

# Nevada King Reports Positive Metallurgical Test Results, Confirms Suitability Of Conventional Oxide Processing Methods At Atlanta

26.03.2024 | [CNW](#)

VANCOUVER, March 26, 2024 - [Nevada King Gold Corp.](#) (TSXV: NKG) (OTCQX: NKGFF) ("Nevada King" or the "Company") pleased to report results from an extensive Phase I metallurgical testing program at the Atlanta Gold Mine Project, located on the prolific Battle Mountain Trend, 264km northeast of Las Vegas, Nevada. The objective of the Phase I program was to test various mineralized host rocks at Atlanta for gold and silver extraction, using conventional flowsheet unit operations to select a process flowsheet suitable for the commercial extraction of gold and silver from the project. Results of the Phase I work support strong recoveries utilizing conventional Nevada oxide processing methods for the representative mineralization present at Atlanta.

## Highlights:

- Phase I testing used three surface bulk samples and 19 composites from drill core comprising the full range of rock types, gold and silver grades encountered across Atlanta. Mineralization at Atlanta can be broadly characterized by two domains: 1) Silicified breccias found within and below the main Atlanta unconformity, and 2) Volcanics found above the Atlanta unconformity (refer to cross sections A-A and B-B in Figures 3-4 below).
- Results of Phase I support conventional Nevada oxide processing methods for Atlanta whereby:
  - Silicified breccias are amenable to conventional milling for high-grade material and High-Pressure Grinding for low-grade material, crushing and heap leaching for the lower-grade material.
  - Volcanics are amenable to conventional milling for high-grade material and Conventional Crush or Run-of-Mine for low-grade material, crushing and heap leaching for the lower-grade material.
- Applicable to process plant scenarios, gold extraction from fine milling at a 200-mesh grind (P80=75µm) shows a weighted average extraction of 91.7% for gold hosted in volcanics and 85.9% for the high-grade silica breccias.
- Silver extraction from fine milling at a 200-mesh grind (P80=75µm) shows a weighted average 65.3% in the volcanics and 41.3% in the silica breccias. At coarser crush size silver extractions are similar between the two metallurgical domains.
- Applicable to heap leach scenarios, gold extraction from conventional crushing (P80=12.5 mm) shows a weighted average extraction of 87.1% for gold hosted in volcanics. Gold extraction from HPGR crushed composites (using medium grind) shows a weighted average 71.4% extraction from low-grade silica breccias.
- A Phase 2 metallurgical PQ core drilling program has now been completed to fill some gaps in the target resource and further laboratory testing utilizing material from this drilling is scheduled to start later in 2024. The location of the drilling can be found in the drill hole plan map below in Figure 2.

Bulk Sample and Phase 1 metallurgical test work at Atlanta has been supervised by Gary Simmons (MMSA QP Number 01013QP), formerly the Director of Metallurgy and Technology for Newmont Mining Corp. Mr. Simmons has supervised and managed numerous Carlin-style metallurgical testing programs in the Great Basin with characteristics similar to those found at Atlanta.

Mr. Simmons commented, "Historic production at Atlanta focused on near-surface high-grade silica breccia ores that were processed and recovered using conventional oxide milling practices. Historical records (1979-85) indicate recoveries from silica breccias necessitated a fine-grind milling and Merrill-Crowe recovery process that averaged 81% for gold and 42% for silver. The mill grind P<sub>80</sub> = 120µm (microns). This historical milling operation was challenged by the hard and abrasive nature of the silica breccias, resulting in elevated-maintenance and operating costs in primary, secondary, and tertiary crushing circuits.

"Today's results confirm that conventional oxide milling, and HPGR crush heap-leach or ROM heap-leach, depending on

mineralization type, are well suited for processing gold and silver mineralization at Atlanta. Referring to a conceptual Atlanta generalized flowsheet in Figure 1 below, a straightforward process breaks out the host mineralization into their respective breccia and volcanic units, running high-grade mineralization through a mill and processing lower grade material via a conventional HPGR crush and ROM heap leaching. The adoption of HPGR crushing technology (used at other mines in Nevada and around the world) will eliminate SAG milling of silica breccias and high-grade volcanics that in turn should result in reduced overall cost against a conventional SABC (Semi-Autogenous-Ball Mill-Crusher) circuit design. It is anticipated that this process will be more cost-effective than historical methods, resulting in lower process cutoff grades and potential for economic extraction of gold and silver from a larger volume of material."

Collin Kettell, Founder & CEO of Nevada King, stated, "Positive results from the Phase 1 metallurgical test work released to date indicate a clear path forward for processing Atlanta's gold and silver mineralization via a combination of crushed and run-of-mine (ROM) heap leaching together with conventional milling of high-grade mineralization. In a major departure from historical processing at Atlanta, the potential for using HPGR crushing, as indicated by Phase 1 enhanced test recoveries, could realize significant benefits and opportunities for flow sheet development in a future potential mining operation. Test results also show significantly higher Au/Ag recoveries in the volcanic section, which is fast becoming a major component of the overall mine footprint at Atlanta. Looking forward, ongoing resource modeling and metallurgical studies will focus on optimizing the process economics of mining and processing scenarios utilizing the alternative process options for which this Phase 1 testing provided indicated positive extraction results."

#### Test Results Summary:

Atlanta mineralized resources have been characterized into two major resource categories for gold and silver processing: Silicified breccias (mineralized material in and below the main Atlanta unconformity) and Volcanics (mineralized material above the main Atlanta unconformity).

A breakout of the materials tested above and below the Atlanta unconformity and the laboratory metallurgy gold extraction results are summarized in Table 1. A full range of rock types at Atlanta have been tested and test results clearly show the significant metallurgical difference between the silicified breccias and the volcanics. A similar table summarizing silver extraction for Atlanta can be found in Table 2.

Silicified breccias, below the unconformity, are hard and abrasive rocks and have a high degree of sensitivity to process feed particle size.

- Victory Metals, Inc. ([Nevada King Gold Corp.](#)) NI 43-101 Technical Report on the Atlanta Project dated December 2015 reported historic Atlanta mill recoveries, for the years 1979-85 at 81% for Au and 42% for Ag, at operating ball mill grind of 120µm (microns).
- Silicified breccias are amenable to High Pressure Grinding Roll (HPGR) comminution, where high-grade would be milled and lower-grade to heap leaching. The determination between higher-grade and lower-grade material will be dependent on future economic analysis.
- Of significant note is that as the silica breccia gold grade decreases (<1.7 ppm Au), gold extraction increases at coarser particle size, as shown in Table 1. Thus, reinforcing the benefit of milling higher grade and HPGR crush-heap leach for lower grade resources.
- Volcanics, above the unconformity, are relatively insensitive to process feed particle size and can be characterized as similar to central Nevada commercial heap leach operations.
- Volcanics are amenable to conventional milling, conventional crush heap leaching and/or ROM heap leaching.

Gold extraction from fine milling at a 200 mesh grind (P80=75µm) show a weighted average:

- 91.7% extraction in the volcanics
- 87.5 % extraction in the low-grade silica breccias
- 85.9% extraction in the high-grade silica breccias

Gold extraction from conventional crushing (P80=12.5 mm) show a weighted average:

- 87.1% extraction from volcanics

- 62.1% extraction from low-grade silica breccias
- 37.0% extraction from high grade silica breccias

Gold extraction from HPGR crushed composites show a weighted average:

- 81.9% extraction from volcanics (only four of the nine volcanic composites were tested using HPGR as the remainder composites contained elevated levels fines and are not suitable for HPGR processing)
- 71.4% extraction from low-grade silica breccias (<1.7 ppm Au)
- 50.4% extraction from high-grade silica breccias

KCA Sample No.	Comp ID	Unconf*1 Abv/Below	Atlanta Geology Formation Subunit		Gold Met Balances					
					37µm BR		75µm BR		1,700µm BR	
					Au %	Ext Calc Au (ppm)	Hd %	Ext Calc Au (ppm)	Hd %	Ext Calc Au (ppm)
96607 A	ATV-3	Above	VollInt	Qtz latite porph, Int.	83.4	1.820	86.5	1.823	64.6	1.941
96609 A	ATV-5	Above	Tww	Volc. Ss	93.3	0.312	88.9	0.126	67.4	0.141
96616 A	ATV-12	Above	Tww	Dacite tuff	92.8	0.500	96.2	0.521	78.4	0.509
96617 A	ATV-13	Above	Tww	Dacite tuff	80.4	1.539	84.8	1.498	77.6	1.462
96619 A	ATV-15	Above	VollInt	Tuff dike bxa	90.0	6.363	92.0	6.793	82.0	6.927
96620 A	ATV-16	Above	VollInt	Qtz latite porph, Int.	90.7	0.529	90.7	0.593	86.6	0.610
96621 A	ATV-17	Above	SBX-2	hydro-breccia	83.9	1.214	88.6	1.324	73.3	1.209
96622 A	ATV-18	Above	VollInt	Qtz latite porph, Int.	86.7	1.531	88.0	1.639	81.8	1.566
96623 A	ATV-19	Above	BXZ	Dolomite	97.1	7.951	95.4	7.174	91.8	7.842
Wt Average					90.9	2.418	91.7	2.388	83.1	2.467
96612 A	ATV-8	Below	Oes	Dolomite	78.5	0.237	82.4	0.289	50.8	0.299
96610 A	ATV-6	Below	VollInt	tuff dike bxa	94.9	0.375	94.3	0.348	64.0	0.336
96614 A	ATV-10	Below	SBX	Wk Si Dolomite	77.5	0.244	83.2	0.333	68.9	0.360
96601 B	ABS#1	Below	OI	Silicified Dolomite	80.3	0.340	76.6	0.337	55.8	0.344
96615 A	ATV-11	Below	SBX	SBX	87.0	0.575	87.7	0.570	61.9	0.559
96605 A	ATV-1	Below	VollInt	Qtz latite porph, Int.	85.8	1.166	86.4	1.157	53.8	1.131
96603 B	ABS#3	Below	SBX	SBX	91.4	1.549	88.5	1.465	80.6	1.692
96602 B	ABS#2	Below	SBX	SBX	92.1	1.539	90.2	1.442	74.5	1.599
Wt Average (<1.7 ppm Au)					88.6	0.753	87.5	0.743	68.3	0.790
96613 A	ATV-9	Below	SBX	SBX	91.0	2.344	90.0	2.412	53.3	2.617
96618 A	ATV-14		VollInt	Silicified Ryolite Int.	85.0	2.462	80.6	2.248	45.9	1.967
96611 A	ATV-7	Below	SBX	SBX	93.5	2.487	93.5	2.253	52.8	2.321
96608 A	ATV-4	Below	SBX	SBX	90.6	4.742	80.5	5.117	47.8	5.009
96606 A	ATV-2	Below	BXZ	volc tuff bxa	94.1	6.166	88.1	5.961	66.8	6.150
Wt Average (>1.7 ppm Au)					91.5	3.640	85.9	3.598	55.5	3.613

\*1 - Unconformity - Below: Gold Extraction % is highly sensitivity to feed particle size, Unconformity - Above: Gold Extraction % is highly sensitivity to feed particle size.



Table 1. Gold Metallurgical Results, Bottle Roll & Column Leach Tests



KCA Sample No.	Comp ID Unconf* <sup>2</sup>		Abv/Below Atlanta		Geology	Silver Met Balances* <sup>2</sup>					
						37µm BR		75µm BR		1,700µm BR	
						Ag Ext Calc Hd % Ag (ppm)	%	Ag Ext Calc Hd % Ag (ppm)	%	Ag Ext Calc Hd % Ag (ppm)	%
				Formation Subunit							
96607 A	ATV-3	Above		VollInt	Qtz latite porph, Int.	43.2	2.5	24.3	4.6	13.1	4.9
96609 A	ATV-5	Above		Tww	Volc. Ss	55.7	2.0	22.3	3.8	8.2	3.8
96616 A	ATV-12	Above		Tww	Dacite tuff	36.0	0.4	8.0	1.5	8.5	0.9
96617 A	ATV-13	Above		Tww	Dacite tuff	77.9	1.1	37.2	2.3	47.1	1.5
96619 A	ATV-15	Above		VollInt	Tuff dike bxa	83.2	69.1	82.3	63.1	38.4	66.6
96620 A	ATV-16	Above		VollInt	Qtz latite porph, Int.	20.4	3.4	14.9	3.9	7.4	3.1
96621 A	ATV-17	Above		SBX-2	hydro-breccia	61.1	36.2	64.6	38.6	33.4	38.2
96622 A	ATV-18	Above		VollInt	Qtz latite porph, Int.	44.4	1.4	34.0	2.1	44.4	1.2
96623 A	ATV-19	Above		BXZ	Dolomite	52.6	32.0	56.9	33.9	35.6	31.4
Wt Average						68.1	16.5	65.3	17.1	34.3	16.9
96612 A	ATV-8	Below		Oes	Dolomite	40.0	1.0	20.2	1.8	5.7	2.3
96618 A	ATV-14			VollInt	Silicified Ryolite Int.	83.5	1.7	49.7	2.5	43.9	1.7
96605 A	ATV-1	Below		VollInt	Qtz latite porph, Int.	64.1	2.5	34.4	4.0	18.4	4.1
96610 A	ATV-6	Below		VollInt	tuff dike bxa	70.1	3.0	39.8	4.3	29.0	5.0
96614 A	ATV-10	Below		SBX	Wk Si Dolomite	55.4	2.5	22.4	5.1	10.3	5.5
96602 B	ABS#2	Below		SBX	SBX	56.8	15.9	54.4	15.2	52.8	13.3
96606 A	ATV-2	Below		BXZ	volc tuff bxa	55.1	10.8	24.9	18.5	16.5	15.8
96608 A	ATV-4	Below		SBX	SBX	53.7	12.8	21.6	23.0	8.7	19.0
96615 A	ATV-11	Below		SBX	SBX	78.8	25.7	62.0	34.7	46.3	32.9
96611 A	ATV-7	Below		SBX	SBX	57.8	21.5	35.6	33.2	24.9	27.6
96613 A	ATV-9	Below		SBX	SBX	73.9	35.6	56.5	47.7	64.7	42.3
96601 B	ABS#1	Below		OI	Silicified Dolomite	23.8	65.2	23.5	62.6	9.6	51.5
96603 B	ABS#3	Below		SBX	SBX	43.2	134.9	46.0	119.7	31.5	132.2
Wt Average						48.5	25.6	41.3	28.7	31.4	27.2

\*2 - Silver grades are lower and extractions are higher in resources above the unconformity.

Table 2. Silver Metallurgical Results, Bottle Roll & Column Leach Tests

QA/QC Protocols



All PQ-diameter core for the Phase 1 testing program was ¼ cut with a diamond saw, with the ¼ sample being sent to American Assay Lab in Reno, Nevada, while the ¾ samples were sent to Kappes and Cassidy Associates, also in Reno. Samples were cut under the Company's supervision in its Winnemucca, Nevada, warehouse and all samples were placed in heavy canvas bags. CRF standards and coarse blanks were inserted into the sample stream on a one-in-twenty sample basis, meaning both inserts are included in each 20-sample group. Samples were shipped by a local contractor in large sample shipping crates directly to American Assay Lab in Reno, Nevada, with full custody being maintained at all times. At American Assay Lab, samples were weighted then crushed to 75% passing 2mm and pulverized to 85% passing 75 microns in order to produce a 300g pulverized split. Prepared samples are initially run using a four acid + boric acid digestion process and conventional multi-element ICP-OES analysis. Gold assays are initially run using 30-gram samples by lead fire assay with an OES finish to a 0.003 ppm detection limit, with samples greater than 10 ppm finished gravimetrically. Every sample is also run through a cyanide leach for gold with an ICP-OES finish. The QA/QC procedure involves regular submission of Certified Analytical Standards and property-specific duplicates.

#### Qualified Person

The geological information in this news release has been reviewed and approved by Calvin R. Herron, P.Geo., who is a Qualified Person as defined by National Instrument 43-101 ("NI 43-101"). Mr. Herron is not independent for purposes of NI 43-101 as he is Exploration Manager of Nevada King.

#### About Nevada King Gold Corp.

Nevada King is the third largest mineral claim holder in the State of Nevada, behind Nevada Gold Mines (Barrick/Newmont) and Kinross Gold. Starting in 2016 the Company has staked large project areas hosting significant historical exploration work along the Battle Mountain trend located close to current or former producing gold mines. These project areas were initially targeted based on their potential for hosting multi-million ounce gold deposits and were subsequently staked following a detailed geological evaluation. District-scale projects in Nevada King's portfolio include (1) the 100% owned Atlanta Mine, located 100km southeast of Ely, (2) the Lewis and Horse Mountain-Mill Creek projects, both located between Nevada Gold Mines' large Phoenix and Pipeline mines, and (3) the Iron Point project, located 35km east of Winnemucca, Nevada.

The Atlanta Mine is a historical gold-silver producer with a NI 43-101 compliant pit-constrained resource of 460,000 oz Au in the measured and indicated category (11.0M tonnes at 1.3 g/t) plus an inferred resource of 142,000 oz Au (5.3M tonnes at 0.83 g/t). See the NI 43-101 Technical Report on Resources titled "Atlanta Property, Lincoln County, NV" with an effective date of October 6, 2020, and a report date of December 22, 2020, as prepared by Gustavson Associates and filed under the Company's profile on SEDAR+ ([www.sedarplus.com](http://www.sedarplus.com)).

Resource Category	Tonnes Au Grade		Contained Au		Grade Contained Ag	
	(000s)	(ppm)	Oz	(ppm)	Oz	
Measured	4,130	1.51	200,000	14.0	1,860,000	
Indicated	6,910	1.17	260,000	10.6	2,360,000	
Measured + Indicated	11,000	1.30	460,000	11.9	4,220,000	
Inferred	5,310	0.83	142,000	7.3	1,240,000	

Table 3. NI 43-101 Mineral Resources at the Atlanta Mine

Please see the Company's website at [www.nevadaking.ca](http://www.nevadaking.ca).

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.

#### Cautionary Statements Regarding Forward Looking Information

This news release contains certain "forward-looking information" and "forward-looking statements" (collectively "forward-looking statements") within the meaning of applicable securities legislation. All statements, other than statements of historical fact, included herein, without limitation, statements relating to the future operations and activities of Nevada King, are forward-looking statements. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "possible", and similar expressions, or statements that events, conditions, or results "will", "may", "could", or "should" occur or be achieved. Forward-looking statements in this news release relate to, among other things, statements regarding extraction results from the Phase I program and the effect thereof, laboratory testing of material from the Company's Phase 2 metallurgical PQ core drilling program, and the effect of extraction results thereof. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Forward-looking statements reflect the beliefs, opinions and projections on the date the statements are made and are based upon a number of assumptions and estimates that, while considered reasonable by Nevada King, are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors, both known and unknown, could cause actual results, performance or achievements to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements and the parties have made assumptions and estimates based on or related to many of these factors. Such factors include, without limitation, the ability to complete proposed exploration work, the results of exploration, continued availability of capital, and changes in general economic, market and business conditions. Readers should not place undue reliance on the forward-looking statements and information contained in this news release concerning these items. There is no certainty, and the Company cannot provide assurance, that the results of the Phase I program will be realized in part or at all. The findings will require further assessment and analysis, including additional met core variability testing, comminution and environmental characterization and design engineering studies. Nevada King does not assume any obligation to update the forward-looking statements of beliefs, opinions, projections, or other factors, should they change, except as required by applicable securities laws.

#### Contact

View original content to download

contact Colin Kewell at [colin@nevadaking.ca](mailto:colin@nevadaking.ca) or (845) 535-1486.

multimedia:<https://www.prnewswire.com/news-releases/nevada-king-reports-positive-metallurgical-test-results-confirms>

---

Dieser Artikel stammt von [Rohstoff-Welt.de](https://www.rohstoff-welt.de)

**SOURCE: Nevada King Gold Corp.**

<https://www.rohstoff-welt.de/news/466753--Nevada-King-Reports-Positive-Metallurgical-Test-Results-Confirms-Suitability-Of-Conventional-Oxide-Processing-M>

Für den Inhalt des Beitrages ist allein der Autor verantwortlich bzw. die aufgeführte Quelle. Bild- oder Filmrechte liegen beim Autor/Quelle bzw. bei der vom ihm benannten Quelle. Bei Übersetzungen können Fehler nicht ausgeschlossen werden. Der vertretene Standpunkt eines Autors spiegelt generell nicht die Meinung des Webseiten-Betreibers wieder. Mittels der Veröffentlichung will dieser lediglich ein pluralistisches Meinungsbild darstellen. Direkte oder indirekte Aussagen in einem Beitrag stellen keinerlei Aufforderung zum Kauf-/Verkauf von Wertpapieren dar. Wir wehren uns gegen jede Form von Hass, Diskriminierung und Verletzung der Menschenwürde. Beachten Sie bitte auch unsere [AGB/Disclaimer!](#)

---

Die Reproduktion, Modifikation oder Verwendung der Inhalte ganz oder teilweise ohne schriftliche Genehmigung ist untersagt!  
Alle Angaben ohne Gewähr! Copyright © by Rohstoff-Welt.de -1999-2026. Es gelten unsere [AGB](#) und [Datenschutzrichtlinien](#).