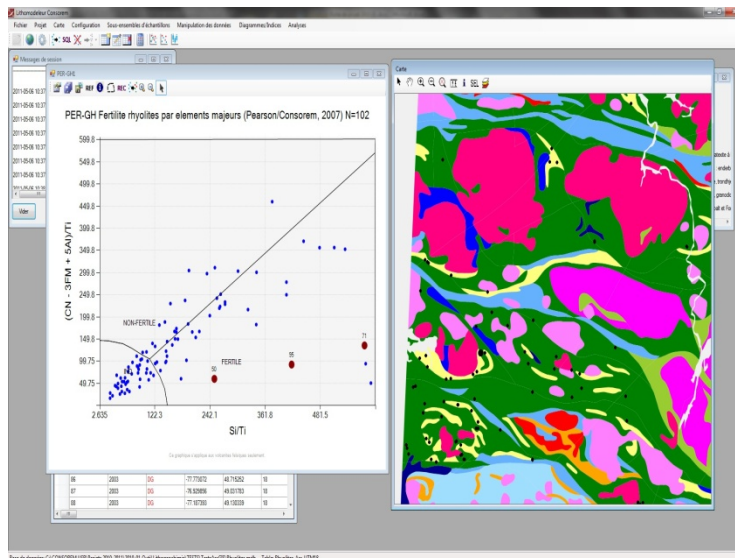


2010-01: LithoModeleur – Software for analysing lithochemochemistry: Phase 2

LithoModeleur is version 2.0 of CONSOREM's software for processing lithochemochemical data. Version 1.0 of the software was delivered in April, 2010. This new version improves the software considerably.

It must be noted that this software was originally developed to be deployed to businesses for applying geochemical methods of analysing mass balance calculations on modelled precursors as developed by CONSOREM in project 2008-07. The methods involve complex calculations and processing, which made them of limited use. The LithoModeleur software represents an efficient way of transferring this method to companies.

The new version adds several new lithochemochemical tools developed by CONSOREM which could not be included in version 1.0 (e.g. Ni vs Ni-S diagrams from project 2008-11, fertility of mafic rocks from project 2006-09). The



LithoModeleur CONSOREM, version 2.0

software now includes a number of tools for multivariate statistical analysis (cluster analysis, correlations and principal components). It can correct data for closure and create box-and-whisker plots.

ArcGIS users can now view their geochemical and geological data in geographic space. Greater flexibility in geochemical data management makes using the software easier. Version 2.0 is now completely bilingual english-french; the language of the graphical user interface (GUI) and the diagrams can be easily selected at the start. Finally, many esthetic and functional improvements were made to the software, especially to the indicator diagrams and to sample selections.

Thus, LithoModeleur represents an interpretation and decision-making tool which helps improve the process of lithochemochemical data analysis in mineral exploration.

Project 2010-01: Summary	
Objectives	<ul style="list-style-type: none"> • To develop version 2.0 of the software for processing lithogeochemical data (LithoModeleur CONSOREM 2.0).
Results	<ul style="list-style-type: none"> • Version 2.0 of LithoModeleur CONSOREM software includes the following new features: <ul style="list-style-type: none"> • New diagrams and indices derived from previous CONSOREM work <ul style="list-style-type: none"> ○ Ni vs Ni-S diagrams for mafic rocks, project 2008-11. ○ Indices to identify VMS fertility in andesites, project 2006-09. ○ Middlemost (1985) diagrams modified for IOCG suites, project 2009-05. • Bilingual English-French. • Compatible with Windows 7. • Opening and saving of projects. • Viewing of data in "ArcGIS Personal Geodatabase" format as a map. • Interactive definition of data subsets. • Statistical analyses: cluster, principal components, correlations, percentiles, correction for closure, ranking, filtering of outliers. • New type of diagram: box-and-whisker plot. • Many improvements of functionality for indicator diagrams. • Greater flexibility in the types of geochemical data accepted.
Innovations	<ul style="list-style-type: none"> • Version 2.0 of the software and lithogeochemical data interpretation guidance tool in exploration. Version 2.0 is outstanding because of the several new methods stemming from work carried out at CONSOREM and for the numerous improvements.