DENR Administrative Order
No. 2000 – 71
October 09, 2000

SUBJECT : Standard Costs and Fees for Various Services of the Mines and Geosciences Bureau.

Pursuant to Executive Order No. 197 dated 13 January 2000, the following fees and charges for services rendered by the Mines and Geosciences Bureau (MGB) are hereby revised and/or updated:

	Fees and Charges (in Philippine Pesos, unless otherwise provided)
1.0 MINING RIGHTS	
1.1 Application for/Approved Exploration Permit (EP), Mineral Agreement (MA), Financial or Technical Assistance Agreement (FTAA), Temporary Exploration Permit (TEP) and Special Mines Permit (SMP), including Mining Lease Contract (MLC):	
1.1.1 Filing Fee	10.00/Hectare but not less than 3,000.00/Application
1.1.2 Clearance Fee	1,000.00/ Application
1.1.3 Registration Fee for EP, MA, FTAA, TEP or SMP	1,000.00/Permit/ Contract
1.1.4 Occupation Fee (For EP, MA FTAA, TEP, SMP including MLC)	
a. For areas within Mineral Reservation	100.00/Hectare
b. For Non-Mineral Reservation Areas	50.00/Hectare
1.1.5 Conversion Fee	

a. Approved Contract/Permit (from MA to FTAA/vice versa or EP to MA/FTAA)... 100.00/Hectare

b. Mining Application (from One form of mining right Application to another, e.g.., Application for EP to MA) .. 5,000.00/Conversion

1.1.6 Transfer/Assignment Fee

a. Approved Contract/Permit... 10.00/Hectare

b. Application for EP, MA or FTAA 5.00/Hectare

1.1.7 Evaluation of Feasibility Study Report 10,000.00/Study Report

1.1.8 Amendment of EP, MA or FTAA Application (except reduction in Applied area) 10,000.00/Application

1.1.9 Request for Evaluation of EPEP... 5,000.00/EPEP

1.1.10 Request for Certificate of Environmental Management And Community Relations Track Record 1,000.00/Certificate

1.1.11 Application for Amendment of Contract (MA/FTAA) 10,000.00/Contract

Note: Each of the above charges shall be subject to PD 1856, as amended 20.00

1.2 Application for/Approved Industrial and Gravel and Other Mining Permits Under MGB Jurisdiction

1.2.1 Filing Fee 2,000.00/Application

1.2.2 Registration Fee 1,000.00/Permit

1.2.3 Request for Evaluation of EPEP 5,000.00/EPEP

1.2.4 Clearance Fee 1,000.00/Application

1.2.5 Renewal Fee 1,000.00/Permit

Note: Each of the above charges shall be subject to PD 1856, as amended 20.00

1.3 Application for Small-Scale Mining Permit

1.3.1 Filing Fee 2,000.00/Application

P.D. 1856, as amended 20.00

1.4 Application for Mineral Processing Permit

1.4.1 Filing Fee 5,000.00/Application

1.4.2 Renewal Fee 2,000.00/Permit

Note: Each of the above charges shall be subject to PD 1856, as amended 20.00

1.5 Application for Ore Transport Permit

1.5.1 Application Fee..... 100.00/Application

1.5.2 Verification Fee 5,000.00/Verification

Note: Each of the above charges shall be Subject to PD 1856, as amended 20.00

1.6 Application for Accreditation of Traders, Dealers and Retailers in the Trading of Mineral Products/By-Products

1.6.1 Filing Fee 5,000.00/Application

1.6.2 Renewal Fee 2,500.00/Renewal

Note: Each of the above charges shall be Subject to PD 1856, as amended 20.00

1.7 Registration of Miscellaneous and Related Services

1.7.1 Power of Attorney ..... 200.00/Power of Atty

1.7.2 Other Forms of Assignments/ Transfer ..... 1,000.00/Assignment Or Transfer

1.7.3 All other Instruments Affecting Mining Rights 1,000.00/Instrument

1.7.4 Letter-Request for Certification 50.00/Certification

1.7.4 Request for Certified True/

	Xerox Copy	40.00/Document Plus 5.00/Page
	Note: Each of the above charges shall be Subject to PD 1856, as amended	20.00
1.8	Docketing Charges with the Panel of Arbitrators/Mines Adjudication Board	
	1.8.1 For Filing Ordinary Protest, Adverse Claim, Opposition or any other Petitions	2,000.00/Protest, etc.
	1.8.2 For filing Protest coupled with Damages	10% of the total damage claimed shall be the basis for the docket fee
	1.8.3 For Filing Counter-Claim, Counter Counter-Protest or Counter-Opposition	2,000.00/Counter-Claim, Counter- Protest, etc.
	1.8.4 For Filing Counter-Claim, Counter-Protest or Counter-Opposition coupled with Damages	10% of the total damage claimed shall be the basis for the docket fee
	1.8.5 Intervenor's Fee	2,000.00/Intervenor
	1.8.6 Appeal Fee	2,000.00/Appeal
	Note: Each of the above charges shall be the subject to PD 1856, as amended	20.00
1.9	Docketing Charges with MGB	
	1.9.1 For Filing an Action with MGB Regional Office	5,000.00/Application
	1.9.2 For Filing an Appeal	2,000.00/Appeal
	Note: Each of the above charges shall be Subject to PD 1856, as amended	20.00
1.10	Application for Survey Order, Verification of Survey Returns and Field Verification Survey of Approved/Proposed Mining/Contract/	

Permit Areas

1.10.1 Application for Survey Order

a.	Processing Fee	60.00/block or 81 hectares plus 25.00 for the succeeding blocks or a fraction thereof
	P.D. 1856	20.00
b.	Projection Fee	120.00 for the first 100 hectares, plus 25.00 for the succeeding 100 hectares or a fraction thereof
c.	Filing Fee	120.00/Application
	P.D. 1856	20.00
d.	Surety Bond	10.00/hectares but not less than 500.00

1.10.2 Verification of Survey Returns

a.	Application Fee	300.00/Application
b.	Processing of prescribe original and duplicate Computation Sheets of not more than 15 stations per sheet	6.00/Set
c.	Processing of resubmitted (new set) original and duplicate Computation Sheets (w/ correction) of not more than 15 stations per sheet, and/or additional survey returns with fieldnotes and/or computation	6.00/New Set provided that the minimum charge shall be 350.00 for the first resubmittal, plus 400.00 for every subsequent resubmittal.

1.10.3 Perimeter Boundary Survey

a. Application for/Approved

	MA/FTAA	30,000.00/Line km.
b.	Application for Approved Small Scale Mining Permit/Contract	3,000.00/Hectare for the first 5 hectares, plus 1,000 for the succeeding hectares or fraction thereof
c.	Application for/Approved other Mining Permits (e.g. Sand and Gravel Permits)	3,000.00/Hectare
1.10.4	Tie Line Survey	15,000.00/Kilometer

In addition to the above charges, the applicant or interested party shall pay for the transportation of MGB personnel from official station to the area and return and other incidental expenses incurred. The precision of survey control shall be in accordance with the Land Surveys Manual of the Philippines.

1.11	Evaluation of Mining Projects of Companies Applying for Registration/Licensing of Securities as referred by the Securities and Exchange Commission	2,000.00/Application

1.12	Application for Explosives and Other Permits	
1.12.1	License to Possess Explosives-Purchaser's	300.00/Application
1.12.2	Amendment to License to Possess Explosives	300.00/Application
1.12.3	Purchase/Transfer/Import Explosives	125.00/Application
1.12.4	License to Possess Explosives- Foreman's	300.00/Application
1.12.5	Temporary Safety Inspector's Permit (including renewal)	300.00/Application

1.12.6	Temporary Safety Engineer's Permit (including renewal)	300.00/Application
1.12.7	Permanent Safety Inspector's Permit (including renewal)	300.00/Application
1.12.8	Permanent Safety Engineer's Permit (including renewal)	300.00/Application
1.12.9	Alien's Local Employment	2,500.00/Application
1.12.10	Electrical Wiring Installation	150.00/Application
1.12.11	Machinery Installation	150.00/Application
1.12.12	Mine, Quarry and Mill Permits	180.00/Application

2.0 GEOLOGICAL/MINING INVESTIGATION AND VERIFICATION AND OTHER RELATED SERVICES

2.1	Geological, Geochemical or Geophysical Investigation	2,000.00/man/day provided that the minimum charge is 6,000.00
2.2	Verification/Evaluation of Applied or Mining Contract/Permit Area	1,200.00/man/day provided that the minimum charge is 3,600.00
2.3	Verification/Field Investigation of Mining Conflicts or Other Boundary Survey	1,200.00/man/day provided that the minimum charge is 3,600.00
2.4	Verification of Ore Stockpile and	

Umpiring of Ore Shipment	1,200.00/man/day provided that the minimum charge is 3,600.00
2.5 Verification/Field Investigation of Mineral Processing Plant	1,200.00/man/day provided that the minimum charge is 3,600.00
2.6 Verification of Explosives Magazines and Blasting Schemes	1,200.00/man/day provided that the minimum charge is 3,600.00

In addition to the above charges, the applicant or interested party shall pay for the transportation of bureau personnel from official station to the area and return and other incidental expenses incurred therein.

2.7 Rock Mechanics Laboratory Services (subject to availability of equipment	
2.7 1 Unconfined Compressive (rock ore) Test	
a. Without Strain Measurements	200.00
b. With Strain Measurements	400.00
2.7.2 Discontinuity Shear Strength Test (Rock Cores or Chunks of Size NX or 6 cm. X 6 cm.)	1,000.00
2.7.3 Triaxial Test	
a. NX	1,000.00
b. AX	1,000.00
2.7.4 Tensile (Brazilian) Test	200.00
2.7.5 Cutting	50.00/sq. Diameter

3.0 LEASE OF DRILLING EQUIPMENT

3.1 Monthly Rental Fee	
3.1.1 Drilling Machine	
a. X-Ray Drill	5,040.00
b. Longyear Model "24"	

Wireline Drile 10,800.00

c. Longyear Model “24”
Conventional Drill 8,640.00

d. Longyear Model “34”
Wireline Drill 13,680.00

e. Longyear Model “34”
Conventional Drill 11,520.00

f. Longyear Model “38”
Wireline Drill w/
Automatic chuck 15,120.00

g. Longyear Model “44”
Wireline Drill w/
Automatic Chuck 17,280.00

3.1.2 Drill Pumps

a. Longyear Model 315 Pump 1,560.00
b. Longyear Model 535 Pump 4,800.00
c. Longyear Model 520 Pump 4,200.00

3.1.3 Drill Rods

a. One (1) pc. AQ Rod, 10 ft. 120.00
b. One (1) pc. BQ Rod, 10 ft. 156.00
c. One (1) pc. NQ Rod, 10 ft. 180.00
d. One (1) pc. HQ Rod, 10 ft. 240.00
e. One (1) pc. AW Rod, 10 ft. 120.00
f. One (1) pc. BW Rod, 10 ft. 156.00
g. One (1) pc. NW Rod, 10 ft. 180.00
h. One (1) pc. HW Rod, 10 ft. 240.00
i. One (1) pc. EWL Rod, 10 ft.
(smaller than AQ) 96.00
j. One (1) pc. XRT Rod, 10 ft.
(smaller than EWL) 72.00

3.1.4 Casings

a. One (1) pc. AW Casing, 10 ft.
120.00
b. One (1) pc. BW Casing, 10 ft. 156.00
c. One (1) pc. NW Casing, 10 ft.
180.00

d. One (1) pc. HW Casing, 10 ft. 240.00
e. One (1) pc. EWL Casing, 10 ft. 96.00
f. One (1) pc. RW Casing, 10 ft. 72.00

3.1.5 Core Barrels

a. One (1) pc. AQ Core Barrel, 10 ft. 1,000.00
b. One (1) pc. 5BQ Core Barrel, 10 ft. 2,000.00
c. One (1) pc. NQ Core Barrel, 10 ft. 3,500.00
d. One (1) pc. HQ Core Barrel, 4,000.00

3.1.6 Miscellaneous Accessories

a. One (1) set Tripod Sheave Wheel, 24"∅ with clevis and bolt 1,200.00

b. One (1) set Tripod Sheave Wheel, 18"∅ with clevis and bolt 960.00
c. One (1) pc. Heavy Duty Water Swivel Assy. With lifting hail 600.00
d. One (1) pc. Lifting Plug with rod box adapter 240.00
e. One (1) pc. Snatch Block, 6" ∅ 120.00
f. One (1) set BX Casing Clamp 120.00
h. One (1) set HQ Safety Foot Clamp Assy. Complete with clamp jaws 600.00

3.2 Bond

3.2.1 For X-Ray Drill, Pump and Accessories 480,000.00
3.2.2 For Longyear Model "24" Conventional Drill, Pump and Accessories 600,000.00
3.2.3 For Longyear Model "24" Wireline Drill, Pump and Accessories 660,000.00
3.2.4 For Longyear Model "34" Conventional Drill, Pump and Accessories 900,000.00
3.2.5 For Longyear Model "34" Wireline Drill, Pump and

	Accessories	960,000.00
3.2.6	For Longyear Model “38” Wireline Drill w/ Automatic Chuck, Pump and Accessories	1,140,000.00
3.2.7	For Longyear Model “44” Wireline Drill w/ Automatic Chuck, Pump and Accessories	1,800,000.00
3.2.8	For Additional Longyear 535 Pump 120,000.00	
3.2.9	For Additional Longyear 520 RQ Pump 108,000.00	
3.2.10	For Additional Longyear 315 RQ Pump	60,000.00

3.3	Cash Deposits	
3.3.1	For X-Ray Drill, Pump and Accessories	24,000.00
3.3.2	For Longyear Model “24” Conventional Drill, Pump and Accessories	42,000.00
3.3.3	For Longyear Model “24” Wireline Drill, Pump and Accessories	48,000.00
3.3.4	For Longyear Model “34” Conventional Drill, Pump And Accessories	54,000.00
3.3.5	For Longyear Model “34” Wireline Drill, Pump and Accessories	60,000.00
3.3.6	For Longyear Model “38” Wireline Drill w/ Automatic Chuck, Pump and Accessories	72,000.00
3.3.7	For Longyear Model “44” Wireline Drill w/ Automatic Chuck, Pump and Accessories	84,000.00
3.3.8	For Additional Longyear 535	

	RQ Pump	12,000.00
3.3.9	For Additional Longyear 520 RQ Pump	9,600.00
3.3.10	For Additional Longyear 315 RQ Pump	7,200.00
3.3.11	For Demobilization of Drilling Equipment and Accessories	40,000.00

4.0 PETROLOGICAL, MINERALOGICAL, GEOCHRONOLOGICAL AND OTHER RELATED SERVICES

		Fee per Sample
4.1	Sample Preparation and Gemology Unit	
4.1.1	Rock cutting and polishing	
	a. Soft rocks (as soft as or softer than Marble), per sq. dm. or a fraction thereof	
	- cutting	150.00
	- polishing	200.00
	b. Hard rocks (harder than marble), Per sq. Dm. or a fraction thereof	
	- cutting	180.00
	- polishing	200.00
4.1.2`Thin section preparation		
	a. unmounted rocks and minerals	350.00
	b. mounted rock and mineral grains	450.00
	c. mounted cutting/ditch samples	450.00
4.1.3	Polished-thin section preparation	
	a. unmounted rocks and minerals	350.00
	b. mounted rocks and minerals	400.00
4.1.4	Polished-thin section preparation	
	a. unmounted rocks and minerals	450.00
	b. mounted rocks and mineral grains	550.00
	c. mounted cutting/ditch samples	550.00
4.1.5	Doubly polished wafer preparation for fluid inclusion analysis	550.00

4.1.6	Sample preparation (drying, crushing, grinding, serving and splitting) of geological materials for sedimento-logical/mineralogical analysis, per kilogram or fraction thereof	
	a. over drying	25.00
	b. crushing using jaw crusher	50.00
	c. grinding using vibrating disc mill	80.00
	d. sieving	
	d.1 coarse (14-150 mesh)	
	- dry sample	50.00
	- wet sample	60.00
	d.2 fines (170-400 mesh)	
	- dry sample	50.00
	- wet sample	60.00
	d.3 splitting using Jones riffle splitter	30.00
4.1.7	Sample preparation (drying, crushing and grinding up to 200 to –300 mesh) of Geological materials for x-ray bulk analysis	150.00
4.1.8	Sample preparation (drying, crushing and grinding sieving and splitting) for chemical analysis	150.00
4.1.9	Sample preparation for paleontological analysis	
	a. mounting	200.00
	b. coring	200.00
	c. grinding	200.00
4.1.10	Sample preparation for paleontological analysis	
	Microfossil Analysis	
	a. thin section	300.00
	b. washing, per 200 grams	200.00
	c. polished block (3 x 2 x 2 cm.)	300.00
	d. chemical treatment, washing and smear slide preparation for radiolarian analysis	500.00
	Macrofossil Analysis	
	e. cleaning (per sample)	100.00
	f. repair (per specimen)	20.00

	g. fossil reconstruction for broken specimen, moulds and casts (per specimen)	40.00
4.1.11	Gemstone preparation, per piece	
	a. Preparation of cabochon with oval, round triangle, square, pear and four-sided forms	
	a.1 Mohs' hardness up to 7	
	- 7 to 18 mm. diameter	150.00
	- 19 to 32 mm. diameter	200.00
	a.2 Mohs' hardness between 7 and 9	
	- 7 to 18 mm. diameter	250.00
	- 19 to 32 mm. diameter	300.00
	b. Preparation of cabochon with heart, Clover, star, cross, hexagon, octagon, and more than four-sided forms	
	b.1 Mohs' hardness up to 7	
	- 7 to 18 mm. diameter	200.00
	- 19 to 32 mm. diameter	250.00
	b.2 Mohs' hardness between 7 and 9	
	- 7 to 18 mm. diameter	300.00
	- 19 to 32 mm. diameter	350.00
	c. Preparation of other shapes and forms such as teardrop, half-moon, shark's tooth, sphere, cone, cylinder, etc. for materials with Mohs' hardness up to 7	
	- 7 to 18 mm. diameter	300.00
	- 19 to 32 mm. diameter	350.00
	d. Faceting (64 index gear)	
	Standard brillian cut (round)	
	- with Mohs' hardness up to 7	350.00
	- with Mohs' hardness up to 7 & 9	400.00
	Brilliant oval cut, emerald cut	
	- with Mohs' hardness up to 7	300.00
	- with Mohs' hardness up to 7 & 9	500.00
	e. Gemstone drilling	
	- first 10 mm.	30.00

	- per 1 mm. or a fraction thereof, in excess of 10 mm	15.00
	f. Preparation of tumbled stones, per kg. (minimum of three kg)	700.00
4.2	Megascopic/Microchemical Testing Laboratory Unit	
4.2.1	Megascopic description of minerals including mineral name, color, streak, form, hardness and uses/recommendation for further analysis	250.00
4.2.2	Megascopic description of rocks including mineral composition, texture, rock name and uses/recommendation for further analysis	250.00
4.2.3	Qualitative microchemical test, per element	150.00
4.2.4	Qualitative chemical stain test, per mineral	150.00
4.2.5	Provision of rock and mineral collection with identification, per set	120.00
4.3	Sedimentology/Clay Mineralogy Laboratory Unit	
4.3.1	Sample preparation for grain size analysis	
	- dilution and chemical treatment with sodium hexametaphosphate	500.00
	- pipetting	500.00
	- determination of weight loss	100.00
4.3.2	Mineral separation per 100 gram sample or a fraction thereof	
	- using hand magnet	150.00
	- using isodynamic magnetic separator	500.00
	- using heavy liquid medium, per mineral	1,000.00
4.3.3	Grain size analysis	
	- wet sieving method of quantitative determination of particlesize distribution of soils/sediments down to fine sand size	300.00
	- hydrometer method of quantitative determination of particle size distribution of soil/sediment from coarse sand size to clay size	400.00
4.3.4	Identification and description of sediments /detrital grains, with qualitatively estimated	

	abundances	
	- as received	1,500.00
	- grain mounted polished/thin section	1,000.00
4.3.5	Identification and description of sediments/ detrital grains, with quantitatively estimated abundances by point counting, per constituent grain	
	- as received	2,500.00
	- grain mounted polished/thin section	1,500.00
4.3.6	Permeability Test for Sediments and and Soils (minimum of five trials)	1,200.00
4.3.7	Proctor Compaction Test for Sediments and Soils (minimum of Five trials)	900.00
4.3.8	Differential Thermal Analysis (DTA)	700.00
4.3.9	Determination of Liquid Limit by Cone Penetrometer Method	
	- for soil samples	300.00
	- for clay samples (unactivated)	600.00
	- for clay samples (activated 1-6% Na_2CO_3)	3,000.00
4.3.10	Determination of Plastic Limit	
	- for soil samples	200.00
	- for clay samples (unactivated)	500.00
	- for clay samples (activated)	2,500.00
4.3.11	Determination of Plasticity Index	
	- for soil samples	500.00
	- for clay samples (unactivated)	1, 000.00
	- for clay samples (activated)	4,500.00
4.3.12	Pyrometric Cone Equivalent (PCE) Test	400.00
4.3.13	Swelling Test	
	- unactivated	100.00
	- activated with 1-6% sodium carbonate	250.00
4.3.14	Oil Bleaching Test (inclusive of oil)	
	- unactivated	200.00
	- activated with 1-6% sodium carbonate	400.00

4.4	Petrography/Fluid Inclusion Laboratory Unit	
4.4.1	Thin section analysis	
a.	Standard petrographic description including rock name, texture, quantatively estimated mineral abundances and interpretation of alteration assemblages and/or paragenesis	1,000.00
b.	Mineral identification and rock name only, with qualitatively estimated Mineral abundances	700.00
c.	Mineral identification only, with quantitatively estimated mineral abundances by point counting, per mineral	900.00
d.	Grain size determination only, per Mineral	300.00
4.4.2	Polished section analysis	
a.	Standard petrographic description of ore minerals including textures, quantitatively estimated mineral abundances and interpretation of paragenesis sequence	1,000.00
b.	Mineral identification only, with qualitatively estimated Mineral abundances	900.00
c.	Mineral identification only, with quantitatively estimated mineral abundances by point counting, per mineral	300.00
d.	Grain size determination only, per Mineral	300.00
4.5	Fluid Inclusion Laboratory Unit	
4.5.1	Inspection of samples for presence of fluid inclusions	100.00
4.5.2	Petrographic description of fluid inclusions, including abundance, size, shape, nature of inclusion, etc.	250.00

4.5.3 Measurement of homogenization temperatures of as many inclusions as practical within the sample 1,500.00

4.5.4 Measurement of freezing temperatures of as many inclusions as practical within the sample (exclusive of cost of liquid nitrogen) for salinity determination 2,500.00

4.5.5 Measurement of salt dissolution temperatures of as many inclusions as practical within the sample for salinity determination 1,500.00

4.5.6 Photomicrography (exclusive of costs of film, developing and printing), per exposure 50.00

4.6 X-Ray Laboratory Unit

4.6.1 X-Ray diffraction (XRD) analysis

a. Sample preparation for orientation of clay minerals
   - air drying 20.00
   - heating 100.00
   - glycolation 100.00

b. XRD scan (2°-41°) and qualitative Mineral identification
   - 2°2∅ to 41°2∅ 1,000.00
   - in excess of 41°2∅, per degree 20.00

4.6.2 X-ray fluorescence (XRF) spectrometric analysis

a. Sample preparation
   - briquetting of powdered sample 50.00
   - glass bead/fused sample preparation 150.00

e. Qualitative XRF analysis
   - using LIF analyzing crystal (scan 10° - 116°) 1,500.00
   - using EDDT analyzing crystal (scan 10° - 146°) 2,000.00

c. Quantitative XRF analysis, per element (charge varies according to cost of standards)

4.6.3 Electron Probe Microanalysis (EPMA)

a. Sample preparation, per section
   - carbon coating 500.00
   - ion coating (charge varies according to the cost of element to be used for coating and surface area to be coated)

b. Electron Microscopy/Photography
   - high magnification acroview, back scattered electron image, secondary electron beam image, characteristic x-ray, per photograph, per element 2,000.00
   - per additional photograph of same element 500.00

c. Line profile analysis
   - per 10 mm line, per element 2,500.00

d. Qualitative points analysis
   - per point, per element 2,000.00

e. Quantitative point analysis
   - per point, per element 2,500.00

4.7 Isotope Laboratory Unit

4.7.1 14c age determination (charges subject to the discretion of the Director)

4.7.2 K-Ar age determination (charges subject to the discretion of the Director)

4.8 Paleomagnetic Laboratory Unit

4.8.1 Paleomagnetic analysis

a. Demagnetizing (thermal Alternating field 450.00
b. Magnetic declination 300.00
c. Magnetic inclination 300.00
d. Magnetic moment 300.00
e. Magnetic susceptibility 300.00
f. North, east and vertical component 250.00

g.	Bedding correction	250.00
h.	Sample orientation correction	250.00
i.	Virtual geomagnetic pole	350.00

4.9 Paleontology Laboratory Unit

4.9.1 Microfossil analysis (Small & Large Foraminefera)

a. Standard paleontological analysis of sedimentary rock samples, including picking/isolation of fossils, faunal identification and listing, and age and paleoecology determination 700.00

b. Quantitative paleontological analysis, Small foraminefera (pasnktic and benthic)

b.1 Sample preparation (per sample)

- Crushing, washing and drying
  - loose, friable sample 150.00
  - semi-indurated, indurated sample chemical treatment with sodium hexameta-phosphate, hydrogen peroxide and/or borate 500.00
- sieving
  - fine fraction (45 um) 50.00
  - coarse fraction (250 um & 150 um) 50.00
- splitting by aliquot method using Otto microsplitter (per sample) 50.00

b.2 Quantitative analysis (per sample)

- picking (approximately 300 specimens)/isolation of samples 200.00
- taxonomic/faunal identification
  - genus level 50.00
  - species level 75.00

- taxonomic/faunal listing

b.3 Statistical analysis (per sample)

- Foraminefera
  - small foraminefera (planktic & benthic)
  - species richness 50.00
  - species diversity & equitability 50.00
  - species dissolution susceptibility 50.00

b.4 Systematic description (per species) 50.00

b.5 Age 50.00

b.6 Paleoecologic Interpretation 100.00

c. Photomicrography (exclusive of cost of film, developing and printing)

c.1 Thin section, per exposure 50.00

c.2 Whole specimen, three exposures for three positions 200.00

4.9.2 Macrofossil analysis

a. Standard molluscan and other macrofossil analysis, including cleaning, faunal, identification, age determination and paleoecologic interpretation 700.00

b. Taxonomic identification and Description 150.00

c. Photography internal, external and side views (excluding cost of film developing and printing) 75.00

d. Developing and printing 150.00

e. Detailed paleoecologic and paleo-environmental reconstructions based on morphometric variation, faunal associations/assemblages, habitat, sediment preferences, trophic grouping, deiversity and bathymetric gradient (per sample) 400.00

4.10 Petrochemistry Laboratory Unit

4.10 1 Geochemical Exploration Laboratory unit- Chemical analysis of rocks,

minerals, soils stream sediments and similar materials

a. Minor and trace element analysis, after partial decomposition

a.1 Flame Atomic Absorption Spectrometry

- Using aqua regia, hydro-cloric acid and nitric acid digestion methods

Elements	Detection Limit (ppm)	
Ag	1)	80.00
Cd	1)	(first element)
Co	3)	30.00
Cu	2)	(each additional
Fe	50)	element)
Mn	50)	
Ni	3)	
Pb	10)	
Zn	2)	
Mo	2)	90.00
Mo (with organic Extraction)	.04)	200.00

- Using hydride and vapor Generation method

Element	Detection Limit (ppm)	
As	1)	165.00
Bi	0.1	165.00
Sb	0.1	165.00
Hg	0.1	165.00

- Using acidic fusion method

Element	Detection Limit (ppm)	
Cr	100)	110.00
Li	1)	(first element)
Ni	10)	90.00
		(each add. element)

- using NH4I fusion method

Element	Detection Limit (ppm)

Sn	1		270.00

- using cold extraction method

Element	Detection Limit (ppm)		
Cu	20	)	80.00
Pb	40	)	(first element)
Zn	20	)	55.00
			(each add. element)

a.2 Graphite furnace atomic aborption spectrometry

- using organic extraction method

Element	Detection Limit (ppm)		
Ag	0.1	)	540.00
Cd	0.1	)	(1^{st} element)
Se	0.2	)	1,080.00
Te	0.1	)	(all five element)
Tl	0.1	)	

a.3 Calorimetry, using dithiol method

Element	Detection Limit (ppm)	
W	4	270.00

a.4 Major, minor and trace element analysis, after total decomposition (whole rock analysis), Flame Atomic Absorption Spectrometry

- complete silicate analysis

Oxide		
SiO_2		165.00
Al_2O_3		165.00
TiO_2		165.00
Fe_2O_3	T	165.00
MnO		165.00
MgO		165.00
CaO		165.00
Na_2O		165.00
K_2O		165.00
FeO		165.00
P_2O_5		190.00

LOI	60.00
H_2O-	60.00
H_2O+	142.00
All of the above except FeO and H_2O+	1,320.00

- minor and trace element analysis
  - using hydrofluoric and perchloric acid digestion methods

Element	Detection Limit (ppm)	
Ag	1	250.00
Be	1	250.00
Cd	10	250.00
Co	5	250.00
Cr	5	250.00
Cu	2	250.00
Li	1	250.00
Ni	10	250.00
Mo	10	250.00
Pb	10	250.00
Rb	10	250.00
Zn	2	250.00
Ba	25	250.00
Sr	20	250.00
V	10	250.00

  - using hudride and vapor generation method

Element	Detection Limit (ppm)	
As	1	250.00
Be	0.1	250.00
Sb	0.1	250.00
Hg	0.1	250.00

- using MIBK extraction method

Element	Detection Limit (ppm)	
Au	0.02	350.00
Ga	0.02	350.00
Pt	(quantitative)	400.00

a.5 Graphite Furnace Atomic

Absorption Spectrometry

- using organic extraction method

Element	Detection Limit (ppm)	
Au	0.001	500.00
Pd	0.002	500.00
Te	0.1	500.00
Tl	0.1	500.00
Se	0.2	500.00

4.10.2 Water Quality Laboratory Unit Chemical analysis of ground and surface water

a. Major cation and anion analysis

a.1 Flame atomic absorption spectrometry

Ion	
Na	180.00
K	180.00
Mg	180.00
Ca	180.00
Si	180.00

a.2 Wet chemical methods

Ion		
SO_4^{-2}	180.00	
HCO_3^{-1}		180.00
CL-		180.00

a.3 Ion selective electrode method

Ion	
F^{-2}	200.00
I^-	200.00
CN^- (total, after distillation)	910.00
CN^- (toxic, or free CN)	400.00

b. Spectrophotometry

Ion	
NO_3^{-1}	200.00
HPO_4^{-2}	200.00

c. Water Property Determination

Parameter	
pH	100.00

Total dissolved solids		150.00
Total hardness		200.00
Total alkalinity		200.00
Total acidity		200.00
Turbidity (NTU)		200.00
Total Siltation/Suspended solids		150.00

d. Trace element analysis using Atomic Absorption Spectrophotometry

Element	Detection Limit (mg/L)	
Ag	0.05	160.00
Ag	0.002	200.00
Ag	0.0002	340.00
As	0.005	260.00
Al	1.0	180.00
Au	0.005	305.00
Ba	1.0	160.00
Be	0.02	160.00
Bi		260.00
Cd	0.02	160.00
Cd	0.002	200.00
Cd	0.0002	340.00
Co	0.05	160.00
Cr	0.05	200.00
Cu	0.02	160.00
Fe	0.05	160.00
Hg	0.0001	260.00
Li	0.01	160.00
Mn	0.03	160.00
Mo	10.0	180.00
Mo	0.01	340.00
Ni	0.05	160.00
Pb	0.2	160.00
Pb	0.005	200.00
Pb	0.0005	340.00
Rb	5.0	160.00
Se		340.00
Sb		260.00
Sr		160.00

Te			340.00
V		1.0	180.00
Zn	0.1		160.00

Discount rates:

15 elements/sample	10%
22 elements/sample	15%
44 elements/sample	30%

5.0 FIRE ASSAYS, METALLURGICAL TEST AND CHEMICAL ANALYSIS

5.1 Fire or Wet Assay of Rocks, Ores Sands or Concentrates, Bullions, Alloys Including Liquids or Solutions

5.1.1 Fire-Assays-Ore samples for fire assays should weigh at least one (1) kilogram. Bullion drillings in excess of three (3) grams shall be returned to the owner upon request.

a.	Gold or silver in ores, sands or concentrates, per sample	265.00
b.	Gold & Silver in ores, sands or concentrates, per sample	300.00
c.	Fineness determination for gold, in bullion or alloys, per sample	540.00
d.	Fineness determination for silver, in bullion or alloys, per sample	360.00
e.	Fineness determination for gold and silver in bullion or alloys per sample	660.00
f.	Certification of weight of gold Or silver bullions	90.00

5.1.2 Wet Assays (Per element submit

	at least one (1) kilo sample		
	a. Aluminum		110.00
	b. Antimony		120.00
	c. Barium		120.00
	d. Bismuth		120.00
	e. Calcium		110.00
	f. Available Line		120.00
	g. Chlorine (as C1-)		120.00
	h. Chromium		450.00
	i. Cobalt		120.00
	j. Copper		110.00
	k. Iron (Total)		110.00
	l. Iron (Metallic, Fe°)		150.00
	m. Iron (Ferrous, Fe++)		150.00
	n. Iron (Ferric, Fe+++)		250.00
	o. Lead		120.00
	p. Magnesium		110.00
	q. Manganese		110.00
	r. Molybdenum		120.00
	s. Nickel		110.00
	t. Phosphorous		120.00
	$P_2 O_5$, water soluble		120.00
	$P_2 O_5$, Citrate soluble	120.00	
	u. Potassium		100.00 (AA)
	v. Silica		120.00
	Free Silica		120.00
	Insolubles		80.00
	w. Sodium		100.00 (AA)
	x. Sulfur		110.00
	y. Tin		120.00
	z. Titanium		110.00
	aa. Zinc		110.00
5.1.3	Specify Gravity		
	a. True		80.00
	b. Apparent		50.00
	c. Bulk Density		50.00
5.1.4	Moisture, oven dried (105°)		60.00
5.1.5	Moisture, as received only	100.00	

5.1.6	Combined H_2O	90.00
5.1.7	Loss on Ignition	60.00
5.1.8	Determination by Atomic Absorption Spectrophotometry and Flame Photometry of copper, iron, lead, manganese, sodium, potassium, zinc, per element	100.00
5.2	Metallurgical Tests on Ores, Minerals, Mill or Industrial Plant By-Products, etc. (Note: A maximum of fifty (50) kilograms may be accepted for testing)	
5.2.1	Sample Preparation	
	a. Crushing	
	a.1 First 5-kg sample	120.00
	a.2 For each additional 1 kg	10.00
	b. Grinding	
	b.1 First 5-kg. Sample	180.00
	b.2 For each additional 1 kg	15.00
5.2.2	Particle Size Determination (using sieves)	
	a. Dry sample, coarse (coarser than 100-mesh) per fraction, per kilo	25.00
	b. Dry sample, fine (150-mesh to 400 mesh) per fraction, per kilo	40.00
	c. Wet sample, coarse (coarser than 100 mesh) per fraction, per kilo	35.00
	d. Wet sample, fine (150 to 400 mesh) per fraction, per kilo	50.00
5.2.3	Classification Test:	
	a. Air Classification, per test	145.00
	b. Hydroclassification, per test	205.00
	c. Sedimentation/Elutriation/ Scrubbing, per test	80.00
	d. Sedimentation/Elutriation/ Scrubbing, per test (with the use of chemicals)	100.00
5.2.4	Gravity Concentration Test	
	a. Heavy Media Separation, per specific Gravity, per test	220.00
	b. Jigging, per test	205.00

	c. Tabling, per test	205.00
5.2.5	Flotation	
	a. Bulk Flotation, per test	240.00
	b. Differential Flotation, per test	420.00
5.2.6	Magnetic Separation	
	a. Dry, per test	120.00
	b. Wet, per test	180.00
5.2.7	Leaching	
	a. Cyanidation, per test	840.00
	b. Percolation Leaching, per test	540.00
	c. Acid Curing/Agitation Leaching per test	360.00
	d. Leaching-Precipitation-Flotation, per test	720.00
5.2.8	Amalgamation, per test	540.00
5.2.9	Calcination	
	a. up to 800°C,	
	- one sample only	360.00
	- 2 or more samples, per sample	300.00
	b. up to 1050°C	
	- one sample only	420.00
	- 2 or more samples, per sample	360.00
5.2.10	Roasting/Sintering	
	a. Using Electric Furnace (batch),	
	- one sample only	360.00
	- 2 or more samples, per sample	300.00
	b. Using Small Rotary Kiln (continuous), per test	480.00
5.2.11	Chiddy Method (Sponge), per test	480.00
5.2.12	Smelting, per test	840.00
5.2.13	Pelletizing	
	a. Using Pelletizing Drum (batch), per test	180.00
	b. Using Pelletizing Disc (continuous), per test	300.00
5.2.14	Work Grindability Index 1,080.00	
5.2.15	Swelling Test (Bentonite)	50.00
5.2.16	Oil Bleaching	60.00

5.2.17	Acid/Sodium Activation	260.00
5.2.18	Cation Exchange Capacity	145.00
5.2.19	Settling Rate	50.00
5.2.20	Recovery of Chrysotile Asbestos, per kg.	420.00

(Note: The MGB is also accepting samples for pilot testing on flotation, classification, roasting & magnetic separation (dry). Charges will be estimated for each case and job performed on contractual basis.)

5.3 Analysis of Water

5.3.1	pH	50.00
5.3.2	Dissolved Oxygen	50.00
5.3.3	Bicarbonate	90.00
5.3.4	Carbonate	90.00
5.3.5	Total Solids	60.00
5.3.6	Total suspended solids	60.00
5.3.7	Total dissolved solids	60.00
5.3.8	Total acidity	90.00
5.3.9	Total alkalinity	90.00
5.3.10	Total hardness	90.00
5.3.11	Sulfate	90.00
5.3.12	Chloride	120.00
5.3.13	Silica	90.00
5.3.14	Iron	100.00
5.3.15	Lime	90.00
5.3.16	Magnesia	90.00
5.3.17	Sodium	90.00
5.3.18	Potassium	90.00

6.0 MARINE GEOPHYSICAL AND GEOLOGICAL INVESTIGATION AND VERIFICATION

6.1 Marine Geophysical Survey

6.1.1	Single-Channel seismic reflection, per km	3,250.00
6.1.2	Single-Channel seismic reflection,	

	+ echo sounder, per km.	4,200.00
6.1.3	Echo sounder, per km	1,200.00
6.1.4	Side Scan Sonar, per km	2,700.00
6.1.5	Side Scan Sonar + Echo Sounder, per km	3,700.00
6.1.6	Survey Vessel (RPS Explorer)	
	a. Mobilization/demobilization, Per day	76,000.00
	b. Actual survey, per day	36,000.00
6.2	Marine Geological Survey	
6.2.1	Piston Coring, per sample	1,600.00
6.2.2	Grab Sampling, per sample	800.00

(Note: Cost of Survey includes use of positioning instrument (GPS), but excluding cost of fuel)

6.3 For Geophysical Services

		Man/Day Rate	Total Daily Rate
6.3.1	Induced Polarization	2,500.00	17,500.00
6.3.2	Resistivity Survey	2,500.00	17,500.00
6.3.3	Self Potential		
	a. Vertical Loop	2,500.00	17,500.00
	b. Potable Soil	2,500.00	17,500.00
6.3.4	Seismic Surveys		
	a. 12-Channel (refraction)	3,200.00	22,400.00
	b. 12-Channel (reflection)	3,200.00	22,400.00
6.3.5	Magnetics		
	a. Precision Type	2,300.00	16,100.00
	b. Fluxgate	2,500.00	17,500.00

(In addition to the charges under item 6.3.1, the applicant or interested party shall pay for transportation of Bureau personnel from official station tot he area and return as well as the expenses for freight, labor, materials and analysis of the samples.)

6.4	Field verification of survey area for mining contract/dredging, Engineering geological & geohazard scoping, geological assessment, investigation of conflicts, renewal or extension of tax exempt, inspection of stockpile, inspection of seabed quarrying/ dredging/offshore mining operations	1,500.00/man/day provided that the minimum charge is 12,000.00.
6.5	Evaluation of mineral/ore reserves within offshore mining claim areas or seabed quarry/borrow pit areas	2,000.00/man/day provided that the minimum charge is 10,000.00
6.6	Monitoring of environmental Conditions, mine safety and health audit, validation of environmental and socio-economic status of affected coastal/marine areas by seabed quarry/dredging/borrow pit and offshore mining operations field validation of engineering geological and geohazard report (EGGAR)	2,000.00/man/day provided that the minimum charge is 10,000.00
6.7	Geophysical/geological data Processing and data analyses	500.00/line km.
6.8	Coastal/Marine sampling involving physico-chemical and oceanographic measurements (water quality, water temperature currents, waves, bottom sediments,	

	etc.)	800.00/sampling station
6.9	Technical review and evaluation of technical reports and/or scientific documents by MGB, as requested, and the preparation of a corresponding technical evaluation report	12,000.00/review

7.0 MGB FORMS (₱5.00/page)

No. 5-1	Application for Exploration Permit
No. 5-2	Exploration Permit
No. 5-3	Outline of Project Feasibility Study
No. 5-4	Exploration Work Program
No. 6-1	Application for Mineral Agreement
No. 6-2	Three-year Work Program
No. 7-1	Application for Financial or Technical Assistance Agreement
No. 8-1	Application for Industrial Sand and Gravel (SAG)-(MGB)
No. 8-1A	Application for Industrial SAG (LGU)
No. 8-2	Industrial Sand and Gravel Permit (MGB)
No. 8-2A	Industrial Sand and Gravel Permit (LGU)
No. 8-3	Quarry or Sand and Gravel Permit Application
No. 8-3A	Commercial Permit Application
No. 8-4	Quarry or Sand and Gravel Permit
No. 8-4A	Commercial Sand and Gravel Permit
No. 8-4B	Exclusive Sand and Gravel Permit
No. 8-5	Application for Guano Permit
No. 8.6	Guano Permit
No. 8-7	Application for Gemstone Gathering Permit
No. 8-8	Gemstone Gathering Permit
No. 11-1	Mineral Processing Permit
No. 11-2	Application for Mineral Processing Permit
No. 12-1	Ore Transport Permit
No. 12-2	Sworn Statement of the Apprehending Officer
No. 12-3	Affidavit of Witness

No. 13-1 Application for Accreditation of Traders, Dealers and Retailers in the Trading of Minerals/Mineral Products and By-Products
No. 13-2 Certificate of Accreditation of Traders, Dealers and Retailers in the Trading of Minerals/Mineral Products and By-Products
No. 15-1 Permanent Safety Engineer's Permit
No. 15-2 Temporary Safety Engineer's Permit
No. 15-3 Permanent Safety Inspector's Permit
No. 15-4 Monthly Employer's Report of Accident or Sickness
No. 15-5 Monthly General Accident Report
No. 15-6 License to Possess Explosives
No. 15-7 Monthly Report of Explosives Transactions
No. 15-8 Explosives and Accessories Consumption Report
No. 16-1 Environmental Work Program (EWP)
No. 16-1A Environmental Work Program for Offshore
No. 16-2 Environmental Protection and Enhancement Program (EPEP)
No. 16-3 Annual Environmental Protection and Enhancement Program Outline (AEPEPO)
No. 18-1 Semi-Annual Report On Mine Waste and Mill Tailings
No. 18-2 Application for Compensation for Damages
No. 18-3 Field Investigations and Assessment of Claims for Damages
No. 25-1 Application for Order of Survey
No. 25-2 Order of Survey
No. 25-3 Survey Plan (21 + 17 CM)
No. 25-4 Field Notes
No. 25-5 Azimuth Computations from Astronomical Observations
No. 25-6 Topographic Survey Computations
No. 25-7 Traverse Computations
No. 25-8 Area Computations
No. 25-9 Coordinate Conversion-Geographic to Grid
No. 25-10 Coordinate Conversion-Grid to Geographic
No. 29-1 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (GOLD)
No. 29-2 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (COPPER)

No. 29-3 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (METALLURGICAL CHROMITE)

No. 29-4 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (REFRACTORY CHROMITE)

No. 29-5 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (NICKEL)

No. 29-6 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (IRON)

No. 29-7 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (MANGANESE)

No. 29-8 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (LEAD)

No. 29-9 Monthly Report on Production, Sales and Inventory of Metallic Minerals and Employment (ZINC)

No. 29-10 Quarterly Report on Production, Sales and Inventory of Non-Metallic Minerals and Employment

No. 29-11 Quarterly Report on Production, Sales and Inventory of Quarry Resources (Except Sand and Grave) and Employment

No. 29-12 Monthly Report on Production, Sales and Inventory of Industrial Sand and Gravel and Employment

No. 29-13 Monthly Report on Production, Sales and Inventory of Commercial Sand and Gravel and Employment

No. 29-14 Quarterly Report on Production, Sales and Small-Scale Metallic and Employment

No. 29-15 Quarterly Report on Production and Sales of Small-Scale Gold

No. 29-16 Integrated Annual Report

No. 29-17 Integrated Annual Report for Small-Scale Mines

No. 29-18 Quarterly Energy Consumption Report

No. 29-19 Annual Mineral Reserve/Resource Inventory Report for Mineral Agreement & FTAA

No. 29-20 Quarterly Report on Production, Sales & Inventory of SSM within Mineral Reservation

8.0 PUBLICATIONS

8.1 Technical Information Series

1-83	Production Cost: Philippine Copper Mining Firms 1975-1981	25.00	
5-79	Preliminary Report on the Ground on the Hydrogeological Survey of Ilocos Norte		25.00
17-80	Preliminary Report on the Groundwater Geology of Southern Quezon Province		32.00
19-80	Reconnaissance Geological Report Of the North-Eastern Part of Surigao Del Sur		13.00
21-80	Quarry Resources for Concrete Aggregate in Cavite Province		19.00
28-80	Report on the Regional Geological Mapping and Mineral Canvassing of Abra de Ilog Quadrangle, Occidental Mindoro		19.00
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70-86	Geology of the Exposed Ophiolite and Surrounding Rocks in Puerto Galera Mindoro		19.00
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72-86	Fuller's Earth of the Sampiro-Calatagan Prenza Area Batangas Province		25.00

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77-87	Preliminary Interpretation of RPS Explorer's Seismic Data in Bohol Sea	32.00
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79-87	Paleontology and Stratigraphy of Mabinay And Nearby Areas, Negros Oriental	32.00
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X-5-82	Geology of Malita and Mabayawa Quadrangle, Davao del Sur	38.00

8.2 UNDP (Strengthening the Government Capability In Gold Operation)

UNDP Report Number

1	Geology and Mineralization in the Panganiban Tabas and Bulala Areas, Camarines Norte	207.00
2	Geology and Hydrothermal Alteration Of the Amian-Okoy River Pamplona And Ayungon Areas, Eastern Negros	257.00
3	Geology and Mineralization in North-	

	Western Bohol		150.00
4	Geology and Gold Mineralization Of Surigao Del Norte		175.00
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8	Geology of Southwestern Panay		172.00

8.3 Technical Report

2	Geology of Northern Agusan, Mindanao		100.00
3	Stream Sediments and Soil Orientation Survey in Taysan and Asiga Prospects Philippines		63.00
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8.4 Information Circular

I.C.#			
21	Geochemical Prospecting by Determination of Gold-Extractable Copper in Stream-Silt and Soil	19.00	
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8.5 Report of Investigation

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115	Geology and Mineral Resources of Davao Del Norte	19.00
117	Geology and Groundwater Resources of Batangas	44.00

8.5 Books and Other Publication

Standard Analytical Procedures of the Bureau Of Mines and Geosciences Laboratories	157.00
Geology and Mineral Resources of the Philippines Vol 11	1,250.00
Philippine Mining Operations copper Mining Methods Mineral Investment Data (1)	69.00
Compilation of Environmental Laws and	

Regulations Pertinent to the Philippine Mining Industry	125.00
Revised Mines Safety Rules and Regulations	250.00
Mineral News Service #84	63.00
Mineral News Service #85	63.00
Proceedings of the Annual Mines and Geosciences Technical Seminar	125.00
Implementing Rules and Regulations of RA 7942	250.00
Mineral Gazette	5.00/pg

All existing orders, rules and regulations, memorandum circulars directives or part thereof, contrary or inconsistent with the provisions of this Administrative Order, are hereby repealed, amended and/or modified accordingly.

This Order shall take effect fifteen (15) days after its complete publication in a newspaper of general circulation and fifteen (15) days after registration with the Office of the National Administrative Register.

(Sgd.) ANTONIO H. CERILLES
Secretary

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