
Assessment Report:

Aerial Imaging/Topographic/Geophysical Survey

of

Rosebute Creek

Placer Leases:

Lease No.: ID01338 – Owner: La Tierra Resources Ltd.

Dawson Mining District

NTS: **1150/11**

Easting: **586840 E** Northing: **7043491 N**
NAD83 UTM: **07V**

All Work Performed On: June 24 – July 3, 2016

Date of Report: July 13, 2016

AUTHOR OF REPORT: Jodie L. Gibson, P.Geo.

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1 Introduction

Ground Truth Exploration Inc. conducted aerial imaging surveys and a 0.8 km² ground magnetic survey on the Rosebute Creek placer lease ID01338. The full extent of the lease was imaged with high resolution imagery and topography to establish exploration targets and plan a follow up program.

All work was undertaken by GroundTruth Exploration Inc.

2 Location and Access

Placer lease ID01338 is located in the Dawson Mining District on NTS Mapsheet 115O/11. The lease overlays a 4 mile, upper tributary of Rosebute Creek and is accessible by dirt road off of Henderson Dome.

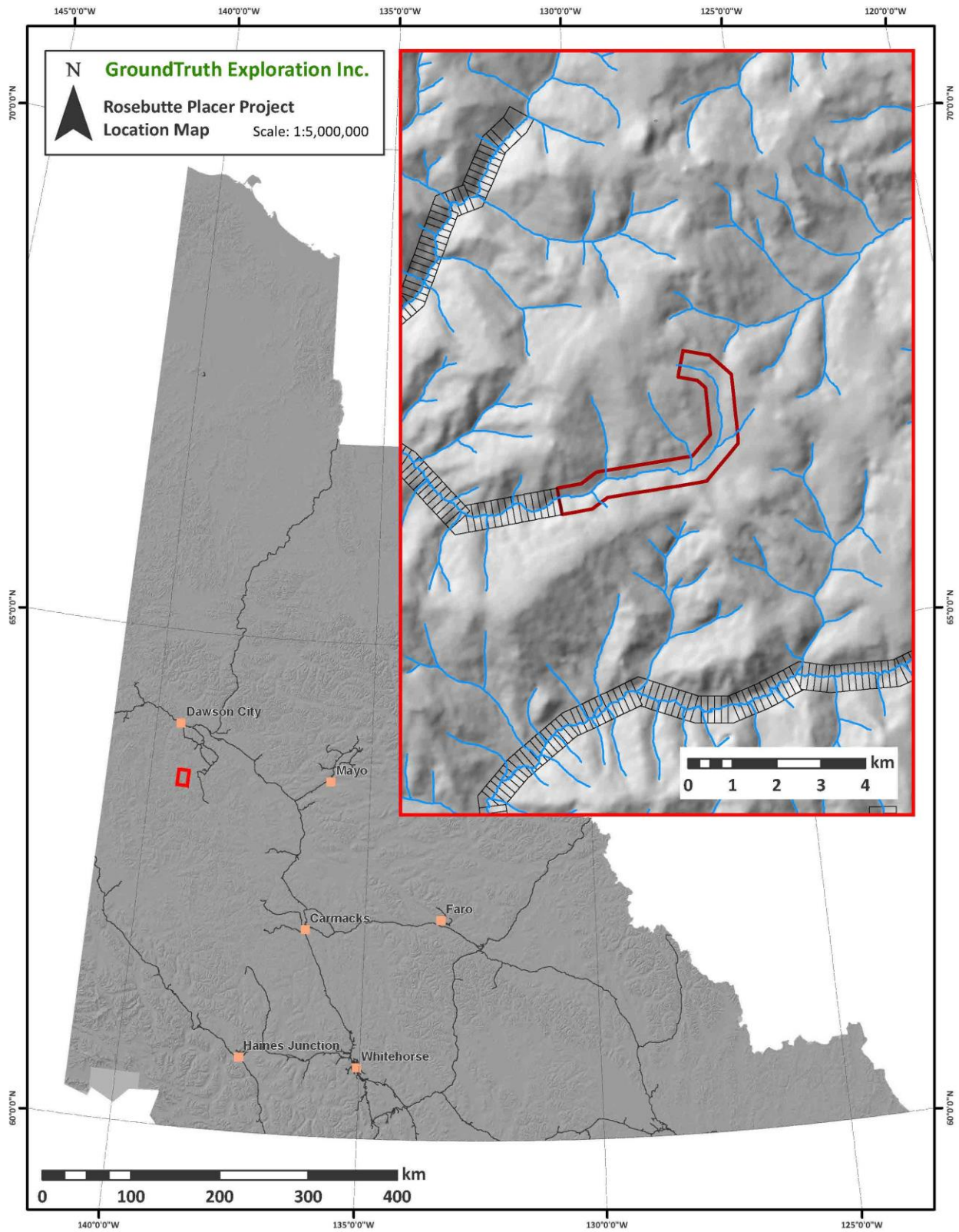
3 Physiography

The lease overlies an upper tributary of Rosebute Creek which drains mountainous ridges of Reindeer Mountain, Henderson Dome, and adjacent peaks. Downstream reaches of the drainages are covered with spruce, the vegetation transitions to subalpine fir and bare high country at the top end of the drainages.

4 Climate

This area receives about 400 mm of annual precipitation. Winters are long and cold, with January mean temperatures between -23°C and -32°C. Summers are warm but short, with July mean temperatures between 10°C and 15°C.

(http://www.emr.gov.yk.ca/oilandgas/pdf/bmp_boreal_cordillera_ecozone.pdf)



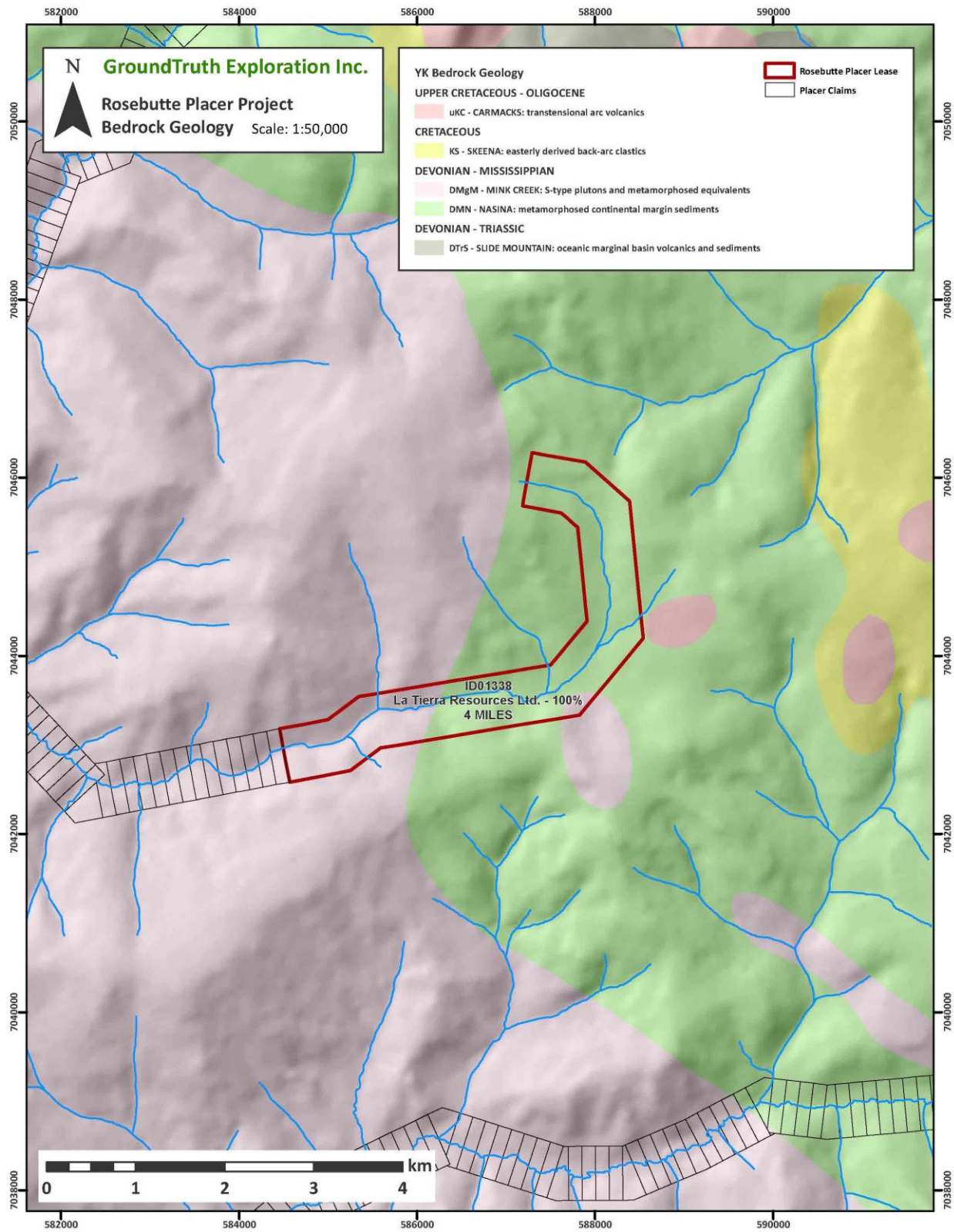
5 GEOLOGICAL SETTING

The Rosebutte Creek placer lease occurs within the unglaciated Yukon Plateau portion of the Paleozoic Yukon-Tanana terrane, southwest of the Tintina and northeast of the Denali faults, dominated in the regional area by Devonian to Mississippian (and possibly older) metasiliciclastic rocks, which interfinger with, and are stratigraphically overlain by hornblende bearing schists and gneisses and amphibolite (intermediate to mafic metavolcanic rocks). The metasiliciclastic rocks include metamorphosed fine clastic rocks, quartzite and conglomerate. The above lithologies include marble horizons and are metamorphosed to amphibolite grade. Devonian to Mississippian metasedimentary rocks (quartzite and metapelite) of the Nasina Assemblage lie structurally above and/or may partly be equivalent to the above metaclastic unit.

Abundant orthogneiss bodies of Devonian to Mississippian and Permian ages with compositions ranging from granite (g) to K-spar augen bearing (a), to tonalite and diorite (t), occur within Yukon-Tanana Terrane. Narrow bodies of Paleozoic ultramafic rocks, commonly serpentized, also occur within the area.

The above units are interpreted to represent two arcs, an older Devonian to Mississippian arc consisting of predominantly amphibolite and associated subvolcanic intrusions built on a siliciclastic basement and a Permian arc of granitic orthogneiss and coeval metavolcanic rocks built on the Devonian-Mississippian arc.

The above lithologies are intruded by plutons and stocks of early Jurassic aged granodiorite, and quartz monzonite and unconformably overlain by massive andesite flows and breccias of the Late Cretaceous Carmacks Group, locally with Early Cretaceous coarse clastic sedimentary rocks at the base of the sequence. Eocene feldspar ± quartz porphyry dykes intrude the above.



6 Photogrammetry: High Resolution Imagery/Elevation Survey

Personnel and Equipment

The survey is typically conducted by one trained operator and one spotter. The lead operator is responsible for coordinating efficient operation of survey and ensuring optimal data quality, the spotter is responsible for maintaining visual contact with the drone, monitoring the radio, and looking for flight path conflicts.

The following equipment is used for the completion of the survey:

UAV Drone:	Ebee UAV 'Drone' with internal GPS and radio link
Camera:	Cannon 16 megapixel camera
Base Station:	Panasonic Toughbook laptop with radio link
Power Generation:	1000watt Honda generator (for battery charging)
GPS units:	2x Promark3 GPS receivers (if GCPs are collected)
Radios:	VHF radio with aircraft frequencies
Processing:	Laptop computer with adequate RAM
Software:	Emotion software for flight planning/monitoring Postflight Terra3D for image Orthorectification

Operating Procedure

The survey is completed in the field according to the following procedure:

- Survey is planned using Emotion software prior to departing for field.
- Spatial resolution, footprint, number of planned flights and launch location is determined.
- Operator arrives onsite and sets up base station, UAV unit and ensures adequate launch and landing path is available.
- Prior to launch, operator calls out on Aircraft frequencies to notify Drone survey in progress. Through duration of survey, operator calls out every 5 minutes to notify aircraft of survey in progress.
- Operator Hand launches aircraft and flies survey as planned with number of required flights and maintains visual contact with the UAV
- Data is downloaded from drone after each flight and inspected for quality.
- After survey, all imagery and drone data files are Orthorectified using Postflight Terra 3D software package.

Data Processing

The collected data is downloaded in the field after every flight and checked for integrity. This allows any low quality imagery to be identified and resurveyed while onsite. The drone imagery data is processed every evening by the lead operator in the field using Postflight Terra 3D software provided by Sensefly. The initial orthorectified image product is generated by an automated process. This image is then cleaned up manually within the Postflight software by visually checking for low quality portions of the image and selecting another overlapping image for that location. The final cleaned image and DEM product is the result of this manual QC

process. The final Image and DEM are georeferenced to NAD83 UTM projection. A final QC report is generated automatically with the final cleaned product.

Standard data output:

Imagery:	Georeferenced Orthoimage (.geotiff/.ecw format)
Digital Elevation Model:	Gridded Elevation model (geotiff/ .grd format)
Automated Quality Report:	Report with survey statistics (.pdf format)

7 Magnetic Survey

The Total Field Ground survey is typically conducted with one operator only. No grid is required as all magnetic readings are read with corresponding GPS location. The operator is responsible for efficient operation of survey and ensuring optimal data quality. The operator downloads, corrects with base and plots all data nightly to ensure ongoing consistency throughout the survey.

The following equipment was used for the completion of the survey:

Magnetometer Field Unit:	GEM Systems GSM-19T Proton Magnetometer
Base Station:	GEM Systems GSM-19T Proton Magnetometer
Processing:	Laptop computer
Software:	GEM Link software for mag upload/download Mapinfo-Discover for diurnal correction/plotting

Operating Procedure

The survey is completed in the field according to the following procedure:

Field Magnetometer Observation Frequency: 1 reading per 0.5 of a second.

Base Station Magnetometer: Set to record an observation every 20 seconds for the duration of the survey.

- Operator uploads survey grid endpoints to Field magnetometer unit
- The base station is established in an accessible location that will not be disturbed on or near the survey site.
- Base station site is marked with a picket and location recorded for future use.
- Operator runs survey with internal GPS recording position and navigates survey lines using internal mag GPS.
- At end of day each survey day, Operator downloads Field and Base magnetometers, processes diurnal corrections and plots survey to assess data quality.

Data Processing

The Total Field Magnetic survey data is georeferenced to NAD83 UTM projected coordinates using the internal GPS in the field magnetometer. Base and rover magnetometers are synchronized to GPS time prior to each survey day. An appropriate reference field is chosen based on International Geomagnetic Reference Field (IGRF) calculations. Temporal geomagnetic variation is removed by linear interpolation using the base station data. Corrected data is screened for noisy or erroneous values and is then plotted.

Standard data output:

Magnetic: RAW data from base and field magnetometer (.csv)
 CORRECTED Total Field Mag data files projected to XYZ locations (.tab format)
 CORRECTED Total Field Mag figures of gridded data (.jpg and .geotiff format)

Magnetic Field Theory Applied to Placer Exploration

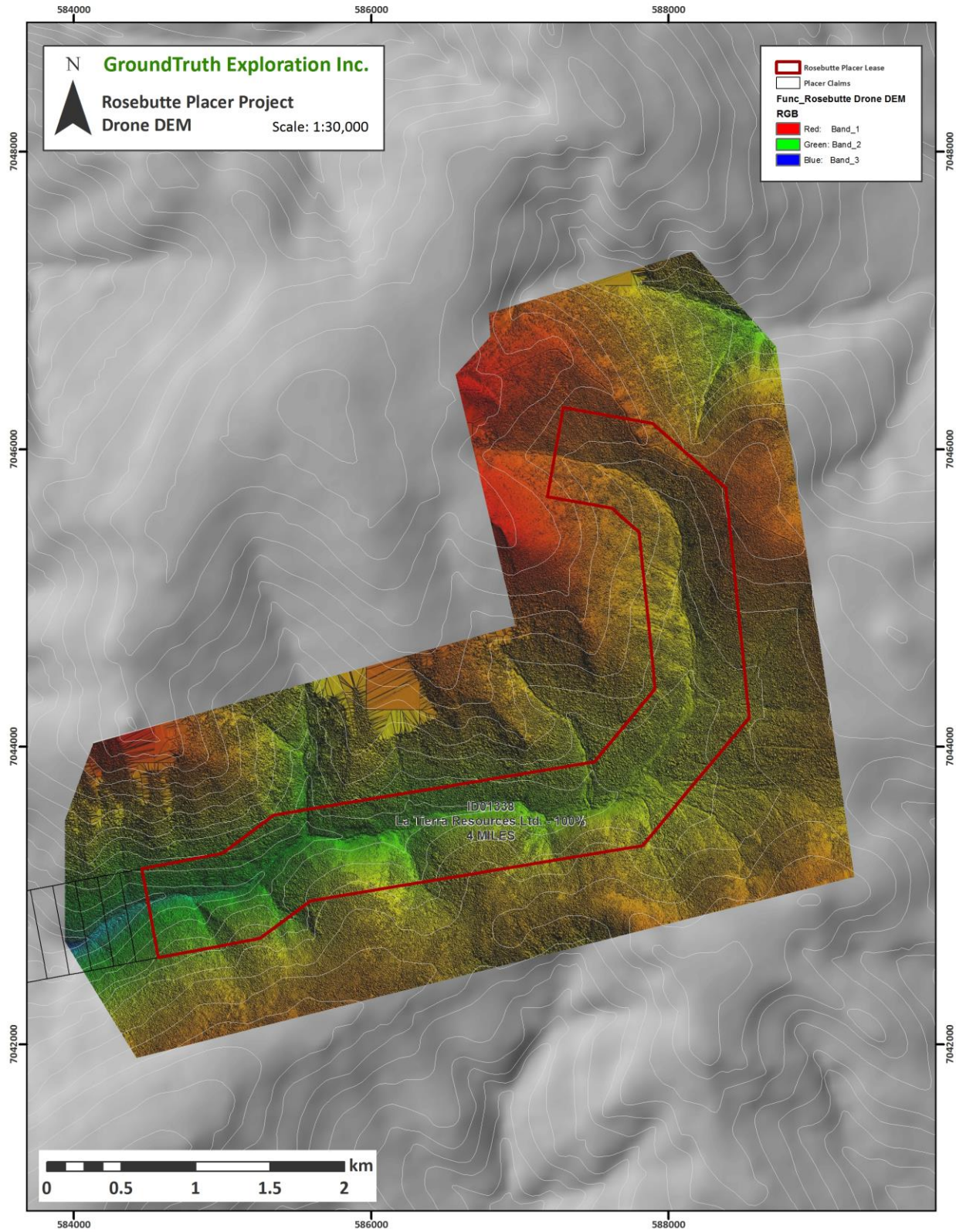
In a placer setting, magnetite derived from bedrock weathering is concentrated in the main channel of a creek or river where the water flow has the highest velocity and the greatest turbulence. As a result, minerals with high specific gravity (magnetite, ilmenite, gold, etc.) are preferentially concentrated in this region of the stream, while material with lower specific gravity is winnowed from the sediment. High concentrations of “black sand” (magnetite, ilmenite, chromite) are often recorded in auriferous pay streaks where the stream bed has remained relatively immobile from some period, permitting hydraulic concentration to build up a significant volume of these materials.

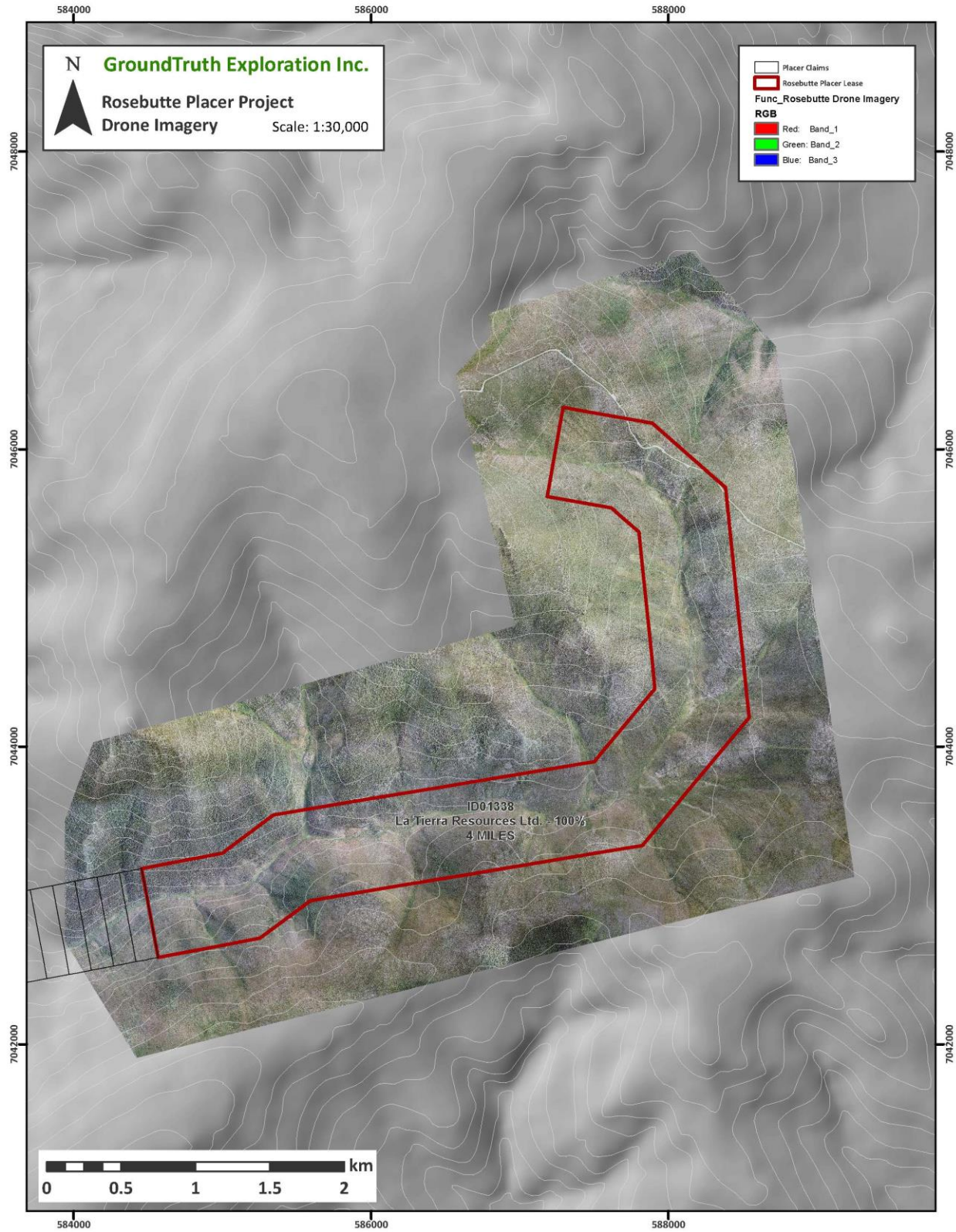
The materials comprising black sand are magnetically susceptible. Magnetite has a very high magnetic susceptibility of $1200-19200 \times 10^{-3}$ SI units, ilmenite ranges from $300-3500 \times 10^{-3}$ SI units, and chromite measures from $3-1100 \times 10^{-3}$ SI units. Average magnetic susceptibilities for sedimentary, igneous (excluding ultramafic) and metamorphic rocks are: 0-10, 3-160 and 0-70 $\times 10^{-3}$ SI units respectively. Fluvial sediments register magnetic susceptibility in the range of 0-2 $\times 10^{-3}$ SI units. There is consequently a significant susceptibility contrast.

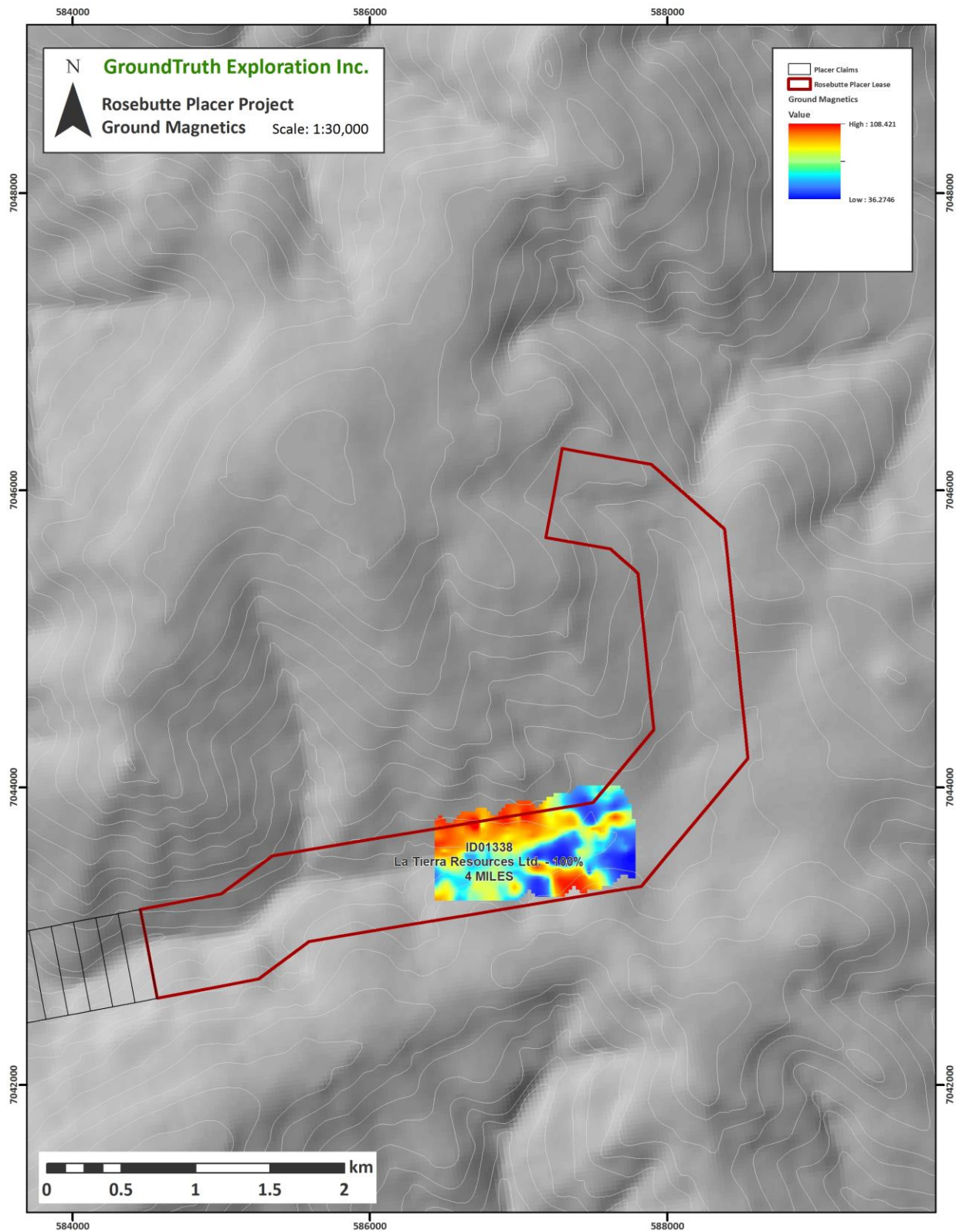
8 Discussion

The Imagery/topography survey is a very useful tool for developing placer exploration targets, planning exploration programs, and mine development planning. Follow up geophysical surveys such as, magnetics and resistivity, and, ultimately, drilling are more efficiently planned to fit ground conditions. Interpretation of the geophysics and drilling are combined with detailed knowledge of ground conditions and topography. The imagery/topography allows us to get an accurate measurement of true valley floor width and margins from creek drainage. Future access and planning of exploration work locations will be planned from this dataset. Figures

below show the imagery and topographic model and the level of detail which the local topography is imaged.





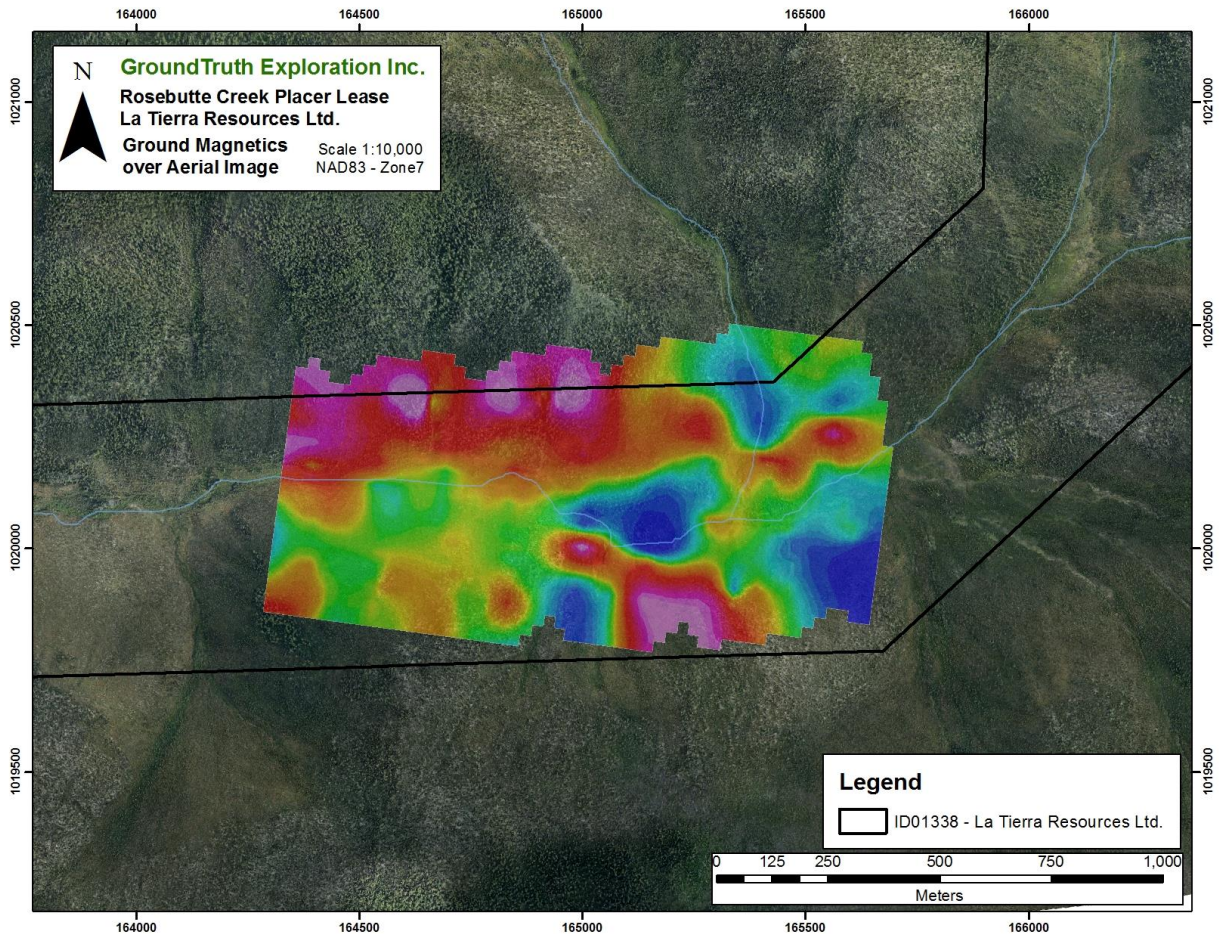


9 Interpretation

ID01338, 4 mile lease overlies a west-southwestern directed, arcuate drainage, at the headwaters of Rosebutte Creek; a known placer gold bearing stream. The aerial imagery/topography of the lease highlight several abrupt changes in the stream morphology. At the broad scale this likely indicates distinct changes in the underlying bedrock lithology and/or cross-cutting structures that have influenced stream development. Known bedrock occurrences of gold mineralization in the Rosebutte area are structurally controlled and are typically associated with abrupt lithologic changes across the mineralized fault(s) (i.e. White Gold, Coffee, QV, etc.), and could indicate the stream developed across/along, and is subsequently eroding, potentially gold enriched structures.

At the stream scale, it highlights smaller scale bends and highlights the migration of the stream across the valley. This is very useful for interpreting potential traps for placer gold along the current drainage and the potential location of historic stream channels and benches. Additionally, the high resolution imagery and associated topography can be very helpful in the development of future exploration plans, mining plans, and associated permitting.

The ground magnetic grid covered the central portion of the lease, just below a sharp bend in the drainage. In generally, magnetic highs appear to correlation to topographic highs on the edge of the value and likely reflect near surface bedrock and magnetic lows occur within the valley and likely stream gravel/sediment deposits. At the eastern edge of the grid, however, is a distinct lenticular magnetic high along the valley edge. While it could simple represent another near surface, bedrock course, the location of the magnetic high is curious and, given the distinct change in direction of the drainage, may represent an accumulation of “heavy” magnetic sediments (magnetite, ilmenite, etc.).




10 Conclusion and Recommendations

Further exploration work is required to evaluate the gold prospectivity of the lease in this report. Further geophysical surveys such as DC Resistivity and/or expansion of the ground magnetic grid are recommended. The DC Resistivity could be useful in evaluating the potential depth and volumes of pay gravels in the drainage, and the expansion of the existing magnetic grid would be helpful to further geologic interpretation of the area. This would then be followed up by means of drilling or test pits. Additional work is at the discretion of the property owner.

11 Statement of Costs

Total expenditures on the Rosebutte Creek placer lease (ID01338) of \$4,305.

Imagery/Topography Survey conducted on: June 24, 2016



Box 70
Dawson City, YT Y0B 1G0

Invoice

Date	Invoice #
14-Jul-2016	ROS2016-01

Invoice To:

La Tierra Resources Ltd.
Dux 304-212 Elliott St.
Whitehorse, YT
Y1A 2A1

Qty	Description	Rate	Amount
1	Drone Survey completed on the Rosebutte Creek Placer Project on June 24, 2016	500.00	500.00
1	UAV Drone Operator	350.00	350.00
1	UAV Drone Assistant	250.00	250.00
0.2	10% Administrative Charge on wages	85.00	85.00
1	UAV Drone with base station	300.00	300.00
1	Self Phone/GPS/Radius	65.00	65.00
10	Imagery Processing: Ortho/DEM/DTM check and Report	100.00	1,000.00
	GST on value	5.00%	125.00


GST # R11084268

Total	\$2,625.00
Payments/Credits	\$0.00
Balance Due	\$2,625.00

Make all cheques payable to:
Ground Truth Exploration Inc.

THANK YOU FOR YOUR BUSINESS!

Ground Magnetic Survey conducted on: July 3, 2016



Box 70
Dawson City, YT Y0B 1G0

Invoice

Date	Invoice #
14-Jul-2016	ROS2016-02

Invoice To:

To: Terra Resources Ltd.
Box 304 211 Elliot St.
Whitehorse, YT
Y1A 2A1

Qty	Description	Rate	Amount
	Magnetic Survey on Buseluts Creek Plateau Project on July 3, 2016		
2	Geophysical Operator	450.00	900.00
0.1	10% Administration Charges on wages	900.00	90.00
2	Proton Magnetometer base unit	200.00	400.00
1	Proton Magnetometer base unit	100.00	100.00
1	Fielding SA Phone	35.00	35.00
1	Download/QC, Base Corrections	75.00	75.00
	GST on sales	5.00%	80.00
Total			\$1,680.00
Payments/Credits			\$0.00
Balance Due			\$1,680.00

GSI # 811084268

Make all cheques payable to:
Ground Truth Exploration Inc.

THANK YOU FOR YOUR BUSINESS!

Report Written on: July 14, 2016

12 References

Regional Geology: Gordey, S.P. and Makepeace, A.J. (comp.) 1999: Yukon bedrock geology in Yukon digital geology, S.P. Gordey and A.J. Makepeace (comp.); Geological Survey of Canada Open File D3826 and Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1999-1(D)

Mineral Titles: Yukon Mining Recorder, Mining Claims Database – www.yukonminingrecorder.ca

Topographic data: NR Canada, CanVec Topographic Database- www.geogratis.ca

Additional review of various published scientific and reporting papers on the geology and mineral deposits of the region for indirect reference.

13 Qualification

- 1) I, Jodie Lynn Gibson, Director of Exploration for GroundTruth Exploration.; Box 70 – 109 Callison, Dawson City, YT Y0B 1G0, authored and am responsible for this report entitled “Aerial Imaging/Topographic/Geophysical Survey of Rosebutte Creek” dated July 13, 2016.
- 2) I am a graduate of Indiana State University with a M.Sc. degree in geology (May, 2006) with 10 years’ mineral exploration experience in the North American Cordillera. Pertinent experience includes serving as Project Manager for Underworld Resources White Gold Project in 2009, and several property examinations and field programs throughout the Yukon, Alaska, and British Columbia with Full Metal Minerals Inc., McLeod Williams Capital Corp., Centerra Gold Corp., and GroundTruth Exploration from 2007 to present.
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, registration number 162701.
- 4) I oversaw all aspects of the work contained within this report.
- 5) At the effective date of the technical report, to the best of my knowledge, information and belief, this report contains all scientific and technical information required to be disclosed to make the technical report not misleading.

Dated at Dawson City, YT this 14 day of July, 2016.

Jodie Gibson, P.Geo. (APEGBC Reg. No. 162701)

GroundTruth Exploration

Box 70 – 109 Callison

Dawson City, Yukon Y0B 1G0