PROJECT DESCRIPTION FOR PUBLIC SCOPING

1. BASIC PROJECT INFORMATION

<table>
<tr><td>Project Name</td><td>Proposed Brooke's Point Nickel Mining Project</td></tr>
<tr><td>Project Location</td><td>Barangays Ipilan, Aribungos, Mambalot, Barong barong
Municipality of Brooke's Point
Province of Palawan</td></tr>
<tr><td>Commodity</td><td>Nickel and Associated Minerals</td></tr>
<tr><td>Project Type</td><td>Extraction of Metallic Ore</td></tr>
<tr><td>Project Classification</td><td>Category A: Environmentally Critical Project (ECP)
Item 2.1.5: Extraction of metallic and non-metallic minerals including extraction of oil and gas, deuterium (off-shore)</td></tr>
<tr><td>Project Area</td><td>2,573.33 hectares (MPSA)
200 hectares disturbed area per year</td></tr>
<tr><td>Annual Extraction</td><td>3,000,000 WMT</td></tr>
<tr><td>Project Components</td><td>Major Components:
<table>
<tr><td>COMPONENT</td><td>Description / Size</td></tr>
<tr><td>Mine Site / Mine Pit</td><td>200 has.</td></tr>
<tr><td>Stockpile Area/Ore Stock Yard/Waste Dumps</td><td>5 hectares (aggregate area)</td></tr>
<tr><td>Siltation Ponds</td><td>3,200 cubic meters (approximate capacity)</td></tr>
<tr><td>Camp site (Staff houses, admin Office, laboratory, warehouse, motorpool, parking area)</td><td>0.5 hectare</td></tr>
<tr><td>Nursery</td><td>0.1 hectare</td></tr>
<tr><td>Haul Roads</td><td>9 – 10 kilometers (approximately) and width of 14-meter wide</td></tr>
<tr><td>Port Area</td><td>3 hectares</td></tr>
</table></td></tr>
<tr><td>ECC Application</td><td>New</td></tr>
<tr><td>Project Proponent</td><td>Lebach Mining Corporation</td></tr>
</table>

Proponent Address	Mezzanine Floor, South City Homes Recreation Center South City Drive, South City Homes, Brgy. Sto. Tomas, Biñan, Laguna
President **Authorized Representative** **Contact Details**	Ms. Michelle Rodrigueza Engr. Aniceto Popa Contact Number : 0915.200.5296 Email Address : anicetopopa@gmail.com

2. PROJECT DESCRIPTION

Lebach Mining Corporation (Lebach), is a 100% Filipino-owned corporation registered with the Securities and Exchange Commission, to carry on the business of prospecting, exploration, mining and processing of all kinds of mineral ores located in the Philippines. The company had its Articles of Incorporation amended in July 2015. A copy of its SEC Registration, the corresponding amended Articles of Incorporation and General Information Sheet listing its incorporators attached as ANNEX A.

The Proponent has entered into an Agreement with the Philippine government in November 2009 to provide for the rational exploration, development and commercial utilization of nickel, chromite, cobalt, copper, gold and other associated mineral deposits existing within the contract area and covered by Mineral Production Sharing Agreement (MPSA) with No. 285-2009 IVB (amended), which is currently under process for conditional registration. The copy of the aforementioned MPSA is herein attached as Annex B.

2.1 Project Location

2.1.1 Location and Area

The Project Contract area is estimated at 2,573.33 hectares located in Barangays Ipilan, Aribungos, Mambalot, and support facilities in Barangay Barong barong, municipality of Brooke's Point, Province of Palawan, as shown in Figure 1.1 and 1.2. The boundaries of the Project Area are delineated by thirty-eight (38) points whose geographic coordinates are presented in Table 1.

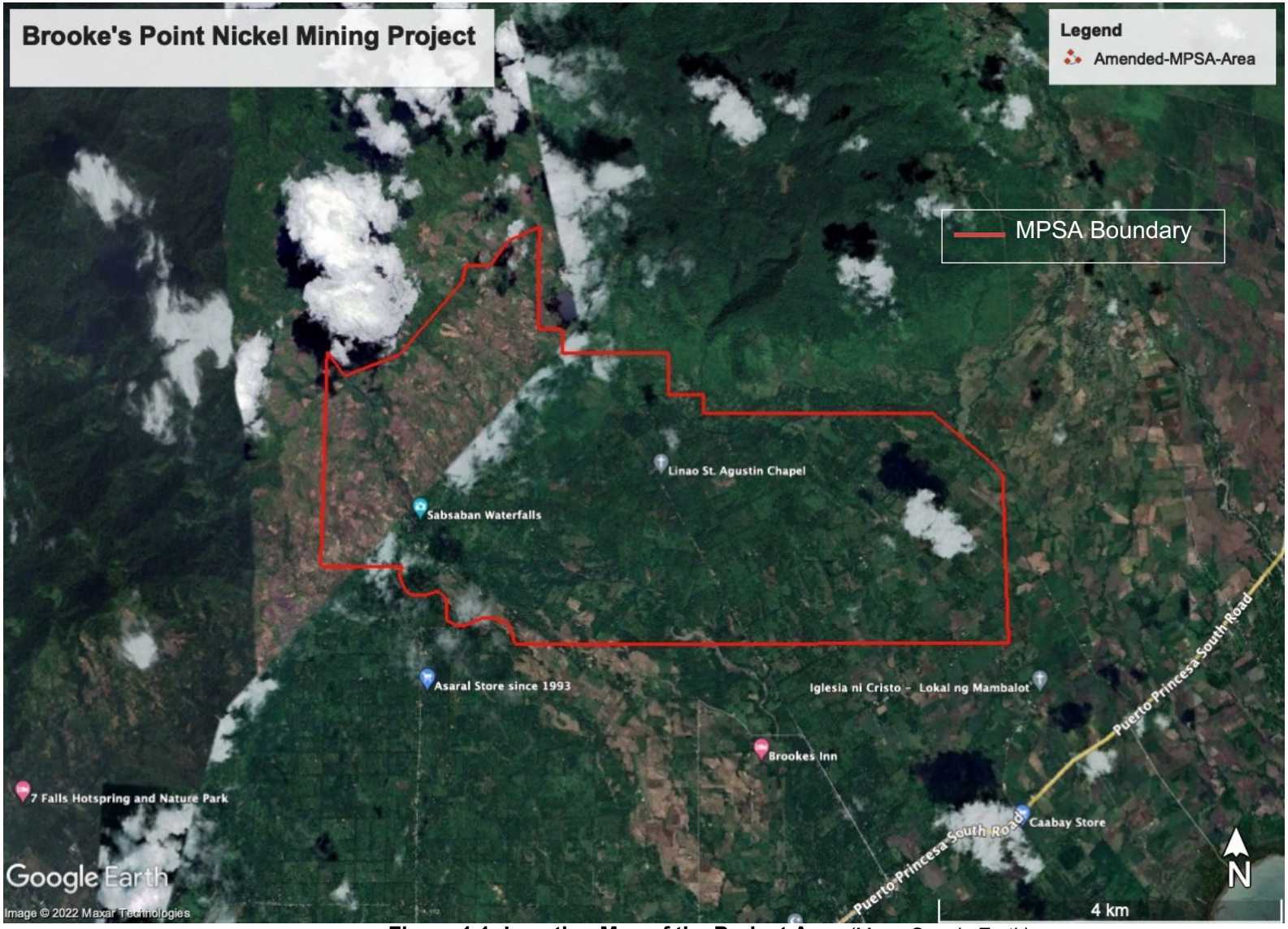


Figure 1.1: Location Map of the Project Area *(Map : Google Earth)*

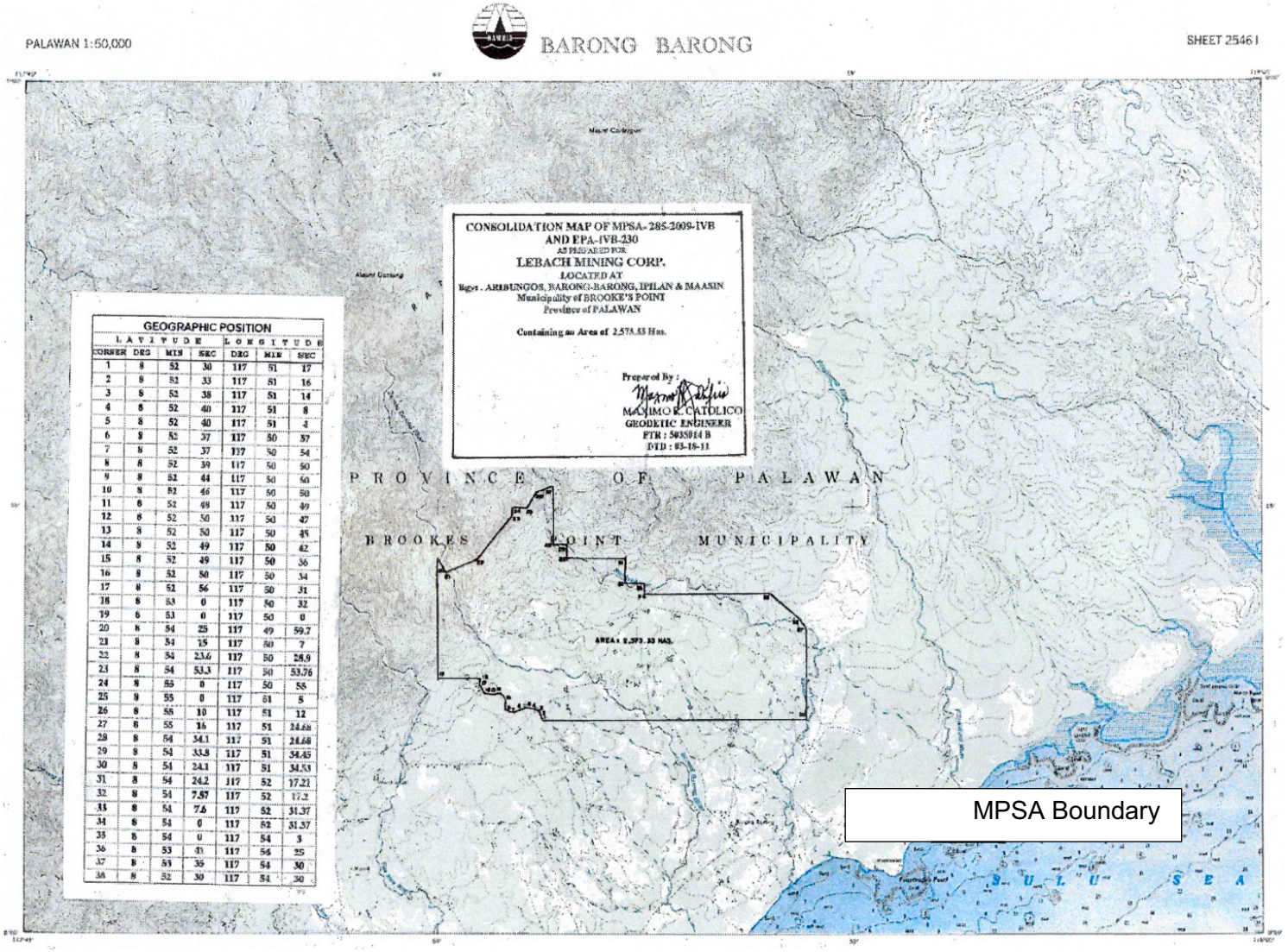


Figure 1.2: MPSA area on NAMRIA map

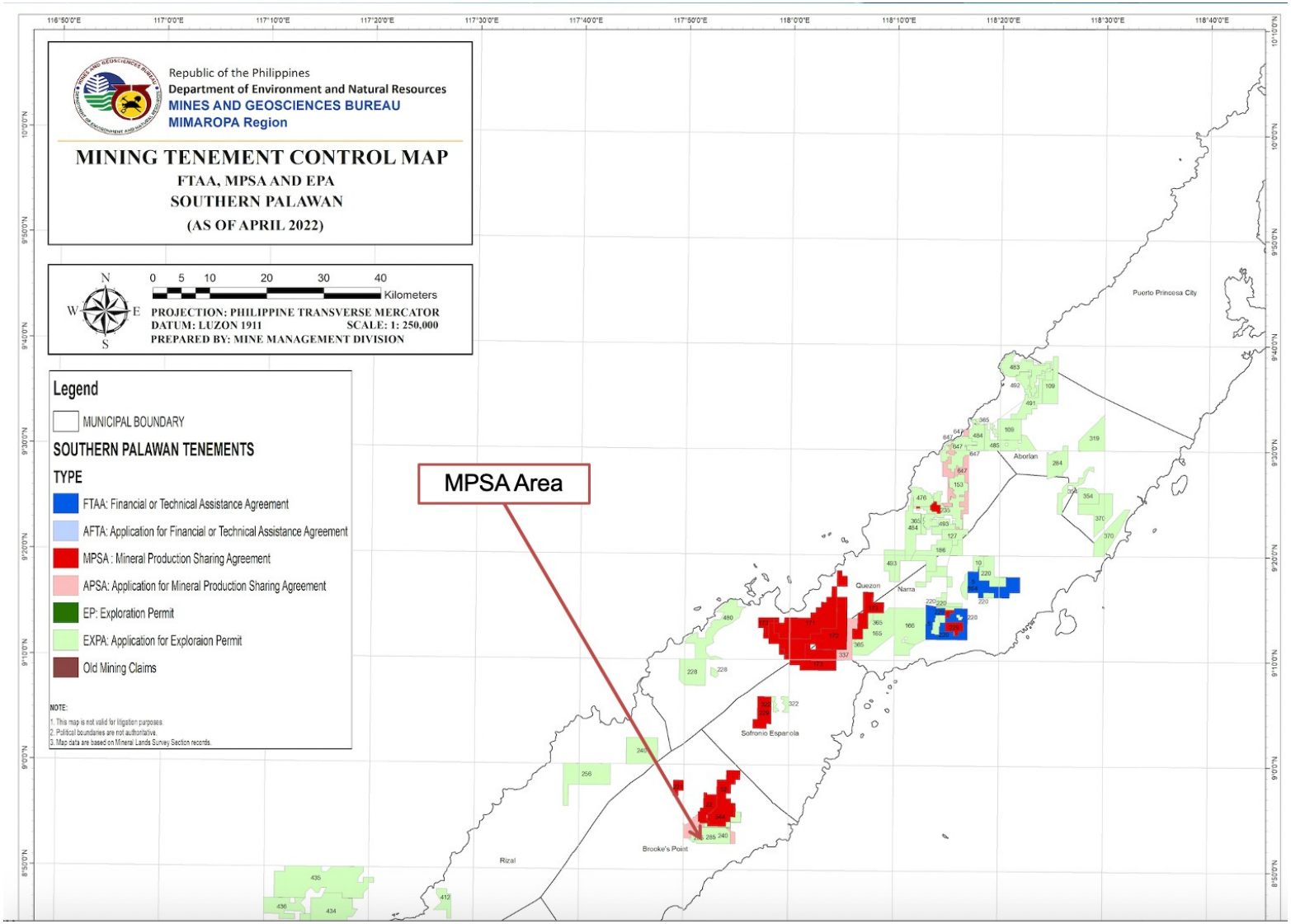


Figure 1.3: MPSA area on MGB-4B Tenement Control Map
(Source : Mines and Geosciences Bureau Region IV-B)

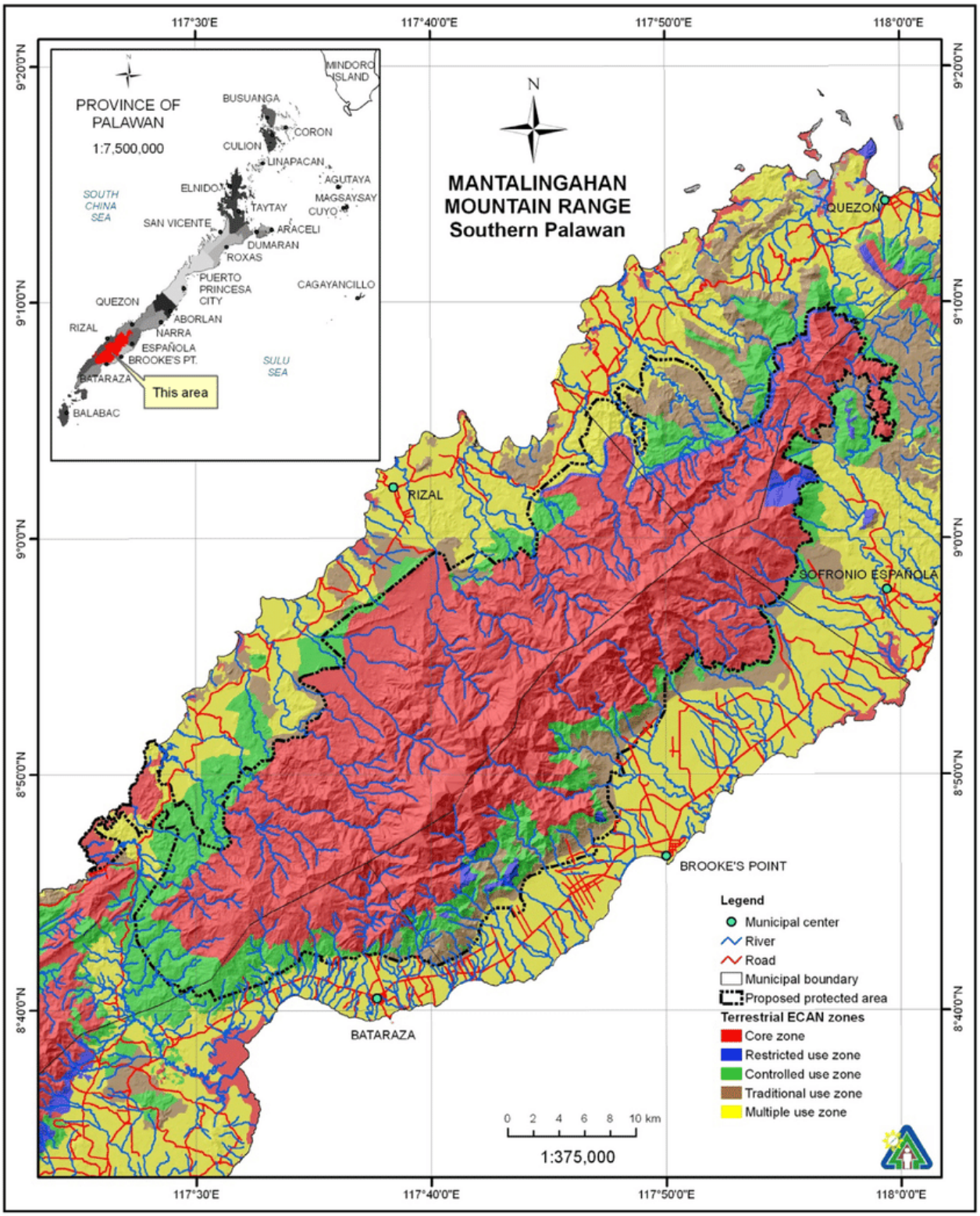


Figure 1.4-1 : Environmentally Critical Area Network (ECAN) Map
(Map Source : Palawan Council for Sustainable Development, PCSD)

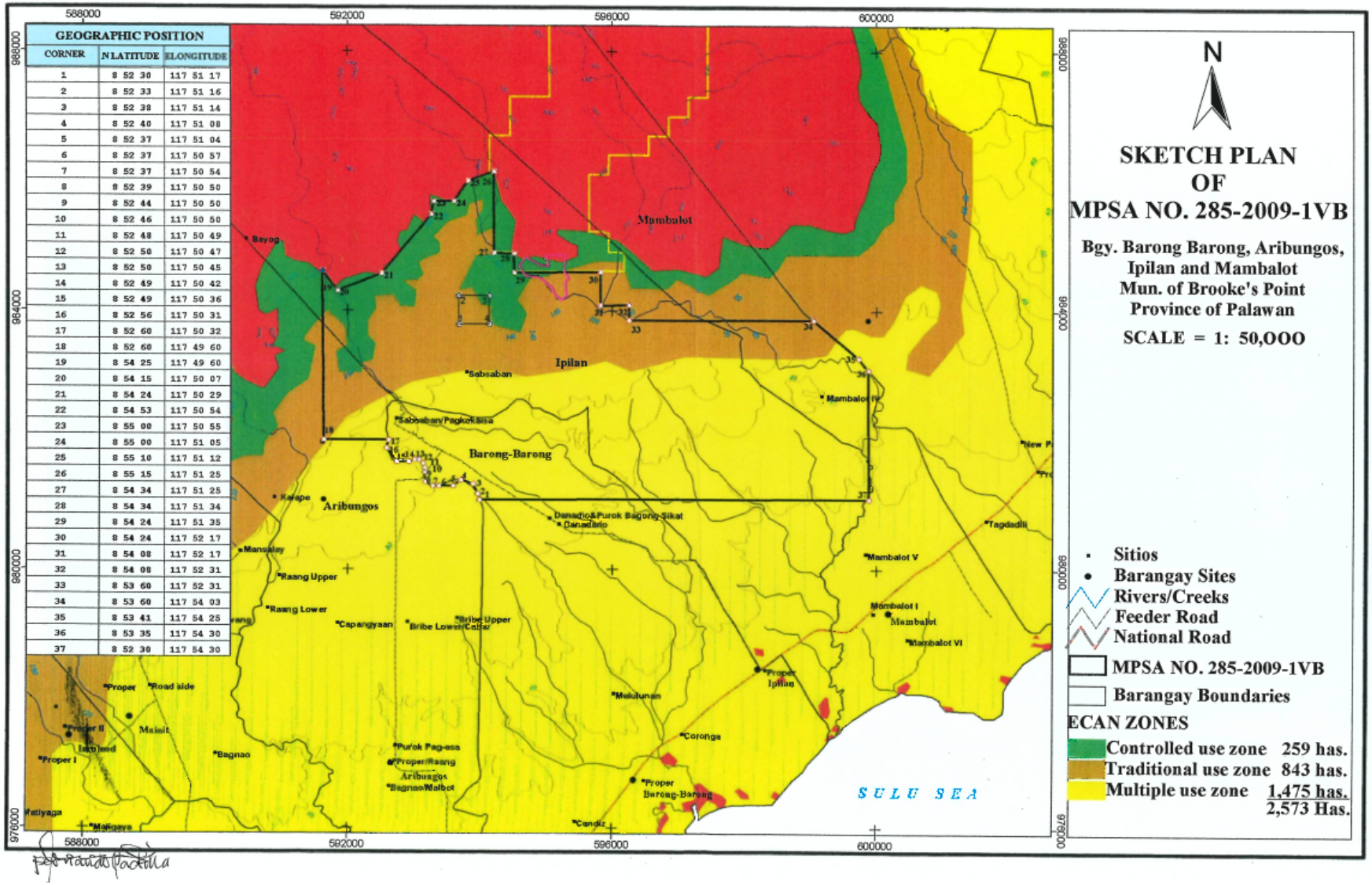


Figure 1.4-2 : Location of the MPSA area relative to Environmentally Critical Areas Network (ECAN)

(Map Source : Lebach Mining Corporation)

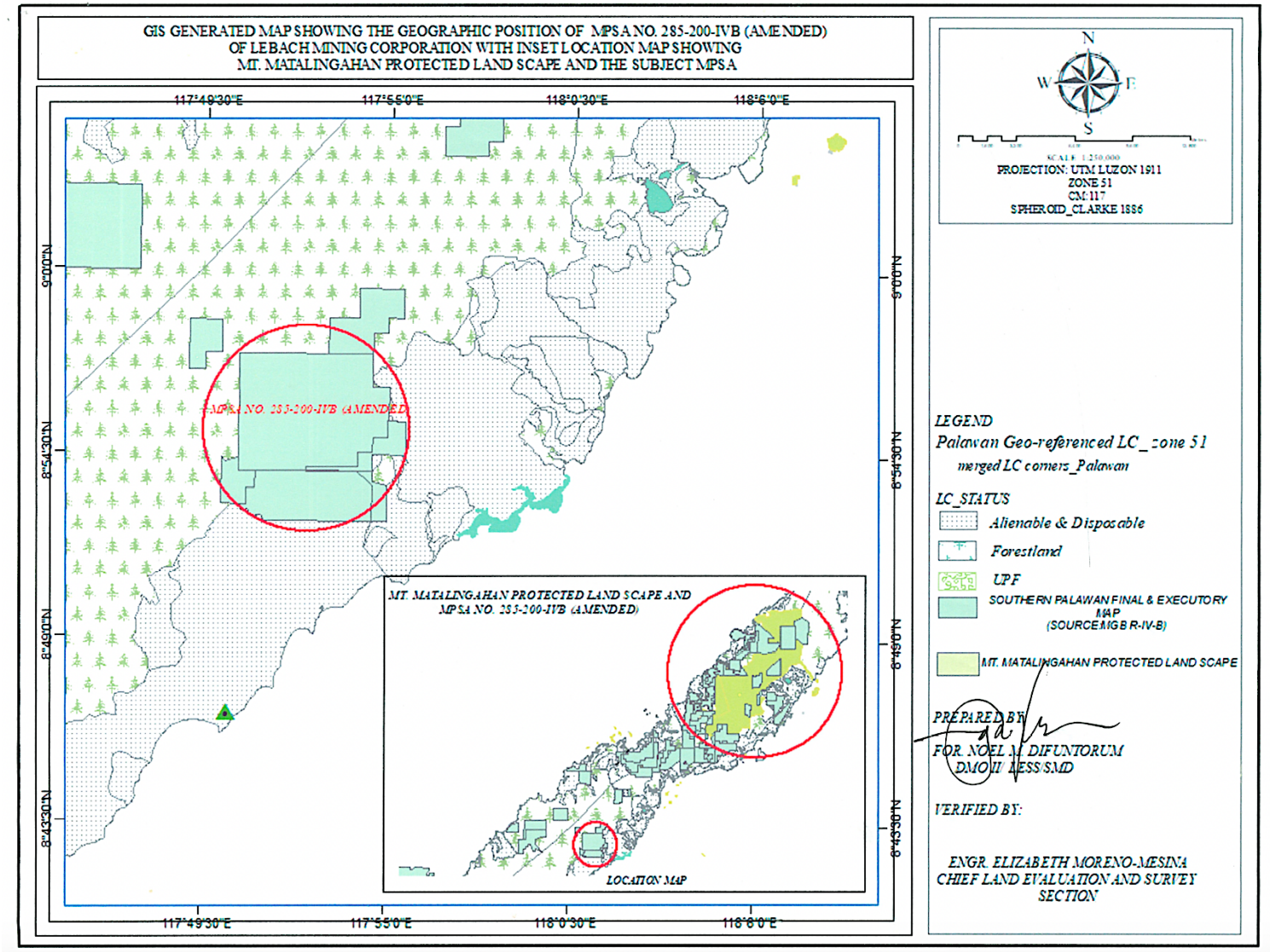


Figure 1.4-3 : Relative location of the MPSA area relative to the Mt. Matalingahan Protected Landscape
(Map Source : DENR-MIMAROPA, GIS generated for Lebach Mining Corporation)

Table 1: Geographic Coordinates of the Project Area

GEOGRAPHIC COORDINATESD OF MPSA No. 285-2009-IVB (Amended)		
Corner	**Latitude**	**Longitude**
1	8°52'30"N	117°51'17"E
2	8°52'33"N	117°51'16"E
3	8°52'38"N	117°51'14"E
4	8°52'40"N	117°51'8"E
5	8°52'40"N	117°51'4"E
6	8°52'37"N	117°50'57"E
7	8°52'37"N	117°50'54"E
8	8°52'39"N	117°50'50"E
9	8°52'44"N	117°50'50"E
10	8°52'46"N	117°50'50"E
11	8°52'48"N	117°50'49"E
12	8°52'50"N	117°50'47"E
13	8°52'50"N	117°50'45"E
14	8°52'49"N	117°50'42"E
15	8°52'49"N	117°50'36"E
16	8°52'50"N	117°50'34"E
17	8°52'56"N	117°50'31"E
18	8°53'0"N	117°50'32"E
19	8°53'0"N	117°50'0"E
20	8°54'25"N	117°49'59.7"E
21	8°54'15"N	117°50'7"E
22	8°54'23.6"N	117°50'28.9"E
23	8°54'53.3"N	117°50'53.76"E
24	8°55'0"N	117°50'55"E
25	8°55'0"N	117°51'5"E
26	8°55'10"N	117°51'12"E
27	8°55'16"N	117°51'24.68"E
28	8°54'34.1"N	117°51'24.68"E
29	8°54'33.8"N	117°51'34.45"E
30	8°54'24.1"N	117°51'34.53"E
31	8°54'24.2"N	117°52'17.21"E
32	8°54'7.57"N	117°52'17.2"E
33	8°54'7.6"N	117°52'31.37"E
34	8°54'0"N	117°52'31.37"E
35	8°54'0"N	117°54'3"E
36	8°53'41"N	117°54'25"E
37	8°53'35"N	117°54'30"E
38	8°52'30"N	117°54'30"E

The project area is approximately 3 kilometers away from the national highway and about approximately 4.8 kilometers away from the coast of fronting Barangay Barong barong. Host barangays and indirect impact barangays are summarized in the **Table 2**.

Table 2: List of Host and Impact Barangays

	Direct Impact (Host) Barangays
Host / Direct Impact Barangays	1. Ipilan 2. Aribungos 3. Mambalot 4. Barong Barong
Adjacent / Indirect Impact barangays	1. Maasin

2.1.2 Project Accessibility

Brooke's Point is situated in the south-eastern section of Palawan Island, approximately 192 kilometres from Puerto Princesa City. Brooke's Point is bounded by Sofronio Española in the north, Bataraza in the south, Rizal in the west, and the Sulu Sea in the east.

The project area is accessible through an all-weather road from Puerto Princesa City. The site is more or less 10 kilometers northeast of the town proper.

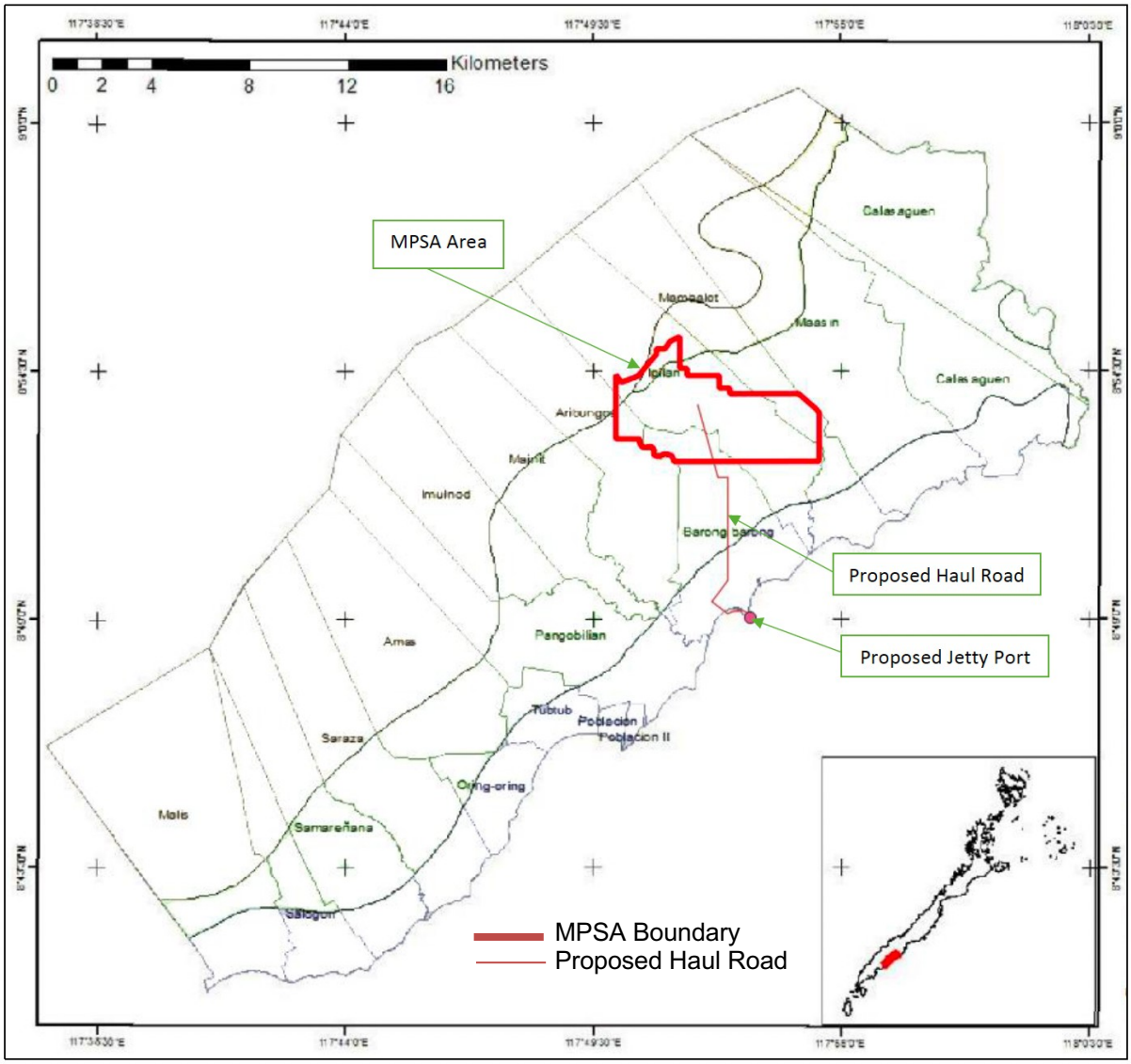


Figure 2: Map of the MPSA Area showing barangay boundaries

2.2 Project Rationale

The price of nickel has exhibited a considerable volatility in the last forty years. The chart below shows the historic LME price for nickel in nominal values from 1991 to 2018H1. In the late 1980s there was a peak in the price of nickel. In the first half of the 1990s the economic collapse of the former "Eastern Bloc" countries resulted in a surge of nickel exports that drove nickel prices lower than the cash costs of production resulting in reduced nickel production in the "West". Until 2003 the nickel cash price remained below US$10,000 per tonne. The price breached $14,000 per tonne in 2005 and then escalated dramatically through 2006 before peaking at $52,179 per tonne in May 2007. Nickel prices then declined until the end of 2008, when the average cash price in December hit a low of $9,678. In early 2009, nickel prices began to once again climb and reached $24,103 by the end of 2010. In 2011 the price continued to move up and reached a peak in February, with an average price of $28,247. It has declined since then until the end of 2013 when it stayed below $14,000. The initial reaction to the implementation of the export ban of unprocessed ores in Indonesia in January 2014, nickel price climbed to just below $20,000 in July 2014, but since then it declined almost every month until February2016 to be traded at around $8,300. After this trough, a year of volatility at around $10,000 followed and from the end of 2017, monthly average prices have consistently surpassed $10,000, showing rising trend and a peak at $15,111 in June 2018.

LME stocks of nickel were relatively stable during the period 2001 to 2005 at around 20,000 tonnes. In2005 stocks increased somewhat and again declined in 2006. During the period 2007 to 2009 stocks rapidly increased to over 158,000 tonnes at the end of the period. In 2010 and 2011 destocking took place with stocks at the end of December 2011 at 91,000 tonnes. Since the beginning of 2012 to March2016 a long period of stocking took place, reaching over 470,000 tonnes in June 2015. In the second quarter of 2015, the Shanghai Futures Exchange (SHFE) launched the nickel contract and stocks havebeen rising there to a level of 73,000 in March 2016. By the end of March 2016, the combined LME and SHFE stocks were over 500,000 tonnes. A period of destocking then started, that became more accentuated in the beginning of 2018. By the end of 2018H1, inventories at LME and SHFE registered warehouses combined were under 300,000 tonnes.

Figure 3: Nickel Prices and Stocks

(Source: International Nickel Study Group https://insg.org/index.php/about-nickel/production-usage/#:~:text=World%20nickel%20demand%20increased%20from,rate%20of%203.8%25%20since%202000.,Retrieved: 2020)

With the growing losses in the Philippine economy resulting from the health crisis in the past two (2) years, investors in the mining industry are looking into priority areas with the Philippine Government in its thrust to wisely utilize existing natural resources and contribute to economic recovery. The proof of the Philippine Government's aspiration to explore, develop ,and utilize the country's mineral resources is reflected in the enactment of Republic Act No.7942 (Philippine Mining Act of 1995), the promulgation of its revised implementing Rules and Regulations (DENR) Administrative Order No.96-40), the issuance of Executive Order No.270 (National Policy Agenda on Revitalizing Mining in the Philippines), and the issuance of the Memorandum Circular No.67, which directs the Operationalization of the Mineral Action Plan for Resources Development.

The Government, both national and local (regional included), will benefit from the project through taxes, fees, and duties, both direct and indirect including labor and employment. Since the products of the mine will be exported, the foreign revenue earnings of the country will also gain from this proposed undertaking. The proposed amendment to the Project, in including the mining of Nickel reserves, will further complement the present positive contributions of the project to the Philippine economy.

2.3 Project Alternatives

In terms of mining area, the proposed project has already obtained an MPSA and the proponent therefore has no option to relocate. Mining projects are site specific, as mineral extraction only be undertaken in areas where economic ore deposits occur. Unlike other natural resources, there is no opportunity to consider other alternative sites in mineral development and utilization project the only alternative is not having the project. This was further strengthened after initial exploration activities show a viable area where nickel deposits are found to be substantial for commercial mining.

2.3.1 Facility Siting

The proposed project intends to utilize existing haul roads as access to the project area. Mine pits and stock piles would be developed that may require additional haul roads yet this is foreseen to be minimal in terms of works and capitalization. Support facilities are to be located within the MPSA area expect for the portions of haul roads leading to the proposed Port/Jetty which will serve as transport point for sea vessels.

2.3.2 Process and Technology

The project will implement Surface Mining Method, specifically Contour Mining Method. Such is selected because of the proximity of the deposits to the surface. Generally, the thin top soil or overburden will be removed and stock piled at strategic areas and will eventually be used for rehabilitation as topsoil for excavated areas. The exposed laterite will be excavated and hauled at stockpile areas until ready for transport.

The mining method will utilize hydraulic excavators in backhoe mode loading rear dump trucks. Initially, the bench height is designed at, at least 1M to ensure good grade control. Pre-production activity involves stripping of over burden materials. The ore benches will then be progressively mined by excavating the overlying bench to allow the progression of the mine to the lower benches until the pit bottom is reached. Mining width or benches is projected to be at least 5M wide panels. These panels will be advanced along the contour, with the truck loaded from beside or below the excavator, depending on the pit design detail and the condition of the surface.

Mining will be done progressively or in panels/strips to minimize ground disturbance.

2.3.3 Resource Utilization

From the initial exploration on mineral resources in 2007, Inferred Ore Resources can be found in the proposed mine pits or blocks shown in Figure 4-2. A deposit thickness of 15 meters was assumed for this calculation rendering a total inferred resource of 40.6 million tons. At this volume, 3,000,000 WMT of mineral is estimated to be extracted per year for a period of 12 years.

The project area has a considerable formation of foot slope ultramafic rocks as shown in **Figure 4 .** In 2007 and 2009, Lebach Mining Corporation (LMC) initiated a rapid assessment of a 200-hectare area with the MPSA claim. In the reserve estimation, it was able to come up with a positive reserve of 6.6 million tons of 1.21% Ni laterite and 3.7 million tons of 1.96% Ni saprolite at 1.0% Ni cut off.

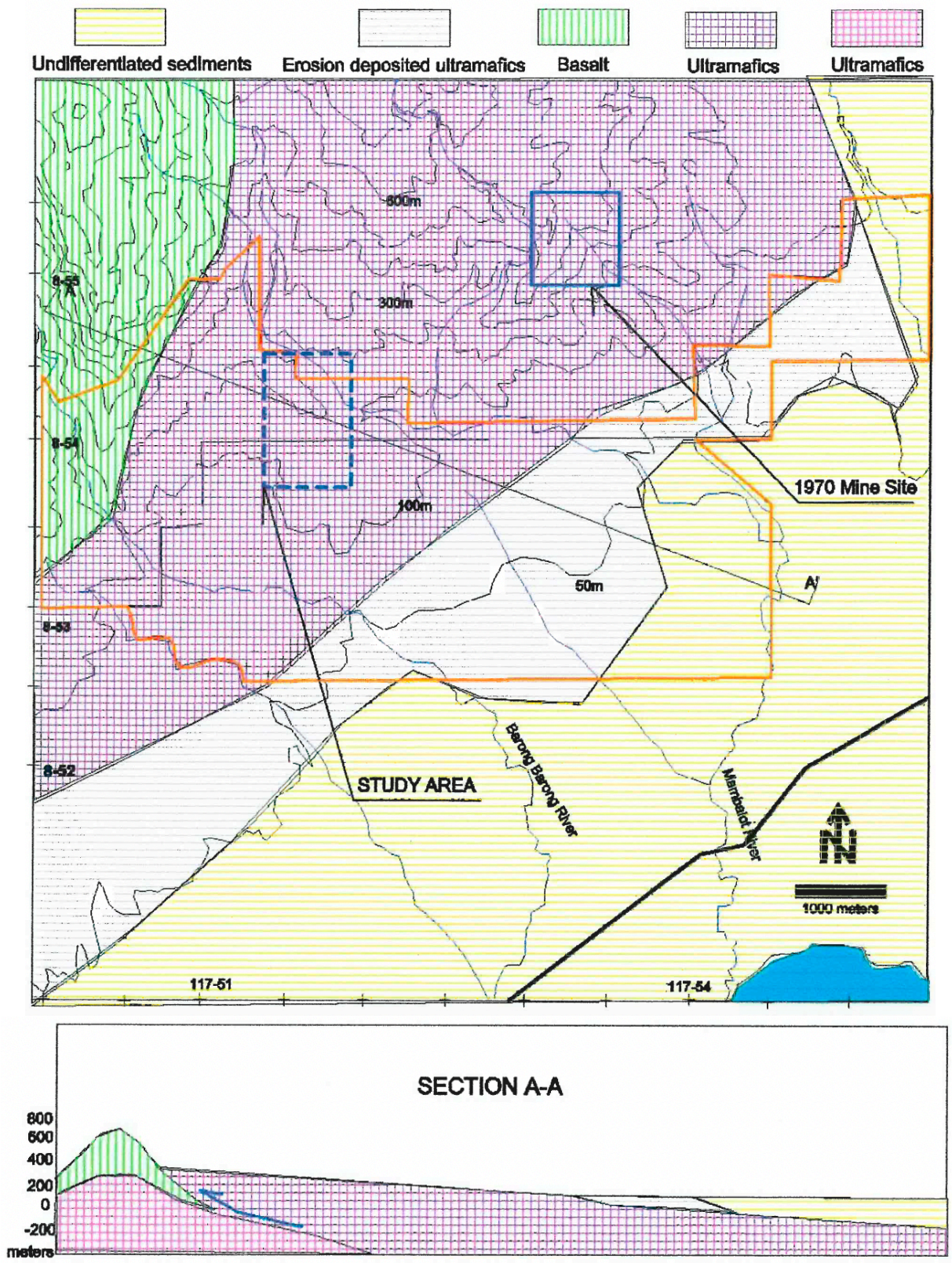


Figure 4 : Local Geology and Section of the Claim area

Total reserve including probable and possible reserve estimation is about 31.07 million tons of 1.41% Ni Laterite, from this total, about 10.66 million tons is 1.8% Ni Saprolite.

Table 3 : Summary of reserve category of the laterite in Brooke's Point

TOTAL	POSITIVE	PROBABLE	POSSIBLE	RESERVE	GRAND TOTAL
LATERITE (tons)	6,645,000	5,100,000	8,667,500	20,412,500	31,075,000
	1.21%Ni	1.23%	1.18%	1.20%	1.41%Ni
SAPROLITE (tons)	3,702,500	1,975,000	4,985,000	10,662,500	
	1.96%Ni	1.75%	1.69%	1.79%	

1.1%Ni cutoff	POSITIVE	PROBABLE	POSSIBLE	RESERVE	GRAND TOTAL
LATERITE (tons)	5,537,500	4,380,000	6,027,500	15,945,000	26,607,500
	1.26%Ni	1.26%	1.25%	1.26%	1.47%
SAPROLITE (tons)	3,702,500	1,975,000	4,985,000	10,662,500	
	1.96%Ni	1.75%	1.69%	1.79%	

1.2%Ni cutoff	POSITIVE	PROBABLE	POSSIBLE	RESERVE	GRAND TOTAL
LATERITE (tons)	5,122,500	4,035,000	4,377,500	13,535,000	24,197,500
	1.27%Ni	1.28%	1.31%	1.29%	1.51%NI
SAPROLITE (tons)	3,702,500	1,975,000	4,985,000	10,662,500	
	1.96%Ni	1.75%	1.69%	1.79%	

1.3%Ni cutoff	POSITIVE	PROBABLE	POSSIBLE	RESERVE	GRAND TOTAL
LATERITE (tons)	3,245,000	2,365,000	2,297,500	7,907,500	18,570,000
	1.33	1.37	1.40	1.36	1.61
SAPROLITE (Tons)	3,702,500	1,975,000	4,985,000	10,662,500	
	1.96	1.75	1.69	1.79	

Considering the higher grade nickel at 1.3% cut-off, the operation would be able to block 3.2 million tons of positive reserve with 1.33% Ni laterite and about 3.7 million tons of 1.96% Ni saprolite . If this cut off is considered , the total reserve of 1.0% Ni cut off will be reduced from 31.07 million tons (of 1.4% Ni laterite) to 18.5 million tons of 1.6% Ni . The reduction in tonnage calculation can be seen in the possible reserve, but the positive-probable-positive reserves becomes comparative at this 1.3% cut off which suggests similar dispersion of the higher grade nickel in the depth and saprolite section of the laterite formation.

In the calculation of the total tonnage per nickel grade as shown in Table 4, wherein 25% of the laterite is confined within the 1% cut off that has about 7.7% million tons of about 1.06% Ni (4.a). A considerable portion of the reserve (24%) is under the 1.2% cut off that comprises about 7.4 million tons of laterite with 1.22% Ni (4b). The high grade nickel laterite in the 1.4% and 1.6% Ni cut off is about 15.3% of the laterite deposit composed of 2.2 and 2.5 million tons with 1.32% Ni and 1.52% Ni grade (4c & 4d), respectively. The high grade saprolite is about 34.2% of the deposit comprising of about 10.6 million tons with 1.79% Ni saprolite. This means that about 50% of the laterite in the project area is on the high side composed of 34% saprolite and 15% of the 1.4-1.6% Ni laterite. This reserve estimate can be extensive by additional deeper test pits that will also increase the proportion of high grade nickel in the reserve calculation.

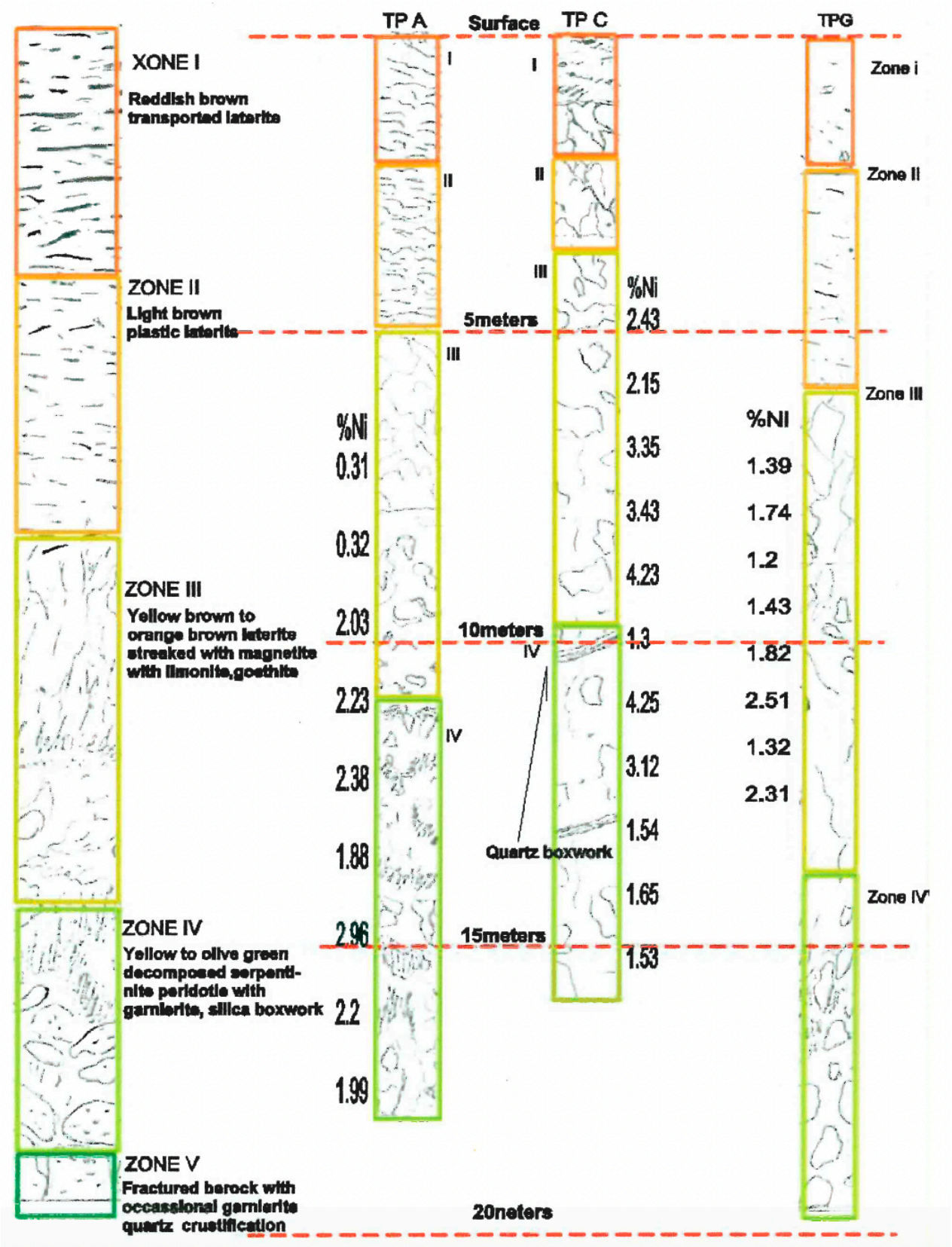


Figure 5 : Laterite Zoning seen in Brooke's Point during the 1970 survey

Table 4 : Total tonnage per 1%(a), 1.2%(b), 1.4%(c) & 1.6% (d)

TOTAL	POSITIVE	PROBABLE	POSSIBLE	RESERVE	GRAND TOTAL
LATERITE	6,645,000	5,100,000	8,667,500	20,412,500	31,075,000
(metric tons)	1.21%Ni	1.23%	1.18%	1.20%	1.41%Ni
SAPROLITE	3,702,500	1,975,000	4,985,000	10,662,500	
(metric tons)	1.96%Ni	1.75%	1.69%	1.79%	

a)

	POSITIVE	PROBABLE	POSSIBLE	RESERVE
Total 1.0%Ni Laterite	1,782,500	1,635,000	4,290,000	7,707,500
(in metric tons)	1.05%Ni	1.075	1.06%	1.06%

b)

	POSITIVE	PROBABLE	POSSIBLE	RESERVE
Total 1.2%Ni laterite	3,820,000	2,130,000	1,505,000	7,455,000
(in metric tons)	1.22%Ni	1.21%	1.22%	1.22%

c)

	POSITIVE	PROBABLE	POSSIBLE	RESERVE
Total 1.4%Ni Laterite	712,500	425,000	1,105,000	2,242,500
(in metric tons)	1.33%Ni	1.32%	1.32%	1.32%

d)

	POSITIVE	PROBABLE	POSSIBLE	RESERVE
Total 1.6%Ni Laterite	585,000	910,000	1,012,500	2,507,500
(in metric tons)	1.51%Ni	1.51%	1.51%	1.51%

The 2010 evaluation report has confined the study to a small test area of about 200 hectares out of the entire MPSA claim. The study involved the test pitting and auger drilling over gridded area of Block B and random test pitting in Block A, as shown in Figure 6. However, in the presence of relative horizontal continuity of the laterite especially in plateau condition in Blocks A & B. The positive reserve was based on 150 x 150M grid of srilling pits inside the 100 x 300M rectangle set in Block A. The positive reserve calculation at 1% Ni cut off came up with about 6.6 million tons Ni. The probable reserve came up with 5.1 million tons of laterite at 1.21% Ni and about 3.7 million tons of saprolite at 1.96% Ni. The probable reserve came up with 5.1 million otns of laterite with 1.23$Ni and 1.97 million tons of saprolite with 1.75% Ni. The possible laterite reserve is about 5.0 million tons with about 1.7%Ni and 4.9 million tons saprolite with 1.69% Ni.

In the presence of small area sampled (the 200 hectare are a is only 10% of the total laterite area), there's considerable resource potential in the MPSA claim that may be approached.

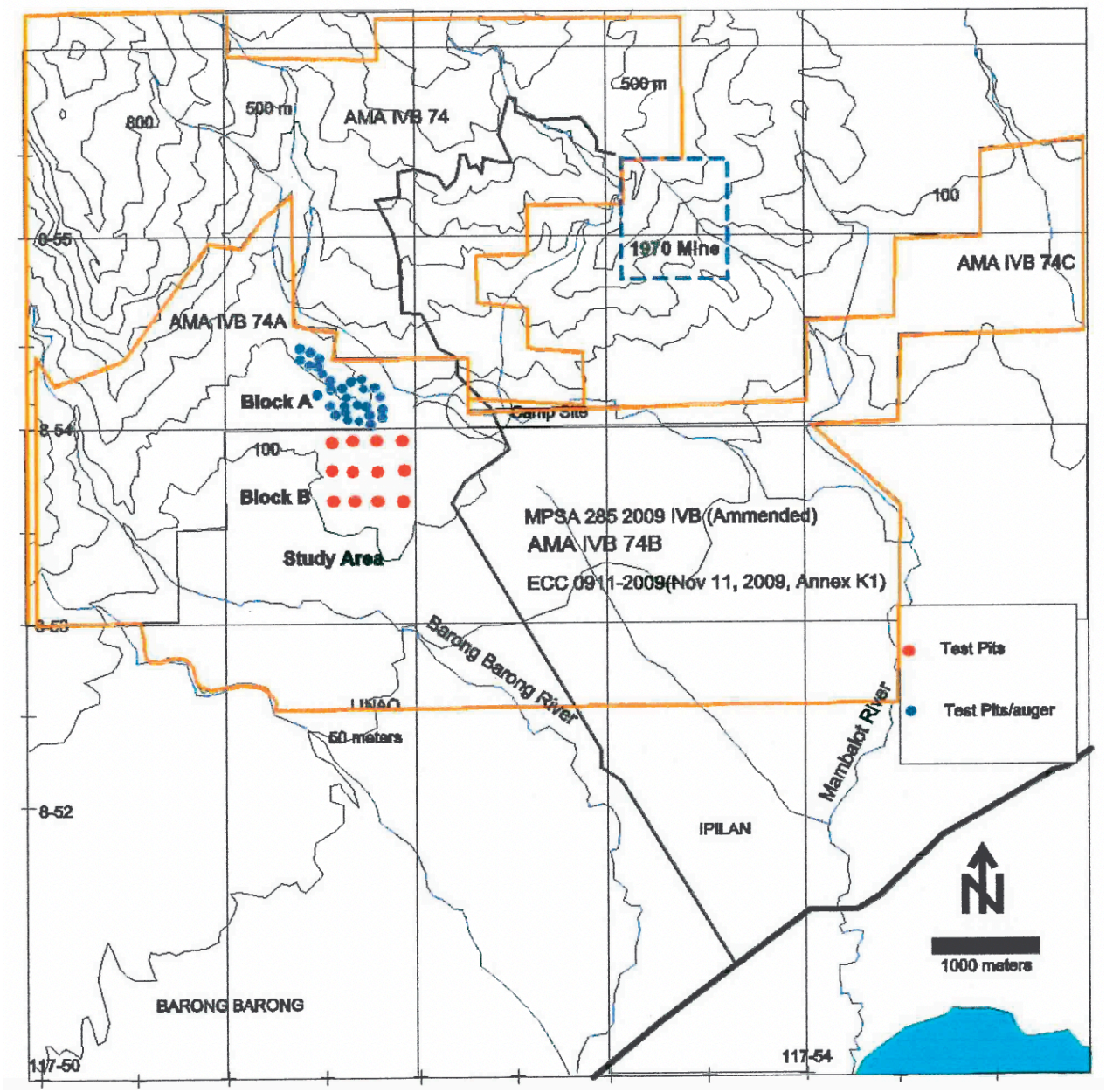


Figure 6 : Topography and Sampling Blocks

During the geological survey and test pits sampling, many of the test pits were deep enough and evenly distributed in the south Block B while test pits in the north Block A is randomly distributed with varied thickness. The test pits in random distribution were arbitrarily clustered into a rectangle set in Block A with each hole's proportionate area influence used to generate the positive reserve estimate while gridded influence were used in generating the positive and probable reserve estimate in Block B.

The area of influence of test pits in Block A is in random location within the 100 x 300M arbitrary set, wherein the test pits ranges from 2-4 test pits per set. On each 100 x 300M set, the area of influence for positive reserve estimation for each test pit is proportionate to its location within the set and depth sampling. In calculating the probable reserve , the area of influence is similar to the positive reserve estimation but calculated at deeper location to a depth of 20M (based on the same test pits and extensive test pitting done in 1970).

2.3.4 Power Source

The National Power Corporation through the Palawan Electric Cooperative (PALECO) provides electricity to Brooke's Point. The Lebach Nickel project will not involve milling or mineral processing and is limited to a single-shift daytime mining operation, and therefore, very minimal electrical power requirements are foreseen. Electric power usage will come mostly from lighting and other domestic consumption by company employees and staff, Assay Laboratory equipment/appliances and the welding, and miscellaneous machine shop equipment of the Mine Equipment Mechanical Maintenance shop. The mine camp/field office site is located only about 5 kilometers away from the National Highway junction at KM 181, therefore can easily be connected by ordinary household transmission wires to the PALEO power grid that traverses the National Highway. Likewise, the company's shipping port/pier site is also very close to the National Highway, less than two kilometers road distance.

2.3.5 Water supply

No milling operations will be done and therefore very minimal water requirements are expected for the project which will come mostly from domestic consumption by company employees, Assay Laboratory operations, Mine Equipment washing/cleaning, mine-site housekeeping, and environment-related operations such as mine road dust control and watering of plant/tree nurseries and mine rehabilitation/mining reforestation plantations. The Brooke's Point Rural Waterworks and Sanitation (BPRWRSAI) services the water consumption requirements of the municipality. It operates 2 deep wells with discharging capacities of 20.0 and 15.2 liters per second, respectively. The mine camp which is only 5 kilometers away from the National Highway and 16 kilometers road distance from the town proper can easily tap from the BPRWRSAI pipeline system or network. Other options for the company are to drill its own deep well or tap from rivers/streams or free-flowing water springs and operate its own pumping station. Bottled water for a health-conscious company staff is available at the numerous town proper stores and public markets.

2.3.6 No Project Option

In the event that the project is not developed or pursued, the major implication will be missing out the potential regional and national contribution to the economy. Considering the potential mine lifeof 12 years coterminous with the MPSA, which is expected to yield a considerable benefits, the contribution to the country's recovery from the current health crisis and long term development is undoubtedly substantial.

Table 5 : Summary of Alternatives

Particulars	Options	Environmental Aspects Considered
Facility Siting	1. Current location – covered by an MPSA and area intended for mineral extraction has potential and viable deposits based on the preliminary Geologic assessment report.	- Shallow depth of mineral deposits based on geologic evaluation; - Strategic location of the support and ancillary facilities reference to the mine site, that will minimize environmental impacts (e.g., suitable areas for drainage lines, catch basins, settlement ponds, et.al. based on slope and drainage, et.al.), maximizing production, in terms of extraction, with efficient mine operations planning.
	- Use of existing haul roads vs. development of new haul route	- Utilization of existing roads instead of opting to built new and separate haul route will eliminate earthmoving, change in land cover, disturbance to residents /

Particulars	Options	Environmental Aspects Considered
		communities, tenurial issues, degradation of ambient air quality brought about by road construction, degradation of water quality in terms of increased particle suspension in run-off water, et.al.; - Deterioration of existing hauls roads to be utilized during operation. Maintenance measures to prevent grave deterioration of existing roads should be considered and factored in the operation of the project; - In the event that additional hauls roads are necessary, this will only be done to the minimum and only as required. Such should also be appropriately maintained;
	- Locating support facilities within the MPSA area	- Area for support facilities such as the stock yard, camp site, laboratory, warehouses, and offices should be on relatively flat terrain or smooth slopes only, requiring minimal earth moving if none at all; - Eliminates concerns that may arise as to tenurial issues; - Minimal disturbance (or none at all) to people or the community.
	2. No Project Option – missing out on the potential regional and national contribution to the economy.	
Process and technology	1. Surface Mining Method - Considering the shallow nature of the mineral deposits, the surface mining method particularly Contour Mining would be the most appropriate mining method which would involve removal of top soil to expose the laterite deposits.	- Surface disturbance is larger - To compensate for surface disturbance, an Environmental protection and Enhancement Program will be implemented - Higher percentage of mineral recovery
	2. Underground Mining	- Not applicable for shallow deposits - Selective for high grade underground mineral deposits
Resources		
A. Minerals Resources	Availability of mineral resources - Considering the initial exploration area, confined to the 200 hectares study area shown in the discussion above, the resulting reserve estimation of 6.6 million tons of 1.21% Nickel laterite and 3.7 million tons of Ni saprolite at 1.0% Nickel cut-off including the probable reserve estimations as detailed in the attached Preliminary Geologic Evaluation (Annex A), were taken into	At this stage, the mineable area will be confined within the 200-hectares area subject of the preliminary geologic assessment and exploration. The dispersion and depth, the quality of Nickel (rating) of the estimated reserve rendered the explored area viable for commercial extraction. Based on initial examination relative to hazard susceptibility, areas within the project area fall within highly, moderate

Particulars	Options	Environmental Aspects Considered
	account as the source of mineral reserve.	and low landslide susceptibility areas. It is not susceptible to liquefaction. While the general project area is not susceptible to flooding, areas within the periphery of rivers and streams may be susceptible to high, medium and low risks to flooding.
B. Water	1. Water supply from Brooke's Point Rural Waterworks and Sanitation (BPRWRSAI) - it is projected that the project will have minimal water requirements mostly from domestic consumption by employees, Assay Laboratory, Mine Equipment washing / cleaning, mine site housekeeping, and environment-related operations such as mine road dust control and watering of plant/tree nurseries and mine rehabilitation activities. Further, the company may also opt to provide treated drinking water (mineral/processed water) from local commercial water stations for its employees.	Since this source is readily available and its conveyance facilities (lines) within the 5-16 Km distance from the mine site, Tapping into Brooke's Point Rural Waterworks' system would be the most viable option at this stage of the study. Coordination has to be made with the local water concessionaire in order to determine if it is still capable of accommodating the water requirement of the project with the current 20L and 15L per second extraction rate from operating its 2 wells.
	2. Development of a new well – As an alternative, the development of a new well may be taken into consideration. In doing so, a well log should first be developed and determined if developing a well source would be beneficial and worthwhile considering the actual water demand during mining operations.	Depletion of water resources and/or water resource competition – while a thorough study on options 2 & 3 has not been conducted (yet), the possibility of the project contributing to depletion of water from well sources or competing with current water users cannot be discounted. The existence of wells and surface water utilized for domestic and irrigation purposes around the project area should be considered.
	3. Surface water source (rivers/streams) - Free flowing water from rivers or streams may be conveyed to the project area by developing its own pumping station. This would however require the permitting,	
4. Power	1. Power supply from Palawan Electric Cooperative (PALECO) - (PALECO) provides electricity to Brooke's Point. The project will not involve any mineral processing and will be limited to a single-shift (daytime) operation which will require minimal power/electrical requirements. Electricity from the local power concessionaire will power lighting and other domestic requirements of its support facilities.	Since power supply is readily available through a grid source, it is expected that there will be minimal impact on the environment in terms of contribution to greenhouse gas emissions as compared to totally relying on onsite generator sets which directly contributes to degradation of air quality considering its SO_2 and NO_2 emissions from burning of fuel. Greenhouse gas emission resulting from drawing power from the grid will be calculated in the impact assessment of this study.

Particulars	Options	Environmental Aspects Considered
	2. Use of Generator Sets	Though the projected power requirement is expected to be minimal, totally depending on generator sets for the mining operations would not only be costly but will become a major contributor in terms of the degradation of ambient air quality (e.g., gaseous emissions, noise level). While sound suppressing elements may be introduced to minimize noise with the use of gensets, such would still contribute to air pollution. However, the use of a standby generator as back up power supply in cases of outages is still taken into consideration. With genset/s provided for back-up supply only, these would minimize impacts on air quality and mitigation measure manageable.

2.4 Project Components

Th summary of project components is presented in Table 6. Correspondingly, the Site layout of the proposed mining project is presented in Figure 5-1 and 5-2.

Table 6: Project Components

COMPONENT	LOCATION	Description / Size
Mine Site / Mine Pit	Barangay Ipilan	200 has.
Stockpile Area/Ore Stock Yard/Waste Dumps	Barangay Ipilan	5 hectares (aggregate area)
Siltation Ponds	Barangay Ipilan and Barong barong	3,200 cubic meters (approximate capacity)
Camp site (Staff houses, admin Office, laboratory, warehouse, motorpool, parking area)	Barangay Ipilan	0.5 hectare
Nursery	Barangay Ipilan	0.1 hectare
Haul Roads	Barangay Ipilan and Barong barong	9 – 10 kilometers (approximately) and widthof 14-meter wide
Port Area	Barangay Barong barong	3 hectares

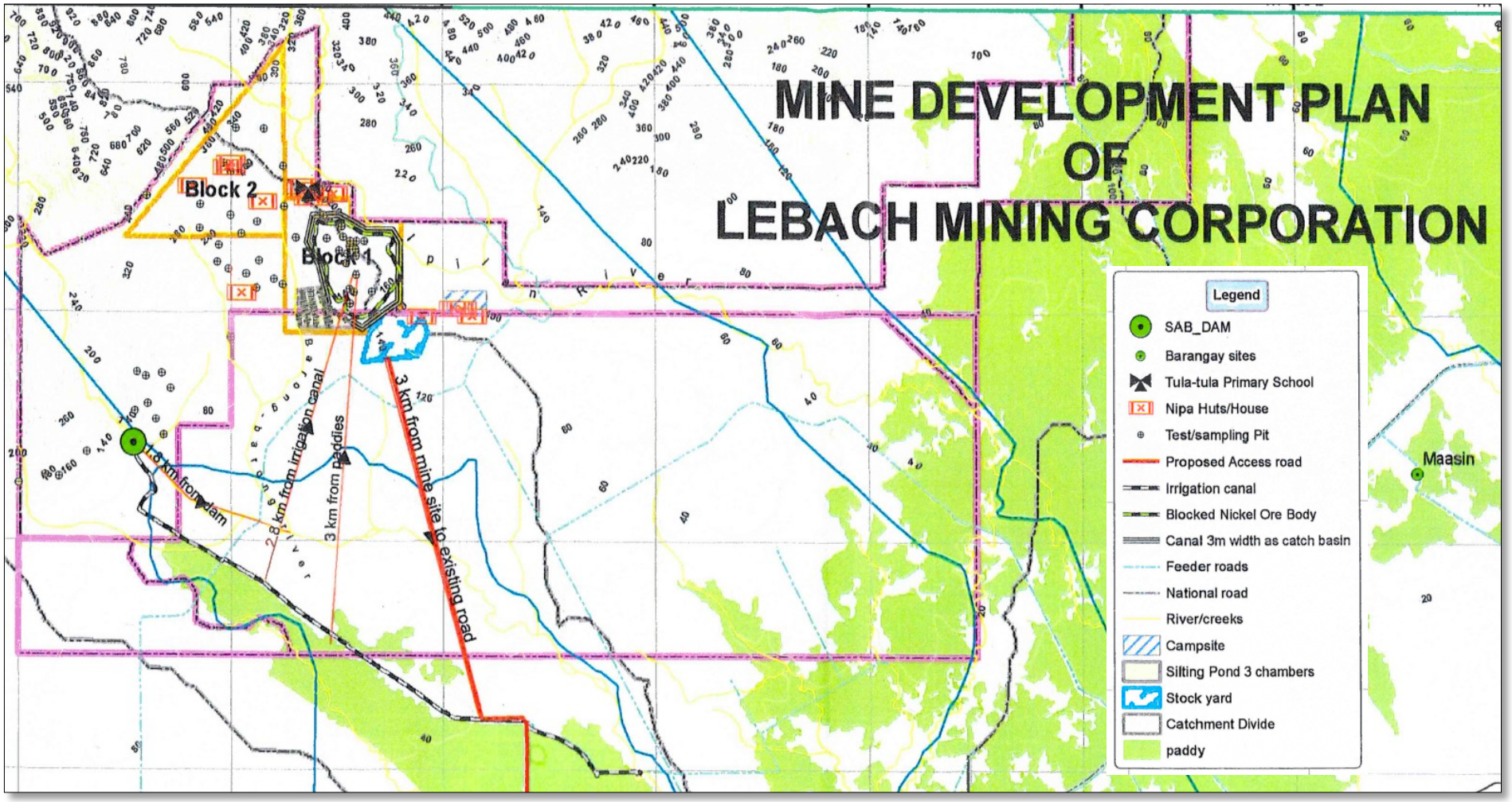


Figure 5-1: Mine Development Plan

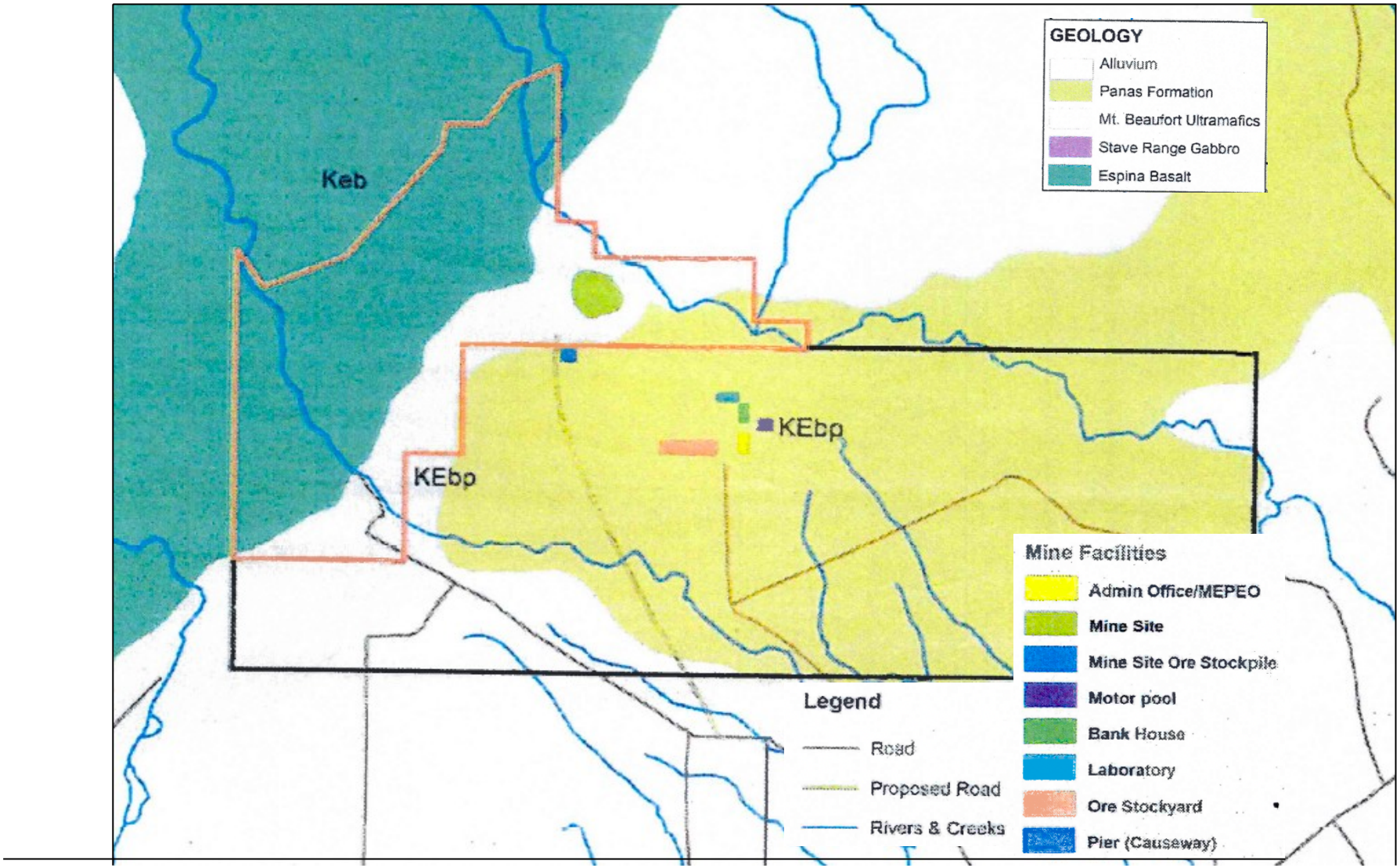


Figure 5-2: Layout of Support Facilities

2.5 Process and Technology

There will be no ore processing to be done. The Nickel laterite extraction will be direct shipping operation (DSO) and will not require mineral processing. The primary work flow of the mining operations after survey and exploration will be: clearing, grubbing and construction of access roads and haul roads; bench forming; ore extraction and loading; pre-pile stockpiling for ore classification; ore hauling going to port stockpiling; and loading to the mother vessel for shipping.On-pit or pre-pilestockpiling will categorize the Nickel laterite grades. The categories/grade on Nickel laterite ore will be reclassified, blended to achieve the desired Nickel grade and moisture content for shipment. As these activities are undertaken, the progressive mine rehabilitation activities will also be done simultaneously.

A graphic illustration of the mining process flow is presented in **Figure 6**.

Figure 6: Surface Mining Process Flow

2.6 Project Size

The project contract covers an area of 2,573.33 hectares. With the initial resource assessment conducted, the annual extraction rate is pegged at 3,000,000 WMT.

2.7 Project Phases

2.7.1 Pre-Operation Phase

The pre-operation phase will cover the continuing exploration of other areas within the contracted area and securing of necessary permits and clearances from the LGU and other agencies having jurisdiction over the project and activities related to mine operations.

During this stage, support facilities will also be developed/constructed.

2.7.2 Operations Phase

The operation phase activities are discussed and the corresponding process flow is presented inthe preceding section, Sec. 2.5 under Process and Technology.

2.7.3 Rehabilitation and Decommissioning Phase

Progressive rehabilitation will be implemented, integrating mitigation and management of adverse impacts to the mining operation. The progressive rehabilitation scheme will minimize the extent of disturbance and the time of exposure of disturbed areas. Whenever possible, backfilling of the mind-out voids will be undertaken. The details of the work program for a specific area will dependon the bench design. Small steep benches will be left exposed, while mined areas and shallow trenches will be backfilled and graded to long-term stable slopes.

Other conditions that will be stipulated in the ECC relative to decommissioning will also be complied with. Demobilization activities will be conducted in coordination with the LGUs, the EMB-DENR, the MGB and other concerned agencies.

Prior to the actual abandonment and rehabilitation phase, a detail abandonment and rehabilitationplan will be developed based on the detailed biological, geological and engineering assessment. The company forester will lead the terrestrial and fresh water biological assessment to the update the plan.

2.8 Project Schedule

The five-year work plan of the proposed project has yet to be finalized as the application for the Declaration of Mining Project Feasibility (DMPF) is currently on process. Initially, an annual extraction rate of 3,000,000 WMT annually is projected for a 12-year period (estimated mine life). Shown in **Table 7** below is the initial activity schedule until target commencement of the mining operations in 2023.

2.9 Project Cost

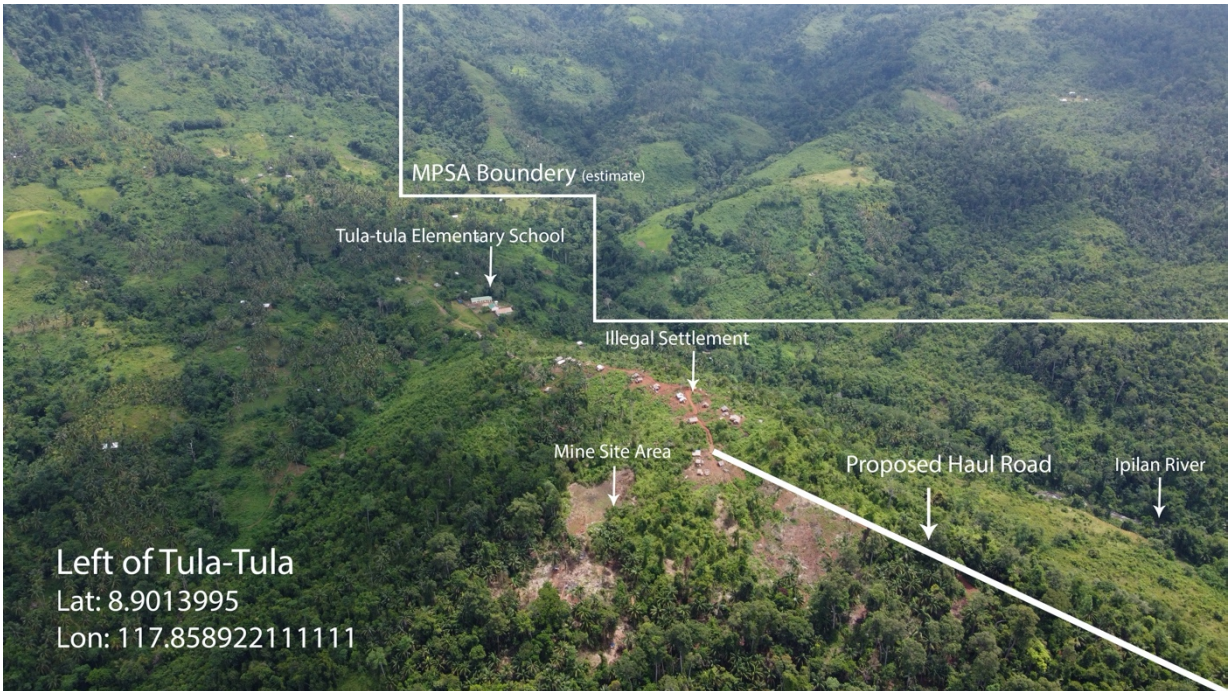
The project's estimated cost for the first 3 years is estimated at Nine Hundred Seventy Million Pesos (PhP 970,000,000.00).

Table 7. Preliminary Activity Schedule

LEBACH MINING CORPORATION ACTIVITIES TARGET DATE OF COMPLETION																				
	ACTIVITY	CY 2022						CY 2023												
		Q3			Q4			Q1			Q2			Q3			Q4			
		JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	Location: LMC Office Brooke's Point																			
2	Secure Mayor's Permit (LGU Brooke's Point)																			
3	NCIP Commission En Banc: Issuance of Certification Precondition																			
4	PCSD: Issuance of SEP Clearance																			
5	LMC: MPSA No. 285-2009-IVB (Amended) Registration																			
	a. Conditional Registration																			
	b. Full Registration																			
6	Re-Survey of Road Minesite to Piersite																			
7	Land and Road Right of Way Acquisition																			
	a. Negotiate with landowners of properties that will be affected																			
8	Road Construction and Widening																			
	a. Negotiations with landonwners for the road construction from minesite																			
	b. Secure necessary permits and clearances																			
9	Pier Rehabilitation																			
	a. Pier Stockyard Preparation																			
	b. Causeway Rehabilitation																			
	c. Secure necessary permits and clearances																			
	c.1 PPA																			
	c.2 Coast Guard																			
10	Infrastructure/Construction																			
	a. Laboratory																			
	b. Administration Building																			
	c. Staff House																			
	d. Bunkhouse																			
	e. Security																			
	f. Clinic																			
	g. Motorpool																			
	h. Powerhouse																			
	i. Warehouse																			
	j. Procurement of Construction Materials, etc.																			
	k. Nursery																			
11	ECC Permit																			
12	DMPF																			
13	Tree Cutting Permit																			
14	Commencement of Development Activities																			
15	Commencement of Mining Operations																			

2.10 Photos of the Project Area


Location of Proposed
Lebach Accomodation
and Office Area
Inside the MPSA Claim
Linao Elementary School and Linao St. Agustin Chapel
Lat: 8.894317444878855
Lon: 117.87027704061234


MPSA Boundery (estimate)
Tula-tula Elementary School
Illegal Settlement
Mine Site Area
Proposed Haul Road
Ipilan River
Left of Tula-Tula
Lat: 8.9013995
Lon: 117.858922111111

2.11 Potential Impacts

Module / Sector	Potential Impact
A. Land	1. Disturbance to flora and fauna and wild life
	2. Change on topography
	3. Generation of solid waste
	4. Possible migration of pollutants from heavy eqpt if nit properly managed
B. Water	1. Turbidity
	2. Sedimentation
C. Air	1. Dust dispersion
	2. Noise generation
	3. Greenhouse gas emission
D. People	1. Occupational Hazards
	2. Psycho-social concerns
	3. Health and Sanitation concerns
	4. Increased economic activities (e.g., employment generation, creation of small enterprises, tax revenues, etc.)

2.12 EIA Team

Name	Task / Specialization
Joel A. Espineli	Project Director
Maria Luisa M. Guiterrez	Project Manager
Dennis S. Tojos	Geology and Geohazards / Climate Change and Disaster Risk Assessment
Emerito C. Hernandez	Hydrology / Oceanography
Isabel B. Espineli	Socio-economic Aspect
Rodolfo A. Romarate Jr.	Terrestrial and Aquatic Ecology
Jan Julio A. Espiritu	Air and Water Quality
John Elton Chua	Public Engagement Specialist, Community Organizer
Demelyn L. Macalinao	Research and Mapping
Justin Delos Reyes	Research Assistant
Shirley E. Biong	Project Coordinator