

Timberline Files PEA Technical Report on Talapoosa

Coeur d'Alene, Idaho – May 21, 2015 – **Timberline Resources Corporation (NYSE MKT: TLR; TSX-V: TBR)** (“Timberline” or the “Company”) is pleased to announce the filing of a positive Preliminary Economic Assessment (“PEA”), disclosed in the Company’s press release dated April 27, 2015, on the Company’s Talapoosa project (“Talapoosa” or the “Project”) located in western Nevada. The PEA was prepared by WSP Canada Inc., with technical contributions from Mineral Property Development, Inc., McClelland Laboratories, Inc., Enviroscientists Inc., and DOWL LLC.

The PEA report is available under the Company’s profile at www.sedar.com and on Timberline’s website at www.timberline-resources.com.

Kiran Patankar, Timberline’s President and Chief Executive Officer, commented, “As we noted in our April 27th press release, the PEA development scenario demonstrates robust economics using conservative metals price assumptions and, importantly, fits within the scope of the previously permitted operation. With the filing of the PEA report, our stakeholders can now see the level of detailed analysis that capitalized on Talapoosa’s extensive historic engineering and permitting work.

Two key findings in the PEA further support the Project’s low-risk profile. First, Talapoosa has current permits in place for open pit mining and heap leaching operations, including an approved BLM Plan of Operations and a Nevada Reclamation Permit that remain active for the life of the Project. Second, the results of 13 separate metallurgical testing programs conducted between 1981 and 2015 suggest that conventional heap leaching at a relatively fine crush size is the preferred approach for processing mineralized material from Talapoosa. Results from the recent and historic programs provided the basis for the estimated heap leach recoveries used in the PEA.

The report recommends proceeding with a two-phased work program, including additional metallurgical testing and completion of a Pre-Feasibility Study, with an estimated total cost of US\$3.6 million. Based on these positive PEA results, our key priority is to complete the recommended work program and deliver a Pre-Feasibility Study in Q1 2016.”

PEA Highlights

- After-tax NPV_{5%} of \$136 million and 39% IRR at \$1,150/oz gold price and \$16/oz silver price
- Estimated average annual production of 55,000 oz of gold and 679,000 oz of silver for 11 years
- LOM all-in sustaining costs of \$599/oz gold (net of silver byproduct at \$16/oz silver price)
- Low initial capital requirement of \$51 million required to achieve production

PEA Disclaimer

The PEA is preliminary in nature and the economic analysis it presents is based, in part, on Inferred Resources that are considered too speculative geologically to have mining and economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Estimates of Inferred Resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. There is no certainty that the economic forecasts contained within the PEA will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

About Timberline Resources

Timberline Resources Corporation is focused on advancing district-scale gold exploration and development projects in Nevada, including its recently optioned Talapoosa project in Lyon County. Current mineral resources⁽¹⁾ at the Talapoosa project include 1.01 million gold ounces and 13.65 million silver ounces (M&I), plus an additional 0.23 million gold ounces and 2.17 million silver ounces (Inferred).

Timberline also controls the 23 square-mile Eureka project lying on the Battle Mountain-Eureka gold trend. At Eureka, the Company continues to advance its reported resource⁽²⁾ of 508,000 ounces (M&I) and 141,000 ounces (Inferred) of gold at the Lookout Mountain project area, and has recently completed a drill program at the Windfall project area. Exploration potential occurs within three separate structural trends defined by distinct geochemical gold anomalies. Timberline also owns the Seven Troughs property in northern Nevada, known to be one of the state's highest grade, former producers, as well as a 50% carried-to-production interest in the Butte Highlands high-grade underground gold project in Montana.

Timberline is listed on the NYSE MKT where it trades under the symbol "TLR" and on the TSX Venture Exchange where it trades under the symbol "TBR".

Mr. Steven Osterberg, Ph.D., P.G., Timberline's Vice-President of Exploration, is a Qualified Person as defined by National Instrument 43-101 and has reviewed and approved disclosure of the technical contents of this news release.

⁽¹⁾ Refer to Technical Report and Resource Estimate on the Talapoosa Project, Nevada, WSP Canada Inc., Effective March 24, 2015, Filed on SEDAR April 1, 2015. Talapoosa resources include 28.4 million tonnes at 1.11 g/t Au and 15.0 g/t Ag (M&I) and 10.2 million tonnes at 0.72 g/t Au and 6.7 g/t Ag (Inferred).

⁽²⁾ Refer to Updated Technical Report on the Lookout Mountain Project, MDA, Effective March 1, 2013, Filed on SEDAR April 12, 2013. Lookout Mountain resources include 26.3 million tonnes at 0.62 g/t Au (M&I), and 10.6 million tonnes at 0.41 g/t Au (Inferred).

Cautionary Statements

The Company's JV partner at Butte Highlands has decided that it may advance the project into production without first establishing NI 43-101 mineral resources supported by an independent technical report or completing a feasibility study. A production decision without the benefit of a technical report independently establishing mineral resources or reserves and any feasibility study demonstrating economic and technical viability creates increased uncertainty and heightens economic and technical risks of failure.

Cautionary note to United States Investors Regarding Estimates of Resources: This press release uses the terms "Measured Resources", "Indicated Resources", "Measured & Indicated Resources" and "Inferred Resources". We advise U.S. investors that while these terms are defined in and required by Canadian regulations under NI 43-101, these terms are not defined terms under United States Securities and Exchange Commission ("SEC") Industry Guide 7 and are normally not permitted to be used in reports and registration statements filed with the SEC. Under SEC Industry Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and all necessary permits and governmental authorizations must be filed with the appropriate governmental authority. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. "Inferred mineral resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian securities legislation, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically or legally mineable. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC Industry Guide 7 standards as in place tonnage and grade without reference to unit measures. **The PEA is not a definitive feasibility study and our projects currently do not contain any known proven or probable ore reserves under SEC Industry Guide 7 reporting standards.** The results of the PEA disclosed in this press release are preliminary in nature and include Inferred Resources that are considered too speculative geologically to have the economic considerations applied to them that would

enable them to be categorized as mineral reserves and there is no certainty that the results of the PEA will be realized.

Forward-looking Statements

Statements contained herein that are not based upon current or historical fact are forward-looking in nature and constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such forward-looking statements reflect the Company's expectations about its future operating results, performance and opportunities that involve substantial risks and uncertainties. These statements include but are not limited to: statements regarding the potential economics of the Talapoosa project as contained in the PEA, including but not limited to statements regarding After-Tax NPV, IRR, Initial Capital Costs, After-Tax Net Cash Flow, gold production, sustaining costs, and all-in costs, the low-risk, pro-mining jurisdiction of Nevada, future optimization and resource expansion, timing and contents of a completed pre-feasibility study, future permitting requirements and the ability to update past permits, mineral resource estimates and other similar statements regarding the future potential of the Talapoosa project. When used herein, the words "anticipate," "believe," "estimate," "upcoming," "plan," "target", "intend" and "expect" and similar expressions, as they relate to Timberline Resources Corporation, its subsidiaries, or its management, are intended to identify such forward-looking statements. These forward-looking statements are based on information currently available to the Company and are subject to a number of risks, uncertainties, and other factors that could cause the Company's actual results, performance, prospects, and opportunities to differ materially from those expressed in, or implied by, these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those risks set forth in this press release under the heading "Risks", risks related to exploration projects, risks related to mining activities, risks related to potential future transactions, risks related to the Company continuing as a going concern, risks related to the ability to finance any payment due at the exercise of the Talapoosa option, risks related to project development decisions, risks related to mineral resource estimates and other such factors, including risk factors discussed in the Company's Annual Report on Form 10-K for the year ended September 30, 2014. Except as required by Federal Securities law, the Company does not undertake any obligation to release publicly any revisions to any forward-looking statements.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

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