Report of the Skagafjörður Archaeological Settlement Survey 2008:

Excavations at The Lower Midden at Stóra Seyla

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Location

The midden (Area D) was located to the northeast of the main site near the small east-west running stream (Figure 1 & 2). The area was identified in 2002 by coring and was defined by conductivity and resistivity.

Excavation techniques.

Excavation was started on July 12, 2008 and ended Aug 8, 2009. The excavation started off as a cleaning of an exposed section of midden. Apparently, when the east-west stream was running with greater volume it had removed the grass and aeolian overburden and exposed tephra and midden layers. The initial cleaning was designed to obtain botanical samples of the lower levels of the midden without an invasive excavation. Samples were taken and processed from this initial examination. However, it quickly became apparent that some truncation had occurred and while some of the midden layers and tephras were in good order, they had slumped and been undercut. Although little was excavated, what was excavated at this stage was screened through ¼ inch mesh. Screen detritus was retained for examination in the lab. Flotation and micro-morphological samples were also taken.

Starting on July 25, full excavations were begun to the south of the profile exposed earlier (Figure 3). Again, what was excavated was screened through ¼ inch mesh. The bones were bagged separately from other finds. Screen detritus was retained for examination in the lab. Flotation and micro-morphological samples were also taken. Area D was excavated and screened in 1x1m units, brought down by broad context. The units, when cultural, were screened though ¼ inch mesh and 2l flotation samples were taken from each unit. Contexts were excavated with trowel and spade.

Contexts

The units at Stóra-Seyla were dug in two sections (Figure 4). The first consisted of 133,134,135,148 & 151, which were excavated from the river cut into the main body of the midden. This is the north section of the area. These were all clearly above the H1 tephra. The stratigraphic relationship of contexts 127, 145, 146, & 165 are unclear as they all were slumped to some degree. It would appear that some of these contexts were deposited after they midden itself had begun to slump and be undercut.

After it was discovered that although large sections of contexts 127, 135, 134, 145, 146, 148, 151, and 165, were intact, but had slumped as the river had eroded the bottom of the deposit, even as new midden layers were added by the inhabitants (Figure 5)

The excavation was expanded to the south, onto the more level area, where layers could be followed without dealing with the river. Therefore, in general, starting at 157 and continuing down to 199, the contexts expand north. 202 as well as the LNS began to contract, probably due to river undercutting. This is most dramatic with the LNS.

Based on a series of cores (see coring Stóra Seyla Coring report) the midden profile cut was turned into an excavation. The small excavation was turned a 2x3m excavation that targeted the edge of the deepest part of the midden (as determined by the coring). Context 101 was the top soil at the highest point at about 13.85m asl. The aeolian deposit extended below H1 which was at about 13.67m asl at its highest point. Context 157 (Figure 6) is the aeolian material above H1 & [158] is below H1 (Figure 7).

Context 169 is the first cultural layer (Figure 8). Contexts 169, along with [171] (Figure 9) , & [173] (Figure 10) are all above the V-100 tephra. Contexts 169 & 171 were the richest in terms of finds. These three contexts –the midden above V-100 together had an average thickness of 20 cm. The V-1000 tephra was quite spotty and intermittent (Figure 7). Nonetheless, enough of it was presented that it was possible to follow it out and create a good stratigraphic layer. The top of [182] is the V-1000 which was 13.41m asl at its highest point (just before the edge) and its lowest was 13.16m asl in the very northeast corner (Figure 11).

Context 182, 187, 193, & 194 are all between the V-1000 and a mystery tephra, that we have tentatively called V-950. This date or tephra has not been confirmed by any experts or tephrachronologists. We have found it in several middens (e.g., see 2007 Marbaeli test pit report) but we have not seen it widely. These layers produced relatively few finds, although a piece of fabric was found in [193].

The mystery "950?" tephra layer was quite spotty and intermittent. Nonetheless, enough of it was presented that it was possible to follow it out and create a good stratigraphic layer– the top of [199] (Figure 12). However, we were not able to identify it in the sidewall after excavation. The highest point of the mystery tephra (950?) was 13.07m asl in the southwest and the lowest was 12.73m asl in the northeast. On the whole the layer was about 0.34m thick.

The contexts 199, 200, 204 & 201 were all between the Mystery 950 tephra and the LNS tephras. Context 199 was a traditional midden layer (Figure 12). Context 199 gave way to a bright and unusually mottled [200] with more rocks and upcast. Context 200 was mainly in the southern end (Figure 13, 14 & 15). Context 201 was again a more traditional midden layer (Figure 16). Context 204 was a series of distinct hay patches all about at the same level (Figure 17). Some of the hay was 2-3 cm thick. Most of the 202 context had some hay of [204] hay on top of it (Figure 18 & 19). Context 202 was a dark mottled layer with more stones that seen in other layers (Figure 20). It bottomed out on the LNS (Figure 12). The LNS sequence was quite distinct (Figure 21 & 22) Context 202 was everywhere on top of the LNS. In no place could we find any cultural material below the LNS. Specific tephras or organic deposits could not be sorted out within the LNS (Figure 23). The major components seemed to be the dark green teprha, capped by dark organic thin lenses without cultural material. We assume, that this is the 871 tephra, but this has not been confirmed. The highest part of the LNS was 12.79m als in the center of the excavated deposit and the lowest was 12.40m als in the northeast. The NLS rested on thin, small patches of aeolian deposit, which was immediately on top of

the H3-H4 thick tephras. It is very possible that 202 and 204 are not midden contexts but rather the remnants of an animal floor. No artifacts, other than wood, were found in either layer.

Sequence interpretation

In general, the tephra layers are not co-occurent with major changes in the sequence. No 1776 or 1300 teprha was encountered. The H1 (1104) tephera fell after the termination of the cultural sequence, in the middle of aeoloian deposit. It is clear that booth the V-1000 and the 950? fell while the area was active for waste disposal. The LNS fell just before occupation (Figures, 24, 25, & 26).

Interpretation.

The east-west running stream would appear to both predate the midden and be contemporary with the creation of most of the bulk of the midden The midden would appear to be at the fjord edge when the site was occupied. The site may have started out as a pen or animal barn 9contexts 204 & 202). Context 202 had little turf, but more than all the other contexts. Although it is possible that [204] and [202] are low-density cultural layers we think it more likely that it was some sort of animal pen. Larger excavations would be necessary to identify its context. Clearly all the cultural layers above 202 represent waste deposition. These upper layers may be filling in an animal pen, or it just may be that waste was deposited or at least collected at where the east-west stream met the fjord.

From the top of the midden to the V-1000, is about 20 cm and between the V-1000 and the 950? there was about 34 cm and between the 950? and the LNS was about 18 cm. This would imply a deposition rate of 5.2 years/cm (0.19 cm/year) from 1000 to 1104, which is probably an under estimate. From 950 to 1000 there it is approximately 34 cm think, which would imply a deposition rate of 1.47 years/cm (0.68 cm/year). From 950 AD to its founding, (assumed to be 871 AD) there is a deposition rate of approximately 4.4 years/cm (0.2278 cm/year). If these estimates are at all accurate, the most active time of deposition for this section of midden would have been between 950 and 1000.

Figures

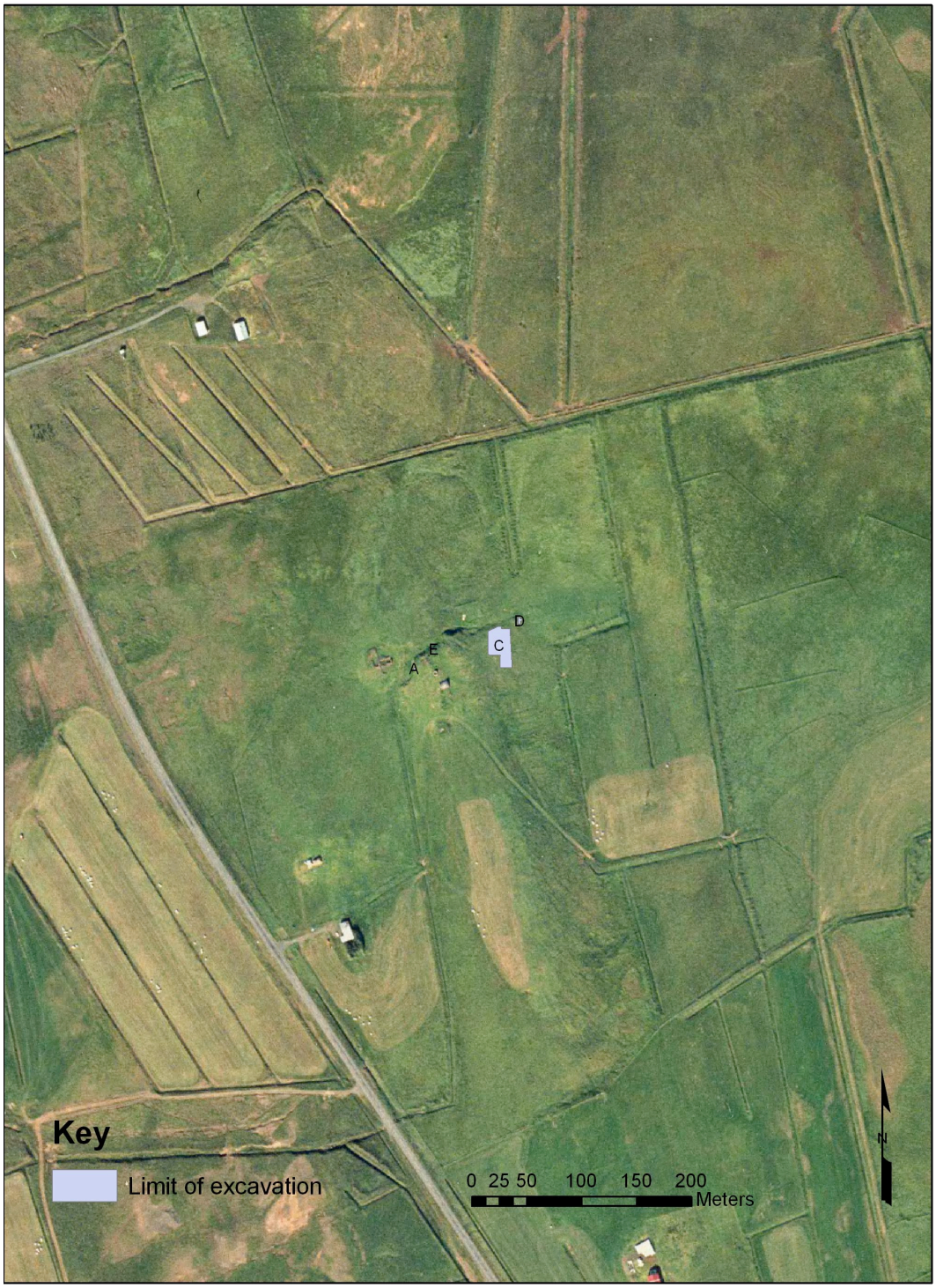

Figure 1. Location of midden (D) in relation to modern farm at Stóra-Seyla and main excavation.

Figure 2. Close up of midden (D) in relation to main excavation.

Figure 3. Looking north showing finished excavation of Area D

STÓRA-SEYLA, 104, AREA D
HARRIS MATRIX, 2008

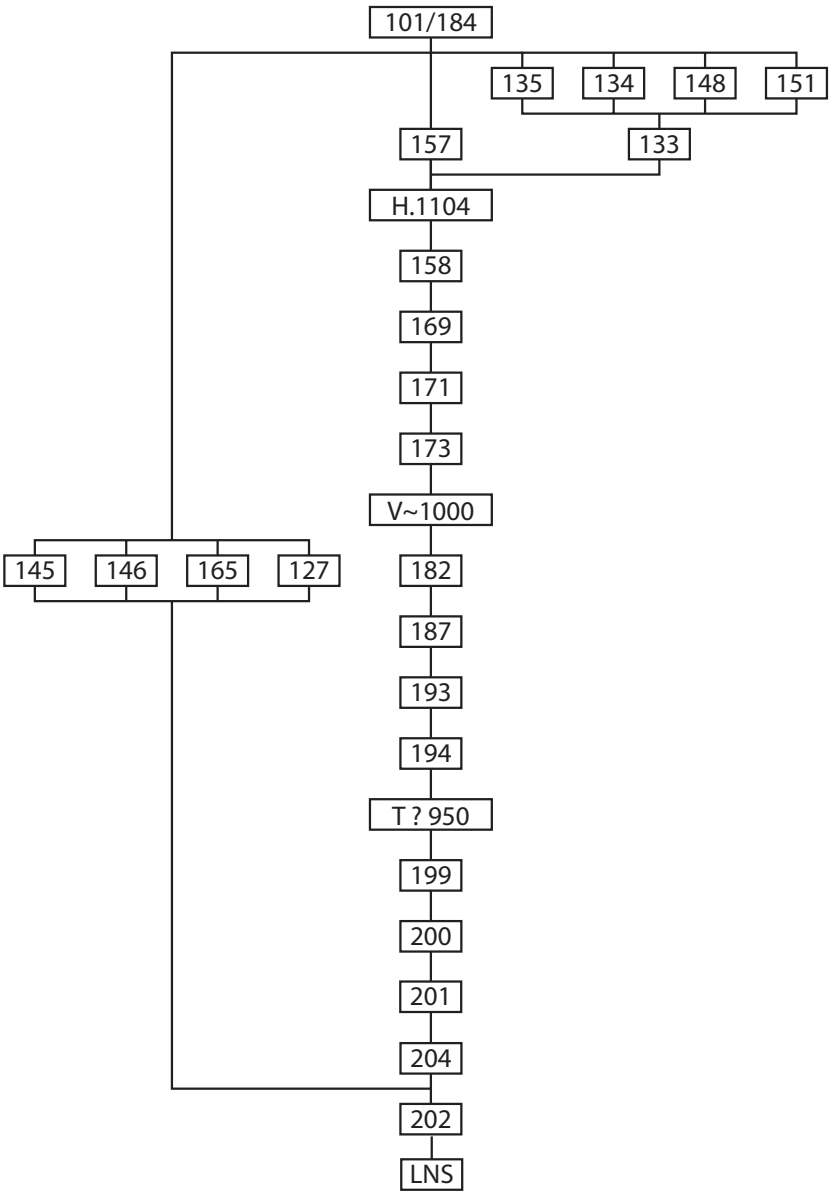

Figure 4. Harris matrix of Area D.

Figure 5. Photo of [165] shoing undercut made by east-west running stream

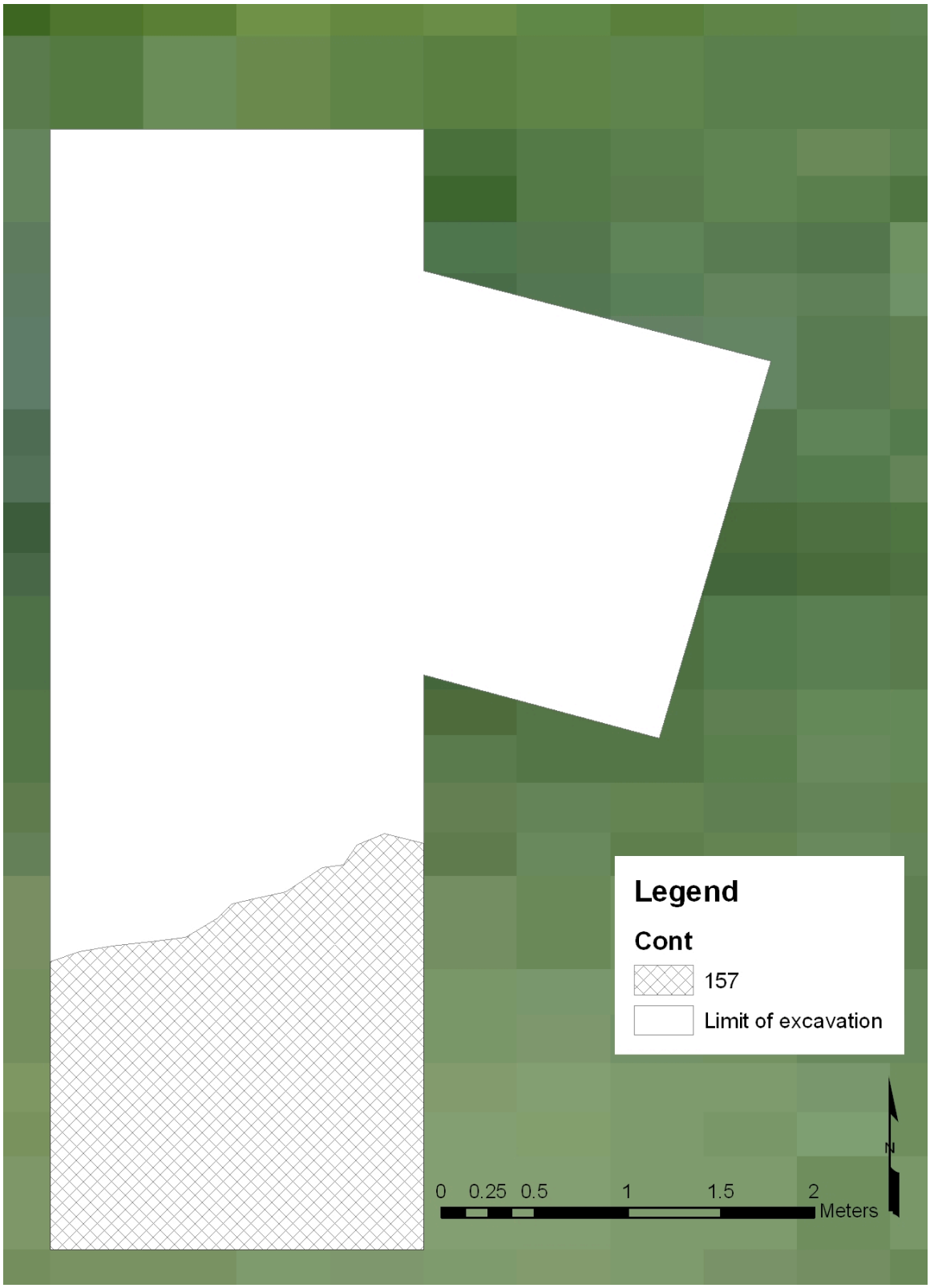

Figure 6. Context [157]

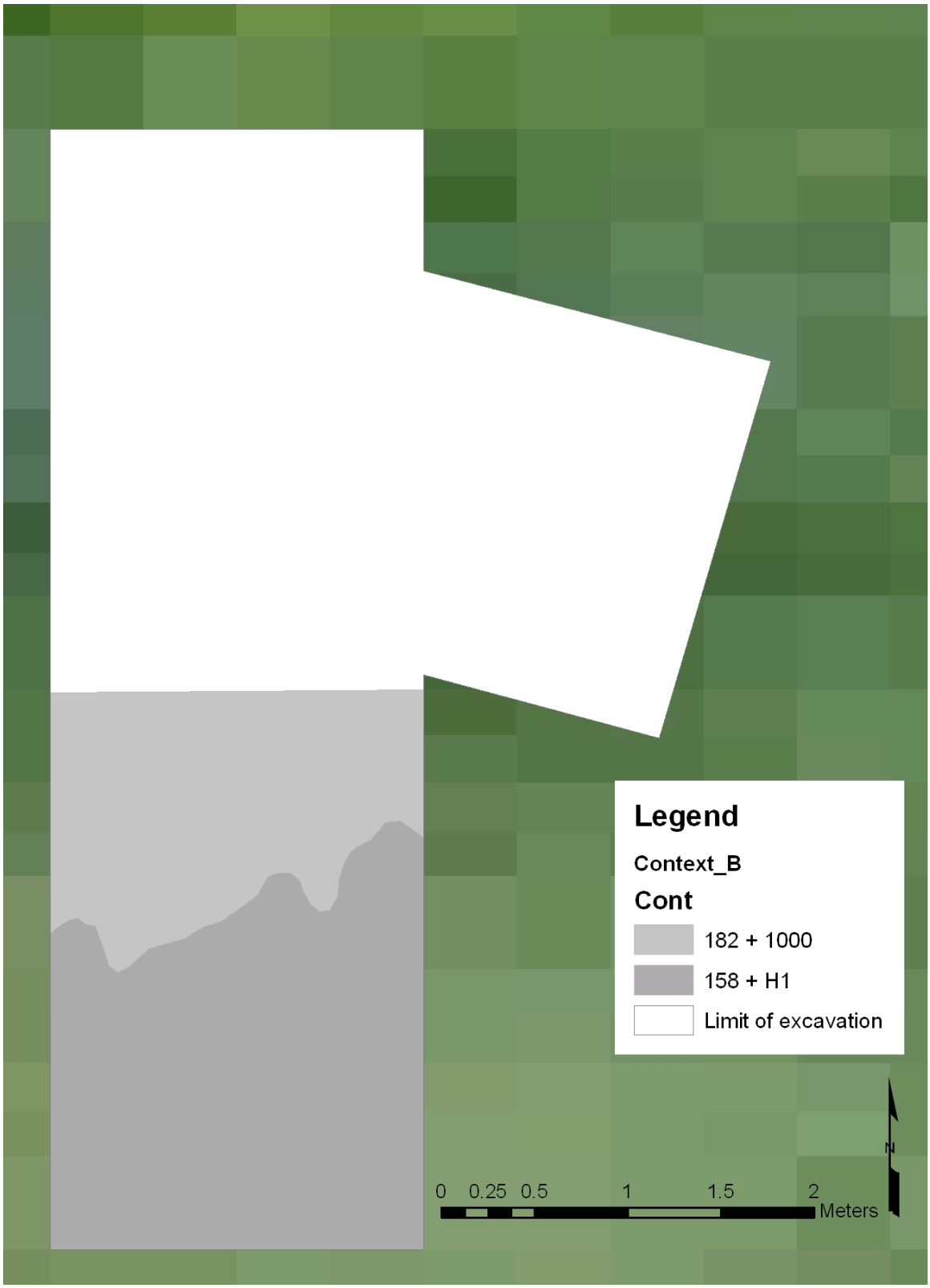

Figure 7. Distribution of V-1000 & H1 tephras.

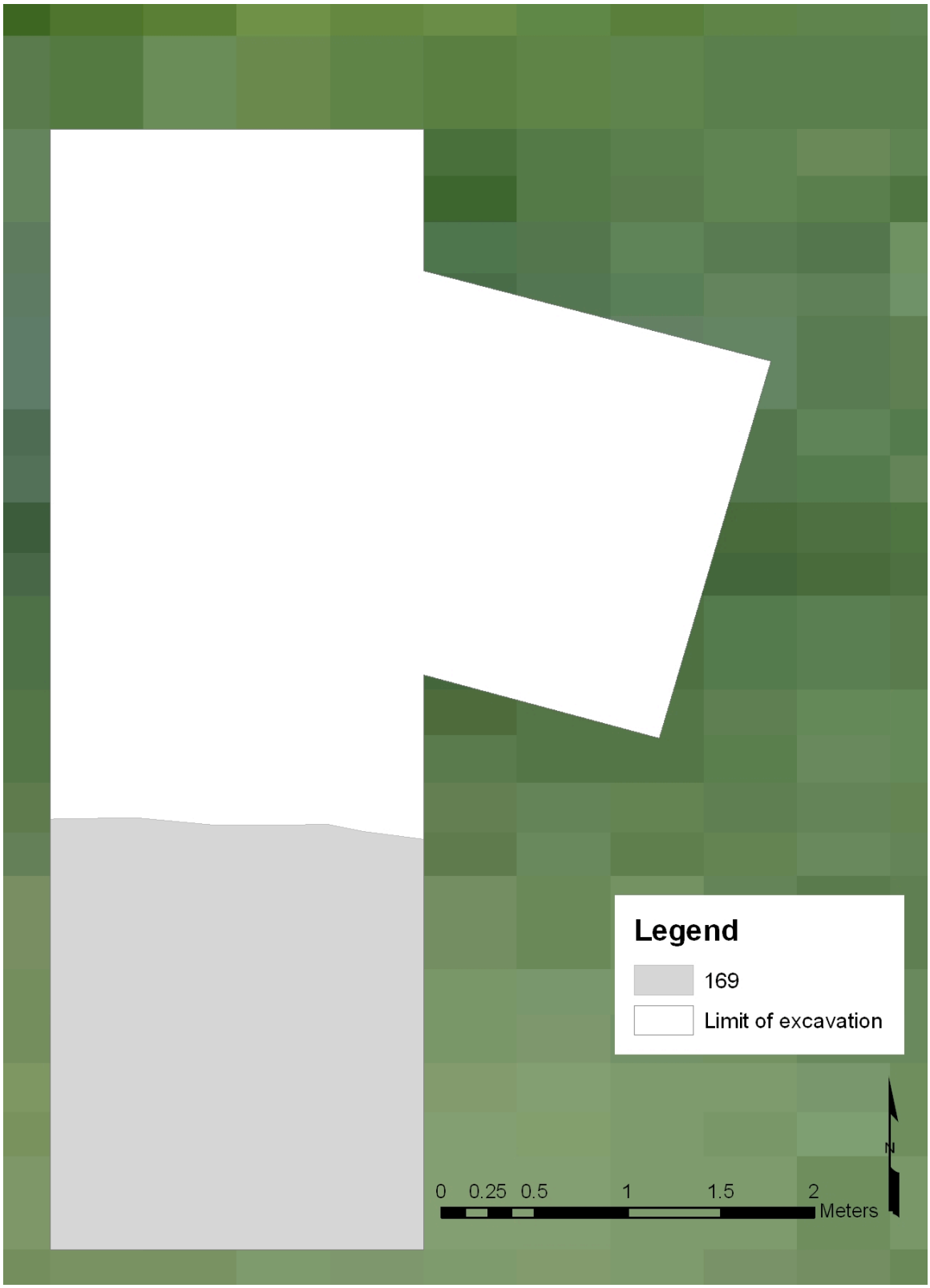

Figure 8. Context 169

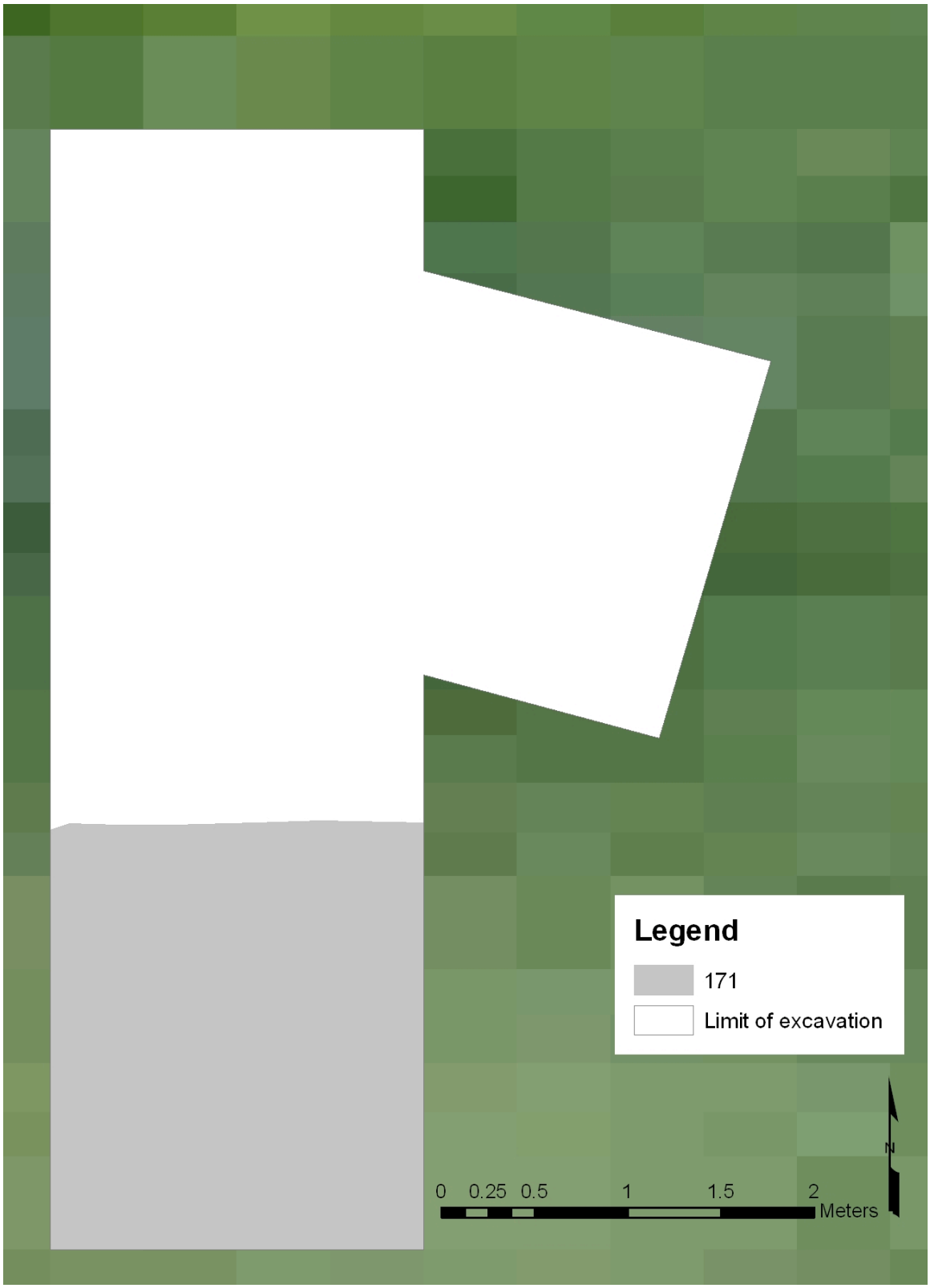

Figure 9. Context 171.

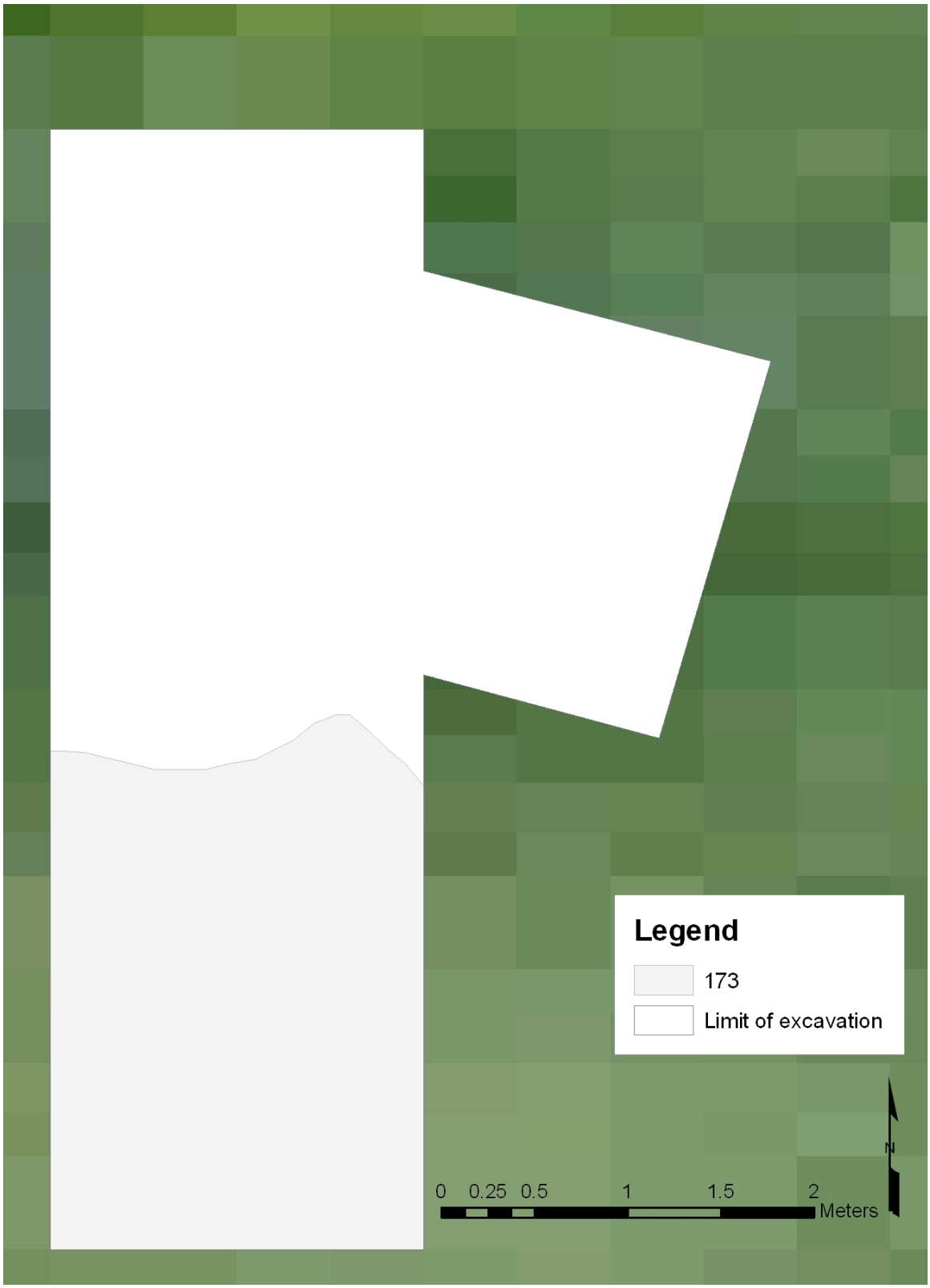

Figure 10. Context 173.

Figure 11 Photo of the surface of the V-1000 Tephra looking to the west.

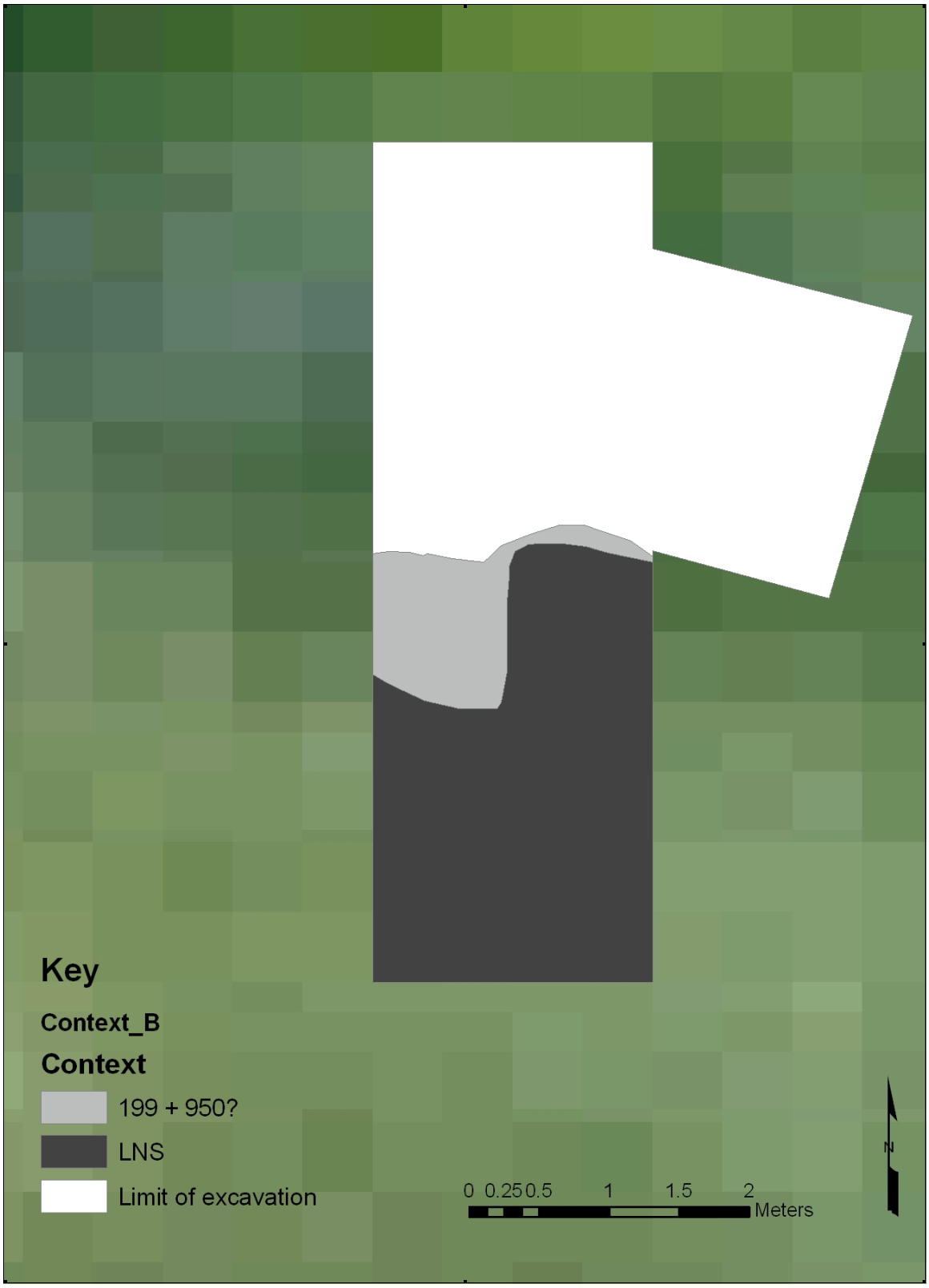

Figure 12 showing distribution of possible 950 tephra and the LNS.

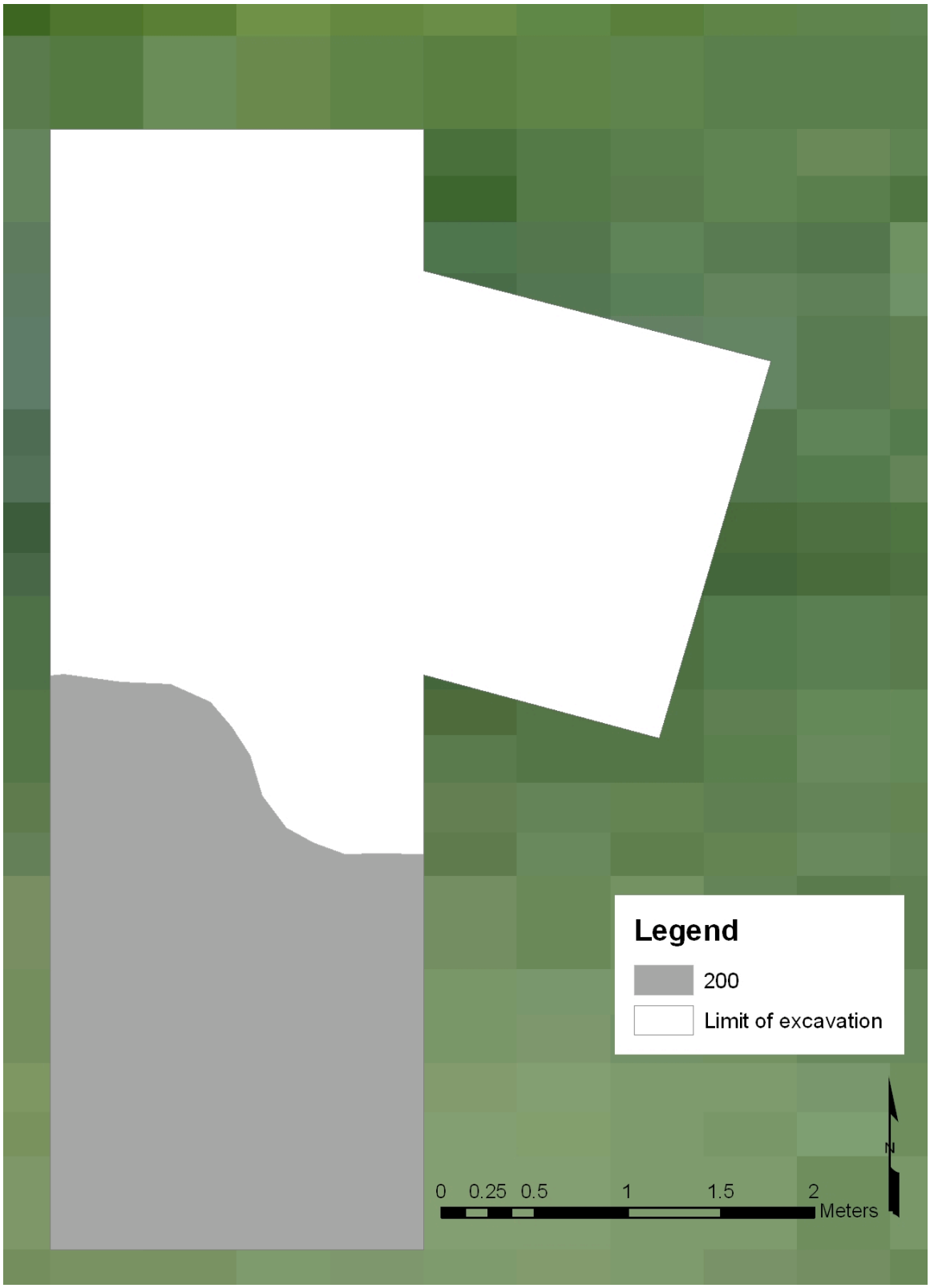

Figure 13. Context 200

Figure 14 . Context 200 from the south. Note the core in the center of the profile.

Figure 15. Contect 200 from the east.

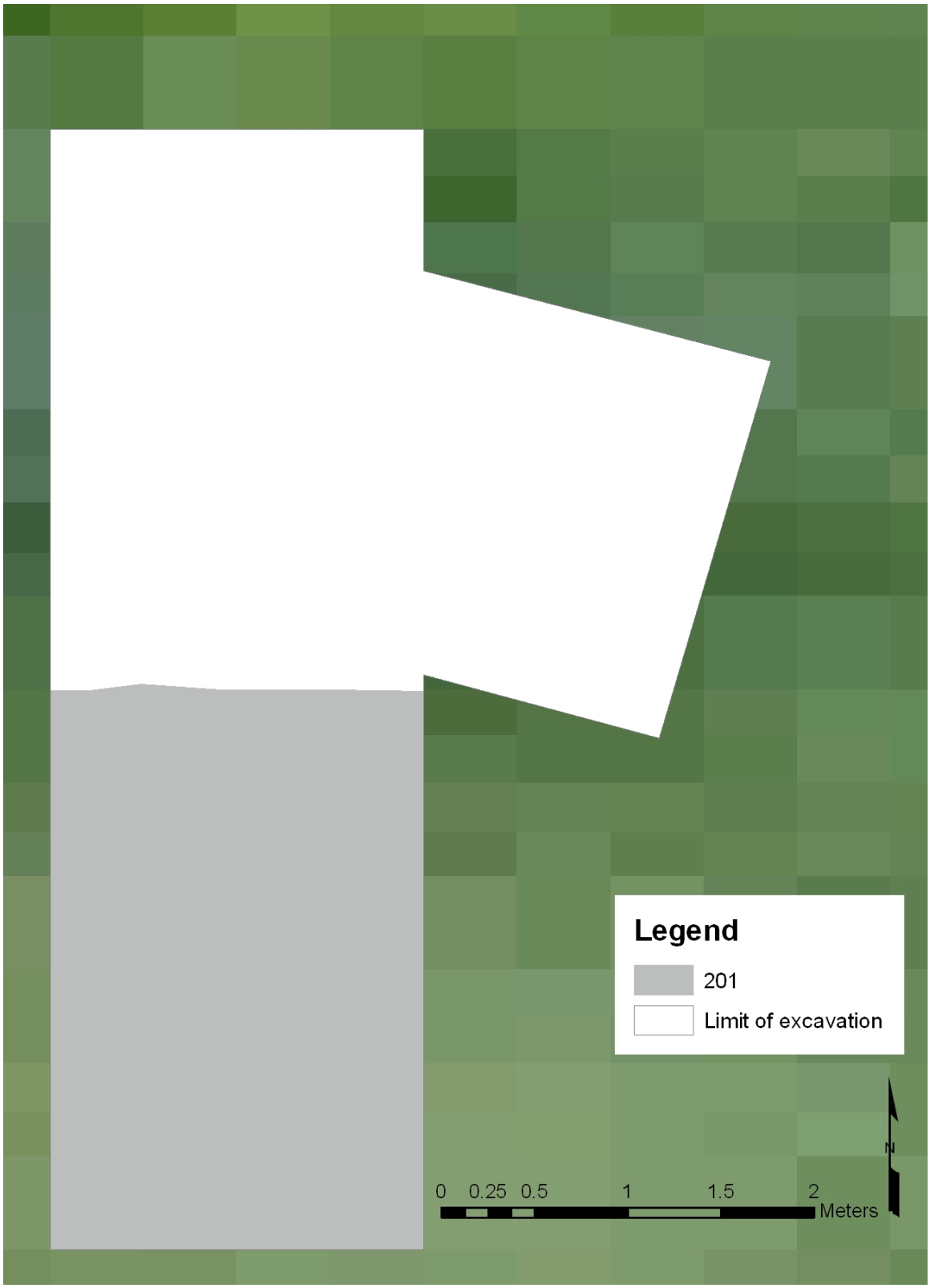

Figure 16. Context 201.

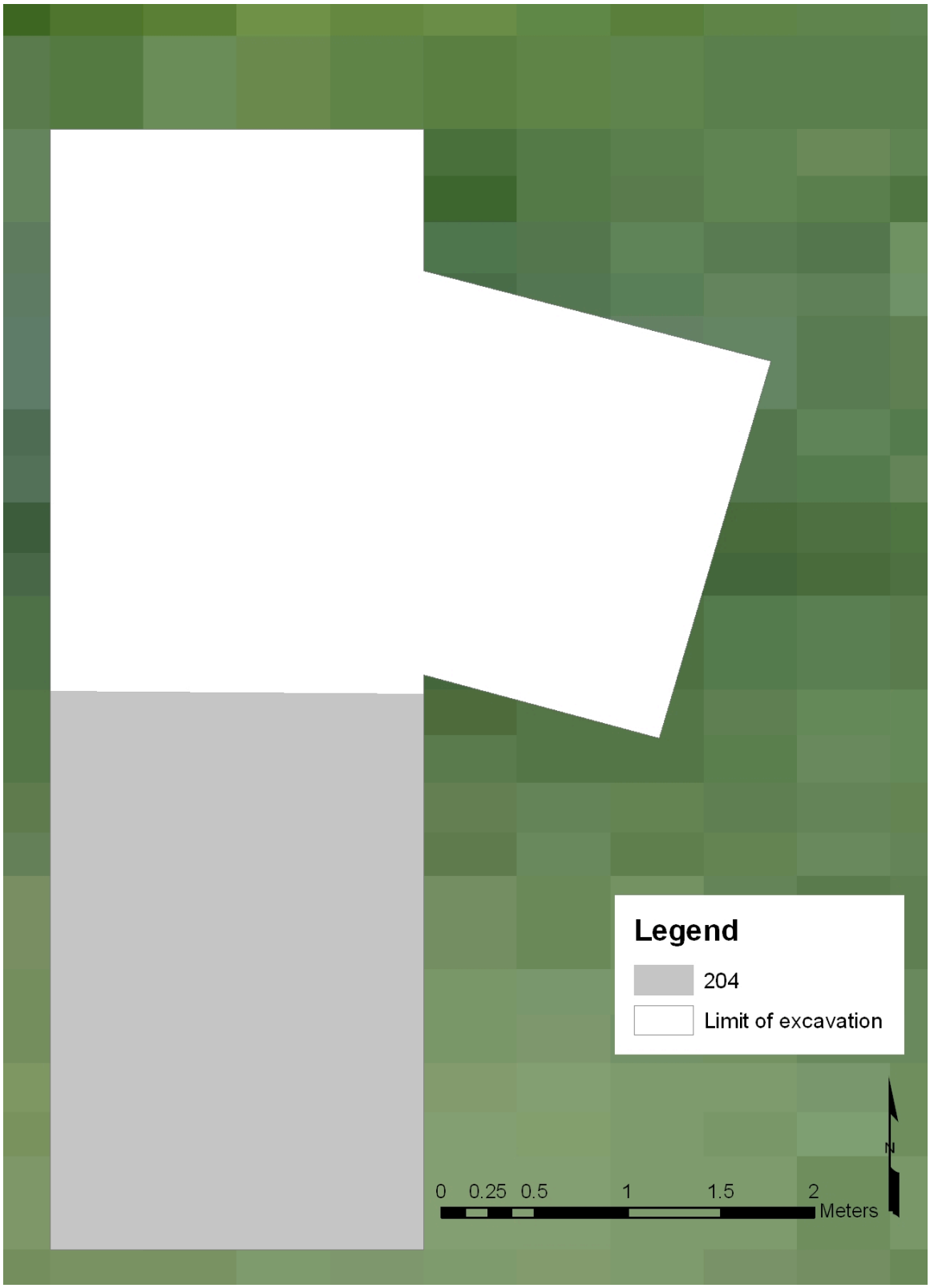

Figure 17. Context 204.

Figure 18 Context 204 (with top of [202]) from the south


Figure 19 Context 204 from the East.

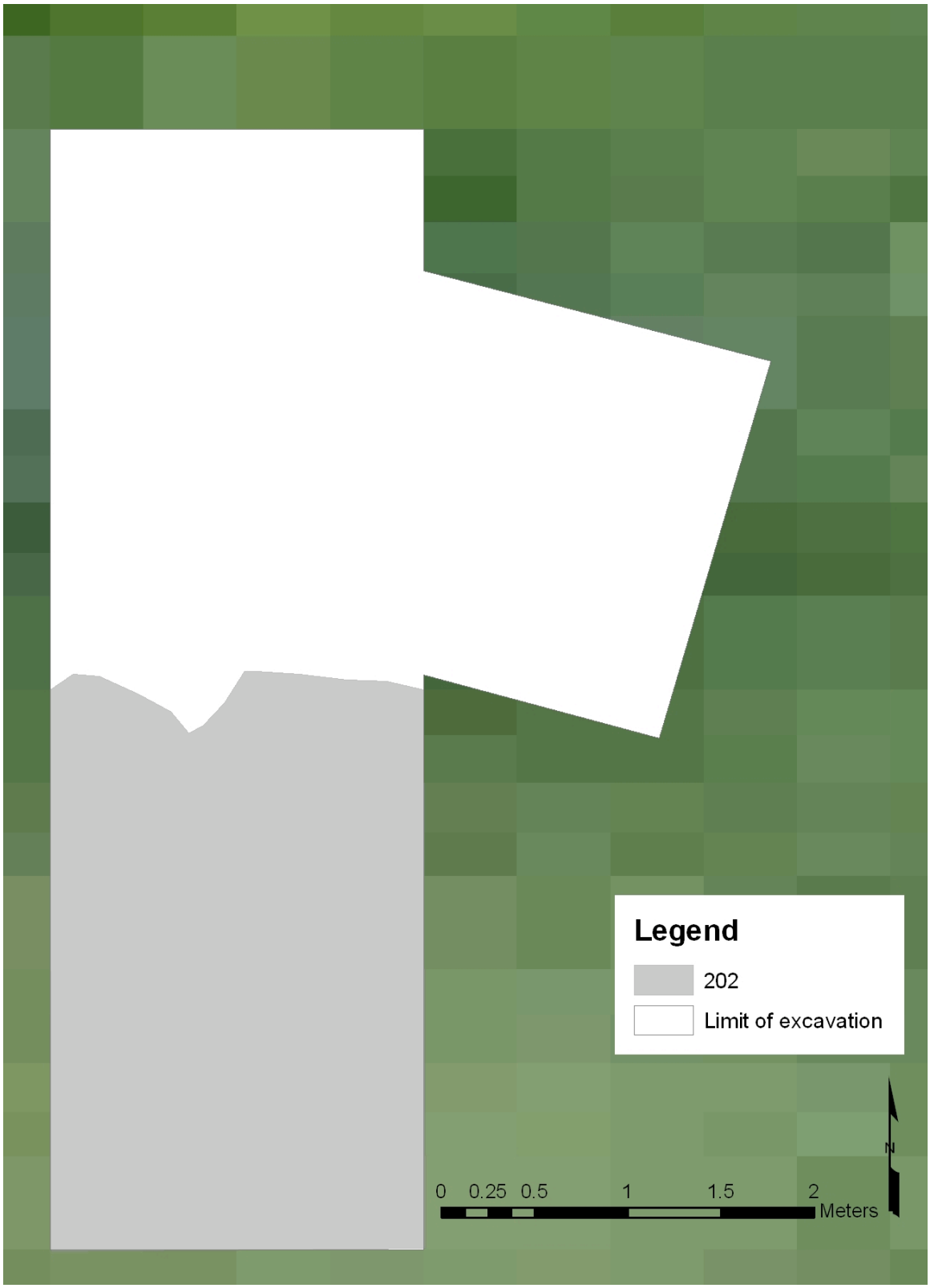

Figure 20. Context 202.

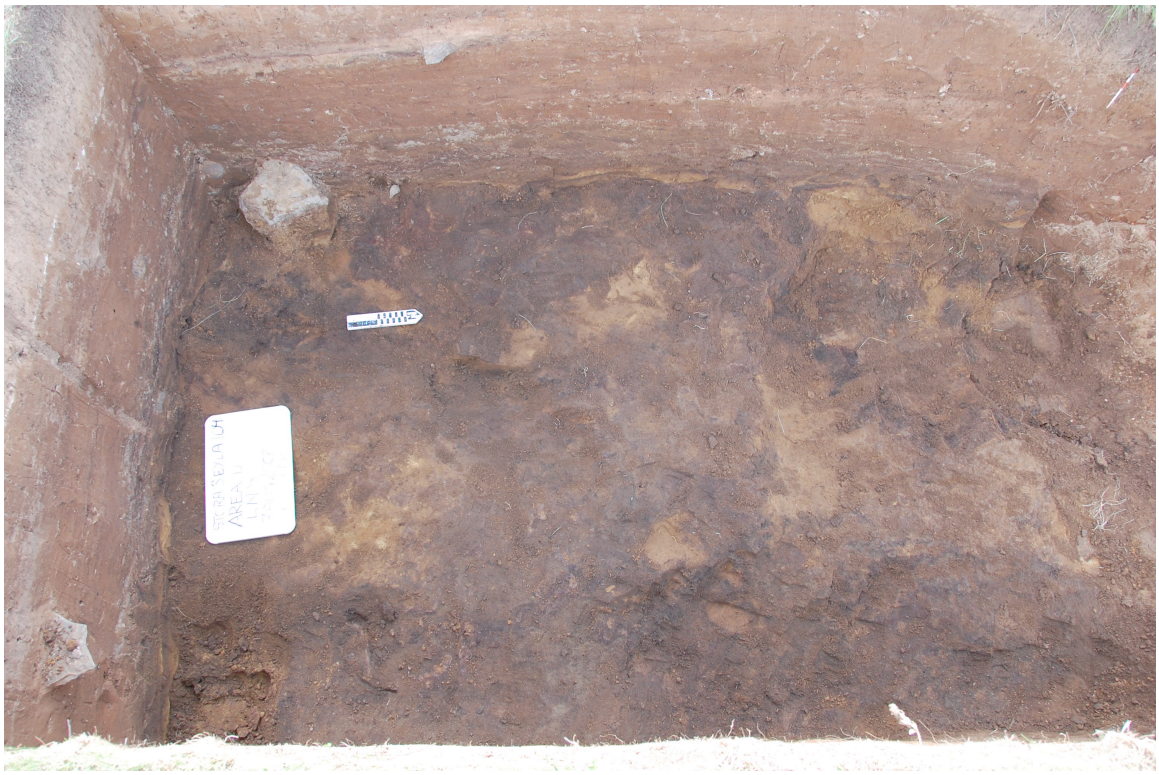
Figure 22 LNS from the west.


Figure 23 LNS from the south.

Figure 24. West profile.

Figure 25 South profile.

Figure 26. East profile East