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GroundTruth Exploration Inc.

Box 70, Dawson YT, Y0B 1G0 (867) 993-5612

Geophysical report

On the Minneapolis Creek Placer Prospecting Lease

Dawson Mining District

Lease No.: ID01100,

Owner: Ron Frederickson 100%

Bekinkosi Ngwenya

GroundTruth Exploration Inc.



Location: 63° 10.460N, -139° 32.392W
NTS Mapsheet: 1150/03, 04
Surveyed on: 13 May 2014
Report Date: 19 May 2014



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Summary

A high Resolution GPR survey was conducted on May 2014 at Minneapolis Creek, in the Yukon. A total of 13 N-E oriented lines of between 200-300m lengths, straddling the Minneapolis Creek were surveyed using Ground Penetrating radar. GPR successfully profiled the bedrock depth, on all the lines. The obtained GPR radargrams (2D sections) are of good quality and the gravel-bedrock interface is well defined, and is interpreted to extend to an average depth of 14m along the creek.

1.0 History

Little has been recorded for previous placer exploration on Minneapolis Creek. In 2005, a hand test pit was excavated in the vicinity of GPR Line 1, on the SW side of the creek. The pit was excavated to a depth of 8m (26'). Large fractured rock was encountered, dipping shallowly away from the creek (SW) at the termination of this test pit. Competent bedrock was not encountered when the shaft was abandoned. See figure 1 for shaft location relative to survey and figure 2, for 2005 shaft photo.

2.0 Survey location and description

Minneapolis creek is located about 97 km south of Dawson, and it was accessed by the surveyor by helicopter. During the survey, at some locations ice was still visible; most snow had already melted and running water was traversed in the middle of the creek. Permafrost is expected to be thicker on the southern part of the creek. To the north of the creek there are fewer and drier trees, while to the south, between the creek and the Yukon river there is more trees, suggesting thicker permafrost. However thawed and permafrost sections of ground do not show clearly on the radar images. See figure 1 for location and 4 for creek photo.

3.0 Geology

The Minneapolis creek placer lease is predominantly underlain by a metamorphosed Quartz-Mica Schist unit. The headwaters of Minneapolis creek drain a sequence of Amphibolite and Ultramafic-Gabros, and brittle Augen Orthogneiss which host the recently discovered, near surface Golden Saddle Deposit. See figure 4 for property geology.

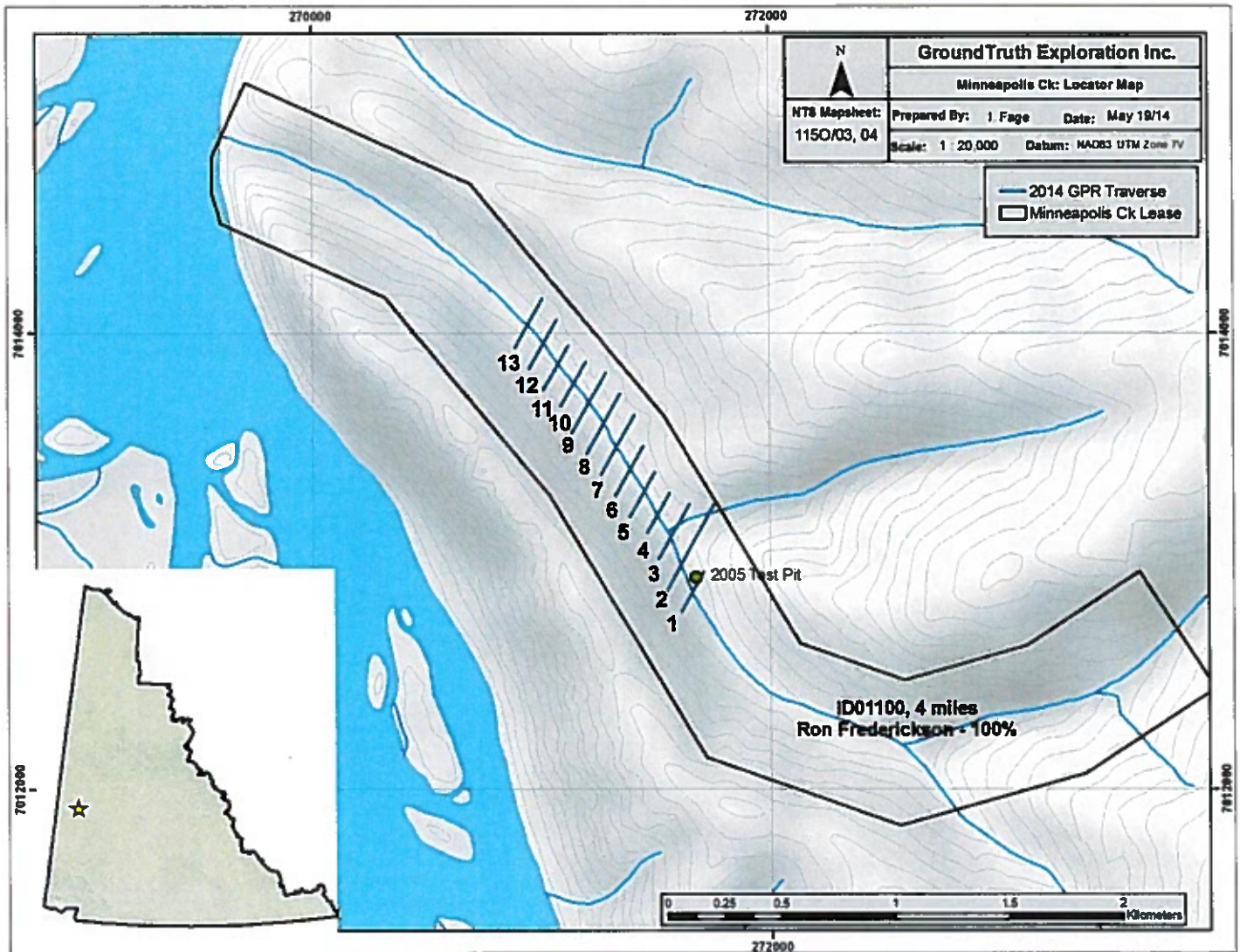


Figure 1: GPR Survey Location



Figure 2 – 2005 Test pit located on GPR line 1, at 212" depth in Gravel



Figure 3 – GPR Survey Area Photo

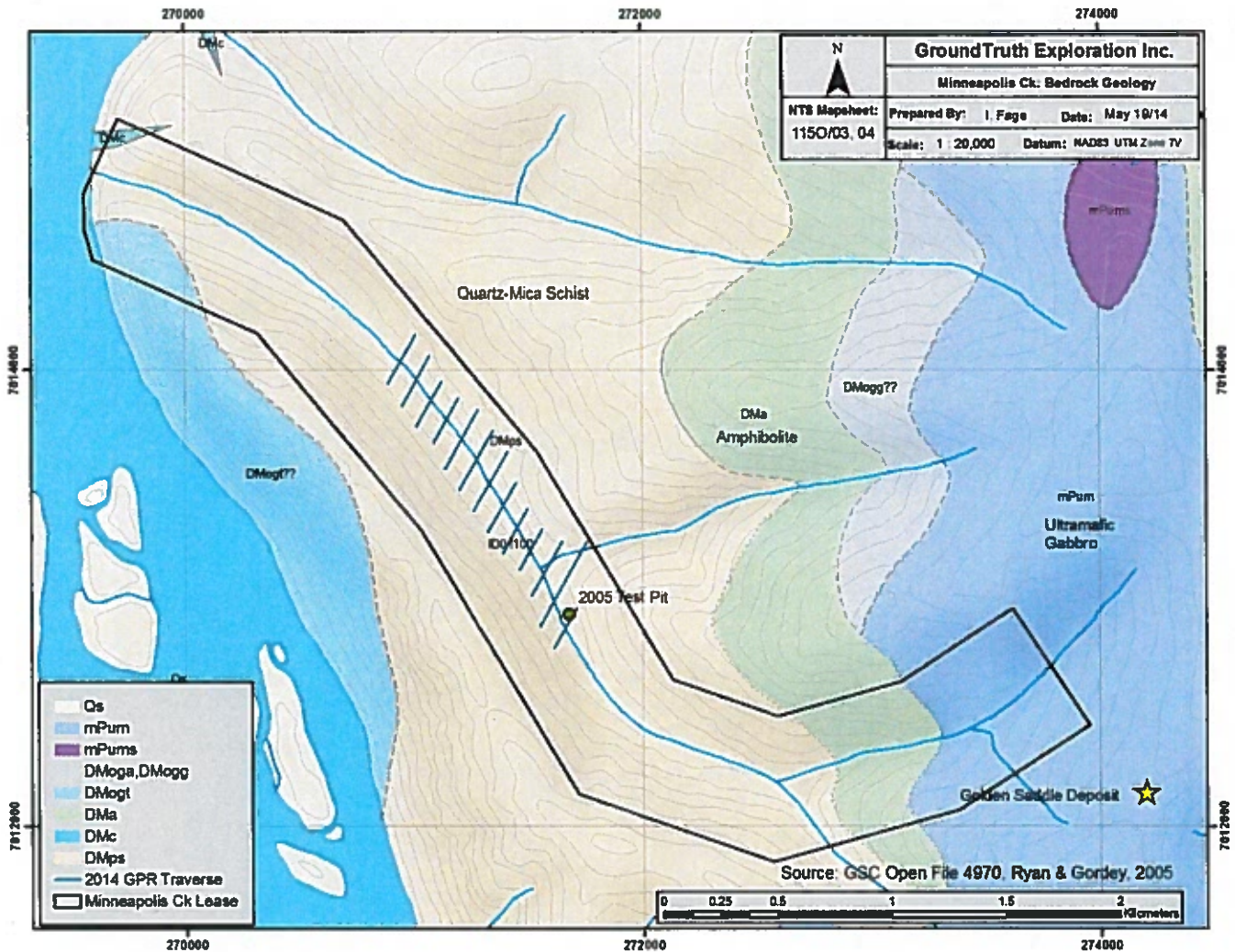


Figure 4 – Property Geology

4.0 Survey Objective

The main objectives of the survey were to profile or map depth to bedrock, and to delineate any buried channel along the creek. Alluvial gold is expected to be concentrated at the base of the gravels and the bedrock. To accomplish the above objectives 2D radar sections and a 3D paleo-channel model were constructed from the radar and topography/GPS data and are presented in section 9.0

5.0 GPR system and basic principle

Ground penetrating radar(GPR) works like seismic, in that it is based on transmitting energy to the ground and measuring the time taken for the energy to be reflected back at geological targets, be they localised ore-bodies or geological interfaces/boundaries. Instead of seismic or shock waves, GPR transmits electromagnetic energy of high frequency compared to other geophysical methods. It is a very high resolution technique that is very site specific, for example it works very well where the target is within a host rock that has a higher electrical resistivity compared to the target itself, and where there are no conductive surficial layers to absorb radar energy before reaching the target. Another important factor is that radar energy can be scattered and not captured optimally if the reflecting geology or target is not consolidated or of a certain geometry. In conducive settings GPR is a fast high resolution method, can be operated by a single person and can supplement other geophysical methods very well. Depth of penetration can be a few to hundreds of meters in electrically resistive soils and rocks. For this particular project, the "snake" UltraGPR supplied by Groundradar (see www.groundradar.com) was used. The system works together with a differential GPS (RTK-DGPS) for data positioning and a portable data logger

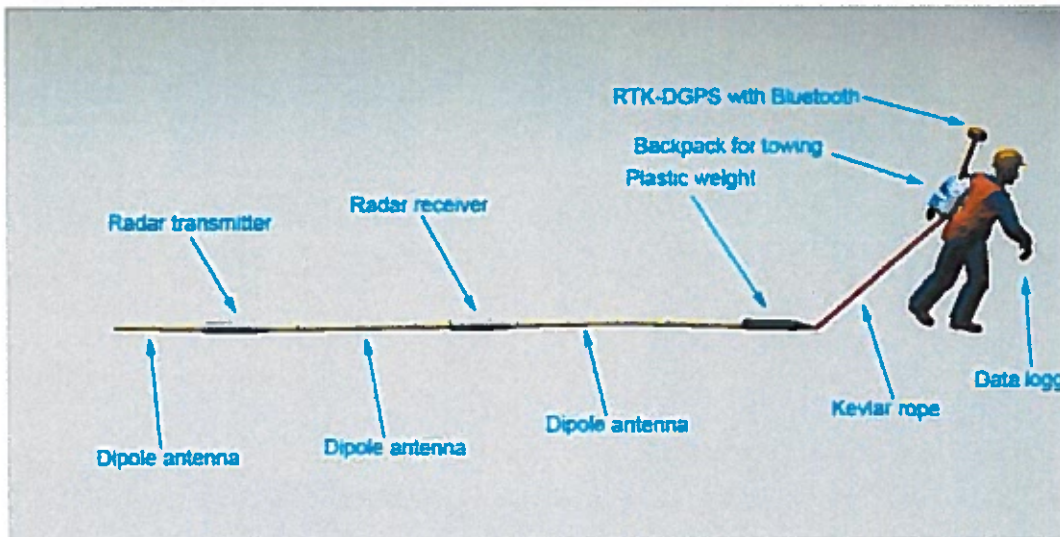


Figure 5- UltraGPR system



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6.0 Results and interpretation

The GPR 2D sections (see section 6) show a clear signal character change in the upper and lower sections indicated by the green solid lines. The upper surficial/sediments layer (A) is thicker in the middle of the creek, and thinner towards the edges, implying a deeper basement in the middle. Solid red lines indicate the cross sectional areas of the channel interpreted to have thicker gravel/sediments cover. Looking across all the 2D sections or the paleochannel depth map, the trend of the paleochannel (or thick gravel/deeper basement) is coincident with the existing creek for almost all of the lines except line 13, the northernmost line. For line 13, it is suspected that the Digital Elevation Model to which the Radar 2D section is draped below may be inaccurate. The draped Radar section shows the bedrock trough offset to the SW, though this is not likely the case. Obtaining an improved Elevation Model for draping would verify this assumption, this does not impact the radar data quality or interpretability. The table below shows each section/traverse and the estimated maximum depth to basement.

Line/traverse	Estimated maximum depth to basement (metres)
Line 1	12
Line 2	14
Line 3	11
Line 4	15
Line 5	14
Line 6	13
Line 7	11
Line 8	10
Line 9	12
Line 10	14
Line 11	14
Line 12	13
Line 13	13



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7.0 Project Expenses

Ground Penetrating Radar Survey by GroundTruth Exploration Inc., May 13, 2014

13 Profiles totalling 3.5 line km of GPR: GroundTruth Operator and GPR Unit \$300/lkm:
\$1050.00

Consumables: Food 1 man day \$50, Sat Phone: \$35, Chainsaw: \$50:
\$ 135.00

Data Processing: GroundRadar Inc., 13 profiles @ \$100/profile:
\$1300.00

B. Ngwenya, Geophysicist: Bedrock Profile Model \$600, Interpretive Report \$1000:
\$1600.00

Total Expenses: \$4085.00

8.0 Statement of Qualifications

I, Bekinkosi Ngwenya, of the city of Longueuil, in Quebec Province, do hereby certify that:

I am a Professional Field Geophysicist for Groundtruth Exploration, based at 37440 Dawson City, in the Yukon Province, Canada

I further certify that:

1. I hold a M.Sc. degree in Exploration Geophysics from the University of Zimbabwe, and a B.Sc.(hons) degree in Applied Physics from the NUST University (Zimbabwe)
2. I have been a practicing exploration Geophysics for 14 years, in the mining and mineral exploration industry, in Canada and Africa
3. This ground penetrating radar report is compiled by an operator with my full assessment and approval and interpreted by myself
4. I do not hold any interest in the placer property within this report

Bekinkosi
Ngwenya

Digitally signed by Bekinkosi Ngwenya
DN: cn=Bekinkosi Ngwenya, o=GroundTruth
Exploration Inc., email=bekinkosi@groundtruthexploration.com, c=CA
Date: 2014.05.20 14:19:00 -0700

May 20th, 2014

Bekinkosi Ngwenya,

Dated

Geophysicist



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9.0 Conclusions and recommendations

On average the maximum bedrock depth interpreted from this GPR survey is between 11-14 m. The mapped paleochannel is in accord with the existing creek. Follow-up is recommended, preferably 2-3 resistivity profiles across the creek in the north, south and middle of the creek (along existing GPR traverses-see sketch on the survey layout plan). In addition to resistivity, ground truthing by means of drilling or test pits is recommended. Qualitatively, the trends of the channel depths along the creek and across are of high confidence due to the high resolution aspect of the GPR method. However, quantitatively, the confidence of the depths estimates may be slightly compromised due to the assumed GPR velocity used to convert GPR pulse two way time to depth. The highly accurate differential GPS used in this survey makes a big difference in accurately positioning the GPR signal (picks).

The suspected positioning error on the radargram for line 13, can be verified and corrected by collecting a detailed elevation model of the creek with aerial photography using satellite, fixed wing aerial photography or a drone.



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10.0 Survey Interpretive Figures

Figure 6 –Depth of Paleochannel Map

Figure 7 – Isometric View of Paleochannel Map

Figure 8 – 3D View of Paleochannel (3D Map)

Figure 9- GPR Line 1 Interp

Figure 10- GPR Line 2 Interp

Figure 11- GPR Line 3 Interp

Figure 12- GPR Line 4 Interp

Figure 13- GPR Line 5 Interp

Figure 14- GPR Line 6 Interp

Figure 15- GPR Line 7 Interp

Figure 16- GPR Line 8 Interp

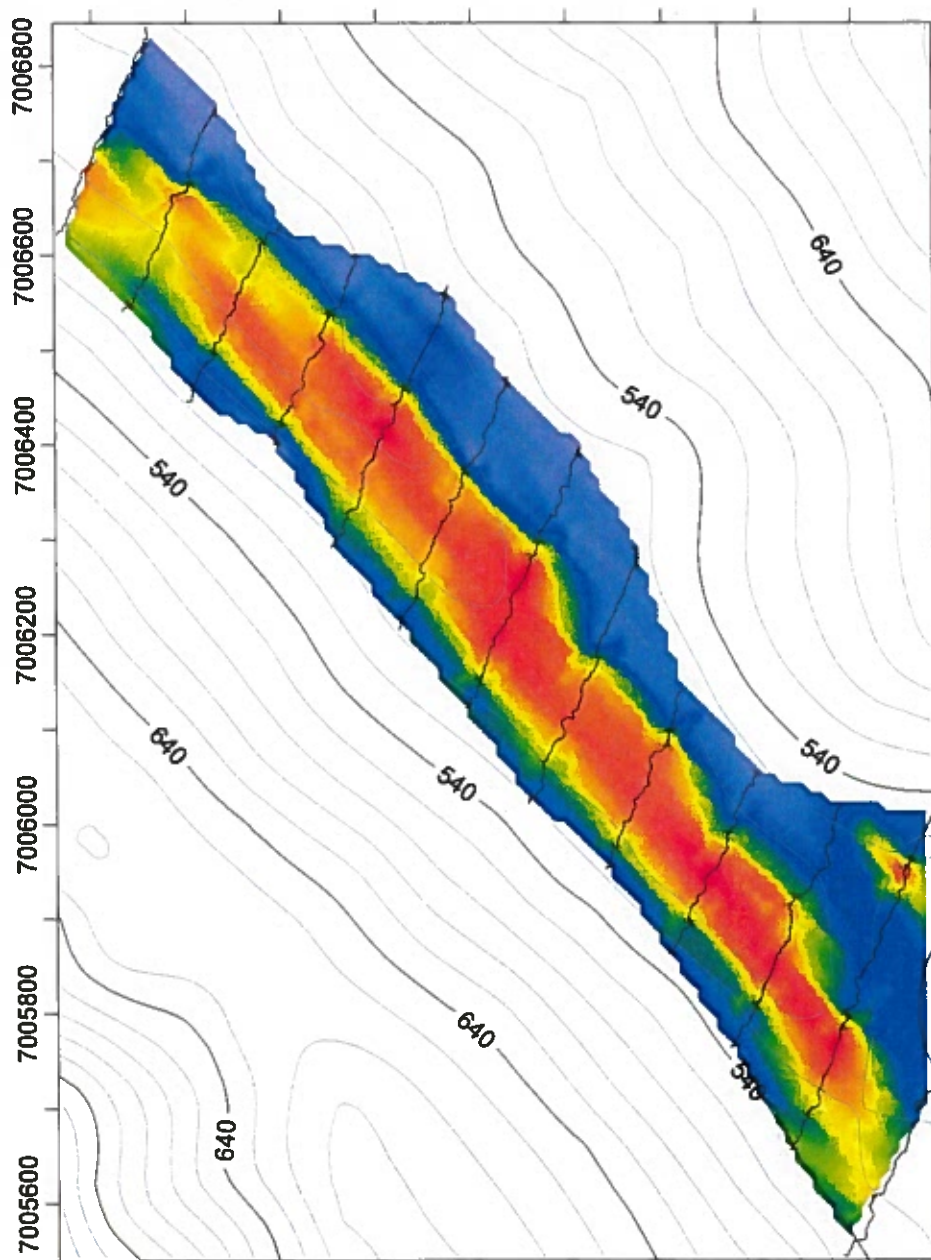
Figure 17- GPR Line 9 Interp

Figure 18- GPR Line 10 Interp

Figure 19- GPR Line 11 Interp

Figure 20- GPR Line 12 Interp

Figure 21- GPR Line 13 Interp



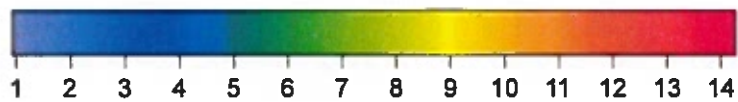
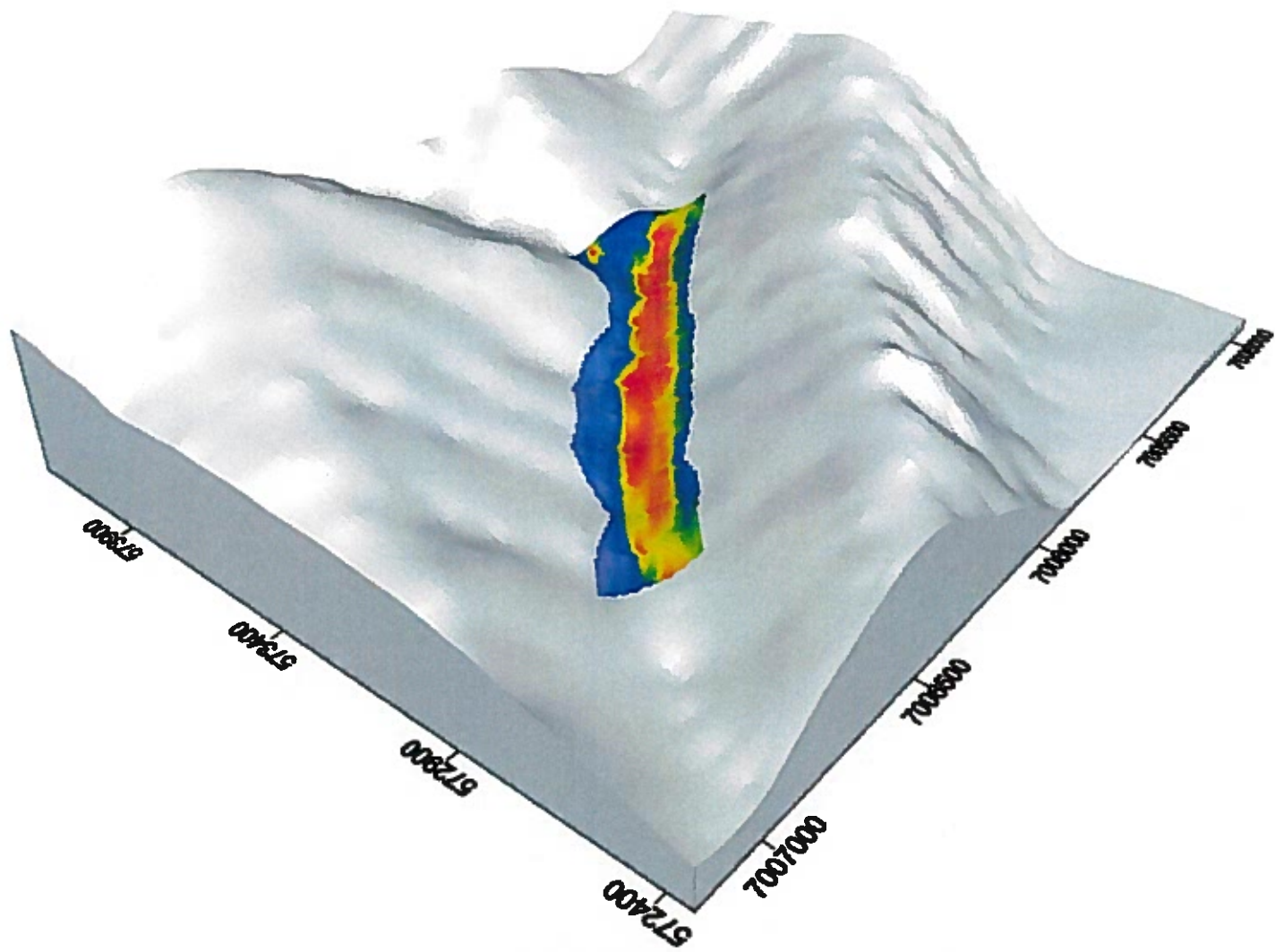
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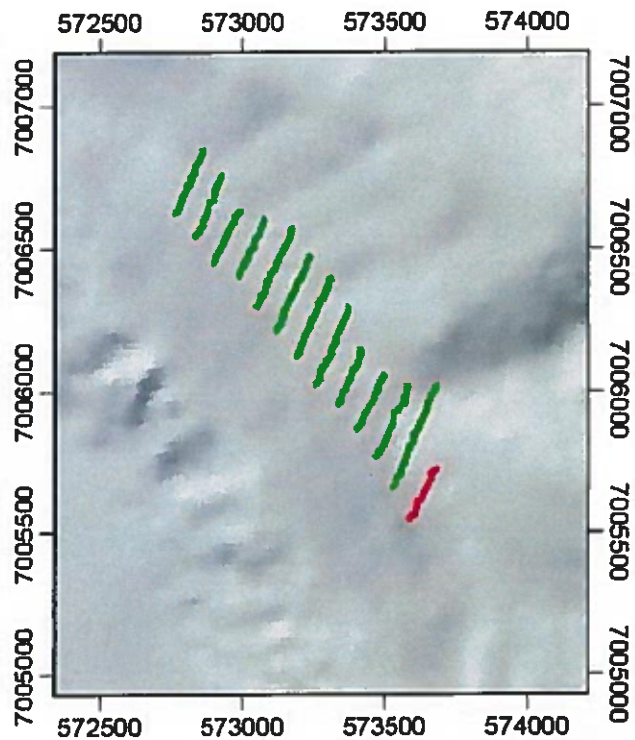
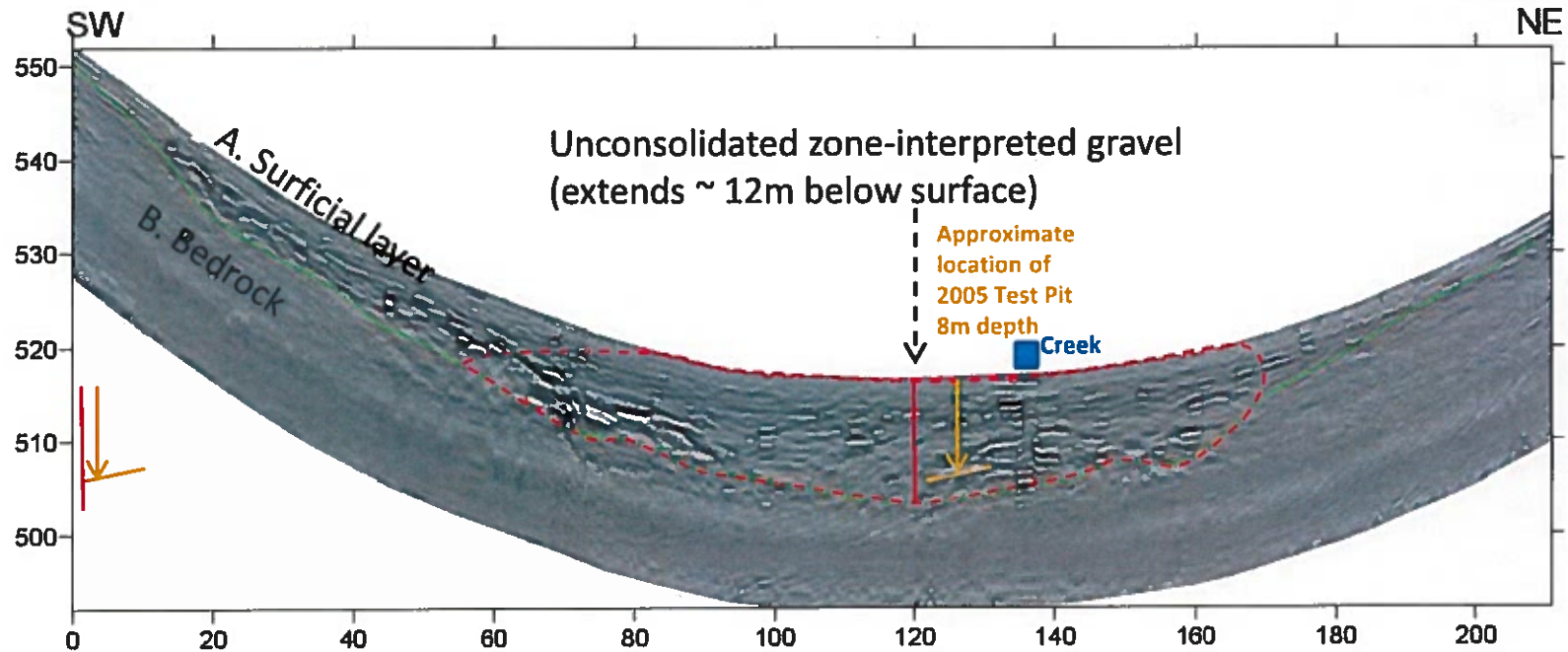
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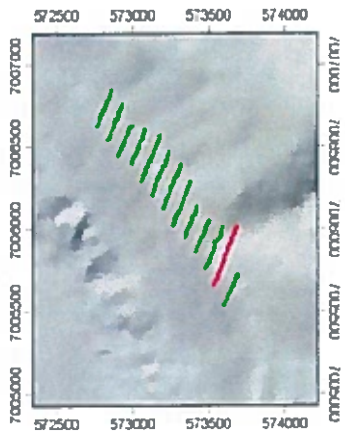
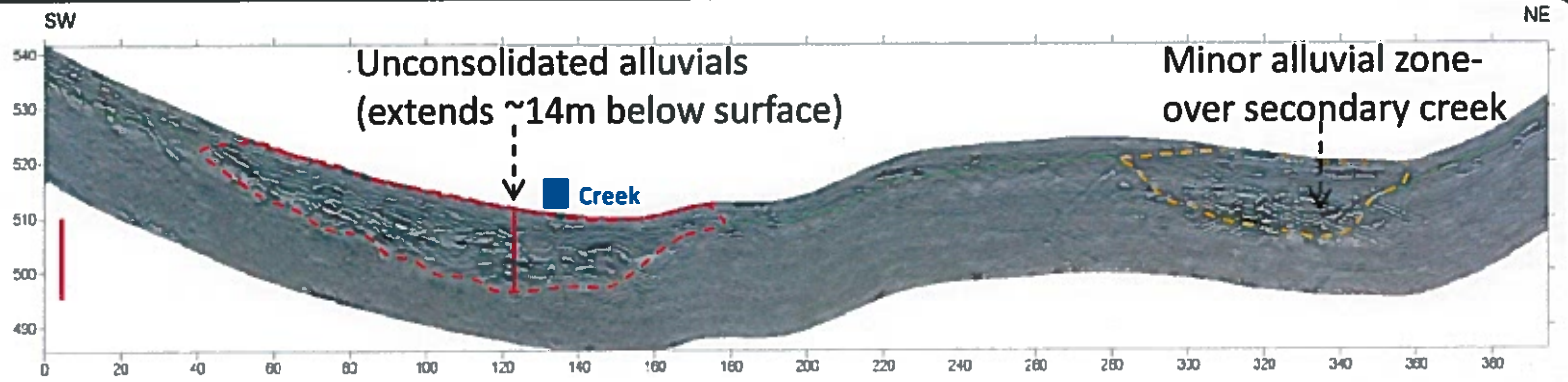
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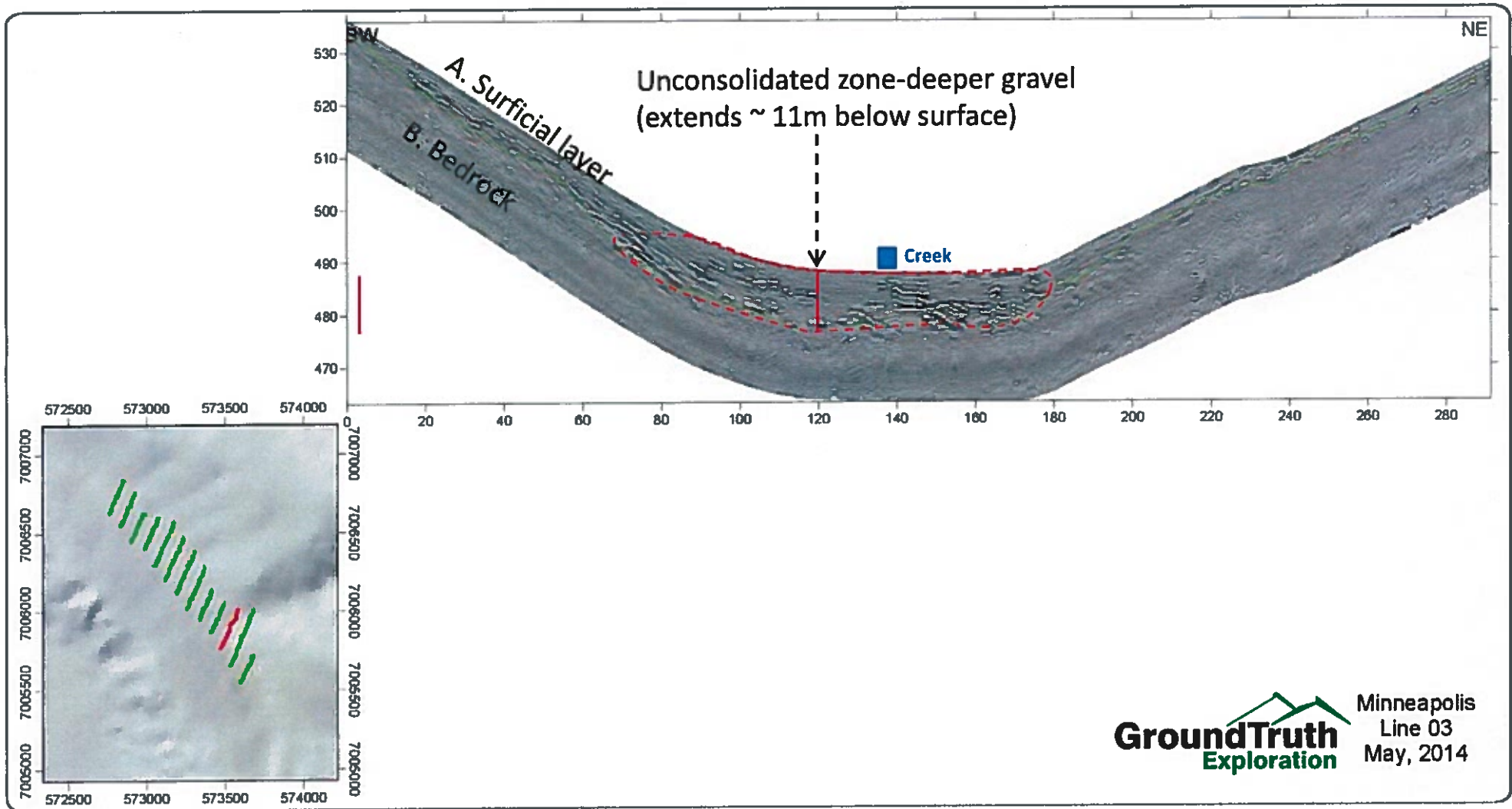
Minneapolis
Depth of Paleochannel
May, 2014

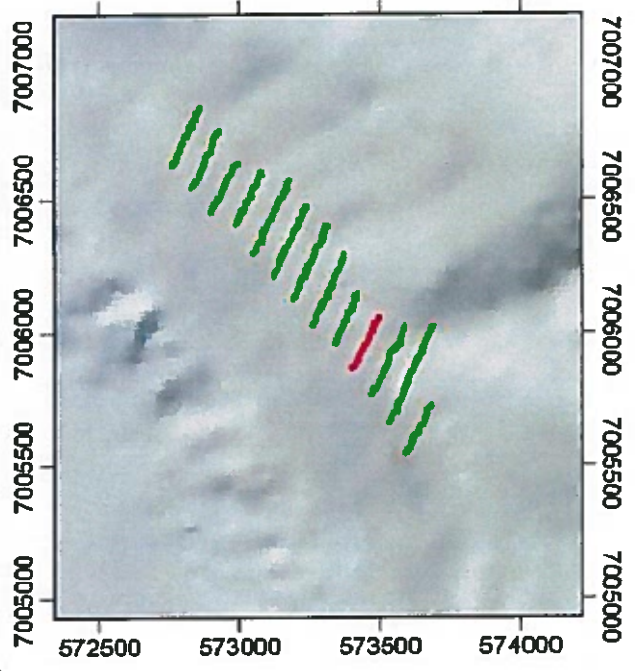
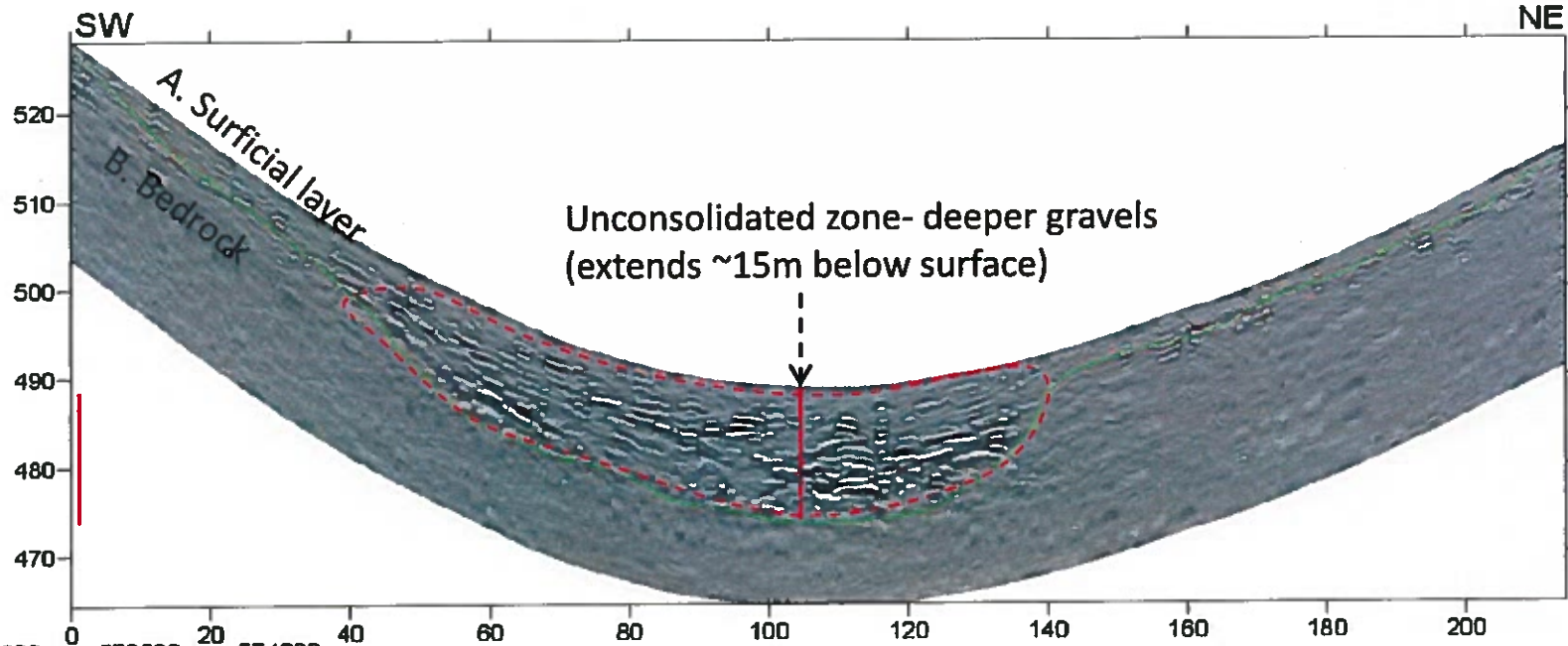


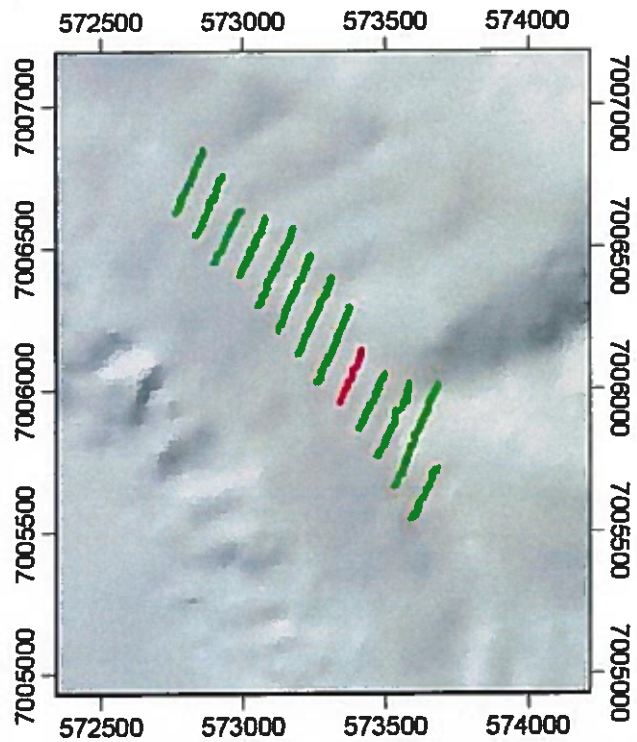
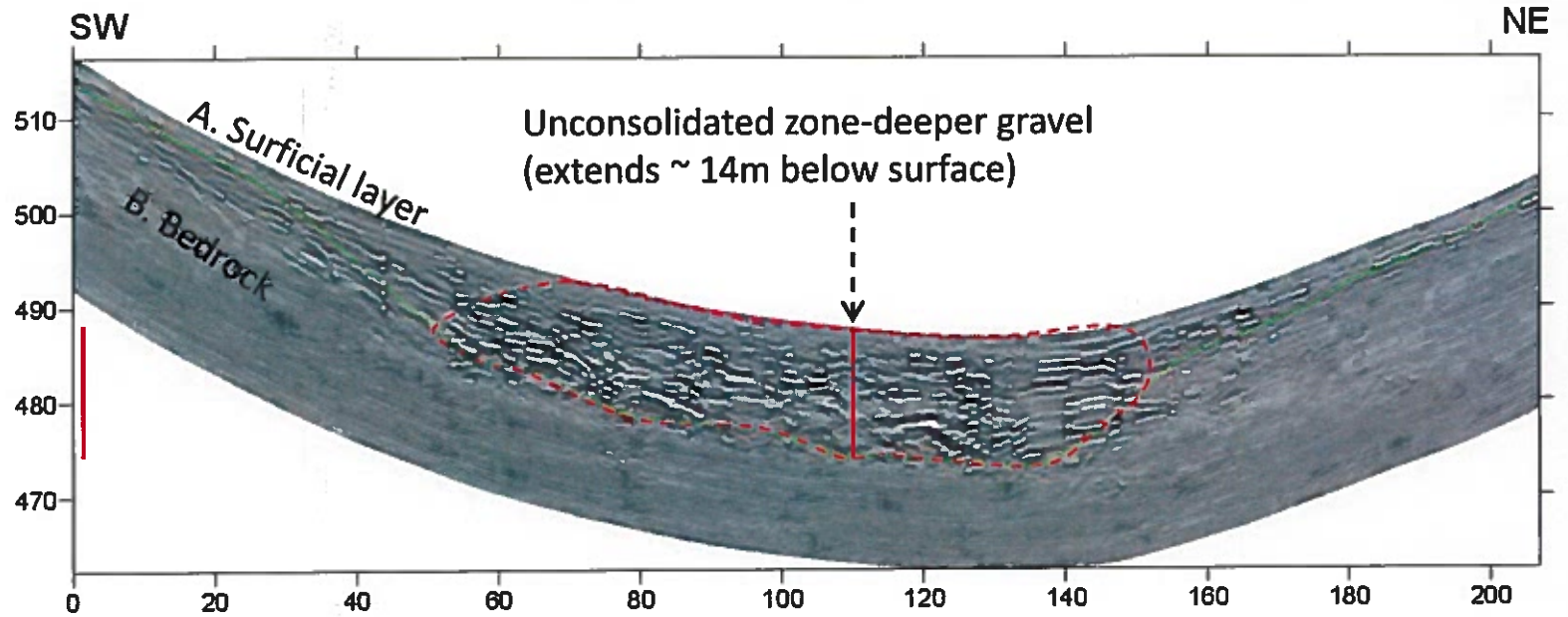
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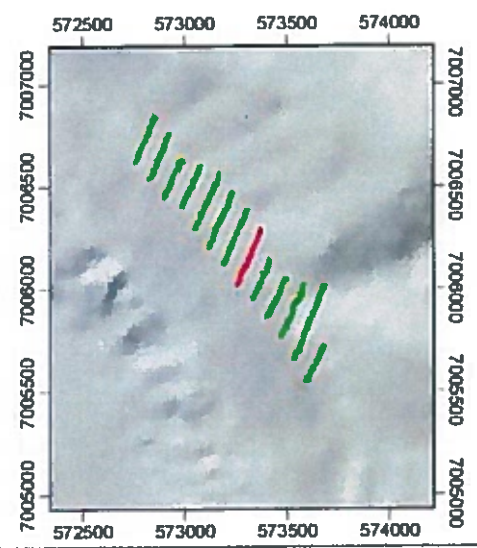
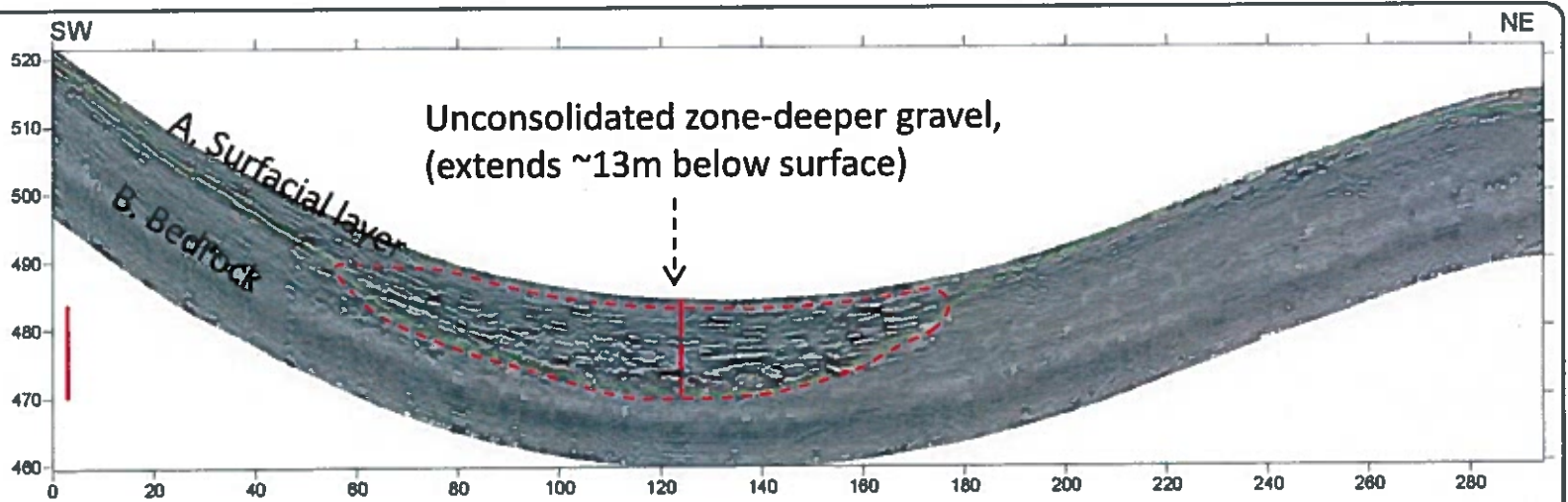


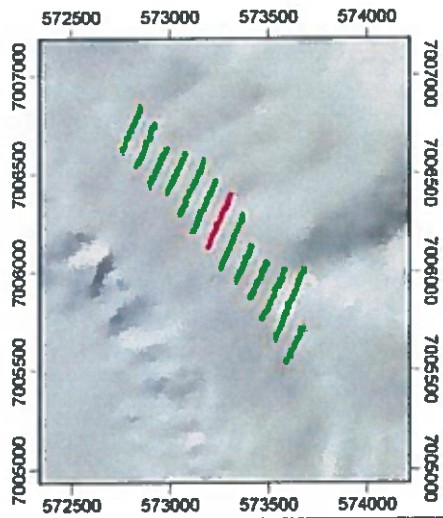
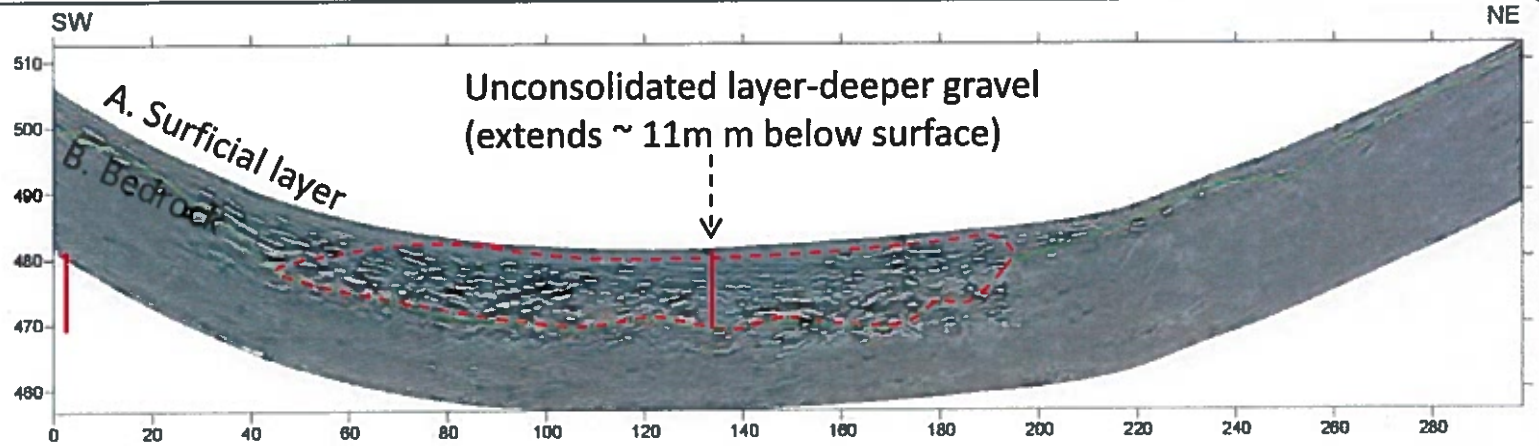


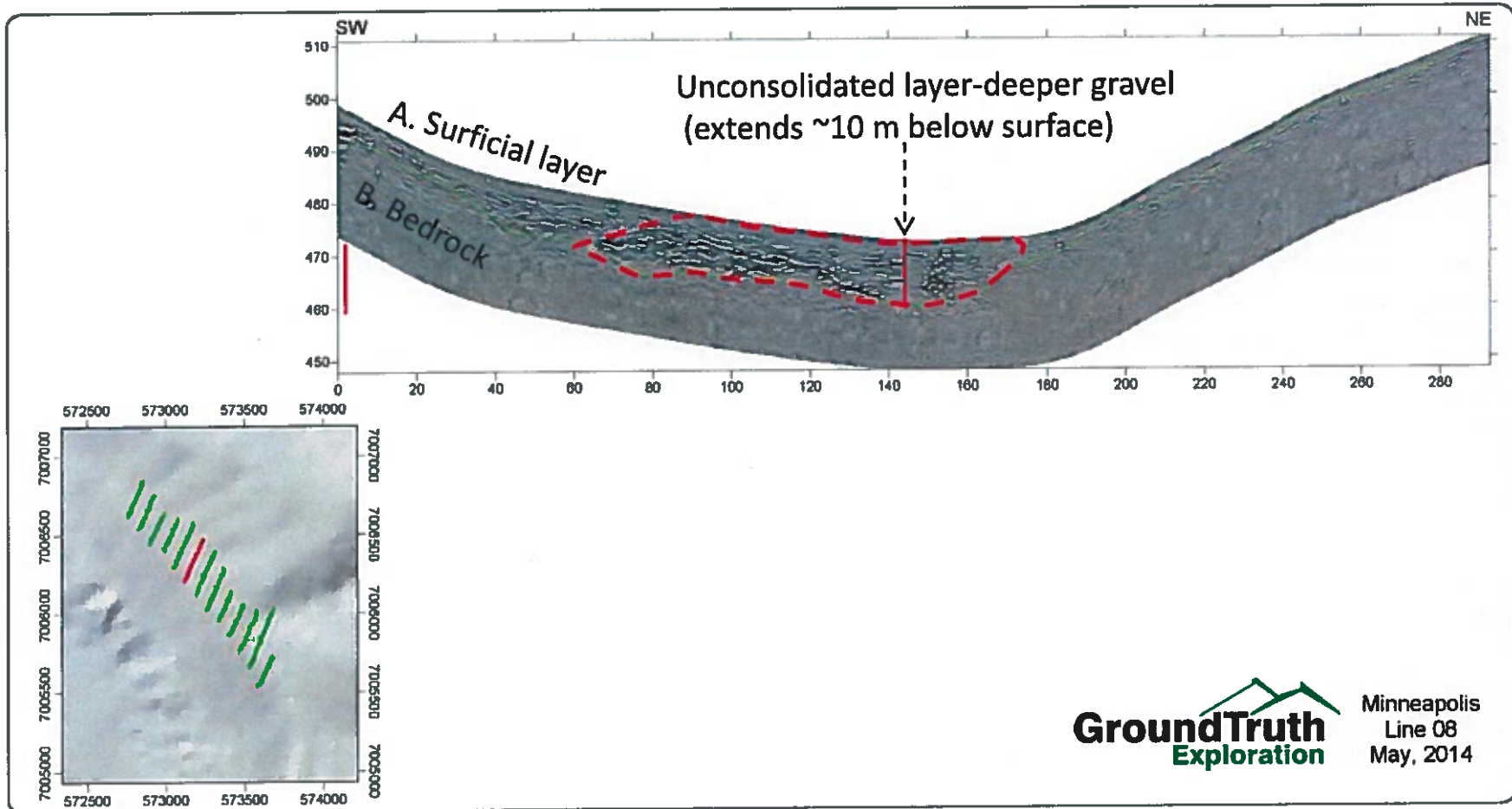


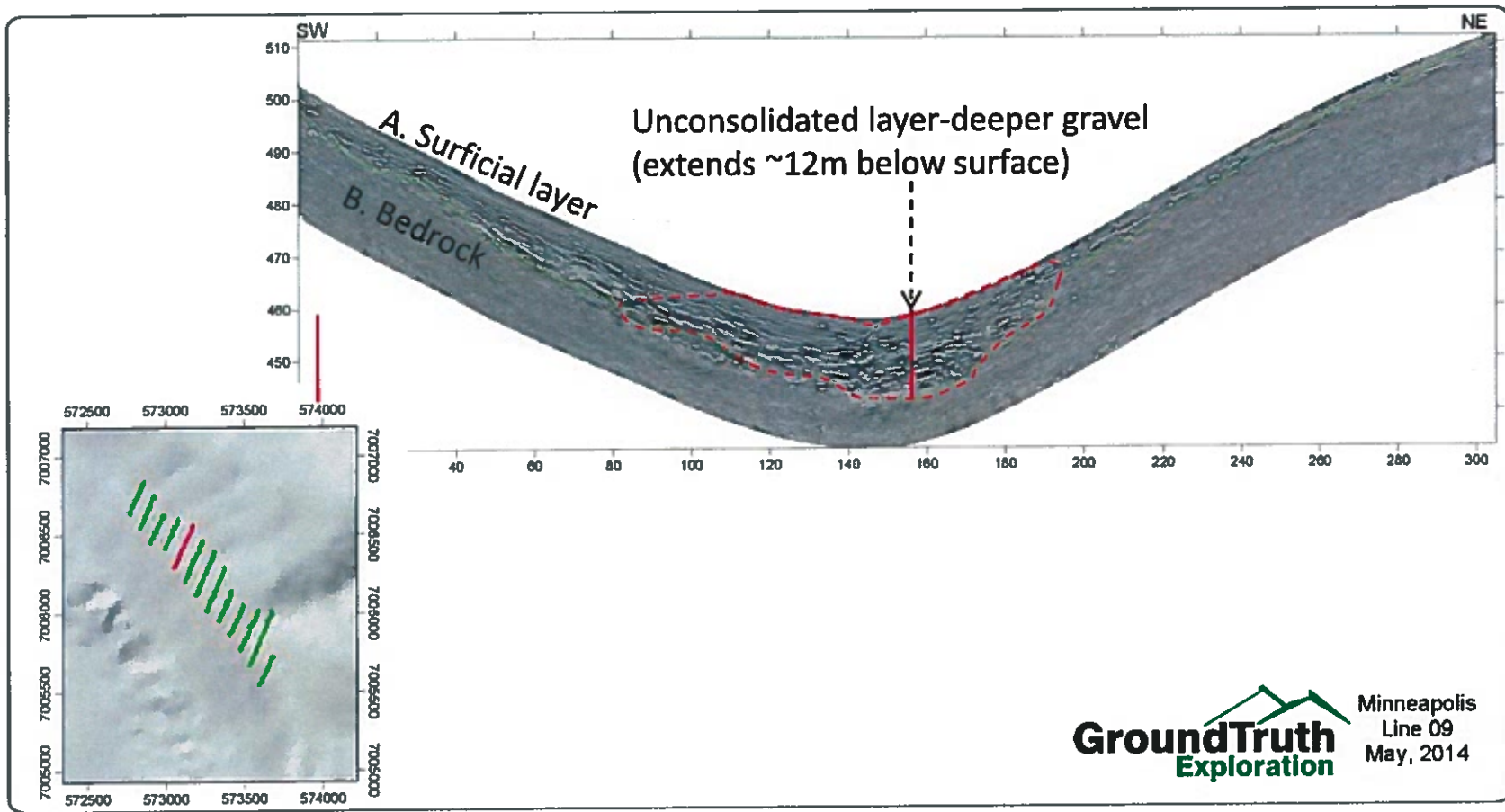


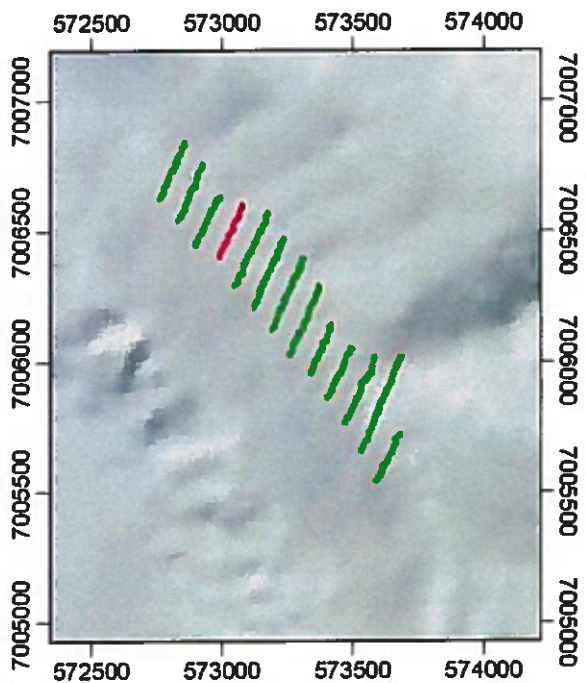
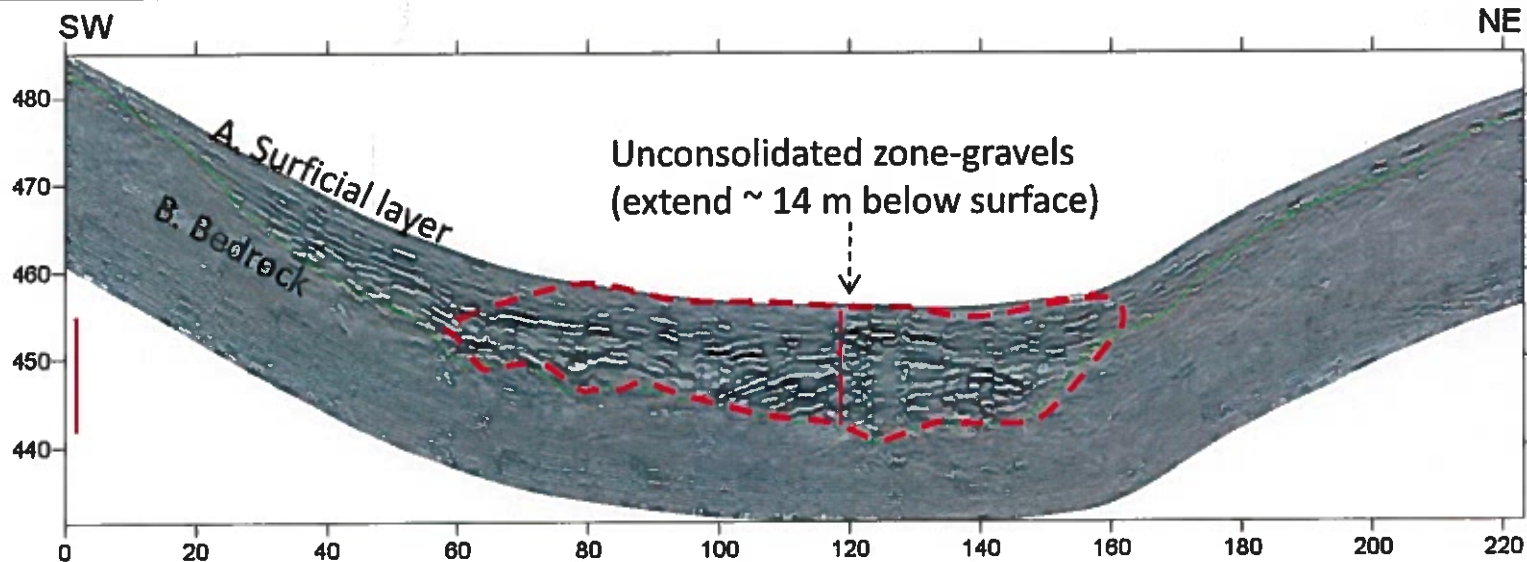


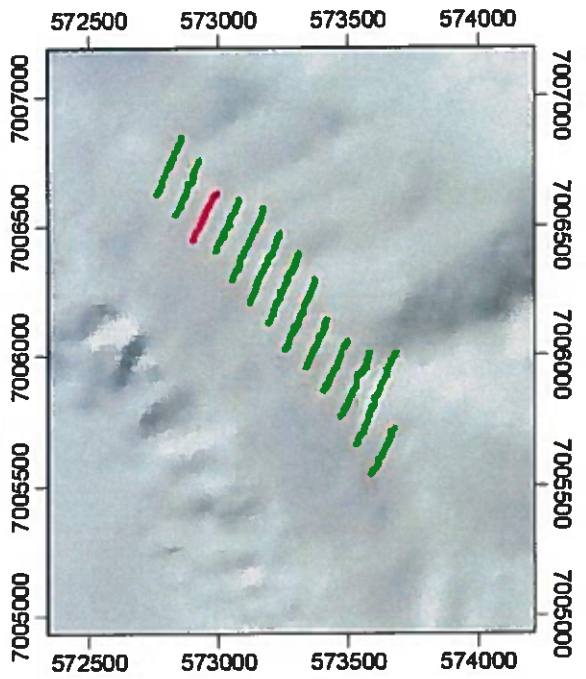
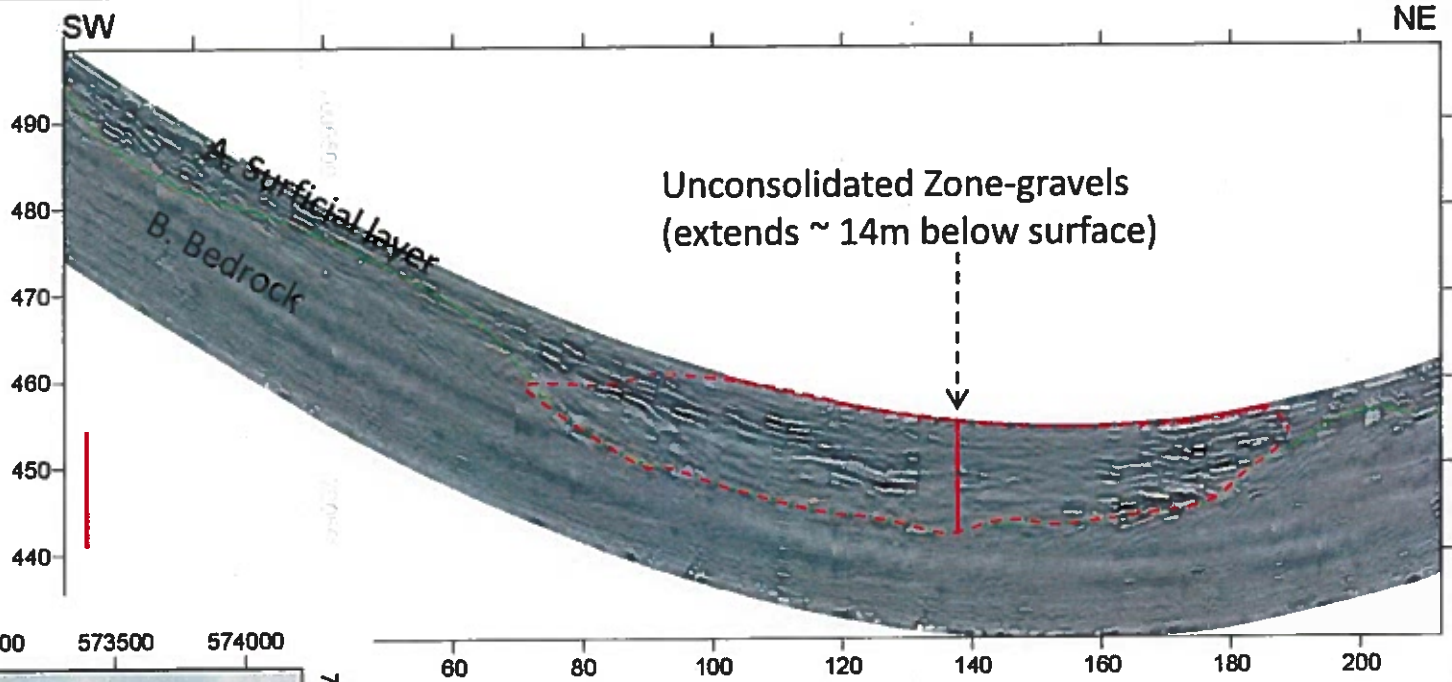


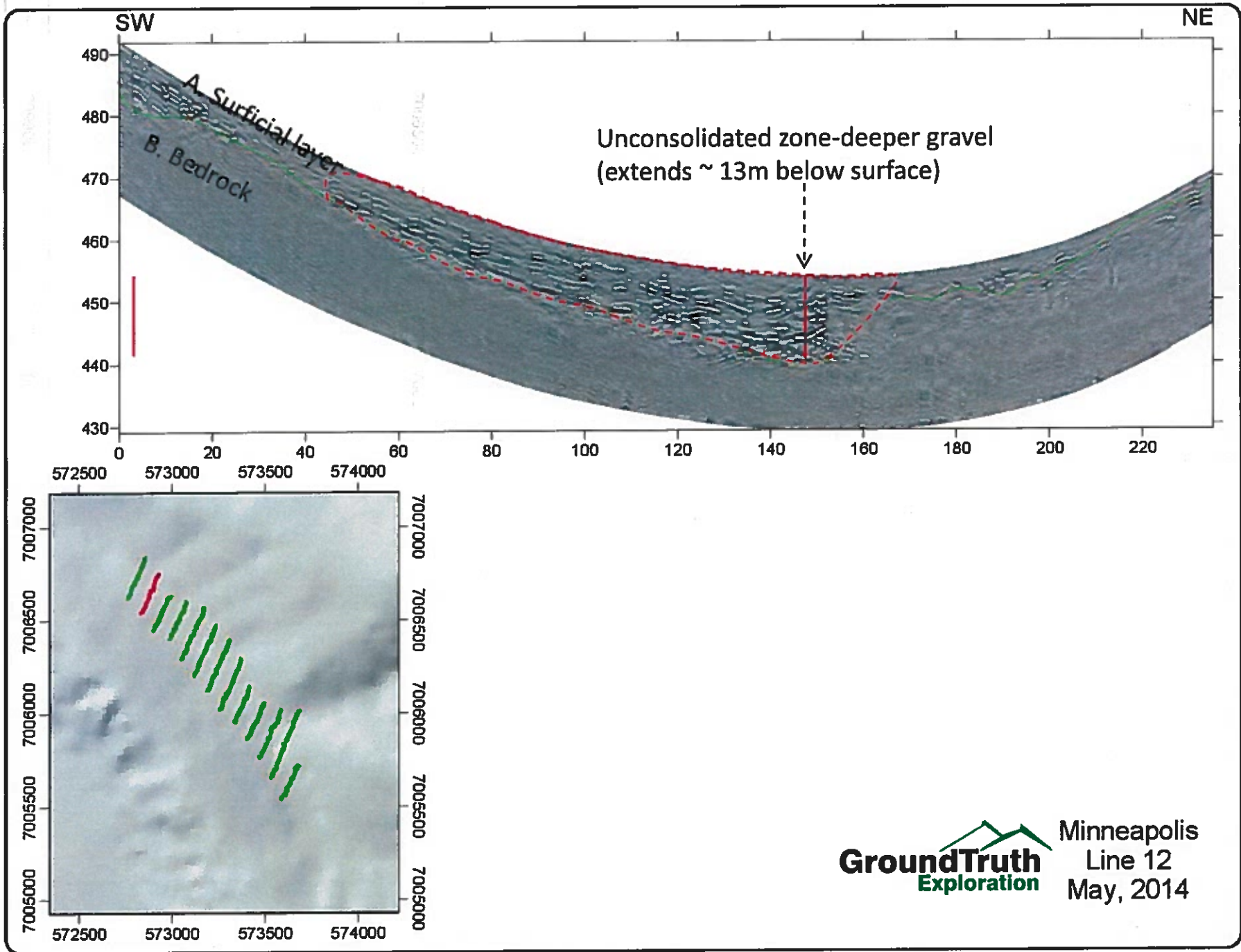


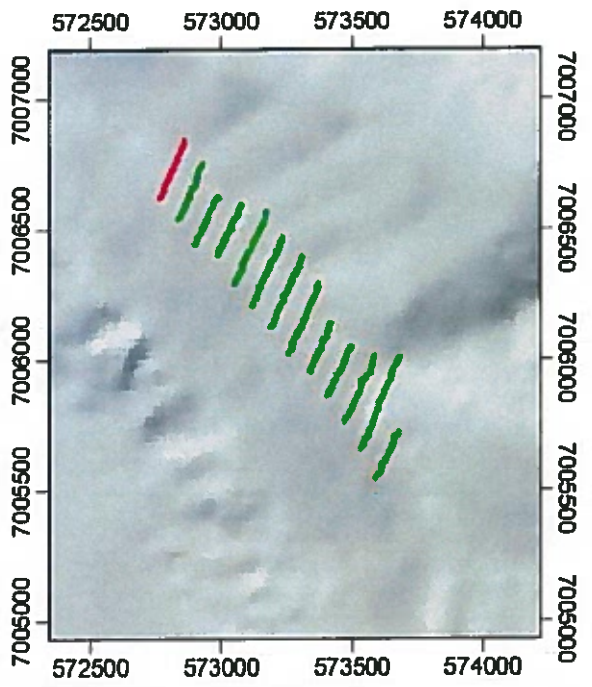
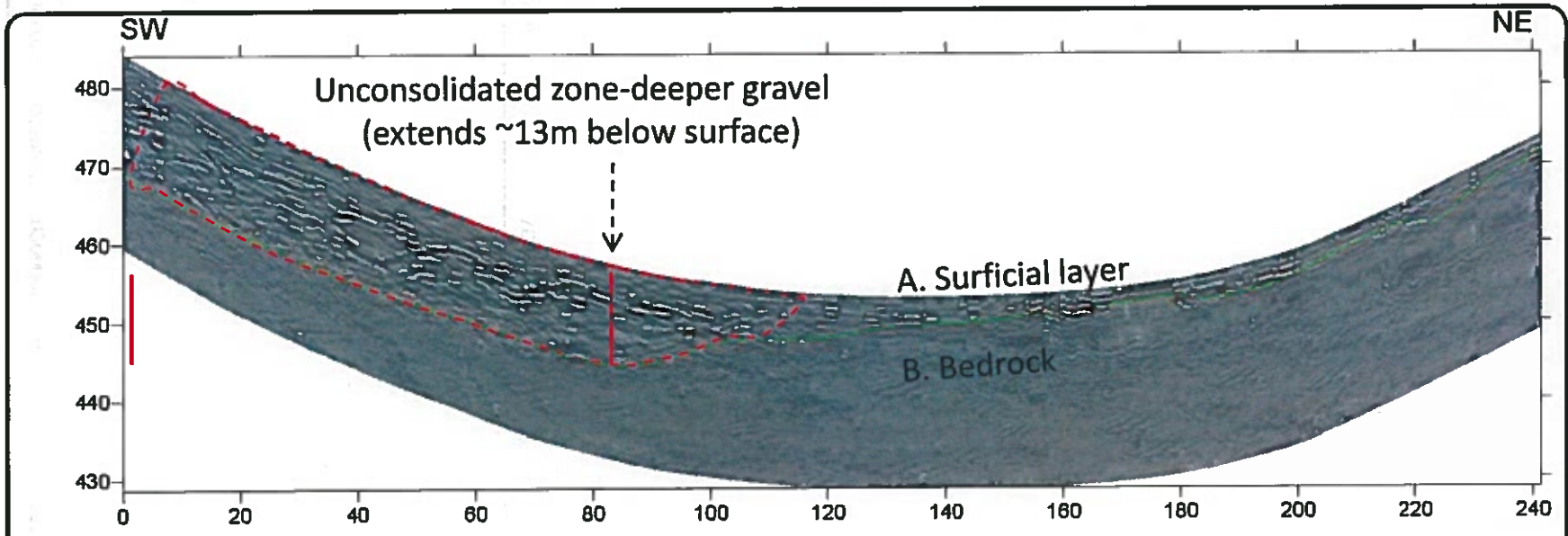












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Minneapolis
Line 13
May, 2014