Argyle Resources Corp. Announces Completion of Satellite Analysis at Saint Gabriel Silica Project

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Argyle Resources Corp. (CSE: ARGL) (OTCQB: ARLYF) (FSE: ME0) ("Argyle" or the "Company ") is pleased to announce that it has received the results of remote sensing studies comprising Long-Wave Infrared (LWIR) and Short-Wave Infrared (SWIR) analysis over its St. Gabriel silica claim block and its environs including gas mapping for hydrogen, helium, radon, methane and carbon dioxide. The remote sensing studies aimed to provide highly detailed mineral mapping and actionable exploration targets on the claim block and its environs (press release March 20th, 2025).

Unmixing the hyperspectral Sentinel 2-A satellite data enables identifying, differentiating, and mapping sixteen distinct endmembers or minerals, at 10m resolution, including opaline silica and chert from surface reflectance. Unmixing the ASTER thermal data identified sixteen endmember minerals, including quartz abundances, by detecting the thermal radiation emitted by materials from outcrops through vegetation and overburden at a coarser 90 m resolution. Satellite data was from two time periods, September 20th, 2024, and January 28th, 2025, which coincided with minimal to no vegetation cover and reduced the amount of non-geological generated gases.

Mineral Mapping:

Hyperspectral mineral mapping using opaline silica minerals outlined three distinct target areas ranging from 1.5km to 2km in length. The shortwave infrared (SWIR) Silica target areas incorporate the four high silica drill holes drilled in 1991 and between 15% and 56% of the Sigeom-denoted outcrops reported on the claims.

Though not as extensive as the hyperspectral opaline silica, the long-wave infrared endmember (LWIR) mineral quartz abundance corresponds spatially to the three opaline SWIR targets.

Fingerprint Target Mapping:

Utilizing the georeferenced high silica drill holes, the fifteen spatially associated outcrops on the St. Gabriel claims, and the sampled quartzite outcrops from the Matapedia claims, as trainers for AI learning. For the SWIR and LWIR data, algorithms analyzed the hyperspectral/spectral data, applying quadratic discriminant function classifiers (QDFC) to each pixel within the survey area. It involved fitting the spectral signature of each pixel to the known fingerprints of target minerals, and by quantitatively assessing the spectral similarities, the AI learning system generates QDFC Predictive Fingerprint Target Maps, highlighting areas likely to contain the desired mineral deposits.

Individual SWIR and LWIR QDFC predictive Fingerprint target maps were produced for both the St. Gabriel and Matapedia trainers to outline potential quartz/silica target areas. All the SWIR Fingerprint mapping data showed near identical target areas. The Fingerprint mapping data was outlined and contoured to produce the SWIR quartz/silica Fingerprint Target map. The three Fingerprint target areas correspond to the opaline silica target areas. The coarser resolution LWIR QDFC Fingerprinting delineated four target areas, three corresponding to the SWIR targets, plus a target at the eastern border of the claims.

In addition to the quartz/silica targets on the claim block, three large quartz/silica target areas trending some 40 km were identified outside the St. Gabriel claims.

Five historic copper showings/mines in the area were also used as trainers to search for potential copper targets on the claims and in the vicinity. Several copper target areas were identified outside the claims

associated with specific regional faults, showing the absence of major copper targets on the claim block.

Gas Abundance Mapping:

Sentinel 2-A SWIR and VNIR data for September 2024 and January 2025, selected to minimize non-geologic gas interference, five gases were unmixed: hydrogen, helium, radon (at 10m resolution), and methane, carbon dioxide (at 20m resolution). Statistical analysis shows a strong correlation between quartz outcrops and hydrogen gas, with a minor correlation to helium, indicating hydrogen as a reliable exploration vector for quartz deposits. Hydrogen abundance, independent of the SWIR opaline minerals, reveals three distinct moderate hydrogen zones on the claims. At the same time, helium and radon distributions suggest radioactive mineral presence and potential organic sedimentary sources, with low to no abundances correlating to quartz-rich zones. Methane and carbon dioxide abundances are sparse and show no spatial correlation with quartz outcrops.

Hydrogen abundance correlates well with the quartz/silica previously identified by SWIR minerals and Fingerprint target mapping.

Due to the hydrogen/quartz correlation, the five gas abundance data over the known silica outcrops and high silica drill holes were used as trainers to generate a gas QDFC fingerprint Target map. The map outlined and highlighted numerous precise and discrete target areas for silica quartz. Eighty percent (80%) of the numerous gas/quartz targets occur within the three quartz/silica Fingerprint target areas.

The gas mapping confirmed the presence of hydrogen, probably "geological" hydrogen. To ascertain whether the hydrogen abundance mapped is from a shallow or deep source, the Duplex Wave Migration (DWM) seismic imaging technique to visualize near-vertical structures in the Earth's subsurface was adapted to produce a deep hydrogen anomaly map at 50m resolution for the claims and the 11,000 sq. km survey region using satellite high-resolution hydrogen estimates for September 2024 at 10 m spatial resolution. A moving window of 5x5 pixels to migrate the gas response down into the earth, so the resolution is roughly 50m.

Deep-sourced hydrogen on the claims was confirmed, and numerous moderate to high deep hydrogen abundances were identified correlating closely, though more defined, with the quartz/silica target areas outlined by the other remote sensing mapping. Regional areas of deep-sourced hydrogen in the 11,000 sq km area were identified as being closely associated with regional faults, deep-seated crustal faults, and a deep gravity "worm" transecting the St. Gabriel claim block. These are important features related to the movement of gases and mineral fluids in the area.

LWIR Metallic TVM Overlap Mapping:

Three iron minerals were identified, outlined, and contoured to delineate areas of metallic minerals and exclude contaminant zones that could degrade quartz quality. The three target zones are outside the main areas of metallics.

Priority Quartz/Silica Targets

The targeting process was refined by incorporating the remote sensing results from the SWIR hyperspectral, LWIR thermal, and gases to delineate quartz/silica priority target zones. Sixty (60) small, discreet priority targets were outlined in three clusters corresponding to the broad quartz/silica target areas. These targets align with known high-silica drill holes and outcrops, providing focused areas for future exploration. Metallic mineral contamination mapping further refines these targets to enhance silica quality.

Satellite data integration, including multispectral imaging, gas surveys, and gravity data, has effectively delineated priority quartz target areas on the St. Gabriel claim block. The strong correlation between hydrogen gas and high-purity quartzite supports using hydrogen as an exploration vector. Structural features such as deep crustal faults and gravity worms are significant for fluid migration and mineralization. These insights provide a robust foundation for the upcoming field program.

Jeff Stevens, CEO of Argyle Resources Corp., commented:

"The integration of advanced remote sensing and AI-driven mineral mapping has delivered a robust foundation for our upcoming field program at St. Gabriel. The strong correlation between hydrogen gas and high-purity quartzite supports our approach of using hydrogen as an exploration vector, and the identification of discrete, high-potential targets will allow us to focus our resources efficiently for maximum impact."

The Company will leverage these insights to prioritize fieldwork and further evaluate the economic potential of the St. Gabriel silica project. The results also reinforce Argyle's broader strategy of deploying cutting-edge remote sensing technologies across its Québec silica portfolio

About Argyle Resources Corp.

Argyle Resources Corp. is a junior mineral exploration company engaged in the business of acquiring, exploring, staking and evaluating natural resource properties in North America. In addition to the Saint Gabriel project, the Company currently holds an option to acquire up to 100% of the Frenchvale Graphite Property located in Nova Scotia, Canada and owns 100% interest in the Pilgrim Islands, Matapédia and Lac Comporté quartzite silica projects in Québec, Canada. Argyle is engaged in a research partnership with the National Institute of Scientific Research (INRS), a high-level research and training institute funded by the Québec government to conduct exploration programs on the Company's silica projects. The Company was incorporated in 2023 and its head office is located in Calgary, Alberta, Canada.

Qualified Person

John Ryder P.Geo, a "Qualified Person" as that term is defined under NI 43-101, has reviewed and approved the technical information contained in this news release. Mr. Ryder is also a consultant of the Company.

ON BEHALF OF THE BOARD OF DIRECTORS

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Forward-Looking Statements

All statements included in this press release that address activities, events or developments that Argyle expects, believes or anticipates will or may occur in the future are forward-looking statements. Such statements may involve, but are not limited to, statements with respect to the exploration and development of the Company's mineral properties. These forward-looking statements involve numerous assumptions made by Argyle based on its experience, perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances. In addition, these statements involve substantial known and unknown risks and uncertainties that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will prove inaccurate, certain of which are beyond Argyle's control. Readers should not place undue reliance on forward-looking statements. Except as required by law, Argyle does not intend to revise or update these forward-looking statements after the date hereof or revise them to reflect the occurrence of future unanticipated events.

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