



**Doğu Akdeniz Mineralleri  
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**AIM: KEFI**

**13 February 2009**

**KEFI Minerals Plc  
("KEFI Minerals" or the "Company")**

**Results of First Drilling Programme at Artvin Project, Turkey**

KEFI Minerals Plc, the AIM-quoted gold and copper exploration company, is pleased to announce the final assay results from its recently completed initial diamond drilling programme at the Company's Artvin Project located in the Eastern Pontide Belt in northeastern Turkey.

**Highlights**

- Initial drilling results confirm that the selected targets are mineralised with gold and base metals and warrant follow-up.
- This prospect is held in a joint venture (JV) operated by KEFI Minerals and funded by Centerra Gold Inc ("Centerra") which is considering the next stage of work commitment when weather conditions permit after the winter recess. Centerra has the right to earn up to 70% interest in the property by spending USD\$6 million over 5 years.
- Maximum gold intercept of **2m at 20.9g/t gold and 47.4g/t silver** was recorded in hole AYDD4. Other significant gold intercepts include 14m at 1.0g/t gold from 42m (including 1m at 9.9g/t gold from 44m) and 33m at 0.3g/t Au from 62m in AYDD1.
- Wide intervals of anomalous zinc mineralisation, including **64m at 0.35% zinc and 44m at 0.57% zinc**, were recorded in holes AYDD1 to AYDD4.
- All five drillholes intersected wide intervals of variably altered andesitic volcanic rocks with widespread disseminated and vein-style pyrite-sphalerite (zinc sulphide) with some galena (lead sulphide) and chalcopyrite (copper sulphide).

All assays have now been received from the first-phase diamond drilling programme for the Yanikli Prospect at the Artvin Project. The five-drillhole programme was designed to test strong gold/base-metals anomalies from soil and rock chip surveys as well as induced polarisation (IP) chargeability-resistivity anomalies. The Company's geologists have observed significant widths of quartz-sericite-pyrite alteration with widespread disseminated and vein-style pyrite-sphalerite and some galena within the core in all five holes. Follow-up drilling is planned for later in 2009.

KEFI Minerals' Managing Director, Jeff Rayner, commented:

**"This initial drilling programme has confirmed the presence of precious and base-metal mineralisation at the Yanikli Prospect. Evaluation of this data will provide a good basis for targeting the next phase of exploring this large prospective area."**



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## About Artvin Project

The Artvin Project located in the Eastern Pontide Belt in northeastern Turkey. The Eastern Pontide Belt is a major metallogenic province near the eastern Black Sea coastal region and is considered prospective for volcanic-hosted massive sulphide (VHMS) deposits, porphyry copper-gold deposits, as well as epithermal gold-silver mineralisation.

The Artvin Project comprises 15 tenements, which cover approximately 254km<sup>2</sup> and is subject to a JV agreement with a subsidiary of Centerra Gold Inc., a Canadian-based gold mining and exploration company listed on the Toronto Stock Exchange. The terms of the JV were set out in the Company's announcement of 23<sup>rd</sup> October 2008.

## Results of Initial Drilling Program

A first-phase diamond drilling programme at the Yanikli Prospect was completed on 24 December 2008. Five holes were completed for an aggregate of 1,618m of HQ core. The drilling was carried out by Pozitif Sondaj, an Ankara-based contractor.

Detailed lithological logging of the drill core was undertaken and intervals with alteration +/- mineralisation +/- veining were selected for sampling. Half HQ core samples were collected at 1-2m intervals with 612 samples (including 28 standards) being submitted to ALS Chemex in Izmir for analysis.

## Location of Drillholes

Hole ID	Easting	Northing	Elevation (m)	Declination	Azimuth	Final Depth (m)
AYDD1	259160	4578979	1555	-60°	090°	416.5
AYDD2	259198	4579115	1565	-60°	300°	403.0
AYDD3	259500	4578763	1726	-60°	270°	401.6
AYDD4	259201	4579117	1565	-50°	050°	251.0
AYDD5	259725	4579015	1556	-50°	095°	145.8

Hole **AYDD1** was primarily designed to test beneath the "discovery outcrop" which returned 44m at 0.5g/t gold, 45m at 0.12% lead and 36m at 0.18% zinc from channel chip sampling. The upper part of the hole intersected variably altered (clay-pyrite +/- silica) volcanics with low levels (generally <2%; locally up to 10%) of disseminated pyrite



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+/-sphalerite and galena plus sparse narrow (~1cm) quartz-calcite-pyrite-sphalerite-galena veinlets. The hole then passed into unaltered to weakly chlorite-epidote altered feldspar porphyry with trace disseminated pyrite and rare sphalerite and galena.

The maximum individual assays recorded for hole AYDD1 are:

- Lead/zinc - 1.1m at 1.72% lead and 2.63% zinc from 132.0m, and 1m at 2.62% zinc from 198.5m
- Copper – 1.0m at 1.71% copper from 197.5m
- Gold/Silver – 1.0m at 9.9g/t gold and 32.5g/t silver from 44.0m

Hole **AYDD2** was designed to test beneath a northeast-trending portion of a gold-in-soil anomaly and quartz veinlets that returned up to 5.1g/t gold. The upper part of the hole intersected pervasively moderately to strongly altered (silica-sericite-pyrite) felsic volcanics with low levels (generally 2-3%) of disseminated pyrite with 1-3% sphalerite, 1% galena and rare chalcopyrite.

The maximum individual assays recorded for hole AYDD2 are:

- Zinc – 1.0m at 1.77% zinc from 217m
- Lead – 2.0m at 0.82% lead from 167m
- Copper – 1.25m at 0.14% copper from 32.75m
- Gold – 2.0m at 0.9g/t gold from 167m
- Silver – 1.25m at 5.9g/t silver from 32.75m

Hole **AYDD3** was drilled beneath the siliceous core of the hydrothermal system with stockwork quartz veining and into part of the gold-in-soil anomaly. The hole intersected a sequence of weakly to strongly quartz-clay-sericite-pyrite altered flow banded felsic volcanics, variably quartz-clay-sericite-pyrite altered intermediate volcanic breccias and narrow hydrothermal breccia zones before intersecting feldspar porphyritic andesite at the end of hole. This sequence is cut by a number of narrow magnetic intermediate dykes. In the upper parts of the hole, low levels (generally <3%; locally higher) of disseminated pyrite +/- sphalerite and galena, with intermittent trace chalcopyrite (typically less than 1%) plus sparse narrow (~1cm) quartz-calcite veinlets occur.

The maximum individual assays recorded for hole AYDD3 are:

- Zinc – 1.5m at 0.78% zinc from 190.5m
- Lead – 1.2m at 0.26% lead from 192.0m
- Copper – 1.5m at 0.12% copper from 13.4m
- Gold – 1.5m at 0.32g/t gold from 13.4m
- Silver – 1.0m at 13.2g/t silver from 308m



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Hole **AYDD4** was designed to test beneath part of the northeast-trending portion of the gold-in-soil anomaly which contains quartz-veinlets up to 5.1g/t. The hole intersected a sequence of variably quartz-clay-sericite-pyrite altered feldspar porphyritic volcanics, with low levels (generally <2%) of disseminated pyrite, sphalerite and galena plus sparse narrow (~1mm) clay-pyrite veinlets, before ending in fresh intermediate volcanic breccia.

The maximum individual assays recorded for hole AYDD4 are:

- Zinc – 0.9m at 1.87% zinc from 87.6m
- Lead – 2.0m at 0.39% lead from 112.0m
- Copper – 2.0m at 0.55% copper from 112.0m
- Gold – **2.0m at 20.9g/t gold from 112.0m**
- Silver – **2.0m at 47.4g/t silver from 112.0m**

Hole **AYDD005** was drilled beneath the easternmost part of the gold-in-soil anomaly. The hole intersected a sequence of weakly clay-sericite-pyrite altered feldspar porphyritic volcanics with low levels (generally <1%) of disseminated granular pyrite and clay-gypsum veinlets before ending in unaltered intermediate lithic lapilli tuff.

No significant assays were recorded for hole AYDD005.

True widths have not been determined for the drill intercepts quoted above.

### **Petrology**

A total of 16 core samples were submitted to Mineralogic and Petrologic Solutions Ltd in Auckland, New Zealand for petrological analysis, fluid inclusion studies, and XRD analysis.

Preliminary results of this work indicate the suite of samples consists of sparsely porphyritic volcanic rock/tuff, porphyritic andesite and tentatively identified lithic and lithic-crystal tuff. Alteration is dominated by quartz, illite/sericite, pyrite and carbonate.

The rocks are cut by three generations of veins 1) quartz, 2) sulphides and late 3) carbonates. Sulphide mineralisation occurs both in veins and as a replacement mineral of phenocrysts/crystal fragments. The main sulphide is pyrite with lesser sphalerite and rare galena plus chalcopyrite. Pyrite mainly occurs as disseminations throughout the samples and also occurs in veins. Sphalerite occurs in veins and fills cavities but further appears to replace phenocrysts (although it may fill open spaces from the dissolution of the original mineral).

### **Competent Person**

References in this announcement to exploration results and potential have been approved for release by Mr Malcolm Stallman (B.App.Sc). Mr Stallman is a geologist and has more than 20 years' relevant experience in the field of activity concerned. He is a



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Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has consented to the inclusion of the material in the form and context in which it appears.

### **About KEFI Minerals**

KEFI Minerals commenced trading on AIM in December 2006 and was formed with the aim of creating shareholder value through the discovery and exploitation of gold and copper deposits.

In Turkey, KEFI Minerals currently has seven exploration projects:

1. At **Derinin Tepe**, in the Western Anatolia Region, low-sulphidation epithermal quartz veins have been identified with gold and silver mineralisation.
2. At **Artvin**, in northeastern Turkey, extensive hydrothermal alteration and gold and base metal mineralisation have been recognised in the project area, as well as historical workings indicating potential for economic mineralisation.
3. **Bakir Tepe**, in southwestern Turkey, is prospective for VMS polymetallic deposits.
4. At **Gumushane**, in eastern Turkey, areas of extensive hydrothermal alteration have been recognised in the project area, as well as coincident areas of interest identified through interpretation of ASTER data.
5. **Hasancelebi**, in central Turkey, is prospective for high-sulphidation epithermal gold mineralisation and Iron-Oxide Copper-Gold ("IOCG") mineralisation.
6. **Muratdag**, in the Western Anatolia Region, is prospective for Carlin-style epithermal gold mineralisation.
7. At **Yatik**, in the Western Anatolia Region, low-sulphidation epithermal quartz veins with gold and silver mineralisation have been identified.

KEFI Minerals also has an extensive **exploration database** which contains information about approximately 100 further prospective sites in Turkey. This database provides the Company with a competitive advantage to identify prospective areas for project generation in Turkey. Monitoring of the exploration licence status of geologically prospective areas will be carried out on an ongoing basis so that KEFI Minerals can acquire further exploration opportunities as soon as they become available.

EMED Mining has agreed to provide technical and administrative systems and personnel to KEFI Minerals on a cost-recovery basis, thus enabling KEFI Minerals to reduce overheads and spend more on exploring Turkey. KEFI Minerals' Board of Directors is comprised of Mr. Harry Anagnostaras-Adams (Chairman), Mr. Jeffrey Rayner (Managing Director), Professor Ian Plimer (Deputy Chairman) and John Leach (Finance Director).

Further information on KEFI Minerals is available at [www.kefi-minerals.com](http://www.kefi-minerals.com) and the Company's AIM code is "KEFI".