

# Corporate Presentation

August 2021

*Developing Polymetallic Mines on the Korean peninsula*



# Why South Korea ?



## Strategic Location – North Asia Region



- ❖ Proximity to Major Markets
- ❖ Global Leader in Technology & Innovation
- ❖ Modern Liberal Democracy
- ❖ Legal System - based on European Civil Law & US System
- ❖ OECD country & G12 Group member
- ❖ Developed, High-Income Country with Skilled workforce
- ❖ GDP per Capita – US\$32,000
- ❖ Free Trade Agreements – Australia, Canada & USA
- ❖ Low Sovereign Risk (*Veririsk Maplecroft, 2019*)
- ❖ Low Credit Risk – Ranked AA (*Standard & Poors, 2019*)
- ❖ Low Business Risk – Ranked 5<sup>th</sup> (*World Bank, 2018*)

### Taxation Regime:

- Corporate Tax Rate - Progressive from 10-22%
- No Royalties on Minerals
- VAT 10%
- Losses carried forward for up to 10 years
- Depreciation of Assets (based on Useful Life)

### Foreign Investment Promotion Act (“FIPA”)

- First 3-5 Years of Income is Tax Free
- Next 2 Years is 50% Exempt
- Tax Credits on Job Creation
- Guaranteed Repatriation of approved Capital



# Management Team



*Exploring in Korea as a Team for 26 years since 1995*



**Christopher Sennitt** *MSc Economic Geology, BSc Applied Geology, FAIG, SEG*

- **38 years experience in Multi-Commodity Mineral Exploration & Mining throughout Asia & Australia**
- **Senior Corporate Management Roles:** *Indochina Goldfields, Oriental Minerals, Silk Road Resources, Metallica Minerals*
- **Specialist Project Generator & Vendor:**
  - *Lamboo Resources, Stonehenge Metals, International Gold/Southern Gold*
  - *Wandoo Gold, Mantle Mining, Calcifer Industrial Minerals*
- **Track Record of Definition of Major Mineral Resources in Korea:**
  - *Geumam graphite 5.5Mt @ 5.4% Cg; Sangdong W-Mo 61Mt @ 0.46% WO<sub>3</sub>; Chubu U-V 46.8Mt @ 0.034% U<sub>3</sub>O<sub>8</sub> & 0.3% V<sub>2</sub>O<sub>5</sub>*
- **Track Record of Mineral Discoveries:**
  - Queensland: Mt Dromedary graphite 9.1Mt @ 12.5% Cg, Lighthouse 0.7Mt Hi-Purity Quartz* **China:** *Bulagou Au-Ag*
  - Indonesia: Seruyung 3.9Mt @ 2.8g/t Au (currently being mined), Lerokis 5.1Mt @ 4.2g/t Au, 125g/t Ag, 50% Ba (mined 1990-98)*



**Kim Wan Joong** *BSc Geology, KGS*

- **26 years experience in Mineral Exploration, Company Management & Deal Negotiation in Korea**
- **Country Manager, Representative Director & Geologist Roles:**
  - *Oriental Minerals, Stonehenge Metals, Lamboo Resources, Indochina Goldfields*
- **Comprehensive knowledge of Korean Mining Act, Govt Regulations & Processes (inc “Permit to Mine”)**
- **Track Record in Mineral Discoveries, Development & Mine Permitting in Korea:**
  - *Geumam graphite; Sangdong W-Mo-Bi (under development); Chubu U-V; Gasado Au-Ag & Eunsan-Moisan Au-Ag (mined)*



# Polymetallic Mine Strategy



*Mining Rights owned 100% via Korean subsidiary*

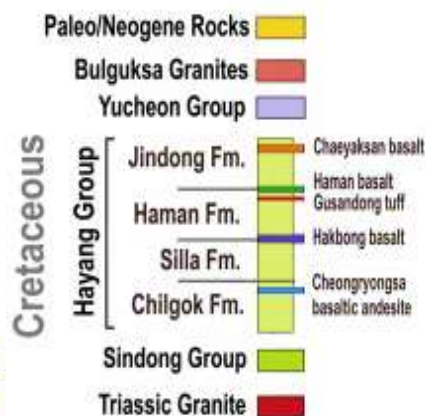
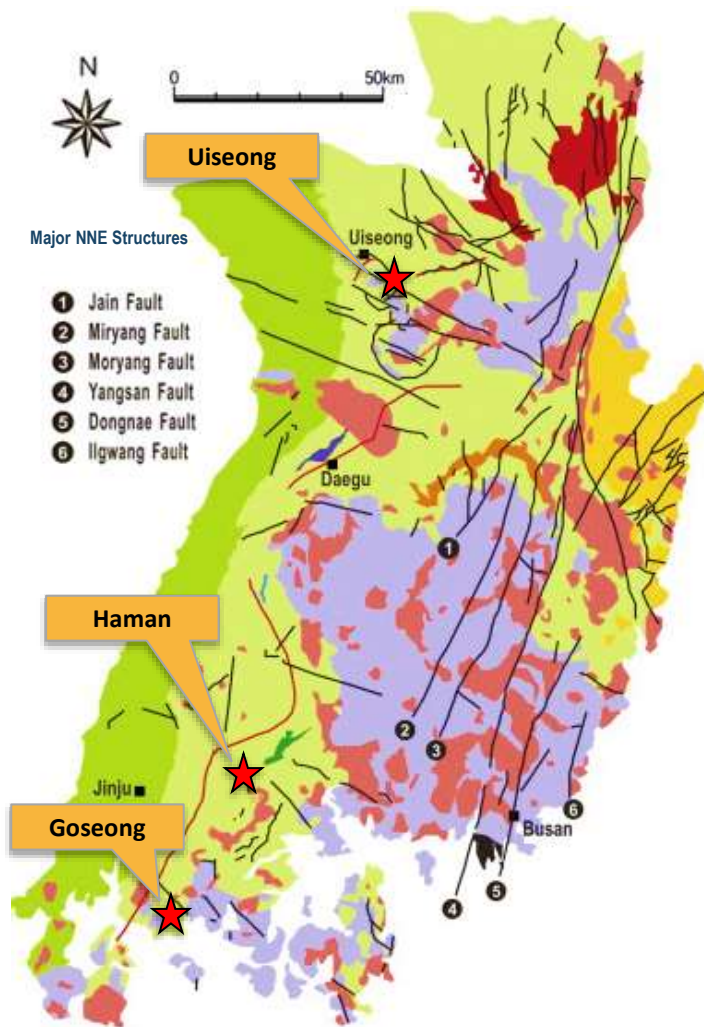


- ❖ **KME - Private Australian Company**
  - 100%-owned Korean subsidiary holds Mining Rights
- ❖ **Established Polymetallic Project Portfolio:**
  - Uiseong - Au-Cu-Zn-Pb-Ag ± Bi-In-W
  - Haman - Cu-Ag-Au ± Co-W
  - Goseong - Cu-Ag-Au ± Ge-Se-Bi
  - Jangheung - Cu-Ag-Pb-Zn
- ❖ **Historical Drilled Resources = ~4.5Moz AuEq**
  - “Drill-Ready” Resource Targets - Low Exploration Risk
  - High Grade Zones – Low Development Risk
  - Multiple Metals – Natural Risk Hedge
  - High Value Critical Metal By-products: Bi, In, W, Co
- ❖ **Base Metal Refineries – Onsan & Seokpo**
  - No Shipping Costs – major cost saving
  - Potential “Offtakers” of Concentrates
- ❖ **South Korea**
  - OECD & G12 Country – Low Sovereign Risk
  - Excellent Infrastructure
  - Proximity to North Asia Region Markets
  - Low Business Risk
  - Leader in Technology & Innovation
  - Embracing “Green Energy” Technologies & Economy



# Gyeongsang Basin

## KME holds “Regional Foothold” & Key Assets



### Back-Arc Volcano-Sedimentary Basin:

#### Cycle 1 – Sindong Group

- Basin fault fanglomerate, floodplain & channel sediments
- “Red beds” – humid climate

#### Cycle 2 – Hayang Group

- Alluvial plain and channel sediments
- Minor basalt and fanglomerates
- “Red beds”, calcretes, evaporite facies – arid climate

#### Cycle 3 – Yuchon Group

- Sub-basins formed & infilled with lacustrine sediments
- Volcanic Arc related to I-type igneous intrusions
- Early Andesite lavas and tuffs
- Late Rhyolite “surge” pyroclastics (diatremes & domes)

### Basin Architecture:

- NNE Listric faults
- WNW directed Dextral Compression then WNW Transfer faults (Sinistral Extension)
- Back-Arc Sub-basins with local Volcanic Centers
- Associated with “Slab Tear & Trench Retreat” Migration of Japan-Kamchatka from Eurasia

### Widespread Mineralization associated with Yuchon Group Volcanism:

- Mineralization Age Ranges 85 – 60 Ma
- Low-Sulphidation Epithermal Au-Ag (dome-related “Hishikari” style)
- Intermediate-Sulphidation Epithermal Au-Ag-Cu-Pb-Zn (dome-related)
- Chimney-Manto Skarn Cu-Pb-Zn-Ag (dome-related)
- Alkalic Porphyry Cu-Au (Adakite & Monzonite “pencil” porphyry)



# Drill-Ready Resource Targets



*“Forgotten Resources” based on Historical Drilling of 1970-80s  
Low-Cost & Low-Risk Exploration ... KME just Re-Drills these Deposits*

Mine / Deposit	Tonnes (t)	Grade AuEq (g/t)	Grade Au (g/t)	Grade Ag (g/t)	Grade Cu (%)	Grade Pb (%)	Grade Zn (%)
Dongil	9,234,500	4.65	1.19	44	0.96	1.05	1.05
Ogsan	3,006,300	10.61	1.32	61	3.24	3.95	1.50
Kyungwha	4,802,215	3.53	0.25	42	0.66	1.69	0.98
Jeonheung	2,470,655	4.06	1.90	39	0.46	0.66	0.73
Kumdongchilbo	1,320,770	4.03	0.88	33	0.00	2.05	1.73
<b>TOTALS</b>	<b>20,834,440</b>	<b>5.13</b>	<b>1.06</b>	<b>44</b>	<b>1.10</b>	<b>1.63</b>	<b>1.12</b>

## Uiseong Project - Copper-Gold-Zinc-Silver-Lead

- Byproducts: Bismuth-Cadmium-Indium-Tungsten
- Historical Mining: Jeonheung, Ogsan, Goroseoksan mines
- Historical Drilling: 1968-1983; 93 drill holes (14,500 metres)**
- 4 deposits within 6km of Dongil**

Mine / Deposit	Tonnes (t)	Grade AuEq (g/t)	Grade Au (g/t)	Grade Ag (g/t)	Grade Cu (%)
Gunbuk	2,996,675	7.73	1.89	59	3.27
Ogok	436,535	15.29	7.59	20	4.77
Gilgok	620,194	2.73	0.86	10	1.12
Bukgok	1,027,381	0.95	0.25	7	0.39
Dundok	243,787	N/A	N/A	N/A	N/A
M Vein	949,781	0.77	N/A	N/A	0.49
Manse	404,250	11.13	N/A	577	2.26
Ebisu-Haman	868,003	2.20	0.24	11	1.17
<b>TOTALS</b>	<b>7,546,556</b>	<b>5.27</b>	<b>1.32</b>	<b>58</b>	<b>2.04</b>

## Haman Project - Copper-Gold-Silver

- Byproducts: Cobalt, Tungsten & Magnetite
- Historical Mining: 1915-1945 Haman, Gunbuk, Chaedung; 1963-1975 Jaelgunbuk
- Historical Drilling: 1963-1980; 93 drill holes (20,076 metres)**
- All deposits within 4km radius**

Mine / Deposit	Tonnes (t)	Grade AuEq (g/t)	Grade Au (g/t)	Grade Ag (g/t)	Grade Cu (%)
Jinheung	345,000	22.26	2.30	546	8.18
SamsanJaeil	110,000	4.98	-	77	2.54
Samsan	45,500	6.04	-	194	2.23
Sambong	38,075	6.34	0.94	186	1.89
<b>TOTALS</b>	<b>538,575</b>	<b>16.23</b>	<b>1.54</b>	<b>395</b>	<b>6.08</b>

## Goseong Project - Copper-Gold-Silver

- Historical Mining: 1919-1945 Goseong; 1970-1992 Samsanjaeil, Sambong, Jinheung
- Historical Resources: KMPC Resource Estimates (see Table)
- Historical Drilling: 1968-1980; 58 drill holes (6,282 metres)**



# Exploration & Development Program



## Uiseong Program & Budget – Year 1



Hanjin DNB 16



Core logging

### Geological Surveys:

- Geological Mapping & Sampling at 1:5,000 scale
- Preliminary 3D Geological Model .... Completed by *GeoEconomics* (Dr Resmi Kamberaj)

### Geophysical Survey:

- Drone UAV Airborne Magnetometer & VLF-EM Survey (US\$50,000)

### Phase 1 Drilling Program – Dongil:

- Designed to Check/Confirm Historical Drill Results (US\$900,000)
  - 300m hole spacing, 12 holes (2,800m HQ core)
- Evaluate Deposit Geology & Mineralization orientation & style

### Phase 2 Resource Definition Drilling Program - Dongil:

- Establish Field Depot, Equipment purchases (US\$500,000)
- Phase 2 Resource Definition Drilling (US\$1,000,000)
  - 50m hole spacing, 25 holes (4,900m RC-HQ core)
- DGPS Surveying of Drill Sites (including Historical & Phase 1 Drill Sites)
- JORC Resource Estimate (US\$50,000)

### Metallurgical Testwork - Dongil:

- Complete Detailed Metallurgical Studies on Drill Core (US\$120,000)
- Evaluate Processing Options (Gravity, Flotation, Leach, Sorter Technologies)
- Locked Cycle Testwork (US\$200,000)

### Geotechnical Studies - Dongil:

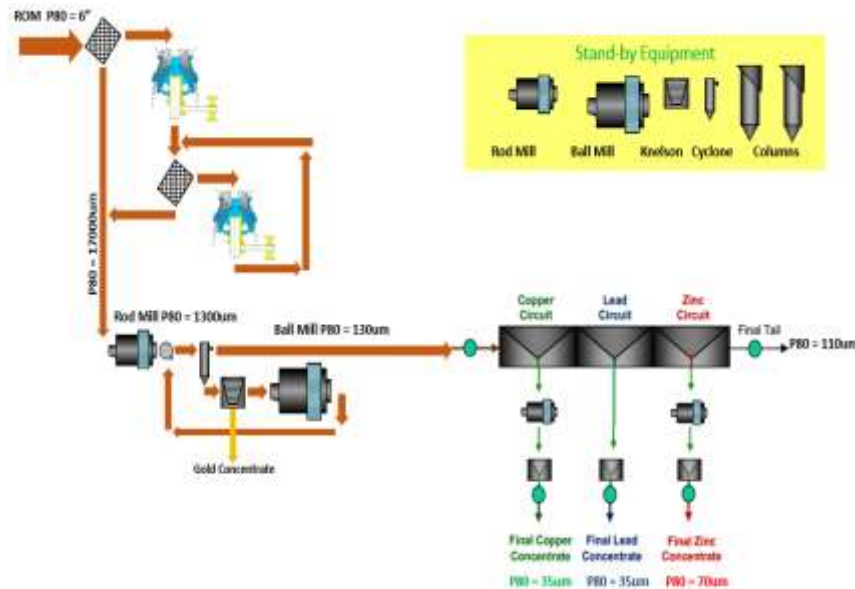
- Geotechnical Studies - routinely undertaken on HQ Drill Core
- Evaluate Sustainable Mining with Drilling Method



# Exploration & Development Program



## Uiseong Program & Budget – Year 2



### Mine Engineering Studies:

- Development Studies (US\$100,000)
  - Optimization Studies
  - Satellite Mine Options
- Drone UAV High-Res 3D LIDAR-Photogrammetry Survey (US\$50,000)
- Mining with Drilling or Conventional Mining Option Evaluation
- Preliminary Site Engineering Studies (US\$100,000)
- Review Results & Recommendations
- Continue Feasibility Studies

### Preliminary Economic Assessment:

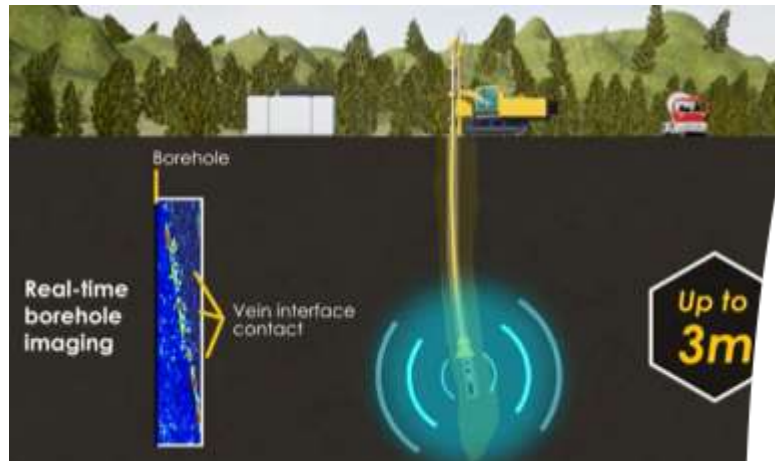
- Complete Preliminary Economic Assessment Report (US\$200,000)
  - Resource Estimate (from above studies)
  - Metallurgical Flow Sheet (from above studies)
  - Engineering (from above studies)
- Review Results & Recommendations
- Continue Feasibility Studies

### Environmental Social Impact Assessment:

- Commence 12 month, 4 seasons "Baseline" Studies (US\$400,000)
- Permit to Mine - Application prepared & lodged (US\$100,000)



## Sustainable Mining by Drilling Operation



### Narrow Vein Mapping

- Pilot Hole drilled within vein structure
- Borehole Radar “Sees the Vein”
- Pilot-Hole uses Steering Survey Tool to “Follow the Vein”
- Developed by *Novamera Inc* (Canada)
- “Proof of Concept” Testwork underway in Newfoundland

### Sustainable Mining by Drilling – Pile Top Drill Rig

- Large diameter drill hole – able to “mine” Veins up to 4.5m Width
- Reverse Circulation Drilling method (“RCD”)
- RCD follows the Vein trace
- Drill Cuttings pumped as slurry direct to Mill for Processing
- No Primary or Secondary Crushing required
- Low Energy & Low Cost Mining
- Existing uses: Pile drilling in Construction, Oil & Gas sectors

### Advantages

- Safe – No Operators or Equipment required underground
- Replaces Conventional Mining & Crushing Equipment
- Cost effective – Lower Operating Costs
- Manufactured in South Korea
- Trained Operators in South Korea
- Enables Rapid & Selective Mining Development
- Clean : No dust, No vibration, & Quiet
- Rehabilitation: No Tailings or Waste – Paste backfill of RCD hole



# Beneficiation of SMD Drill Cuttings

## Pre-Concentration Technologies Identified



-2mm Drill Cuttings



SMD Drill Cuttings provide direct “Run-Of-Mine” Feed:

- Real Time Assaying of Cuttings – Waste or Ore streams
- Waste is returned to RCD Hole void
- -2mm can be Tertiary Crushed by VSI/Cone Crusher

Classifier Plant (Wet):

- Alljig, Floatex Hydrosizer, Reflux Classifier, Hydrosort

Dense Media Separation Plant (Wet):

- 2-1mm processed to Concentrate Sulphide Ore Feed
- Sepro Condor

Gravity Concentration Plant (Wet):

- -1mm Screened Slurry processed to Recover GR-Gold
- Gekko IPJ, Falcon, Knelson Concentrators

Advantages:

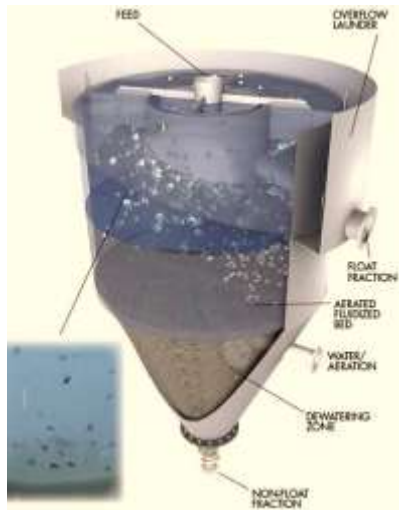
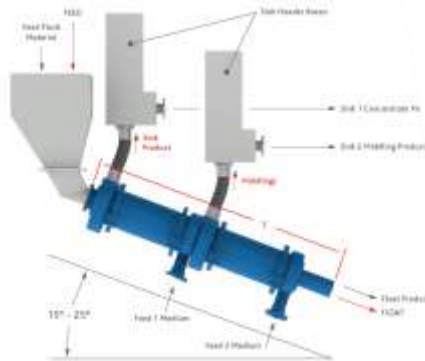
- Low Capital & Low Operating Costs
- Highly Effective in “Up-Grading” Mill Feed
- Early Rejection of Waste - Minimize Dilution & Handling
- Waste is Returned to the RCD Hole void as Backfill
- Water is Recycled for re-use
- Fully Automated, Compact Size & Easily Transported
- Suitable for Satellite Mining Operations





# Pre-Concentration & Flotation

## Pre-Concentration & Flotation of Sulphides



### Sepro Condor Dense Media Separator

- Collects -2mm heavies (Sulphides); Rejects light (Waste)

### Flash Flotation Pre-Concentration Plant Options

- Processes the Gravity Concentration Circuit Overflow
- **Pre-Concentrate Sulphide Ore**
- **Increases Feed Grade to VAT Leach Plant**

### Eriez Hydrofloat™ Separator

- Efficient Recovery of coarse Sulphides

### OutuTec C-Plant Flotation

- “Turn Key” Flexible Small Plant Design
- Flotation & Launder Modules
- *OutuTec Courier® Analyzer* - Instant Assays of Flotation products
- High level of Automation & On-Site Troubleshooting possible
- **Reduced EPC Costs**
- Minimal Civil Engineering Site Works
- Pre-Commissioning done before Delivery
- **Low Capital Cost**
- Compact Size; Containerized for easy Transport
- **Mobile Plant - Ideal for Satellite Mine Operations**



# Milling Technology

## Environmentally-Friendly CVL Process



### Continuous Vat Leach (“CVL”) Plant

“Turn Key” 50-100tph Capacity Plants (*Innovat MPS*)

- Plant Simplicity, Value for Money
- Simple to Operate – only limited Operator Training required
- Low Capital Cost
- Low Operating Cost (low electrical power)
- Compact Size - Minimal Impact on Environment

### GlyLeach™ Process

Developed by *Mining & Process Solutions Pty Ltd* (Perth)

- Glycine amino acid Lixiviant
- Readily Available & Low Cost
- Suitable for Treating both Cu-Au-Ag Sulphide & Oxide Ores
- Covellite Copper Concentrate product – sold to Refinery
- Recovery of Pb & Zn possible
- Au & Ag Dore produced by conventional Electrowin & “Batch” Gold Pour
- “Sighter Testwork” by MPS Perth

### Environmental Best Practice – Community Acceptance

- Non-Toxic
- Acid Flows – Contained within Vats
- Recovery & Recycle use of Glycine
- Reclaim & Recycle of Process Water
- Low Energy Consumption (water pumps, conveyors)
- No Tailings Dams – Paste Backfill of RCD holes



# Investment Thesis



## *Developing Polymetallic Mines on the Korean peninsula*



- ❖ KME is a Private Company - with 100% owned Korean subsidiary
- ❖ Management Team - Worked together for 25 years in South Korea
- ❖ Project Pipeline - Held 100% under granted Mining Rights
- ❖ Low Risk - Resource Targets Identified & Drill Ready
- ❖ Low Cost & Safe Mining - *"Sustainable Mining with Drilling"*
- ❖ Low Cost & Eco-Friendly Processing - *"Continuous Vat Leach"*
- ❖ Proposed Staged Development Program

1. Raise US\$10M via equity issue in KME
2. Confirmation & Infill Drilling of Historical Resource Targets
3. Independent JORC Mineral Resource Estimates
4. Complete Metallurgical Studies
5. Complete Engineering Studies
6. Preliminary Economic Assessment Report
7. Environmental & Social Impact Assessment Study (12-months)
8. Definitive Feasibility Study - Dongil
9. Permit to Mine - Dongil
10. Negotiate Offtake Agreement with Local Refineries
11. Construction of Mine Financing



## Contact:

### BRISBANE OFFICE

**Korean Metals Exploration Pty Ltd**

21 Pandian Crescent  
Bellbowrie  
QLD. 4070.  
Australia

Email: [chris@koreanmetals.com](mailto:chris@koreanmetals.com)

Phone: +61 413 314 750

### SEOUL OFFICE

**Shin Han Mine Inc**

Bangi-Dong, Acroffice Suite 413  
4F  
Olympic-Ro 30 Gil  
Seongpa-Gu  
Seoul  
Republic of Korea

Email: [kim@koreanmetals.com](mailto:kim@koreanmetals.com)

Phone: +82 1099314934



[www.koreanmetals.com](http://www.koreanmetals.com)