

ADVANCED SATELLITE PRODUCTIONS AND ASSOCIATES

QUOTATION

MINNOVA INC.

QUESNEL PROJECT

OBJECTIVES:

To define regional geological features (scale 1:250,000) from the acquisition, the processing and the interpretation of LANDSAT-TM data for base metals and gold exploration.

- interpretation of geological lineaments representing faults, shear zones, folds and lithological contacts through the lineament classification into regional, local, first and second-order lineaments. The classification should help to define different stages of fracturation (from the oldest to the youngest).

- test the technique of geobotany, in order to define vegetated stressed areas which could be the surface expression of epithermal and porphyry alteration.

LOCALISATION:

Area near Quesnel, British Columbia.  
Center coordinates: 52° 41'N  
124° 48'W

The study involves LANDSAT-TM CCRS image no. 52017-183856, full scene (185 km. \* 185 km.) with a special attention in the central 2/3 of the image.

SCHEDULE

2 1/2 to 3 months after the signature of the contract

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COSTS:

1. DATA

- coming from LANDSAT-TM scanner
  - 1 full scene, 7 spectral bands, no. 52017-183856
  - include data acquisition and preparation for the image analysis system.
- .....\$ 5,000

2. DATA PROCESSING

2.1 for lineament analysis:

- interactive contrast enhancement
- radiometric and geometric corrections
- filtering
- sun shading (RADAR simulation)

2.2 for geobotany

- principal component analysis
- ratios
- RGB-HIS conversion
- unsupervised and/or supervised classification
- pseudocolour editing

.....\$10,000

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3. INTERPRETATION:

3.1 vectorial (lineaments)

- tectonic domains
- study of glacial features
- classification of linear and curvilinear lineaments
- classification of regional and local lineaments
- classification of first and second order lineaments
  
- characterization of known occurrences by lineaments
- determination of potential areas of mineralizations from theoretical and empirical models
- one or two days of work with the project geologist

3.2 spectral (geobotany)

- false colour representation and principal components analysis defining the vegetation index
- unsupervised classification defining the areas of potential stress induced vegetation
- determination of test sites (study of the occurrences versus the reflectance of leaves)
- supervised classification to search for areas of same reflectance as test sites

.....\$8,000

4. COMPLETE REPORT

see the table of content included for a lineament analysis study

.....\$3,000



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5. POSTERS AND MAPS

(based on the area of a 1:250,000 scale sheet map)

- include:
- image edition (\$250)
  - high resolution FIRE transparency (\$550)
  - development by photographic process (\$500)
  - artwork (\$200)
  - AUTOCAD digitized map - interpretation (\$500)
- .....\$2,000

NOTE: PRICES FOR POSTERS AND MAPS MAY BE LOWERED IF THERE ARE A CERTAIN NUMBER OF ORIGINAL AND COPIES.

SUMMARY:

DATA: \$5,000  
PROCESSING: \$10,000  
INTERPRETATION: \$8,000  
REPORT: \$3,000  
POSTER AND MAP: \$2,000

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TOTAL: \$ 28,000 + GST.

NOTE: THIS QUOTATION IS STRICTLY FOR INFORMATION PURPOSES. THE PRICES QUOTED HERE CONSIDER THE MOST ELABORATE STUDY THAT COULD BE DONE IN THIS CASE.

