

Apollo Confirms High Quality Barite at Calico

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VANCOUVER, May 02, 2023 - [Apollo Silver Corp.](#) ("Apollo" or the "Company") (TSX.V:APGO, OTCQB:APGOF, Frankfurt:6ZF0) is pleased to report results for barite flotation test work and quality analysis, completed as part of its 2022 Metallurgical Test Program (the "2022 Test Program") for the Waterloo silver-barite deposit. The 2022 Test Program is an initial investigation in the metallurgical process response of silver-barite mineralized rock at the Calico Silver Project ("Calico" or the "Project"), located in San Bernardino County, California.

HIGHLIGHTS

- Concentrate with up to 94.6% barite produced by flotation.
- Barite concentrate meets or exceeds the standards for chemical and physical specifications for drilling fluids for use in the petroleum industry as defined by the American Petroleum Institute ("API").

"These results confirm that barite has the potential to make a meaningful contribution to development potential at Calico," commented Apollo's President and CEO Tom Peregoodoff. "In addition to its potential as a meaningful by-product credit, the production of a salable barite product has the potential to make a material reduction in the waste produced from future silver mining operations. Barite pricing is typically strongly impacted by transportation costs and Calico's proximity to the major rail transportation hub at Barstow significantly opens up the potential market for Calico sourced barite."

ABOUT BARITE

In the 2022 Final List of Critical Minerals, published by the U.S. Geological Survey ("USGS"), barite was identified as one of many minerals which "*...play a significant role in our national security, economy, renewable energy development and infrastructure.*" The list was produced as the result of a mandate of the Energy Act of 2020, which was to identify minerals deemed essential to the economic or national security of the U.S. and which is vulnerable to supply chain disruption. Barite is critical for domestic metallurgical applications in the energy industry, with 90% of the barite sold in the U.S. used as a weighting agent in petroleum drilling. According to the USGS 2022 Mineral Commodity Report, the U.S. has an estimated net import reliance of more than 75% as a percentage of consumption and over half of that total is imported from China.

BARITE QUALITY

Barite quality analysis was completed at SPL Inc., (formerly Ana-Lab Corp.) in Kilgore, Texas, to determine if the concentrate produced met the API chemical and physical specifications for use as drilling fluids for the petroleum industry. The API is responsible for setting the quality requirements for all barite sold into the U.S. market. Results of this analysis are shown in Table 1 and demonstrate that the concentrate meets the API 13A (Barite 4.1) specification as defined in 2020.

Table 1: API Specifications and Barite Concentrate Quality Analysis Results for the Waterloo Deposit, Calico Project.

Category	API Specification	Test Result
<i>Density</i>	4.1 g/ml (minimum)	4.19 g/ml
<i>Water soluble alkaline earths (as calcium)</i>	250 mg/kg (maximum)	125.434 mg/kg
<i>Residue greater than 75 microns (200 mesh)</i>	3% (maximum)	0.1%

BARITE FLOTATION

As part of the 2022 Test Program (see news release February 23, 2023) several bulk flotation tests were completed on Waterloo silver-barite mineralized material to determine if a barite concentrate could be produced. Historical work by American Smelting and Refining Company ("ASARCO") identified the potential to produce a salable barite concentrate, so the 2022 Test Program aimed to reproduce and improve upon these results. All barite related processing was performed at McClelland Laboratories, Inc. ("McClelland") of Sparks, Nevada.

Using 12 kg of composite 005, which had a calculated initial barite content of 18% (based on X-ray diffraction results) five tests were conducted to produce barite concentrates via flotation using Aero 845 promoter and sodium silicate as reagents. For the first four tests, flotation conditions and reagent additions were based on historical metallurgical testing reports of work done by ASARCO at Waterloo and Superior at Langtry. Material was initially stage-ground to 80% passing 212 microns, using a laboratory ball mill. These four tests were conducted on 1 kg charges with a laboratory scale flotation unit at 1,200 rpm at 33% percent solids by mass. Following these, a fifth test using 8 kg of material was conducted using the indicated optimum reagent additions. Rougher flotation was conducted in five stages, with equally divided incremental additions of Aero 845 at each stage. Rougher concentrate from the first three stages was subjected to two stages of cleaner flotation to produce the final concentrate. AEROFROTH 65 (polyglycol) frother was used as needed throughout each test. Flotation products were all dried and analyzed for barium (by fused-disc X-ray fluorescence) and silver (by four acid digestion/ICP), with barite content calculated by McClelland based on reported barium content.

Table 2: Barite Flotation Test Results for the Waterloo Deposit, Calico Project.

Test	Reagent Addition, kg/t		Recovery*, % of Total			2nd Cl. Conc. Grade		Head Grade % BaSO ₄		Head Grade Ag g/t	
	AERO 845	Sodium Silicate	BaSO ₄ (%)	Ag (%)	Mass	BaSO ₄ (%)	Ag (ppm)	Calculated	Assayed	Calculated	Assay
F-1	0.225	1.0	93.0	47.2	37.8	86.9	196	17.6	15.7	122	124
F-2	0.225	0.0	92.0	57.4	39.7	86.7	489	18.0	15.7	150	124
F-3	0.075	1.0	73.9	38.4	27.2	94.6	260	17.9	15.7	123	124
F-4	0.075	0.0	83.6	41.0	30.0	91.9	278	17.8	15.7	126	124
F-5	0.075	1.0	82.5	31.7	23.8	81.9	252	15.6	15.7	117	124

*Recovery to combined 5-stage rougher concentrate

Further test work has been recommended to optimize the barite circuit and to determine the best method for integrating with cyanidation for silver extraction. This work would involve further flotation testing to better optimize procedures and include evaluation of barite flotation from cyanide tails and/or evaluation of concentrate cyanidation for silver recovery. Additionally, testing of other technologies is warranted (gravity concentration, attrition scrubbing) for separation of barite. A review of the results by Apollo's Qualified Person for the 2022 Test Program, Eric Hill P.E., PMP, recommended that a preliminary case study be completed for the salability of a barite concentrate.

HISTORICAL ASARCO BARITE ESTIMATE

In 1979, ASARCO calculated an estimate of barite in the Waterloo deposit. The estimate reported a total of 33.9 million tonnes of mineralized rock in the deposit at a grade of 13.4% barite for a total of 4.5 million tonnes of barite at a grade of 93%. They assumed a 50% recovery and a cost of \$70 per short ton of barite concentrate. Please refer to Table 1 for these results, which are reported here as documented in the original documents. The reader is cautioned not to treat this historical estimate or any part of it as a current mineral resource or reserve. An independent Qualified Person has not completed sufficient work to classify this as a current mineral resource or reserve and therefore the Company is not treating the historical estimate as a current mineral resource or mineral reserve.

Table 3: ASARCO (1979) Waterloo historical silver and barite mineral reserve at 25 g/t silver cut-off

Tonnage		Average Grade			Contained Metal		
Tons (Mst)	Tonnes (Mt)	Grade-Silver (g/t)	Grade-Silver (opt)	Grade-Barite (%)	Barite (Mt)	Silver (Moz)	Silver (AgEq) (Moz)

37.2 33.7 92.9 2.71 13.4 4.5 100.9 146.5

Reference to the historical reserves at the Waterloo Property prepared by ASARCO refer to an internal company document prepared by ASARCO, dated 1979 (unpublished) which the Company is in possession of. Historical reserves are reported here as documented in the original documents. The historical reserves were calculated prior to the implementation of the current Canadian Institute of Mining's ("CIM") standards for mineral resource estimation (as defined by the CIM Definition Standard on Mineral Resources and Ore Reserves dated May 10, 2014) as required by NI 43-101 and has no comparable resource classification. The reader is cautioned not to treat them, or any part of them, as current mineral resources or reserves. An independent Qualified Person has not completed sufficient work to classify these estimates as current mineral resources or reserves and therefore the Company is not treating the historical estimate as a current mineral resources or mineral reserves. The reliability of the historical estimate is considered reasonable, reliable, and relevant to be included here in that they demonstrated simply the barite mineral potential of the Waterloo Property. This historical resource estimate has been superseded by the Calico Silver Project current mineral resource estimate, announced March 6, 2023.

SAMPLING AND QUALITY ASSURANCE/QUALITY CONTROL

Whole-core PQ-diameter diamond drill core used in the 2022 Test Program was collected by Pan American in 2012 and was drilled by Diversified Drilling, of Anaheim, CA. Core was logged (lithology, alteration, mineralization and geotechnical), and photographed in detail by Pan American. The drill core was separated into 2 m intervals and crushed to -1.5 inch by McClelland. The material has been securely stored by McClelland in Sparks, Nevada, since that time. In 2022, each interval was thoroughly blended and split in half. One half split of each interval was crushed to -1.7 mm and a 250 g split was taken using a rotary-type splitter. The 250 g splits were pulverized to better than 90% passing 106 microns. Major elements, including BaO, were analyzed using fused-disc X-ray fluorescence ("XRF") (method ME-XRF26) with analyses completed at ALS-Reno. Barite content of composite samples prior to flotation test work was calculated by McClelland based on XRF reported BaO content. Barite content of the composites was confirmed by X-ray diffraction analysis conducted by The Mineral Lab. Silver content in the barite concentrates was determined by McClelland using a four-acid digestion procedure with ICP-OES finish. McClelland maintains its own comprehensive guidelines to ensure best practices in sample preparation and is an ISO 17025 certified facility. API testing of barite concentrate was completed by SPL Inc. ("SPL"), of Kilgore Texas, an analytical testing laboratory providing testing for petroleum and related products analysis, among other services, since 1944. Results of testing by SPL meet the requirements of the Environmental Protection Agency's National Environmental Laboratory Accreditation Conference. All sample shipments were under strict chain of custody documentation.

The 2022 Metallurgical Test Program was overseen and reviewed by Jared Olsen, P.E., a professional metallurgist at McClelland, and Eric Hill, P.E., PMP, whom was a professional metallurgist at Samuel Engineering Inc., and was Apollo's Independent Qualified Person for metallurgy, in cooperation with Derek Loveday, of Stantec Consulting Ltd., Apollo's Independent Qualified Person for mineral resources.

ABOUT THE PROJECT

Location

The Project is located in San Bernardino County, California and comprises the adjacent Waterloo and Langtry properties which total 2,950 acres. The Project is 15 km (9 miles) from the city of Barstow and has an extensive private gravel road network spanning the property. There is commercial electric power within 5 km (3 miles) of the Project.

Geology and Mineralization

The Calico Project is situated in the southern Calico Mountains of the Mojave Desert, in the south-western region of the Basin and Range tectonic province. This 15 km (9 mile) long northwest- southeast trending mountain range is dominantly composed of Tertiary (Miocene) volcanics, volcanoclastics, sedimentary rocks and dacitic intrusions. Mineralization at Calico comprises high-level low-sulfidation silver-dominant epithermal vein-type, stockwork-type and disseminated-style associated with northwest-trending faults and fracture zones and mid-Tertiary (~19-17 Ma) volcanic activity. Calico represents a district-scale mineral

system endowment with approximately 6,000 m (19,685 ft) in mineralized strike length controlled by the Company. Silver and gold mineralization are oxidized and hosted within the sedimentary Barstow Formation and the upper volcanoclastic units of the Pickhandle formation along the contact between these units.

The 2023 MRE for the Calico Project comprises 110 million ounces ("Moz") silver in 34.2 million tonnes ("Mt") at an average grade of 100 grams per tonne ("g/t") silver (Measured and Indicated categories); 0.72 Moz silver in 0.3 Mt at an average grade of 77 g/t silver (Inferred category); and 70,000 oz gold in 4.5 Mt at an average grade of 0.5 g/t gold (Inferred category), all on the Waterloo Property. In addition, the Langtry Property holds 50 Moz silver in 19.3 Mt at an average grade of 81 g/t silver. The Langtry MRE remains unchanged from that defined in the 2022 MRE. For more information, please see the news release dated March 6, 2023 and the N.I. 43-101 Technical Report titled "NI 43-101 Technical Report for the Mineral Resource Estimate of the Calico Silver Project, San Bernardino County, California, USA," dated April 20, 2023 (with an effective date of February 8, 2023).

QUALIFIED PERSONS

The scientific and technical information contained in this news release as related to the 2022 Metallurgical Test Program was reviewed and approved by Jared Olson, P.E., Metallurgist and Vice President of Operations at McClelland Laboratories, Inc., and Cathy Fitzgerald, M.Sc., P.Geo., Apollo's Vice President of Exploration and Resource Development for the Company. Mr. Olson and Ms. Fitzgerald are Qualified Persons as defined by the Canadian Securities Administrators National Instrument 43-101 Standards of Disclosure for Minerals Projects. Mr. Olson is a registered Professional Engineer in Nevada. Ms. Fitzgerald is a registered Professional Geoscientist in British Columbia, Canada.

Please visit www.apollosilver.com for further information.

ON BEHALF OF THE BOARD OF DIRECTORS

Tom Peregoodoff
Chief Executive Officer

About Apollo Silver Corp.

[Apollo Silver Corp.](#) has assembled an experienced and technically strong leadership team who have joined to advance world class precious metals projects in tier-one jurisdictions. The Company is focused on advancing its portfolio of two significant silver exploration and resource development projects, the Calico Project, in San Bernardino County, California and Silver District Project in La Paz County, Arizona.

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

Cautionary Statement Regarding "Forward-Looking" Information

This news release includes "forward-looking statements" and "forward-looking information" within the meaning of Canadian securities legislation. All statements included in this news release, other than statements of historical fact, are forward-looking statements including, without limitation, statements with respect to the potential of the Calico Project; the potential for identification of gold and barite resources at Calico; geological interpretations; the potential to expand the resource estimate and upgrade its confidence level, including prospective mineralization on strike and at depth. Forward-looking statements include predictions, projections and forecasts and are often, but not always, identified by the use of words such as "anticipate", "believe", "plan", "estimate", "expect", "potential", "target", "budget" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions and includes the negatives thereof.

Forward-looking statements are based on the reasonable assumptions, estimates, analysis, and opinions of the management of the Company made in light of its experience and its perception of trends, current

conditions and expected developments, as well as other factors that management of the Company believes to be relevant and reasonable in the circumstances at the date that such statements are made. Forward-looking information is based on reasonable assumptions that have been made by the Company as at the date of such information and is subject to known and unknown risks, uncertainties and other factors that may have caused actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks associated with mineral exploration and development; metal and mineral prices; availability of capital; accuracy of the Company's projections and estimates; realization of mineral resource estimates, interest and exchange rates; competition; stock price fluctuations; availability of drilling equipment and access; actual results of current exploration activities; government regulation; political or economic developments; environmental risks; insurance risks; capital expenditures; operating or technical difficulties in connection with development activities; personnel relations; contests over title to properties; changes in project parameters as plans continue to be refined; and impact of the COVID-19 pandemic. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource and it is uncertain if further exploration will result in upgrading them to an indicated or measured mineral resource category. Forward-looking statements are based on assumptions management believes to be reasonable, including but not limited to the price of silver, gold and barite; the demand for silver, gold and barite; the ability to carry on exploration and development activities; the timely receipt of any required approvals; the ability to obtain qualified personnel, equipment and services in a timely and cost-efficient manner; the ability to operate in a safe, efficient and effective manner; and the regulatory framework regarding environmental matters, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. 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. Accordingly, readers should not place undue reliance on forward looking information contained herein, except in accordance with applicable securities laws. The forward-looking information contained herein is presented for the purpose of assisting investors in understanding the Company's expected financial and operational performance and the Company's plans and objectives and may not be appropriate for other purposes. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

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