

Taganito Mining Corporation

A. Background Information

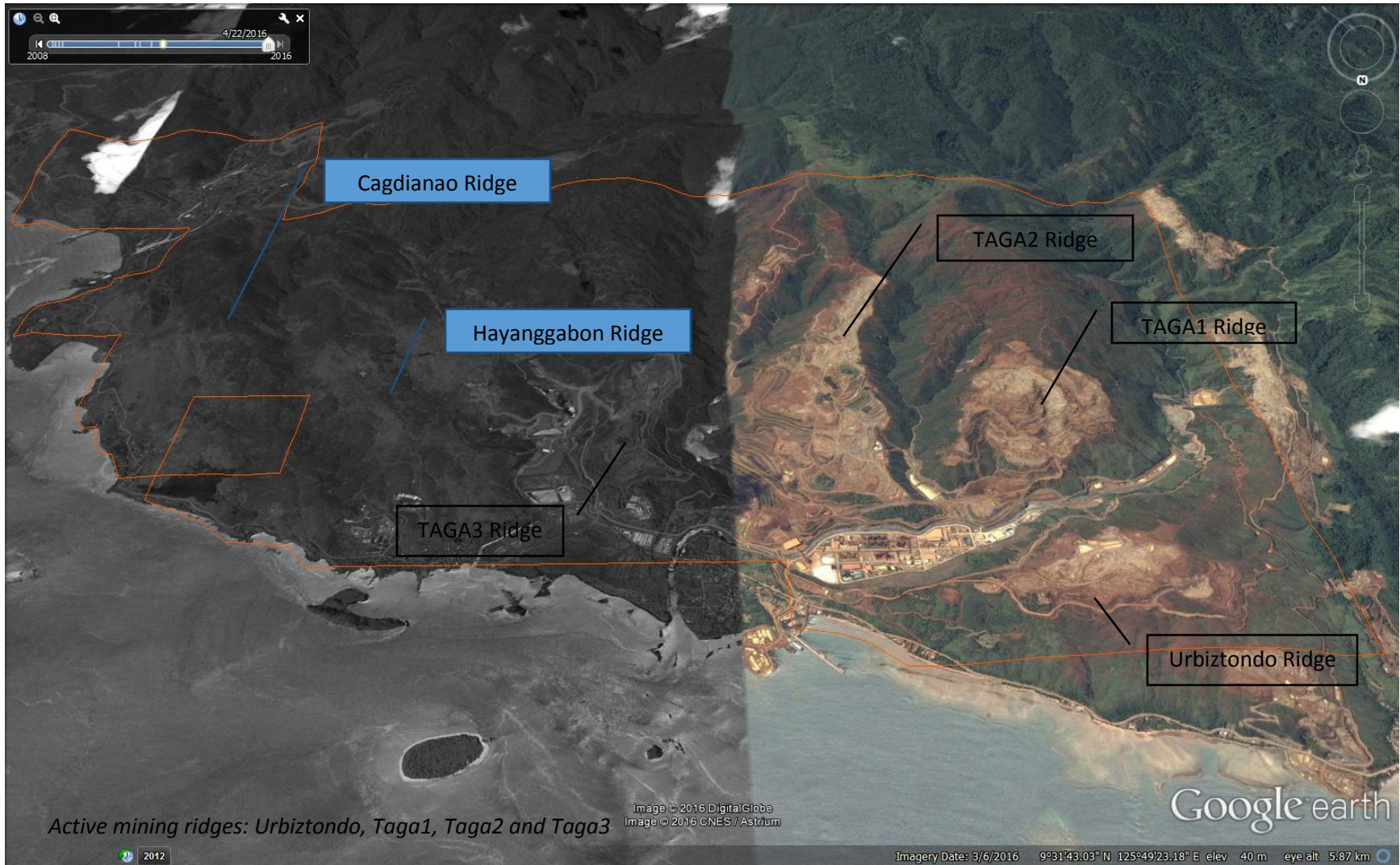
Taganito Mining Corporation (TMC) is operating in the Municipality of Claver, Province of Surigao del Norte. The mine site is approximately 70 km southeast of Surigao City. The Mineral Production Sharing Agreement (MPSA) area of the company approximately lies within the coordinates 125°47'N to 125°53'N and 9°29'E to 9°33'E, assigned as MPSA 266-2008-XIII-SMR (amended). The total land area of the MPSA is 4,862.7116 hectares straddling the political boundaries of Barangays Taganito, Urbiztondo, Hayanggabon and Cagdianao. TMC was also given a special permit to use certain portions of the mineral reservation-offshore area for its mine ancillary facilities.

Historical Background

- The mining contract area was originally explored by Hinatuan Mining Corporation (HMC) in 1986 and was eventually transferred to Taganito Mining Corporation (TMC) in 1987. TMC then started its nickel mining exploration and operation in Brgy. Taganito, Claver, Surigao del Norte in 1987.
- The Operating Contract between Taganito Mining Corporation and the Republic of the Philippines for the exploration, development and utilization of mineral deposits in Parcel I of the Surigao Mineral Reservation was approved on February 14, 1989 thru the Mineral Reservation Development Board. Actual test mining operation and shipment was initially done to ascertain economic feasibility and viability of the project after discovering large potential reserve in the exploration area.
- An Environmental Compliance Certificate (ECC) No. 9209-017-301A was issued to TMC by the Department of Environment and Natural Resources – Environmental Management Bureau (DENR EMB) on November 4, 1993.
- After the enactment of the Philippine Mining Act in 1995, the company applied for conversion of their Operating Contract to a Mineral Production Sharing Agreement (MPSA). Consequently, to redefine the area coverage based on the operating contract and with the integration of additional areas in the MPSA application, TMC requested for an amendment of their ECC.
- By June 1997, the amended ECC was issued with redefined geographic coordinates. The Mineral Production Sharing Agreement (MPSA) area of the company approximately lies within the coordinates 125°47'N to 125°53'N and 9°29'E to 9°33'E, assigned as MPSA 266-2008-XIIISMR (amended). The total land area of the MPSA is 4,862.7116 hectares straddling the political boundaries of Barangays Taganito, Urbiztondo, Hayanggabon and Cagdianao.
- In 2009, Taganito HPAL Nickel Corporation (THPAL) decided to establish the nickel ore processing plant in the area. TMC and THPAL entered into a mutual agreement whereby, TMC would solely supply the nickel ore requirement of THPAL and would also supply other raw materials (*i.e.* limestone) necessary in the ore processing of the latter. In anticipation of the forthcoming operation of THPAL, adopted and implemented the following expansion activities:

- i. Increase saprolite production to 2 million WMT and limonite production to 6 million WMT to meet the requirement of THPAL;
 - ii. Construct conveyor system (2 lines) to transport limonite from TMC mine pit to THPAL ore preparation area; and
 - iii. Build an additional wharf for limestone unloading, cargo handling, complement the existing offshore loading operation and other logistical requirements of TMC.
- TMC was granted an amended Environmental Compliance Certificate (ECC CO-1304-0013) last August 2013 for its increase in production capacity, construction of conveyor systems and additional wharf.
 - On May 11, 2016, an amendment of Environmental Compliance Certificate (ECC-CO-1304-0013) was approved that increased the annual production rate for both saprolite and limonite to an annual production rate of eight million (8,000,000) WMT and total annual extraction rate of twelve million (12,000,000) WMT.

B. Panoramic Photograph



C. Permits and Clearances

Date of Issue	Permit/Clearance	Date of Expiry
August 5, 2013	Environmental Compliance Certification ECC-CO-1304-0013	Not indicated
June 21, 2013	Environmental Compliance Certification ECC-R13-1305-0073	Not indicated
January 26, 2015	Eight (8) Wastewater Discharge Permit 2015-WDP-E-1367-008 2015-WDP-E-1367-009 2015-WDP-E-1367-010 2015-WDP-E-1367-011 2015-WDP-E-1367-012 2015-WDP-E-1367-013 2015-WDP-E-1367-014 2015-WDP-E-1367-015	January 26, 2020
March 16, 2001	DENR Registry ID. 16-67-008	No expiry
February 22, 2016	CCO Registry CCO-PCB-R13-TAG-139	No expiry
January 26, 2015	PO No. 2015-POA-E-1367-005	January 26, 2020
April 21, 2016	Sixteen (16) Permit to Operate Gensets, PO Nos. 2016-POA-D-1367-031 2016-POA-D-1367-032 2016-POA-D-1367-033 2016-POA-D-1367-034 2016-POA-D-1367-035 2016-POA-D-1367-036 2016-POA-D-1367-037 2016-POA-D-1367-038 2016-POA-D-1367-039 2016-POA-D-1367-040 2016-POA-D-1367-041 2016-POA-D-1367-042 2016-POA-D-1367-043 2016-POA-D-1367-044 2016-POA-D-1367-045 2016-POA-D-1367-046	April 21, 2021

D. Environmental Performance

Table 1.

Annual Environmental Protection and Enhancement Program (AEPEP)	Direct Mining Cost (PhP)	5% Direct Mining Cost (PhP)	Approved (Financial) Proposal PhP	Actual (Financial) Accomplishment PhP
2016			128,392,604.00	
2015	1,243,402,555.12	62,170,127.76	245,743,464.00	255,750,299.96
2014	1,438,545,800.48	71,927,290.02	155,101,240.00	345,037,174.37
2013	877,309,720.78	43,865,486.04	100,001,731.00	260,100,246.72
2012	786,539,842.73	39,326,992.14		249,660,681.80
2011	449,795,691.97	22,489,784.60		84,215,524.44
2010	377,934,707.83	18,896,735.39		29,177,742.81
TOTAL AEPEP (2010-2015) EXPENSES				1,223,941,670.01

Table 2.

Date	Activity	Summary of Findings								
		Findings and Observations	Recommendations	Commitment Status						
May 5-7, 2016	MMT Monitoring and Validation	<ul style="list-style-type: none"> Normal mining, hauling and shipment of ore activities were noted during the MMT monitoring. 								
		<ul style="list-style-type: none"> Four (4) vessels were anchored along the coast for TMC's ore shipment 								
		<ul style="list-style-type: none"> 2015 AEPEP accomplishment is as follows: <table border="1"> <thead> <tr> <th>Plan</th> <th>Actual</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>245, 743, 464.00</td> <td>208, 014, 407.00</td> <td>84.64</td> </tr> </tbody> </table>	Plan	Actual	%	245, 743, 464.00	208, 014, 407.00	84.64		
		Plan	Actual	%						
		245, 743, 464.00	208, 014, 407.00	84.64						
		<ul style="list-style-type: none"> Approved 2016 AEPEP plan total amount is P128,392,604 								
		<ul style="list-style-type: none"> AEPEP 2016 1st quarter accomplishment is: <table border="1"> <thead> <tr> <th>Plan</th> <th>Actual</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>9, 352, 288.00</td> <td>8, 743, 845.80</td> <td>93</td> </tr> </tbody> </table>	Plan	Actual	%	9, 352, 288.00	8, 743, 845.80	93		
		Plan	Actual	%						
		9, 352, 288.00	8, 743, 845.80	93						
		<ul style="list-style-type: none"> First phase of the concrete barrier located along the side of the wharf is already 100% completed 								
		<ul style="list-style-type: none"> Ongoing bouldering project completion on the side of the public cemetery (approximately 50m). 								
		<ul style="list-style-type: none"> Ongoing construction of retention of wall/dike at Hayanggabon coastal area, a project of the BLGU of Hayanggabon 								
		<ul style="list-style-type: none"> Advanced implementation of the mangrove reforestation 								
<ul style="list-style-type: none"> Completed access road widening in Phase 4 										
<ul style="list-style-type: none"> On-going desilting of three (3) chambers in Phase 6 										
<ul style="list-style-type: none"> Completed expansion project at Phase 6 settling pond in Taga 1 										
<ul style="list-style-type: none"> Other initiatives done by the company such 										

		as construction of box culvert at phase 1 access road, catch drainage desilting, sump desilting, construction of parallel catch drainage in Taga 3, livestock shed, fencing of Biodiversity Nursery and lookout tower in Cagdianao ridge amounting to P47,638,853.24		
		<ul style="list-style-type: none"> The company has been audited and recommended for certification to ISO 14001:2004 + Cor. 1:2009 by TUV Rheinland Philippines Inc. for Nickel Mining Operation 		
		<ul style="list-style-type: none"> One (1) hectare of the portion of silt depository containment box was fully utilized during the time of inspection. 	The company to install an information billboard about the project implementation.	Accomplished.
		<ul style="list-style-type: none"> Portion of previous bouldering project show signs of scouring (near public market) 	The company to include the repair of the embankment near public market as part of other initiatives.	Accomplished
		<ul style="list-style-type: none"> Accumulated silt is noted in the Hayanggabon coastal area 	EMB and MGB to facilitate the investigation and conduct a technical conference among the mining companies in the area together with the BLGU of Hayanggabon to determine the appropriate mitigation/action plan.	
		<ul style="list-style-type: none"> Reshaping activity for the 1st quarter was not done however costs were incurred for the repair of canals and access road of rehab areas which is different from the planned rehab area for the quarter. 	For presentation to the MRFC and for the body to decide whether the activity is to be credited under the AEPEP budget	
		<ul style="list-style-type: none"> Some targets for the 1st quarter were not attained (reshaping, planting and maintenance, nursery operation, desilting and maintenance of catch drainages) 	The company to fast track the implementation of the backlogs for 1 st quarter EPEP plan	
		<ul style="list-style-type: none"> Used tires were seen scattered in the area of SDMC Contractor 	Proper housekeeping should be observed at all times for all general contractors of the company	

		<ul style="list-style-type: none"> • 	To have a separate special MMT session for the finalization of the Manual of Operation (MOO) of the MMT after the harmonization workshop of both EMB and MGB	
August 26-28, 2015	MMT Validation	<ul style="list-style-type: none"> • During the time of inspection and validation, the company was in normal mining operation in Ridges of Urbiztondo, Taga 1, and Taga 3. Actual loading and shipment of ore activities were observed. 		
		<ul style="list-style-type: none"> • Reshaped areas at Taga2 Ridge (Pit 17 and Elev. +155) were observed, along with the planted seedlings of auri species. Previously rehabilitated mined out areas in Taga 2, Cagdianao and Urbiztondo ridges are well maintained. 		
		<ul style="list-style-type: none"> • NGP area at Cagdianao Ridge was visited. The area is well maintained. 		
		<ul style="list-style-type: none"> • Berms were established at the end slope of the Wharf. Installation of concrete barrier that will prevent dust from going to the nearby community is ongoing. 		
		<ul style="list-style-type: none"> • Most settling ponds are well maintained. Desilting at Phase 1 settling pond was observed during the inspection. 		
		<ul style="list-style-type: none"> • Expansion of Phase 6 settling pond is ongoing. 		
		<ul style="list-style-type: none"> • Widening of road going to Phase 4 settling pond is ongoing. Establishment of dikes/drainage canals at the toe of the slope is observed. 		
		<ul style="list-style-type: none"> • One parcel of the silt depository box is already full of waste material. The company constructed two (2) silt depository boxes covering a total area of about 2.8 hectares only. 	The company is recommended to seek clearance from the concerned government agencies in its proposed plan to donate the one-(1)-hectare area for reclamation as per request of BLGU-Taganito.	No formal request was submitted by the barangay regarding the proposed reclamation. Amendment of

				ECC for inclusion of reclamation project is deferred until project plan is completed. Due diligence will be undertaken
		<ul style="list-style-type: none"> Unsuppressed dust along haul roads is still excessive. 	The company is recommended to fast track the repair of three-(3)-units water lorries to mitigate excessive dust emission. Also, an increased frequency of water spraying is also recommended.	All units repaired. All units are in running condition (WTL 11, 12 & 14)
		<ul style="list-style-type: none"> Needs improvement in housekeeping at the waste storage area of the laboratory. Mixed bottles, plastic, waste soil samples and other waste are seen in the area. 	The company laboratory should segregate its wastes and properly store it in the waste storage area. Bottles/plastics that previously contain chemicals should be separated from other wastes and disposed through a DENR accredited transporter.	Done. No disposal yet but chemical bottles are stored in the MRF. As per laboratory SOP, bottles are thoroughly washed
		<ul style="list-style-type: none"> Poor housekeeping at the contractor's (Fitz-SDMC) area. Oil and water separator is not functional. There are observed traces of oil spillage in some grounds. Waste segregation is not observed. Cigarette butts and scattered used tires can be found in their working area. 	The company to compel its contractors to improve its housekeeping, to fast track the construction of its oil and water separator and to observe proper waste segregation. Smoking should be strictly prohibited.	Done. Strict implementation of "NO SMOKING" Policy is being implemented (attached Memo)
		<ul style="list-style-type: none"> In-house environmental (air, water and noise) monitoring was conducted by the company during the 2nd Quarter. The MMT conducted confirmatory water sampling to validate/check water quality at selected 	All environmental monitoring results will be presented at the MRFC.	

		<p>sampling stations along Taganito River and Hayangggabon River.</p> <ul style="list-style-type: none"> The company has already prepared the Carbon Sink Program but it was not yet finalized, hence, the management sent a letter informing the EMB Central Office of the on-going preparation of the said program and requesting the same for an extension for submission of the program. The land-use map was not updated during the MMT conference meeting as it did not include the development within MPSA and approved FLA area. 	<p>The company recommended to fast track the finalization of the Carbon Sink Program and officially submit it to EMB-Central Office</p> <p>The company to present the updated land-use map indicating the development within and outside the MPSA to the MRFC</p>	<p>Done. Carbon Sink program was already submitted to EMB CO dated</p> <p>Presented last MRFC dated February 23, 2016</p>
June 3-5, 2015	MMT Validation covering 1 st quarter 2015	<ul style="list-style-type: none"> During the time of inspection and validation, the company is in its normal mining operation in Ridges of Urbiztondo, Taga 1, Taga 2 and Taga 3. Actual loading and shipment of ore activities were observed. 		
		<ul style="list-style-type: none"> Reshaping at Taga2 Ridge was observed, along with the planted seedlings of auri species. Previously rehabilitated mined out areas in Taga 2, Cagdianao and Urbiztondo ridges are well maintained. 		
		<ul style="list-style-type: none"> The Biodiversity Nursery houses a variety of agroforestry ventures like goat farming, orchidarium and fish sanctuary, herbal and vegetable gardening, aside from seedling production. Along with the Gulayan, Prutasan and Palayan sa Minahan, these initiatives are good examples that mining and agriculture can co-exist. 		
		<ul style="list-style-type: none"> Most settling ponds are well maintained. Desilting at Phase 6 settling pond was observed during the inspection. 		
		<ul style="list-style-type: none"> New residual containment area established at Taga-2. 		
		<ul style="list-style-type: none"> Refurbishment of water source was established and operational during the 		

		inspection.	
		<ul style="list-style-type: none"> There was an observed scouring of the dikes of Phase 4 settling pond. This causes narrowing of the dike around the pond. 	The company is recommended to stabilize and widen the dikes of Phase 4 settling pond.
		<ul style="list-style-type: none"> There was an observed scouring of embankments of the access road going to Phase 4 settling pond. This makes access difficult/unsafe. 	The company is recommended to repair and stabilize the access road embankments going to Phase 4 settling pond. Road widening is also advised.
		<ul style="list-style-type: none"> Ore stockpiles were observed in the Wharf (extension), but there was an area where ore stockpiles are placed at the end slope of the causeway. 	The company is recommended to establish berms along this side to prevent run-off of silt towards the water, especially during heavy rains.
		<ul style="list-style-type: none"> Stockpiling of ores in the Wharf (extension) causes dust emission that goes directly towards nearby community. 	The company is recommended to install a barrier with the same height as the stockpiled ores to suppress dust emission from going directly towards nearby community.
		<ul style="list-style-type: none"> The present Material Recovery Facility is not properly maintained. Segregated wastes are not stored at the MRF. Segregation at source is not practiced, specifically wastes collected from the community. 	The company is recommended to coordinate with BLGU Taganito for the segregation of their residual wastes before they can accommodate dumping at the company's residual containment area.
		<ul style="list-style-type: none"> In-house environmental (air, water and noise) monitoring was conducted by the company during the 1st Quarter. The MMT conducted confirmatory water sampling to validate/check water quality at selected sampling stations along Taganito River and within the coastal area. 	All environmental monitoring results will be presented at the MRFC.
		<ul style="list-style-type: none"> MMT members do not have uniforms that will be used during inspection. 	The company is recommended to provide MMT uniforms (jacket and polo shirt) to all members since the last provision of uniforms was in the year 2013.
		<ul style="list-style-type: none"> Field inspections were delayed due to unavailability of service vehicles. 	The company is recommended to provide readily available service vehicles during MMT to avoid delays.

September 17-19, 2014	MMT Validation covering 2 nd quarter 2014	<ul style="list-style-type: none"> The company has established additional satellite nursery and biodiversity area at Urbiztondo ridge and Mine's view deck at Taga 2 mine pit 		
		<ul style="list-style-type: none"> No adverse findings during monitoring 		
		<ul style="list-style-type: none"> 	The company to conduct Information, Education Campaign (IEC) on environment	IEC on environment is already implemented, However, work program/schedule presented. EMB requested for revision
		<ul style="list-style-type: none"> 	The MMT to experience Annual National Mine Safety and Environment Conference (ANMSEC) in Baguio City on November 2015	For compliance
March 12-14, 2014	MMT Validation for 1 st quarter 2014	<ul style="list-style-type: none"> No mining operation during inspection 		
		<ul style="list-style-type: none"> Construction and installation of the conveyor system at Taga 3 is completed 		
		<ul style="list-style-type: none"> Large volume of water from Taga 3 and Alang-Alang ridge drain towards SP1. Water discharging from SP1 was observed discolored. Rainfall reading from March 11-13, 2014 shows 266.93mm 		
		<ul style="list-style-type: none"> Company has failed to submit its amended/revised Social Development and Management Plan (SDMP) as per approved amended Environmental Compliance Certificate (ECC) condition no. 5b with ECC reference ECC-CO-1304- 	The company to send letter of explanation/clarification to EMB RO 13 regarding the submission of the revised SDMP	

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July 30-August 1, 2013	MMT Monitoring and Validation of 2 nd quarter 2013	<ul style="list-style-type: none"> Runoff water from disturbed areas in Taga 1 are diverted to Settling pond No. 6 with four chamber provided with concrete spillways. 		
		<ul style="list-style-type: none"> Clear water from upstream of Daku Creek is diverted to Taganito River through a concrete canal with 6 meter width x 5 meters height 		
		<ul style="list-style-type: none"> Operations at "Gulayan at Prutasan sa Minahan", Central, Satellite and Mangrove Nurseries show remarkable improvements. 		
		<ul style="list-style-type: none"> Embankment of SP-5 provided with 4-layers layers gabions. Survival rate of vetiver grass in chamber 4 is about 90% 		
		<ul style="list-style-type: none"> All settling ponds are well maintained with concrete spillways 		
		<ul style="list-style-type: none"> Runoff waters from disturbed area in Taga 3 are diverted to settling pond no. 1 with seven (7) chambers. Clear water from upstream of Hubasan creek is diverted to Taganito river with 6 meters width by 4 meters height 		
		<ul style="list-style-type: none"> Construction of new settling pond between Taga 1 and Taga 2 with 96% accomplishment 		
		<ul style="list-style-type: none"> Mine rehabilitation at mine pit 26 and 15 with 4.13 hectares show 95% survival rate 		
		<ul style="list-style-type: none"> Physical appearance of water draining to Taganito river viewed at THPAL box culvert 3 show discoloration. Per verification, no dischargers observed at settling ponds 3, 4 and 6. However, head water of Taganito River viewed from SP 4 was observed discolored. Thus, the team conducted confirmatory sampling at the 	<p>TMC to request MGB RO XIII for the conduct of immediate verification of the issue together with adjacent operating mining company.</p> <p>Succeeding MMT inspections of TMC shall be participated by representative from adjacent mining company.</p>	<p>Company sent letter to MGB RO XIII dated August 5, 2013 requesting to facilitate the conduct of</p>

		upstream of Taganito river and below Taganito bridge.		verification. However, there was no field verification conducted.
		<ul style="list-style-type: none"> No permits required from other concerned government agencies for Silt Recovery/Dredging and Construction of Silt Depository Containment Project except Foreshore Lease Agreement. Foreshore Lease application filed with CENRO Surigao City last August 2008. Forwarded to MGB 13 last October 23, 2008 . Agreement not yet approved. Project area is outside the MPSA but within the Surigao Mineral Reservation. 	TMC to follow up MGB RO XIII on the said application.	Company followed up FLA application in their letter addressed to MGB RO XIII dated August 5, 2013
April 24-26, 2013	MMT Validation of 1 st quarter 2013	<ul style="list-style-type: none"> The company has an existing 7 settling ponds with the total capacity with the total capacity of 741,000 cu.m. Based on the AEPEP settling pond maintenance activity, 30% has been targeted to be desilted. For first quarter, actual accomplishment exceeded by 21.9% with total volume of 26,820 cu.m. On-going desiltation was noted at Phase 6 settling pond, at the same time, there is ground preparation for the concreting of the final spillway. Target completion date is July 2013 		
		<ul style="list-style-type: none"> Ongoing riprapping of Phase 4 settling pond dike was noted with 97% accomplishment 		
		<ul style="list-style-type: none"> Target volume of water for road watering for this year has been doubled based on the actual water utilization last year. Dust emission is expected to be minimized this year 		
		<ul style="list-style-type: none"> Actively join DOLE's summer youth 		

		<p>program with a total of 25 high school students from host barangays assigned at the nursery for seedling production activity</p>		
		<ul style="list-style-type: none"> The company is commended for showcasing a 1 hectare satellite nursery at Purok 5, Hayanggabon with diversified quality species of fruit trees seedlings for distribution and planting in support of TMC's NGP 		
		<ul style="list-style-type: none"> NGP plantation with variety seedlings was observed well maintained. First quarter accomplishment of 97.7 hectares is 500% from the planned target of 15 hectares 		
		<ul style="list-style-type: none"> Land use map as of 1st quarter 2013 prepared and presented by the company indicated to have a total mined out area of 55.39 hectares. Upon validation, it was found out that portion of the said area are still utilized as source of ballast materials for road repairs and maintenance. This justifies a smaller target rehabilitation area of only 12 hectares for this year's EPEP. 	<p>Segregate the existing quarry area from the declared mined out area in the presented Land Use Map</p> <p>Submit an updated Land Use under the approved MPSA</p>	<p>Updated Land Use submitted to MGB RO XIII on July 22, 2013</p>
		<ul style="list-style-type: none"> Clear water has been noted flowing from the headstream of Taganito river. However, at the confluence of the point of Taganito river and Daku creek (which water emanates from the discharge of Phase 3 settling pond) water becomes slightly discolored hence, a confirmatory sampling was conducted by the team wherein results are to be presented during the MRFC meeting for appropriate action 	<p>Company to divert the clear water in Daku creek from joining run-off water to Phase 3 settling pond</p>	<p>Diversion canal already submitted</p>
		<ul style="list-style-type: none"> Continuous natural formation of sandbars at the mouth of Taganito River will eventually hinder the flow of water going seaward. <p>Target for dredging scheduled 1st quarter</p>	<p>Dredging activity at shoreline should be done simultaneously with that of Taganito river</p>	<p>Ongoing dredging. More than 19 thousand cubic meters of mixed sand</p>

		of 2013 is yet undertaken. Accordingly, the activity will start upon completion of dredging of activity at Taganito river		and silt materials were recovered
October 10-12, 2012	MMT Validation of 2 nd and 3 rd quarter accomplishment	<ul style="list-style-type: none"> A total of 14 series of silt collector sumps was observed at the western and eastern side of Urbiztondo ridge 		
		<ul style="list-style-type: none"> A well-defined berm was noted at the haulage road 		
		<ul style="list-style-type: none"> Construction of concrete spillway was implemented in all settling ponds. Complete desiltation of the same was undertaken 		
		<ul style="list-style-type: none"> View deck was conducted for visual observation of head water of Taganito river at settling pond Phase 4 		
		<ul style="list-style-type: none"> "Gulayan at Prutasan sa Minahan" project covering about 1.5 hectares was noted at mine-out pit 29 		
		<ul style="list-style-type: none"> Construction of new settling pond – 6 was about 70% completed 	Company to apply discharge permit of the constructed settling pond	<p>Settling ponds 1, 3, 4 and the foreshore are covered with Discharge Permits for the period May 9, 2012 to May 9, 2013</p> <p>Settling ponds 2, 5 and 6 are covered with discharge permits for the period October 24, 2012 to October 24,</p>

				2013
		<ul style="list-style-type: none"> Segregation area at MRF has inadequate shed. Further, the design of the facility is just enough to accommodate the company and contractor's generated waste. Presently, the company is catering the wastes of Barangay Taganito 	Expand the existing shed for segregation	Shed was completed last December 2012
		<ul style="list-style-type: none"> Accomplishment on road watering exceeding the target per approved EPEP, however during the inspection dust emission is still evident at the mine area 	The company to provide additional water lorry for road watering	TMC has rented 4 units water lorry for road watering and cleaning of muds at national highway. Based on AEPEP 2013, company committed 100,000 cubic of water to be sprayed to the whole stretch of haulage roads at an average of 13 trips per day.
		<ul style="list-style-type: none"> 	The company to submit the amended EPEP incorporating the increase in ore production	Amended EPEP and FMR/DP was submitted to MGB 13 on December 2012
		<ul style="list-style-type: none"> 	The company to deposit the first annual cash provision of FMR/DP in the amount of PhP 73,714,361.57	The amount was deposited at DBP Surigao on December 2012

May 29-31, 2012	MMT Validation for 3 rd and 4 th quarter 2011 and 1 st quarter 2012	<ul style="list-style-type: none"> • Very remarkable change of water quality (clear water) was noticed at Taganito river and Hayangabon river 		
		<ul style="list-style-type: none"> • Nursery activities managed by four (4) personnel and started germinated half kilo manguim seeds 		
		<ul style="list-style-type: none"> • Seven (7) km. safety berm along access road to SP4 has been elevated to about 2 meters high and planted with ferns and wedelia 		
		<ul style="list-style-type: none"> • Installed 8,500 m² of coco coir with kakawati cuttings and grasses along slopes of PY5 and along Phase 3 access road 		
		<ul style="list-style-type: none"> • PY7 elevated to 1 meter high with 30% accomplishment given define flow of water going towards SP2. Further, perimeter berm of the pieryard was installed geotextile cloth 		
		<ul style="list-style-type: none"> • A protection buffer for 10 households was constructed at the mouth of Taganito River (Purok 3 Brgy. Taganito) with approximate 450 meters length and 6 meters width using boulders from the mine site 		
		<ul style="list-style-type: none"> • Constructed approximately 120 meters buffer and drainage canal at the eastern portion of the causeway to cater run-off within the area 		
		<ul style="list-style-type: none"> • Initiated landscaping and greening and constructed chapel within campsite 		
		<ul style="list-style-type: none"> • Company initiated to install phytoremediation using vetiver grass floaters at Daang Suba. However, survival rate of floaters at 1st and 3rd chambers of Daan suba (upstream bridge) was very 	Coordinate with DENR-ERDS for some remedial measure to improve the growth of vetiver grass	Growth of the vetiver grass was discussed with DENR-ERDS

		<p>low. Recently installed planted floaters at 4 and 6 (downstream bridge) chambers were green</p>		<p>personnel during their visit for the Landscape Function Analysis (LFA) research. Accordingly, vetiver grass in no exclusively aquatic plant. No specific plant species was recommended</p>
		<ul style="list-style-type: none"> Abandoned chemical waste disposal facility was delineated with a yellow ribbon (caution tape) 	<p>Rehabilitate the old/abandoned chemical waste disposal facility in coordination with EMB 13</p>	<p>The old chemical disposal pit was secured to restrict access as per advised by EMB rep.</p>
		<ul style="list-style-type: none"> A remarkable survival rate of approximately 95% of NGP at the proposed watershed of Brgy. Hayanggabon 	<p>Company to provide GPS reading to BLGU Hayanggabon as basis of the passage of resolution declaring the area as community watershed</p>	<p>GPS reading already provided to BLGU Hayanggabon</p>
		<ul style="list-style-type: none"> Depository area of extracted silt near Hayanggabon River resulted to the reclamation of foreshore area of about 20x30 meters 	<p>Removal of silt deposits</p>	<p>According to Hon. R. Placencia, Punong Barangay Hayanggabon, subject area is part of Hayanggabon Reclamation</p>

				Project. Deposited material contained in the ripped structure serves as backfill. Hence, removal of material is not necessary.
		<ul style="list-style-type: none"> Empty chemical bottles and oil filters in drums stored in open area of the 2nd chamber 	Reiteration from previous MMT recommendation, to provide permanent roofing at 2 nd chamber of hazardous storage facility. Proper storage and disposal of chemical bottles should be practiced	Accomplished right after MMT meeting before the succeeding MRFC

E. Notice of Violation

Date NOV Issued	Detail of Violation	Actions Taken	Status of the NOV
April 12, 2011	<ul style="list-style-type: none"> Sec 27 (a) of RA 9275 "Discharging, depositing or causing to be deposited material of any kind directly or indirectly into the water bodies or along the margins of any surface water, where, the same shall be liable to be washed into such surface water, either by tide action or by storm, floods or otherwise, which could cause water pollution or impeded natural flow in the water body;" (Daang Suba Creek) 	<ul style="list-style-type: none"> TMC attended the Technical Conference in May and submitted its Letter of Explanation. TMC, through its PCO, informed EMB that; <ol style="list-style-type: none"> silt was already removed using mechanical equipment from 14 April 2011 to 20 April 2011. 5,580 WMT of silt was removed Report was forwarded to PAAB per Section 27 and 28 of RA9275 On 12 May 2011, the EMB R13 conducted inspection/validation and results of water analysis confirmed that the sampling stations yielded within 	Case resolved by PAB

		<p>standards for Class “C” water (Daang Suba Creek)</p> <ul style="list-style-type: none"> The Board resolved to impose a fine in the amount of One Hundred Forty Thousand Pesos (PhP 140,000.00) 	
February 6, 2012	<ul style="list-style-type: none"> Presence of silt deposits/discoloration was noted at Hayanggabon River going to Taganito Bay Sec 27 (a) of RA 9275 “Discharging, depositing or causing to be deposited material of any kind directly or indirectly into the water bodies or along the margins of any surface water, where, the same shall be liable to be washed into such surface water, either by tide action or by storm, floods or otherwise, which could cause water pollution or impeded natural flow in the water body;” 	<ul style="list-style-type: none"> TMC attended the Technical Conference on February 13, 2012 and submitted its Letter of Explanation dated February 17, 2012 Signed a unified commitment together with PGMC and THPAL. TMC’s commitments are the following: <ul style="list-style-type: none"> Installation of silt fences in all gullies of Taga3 outside the circumferential drainage (Feb 2012 – May 2012) Maintenance and monitoring of Taga3 catch drainage (Feb 2012 – December 2012) Mechanical desilting using backhoe at the mouth of Hayanggabon River (February 2012 – May 2012) 	Commitments completed
June 10, 2013	<ul style="list-style-type: none"> Violation of provision of PD 1586 as shown in the On-site Inspection Report dated 29 May 2013 Starting the construction of Silt Depository Box Project without Environmental Compliance Certificate (ECC), in violation to Section 4 of the aforementioned law 	<ul style="list-style-type: none"> TMC attended the Technical Conference on June 17, 2013 and submitted its Letter of Explanation dated June 14, 2013 	TMC is cleared of the NOV as ordered on June 18, 2013. The premises presented by TMC and the explanation was accepted and the imposition of penalty was set aside.

F. Other Environmental Activities/endeavors undertaken such as Adopt-an-Estero Program, NGP, etc.

Adopt-an-Estero Program

Date	Activity	Remarks/Status
2012	Fortification of the Taganito River mouth	350 meters length completed
	Gabion & cobbles installed along portions of the banks of Daan Suba & Hubasan Creek to prevent erosion	Additional planting of vetiver grasses
2013	Mechanized desilting from overflow bridge down to Taga river mouth	6,128.90 meters length of Taganito river desilted
2014	<ul style="list-style-type: none"> Mechanized desilting of the accumulated silt using Track Excavator (Backhoe). Bouldering of portion of the banks of Taganito River 	6,128.90 meters length of Taganito River desilted
2015	<ul style="list-style-type: none"> Clean-up of Taganito River as part of ocean and environment month celebration Installed Gabions at Hubasan creek Constructed five (5) concrete spillways at Daan Suba diversion canal 	350 meters 1,500 linear meters gabions installed Construction completed

National Greening Program (NGP)/Mining Forest Program

TMC participated in the Mining Forest Program starting 1995. From 1995 to 2010, a total of 235.88 hectares with an equivalent 409,660 seedlings was contributed and planted by the company.

Then with the NGP, the table below details the company's participation.

Date	Activity	Status Total area planted (has)	Total Seedlings Planted	Total area maintained (has)
2015	Maintenance activity of previous plantation from 2011-2012			133.69
2011	Progressive reforestation enhancement	182.35	349,626	
2012		346.35	261,274	

2013	planted within MPSA area with no mining activity yet	129.92	196,619	
2014		97.18	145,287	
TOTAL		755.80	952,806	133.69

Under these two programs, TMC's grand total accomplishment is **991.68 hectares** and **1,362,466** seedlings/trees planted.

Because of this tremendous active participation, the following awards have been received by TMC.

<u>DATE GIVEN</u>	<u>AWARDING AGENCY/ORGANIZATION</u>	<u>DESCRIPTION OF AWARDS/CITATIONS</u>
1995		
2-Dec-95	PMSEA	Plaque of Recognition
1996		
30-Nov-96	PMSEA	Plaque of Recognition
30-Nov-96	DENR-MGB	"Adopt a Tree Adopt a Mining Forest" Plaque of Recognition, 1996 Best Mining Forest Contest 3rd Runner-up
1997		
1997	DENR-MGB	"Adopt a Tree Adopt a Mining Forest" 1997 Best Mining Forest, 1st Runner up
1998		
28-Nov-98	PMSEA/MGB	Plaque of Recognition
1999		
27-Nov-99	PMIEA	1999 Platinum Achievement Award Surface Mining Category Outstanding Environmental Management Program
27-Nov-99	DENR-MGB	"Adopt a Tree Adopt a Mining Forest" Special Citation
2000		
25-Nov-00	PMSEA/MGB	Certificate of Recognition
2001		
22-Nov-01	PMSEA	PMIEA –Certificate of Recognition
2003		
13-Nov-03	PMSEA	2003 Presidential Mineral Industry Environmental Award for Surface Mining Category
2004		
19-Nov-04	PMSEA	2004 Presidential Mineral Industry Environmental Award for Surface Mining Category
19-Nov-04	PMSEA	3rd Runner up Best Mining Forest Contest

2005		
19-Nov-05	DENR-MGB	3rd runner-up 2005 Best Mining Forest Contest
2006		
Nov-06	PMSEA	PMIEA Platinum Awards
Nov-06	PMSEA	Best Mining Forest Contest-1st Runner-Up
2007		
23-Nov-07	PMSEA	PMIEA Titanium Awards
		Best Mining Forest Contest-3rd Runner-Up
2008		
22-Nov-08	PMSEA	PMIEA Awards Special award Best Mining Forest Contest
2009		
Nov-09	PMSEA-MGB	Philippine Mineral Industry Environmental Awards Titanium Award
2013		
1-Nov-13	PMSEA	3rd Runner up Best Mining Forest (Metallic Category)
2014		
Nov-14	PMSEA	1st Runner up Best Mining Forest (Metallic Category)
2015		
Nov-15	PMSEA	Champion, Best Mining Forest (Metallic Category)

Carbon Sink Program

The construction of two conveyor line systems is not only consistent with the effort to improve production but also the initiative to decrease GHG emissions. Line 1 (Taga3 to Laydown Area) was completed in 2014 while Line 2 (Taga1 to Laydown Area) was completed in 2016. Every year TMC files its GHG Inventory to DENR EMB.

The construction of a multi-million technical services area was also undertaken and completed in 2014 in order to improve the delivery of technical services to TMC's fleet hereby ensuring not only availability of equipment but also its performance thereby contributing to decreasing GHG emissions.

These two major undertakings complement the National Greening Program and Mining Forest Program where the company undertakes mine rehabilitation and reforestation and maintenance also as part of the effort to reduce GHG emissions.

ISO14001 Accreditation

As of April 22, 2016, TMC has been audited and recommended for certification to ISO 14001:2004 + Cor 1:2009

Researches

1. Mine Rehabilitation: Coffee Plantation Project
2. Conservation and Phytochemistry of Native Metallophytes and Phytostabilization and Restoration of Mined-out Areas (Partnership with UP Los Banos)
3. Water Quality and Plankton Diversity of Selected Coastal Areas near Nickel Mines in Surigao del Norte (Partnership with CSU)
4. Rehabilitation of Areas affected by Nickel Mining in Surigao Provinces towards Ecosystem Restoration (Partnership with CSU)
5. Assessment of Aquatic Biodiversity in selected Mining Environments in Mindanao (partnership with CSU).