TECHNICAL ASSESSMENT REPORT

On the
NORTHERN TREASURE MINERAL CLAIMS
836803, 836807, 836809, 840615, 845584, 846867
847660, 847661

EVENT NUMBER
5065249

Atlin Mining Division

NTS Map Sheets 1:20,000 Scale
104 K 065 Lisadele Lake
104K 075 King Salmon Creek
Longitude 133º 44'
Latitude 58º 42'

Owner
David Javorsky # 113058
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January 6, 2012

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INTRODUCTION

The Northern Treasure mining property is in the NW of British Columbia 120 Km SE of Atlin and 150 Km NW of Dease Lake.

The property is centered on Longitude 133 degrees 44 minutes West, and Latitude 58 degrees, 42 minutes North. It is on the southern portion of map sheets 104K 075 King Salmon Lake, and the northern portion of 104 K 065 Lisadele Lake, both at a scale of 1:20,000.

It is along a NW trend extending from the SE starting at the ex producing gold mine the Golden Bear. The Golden Bear gold mine was discovered by Chevron Minerals who also explored NW along this trend and explored the Inlaw, now called Trapper gold property of Constatine Metal Resources Ltd. In the vicinity of the Trapper are Thorn, Bryer, and Golden Fleece gold properties.

The Trapper is about 40 Km NW of the Golden Bear mine and the Northern Treasure is about 30 Km NW of the Trapper.

The Northern Treasure is 8 km west southwest of King Salmon Lake in rugged mountains with no road access. Easiest access is by helicopter from Atlin a 45 minute ride. Helicopter from Dease Lake takes longer and often is through more bad weather.

The property consists of a complex mountain peak locally called Lisadele Mountain which contains Lisadele Lake. The upper portions of the property are above timberline outcrops while the lower slopes are covered with alpine Balsam and other evergreen trees that have been the location of snowslides in the stream drainages. Aside from the major river drainages which are flat bottomed agrading systems and best for travel, the intermediate drainages are in steep side sloped valleys where the river beds have responded to post glacial uplift by down cutting vertical walled canyons. The juvenile fall line stream beds draining the glaciated peaks are steep and subjected to snowslides. Traverses below the alpine portion are difficult in the thick growth and steep canyons.

The claims are owned by David Javorsky # 113058, of 818 – 470 Granville Street Vancouver, B. C. V6C 1V5, Tel 604 544 2454, email: prospectordave@shaw.ca.

The claims have been optioned by operator Gulfside Minerals Ltd., Suite 212 – 475 Howe Street Vancouver, B. C. V6C 2B3, Tel. 604 687 7828, email: www.gulfsideminerals.com.

Data collection, maps, and stereoscopic air photos in preparation for the field work was done by consulting geologist Alex Burton P. Eng., P. Geo. and prospector David Javorsky. At the same time an ASTER ANALYSIS of claims 836803, 836807, 836809, and 845584 was done by Ward E. Kilby, P. Geo. of Cal Data Ltd.

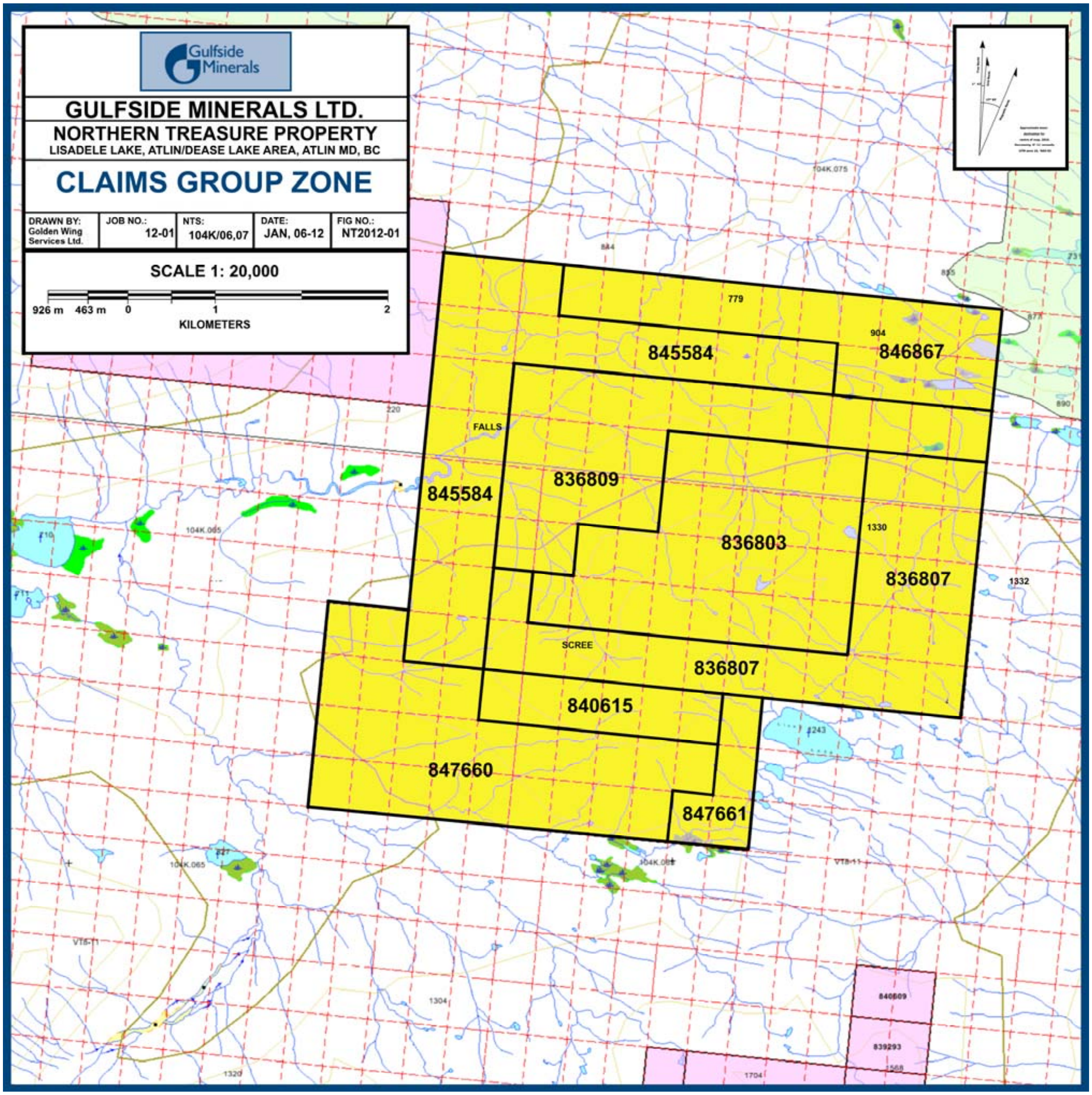
Field work on the claims was from June 28 to July 25, 2011 by Alex Burton geologist, David Javorsky prospector, and Cathy Burton field assistant. The total cost of the exploration field work was $64,423.12 and of that $49,451.07 was applied to maintaining the claims and $ 14,972.05 was credited to Portable Assessment Credit. These figures do not include the cost of this report assessment report.

Exploration work on the claims was to confirm the high stream silt sample gold values, find their extent, try to identify the source of the gold, and decide what, if any, exploration work should be done.

Field work of geochemical stream sampling included ordinary stream silt samples, Moss Mat silt samples, “Barakso Pan” stream silt samples, and a proprietary stream venturi suction sample system developed by Alex Burton that samples the lower portion of the “high velocity” sediments in a stream bed. The reason for the different types of stream samples was to be able to compare them when a particular type was or was not available at an individual site, and to try to replicate a BC government regional Stream Sampling program sample that ran 602 ppb gold, with a duplicate analysis that ran 27 ppb gold.

In addition the flowing and accessible streams draining the main peaks of the claims were sampled to check for gold and anomalous elements. The upper elevations with exposed bedrock were examined in relation to the Aster Analysis and sampled where pertinent.

Fourteen stream sites were multiple sampled, and thirteen rock samples were assayed.


Gulfside Minerals
GULFSIDE MINERALS LTD.
NORTHERN TREASURE PROPERTY
LISADELE LAKE, ATLIN/DEASE LAKE AREA, ATLIN MD, BC
CLAIMS GROUP ZONE
DRAWN BY: Golden Wing Services Ltd.
JOB NO.: 12-01
NTS: 104K/06,07
DATE: JAN, 06-12
FIG NO.: NT2012-01
SCALE 1: 20,000
926 m 463 m 0 1 2
KILOMETERS
845584
846867
836809
836803
836807
836807
840615
847660
847661
FALLS
SCREE
779
904
1330
1332
104K.075
104K.065
840609
839293
1704
1304
1320

SCOPE OF WORK AND RESULTS

GEOCHEMISTRY

Government Stream (Second largest stream)

The Regional Geochemical Stream survey site that ran 602 ppb gold (duplicate 27 ppb Au) was tested at the logical spot for helicopter access although our landing site is nearly 500 metres further downstream from the plotted position of the government site. The government plotted position is in a close steep walled canyon where it would be dangerous to land or even attempt a toe in put out and pick up of the sampler. We and our pilot declined to land or do a toe in there. It seems likely that the government sample was taken at our landing site.

This stream starts in a steep gradient cirque headwatered by a small alpine lake that provides a small flow to keep water in the creek bed during the summer.

Our three stream silt samples (NTS 9, 10, 11) 500m downstream from the “plotted” position for the high (602) value sample ran 4, 7, and 5 ppb gold. plus a resample with the Barakso pan (NTS 15) ran 65 ppb gold. One stream suction sample (WPT 9) ran 1670 ppb gold, and another 57 metres upstream (WPT 7) ran 312 ppb gold, but caution has to be used in interpreting these samples as the value represents a concentrate from close to one half cubic meter of high velocity stream material.

The government gold anomalous stream sample is in the second largest stream along the Northwest flank of Lisadele mountain.

We were able to sample the next stream to the south which is the fourth largest stream on the northwest flank of the mountain.

We were unable to sample the next small stream to the northeast of the government anomalous stream, but did sample the outlet of the third largest stream running north to north end of Lisadele mountain that drains into the west end of a small lake, thus bracketing the original government anomalous site.

Fourth Largest Stream.

The fourth largest stream is between the Government sampled anomalous stream and the largest stream. This stream has cut a narrow steep vee shaped valley with little water in it after snow melt. Sampling using the Barakso pan of stream silt gave a gold value of 31 ppb gold. A rock sample near the stream sample site ran 9 ppb of gold.

Largest Stream

The largest stream which is southwest of the government stream starts in a steep walled cirque that maintains snow slide material along the creek floor for the summer providing a modest flow of water. The steep walls of the cirque are not climbable, but the upper edge of cirque is flat and traversable.

This cirque stream valley is completely within a rusty version of the local volcanics and has close spaced fractures so the rock weathers in to small shards with only a few boulders as big as 30 cm.

One stream Suction Sample was collected here at 610910 E and 6506860 N in the upper part of the cirque which ran 5630 ppb gold. A standard stream silt sample (SS-1) taken at the same site as the Stream Suction sample ran 8 ppb gold.

Just downstream from the stream Suction Sample standard stream silt sample (NTS 12) ran 205 ppb gold, another nearby (NTS 04) taken with the Barakso Pan ran 22 ppb gold, while a Moss Mat sample (NTS05) at the same site as NTS 04 ran 40 ppb gold.

Grab rusty rock samples in the area had the following assay values:

NTR 01	30 ppb gold
NTR02	8 ppb gold
WPT 10	5 ppb gold

Selected rock grab samples from the ridge on the east side of the cirque ran:

WPT 02	<5 ppb gold
WPT 10	5 ppb gold
NTR 03	<5 ppb gold
NTR 04	20 ppb gold

This wide range of results illustrates the difficulty of finding gold particles in an alpine stream environment and shows the variation of results possible.

Third Largest Stream

The third largest stream drains northerly along an erosional structure postulated to be along the strike trace of a fault. This stream ends in a small valley at the west end of a small unnamed lake at the very north end of Lisadele mountain.

Sampling at the end of this stream at WPT 12 was by Stream Suction Sampling which ran 27 ppb gold. A nearby sample NTS 13 which was a standard stream silt sample ran 30 ppb gold.

Comparisons

A discussion on the differences between the various sampling systems used is presented.

The standard stream silt sampling method is to find a spot in the drainage being sampled where enough minus 80 mesh material for analysis can be collected. The easiest to find location is in an eddy where the velocity of the stream water has slowed down enough for this finer material to settle. Obviously most of the heavier specific gravity minerals would have already settled out before arriving at this low velocity site. There it is possible to find much more golden coloured (weathered) micas than flat plate gold particles. Some sites can be found under boulders or other unique places where the higher specific gravity minerals can be found. Samples ranged from <5 to 205 ppb gold.

The Barakso Pan is an attempt to devise a portable light weight system where the modest sized gravel from an intermediate velocity sediment can be separated from the finer material. The fines have a greater chance of having gold particles in them making this an acceptable system for high specific gravity minerals. Values on the property ranged from 6 to 65 ppb gold.

The suction sampling method uses a one inch delivery water pump to provide the energy to a venturi suction nozzle that is gradually worked vertically down in a stream bed to reach the level of high velocity sediments. The material is sieved through a grizzly on a small sluice box to collect the finer sized portion and then further screened to minus 10 mesh which is sieved in the laboratory to provide minus plus 120 mesh sample which is analyzed. This method collects gold where most of the gold drops just as soon as the water velocity slows slightly. We are dealing with a concentrate so the ppb numbers are much higher than in other sampling systems. From well over 100 property samplings it has been determined that a value for gold of 5 to around 75 ppb represents weathering bedrock that contains little gold. Values from 75 to a few hundred are usually at the far downstream end of an anomalous section. Values at the general bottom end of an anomaly range from 350 ppb to well over 10,000 ppb. In most labs there is an extra charge for dilution if results above 10,000 are requested, however there is no need as plus 10,000 ppb is a good anomaly. Before settling on this limit some values were found to exceed 100,000 ppb.

Values with the suction system show valid, but modest, anomalies, in the creek sampled by the RGS at 1670, and 312 ppb. In the second largest creek a value of 5630 ppb gold shows a good, but not exceptional anomaly. The 5630 value site is close to the headwaters of that creek which might explain the less than might be expected value. The value of 27 ppb in the third largest creek may be somewhat lower than expected as this site is in the delta portion of the creek mouth which can be considered a slower velocity portion of the stream below a “dump point”. With the exception of this creek the other creeks sampled all enter the main river suddenly where there is no “Dump Point” so any entrained gold would be swept into the river canyon.

ASTER ANALYSIS DISCUSSION AND CONCLUSIONS

The Aster analysis of various frequencies of satellite images was done to outline areas of iron, clays, and silica deposition. The VNIR bands 1-3 was used to identify iron minerals. The SWIR was used to look for alteration minerals such as clays. The TIR (bands 10-14) was used to identify silicates and zones of silicification.

Generally the Aster results matched the areas that were free of organic soils and plant growth as the method does not work well where the rocks are covered. It may be when detailed geological mapping is completed there will be found to be correlation between the geology and certain bands, but now the large size of the image pixels precludes a more detailed comparison.

The whole report on the Aster analysis is in the appendix.

PHOTOS FROM HELICOPTER WITH DESCRIPTIONS

A sequence of colour photos taken from the helicopter are shown in this report starting from near the SW corner of Lisadele mountain. The sequence of photos were taken in an anticlockwise direction and cover almost 2/3 of the mountain. They are numbered with descriptions and an approximate UTM location of the position of the helicopter and the camera when each photo was taken is recorded. There is a description of the features in each photo.

Photo Shooting Locations, a larger map is in APPENDIX IV. on page 53.

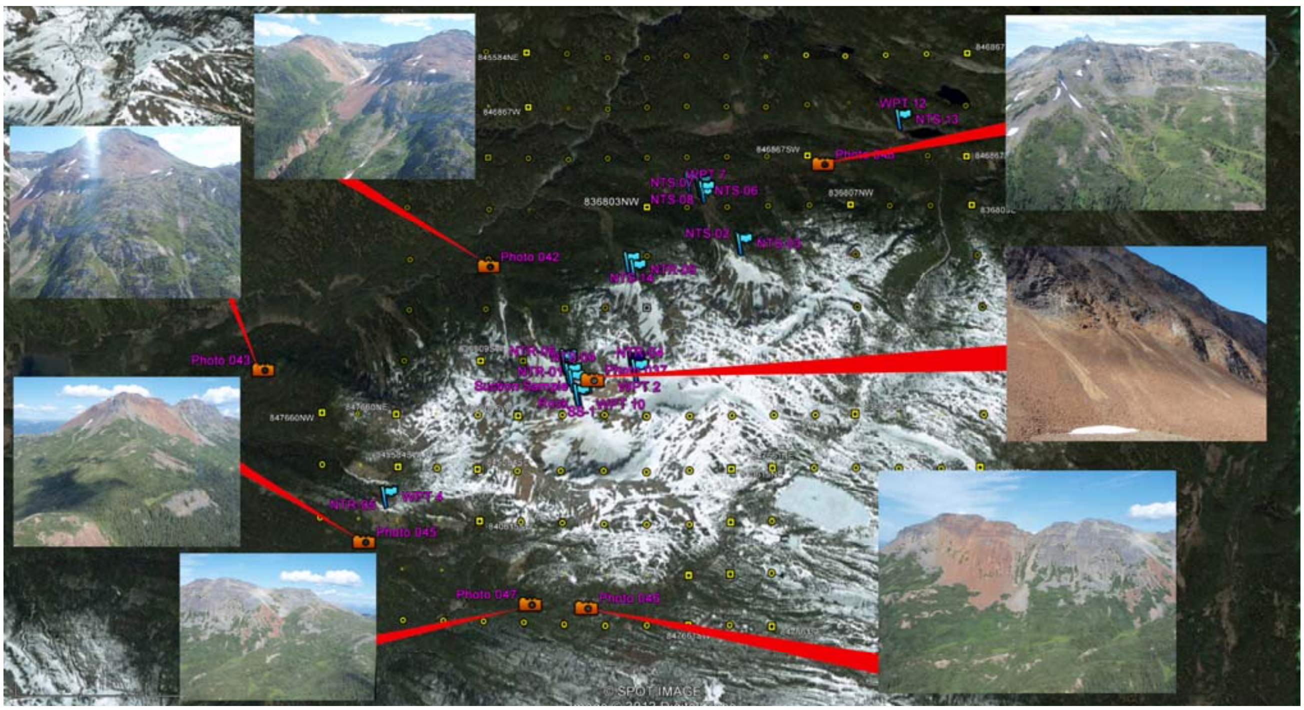
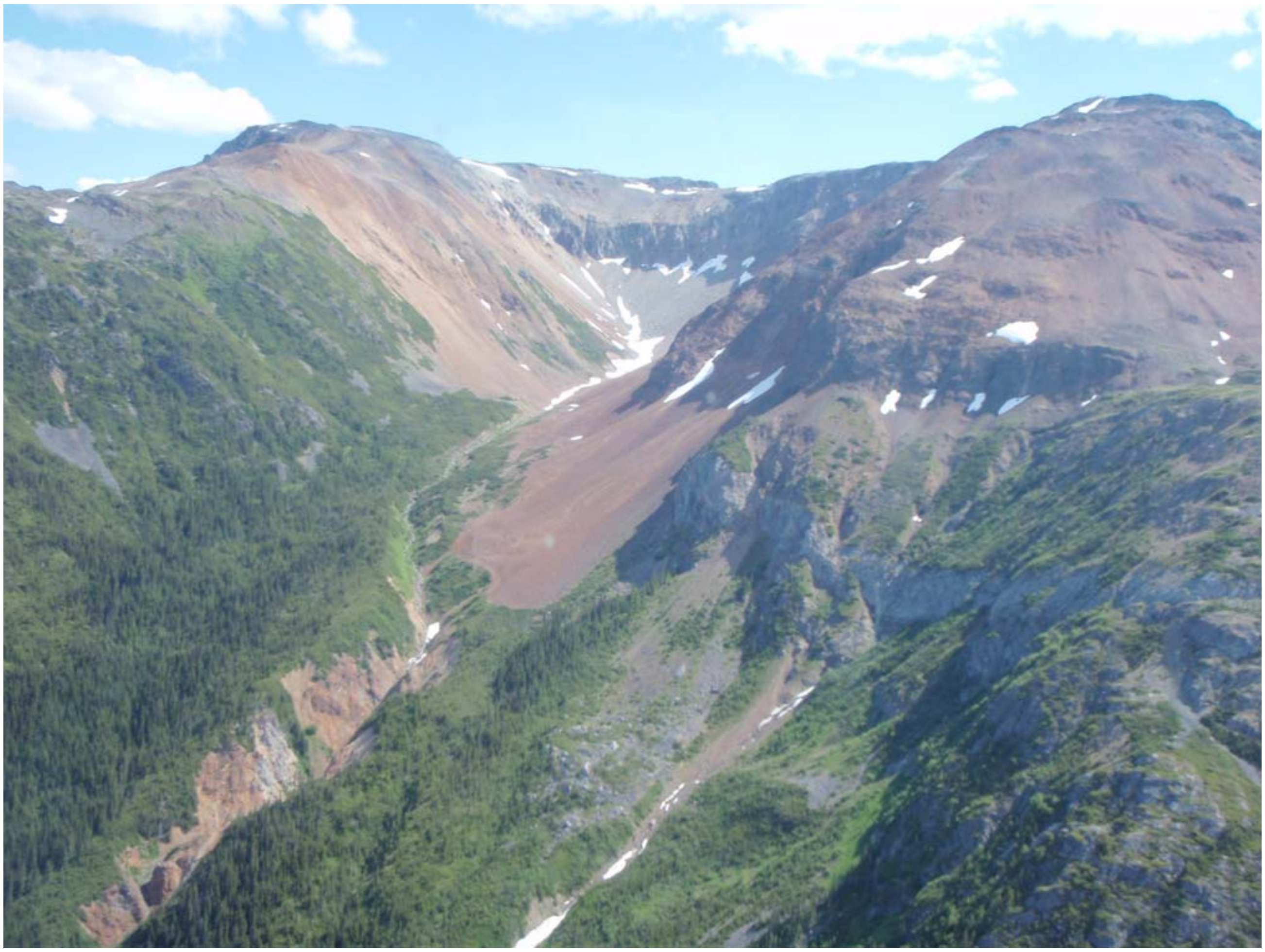


Photo 042, Camera at 610000E, 6508000N, looking SE



Looking up largest creek in to cirque with rusty pyritized Sloko zones in flat lying volcanic flows. Rusty shear zone has close spaced fractures maybe striking northerly and dipping easterly about 45 degrees. Northeast trending faults cut the rusty zone. Lower portion of the creek shows more rusty fractured zones which appear to be below the white, flat lying bed which may represent the contact between the base of the Sloko and the top of the Takwahoni.

Photo 037, Camera at 611000E, 6507000, Looking west.

View of the main rusty, pyritized zone in the cirque of the largest creek on west side as shown in photo 042. Cirque west wall shows closely spaced fractures striking easterly dipping southerly at 45 degrees. These fractures are cut by more widely spaced larger faults striking northerly and dipping west steeply (60 to 80 degrees). Matrix of rock is pale almost white with oxidized pyrite, white feldspars, modest quartz, no visible mafic minerals. Presumably the mafic minerals were converted to pyrite.

Photo 043, Camera at 608000E, 6507000N, Looking E.

Western shoulder of Lisadele mountain. Lower portion of photo where it appears that the white bed is within the upper part of the takwahoni, not at the contact with the Sloko.

Photo 045, Camera at 609000E, 6505500N, Looking NE.

Tan ridge in lower left of photo is Takwahoni pale rusty rocks where rock samples NTR 05, and WPT 04 were taken.
Shows SW side of main peak where rusty zone comes through.
Sloko shows slight dip to east.

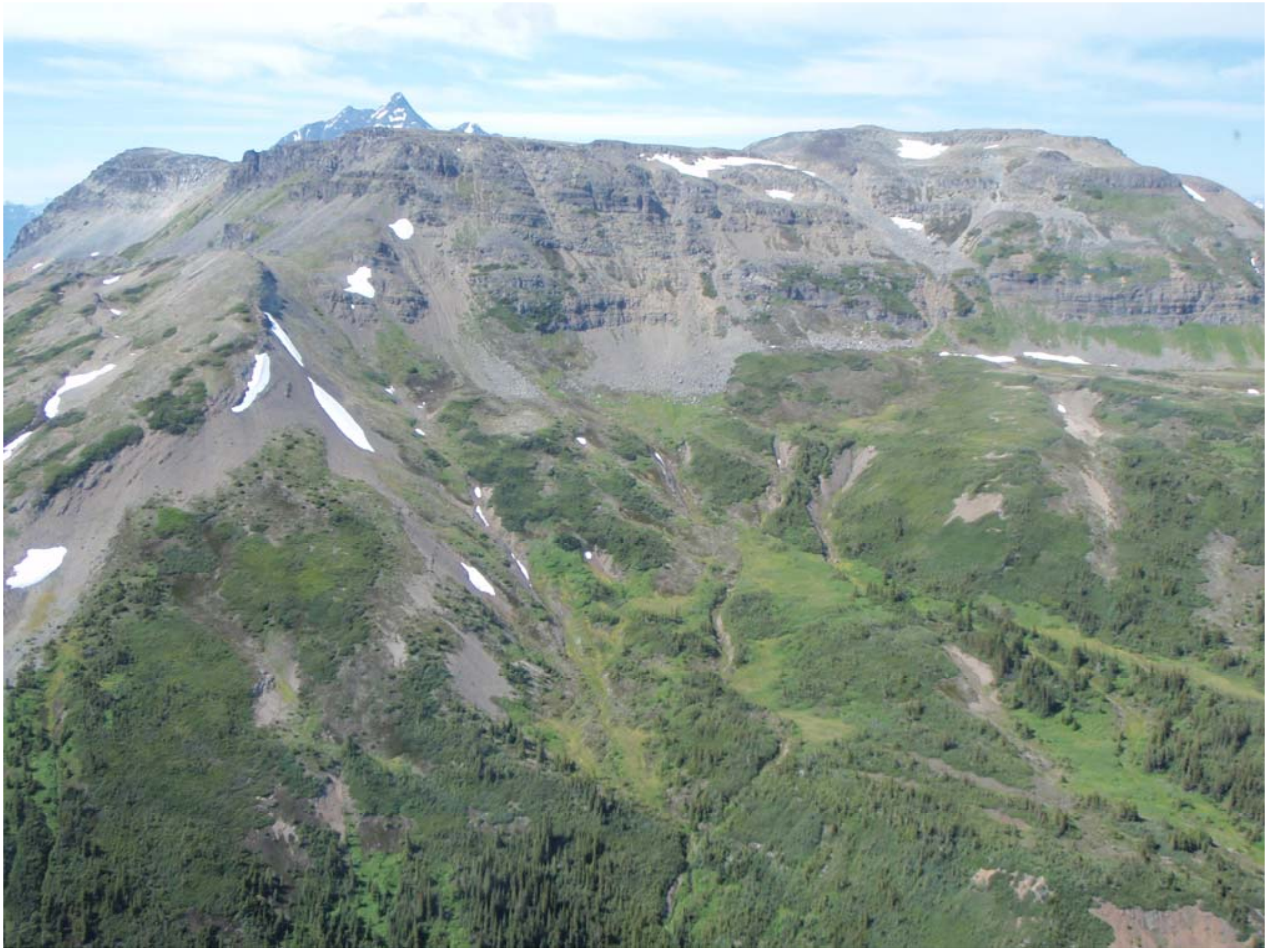
Photo 046, Camera at 611000E, 6505000N, looking NE.

Nearly flat, slight dip to east Sloko shows rusty zone with apparent vertical walls, and fresh rock on either side.
Right hand edge of photo, but better shown in photo 047, shows start of second rusty zone with light coloured alteration further right next to new rusty zone. Slightly visible third rusty zone is beyond the pale alteration zone.

Photo 047, Camera at 610500E, 6505000N, Camera facing NE.

Pale alteration bracketed by rusty zones as described in Photo 046. This complex zone is opposite the headwall of the cirque where talus obscures whether this zone goes through into the cirque. More mapping and sampling is needed here. Creek running up to right of photo and below Sloko cliffs is on the trace of the N45 E fault. However here the fault trace swings to the west implying that the fault is dipping to the west. On the east side of the fault the Takwahoni beds are dipping about 45 degrees to the East. Lower right portion of photo shows bedding trace of Takwahoni.

Photo 048, Camera at 613000E, 6509000N, Camera facing SW.



View shows north face of upper Lisadele mountain. Sloko volcanics form cliffs with no rusty alteration zones lying on Takwahoni. Takwahoni beds on left of photo are cut by NE fault that shows apparent steep dip to west confirming apparent dip in photo 047. Beds on east of fault dip 45 degrees to east. No rusty zones in Takwahoni.

Photo 040, Camera at 613800E, 6509400N, Camera facing south.

Location is at outfall end of northeast trending creek that drains the northern portion of the fault discussed in photo 048, Most of drainage of this creek comes from the Takwahoni east of the fault where no rusty alteration zones are known and drains into a small lake. The sample site was not an optimum site as it was below the "dump" point where the creek gradient changes from very steep to flat. Samples were taken from the flat lying delta portion at the point the creek enters the lake, no other accessible place being available.

Photo shows venturi suction nozzle sucking sands into blue plastic pipe for delivery to grizzly where fines drop in to sluice box for concentration of heavier materials.

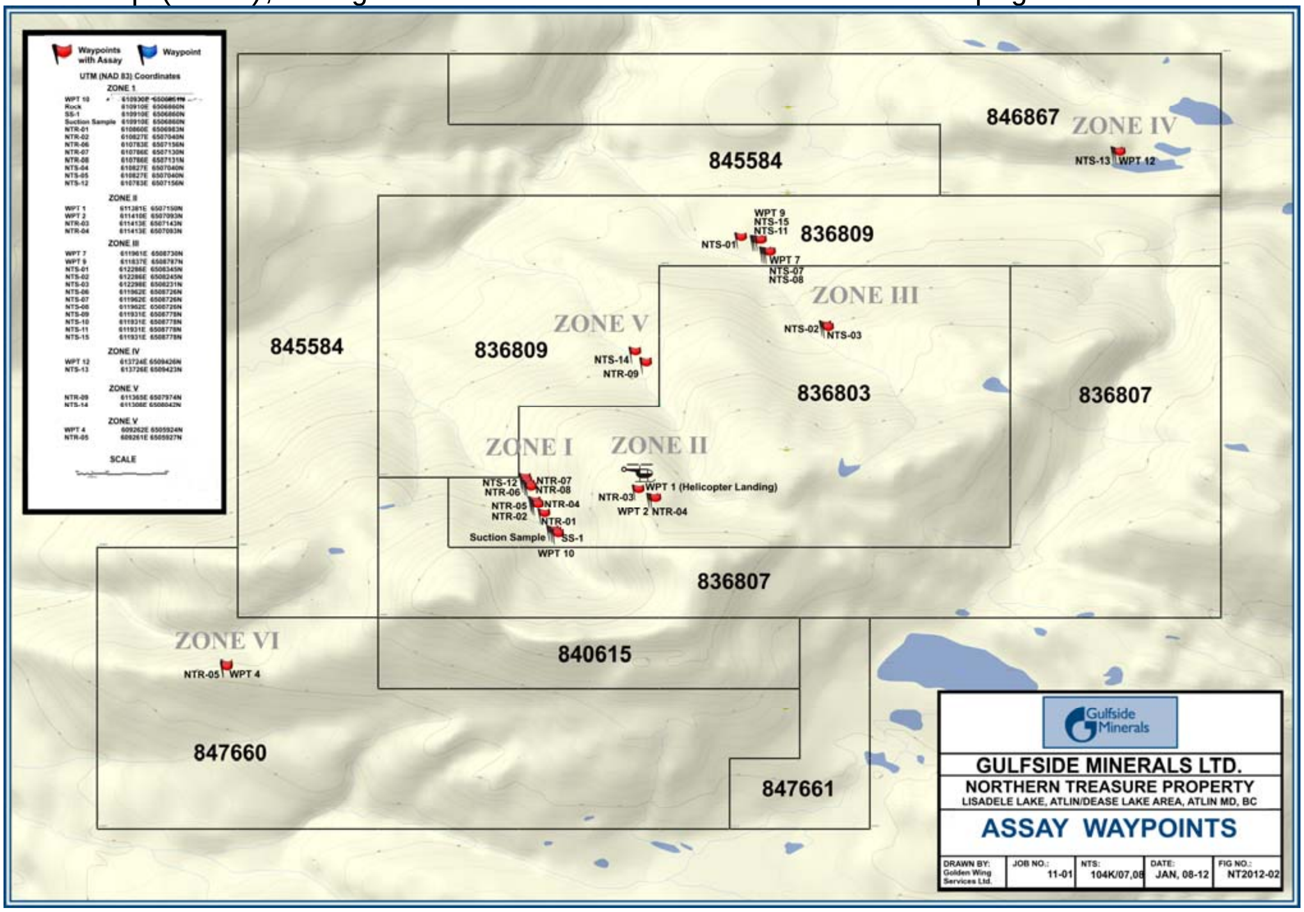
The values of 27, and 30 ppb gold may reflect the confirmed presence of Unit 15 of the Sloko on the east side of the creek with quartz feldspar porphyry outcrop.

ROCK AND STREAM SAMPLES

NORTHERN TREASURE, LISADELE MOUNTAIN, B.C. JULY, 2011
STREAM SEDIMENT and ROCK SAMPLES ASSAYED - Grouped by Location

UTM co-ordinates all on NAD 83.

Zone Map (small), a larger version is located in APPENDIX IV. on page 78.



I Vicinity Of The Largest Stream #1 (Main Cirque) on Lisadele Mtn.

WPT 10	Upper cirque rock grab 610930 E 6506851 N 1,224 meter elevation	5 ppb Au
Rock	Rusty clay rock in main rusty cirque 610910 E 6506860 N	8 ppb Au
SS-1	Stream sample at WPT 1 610910 E 6506860 N	8 ppb Au

Suction Sample	610910 E 6506860 N	5630 ppb Au
NTR-01	Rock grab sample 0610860 E 6506983 N Pyrite banding in chert or rhyolite. Talus below rusty cliffs.	30 ppb Au
NTR-02	Rock grab sample 610827 E 6507040 N Mineralized porphyry type granitic float. Rock heavily rusted. Hornblende feldspar porphyry with minor biotite.	8 ppb Au
NTR-06	Rock grab sample 610783 E 6507156 N Float, hornblende, biotite, feldspar porphyry. Phenocrysts of Hornblende, biotite and feldspar, biotites are on fractures.	<5 ppb Au
NTR-07	Rock grab sample 610786 E 6507130 N Cherty rhyolite float with disseminated pyrite mainly along bedding planes. White, light grey to greenish, to black bands. Black weathering on surface, probably manganese oxides.	8 ppb Au
NTR-08	Rock grab sample 610786 E 6507131 N Darker rhyolite. Some fine pyrite along flow or bedding planes, other pyrite in clumps. Clumps appear to be associated with the brecciated portions. Rock looks disrupted in places, not evenly banded.	11 ppb Au
NTS-04	(barakso pan) 610827 E 6507040 N	22 ppb Au
NTS-05	(moss) 610827 E 6507040 N	40 ppb Au
NTS-12	(silt) 610783 E 6507156 N	205 ppb Au

II The Ridge Between Streams #I and #4

WPT 1	No sample, helicopter landing site. 611381 E 6507150 N	
WPT 2	White clay alteration, rock sample Cavities lined with needle like crystals 611410 E 6507093 N	<5 ppb Au
NTR-03	Rock grab sample 611379 E 6507143 N Disseminated pyrite in a feldspar porphyry. Very gossanous.	<5 ppb Au
NTR-04	Rock grab sample 611413 E 6507093 N White rhyolite with disseminated pyrite and altered clots of mafic minerals. Either a coarse grained version of rhyolite or a fine Grained version of the feldspar porphyry.	20 ppb Au

III The Second Largest Stream With The RGS High Value Sample

WPT 7	Suction sample 611961 E 6508730 N Downstream about 500m from RGS 602 ppb Au	312 ppb Au
WPT 9	Suction Sample 611937 E 6508787 N	1670 ppb Au
NTS-01	(silt) 612286 E 6508245 N	8 ppb Au
NTS-02	(moss) 612286 E 6508245 N	167 ppb Au
NTS-03	(silt) 612298 E 6508231 N	6 ppb Au

NTS-06	(silt) 611962 E 6508726 N	5 ppb Au
NTS-07	(barakso pan) 611962 E 6508726 N	6 ppb Au
NTS-08	(moss) 611962 E 6508726 N	7 ppb Au
NTS-09	(silt) 611931 E 6508778 N	4 ppb Au
NTS-10	(barakso pan) 611931 E 6508778 N	7 ppb Au
NTS-11	(moss) 611931 E 6508778 N	5 ppb Au
NTS-15	(barakso pan) 611931 E 6508778 N	65 ppb Au

IV The Third Largest Stream – North Flowing To Little Lake

WPT 12	Suction Sample 613724 E 6509426 N	27 ppb Au
NTS-13	(silt) 613726 E 6509423 N	30 ppb Au

V The Forth Largest Stream – Between Streams #1 and #2

NTR-09 Rock grab sample 9 ppb Au
611365 E
6507974 N
Feldspar porphyry with two kinds of feldspars. The fine grained matrix feldspar have closely spaced twinning lines, and may be albite plagioclase. The coarse grained feldspar phenocrysts only have one twinning line in them and may be calcic in composition. The rock shows a fine grained blueish grained matrix and there are some reddish hematitic blobs along a fracture.

NTS-14 (barakso pan) 31 ppb Au
611308 E
6508042 N

VI Rusty Ridge To The Southwest

WPT 4 On rusty ridge to SW, rock grab <5 ppb Au
609262 E
6505924 N

NTR-05 Rock grab sample 9 ppb Au
609261 E
6505927 N

Mineralized quartz eye feldspar porphyry. Altered with fine pyrite which weathers rusty brown. Partially crystallized. Minor black manganese oxides on weathered surfaces.

GEOLOGICAL FEATURES.

Lisadele mountain is within the area mapped by the Geological Survey of Canada in the Tulsequah and Juneau Sheet Map 126A, NTS 104K & 126A.

The majority of the mountain is underlain by Unit 11, the Lower and Middle Jurassic Laberge Group, Takwahoni Formation. It is listed as consisting of “granite-boulder conglomerate, chert pebble conglomerate, greywacke, quartzose sandstone, siltstone, shale.

The upper portion of Lisadele mountain is capped by Unit 14, the Late Cretaceous and Early Tertiary Sloko Group. It is listed as consisting of Light green purple and white rhyolite, dacite, and trachyte flows, pyroclastic rocks, and derived sediments.

Our field work has confirmed this sequence. The upper portion of the mountain is **Sloko Group** volcanics, mostly flat lying for the upper sequence, and maybe dipping somewhat to the southwest for the lower portion. The Sloko forms cliffs. There is a distinctive white horizon that is visually obvious near the base of the Sloko that is visible in photo 042 and 043 which may be the base of the Sloko or the top of the Takwahoni

Underlying the Sloko is the **Takwahoni Formation** which forms gradual sloping benches that are gently dipping at least for the central part of Lisadele mountain. To the east of the N-S fault (visible as a prominent erosional lineation) the Takwahoni Formation has been tilted to dip about 30 to 40 degrees to the east.

The Sloko outcrops around the peak are volcanic flows which vary from pale green to almost white, and an especially striking rusty color where the rocks are closely fractured and suffused with pyrite. There is one main zone in the middle of the peak (seen in photos 042, and on the other side of the peak in photo 046). This rusty zone cross cuts the flow bedding of the Sloko.

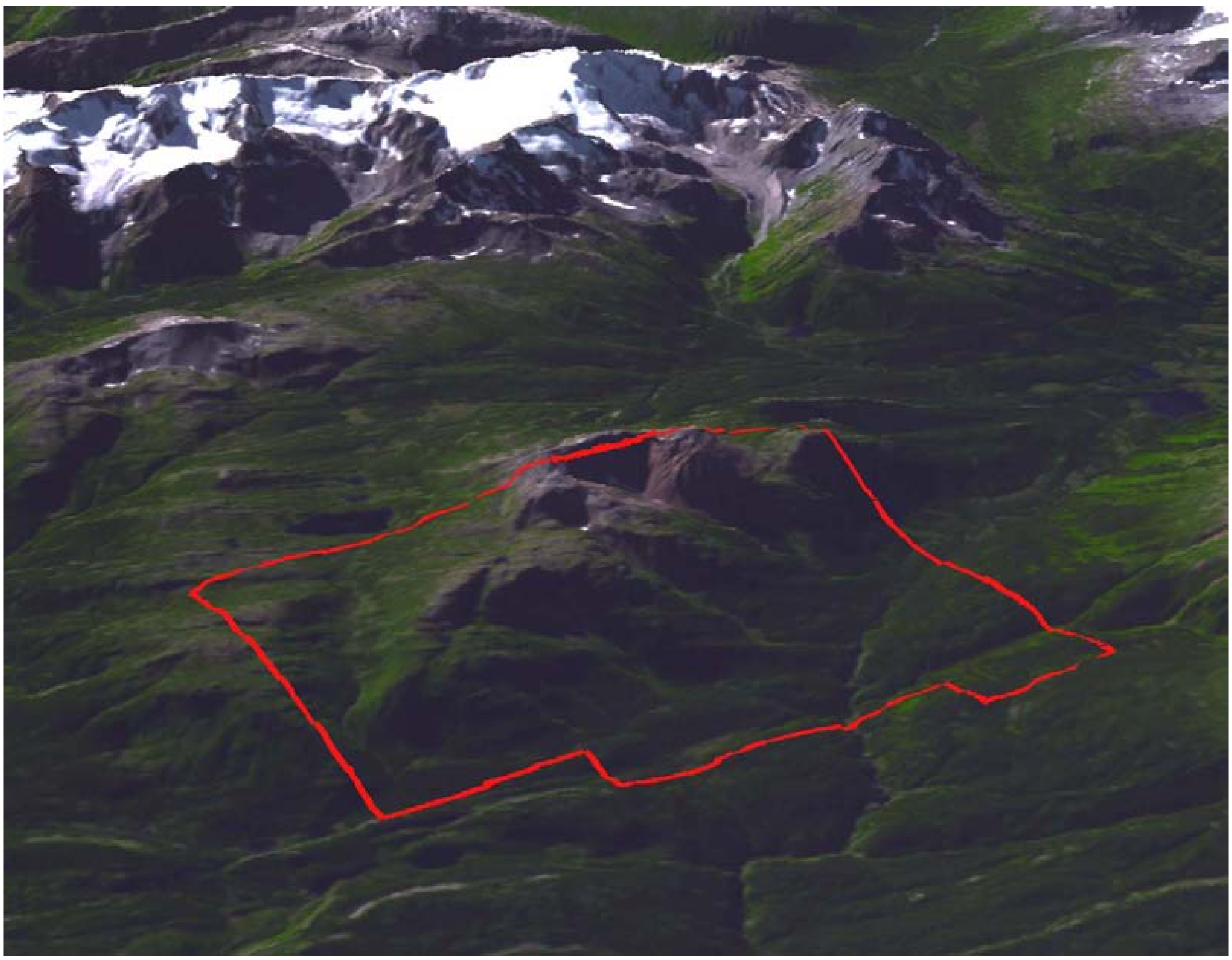
Another rusty zone can be seen in photo 047 followed by an almost white altered zone with another rusty zone exposed just past the white zone. The relation of these two rusty zones and the white zone to the main rusty zone is not known. These two zones should be examined and sampled.

All of the zones described are in the Sloko, but it may be that there is a pyritized rusty weathering and fractured zone extending down at depth below the Sloko in to the Takwahoni. This can be seen in the lower portion of the Cirque creek in photo 042. This lower rusty zone should be examined and sampled. I am suspicious that there may be an extension of this rusty zone to the north showing up in the lower reaches of streams two and four. In the lower portion of these two streams there is a hint of rusty soil showing through the plant life.

The Takwahoni has never been examined for any gold deposits. This work can be done during the sampling and mapping of the Sloko rusty zones. Certainly the rusty zone in Creek 1, the big cirque creek needs more sampling as does the number 2 and number 4 creeks. The extension of the rusty zone to the east side of Lisadele peak in the Sloko should be examined and sampled.

APPENDIX I. ASTER ANALYSIS

ASTER ANALYSIS
BC Claims 836803, 836807, 836809 & 845584
British Columbia



Prepared for:

D. Javorsky
P.Geo.
D. Javorsky Prospecting Inc.
Vancouver, Canada

Prepared by:

Ward E. Kilby,

Cal Data Ltd.
22 February 2011

ASTER TABLE OF CONTENTS

page #

INTRODUCTION

Summary

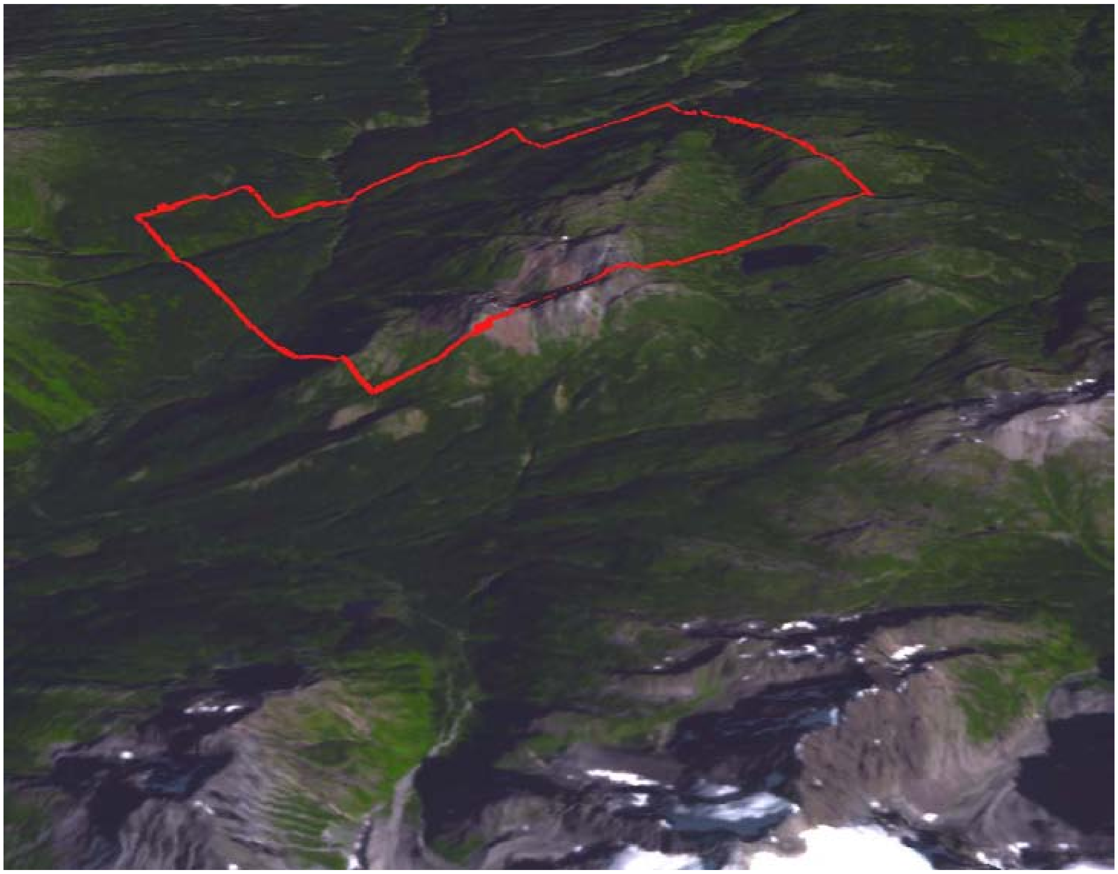
Cal Data Ltd. was contracted by David Javorsky of D. Javorsky Prospecting Inc. to acquire and analyze ASTER Multispectral imagery covering a claim group in northwestern British Columbia. D. Javorsky provided the claim descriptions. The required digital image files were obtained through the NASA Land Processes Distribution Active Archive Center (LPDAAC) as a portion of the image fell within the United States. The required ASTER imagery was identified and downloaded from LPDAAC. The acquired image was the only ASTER image that covered the claims and did not have snow or clouds obscuring the site.

Image analysis included converting the image from digital number format (DN) to radiance and then to relative reflectance values through a process of atmospheric corrections. The image was orthorectified to the UTM Zone 8 projection, WGS 84 datum.

A near-natural colour image was prepared for the whole ASTER scene. All subsequent analysis was performed on a small portion of the scene covering the claims and surrounding area.

The spectral analysis was performed on the claim area using hyperspectral techniques where the major endmembers (most unique spectral signatures) were identified. These endmembers were then examined to see if they provided geological patterns that would be useful for interpreting the geology and assisting in exploration. Geologically significant endmembers were then examined in an attempt to determine what mineral or rock they represented. Any mineral or rock identification made based on ASTER spectra must be considered an estimate as the spectral and spatial resolution of the sensors is not adequate to positively identify individual materials in most cases.

All original and useful intermediate image data and products are provided in digital format in the Appendix (DVD).



Claim block looking in a northeasterly direction. Note prominent fault and white alteration zone at the southern claim boundary.

Area and Image

The Javorsky claims are located in northwestern British Columbia centred on geographic coordinate 58° 32’ 9” N 133° 2’ 00” W. The image was collected on September 14, 2006. The claim area is located in the southeast quadrant of an ASTER image and the whole claim group is contained within the image. The whole image (approx. 60 x 60 km) was obtained with Level 1B processing from LPDAAC. The image information is contained in Figure 1. The claim boundaries and the outline of the ASTER image are shown in Figure 2.

Dataset Attribute	Attribute Value
Level 1A Scene ID	SC:AST_L1A.003:2036872103
Acquisition Date	2006/09/14
WRS-2 Path	057
WRS-2 Row	019
Upper Left Corner	58°53'22"N, 133°22'52"W
Upper Right Corner	58°42'57"N, 132°19'33"W
Lower Left Corner	58°21'16"N, 133°44'01"W
Lower Right Corner	58°11'01"N, 132°41'34"W
Scene Center	58°32'09"N, 133°02'00"W
Scene Cloud Cover	7%
SWIR Mode	ON
TIR Mode	ON
VNIR1 Mode	ON
VNIR2 Mode	ON
Day or Night	Day
Orbital Direction	Descending
Sun Elevation	34.417774
Sun Azimuth	172.945916
Acquisition Time	20:23:35.586
VNIR Pointing Angle	8.5800000
TIR Pointing Angle	8.5670000
SWIR Pointing Angle	8.4920000

Figure 1. ASTER image metadata.

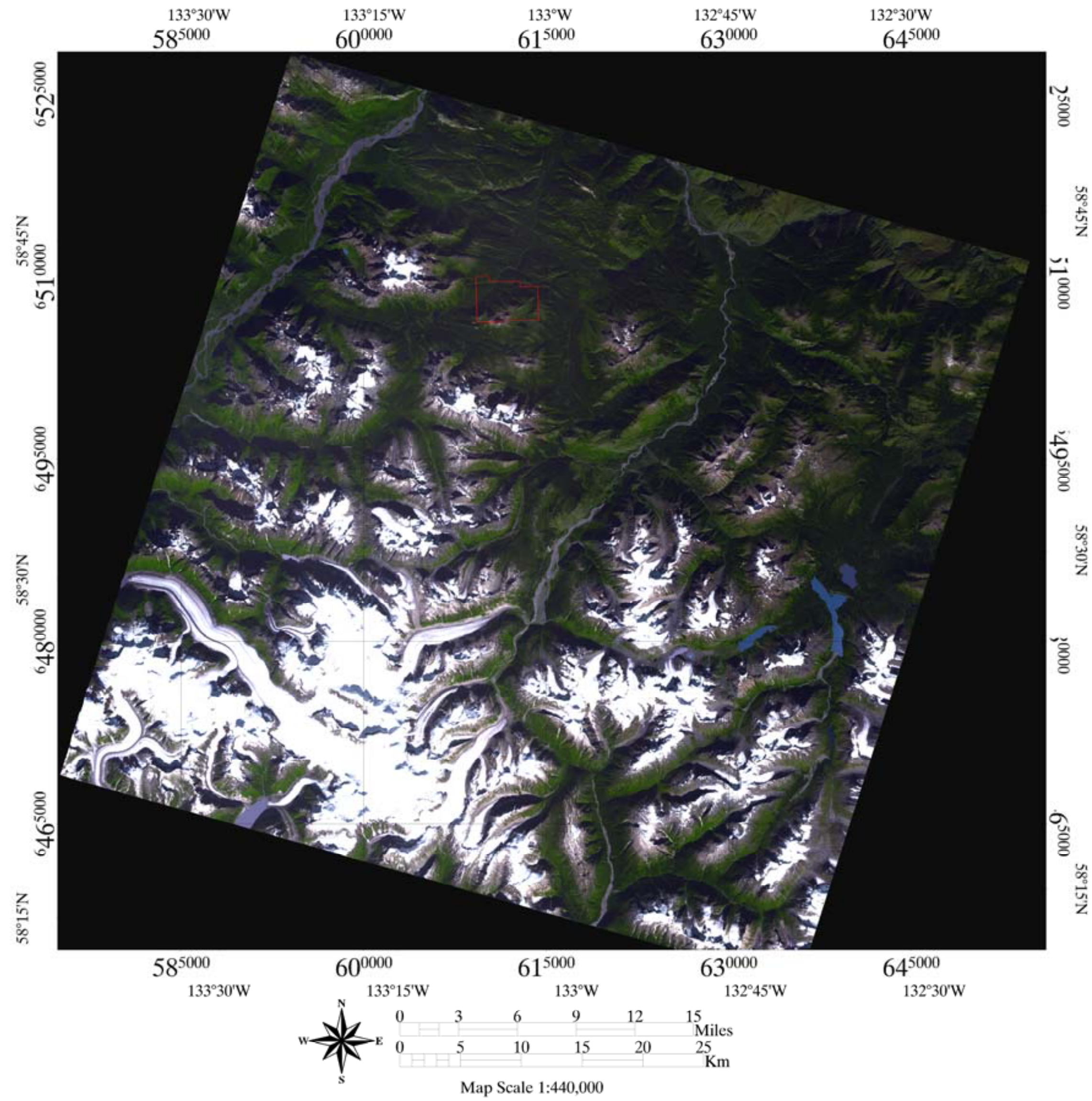


Figure 2. The near natural colour ASTER Image with property outline shown in red.

IMAGE ANALYSIS

Pre-analysis Processing (preprocessing)

Upon obtaining the raw ASTER image a number of preprocessing steps are required to transform the raw data values into relatively standard values. In the case of this study these standard values are relative reflectance. The relative reflectance spectrum of a mineral has the same shape as a true reflectance spectrum but the values may not be true. In most cases it is the shape of the spectra and the relative band values that are used in any analysis. The image pixels are also spatially adjusted to conform to the UTM map projection. Orthorectification is employed to compensate for the effects of topography in this spatial adjustment.

Step 1- Cross Talk correction: due to a design flaw in the ASTER SWIR instrument there is some leakage of light between bands. This problem can be largely corrected by running a corrective routine on the raw data (CTIO.exe).

Step 2- Orthorectification, gain and offset: The raw ASTER data is shipped in a format where the pixel values are simple DN (digital numbers). To convert these values to ‘at sensor radiance’ specific gains and offsets must be applied. The ASTERdtm program makes these corrections at the same time that it orthorectifies the VNIR, SWIR and TIR image bands. As part of the orthorectification process a relative DEM is generated from the ASTER data to provide the basis of the orthorectification. The result of this step is orthorectified ‘at sensor radiance’ data. The spatial accuracy of the orthorectification has not been evaluated but will be internally consistent and within 100 metres of true position.

Step 3- Atmospheric correction was performed using specialized software called ACORN5 that compensates for the effects of atmospheric gases on the amount of light energy that penetrates and is reflected by the atmosphere. The original ASTER data is in the form of ‘at sensor radiance’ which is a measure of the amount of light the satellite sensor receives from all sources. A significant amount of the light that the sensor sees is reflected from the atmosphere and never reached the ground surface. This light obviously provides no information about the ground features and should be removed. The atmosphere also absorbs or otherwise scatters some of the light reflected from the ground surface. This missing light at the sensor is calculated by knowing the incident light value and general atmospheric conditions. Water vapour has the largest effect on the ability of light to penetrate the atmosphere. The water vapour value was obtained from a MODIS product image taken on the same day from the same platform. The relative reflectance values obtained from this process provide a spectra shape similar to what would be obtained with a field spectrometer or in a laboratory setting. This processing is essential so that the various band measurements at a given pixel have standard relative values.

Otherwise the standard ratios and band formula used to identify minerals or mineral groups would be of little value. Figure 3 contains a view of the input panel for this calculation and records the values utilized. The elevation used was the average elevation of good rock exposure within the claim blocks. Finally a 'Black Subtraction' calculation was applied to the image to remove the effects of haze.

Step 4- The VNIR, SWIR and TIR bands were used during this study. These bands are collected by three different sensors on the space platform. The VNIR bands are 15 metres wide, the SWIR are 30 metres wide and the TIR are 90 metres wide. A single file, stack, is constructed to bring these two data sets together. During this process the SWIR and TIR bands are subsampled and converted to 15 metre pixels. It is this ‘stack’ that is used in subsequent analysis where VNIR, SWIR and TIR bands are involved.

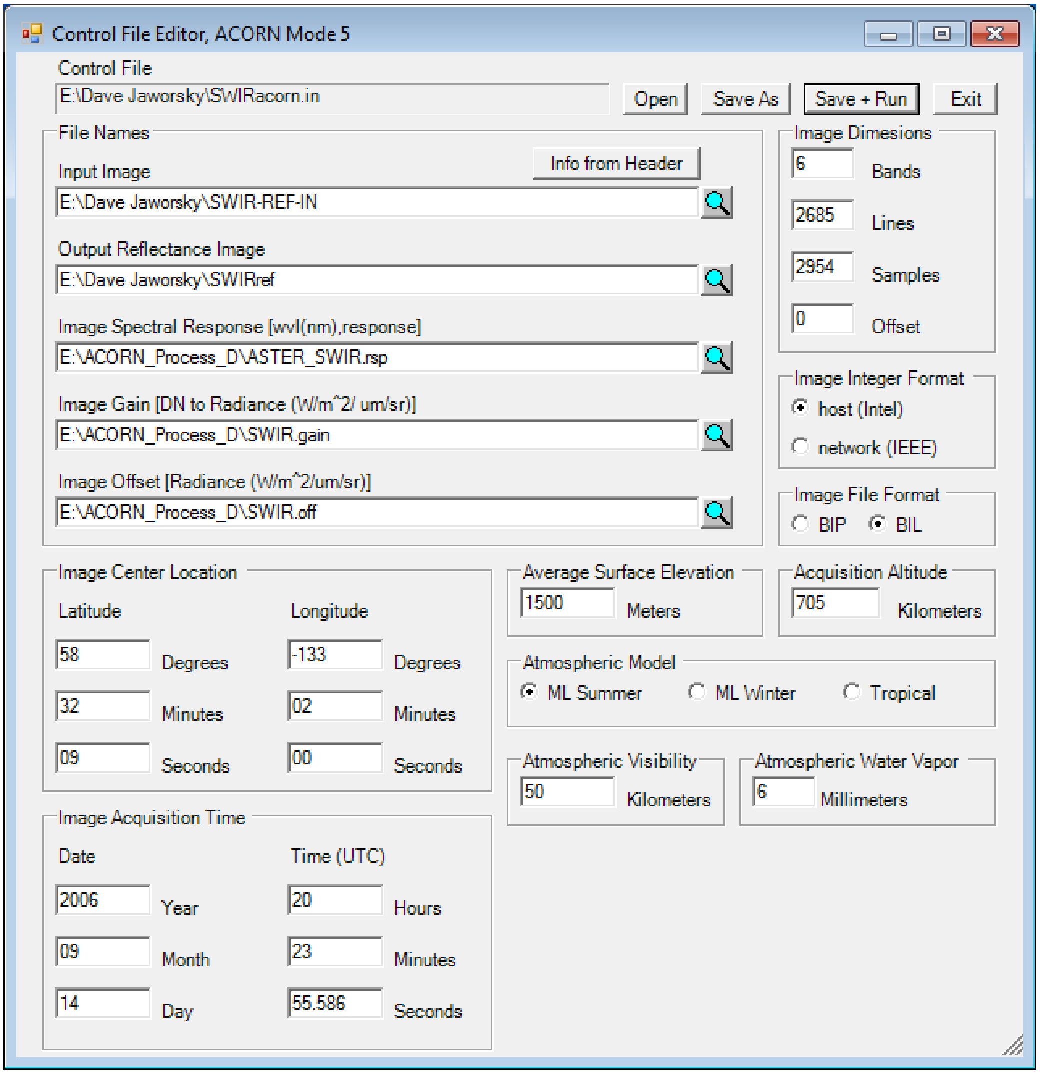


Figure 3. Input panel for the ACORN5 atmospheric correction process for the SWIR bands of this image.

The original ASTER download file in HDF format along with the atmospherically corrected and orthorectified image files are available in ENVI *.BIL format in the appendix. Also included in the Appendix VI is the digital elevation model in ENVI *.BIL format.

Analysis

Natural Colour Image The product generated from the orthorectified ASTER data is a near-natural colour image. ASTER does not sample the blue range of the electromagnetic spectrum so the resulting image is only an approximation to what one would see if viewing the natural scene. In this study the three VNIR bands were used to generate this view. These bands are combined in various combinations to produce the three colours red, blue and green. The result is a close approximation to a natural colour scene. The image has 15 metre pixels and is available in the appendix as a GeoTiff (DJ_Natural.TIF). Figure 2 displays the natural colour image.

Analysis Area A small portion of the whole ASTER image was used for analysis purposes. The area included all the claims and a portion of the surrounding area. Examining only a portion of the original image simplifies the process by removing spectra that have no bearing on the actual study area. Within this study area (Figure 4) much of the ground is covered by vegetation with some minor snow cover and a few small lakes and areas of shadow. This covered area was masked and excluded form all spectral analysis. Only pixels that cover well-illuminated bare ground can provide spectra related to the rocks. Figure 5 shows the distribution of pixels that cover mainly bare rock and soil and are used in the spectral analysis.

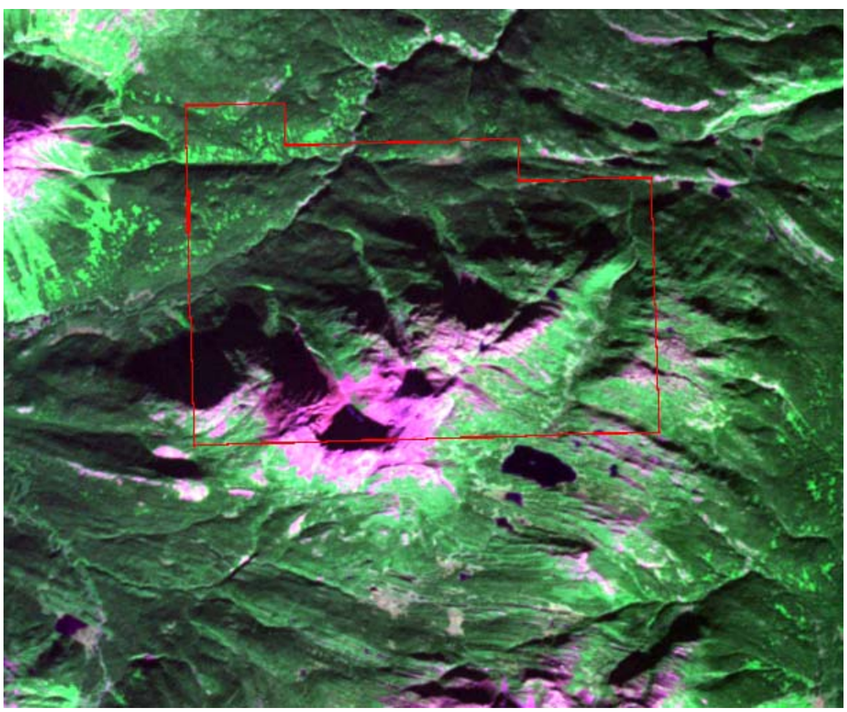


Figure 4. Area used for spectral analysis. Image is an RGB using bands 2,3,1. Note areas of shadow in cirques.

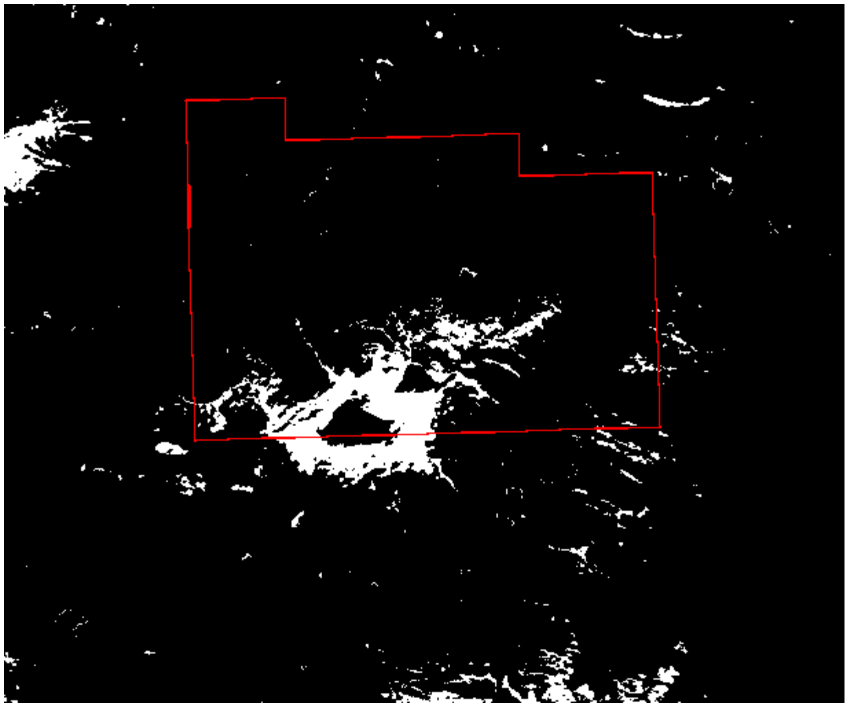


Figure 5. Analysis area mask. Area in white has well illuminated ground exposure. Area in black provides no useful spectra for this analysis.

Spectral Analysis ASTER provides multispectral data but hyperspectral analysis tools can be used to examine the imagery to extract additional information to augment the multispectral analysis techniques such as ratios and principle components. A preliminary analysis using the common ratios and band combinations that have been used by others to examine ASTER data was conducted. Of the twenty-eight ASTER Mineral Ratios tested only the Ferric Iron ratio of band 2 over band 1 provided a useful distribution pattern. The same pattern was also detected with the SMACC endmember analysis so this multispectral analysis was not pursued. So in this study only the hyperspectral technique of endmember extraction and mapping were used as they held the most potential to be of use for the detail required in the small area around the claim group. Spectral endmembers were extracted from the ASTER image using the SMACC (sequential maximum angle convex cone) endmember extraction procedure. The spectral endmember extraction process was performed only on the rock exposures in and around the claim group Figure 5). The resulting endmembers were compared to spectra contained in the USGS spectral library as well as several of the John Hopkins University spectral libraries in an attempt to identify the material associated with each spectrum. The ground location of each endmember was examined on the natural colour image to make sure the sample site was indeed on good rock exposure. The spatial distribution of those pixels which closely match each endmember were examined to determine if they represented geological features or some spurious unmasked materials. The SMACC process was conducted on the bands from the three sensors independently. The VNIR (bands 1-3) was used to identify iron minerals. The SWIR was used to look for alteration minerals such as clays (bands 4-9). The TIR (bands 10-14) was used to identify silicate minerals. The large ground sample distance (GSD) or pixel size of 90 metre TIR pixels will be of limited use but zones of silicification may be identified with these bands.

The library spectra were collected in laboratories and the spectrum for each sample was sampled in great detail with many very narrow slices of the spectrum. ASTER, on the other hand, samples the spectrum over a few very broad ranges. The library spectra were resampled using the response curves for ASTER to generate 'ASTER' spectral libraries to use in the comparison between image spectra and library spectra.

VNIR SMACC

Ten endmembers were extracted from the VNIR portion of the image in the area immediately around the claim group (Figure 6). Of these ten endmembers six show distinctive spatial patterns (Figure 7) that may prove worth investigating. With only three bands in the VNIR it is not possible to identify with any certainty the minerals associated with each spectrum. But by comparing the location of the endmembers with the natural colour image and the SWIR spectra at these locations we can at least get a feeling for the colour of the material they represent and possibly an indication of the general mineral type involved and distinct distributions. Many of the endmembers are from locations that likely have some vegetation influence.

Potential mineral identification from VNIR spectra;
endmember 1 = in conjunction with SWIR matches pyrophyllite
endmember 2 = uncertain mineral but spatially correlates with SWIR #2
endmember 3 = iron oxide mineral (hematitic)
endmember 7 = possibly illite - muscovite.

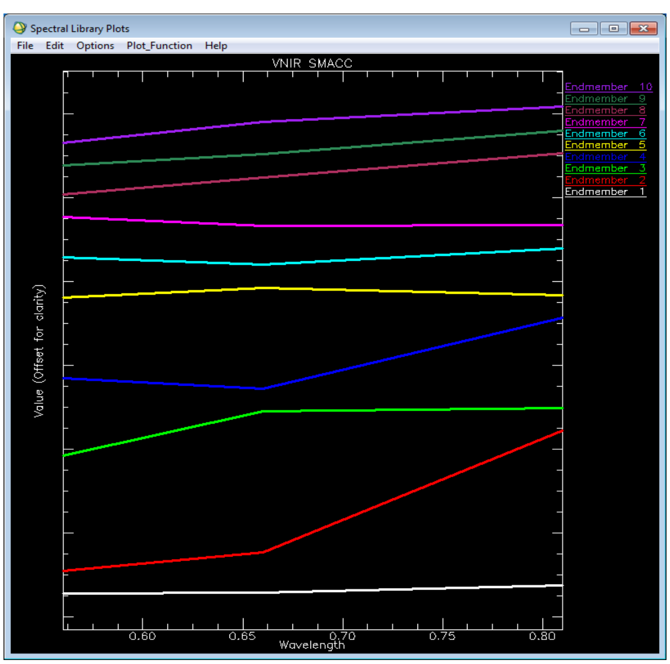


Figure 6. VNIR SMACC endmembers.

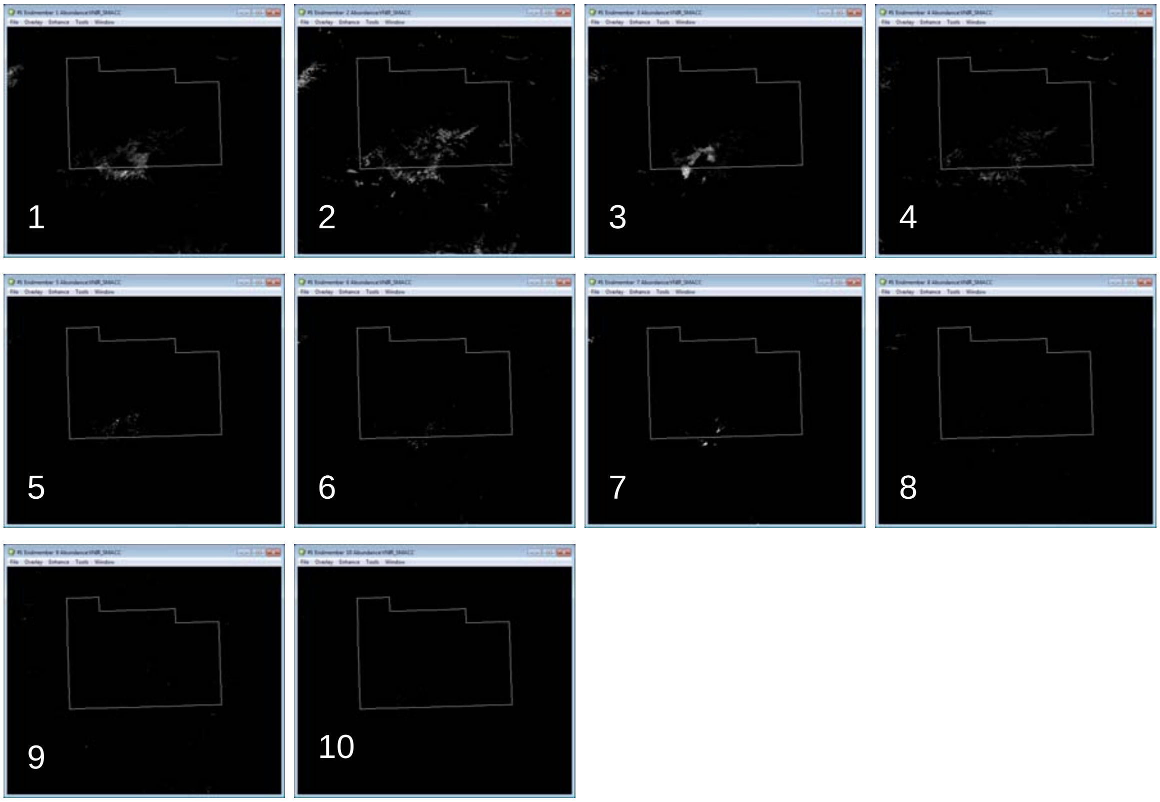


Figure 7. VNIR SMACC endmember distribution patterns. Claim boundary in white for reference.

Maps displaying the distribution of pixels similar to the various endmembers are provided in the Appendix as PNG images that can be printed to letter sized paper for a scale of about 1:50,000. Figure 8 is an example of these mineral maps.

VNIR Endmember 1

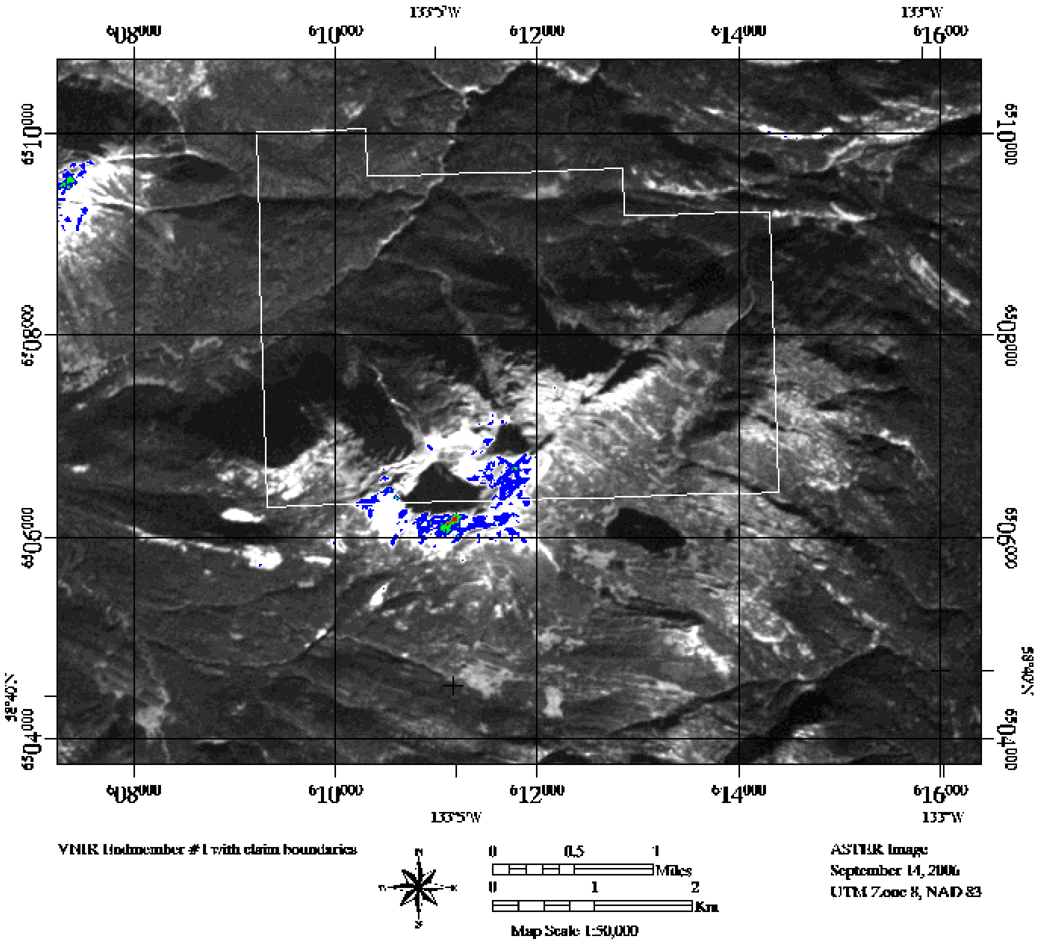


Figure 8. Distribution of rocks similar to VNIR Endmember #1. Red is the best spectral match to the endmember with the match decreasing in quality through green and blue.

SWIR SMACC

Ten endmembers were initially extracted from the image for the small area around the claims in the SWIR range. Figure 9 illustrates the spectra for each of these ten endmembers. The SWIR ground sample distance (GSD) is 30 metres, which accounts for the blurry images compared to the 15 metre GSD of the VNIR data. By examining the location of the endmembers to make sure they represent good rock exposure and the distribution of the endmember maps (Figure 10) 6 endmembers were felt to be valid. The other endmembers are a mixture of rock and vegetation. Comparing the endmember spectra with library spectra it is believed that the following endmembers may be closely mapping the alteration minerals;

endmember 1 = pyrophyllite
endmember 2 = pyrophyllite
endmember 3 = dickite, alunite
endmember 4 = ?
endmember 5 = a-smectite
endmember 6 = ?

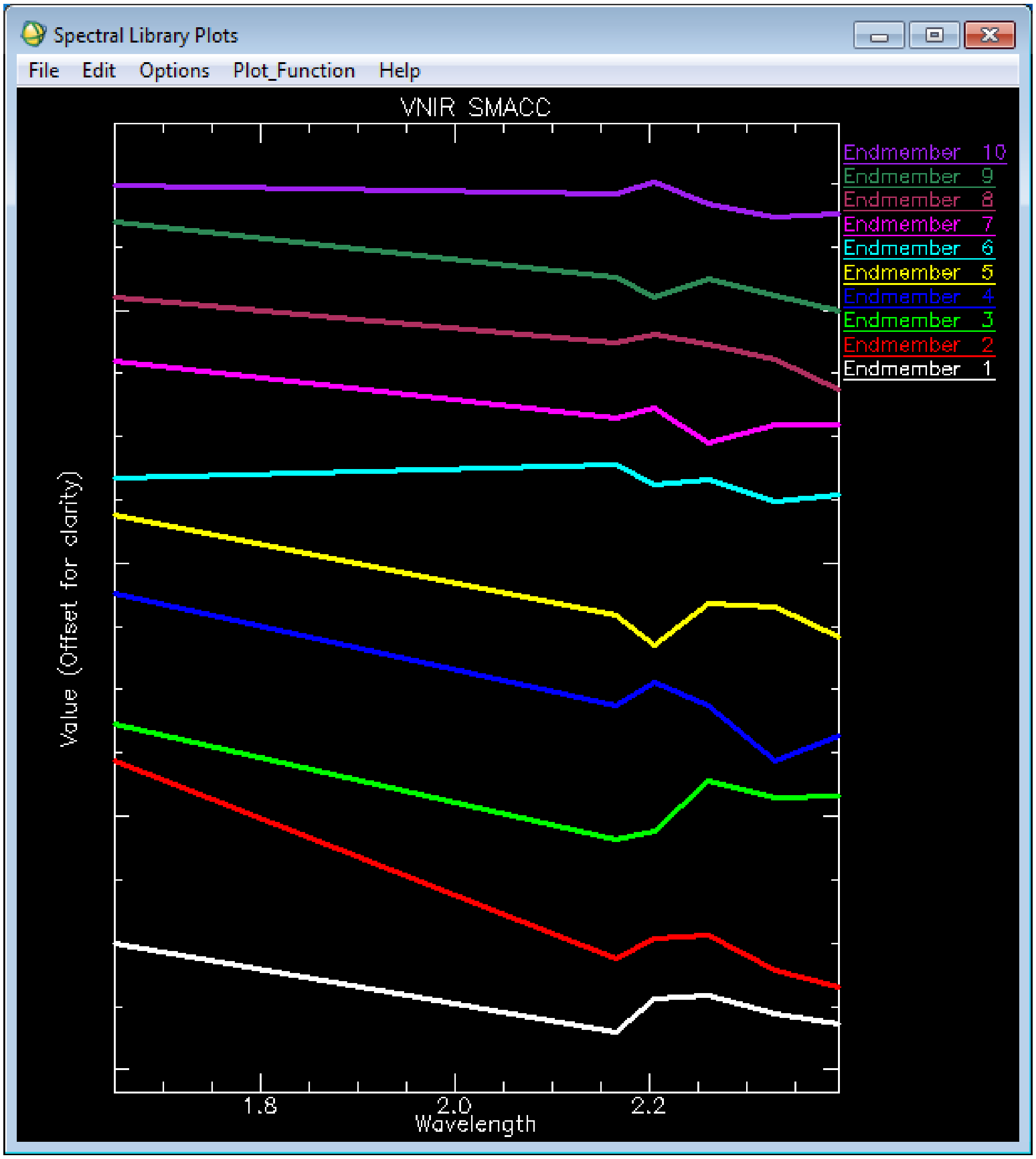


Figure 9. Endmember spectra from the SMACC analysis of the SWIR range.

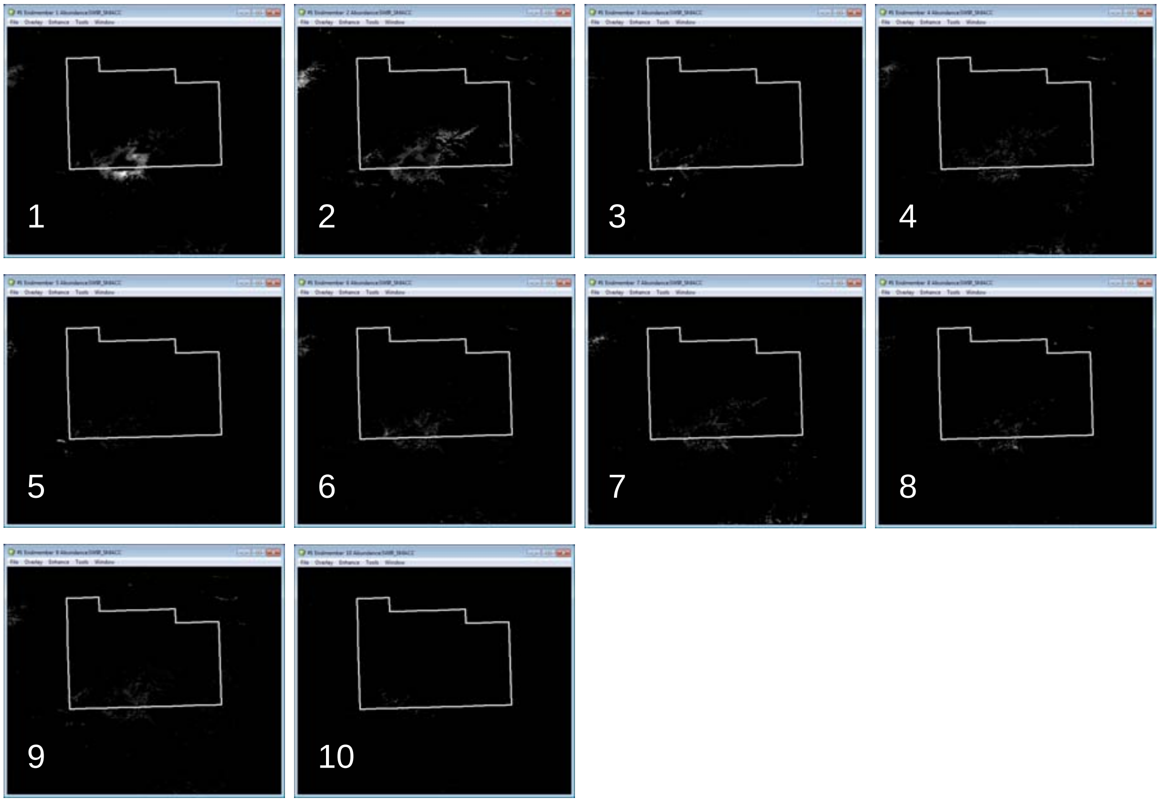


Figure 10. Illustrates the distribution of these endmembers in the claim area.

Figure 11 shows the distribution of surface material with a spectral signature similar to the SWIR Endmember #1 spectrum. Not the strong relationship with the major fault cutting across the property. The Appendix contains the other relevant SWIR Endmember maps.

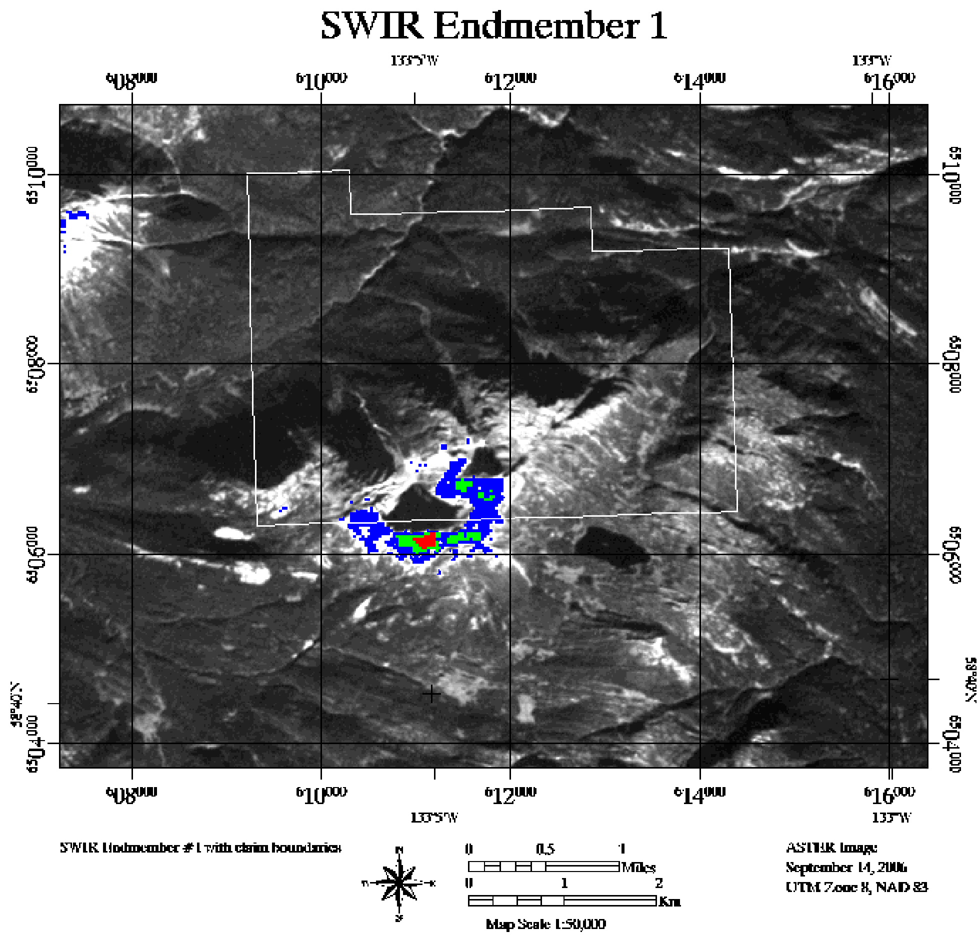


Figure 11. Mineral map showing the distribution of rocks with spectral signature similar to the SWIR Endmember #1 spectrum. Red is the best spectral match, decreasing through green and blue.

TIR SMACC

Eleven endmembers were extracted from the TIR sensor data in and around the claim group (Figure 12). The pixel size in the TIR is 90 metres so each pixel will usually contain a mixture of materials. The TIR values are in emissivity units whereas the VNIR and SWIR values are in relative reflectance units. Spectra 5 and 6 are reasonable matches to quartz. The slope of the spectra in the 10.5 - 11.4 µm range of endmember 9 is a possible indication of carbonate. The endmembers were collected from the masked data. Figure 13 displays the spatial pattern associated with each of the endmembers. TIR wavelengths are thermal and do not require direct sunlight illumination to provide a meaningful spectrum. The whole TIR dataset for the property area was mapped against the two likely quartz spectra to obtain a distribution of possible silica alteration.

Figure 14 shows the distribution of the silica rich areas based on this mapping. Some caution is required in using the TIR results due to the stripping parallel to the sensor's scanlines. But the very high areas have a good possibility of being silica rich areas.

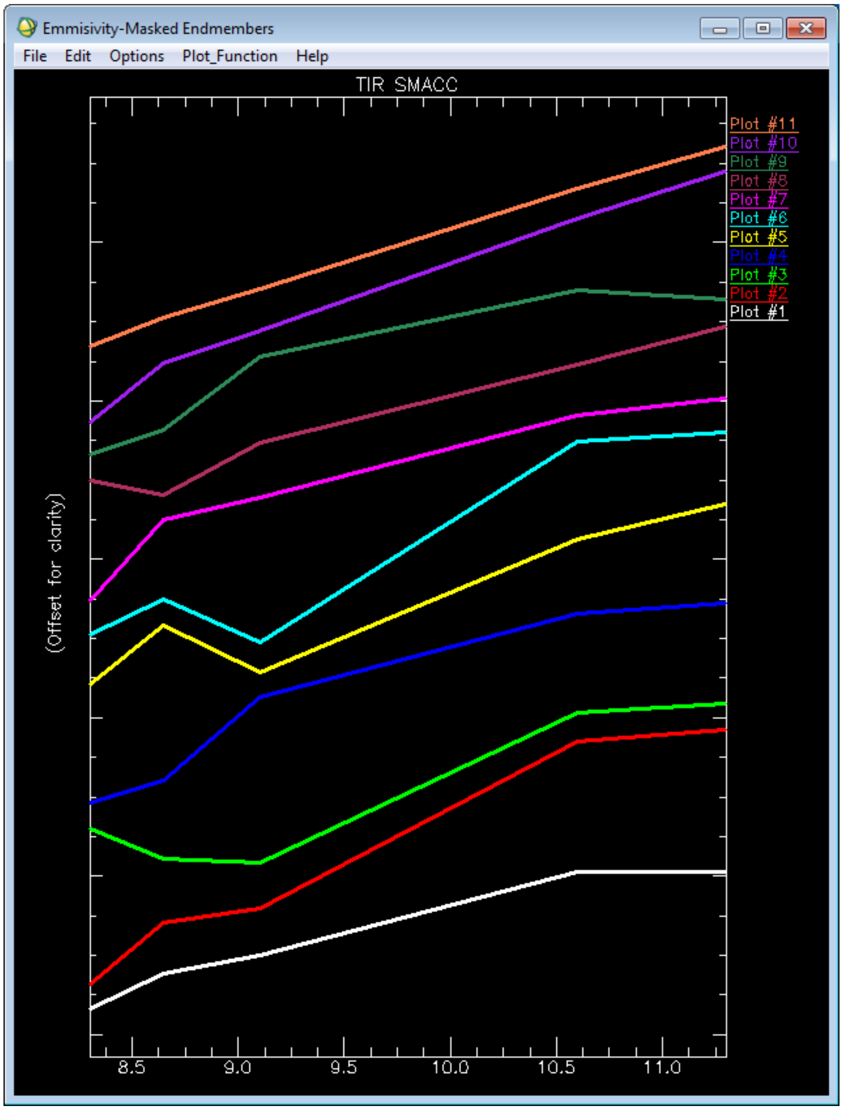


Figure 12. TIR SMACC spectral endmembers.

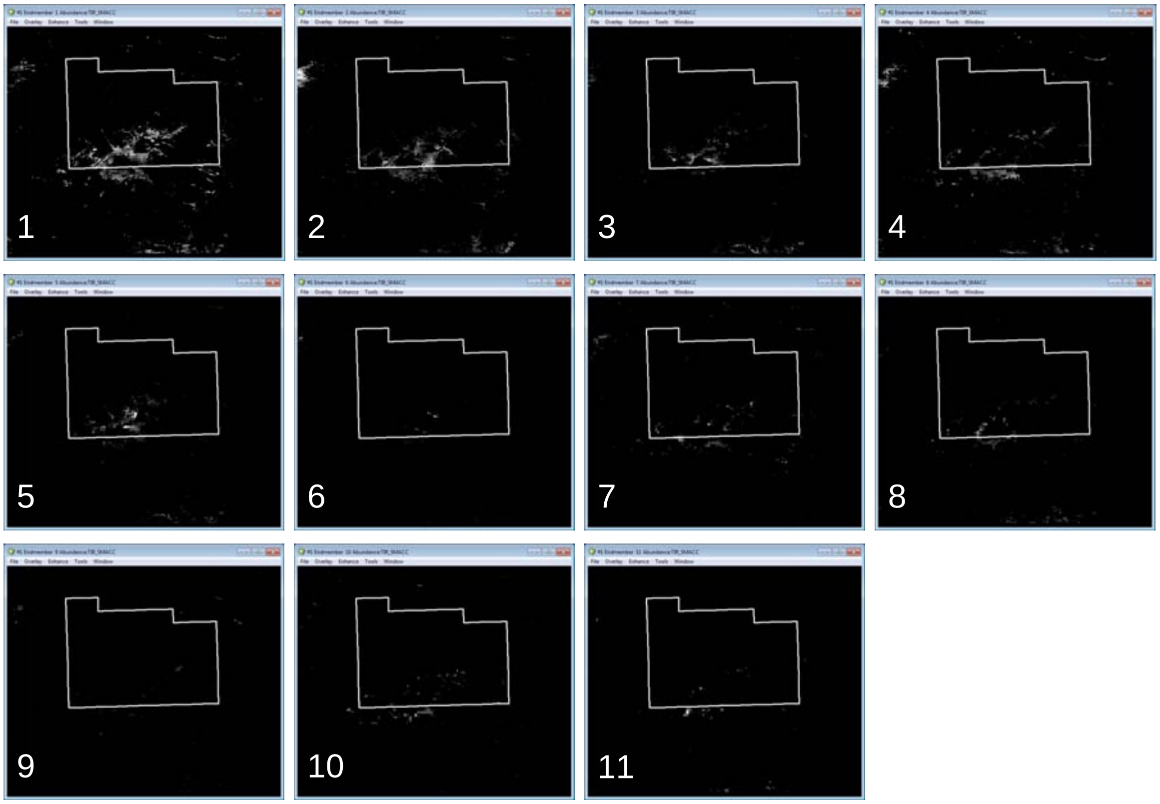


Figure 13. Distribution patterns for the four TIR endmembers in the claim area.

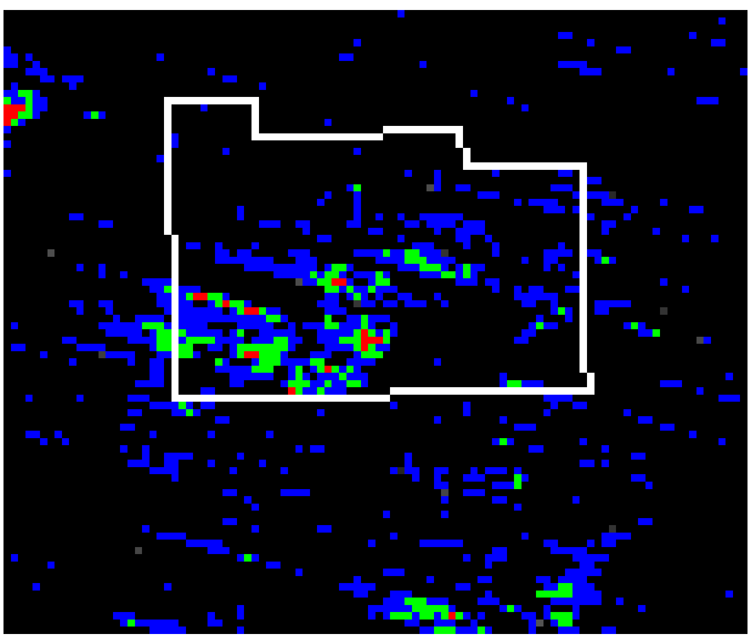


Figure 14. Silica alteration map based on TIR spectral mapping.

CONCLUSIONS and RECOMENDATIONS

It is important to remember that any mineral identification made using ASTER imagery is at best an estimate. **Reference to specific minerals in this report must be taken as best estimates only!** Only through field verification should any reference to the existence of a mineral be taken as a certainty.

The analysis performed on the ASTER image covering the Javorsky claim group consisted of a preprocessing phase where the imagery was corrected for a variety of sensor, atmospheric and geographic effects.

The ASTER image covers an area of 60 by 60 kilometres. A small portion of the whole image was used in the analysis covering the claim block. A preliminary multispectral analysis using 28 commonly used band ratios (ASTER Mineral Ratios) was tested to see if they provided any obvious results. Only the Ferric Iron ratio showed a useful distribution pattern. The same pattern was shown using the SMACC hyperspectral analysis techniques. The SMACC analysis methodology provided much more capabilities in defining specific mineral types and their distributions.

The Appendix contains a variety of digital data including; the original ASTER image, the corrected ASTER data in ENVI format, a digital terrain model, a natural colour image and a number of mineral map images.

The spectral analysis of the image resulted in a number of spectral anomalies that may be related to mineralization and should be investigated. Some of these spectral anomalies will likely just be country rock but others are related to the large fault and are showing the distribution of hydroxyl minerals related to hydrothermal alteration. Iron oxide distributions may be worth investigating and VNIR endmember #3 would be the best map to locate the highest values. The obvious alteration zone just south of the claim group along the major fault is highlighted by several endmembers such as VNIR #1,2 and 7 as well as SWIR #1. Some of the material related to these endmembers are also distributed along the fault to the north into the claim block and should be investigated.

All of the spectral anomaly maps show concentrations of a particular mineral or rock that is anomalous in the claim area. All of these areas should be examined as they provide the best location to identify the particular material that is being mapped and to determine if the material has any importance related to mineralization.

This initial analysis (SMACC) is based on identifying the most unique spectra in the image and mapping these materials. It may be that the most important material with respect to mineralization is a mix of several of these endmembers and as such it will not have been mapped. A second phase of analysis will be warranted if after field

examination some unmapped materials prove to be relevant. In that case the spectra of these field identified materials can be obtained from the image and then their distribution mapped over the image. In addition to further analysis, if warranted the image and related products can be used to construct a variety of displays such as Google Earth and perspective views that can enhance the understanding of the property.

APPENDIX IV: **Analysis results and data files** (on DVD)

1) **AST_L1B_00309142006202335_20101018191810_19079 (HDF):** Original ASTER data as downloaded from LPDAAC.
2) **DJ_STACK (ENVI BIL):** A 14 band image containing the nadir spectral bands from the ASTER image. All bands are presented in 15 metre pixels and orthorectified. The VNIR and SWIR bands have been atmospherically corrected and the TIR bands have been thermally corrected. The VNIR and SWIR values are relative reflectance and the TIR is in emissivity values.
3) **DJ_DTM (ENVI BIL):** Digital elevation model constructed from the ASTER image and used for the orthorectification. It is a relative rather than absolute DEM.
4) **DJ_Natural (GeoTIF):** Pseudo natural colour image constructed from the ASTER image. Colours have been stretched to enhance shaded areas and rock differences. The RIO claims are displayed.
5) **NearNatural_map (png):** A full resolution PNG image of the near natural colour image in the claim area at a scale of 1:50,000.
6) **DJ_VNIR?_map (png):** A full resolution PNG image of VNIR endmember distributions (1,2,3 & 7) at a scale of 1:50,000.
7) **DJ_SWIR?_map (png):** A full resolution PNG image of SWIR endmember distributions (1-6) at a scale of 1:50,000.

APPENDIX II. QUALIFICATIONS

Statement of Qualifications

I, Alex Burton, P. Eng., P. Geo., Consulting Geologist with Burton Consulting Inc. am the author of this assessment report on the Northern Treasure Mineral Claims.

Besides the field work portion on the Northern Treasure property from June 28 to July 25, 2011 I also did preparatory work before that, and then later wrote this report.

I am a graduate geologist with 57 years of experience in my profession. I have managed exploration offices for major mining companies, and have exploration experience around the world for most natural resource products.

I am a founding member of the Association of Exploration Geochemists (now called The Association of Applied Geochemists), with membership number 37.

Further I have developed the stream suction sampling technique that uses a venturi suction nozzle to collect stream sediment material from the high velocity sediments in a stream to test for high specific gravity minerals and gold. This technique has had over 100 field trials and has discovered new gold deposits and never failed to recognize known deposits.

I am a Qualified Person.

Alex Burton, P. Eng., P. Geo.
1408 – 7 Avenue
New Westminster, B. C.
V3M 2K3
Email; aburton@shaw.ca
Cel 604 525 8403
January 6, 2012

APPENDIX II. EXPENSES

Exploration Work type	Comment	Days			Totals
Personnel (Name)* / Position	**Field Days (list actual days)**	**Days**	**Rate**	**Subtotal***	
Alex Burton P. Geo	Sampling / GPS Mapping	0	$0.00	$13,328.00	
Cathy Burton Geo Assistant	GPS Mapping/ Recording	8	$0.00	$4,116.00	
David Javorsky Prospector	Samping / Prospect	8	$0.00	$9,500.00	
	Trench / Prospect	15	$0.00	$0.00	
	Trench / Prospect	25	$0.00	$0.00	
Hoe operator	Trench / Prospect	20	$0.00	$0.00	
Helper	Trench / Prospect	25	$0.00	$0.00	
Helper	Trench / Prospect	20	$0.00	$0.00	
Geo		25	$00.00	$0.00	
Geo asst		25	$0.00	$0.00	
	Drill pad construction	10	$0.00	$0.00	
Helper	Drill pad construction	10	$0.00	$0.00	
Doug	GPS mapping	2	$0.00	$0.00	
				$26,944.00	**$26,944.00**
Office Studies	**List Personnel (note - Office only, do not include field days**				
Database compilation	C Burton	0.0	$0.00	$0.00	
Base map updates	Maps North	5.0	$0.00	$0.00	
Aster Analysis			$0.00	$1,500.00	
General Cadd mapping	Maps North	0.0	$0.00	$0.00	
General research			$0.00	$0.00	
Project planning	A Burton	0.0	$0.00	$0.00	
Project planning	C Burton	0.0	$0.00	$0.00	
Project planning	Maps North	0.0	$0.00	$0.00	
Project planning supplies				$0.00	
Photos (site photos)				$0.00	
Report preparation	A Burton	0.0	$0.00	$0.00	
Report preparation and mapping	Maps North	0.0	$0.00	$0.00	
				$1,500.00	**$1,500.00**
Geochemical Surveying	**Number of Samples**	**No.**	**Rate**	**Subtotal**	
Drill (cuttings, core, etc.)		0.0	$0.00	$0.00	
Stream sediment			$0.00	$675.25	
Soil			$0.00	$0.00	
Rock	includes samples and pulp storage	0.0	$0.00	$489.51	
Water			$0.00	$0.00	
Biogeochemistry			$0.00	$0.00	
Whole rock			$0.00	$0.00	
Petrology			$0.00	$0.00	
Other (Specify)			$0.00	$0.00	
			$0.00	$0.00	
				$1,164.76	**$1,164.76**

Drilling	No. of Holes, Size of Core and Metres	No.	Rate	Subtotal	
Diamond	BQTW or NQ	0.0	$0.00	$0.00	
Reverse circulation (RC)			$0.00	$0.00	
Rotary air blast (RAB)			$0.00	$0.00	
Other (specify)			$0.00	$0.00	
				$0.00	**$0.00**
Other Operations	**Clarify**	**No.**	**Rate**	**Subtotal**	
Trenching/test pits	included in labour costs		$0.00	$0.00	
Bulk sampling			$0.00	$0.00	
Underground development			$0.00	$0.00	
Explosives	Test pit blasting		$0.00	$0.00	
				$0.00	**$0.00**

Transportation		No.	Rate	Subtotal	
Airfare	flights, various rates	0.00	$0.00	$0.00	
Taxi		0.00	$0.00	$0.00	
truck rental		0.00	$0.00	$1,008.00	
kilometers		0.00	$0.00	$1,453.20	
Car rental		0.00	$0.00	$0.00	
ATV rental		0.00	$0.00	$0.00	
ATV trailer		0.00	$0.00	$0.00	
fuel	includes pu's, excavator and atvs		$0.00	$898.00	
Helicopter (hours)		0	$0.00	$21,693.22	
Fuel (litres/hour)		0.00	$0.00	$0.00	
Other					
				$25,052.42	**$25,052.42**
Accommodation & Food	**Rates per day**				
Hotel	actual - various rates	0.00	$0.00	$2,272.90	
Camp based on 12 man camp	man days	0.00	$0.00	$0.00	
Off-site meals prep	H Sclamp			$0.00	
B&B	H Sclamp			$0.00	
Meals	includes café and groceries		$0.00	$1,143.07	
				$3,415.97	**$3,415.97**
Miscellaneous					
Telephone	radio rental and service		$0.00	$278.82	
Supplies				$241.80	
Prospector Expenses				$3,841.49	
Miscellaneous				$14.88	
Other (Specify)	SOW Seep	0.00	$0.00	$3,958.79	
				$8,335.78	**$8,335.78**
Equipment Rentals		**No.**	**Rate**		
Mob/demob excavator					
Excavator	Assigned cost for govt			$0.00	
Tools	Chain saws, hand tool etc			$728.00	
Drill rentals	Ponjar & Cobra w steel			$0.00	
Field Gear (Specify)	Misc supplies and comsumables		$0.00	$0.00	
Other (Specify)	Freezer			$40.00	
				$768.00	**$768.00**

TOTAL Expenditures					**$67,181.56**
15% Contingency for fuel, rain days etc					$0.00
					$67,181.56

APPENDIX IX. LARGE FORMAT MAPS

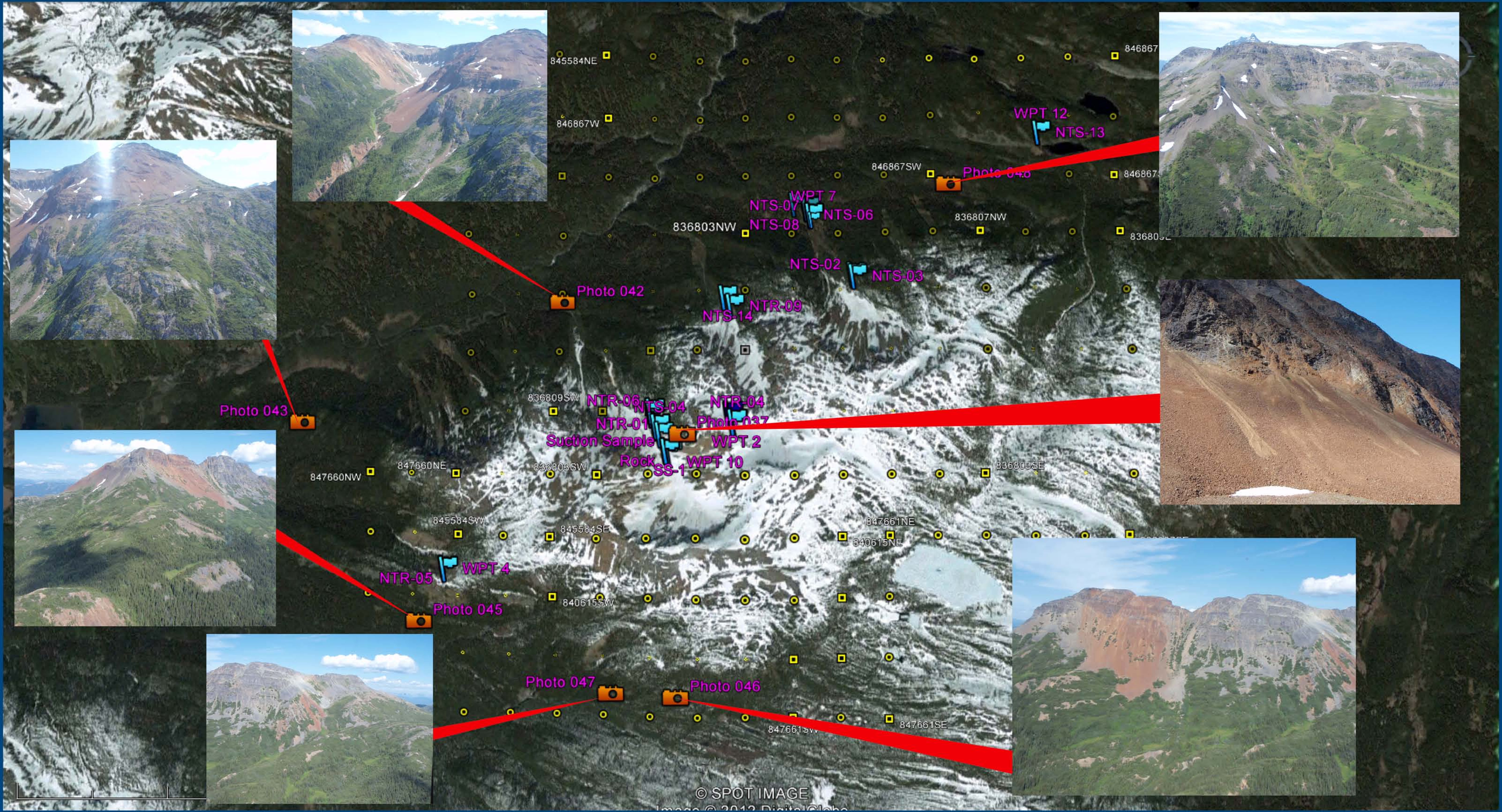


Photo 042
Photo 043
Photo 045
Photo 046
Photo 047
Photo 037
WPT 12
NTS-13
WPT 7
NTS-07
NTS-06
NTS-08
NTS-02
NTS-03
NTR-09
NTS-14
NTR-06
NTS-04
NTR-04
NTR-01
Suction Sample
WPT 2
Rock
SS-1
WPT 10
WPT 4
NTR-05
845584NE
846867W
846867SW
836803NW
836807NW
836809SW
847660NW
847660NE
836803SW
836803SE
845584SW
845584SE
847661NE
840615NE
840615SW
847661SW
847661SE
© SPOT IMAGE

Waypoints with Assay
Waypoint
UTM (NAD 83) Coordinates
ZONE 1
WPT 10 610930E 6506851N
Rock 610910E 6506860N
SS-1 610910E 6506860N
Suction Sample 610910E 6506860N
NTR-01 610860E 6506983N
NTR-02 610827E 6507040N
NTR-06 610783E 6507156N
NTR-07 610786E 6507130N
NTR-08 610786E 6507131N
NTS-04 610827E 6507040N
NTS-05 610827E 6507040N
NTS-12 610783E 6507156N
ZONE II
WPT 1 611381E 6507150N
WPT 2 611410E 6507093N
NTR-03 611413E 6507143N
NTR-04 611413E 6507093N
ZONE III
WPT 7 611961E 6508730N
WPT 9 611837E 6508787N
NTS-01 612286E 6508345N
NTS-02 612286E 6508245N
NTS-03 612298E 6508231N
NTS-06 611962E 6508726N
NTS-07 611962E 6508726N
NTS-08 611962E 6508726N
NTS-09 611931E 6508778N
NTS-10 611931E 6508778N
NTS-11 611931E 6508778N
NTS-15 611931E 6508778N
ZONE IV
WPT 12 613724E 6509426N
NTS-13 613726E 6509423N
ZONE V
NTR-09 611365E 6507974N
NTS-14 611308E 6508042N
ZONE V
WPT 4 609262E 6505924N
NTR-05 609261E 6505927N
SCALE
100 0 100 500
(meters)
846867
ZONE IV
NTS-13 WPT 12
845584
WPT 9
NTS-15
NTS-11
NTS-01
836809
WPT 7
NTS-07
NTS-08
ZONE III
845584
ZONE V
836809
NTS-02 NTS-03
NTS-14
NTR-09
836803
836807
ZONE I
ZONE II
NTS-12 NTR-07
NTR-06 NTR-08
WPT 1 (Helicopter Landing)
NTR-03
NTR-05 NTR-04
NTR-02
WPT 2 NTR-04
NTR-01
Suction Sample SS-1
WPT 10
836807
ZONE VI
NTR-05 WPT 4
840615
847660
847661
Gulfside Minerals
GULFSIDE MINERALS LTD.
NORTHERN TREASURE PROPERTY
LISADELE LAKE, ATLIN/DEASE LAKE AREA, ATLIN MD, BC
ASSAY WAYPOINTS
DRAWN BY: Golden Wing Services Ltd.
JOB NO.: 11-01
NTS: 104K/07,08
DATE: JAN, 08-12
FIG NO.: NT2012-02

Gulfside Minerals
UTM 8V (NAD 83) Coordinates
+ Assay Labels
SCALE
ZONE 1
WPT 10 610930E 6506851N
Rock 610910E 6506860N
SS-1 610910E 6506860N
Suction Sample 610910E 6506860N
NTR-01 610860E 6506983N
NTR-02 610827E 6507040N
NTR-06 610783E 6507156N
NTR-07 610786E 6507130N
NTR-08 610786E 6507131N
NTS-04 610827E 6507040N
NTS-05 610827E 6507040N
NTS-12 610783E 6507156N
ZONE II
WPT 1 611381E 6507150N
WPT 2 611410E 6507093N
NTR-03 611413E 6507143N
NTR-04 611413E 6507093N
ZONE III
WPT 7 611961E 6508730N
WPT 9 611837E 6508787N
NTS-01 612286E 6508345N
NTS-02 612286E 6508245N
NTS-03 612298E 6508231N
NTS-06 611962E 6508726N
NTS-07 611962E 6508726N
NTS-08 611962E 6508726N
NTS-09 611931E 6508778N
NTS-10 611931E 6508778N
NTS-11 611931E 6508778N
NTS-15 611931E 6508778N
ZONE IV
WPT 12 613724E 6509426N
NTS-13 613726E 6509423N
ZONE V
NTR-09 611365E 6507974N
NTS-14 611308E 6508042N
ZONE V
WPT 4 609262E 6505924N
NTR-05 609261E 6505927N
846867
ZONE IV
845584
836809
ZONE V
ZONE III
836809
845584
836807
836803
WPT 1
(Helicopter Landing)
ZONE II
836807
ZONE I
840615
ZONE VI
847660
847661
Gold-in-Various Samples
<10000 ppb
Samples Legend
A Number in a dot means more than one sample at the same UTM coordinates
Legend for Various Samples
BP - Barasko Pan
D - Suction Sample
M - Moss
RG - Rock Grab
S - Silt
SS - Stream Sample
GULFSIDE MINERALS LTD.
NORTHERN TREASURE PROPERTY
LISADELE LAKE, ATLIN/DEASE LAKE AREA, ATLIN MD, BC
ASSAY RESULTS
DRAWN BY: Golden Wing Services Ltd.
JOB NO.: 12-31
NTS: 104K/07,08
DATE: AUG, 09-12
FIG NO.: NT2012-03

APPENDIX V. ASSAY

Separate PDF files
Sent via email to Mineral.Titles@gov.bc.ca

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

ALS Minerals

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 30- AUG- 2011
Account: CM

CERTIFICATE VA11145186

Project: Atlan- Northern Treasure

P.O. No.:

This report is for 13 Rock samples submitted to our lab in Vancouver, BC, Canada on 27- JUL- 2011.

The following have access to data associated with this certificate:

ALEX BURTON

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
PUL- QC	Pulverizing QC Test
CRU- 31	Fine crushing - 70% <2mm
SPL- 21	Split sample - riffle splitter
PUL- 31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Au- AA23	Au 30g FA- AA finish	AAS

To: BURTON CONSULTING INC.
ATTN: ALEX BURTON
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 30- AUG- 2011
Account: CM

Project: Atlan- Northern Treasure

CERTIFICATE OF ANALYSIS VA11145186

Sample Description / Method / Analyte / Units / LOR	WEI- 21 Recvd Wt. kg 0.02	Au- AA23 Au ppm 0.005	ME- ICP41 Ag ppm 0.2	ME- ICP41 Al % 0.01	ME- ICP41 As ppm 2	ME- ICP41 B ppm 10	ME- ICP41 Ba ppm 10	ME- ICP41 Be ppm 0.5	ME- ICP41 Bi ppm 2	ME- ICP41 Ca % 0.01	ME- ICP41 Cd ppm 0.5	ME- ICP41 Co ppm 1	ME- ICP41 Cr ppm 1	ME- ICP41 Cu ppm 1	ME- ICP41 Fe % 0.01
NTR- 01	0.58	0.030	0.5	5.46	58	<10	60	1.3	2	3.10	0.7	8	10	102	6.29
NTR- 02	1.04	0.008	0.3	1.32	2	<10	70	<0.5	<2	0.82	<0.5	10	6	49	5.25
NTR- 03	0.84	<0.005	<0.2	4.88	<2	<10	50	1.0	<2	3.07	<0.5	2	136	9	5.39
NTR- 04	0.28	0.020	<0.2	3.54	3	<10	130	<0.5	<2	1.74	<0.5	7	5	8	3.99
NTR- 05	0.98	0.009	<0.2	1.89	14	<10	90	0.6	<2	1.08	<0.5	10	35	46	4.44
NTR- 06	0.84	<0.005	0.2	1.55	3	<10	80	<0.5	<2	1.04	<0.5	9	11	67	3.17
NTR- 07	0.72	0.008	<0.2	2.84	10	<10	130	0.5	<2	1.33	<0.5	15	42	94	3.91
NTR- 08	0.94	0.011	<0.2	2.36	8	<10	70	0.6	<2	1.51	<0.5	15	42	94	4.16
NTR- 09	0.42	0.009	<0.2	0.94	3	<10	780	0.6	<2	3.09	<0.5	13	5	42	3.78
WPT 2	1.34	<0.005	<0.2	10.25	2	<10	40	0.7	<2	6.83	<0.5	<1	<1	3	0.44
WPT 4	1.50	<0.005	0.2	2.08	<2	<10	80	<0.5	<2	0.49	<0.5	5	32	48	4.82
WPT 10	1.32	0.005	<0.2	2.15	8	<10	90	<0.5	<2	1.02	<0.5	11	32	34	4.02
RUSTY CLAY ROCK 610910E 6506860N	1.60	0.008	<0.2	3.24	<2	<10	30	0.8	<2	1.82	<0.5	<1	203	3	7.39

ALS Minerals
ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 30- AUG- 2011
Account: CM

Project: Atlan- Northern Treasure

CERTIFICATE OF ANALYSIS VA11145186

Sample Description	Method Analyte Units LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
NTR- 01		<20	0.08	<10	<10	29	<10	99
NTR- 02		<20	0.13	<10	<10	45	<10	28
NTR- 03		<20	0.08	<10	<10	42	<10	8
NTR- 04		<20	0.13	<10	<10	80	<10	138
NTR- 05		<20	0.18	<10	<10	111	<10	63
NTR- 06		<20	0.19	<10	<10	72	<10	35
NTR- 07		<20	0.23	<10	<10	94	<10	38
NTR- 08		<20	0.20	<10	<10	104	<10	50
NTR- 09		<20	0.03	<10	<10	98	<10	124
WPT 2		<20	<0.01	<10	<10	2	<10	5
WPT 4		<20	0.17	<10	<10	103	<10	38
WPT 10		<20	0.19	<10	<10	80	<10	24
RUSTY CLAY ROCK 610910E 6506860N		<20	0.03	<10	<10	64	<10	5

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Page: 1
Finalized Date: 2- SEP- 2011
Account: CM

CERTIFICATE VA11145187

Project: Atlan - Northern Treasure
P.O. No.:
This report is for 20 Soil samples submitted to our lab in Vancouver, BC, Canada on 27- JUL- 2011.
The following have access to data associated with this certificate:

ALEX BURTON		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP41	35 Element Aqua Regia ICP- AES	ICP- AES
Au- ICP21	Au 30g FA ICP- AES Finish	ICP- AES

To: BURTON CONSULTING INC.
ATTN: ALEX BURTON
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Minerals

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 2- SEP- 2011
Account: CM

Project: Atlan - Northern Treasure

CERTIFICATE OF ANALYSIS VA11145187

Sample Description	Method	WEI-21	Au-ICP21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%
	LOR	0.02	0.001	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
NTS- 01		0.10	0.008	0.2	1.66	22	<10	260	0.9	<2	0.90	<0.5	12	30	82	4.44
NTS- 02		0.24	0.167	0.3	1.22	17	10	250	0.8	2	1.84	0.5	8	20	93	2.66
NTS- 03		0.24	0.006	0.2	1.40	22	10	280	0.9	<2	1.42	<0.5	11	23	93	3.58
NTS- 04		0.18	0.022	<0.2	2.82	20	<10	180	0.9	<2	0.66	0.9	35	49	118	6.06
NTS- 05		0.34	0.040	0.3	3.48	46	<10	170	1.1	<2	1.06	1.2	39	44	123	6.08
NTS- 06		0.40	0.005	0.2	1.51	24	<10	240	0.7	<2	0.73	<0.5	14	30	90	4.50
NTS- 07		0.14	0.006	<0.2	1.51	24	<10	430	0.7	<2	0.59	<0.5	14	30	79	4.52
NTS- 08		0.26	0.007	<0.2	1.23	18	10	260	0.6	<2	1.28	<0.5	10	25	66	3.24
NTS- 09		0.18	0.004	0.2	1.59	25	<10	240	0.6	<2	0.61	<0.5	11	29	74	4.39
NTS- 10		0.42	0.007	0.2	1.28	20	10	260	0.6	<2	1.64	<0.5	10	23	77	3.06
NTS- 11		0.20	0.005	0.2	1.25	17	10	230	0.5	<2	1.38	<0.5	9	24	65	3.15
NTS- 12		0.50	0.204	<0.2	2.77	23	<10	190	0.9	<2	0.78	1.2	39	44	106	5.73
NTS- 13		0.48	0.030	<0.2	1.53	37	<10	320	0.8	<2	0.52	<0.5	15	21	54	4.72
NTS- 14		0.20	0.031	<0.2	1.19	26	<10	430	0.7	<2	0.60	<0.5	12	19	69	5.15
NTS- 15		0.24	0.065	<0.2	1.34	30	<10	330	0.6	<2	0.50	<0.5	10	24	44	4.39
SS- 1		0.74	0.008	0.2	1.43	27	<10	410	0.9	<2	0.61	<0.5	13	33	86	4.75
WPT 1		0.38	5.63	2.3	1.46	22	<10	430	0.7	<2	0.59	<0.5	12	39	71	4.70
WPT 7		0.32	0.312	<0.2	2.77	19	<10	230	0.8	<2	0.59	0.5	27	63	117	6.35
WPT 9		0.56	1.670	<0.2	1.69	26	<10	310	0.7	<2	0.60	<0.5	14	35	77	4.68
WPT 12		0.50	0.027	0.4	1.41	22	<10	410	0.7	<2	0.48	<0.5	12	26	65	4.59

ALS Minerals

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: BURTON CONSULTING INC.
1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 2- SEP- 2011
Account: CM

Project: Atlan - Northern Treasure

CERTIFICATE OF ANALYSIS VA11145187

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Ca ppm 10	ME- ICP41 Hg ppm 1	ME- ICP41 K % 0.01	ME- ICP41 La ppm 10	ME- ICP41 Mg % 0.01	ME- ICP41 Mn ppm 5	ME- ICP41 Mo ppm 1	ME- ICP41 Na % 0.01	ME- ICP41 Ni ppm 1	ME- ICP41 P ppm 10	ME- ICP41 Pb ppm 2	ME- ICP41 S % 0.01	ME- ICP41 Sb ppm 2	ME- ICP41 Sc ppm 1	ME- ICP41 Sr ppm 1
NTS- 01		10	<1	0.10	10	0.72	838	2	0.02	22	1490	17	0.09	2	6	154
NTS- 02		10	<1	0.22	10	0.46	954	2	0.02	18	2100	13	0.24	3	4	337
NTS- 03		10	<1	0.14	10	0.56	1075	2	0.02	21	1830	15	0.16	2	5	260
NTS- 04		10	1	0.18	20	1.22	1130	13	0.03	39	1110	15	0.20	<2	10	113
NTS- 05		10	<1	0.18	30	1.12	1105	12	0.02	40	1270	27	0.23	2	9	154
NTS- 06		10	<1	0.09	10	0.74	1035	2	0.02	24	1310	13	0.07	3	7	134
NTS- 07		10	<1	0.09	10	0.78	885	2	0.01	22	1200	15	0.06	<2	6	102
NTS- 08		10	<1	0.11	10	0.62	672	1	0.02	18	1520	11	0.17	2	5	248
NTS- 09		10	<1	0.08	10	0.75	754	1	0.02	22	1110	14	0.05	2	5	121
NTS- 10		10	<1	0.10	10	0.60	739	1	0.02	18	1600	12	0.19	2	6	331
NTS- 11		10	1	0.12	10	0.58	698	1	0.03	16	1540	13	0.16	<2	5	276
NTS- 12		10	<1	0.17	20	1.11	1205	10	0.03	42	1160	17	0.20	<2	9	127
NTS- 13		10	<1	0.10	10	0.51	2070	3	0.01	16	1030	21	0.03	<2	6	96
NTS- 14		10	1	0.09	10	0.51	954	1	0.01	14	1360	20	0.06	3	5	110
NTS- 15		10	<1	0.08	10	0.49	820	2	0.01	15	1100	56	0.03	<2	5	78
SS- 1		10	<1	0.09	10	0.63	868	3	0.02	24	1280	15	0.06	2	6	98
WPT 1		10	1	0.07	10	0.77	733	2	0.01	24	1230	11	0.06	2	6	99
WPT 7		10	<1	0.21	10	1.16	788	13	0.03	31	1140	12	0.33	<2	10	91
WPT 9		10	<1	0.07	10	0.71	885	2	0.01	24	1090	13	0.04	3	6	116
WPT 12		10	<1	0.09	10	0.57	612	1	0.01	16	1150	20	0.02	2	5	72

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

ALS Minerals

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1408 7TH AVE W
NEW WESTMINSTER BC V3M 2K3

Finalized Date: 2- SEP- 2011
Account: CM

Project: Atlan - Northern Treasure

CERTIFICATE OF ANALYSIS VA11145187

Sample Description	Method / Analyte / Units / LOR	ME- ICP41 Th ppm 20	ME- ICP41 Ti % 0.01	ME- ICP41 Tl ppm 10	ME- ICP41 U ppm 10	ME- ICP41 V ppm 1	ME- ICP41 W ppm 10	ME- ICP41 Zn ppm 2
NTS- 01		<20	0.02	<10	<10	90	<10	101
NTS- 02		<20	0.01	<10	<10	52	<10	74
NTS- 03		<20	0.02	<10	<10	70	<10	92
NTS- 04		<20	0.16	<10	<10	127	<10	136
NTS- 05		<20	0.12	<10	<10	114	<10	164
NTS- 06		<20	0.01	<10	<10	83	<10	107
NTS- 07		<20	0.02	<10	<10	87	<10	101
NTS- 08		<20	0.01	<10	<10	66	<10	86
NTS- 09		<20	0.01	<10	<10	87	<10	100
NTS- 10		<20	0.01	<10	<10	60	<10	87
NTS- 11		<20	0.01	<10	<10	65	<10	85
NTS- 12		<20	0.15	<10	<10	119	<10	145
NTS- 13		<20	0.01	<10	<10	72	<10	107
NTS- 14		<20	0.03	<10	<10	111	<10	86
NTS- 15		<20	0.02	<10	<10	85	<10	87
SS- 1		<20	0.02	<10	<10	94	<10	118
WPT 1		<20	0.02	<10	<10	98	<10	110
WPT 7		<20	0.19	<10	<10	144	<10	133
WPT 9		<20	0.02	<10	<10	97	<10	102
WPT 12		<20	0.02	<10	<10	90	<10	98

APPENDIX VI. ASTER ANALYSIS RESULTS AND DATA FILES (ON DVD)

AST_L1B_00309142006202335_20101018191810_19079 (HDF): Original ASTER data as downloaded from LPDAAC……………………………………………………….on DVD

DJ_STACK (ENVI BIL): A 14 band image containing the nadir spectral bands from the ASTER image. All bands are presented in 15 metre pixels and orthorectified. The VNIR and SWIR bands have been atmospherically corrected and the TIR bands have been thermally corrected. The VNIR and SWIR values are relative reflectance and the TIR is in emissivity values……………………………………………………………………on DVD

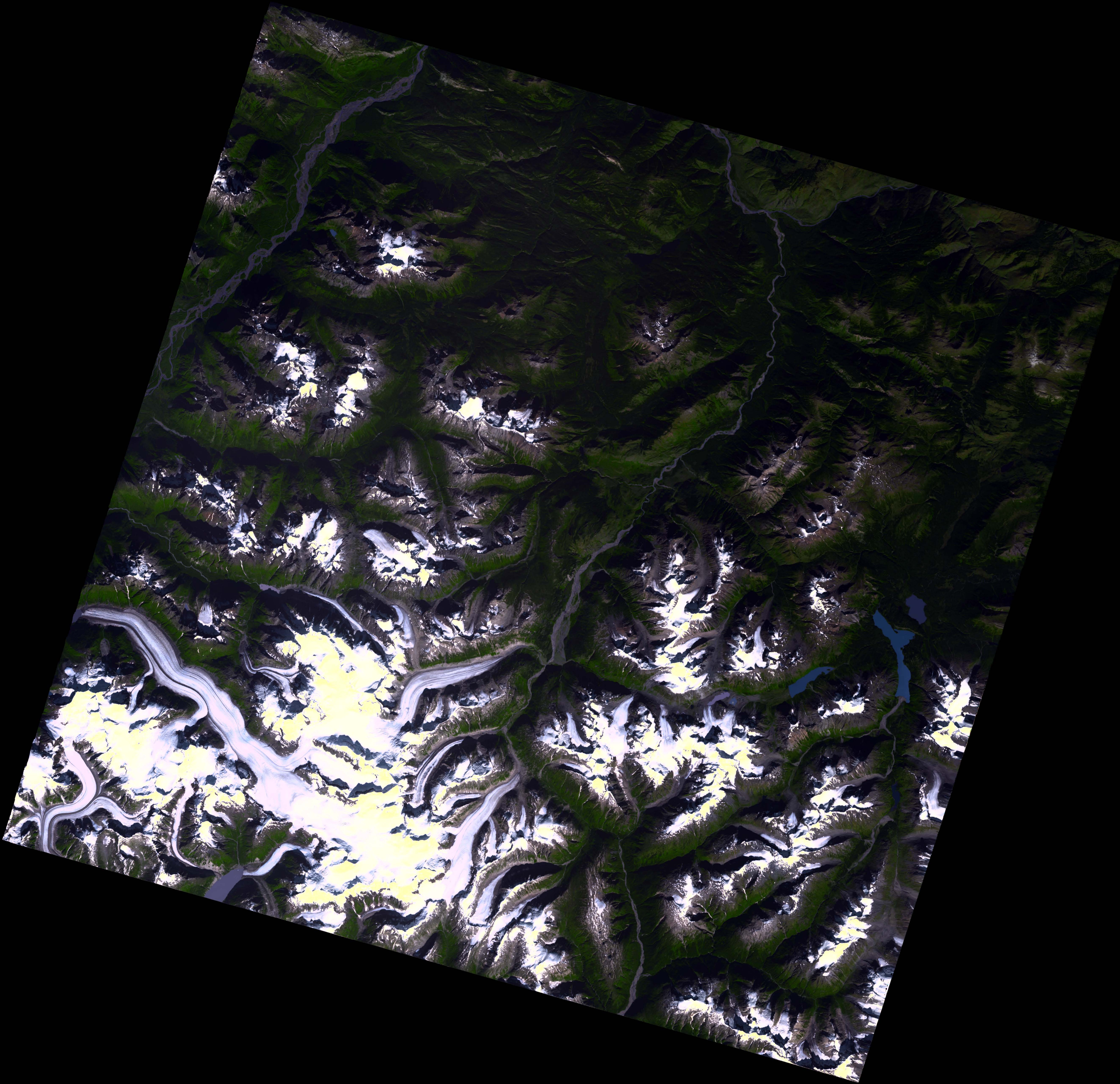
DJ_DTM (ENVI BIL): Digital elevation model constructed from the ASTER image and used for the orthorectification. It is a relative rather than absolute DEM…………on DVD

DJ_Natural (GeoTIF): Pseudo natural colour image constructed from the ASTER image. Colours have been stretched to enhance shaded areas and rock differences. The RIO claims are displayed………………………………………………………………….on DVD

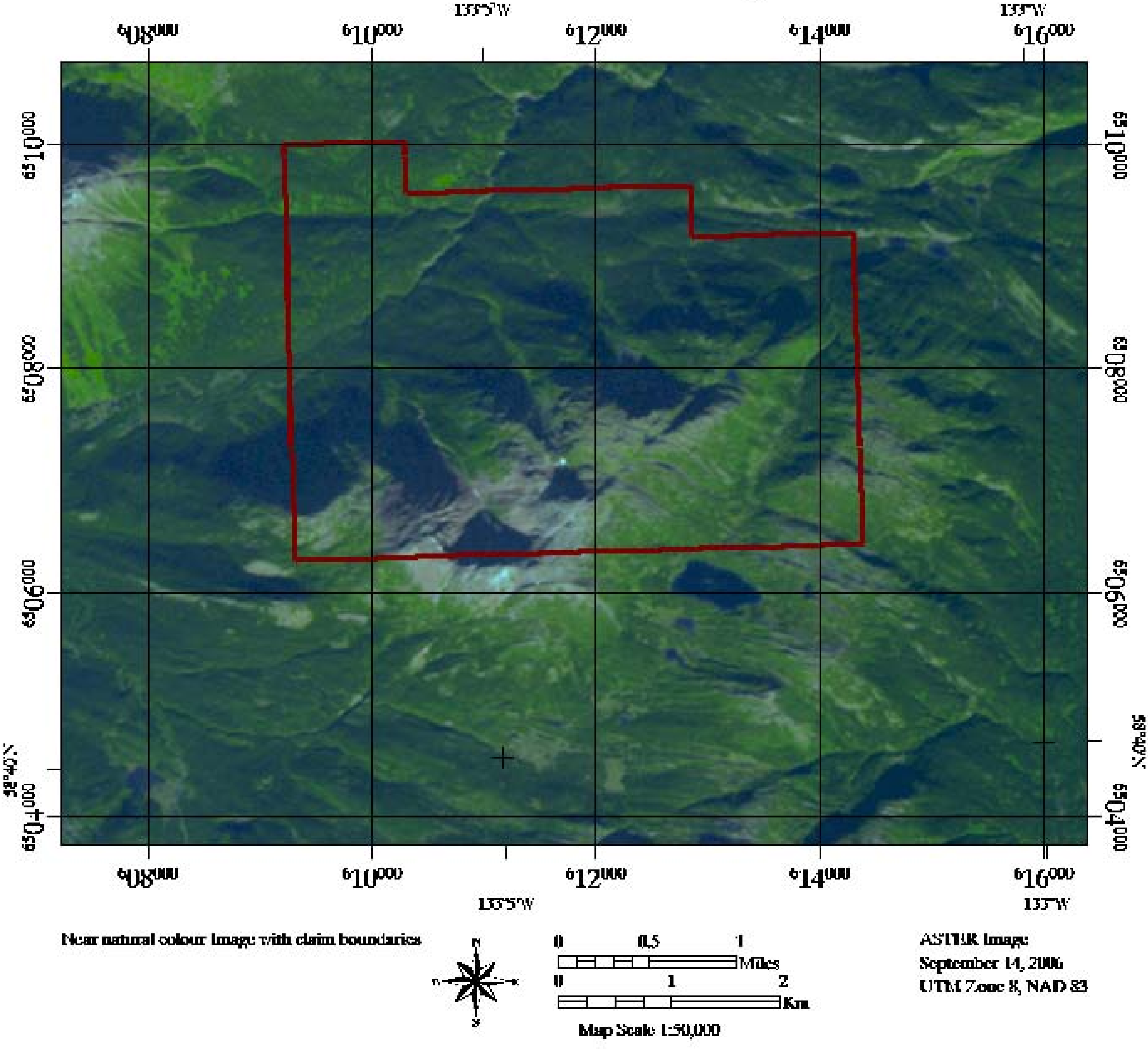
NearNatural_map (png): A full resolution PNG image of the near natural colour image in the claim area at a scale of 1:50,000…………………………………………….on DVD

DJ_VNIR?_map (png): A full resolution PNG image of VNIR endmember distributions (1,2,3 & 7) at a scale of 1:50,000……………………………………………………………on DVD

DJ_SWIR?_map (png): A full resolution PNG image of SWIR endmember distributions (1-6) at a scale of 1:50,000………………………………………………….on DVD

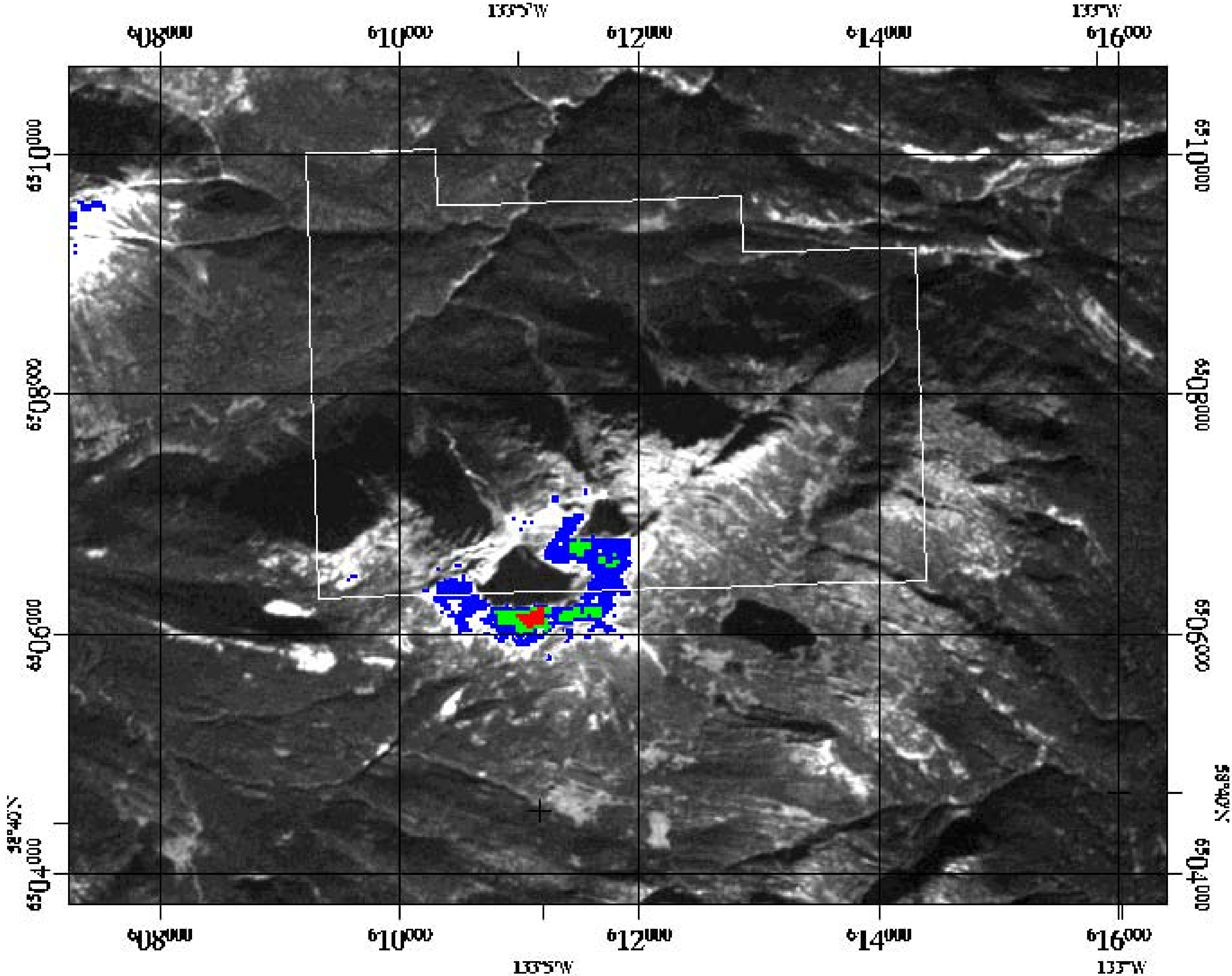


Natural Colour Image

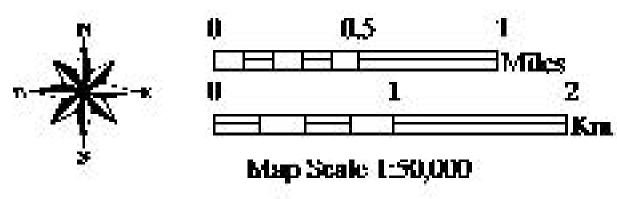


Near natural colour image with claim boundaries

SWIR Endmember 1

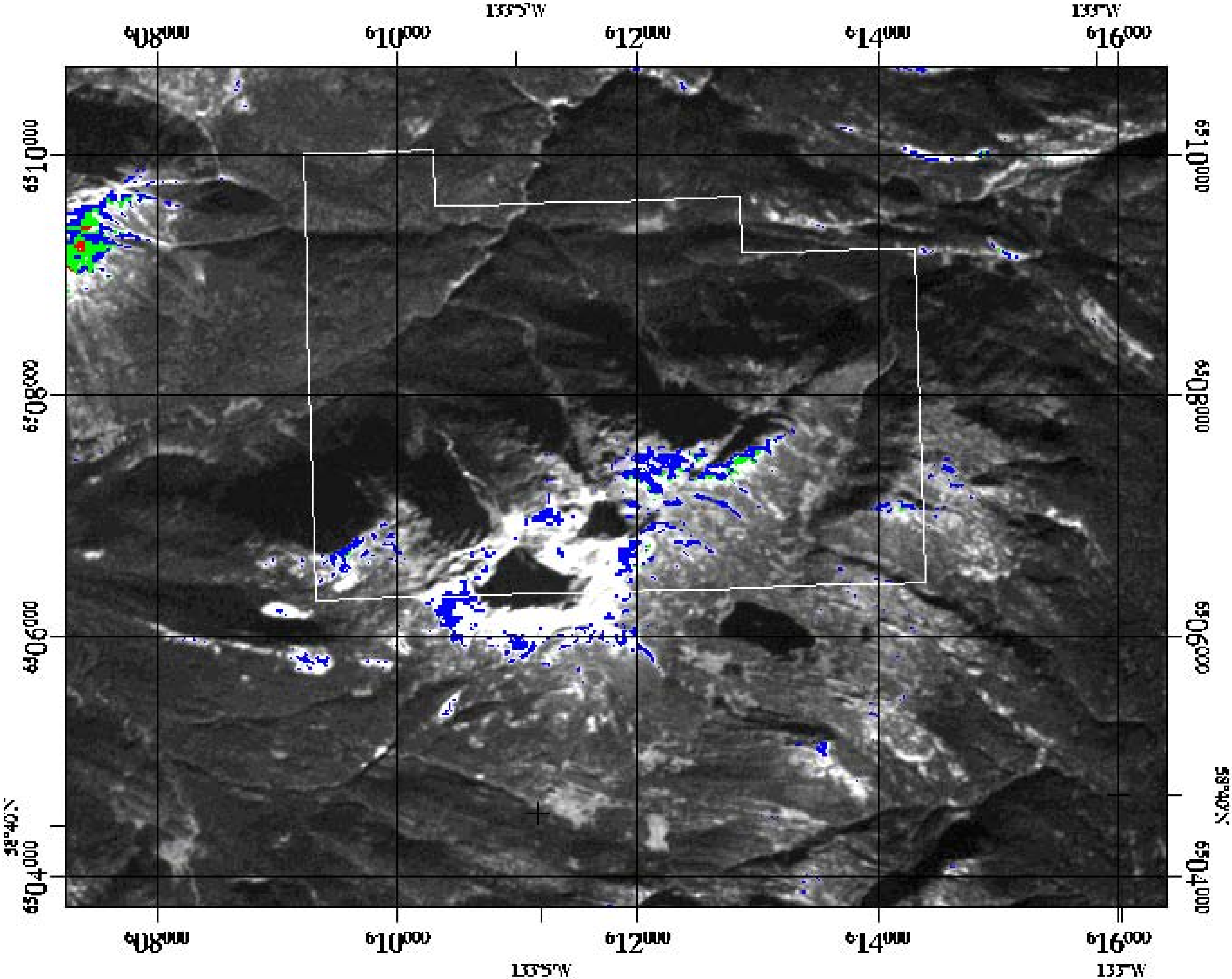


SWIR Endmember #1 with claim boundaries



ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

SWIR Endmember 2

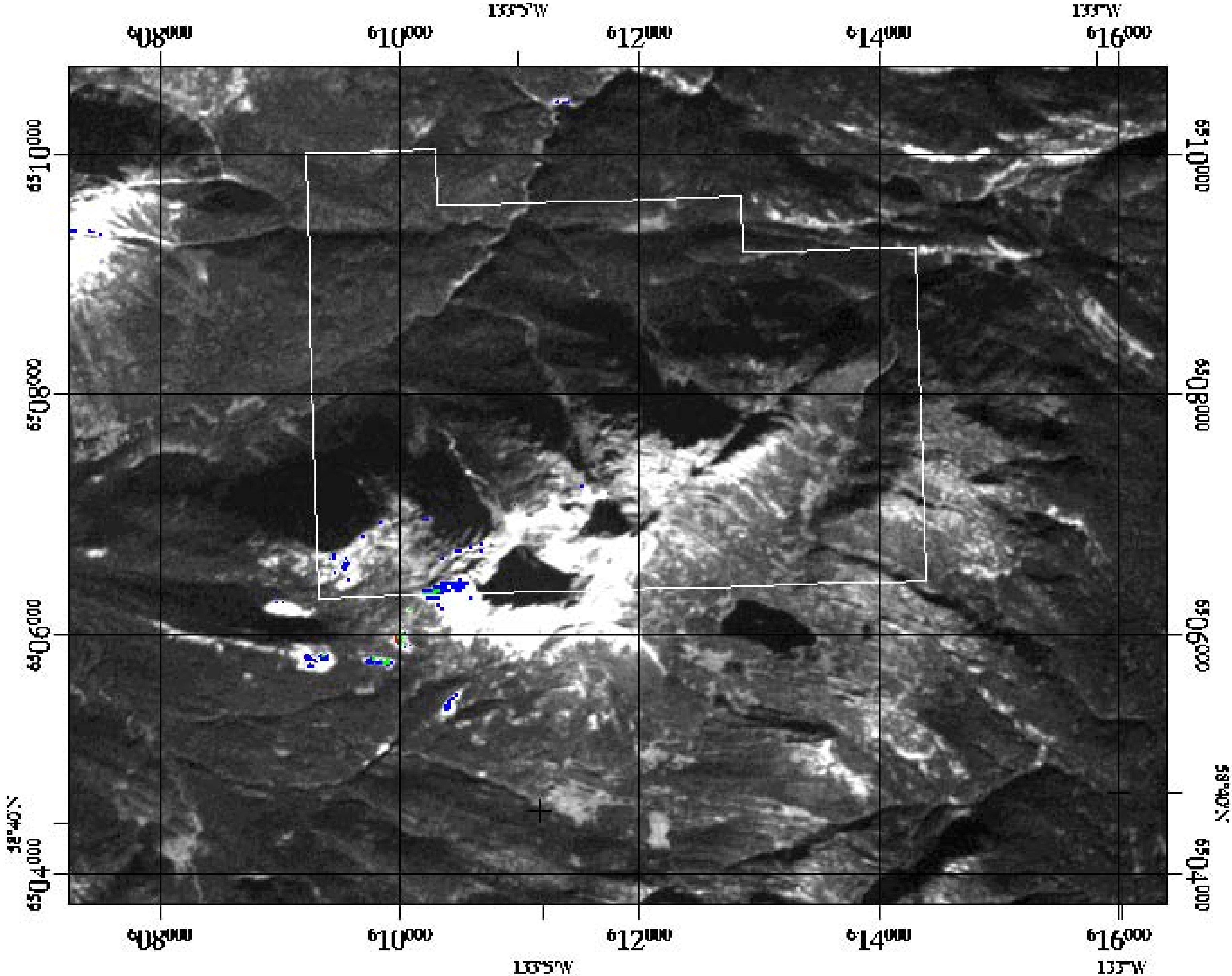


SWIR Endmember #2 with claim boundaries

0 0.5 1 Miles
0 1 2 Km
Map Scale 1:50,000

ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

SWIR Endmember 3



SWIR Endmember #3 with claim boundaries

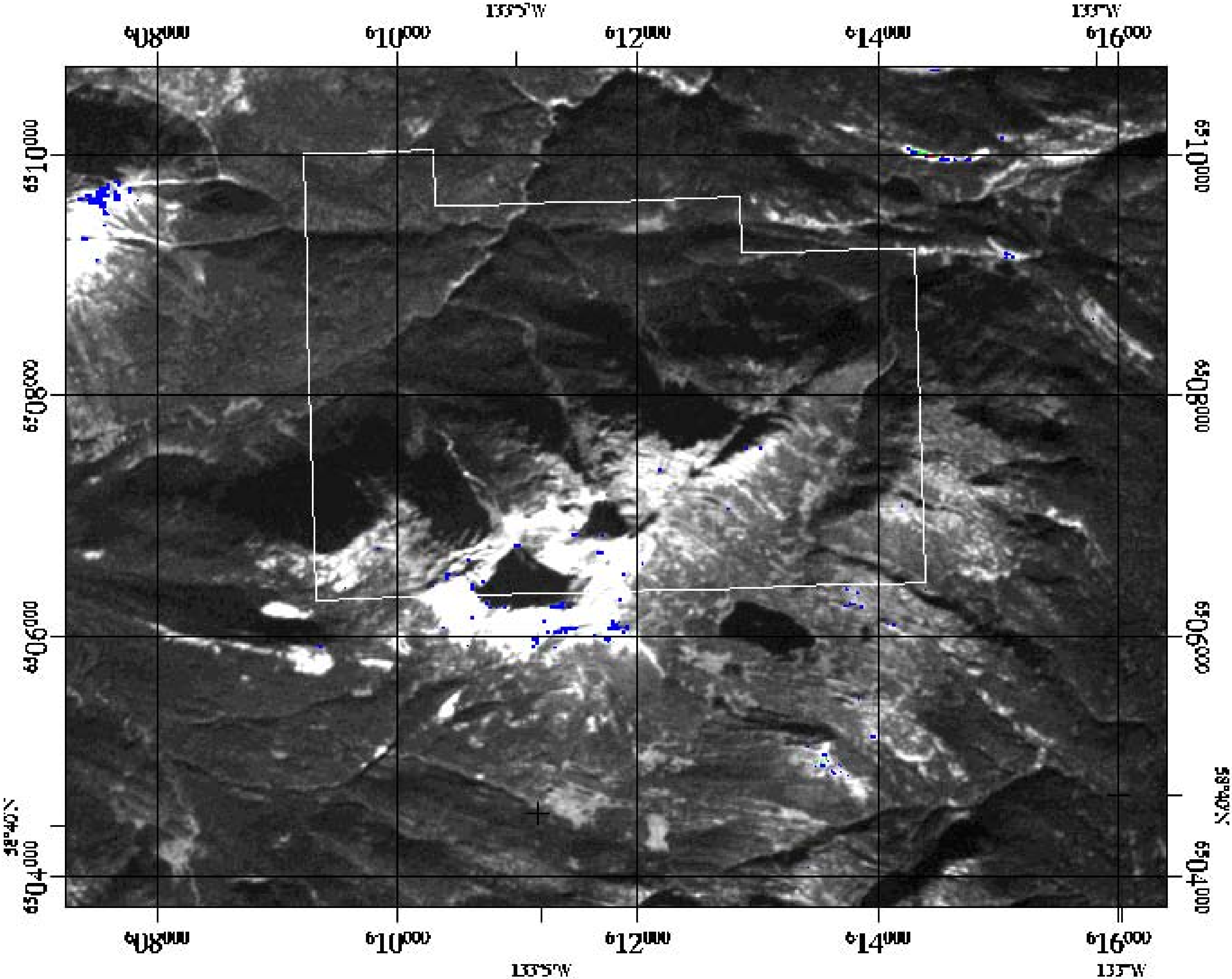
0 0.5 1 Miles

0 1 2 Km

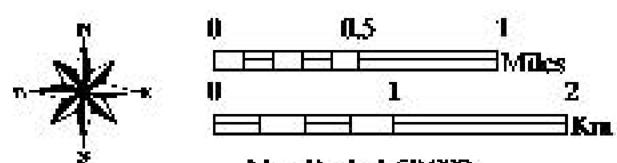
Map Scale 1:50,000

ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

SWIR Endmember 4

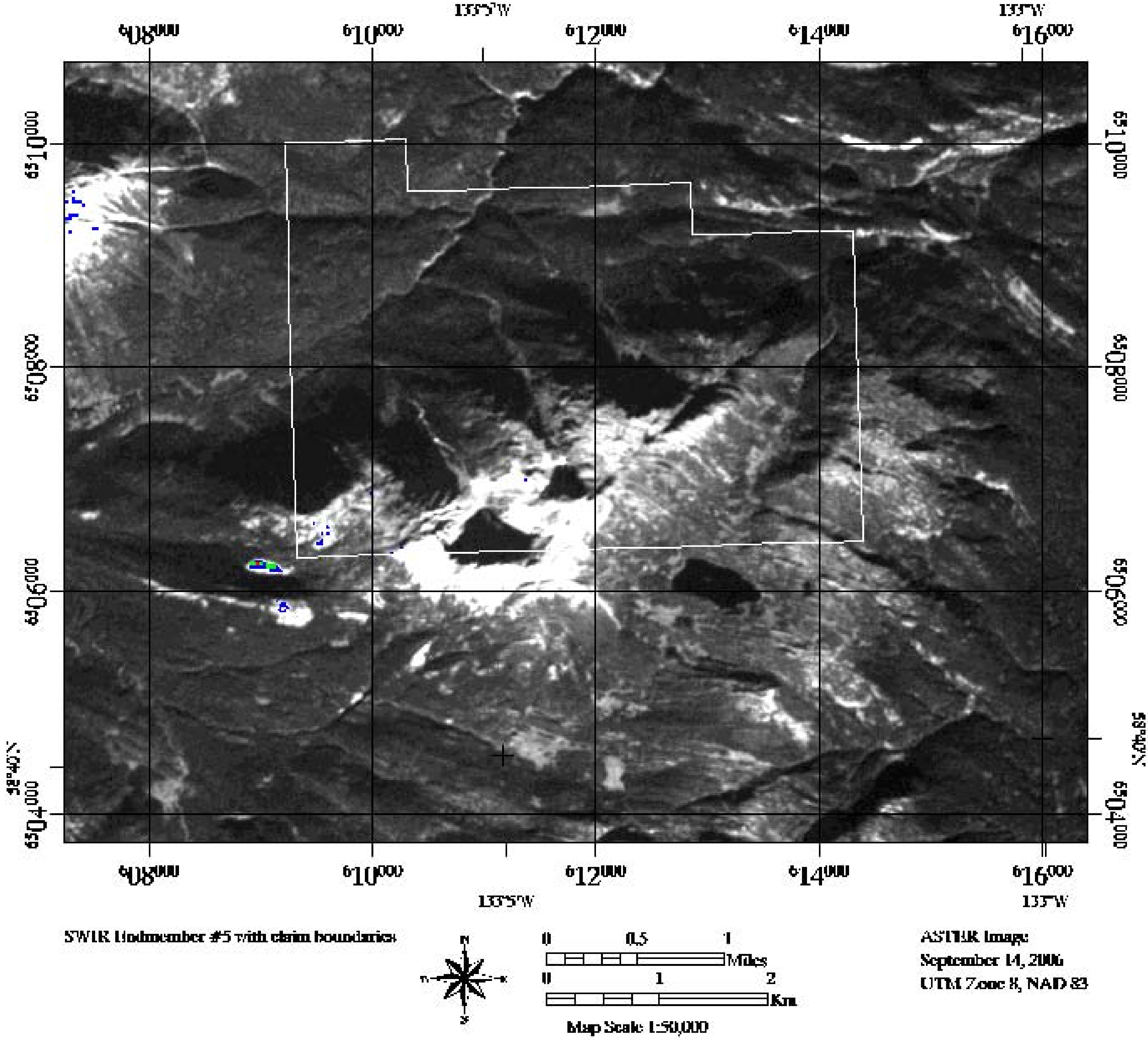


SWIR Endmember #4 with claim boundaries



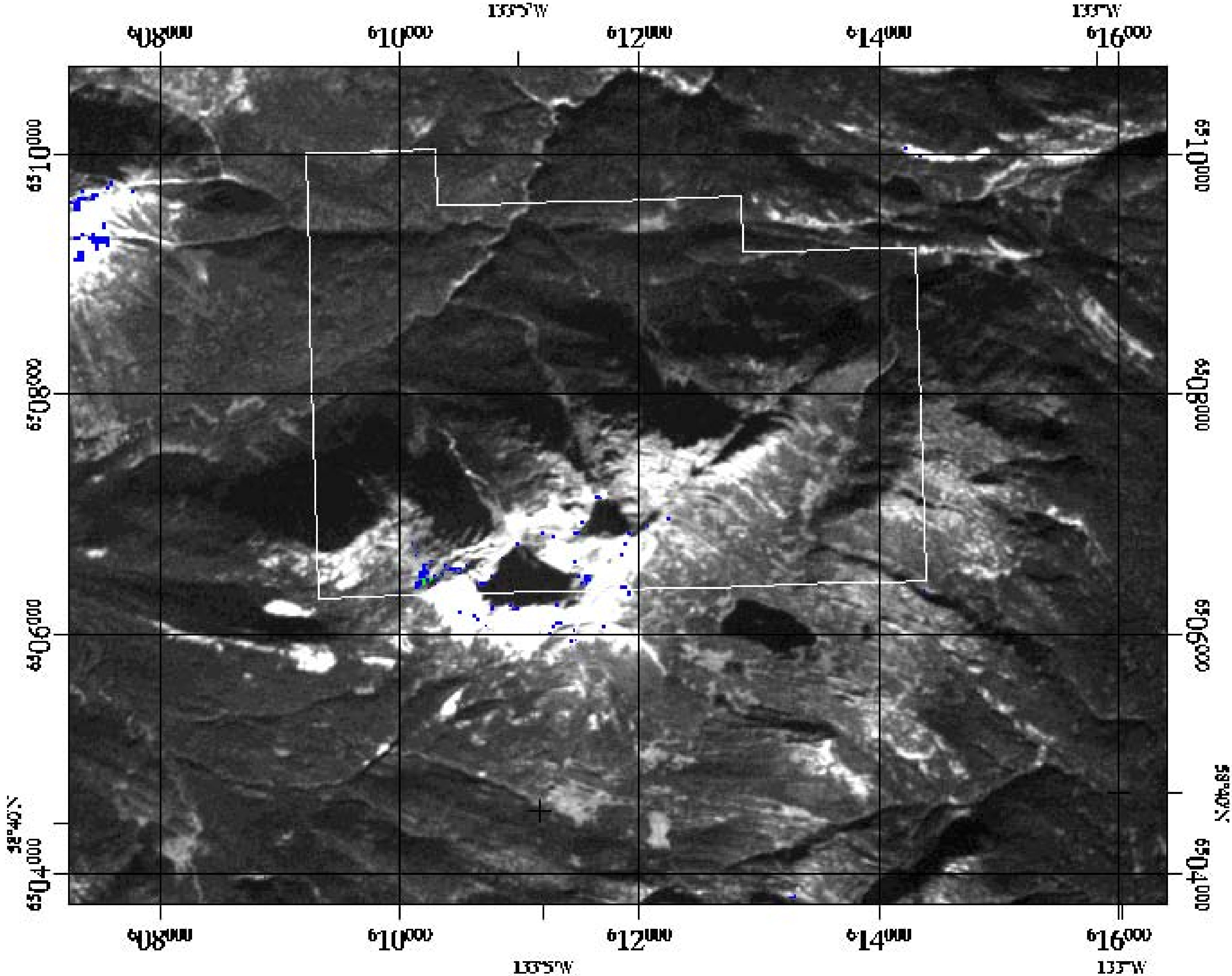
ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

SWIR Endmember 5



SWIR Endmember #5 with claim boundaries

SWIR Endmember 6

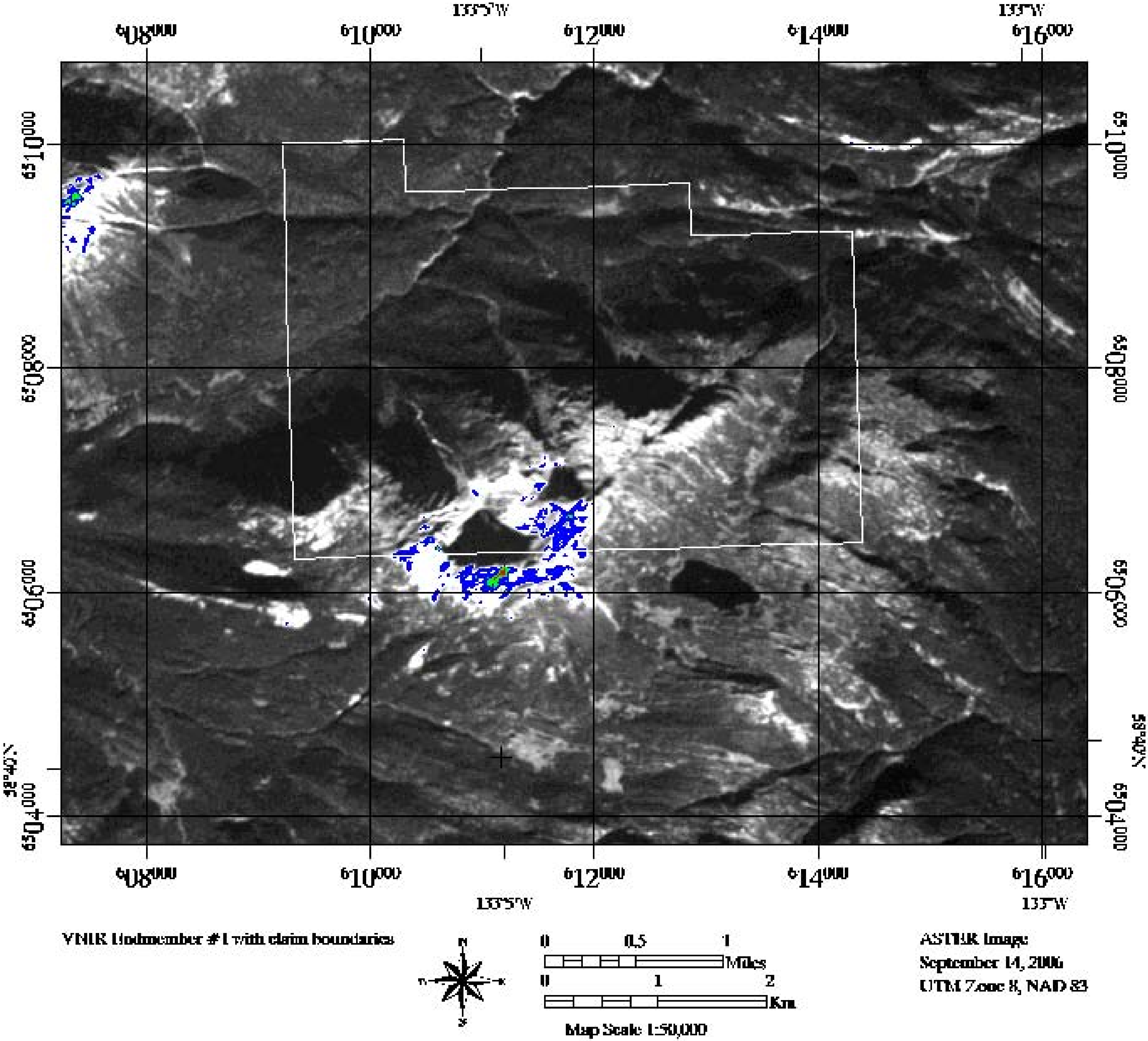


SWIR Endmember #6 with claim boundaries

0 0.5 1 Miles
0 1 2 Km
Map Scale 1:50,000

ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

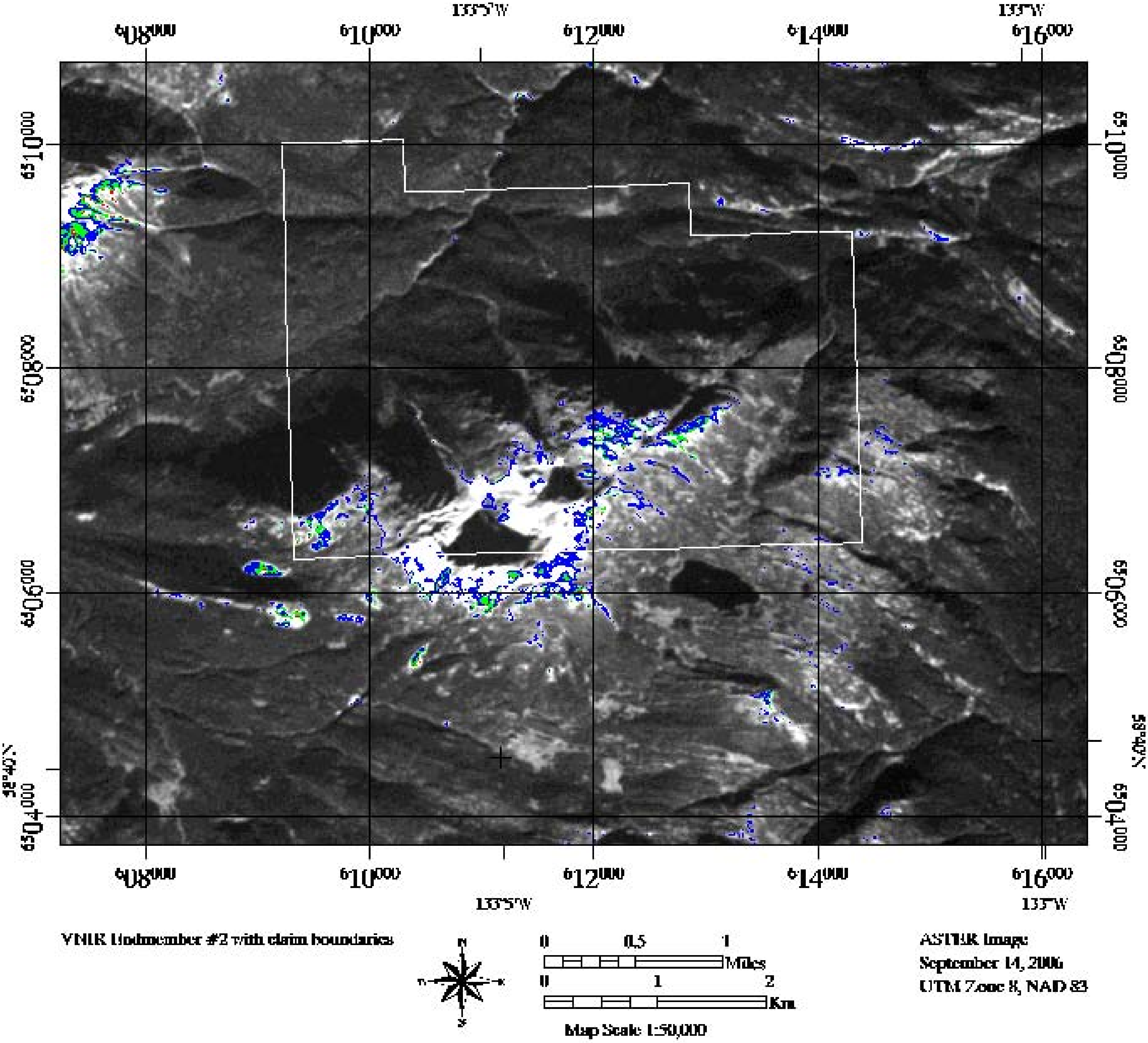
VNIR Endmember 1



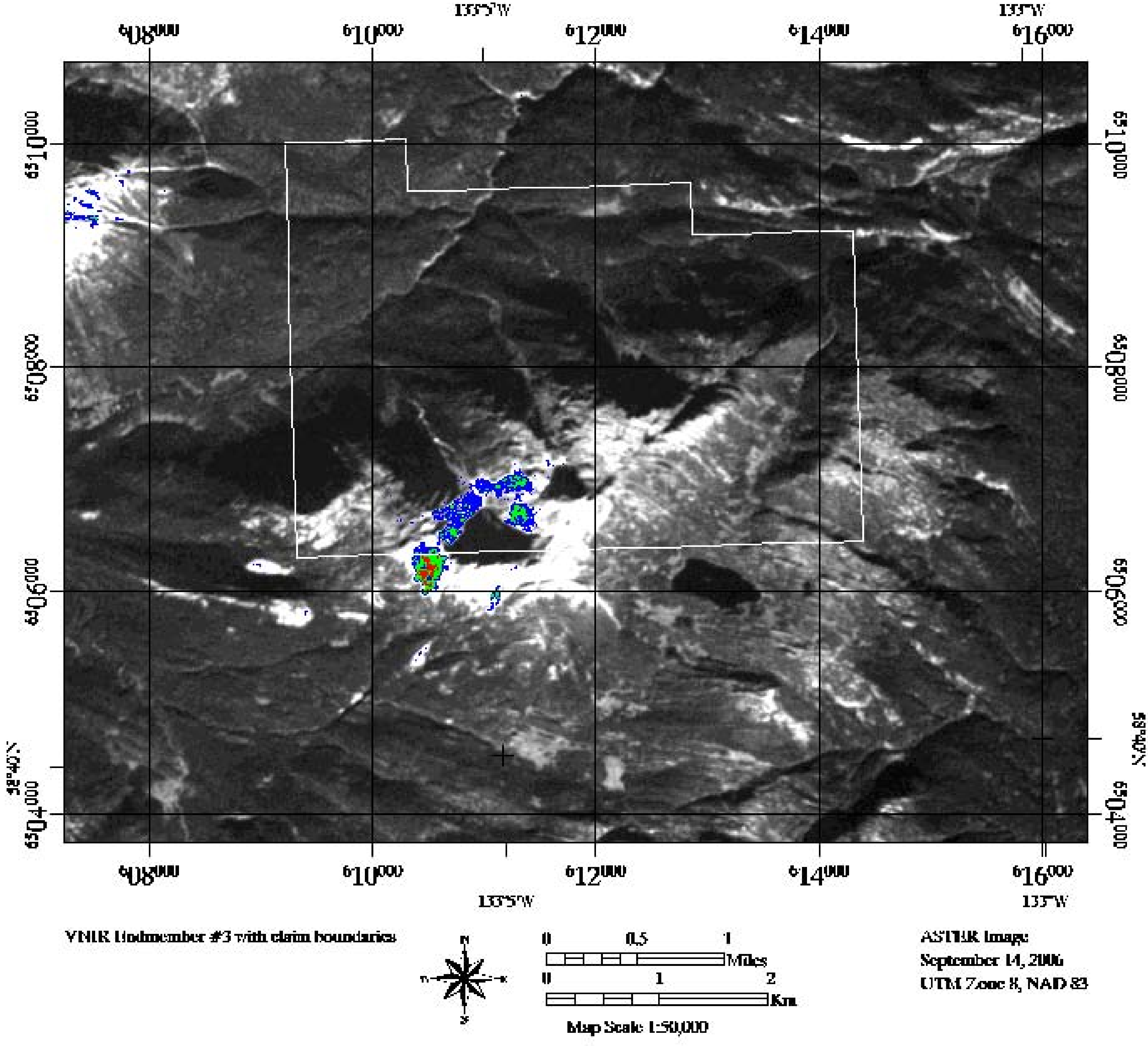
VNIR Endmember #1 with claim boundaries

ASTER Image
September 14, 2006
UTM Zone 8, NAD 83

VNIR Endmember 2



VNIR Endmember 3



VNIR Endmember 7