Electrowinning and Smelting*

The pregnant solution from the elution column is recirculated through three electrowinning cells. Each cell contains 12 woven stainless steel cathodes. Upon completion of the electrowinning, the barren eluate is pumped back to the leaching and adsorption circuit.

The gold-bearing cathodes are periodically removed from the electrowinning cells and desludged. The gold-silver sludge will be filtered and dried prior to mixing with fluxes and smelting to produce gold-silver bullion.

An additional slag treatment facility was commissioned in December 2016 to recover the precious metals trapped in the slag.

2.6.2.6 *Cyanide Recovery and Detoxification*

The slurry from the tails tank undergoes detoxification prior to discharge to the TSF. This is achieved through the injection of Caro's acid into the tails pipeline prior to the tails pump. Caro's acid is a mixture of 98% sulfuric acid (H_2SO_4) and 70% hydrogen peroxide (H_2O_2) in 2:1 molar ratio designed to meet the target weak acid dissociable (WAD) cyanide (CN) residue of less than 50 ppm. An online WAD analyzer measures the WAD CN on the slurry prior to the addition of Caro's acid.

2.6.2.7 *Decant Water Treatment Plant*

For the integrity and stability of the TSF dam, decant water is recycled back to the plant. The bulk is to constitute 85% of the process water. The residual is treated in a water treatment facility. The facility implements cyanide destruction, metal removal, microfiltration, and pH adjustment so that the effluent meets the environmental standards for discharge to Port Barrera.

The water treatment facility was upgraded in February 2017. An Actisoft system for water clarification and softening was added to produce elution and cooling tower make-up water and water for various uses such as emergency shower.

2.6.2.8 Reagents

Table 2 shows the reagents being used in the processing plant.

Table 2 - Processing Plant Reagents - Current and Proposed Operation

Reagent	Use	Delivery and Packaging
Lime	Added at the grinding and classification section to ensure a pH over 10.5 is maintained during the cyanidation. Otherwise, toxic hydrogen cyanide gas will be generated	1 t and 1.2 t bag packaging.
Sodium cyanide	At 25% (w/w) strength, cyanide solution dissolves the gold in the leach circuit.	Briquettes in 1 t bulka bag.
Caustic soda	Added to the elution caustic tank as required each strip.	25 kg bag containers
Hydrochloric acid	Used to wash the loaded carbon prior to elution	1,000 L containers at 32% (w/w) concentration.
Lead nitrate	Added prior to the leaching and adsorption circuit to enhance gold recovery.	1,000 kg bac packaging
Activated carbon	Added to the leaching circuit for carbon adsorption process.	Fresh carbon in 500 kg bag packaging
Sulfuric acid	Mixed with hydrogen peroxide to produce Caro's acid for cyanide detoxification.	34,000 kg tank containers.
Hydrogen peroxide	Mixed with sulfuric acid to produce Caro's acid cyanide detoxification.	Bulk isotank containers at 70% container
Sodium metabisulfite	Used at the decent water treatment plant for the INCO cyanide destruction process.	1,000 kg bag packaging

Reagent	Use	Delivery and Packaging
Ferric chloride	Used at the decant water treatment plant to absorb unwanted metals such as Mo, As, Sb, etc,	Tote bins.
Citric acid	Used at the decant water treatment plant for the cleaning of microfilters.	25 kg bag containers.
Hydrates lime	Used at the raw water treatment plan for hardness removal.	500 kg bag containers.
Soda ash	Used at the raw water treatment plan for hardness removal.	500 kg bag containers.
Flocculant	Polymer used at the raw water treatment plant for the coagulation – Flocculation process of the Actiflo system.	25 kg bag packaging
Microsand	Used at the raw water treatment plant to promote the enmeshment of suspended materials and result in the formation of large stable flocs.	25 kg bag packaging

Source: PGPRC



Photo 1 - Handling, storage, and mixing of solid reagents (PGPRC photos).



Photo 2 - Storage of liquid reagents (PGPRC photos).



2.6.3 Water Requirement

The Guinobatan River water reservoir provides firewater, elution water, and process water make-up and wash down. Built by the former operator, ACMDC, the reservoir has a concrete dam about 4 m high. The spillway has an invert elevation 1 m atop the base.

2.6.3.1 *Process Plant Water Balance – Current Operation⁴*

Table 3 is the monthly water balance of the process plant for 2017. The process water usage averaged 963,990 m³ per month. The monthly raw water intake was 163,459 m³. The monthly tails slurry discharge at 40.1% solids was 1,089,374 m³. Of this, 876,036 m³ was water. The monthly water discharge to Port Barrera after passing through the Decant Water Treatment Plant was 342,192 m³.

Table 3 - Gold process plant water balance, 2017

Month	Process Water Usage (m3)	Raw Water (m3)	Tails Slurry (m3)	Tails % Solid	Water Discharge - TSF (m3)	Water Discharge - Port Barrera (m3)
January	1,050,662	128,758	729,746	51.4	570,989	371,376
February	875,727	157,994	927,111	41.0	738,292	333,675
March	1,081,108	186,175	1,120,167	39.4	904,241	369,296
April	1,046,376	187,529	1,137,637	38.9	921,885	336,509
May	1,179,410	185,875	1,158,946	40.0	930,766	376,973
June	1,113,620	190,718	1,163,670	39.7	936,751	352,241
July	1,012,323	169,428	1,034,452	37.7	846,471	325,933
August	1,093,693	168,641	1,167,200	38.9	946,593	348,492
September	806,909	171,068	1,155,142	38.8	936,993	376,985
October	755,234	171,471	1,184,542	38.2	965,318	304,498
November	521,308	131,386	1,007,308	38.2	820,526	296,667
December	1,031,515	112,469	1,223,572	38.6	993,608	313,666

⁴ Source: EPRMP, Montana Pit Extension, BMP Environment & Community Care, Inc. May 2018

2.7 Project Size

2.7.1 Resource⁵

FRC estimated the mineral resource of the Montana Extension Deposit at 2,648,499 t with average grade of 2.07 g/t Au. This was based on 17,039 assays from 19,019 m of drillholes. A total of 172 drillholes, broken down into 89 diamond drillholes and 83 reverse circulation drillholes averaging 110 m deep, were sunk to evaluate the deposit.

The current mineable reserve of FRC excluding the Montana Extension Deposit is 44,003,544 t averaging 0.98 g/t Au. At the current daily mining rate of 95,000 t of ore and waste rocks, the reserve will be depleted in 3.64 years.

The mineable reserve of the Montana Extension Deposit at 3,038,798 t grading 1.75 g/t Au. If this reserve is added to the current reserve, the new reserve will be 47,042,342 t at 1.03 g/t Au

2.7.2 Area and Production Capacity

Currently the processing plant have an allowable production capacity of 7.3 Million MT/year as per the approved ECC. The company will increase the production capacity from 7.3 Million MT/year to 9 Million MT/year of **gold dore**. The increase in capacity will be brought about the upgrading of production process/equipment and increase of raw materials input. The project area and mine production capacity will remain unchanged, 441 hectares and 7.3 Million MT/year respectively. – 50 -60% Gold; 40 – 50% silver

2.8 Project Phases

2.8.1 Pre-Construction

Pre-construction activities involves finalization of the engineering designs and securing of necessary environmental permits from government agencies and Local Government Unit (LGU).

2.8.2 Construction

Construction phase involves the following:

⁵ Source: EPRMP, Montana Pit Extension, BMP Environment & Community Care, Inc. May 2018

- Hiring of qualified manpower required to complement the workers in the construction/rehabilitation works and mining and processing operation activities; and
- Construction of the plant facilities to and support infrastructures.

The construction activities for the proposed Project is projected to commence after the acquisition of all regulatory permits from government offices. Construction activities will entail the use of heavy equipment and will involve the following main components:

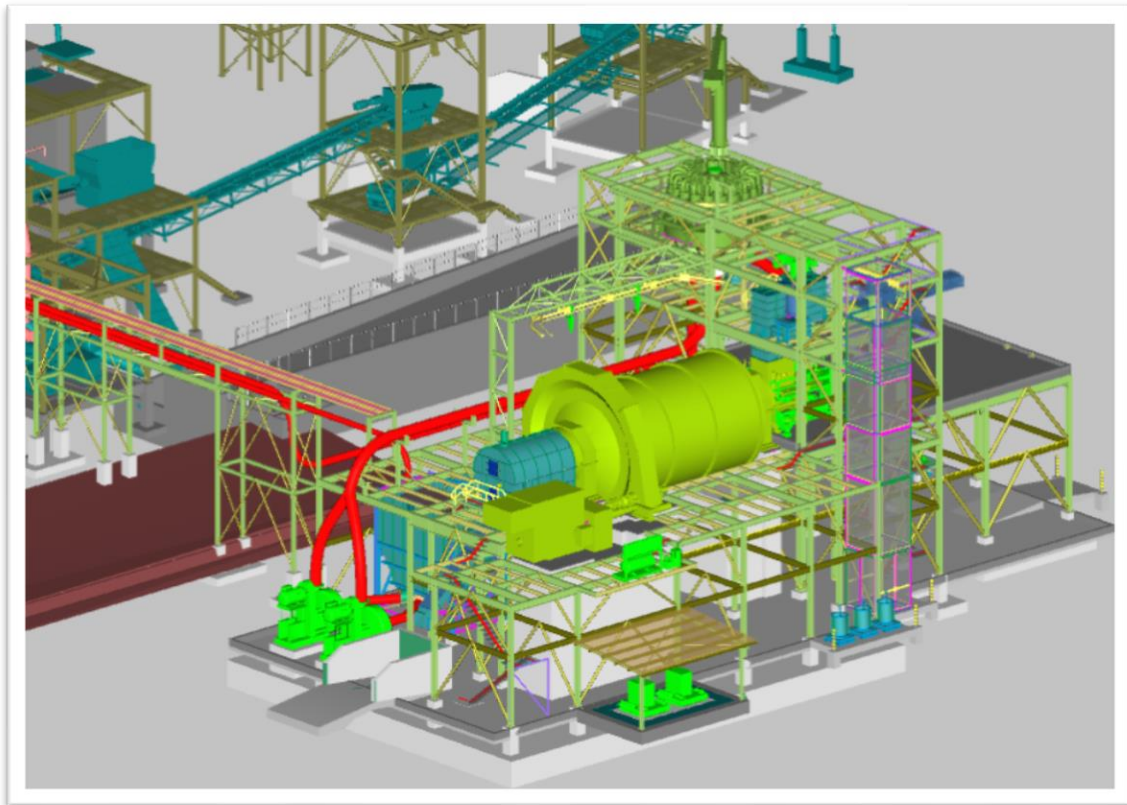


Figure 2 - Installation of new ball mill to increase the milling capacity

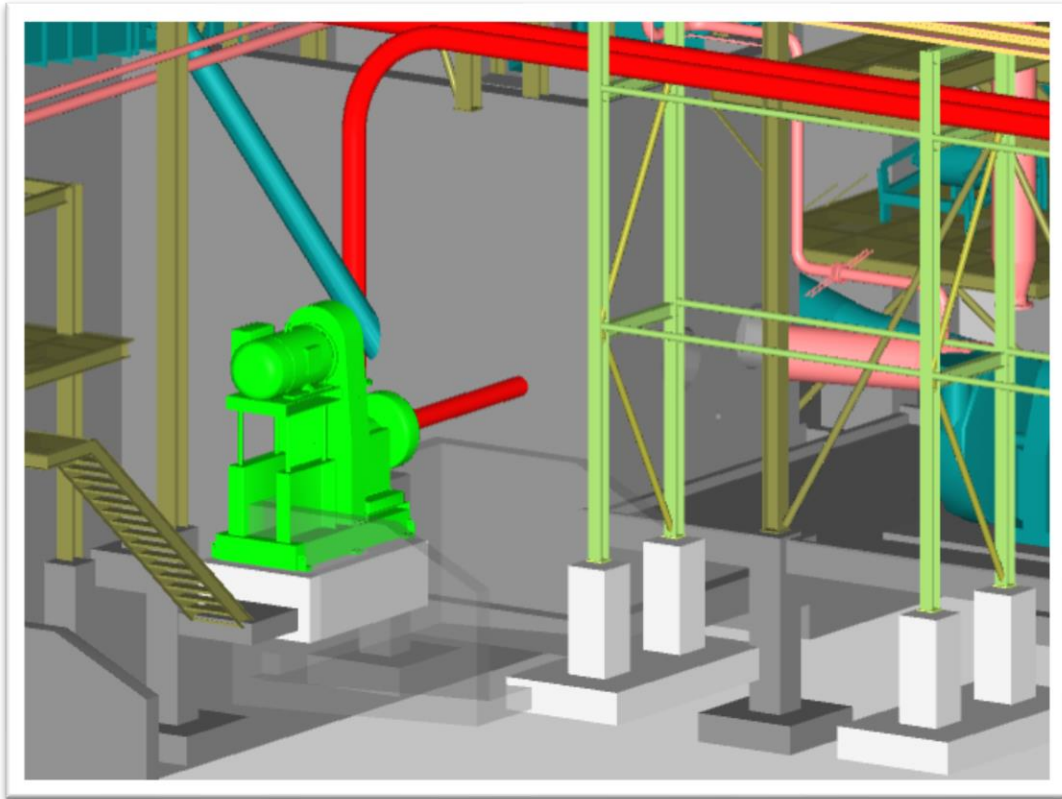


Figure 3 – Installation of transfer pumps to transfer slurry from existing milling circuit to new ball mill circuit

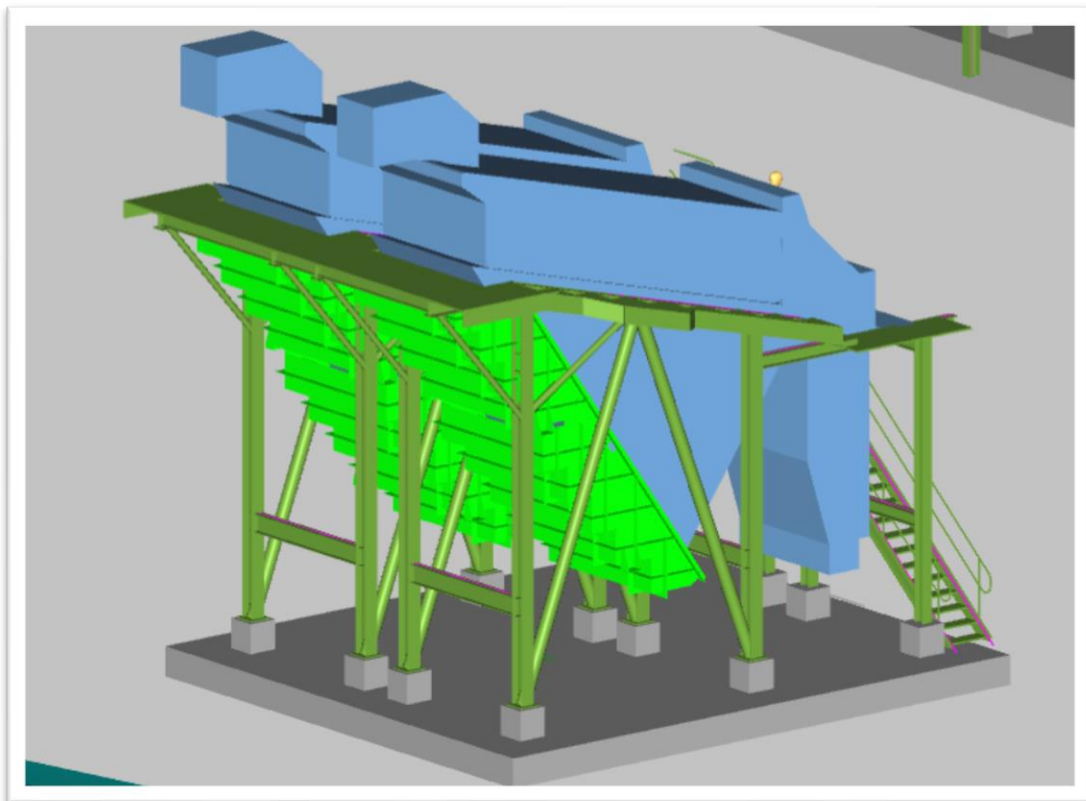


Figure 4 - Improvements on product screen on supplementary crusher for higher throughput

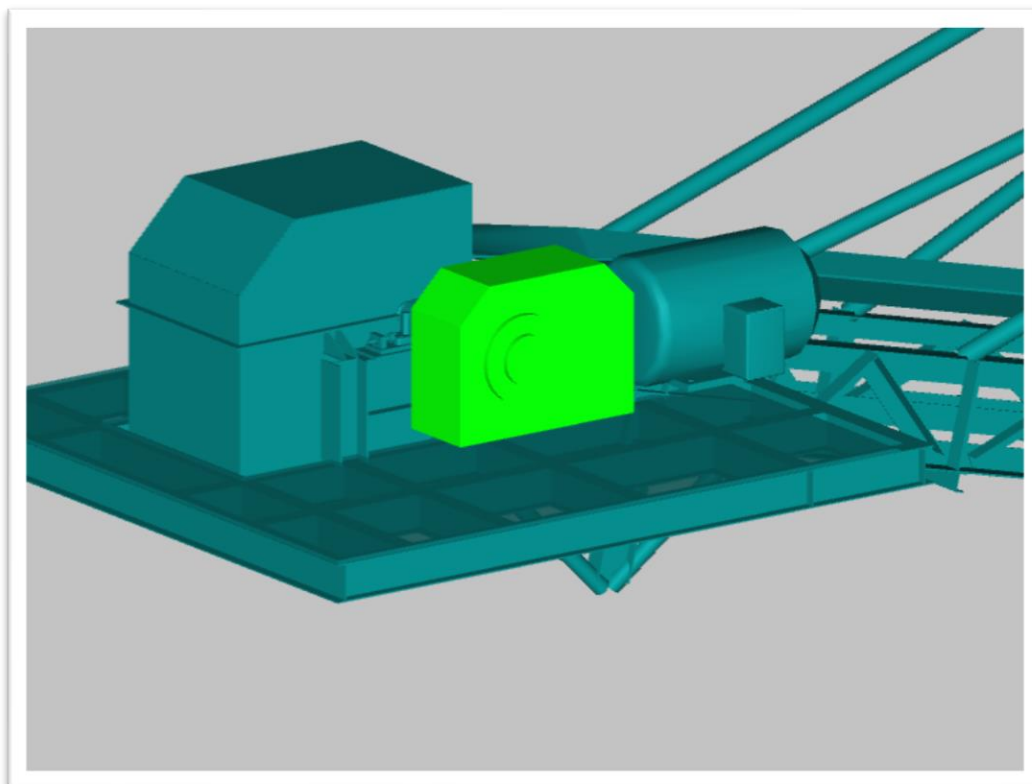


Figure 5 – Installation of bigger drive on coarse ore stockpile (COS) conveyor

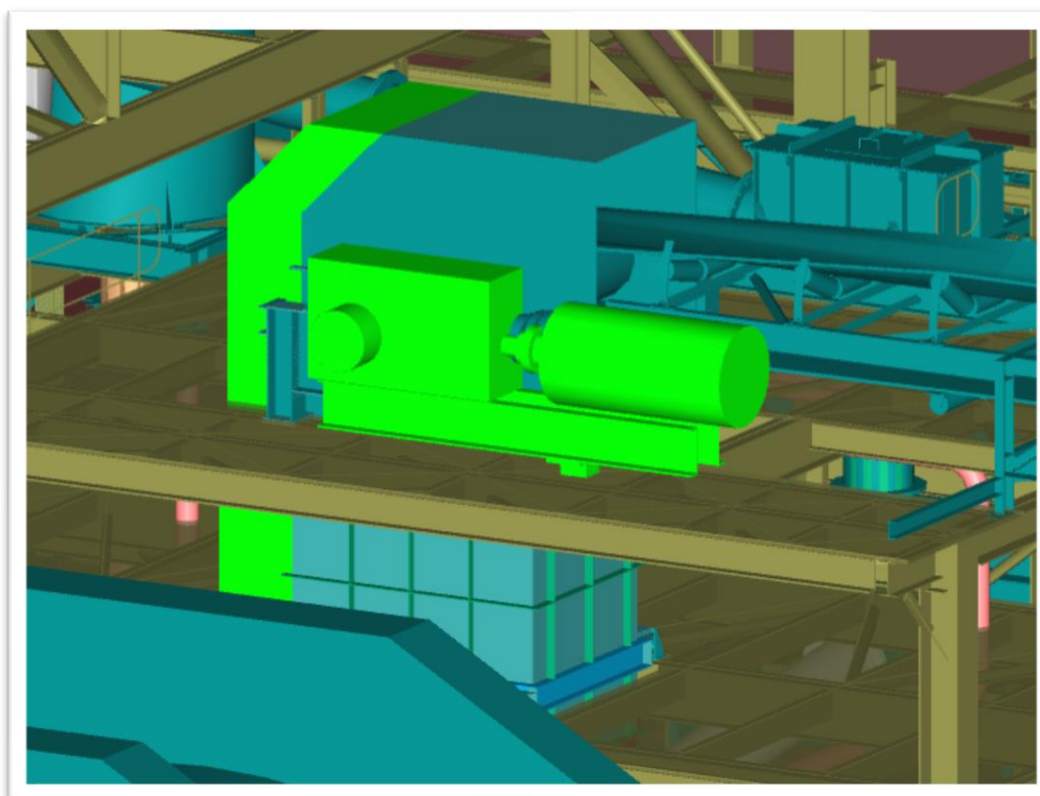


Figure 6 - Installation of bigger drive on mill feed conveyor and minor chute modifications

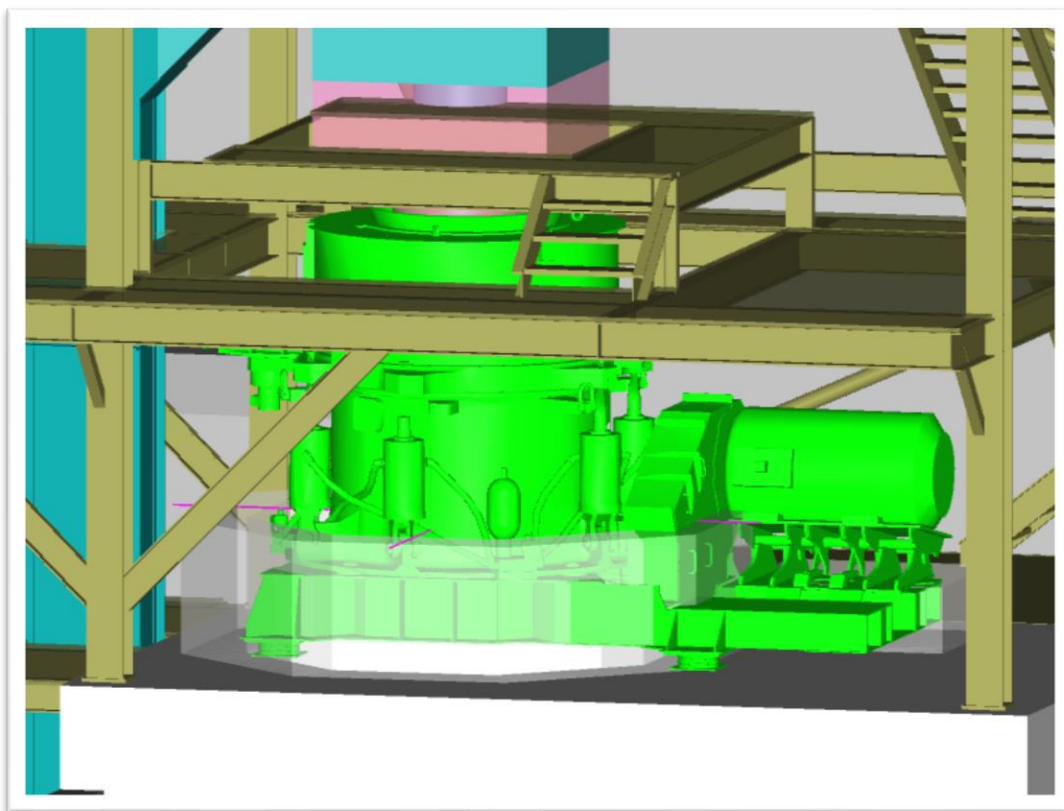


Figure 7 - Installation of larger pebble crusher installed to replace existing pebble crusher

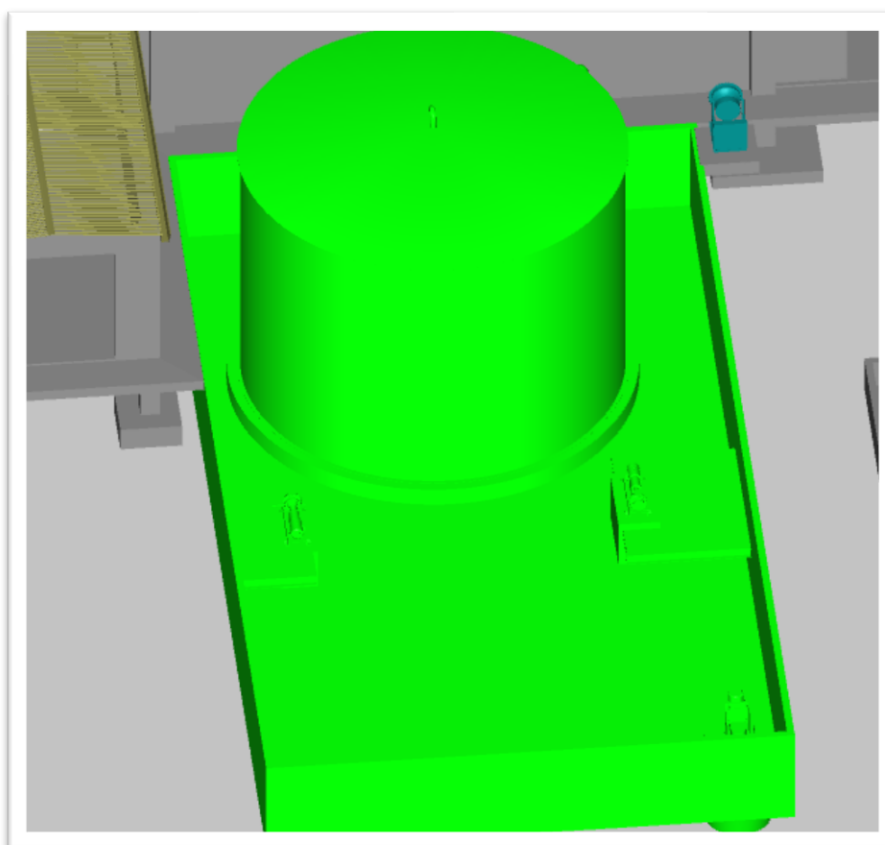


Figure 8 - Additional pregnant solution tank to increase gold room stripping capacity

2.8.3 Operation

The operation phase encompasses all the activities for mining and Plant operations. Progressive rehabilitation will be undertaken in the mined-out areas during the operating life of the Project. This will lessen the areas for rehabilitation after project closure.

2.8.4 Abandonment Phase

The major activity involved in this phase is the decommissioning of remaining mining areas and the Plant. The closure and decommissioning activities will be implemented in consultation with the host communities through the Local Government Units.

2.9 *Project Costs*

The Estimated volume of investment for the project is as follows:

Table 4 - Volume of Investment

Component	Existing	To be Acquired	Total
Property, Plant and Equipment			
Land		1,000,000,000	
Land Improvements		139,000,000	
Mine Development		155,000,000	
Ferro-Nickel Plant		10,424,440,000	
Power Supply		390,000,000	
Water Supply and Plant Drainage		43,316,000	
Plant Environmental Protection		28,000,000	
Firefighting and Plant Safety Equipment		8,668,400	
Ambulance and Medical Equipment		9,000,000	

Component	Existing	To be Acquired	Total
Transportation Equipment		28,000,000	
Office Furniture and Equipment		3,000,000	
Sub-Total		12,228,424,400	12,228,424,400
Deferred Charges			
Engineering and Office Software		3,000,000	
Pre-Development Engineering and Exploration/Geology	1,830,000	9,173,360	
Permitting	8,500,000	4,700,000	
Rehabilitation Cash Fund		5,000,000	
Mine Waste and Tailings Fee		22,143	
Pre-Stripping		69,240,000	
Working Capital		529,411,477	
Financial and Legal Costs		150,500,000	
Pre-Operating Interest		724,210,526	874,710,526
Sub-Total	10,330,000	1,495,257,507	1,505,587,507
Total	10,330,000	13,723,681,907	13,734,011,907

2.10 Initial Impact Management Plan

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation* or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
Mining operations	The Land	<ul style="list-style-type: none"> Change in pond configuration/ stability Disturbed land use Loss of vegetative cover 	<ul style="list-style-type: none"> Regular inspection and assessment of underground working areas Controlled blasting Implementation of progressive rehabilitation 	FRC	Part of Project Cost	
	The Water	<ul style="list-style-type: none"> Water pollution 	<ul style="list-style-type: none"> Maintenance of settling ponds for acid mine drainage containment Regular Monitoring 	FRC	Part of Project Cost	
	The Air	<ul style="list-style-type: none"> Air quality degradation 	<ul style="list-style-type: none"> Annual emission test on vehicles and equipment; Wind Direction and Wind Speed monitoring. Proper housekeeping maintenance of vehicles and equipment Regular Monitoring 	FRC	Part of Project Cost	
	The People	<ul style="list-style-type: none"> Health and safety of the Community 	<ul style="list-style-type: none"> Adherence to mining safety standards Restriction of unauthorized entry by the public from underground mine areas 	FRC	Part of Project Cost	

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation* or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
Mill Process	The Land	<ul style="list-style-type: none"> Tails accumulation Solid wastes accumulation Human wastes generation 	<ul style="list-style-type: none"> Containment of tail wastes in existing tailings disposal ponds Compliance with RA 9003 in coordination with LGU Compliance with health and sanitary requirements Regular Monitoring 	PGPRC		Part of Project Cost
	The Water	<ul style="list-style-type: none"> Siltation and sedimentation Water quality degradation 	<ul style="list-style-type: none"> Treatment and containment of waste water Regular Monitoring 	PGPRC		Part of Project Cost
	The Air	<ul style="list-style-type: none"> Air quality degradation 	<ul style="list-style-type: none"> Proper housekeeping and maintenance of mill equipment Installation and maintenance of efficient scrubbers Wind Direction and Wind Speed monitoring Regular Monitoring 	PGPRC		Part of Project Cost

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation* or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
	The People	<ul style="list-style-type: none"> Health and safety of the community 	<ul style="list-style-type: none"> Strict implementation of proper handling of hazardous chemicals Retrieval of chemical containers by suppliers Sanitation of hazardous chemical containers prior to disposal Restriction of unauthorized public entry into the mill area Regular Monitoring 	PGPRC		Part of Project Cost
Abandonment Phase						
Decommissioning	The Land	<ul style="list-style-type: none"> Slope stabilization Regeneration of vegetation Reduction in solid waste generation Reduction in human waste generation 	<ul style="list-style-type: none"> Reforestation of unstable slope Continuous monitoring, maintenance of engineering structures, and implementation of necessary mitigating measures Monitoring or validation or evaluation until project is certified safe and closed by MGB and EMB 	FRC/PGPRC		Part of Project Cost
	The Water	<ul style="list-style-type: none"> Reduction of waste water Improvement of natural water quality conducive susceptible for aquatic life 	<ul style="list-style-type: none"> Monitoring or validation or evaluation until project is certified safe and closed by MGB and EMB 	FRC/PGPRC		Part of Project Cost

Project Phase / Environmental Aspect	Environmental Component Likely to be Affected	Potential Impact	Options for Prevention or Mitigation* or Enhancement	Responsible Entity	Cost	Guarantee / Financial Arrangements
	The Air	<ul style="list-style-type: none"> Cessation of air pollution production 	<ul style="list-style-type: none"> Monitoring or validation or evaluation until project is certified safe and closed by MGB and EMB 	FRC/PGPRC	Part of Project Cost	
	The People	<ul style="list-style-type: none"> Loss of employment Decline of local economic activities Decline in local revenue 	<ul style="list-style-type: none"> Just compensation Coordination with LGU to formulate and implement stable and sustainable livelihood programs such as nursery establishment and reforestation, assisting small scale miners to create cooperatives, recycling (brick making out of tailings, waste segregation, handicraft making) tourism promotion, etc. Formulation of sustainability plan for SDMP projects and other benefits as provided for by RA 7942 	FRC/PGPRC	Part of Project Cost	

Annexes:

Annex A – Mineral Production Sharing Agreement

Annex B – Environmental Compliance Certificate

Annex C – Latest Google Satellite Photo Showing the Project Area

Annex D - Collage of Photos or Plates of Proposed Project Site

Annex E – Perception Survey Documentation

Annex F – IEC Documentation

ANNEX A – MINERAL PRODUCTION SHARING AGREEMENT

ANNEX B – ENVIRONMENTAL COMPLIANCE CERTIFICATE

ANNEX C – LATEST GOOGLE SATELLITE PHOTO SHOWING THE PROJECT AREA



ANNEX D - COLLAGE OF PHOTOS OR PLATES OF PROPOSED PROJECT SITE



The helipad with FRC's heavy equipment workshop.



A close-up of the ROM (Run of mine) pad and process plant.



The process plant's CIL tanks (PGPRC photo).



PGPRC's processing plant complex with the CIL tanks, power plant stacks, decant water treatment plant, and process water pond as the prominent features. FRC's heavy equipment workshop is visible right side of the complex. Port Barrera is seen at the background (PGPRC photo).



The process plant's grinding and classification section (PGPRC photo)



Main Vein low-grade stockpile (FRC photo).

ANNEX E – RESULT OF PERCEPTION SURVEY

Based on DENR Administrative Order No. 2017-5 (Guidelines on Public Participation under the Philippine Environmental Impact Statement (EIS) System, stakeholder involvement shall be initiated early through information and education campaign (IEC) prior to scoping.

A project information booklet (PIB) was formulated to capture all important project data on the proposed expansion project (see attached PIB). The contents of the PIB complies with the requirements set forth in Section 6 of DAO No. 2017-5. These were distributed to the host and indirect impact barangays as well as to the municipal officials of Aroroy.

Initial stakeholder identification was undertaken and the direct impact area is Barangay Puro, the host barangay of Philippine Gold Processing and Refining Corporation (PGPRC). The indirect barangays are Barangays Amuroy, Balawing, Bangon, Capsay, Lanang, Panique, and Syndicate. These indirect barangays are all host barangays of the Masbate Gold Project and were adapted as indirect impact barangays. The details are shown in the Pro-Forma Stakeholder Identification matrix. The following groups had been the audience of an IEC conducted on October 16-20, 2018;

Aroroy, Masbate – Host Municipality (KIIs)

- 1) Municipal Office
- 2) Municipal Health Office
- 3) Municipal Planning and Development Office (MPDC)

Barangay Puro -- Host Barangay (KIIs & FGDs)

- 1) Barangay officials/ Barangay Council
- 2) Purok and Sitio Leaders and representatives
- 3) Residents near the PGPRC Plant premises
- 4) Representative from local organizations
- 5) Members of Multi-partite monitoring team (MMT) of Masbate Gold

Indirect Impact Barangays – Barangay Captains (KIIs)

- 1) Amuroy
- 2) Balawing
- 3) Bangon
- 4) Capsay
- 5) Lanang
- 6) Panique
- 7) Syndicate

An initial perception survey was conducted on October 17 to 19, 2018 in Barangay Puro. The sample size was 190 households based on the extrapolated population of 2015 PSA data. This sample size has a confidence level of 95% with a margin of error of plus/minus 7% margin of error.

The survey respondents included officials of the host municipality, host barangay and indirect barangays. Residents of the host barangay including workers of the two companies, persons involved in business, farmers, fisherfolk and other members of the marginalized sectors.

The results of the initial perception survey are presented and forms part of this report. In addition, a summary of findings is summarized as well as the recommendations on how to further improve project information dissemination.

Masbate Gold Project – Processing Plant Expansion Project

Initial Perception Survey Results

Project Background Information

The Masbate Gold Project (MGP) is a joint operation of Filminera Resources Corporation (FRC) and Philippine Gold Processing and Refining Corporation (PGPRC). FRC owns, manages and operates the entire Mineral Processing Sharing Agreement (MPSA) awarded by the government while PGPRC owns and operates the gold processing plant and is responsible for the sale of gold. In 1998, MGP was issued an Environmental Compliance Certificate (ECC) for the entire MPSA that also includes the processing plant. The PGPRC started its construction last November 2007 while mine development started in September 2008. The first gold production of PGPRC started in 2009.

On the initial phase of project operation, FRC was known to be the main proponent of the project. However, when FRC submitted the ECC compliance and monitoring reports, DENR and MGB required PGPRC to secure a separate permit and separate compliance scheme for the processing plant by submitting separate periodic self-monitoring report (SMR) and securing a mineral processing permit. Hence, in addition to the submission of compliance reports provided by FRC, PGPRC also submits the periodic SMRs and provides a separate SDMP as a mineral processing facility through its mineral processing permit (MPP). The SDMP projects provided by FRC and PGPRC were separately identified to the barangay officials and community beneficiaries which provided awareness on the separate management schemes of the two companies under the MGP project operation. Last 2015, FRC applies for the ECC amendment for the Montana Extension Pit Project.

The proposed project expansion is about the planned increase of throughput ore being processed in the PGPRC plant to from 6 million metric tons per annum (MTPA) to the proposed 9 million MTPA. The proposed expansion will require an upgrade of some machineries to improve the processing capacity for low-grade ore to maximize the extraction of gold. It will utilize the existing low-grade stockpile as raw material to better manage the stockpile inside the MGP area.

Mining operation in the community is well known by almost all community members. Previously operated by Atlas Consolidated Mining Development Corporation (ACMDC), mining in Aroroy or presently known as MGP provides major development projects in the community. Inside the MGP area, different support facilities and components were installed under the management of FRC or PGPRC. Presently, the management of FRC and PGPRC continuously provide IEC in the community including the different roles of FRC and PGPRC in the MGP mining operation. Both FRC and PGPRC

are well known through their different SDMP projects they implement in the host communities which have resulted in increase awareness of the people about the PGPRC's project operation.

Initial perception survey was conducted in Barangay Puro on October 17 to 19, 2018 where the PGPRC processing plant is located. This survey was conducted by the local enumerators of the barangay assigned in their respective areas or sitios. The total sample size for the survey is 190 household respondents which was computed based on the extrapolated population for 2018 in the barangay using the Philippine Statistical Authority (PSA) base population data for 2015. The sample size was computed using the 95% confidence level with a plus or minus 7% margin of error.

Awareness and General Understanding on the Proposed Project

A. Awareness on the PGPRC Processing Plant

Table A.1 shows the percentage of awareness about the PGPRC processing plant operation. Almost Seventy-eight percent (77.89%) are aware about the PGPRC facility and existing operation while around 22% were unaware on the project operation. Almost 89% of the total 148 aware respondents stated that they know the PGPRC operation for more than 5 years while around 8% only known the PGPRC existence for less than 5 years. The details were presented in the following table.

Table A.1 Awareness on the PGPRC Processing Plant Operation. 2018

Awareness of the Processing Plant Operation inside MGP area	Total	%
Aware	148	77.89%
Not aware	42	22.11%
Total	190	100.00%
How long have you known the processing plant operation?	Total	%
More than 5 years	131	88.51%
3 to 5 years	9	6.08%
1 to 3 years	3	2.03%
No answer	5	3.38%
Total	148	100.00%

Source: Perception Survey October 17-19, 2018

B. Awareness on the Proposed Expansion Project

The respondents were asked if they know about the proposed expansion of the PGPRC project. Enumerators were instructed to explain to the respondents the proposed project increasing the present 6 million metric tons per annum (MTPA) of throughput ore being processed to 9 million MTPA volume of throughput ore. Majority (126 respondents) or 66.32% said they are aware about the proposed expansion while 63 respondents are not aware of the proposed expansion project.

The respondents who were aware of the expansion project (126 respondents) were then asked about their sources of information about the project expansion. Fifty respondents (31%) learned about the project expansion from barangay officials while 43 respondents (26%) learned about the proposed expansion from project employee. Twenty-four respondents (15%) of the total aware respondents learned it from their neighbors which are most probably members of the local community and relatives of the aware respondents. Eighteen respondents (11%) cited project IEC leaflets distributed in the barangay as their source of project information. Around 17% learned about the project expansion from other sources such as TV and radios, from family members, and community sectors or barangay workers. The details of the project awareness and sources of information were presented in the following table.

Table B.1 Awareness on the PGPRC Processing Plant Proposed Expansion. 2018

Awareness of the Proposed Project	Total	%
Yes	126	66.32%
No	63	33.16%
No Answer	1	0.53%
Total	190	100.00%
*Sources of Project Information	Total	%
Barangay/City Officials	50	30.67%
Project employee	43	26.38%
Neighbor	24	14.72%
From the Project IEC Leaflets/ survey enumerators	18	11.04%
Family Members	13	7.98%
Consultation conducted in the barangay	4	2.45%
Barangay Health Workers (BHW)	3	1.84%
Television	2	1.23%
Parish Church	2	1.23%
Radio	1	0.61%

No answer	3	1.84%
Total	163	100.00%
* Multiple answers		

Source: Perception Survey October 17-19, 2018

The survey also asked the respondents to identify the proponent of the processing plant. Seventy-four respondents (38.95%) identified the project proponent as PGPRC, while 58 respondents (31%) simply knew the proponent as MGP and 31 respondents (16%) thought that the project is owned by FRC.

Table B.2 Awareness on the Project Proponent. 2018

Processing Plant Project Proponent	Total	%
Philippine Gold Processing and Refining Corporation (PGPRC)	74	38.95%
Masbate Gold Project (MGP)	58	30.53%
Filminera Resources Corporation (FRC)	31	16.32%
MGP, FRC and PGPRC	4	2.11%
No idea	23	12.11%
Total	190	100.00%

Source: Perception Survey October 17-19, 2018

The results presented in the above **Table B.2** showed that not all people are aware of the management scheme of MGP being jointly run by both FRC and PGPRC. The results seem to show that the arrangements between FRC and PGPRC is not clear to many of the respondents. It is necessary for the company to continuously disseminate the correct information about FRC, as a holder of the entire mining tenement or MPSA while PGPRC as a processing company that produces gold, mined by the FRC.

C. Perceived Impacts of the Proposed Project

The respondents were asked about their opinions on the benefits of the proposed expansion of the processing plant. The question can accommodate multiple answers. Hence, the third column contains the percentage in relation to the total number of responses. The fourth column contains the percentage in relation to the number of respondents.

Employment opportunities from expansion project was cited by 123 respondents (65%) and represents 27% of total responses. This high expectation on employment opportunities should be tempered because the project expansion is only about the increase of throughput ore and no additional employee is required for the expansion. However, employment opportunity may still come from sub-contractor of the company that provides services inside the MGP area.

The next four answers (scholarship, assistance to LGU projects, skills training and medical mission) represents 57% of total responses and are included in the existing SDMP of FRC and PGPRC. Respondents perceived rightly that because of the expansion project, the amount allocated to fund the SDMP will increase and be used as additional funds to finance these benefits. The details are shown in the following **Table C.1 Benefits of the Proposed Project. 2018**.

Table C.1 Benefits of the Proposed Project. 2018

*Benefits of the proposed project expansion	Total	% of Total Responses	% of Respondents
Employment	123	27.27%	64.74%
Scholarship	87	19.29%	45.79%
Assistance on the LGU projects	78	17.29%	41.05%
Skills training	57	12.64%	30.00%
Medical mission	35	7.76%	18.42%
Additional income	33	7.32%	17.37%
Business opportunity	26	5.76%	13.68%
None	9	2.00%	4.74%
No idea/no comment	3	0.67%	1.58%
Total	451	100.00%	
* Multiple answers			

Source: Perception Survey October 17-19, 2018

In terms of project's impact to their communities, 93 respondents (49%) expressed positive opinions in favor of the project. Forty-four respondents (23%) were in the opinion that the proposed expansion will provide livelihood and employment opportunities while 27 respondents (14%) were expecting that different projects arising from additional funds for SDMP will continue to play the major role in the overall development of their communities.

Fifteen respondents (7.89%) saw the expansion project as creating additional income for their families; 4 respondents perceived the expansion project as decreasing poverty (*kahirapan*) in

their communities while 3 respondents saw the expansion project as a source of additional funds for education.

Twenty respondents (10.53%) perceived negatively the expansion project. Despite the development being provided by the company, 13 respondents (8%) thought that the expansion project will continue to pose a threat on the present sources of income such as gold panning and fishing.

Other negative perceptions arising out of the expansion project are noise and pollution (6 respondents) and possible landslide (1 respondent). The details are shown in **Table C.1 Impacts of the Proposed Project to the Community. 2018.**

Table C.1 Impacts of the Proposed Project to the Community. 2018

Project's Impacts to Communities	Total	%
Positive Impacts		
Livelihood and Employment opportunity	44	23.16%
Continuous development	27	14.21%
Additional income	15	7.89%
Lessen poverty	4	2.11%
Educational assistance	3	1.58%
Sub-Total	93	48.95%
Negative Impacts		
Low income and gradual loss of income (panning, fishing)	13	6.84%
Noise and air pollution	6	3.16%
It will pose danger such as landslide	1	0.53%
Sub-Total	20	10.53%
No idea/No comment	46	24.21%
None	31	16.32%
Sub-Total	77	40.53%
Grand Total	190	100.00%

Source: Perception Survey October 17-19, 2018

It should be pointed out that 77 respondents (40.53%) did not give any positive or negative impacts on the proposed expansion project on their communities. Forty-six respondents (24.21%) did not express their opinions while 31 respondents (16.32%) did not see any impacts arising out of the expansion project.

A key informant noted that some people do not want to express their opinions openly because they are personally benefitting from the operations of the mining and processing activities. Their openness may be construed as “against the project” and might prejudice additional assistance for their families in the future.

The respondents were asked about the possible impacts of the expansion project on their environment. One hundred ten respondents (57.90%) expressed negative opinions on the expansion project impacts on the environment.

Fifty-four respondents (28.42%) had the opinion that the proposed expansion project will destroy the existing natural resources wherein which they tend to rely upon as their sources of income. Twenty-seven respondents (14%) thought that the project will cause air pollution while 12 respondents (6%) expect to feel or hear the vibration and noise emanating from the operation of the processing plant. Thirteen respondents (6.84%) were worried about the health risk that the project may pose. The other details are shown in the following **Table C.1 Impacts of the Proposed Project to the Environment. 2018**

Table C.1 Impacts of the Proposed Project to the Environment. 2018

Project's Impact to the Environment	Total	%
Negative Impacts		
Destruction of mountains, forest, farmlands and ocean	54	28.42%
Air pollution	27	14.21%
Health risk	13	6.84%
Vibration and noise disturbance	12	6.32%
Water pollution	2	1.05%
Loss of source of income	1	0.53%
Displacement of the people	1	0.53%
Sub-Total	110	57.90%
Positive Impacts		
Continuous development	30	15.79%
Ensuring safety environment through rehabilitation	13	6.84%
Livelihood and employment opportunity	8	4.21%
Sub-Total	51	26.84%
No idea/No comment	24	12.63%
None	5	2.63%
Sub-Total	29	15.26%
Grand Total	190	100.00%

Source: Perception Survey October 17-19, 2018

D. General Opinion about the Proposed Project Expansion

Finally, the respondents were asked about their opinion on the proposed project. Eighty-eight respondents (46%) thought that the project will help a lot their communities while 53 respondents (28%) thought that the project will be able to help their communities but not much. Overall, the positive opinions represent 141 respondents or 74.21% of total number of respondent households. Thirty respondents (15.79%) thought that the project will be detrimental and will only bring negative impacts to the community while 7 respondents (3.68%) thought that the project will not help the community at all. The details are shown in the following **Table D.1 Opinion about the Proposed Project Expansion. 2018.**

Table D.1 Opinion about the Proposed Project Expansion. 2018

General Opinion on the Project	Total	%
Will help a lot the community and local residents	88	46.32%
Will be able to help but not much	53	27.89%
Will not help the community at all	7	3.68%
Will be detrimental to the community	30	15.79%
No answer	12	6.32%
Total	190	100.00%

Source: Perception Survey October 17-19, 2018

E. Conclusions

The mine development of FRC started in September 2008 while the construction of the processing plant started in November 2007. The first gold was produced in 2009. The two companies have been in Aroroy, Masbate for at least 10 years and this duration had been reflected in the survey. Around 78% of respondents were aware of PGPRC and out of the respondents who were aware, 88.51% had known the processing plant operations for more than 5 years.

Around two-thirds of respondents (66.32%) were aware of the planned expansion project of PGPRC and the primary source of information came from barangay officials (30.57%) and project employees (26.38%).

On awareness of project proponent, the respondents were not very clear on the identity of the project proponent. What is also clear is they are not very familiar or informed on what are the management arrangements between FRC, PGPRC and Masbate Gold Project.

The track records of both FRC and PGPRC on providing benefits to the surrounding communities is properly documented in the results of the survey. The primary benefit derived from the overall project is employment and community projects under the SDMP of both companies.

The perceived negative impacts of the proposed expansion project on their communities on their sources of income is worth mentioning. Some respondents perceived that the expansion project will continue to pose a threat on the present sources of income such as gold panning and fishing. It should be pointed out that the fear of loss of income from gold panning comes from the fact that FRC possess the MPSA for the areas presently being mines by small scale gold panners and based on the EPRMP submitted by FRC last May 2018, there is a plan to relocate and resettle these small-scale miners.

On the perceived loss of income from fishing, there are residents who still believe that the mining and processing of gold operations produce water pollution which allegedly came from chemicals being used in the refining process. Because of this water pollution, they believe that their fish catches will decrease resulting in diminishing household income.

The negative impact of vibration and noise are the results of blasting which cannot be attributed to PGPRC. The destruction of the environment (mountains, forests, farmlands and ocean) and other negative effects on the environment, as perceived by respondents are mainly from the mining operations and not from the processing plant.

However, the fact that these are included in the possible negative environmental effects of the proposed expansion of the processing plant only reflects the difficulty in rightfully identifying what FRC and PGPRC are doing. Respondents have mixed or unclear delineation of responsibilities between these two entities and possible negative effects of the mining operations had been ascribed to the processor of gold.

On the opinion of respondents about the proposed project expansion, almost three fourths of respondents had expressed positive opinions about the proposed project. These responses came mainly from the educational benefits and community projects from SDMP project which they already received.

F. Recommendations

While these results provide the initial perception of the people about the proposed project, it is important to continuously disseminate the correct and detailed project information to the people in Aroroy to avoid misconceptions about the project.

Generally, the result showed that people may have limited knowledge on the exact details of project expansion and the relationships and responsibilities of both FRC and PGPRC. These insufficiencies of information can still be addressed by a continuous IEC campaign. The initial set of IEC leaflet material can still be reproduced by the proponent for further distribution to local residents especially those residing near the PGPRC plant and other concerned local residents.

While the project proponent is PGPRC, recommendations may also be extended to FRC because whatever one company is doing will inevitably affect the other. Perceptions of residents with the operations of FRC will also affect PGPRC and inversely, the operations of PGPRC will also affect the perceptions on FRC.

FRC and PGPRC have encouraged transparency especially in their working relationships with the communities. Getting feedbacks on their operations from the host communities is a strategy to foster honesty, trust and a mechanism to further improve their operations through comments and observations from the residents. Hence, further efforts should be exerted to encourage more openness from the host communities.

Annex F – IEC Documentation

**INFORMATION, EDUCATION AND COMMUNICATION (IEC) ACTIVITIES for the
MASBATE GOLD PROJECT PROCESSING PLANT EXPANSION PROJECT**

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
Municipality of Aroroy, Masbate	Courtesy call with Mayor Arturo B. Virtucio Office of the Mayor, Municipal Hall of Aroroy, Masbate October 17, 2018 1:35 pm	EIA study team activity	The study team of Axceltechs Inc. was commissioned by FRC to conduct the EIA and initial pre-scoping IEC activities for the ECC amendment application for the expansion of the volume of throughput ore from 7.3 million metric tons to 9 million metric tons per annum (MTPA). The study team is conducting an IEC, where project information is being disseminated to the host LGUs and other project stakeholders within the community.
		Gathering of secondary data	Mayor Virtucio stated that the study team should ensure that the data they will use should be based on facts and actual figure to avoid misleading information. The study team explained that the data that will be used as reference for the study will only be based on the official information released by the pertinent municipal offices especially data provided in the Socio-economic profile (SEP) and Comprehensive Land Use Plan (CLUP).
		Purpose of expansion	The expansion of throughput ore will utilize the low-grade ore presently stockpiled which have raised concerns to surrounding communities on possible accidents that may originate from the stockpile.

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
Barangay Amuroy, Aroroy, Masbate	Key Informant Interview with Barangay Captain Cecilia Pujol IEC Center, FRC/PGPRC Office, Barangay Puro, Aroroy October 17, 2018 4:00 pm	Provision of correct and appropriate taxes need to be paid to the LGU of Aroroy	As mentioned, there is nothing wrong with the expansion of PGPRC Plant as long as the company comply with the correct taxation scheme implemented in the municipality. This concern will be properly documented and bring to the knowledge of the proponent.
		Stand on the project	Mayor Virtucio stated his strong support on the project since it aims to provide additional product output that will increase the sales of the company. Higher sales of the company will result into higher tax collection for the municipal of Aroroy.
		Awareness of the proposed project	Barangay Captain stated that she is aware on the processing plant of PGPRC and their planned expansion. She is also aware that PGPRC operates the processing plant while FRC are on the mining side. Moreover, the SDMP funds they receive from FRC is different from the SDMP funds of PGPRC.
		Better management of stockpile	Barangay Captain mentioned that the project will bring positive development since the volume of the stockpile will decrease lessening the risks of accidents which worry people in the nearby communities. The existing stockpile is also prone to cause serious disasters if a strong typhoon will hit the area.
		Benefits of the project	Since the project is an expansion on production of gold, it will be reflected on the higher sales and higher fund for the SDMP. This expansion project will fund more development projects such as education. Graduates are employed in FRC/PGPRC or their sub-

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			contractors while other graduates prefer to work outside Masbate, in Metro Manila and even in abroad.
		Impacts on the community and environment	As stated by Barangay Captain, Barangay Amoroy is where the company's airstrip is located. The PGPRC plant is actually very far from the barangay but the outcome of the expansion will definitely reach the barangay through SDMP. Hence, the barangay will receive minimal impact in terms of noise and air dust generated from the processing plant's premises.
		Informal Settlers	As stated by Ms. Pujol, most of the people in the barangay have no legal land title. Some of them built their houses inside the private properties while other within FRC property. These people have verbal permissions to build their houses and offer little resistance to leave when the landowners need the lands. In the case of FRC land, most of them were relocated to the resettlement site with compensation package.
		Stand on the project	Barangay Captain Pujol stated her strong support on the proposed project for the continuous development in the area. Mining undeniably brings major development in the area providing infrastructure projects, progress in business and higher educational attainment for the people. The planned expansion will also mean additional fund for community development projects for the local people.

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
Barangay Capsay, Aroroy, Masbate	Key Informant Interview with Barangay Captain Samuel Recto IEC Center, FRC/PGPRC Office, Barangay Puro, Aroroy October 17, 2018 4:30 pm	Awareness of the proposed project	Barangay Captain Recto stated that he is aware on the processing plant of PGPRC. The planned expansion was only learned through the proponent and Axceltechs Inc. study team's IEC activities.
		Benefits of the project	Mr. Recto explained that the proposed expansion will mean additional funds for their SDMP which are given to host barangays including Barangay Capsay. Hence, it will bring positive development in providing different community development projects especially in the sector of education.
		Utilization of low-grade stockpile	The study team explained that the ore that will be feed into the planned expansion will be sourced out from the existing low-grade stockpile within the MGP area. Mr. Recto received this information and mentioned that this is good news for the communities because of their concerns about possible accidents that arise from the existing stockpile.
		Impacts on the community and environment <i>Will there be additional load on the tailings storage facility?</i>	As mentioned by Mr. Recto, the powerplant's premises is quite far from their barangay which have a very minimal effect in terms of generated noise and dust from the plant's premises. However, additional throughput load will also mean additional waste materials that will be directed to the TSF. The study team explained that the additional throughput load will still fall within the load capacity of the existing machineries and pollution control devices and facilities including the TSF. Hence, the

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			existing waste treatment facilities and waste management scheme can still address the generated waste from the project expansion.
		Stand on the project	Mr. Recto expressed his strong support on the planned expansion. Being the person that previously opposed mining in the early operation of the FRC and PGPRC, the barangay obviously witnessed the progress gained by the community through the company's operations. As he mentioned, there is nothing wrong with the planned expansion as long as appropriate measures were applied at all times to ensure the welfare of the community and environment.
Barangay Puro, Aroroy, Masbate	Focused Group Discussion with Barangay Puro Barangay Hall of Puro October 18, 2018 10:00 am	Water pollution into the receiving waterbodies	A state-of-the-art device was installed within the PGPRC Plant to treat the wastewater containing heavy metals like Cyanide. In a typical wastewater treatment from the plant, the first part will be the treatment of cyanide to lessen its harmful properties. The treatment is computerized which will automatically lead to the succeeding process of metal removal once the cyanide's concentration reached within the range of 0.0-0.04 ppm. Given the minimal concentration of heavy metals, the wastewater will be filtered into a screen with smaller holes thinner than the strand of human hair. The entire treatment process was also equipped with online analyzer wherein the acceptable concentration was programmed that automatically shuts down

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			once the resulting wastewater concentration failed to meet the required standard. Treatment process even during the onset of planned expansion will always ensure that wastewater is still within the DENR standard prior to discharge to the environment.
		Air Pollution Possible spill of cyanide	The PGPRC Processing Plant is equipped with reliable method of detecting possible spill of pollutants or chemicals from the plant's premises and will continue to be observed in with the planned expansion. As explained by PGPRC Plant Metallurgist, Mr. Cezar, cyanide easily dispersed in the atmosphere once spilled out into air. They always monitor and prevent the possible spill by maintaining the surrounding conditions to pH concentration of 10.2 to 11.0 in order to ensure that within these conditions, cyanide spill may not be possible. Moreover, cyanide monitoring of the plant usually ranges within the very minimal concentration of 0.0 to 0.01 ppm. Because it can be easily dispersed in the atmosphere, there is minimal chance of inhaling or smelling the cyanide in strong concentration that may adversely affect the community.
		Health impact <i>Cyanide causes the increasing incidences of Tuberculosis</i>	As stated by Mr. Cezar, based on the periodic monitoring for chemical spill, there were no cyanide spill encountered in the plant or within the premises. The strong smell of substance mentioned by the participants may come from other sources.

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			Health monitoring was also part of the activities of the PGPRC and the complaints may also be filed in the office or through the assigned COMREL staff. By filing an official complaint along with the evidence, PGPRC will investigate and provide the necessary corrective measures to address possible health impacts coming from the PGPRC plant including increasing Tuberculosis in the area.
		Vibration and noise impact	The additional throughput load will still be subject to the same processing scheme and will create minimal noise that may come from hauling of low-grade stockpile going to the feed mill. From the periodic monitoring of generated noise from PGPRC operation, noise level still falls within the allowable standard or decibel set by the DENR. The company also provide noise control device to minimize the generated sounds and create less disturbance to the surrounding communities. On the other hand, vibration often comes from blasting from mining operations. However, this concern should still be properly documented and brought to the proponent in order to provide mitigating measures in coordination with the concerned LGU officials regarding the concerns on vibration and noise impacts within the area.
		Displacement of households	The proposed expansion of throughput within the PGPRC Plant will not acquire additional area or additional construction of

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
		<i>More frequent relocation happened from the FRC/PGPRC operation compare to ACMDC previous mining operation</i>	facilities. Hence, there will be no households that will be displaced. As clarified with the participants, most of the people in the barangay have no legal title over the land they occupy and often owns by private entities or within the property of FRC. Displacement of households within the FRC property or more on its MPSA area is inevitable since this is part of their mining exploration and excavation. However, the FRC performs appropriate coordination with these households through relocation to the resettlement site providing just compensation needed by the affected families.
Barangay Balawing, Aroroy, Masbate	Key Informant Interview with Barangay Captain Leonides V. Dones Jr. IEC Center, FRC/PGPRC Office, Barangay Puro, Aroroy October 18, 2018 3:00 pm	Benefits of the project	As clarified by the informant, the planned expansion will increase the sales of PGPRC that will result in more funds allocated to the SDMP for the host barangays including Barangay Balawing. It is a positive development for the barangay since it will provide additional funds to sustain the different projects in the community.
		Stand on the project	Mr. Dones explained that Barangay Balawing is a coastal barangay located few kilometers away from the PGPRC Plant site. The possible noise and dust it may create maybe very minimal and will not affect the local people in the barangay. The planned expansion was supported by Mr. Dones believing that the gradual utilization of low-grade stockpile will eventually

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			bring relief on the concerns of the surrounding communities situated near the stockpile.
Barangay Bangon, Aroroy, Masbate	Key Informant Interview with Barangay Kagawad Irene M. Sta. Clara in behalf of Barangay Captain Elmo A. Sta. Clara Barangay Hall of Bangon, Aroroy October 19, 2018 9:00 am	Availability of high-grade ore <i>As explained by the PGPRC, the expansion will use low-grade ore, does it mean that there will be no more high-grade ore that will be processed?</i>	The main reason of using low-grade ore is to address and provide better management on the low-grade stockpile within the existing MPSA of FRC. Gradually, it will be feed-in the processing plant same with the current processing of high-grade ore from the active pit in the mine site. In behalf of PGPRC, Mr. Cezar explained that they are not updated on the present supply or availability of high-grade ore since they focus on the ore processing. This concern can be directed officially to mining operation of FRC so that the company can provide correct and accurate information
		Environmental impact to the community	As explained by the key informant, they have nothing against the planned expansion of PGPRC since it will not actually expand in their area nor a new building will be constructed. The possible noise and dust that may be generated by the processing plant is very minimal. The community of Bangon is more concerned on the Montana expansion of FRC than the minimal impact or minor disturbance from the expansion of PGPRC processing plant.
		Stand on the project	The key informant stated that they strongly support the expansion since it will mean additional sales that will eventually contribute to the funds allocated for SDMP. Hence, additional

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			funds for SDMP will generally bring positive development to fund the necessary community projects proposed by the host barangays including Barangay Bangon and the remaining barangays of Aroroy.
Barangay Syndicate, Aroroy, Masbate	Key Informant Interview with Barangay Captain Valentin Alonzo Barangay Hall of Syndicate, Aroroy October 19, 2018 10:40 am	Possible changes of tailings storage facility (TSF) due to expansion	The planned expansion will only deal with the increase of throughput low-grade ore from 7.3 million MTPA to 9.0 million MTPA. There will be no changes in the existing facilities and waste management facilities like the TSF. The existing capacity of TSF can still address and process the additional pollution load that may come from throughput ore expansion.
		SDMP fund increase <i>How much will be the exact increase in the SDMP funds?</i>	Mr. Cezar of PGPRC explained that the planned expansion may eventually provide positive impacts to the SDMP since the expansion generally targets increase in sales. However, they have no idea on the exact amount that may possibly add to SDMP funds once the increase in sale was obtained due to expansion.
		Environmental impact to the community	As stated by Barangay Captain Alonzo, the PGPRC Processing Plant is way too far and few kilometers away from Barangay Syndicate. The possible noise and dust that may be generated by the processing plant may be very minimal and will create less disturbance to the community of Barangay Syndicate.
		Stand on the project	Barangay Captain Alonzo stated that they strongly support the expansion since it will mean additional sales that will eventually

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
			contribute to the funds allocated for SDMP. This will bring additional funds to the existing SDMP projects in the barangay and may also fund the planned project proposal especially in the education sector.
Barangay Panique, Aroroy, Masbate	Key Informant Interview with Barangay Kagawad Boy Ranola in behalf of Barangay Captain Paz Jordan Barangay Hall of Panique, Aroroy October 19, 2018 11:20 am	Expansion details <i>What will be the added equipment?</i>	The expansion is about increasing the throughput ore that will be feed-in to the plant from 7.3 million MTPA to 9.0 million MTPA. There will be no additional area that will be established nor a new facility that will be constructed. Because the additional load will come from low-grade stockpile, some machineries and equipment will be modified or replaced that includes the ball mill, pebble crusher and additional solution tank.
		Possible changes of tailings storage facility (TSF) due to expansion	The existing capacity of TSF can still address and process the additional pollution load that may come from throughput ore expansion.
		Ground vibration impact due to additional equipment	The additional equipment and machineries will not cause ground vibration because most of them are merely replacing the existing machineries. In addition, the existing building foundation of the PGPRC Plant facility can still withstand to additional changes that will only increase in power consumption and will not cause ground vibration that may affect or disturb the surrounding community.

LGUs Covered by IEC	IEC Schedule/Dates	Issues Raised/ Suggestions	Proponent's Response
		Better management of stockpile	Mr. Ranola mentioned that the project will bring positive development since the stockpile will gradually decreased making it less harmful to cause accidents especially to the nearby residents situated near the stockpile area.
Barangay Lanang, Aroroy, Masbate	Key Informant Interview with Barangay Kagawad Boy Ranola in behalf of Barangay Captain Paz Jordan Barangay Hall of Panique, Aroroy October 19, 2018 2:20 pm	Possible spill accident of tailings dam or TSF	The existing capacity of TSF can still address and process the additional pollution load that may come from throughput ore expansion. TSF is equipped with strong materials and control measures to prevent possible spill and possible accidents that may happen. Considering the 2-kilometer distance between the stockpile and the TSF area, it will also not leak due to the gradual removal of low-grade stockpile.
		Stand on the project	The key informant stated that they strongly support the expansion since it will mean additional sales that will eventually contribute to the funds allocated for SDMP. This will bring additional funds to existing SDMP projects in the barangay and may fund the planned project proposal for community development.

PRO-FORMA STAKEHOLDER IDENTIFICATION MATRIX

Potential Impact Areas			Basis for selection of sector as a stakeholder of the project	Sectors/Sub-sectors Identified by Proponent to be Likely Stakeholders of the Project	Specific Organizations/Entities Likely to be Invited to IEC/Site Scoping as Representing the Sectoral Stakeholders
A		Direct Impact Area			
	1	Barangay Puro	Local government of the barangay has direct political jurisdiction over the portions of the project area	Local Government Unit of Barangay Puro Residents of Barangay Puro	Barangay officials/ Barangay Council Purok and Sitio Leaders and representatives Residents near the PGPRC Plant premises Representative from local organizations Members of Multi-partite monitoring team (MMT) of Masbate Gold Project
B		LGUs with political jurisdiction over the project area			
	1	Municipality of Aroroy, Masbate	Barangay Puro is located within the Municipality	Municipal Office City Environmental and Natural Resources Office (CENRO) Municipal Health Office Municipal Planning and Development Office (MPDC)	Mayor / Representative CENRO Officer/Representative Municipal Health Officer/ Representative Municipal Planning and Development Coordinator (MPDC) Representatives from different sectors in Aroroy, Masbate

Potential Impact Areas			Basis for selection of sector as a stakeholder of the project	Sectors/Sub-sectors Identified by Proponent to be Likely Stakeholders of the Project	Specific Organizations/Entities Likely to be Invited to IEC/Site Scoping as Representing the Sectoral Stakeholders
	2	Province of Masbate	Aroroy is one of the Cities within the province of Masbate	Provincial Office Provincial Environmental and Natural Resources Office (PENRO)	Governor/ Vice Governor / Representative Representative of PENRO
C		Other evident pre-identified areas of potential impact (may be candidates for Indirect Impact Areas, subject to EIA Findings)			
	1	Barangay Amoroy, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	Barangay Captain / Representative Barangay Officials Barangay Kagawad for Environment Sector/Representative Representative/official of organized group of local gold panners and other Concerned local organizations in the barangay
	2	Barangay Capsay, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	Barangay Captain / Representative Barangay Officials Barangay Kagawad for Environment Sector/Representative Representative/official of organized group of local gold panners and other Concerned local organizations in the barangay

Potential Impact Areas			Basis for selection of sector as a stakeholder of the project	Sectors/Sub-sectors Identified by Proponent to be Likely Stakeholders of the Project	Specific Organizations/Entities Likely to be Invited to IEC/Site Scoping as Representing the Sectoral Stakeholders
	3	Barangay Balawing, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	<p>Barangay Captain / Representative Barangay Officials</p> <p>Barangay Kagawad for Environment Sector/Representative</p> <p>Representative/official of organized group of local gold panners and other Concerned local organizations in the barangay</p>
	4	Barangay Bangon, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	<p>Barangay Captain / Representative Barangay Officials</p> <p>Barangay Kagawad for Environment Sector/Representative</p> <p>Representative/official of organized group of local panners and other Concerned local organizations in the barangay</p>
	5	Barangay Syndicate, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	<p>Barangay Captain / Representative Barangay Officials</p> <p>Barangay Kagawad for Environment Sector/Representative</p> <p>Representative/official of organized group of local gold panners and other</p>

Potential Impact Areas			Basis for selection of sector as a stakeholder of the project	Sectors/Sub-sectors Identified by Proponent to be Likely Stakeholders of the Project	Specific Organizations/Entities Likely to be Invited to IEC/Site Scoping as Representing the Sectoral Stakeholders
					Concerned local organizations in the barangay
	6	Barangay Panique, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	<p>Barangay Captain / Representative Barangay Officials</p> <p>Barangay Kagawad for Environment Sector/Representative</p> <p>Representative/official of organized group of local gold panners and other Concerned local organizations in the barangay</p>
	7	Barangay Lanang, Aroroy, Masbate	Barangay is part of the MPSA area of FRC and also included as a host barangay of Masbate Gold Project	Nearby communities and barangay officials	<p>Barangay Captain / Representative Barangay Officials</p> <p>Barangay Kagawad for Environment Sector/Representative</p> <p>Representative/official of organized group of local gold panners and other Concerned local organizations in the barangay</p>

IEC for the Masbate Gold Project Processing Plant Expansion Project
Courtesy Call with Mayor Arturo B. Virtucio
Office of the Mayor, Municipal Hall of Aroroy, Masbate
October 17, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Amoroy Barangay Captain Cecilia Pujol
IEC Center FRC/PGPRC Office, Barangay Puro, Aroroy, Masbate
October 17, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Capsay Barangay Captain Samuel Recto
IEC Center FRC/PGPRC Office, Barangay Puro, Aroroy, Masbate
October 17, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Focused Group Discussion (FGD) with Barangay Puro
Barangay Hall of Puro, Aroroy, Masbate
October 18, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Focused Group Discussion (FGD) with Barangay Puro
Barangay Hall of Puro, Aroroy, Masbate
October 18, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Balawing Barangay Captain Leonides V. Dones Jr.
IEC Center FRC/PGPRC Office, Barangay Puro, Aroroy, Masbate
October 18, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Bangon Barangay Kagawad Irene M. Sta. Clara.
Barangay Hall of Bangon, Aroroy, Masbate
October 19, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Syndicate Barangay Captain Valentin Alonzo
Barangay Hall of Syndicate, Aroroy, Masbate
October 19, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Panique Barangay Kagawad Boy Ranola
Barangay Hall of Panique, Aroroy, Masbate
October 19, 2018



IEC for the Masbate Gold Project Processing Plant Expansion Project
Key Informant Interview (KII) with Lanang Barangay Kagawad Sherlita O. Ogaya and Barangay
Secretary Wina Dalino

Barangay Hall of Lanang, Aroroy, Masbate

October 19, 2018

