

ST. PETER PORT, GUERNSEY--(Marketwired - Feb 8, 2016) - [Avnel Gold Mining Ltd.](#) ("Avnel" or the "Company") (TSX:AVK) is announcing metallurgical test program results completed as part of a Definitive Feasibility Study ("DFS") for the Kalana Main Project in south-western Mali. The Company is also providing details on the processing plant design parameters for the DFS, which remains on track to be completed this quarter. All amounts are in United States dollars ("\$\$") unless specified otherwise.

Highlights:

- Positive metallurgical gold recovery results with 95.6% for saprolite, 93.5% for saprock, and 93.2% for fresh rock estimated over the life of mine
- Simple conventional gravity plus CIL process plant design for processing 1.5Mtpa in saprolite and 1.2Mtpa in saprock and fresh rock
- DFS remains on track for completion by the end of the first quarter with Mineral Reserves based upon \$1,000/oz gold

"I am pleased to report that the results from DFS test work programs conducted in 2015 continue to demonstrate excellent recovery rates for all material types and that the expected average recovery for saprolite material has increased to more than 95%. The increase in recovery for saprolite is expected to contribute to higher gold production at lower mining and processing costs in the initial years of the DFS's mine plan as saprolite will be the dominant ore type," stated Howard Miller, Avnel's Chairman and CEO.

"Mine engineering is nearing completion and it has been determined that a mining rate of 1.5 Mtpa in saprolite and 1.2 Mtpa in saprock and fresh rock is reasonable, which has allowed us to finalise the design criteria for a simple conventional gravity plus CIL processing plant. As a result, we remain confident that the DFS will be completed by the end of first quarter of 2016. The pit design and mineral reserves will be based upon a gold price of \$1,000 per ounce to reflect the current gold price environment. The impact of a higher gold price of \$1,300 per ounce pit design will also be evaluated and reported as part of the DFS."

DFS Metallurgical Recovery Test Work Results

During 2015, detailed mineral processing and metallurgical test work programs were conducted at SGS Booyens in Johannesburg under the management of DRA Projects (Pty) Ltd. The results of this program confirmed a high gravity recovery component for all material types achieving bench scale gravity recoveries in the ranges of 19 - 88% for saprolite, 62 - 92% for saprock, and 57 - 96% for fresh rock material. The optimal leach feed grind size has been determined to be 80% passing 75 microns (μm). Average cyanide and lime consumption rates were between 0.7 to 0.8 kilograms per tonne of material ("kg/t") and 0.4 to 1.2 kg/t, respectively.

Gravity recovery and cyanidation variability testing was conducted on a total of twenty saprolite, saprock, and fresh rock mineralised core samples sourced from various spatial locations within the Kalana Main deposit. A summary of the estimated life of mine ("LOM") metallurgical gold recovery by material type is presented in the following table:

Material Type	LOM Average Head Grade (g/t)	Expected CIL Residue Grade (g/t)	Discount Factor (%)	LOM Recovery Estimate (%)
Saprolite	3.10	0.11	0.99	95.6
Saprock	3.73	0.21	1.02	93.5
Fresh	2.91	0.17	0.90	93.2
Tailings	1.80	0.43	1.34	74.8

1 - Metallurgical recoveries are preliminary and may be subject to revision as part of the finalisation of the DFS.

With the exception of the historic tailings, these expected rates are in-line or exceed the recovery assumptions utilized in the 2014 Preliminary Economic Assessment ("PEA"). The estimated rate for the small amount of historic tailings on site has declined to 74.8% from a prior estimate of 83%, which is not expected to materially impact project economics in the DFS.

Process Plant Design Parameters

Process Description

The processing plant design is based upon annual throughput rates of 1.5 million-tonnes-per-annum ("Mtpa") for saprolite and 1.2 Mtpa for saprock and fresh rock material. The plant design is simplistic and, as shown in Figure 1 near the end of this news release, consists of a conventional two-stage crushing circuit and a single-stage milling circuit to achieve a target grind size of 80% passing 75 microns. The milling circuit design consists of a single 5.33-metre diameter by 8.08-metre effective grinding length ball mill rated at 4.5 megawatts ("MW").

Gold is to be extracted by gravity concentration and a carbon-in-leach ("CIL") plant to produce a gold dore via elution, electrowinning, and smelting. The CIL circuit is designed for a 24-hour residence time when treating fresh ore at 1.2 Mtpa and

reduces to 18 hours when treating saprolite at the higher throughput rate of 1.5Mtpa.

The design philosophy incorporates a requirement that the processing plant be constructed in a manner that would expedite the construction of the leaching and adsorption circuit with the intention of processing historic tailings prior to the hot commissioning of the mill. These tailings consist of 0.04 million ounces of Indicated Mineral Resource (0.7 million tonnes at a grade of 1.75 g/t Au) and are intended to be recovered by hydraulic mining and pumped to the plant for processing through the CIL circuit over a 5-month period. This represents an opportunity to generate pre-commercial production cash flow that could potentially partially offset development capital requirements.

Operating and capital cost estimated associated with the processing plant are underway now and will be reported as part of the DFS, which remains on track for completion by the end of the first quarter of 2016.

Qualified Persons

Mr. Roy Meade, BSc (Honours) Mining Engineering and Professional Engineer (UK), President of [Avnel Gold Mining Ltd.](#) is a Qualified Person as defined by *National Instrument 43-101 - Standards of Disclosure for Mineral Projects* ("NI 43-101"). Mr. Meade has reviewed and approved the technical contents of this news release.

Mr. Glenn Bezuidenhout, NDT Ex. Met, FSAIMM, Process Director for DRA Projects (Pty) Ltd., is an independent Qualified Person as defined by NI 43-101. Mr. Bezuidenhout has reviewed and approved the technical contents of this news release.

About Avnel Gold

Avnel Gold is a TSX-listed gold mining, exploration and development company with operations in south-western Mali in West Africa. The Company's focus is to develop its 80%-owned Kalana Main Project from a small underground mine into a low-cost, open-pit mining operation. The Company is also advancing several nearby satellite deposits on the 387 km² 30-year Kalana Exploitation Permit.

On March 31, 2014, the Company reported a Mineral Resource estimate and the results of a Preliminary Economic Assessment ("PEA") prepared by Snowden Mining Industry Consultants. The PEA outlines a 14-year open-pit mine life at the Kalana Main Project recovering 1.46 million ounces of gold at an average "on-site all-in sustaining cost" of \$577 per ounce with an initial capital cost of \$149 million. Utilising a gold price of \$1,110 per ounce and a 10% discount rate, the PEA reported a net present value ("NPV") of \$194 million after-tax and imputed interest, and an internal rate of return ("IRR") of 53% on a 100% project basis. The Company is now advancing the project to Definitive Feasibility, which is scheduled to be completed in the first quarter of 2016.

No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

CAUTIONARY STATEMENTS

Preliminary Economic Assessment

The Kalana Main Preliminary Economic Assessment ("PEA") is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorised as Mineral Reserves; thus, there is no certainty that the economic benefits indicated in the PEA will be realised. The PEA is subject to a number of assumptions, including, among others that an Environmental and Social Impact Assessment ("ESIA") will be completed within the required timeline, all required permits will be obtained in a timely manner, the company will continue to have the support of local community, a constant regulatory environment and no material increase occurs to the estimated costs. The Kalana Main PEA is based upon an 8.54 million tonne Indicated Mineral Resource grading 4.53 g/t Au containing 1.25 million ounces and a 2.09 million tonne Inferred Mineral Resource grading 3.76 g/t Au containing 0.25 million ounces utilising a cut-off grade of 0.9 g/t Au. The PEA also includes 0.66 million tonnes of tailings grading 1.80 g/t Au that are classified as an Indicated Mineral Resource. Investors are cautioned not to assume that all or any portion of the Mineral Resource will ever be converted into a Proven and Probable Mineral Reserve. The NI 43-101-compliant technical report for the PEA and the Mineral Resource Estimate was prepared by Allan Earl, Executive Consultant, and Ivor Jones, Executive Consultant, of Snowden Mining Industry Consultants, each of whom are independent Qualified Persons, as defined in NI 43-101. The PEA was filed on SEDAR (www.sedar.com) on March 31, 2014.

Forward-Looking Statements

This news release includes certain "forward-looking statements". All statements, other than statements of historical fact, included in this release, including the future plans and objectives of Avnel Gold, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that forward-looking statements will prove to be accurate and actual results and future

events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from Avnel Gold's expectations include, among others, risks related to international operations, the actual results of current exploration activities, conclusions of economic evaluations and changes in project parameters as plans continue to be refined as well as future prices of gold and silver, as well as those factors discussed in the section entitled "Risk Factors" in Avnel Gold's Annual Information Form, which is available on SEDAR (www.sedar.com). Although Avnel Gold has attempted to identify important factors that could cause actual results to differ materially, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

Non-IFRS Measures

"On-site All-in Sustaining Cost Per Ounce" is a non-GAAP and non-IFRS measure that does not have a standardised meaning prescribed by GAAP or IFRS and there may be some variation in the method of computation to other similarly titled measures of other gold mining companies. In the PEA, Snowden defines "All-in Sustaining Cost" as mine site cash operating costs, which includes costs such as mining, processing, administration, but excludes non-site costs (transport and refining of metals and royalties), plus sustaining capital costs, which includes community and environmental costs, plus closure costs. These costs are then divided by the number of ounces of expected production to arrive at "On-site All-in Sustaining Cost Per Ounce".

To view "Figure 1: Process Flow Diagram" please visit: <http://avnelgold.com/wp-content/uploads/News/2016/2016-01-Figure01.pdf>

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