
Assessment Report:

Aerial Photogrammetry Survey

Grid 1-39 Property
Too Much Gold Creek

Placer Claims: Grid 1-39,
Grant Numbers: P 517302-16, P 517323-32, P 517350-63
Tenure Holder: Off-Grid Mining Services Inc. 100%

Dawson Mining District

NTS: 1150/15
Latitude: **63.93825° N** Longitude: **-138.805239° W**

All Work Performed On: July 31, 2017
Date of Report: July 26, 2017
Prepared By: Isaac Fage

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1 Introduction

GroundTruth Exploration Inc. conducted an aerial drone survey on the Grid Property on Too Much Gold Creek placer claims Grid 1-39, held by Off-Grid Mining Services Inc. The full extent of claims Grid 1-15, 33-39 were imaged with high resolution imagery and topography to establish exploration targets and plan a follow up exploration program.

All work was undertaken by GroundTruth Exploration Inc.

2 Location and Access

The Grid Property is comprised of 39 contiguous placer claims located on upper Too Much Gold Creek. It can be accessed by trail from All Gold Creek to North Klondike Highway. The UAV survey team accessed the property via a Trans North Bell 206 helicopter from Dawson City on January 31, 2017.

The lease is located within the Dawson Mining District on NTS mapsheet 115O/15



UAV survey staged on Grid Property – Jan 31/17.

3 Physiography

The property is located in an unglaciated zone in the Klondike Plateau region of Canada's Boreal Cordillera ecozone. Due to its location in Canada's discontinuous permafrost zone, permafrost is distributed unevenly throughout the property. The valley bottoms and northern slopes have thick moss mats, black spruce, and alder thickets over ice rich permafrost, while southern slopes are generally more sparsely vegetated with ground leaf cover and white spruce, aspen and birch forests.

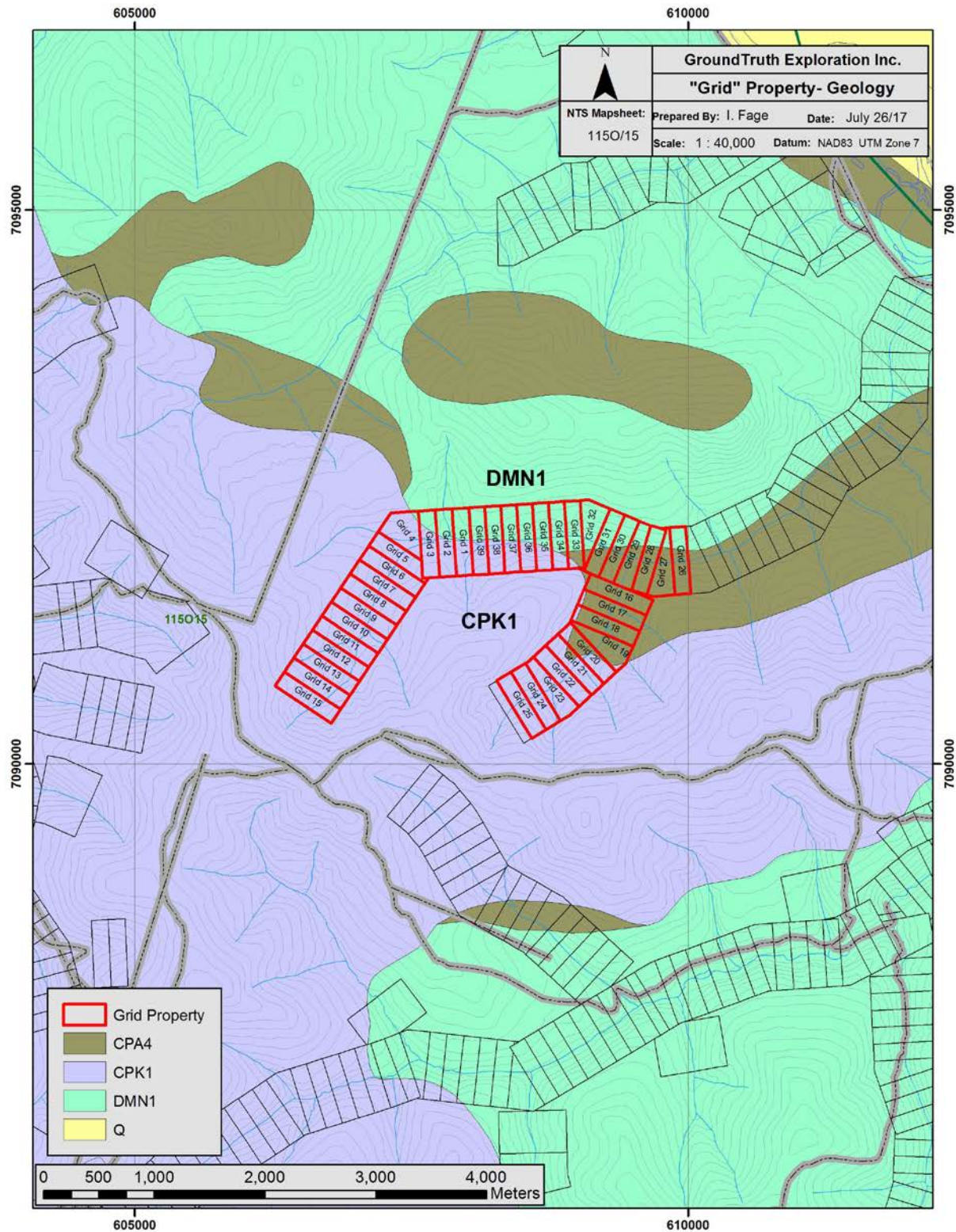
4 Climate

The interior intermontane plateau receive about 400 mm of annual precipitation. Snowfall accounts for 35 to 60% of all precipitation. Winters are long and cold, with January mean temperatures between -15°C and -27°C. Summers are warm but short, with July mean temperatures between 12°C and 15°C.

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



5 GEOLOGICAL SETTING



5.1 Geological Description

The Lease is underlain by the Klondike Schist unit. Regionally, it is coded as CPK1, a metamorphic unit of the Paleozoic era consisting of quartzite, quartz-muscovite-chlorite schist, gneiss and amphibolite.

6 Work Performed

The 2017 UAV survey consisted of a 1 day survey staffed with a lead UAV operator -Isaac Fage and assistant UAV operator – Matthew Emmett. A total of 5 flights were run to cover the lease area.

Photogrammetry: UAV High Resolution Imagery/Elevation Survey

The Drone survey lines and spatial resolution are approved by client prior to survey in accordance with Transport Canada UAV operating permit regulations. Typical flight time is approximately 35 minutes per flight and the operator plans accordingly with available time on ground to determine the number of flights possible per day.

6.1.1 Personnel and Equipment

The Drone 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

6.1.2 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.

6.1.3 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 format)
Digital Elevation Model:	Gridded Elevation model (geotiff format)
Automated Quality Report:	Report with survey statistics (.pdf format)

6.1.4 Interpretation

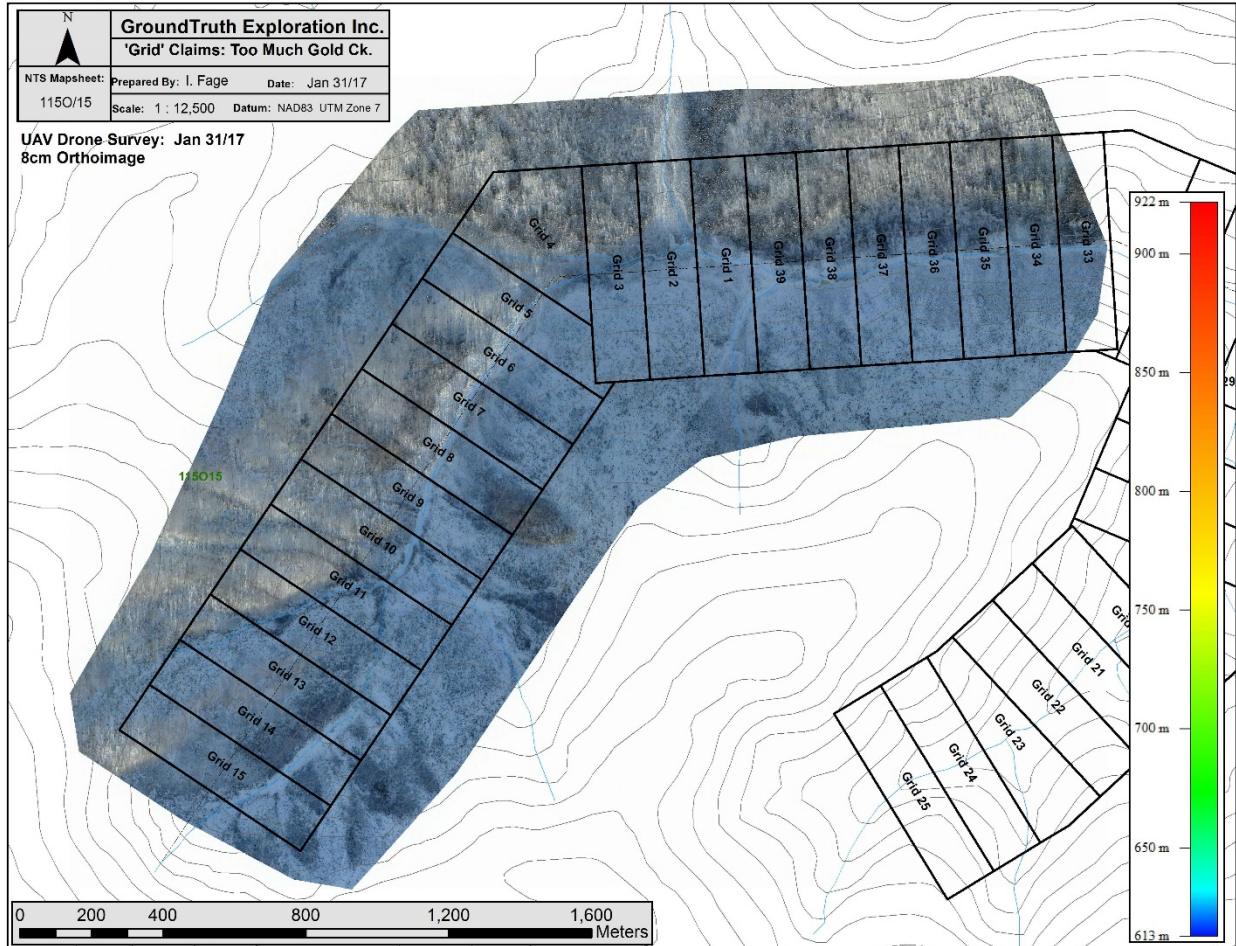


Figure 4: Overview figure showing Orthoimagery coverage from the UAV survey. Image quality was very good even with the low light at this time of year. The image is a color balanced RGB composite with average ground resolution of 8cm/pixel. The precise drainage location, vegetation type and density are clearly visible in image.

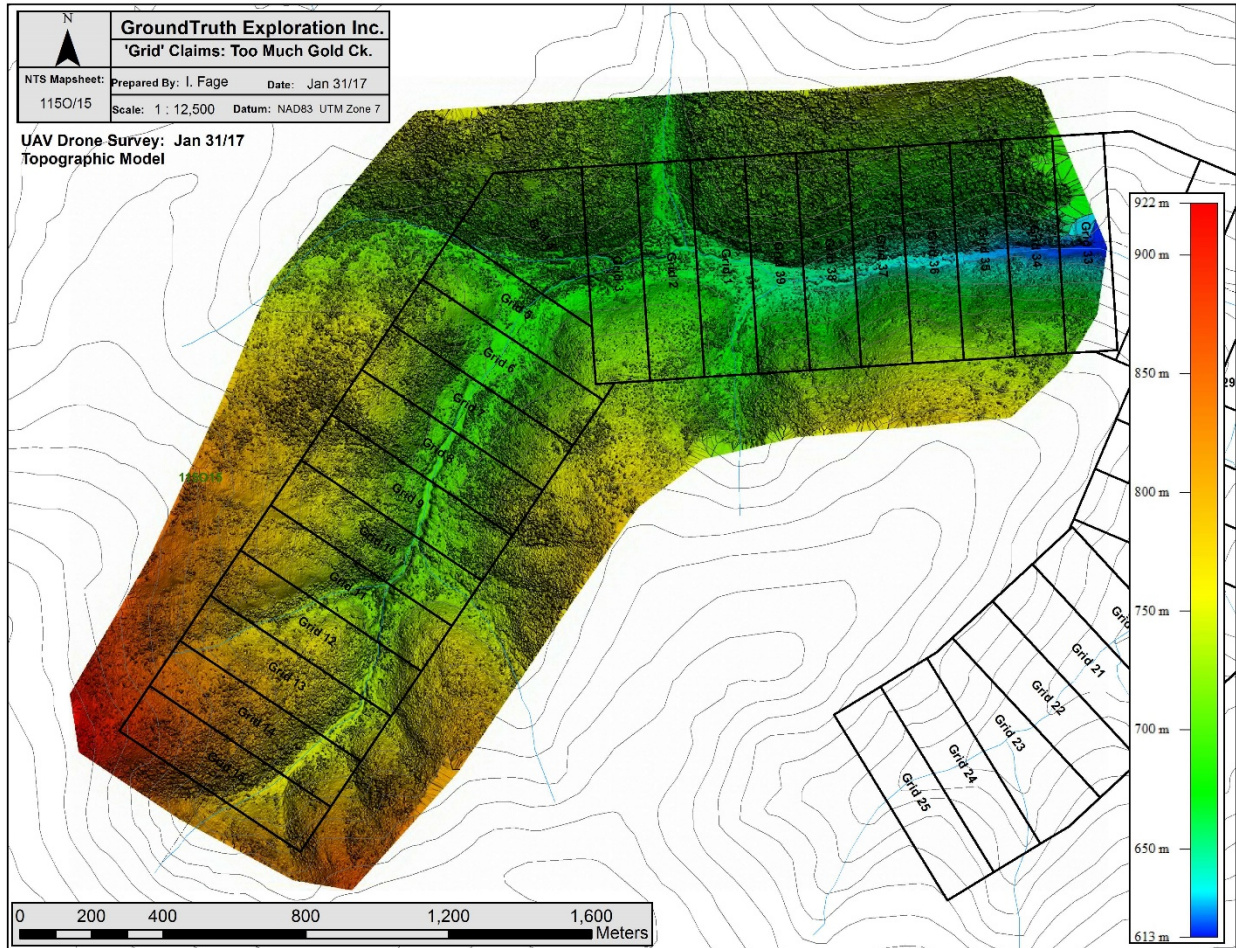
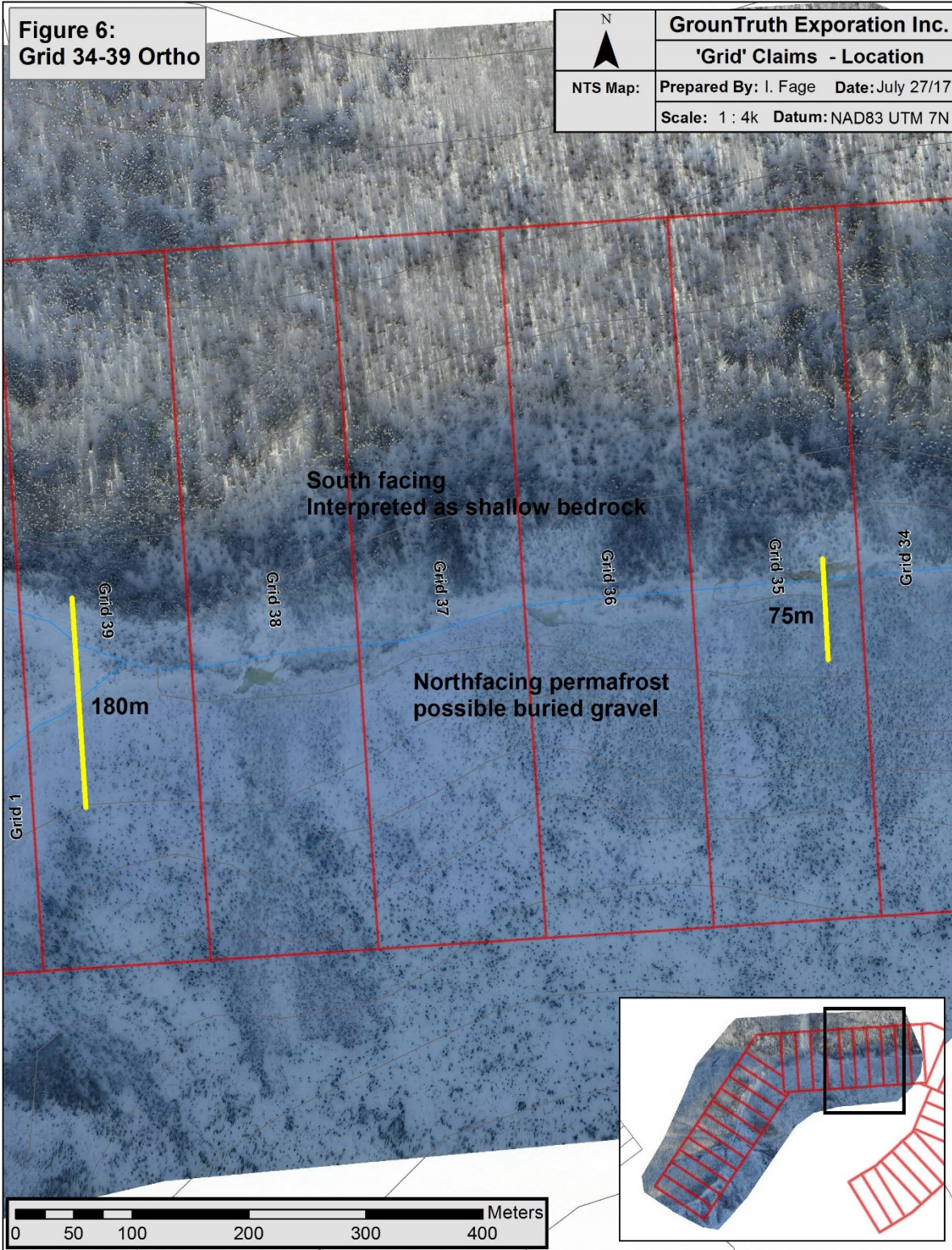
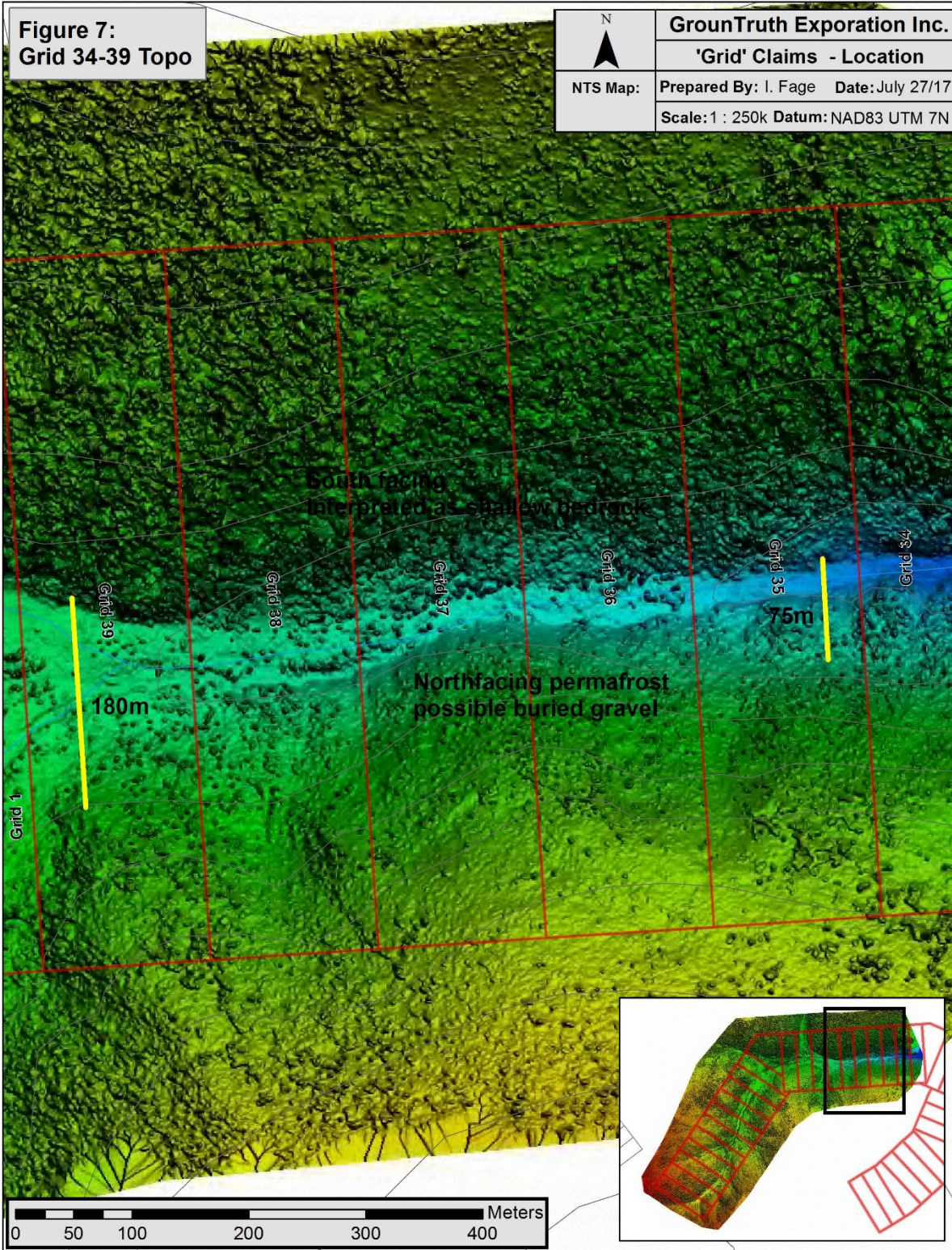
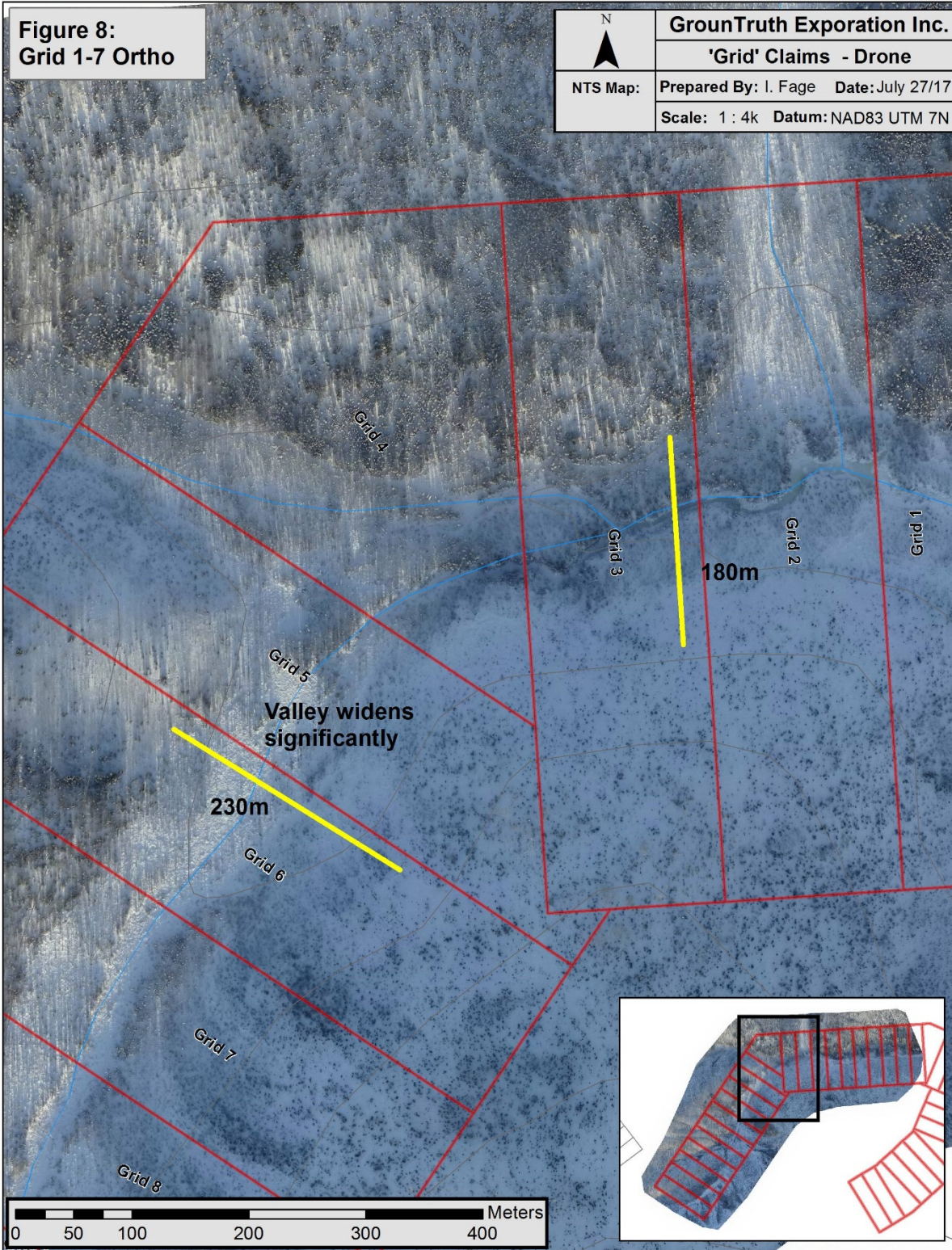
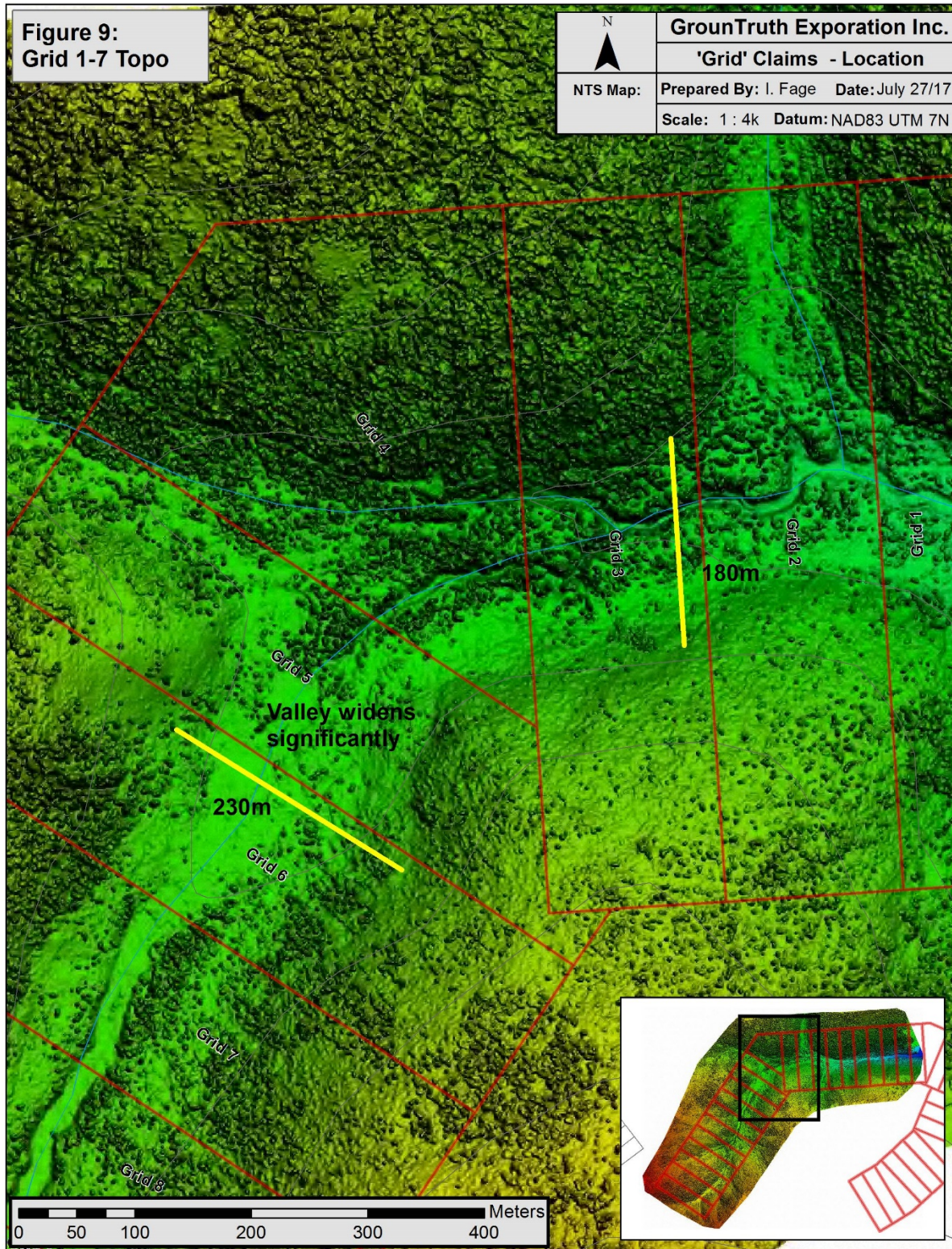


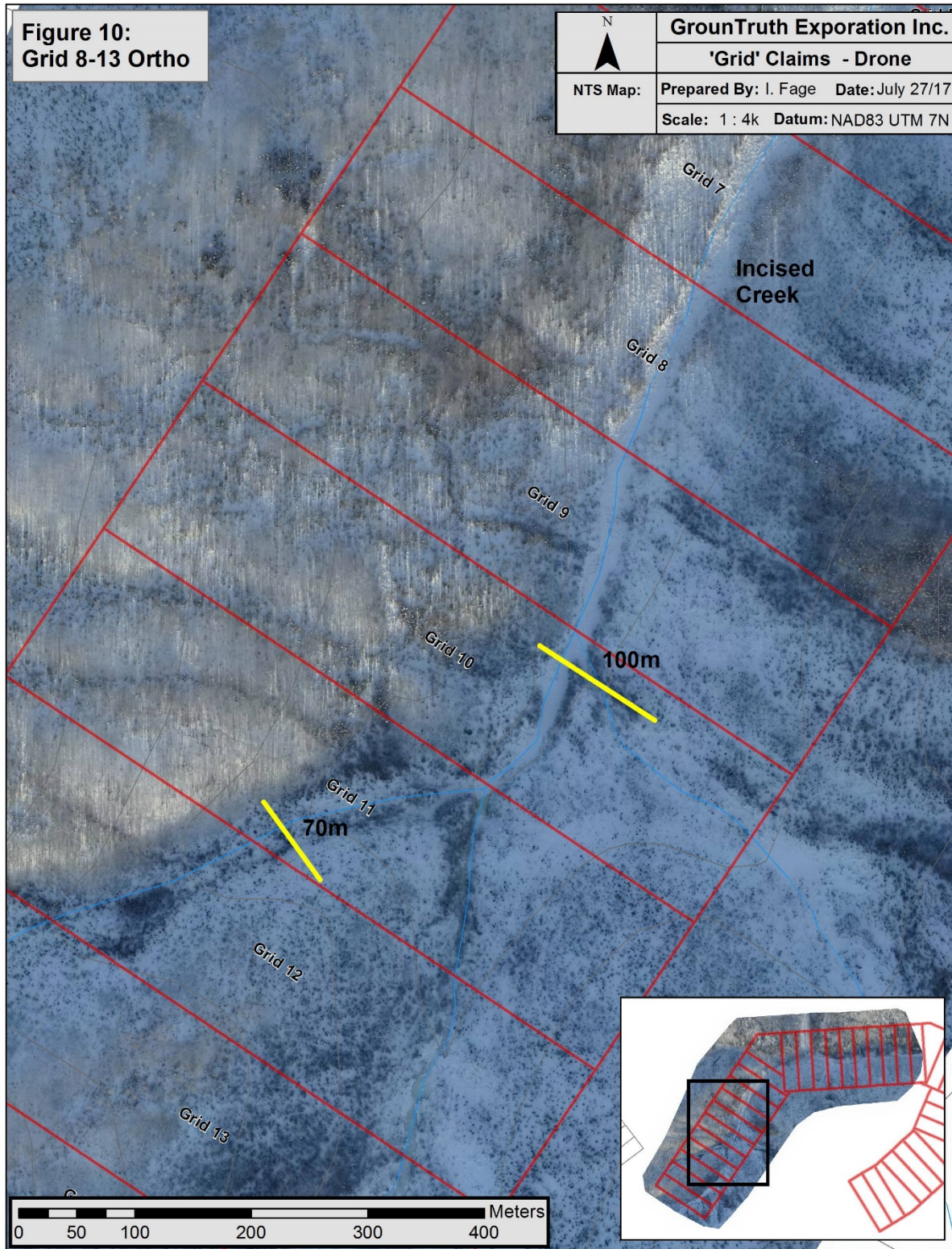
Figure 5: Overview figure showing Digital Surface Model (DSM) of the mapped elevation from the UAV survey. DSM Topography quality was also very good. The image is a color shaded relief of elevation at 50cm/pixel ground resolution. The legend for height in metres is shown on the right of figure. Valley width, slope steepness and landforms are clearly visible in the DSM model.

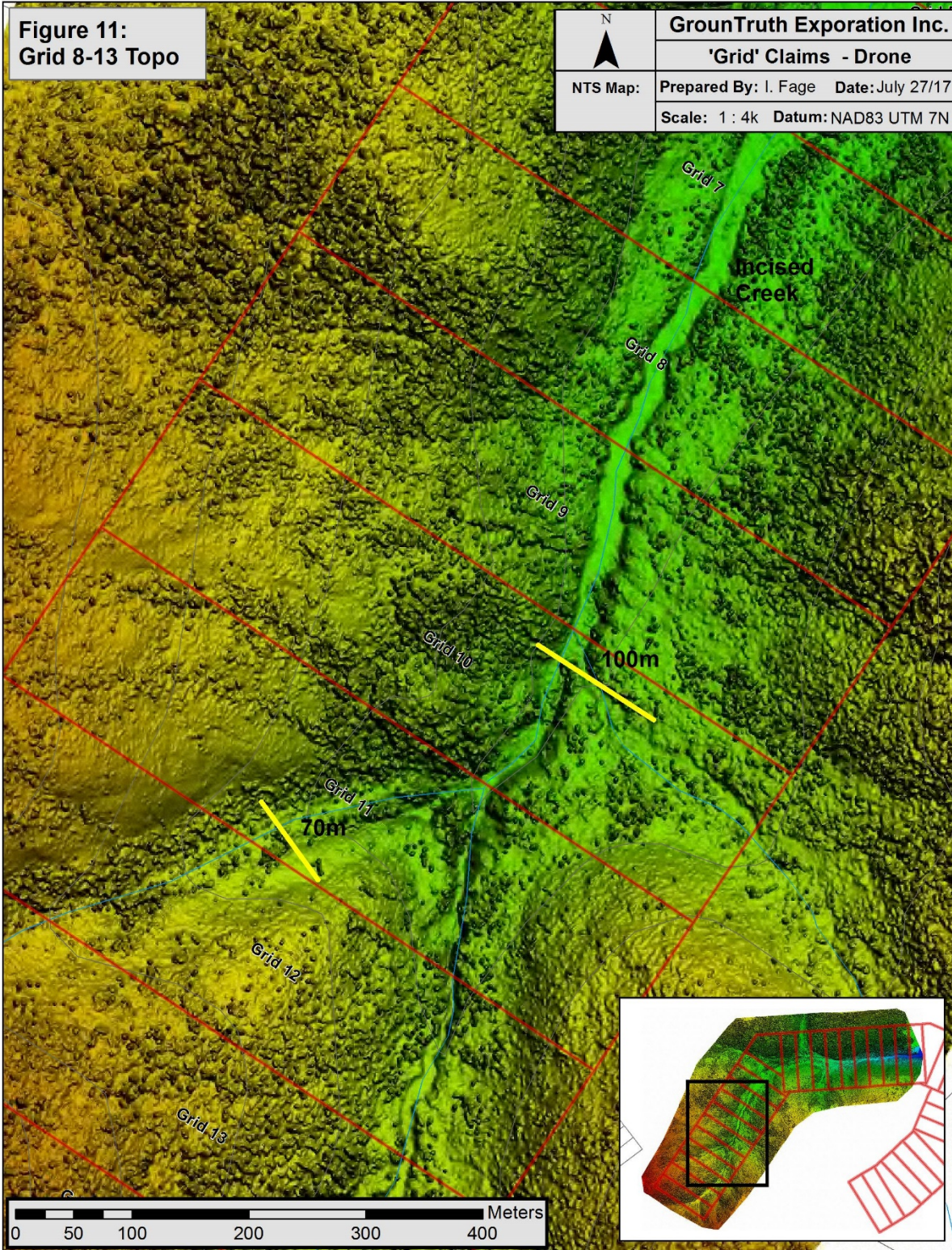


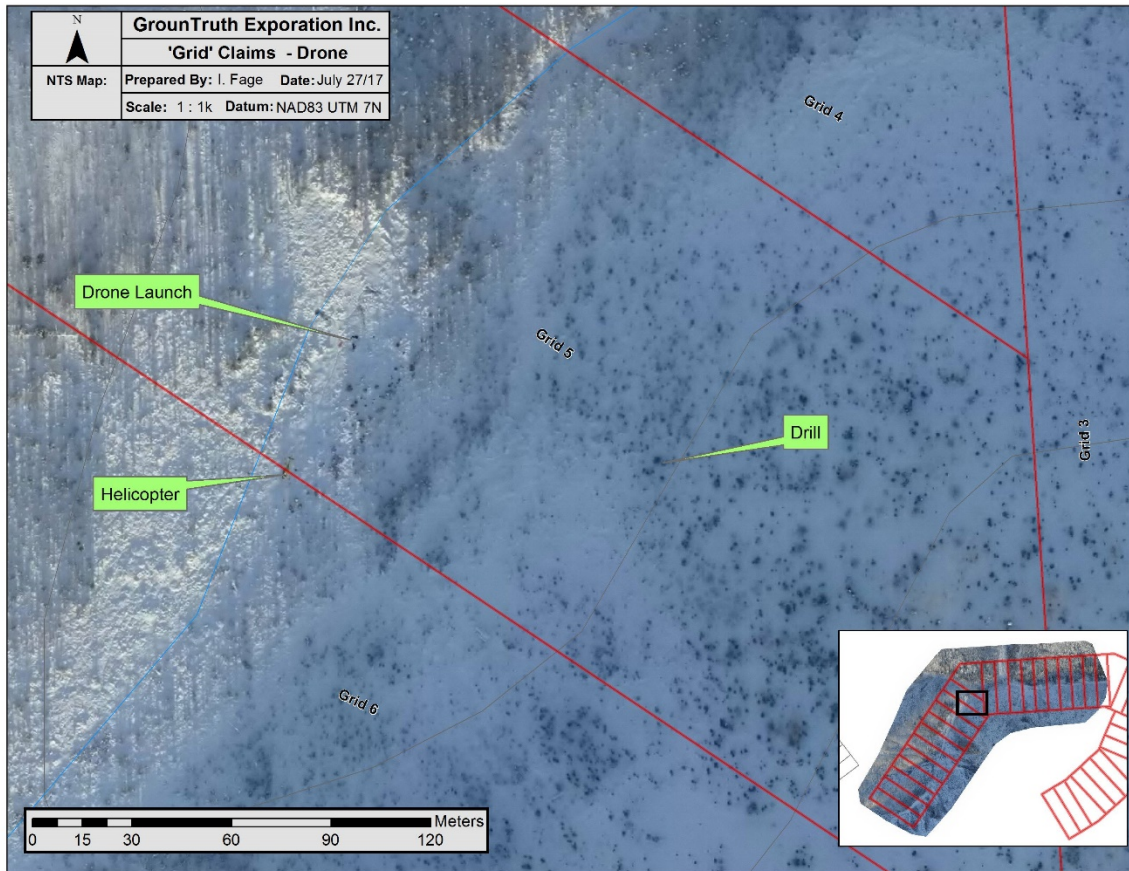












Discussion:

The UAV survey imagery and topography is show in the preceding figures with markups. Overall, the Grid property is on a small top end drainage that is steeply incised. The valley bottom in the survey area is variable in width. It is narrow at the downstream limit of the survey and widens significantly at the bend in the creek between Grid 3-6. The topo DSM shows that bedrock will likely be very shallow on the south and east facing valley slopes and may possess buried gravels under slumping permafrost on the north facing slopes. Prospectively, the Grid 3-6 claims would carry the most potential for volume of pay gravels, with higher probability on the South and East side off the creek, based on visual interpretation of the drone image and topography.

6.1.5 Conclusion and Recommendations

Further exploration work is required to evaluate the prospectivity of the lease on the Grid 1-39 claims. It is recommended that a light geophysical survey such as DC Resistivity could be conducted to evaluate potential depth and volumes of pay gravels in the drainage. and adjacent slopes on the drainage. Geophysical surveys should be followed up by means of drilling or test pits. Additional work is at the discretion of the property owner.

7 Statement of Costs

UAV Survey conducted on: January 31, 2017

Report Written on: July 26, 2017

Expenses:

AERIAL DRONE SURVEY BREAKDOWN				Chargeout	Units	Cost						
Wages												
1 UAV Drone Operator	\$	550.00	1	\$	550.00							
1 UAV Drone Assistant	\$	385.00	1	\$	385.00	\$	935.00					
Equipment and Electronics												
1 UAV Drone with Base Station	\$	500.00	1	\$	500.00							
1 Sat Phone/GPS/Radio	\$	65.00	1	\$	65.00	\$	565.00					
Imagery Processing and Final Deliverables												
Charged on a per flight basis	\$	100.00	5	\$	500.00	\$	500.00					
						Total Drone Survey	\$ 2,000.00					
Helicopter Access - Trans North Jetranger						\$	1,250.00	0.4	\$	500.00	\$	500.00
						Total Invoice:	\$ 2,500.00					

8 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.

9 Qualification

I, Isaac Fage have been president of GroundTruth Exploration in Dawson City since May 2010. I have worked continuously in Mineral Exploration in Yukon since 2004. I hold an advanced diploma in Remote Sensing from the Centre of Geographic Sciences in Lawrencetown, Nova Scotia.

I have overseen the survey work described in this report on the 'Grid 1-39' property at Too Much Gold Creek for Off-Grid Mining Services Inc.

Dated this 26th day of July, 2017 in Dawson, YT.

Respectfully submitted,



Isaac Fage