

AIM: KEFI

23<sup>rd</sup> January 2013

**KEFI Minerals Plc**  
**(“KEFI Minerals” or the “Company”)**

**EXPLORATION UPDATE**

KEFI Minerals, an AIM-listed gold and copper exploration company with projects in the Kingdom of Saudi Arabia, is pleased to announce additional diamond drill results from the initial drilling programme at the Jibal Qutman Licence and the commencement of second phase drilling at the Selib North Licence, both projects as operator of the Company’s 40%-owned Gold & Minerals Joint Venture (“G&M”).

**HIGHLIGHTS**

- **Diamond Drilling at Jibal Qutman returns encouraging intersections, including 4.5m at 17g/tAu, 12.75m at 3.78g/t Au and 13m at 2.35g/t Au.**
- **Positive results obtained from an initial internal scoping study for an open cut heap leach operation at Jibal Qutman.**
- **Diamond and RC drilling commenced at Selib North to follow up geophysical (IP and SP) and geochemical anomalies.**

**JIBAL QUTMAN**

An initial phase of 50 diamond drill holes for 4,569m has been completed at the Jibal Qutman prospect. Drilling was designed to test the shallow open cut potential of the gold mineralisation, which is hosted in a series of quartz veins over a 3km zone.

Gold is hosted in vein sets that dip approximately 20-45° to the east. The vein sets are comprised of massive quartz veins up to 6m width with a halo of lower grade parallel stringer veins in zones up to 15-30m width either side of the main vein. To date, three separate zones have been trenched and drilled at the Jibal Qutman prospect, the Main, South and West Zones.

The best results not reported previously, include:

Hole No	From (m)	To (m)	Interval (m)	Au g/t	Zone
JQD 30	36.00	48.75	12.75	3.78	West Structure
JQD 31	71.00	85.00	14.00	0.81	West Structure
JQD 37	20.20	29.00	8.80	1.46	South Zone
JQD 40	32.00	50.00	18.00	0.70	South Zone
JQD 41	17.00	27.00	10.00	3.43	South Zone

<b>JQD 42</b>	21.00	23.00	2.00	2.71	South Zone
<b>JQD 43</b>	8.50	23.00	14.5	5.45	South Zone
<b>Including</b>	8.50	13.00	4.50	17.00	South Zone
<b>JQD 45</b>	62.00	75.00	13.00	2.35	South Zone
<b>JQD 46</b>	54.00	58.00	4.00	1.35	South Zone
<b>JQD 48</b>	90.00	117.00	27.00	0.62	South Zone
<b>JQD 49</b>	72.00	77.00	5.00	1.07	South Zone
<b>and</b>	111.00	116.00	5.00	1.11	South Zone

Drilling has been performed on initial 100m x 50m and 50m x 25m grids over a 600m strike length of the Main Zone and 200m strike lengths of the West and South Zones. Drilling has focused on the open cut potential and hence holes have been drilled to shallow depths, testing the mineralisation to a maximum of 80-100m below surface.

The continuity of mineralisation in each zone is excellent and grade distribution does not display a high nugget effect, and along with mapping and trench sampling this currently suggests that a drill spacing of 100m x 50m is considered sufficient for the estimation of an Inferred Resource, 50m x 50m for an Indicated Resource and 25m x 25m for a Measured Resource.

Within the area drilled to date and also within a conceptual shallow open cut pit shell to 40-60m below surface, a preliminary first pass estimate of a combined mineralised zone of approximately >90,000oz Au can be calculated at an average grade of 1.25g/t Au, using a 0.2g/t Au cut-off. This is a very preliminary estimate only and is not a JORC compliant resource at this stage.

There is very good potential to significantly increase the current drilled resources, as the mineralisation is open along strike, to the north and south in all three zones. Given the aerial extent of the mapped veins in the Licence area, a target in excess of 200,000oz Au is considered to be a plausible estimate.

Drilling has been paused to evaluate the potential of the drilled area and to perform further investigations whether a "pilot" heap leach mining operation would be beneficial at this stage.

Initial internal scoping studies using local labour, power and mining costs, suggest that a "minimum pilot" deposit size, amenable to gold extraction by heap leach, of 80,000oz to 100,000oz at 1.2g/t to 1.3g/t Au would have a cash operating cost of \$640/oz Au, require an estimated \$12-14 million of capital expenditure and generate a cash operating profit of \$80 million over a 4 year mine life.

Samples of pulverised drill core have been despatched to an external laboratory for preliminary metallurgical gold recovery by cyanide leach.

Gold recoveries from four composite pulp samples of quartz vein style mineralisation attained 54%, 74%, 76% and 90% gold recovery using a 250ppm cyanide solution over a one hour period. These are encouraging results given the dilute cyanide and short extraction time. The sample with 54% recovery was obtained from a high grade sample of 8.9g/t Au and the lower recovery was probably due to coarse gold particles, which require a longer extraction time to be fully recovered in the leaching process.

More extensive metallurgical testwork for Heap Leach processing, including column leach, to establish optimum grind size and leach times, is currently being designed and will be initiated in H1 2013.

Should the metallurgical testwork attain gold recoveries of 70% or more, a heap leach could be the optimum processing method. Should the gold recovery fall below 70%, it may be more economic to extract gold by CIL processes, which on current results, indicates a possible recovery around 75-90% of the gold.

Further drilling to extend the open cut potential along strike, both to the north and south in each of the three zones and to infill drill to a minimum of 50m x 25m spacings is planned for H1 2013, at which point an Inferred and Indicated Resource is targeted to be announced.

## **SELIB NORTH**

A second phase diamond and RC drilling programme of 2,400m and 1,700m respectively, is underway. It will test several IP (Induced Polarisation and resistivity) and SP (Self Potential) anomalies identified in the geophysical survey completed in December 2012 and the gold mineralisation intersected in the first phase diamond drilling at the Camel Hill prospect.



### **Jeff Rayner, Managing Director of KEFI Minerals, commented:**

“The initial phase of diamond drilling at Jibal Qutman has been completed with encouraging early results for an open cut heap leach mining operation. These results have been achieved in just four months since drilling started in mid September 2012. Further drilling is planned to extend the gold potential along strike in all three zones and to further define the gold recoveries with detailed metallurgical testwork, in H1 2013 and to possibly commence a pre-feasibility study in H2 of 2013.”

### **KEFI Minerals’ Strategic Plan in the Kingdom of Saudi Arabia**

In 2009, KEFI Minerals formed the Gold and Minerals Joint Venture (“G&M”) in Saudi Arabia with local Saudi partner Abdul Rahman Saad Al-Rashid & Sons Company Limited (“ARTAR”), to explore for gold and associated metals in the Arabian Shield. To date, the G&M has conducted preliminary regional reconnaissance and lodged 23 Exploration Licence Applications (ELAs), of which 4 have been granted.

The ELAs were initially applied for and granted to ARTAR. Incorporation of G&M has been completed and any granted Licences will be transferred into G&M in due course.

The Kingdom of Saudi Arabia has instituted policies to encourage minerals exploration and development and KEFI Minerals supports this priority by serving as the technical partner within G&M. ARTAR also serves this Government policy as the major partner in G&M, which is one of the early movers in the modern resurgence of the Kingdom’s minerals sector.

**-Ends-**

## **Enquiries**

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*References in this announcement to exploration results and potential have been approved for release by Mr. Jeffrey Rayner. Mr Rayner is a geologist and has more than 25 years' relevant experience in the field of activity concerned. He is a 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.*

Further information on KEFI Minerals is available at [www.kefi-minerals.com](http://www.kefi-minerals.com)