Technical Report

For the

TEXADA ISLAND GROUP

Satellite Remote Sensing Survey And Analyses of the Texada Island Group of Mineral Tenures

Tenure Numbers:

509845; 517019; 592648; 592649; 592650; 918829; 918869; 918870; 946394; 946397; 946399; 946401; 946402; 946405; 946408; 946409; 946412; 946413; 946414; 946415; 946416; 946417; 946418; 946419; 946420; 946421; 946422; 946423; 946424; 946425; 946429; 946430; 946431; 946457; 946467; 946474; 946479; 946481; 946486; 946487; 946489; 946491; 946809; 976765; 976766; 976768; 976769; 976771; 976772; 1004402; 1004422; 1005182; 1005202; 1006843; 1013507; 1013508; 1013509; 1013691; 1013692; 1013694; 1014340; 1014375; 1014376; 1014377; 1014378; 1016059; 1016379; 1016662; 1016680; 1016681; 1016682; 1016746; 1016747; 1016749; 1016755; 1016766; 1016767; 1016768; 1016769; 1018582

EVENTs #5452950; 5430182

Minfile Occurrences: 092F 059; 092F 087; 092F 200; 092F 264; 092F 275; 092F 305; 092F 327; 092F 394; 092F 506; 092F 522; 092F 524

ARIS #s: 00003; 00612; 03244; 04903; 05699; 05749; 05793; 06335; 07219; 07559; 07843; 08175; 09264; 10065; 10292; 13731; 13747; 14862; 14916; 16013; 17301; 17586; 17685; 17995; 17996; 18212; 18246; 19509; 20780; 21100; 21338; 21960; 22315; 22468; 23335; 24321; 26690; 29719; 29720; 30689; 30820; 31312

Lat: 49.67º Long: -124.40º

NAD 83

For

Coast Minerals Corporation

24/05/2013

By

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TABLE OF CONTENTS

INTRODUCTION *(Illustration 1 and Appendix Figure 1)*

In November of 2012, Auracle Geospatial Science Inc. was asked by Dean Bombardier of Coast Minerals Corporation to conduct mineral exploration remote sensing work for the Texada Island Group of Mineral Tenures. The Texada Tenures are located on Texada Island which is approximately 100 km northwest of the City of Vancouver, British Columbia. These tenures are considered prospective for both base and precious metals.

This project was designed to use two types of optical data, microwave synthetic aperture radar satellite data and archived geoscience spatial data to search for signals which may represent mineralization, and other geological phenomena.

High resolution image data was ortho-corrected to form a suitable base, with archived data ingested into a project Geographic Information System (GIS) and spatially aligned to construct an appropriate knowledge model. This model is also designed to act, in part, as a special decision support tool, with which decision makers can view, distribute, and publish complex spatial information.

Radar data was acquired and used in this project. Radar data is not affected by most atmospheric conditions and can penetrate some ground cover. Radar is useful in detecting textural changes and structure. It does however; require very specialized software and processing to be converted from raw signals into ortho correct and phenomenogically representative data.

Using the spatial knowledge model as a base, the three dissimilar multi-temporal spatial data were processed, fused and analyzed. The analysis needed to produce geologically relevant spectral and lineament maps, which is labour and computer intensive as different standards are selected, fused and applied to the study. The spectral responses are geographically-sensitive, responding differently to different climatic, physiographic, atmospheric and rock surface (e.g. weathered, solid outcrop, rubbley outcrop) conditions as well as varied sun and incidence angles. The conversion of spectral measurement to coloured pixels georeferenced to a raster based map is therefore an iterative process designed to produce results that converge and produce “maximum likelihood” units that consistently identify the presence of established signals representing geological phenomena. Correlations to established library spectra were mapped together with textural classifications and lineaments, and finally spatially analyzed.

The results of these analyses are an extension of the project GIS, and knowledge model from which a series of representative maps were projected.

The methodologies employed in this work are evolving quickly in response to constantly improving locational precision sensors and systems, radiometric improvements in signal sensors, increased on-board data storage capacities, increased speed and number of satellite down-link facilities, as well as the constant improvements to computing science in all of its extents. This leads to higher spatial, radiometric and signal resolution data, and better analyses.

The analyses for geological content were conducted in collaboration with Geologist: Jacques Houle P. Eng., who has supplied important perspective as well as assisted in the archived data selection data and provided relevant information. (Updated JH Geologist Memo)

Ultimately the purpose of this work has been to ingest data and use collaborative data-driven, knowledge-based remote sensing and GIS analysis to derive new and useful information. The results of this work include the new project GIS together with a series of maps delineating areas of interest which are considered to be prospective for further mineral exploration.

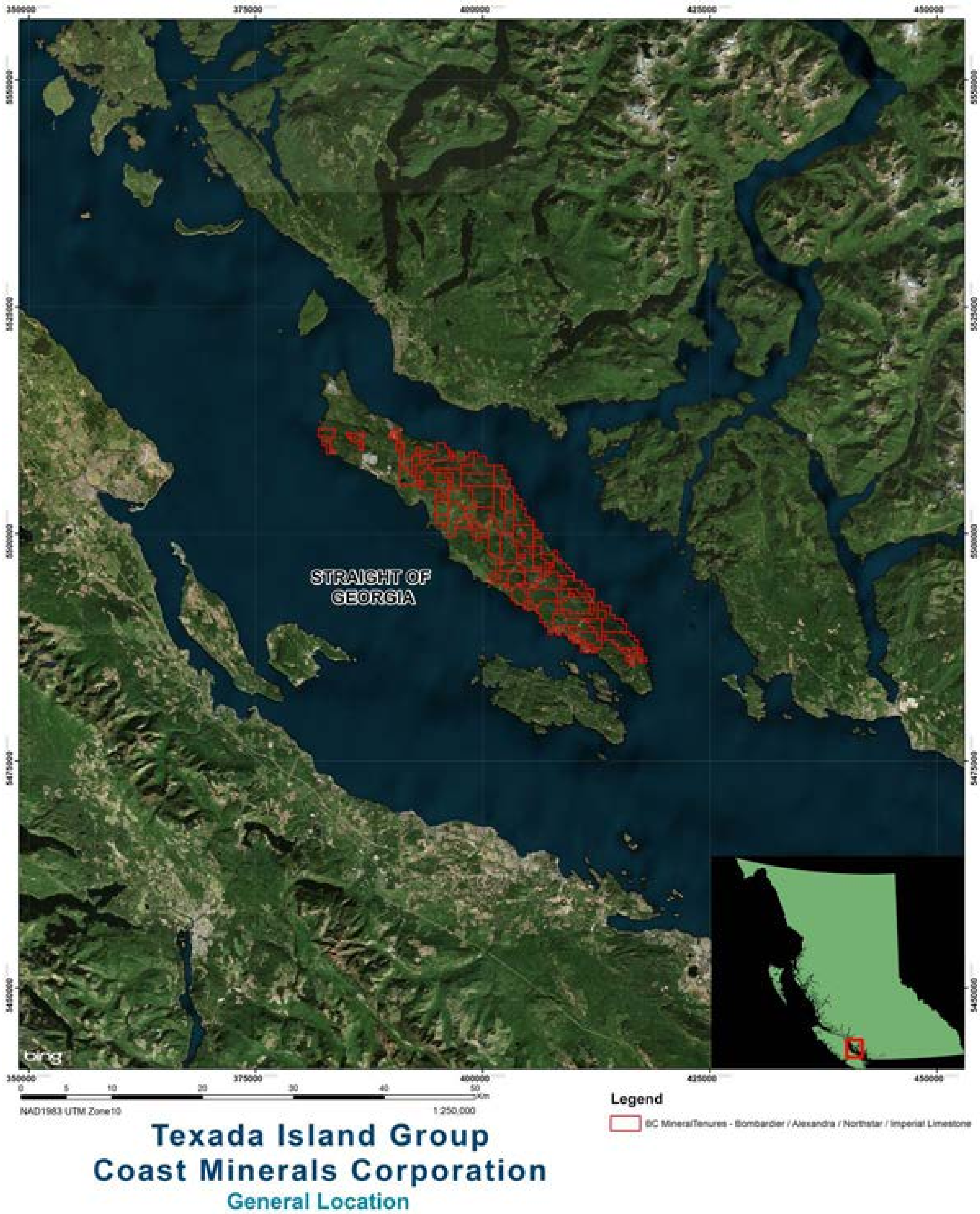

Illustration 1- General Location

PHYSIOGRAPHY AND ACCESS *(See Illustration 2 Appendix Figure 2)*

The Texada Island Group tenures occupy approximately 18275 hectares of surface area, consisting of 1 mining lease and 80 claims. The Group is located approximately 100 km northwest of the City of Vancouver within the Pacific North West. Temperatures range from -5ºC to 30ºC. The Texada Island Group is located within the Sunshine Coast Forrest District, which has 15 commercial species of trees. Elevation within the project area ranges between sea level to 860 metres, while containing 59 water-bodies covering 140 Hectares. The nearby City of Powell River offers regular ferry service to Blubber Bay, Texada Island. There is also air service to Gillies Bay, Texada Island from Vancouver via Qualicum Beach. Powell River is accessible from Vancouver by road in about 5.5 hours.

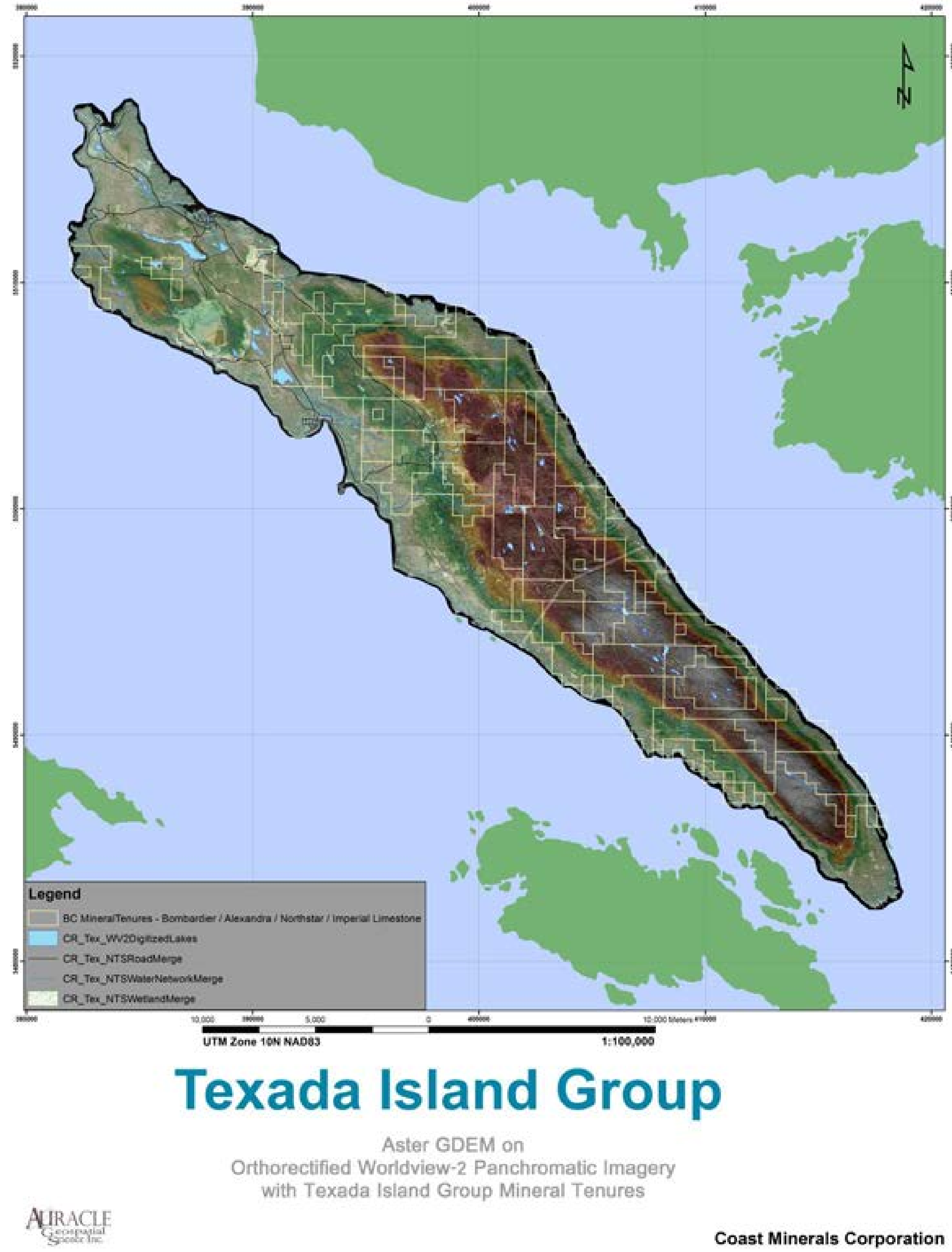

Illustration 2- Digital Elevation Model

REGIONAL GEOLOGY *(See Appendix Figure 3 and 8)*

Regional geology, as delineated, is extracted from the Geoscience BC digital '2005 Bedrock Geology' and 'Faults' downloads. Additional Geological description is found in the Geology Memoranda (pages 34-35).

Illustration 3- Regional Geology

MINERAL TENURE *(See Appendix Figure 4)*

The Texada Island Group includes 80 Mining Claims and 1 Lease as follows:

Lease number: 314112

Claim numbers: 509845; 517019; 592648; 592649; 592650; 918829; 918869; 918870; 946394; 946397; 946399; 946401; 946402; 946405; 946408; 946409; 946412; 946413; 946414; 946415; 946416; 946417; 946418; 946419; 946420; 946421; 946422; 946423; 946424; 946425; 946429; 946430; 946431; 946457; 946467; 946474; 946479; 946481; 946486; 946487; 946489; 946491; 946809; 976765; 976766; 976768; 976769; 976771; 976772; 1004402; 1004422; 1005182; 1005202; 1006843; 1013507; 1013508; 1013509; 1013691; 1013692; 1013694; 1014340; 1014375; 1014376; 1014377; 1014378; 1016059; 1016379; 1016662; 1016680; 1016681; 1016682; 1016746; 1016747; 1016749; 1016755; 1016766; 1016767; 1016768; 1016769; 1018582

See attached "Covering Confirmation Letter" for verification of ownership and status.

Illustration 4- Mineral Tenures

PREVIOUS WORK *(See Appendix Figure 5)*

This general area has been explored for minerals since the early late 1800s, with early exploration occurring on these properties in the 1930's. (Earliest ARIS report inside tenures was 1947)

There are eleven Government of British Columbia Minfile mineral occurrence reports pertaining to this property:

092F 059-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F++059
Capsule Geology:
"Upper Triassic volcanics of the Karmutsen Formation (Vancouver Group), are underlain by altered tuffs of the Paleozoic Sicker Group. The unconformable contact parallels a north-northwest trending band of recrystallized limestone of the Upper Pennsylvanian to Lower Permian Buttle Lake Group.
The May occurrence comprises quartz veining at or near the contact of limestone with altered tuffs of the Sicker Group. Mineralization consists of small amounts of sphalerite, galena, chalcopyrite, pyrite and magnetite. A rock sample assayed greater than 0.99 per cent zinc, 0.18 per cent lead, 0.09 per cent copper and 5.4 grams per tonne silver (Assessment Report 16013)."

092F 087-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20087
Capsule Geology:
"The Comet Mountain area is underlain by massive, fractured chloritic amygdaloidal basalt of the Upper Triassic Karmutsen Forma- tion (Vancouver Group). Pervasive manganese and hematitic staining and some epidote is evident in the fractures. Minor small, disconti- nuous quartz and calcite veinlets and lenses are found throughout mineralized with pyrite, chalcopyrite and some malachite staining. Wallrock basalt is locally silicified. A rock chip sample from a small quartz lense assayed 0.3 per cent copper (Assessment Report 12085)."

092F 200-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F++200
Capsule Geology:
"Several shear zones occur in chloritic Upper Triassic Karmutsen Formation (Vancouver Group) basalt, basaltic agglomerate and amygdaloidal basalt. Numerous quartz-carbonate alteration zones are developed along or adjacent to these structures.
The Cisco occurrence comprises a northwest trending, pyritic quartz-carbonate (ankerite) shear zone within chloritic basalt and basaltic agglomerate. Some chalcopyrite has been identified within this zone. A rock sample assayed up to 1.35 grams per tonne gold (Assessment Report 16013)."

092F 264-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20264
Capsule Geology:
"The Victoria occurrence area is underlain by Upper Triassic Karmutsen Formation (Vancouver Group) pillow basalt breccias and amygdaloidal basalt. It lies close to the Kirk Lake fault and its intersection with the Holly fault to the east.
At the Victoria showing, a steep pyritic shear zone, possibly a part of the Kirk Lake fault, strikes 120 degrees and dips 70 to 80 degrees south. An irregular, lensoidal quartz stringer 0.1 to 0.3 metres wide, occurs in the shear. Wallrock is variably chloritized and pyritic. Grab samples from the shear zone assayed 0.13 per cent copper and 0.74 per cent lead (Assessment Report 18212).
An inclined shaft was developed on one of two pyritic quartz veins, about 18 metres apart, and 10 to 51 centimetres wide. Mineralization consists of minor chalcopyrite, trace galena and native gold. A small amount of gold was recovered (Geological Survey of Canada Memoir 58, page 92)."

092F 275-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20275
Capsule Geology:
"The Vern occurrence area is underlain by amygdaloidal basalt of the Upper Triassic Karmutsen Formation, Vancouver Group. Finely disseminated chalcopyrite, pyrite and bornite occur in a locally silicified shear zone up to 15 metres wide in places."

092F 305-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20305
Capsule Geology:
"The Rose and Belle occurrence area is underlain by chloritic amygdaloidal basalt of the Upper Triassic Karmutsen Formation (Vancouver Group), locally cut by a quartz-carbonate (ankerite) shear zone. A steeply dipping quartz diorite dyke intercepts this zone.
Mineralization within the quartz-carbonate zone comprises magnetite, pyrite, chalcopyrite, arsenopyrite and hematite. Minor gangue minerals are garnet, diopside and epidote. A rock sample from the zone assayed up to 0.59 grams per tonne gold (Assessment Report 17995)."

092F 327-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20327
Capsule Geology:
"The region is predominantly underlain by basaltic volcanic rocks of the Upper Triassic Karmutsen Formation (Vancouver Group). The basalts range from feldspar porphyritic to augite porphyritic with amygdaloidal and aphanitic varieties also present. Pillow basalt flows are common. Limestone occurs locally as narrow lenses with limited lateral extent.
Several structural features are evident. A wide shear zone trends 120 degrees with related shears at 120 to 130 degrees. A major set of crosscutting lineaments strike 090 to 110 degrees. Rocks adjacent to major shears are often strongly foliated, sheared, jointed, altered and occasionally mineralized.

Locally, chloritic alteration is common in basalts in the Angel occurrence area. Carbonatization (ankerite) is evident along faults or fractures and near limestone. Epidote is pervasive and occurs most often as stringers with/without quartz or as fracture-fillings. Hematite is most evident with manganese staining in sheared basalt and is accompanied by coarse pyrite and by quartz-pyrite mineralization. Silicification occurs as several distinct types. The first is a microscopic silica flood as blebs and veinlets of quartz found over wide areas, usually in the vicinity of major structural features. More intense silica flooding is seen in strongly foliated rocks or within fragments of silicified volcanics in areas of quartz-carbonate breccia. Very late-stage quartz veining crosscuts all earlier types of alteration and mineralization.

The Angel showing is a limonite/silicified basalt breccia with irregular patches of more intense silicification and quartz flooding containing disseminated pyrite. This alteration assemblage is crosscut by quartz veins with traces of malachite and chalcopyrite and a fine fracture coating of carbonate with sparse malachite stain. Areas of unaltered basalt occur within the shear zone and in adjacent outcrops. Shearing is observed at an average orientation of 150 degrees; several subparallel shears also occur. Mineralization appears to cross this trend at 115 to 130 degrees. The mineralized zones lie within one broad shear zone and are not continuous but more likely form an anastomosing network of shear structures.

A trench channel sample over 1.3 metres assayed 15.92 grams per tonne gold (Assessment Report 18671)."

092F 394-

http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F++394

Capsule Geology:

"The Imperial Limestone quarry is located near the centre of Lot 500, 1.25 kilometres southwest of Spratt Bay near the north end of Texada Island. Limestone has been quarried here since 1951.

The quarry is developed near the eastern edge of a 13 kilometre long belt of Upper Triassic Vancouver Group, Quatsino Formation limestone up to 3 kilometres wide that is situated along the axis of a broad northwest plunging syncline. The limestone is produced from the lowest member of the Quatsino Formation, consisting of a 100 metre thick bed of exclusively high calcium limestone. Several steeply dipping, west striking faults are exposed in the quarry. A few hundred metres to the southwest the limestone is in fault contact with basaltic flows of the Karmutsen Formation.

The deposit consists of irregular masses of white limestone in black limestone, with gradational and sharp contacts separating the two types. Both types are fine-grained. Samples of randomly collected chips of white limestone (sample 1) and black limestone (sample 2) contained (Bulletin 40, page 79, Sample 1 & 2):

	Sample 1	(values in per cent)	Sample 2
CaO	54.7		54.9
MgO	0.47		0.36
Insolubles	0.78		0.68
R2O3	0.06		0.06
Fe2O3	0.04		0.11
MnO	0.003		0.002
P2O5	0.018		0.010
Sulphur	0.01		0.02
Ignition loss	43.6		43.7
H2O	0.12		0.12

This deposit was initially quarried by Don McKay between 1951 and 1958. Imperial Limestone acquired the property in 1959 and has continued operating the quarry to the present day. Between 1952 and 1987, 4.56 million tonnes of limestone have been quarried. The majority of the current production is barged to Seattle.
Recent sampling by quarry personnel of sulphide mineralization, at the edge of the quarry, returned values in zinc, silver, lead, copper and gold (I. Webster, personal communication)."

092F 506-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20506
Capsule Geology:
"Regionally the area is predominantly underlain by basaltic volcanic rocks of the Upper Triassic Karmutsen Formation (Vancouver Group). The basalts range from feldspar porphyritic to augite porphyritic with amygdaloidal and aphanitic varieties also present. Pillow basalt flows are common. Limestone occurs locally as narrow lenses with limited lateral extent.
The Frisky occurrence area is underlain by basalt and andesite of the Karmutsen Formation intruded by at least two diorite stocks. Major shearing and faulting is evident at and near the intrusive contacts. The shear zones commonly host quartz-carbonate (iron carbonate) veining. Quartz veins also occur within both the volcanic and intrusive rocks. Mineralization comprises small amounts of chalcopyrite, pyrite and pyrrhotite within the veins.
Grab samples from several pits assayed up to 0.1 per cent copper, greater than 1.0 per cent lead, 0.43 per cent zinc, 1.09 grams per tonne gold and 26.0 grams per tonne silver (Assessment Report 17301)."

092F 522-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20522
Capsule Geology:
"The Molly occurrence lies close to the contact between Quatsino Formation limestone and Karmutsen Formation basalt, both of the Upper Triassic Vancouver Group.

Minor iron skarn occurs and is comprised of magnetite and chalcopyrite with high cobalt values. A Ministry of Mines sample from a shaft at the showing identified erythrite and assayed 2 per cent copper, 0.16 per cent cobalt and 13 grams per tonne silver (Assessment Report 7843)."

092F 524-
http://minfile.gov.bc.ca/Summary.aspx?minfilno=092F%20%20524
Capsule Geology:
"The Golden Rod occurrence area is underlain by pillow basalt breccias of the Upper Triassic Karmutsen Formation (Vancouver Group) cut by a number of pyritic fault zones. Small microdiorite dykes are emplaced along these zones.
Mineralization at the Golden Rod showing comprises a 0.1 to 0.4 metre wide massive pyrite zone along the contacts of a microdiorite dyke that is up to 3 metres wide. Minor and variable pyrite is also present within the dyke. Isolated specks of native gold occur on the walls of the fault zone which is commonly pervasively chlorite- carbonate altered. A quartz-calcite stringer zone was also observed within the basalt breccia hosted in a shear zone.
Diamond drilling has revealed that the microdiorite dyke does not always occur on the footwall of the fault zone and that the massive pyrite zone becomes disseminated at depth. A narrow limestone bed was also intersected with minor garnet skarn developed along the contacts with the dyke. Quartz-calcite veinlets were found to carry local chalcopyrite at depth.
A sample of a strongly sheared, pyritic quartz-calcite vein assayed 6.28 grams per tonne gold (Assessment Report 18672)."

Past work reported within the boundaries of the Texada Island Group includes the following 42 internet distributed BC Government ARIS Occurrence/Work Assessment reports:

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=00003

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=00612

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=03244

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=04903

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=05699

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=05749

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http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=16013

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=17301

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=17586

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=17685

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=17995

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=17996

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=18212

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=18246

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http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=29719

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=29720

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http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=30820

http://aris.empr.gov.bc.ca/search.asp?mode=repsum&rep_no=31312

Illustration 5- Previous Work

DATA ACQUISITION

Archived mineral exploration, geology and geographic data were collected from various sources including:

- BCGS (British Columbia Geological Survey Branch)
- BC RGS (British Columbia Regional Geochemical Survey)
- Geoscience BC
- Geogratis
- Geobase

Satellite Remote Sensing data selection was based on suitability to the fusion process and availability as a continuum of like coverage. The acquired data included:

- WorldView2 Pan plus 8 Band Multi-Spectral (Digital Globe)
- ASTER Multispectral 15m and 30m Short Wave Infra Red (SWIR) optical with 90m Thermal Infra Red (TIR) data from GDS IMS (Japan)
- RadarSat 1 Fine 6.25 m Synthetic Aperture c-band microwave Radar data from MDA Corporation Richmond BC

Historic archived data for the Texada Island Group (AOI) that had spatial reference was ingested as raster, vector, table and grid data. Conversions to a common datum (NAD 83) and projection (UTM 10N) were conducted where needed.

Raster data in the form of scanned maps was resampled (Warped) to fit using coordinates or identifiable geographic features. In some cases the raster data was then converted into vector data using ‘heads-up’ digitizing or raster feature extraction. Grid data was ingested using interoperability software to preserve the original content. Archived data selection was directed by Jacques Houle P. Eng according to applicability to this work.

Data Pre-Processing

Optical data, including passively collected reflectance VNIR and SWIR data, were converted from "At Sensor" data to "Reflectance" data using industry standard conversions. In order to proceed with further optical processing, a mosaic digital elevation model (DEM) was required.

The Aster stereo data included a stereo ready pair of images. These were used to generate Epipolar images by selecting common ground control points in each image to <0.50 RMS. The resulting image set was photogrammetrically analyzed for differential and converted to a ‘y’ or elevation value within the now georeferenced data. The Aster GDEM was used to orthorectify all optical images. Orthorectification is the process of resampling the 2D image data to be correctly aligned with 3D ground positions. Since all of the dissimilar data used the common DEM, they share the same accuracy and precision and are commonly aligned. In this case, data from each set was used in data fusion to supply greater spectral resolution to the high spatial resolution data, and conversely,

high spatial resolution to the high spectral resolution data. This resulted in 14 band spectral data. The raw reflectance data was atmospherically corrected using FLAASH, a Modtran type model based correction module. This atmospherically corrected fused data was masked for cloud and water using a combination of LOC (Lines of Communication) supervised signature type water detection, and heads up manual edit digitizing.
RadarSat 1 Fine CEOS data was converted to .tif format and corrected for:

- Antenna pattern
- Slant Range
- Radiometry
- Topographic distortion (Layover and foreshortening)

The ortho-corrected 6.25 m data was then filtered for speckle using a Sobel edge detection algorithm. This pre-processed radar data was checked for alignment against the optical data and corrected by shifting.

DATA PROCESSING

Methodologies
The methodologies used in this work are consistent with scientific standards conventionally used in these types of processes and analyses (Jensen, 1996; Harris, et al., 2010).

The following illustrates the steps involved in preparing the spectral data and completing the spectral analyses:

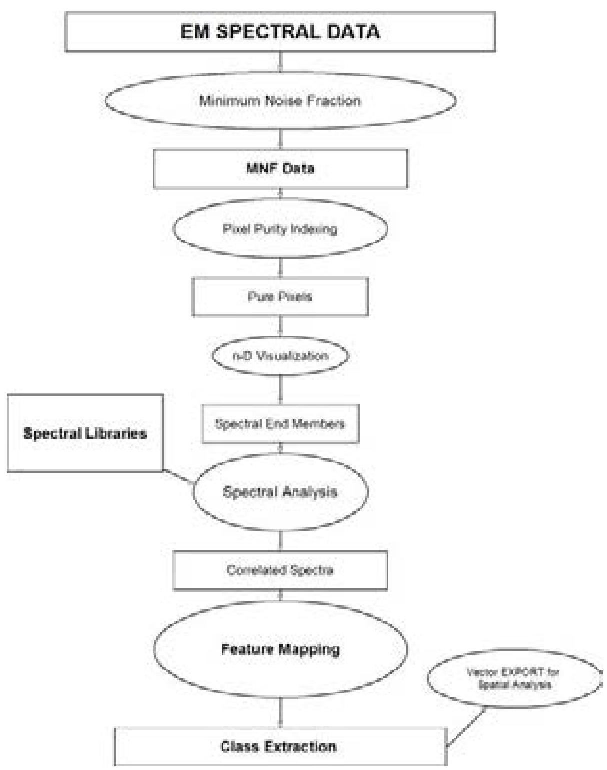


Illustration 6- Remote Sensing Analysis Work Flow Chart

The pre-processed optical reflectance data was reduced for its dimensionality (actual size of data package in Bytes) using a noise whitening fast forward- fast reverse type transform application named MNF (Minimum Noised Fraction). The MNF data was ingested into an iterative analyzer to find end-member data, that is data which is representative of pure samples. Fifteen thousand iterations were conducted with a purity threshold of 2.5. Ten-thousand of the end member spectra (which have spatial attributes) were ingested into an n-D Visualizer. Selections were made based on their location within a dynamic statistical cloud. This process (known as un-supervised classification) was repeated twice with separate spectral library groups:

Mineral Libraries

- USGS Mineral Spectral Library
- Jet Propulsion Laboratory Spectral Libraries 1,2 and 3
- Johns Hopkins University Mineral Spectral Library

Lithology Libraries

- Johns Hopkins University Sedimentary, Metamorphic and Igneous Coarse Spectral Libraries

The resulting spectral correlations to library samples were used as training samples and the image data was searched for ‘like’ samples, using a spectral angle mapping tool. Spectra which fell within a specified angle were classified with the sample spectra and mapped in geographic space as class members.

Radar

The noise reduced and pre-processed Radar data was re-processed using a series of protocols including: Directional filters: 135º and 90º; Laplace Transforms; and mathematic convolutions. Results from Mathematical Convolution images included Co-occurrence: Dissimilarity; Homogeneity; Entropy; and Means. These were projected using both nearest neighbour and cubic convolution resampling to improve and discriminate their varied linearity, texture or arcuate pattern. Results were projected using custom histogram display for improved visual discrimination.

Illustration 7- Ortho-Correct Radar Image

Classification
Optical data was mapped in classes according to their mineralogic or lithologic membership. The classes were merged into representative groups and analyzed for their spatial relationships to established mineral occurrence within the AOI.
Radar data was mapped according to its attributes and digitized into lineaments and textures.

Classification Result Summary
Two optical spectra maps were produced:

- Metallic Minerals (## Unique Classes)
- Alteration Minerals (## Unique Classes)

The radar analyses resulted in a lineament map displaying previously un-mapped structure.

Classification Conclusion Summary
Results were examined in collaboration with geologist Jacques Houle P. Eng and target 'zones' were derived for ground verification as part of the plan for the coming field season. Eighty Four prospective targets were generated. Many are located in areas which have not been the foci of archived work.

DATA DESCRIPTION

Spectral Data:
ASTER L1B data was acquired which included:

- 3 channels of VNIR (Visible Near Infrared) 15 metre ground spatial resolution data;
- 1 channel of back-looking or aft VNIR 15 ground metre spatial resolution data;
- 6 channels of SWIR (Short Wave Infrared) 30 metre ground spatial resolution data and
- 6 channels of TIR (Thermal Infrared) 90 metre ground spatial resolution data.

The Electromagnetic (EM) spectrum covered by ASTER is as follows

1. B1 VNIR_Band1 0.52 - 0.60 µ 15m
2. B2 VNIR_Band2 0.63 - 0.69 µ 15m
3. B3 VNIR_Band3N 0.76 - 0.86 µ - Nadir view 15m

4. B4 VNIR_Band3B 0.76 - 0.86 µ 15m - Backward scan (used to create high resolution DEM)

5. B5 SWIR_Band4 1.60 - 1.70 µ 30m
6. B6 SWIR_Band5 2.145 - 2.185 µ 30m

7. B7 SWIR_Band6 2.185 - 2.225 µ 30m
8. B8 SWIR_Band7 2.235 - 2.285 µ 30m
9. B9 SWIR_Band8 2.295 - 2.365 µ 30m
10. B10 SWIR_Band 9 2.36 - 2.43 µ 30m

11. B11 TIR_Band 10 8.125 - 8.475 µ 90m
12. B12 TIR_Band 11 8.475 - 8.825 µ 90m
13. B13 TIR_Band 12 8.925 - 9.275 µ 90m
14. B14 TIR_Band 13 10.25 - 10.95 µ 90m
15. B15 TIR_Band 14 10.95 - 11.65 µ 90m

ASTER L1A data is geo-coded, not georeferenced and unrectified. It is "at sensor" radiance data containing metadata describing its angle of incidence and other variables necessary to its geographic and geometric corrections and alignment.

WorldView 2 data is 0.5 metre ground spatial resolution panchromatic imagery with 8 band 2.0 metre multispectral data with the following spectral resolution:

1. B1 C-Blue 400-450nm 2.0m
2. B2 Blue 450-510nm 2.0m
3. B3 Green 510-580nm 2.0m
4. B4 Yellow 585-625nm 2.0m
5. B5 Red 630-690nm 2.0m
6. B6 Re-Edge 705-745 nm 2.0m
7. B7 NIR 1 770-895 nm 2.0m
8. B8 NIR 2 860-1040 nm 2.0m

The WorldView 2 Pan Plus 8 Band data is acquired as an un-orthorectified georeferenced tiled data-set and is "at sensor" radiance data complete with Rational Polynomial Function (RPF) data, incidence angularities (for both stereo pairs), geocoding, collection, position, and datum metadata. The RPF is used to generate an editable DEM from the stereo pair. The rest of the metadata is used to correct the image and as a basis for atmospheric correction.

<u>Radar Data:</u>

The acquired radar data was RadarSat-1 Fine, 6.25 metre spectral resolution C-Band microwave type, Synthetic Aperture (SAR) data. The RadarSat data is geocoded high density format data which was georeferenced and projected to the state datum. The georeferenced raw data was then ortho-corrected using a proprietary script. Radar data does not directly correspond to visual established geographic features and requires very specialized knowledge, software and equipment in order to correct for foreshortening and antenna pattern. This data was corrected spatially using a proprietary script and subsequently filtered using mathematical filters to enhance edges and to reduce inherent speckle and noise. The noise reduced data was re-processed using a series of protocols including: Directional filters: 135º and 90º; Laplace Transforms; and mathematic convolutions. Results from Mathematical Convolution images included Co-occurrence: Dissimilarity; Homogeneity; Entropy; and Means. These were projected using both nearest neighbour and cubic convolutions to improve and discriminate their varied: linearity; texture or arcuate pattern.

Data Preparation and Pre-processing: All acquired data was converted into suitable projections and georeferenced. The georeferenced data was converted to radiance and orthorectified. Atmospheric Correction was conducted using an International ModTran 4 algorithm, including maritime aerosols and based on the specific moment, incidence and elevation of collection, as well as the geographic position of instrument, attitude of lens, yaw of satellite and archived weather report for the point of capture. These elements are partly contained within the metadata of the imagery. The ASTER data used contained fore and aft images, which were stereographic and were used to build a Digital Elevation Model (DEM). Twenty four Tie points were selected manually as being common to both the right (3N) and left (3b) images. From these points, a pair of epipolar images were generated using an ENVI DEM extraction module. This DEM was subsequently employed in the orthorectification of the rest of the data, including the other ASTER channels. Orthorectification was conducted on a first iteration approach, which means that the 15 meter ASTER DEM has been used until higher resolution data is required at a later point in the exploration program

The resulting orthorectified spectral data was extremely large so the data file was dimensionally reduced in order to be analyzed using the following protocols.

Spectral Analysis: Spectral data was analyzed and transformed into MNF (Minimal Noise Fraction) data. Minimum Noise Fraction is a fast forward and fast reverse transform which reduces the data dimensionality in what is often called a noise whitening procedure. The resulting MNF bands of spectral data were visually checked for coherence. That is that each of the bands needed to contain variability that would in turn represent spectral variability. I this case all of the MNF bands retained spectral variability and therefore vital data for analyses. These Bands were analyzed through 15 000 iterations, at a threshold level of 2.43 in order to identify and collect end-member or pure spectra. A cloud of 10 000 collected pixels representative of the data were resolved and ingested into an n-D Visualizer.

The n-D visualizer produced clusters, which were a spatial representation of statistical significance. From these, pixels were extracted as representative samples of their respective classes. These pixels were spectrally analyzed for correlation to 18 different spectral libraries for rocks, minerals and vegetation. These libraries included: Johns Hopkins, USGS, Jet Propulsion Laboratory and IGCP. Spectral libraries are field collected by established scientific bodies and compared with airborne and spatial collected spectra to create industry standards for iterative analyses.
Resulting differentiated spectra were re-projected spatially using three separate protocols: MTMF, Sub-pixel linear unmixing and Spectral Angle Mapping.

MTMF—assumes that most phenomenon do not exist as homogeneous substances and that a part of each pixel in a “nearest neighbour” configuration will contain the target spectra and that the surrounding pixels will contain some of the target spectra

Sub-pixel Lineal Unmixing—based on a type of Principle Components Analysis where in Eigen values are the results of a spatial Principles Components Analysis, which are fast-forward and fast-reverse iterations of the PCA. In other words, this creates maximum likelihoods of correlation to established library spectra where given Eigen values within a spatial matrix define classification membership by their Eigen vectors within that matrix.

Spectral Angle Mapping—refers to projection of the spectra in three dimensional space and locating like pixels within a prescribed angularity of known spectra or established spectra. This angularity was constrained to 10 degrees which is an industry-accepted standard for spectral angle mapping (that these spectra fall within a 90% likelihood of correlating to established library spectra.)

These three types of analyses were done in concert because different phenomenon (e.g. map units) obey or honour different natural patterns. For example, geology may be constrained to a more homogeneous mixture such as massive sulphides or a less homogeneous mixture, such as gneissic rock. In that case, two different analyses must be performed in order to determine class memberships when mapping pixels according to their class membership.

Classification: *(See Appendix Figures 6 and 7)*

Spectral Classification was conducted using both supervised signature classification and unsupervised signature classification. In the un-supervised signature classification, membership in a class means that a pixel is coloured or classed based on its relatedness to like pixels which have been defined by statistical selections. An n-D class means pixel has been determined to belong to a class by its likelihood of correlation to established spectra or a combination of spectra as they relate to a standard which is selected to represent actual phenomena.

In supervised classification specific spectra are introduced after the n-D statistical representation selection. These newly introduced spectra are also library standard spectra, and based on the preceding work are believed by the analyst to be possible minerals or phenomena types located in the AOI. The computer is ‘trained’ and programmed to search for like pixels.

Using this method of iterative unsupervised to supervised classification ##% of the surface area of the AOI was classified according to 72 mineral type classes. These classifications are separately displayed by map (in order to reduce colour key confusion.) Classes are shown by name and corresponding colour in illustration 8 (following).

Metallic Minerals:

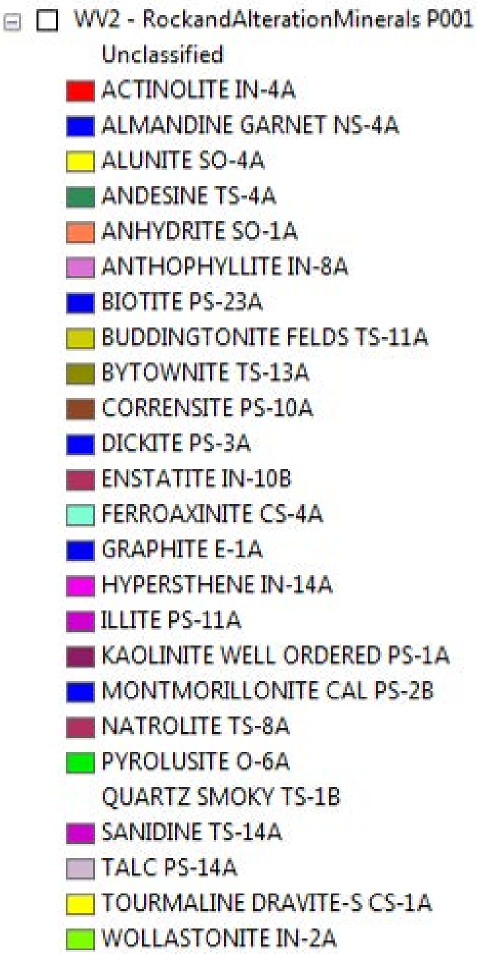
WV2 - Metallic P001
- Unclassified
- ANGLESITE SO-10A
- ARSENOPYRITE S-5A
- BORNITE S-9A
- CHALCOCITE S-8A
- CHALCOPYRITE S-4A
- GALENA S-7A
- MAGNETITE O-4A
- MARCASITE S-10A
- MOLYBDENITE S-11A
- PYRITE S-2A
- PYRRHOTITE S-12A
- RHODOCHROSITE C-8A
- SMITHSONITE C-11A

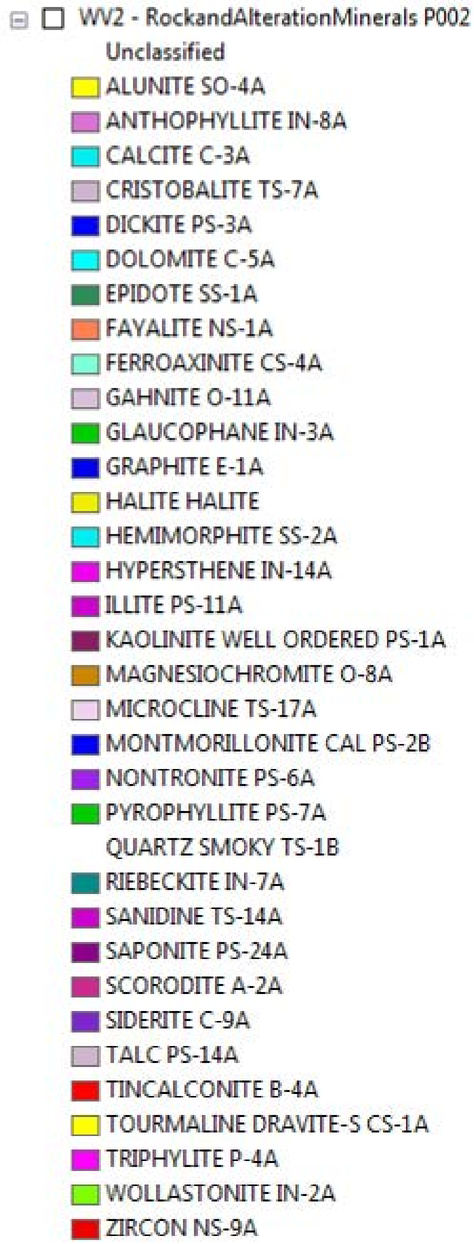
WV2 - Metallic P002
- Unclassified
- ANGLESITE SO-10A
- ARSENOPYRITE S-5A
- BORNITE S-9A
- CHALCOCITE S-8A
- CHALCOPYRITE S-4A
- GALENA S-7A
- MAGNETITE O-4A
- MARCASITE S-10A
- MOLYBDENITE S-11A
- PYRITE S-2A
- PYROLUSITE O-6A
- PYRRHOTITE S-12A
- RHODOCHROSITE C-8A
- SMITHSONITE C-11A
- SPHALERITE S-1A

WV2 - Metallic P003
- Unclassified
- ANGLESITE SO-10A
- ARSENOPYRITE S-5A
- BORNITE S-9A
- CASSITERITE O-3A
- CHALCOCITE S-8A
- CHALCOPYRITE S-4A
- GALENA S-7A
- MAGNETITE O-4A
- MARCASITE S-10A
- MOLYBDENITE S-11A
- PYRITE S-2A
- PYROLUSITE O-6A
- PYRRHOTITE S-12A
- RHODOCHROSITE C-8A
- SMITHSONITE C-11A

WV2 - Metallic P004
- Unclassified
- ANGLESITE SO-10A
- ARSENOPYRITE S-5A
- BORNITE S-9A
- CHALCOCITE S-8A
- CHALCOPYRITE S-4A
- GALENA S-7A
- MAGNETITE O-4A
- PYRITE S-2A
- PYROLUSITE O-6A
- PYRRHOTITE S-12A
- RHODOCHROSITE C-8A
- SMITHSONITE C-11A

Rock And Alteration Minerals:





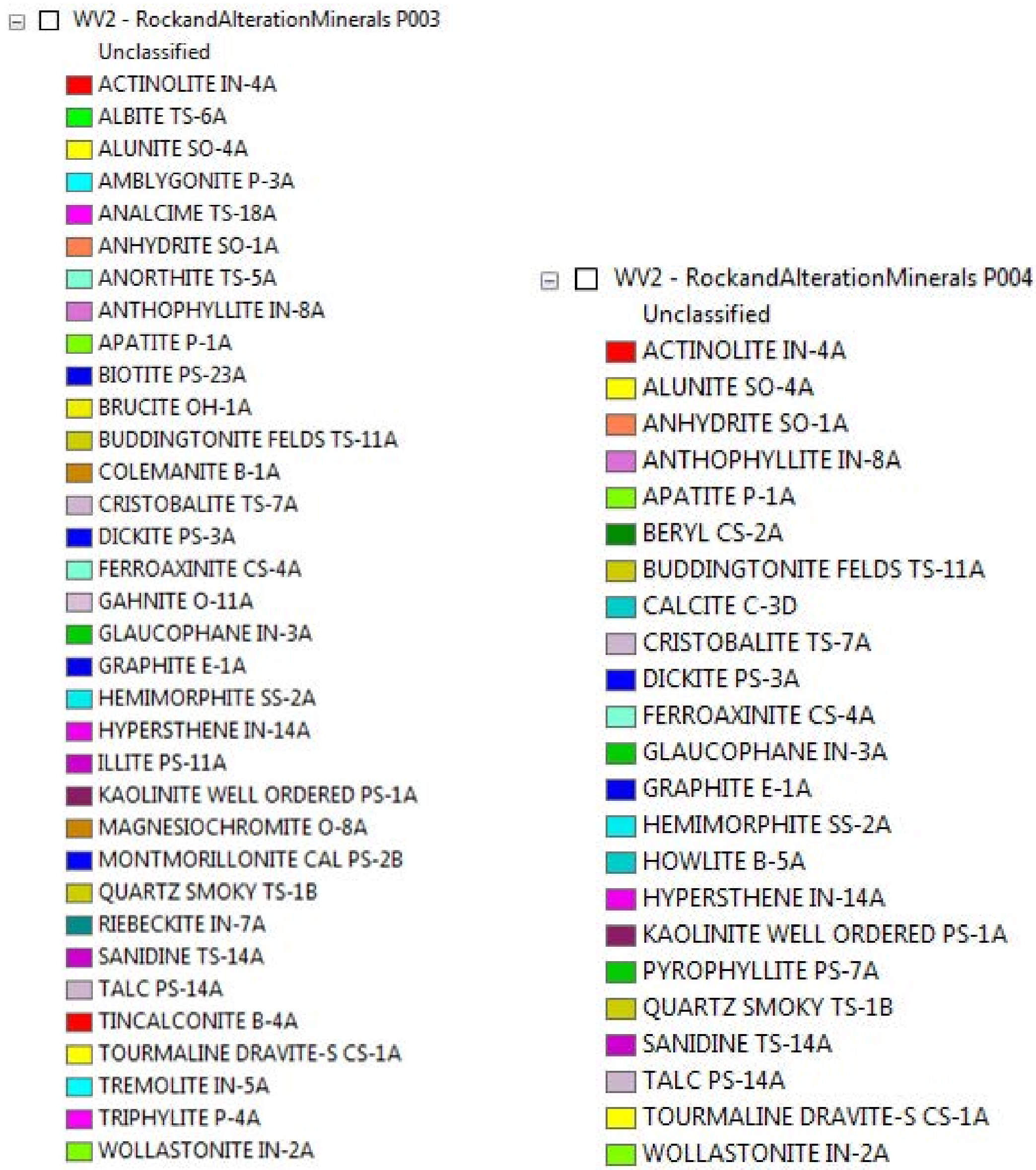


Illustration 8- Spectral Colour Keys

Mapping: *(See Appendix Figures 6 and 7)*
The resulting colour-keyed images or maps show locations of colour to represent classes of statistical likelihood of matches to known and established spectral libraries that have sampled rock, minerals and vegetation in different environments.

Other variables which could have affected the interpretation of spectral classification such as albedo (solar gain), angle of incidence, flight angle, time of collection (land cover), and atmospheric interferences were considered and corrected.

Thermal Analysis *(See Appendix Figure 11)*

The Orthorectified ASTER data included Thermal Infrared Red data which was processed for its value in determining zones of latent heat within the earth. The data was run for correction to create a thermal emissivity index and normalized using elevation. The result is a normalized temperature index (NTI) image. The NTI image was contour extracted at two degree intervals for overlay and spatial comparison.

Modelling:

This spectral classification was part of the visualization process which included:

- Terrain modelling
- Geological domain and boundary definition, including an examination of structure and topography
- Visual feature recognition and membership classification

In this application of spectral analysis, pattern differentiation as well as classification (colour) of the spectra was used. Pattern differentiation was extracted from analysis results including texture, texture homogeneity, texture patterns, elevation and obvious visual features that were related to the AOI's topographical features. This was included because it is not colour by itself but how it integrates with other observables that aid the geologist in making interpretations.

In addition to the mineral occurrence probability model, a terrain derivative slope model was generated for future use in soil sediment sample watershed control geochemistry modelling. This will enable the sample geochemical signals to be spatially distributed according to their potential source watersheds or constraining drainages.

The final model is a multivariate 3 dimensional orthographic model which allows the decision maker to drape vectors and layers of information over variably exaggerated terrain and to vary the scale (zoom in or out) while either rotating the AOI or changing the angularity of viewer perspective.

A Normalized Differential Water indices (NDWI) image was generated using spectral classification and a statistical protocol known as Independent Components Analysis (ICA), from this analysis an image depicting water as white eliminate erroneous linears from the radar analyses and as a base for water mapping.

REMOTE SENSING SOFTWARE

The following computing and analyses programs were used for the analyses of this study:

- Arc GIS with Spatial Modeller;
- ENVI 4.8 with IDL 6.3 plus atmospheric correction model ModTran 4;
- Digital Elevation and Model extraction and Orthorectification suite;
- Arc GIS 10 plus X Tools Pro

RESULTS

All result images were histogram balanced using a combination of linear and Gaussian filtering.

A Digital Elevation Model (DEM) covering the entire AOI was generated to an elevation accuracy of 10 m vertical located within a 10 m radius area. This greatly improves elevation and spatial accuracy of existing topographic data, (currently available at 1:50 0000 scale, at +/- 25m vertical and located within a 30 m radius area.) The spatial accuracy of the DEM derived maps is significantly better in locating and placing geological, geophysical and geochemical information on maps and subsequently in using this information in UTM space to locate drill holes and trenches.

The altitude, orbital location, yaw and attitude of the satellite collecting the data are recorded at the point of capture of the data. When these are combined with the orbit velocity of 15 000 km/h, the data capture is relatively instant. On the other hand, the air photos used to construct 1:50,000 topographic maps are collected as clusters of images collected on flights lines from a moving aircraft that have more highly variable YAW, tilt and attitude and much less accurate position location systems. Consequently printed topographic maps (and their shape file equivalents) often display by comparison, spatial offsets or error in the locations of features such as lakes, trails and streams. In other words, the internal accuracies of position within the satellite images are relatively more precise. Any improvement in accuracy results is a significant improvement in multivariate data alignment. This improvement allows us to integrate and fuse multidisciplinary data such as geophysics and geochemistry which are part of the strategic plan for further work.

Two Spectral Classification Map Sets *(Appendix Figures 6 and7*) representing the metallic mineral, alteration mineral and rock classes were displayed using Spectral angle maps to delineate the areas of probable membership to spectral classes.

Two final radar derivatives were generated to provide linearity and texture.
Vectors in the form of lineaments were extracted where justified by offsets to represent potential faults. *(See Appendix Figure 9)* These were combined with texture and Classes to upgrade the 2005 Regional Geology contacts *(Figure 12)*

A normalized Temperature map was vectorized into temperature gradient contours. (*See Appendix Figure 11)*

A topographic map was also created to include the watercourses and water-bodies as an extraction digitization of vector data from the Spectral NDVI image map.

An Elevation Contour map with 10 metre contours was extracted from the DEM *(See Appendix Figure 15)*

These several maps were subsequently integrated with the existing geophysics derivatives and geochemical data.

An upgraded geological map was generated providing relocated contacts identified by their radar and spectral attributes. This is primarily a refinement of the contact line locations.

Illustration 9- Upgraded Regional Geology

CONCLUSIONS *(Appendix Figure 14)*

There are eighty four areas delineated as prospective targets which satisfied three or more requisites including but not limited to: spatial correlation/covariance or alignment with: existing geophysics derivative data or geochemical data; intersection with the 500 metre radius Minfile or ARIS envelope, or spatial alignment with the spatially projected results of earlier work.

RECOMMENDATIONS

General
A program of ground-truthing is required to investigate the target zones delineated in this work and to verify and map the matched classification species with actual phenomenon such as lithology, and mineralogies. The correlation of pixel domains, boundaries and line features shown on resulting maps to geological and structural attributes present on the ground still need to be validated by a “boots to the ground” programs, as stated by Harris et al (2010). This report only considers the preliminary work to undertake ground-truthing and verification of statistical correlations to the spectral libraries. The appended images show a spectral and radar result of each work area within the project AOI.
All results were subsequently projected and stored in UTM 10N NAD 83.
It is recommended that additional field samples be collected and submitted for spectral analysis for use as spectral standards on this claim group, as confirmation of spectral class differentiation. These spectral standards will provide additional spectral data on rocks and their altered counterparts specific to this area which are presumably related to mineralization centers.

In subsequent work, it is recommended to use:

1. Higher Spectral/Spatial Resolution RadarSat 2 data (4 channel versus present 2 channel data)
2. Collection of 10 widely spaced DGPS Ground Control positions of significant geographic features for absolute correction and DSM
3. Collection of Ground Based Spectrometric data

It is anticipated that these strategic advances will make it possible to isolate those areas hosting potential mineral showings, to more quickly map them on the ground and to begin the process of evaluating their economic potential by undertaking detailed geophysical (IP) and drilling programs.

Jacques Houle, P.Eng.
Mineral Exploration Consulting
6552 Peregrine Road **ph. (250) 390-3930**
Nanaimo, B.C. V9V 1P8 **jhoule06@shaw.ca**

Memorandum

To: **David McLelland**

From: **Jacques Houle**

Date: **June 5, 2013**

Re. Analysis of Remote Sensing Survey for Coast Minerals Texada Island Project

The geological setting of Texada Island is very similar to that of the northern 90% of Vancouver Island from Duncan to Port Hardy. Layered rocks on Texada Island generally strike northwest and dip to the southwest, and exposures range in age from Devonian 375 million year old (ma) volcanics at the southeast end of the island to late Cretaceous 75 ma Nanaimo Group shales near Gillies Bay. This includes the intervening Permian 275 ma limestones exposed in the southeast, and the Triassic 225 ma Karmutsen volcanics exposed over most of the island, with two gently folded basins of conformably overlying Triassic Quatsino limestones: a major north-south basin at the north end of the island, and a smaller island-parallel basin in the south-central portion.

At least two different ages of granodiorite to diorite intrusive intrusions known to be related to metallic mineral deposits have pierced and extensively underlie the layered rocks of Texada Island. Jurassic 175 ma Island intrusives from Vancouver Island to the southwest, and early Cretaceous 120 ma Coast intrusions from the Sunshine Coast to the northeast. Significant steep faulting has been mapped in 2 main directions, NW-SE and E-W, throughout the island generally with left-lateral displacement of layered units, and unknown vertical displacements or relationships with intrusive units.

Metallic mineral deposits (excludes sedimentary limestone, shale or aggregate) of Texada Island consist of 4 main types:

1. Skarn (iron and/or copper, silver and gold) generally related to limestones at or near contacts with intrusions, found in northwest Texada Island
2. Porphyry (copper/gold and/or copper/molybdenum) closely related to intrusions, found in eastern Texada Island
3. Quartz Veins (gold, silver) related to shear and fault structures found throughout the island, and probably genetically related to intrusions
4. Redbed (copper, silver) hosted in volcanics in the south, and probably young in age resulting from weathering and secondary re-deposition of copper and silver

The area covered by the Texada Project excludes all historic metallic mineral past producers and developed prospects. Between 1896 and 1976, 13 skarn deposits located on northern Texada Island produced 21 million tonnes averaging 0.16 g/t gold, 1.9 g/t silver, 0.17% copper and 45% iron, according to BC MINFILE production records. In the BC MINFILE inventory records for developed prospects, iron is not documented and only 2 metallic occurrences host non-NI43-101 compliant inventories in gold-bearing copper skarns:

1. Little Billie MINFILE 092F105 - 181,420 tonnes averaging 11.65 g/t gold, 34.28 g/t silver and 2% copper
2. Yew MINFILE 092F516 – 102,329 tonnes averaging 13.66 g/t gold, 1.45% copper

Records of historic exploration and development work are very extensive and well documented in the BC Assessment Reports (ARIS) and BC Minister of Mines reports, with good work dating back to the late 1800's. The period of most significant modern exploration on Texada Island was from 1988 to 1991, by three major international mining companies: Freeport McMoRan Gold Corp., Echo Bay Mines Ltd. and BP Resources Canada Ltd. They targeted gold-bearing copper skarn, porphyry copper-gold and gold quartz vein deposits, and stopped exploring in B.C. in the early 1990's when most other companies also left B.C., but left excellent records in ARIS.

Dean Bombardier began acquiring cell mineral claims on Texada Island in February, 2012 on behalf of Coast Minerals Corporation. Coast Minerals directly or indirectly holds 78 partially contiguous mineral tenures covering 18,161 hectares on Texada Island, located 100 km northwest of Vancouver, B.C. These tenures cover about 75% of Texada Island, including many BC MINFILE occurrences, and areas of work programs documented in many BC ARIS reports. The Texada Island Project is the largest mineral claim property every assembled on Texada Island.

Both radar and spectral remote sensing data was compiled and fused by Auracle over the Texada Island Project area. Many structural features were identified in the radar data, including geological contacts and faults previously mapped and interpreted by BC government geologists, refinements of some of those known structures, and newly identified structures. Both metallic and alteration mineral classifications were reviewed and polygons were drawn around areas of unique mineral classifications. 83 metallic mineral polygons were identified and labeled, and represent potential prospecting targets. 28 alteration mineral polygons were identified, but not labeled, and in some cases surround or link metallic mineral targets. Some of the structures identified also link or follow the boundaries of metallic mineral targets or MINFILE occurrences.

Additional work is required to integrate MINFILE, ARIS and other publicly available data with the remote sensing metallic mineral targets, followed by prioritization of those targets, and then systematic ground-truthing by prospecting, stream moss mat geochemistry and possible targeted field exploration programs.

Illustration 10- Geological Targets

REFERENCES

Harris, J.R., McGregor R., and Budkewitsch, P. (2010.) *Geological analysis of hyperspectral data over southwest Baffin Island: methods for producing spectral maps that relate to variations in surface lithologies.* Canadian Journal of Remote Sensing, 36, 412-435.

Jensen, J.R. (1996.) *Introductory Digital Image Processing: A Remote Sensing Perspective.* 3rd ed. Pearson Prentice Hall, Upper Saddle River;

Statement of Qualification

I, David J. McLelland, do hereby certify that:

1. I am a Principal in:
Auracle Geospatial Science Inc,
325 Dorset Road Qualicum Beach,
British Columbia, Canada V9K 1H5

2. I have received a Master of Science with Distinction in Remote Sensing and Geospatial Science from Manchester Metropolitan University's faculty of Earth and Environmental Science, and have received a postgraduate diploma in applied and theoretical GI Science from Simon Fraser University.

3. I have completed the B.C.I.T. B.C.Y.C.M. Mineral Exploration program, and Completed the B.C.I.T. B.C.Y.C.M. Advanced field School.

4. I have 12 years of experience in Remote Sensing, and I am the Remote Sensing Project Manager and responsible for the acquisition and management of data and execution of analyses. I am a Professional Member of the Canadian Remote Sensing Society and the Canadian Aeronautics and Space Institute

5. This report was prepared on behalf of Auracle Geospatial Science Inc. who has been engaged by Coast Minerals Corp., to complete a remote sensing program on this property.

6. I have no material or financial interest in the subject properties or the companies that own them.

7. This report has been prepared in accordance with generally accepted scientific principles and is based upon the best information available at the time of preparation.

I am not aware of any material fact or material change with respect to the subject matter of the report that is not reflected in the report and would constitute therefore the omission of fact.

Date: 25/05/2013
Qualicum Beach, British Columbia, Canada

David J McLelland MSc, PGdip, (FRGS, MCRSS)

SW BC								
Texada Island								
2012 Work	Budget 10-05-2012		Tenure Area 162.58Km2					
Project Area: ***Tex***				Mineral Expl	***Remote Sensing***			
Cost Categories		Type	Descript	Units	Rate	#	Qty	extended
Personnel								
	Project Manager	Est Plan/acqu		$/Day(8hr.)	$600.00	1	1	$600.00
	QP			$/Day(8hr.)	$750.00	12	1	$9,000.00
	Field Assistants			$/Day(8hr.)	$350.00	1	0	$0.00
	GIStech			$/Day(8hr.)	$275.00	20	2	$11,000.00
	Geospatial Analyst			$/Day(8hr.)	$600.00	12	2	$14,400.00
	Remote Sensing Analyst			$/Day(8hr.)	$750.00	20	1	$15,000.00
Data Acquisition							1	$240.00
	GCP Collection				$750.00		4	$3,000.00
	GCPequip Rental							$500.00
	Travel and R and B							$800.00
	ASTER							$120.00
	TRIM							$0.00
	RapidEye Stereo	100km	5.0m		$750.00		2	$3,500.00
	preprocessing Reye DEM							$2,800.00
	3.8m Multi		3.8m				2	
	1 Pan		1m					
	SAR	Rsat 1F	arch		$0.50			$1,650.00
	preprocessing	Rsat						$400.00
	Processing	RS			$500.00	24	1	
	Hyperion	220Band						$4,800.00
	WV2	pan+8			$32.00			$12,800.00
	Scanning Digital	36"	map	per lin inch	$0.50	2,736	0	$0.00
	Digitization	processing						$0.00
Mapping and Reporting								
	Mapping							$600.00
	Reporting	ppt						$500.00
	Priniting and copying							$125.00
	LS Printing							$250.00
Licences and Permits								
	Exploration Permit							
	Bond							
	WCB	inc						
	Insurances	Equipment						
		Liability						
	ATV	in rental						
Total								$82,085.00
								Plus HST (ap

plicable Taxes)

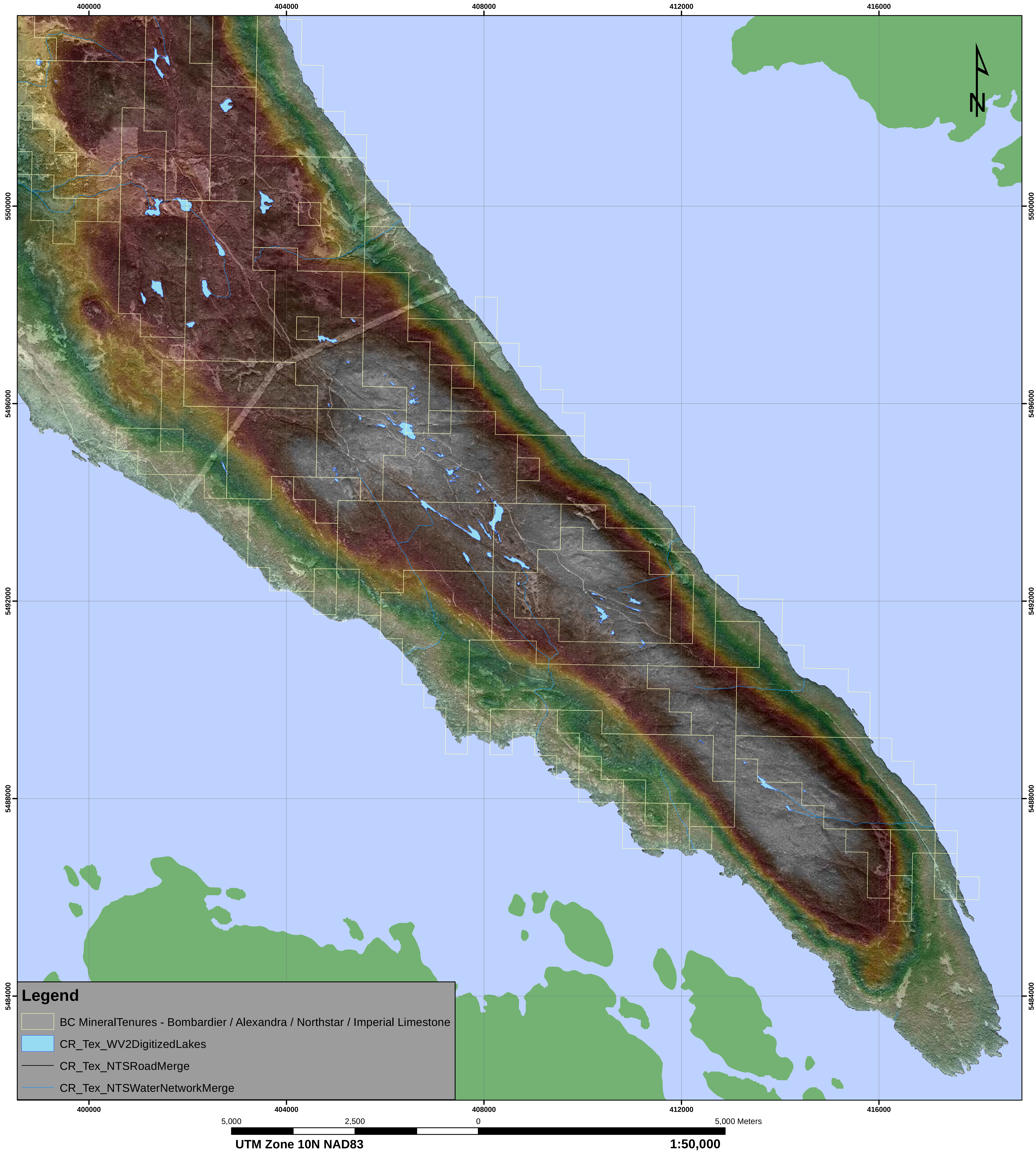
NAD1983 UTM Zone10

1:250,000

Legend

BC MineralTenures - Bombardier / Alexandra / Northstar / Imperial Limestone

Texada Island Group
Coast Minerals Corporation
General Location



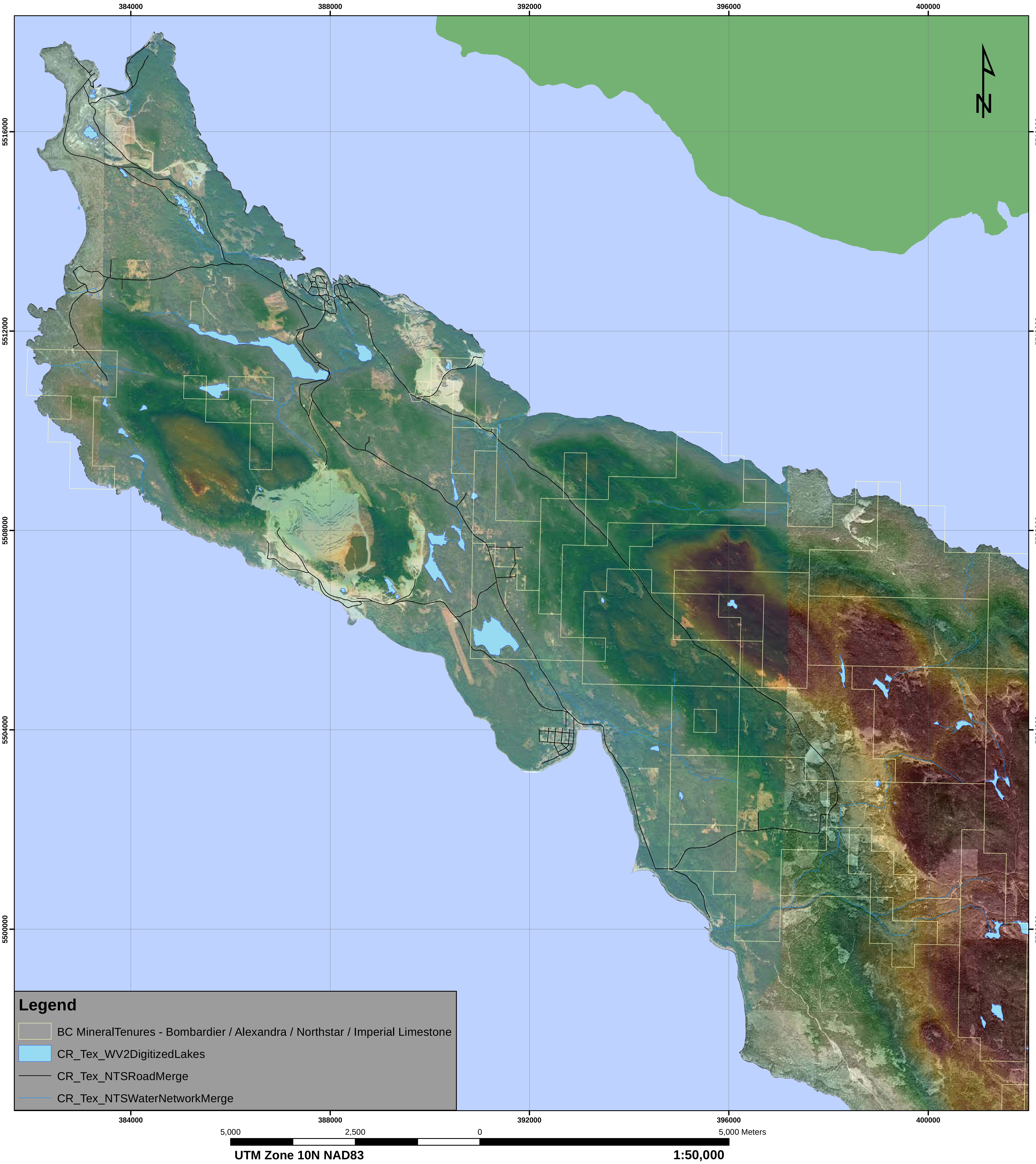
Texada Island Group

East

Aster GDEM on
Orthorectified Worldview-2 Panchromatic Imagery
with Texada Island Group Mineral Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



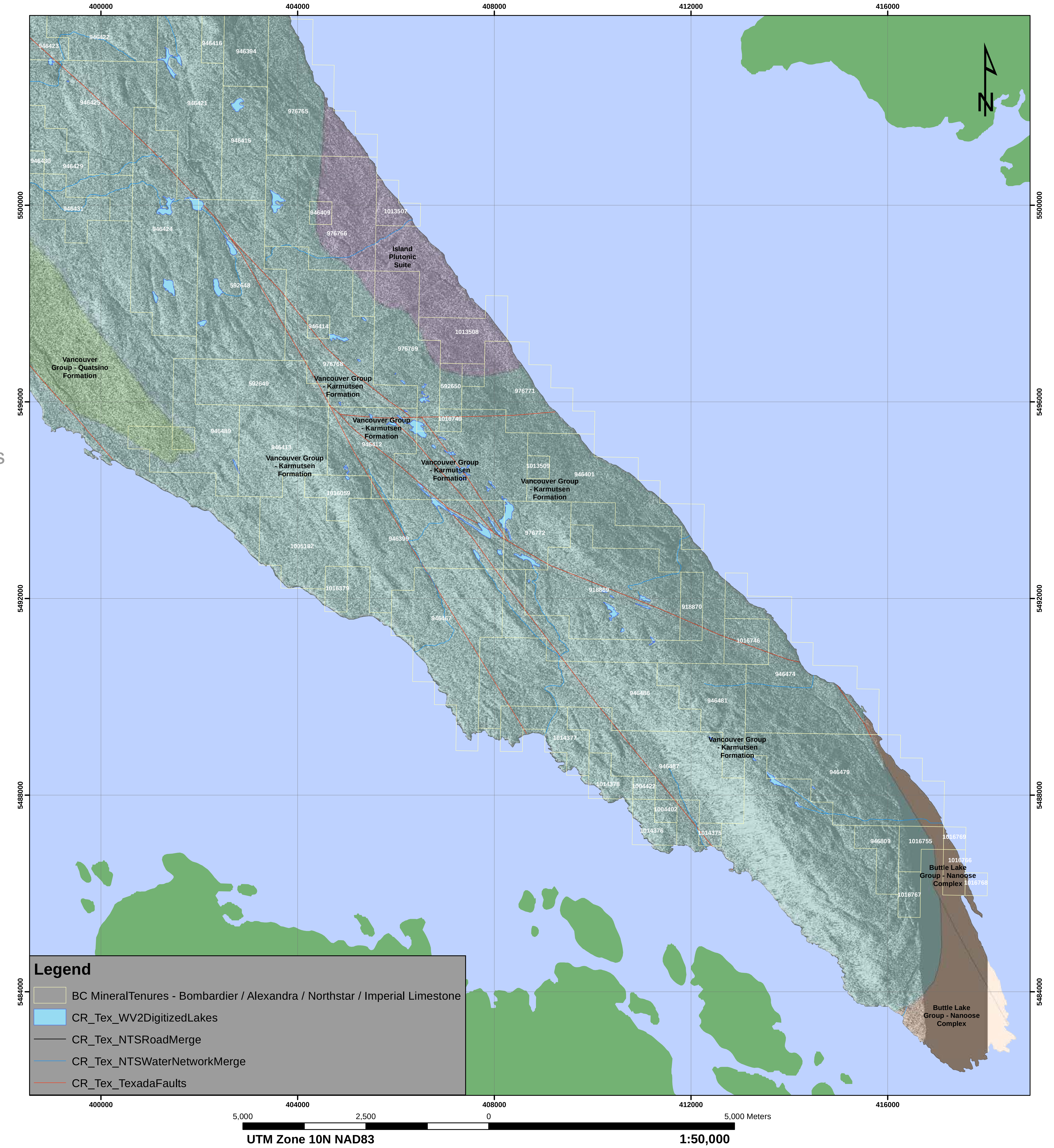
Texada Island Group

West

Aster GDEM on
Orthorectified Worldview-2 Panchromatic Imagery
with Texada Island Group Mineral Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



Texada Island Group

East

BC Geology and Faults on
Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Mineral Tenures

Auracle Geospatial Science Inc.

Coast Minerals Corporation

Texada Island Group

West

BC Geology and Faults on
Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Mineral Tenures

Auracle Geospatial Science Inc.

Coast Minerals Corporation

UTM Zone 10N NAD83

1:50,000

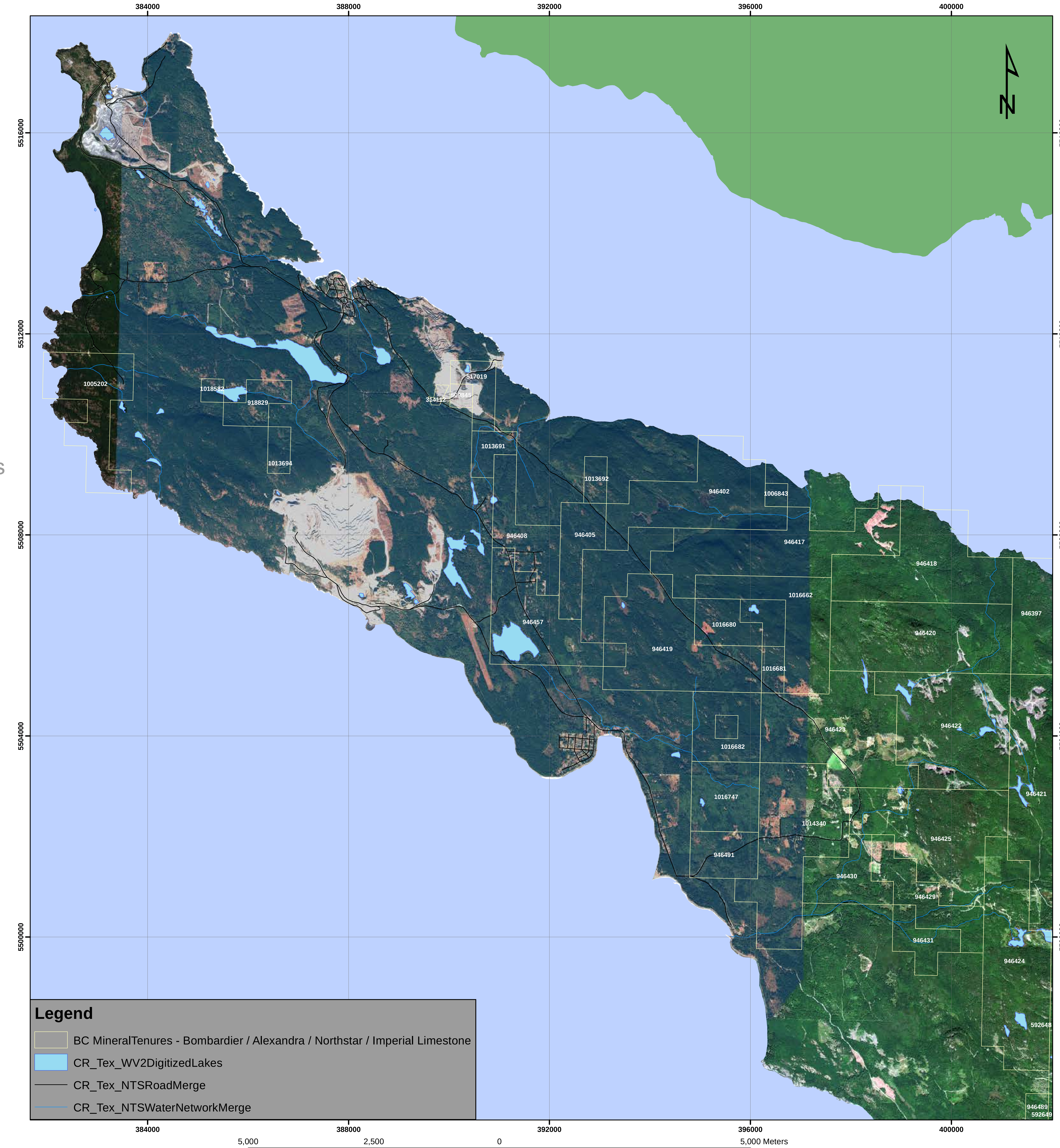
Texada Island Group

East

Orthorectified WorldView-2 Multispectral Imagery
with Texada Island Group Tenures

Auracle Geospatial Science Inc.

Coast Minerals Corporation



UTM Zone 10N NAD83

1:50,000

Texada Island Group

West

Orthorectified WorldView-2 Multispectral Imagery
with Texada Island Group Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation

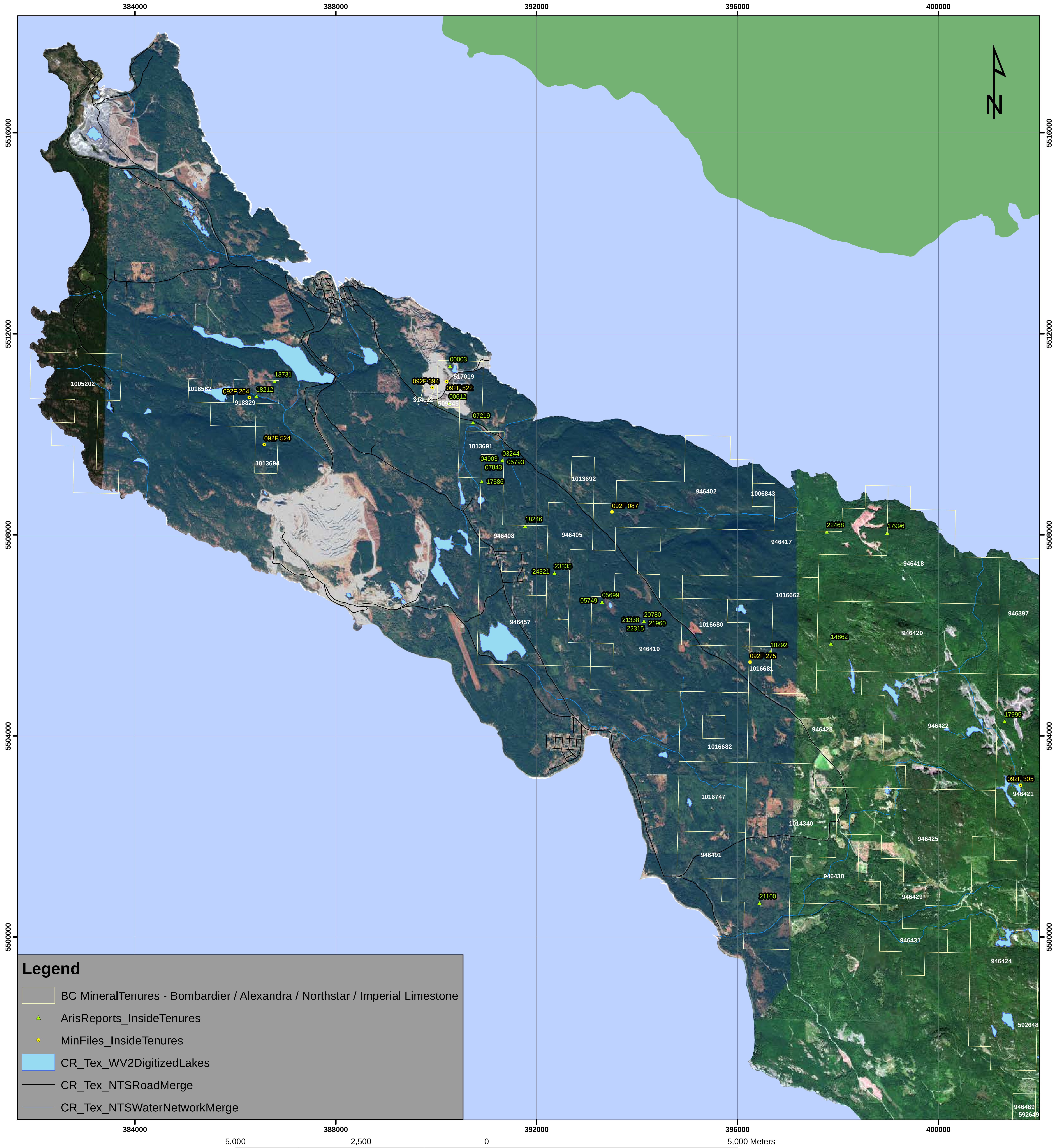
Texada Island Group

East

Orthorectified WorldView-2 Multispectral Imagery
with Texada Island Group Mineral Tenures, ARIS Reports
and BC Mineral Occurences

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



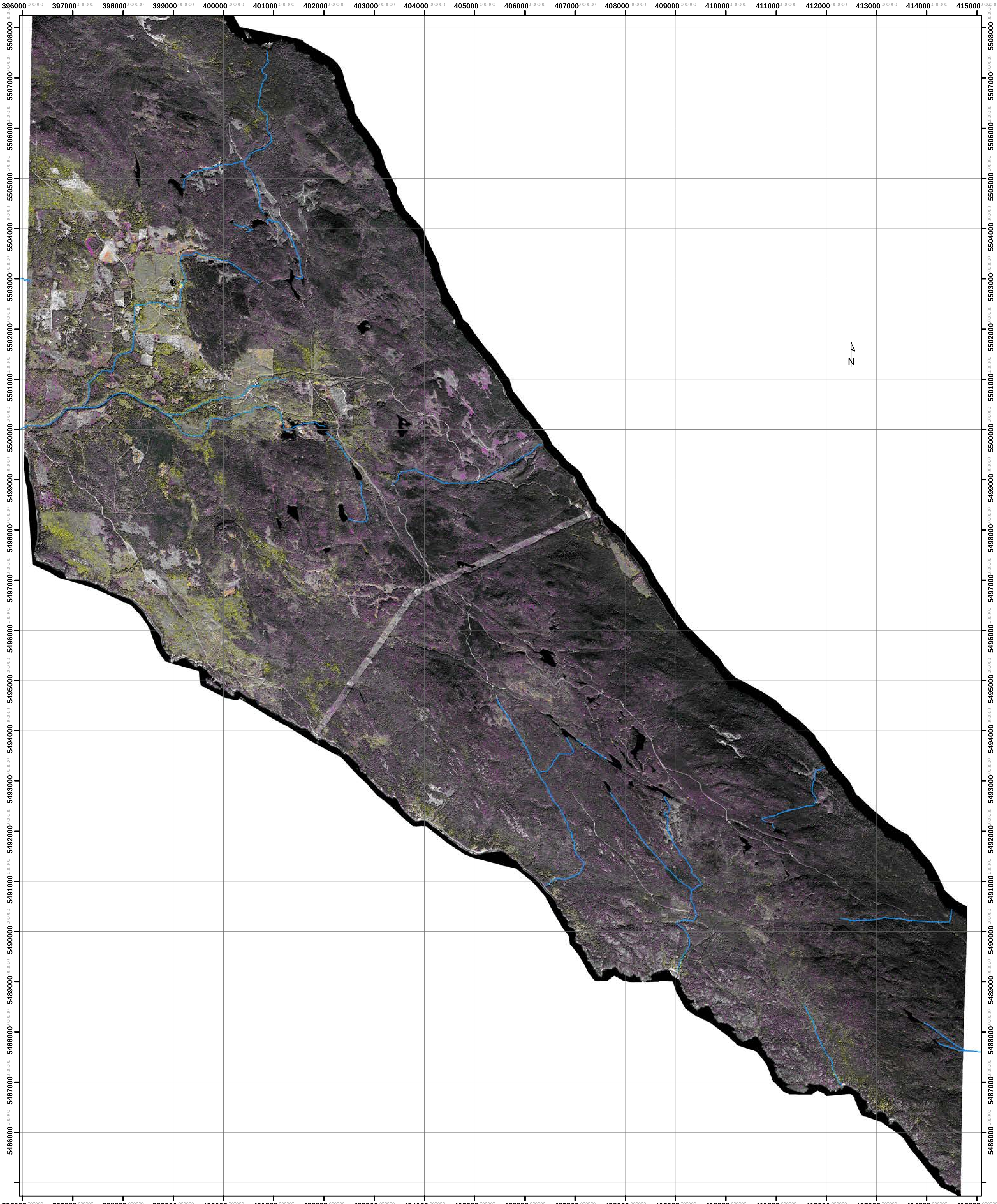
Texada Island Group

West

Orthorectified WorldView-2 Multispectral Imagery
with Texada Island Group Mineral Tenures, ARIS Reports
and BC Mineral Occurences

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



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UTM 10N NAD83

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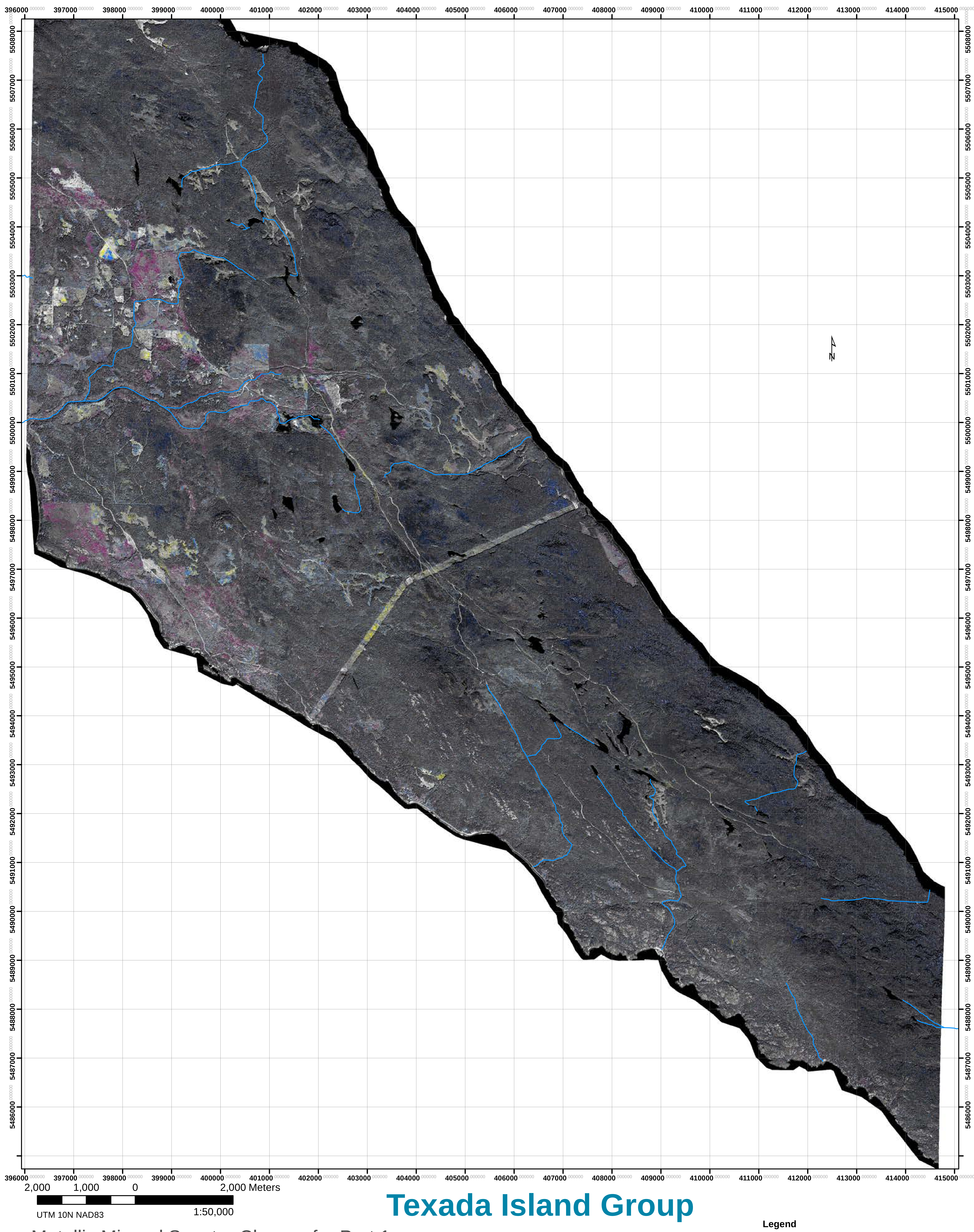
Texada Island Group

Metallic Mineral Spectra Classes for Part 1 Over Orthorectified Panchromatic WorldView2 Image Data

Legend

- Unclassified
- kaosmec1.spc Kaolin/Smect KLF506 95%K
- quartz1.spc Quartz HS117.3B Aventurin
- sanidin1.spc Sanidine GDS19
- sepioli1.spc Sepiolite SepNev-1.AcB
- serpent1.spc Serpentine HS318.4B
- sphaler2.spc Sphalerite S102-7

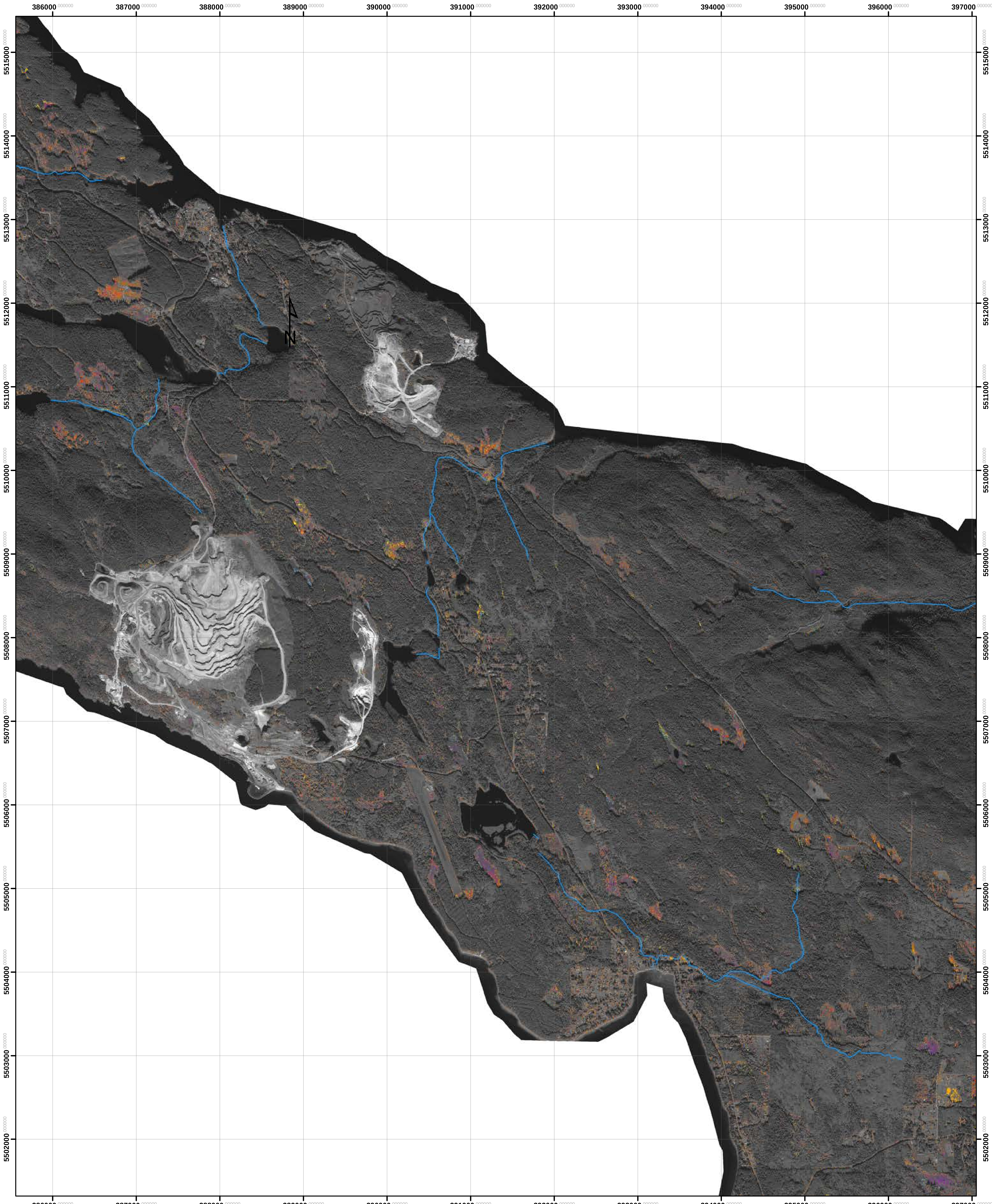


Texada Island Group

Metallic Mineral Spectra Classes for Part 1
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

Unclassified	MAGNETITE O-4A
ANGLESITE SO-10A	MARCASITE S-10A
ARSENOPYRITE S-5A	MOLYBDENITE S-11A
BORNITE S-9A	PYRITE S-2A
CHALCOCITE S-8A	PYRRHOTITE S-12A
CHALCOPYRITE S-4A	RHODOCHROSITE C-8A
GALENA S-7A	SMITHSONITE C-11A



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UTM 10N NAD83

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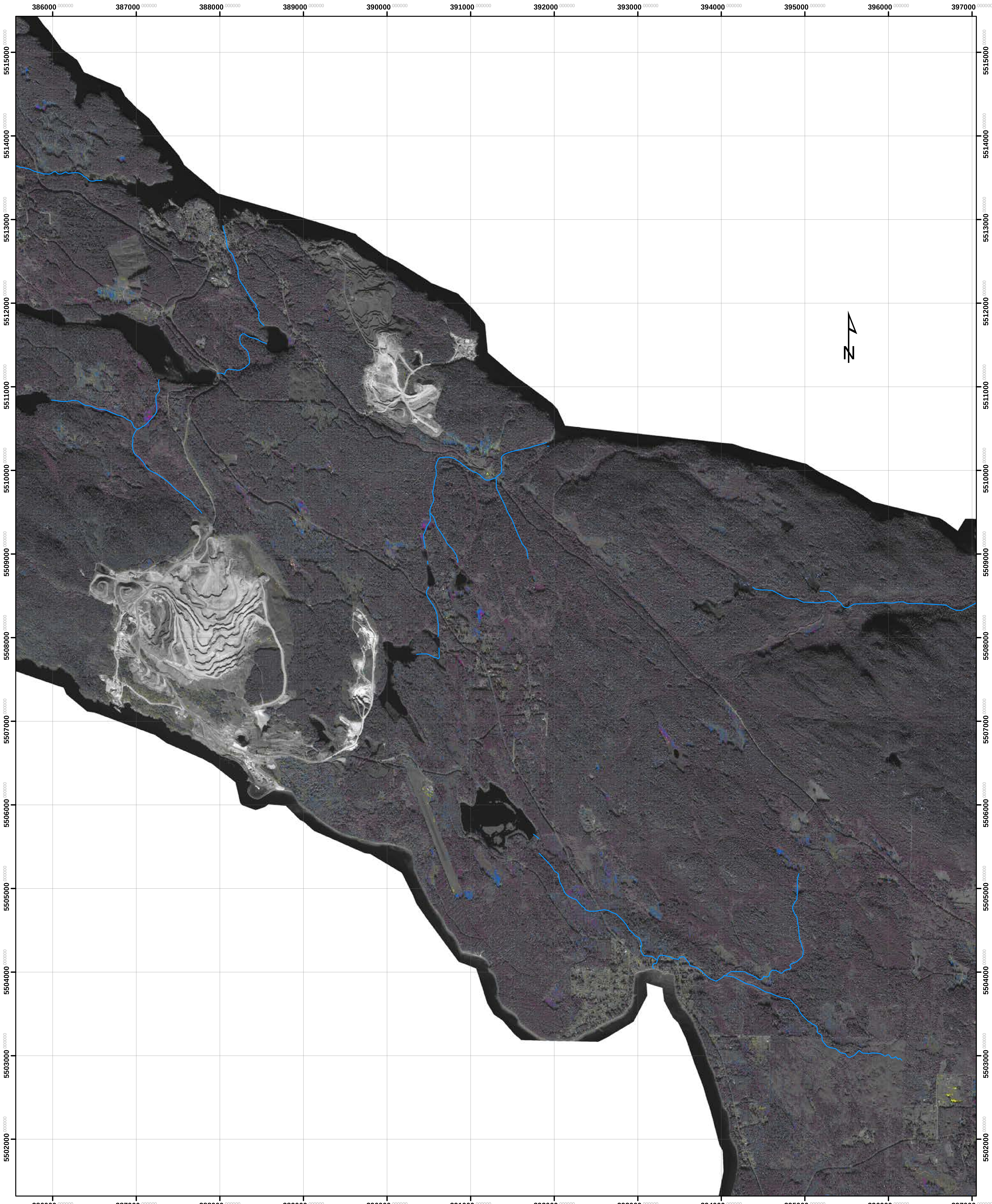
Texada Island Group

Alteration Mineral Spectra Classes for Part 2
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

- Unclassified
- almand2.spc Almandine WS475
- almand6.spc Almandine WS479
- dickite2.spc Dickite NMNH46967
- kaolini3.spc Kaolinite KGa-2 (pxyl)
- kaolini4.spc Kaolinite KL502 (pxyl)
- kaolini8.spc Kaolinite CM7
- kaosmec1.spc Kaolin/Smect KLF506 95%K
- kaosmec2.spc Kaolin/Smect KLF508 85%K
- kaosmec4.spc Kaolin/Smect H89-FR-5 30K
- magnesit.spc Magnesite+Hydroma HS47.3B
- microcl1.spc Microcline HS82.3B
- microcl3.spc Microcline HS107.3B
- montmor2.spc Montmorillonite SAz-1
- montmor4.spc Montmorillonite SCa-2.b
- quartz4.spc Quartz GDS74 Sand Ottawa
- rhodoch1.spc Rhodochrosite HS338.3B
- rhodoch2.spc Rhodochrosite HS67 <250um



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UTM 10N NAD83

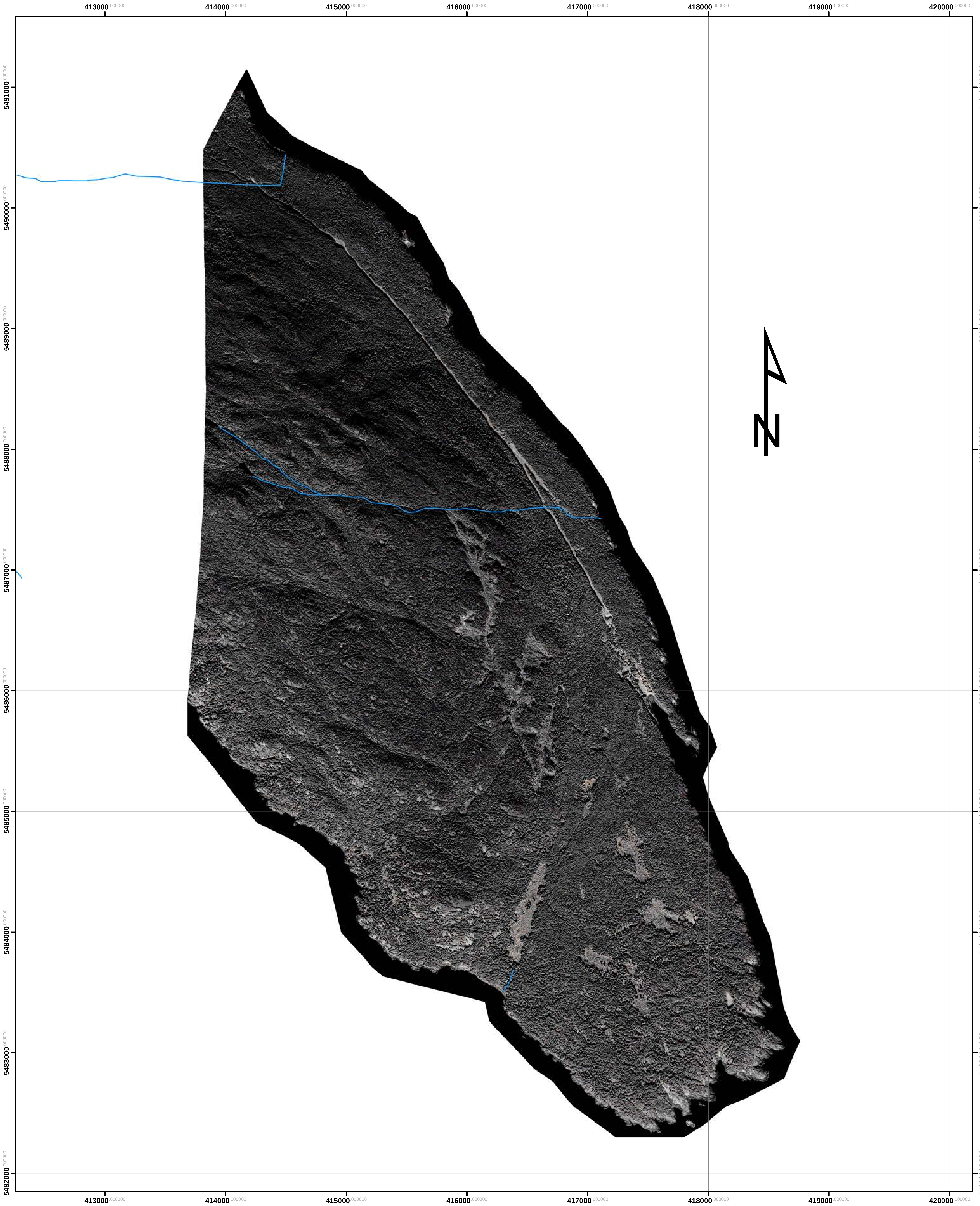
1:30,000

Texada Island Group

Metallic Mineral Spectra Classes for Part 2
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

- Unclassified
- ANGLESITE SO-10A
- ARSENOPYRITE S-5A
- BORNITE S-9A
- CHALCOCITE S-8A
- CHALCOPYRITE S-4A
- GALENA S-7A
- MAGNETITE O-4A
- MARCASITE S-10A
- MOLYBDENITE S-11A
- PYRITE S-2A
- PYROLUSITE O-6A
- PYRRHOTITE S-12A
- RHODOCHROSITE C-8A
- SMITHSONITE C-11A
- SPHALERITE S-1A



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UTM 10N NAD83

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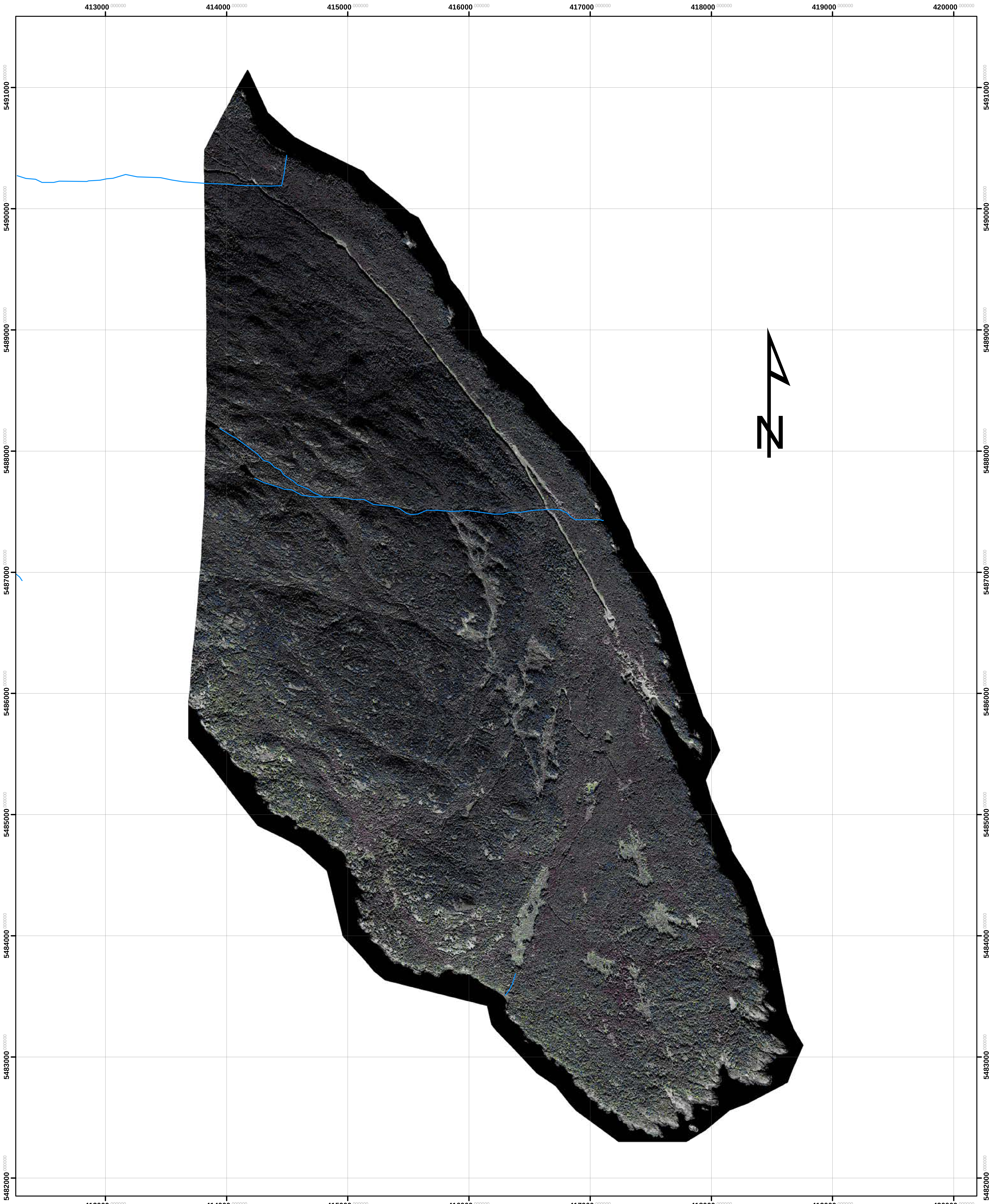
Texada Island Group

Alteration Mineral Spectra Classes for Part 3
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

- Unclassified
- brucite.spc Brucite HS247.3B
- calcite2.spc Calcite HS48.3B
- kaosmec2.spc Kaolin/Smect KLF508 85%K
- pinnoite.spc Pinnoite NMNH123943
- quartz2.spc Quartz GDS31 0-74um fr
- quartz3.spc Quartz HS32.4B
- sanidin2.spc Sanidine NMNH103200
- talc3.spc Talc WS659
- talc4.spc Talc TL2702
- wollasto.spc Wollastonite HS348.3B



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UTM 10N NAD83

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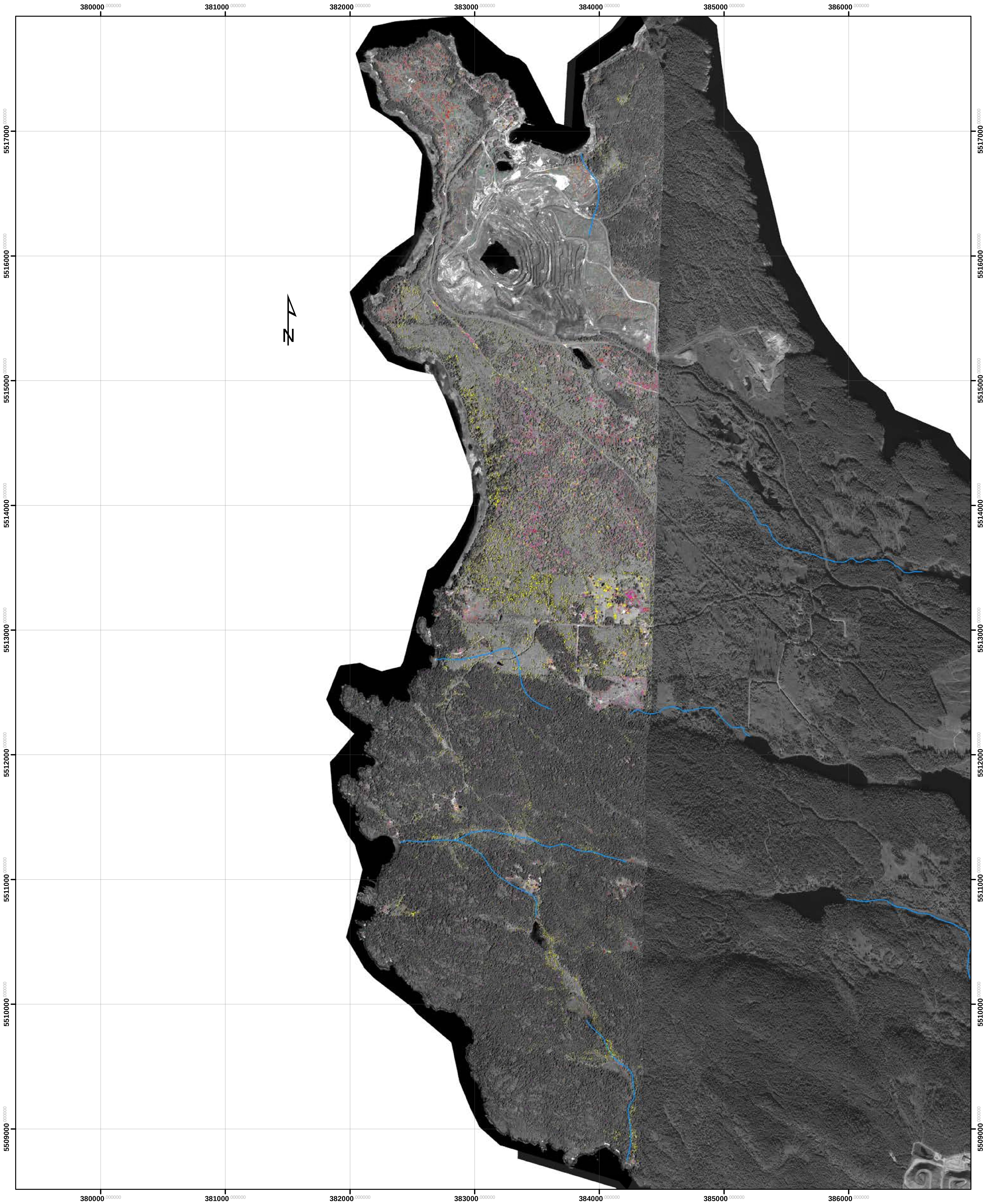
Texada Island Group

Metallic Mineral Spectra Classes for Part 3
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

Unclassified	MAGNETITE O-4A
ANGLESITE SO-10A	MARCASITE S-10A
ARSENOPYRITE S-5A	MOLYBDENITE S-11A
BORNITE S-9A	PYRITE S-2A
CASSITERITE O-3A	PYROLUSITE O-6A
CHALCOCITE S-8A	PYRRHOTITE S-12A
CHALCOPYRITE S-4A	RHODOCHROSITE C-8A
GALENA S-7A	SMITHSONITE C-11A



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UTM 10N NAD83

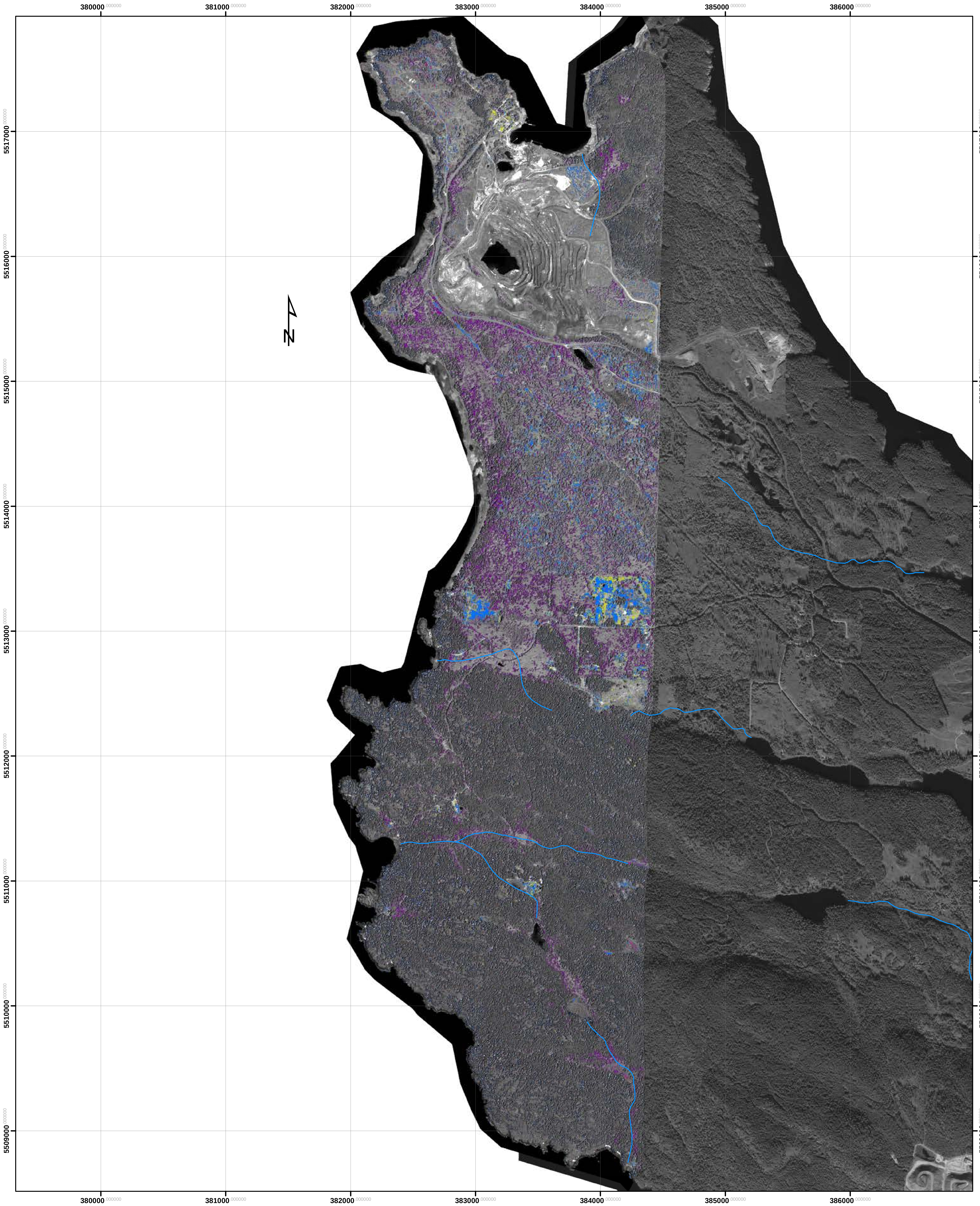
1:20,000

Texada Island Group

Alteration Mineral Spectra Classes for Part 4
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

- Unclassified
- actinol5.spc Actinolite NMNHR16485
- brucite.spc Brucite HS247.3B
- kaolini1.spc Kaolinite CM9
- kaolini3.spc Kaolinite KGa-2 (pxyl)
- kaolini4.spc Kaolinite KL502 (pxyl)
- magnesit.spc Magnesite+Hydroma HS47.3B
- montmor2.spc Montmorillonite SAz-1
- quartz1.spc Quartz HS117.3B Aventurin
- quartz2.spc Quartz GDS31 0-74um fr
- quartz4.spc Quartz GDS74 Sand Ottawa
- rhodoch2.spc Rhodochrosite HS67 <250um
- sepioli1.spc Sepiolite SepNev-1.AcB



1,000 500 0 1,000 Meters

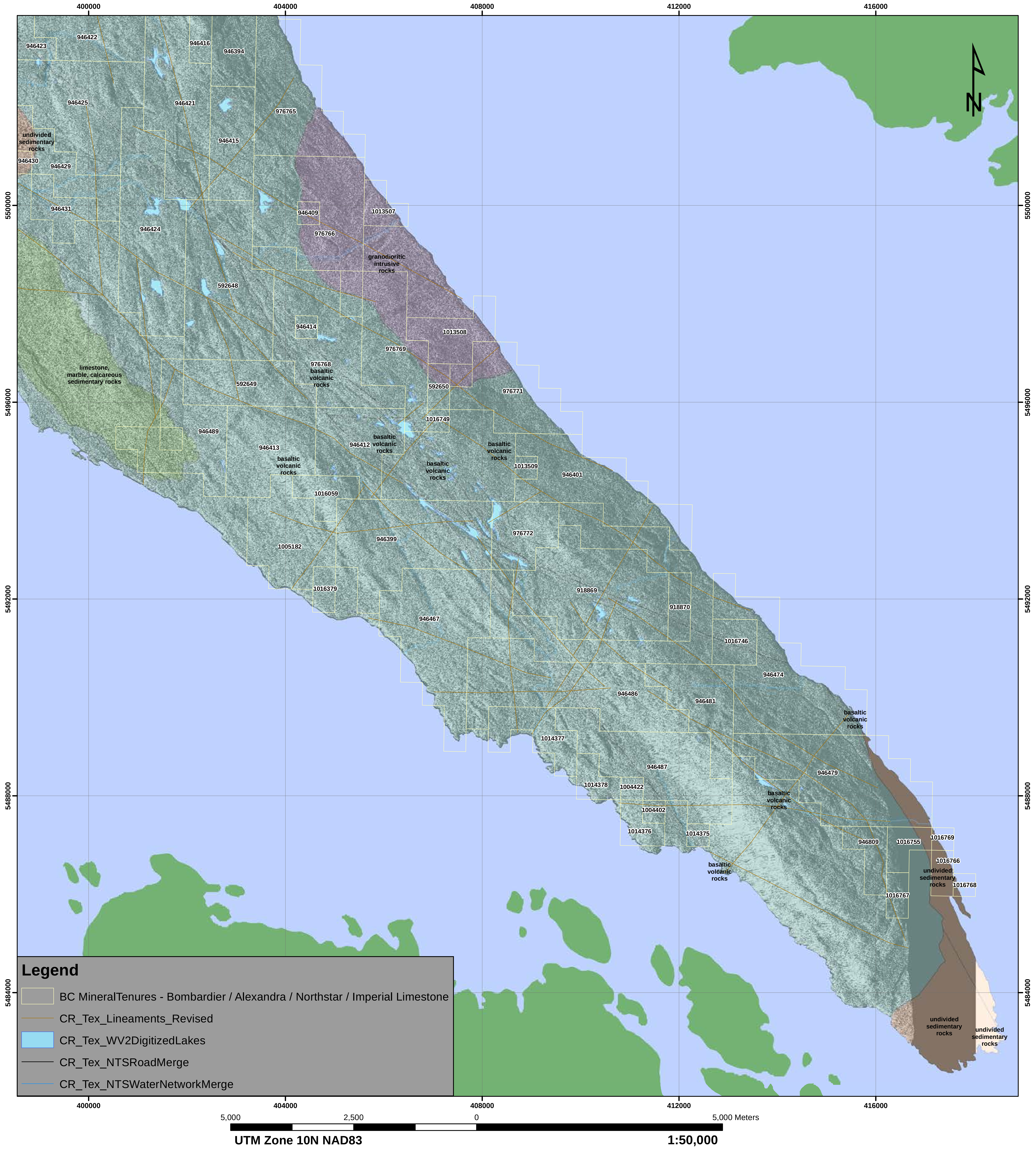
UTM 10N NAD83 1:20,000

Texada Island Group

Metallic Mineral Spectra Classes for Part 4
Over Orthorectified Panchromatic
WorldView2 Image Data

Legend

Unclassified	MAGNETITE O-4A
ANGLESITE SO-10A	PYRITE S-2A
ARSENOPYRITE S-5A	PYROLUSITE O-6A
BORNITE S-9A	PYRRHOTITE S-12A
CHALCOCITE S-8A	RHODOCHROSITE C-8A
CHALCOPYRITE S-4A	SMITHSONITE C-11A
GALENA S-7A	



Texada Island Group

East

Revised BC Geology and Revised BC Faults on
Orthorectified Radarsat-1 Fine Beam Image Derivative
with Texada Island Group Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation

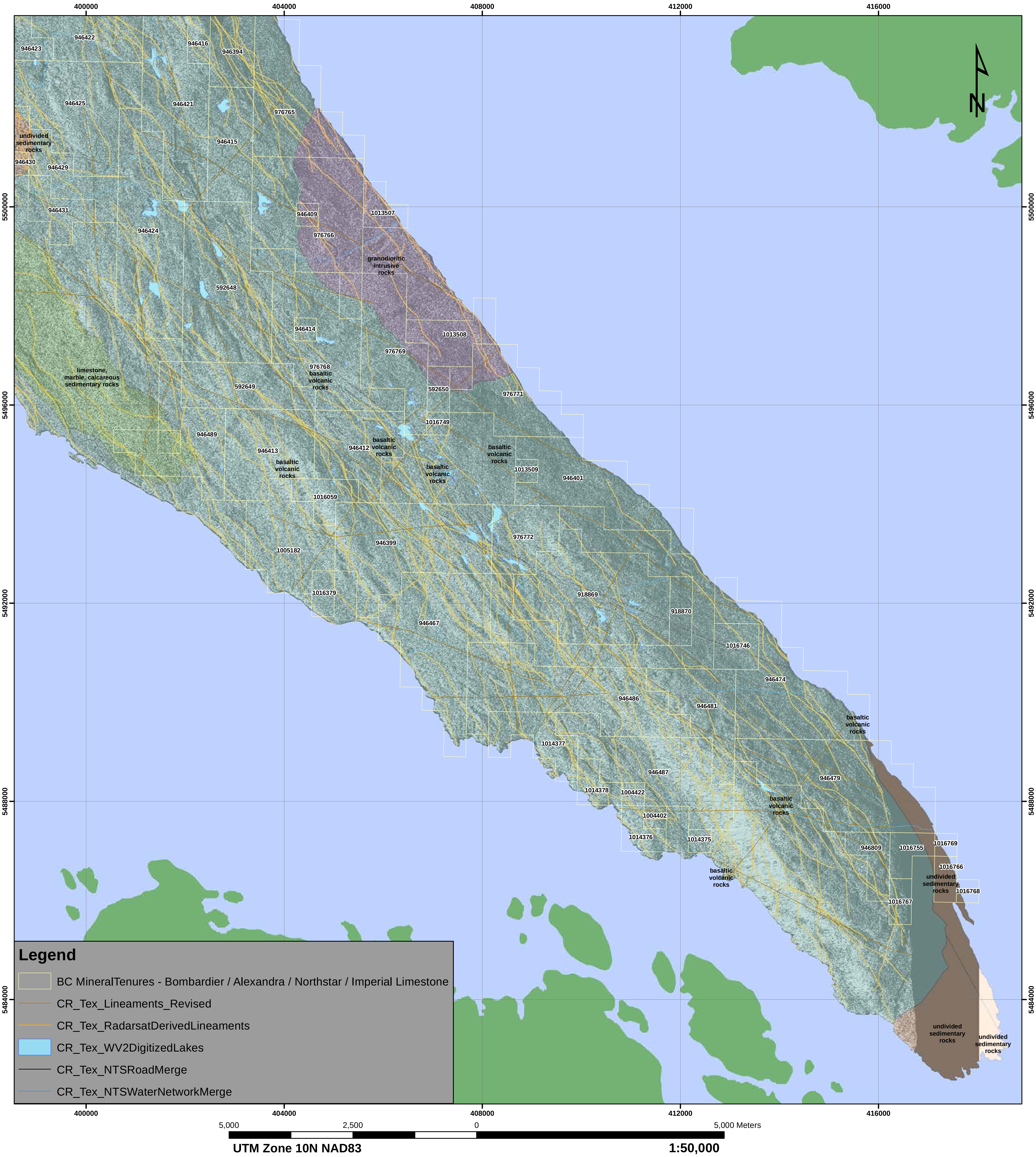
Texada Island Group

West

Revised BC Geology and Revised BC Faults on
Orthorectified Radarsat-1 Fine Beam Image Derivative
with Texada Island Group Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



Texada Island Group

East

Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Tenures
and Upgraded Regional Geology with
Radar Derived Lineaments

Auracle Geospatial Science Inc.

Coast Minerals Corporation

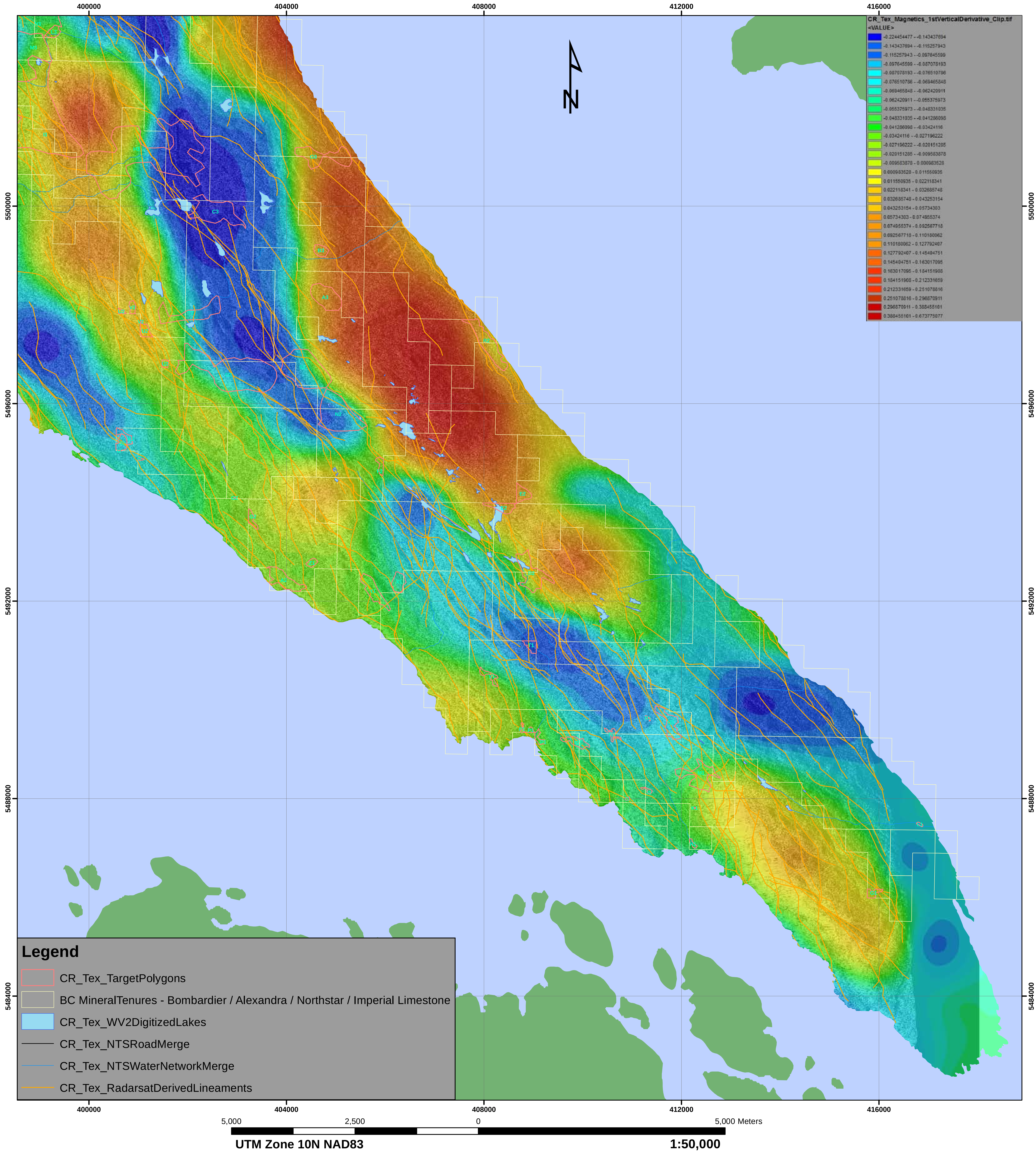
Texada Island Group

West

Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Tenures
and Upgraded Regional Geology with
Radar Derived Lineaments

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



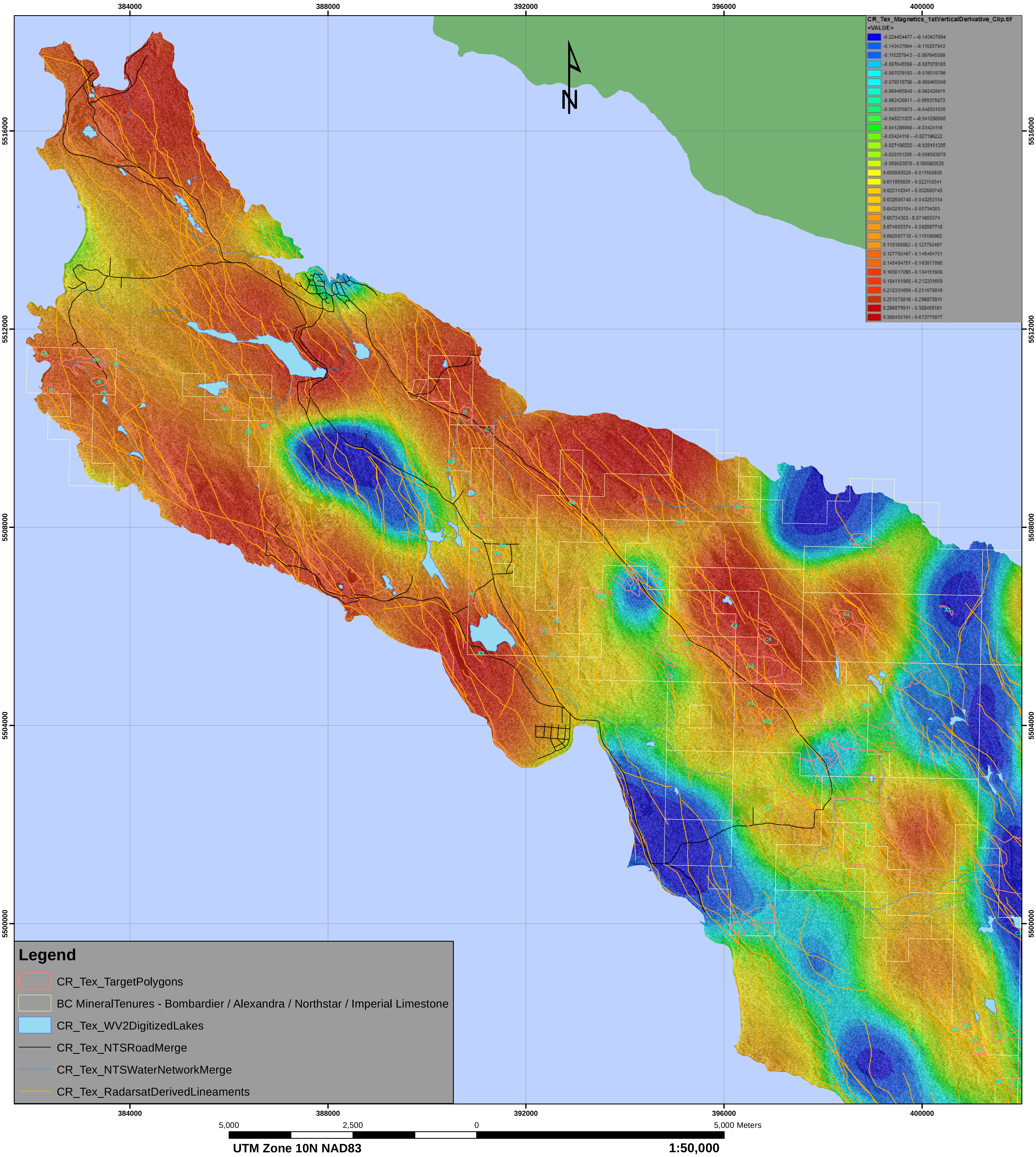
Texada Island Group

East

1st Derivative Magnetics Over
Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures
and Radar Derived Lineaments
and Target AOIs

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



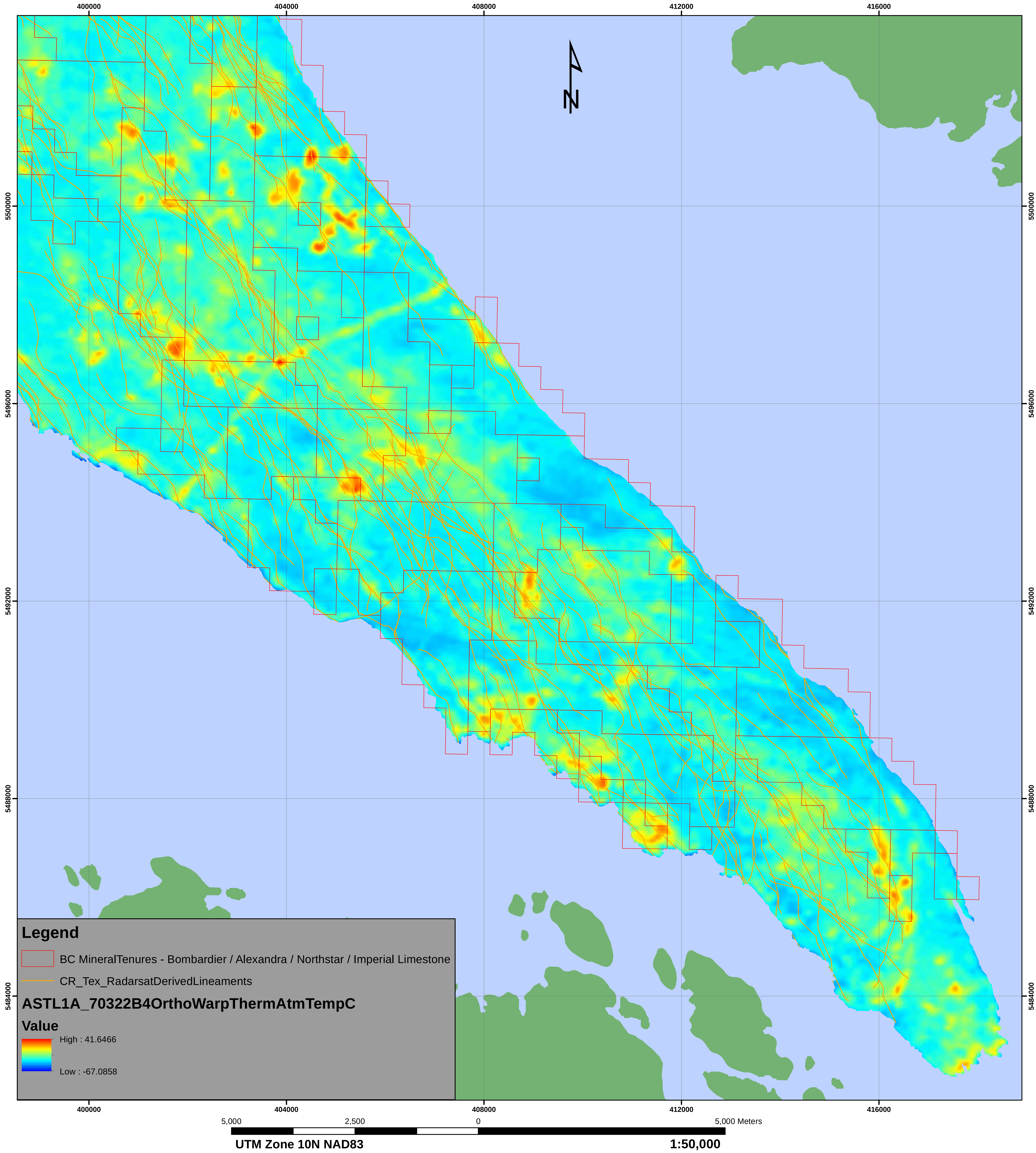
Texada Island Group

West

1st Derivative Magnetics Over
Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures
and Radar Derived Lineaments
and Target AOIs

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



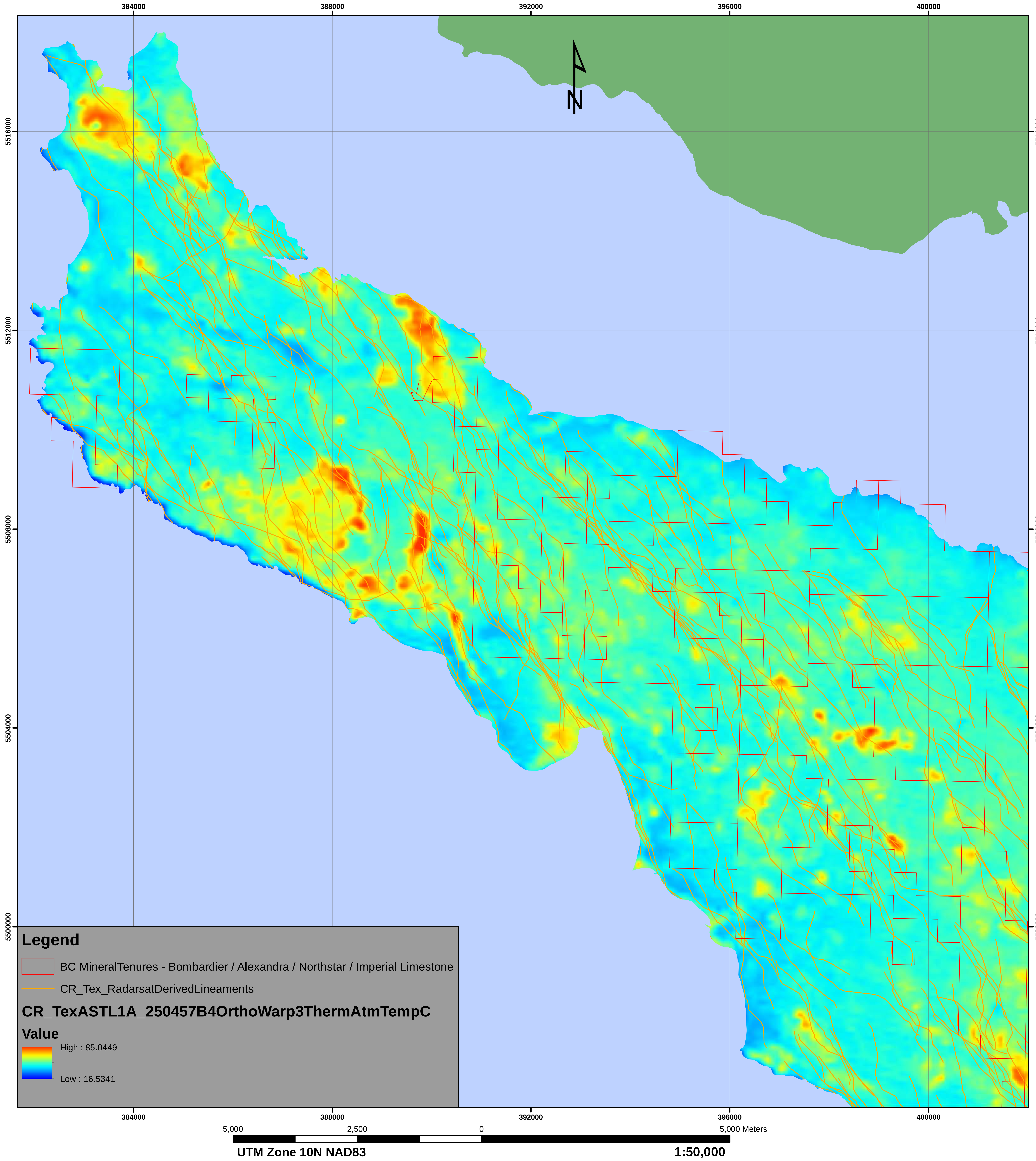
Texada Island Group

East

Thermal Gradient over
Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures
and Radar Derived Lineaments
and Target AOIs

Auracle Geospatial Science Inc.

Coast Minerals Corporation



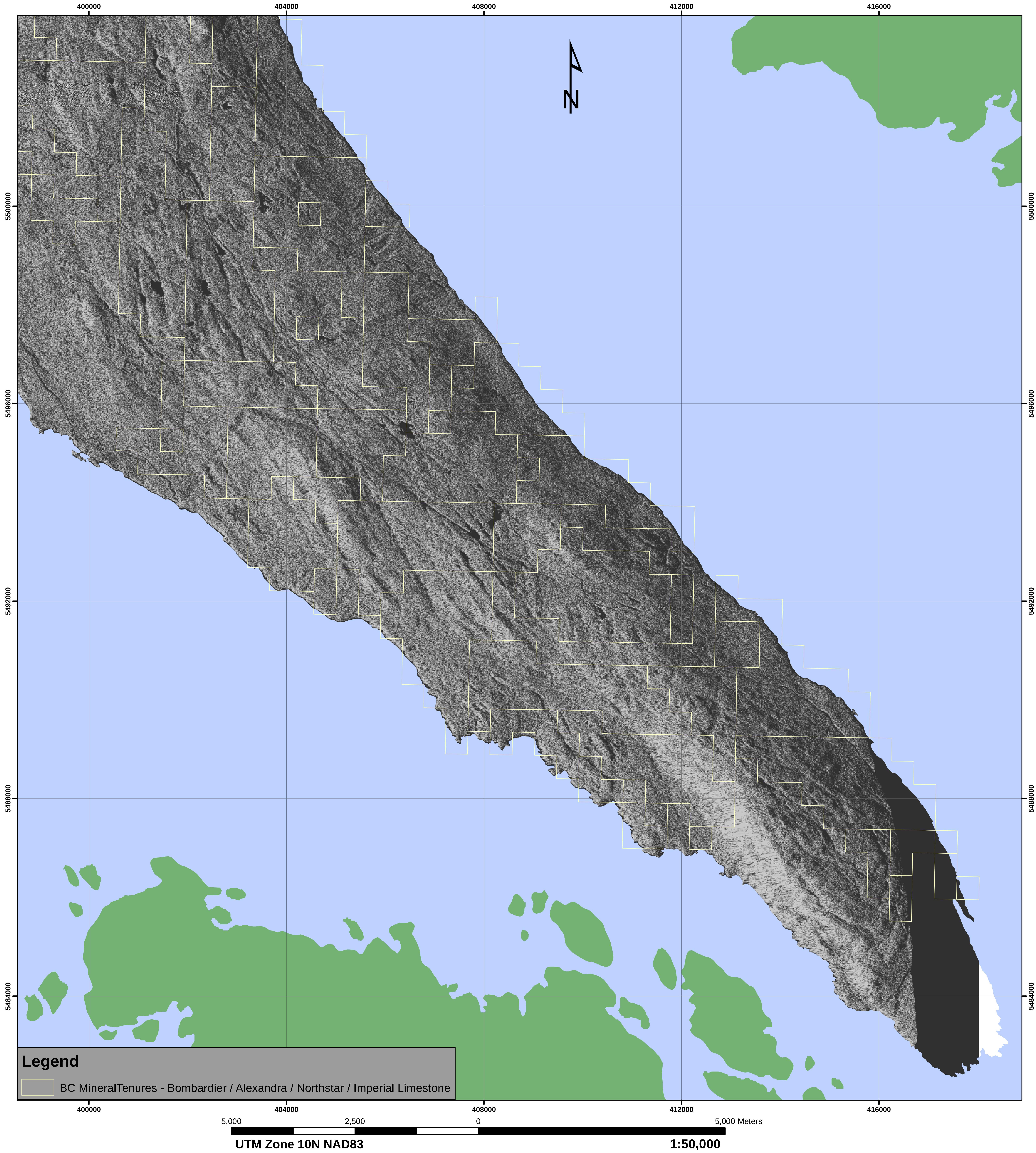
Texada Island Group

West

Thermal Gradient over
Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures
and Radar Derived Lineaments
and Target AOIs

Auracle Geospatial Science Inc.

Coast Minerals Corporation



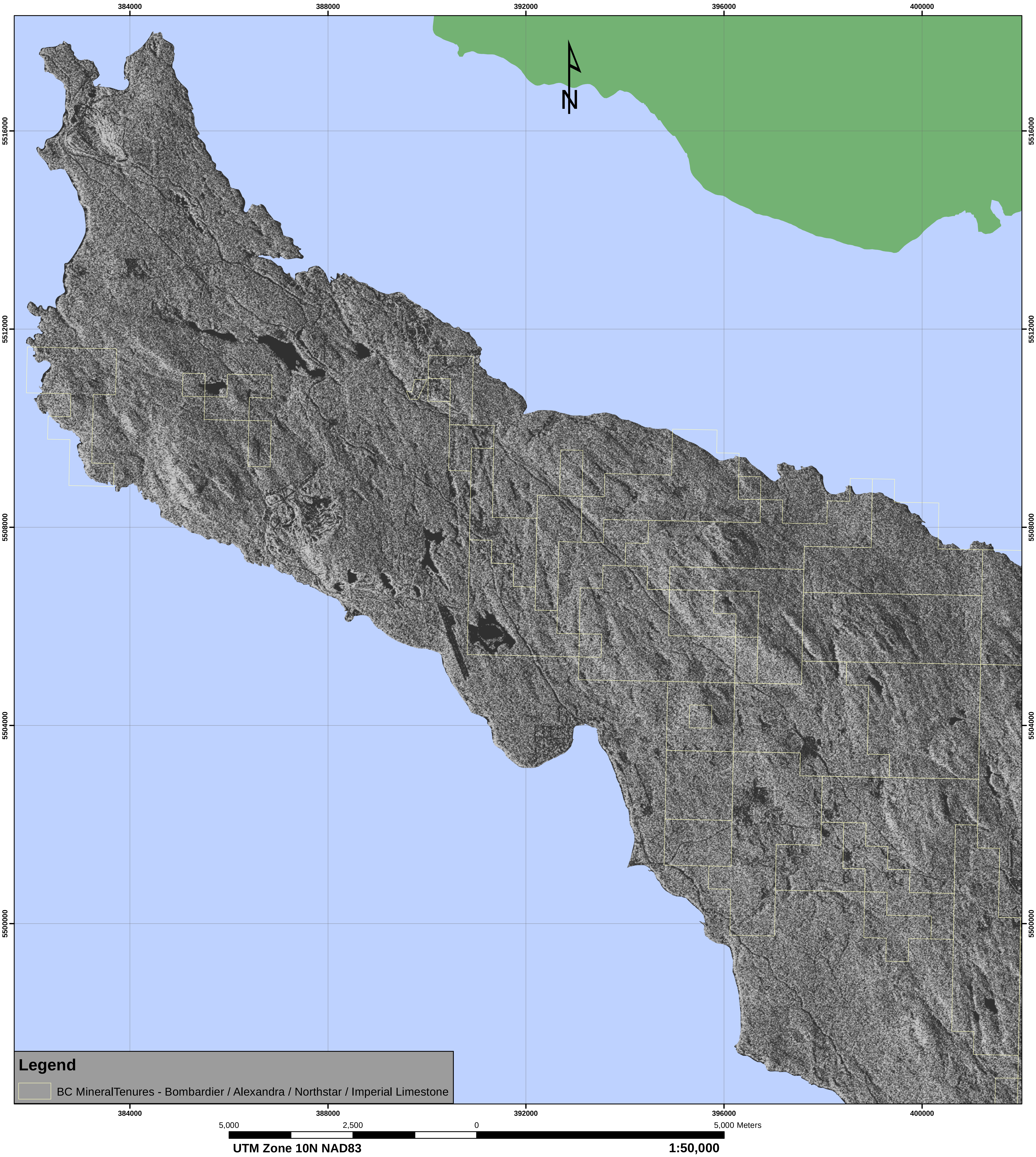
Texada Island Group

East

Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures

Auracle Geospatial Science Inc.

Coast Minerals Corporation



Texada Island Group

West

Orthorectified Radar Imagery Derivative
with Texada Island Group Tenures

AURACLE Geospatial Science Inc.

Coast Minerals Corporation

UTM Zone 10N NAD83 1:50,000

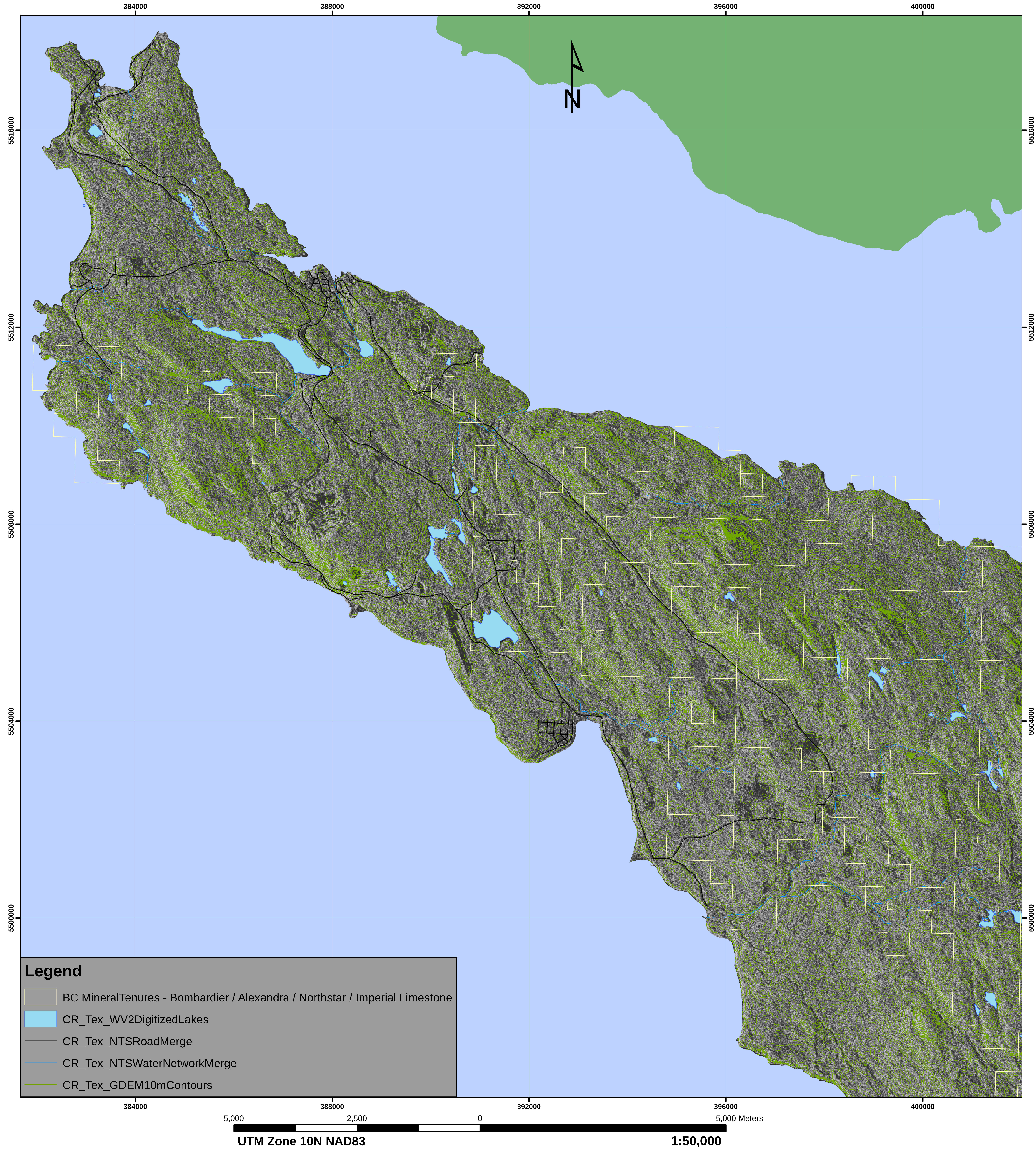
Texada Island Group

East

Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Tenures
and 10 Metre Elevation Contours

AURACLE Geospatial Science Inc.

Coast Minerals Corporation



Texada Island Group

West

Orthorectified Radarsat-1 Fine Beam Imagery Derivative
with Texada Island Group Tenures
and 10 Metre Elevation Contours

AURACLE Geospatial Science Inc.

Coast Minerals Corporation