



## Request for Proposals

### ***Analysis and Follow-up of QUEST and QUEST-West Project Geoscience Data***

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**Deliver to:**

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*Geoscience BC is an innovative and applied geoscience centre dedicated to the collection, interpretation, and marketing of geoscience expertise, information, and products to attract exploration investment to BC.*

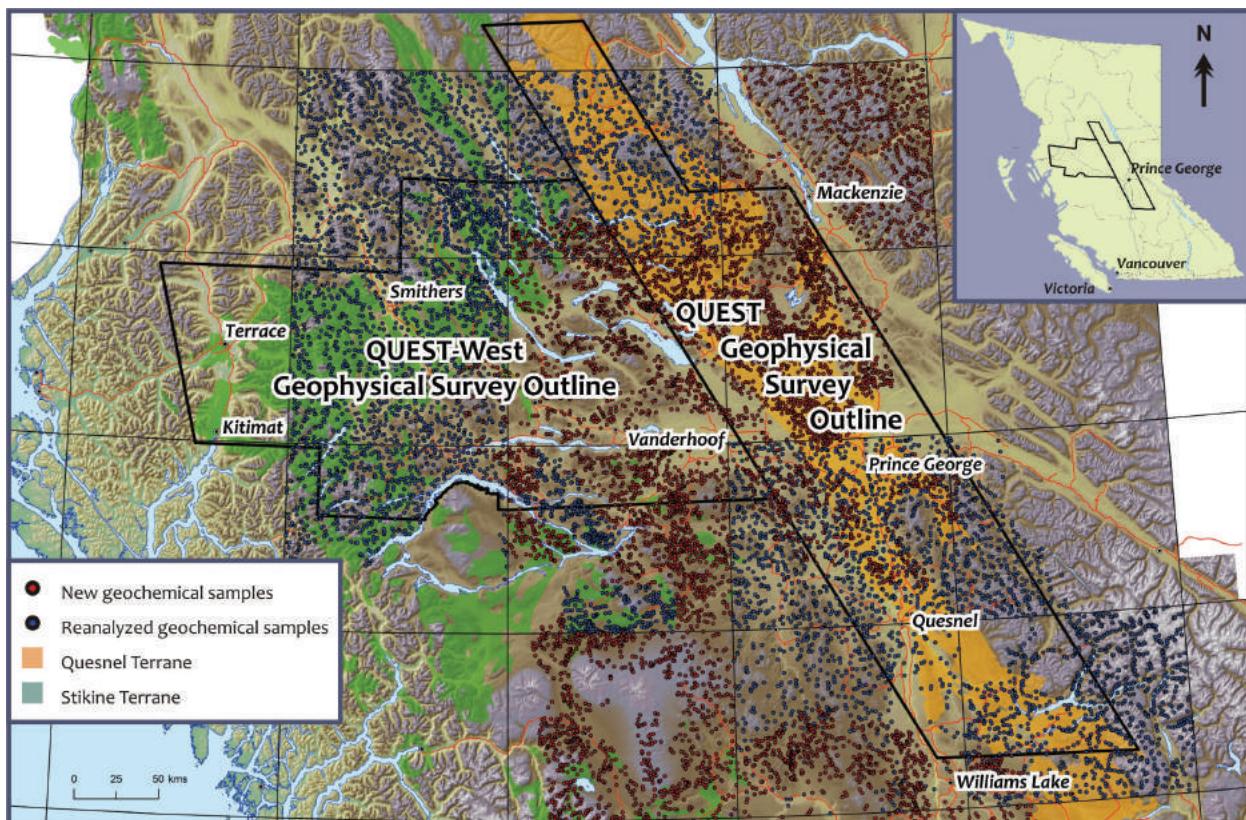
## REQUEST FOR PROPOSALS

### *Analysis and Follow-up of QUEST and QUEST-West Project Geoscience Data*

In support of its mandate to undertake geoscience to attract exploration investment to BC, Geoscience BC is pleased to issue this request for proposals (RFP) for projects to analyze and/or undertake ground follow-up on geoscience data acquired in the Geoscience BC QUEST and QUEST-West Projects. Submissions from industry, academia, government, First Nations, communities or not-for profit organizations are welcome.

#### **QUEST and QUEST-West Projects Background**

The QUEST and QUEST-West Project geoscience data comprises geochemical data, airborne helicopter TEM and magnetic data, and airborne gravity data. As of the date of release of this RFP, all QUEST and QUEST-West Project data is publicly available on Geoscience BC's website, with the exception of QUEST-West new lake and stream sediment geochemical data, which will be released in the near future. Combined with pre-existing data in the project areas, such as geology, geochemistry, geophysics, etc. available from a variety of sources such as Geoscience BC, government (i.e. British Columbia Geological Survey, Geological Survey of Canada), industry, academic and other archival sources, this represents an immense data set that is ideal for data mining.



**Figure 1.** Geoscience BC's QUEST and QUEST-West Projects. Black outlines show the extent of the airborne geophysical surveys, while the blue and red dots indicate new and reanalyzed geochemical samples (new samples also include lake sediment geochemical samples collected by Geoscience BC prior to the QUEST Project).

More information on the projects can be found at:

- [www.geosciencebc.com/s/Quest.asp](http://www.geosciencebc.com/s/Quest.asp) (QUEST Project webpage)
- [www.geosciencebc.com/s/QuestWest.asp](http://www.geosciencebc.com/s/QuestWest.asp) (QUEST-West webpage)
- [www.geosciencebc.com/s/FileAccess.asp](http://www.geosciencebc.com/s/FileAccess.asp) (all QUEST and QUEST-West data)

Geoscience BC can also provide DVDs with all public QUEST and QUEST-West datasets upon request.

### **Proposal Scope**

*This request for proposals is specifically aimed at work following up on the QUEST and QUEST-West airborne geophysical and regional geochemical surveys, however, extraordinary proposals that fall outside of the QUEST and QUEST-West areas may be considered. Please note that Geoscience BC will also hold a General Request for Proposals later this year (targeted release of June 2009).*

Proposals may address a specific area of interest, or may be quite general in scope.

Topics of work that Geoscience BC would like to see addressed include, but are not limited to:

- Integration of the new data with existing publicly available or industry-available geoscience data, including the existing magnetic, geologic, and topographic data sets.
- Analysis of the data to increase its usefulness, for example, inversion of the airborne electromagnetic data, airborne gravity data, pre-existing aeromagnetic data, or the joint analysis of these data sets to infer depth of cover, bedrock geology, or features of interest.
- Statistical analysis of the geochemical data to identify favourable target areas, or other geological information. Geoscience BC encourages project applicants to consider the information content in the full analytical suite of elements provided in the data, perhaps in conjunction with the other data sets available.
- Projects that “database” and display the data in innovative and useful ways. Ground-truthing (on-the-ground follow-up) or interpretation of the geophysical and / or the geochemical data, particularly in areas of cover or poorly understood geology, to aid the exploration community in the use of the data.
- Integration and interpretation of the regional data provided by the QUEST and QUEST-West Projects to create an interpreted geology map in areas covered by glacial drift.
- Production of mineral prospectivity maps for different deposit types within the QUEST and QUEST-West Project area.
- Other projects, which complement and add value to the available data sets.

*\*\*Note: Geoscience BC has to-date funded four projects that are directly following up on QUEST Project data. Brief descriptions on each of these projects can be found in Appendix A of this RFP. Please consider these projects as a) types of follow-up work that have already been completed in the QUEST Project area, and b) types of follow-up work that would be considered in the QUEST-West Project area.*

*Geoscience BC has not yet committed funding to any QUEST-West Follow-up Projects.*

Applicants are expected to review the motivations for the QUEST and QUEST-West Projects, and to formulate their proposals as follow-up projects within the larger framework of the Geoscience BC QUEST and QUEST-West Projects.

Co-funding of projects from industry or other agencies is encouraged.

Applicants are expected to have the necessary capabilities to complete the projects submitted within the scope set out and within the schedule defined in partnership with Geoscience BC. Project applicants are encouraged to maintain an open atmosphere of cooperation with Geoscience BC staff and technical advisors during the execution of accepted projects. Geoscience BC personnel will be available to project proponents during the execution of the projects and will be able to provide ongoing advice and review of projects upon request. If project applicants expect to have significant interaction with Geoscience BC personnel during the execution of a project, this should be highlighted in the project application. This request will not be considered negatively during the evaluation of projects by Geoscience BC.

## **Considerations**

Projects will be considered on their technical merit and their likelihood of success, and on the potential for the project to add value to the QUEST and QUEST-West datasets and stimulate investment in British Columbia.

A primary consideration is that each proposal be directed to increasing the usefulness of the new data acquired by Geoscience BC during the QUEST and QUEST-West Projects – either through analysis or integration of the data to increase its value to the exploration community, or through targeted follow-up to address specific questions of interest raised by the new data.

Projects should **clearly demonstrate their application to mineral exploration in the QUEST and QUEST-West Project areas** and in particular how they will encourage future exploration investment in BC. Proposals focused on a deposit or property of a specific company must demonstrate a wider significance to the region and/or to other companies in the area to be considered. Industry partners providing significant co-funding may negotiate exclusive access to the project results for some limited period of time prior to the results being released into the public domain. Successful proponents of projects undertaken on open ground must not engage in any staking of ground in the project area until 30 days after all project data is made public by Geoscience BC.

Geoscience BC encourages proponents to include a component of technology/knowledge transfer of project results to the exploration community in their proposal. Geoscience BC expects that the results from accepted proposals will be presented at technical conferences, such as Mineral Exploration Roundup, or other conferences well attended by the exploration community.

**Funding for proposals will be considered at all levels.** However, proposals requesting more than \$100,000 from Geoscience BC will be required to demonstrate exceptional value.

Projects must be completed within two years. Details on required Geoscience BC deliverables can be found in the Submission Guidelines accompanying this RFP.

## **Eligibility**

Proposals will be accepted from individuals or teams working with industry, private consultants, universities or colleges, First Nations or government, communities or not-for-profit agencies.

## **Submission**

Persons or organizations wishing to make a submission under this RFP should submit a **maximum 10** page proposal (MS Word or PDF format only) describing the aim and scope of their project, reasons why the proposed work will attract mineral exploration investment to BC, personnel involved, an estimate of the total budget (using Geoscience BC's budget template), and a summary of project deliverables and

timing. The submission guidelines and required budget template for an RFP can be found in Appendix B of this RFP.

Proposals will only be accepted via email to Geoscience BC at [proposals@geosciencebc.com](mailto:proposals@geosciencebc.com) by **noon on April 27, 2009.**

**If no suitable proposals are received, no project funds will be awarded.**

**Geoscience BC**  
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## **APPENDIX A: Past and Current QUEST Follow-up Projects**

The following projects following-up on the QUEST datasets were funded by Geoscience BC through a Request for Proposals issued in August 2008:

Project 2008-003 – BW Mining

*“QUEST Project: Geoscience BC Proposal for Analysis of Geochemical Data”*

The aim of this project is to grid, level and blend adjoining surveys for each element, to perform multivariate cluster analysis on the levelled data, and to infer bedrock geology in areas covered by glacial drift. The project was released by Roundup 2009 and directly contributed to a partnership project between GBC, GSC and the BCGS to develop a new geological interpretation of the QUEST area based on new geophysical, geochemical and geological data. The results can be found at [www.geosciencebc.com/s/FileAccess.asp](http://www.geosciencebc.com/s/FileAccess.asp).

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Project 2008-005 – CSIRO

*“An Investigation using SiroSOM for the Analysis of QUEST Stream-Sediment, Lake-Sediment and Water Assay Data”*

SiroSOM is a data mining “analytics” technology that is capable of finding relationships within and between complex and disparate datasets. In this project, SiroSOM will be used to establish relationships and domains within the various geological and geochemical assay data from the QUEST datasets. Deliverables will include a report outlining the approach and key outcomes, and output files detailing the original input data with SiroSOM characteristic appended to each sample (which can be imported into standard GIS packages). The SiroSOM data mining technique is quite different than the neural network technique employed in project 2008-003 (above), and so it was felt that this would provide an opportunity to compare the two techniques. This project will also probably help to identify additional targets of interest to exploration in the QUEST geochemical data sets. The project should be completed in early 2009.

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Project 2008-009 – Mira Geoscience Ltd.

*“QUEST Project: 3D inversion modelling, integration, and visualization of airborne gravity, magnetic, and electromagnetic data, BC, Canada”*

This project will perform 3D inversion modelling, integration and visualization of the airborne gravity, electromagnetics and magnetics over the QUEST Project area. The deliverables will include 3D inversion model products of density contrast, magnetic susceptibility, and electrical conductivity, and integrated products combining the individual property models. Deliverables include a final report, digital model and interpretation products, and through presentations at BC conferences. The products of this project will assist the exploration industry in using the QUEST geophysical data. The project should be completed in Spring 2009.

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Project 2008-004 – Will Cadell and Geoff Mulligan

*“Google Earth QUEST Data Explorer”*

This project will deliver a Google Earth-based data exploration tool. This tool will allow the user to query the regional geochemical dataset provided by Geoscience BC’s QUEST Project, and therefore instead of seeing every point and discern which are of interest, the user will be able to input specific

criteria into a web-based form and get a result which only exhibits point which match the criteria. This project will be completed in Spring 2009.

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Geoscience BC has also commissioned a “QUEST Digital Data Compilation.” This project is compiling all available QUEST data sets (see list below) into a series of GIS projects, including ArcReader, ArcGIS, MapInfo, Manifold and Google Earth. The product will also include PDF files of all map layouts, and copies of all Geoscience BC Reports pertinent to the QUEST Project area. The final product is expected to be released in Summer 2009.

## **APPENDIX B: SUBMISSION GUIDELINES**

### **Proposal Submission**

Persons (the proponents) wishing to make a submission under this request for proposals (RFP) should prepare a **maximum** ten page proposal that includes the items listed below. Any pages past the 10 page limit will be disregarded and not submitted for review. Any costs or fees associated with preparing a proposal under this call shall be at the expense of the proponent.

Please submit your proposal via email in MS Word or PDF format to Geoscience BC, at [proposals@geosciencebc.com](mailto:proposals@geosciencebc.com) by **noon on April 27, 2009**.

*Please include the following required information in your submission:*

- 1) Project executive summary and the relevance of the project to Geoscience BC's mandate and the project goal of stimulating mineral exploration in British Columbia.
- 2) Index or location map, at the appropriate scale, that shows the location of the project relative to towns, cities, roads or other cultural features (particularly parks and protected areas). This map must show NTS map boundaries and numbers.
- 3) Detailed project description that clearly outlines the objectives, methods, expected outcomes and key deliverables. The description must demonstrate that the project is scientifically sound, technically feasible and of an applied and innovative nature. It should also indicate how the project relates to other recent or on-going research by the proponents, other researchers or provincial or federal agencies. Include appropriate references as necessary.
- 4) Description of the key personnel involved in the project including their experience with related projects, their credentials and professional affiliation and any relevant publications. All persons or organizations that will play a key role in the project must be identified in the proposal.
- 5) Dates for completion of the various parts of the proposed project.
- 6) Detailed budget using the provided template (see below).

*The following information is recommended to be included in your submission, if applicable:*

- 1) Other maps, illustrations, and photographs as required to fully describe the project.
- 2) QA/QC procedures that will be employed.
- 3) The details of any training aspects to the project.
- 4) Letter(s) from industry or other sources of matching funds indicating their willingness to support the project if approved and the level of support anticipated.

## **Budget Details**

A detailed budget **must** be submitted using Geoscience BC's "Proposal Budget Template" available at [www.geosciencebc.com/s/RequestsforProposals.asp?ReportID=344168](http://www.geosciencebc.com/s/RequestsforProposals.asp?ReportID=344168). As your project progresses, you will need to use this template to report your actual expenditures to Geoscience BC. This will allow for easy comparison between the proposed budget and actual expenditures. Please add lines as necessary to properly complete your budget (e.g. If there are multiple personnel at different rates of pay, add a line for each group).

In addition, please note the following information:

- Outline a complete budget for the project that includes the funding requested from Geoscience BC and any matching funding that has been secured, or will be requested from other sources. Components of the proposed project do not need to be separated out as to the source of funds, unless matching or Geoscience BC funds will be directed to a certain part of the project budget.
- Geoscience BC reserves the right to approve a smaller budget than submitted in the proposal.
- Geoscience BC does not pay overhead.
- It is expected that proposals will come with supporting funding from the proponent's organization in the form of salaries, laboratory facilities, computer resources, student stipends, equipment, logistics, etc. Proposals with a high level of supportive funding are looked upon favourably.

## **Selection**

Proposal selection will be made by Geoscience BC's Technical Advisory Committee and Board of Directors.

Geoscience BC reserves the right to accept or reject any and all proposals received.

Information on successful proposals will be published on Geoscience BC's website.

Proposal reviews will focus on the following:

- **Technical Quality** – Is the project technically sound and well defined with clearly articulated objectives? Is it feasible? Is it innovative?
- **Industrial relevance** – Does the project demonstrate an application to mineral exploration in BC? Is it likely to result in increased investment in exploration? Is the project supported by matching industry funds?
- **Personnel** – Do the proponents have the experience and qualifications to complete the project? Have previous projects been completed and delivered in a timely manner? Are there any training aspects to the project?
- **Budget** – Is the budget well defined and competitive? Is it realistic? Has the project generated supportive funding?

## About Geoscience BC

Geoscience BC is an innovative and applied geoscience centre dedicated to the collection, interpretation, and marketing of geoscience expertise, information, and products to the benefit of

all British Columbians. Our mandate is to attract investment in the mineral and oil and gas industries in BC through applied geoscience work. Geoscience BC supports industry partnerships and cost-sharing in data acquisition as well as public disclosure of all data that is collected.

For more information, please contact:

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