

THE REPUBLIC OF UGANDA

- Government of Uganda encourages private sector investment. There are various incentives such as favourable legal and fiscal regimes, Political and Economic Stability across the country, externalisation of funds, unlimited access to technical information, among others.
- Uganda is richly endowed with mineral resources. Government intends to develop these resources in partnership with the
- private sector in a sustainable manner
- You arewelcome to invest in Uganda. There are high returns on investment.

# **Key Government Contacts**

#### Hon. Eng. Irene Muloni

Minister of Energy and Mineral Development P.O. Box 7270, Kampala, Uganda Tel: +256-414-233331 +256-414-344414 Fax: +256-414-234732 Email: memd@energy.go.ug Website: www.energyandminerals.go.ug

#### Hon. Peter T. Lokeris Minister of State for Mineral Development P.O. Box 7270, Kampala, Uganda Tel: +256-414-232589 +256-414-343508 Fax: +256-414-234732 Website: www.energyandminerals.go.ug

#### Dr. Stephen R. Isabalijja

Permanent Secretary Ministry of Energy and Mineral Development P.O. Box 7270, Kampala, Uganda Tel: +256-414-234733 Fax: +256-414-234732 Email: memd@energy.go.ug Website: www.energyandminerals.go.ug

#### Mr. Edwards Katto

Director Directorate ofGeological Survey and Mines Plot 21-29 Johnstone Road P.O. Box 9, Entebbe, Uganda Tel: +256-414-323432 +256-414-320559 Fax: +256-414-320364 Email: dgsm@energy.go.ug Website: www.uganda-mining.go.ug



# MINISTRY OF ENERGY AND MINERAL DEVELOPMENT

DIRECTORATE OF GEOLOGICAL SURVEY AND MINES

# Investment opportunities in Uganda's mineral sector

#### Highlights Of Uganda's Mineral Sector

Recently acquired high resolution geophysical, geochemical and geological data;
identified new mineral occurences;
review of mineral policies and regulation;
incentives on mineral investment;
liberalized economy;
security of tenure;

*infrastructure development to support mineral investment* 



Surface Area

Area 241,038 km<sup>2</sup> Land: 197,100Km<sup>2</sup> Water: 43,938Km<sup>2</sup>

Population

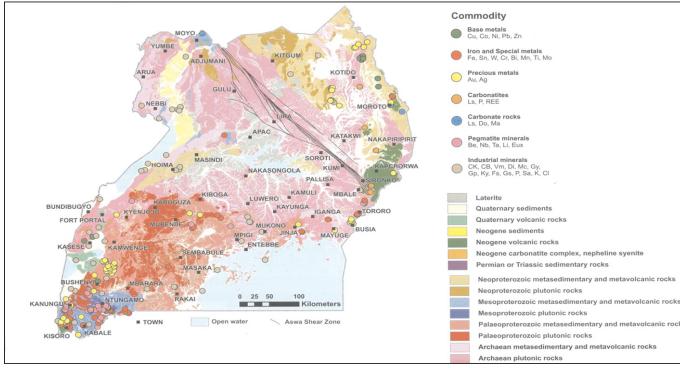
36 millions

of work force.

**Exports** 

Coffee, tea, fish, flowers and various mineral commodities.

# **OVERVIEW OF GEOLOGICAL POTENTIAL OF UGANDA**



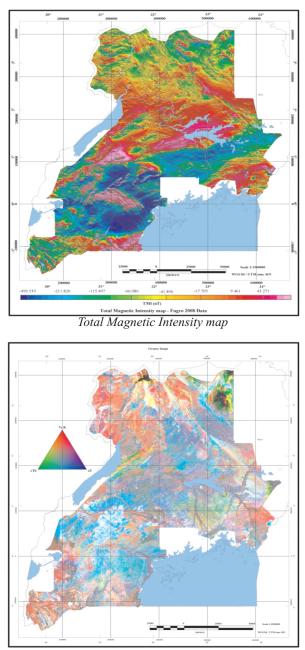
- Old rocks up to 3,100 million years;
- 75% Precambrian rocks ranging from Archean (>2,500Ma), Lower Proterozoic to Middle Proterozoic (2,500-1,000Ma);
- Favourable geology for discovery of world class mineral deposits;
- Long history of mining.

#### Varieties of Mineral Commodities in Uganda

- Metallic mineral resources: Beryllium, Bismuth, Copper, Cobalt, Columbite-Tantalite (Coltan), Gold, Iron, Lead, Lithium, Manganese, Platinum Group of Metals (PGM), Rare Earth Elements (REE), Tin, Uranium and Zinc
- Industrial minerals: Bentonite, Clay, Diatomite, Dimension Stones, Feldspar, Glass sands, Graphite, Gypsum, Kaolin, Kyanite, Marble /limestone, Mica, Phosphate (Apatite), Pozzolana, Salt (rock salt, halite), Talc and Vermiculite
- **Gemstones:** Apatite, Beryl emerald, aquamarine, heliodor, morganite, Corundum (Ruby, blue sapphire), Fluorite, Garnet, Opal, Quartz (amethyst, rose), Topaz, Tourmaline and Zircon

### **Airborne Geophysical Data**

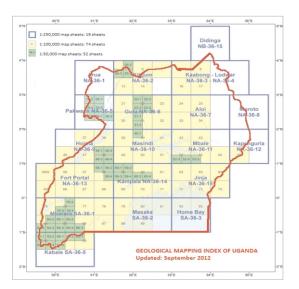
High resolution Airborne geophysical data covering 80% of the country was acquired. A 200m line spacing and 80m terrain clearance was used

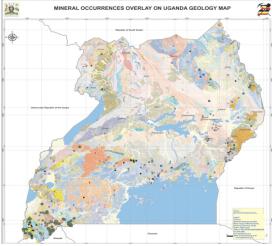


#### **Geological Data**

Uganda has generated geological maps with new mineral potential zones at scales: 1:250000 19 Sheets), 1:100000 (74 Sheets) & 1:50000 (52 Sheets)

Maps can either availed at the department or can be accessed through a Geological and Mineral Information System portal at <u>www.uganda-mining-go.ug:81/ugandaGMIS</u>

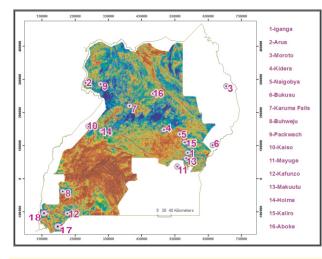




Ternary Image

#### New mineral potential targets

**18** new mineral potential targets generated from recently acquired geological data.



- 1. Iganga gabbro intrusion Nickel PGE
- 2. Zeu (Zombo District)- Gold
- 3. Moroto area -Chromite-PGE-Marble-gold
- 4. Kidera (southeast Uganda) Kimberlite Potential
- **5. Naigobya Geophysical Anomaly Ni, Cr, Cu, Co and REE**
- 6. Bukusu carbonatite Limestone, Phosphate, Iron ore, Titanium,Vermiculite and REE potential
- 7. Masindi-Karuma Falls area Ni,Cr,PGE, Fe
- 8. Kitaka–Buhweju Area Gold
- 9. Packwach area -Diatomite
- 10. Kaiso-Tonya-Kaolin-Bentonite- clays
- 11. Mayuge area- Iron
- 12. Kafunzo area -Nickel
- 13. Makuutu area REE & and Uranium
- 14. Hoima-Kafu area Gold
- 15. Kaliro-Ivukula area Gold
- 16. Aboke-Alo area Gold
- 17. Buhara- Kabale Iron
- 18. Butogota Kanungu Iron

#### Review Of Legal And Regulatory Framework

- The current mineral policy, legal and regulatory framework put in place during 2001 to 2004 is being reviewed to cope up with the new trends and emerging challenges the mining industry is facing today including:
- Promoting the competitiveness of Uganda's mining industry;
- Optimizing linkages into the local economy;
- Artisanal and Small Scale Mining;
- Promoting regional trade and integration;
- Local content;
- Value addition;
- Regulation the commercial exploitation of building materials; and
- Environmental Management and social issues.

#### **Current Licensing Regime**

LICENCE	LICENCE PURPOSE		REMARKS
Prospecting Licence (PL)	To prospect for minerals around the country.	1 year	Non-exclusive & not renewable.
Exploration Licence (EL)	To explore for minerals in an area not more than 500km².	3 years	Renewable two (2) terms of two 2 years each and half area relinquished on each renewal.
Retention Licence (RL)	Licence mineral deposit can not be		Renewable once for 2 years.

#### **Current Licensing Regime Continued**

LICENSE	PURPOSE	PERIOD	REMARKS
Mining Lease (ML)	For mining operations.	21 years	Should not exceed area of Exploration Licence and is renewable for 15 years.
Location Licence (LL)	For mining operations of a smaller investment where expenditure to achieve production will not exceed 50 currency points (1cp = UGX 20,000 = GBP 4.7)	2 years	Granted to citizens of Uganda or in case of corporate, citizen of Uganda holds ≥50% of ownership. Renewable for terms of 2 years each.

#### Fiscal & Macro-economic Framework

- Uganda has put in place an Investment Authority and this provides services to investors, and facilitates process of permits, and licenses.
- Mineral Exploration expenditures are expensed 100%.
- Import taxes such as customs duty for all mining equipment is zero-rated.
- Enabling environment for private investment as there is externalization of dividends and profits.
- Uganda is among top 15 Foreign Direct Investment (FDI) recipients in Africa.

#### **Categories of Mineral Commodities**

#### **Precious Metals**

- Investment is required to evaluate more reserves and establish mechanized mining and processing of gold and other precious metals in Uganda.
- Refinery with a capacity of 200 kgs of gold per day already set up to buy and process gold sourced from the region.







#### **Base Metals**

- Investment is required to evaluate more reserves and establish mechanized mining of tin, tantalum and tungsten in Uganda.
- African Panther Resources Ltd has set up a Tin concentrating plant and the old Kilembe Copper Mine is being rehabilitated.
- High grade copper and zinc anomalies are found in Bobong in Kotido; Nickel anomalies in Kitgum and Chromite in Nakiloro, Moroto District.





African Panther

Kilembe mines

#### **Iron Ore Resources**

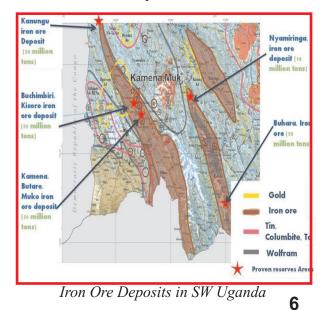
- High quality hematite deposits of up to 98% Fe<sub>2</sub>O<sub>3</sub> occur at Muko in Kabale- Heamatite (est. 50 M tonnes), Additional deposits occur at Kanungu (est. 55 M tons), Mugabuzi Iron ore in Mbarara (2 M tonnes) and Namugongo-Nambogwe Peninsulas, near Jinja (>2 Mt at 62 73% Fe).
- In eastern Uganda, iron ore is found at Sukulu (88 Mt at 62% Fe) and Bukusu (23 Mt at 62% Fe) in Tororo and Mbale districts respectively. Other iron ore occurrences have been recorded in Metu in Moyo, Toror in Kotido, Nyaituma in Masindi, Murambo, Hamurwa in Kabale and laterite deposits assaying >30% Fe<sub>2</sub>O<sub>3</sub> and > 20% Al<sub>2</sub>O<sub>3</sub> abound in Uganda



Iron ore artisanal miners



Iron ore stock piled at the road side



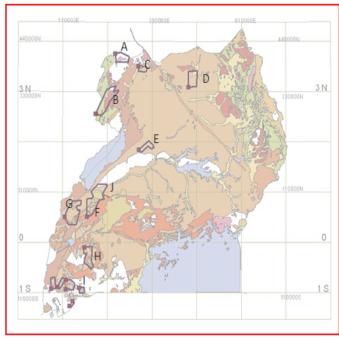
#### Rare Earth Elements (REE), potential are:

- Carbonatite centres in Eastern Uganda (Sukulu, Butiriku, Bukusu, Napak) with resource of 73.6 million tonnes and grade of 0.32% La<sub>2</sub>O<sub>5</sub> at Sukulu
- Aluminous clays that are enriched in scandium, Gallium, Yttrium and REE in Makuutu area estimated at three (3) billion tonnes With grades of 23% REE and 27% Alumina.

Investment opportunity: Further evaluation of the potential and establishment of mechanized mining and processing of the resource.

### Uranium

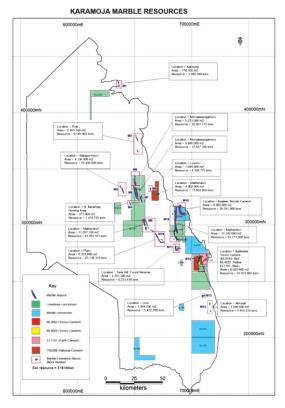
Over thirty (30) Uranium targets identified, of which ten (10) uranium potential targets are priority for follow up;



Map of identified Uranium Targets

- A. Kei and Midigo-Kaya Basin, Arua district.
- B. Acha-Alo basin-Pakwach district.
- C. Zipia, Bibia, Pekelle -Ayugi Basin-Adjumani
- D. Naam-Okora, Ogli and Wol (Pager-Agago-Ogel Basin)-Kitgum district.
- E. Karongo-Waki Basin- Masindi
- F. Bulyango, Kigozi-Kiizi Basin-Kabarole district.
- G. Mpanga-Kahambu Basin Kyatwa (Ndale) -Mpaga Basin, Kyakutama- Basin-Kabarole district.
- H. Rubindi, Kashongi -Nyabishekye Basin, Mirama Kababo Basin Mbarara distrtict.
- I. Kinyasano, Nyakibale, Kagamba, Ntugamo, Rubare, Gayaza, Kahirimbi- Mbarara district.
- J. Mabale, Kagadi, Isunga, Pachwa, Kabwoya-Hoima district.

#### Industrial Minerals Marble



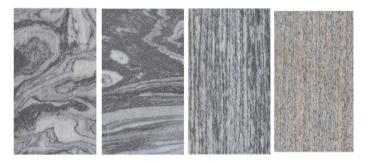
- Extensive marble deposits occur in Karamoja Region, NE Uganda;
- Up to 300 Million tons of resource estimated
- Beautiful marble tiles being produced already.



Dao Marble products

#### **Dimension stones**

- Marble occurs in Karamoja Region
- Granite, granite gneiss, amphibolites, dolerite, gabbro underlie the geology of Uganda and outcrops are numerous.



Polished granite varieties

Investment Opportunity: The numerous marble and granitoid deposits present an investment opportunity with less risk since they are openly outcropping across the country. They can be processed into dimension stone and aggregate among other uses.

#### **Glass sand**

 High quality glass sand is found in Lwera, Diimu and Bukakata in Masaka District; Nalumuli Bay and Nyimu Bay and Kome Island in Mukono District (The highest quality 99.95% SiO<sub>2</sub>)

#### Vermiculite

 Work class quality deposit of vermiculite occur in Bukusu Carbonatite Complex. (Namekhara, Nakhupa, Surumbusa, Kabatola and Sikusi) in Manafwa District. 54.9 million tonnes occurs at Namekhara alone.

#### Rock salt

- Salt occurs in Kibiro in Hoima District; Katwe and Kasenyi in Kasese District. 22 Million tonnes of trona occurs at Katwe.
- Proposals for a chloro-alkali industry are being explored.



Current status of operations at Katwe

# ACTIVE EXPLORATION, MINING AND MINERAL PROCESSING PROJECTS IN UGANDA

# A MINERAL PROCESSING COMPANIES

# 1. African Gold Refinery

- Uganda hosts a regional gold refinery with total Investment of 15 M US \$.
- □ AGR Refinery is to serve as a regional hub responsibly sourcing for gold .
- □ The facility is strategically located near Entebbe Airport.
- It processes gold and other precious metals (such as silver and platinum) with a production capacity of 200 Kg each day in a double shift.
- □ The Refined Products include;
  - ➢Gold Bars (Purity 99.9%),
  - ➤Small Minted Bars and
  - ➤Granulates.



GOLD

- □ The second phase will include;
  - ≻Jewelry Unit

#### ≻A commercial laboratory





# B MINING PROJECTS

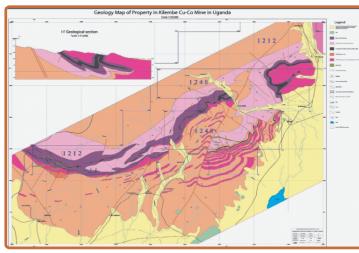
#### 1. Sukulu Phosphate & Steel Project

- The government of Uganda licensed the Sukulu Phosphate and Iron Ore prospect to M/S Guangzhou Dong Song Energy Group Company Ltd of Guangzhou Province of China.
- ❑ The prospect's confirmed reserves are;
   ➢ 62.45 MT of Phosphates (apatite) at an average grade of 11.31% P2O5;
  - ➢ 61.77 MT of Iron ore at 30.12%,
  - ▶ 429,800 T of Niobium pentoxide (Nb2O5)
     ▶ 890,600 T of REEs.
- Currently under construction, the polymetallic prospect annually anticipates to produce :
  - ➢ 300,000 tonnes of fertilisers;
  - ➢ 300,000 tonnes of steel products;
  - ➢ 200,000 tonnes of sulphuric acid;
  - ➢ 300,000 tonnes of gypsum;
  - 100,000 tonnes of rare earth minerals; and
     40,000 tonnes of Niobium.
- In addition, the company will utilize the released heat to boil water into steam that will turn turbines and generate electric power.



# 2. Kilembe Copper Mine

- The government of Uganda signed a concession agreement with M/S Tibet Hima Mining Company Ltd (THMCOL) to refurbish the Kilembe Copper mine.
- THMCOL completed and tested the rehabilitated Mill/ Concentrator Plant (Phase one); installed a high capacity ball mill, a classifier, a complete Floatation unit for copper and Cobalt and Can now process copper concentrate to 25-31% and Pyrite concentrate to 3% as opposed to 1.4% previously produced by Kilembe Mines.
- During the testing and machinery installation phase, THMCOL has so far Produced more than 30,000 tons of copper concentrate ready for smelting or export.
- Company acquired four rigs to continue exploration and add to the known copper reserves which currently stand at 4.5 MT.
- THMCOL is carrying out studies for the establishment of a copper smelter.



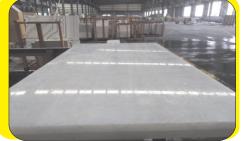




# 3. Dao Marble Ltd

- The government of Uganda granted a mining lease to M/S Dao Marble to add value to marble resources. Current reserves within the lease stand at 27 MT.
- The operation is a totally integrated plant for processing marble blocks, polishing them and producing:
  - A- Slabs (1 Gangsaw (40% slabs) 4000 meters per month). Phase 2 & 3 will see additional 3 Gang saws installed.
  - B- Tiles (1 Gangsaw (60% tiles) 6000 meters per month). Phase 2& 3 will see 3 additional Gang saw's producing tiles.
  - C- Calcium carbonate powder (4000 tons per year ).
- The project investment is worth USD 8 million







#### 4. African Panther Resources Ltd

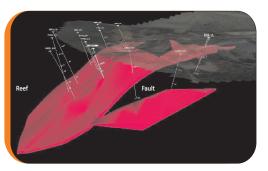
- \* M/s African Panther Resources Ltd was granted a mining lease to mine cassiterite (tin).
- \* The company has completed the assessment of alluvial deposits at Nyarubungo, and has begun further exploration including a strategy for hard rock diamond drilling.
- \* It has also installed a plant that concentrates tin ore to more than 70% purity.



#### 5. Kisita Mining Company Ltd

- \* M/S Kisita Mining Ltd holds a mining lease to mine and process gold.
- \* Core drilling has so far established, 16, 600 tons of mineralized vein at a grade of 5.67 g/t, for a total of 3,030 ounces (at cutoff grade of 1 g/t).
- \* Tailings sampling: Grade-tonnage estimate of 99,400 t of material at a grade of 0.9 g/t for a total of 2876 onces.
- \* Additional exploration is ongoing.
- \* Construction of processing facilities ongoing.
- \* Construction of the project camp site has been completed.











#### 6. Namekara Vermiculite Mine

- M/S Namekara Mining Ltd was granted a mining lease to mine, process and export vermiculite.
- The company completed aeromagnetic survey for an estimated area of 99 square kilometers.
- It also carried out reverse circulation and core drilling, resulting into an estimated reserve of 49.9MT.
- Current production stands at 30,000 tonnes of concentrate per year (from 150,000 tonnes of raw ore). The Namekara deposit is considered a world-class vermiculite resource.







### 7. Building Majesties Ltd

- M/S Buiding Majesties Ltd is a holder of a mining lease to mine and add value to granite resources.
- Since 2011, the company processes granite into stylish construction materials at Kiganda, Mubende district.
- The company uses the latest saw technology including cutters, polishers, chamfers and profilers, as opposed to explosives.
- Products include: countertops for bars & offices, kitchen tops, pavers, staircase tiles & risers, bathroom tiles, outdoor tiles and roadside kerbs.









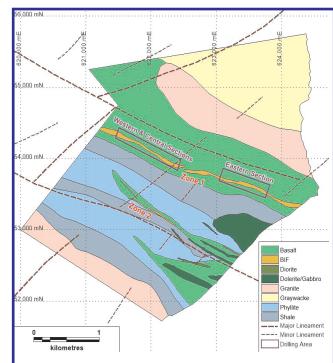
### OTHER NOTABLE MINING PROJECTS

1. Tororo Cement Ltd7. Mechanized Agro (U) Ltd (Marble)2. Hima Cement Ltd8. Zarnack Holdings (U) Ltd3. Kampala Cement Ltd9. BNT Mining Ltd (Tantalite)4. National Cement Ltd10. Greenstone Resources Ltd (Gold)5. 3T Mining Ltd (3Ts)11. Krone (U) Ltd6. Steel Rolling Mills Ltd

# c. EXPLORATION PROJECTS

#### 1. Elgon Mineral Resources (u) Ltd

- M/S Elgon Mineral Resources is exploring for gold in its Exploration license in Eastern Uganda.
- The company drilled 100 inclined holes ranging from 50-260 metres deep at a 50x50m grid.
- It established gold mineralization hosted in sheared banded iron formations (BIF) and sheared basalts. A feasibility study is ongoing.

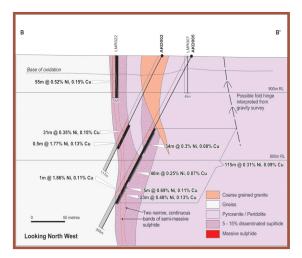






# 2. Sipa Exploration (u) Ltd

- Geological, geochemical and ground geophysical surveys revealed massive magnetic conductors.
- Drilling established nickel and other base metal anaomalies. Further appraisal of the prospect on-going.

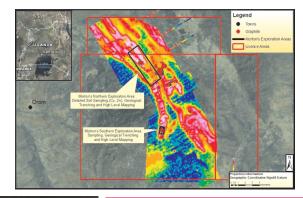


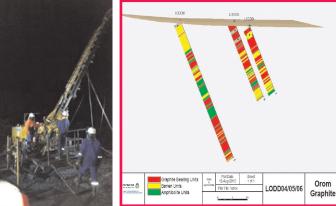


### 3. Consolidated Africa Ltd

- Trenching, pitting and drilling confirmed 400MT of potentially mineralised material (graphite).
- Airborne geophysical survey anomalies reveal sub-surface continuation of graphitic layers. Further appraisal on-going.

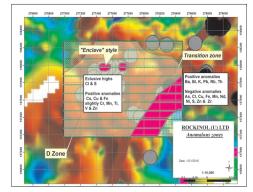


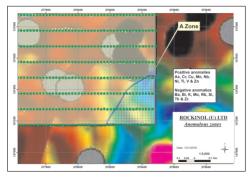




## 4. Rockinol (u) Ltd

- Geochemical and Geophysical surveys have revealed anomalies of rare earth elements in Hoima, Western Uganda.
- Elements Plots for different anomaly data sets have shown very good similarities.





#### OTHER NOTABLE EXPLORATION PROJECTS

1. Beta Minerals Ltd	9. Mwendo Enterprises Ltd
2. Pearl Mining (U) Ltd	10. Great Lakes Mining Ltd
3. AUC Mining (U) Ltd	11. Angaro Investments Ltd
4. Gemstones International Ltd	12. Optima Mines and Minerals Ltd
5. Milu (U) Ltd	13. Beta Minerals Ltd
6. Kweri Ltd	14. Sino Minerals Investment Co. Ltd
7. Berkeley Reef Ltd	15. Wood Machinery Ltd
8. Universal Granites and Marble Ltd	16. Roraima (U) Ltd

14

#	Mineral	eserves of Uganda and Status of exploration and develog Location	Status of Reserves	Nature and Progress of Action
1	Copper	<ul> <li>(a) Kilembe in Kasese District</li> <li>(b) Boboong in Kotido District;</li> <li>(c) Kitaka in Bushenyi District;</li> <li>(d) Kampono in Mbarara District</li> </ul>	<ul> <li>(i) Reserve at closure was about 6 million tonne at 1.77% Cu;</li> <li>(ii) Grade of 1.7% at Boboong; and Reserves at Kitaka and Kampono are under evaluation</li> </ul>	<ul> <li>Government signed concession agreement with a Chinese company Tibet Hima to develop the copper resources a Kilembe mines.</li> <li>Reserves at Kitaka and Kampono are under exploration.</li> </ul>
2	Cobalt	Kilembe in Kasese District	5.5 Million Tones with grade of 0.17 of cobalt	Kasese Cobalt Company Limited has been processing cobal stockpile, which is nearly exhausted.
3	Beryl	<ul> <li>(i) Kazumu in Ntungamo District</li> <li>(ii) Mutaka in Bushenyi,</li> <li>(iii) Bulema in Kanungu District</li> <li>(iv) Ishasha in Rukungiri District</li> <li>(v) Mbale Estate in Mubende</li> <li>(vi) Lunya in Mukono District</li> </ul>	Under evaluation	Under Exploration
4	Chromite <sup>1</sup>	Nakiloro in Moroto District	Under evaluation	Under Exploration
5	Gold	Districts of: Bushenyi, Mbarara, Kabale Kisoro, Rukungiri Kanungu, Busia, Mubende, Moroto, Hoima, & many streams of West Nile	<ul> <li>(i) Five (5) million ounces of gold in Mubende District by Anglo Uganda Corporation;</li> <li>(ii) One (1) million ounces of gold estimated at Mashonga;</li> <li>(iii) 500,000 ounces of gold estimated at Tiira, Busia; and</li> <li>(iv) Over 500,000 ounces estimated at Alupe in Busia.</li> <li>(v) 139,000 ounces and possible reserves of 160,000 of gold at Nakabat in Moroto District.</li> </ul>	Mining Leases Granted to: 1. M/s Greenstone resources at (Tiira, Busia District) 2. M/s Anglo Uganda Corporation (AUC Mining, Mubende District) 3. M/s Kisita Co. Mining (Mubende District) and 4. M/s Jan Mangal (U) Limited in Moroto District
7	Iron Ore	<ul> <li>(i) Districts of: Muko, Kabale, Kisoro, Mbarara, &amp; Hoima Tororo (Magnetite in Bukusu and: Sukulu). Moroto (Napak) &amp; Kotido (Toror)</li> <li>(ii) Recent discoveries are in Bufumbira County, Kisoro, Nangara, Karukara, Buhara in Kabale District. Butogota in Kanungu District &amp; Kateera in Mityana.</li> </ul>	<ul> <li>(i) 50 Mt at Muko, Kabale</li> <li>(ii) 2 Mt in Mugabuzi, Mbarara</li> <li>(iii) 23 Mt at Bukusu and 88 Mt at Sukuku; Tororo District</li> <li>(iv) 48 Mt at Buhara in Kabale District (new discovery)</li> <li>(v) 55 Mt at Butogota in Kanungu District (new discovery)</li> <li>(vi) 8 million tonnes in Bufumbira, Kisoro (new discovery)</li> </ul>	Five (5) Mining Leases, granted for development of iron or resources (Presidential Embargo on raw material export exists): 1. Great Lakes Iron & Steel Company Limited, 2. Kigezi Steel Company Limited, Uganda 3. Uganda International Mining Company Limited 4. Sino Minerals Investment Company Limited 5. Guangzhou Dong Song Energy Group Co. Ltd
9	Lead	Kamwenge District (Kampono, Kanyambogo and Kitaka in Kitomi Forest), Isingiro district (Kikagati)	Under Evaluation	Under Exploration
10	Lithium	Ruhama in Kibale District; Mwerasandu, Rwamwire and Nyabushenyi in Ntungamo District; Lunya in Mukono District; Nampeyo and Mbale Estate in Mubende District.	Under Evaluation	Pegmatite deposits suitable for small scale mining
11	Columbite Tantalite <sup>2</sup>	<ul> <li>(i) Ntungamo District: Bushenyi District; Kanungu District; Kisoro district and Lunya in Mukono District.</li> <li>(ii) Sukulu in Tororo District, Bukusu Complex in Mbale District; Napak in Moroto District and Toror in Kotido District.</li> </ul>	<ul> <li>(i) 130 million tons of Niobium at Sukulu.</li> <li>(ii) 3.5 millions tons of columbite- tantalite estimated at Kagango in Ntungamo district.</li> </ul>	The Sukulu phosphate deposit is potentially the most importan source of Niobium.
13	Tin	Mwerasandu, Kaina, Nyinamaherere in Ntungamo District; Kikagati in Isingiro District, Ndaniyankoko, Kitezo in Mbarara District, Burama Ridge on the Kabale' Ntungamo border, Rwaminyinya in Kisoro	1.0 million tons at 2.5% tin estimated in Ntungamo and 2.5 million in Isingiro by First Mining Company Limited	Under-developed. Two mining leases: (i) Zarnack holdings; and
14	Titanium	District. Bukusu Complex in Manafwa District (22% TiO <sub>2</sub> ) and Sukulu in Tororo District (13% TiO <sub>2</sub> ).	Grade of titanium is 22% TiO <sub>2</sub> and (13% TiO <sub>2</sub> in Bukusu and Sukulu	(ii) First Mining company Limited Undeveloped
15	Tungsten	Nyamuliro (Bjordal Mine) and Ruhija in Kabale District; Kirwa, Mutolere, Rwamanyinya and Bahati in Kisoro district; Kyasampawo in Mubende District and Buyaga in Rakai District	<ul> <li>respectively.</li> <li>(a) Kirwa wolfram resources are at 801,300 metric tonnes with average grade of 68.67% WO<sub>3</sub>.</li> <li>(b) One (1) million tones and possible reserves of 355 million tones at Nyamuliro with ore grade at 0.1%</li> </ul>	Three (3) Mining leases granted: 1.Krone Uganda Limited; 2.Berkeley Reef Limited; and 3. Sino Minerals investments.
16	Silver	Silver occurs in association with galena at Kitaka in Kamwenge District and Mubende granite in Mubende District	Under evaluation	Under Exploration
17	Zinc	Zinc occurs with galena at Kitaka in Kamwenge District	Under Evaluation	Under Exploration
18	Rare Earth Elements (REE)	<ul> <li>(i) Isolated pegmatites in SW Uganda,</li> <li>(ii) Carbonatite centres in Fastern Uganda (Sukulu, Buttriku, Bukusu, Napak)</li> <li>(iii) Makuutu- Buwaaya area, Eastern Uganda.</li> </ul>	<ul> <li>(a) 73.6 million tonnes of Rare Earth Elements estimated at Sukulu with grade of 0.32% La2O5</li> <li>(b) Aluminous clays that are enriched in scandium, Gallium, Yttrium and REE in Makuutu area estimated at three (3) billion tonnes</li> <li>(c) With grades of 23% REE and 27% Alumina.</li> </ul>	Largely Unexplored Mining Lease granted to M/S Guangzhou Dong Song Energy Group Co. Ltd.

Ħ	Mineral	Location	Status of Reserves	Nature and Progress of Action
19	Limestone/ Marble	<ul> <li>(i) Muhokya in Kasese District and Dura in Kamwenge District, and Hima in Kasese District.</li> <li>(ii)Sukulu and Tororo in Tororo District; Napak and Katikekile in Moroto District and Toror in Kotido District; Moyo Districts.</li> </ul>	<ul> <li>(a) 14.5 million tonnes at Hima, Kasese and</li> <li>(b) 11.6 million tonnes at Dura, Kamwenge</li> <li>(c) Over 300 million tonnes of marble in Karamoja region</li> </ul>	Production on large scale in Kasese, Tororo and Moroto Districts
20	Phosphates	Sukulu in Tororo District and Bukusu in Mbale District, Lolekek in Napak	<ul> <li>(a)230 million tonnes at Sukulu with grade of 13.1% p205;</li> <li>(b)50 million tonnes at Bukusu with grade of 12.8% p205</li> </ul>	<ul> <li>Investment in fertilizer manufacturing plant viable;</li> <li>Apatite with magnetite, vermiculite, pyrochlore, barite, zircon, uranium, titanium, Niobium and rare earth elements.)</li> </ul>
21	Vermiculite	Sukulu in Tororo District and Bukusu Carbonatite Complex (Namekhara, Nakhupa, Surumbusa, Kabatola and Sikusi) in Mbale District	54.9 million tonnes at Namekhara	<ul> <li>Mine developed at Namekhara</li> <li>Investment in fertilizer manufacturing plant viable</li> </ul>
22	Kaolin	Namasera, Migadde and Buwambo in Wakiso district; Mutaka in Bushenyi District, Kisai in Rakai District and Kilembe in Kasese District	<ul> <li>(a) 2.8 million tonnes at Mutaka, Bushenyi.</li> <li>(b) One (1) million tonnes at Kisai(Koki), Rakai</li> </ul>	On demand by local industrial sector
23	Gypsum	Kibuku in Ntoroko Distict, Lake Mburo in Kiruhura District and Kanyatete in Lake George basin Kasese District.	2 million tons in Kibuku	Available market
24	Salt	Kibiro in Hoima District; Katwe and Kasenyi in Kasese	22 Million tonnes of trona at Katwe	Mined for animal and human consumption locally.
05	E 11	District	and Kasenyi, Kasese District	Industrial production opportunities available
25	Feldspar	Bulema in Kanungu District; Bugangari in Rukungiri District; Mutaka in Bushenyi District; Nyabakweri in Ntungamo District and Lunya in Mukono District.	Under evaluation	Development and investment in downstream industries viable
26	Glass sand	Diimu and Bukakata in Masaka District; Lwera in Masaka District, Nalumuli Bay, Nyimu Bay and Kome Island in Mukono District	The highest quality 99.95% SiO <sub>2</sub> at Kome islands, 2 Mt at Dimu and Bukakata (99.93% SiO <sub>2</sub> )	Viable investment
27	Kyanite	Kyanite occurs at Ihunga and Kamirambuzi hills in Rukungiri district; new prospect around Murchison Falls	Under Evaluation	Not yet explored
28	Diatomite	Panyango, Alui, Atar and Amboso River near Packwach in Nebbi District	Under evaluation	Undeveloped
29	Dimension stones	<ul> <li>(i) Marble occurs in Karamoja Regio</li> <li>(ii)Granite in various colours and textures occur in various parts of the country.</li> </ul>	Over 300 million tonnes of marble in Karamoja (Rupa, Kosiroi, Tank Hill, Forest Reserve, Matheniko, Pule and Lolung)	<ul> <li>Tiles in Uganda are 100% imported.</li> <li>A Mining Lease granted to Building Majesties (u) Limited (BML) to process granites in Mubende into dimension stone</li> </ul>
30	Clays, aggregates and hard cores	Various parts of the country	-	Stable demand, viable investment
31	Others potential minerals	<ul> <li>(i) Nickel at Kafunzo in Ntungamo District; Rugaga in Isingiro District.</li> <li>(ii)Platinum Group of Metals_at Nakiloro in Moroto District, Bweyale in Kiryandongo District</li> <li>(iii) Diamond potential in Kibaale, Butare in Buhweju District, areas around Lake Kyoga, indicator minerals occur in Katakwi and Karamoja</li> </ul>	Unknown	Further exploration and development being undertaken
32	Graphite	(i) Rom Subcounty in Kitgum District	400 MT of graphite estimated in Rom.	Further exploration being undertaken.