



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. III

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April 15, 2013

MEMORANDUM

FOR The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU The Chief
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM The Head
Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT Report on the First Quarter 2013 Monitoring of the
Multipartite Monitoring Team for Eramen Minerals,
Inc. Located in Barangay Guisguis, Sta. Cruz,
Zambales.

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on March 19, 2013. This is to ensure and verify the company's performance and compliance with their approved 2013 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

1. Lauro S. Garcia, Jr. MMT Head, MGB Region 3
2. Raymond A. Rivera Member, OIC-CENRO Masinloc
3. Rendentor M. Laureta Member, EMB Region 3 Representative

- | | |
|------------------------|--|
| 4. Flordalyn Fortuna | Member, ENRO-Zambales Representative |
| 5. Edilberto E. Eballo | Member, NGO Representative |
| 6. Peter Benaires | Member, EMI Representative |
| 7. Januar Ong | Member, EMI Representative |
| 8. Onofre Arfapo | Member, Barangay Chairman Guisguis |
| 9. Angelito Merto | Member, Barangay Charman Tubo-Tubo South |
| 10. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of October, 2012 are as follows;

RCF	Php 5,005,139.69
MTF	Php 151,337.45
ETF	Php 101,225.70
FMRDF	1 st Annual Cash Provision will start on Year 2013

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Results of Air Sampling

Samplings were conducted at three stations to determine the Total Suspended Particulates (TSP) with the use of high volume sampler and gravimetric method of analysis, Nitrogen Dioxide and Sulfur Dioxide. This was based on 60 minutes average time.

Station No.	Location	TSP	NO2	SO2
A1	Bolas Mine Site	43	3	19
A2	Near the sample preparation area	47	2	8
A3	Near the Inmalpay Creek	42	ND	20
DENR standard		300	340	260

Remarks: The results have passed the DENR Standards for Ambient Air Quality

Results of Ambient Noise

Ambient noise levels were likewise monitored at the same stations of ambient air using a sound level meter. The results for noise level monitoring are tabulated below.

Station	Noise Level	DENR Standard
Bolas Mine Site	69.50 dBA	90 dBA
Near the sample preparation area	67.20 dBA	
Near the Inmalpay Creek	47.80 dBA	75 dBA

Remarks: The results have passed the DENR Standards for Ambient Noise Levels

Results of Water Sampling

Four sampling stations were monitored for surface water, Pinmagong Creek Upstream and downstream and Bangkay Creek Upstream and downstream.

Pinmagong Creek Upstream

Parameters	Results	DENR Standard
pH	8.29	6.5-8.5
Temperature	31.2	Max 3 celcius rise
Total Suspended Solids	6.0	Not more than 30 mg/L increase
Total Dissolved Solids	123	none
Oil and Grease	0.51	2.0
Cadmium	< 0.01	0.01
Iron	1.7	1
Nickel	< 0.03	

Remarks: The results have passed the DENR Standards

Pinmagong Creek Downstream

Parameters	Results	DENR Standard
pH	8.29	6.5-8.5
Temperature	31.2	Max 3 celcius rise

Total Suspended Solids	6.0	Not more than 30 mg/L increase
Total Dissolved Solids	123	none
Oil and Grease	0.51	2.0
Cadmium	< 0.01	0.01
Iron	1.7	1
Nickel	< 0.03	

Remarks: The results have passed the DENR Standards

Bangkay Creek Upstream

Parameters	Results	DENR Standard
pH	8.35	6.5-8.5
Temperature	28.7	Max 3 celcius rise
Total Suspended Solids	3.0	Not more than 30 mg/L increase
Total Dissolved Solids	148	none
Oil and Grease	0.56	2.0
Cadmium	< 0.01	0.01
Iron	0.12	1
Nickel	< 0.03	

Remarks: The results have passed the DENR Standards

Bangkay Creek Downstream

Parameters	Results	DENR Standard
pH	7.71	6.5-8.5
Temperature	28.6	Max 3 celcius rise
Total Suspended Solids	18	Not more than 30 mg/L increase
Total Dissolved Solids	153	none
Oil and Grease	0.41	2.0
Cadmium	< 0.01	0.01
Iron	2.4	1
Nickel	0.22	

Remarks: The results have passed the DENR Standards

Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remarks
Environmental Compliance Cert.	X		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit	X		Issued by EMB Region 3
Permit to Operate			Issued by EMB Region 3
Accreditation of PCO			Issued by EMB Region 3
Submission of SMR	X		Quarterly submitted to EMBR3
Compliance Monitoring Report	X		Quarterly submitted to EMBR3
Waste Generator Registration Cert.	X		Issued by EMB Region 3
ETF	X		
Approved EPEP/FMRDP	X		EPEP/FMRDP No. 095-2010-03 issued June 29
Approved Annual EPEP	X		AEPEP No. 02-2013 issued January 29, 2013
Organization of MEPEO	X		Junar Ong -MEPEO
Creation of MRFC	X		Quarterly meeting
Establishment of MRF	X		RCF - Php 5,005,139.69 MTF - Php 151,337.45
Establishment of FMRDF	X		Php 1,000,000
Formation of MMI	X		Quarterly monitoring
Mine Waste and Mill Tailings Semi-Annual Report	X		Semi-Annual Reporting
Submission of Mining Forest Program (Semi-Annual)	X		Semi-annual Reporting
Submission of NGP Report	X		Quarterly Reporting
AEPEP Accomplishment Report	X		Quarterly Reporting
Solid Waste Management Program	X		With Material Recovery Facility

2013 AEPEP Financial Matrix

Activity	Annual Cost	Accomplishment	Actual cost
Progressive Rehabilitation/ Revegetation Cost	Php 3,500,000.00	Total of 9.6 Ha planted at mined-out area and 3.6 Ha leveled and sloped area ready for mine rehabilitation at Pimmagong	Php 1,164,479.00
Monitoring and Maintenance Cost			
Water quality			
Physical	Php 75,000.00		Php 40,000.00
Chemical	Php 75,000.00		
Biological	Php 75,000.00		
Air Quality			

Dust	Php 75,000.00	Air sampling for monitoring of air quality at identified sampling points of MMT		
Gaseous Emission	Php 75,000.00			
Noise	Php 75,000.00			
Maintenance of Nursery	Php 150,000.00	Includes preparation of land to be used for nursery expansion	Php	54,320.00
Watering of Haul Roads	Php 3,500,000.00	Daily watering of haul roads at least 4 times daily of more frequently as needed	Php	4,971,720.00
Maintenance of Haul Roads	Php 6,000,000.00	Periodic maintenance of haul roads from all active mining areas to port facilities	Php	2,230,511.50
Maintenance of Drainage Canals and Silt traps	Php 1,500,000.00	Periodic maintenance, desilting and rehabilitation of 5.3 km drainage canals and 126 silt traps (ave. dimension 2m x 2m x 3m) , and 4 silt ponds (ave. 5m x 4m x 4m)	Php	687,272.50
Maintenance of Siltation Ponds	Php 1,500,000.00	Maintenance of siltponds at Pimmagong and Bolas area (average dimensions 15m x 5m x 4m)		
Maintenance of Ore Stockyard Siltation Control Facilities	Php 750,000.00			
Maintenance of Waste Dump/ Overburden Stockpile Area	Php 300,000.00		Php	-
Maintenance of Laboratory	Php 300,000.00		Php	-
Maintenance of Pollution Control and Monitoring Equipment	Php 300,000.00		Php	-
Research component	Php 1,000,000.00		Php	25,000.00
MMT Monitoring Expense	Php 600,000.00		Php	-
SUB TOTAL	Php 19,850,000.00		Php	9,173,303.00
Contingency Fund (3% DMCC)	Php 6,000,000.00			
GRAND TOTAL	Php 25,850,000.00		Php	9,173,303.00

AEPEP HIGHLIGHTS OF ACCOMPLISHMENTS:

1. Quarterly ambient air and noise and water quality monitoring and analysis;
2. Construction of additional and repair and maintenance of existing settling ponds;
3. Construction of additional length of drainage canals along road network and desilting of silt traps;
4. Construction of gabion traps and sabo dam using carbonized rice hulls as part of research program;
5. Regular road water spraying on mine site and hauling road to port area;
6. Regular street sweeping along hauling roads;
7. Stabilization and mulching of slopes at the mine out areas;
8. Nursery operation and maintenance. Continuous seedling production for the rehabilitation of mine out areas;
9. On-going environmental research and development on palay farming using laterite, fish culturing using mine waters and vermiculture of corn;
10. Establishment of Material Recovery Facility and waste bin for solid waste segregation;

NATIONAL GREENING PROGRAM (NGP)

Inventory of seedlings as of 1st quarter 2013.

Species	Plantable	Newly Transplanted	TOTAL
A. auriculiformis	1,276	830	2,106
A. mangium	60	-	60
A. pera	26	155	181
Agoho	715	189	904
Bagras	421	781	1,202
Balatenaw	-	7	7
Bamboo	306	-	306
Cashew	208	34	242
Dragon fruits		310	310
Duhat		134	134

Dulag	-	159	159
Golden shower	-	85	85
Guyabano	-	130	130
Indian lamutan	-	24	24
Ipil-ipil	-	1,995	1,995
Langka	110	196	306
Lungan	-	59	59
Lukban	-	8	8
Lychee	-	100	100
Mango	174	35	209
Mindoro pine	1,346	41	1,387
Narra	92	69	161
Pagospos	41	355	396
Palm	-	260	260
Pongkan	-	7	7
Rain tree	-	1,530	1,530
Salago	81	2,438	2,519
Sampalok	1,634	25	1,659
Santol	-	12	12
Yemane	40	735	775
TOTAL	6,530	10,703	17,233

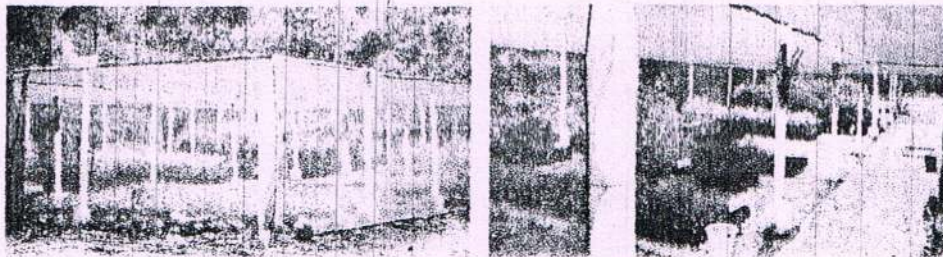


Photo showing the company's nursery area.

RECOMMENDATIONS

- Installation of poster/billboard on "No tree cutting" prior to the issuance of permit to cut trees;
- Provision watch tower/view deck at the NGP area/rehab area within the tenement to easily monitor the progress of NGP;
- Review of company's compliances to operations, reporting requirement necessary in the operation.

Safety and Health Program (SHP)

Requirement	Yes	No	Remarks
Submission of Annual SHP	X		2013 Safety and Health Program submitted on November 27, 2012.
Organization of Safety and Health Office	X		Engr. Elmer Crisologo-Safety Manager and newly constructed safety and health office and clinic at the field office.
Certificate of Mechanical and Electrical Inspection (Section 150, DAO 2010-21)		X	

2013 First Quarter SHP Financial Matrix

Target Activity	Target	Accomplishment	Date Accomplished	Cost (Php)	Remarks
1. Policy Implementation	1	1			
2. Implementation of Organizational Rules and Procedure	1	1			
3. Safety meetings					
a. CSC Meetings	3	2 CSC Meetings	January 9, Feb. 8, 2013	4,000.00	March CSC to be scheduled
b. Departmental Meetings					
c. Tool Box Meeting	12	10	Every Monday of the week	10,000.00	Toolbox meeting were conducted by either Managers, Supervisors And Safety Personnel at least once a week in every work places.
d. Pep Talk					As needed
4. Trainings					
a. Orientation of Employee		8 Orientation was conducted to spot hired personnel	Jan. 6, 13, 21, 31/Feb. 7, 19/ March 5	16,000.00	Prior to shipment operation, All personnel undergo safety orientation.
b. Standard Operating Procedures					
c. First Aid Training/Seminar					
d. Fire Safety Training		1 Fire Safety Training/ Lecture	10-Mar-13	8,616.00	A total of 46 personnel from all Departments participated.

e. Emergency Response and Disaster Management Training	1	0			
5. Safety Inspection					
a. Walk Trough/Daily Inspection		63	Daily		
b. Committee Inspection		2	Ever 1st Monday of the month	6,000.00	
6. Accident/Incident Analysis					No accident recorded
7. Health Control and Services					
a. Pre-placement Physical/Medical Examination		A total of 31 newly hired personnel undergone Physical/Medical examination		18,600.00	No personnel shall be allowed to start working without having medical/ physical examination.
b. Periodic or Annual Medical Examination					
8. Emergency Response and Preparedness Program	1	0			
a. Identification of Hazard					As needed
b. Assessment of every perceivable Risk					
c. Control Measure					
- Organization of Crisis Management					As needed/ Implemented
- Provision of Facility and Equipment					As needed/ Implemented
- Protocols During Emergency					As needed/ Implemented
- Training for Emergency response and Fire Safety					For implementation
9. Personal Protective Equipment		122 Safety Vest	7-Jan-13	79,640.00	
Others		MPSA Certificate Signage	11-Jan-13	6,190.00	
TOTAL				150,786.00	

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

1. Regular safety meetings such as toolbox meeting before workers are dispatched to their work assignment and monthly Central Safety Committee meeting conducted by the company;
2. Monthly General Accident Report submission and an incident and accident investigation if ever occurrence of an accident;
3. Annual medical check up of employees, BP monitoring, and medical consultation on the company retainer physician;

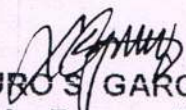
4. Newly constructed safety office and clinic at the field office. A satellite safety and first aid stations at the mine site;
5. Maintenance of fire fighting equipment such as fire extinguishers;
6. Procurement and distribution of Personal Protective Equipment;
7. Installation of Safety Awareness signage's and Safety Statistical Records at the mine site;
8. Installation of safety road signs at the mine site;
9. Regular road maintenance, construction of safety berms and emergency ramps to ensure road safety at the mine site;
10. A fire fighting trainings conducted to workers and management at the mine site.

COMMENTS AND REMARKS:

Based on the foregoing monitoring, results of analyses for water, ambient air and noise passed the DENR standards. ERAMEN's presented accomplishments were verified in the field and found it to be true and correct. The management was committed to actively participate in the protection of environment, safety and health of workers and its host and neighboring communities.

The MMT findings/observations were presented and discussed during the exit conference. The company's representatives gave commitment to take immediate remedial actions on the noted observations.

For his information.


ENGR. LAURO S. GARCIA, JR.
MMT-Head for Eramen Minerals Inc.
And Supervising Science Research Specialist



ERAMEN MINERALS INC.

ERAMEN MULTI-PARTITE MONITORING TEAM (MMT)

March 19, 2013

LAURO A. GARCIA, JR.

MMT HEAD

REYENTER M. LAURETA

E.M.B. REPRESENTATIVE

EDILBERTO E. EBALD

N.G.O. REPRESENTATIVE

JIMMY E. TAWKRO

CENRO- MASINLOC REP.

WILSON M. SIBAL

M.G.B REPRESENTATIVE

FLORENDO D. FORTUNA

ENRO ZAMBALES REP.

KEN. RODEL P. QUERUSIM

LUCAPON SOUTH -REP.

DOSDADO M. MOYILLA

GUISGUIS -REP.

ANGELITO P. MERTO

TUBOTUBO SOUTH- REP.

INELCHON B. LAMPAN
TAGBILIS / SOMPO
EMO-REP.

FLORENTE B. OMBRANA
TAGBILIS / SOMPO
EMO-REP.

PETER BENAIGES

EMI - REP.

ELMER R. CANSIBO

EMI -REP.



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July 15, 2013

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FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The Chief
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Head
Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT : Report on the Second Quarter 2013 Monitoring of
the Multipartite Monitoring Team for Eramen
Minerals, Inc. Located in Barangay Guisquis, Sta.
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DENR standard		300	340	260

Remarks: The results have passed the DENR Standards for Ambient Air Quality

Results of Ambient Noise

Ambient noise levels were likewise monitored at the same stations of ambient air using a sound level meter. The results for noise level monitoring are tabulated below.

Station	Noise Level	DENR Standard
Bolas Mine Site	69.50 dBA	90 dBA
Near the sample preparation area	67.20 dBA	
Near the Inmalpay Creek	47.80 dBA	75 dBA

Remarks: The results have passed the DENR Standards for Ambient Noise Levels

Results of Water Sampling

Four sampling stations were monitored for surface water, Pinmagong Creek Upstream and downstream and Bangkay Creek Upstream and downstream.

Pinmagong Creek Upstream

Parameters	Results	DENR Standard
pH	8.29	6.5-8.5
Temperature	31.2	Max 3 celcius rise
Total Suspended Solids	6.0	Not more than 30 mg/L increase
Total Dissolved Solids	1.3	none
Oil and Grease	0.51	2.0
Cadmium	< 0.01	0.01
Iron	1.7	1
Nickel	< 0.03	

Remarks: The results have passed the DENR Standards

Pinmagong Creek Downstream

Parameters	Results	DENR Standard
pH	8.29	6.5-8.5
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Oil and Grease	0.56	2.0
Cadmium	< 0.01	0.01
Iron	0.12	1
Nickel	< 0.03	

Remarks: The results have passed the DENR Standards

Bangkay Creek Downstream

Parameters	Results	DENR Standard
pH	7.71	6.5-8.5
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Cadmium	< 0.01	0.01
Iron	2.4	1
Nickel	0.22	

Remarks: The results have passed the DENR Standards

Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remarks
Environmental Compliance Cert.	X		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit	X		Issued by EMB Region 3
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Compliance Monitoring Report	X		Quarterly submitted to EMBR3
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Mine Waste and Mill Tailings Semi-Annual Report	X		Semi-Annual Reporting
Submission of Mining Forest Program (Semi-Annual)	X		Semi-annual Reporting
Submission of NGP Report	X		Quarterly Reporting
AEPEP Accomplishment Report	X		Quarterly Reporting
Solid Waste Management Program	X		With Material Recovery Facility

2013 AEPEP Financial Matrix covering Second Quarter

Activity	Annual Cost	Accomplishment	2 nd Quarter Actual cost
Progressive Rehabilitation/ Revegetation Cost	Php 3,500,000.00	Benching and re-contouring of declared mined out area at Bolas	Php 4,715,884.50
Monitoring and Maintenance Cost			
Water quality		Water sampling for monitoring of water quality at identified sampling points of MMT	
Physical	Php 75,000.00		
Chemical	Php 75,000.00		

Biological	Php	75,000.00		
Air Quality			Air sampling for monitoring of air quality at identified sampling points of MMT	
Dust	Php	75,000.00		
Gaseous Emission	Php	75,000.00		
Noise	Php	75,000.00	Noise sampling for monitoring of noise quality at identified sampling points of MMT	
Maintenance of Nursery	Php	150,000.00	Seedling production/Maintenance of observation pond/Organic fertilizer production	Php 49,964.50
Watering of Haul Roads	Php	3,500,000.00	Daily watering of haul roads at least 4 times daily of more frequently as needed	Php 1,099,860.00
Maintenance of Haul Roads	Php	6,000,000.00	Periodic maintenance of haul roads from all active mining areas to port facilities	Php 1,059,964.00
Maintenance of Drainage Canals and Silt traps	Php	1,500,000.00	Construction/maintenance/desilting of 11,169.96 m drainage canals, 181 silt traps (ave. dimension 2m x 2m x 3m) and 23 silt ponds (ave. 1m x 5m x 4m)	Php 4,715,884.50
Maintenance of Siltation Ponds	Php	1,500,000.00	Maintenance of siltponds at Pimmagong and Bolas area (average dimensions 15m x 5m x 4m)	
Maintenance of Ore Stockyard Siltation Control Facilities	Php	750,000.00		
Maintenance of Waste Dump/Overburden Stockpile Area	Php	300,000.00		
Maintenance of Laboratory	Php	300,000.00		
Maintenance of Pollution Control and Monitoring Equipment	Php	300,000.00		
Research component	Php	1,000,000.00		
MMT Monitoring Expense	Php	600,000.00		
SUB TOTAL	Php	19,850,000.00		Php 8,201,396.00
Contingency Fund (3% DMMC)	Php	6,000,000.00		
GRAND TOTAL	Php	25,850,000.00		Php 8,201,396.00

AEPEP HIGHLIGHTS OF ACCOMPLISHMENTS:

1. Quarterly ambient air and noise and water quality monitoring and analysis;
2. Construction of additional and repair and maintenance of existing settling ponds;
3. Construction of additional length of drainage canals along road network and desilting of silt traps;
4. Construction of gabion traps and sabo dam using carbonized rice hulls as part of research program;
5. Regular road water spraying on mine site and hauling road to port area;
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9. On-going environmental research and development on palay farming using laterite, fish culturing using mine waters and vermiculture of corn;
10. Establishment of Material Recovery Facility and waste bin for solid waste segregation.

NATIONAL GREENING PROGRAM (NGP)

Inventory of seedlings as of 2nd quarter 2013.

January	February	March	April	May	June
16,461	16,451	17,841	18,020	27,551	81,133

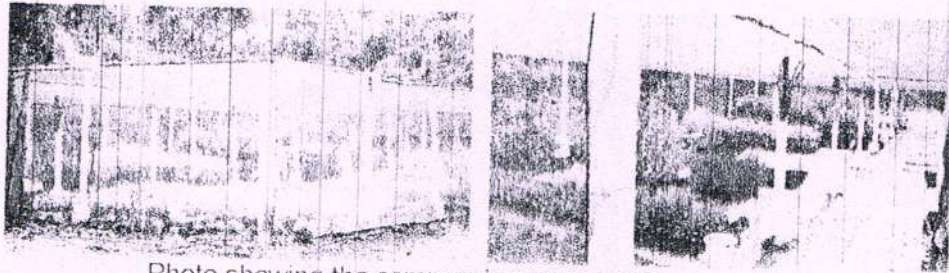


Photo showing the company's nursery area.

RECOMMENDATIONS

- Installation of poster/billboard on "No tree cutting" prior to the issuance of permit to cut trees;
- Provision watch tower/view deck at the NGP area/rehab area within the tenement to easily monitor the progress of NGP;
- Review of company's compliances to operations, reporting requirement necessary in the operation.

Safety and Health Program (SHP)

Requirement	Yes	No	Remarks
Submission of Annual SHP	X		2013 Safety and Health Program submitted on November 27, 2012.
Organization of Safety and Health Office	X		Engr. Elmer Crisologo-Safety Manager and newly constructed safety and health office and clinic at the field office.
Certificate of Mechanical and Electrical Inspection (Section 150, DAO 2010-21)		X	

2013 Second Quarter SHP Financial Matrix

Target Activity	Target	Accomplishment	Date Accomplished	Cost (Php)	Remarks
1. Policy Implementation	1	1			
2. Implementation of Organizational Rules and Procedure	1	1			
3. Safety meetings					
a. CSC Meetings	3	2 CSC Meetings	April 19, May 24, June 22, 2013	6,000.00	July CSC to be scheduled
b. Departmental Meetings					
c. Tool Box Meeting	12	10	Every Monday of the week	13,000.00	Toolbox meeting were conducted by either

						Managers, Supervisors And Safety Personnel at least once a week in every work places.
d. Pep Talk						As needed
4. Trainings						
a. Orientation of Employee			8 Orientation was conducted to spot hired personnel	April 2013, June 28, July 1, July 8, 2013	16,000.00	Prior to actual exploration operation; 2 Geologists and 1 Metallurgical Engineer
b. Standard Operating Procedures						
c. First Aid Training/Seminar				May 27-30, 2013	64,000.00	30 participants from different Departments
d. Fire Safety Training			1 Fire Safety Training Lecture		64,000.00	30 participants from different Departments
e. Emergency Response and Disaster Mangement Training	1	0		May 31 June 2, 2013		
f. BOSH	1	1		May 17-21, 2013	27,000.00	1 participant from the Safety Department
g. LCM	1	1		May 3-7, 2013	33,000.00	1 participant from the Safety Department
5. Safety Inspection						
a. Walk Trough/Daily Inspection		63		Daily		
b. Committee Inspection		2		Ever 1st Monday of the month	6,000.00	
6. Accident/Incident Analysis						No accident recorded
7. Health Control and Services						
a. Pre-placement Physical/Medical Examination			A total of 31 newly hired personnel undergone Physical/Medical examination		18,600.00	No personnel shall be allowed to start working without having medical/ physical examination.
b. Periodic or Annual Medical Examination				April-June 2013	109,600.00	

8. Emergency Response and Preparedness Program	1	0		
a. Identification of Hazard				
b. Assessment of every perceivable Risk				As needed
c. Control Measure				
Organization of Crisis Management				As needed/ Implemented
- Provision of Facility and Equipment				As needed/ Implemented
- Protocols During Emergency				As needed/ Implemented
- Training for Emergency response and Fire Safety				For implementation
9. Personal Protective Equipment		Various PPEs		120,950
Others		Various safety Signage		168,000
TOTAL				646,150

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

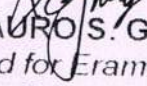
1. Regular safety meetings such as toolbox meeting before workers are dispatched to their work assignment and monthly Central Safety Committee meeting conducted by the company;
2. Monthly General Accident Report submission and an incident and accident investigation if ever occurrence of an accident;
3. Annual medical check up of employees, BP monitoring, and medical consultation on the company retainer physician;
4. Newly constructed safety office and clinic at the field office. A satellite safety and first aid stations at the mine site;
5. Maintenance of fire fighting equipment such as fire extinguishers;
6. Procurement and distribution of Personal Protective Equipment;
7. Installation of Safety Awareness signage's and Safety Statistical Records at the mine site;
8. Installation of safety road signs at the mine site;
9. Regular road maintenance, construction of safety berms and emergency ramps to ensure road safety at the mine site;
10. A fire fighting trainings conducted to workers and management at the mine site.

COMMENTS AND REMARKS:

Based on the foregoing monitoring, results of analyses for water, ambient air and noise passed the DENR standards. ERAMEN's presented accomplishments were verified in the field and found it to be true and correct. The management was committed to actively participate in the protection of environment, safety and health of workers and its host and neighboring communities.

The MMT findings/observations were presented and discussed during the exit conference. The company's representatives gave commitment to take immediate remedial actions on the noted observations.

For his information.


ENGR. LAURO S. GARCIA, JR.
*MMT-Head for Eramen Minerals Inc.
And Supervising Science Research Specialist*



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. III

Cleofer's Building, Gen. Hizon Avenue, City of San Fernando, Pampanga, Philippines
Tel./Fax No. (+63 45) 9612799 / 9613523 / 9636387 E-Mail: mgbr3@yahoo.com

October 14, 2013

MEMORANDUM

FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The Chief
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Head
Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT : Report on the Third Quarter 2013 Monitoring of the Multipartite Monitoring Team for Eramen Minerals, Inc. Located in Barangay Guisquis, Sta. Cruz, Zambales.

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on September 24, 2013. This is to ensure and verify the company's performance and compliance with their approved 2013 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

- | | |
|-------------------------|--------------------------------------|
| 1. Lauro S. Garcia, Jr. | MMT Head, MGB Region 3 |
| 2. Rendentor M. Laureta | Member, EMB Region 3 Representative |
| 3. Flordalyn Fortuna | Member, ENRO-Zambales Representative |

- | | |
|------------------------|--|
| 4. Edilberto E. Eballo | Member, NGO Representative |
| 5. Peter Benaires | Member, EMI Representative |
| 6. Aaron Altez | Member, EMI Representative |
| 7. | Member, Barangay Chairman Guisguis |
| 8. Angelito Merto | Member, Barangay Charman Tubo-Tubo South |
| 9. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of October, 2012 are as follows;

RCF	Php 5,005,139.69
MTF	Php 151,337.45
ETF	Php 101,225.70
FMRDF	1 st Annual Cash Provision will start on Year 2013

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Results of Air Sampling

Samplings were conducted at three stations to determine the Total Suspended Particulates (TSP) with the use of high volume sampler and gravimetric method of analysis, Nitrogen Dioxide and Sulfur Dioxide. This was based on 60 minutes average time.

Parameters	DENR Standard	Bolas Area			Sample Preparation Area			Inmalpay Area		
		1st Quarter	2nd Quarter	3rd Quarter	1st Quarter	2nd Quarter	3rd Quarter	1st Quarter	2nd Quarter	3rd Quarter
Nitrogen Dioxide ($\mu\text{g}/\text{Ncm}$)	340	3	ND	ND	2	ND	ND	ND	ND	ND
Sulfur Dioxide ($\mu\text{g}/\text{Ncm}$)	260	19	109	ND	8	63	ND	20	59	ND
Total Suspended Particulates ($\mu\text{g}/\text{Ncm}$)	300	43	61	7.98	47	6	13.01	42	94	12.9

Remarks: The results have passed the DENR Standards for Ambient Air Quality

Results of Ambient Noise

Ambient noise levels were likewise monitored at the same stations of ambient air using a sound level meter. The results for noise level monitoring are tabulated below.

Station	Noise Level	DENR Standard
Bolas Mine Site	65.90 dBA	90 dBA
Near the sample preparation area	64.80 dBA	
Near the Inmalpay Creek	45.20 dBA	75 dBA

Remarks: The results have passed the DENR Standards for Ambient Noise Levels

Results of Water Sampling

Four sampling stations were monitored for surface water, Pinmagong Creek Upstream and downstream and Bangkay Creek Upstream and downstream.

Parameters	DENR Standard	Pinmagong-Bolas Creek					
		Upstream			Downstream		
		1st Quarter	2nd Quarter	3rd Quarter	1st Quarter	2nd Quarter	3rd Quarter
Heavy Metals							
Cadmium (mg/L)	0.01	<0.01	<0.006	<0.006	<0.01	<0.006	<0.006
Iron (mg/l)	1.0	0.15	0.1	<0.03	1.7	1.1	0.6
Nickel (mg/L)		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Standard Water Analysis							
pH	6.5-8.5	7.95	7.3	7.5	8.29	7.6	7.8
Total Dissolved Solids (mg/L)	None	108	104	116	123	140	113
Total Suspended Solids (mg/L)	Not more than 3°C	3.0	<2.5	<2.5	6.0	19.0	<2.5
Oil and Grease (mg/L)	2.0	0.43	0.4	0.4	0.51	0.4	0.6

Remarks: The results have passed the DENR Standards

Parameters	DENR Standard	Binabangkay Creek					
		Upstream			Downstream		
		1st Quarter	2nd Quarter	3rd Quarter	1st Quarter	2nd Quarter	3rd Quarter
Heavy Metals							

Cadmium (mg/L)	0.01	<0.01	<0.006	<0.006	<0.01	<0.006	<0.006
Iron (mg/L)	10	0.12	0.09	0.1	2.4	0.3	0.2
Nickel (mg/L)		<0.03	<0.03	<0.03	0.22	<0.03	<0.03
Standard Water Analysis							
pH	6.5-8.5	8.35	8.6	8.0	7.71	7.4	8.0
Total Dissolved Solids (mg/L)	None	148	174	135	153	267	133
Total Suspended Solids (mg/L)	Not more than 3°C	3.0	<2.5	<2.5	18.0	3.0	<2.5
Oil and Grease (mg/L)	2.0	0.56	0.3	0.4	0.41	0.4	0.4

Remarks: The results have passed the DENR Standards

Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remarks
Environmental Compliance Cert.	X		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit	X		Issued by EMB Region 3
Permit to Operate			Issued by EMB Region 3
Accreditation of PCO			Issued by EMB Region 3
Submission of SMR	X		Quarterly submitted to EMBR3
Compliance Monitoring Report	X		Quarterly submitted to EMBR3
Waste Generator Registration Cert.	X		Issued by EMB Region 3
ETF	X		
Approved EPEP/FMRDP	X		EPEP/FMRDP No. 095-2010-03 issued June 29
Approved Annual EPEP	X		AEPEP No. 02-2013 issued January 29, 2013
Organization of MEPECO	X		Januar Ong -MEPECO
Creation of MRFC	X		Quarterly meeting
Establishment of MRF	X		RCF- Php 5,005,139.69 MIF- Php 151,337.45
Establishment of FMRDF	X		Php 101,225.70
Formation of MMT	X		Quarterly monitoring
Mine Waste and Mill Tailings Semi-Annual Report	X		Semi-Annual Reporting
Submission of Mining Forest Program (Semi-Annual)	X		Semi-annual Reporting
Submission of NGP Report	X		Quarterly Reporting
AEPEP Accomplishment Report	X		Quarterly Reporting
Solid Waste Management Program	X		With Material Recovery Facility

2013 AEPEP Financial Matrix covering Third Quarter

Activity	Accomplishment	Actual cost	
Progressive Rehabilitation/ Revegetation Cost Monitoring and Maintenance Cost	All Rehabilitation Areas are benched and prepared for tree planting prior to the 3rd Quarter of 2013	Php	2,735,552.00
Water quality	Air and Water Quality Monitoring Scheduled on the 3rd week of September but was postponed due to harsh weather conditions	Php	80,000.00
Physical			
Chemical			
Biological			
Air Quality			
Dust			
Gaseous Emission			
Noise	Seedling production; Organic Fertilizer Production; Includes preparation of land for nursery expansion	Php	555,624.50
Maintenance of Nursery			
Watering of Haul Roads	No Hauling for the 3rd Quarter	Php	8,710,805.00
Maintenance of Haul Roads	No Hauling for the 3rd Quarter	Php	3,727,740.50
Maintenance of Drainage Canals and Silt traps	Periodic maintenance, desilting and rehabilitation of drainage canals and 126 silt traps (ave. dimension 2m x 2m x 3m) including construction of new silt traps and drainage/perimeter canals; Maintenance of siltponds at Pimmagong, Bolas, Abretilon area (average dimensions 15m x 5m x 4m)	Php	10,251,805.72
Maintenance of Siltation Ponds			
Maintenance of Ore Stockyard Siltation Control Facilities			
Maintenance of Waste Dump/ Overburden Stockpile Area			
Maintenance of Laboratory		Php	-
Maintenance of Pollution Control and Monitoring Equipment		Php	-
Research component		Php	25,000.00
MMT Monitoring Expense		Php	-
SUB TOTAL		Php	26,086,527.72
Contingency Fund (3% DMMC)		Php	26,086,527.72
GRAND TOTAL		Php	26,086,527.72

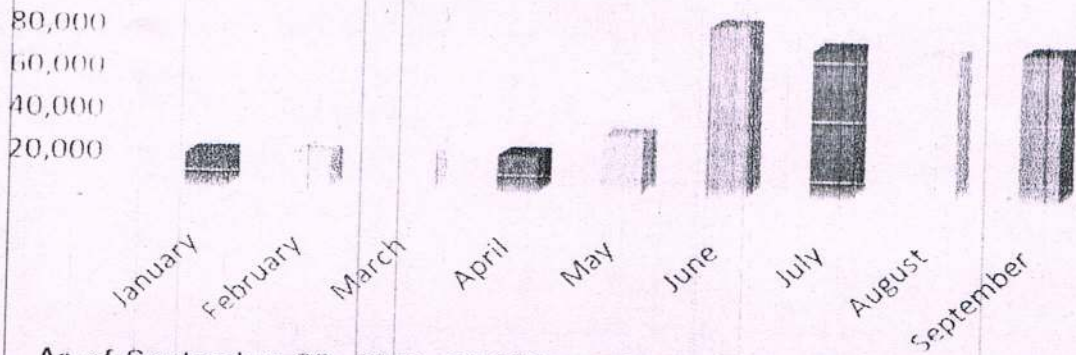
AEPEP HIGHLIGHTS OF ACCOMPLISHMENTS:

- **14,100** line meters of drainage at least 1m x 1m cross sectional area within all active areas
 - **282** silt traps combined for all active areas
 - **14** silt pond series (series of 2 or 4 ponds depending on the demand of the area for a total of **26** ponds) for all active areas
 - Total planted area within Buffer Zone – **5.7 Has.**
 - **16.83 Has.** planted mined-out areas of Pimmagong, Bolas and Malutmut
 - **3.59 km.** berms planted with various species
1. Quarterly ambient air and noise and water quality monitoring and analysis;
 2. Construction of additional and repair and maintenance of existing settling ponds;
 3. Construction of additional length of drainage canals along road network and desilting of silt traps.
 4. Construction of gabion traps and sabo dam using carbonized rice hulls as part of research program;
 5. Regular road water spraying on mine site and hauling road to port area;
 6. Regular street sweeping along hauling roads;
 7. Stabilization and mulching of slopes at the mine out areas;
 8. Nursery operation and maintenance. Continuous seedling production for the rehabilitation of mine out areas;
 9. On-going environmental research and development on palay farming using laterite, fish culturing using mine waters and vermiculture of corn;
 10. Establishment of Material Recovery Facility and waste bin for solid waste segregation.

NATIONAL GREENING PROGRAM (NGP)

Inventory of seedlings as of 3rd quarter 2013.

EMI'S SEEDLINGS IN STOCK



As of September 30, 2013, 69,290 seedlings are in stock and out-planted a total of 24,386 seedlings.

Accomplishment as of 3rd Quarter:

	Area (Ha.)
Inside MPSA	
100 m Buffer zone of Bolas creek	5.72
Pimmagong West (Upper)	4.00
Pimmagong West (Lower)	3.54
Pimmagong West (Central)	5.77
Central Bolas	2.55
Malutmut	0.98
SUB TOTAL	22.55
Outside MPSA	
Inmalpay (with NIA and IA)	2.00
ISF area of Maricar Mayo	3.36
SUB TOTAL	5.36
Donation	
PENRO (12,500 seedlings)	25.00
CENRO (10,000 seedlings)	20.00
Mining alliance - Celebration of 400 years of St. Gabriel Parish	2.00
SUB TOTAL	47.00
GRAND TOTAL	74.91
Non-Mineralized areas (silt ponds/berms) - Line meters	3.59

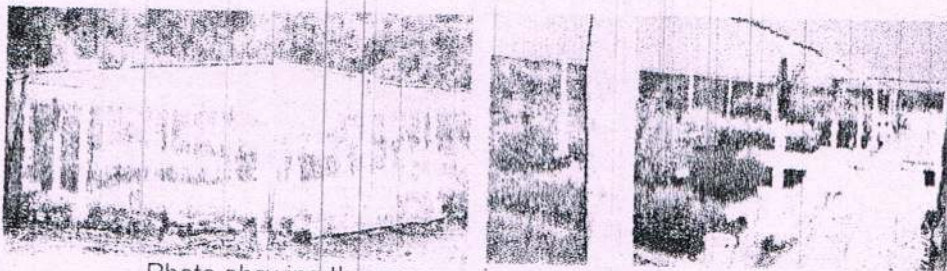


Photo showing the company's nursery area.

RECOMMENDATIONS:

- Review of company's compliances to operations, reporting requirement necessary in the operation;
- Review of the environmental mitigating structures to include the run-off sediments coming in and out of the operation.

Safety and Health Program (SHP)

Requirement	Yes	No	Remarks
Submission of Annual SHP	X		2013 Safety and Health Program submitted on November 27, 2012.
Organization of Safety and Health Office	X		Engr. Aaron Altez-Safety Engineer and newly constructed safety and health office and clinic at the field office.
Certificate of Mechanical and Electrical Inspection (Section 150, DAO 2010-21)		X	

2013 Third Quarter SHP Financial Matrix

Target Activity	Target	Accomplishment	Date Accomplished	Cost	Remarks
1. Policy Implementation	1	1			
2. Implementation of Organizational Rules and Procedure	1	1			
3. Safety meetings					
a. CSC Meetings	3	3 CSC Meetings	July 19, August 23, September 6	Php 6,000.00	
b. Departmental Meetings					
c. Tool Box Meeting	13	13	Every Monday of the week	Php 13,000.00	Toolbox meeting were conducted by either Managers, Supervisors And Safety Personnel at least once a week in every work places.
d. Pep Talk					As needed
4. Trainings					
Orientation of Employee		5	July 16, August 5, September 4	-	4 personnel

Emergency Response Orientation/Drill	1	1	September 18		In house (30 participants; members of Emergency Response Team)
Disaster Mangement Training	1	1	July 20		In house (30 participants; members of Emergency Response Team)
5. Safety Inspection					
a. Walk Trough/Daily Inspection		72	Daily		
b. Committee Inspection		2	Ever 1st Monday of the month	Php 6,000.00	
TOTAL			Php	313,950.00	

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

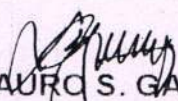
1. Regular safety meetings such as toolbox meeting before workers are dispatched to their work assignment and monthly Central Safety Comittee meeting conducted by the company;
2. Monthly General Accident Report submission and an incident and accident investigation if ever occurrence of an accident;
3. Emergency Response Training and Drill;
4. Disaster Management Training;
5. Maintenance of fire fighting equipment such as fire extinguishers;
6. Procurement and distribution of Personal Protective Equipment;
7. Installation of Safety Awareness signage's and Safety Statistical Records at the mine site;
8. Installation of safety road signs at the mine site;
9. Regular road maintenance, construction of safety berms and emergency ramps to ensure road safety at the mine site;

COMMENTS AND REMARKS:

Based on the foregoing monitoring, results of analyses for water, ambient air and noise passed the DENR standards. ERAMEN's presented accomplishments were verified in the field and found it to be true and correct. The management was committed to actively participate in the protection of environment, safety and health of workers and its host and neighboring communities.

The MMT findings/observations were presented and discussed during the exit conference. The company's representatives gave commitment to take immediate remedial actions on the noted observations.

For his information.


ENGR. LAURIO S. GARCIA, JR.
MMT-Head for Eramen Minerals Inc.
And Supervising Science Research Specialist

December 16, 2013

MEMORANDUM

FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The Chief
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Head
Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT : Report on the Fourth Quarter 2013 Monitoring of
the Multipartite Monitoring Team for Eramen
Minerals, Inc. Located in Barangay Guisquis, Sta.
Cruz, Zambales.

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on November 18, 2013. This is to ensure and verify the company's performance and compliance with their approved 2013 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

- | | |
|-------------------------|--------------------------------------|
| 1. Lauro S. Garcia, Jr. | MMT Head, MGB Region 3 |
| 2. Rendontor M. Laureta | Member, EMB Region 3 Representative |
| 3. Flordalyn Fortuna | Member, ENRO-Zambales Representative |

- | | |
|-----------------------|--|
| 4. Edilberto E. Ebalo | Member, NGO Representative |
| 5. Peter Benaires | Member, EMI Representative |
| 6. Aaron Altez | Member, EMI Representative |
| 7. Honofre Arfapo | Member, Barangay Chairman Guisguis |
| 8. Angelito Merto | Member, Barangay Charman Tubo-Tubo South |
| 9. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of October, 2013 are as follows;

RCF	Php 5,005,139.69
MTF	Php 151,337.45
ETF	Php 101,225.70
FMRDF	1 st Annual Cash Provision will start on Year 2013

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Results of Air Sampling

Samplings were conducted at three stations to determine the Total Suspended Particulates (TSP) with the use of high volume sampler and gravimetric method of analysis, Nitrogen Dioxide and Sulfur Dioxide. This was based on 60 minutes average time.

Parameters	DENR Standard	Bolas Area				Sample Preparation Area				Inmalpay Area			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Nitrogen Dioxide ($\mu\text{g}/\text{Ncm}$)	340	3	ND	ND		2	ND	ND		ND	ND	ND	
Sulfur Dioxide ($\mu\text{g}/\text{Ncm}$)	260	19	109	ND		8	63	ND		20	59	ND	
Total Suspended Particulates ($\mu\text{g}/\text{Ncm}$)	300	43	61	7.98		47	6	13.01		42	94	12.9	

Remarks: The results have passed the DENR Standards for Ambient Air Quality

Cadmium (mg/L)	0.01	<0.01	<0.006	<0.006		<0.01	<0.006	<0.006	
Iron (mg/L)	1.0	0.12	0.09	0.1		2.4	0.3	0.2	
Nickel (mg/L)		<0.03	<0.03	<0.03		0.22	<0.03	<0.03	
Standard Water Analysis									
pH	6.5-8.5	8.35	8.6	8.0		7.71	7.4	8.0	
Total Dissolved Solids (mg/L)	None	148	174	135		153	267	133	
Total Suspended Solids (mg/L)	Not more than 3°C	3.0	<2.5	<2.5		18.0	3.0	<2.5	
Oil and Grease (mg/L)	2.0	0.56	0.3	0.4		0.41	0.4	0.4	

Remarks: The results have passed the DENR Standards

Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remarks
Environmental Compliance Cert.	X		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit	X		Issued by EMB Region 3
Permit to Operate			Issued by EMB Region 3
Accreditation of PCO			Issued by EMB Region 3
Submission of SMR	X		Quarterly submitted to EMBR3
Compliance Monitoring Report	X		Quarterly submitted to EMBR3
Waste Generator Registration Cert.	X		Issued by EMB Region 3
ETF	X		
Approved EPEP/FMRDP	X		EPEP/FMRDP No. 095-2010-03 issued June 29
Approved Annual EPEP	X		AEPEP No. 02-2013 issued January 29, 2013
Organization of MEPEO	X		Januar Ong –MEPEO
Creation of MRFC	X		Quarterly meeting
Establishment of MRF	X		RCF- Php 5,005,139.69 MTF- Php 151,337.45
Establishment of FMRDF	X		Php 101,225.70
Formation of MMT	X		Quarterly monitoring
Mine Waste and Mill Tailings Semi-Annual Report	X		Semi-Annual Reporting
Submission of Mining Forest Program (Semi-Annual)	X		Semi-annual Reporting
Submission of NGP Report	X		Quarterly Reporting
AEPEP Accomplishment Report	X		Quarterly Reporting
Solid Waste Management Program	X		With Material Recovery Facility

2013 AEPEP Financial Matrix covering Fourth Quarter

Activity	Annual Cost (Php)	Accomplishment	Actual Cost (4th Quarter)	Total cost (Php)
Progressive Rehabilitation/ Revegetation Cost	3,500,000.00		63,616.07	2,799,168.07
Monitoring and Maintenance Cost				
Water quality		Air and Water Quality Monitoring to be scheduled on December		156,080.00
Physical	75,000.00			
Chemical	75,000.00			
Biological	75,000.00			
Air Quality			36,080.00	
Dust	75,000.00			
Gaseous Emission	75,000.00			
Noise	75,000.00			
Maintenance of Nursery	150,000.00		211,412.89	767,037.39
Watering of Haul Roads	3,500,000.00	**Charged to Operating Costs		9,206,629.00
Maintenance of Haul Roads	6,000,000.00	**Charged to Operating Costs		4,962,953.50
Maintenance of Drainage Canals and Silt traps	1,500,000.00	Periodic maintenance, desilting and rehabilitation of drainage canals and 126 silt traps (ave. dimension 2m x 2m x 3m), including construction of new silt traps and drainage/perimeter canals; Maintenance of siltponds at Pimmagong, Bolas, Abretilon area (average dimensions 15m x 5m x 4m)	916,909.93	11,168,715.65
Maintenance of Siltation Ponds	1,500,000.00			
Maintenance of Ore Stockyard Siltation Control Facilities	750,000.00			
Maintenance of Waste Dump/ Overburden Stockpile Area	300,000.00			-
Maintenance of Laboratory	300,000.00			-

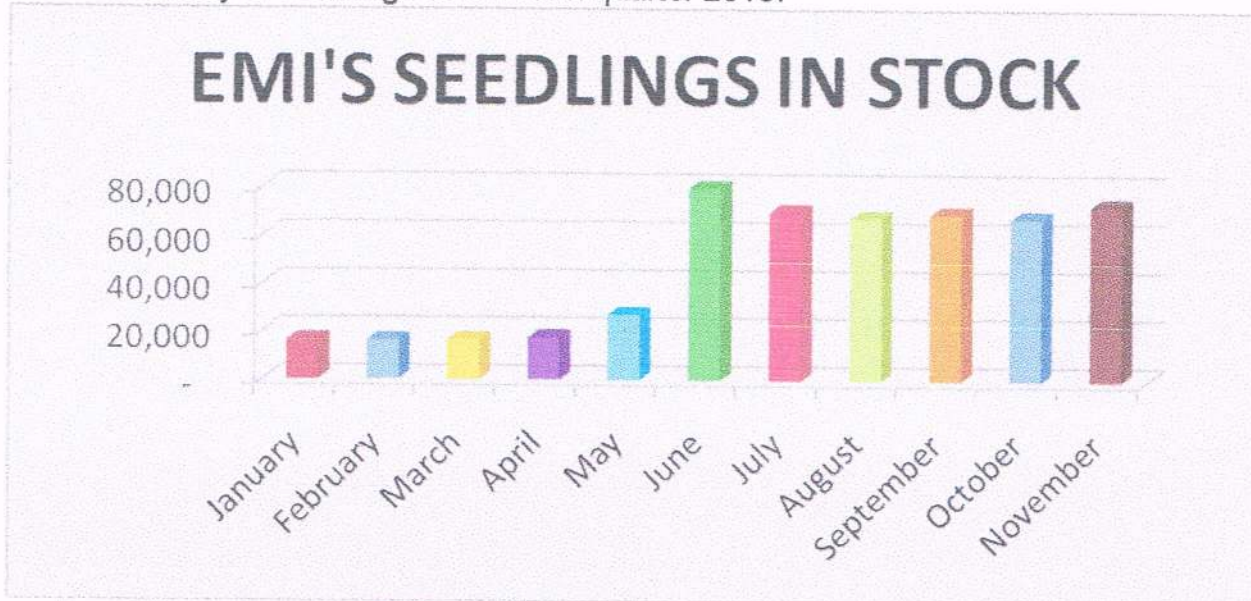
Maintenance of Pollution Control and Monitoring Equipment	300,000.00			-
Research component	1,000,000.00			25,000.00
MMT Monitoring Expense	600,000.00			450,000.00
SUB TOTAL	19,850,000.00			29,700,983.61
Contingency Fund (3% DMMC)	6,000,000.00			
GRAND TOTAL	25,850,000.00			29,700,983.61
Over expenses for 2013 environmental protection	(3,850,983.61)			

AEPEP HIGHLIGHTS OF ACCOMPLISHMENTS:

- 15,000 line meters of drainage at least 1m x 1m cross sectional area within all active areas
 - 282 silt traps combined for all active areas
 - 14 silt pond series (series of 2 or 4 ponds depending on the demand of the area for a total of 26 ponds) for all active areas
 - Total planted area within Buffer Zone – 5.72 Has.
 - 18.10 Has. planted mined-out areas of Pimmagong, Bolas and Malutmut
 - 4.76 km. berms planted with various species
1. Quarterly ambient air and noise and water quality monitoring and analysis;
 2. Construction of additional and repair and maintenance of existing settling ponds;
 3. Construction of additional length of drainage canals along road network and desilting of silt traps;
 4. Construction of gabion traps and sabo dam using carbonized rice hulls as part of research program;
 5. Regular road water spraying on mine site and hauling road to port area;
 6. Regular street sweeping along hauling roads;
 7. Stabilization and mulching of slopes at the mine out areas;
 8. Nursery operation and maintenance. Continuous seedling production for the rehabilitation of mine out areas;
 9. On-going environmental research and development on palay farming using laterite, fish culturing using mine waters and vermi-culture of corn;
 10. Establishment of Material Recovery Facility and waste bin for solid waste segregation.

NATIONAL GREENING PROGRAM (NGP)

Inventory of seedlings as of fourth quarter 2013.



As of November 30, 2013, 72,759 seedlings are in stock and out-planted a total of 30,410 seedlings.

Accomplishment as of Fourth Quarter:

DETAILS OF AREAS PLANTED FOR NGP (MARCH 2012-OCTOBER 2013)	
<i>Inside MPSA</i>	
100 m Buffer zone of Bolas creek	Area (Ha.) 5.72
Pimmagong West (Upper)	4.00
Pimmagong West (Lower)	4.81
Pimmagong West (Central)	5.77
Central Bolas	2.55
Malutmut	0.98
SUB TOTAL	23.82
<i>Outside MPSA</i>	
Inmalpay (with NIA and IA)	2.00
ISF area of Maricar Mayo	3.36
ISF areas managed by Agapito Arfapo	9.00
SUB TOTAL	14.36
<i>Donation</i>	
PENRO (12,500 seedlings)	25.00
CENRO (10,000 seedlings)	20.00
Mining alliance - Celebration of 400 years of St. Gabriel Parish (1,000 seedlings)	2.00
Sta. Cruz South High School (500 seedlings)	1.00
Brgy. Canaynayan thru Councilor Mendigorin (100 seedlings)	0.20
SUB TOTAL	48.20
GRAND TOTAL	86.38
Non-Mineralized areas (berms) - Line kilometers	4.76

RECOMMENDATIONS:

- Review of company's compliances to operations, reporting requirement necessary in the operation;
- Review of the environmental mitigating structures to include the run-off sediments coming in and out of the operation.

Safety and Health Program (SHP)

Requirement	Yes	No	Remarks
Submission of Annual SHP	X		2013 Safety and Health Program submitted on November 27, 2012.
Organization of Safety and Health Office	X		Engr. Aaron Altez-Safety Engineer and newly constructed safety and health office and clinic at the field office.
Certificate of Mechanical and Electrical Inspection (Section 150, DAO 2010-21)		X	

Safety Statistical Records as of November 30, 2013:

1. Total Man-Hours = 1,934,091.70
2. Non – Lost Time Accident = Zero
3. Lost Time Accident (Non-Fatal) = Zero
4. Lost Accident (Fatal) = Zero
5. Total Employment = 591

2013 Fourth Quarter SHP Financial Matrix

4th Quarter Safety Accomplishment

Target Activity	Target	Accomplishment	Date Accomplished	Cost	Remarks
1. Policy Implementation	1	1			
2. Implementation of Organizational Rules and Procedure	1	1			
3. Safety meetings					
a. CSC Meetings	3	2 CSC Meetings	Oct 8, Nov 8, Dec 5, 2013	Php 6,000.00	December CSC scheduled on Dec 6, 2013
b. Department Meetings					
c. Tool Box Meeting	13	10	Every Monday of the week	Php 10,000.00	Toolbox meeting were conducted by either Managers, Supervisors And Safety Personnel at least once a week in every work places.
d. Pep Talk					As needed
4. Trainings					
a. Orientation of New Employees		4	Oct 13, Oct 25, Nov 5, Nov 17; For	Php 9,000.00	Prior to ship loading operations and prior to

			haulers, starting Oct 21 onwards		hauling operations
5. Safety Inspection					
a. Walk Trough/Daily Inspection		48	Daily		
b. Committee Inspection		3	Every 1st Monday of the month	Php 6,000.00	
6. Accident/Incident Analysis					No accident recorded
7. Health Control and Services					
8. Emergency Response and Preparedness Program					
TOTAL			Php	31,000.00	

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

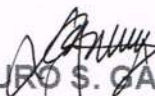
1. Regular safety meetings such as toolbox meeting before workers are dispatched to their work assignment and monthly Central Safety Committee meeting conducted by the company;
2. Monthly General Accident Report submission and an incident and accident investigation if ever occurrence of an accident;
3. Orientation of Workers and Haulers prior to ship loading;
4. Maintenance of fire fighting equipment such as fire extinguishers;
5. Procurement and distribution of Personal Protective Equipment;
6. Installation of Safety Awareness signage's and Safety Statistical Records at the mine site;
7. Installation of safety road signs at the mine site;
8. Regular road maintenance, construction of safety berms and emergency ramps to ensure road safety at the mine site;

COMMENTS AND REMARKS:

Based on the foregoing monitoring, results of analyses for water, ambient air and noise passed the DENR standards. ERAMEN's presented accomplishments were verified in the field and found it to be true and correct. The management was committed to actively participate in the protection of environment, safety and health of workers and its host and neighboring communities.

The MMT findings/observations were presented and discussed during the exit conference. The company's representatives gave commitment to take immediate remedial actions on the noted observations.

For his information.


ENGR. LAURO S. GARCIA, JR.
 MMT-Head for Eramen Minerals Inc.
 And Supervising Science Research Specialist

April 1, 2014

MEMORANDUM

FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The Supervising Science Research Specialist
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Head
Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT : Report on the First Quarter 2014 Monitoring of the
Multipartite Monitoring Team for Eramen Minerals,
Inc. Located in Barangay Guisguis, Sta. Cruz,
Zambales.

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on March 27-28, 2014. This is to ensure and verify the company's performance and compliance with their approved 2014 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

- | | |
|-------------------------|-------------------------------------|
| 1. Lauro S. Garcia, Jr. | MMT Head, MGB Region 3 |
| 2. Raymond A. Rivera | Member, OIC-CENRO Masinloc |
| 3. Rendontor M. Laureta | Member, EMB Region 3 Representative |

- | | |
|------------------------|--|
| 4. Flordalyn Fortuna | Member, ENRO-Zambales Representative |
| 5. Edilberto E. Ebalo | Member, NGO Representative |
| 6. Josephine Astadan | Member, Concerned Citizen of Sta. Cruz |
| 7. Onofre Arfapo | Member, Barangay Chairman Guisguis |
| 8. Myra E. Delos Reyes | Member, Barangay Charman Tubo-Tubo South |
| 9. Peter Benaires | Member, EMI Representative |
| 10. Januar Ong | Member, EMI Representative |
| 11. Karlo Flores | Member, EMI Representative |
| 12. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of 1st Qtr. are as follows;

RCF	Php 5,014,196.10
MTF	Php 151,611.28
ETF	Php 101,225.70
FMRDF	Php 4,902,259.10

The schedule cash deposit for 2014 FMRDF should be 8,937,845.00.

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Two (2) stations were monitored for ambient air and noise, one at the Mine Site which is the upwind station and the other was stationed near the main gate for the downwind. The samplings were conducted on 60 minutes average time.

Sampling Station	Total Suspended Particulates ($\mu\text{g}/\text{Ncm}$)	Nitrogen Dioxide ($\mu\text{g}/\text{Ncm}$)	Sulfur Dioxide ($\mu\text{g}/\text{Ncm}$)
Bolas	25.81	ND	ND
Sample Prep Area	55.47	ND	ND
Near Inmalpay Creek	44.67	ND	ND
DENR Standard	300	260	340

Four (4) sampling stations were monitored for surface water. These stations were located at the upstream and downstream segment of Bangkay Creek while the other two (2) on the upstream and downstream of Inmalpay Creek segment.

Parameters	Pimmagong-Bolas Creek		Binabangkay Creek	
	Upstream	Downstream	Upstream	Downstream
Metals				
Cadmium (mg/L)	<0.006	<0.006	<0.006	<0.006
Iron (mg/L)	<0.03	<0.03	0.1	<0.03
Nickel (mg/L)	<0.03	<0.03	<0.03	<0.03
Wet Chemistry				
pH	7.6	7.6	8.1	7.8
Total Dissolved Solids (mg/L)	109	147	164	156
Total Suspended Solids (mg/L)	<2.5	<2.5	<2.5	<2.5
Oil and Grease (mg/L)	0.6		0.8	0.9

Pertinent Permit and Reporting Requirements

Requirement	Yes	No	Remarks
Environmental Compliance Cert.	X		ECC Ref. Code No. 0605-003=2140 issued July 9, 2007
Discharge Permit	X		Issued by EMB Region 3
Permit to Operate			Issued by EMB Region 3
Accreditation of PCO			Issued by EMB Region 3
Submission of SMR	X		Quarterly submitted to EMBR3
Compliance Monitoring Report	X		Quarterly submitted to EMBR3
Waste Generator Registration Cert.	X		Issued by EMB Region 3
Approved EPEP/FMRDP	X		EPEP/FMRDP No. 095-2010-03 issued June 29
Approved Annual EPEP	X		AEPEP No. 03-2014 issued February 05, 2014
Organization of MEPEO	X		Junar Ong -MEPEO
Creation of MRFC	X		Quarterly meeting
Establishment of MRF	X		RCF - Php 5,005,139.69 MTF - Php 151,337.45
Establishment of FMRDF	X		Php 4,833,732.50
Formation of MMT	X		Quarterly monitoring
Mine Waste and Mill Tailings Semi-Annual Report	X		Semi-Annual Reporting
Submission of Mining Forest	X		Semi-annual Reporting

Program (Semi-Annual)		
Submission of NGP Report	X	Quarterly Reporting
AEPEP Accomplishment Report	X	Quarterly Reporting
Solid Waste Management Program	X	With Material Recovery Facility

2014 AEPEP Financial Matrix covering 1st Quarter

Activity	Annual Budget	Accomplishment	Actual Cost		Balance from Annual Budget
			1st Quarter	Total To-Date	
Progressive Rehabilitation/ Revegetation Cost	Php 3,500,000.00	Tree planting activities on former stockpile area at Pimmagong; Continuous planting activities along the berms; Land preparation of mined-out areas at Bolas and Abretilon; Rice straw and Coco mats as mulching and soil stabilizers	Php 1,207,905.36	Php 1,207,905.36	Php 2,292,094.64
Monitoring and Maintenance Cost					
Water quality					
Physical	Php 40,000.00	Air and Water sampling at identified sampling points of MMT; Sampling done on March 18, Still awaiting results and billing		Php -	Php 240,000.00
Chemical	Php 40,000.00				
Biological	Php 40,000.00				
Air Quality					
Dust	Php 40,000.00				
Gaseous Emission	Php 40,000.00				
Noise	Php 40,000.00				
Maintenance of Nursery	Php 500,000.00	Expansion of Nursery and various expenses in production of seedlings and soil ameliorant for use in rehabilitation activities; Around 10,000 new seedlings produced in 1st quarter	Php 226,950.47	Php 226,950.47	Php 273,049.53
Watering of Haul Roads	Php 6,000,000.00	Daily watering of haul roads at least 4 times daily of more frequently as needed	Php 5,802,586.50	Php 5,802,586.50	Php 197,413.50

Maintenance of Haul Roads	Php 5,000,000.00	Periodic maintenance of haul roads outside MPSA Area; Does not include expenses on maintenance of road within the mine	Php 3,954,522.00	Php 3,954,522.00	Php 1,045,478
Maintenance of Drainage Canals and Silt traps	Php 3,000,000.00	Includes construction of all additional silt mitigating structures as part of MGB3 directive to enact a 90-day action plan on improving silt mitigating structures expecting the worst weather conditions; Also includes purchase and installation of geotextile fabrics at silt pond discharge points and breakwater structures; Regular Desilting and maintenance of existing silt mitigating structures	Php14,560,585.01	Php14,560,585.01	Php(7,060,585.
Maintenance of Drainage, Siltation Ponds	Php 3,000,000.00				
Maintenance of Other Siltation Control Facilities	Php 1,500,000.00				
Maintenance of Ore, Waste/Overburden Stockpile Area	Php 300,000.00			Php -	Php 300,000.
Research component	Php 600,000.00	Includes expenses for the expansion of the research facility; Continuing rice production study in lateritic soil i.e. expansion of rice field at the research center and extension of the experiment to an actual former rice land deemed unusable by the locals (harvested on March 13); Observation study on catfish as bio indicators; Trial of Clonal propagation on more plants species	Php 294,850.03	Php 294,850.03	Php 305,149.
MMT Monitoring Expense	Php 600,000.00		Php 150,000.00	Php 150,000.00	Php 600,000.00
SUB TOTAL	Php24,240,000.00			Php26,047,399.37	Php(1,807,399.3
<i>Contingency Fund (3% DMMC)</i>	<i>Php 2,090,000.00</i>				
GRAND TOTAL	Php26,330,000.00		Php26,197,399.37	Php26,197,399.37	Php 132,600.

Updated Environmental Mitigating Measures:

- 15,000 line meters of drainage at least 1m x 1m cross sectional area within all active areas;
- 282 silt traps combined for all active areas
- 50 total silt ponds in series of 2, 3, or 4 ponds depending on the demand of the area in all active mining areas
- Total planted area within Buffer Zone = 5.72 Has.
- 18.10 Has. planted mined-out areas of Pimmagong, Bolas and Malutmut
- 4.76 km. berms planted with various species

Updated on Progressive Rehabilitation:

- Mulching of rehabilitated areas with rice stacks;
- Slope stabilization and mulching of safety berm along hauling roads;
- Slope stabilization and mulching on mine-out areas;
- Care and Maintenance of rehabilitation areas.

Other environmental activities:

- Biodiversity conservation (flora and fauna);
- National Greening Program;
- Tree Planting Activities with the Various Stakeholders;
- Adopt-a-River Program such as River Bank Stabilization: Installation of Ripraps, Soil Erosion Control and Enhancement Planting
- Seed Production Area (Mindoro Pine) with DENR Region3;
- Mangrove Rehabilitation Program (in cooperation with DENR, Rotary Club);
- Dredging of Rivers;
- Oplan Linis Kalsada.

Other Research Activities:

- Research Program for Soil amelioration using Materials such as rice hull, ruminants' manure, vermin cast, rice straw, and liquefied smoke as soil ameliorants, and agricultural crops like rice as specimen in determining plant responses on the types of soil used as planting medium;
- Rice Production Study on rice field allegedly covered with laterite using R-18 variety of rice also used by farmers in the locality;
- Vegetable Production Study on laterite soil at the mine site.

NATIONAL GREENING PROGRAM (NGP)

DETAILS OF AREAS PLANTED FOR NGP (MARCH 2012-DECEMBER 2013)	
<i>Inside MPSA</i>	Area (Ha.)

100 m Buffer zone of Bolas creek	5.72
Pimmagong West	21.00
Central Bolas	5.50
Malutmut	0.98
SUB TOTAL	33.20
<u>Outside MPSA</u>	
Inmalpay (with NIA and IA)	2.00
ISF area of Maricar Mayo	3.36
ISF areas managed by Agapito Arfapo	9.00
SUB TOTAL	14.36
<u>Donation</u>	
PEÑRO (12,500 seedlings)	25.00
CENRO (10,000 seedlings)	20.00
Mining alliance - Celebration of 400 years of St. Gabriel Parish (1,000 seedlings)	2.00
Sta. Cruz South High School (500 seedlings)	1.00
Brgy. Canaynayan thru Councilor Mendigorin (100 seedlings)	0.20
Brgy. Gama (3,000 seedlings)	6.00
Sitio Pao, Purok 7, Brgy. Guisguis, thru Mario Movilla (500 seedlings)	1.00
SUB TOTAL	55.20
GRAND TOTAL	102.76
Non-Mineralized areas (berms) - Line kilometers	4.76

MMT FINDINGS AND RECOMMENDATIONS:

Findings and observations:

1. Good rehabilitation on mined-out areas (EMB,R3);
2. Continue the gravelling of permanent haul roads and watering at the mine site;
3. Continue the good practice of responsible mining (Jo Astadan of CCOS);
4. Road signage and settling pond signage installed and state the volume holding capacity;
5. Desilting of S.P. Nos. 6, 7, & 8 and other S.P.'s due for desilting;
6. Desilting of silt traps;
7. Repair of damaged perimeter canals
8. Installed geo-textile on outflow of the settling ponds;
9. Ryan X area (BNMI) and EMI boundary should be mitigated;
10. NGP inventory report;

Recommendations:

1. Completion of works up to end of April 2014.

SAFETY AND HEALTH ASPECT:

Pertinent Permit and Reporting Requirements

Requirement	Yes	No	Remarks
Submission of Annual SHP	X		2013 Safety and Health Program submitted on November 27, 2012.
Organization of Safety and Health Office	X		Engr. Karlo Krostofer Flores-Safety Manager with safety and health office and clinic at the field office.
Certificate of Mechanical and Electrical Inspection (Section 150, DAO 2010-21)		X	

2014 Safety and Health Program Financial Matrix covering the 1st quarter

Target Activity	Budget for CY 2014	2013 Carry-over	1 st qtr Actual expenses	Balance
Organization Rules and Regulations				
Printing of S&H Policy	100,000.00			100,000.00
Safety Induction	50,000.00		10,000.00	40,000.00
Incentives and Penalties	200,000.00	200,000.00	145,411.75	254,588.25
Trainings				
Mine/Basic Occupational Safety and Health	300,000.00			300,000.00
Fire Prevention and Fire Fighting	300,000.00			300,000.00
First Aid and Basic Life Saving	300,000.00			300,000.00
Orientation Modern Life Saving Equipment	100,000.00			100,000.00
Loss Control Management	100,000.00			100,000.00
Regular Refresher Courses	60,000.00			60,000.00
Personal Protective Equipment				
Personal Protective Equipment	500,000.00	125,000.00	226,022.88	398,977.12
Inspections, Monitoring, and Reporting				
Inspections, Monitoring, and Reporting Supplies	100,000.00		14,168.00	85,832.00
Safety Meetings				
Central Safety and Health Committee Meetings	60,000.00		15,000.00	45,000.00

Departmental Meetings	60,000.00		15,000.00	45,000.00
Toolbox Meetings and Pep Talks	60,000.00		15,000.00	45,000.00
Safety & Health Infrastructures and Equipment				
Safety Signages and Warning Devices Other	250,000.00		47,999.86	202,000.14
Safety and Health Structures and Equipment	600,000.00	400,000.00	30,189.00	969,811.00
Emergency Response				
Emergency Response Training	100,000.00			100,000.00
Equipment and Supplies	170,000.00			170,000.00
Total	3,410,000.00	1,050,000.00	900,226.12	3,616,208.51

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

- Organizational Rules and Regulations Printing of S&H Policy Safety Induction Incentives and Penalties Printing of shirts for attaining 2 Million Manhours w/o LTA
- Trainings Mine/Basic Occupational Safety and Health Fire Prevention and Fire Fighting First Aid and Basic Life Saving Orientation Modern Life Saving Equipment Loss Control Management Regular Refresher Courses Activity Accomplishments All trainings were scheduled for the 2nd and 3rd quarter of the year
- Personal Protective Equipment Personal Protective Equipment Purchase of various PPE for all EMI employees
- Inspections, Monitoring, and Reporting Inspections, Monitoring, and Reporting Supplies Monitoring expenses (i.e. gasoline etc.)
- Safety Meetings Central Safety and Health Committee Meetings Every first Friday of the month Departmental Meetings As needed Toolbox Meetings and Pep Talks Held by supervisors and/or safety personnel
- Safety & Health Infrastructures and Equipment Safety Signages and Warning Devices Safety signages, bulletin boards, warning devices Other Safety and Health Structures and Equipment Fire Extinguishers and other miscellaneous Safety supplies
- Emergency Response Emergency Response Training Equipment and Supplies Trainings for the ERT are scheduled for the 3rd quarter of the year

Other safety activities

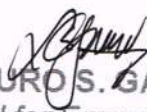
- Regular Road Maintenance
- Construction and Maintenance of Escape Ramps
- "Oplan Linis Kalsada"
- Road Maintenance and Construction of Escape Ramps are charged to Mine Operations and are not included in the Annual Safety and Health Program Budget

COMMENTS AND REMARKS:

Based on the foregoing monitoring, EMI's presented accomplishments were verified in the field and found it to be true and correct. The sampling analysis for ambient air and water show that it is within the DENR Standard based on the result presented during the MRFC meeting.

With regard to the MMT findings/observations, these were presented and discussed during the exit conference. The management of EMI gave commitment to take immediate mitigating/remedial measures and the action taken by the company shall be reported to this Office. Attached hereto is the MMT findings and observation signed by the MMT members.

For his information.


ENGR. LAURO S. GARCIA, JR.
*MMT-Head for Eramen Minerals Inc.
And Supervising Science Research Specialist*

July 1, 2014

MEMORANDUM

FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The Supervising Science Research Specialist
Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT : **Report on the Second Quarter 2014 Monitoring of
the Multipartite Monitoring Team for Eramen
Minerals, Inc. Located in Barangay Guisguis, Sta.
Cruz, Zambales.**

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on June 26-27, 2014. This is to ensure and verify the company's performance and compliance with their approved 2014 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

- | | |
|-------------------------|--------------------------------------|
| 1. Lauro S. Garcia, Jr. | MMT Head, MGB Region 3 |
| 2. Raymond A. Rivera | Member, OIC-CENRO Masinloc |
| 3. Rendentor M. Laureta | Member, EMB Region 3 Representative |
| 4. Flordalyn Fortuna | Member, ENRO-Zambales Representative |

- | | |
|------------------------|--|
| 5. Edilberto E. Ebaló | Member, NGO Representative |
| 6. Onofre Arfapo | Member, Barangay Chairman Guisguis |
| 7. Myra E. Delos Reyes | Member, Barangay Charman Tubo-Tubo South |
| 8. Peter Benaires | Member, EMI Representative |
| 9. Januar Ong | Member, EMI Representative |
| 10. Karlo Flores | Member, EMI Representative |
| 11. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of 2nd Qtr. are as follows;

RCF	Php 5,014,196.10
MTF	Php 151,611.28
ETF	Php 101,225.70
FMRDF	Php 4,902,259.10

The schedule cash deposit for 2014 FMRDF should be 8,937,845.00.

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Three (3) stations were monitored for ambient air and noise, two at the Mine Site which is the upwind and mid-wind station and the other was stationed near the main gate for the downwind. The samplings were conducted on 60 minutes average time.

Sampling Station	Total Suspended Particulates ($\mu\text{g}/\text{Ncm}$)	Nitrogen Dioxide ($\mu\text{g}/\text{Ncm}$)	Sulfur Dioxide ($\mu\text{g}/\text{Ncm}$)	Noise (dB)
Bolas	37	ND	ND	56.70
Sample Prep Area	29	ND	ND	56.13
Near Inmalpay Creek	26	ND	ND	58.78
DENR Standard	300	260	340	70

Four (4) sampling stations were monitored for surface water. These stations were located at the upstream and downstream segment of Bangkay Creek while the other two (2) on the upstream and downstream of Inmalpay Creek segment.

Parameters	Pimmagong-Bolas Creek		Binabangkay Creek	
	Upstream	Downstream	Upstream	Downstream
Metals				
Cadmium (mg/L)	<0.006	<0.006	<0.006	<0.006
Iron (mg/L)	0.01	0.8	0.2	0.2
Nickel (mg/L)	<0.03	<0.03	<0.03	<0.03
Wet Chemistry				
pH	7.5	7.8	8.2	8.1
Total Dissolved Solids (mg/L)	102	145	166	183
Total Suspended Solids (mg/L)	<2.5	3.0	6.0	8.0
Oil and Grease (mg/L)	0.6	0.7	0.5	0.8

Pertinent Requirement for the Environmental Compliance Certificate (ECC)

Requirement	Yes	No	Remark
Environmental Compliance Cert.	x		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit		x	Submitted application to EMB
Permit to Operate		x	Submitted application to EMB
Accreditation of PCO	x		
Submission of SMR	x		
Compliance Monitoring Report	x		
Waste Generator Registration		x	Submitted application to EMB
Solid Waste Management	x		

Pls include if there are other permit and requirement impose by the EMB.

Pertinent Requirement for the Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remark
Approved EPEP/FMRDP	x		EPEP/FMRDP No. 095-2010-03 issued
Approved Annual EPEP	x		AEPEP No. 03-2014 issued February
Organization of MEPEO	x		Established a MEPEO Office
Creation of MRFC	x		Created; Regular quarterly meeting
Establishment of MRF	x		RCF- Php 5,014,196.10 MTF-Php 151,611.28
Establishment of FMRDF	x		Php 4,902,259.10
Establishment of ETF	x		Php 101,225.70
Formation of MMT	x		Established: Regular quarterly
Mine Waste and Mill Tailings Semi- Annual Report	x		Semi-Annual Reporting

Mining Forest Program	x	Semi-annual Reporting
National Greening Program	x	Quarterly and Annual Reporting
AEPEP Accomplishment	x	Quarterly and Annual Reporting

2014 AEPEP Financial Matrix covering 2nd Quarter

Activity	Accomplishment	Annual Budget (PhP)	1 st Quarter Expenses	2 nd Quarter Expenses	1 st Semester Expenses
Progressive rehabilitation/ revegetation	<ul style="list-style-type: none"> · Benching/recontouring/revegetation activities of mined- out areas of Pimmagong · Revegetation activities along berms · Benching/recontouring of mined-out areas at Bolas and Abretilon · Mulching/slope stabilization activities using rice straw and coco mats 	3,500,000.00	1,207,905.36	3,879,125.00	5,087,030.36
Air, water and noise monitoring	Air, water and noise sampling in pre-identified stations by MMT	240,000.00	39,580.00	39,580.00	79,160.00
Maintenance of nursery	<ul style="list-style-type: none"> · Expansion of nursery/renovation and/or construction of nursery facilities · Seedling production · Production of soil ameliorants (carbonized rice hull, organic fertilizer, vermin casts and liquefied smoke) 	500,000.00	226,950.47	51,981.50	278,931.97
Watering of haul roads	Watering of haul roads at least 4 times a day	6,000,000.00	5,802,586.50	5,167,156.71	10,969,743.21
Maintenance of haul roads	Maintenance of haul roads (within and outside MPSA area)	5,000,000.00	3,954,522.00	7,670,861.00	11,625,383.00
Construction and maintenance silt traps, silt ponds, drainage canals and siltation control facilities	<ul style="list-style-type: none"> · Construction of additional siltation mitigating structures as part of MGB-R3 directive to enact a 90-day action plan on improving siltation mitigating structures with consideration to extreme/worst weather conditions · Installation of geotextile in silt ponds' discharge point and along breakwater structures · Maintenance/regular desilting of existing siltation mitigating structures 	7,500,000.00	14,560,585.01	14,711,558.87	29,272,143.88

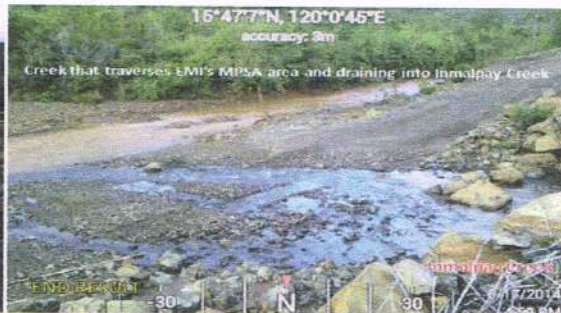
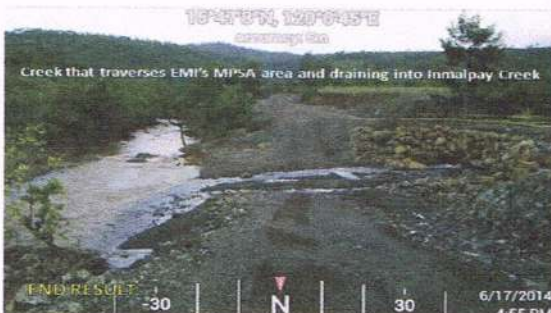
Researches	<ul style="list-style-type: none"> Expansion of research facility Soil amelioration study (using rice as trial crop) on laterite-laden farmland Maintenance of observation ponds Establishment of clonal protocol for endemic tree species using non-mist propagation technique 	600,000.00	294,850.03	46,340.00	341,190.03
MMT's quarterly monitoring of operation and quarterly meeting of MRFC	<ul style="list-style-type: none"> Conducted site inspection for 1st and 2nd quarters of 2014 MRFC meetings for 1st semester of 2014 	600,000.00	150,000.00	100,000.00	250,000.00
GRAND TOTAL		23,940,000.00	26,236,979.37	31,666,603.08	57,903,582.45

Updated Environmental Mitigating Measures:

Area/Structure	Remarks	Volume Capacity (cubic meters)
Pimmagong		
Drainage/Perimeter Canal	A total of about 3 km of canal at 1m x 1m cross-section	3,000.00
Silt Traps	91 individual cells with dimensions 2m x 2m x 3m	1,092.00
Silt Ponds		1,998.60
Sub-Total		6,090.60
Bolas		
Drainage/Perimeter Canal	A total of about 3.5 km of canal at 1m x 1m cross-section	3,500.00
Silt Traps	39 individual cells with dimensions 2m x 2m x 3m	468.00
Silt Ponds		16,612.64
Sub-Total		20,580.64
Block A		
Drainage/Perimeter Canal	A total of about 3.3 km of canal at 1m x 1m cross-section	3,300.00
Silt Traps	44 individual cells with dimensions 2m x 2m x 3m	528.00
Silt Ponds		9,760.95
Sub-Total		13,588.95
Block B		
Drainage/Perimeter Canal	A total of about 2.8 km of canal at 1m x 1m cross-section	2,800.00
Silt Traps	50 individual cells with dimensions 2m x 2m x 3m	600.00
Silt Ponds		4,356.83
Sub-Total		7,756.83
Abretelon		
Drainage/Perimeter Canal	A total of about 3.7 km of canal at 1m x 1m cross-section	3,700.00

Canal		
Silt Traps	58 individual cells with dimensions 2m x 2m x 3m	696.00
Silt Ponds		32,022.33
	Sub-Total	36,418.33
	TOTAL	84,435.35

- **16,300** line meters of drainage at least 1m x 1m cross sectional area within all active areas;
- **282** silt traps combined for all active areas
- **64** total silt ponds in series of 2, 3, or 4 ponds depending on the demand of the area in all active mining areas





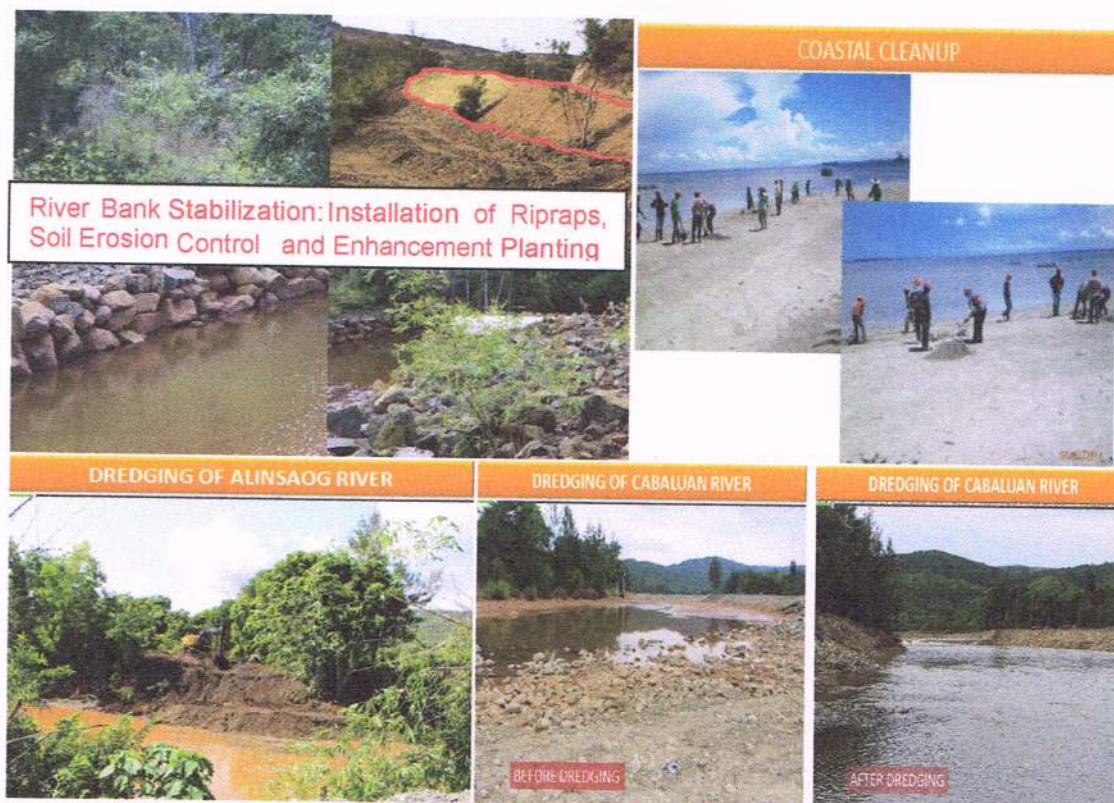
Updated on Progressive Rehabilitation:

- Mulching of rehabilitated areas with rice stacks;
- Slope stabilization and mulching of safety berm along hauling roads;
- Slope stabilization and mulching on mine-out areas;
- Care and Maintenance of rehabilitation areas.



Other environmental activities:

- Biodiversity conservation (flora and fauna);
- National Greening Program;
- Tree Planting Activities with the Various Stakeholders;
- Adopt-a-River Program such as River Bank Stabilization: Installation of Ripraps, Soil Erosion Control and Enhancement Planting
- Seed Production Area (Mindoro Pine) with DENR Region3;
- Mangrove Rehabilitation Program (in cooperation with DENR, Rotary Club);
- Dredging of Rivers;
- Oplan Linis Kalsada.



Other Research Activities:

- Research Program for Soil amelioration using Materials such as rice hull, ruminants' manure, vermin cast, rice straw, and liquefied smoke as soil ameliorants, and agricultural crops like rice as specimen in determining plant responses on the types of soil used as planting medium;
- Rice Production Study on rice field allegedly covered with laterite using R-18 and 218 variety of rice also used by farmers in the locality;
- Vegetable Production Study on laterite soil at the mine site.



MINING FOREST PROGRAM

Activity (Location/ Plantation)	Area Planted (Has.)			Seedling Planted			% Survival	Disturbed Area (Has.)		
	Previous	1 st Sem. 2014	Total	Previous	1 st Sem. 2014	Total		Previous	1 st Sem. 2014	To
Pimmagong, Bolas, Blocks A and B	36.54	19.24	55.78	17,873	9,621	27,494	90.60%	115	69	18

National Greening Program (NGP)

NGP REPORT FOR 1ST HALF OF 2014

Total Number of Out-Planted Seedlings	Mortality Rate (%)	Total Number of Donated Seedlings	Seedling Production	In-Stock
9,621	9.40	21,235	59,796	80,119



MMT FINDINGS AND OBSERVATIONS:

1. Guisguis Bgy. Chairman Honofre Arfapo
 - *Rice straw for safety berms found to be effective*
 - *Size of SP and its volume capacity*
 - *All effort w/ regards to the protection of the environment were exerted*
2. Tubo-tubo South Representative Kagawad Virgilio Minimo
 - *Progressive rehabilitation and active reforestation works were found to be effective*
 - *Good gesture of the company is allowing Benguet to divert the canal but the latter wasn't able to meet the solution to arrest the erosion control*
3. Lucapon South Bgy. Chairman Guillermo Ebanculla
 - *The effectivity of rice straw as reforestation technique is noted*
 - *The inlet/outlet of water in SP should not be parallel*
 - *To continue the implementation of good mitigating measures and responsible mining*
4. MGB R-3 Representative Mr. Wilson Sibal
 - *Absence of some signage's and desilting of filled-up silt traps*

5. ENROZ Representative Flordalyn B. Fortuna
 - *Absence of SP signage's showing information (e.g. # of SP, location and vol. capacity)*
 - *Good reforestation technique particularly rice straw for mulching*
 - *Timely implementation of the experiment on rice planted on laterite soil*
6. CENRO Raymond Rivera
 - *Trees were basically affected during operation, however, warned that the cutting of trees was strictly prohibited*
 - *Rice straw/cocomat technology be implemented to all mining companies bec. Of its effectiveness even in extreme condition*
 - *Fruit trees vs. fast growing is likely to consider*
 - *SP and ST should be desilted*
 - *Photo document all accomplishment thru geo-tagging*
 - *Open areas recommended for initial documentation and tree inventory for future reference*
7. EMB R-3 Redentor Laureta
 - *Make a closer photo documentation showing the veracity of the origin or cause of damage of Balok-balok Falls is not EMI*
 - *Beneficiaries should also be included as additional weight in the # of recipient*
8. MMT Head Mr. Lauro Garcia
 - *Need for logistic equipment (geo-tagging) for documentation;*
 - *Good performance/progressive rehabilitation of EMI*

SAFETY AND HEALTH ASPECT:

Pertinent Permit and Reporting Requirements

Requirement	Yes	No	Remarks
Submission of Annual SHP	✓		Certificate of Approval issued
Submission of Monthly General Accident Report (MGAR)	✓		Regular submission on a monthly basis
Organization of Safety and Health Office	✓		Established safety and health office Engr. Karlo Krostofer Flores-Safety Manager
Organization of Emergency Response Team	✓		Established Emergency Response Team
Provision of Clinic and First Aid Kit	✓		Established clinic at the field office. Provision of First aid kit at the working areas in the mine site and port.

Safety Statistic as of second quarter:

1. Total Man-Hours = 2,720,812.05
2. Non – Lost Time Accident = Zero
3. Lost Time Accident (Non-Fatal) = Zero
4. Lost Accident (Fatal) = Zero
5. Total Employment = 757

2014 Safety and Health Program Financial Matrix covering the 2nd quarter

Target Activity	Budget for 2014		1st Quarter	2nd Quarter	TOTAL	% Utilized
			Actual Expenses	Actual Expenses		
Organizational Rules and Regulations						
Printing of S&H Policy	Php	100,000.00			Php -	0%
Safety Induction	Php	50,000.00			Php 10,383.61	21%
Incentives and Penalties	Php	200,000.00			Php 145,411.75	73%
			Php 145,411.75	Php 10,383.61		
Trainings						
Mine/Basic Occupational Safety and Health	Php	300,000.00		Php 121,984.75	Php 121,984.75	41%
Fire Prevention and Fire Fighting	Php	300,000.00			Php -	0%
First Aid and Basic Life Support	Php	300,000.00			Php -	0%
Orientation Modern Life Saving Equipment	Php	100,000.00			Php -	0%
Loss Control Management	Php	100,000.00			Php -	0%
Regular Refresher Courses	Php	60,000.00			Php -	0%
Health Control and Service						
Pre-placement Medical/Physical Exam	Php	400,000.00			Php -	0%
Health Insurance and Annual Medical Exam	Php	700,000.00			Php -	0%
Health Services Supplies	Php	150,000.00			Php 108,725.00	72%
			Php 80,269.00	Php 28,456.00		
Personal Protective Equipment						
Personal Protective Equipment	Php	500,000.00	Php 226,022.88	Php 183,500.70	Php 409,523.58	82%
Inspections, Monitoring, and Reporting						
Inspections, Monitoring, and Reporting Supplies	Php	100,000.00	Php 13,552.00	Php 16,320.00	Php 29,872.00	30%
Safety Meetings						
Central Safety and Health Committee Meetings	Php	60,000.00	Php 15,000.00	Php 8,044.11	Php 23,044.11	38%
Departmental Meetings	Php	60,000.00		Php 12,380.00	Php -	0%
Toolbox Meetings and Pep Talks	Php	60,000.00			Php 12,380.00	21%
Safety & Health Infrastructures and Equipment						
Safety Signages and Warning Devices	Php	250,000.00	Php 47,999.86	Php 67,546.94	Php 115,546.80	46%
Other Safety and Health Structures and Equipment	Php	600,000.00	Php 200,189.00	Php 172,332.14	Php 372,521.14	62%
Emergency Response						
Emergency Response Training	Php	100,000.00			Php -	0%
Equipment and Supplies	Php	170,000.00			Php -	0%
Grand Total	Php	4,660,000.00	Php 728,444.49	Php 620,948.25	Php 1,349,392.74	29%

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

1. Regular safety meetings such as toolbox meeting before workers are dispatched to their work assignment and monthly Central Safety Committee meeting conducted by the company;
2. Regular Road Maintenance;
3. Construction and Maintenance of Escape Ramps;
4. "Oplan Linis Kalsada";
5. Additional signage;
6. Emergency Response Team Reorganization and Training;
7. Basic Occupational Safety and Health Training for Safety Personnel;
8. Regular safety orientation of hauling trucks drivers and company employees;
9. Purchase of PPE and other safety/health supplies (i.e. first aid kits, fire extinguishers, ambulance and ambulance equipment, etc.);
10. HMO for regular employees (which includes annual medical exam)





COMMENTS AND REMARKS:

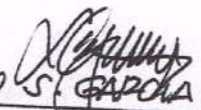
Based on the foregoing monitoring, EMI's presented accomplishments were verified in the field and found it to be true and correct. The sampling analysis for ambient air and water show that it is within the DENR Standard based on the result presented during the MRFC meeting.

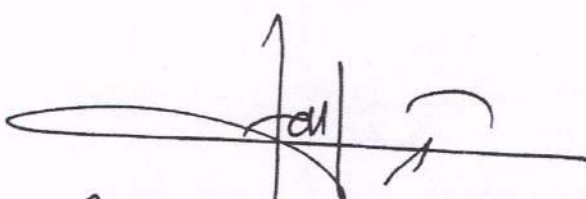
With regard to the MMT findings/observations, these were presented and discussed during the exit conference. The management of EMI gave commitment to take immediate mitigating/remedial measures and the action taken by the company shall be reported to this Office. Attached hereto is the MMT findings and observation signed by the MMT members.

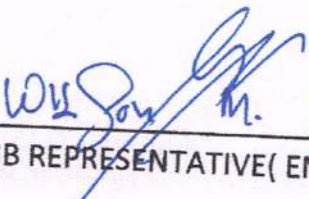
For the information of MRFC Chairman and further instruction.

ERAMEN MINERALS INC.
BRGY. BIAY, STA. CRUZ, ZAMBALES


Multi- Partite Monitoring Team 2nd Quarter Monitoring
June 19, 2014



LANDO S. GARCIA, JR.
MMT HEAD


RODOLFO M. LAURETA
EMB REPRESENTATIVE

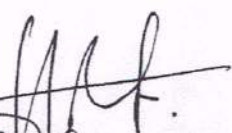

WILSON M. SORSAC
VIGB REPRESENTATIVE (ENVI/ SAFETY)

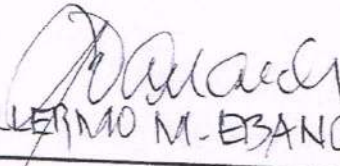

RAYMOND A. RIVERA
CENRO- MASINLOC REP.



WINSTON D. FORTUNA
NRO ZAMBALES REPRESENTATIVE

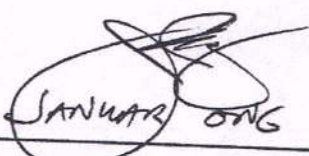

VIRGILIO MINIMO
LGU REPRESENTATIVE

NGO REPRESENTATIVE


P.B. HONIFRE
LGU REPRESENTATIVE


GUILLERMO M. EBANQUILLA
LGU REPRESENTATIVE


EMI REPRESENTATIVE


JANUARY ONG
EMI REPRESENTATIVE

Multi- Partite Monitoring Team 2nd Quarter Monitoring
 June 19, 2014
 + 20

OBSERVATION	COMMITMENT
<p>1) Bgg. chairman Diego Arago (Quinquis) - Mill stream got largely closed found to be effective - Size of SP and its volume capacity - All effort w/ regards to the protection of the environment were noted</p> <p>2) Tubo² South Rep. Laguard Virgilio - Progressive rehabilitation and active reclamation works were found to be effective - Good gesture of the company is allowing frequent to divert the canal but the latter wasn't able to meet the relation to arrest the erosion control.</p> <p>3) Bgg. chairman Guillermo Escarcilla - The effectivity of rice straw as repto. technique is noted. - The inlet/outlet of HD in SP should not be parallel - To continue the implementation of good mitigating measures and responsible mining</p> <p>4) MGB L-3 representative Mr. Wilson Sibal reiterated the absence of some road signages and deculping of filled-up filltraps</p> <p>5) DENR representative Glordalyn fasteners queried on the absence of SP signages showing some information (e.g. volume capacity) - good reclamation technique particularly rice straw for mulching - timely implementation of the experiment on rice planted on laterite soil</p> <p>6) CCPD Raymond Rivera stated that trees were basically affected during the operation, however warned that the cutting of trees was strictly prohibited - that rice straw/coconut technologg be implemented to all mining companies because of</p>	

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PORTAL REPRESENTATION

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DAYMANTO & DALLERA

WILSON SIBAL MGB L-3

RAYMOND R. ONG

Multi- Partite Monitoring Team 2nd Quarter Monitoring
 June 19, 2014

↓ 20

OBSERVATION	COMMITMENT
<p>its effectiveness given in extreme conditions</p> <ul style="list-style-type: none"> - fruit trees vs. fast growing is likely to consider - ST and ST should be debilitated - photo document all accomplishment thru geo tagging. - open areas recommended for initial documentation and tree inventory for future reference. <p>⑦. EMB 1-3 representative Pedator Laureta suggested to make a clear photo documentation showing the vicinity of the origin or cause of damage of Balok Falls is not EMI - citing that beneficiaries should also be included as additional weight in the # of recipient.</p> <p>⑧. MMT Head Mr. Laurus Garcia suggested the need for logistic equipment (Geo-tagging) for documentation. He commended on the good performance progressive rehabilitation of EMI bank added to continue responsible mining.</p>	

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Handwritten signature and name: CLIMBERTO M. FRANCINI

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 Laurus Garcia, M.
 DAYMARA A QUIERA

Handwritten signature: *[Signature]*
 PEDATOR M LAURETA EMB 13
 WILSON EMB 13

Handwritten signature: *[Signature]*
 EMB 3
 JAVIER EMB



ERAMEN MINERALS INC
BRGY. BIAY, STA. CRUZ, ZAMBALES

Multi- Partite Monitoring Team 2nd Quarter Monitoring
June 19, 2014

Attendance:

	NAME	SIGNATURE
1.	PRITONOFRE ARFADO JR.	
2.	VIRALIO MINICAO	
3.	GUILLERMO M. EBANCULLA	
4.	WILSON M. SORAL	
5.	STORDELIN B. FORTUNA	
6.	RAYMOND A RIVERA	
7.	REDENTOR M LAURETA	
8.	LAURO S. GARCIA, JR	
9.	MELAN M. LUMPAW	
10.	EMLIO T. FERNANDEZ JR	
11.	JANUAR R. ONG	
12.		
13.		
14.		
15.		



Republic of the Philippines
Department of Environment and Natural Resources
MINES AND GEOSCIENCES BUREAU
Regional Office No. III

Cleofer's Building, Gen. Hizon Avenue, City of San Fernando, Pampanga, Philippines
Tel./Fax No. (+63 45) 9612799 / 9613523 / 9636387 E-Mail: mgbr3@yahoo.com

September 29, 2014

MEMORANDUM

FOR : The OIC, Regional Director
and Chairman Mine Rehabilitation Fund Committee
MGB Region III

THRU : The In-Charge, Mining Environment and Safety Division
and Head, Support Staff/Coordinator

FROM : The Multi-partite Monitoring Team
ERAMEN MINERALS, INC.

SUBJECT: Report on the Third Quarter 2014 Monitoring of the Multipartite Monitoring Team for Eramen Minerals, Inc. Located in Barangay Guisguis and Tubo-Tubo South, Sta. Cruz, Zambales.

In accordance with Section 174 of the DENR Administrative Order No. 2010-21, the Revised Implementing Rules and Regulations of the Republic Act 7942, otherwise known as the "Philippine Mining Act of 1995", the Multi-partite Monitoring Team (MMT) for Eramen Minerals, Inc. (ERAMEN) conducted monitoring on September 11-12, 2014. This is to ensure and verify the company's performance and compliance with their approved 2014 Annual Environmental Protection and Enhancement Program (AEPEP).

The MMT is composed of different government agencies and non-government organization as follows:

- | | |
|-------------------------|--------------------------------------|
| 1. Lauro S. Garcia, Jr. | MMT Head, MGB Region 3 |
| 2. Raymond A. Rivera | Member, OIC-CENRO Masinloc |
| 3. Rendontor M. Laureta | Member, EMB Region 3 Representative |
| 4. Flordalyn Fortuna | Member, ENRO-Zambales Representative |
| 5. Edilberto E. Eballo | Member, NGO Representative |

- | | |
|------------------------|--|
| 6. Onofre Arfapo | Member, Barangay Chairman Guisguis |
| 7. Myra E. Delos Reyes | Member, Barangay Charman Tubo-Tubo South |
| 8. Peter Benaires | Member, EMI Representative |
| 9. Januar Ong | Member, EMI Representative |
| 10. Karlo Flores | Member, EMI Representative |
| 11. Wilson M. Sibal | Member, MGB Region 3 |

STATUS OF MINE REHABILITATION FUND (MRF)

The status of funds deposited as of 3rd Qtr. are as follows;

RCF	Php 5,024,871.50
MTF	Php 151,118.75
ETF	Php 100,814.44
FMRDF	Php 7,912,941.29

The schedule cash deposit for 2014 FMRDF should be 8,937,845.00.

ENVIRONMENTAL PARAMETER RESULTS

ERAMEN hired the services of the third party laboratory to conduct ambient air, noise and water samplings with the supervision of the MMT. The samplings were conducted by CRL Calabarquez Corporation for ambient air and noise and CRL Laboratory Corporation for water quality.

Three (3) stations were monitored for ambient air and noise, two at the Mine Site which is the upwind and mid-wind station and the other was stationed near the main gate for the downwind. The samplings were conducted on 60 minutes average time.

Sampling Station	Total Suspended Particulates ($\mu\text{g}/\text{Ncm}$)	Nitrogen Dioxide ($\mu\text{g}/\text{Ncm}$)	Sulfur Dioxide ($\mu\text{g}/\text{Ncm}$)	Noise (dB)
Bolas	140.69	ND	ND	55.76
Pinmagong	54.50	ND	ND	37.47
Near Inmalpay Creek	78.28	ND	ND	38.38
DENR Standard	300	260	340	70

Four (4) sampling stations were monitored for surface water. These stations were located at the upstream and downstream segment of Bangkay Creek while the other two (2) on the upstream and downstream of Inmalpay Creek segment.

Parameters	Pimmagong-Bolas Creek		Binabangkay Creek	
	Upstream	Downstream	Upstream	Downstream
Metals				
Iron (mg/L)	0.01	0.8	1.1	1.0
Nickel (mg/L)	<0.03	<0.03	<0.03	<0.03
Wet Chemistry				
pH	7.3	8.0	7.6	8.1
Total Dissolved Solids (mg/L)	97	103	160	150
Total Suspended Solids (mg/L)	3.0	8.0	6.0	9.0
Oil and Grease (mg/L)	<0.03	0.3	<0.3	0.4

Pertinent Requirement for the Environmental Compliance Certificate (ECC)

Requirement	Yes	No	Remark
Environmental Compliance Cert.	x		ECC Ref. Code No. 0605-003-2140 issued July 9, 2007
Discharge Permit		x	Submitted application to EMB
Permit to Operate		x	Submitted application to EMB
Accreditation of PCO	x		
Submission of SMR	x		
Compliance Monitoring Report	x		
Waste Generator Registration Cert.		x	Submitted application to EMB
Solid Waste Management Program	x		

Please include if there are other permit and requirement imposed by the EMB.

Pertinent Requirement for the Environmental Protection and Enhancement Program (EPEP)

Requirement	Yes	No	Remark
Approved EPEP/FMRDP	x		EPEP/FMRDP No. 095-2010-03 issued
Approved Annual EPEP	x		AEPEP No. 03-2014 issued February
Organization of MEPEO	x		Established a MEPEO Office
Creation of MRFC	x		Created; Regular quarterly meeting
Establishment of MRF	x		RCF- Php 5,024,871.50 MTF-Php 151,118.75
Establishment of FMRDF	x		Php 7,912,941.29
Establishment of ETF	x		Php 100,814.44
Formation of MMT	x		Established: Regular quarterly
Mine Waste and Mill Tailings Semi-Annual Report	x		Semi-Annual Reporting
Mining Forest Program	x		Semi-annual Reporting
National Greening Program	x		Quarterly and Annual Reporting
AEPEP Accomplishment	x		Quarterly and Annual Reporting

2014 AEPEP Financial Matrix covering 3rd Quarter

Activity	Annual Budget	Accomplishment	Actual Cost		Balance from Annual Budget
			3rd Quarter	Total To-Date	
Progressive Rehabilitation/Revegetation Cost	Php 3,500,000.00	Out-planting on berms; Land preparation of mined-out areas at South Bolas	Php 4,012,228.50	Php 9,099,258.86	Php (5,599,258.86)
Monitoring and Maintenance Cost					
Water quality					
Physical	Php 40,000.00				
Chemical	Php 40,000.00				
Biological	Php 40,000.00				
Air Quality		Air, Noise and Water sampling at specified sampling points by MMT	Php 37,800.00	Php 116,960.00	Php 123,040.00
Dust	Php 40,000.00				
Gaseous Emission	Php 40,000.00				
Noise	Php 40,000.00				
Maintenance of Nursery	Php 500,000.00	Maintenance/expansion of nursery facilities/propagation of planting stocks/soil ameliorant production	Php 186,915.51	Php 465,847.48	Php 34,152.52
Watering of Haul Roads	Php 6,000,000.00	Dust suppression in mine roads	Php 66,417.86	Php 11,036,161.07	Php (5,036,161.07)
Maintenance of Haul Roads	Php 5,000,000.00	Periodic maintenance of mine roads	Php 3,199,526.00	Php 14,824,909.00	Php (9,824,909.00)
Maintenance of Drainage Canals and Silt traps	Php 3,000,000.00				
Maintenance of Drainage, Siltation Ponds	Php 3,000,000.00	Regular desilting and maintenance of existing siltation-mitigating structures	Php 7,492,803.00	Php 36,764,946.88	Php (29,264,946.88)
Maintenance of Other Siltation Control Facilities	Php 1,500,000.00				
Construction of New Siltation Control Facilities		Construction of additional siltation-mitigating structures	Php 13,297,178.70		
Maintenance of Ore, Waste/Overburden Stockpile Area	Php 300,000.00			Php -	Php 300,000.00
Maintenance of Laboratory					
Maintenance of Pollution Control/Monitoring Equipment					
Research component	Php 600,000.00	Continuing rice production study in laterite-laden rice field/establishment of clonal protocol of various tree species	Php 165,250.00	Php 506,440.03	Php 93,559.97
MMT Monitoring Expense	Php 600,000.00		Php 150,000.00	Php 400,000.00	Php 200,000.00
SUB TOTAL	Php 24,240,000.00				
Contingency Fund (3% DMMC)	Php 2,090,000.00				
GRAND TOTAL	Php 26,330,000.00		Php 28,608,119.57	Php 73,214,523.32	Php (46,884,523.32)

Updated Environmental Mitigating Measures:

Area/Structure	Remarks	Volume Capacity (cubic meters)
Pimmagong		
Canal	A total of about 3 km of canal at 1m x 1m cross-section	3,000.00
Silt Traps	91 individual cells with dimensions 2m x 2m x 3m	1,092.00

Silt Ponds		1,998.60
Sub-Total		6,090.60
Bolas		
Drainage/Perimeter Canal	A total of about 3.5 km of canal at 1m x 1m cross-section	3,500.00
Silt Traps	39 individual cells with dimensions 2m x 2m x 3m	468.00
Silt Ponds		16,612.64
Sub-Total		20,580.64
Block A		
Drainage/Perimeter Canal	A total of about 3.3 km of canal at 1m x 1m cross-section	3,300.00
Silt Traps	44 individual cells with dimensions 2m x 2m x 3m	528.00
Silt Ponds		9,760.95
Sub-Total		13,588.95
Block B		
Drainage/Perimeter Canal	A total of about 2.8 km of canal at 1m x 1m cross-section	2,800.00
Silt Traps	50 individual cells with dimensions 2m x 2m x 3m	600.00
Silt Ponds		4,356.83
Sub-Total		7,756.83
Abretelon		
Drainage/Perimeter Canal	A total of about 3.7 km of canal at 1m x 1m cross-section	3,700.00
Silt Traps	58 individual cells with dimensions 2m x 2m x 3m	696.00
Silt Ponds		32,022.33
Sub-Total		36,418.33
TOTAL		84,435.35

- **34,000** line meters of drainage at least 1m x 1m cross sectional area within all active areas;
- **Over 300** silt traps combined for all active areas
- **65** total silt ponds in series of 2, 3, or 4 ponds depending on the demand of the area in all active mining areas.
- 90,000 cubic meters of combined volume capacity of siltation mitigating structures in all active mining areas.

CARE AND MAINTENANCE ACTIVITIES BASED ON THE SUSPENSION ORDER:

- Mine hustling (Transfer of ores from pre-piles to stockpiles)
- Construction of wash bays at both sides of Cabaluan River
- Construction of wash bays
- Repair of the national highway
- Clearing of water ways

WASHBAY AT LUCAPON SOUTH



WASHBAY AT PORT



WASHBAYS AT BOTH SIDES OF CABALUAN RIVER



REPAIRS OF NATIONAL HIGHWAY



BOLAS



BLOCK B



BLOCK A



EAST PIMMAGONG



Other Research Activities:

- Research Program for Soil amelioration using Materials such as rice hull, ruminants' manure, vermin cast, rice straw, and liquefied smoke as soil

ameliorants, and agricultural crops like rice as specimen in determining plant responses on the types of soil used as planting medium;

- Rice Production Study on rice field allegedly covered with laterite using R-18 and 218 variety of rice also used by farmers in the locality;
- Vegetable Production Study on laterite soil at the mine site.

ENVIRONMENTAL RESEARCH: SOIL AMELIORATION
TRIAL CROP: RICE (PHASE 2 - PSB RC18 AND NSIC RC218)



Transplanting of rice seedlings

ENVIRONMENTAL RESEARCH: SOIL AMELIORATION
TRIAL CROP: RICE (PHASE 2 - PSB RC18 AND NSIC RC218)



57 Days after transplanting

ENVIRONMENTAL RESEARCH: SOIL AMELIORATION
TRIAL CROP: RICE (PHASE 2 - PSB RC18 AND NSIC RC218)



77 Days after transplanting

MINING FOREST PROGRAM

IN-STOCK		
Location	Species	# of Seedlings
	<i>Acacia crassicaarpa</i>	18
	Agoho	966
	Atis	70
	Auri	13,148
	Bagras	112
	Bamboo	1,210
	Batino	433
	Cacao	5
	Caimito	19
	Calamansi	15
	Camachile	766
	Canistel	6
	Cashew	337
	Duhat	989
	Dulag	4
	Fire tree	73
	Gmelina	116
	Golden shower	242
	Guava	710
Nursery	Indian lanutan	9
	Ipil-ipil	6,433
	Kakawate	517
	Kamagong	6
	Langka	335
	Macopa	6
	Magium	6,463
	Mahogany	64
	Mango	25
	Mindoro pine	299
	Narra	59
	Pagospos	723
	Palm	72
	Rain tree	7
	Salago	530
	Sampalok	7
	Santol	22
	Santol	12
	Talisay	9
	TOTAL	34,837

PLANTED		
Location	Species	# of Seedlings
	Agoho	1,200
	Auri	1,100
Abretelon	Camachile	100
	Mindoro pine	3
	Sampalok	100
Block B	Agoho	350
	Auri	350
	Agoho	30
	Auri	30
Bolas	Cashew	10
	Langka	10
	Agoho	4,680
	Auri	14,610
NGP Area (Sitio Mabato, Brgy. Guinabon)	Ipil-ipil	120
	Mangium	2,210
	Mindoro pine	3
	Rain tree	100
Nursery	Gmelina	12
	Langka	20
Pimmagong-Bolas Creek	Bamboo	41
	TOTAL	25,079

DONATED		
Recipient	Species	# of Seedlings
Brgy. Lucapon South	Auri	500
	Agoho	500
Brgy. Tubotubo South (Councilor Marcelo Ebuon)	Agoho	500
	Auri	500
	Narra	50
	TOTAL	2,050

POTTED	
Species	# of Seedlings
<i>Acacia crassicaarpa</i>	18
Agoho	480
Auri	173
Bamboo	1,127
Cashew	326
Duhat	925
Fire tree	24
Golden shower	304
Guava	894
Ipil-ipil	3,904
Kakawate	689
Langka	233
Mango	3
Mindoro pine	105
Narra	3
Pagospos	1,215
Palm	5
Rubber tree	4
TOTAL	10,432

National Greening Program (NGP)

NGP Area (99 Hectares - Sitio Mabato, Brgy. Guinabon, Sta. Cruz, Zambales)



Planting of various forest trees in CENRO-Masinloc/EMI's NGP area

Compliance to Cited Infractions, Unsafe Conditions and Environmental Issues during the 2nd Quarter Monitoring of MMT:

- The inlet and outlet of water in all settling ponds should not be parallel so that silt have more time to settle before discharge

PONDS SHOULD NOT BE PARALLEL SO THAT SILT HAVE MORE TIME TO SETTLE BEFORE DISCHARGE



Arrows in color blue and red point the direction of incoming water and discharge, respectively, in silt ponds at Bolas (left) and Pimmagong (right).

- The absence of signage's on all settling ponds showing information such as no. of SP, location and volume capacity

THE ABSENCE OF SIGNAGE'S ON ALL SETTLING PONDS SHOWING INFORMATION SUCH AS NO. OF SP, LOCATION AND VOLUME CAPACITY



Silt trap (left) and silt pond (right) in Pimmagong.

- Consider the growth rate of fruit trees vis a vis fast growing trees on other rehabilitation areas

CONSIDER THE GROWTH RATE OF FRUIT TREES VIS A VIS FAST GROWING TREES ON OTHER REHABILITATION AREAS



Revegetated mined-out area of Pimmagong West with fruit trees (Cashew, Mango, Langka and Sampalok) and moderately fast (Agoho) to fast-growing forest trees (Auri, Salao and Balatenaw).

CONSIDER THE GROWTH RATE OF FRUIT TREES VIS A VIS FAST GROWING TREES ON OTHER REHABILITATION AREAS



Revegetated haul road with fruit trees such as Cashew, Langka and Camchile, mixed with Agoho, a moderately fast-growing forest tree (left). Rehabilitated mined-out area of Pimmagong West planted with fast-growing forest trees such as Auri, Mangium, Salago and Balatenaw, and moderately fast-growing forest tree like Agoho (right).

CONSIDER THE GROWTH RATE OF FRUIT TREES VIS A VIS FAST GROWING TREES ON OTHER REHABILITATION AREAS



Cashew (left) and Auri (right) planted on berms along Pimmagong mine road.

- Desilt filled and half filled settling ponds and silt traps

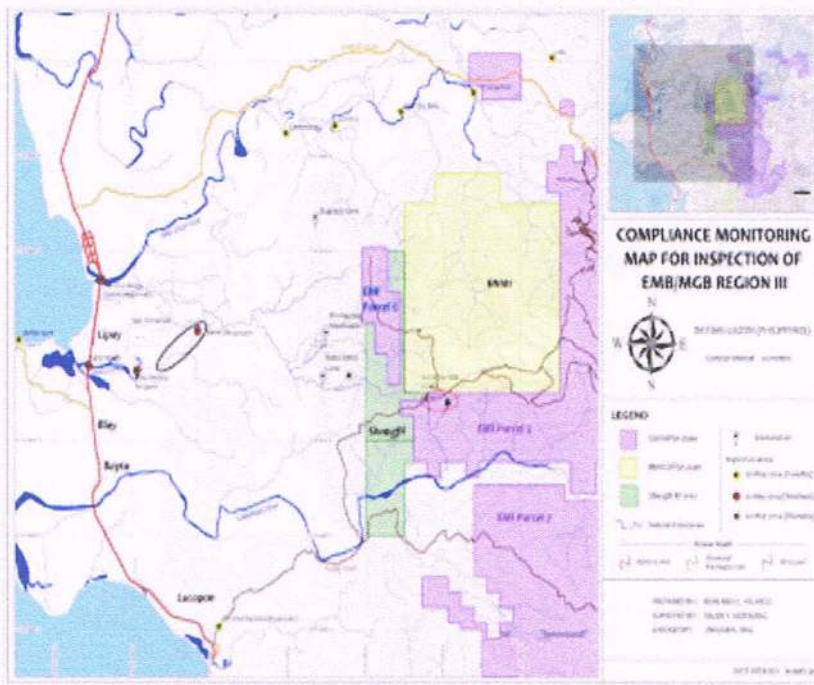
DESILT FILLED AND HALF FILLED SETTLING PONDS AND SILT TRAPS



Regular desilting of silt trap (left) and silt pond (right), as one of the maintenance activities for siltation mitigating structures. Collected silt are brought to rehabilitation areas and used as top soil.

- Tree inventory of all open areas for documentation and future reference
- Submit a documentation showing the veracity of the origin or cause of damage of Balok-balok Falls if not EMI

SUBMIT A DOCUMENTATION SHOWING THE VERACITY OF THE ORIGIN OR CAUSE OF DAMAGE OF BALOK-BALOK FALLS IF NOT EMI



Map showing the stations that were visited by EMB/MGB Region 3 during the compliance monitoring/inspection on May 20-22, 2014, which includes the visit to Baloc-baloc falls. It is also shown here the headwater of the stream that drains into Baloc-baloc falls.



Trek of the inspection group to Baloc-baloc falls



Upstream tributary draining to Baloc-baloc "passageway"/falls



Upstream tributary that drains into Baloc-baloc "passageway"/falls with BNMI's stockpile on background

- All photo documentation should be a geo-tagging scheme
- Provision of logistic equipment for geo-tagging for MMT use



Eramen had also purchased a digital camera that is capable of capturing geo-tagged images, which will be used during MMT's inspection of the company's operation.

SAFETY AND HEALTH ASPECT:

Pertinent Permit and Reporting Requirements

Requirement	Yes	No	Remarks
Submission of Annual SHP	✓		Certificate of Approval issued
Submission of Monthly General Accident Report (MGAR)	✓		Regular submission on a monthly basis
Organization of Safety and Health Office	✓		Established safety and health office Engr. Karlo Krostofer Flores-Safety Manager
Organization of Emergency Response Team	✓		Established Emergency Response Team
Provision of Clinic and First Aid Kit	✓		Established clinic at the field office. Provision of First aid kit at the working areas in the mine site and port.

Safety Statistic as of third quarter:

1. Total Man-Hours = 2,976,145.10
2. Non – Lost Time Accident = Zero
3. Lost Time Accident (Non-Fatal) = Zero
4. Lost Accident (Fatal) = Zero
5. Total Employment = 303

2014 Safety and Health Program Financial Matrix covering the 2nd quarter

Target Activity	Budget for 2014	1st Quarter	2nd Quarter	TOTAL	% Utilized
		Actual Expenses	Actual Expenses		
Organizational Rules and Regulations					
Printing of S&H Policy	Php 100,000.00			Php -	0%
Safety Induction	Php 50,000.00			Php 10,383.61	21%
Incentives and Penalties	Php 200,000.00			Php 145,411.75	73%
		Php 145,411.75	Php 10,383.61		
Trainings					
Mine/Basic Occupational Safety and Health	Php 300,000.00		Php 121,984.75	Php 121,984.75	41%
Fire Prevention and Fire Fighting	Php 300,000.00			Php -	0%
First Aid and Basic Life Support	Php 300,000.00			Php -	0%
Orientation Modern Life Saving Equipment	Php 100,000.00			Php -	0%
Loss Control Management	Php 100,000.00			Php -	0%
Regular Refresher Courses	Php 60,000.00			Php -	0%
Health Control and Service					
Pre-placement Medical/Physical Exam	Php 400,000.00			Php -	0%
Health Insurance and Annual Medical Exam	Php 700,000.00			Php -	0%
Health Services Supplies	Php 150,000.00			Php 108,725.00	72%
		Php 80,269.00	Php 28,456.00		

Personal Protective Equipment					
Personal Protective Equipment	Php 500,000.00	Php 226,022.88	Php 183,500.70	Php 409,523.58	82%
Inspections, Monitoring, and Reporting					
Inspections, Monitoring, and Reporting Supplies	Php 100,000.00	Php 13,552.00	Php 16,320.00	Php 29,872.00	30%
Safety Meetings					
Central Safety and Health Committee Meetings	Php 60,000.00	Php 15,000.00	Php 8,044.11	Php 23,044.11	38%
Departmental Meetings	Php 60,000.00		Php 12,380.00	Php -	0%
Toolbox Meetings and Pep Talks	Php 60,000.00			Php 12,380.00	21%
Safety & Health Infrastructures and Equipment					
Safety Signages and Warning Devices	Php 250,000.00	Php 47,999.86	Php 67,546.94	Php 115,546.80	46%
Other Safety and Health Structures and Equipment	Php 600,000.00	Php 200,189.00	Php 172,332.14	Php 372,521.14	62%
Emergency Response					
Emergency Response Training	Php 100,000.00			Php -	0%
Equipment and Supplies	Php 170,000.00			Php -	0%
Grand Total	Php 4,660,000.00	Php 728,444.49	Php 620,948.25	Php 1,349,392.74	29%

SAFETY AND HEALTH HIGHLIGHTS OF ACCOMPLISHMENTS:

- First Aid - CPR/BLS Training for all regular employees
 - July 7-8, 2014, August 11-13, 2014 and September 8-9, 2013



- Fire Safety training for all regular employees
 - August 22, 2014



- Basic Occupational Safety and Health training
 - July 7-11, 2014 and August 4-8, 2014



- Blood Donation Activity
 - August 13, 2014



- Ambulance Operation Training for ERT
 - September 21, 2014



- Basic Swimming
 - September 22-25, 2014
- Purchase of Various First Aid and Rescue Implements



MMT FINDINGS AND OBSERVATIONS:

- 1. LGU Representative- Bgy. Guisguis, Punong Barangay Honofre Arfapo**
 - Fast track the necessary documents in the issuance of discharge permit of last settling ponds;
 - All pre-pile ores within the benches were already transferred to designated stockpile area;
 - Trees were left standing or not affected by the mining operations;
- 2. LGU Representative- Bgy Tubo-tubo South, Punong Barangay Myrna Delos Reyes**
 - Suggest that EMI talk to BNMI regarding the cross drain coming from BNMI going to EMI tenement to be mitigated;
 - Mulching use in the rehab areas and berm using rice straw prove to be efficient;
 - EMI is responsible miners;
- 3. LGU Representative- Bgy Lucapon South, Punong Barangay Guillermo Ebanculla**
 - Recommend for the lifting of Suspension Order as the company indeed do their part of innovations of benches for good mining method;
- 4. ENROZ Representative Flordalyn B. Fortuna**
 - Standing dead trees should be reported to CENRO for proper disposal as treat for safety at the mine site;
 - Planting of mani-mani on slope and berm to improve the erosion control;
 - Continue the monitoring of silt traps and settling ponds for desilting;
 - All pre-pile ore were observed transferred to stockpile area;
- 5. MGB R-3 Representative Mr. Wilson Sibal**
 - Lack of road signage in Bolas east and Block B area;
- 6. EMB R-3 Redentor Laureta**
 - Suggest/Recommend to revisit the silt management on Abretillon area;
- 7. MMT Head Mr. Lauro Garcia**
 - Suggest/Recommend to revisit the capacity and efficiency of all ponds before draining to bodies of water;
 - Provision of MMT uniforms (shoes, pants, and long sleeve);
 - Need for logistic equipment (geo-tagging) for MMT use;

COMMENTS AND REMARKS:

Based on the foregoing monitoring, EMI's accomplishments were monitored in the field. The sampling analysis for ambient air and water show that it is within the DENR Standard based on the result presented during the MRFC meeting. Presently, the company is on a care and maintenance program. Most of the activities are improvement and rehabilitation activities and compliance to the second quarter findings.

With regard to the MMT findings/observations, these were presented and discussed during the exit conference. The management of EMI gave commitment to take immediate mitigating/remedial measures and the action taken by the company shall be reported to this Office. Attached hereto is the MMT findings and observation signed by the MMT members.

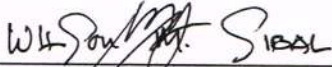
For the information of MRFC Chairman and further instruction.



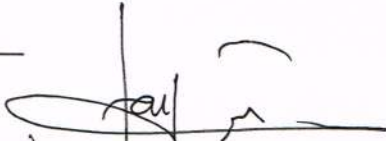
Multi-Partite Monitoring Team
September 10, 2014


LAURO S. GARCIA, JR.

MMT HEAD (MGB)


WILSON M. SIBALA

MGB REPRESENTATIVE (ENVI/SAFETY)


REDENTOR N. LAURETA

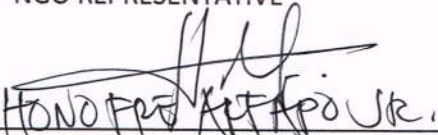
EMB REPRESENTATIVE


FLORDELIZA R. FORTUNA

ENRO ZAMBALES REPRESENTATIVE

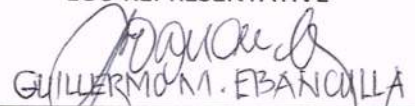
CENRO MASINLOC REPRESENTATIVE

NGO REPRESENTATIVE


HONORABLE ATAPIO JR.

LGU REPRESENTATIVE


LGU REPRESENTATIVE


GUILLERMO M. EBANILLA

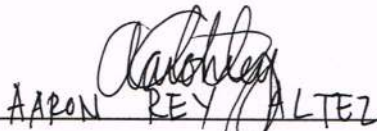
LGU REPRESENTATIVE


MYRNA E. DELOS REYES

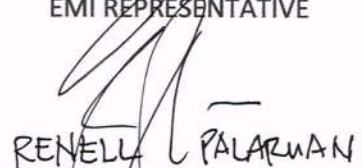
EMI REPRESENTATIVE


ISRAEL JERICK ORTIZ

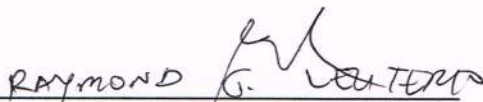
EMI REPRESENTATIVE


AARON REY ALTEZ

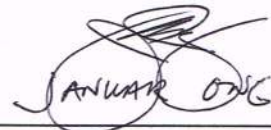
EMI REPRESENTATIVE


RENELL PALARUAN

EMI REPRESENTATIVE


RAYMOND G. VENTURA

EMI REPRESENTATIVE


JANUAR ONG

EMI REPRESENTATIVE



MULTI-PARTITE MONITORING TEAM

DATE: September 10, 2014

COMMITMENT SHEET (Third Quarter)

Observations	Commitments
<p>1.) Capt. Honorio Arfapo of Gusguis</p> <ul style="list-style-type: none"> > To fast track the necessary documents in the issuance of discharge permit of the last settling ponds. > All pre-pile ores within the benches are already transfer to designated stockpile area. > Trees where left standing or not affected by the mining operations. <p>2.) Capitana Myrm Delor Reyes of Tubo-tubo South</p> <ul style="list-style-type: none"> > Suggest that EMI talk to PNMI regarding the cross drain coming from PNMI going to EMI tenement to be mitigated. > Mulching use in rehab areas and berm using rice straw prove to be efficient. > EMI is responsive in mine <p>3.) ENROZ rep. Floridalyn Fortuna</p> <ul style="list-style-type: none"> > Standing dead trees should be reported to CENRO for proper disposal. > Planting of mani-mani on slope and berm to improve the erosion control. > Continuous the monitoring of silt traps & ponds for desilting. 	

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MULTI-PARTITE MONITORING TEAM

DATE: September 10, 2014

COMMITMENT SHEET (Third Quarter)

Observations	Commitments
<p>> all pre-pile ore were transferred to stockpile area.</p> <p>4.) Capt. Guillermo Ebonculla of Lucapan South</p> <p>> Recommend for the lifting as the company indeed do their point of innovations of good benches for a good mining method.</p> <p>5.) EMB, R3 Laureta</p> <p>> suggest/recommend to revisit the silt management on Block B area Abretillon Area.</p> <p>6.) MGB, R3 Wilson Sibal</p> <p>> Lack of road signs in Polar east & Block B area.</p> <p>7.) MGB, R3 # Larry Garcia</p> <p>> suggest to revisit the capacity & efficiency of all last ponds before draining to bodies of water.</p> <p>> MMT uniform</p> <ul style="list-style-type: none"> - long sleeve - pants - shoes <p>> Geo-tagging logistics for the mmt use.</p>	

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Multi-Partite Monitoring Team (Mine)
September 10, 2014

Third Quarter		
NO.	Name	Signature
1	LAURO S. GARCIA, JR. MGB, RB	
2	HONORATO ARTAPO JR. LGU-Guisquit	
3	REYDOR M LAURETA ENERO	
4	Wilson M. Simal	
5	MYRNA E. DELOS REYES	
6	FORDAYN D. JORDANA	
7	JANETTE OVB	
8	GUILLERMO M. EBANCILLA PB LUCAPON SOUTH	
9	Karlo Kristoffer P. Flores	
10	ORABO JORGE OETIZ	
11	RENELL PALARMAN	
12	RAYMOND G. LEUTERIO	
13	AARON ALTEZ	
14		
15		
16		
17		
18		
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20		