SKAGAFJÖRÐUR CHURCH AND SETTLEMENT SURVEY

Helluland on Hegranes: Coring, & Test Pit: Interim Report 2016

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Photo on front page – Test pit at Helluland.

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SKAGAFJÖRÐUR HERITAGE MUSEUM

The Skagafjörður Heritage Museum is a center for research on local history and cultural heritage in the Skagafjörður region, North Iceland. It is affiliated with the National Museum of Iceland and its main exhibition at the old turf farm of Glaumbær is one of the most visited national heritage tourist attractions. The Archaeological Department of the museum was established in 2003 and engages in contract and research driven archaeology both within and outside the region. The core long-term research programs center on fundamental issues surrounding the settlement and early medieval church history of Skagafjörður and the North-Atlantic region with a focus on developing methodological and theoretical approaches to the geography of early Christian cemeteries. The department is involved in multifaceted interdisciplinary collaboration with Icelandic and international institutions and specialists. Its research portfolio includes bioarchaeology, early metal production, settlement studies, as well as the methodological aspects of archaeological surveying.

FISKE CENTER FOR ARCHAEOLOGICAL RESEARCH

The Andrew Fiske Memorial Center for Archaeological Research at the University of Massachusetts Boston was established in 1999 through the generosity of the late Alice Fiske and her family as a living memorial to her late husband Andrew. As an international leader in interdisciplinary research, the Fiske Center promotes a vision of archaeology as a multi-faceted, theoretically rigorous field that integrates a variety of analytical perspectives into its studies of the cultural and biological dimensions of colonization, urbanization, and industrialization that have occurred over the past one thousand years in the Americas and the Atlantic World. As part of a public university, the Fiske Center maintains a program of local archaeology with a special emphasis on research that meets the needs of cities, towns, and Tribal Nations in New England and the greater Northeast. The Fiske Center also seeks to understand the local as part of a broader Atlantic World.

SKAGAFJÖRÐUR CHURCH AND SETTLEMENT SURVEY

The Skagafjörður Church and Settlement Survey (SCASS) seeks to determine if the settlement pattern of the 9th-century colonization of Iceland affected the development of the religious and economic institutions that dominated the 14th century. The research builds on the combined methods and results of two projects. One has focused on Viking Age settlement patterns. The other has been investigating the changing geography of early Christian cemeteries. Together, the research seeks to understand the connections between the Viking settlement hierarchy and the Christian consolidation.

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1.0 INTRODUCTION

Helluland is one of the six large farmsteads that make up the western side of Hegranes. "Helluland" means stone slab land. The name of the island is probably derived from the nickname of the supposed first settler of the region, Havardr hegri, translated into English as Havard the heron, (Pálsson and Edwards 1972:90; Zoëga and Bolender 2016; Zoëga, et al. 2015). The farm is in the central west part of Hegraness (Figure 1) and today has been subdivided several times. The land also contains several Fornbýli, some of which have been recently reported on (Catlin, et al. 2017). This report covers the work at the main farm area of Helluland, specifically coring and a test pit. To the north of Helluland is Utanverdunes. To the northwest is the farm of Keflavík and to the west is Garður and Hegrabearg/Svanavatn (what used to be called Vatnskot). To the south is Karastaðir and the border on the west is Héraðsvötn. The farm sits on a north-south running ridge that overlooks Héraðsvötn (Figure 2). A stream, that emerges from a bog just east of the main farm buildings, drains to Héraðsvötn out to the northwest of the farm.

Helluland first appears in the historical record in 1374 as a property belonging to the bishop's see at Hólar (Pálsson 2010). A medieval cartulary dating to 1394 recounts that a priest was paid for his service at Helluland, which suggests that there might have been a chapel (Sigurðardóttir 2012). In 1713 the farm was worth 40 hundreds (Magnússon and Vídalín 1930:64) and the same again 130 years later (Johnsen 1847:277) and neither land survey source mentions a church. Oral tradition has it that the northernmost hill of the farm building area, where the pig barn now stands was called Chapel Hill (Pálsson 2010). Magnússon and Vídalín (1930) do mention the visible ruins at Ásgrimsstaðir as an ancient abandoned farm, which is reported on eleswhere (Bolender, et al. 2017), as well as Lijsekot, whose ruins are not visible.

Figure 1. Air photo of Hegranes showing modern farm boundaries in yellow.

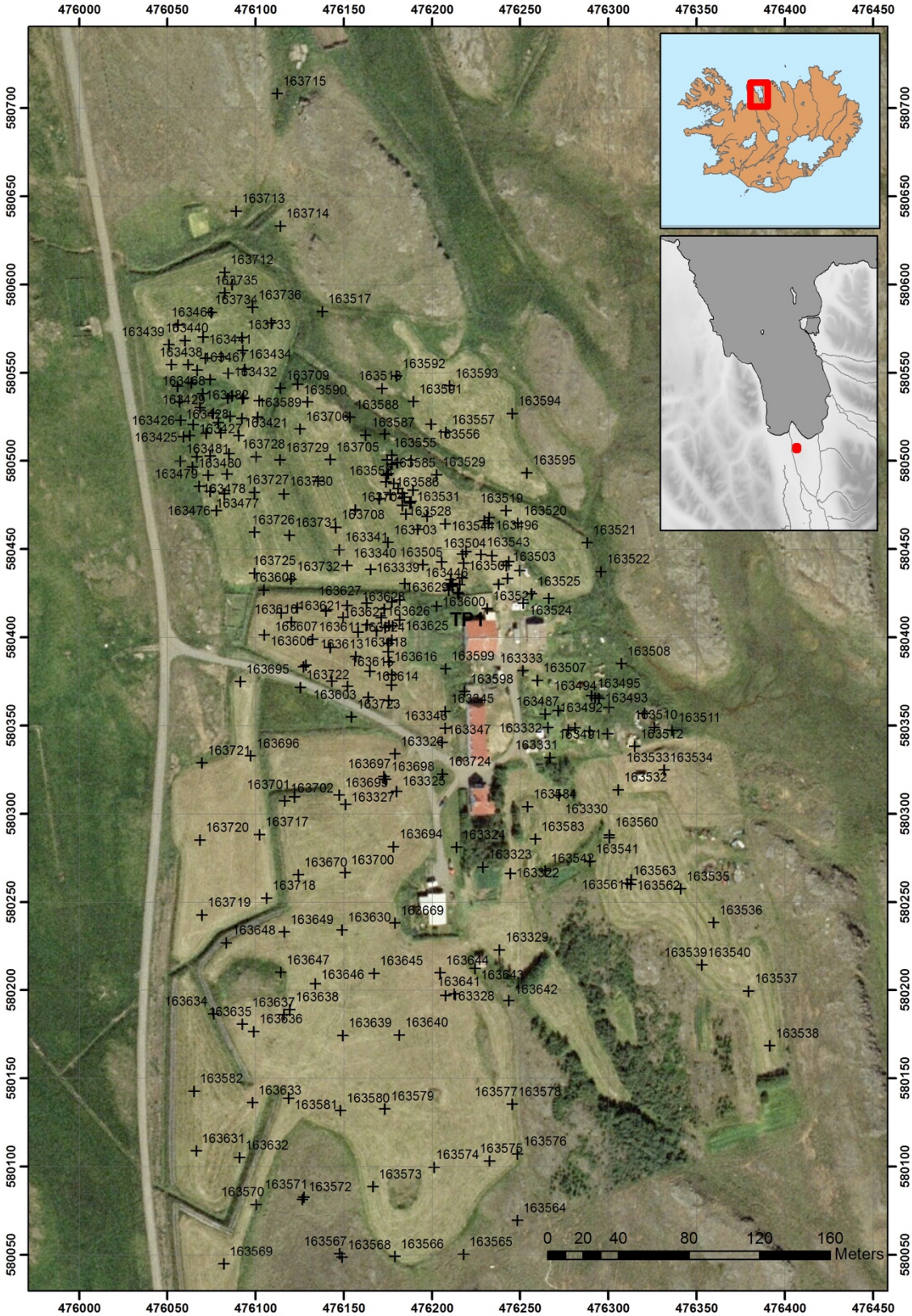

Figure 2. Air photograph of Helluland with cores "+" and their numbers. Insets of Icleand and Skagafjörður show he location of Helluland.

1.1 Geology and tephra

The geology of the region is characterized by Upper Tertiary basic and intermediate extrusive basalts (Feuillet, et al. 2012) overlain by morainic glacial till (Decaulne, et al. 2016). The area was deglaciated by 6100 yr cal.BP and then subject to uplift (Cossart, et al. 2014). Hegranes is probably a large rock drumlin, flyggberg, or rôche moutonnée formation (e.g., Neil 2002), with a long gradual south-side slope and a more sudden fall off on the north with many areas of plucked bedrock on that side of the island. The natural stratigraphy of the near surface of the region consists of a rapidly formed sediment and soil with intermixed tephra layers, along with gravel layers and lenses of glacial origin. The soil is a brown andosol that derives from aeolian sediments of volcanic origin, but is not the direct product of eruptions (Arnalds 2004, 2008; Arnalds, et al. 1995). The andosol is non-cohesive but has an extremely high water-retention capacity (Arnalds 2008).

The settlement and church survey relies heavily on tephra layers preserved in the soil. Skagafjörður has an early tephra sequence that allows for a fine-grained chronology of the changes in early settlement patterns (Larsen, et al. 2002). While tephra deposition can vary over small distances (Davies, et al. 2010) the basic tephra sequence is found throughout Skagafjörður and allows for a common dating system among farms and farmsteads (Þórarinsson 1977).

- Historic:
  - Hekla A.D. 1766. A black tephra usually found in turf or in the upper 10 cm of the soil sequence.
  - Hekla A.D. 1300: A gray-blue to dark black tephra (Larsen 1984; Larsen, et al. 1999; Larsen, et al. 2002; Larsen, et al. 2001; Sveinbjarnardóttir 1992).
  - Hekla A.D. 1104 (H1). This white or yellowish-white tephra is the most consistent in Skagafjörður (Eiriksson, et al. 2000; Thórarinsson 1967) and is readily identifiable in both natural and cultural stratigraphic sequences.
- Landnám sequence (LNS):
  - Vj~1000 tephra. A blue to bluish-black layer whose source has not been determined but is likely to be either from a Grímsvötn and/or Veiðivötn eruption dated to

approximately A.D. 1000 (Boygle 1999; Ólafsson 1985; Sigurgeirsson 1998; Wastegard, et al. 2003). Preliminary analysis of the composition of volcanic glass shards by scanning electron microprobe (SEM) has identified a mixture of shards from both volcanic sources.

- The mid-10th century layer (~950). This blue-green layer that is sporadically found is currently an un-sourced and undated layer that is lies between the LNL and Vj~1000. There are several potential candidates for this layer, including the large A.D. 934 ±2 eruption of Eldgjá. (Fei and Zhou 2006; Hammer, et al. 1980; Thordarson, et al. 2001) or an A.D. 933 ±6 green tephra layer identified in the Lake Mývatn area from Veiðivötn, termed V-Sv ~950 (Sigurgeirsson, et al. 2013). Preliminary analysis by SEM has identified shards primarily from the Grímsvötn source.

- "Landnám" or "settlement" layer (LNL, LTL, also designated as 871). The layer is so-named for its association with the earliest settlements in Iceland (Dugmore and Newton 2012)) and is dated to A.D. 871 ±2, (Grönvold, et al. 1995; Zielinski, et al. 1997, [A.D. 877 ±4]). The tephra originates from the Vatnaöldur fissure swarm associated with the Torfajökull and Bárðarbunga volcanos (Dugmore and Newton 2012; Larsen 1984). In general, this layer consists of two distinct tephras–an olive-green tephra overlying a white tephra. However, in Skagafjörður, only the green portion is present (cf. Hallsdóttir 1987). In many cases this layer and surrounding layers are tightly spaced in a brown organic rich soil matric associated with the environmental changes of colonization.

- Black tephra below the LNL (K800). The earliest tephra in this sequence is a dark black layer probably from the Katla volcano, but is not well dated (Wastegard, et al. 2003). It is usually labeled K800 in profiles.

❖ Prehistoric:

- Hekla 3 (H3). A thick (generally 2-3 cm) white or whitish-yellow tephra dating to about 950 B.C. (Dugmore, et al. 1995).

- Hekla 4 (H4). A thick (generally 1-3 cm) white or yellowish-white tephra dating to about 2300 B.C. (Eiriksson, et al. 2000).

1.2 Farmstead stratigraphy

Chronological phasing of farmstead sizes primarily relies on two tephra layers: the white Hekla A.D. 1104 (H1) and the dark Hekla A.D. 1300. These layers are the most commonly found in cores and often the easiest to identify of the historical tephras. H1 is presented twice as often as Hekla A.D. 1300. Using these tephra layers to date cultural deposits allows for the chronological phasing of farmstead sizes and for farmstead sizes to be compared across contemporary temporal horizons. Their presence also allows for the identification of changes in the size of individual farmsteads. Other tephra layers are used to help identify the overall stratigraphic sequence in the soil cores and to associate specific layers with historical periods. Deposits categorized by these temporal phases are based on whether or not they contained "farmstead" material. The resulting chronology allows for the estimation of farmstead size for three primary periods:

- Pre-A.D. 1104
- A.D. 1104-1300
- Post-A.D. 1300

1.3 Farmstead deposits identified in coring

To determine the location and area of farmstead deposits, the results of cores were divided into three simple categories: "yes," "no," and "maybe" based on the presence of cultural material above or below specific tephra layers (Steinberg, et al. 2016). Small and infrequent anthropogenic inclusions in soils – such as ash, charcoal, and bone – are common near farmsteads and other activity areas. These are good indicators that an activity area or domestic site may be nearby but we do not count infrequent inclusions as contributing to the areal extent of the farmstead. Higher concentrations of anthropogenic inclusions, midden deposits, turf, and floors are included in farm mound deposits.

For the "Pre-A.D. 1104" period a "Yes" cores presented cultural deposits below the H1 (or an earlier) tephra. "Maybe" cores indicated early cultural deposits, as determined by depth or association with another tephra such as the 1766 or 1300 tephra, but without the presence of a clearly defined H1 tephra layer. The absence of the H1 in a context of a cultural deposit is mostly because it was not preserved or the core did not penetrate deeply enough to encounter it (i.e., refusal within more recent deposits). A "no" core resulted when no cultural layers

were present in the core or where there was no cultural layer below the H1. Almost all "no" cores had the H1, or some other tephra that allowed for the assessment of this important negative evidence. The same logic was used for the "A.D. 1104-1300" and the "Post-A.D. 1300" farmstead distributions based on coring.

For the purposes of the coring survey, farmstead or farm mound deposits include:

- Turf deposits: any evidence for a turf structure, including collapsed or levelled turf, are considered evidence of farm buildings. The organic content and percentage of soil in turf deposits is variable. Sometimes tephra layers are present in turf, which can provide a terminus post quem (TPQ) date for the deposit. Dating turf deposits is not without difficulties. As a rule, a turf farmstead deposit containing a tephra layer is a positive farm mound location (yes) for the period(s) after the latest identified tephra. In the absence of in situ tephra, the rest of the deposit is characterized as a potential farm mound (maybe). For example, in a core with turf including what was identified as the H 1300 tephra as the only "farmstead deposit" would be coded as "Yes" for post-1300 but also "Maybe" for the pre-1104 and 1104-1300 phases because of the inherently uncertainty of a field identification of a single dark tephra.

- Low density cultural layers (LDC): defined by anthropogenic inclusions amounting to 10-50% of the soil matrix. These are assumed to result from indistinct and extensive depositional events that suggest regular activity typical of farmsteads or other farm production areas. Sometimes this deposit has a "mixed" character.

- Middens: defined by anthropogenic inclusions amounting to more than 50% of the soil matrix that suggest the regular deposition of household or production area waste. Middens are the result of distinct and intensive depositional events associated with purposeful disposal. In both LDC and Midden layers that are punctuated by tephra layers, for purposes of farm mound dating, the deposits are assumed to be continuous, occurring immediately before and after the date of the tephra deposition. For example, in a midden deposit with only H1 present, surrounded on either side by midden, both "Pre 1104, and "1104-1300" would be positive ("yes") while "Post-A.D. 1300" would be "maybe."

- Floor: characterized by dense, compacted, and/or greasy cultural layers indicative of floors, extramural activity areas, or areas of intense deposition of organic materials. These deposits are often thin but are very distinct.

A farmstead's perimeter for a given time period was determined by the results of the plotted cores taken around a site. The perimeter was plotted half way between a "yes" and "no" core, or on a "maybe" core between a "yes" and "no" core. The continuous area within the perimeter was calculated to produce the maximum possible area of a farmstead.

2.0 LAND SURVEYING AND ESTABLISHMENT OF GRIDS

All land-survey data were collected based on the ISN93 coordinate system. Core locations were determined in several ways. For cores that were taken away from the main farm buildings, the internal GPS receiver in the iPhones or iPads were used to record the coring data. Within Helluland grass fields, most cores were collected on 50 x 50 m grid spacing. Judgmentally placed cores around the farm buildings were originally located with an iPad and then those locations refined by either a Topcon Hiper SR DGPS using the ISMAR differential station at Stoð ehf in Sauðárkrókur or a Trimble Geo XH which was equipped with a Zepher antenna in order to improve upon the accuracy of the locational data.

3.0 CORING

At Helluland, 254 cores were taken during the 2016 field season (Table A1, Figure 2). In those cores 315 tephra layers were identified (Table A2) and 992 stratigraphic layers (Table A3). There were 27 cores that revealed turf deposits. Only two coring locations (163335 &163395), both just north of the big barn, presented distinct floor deposits (Figure 3). Overall, 96 cores contained some sort of cultural deposit (38%) while 154 cores had no cultural deposits (Figure 4). Most of the cores with cultural deposits were in the area of the modern farm buildings (Figure 5).

As for tephra layers, 7 cores encountered an in situ 1766 tephra (about 3%), which is normally very difficult to identify in cores. Of the 8962 cores taken in Skagafjörður by the SCASS and SCAS teams, about 641 (7%) contained this tephra. Along the same lines, 53 cores encountered the 1300 tephra (21%), much higher than the 9% average that are

presented in Skagafjörður as a whole. In situ H1 tephra layer was the most common historic tephra identified. It appeared in 91 different cores (36%), while H3/H4 was in 83. Eight cores encountered a single in situ dark tephra from between the H1 and the time of settlement. Five of these were identified in the field as the "1000" layer, three as the "950" layer. Three cores presented with two distinct in situ dark tephra layers between the H1 and the LNS. Only one core revealed a distinct LTL and six others the LNS, which appeared as a dark distinct mixed layer.

The cores taken in Helluland bottom out at an average of 66.9 cm (SD=37) below the ground surface onto gravel (Figure 6). The overall average for cores for the SCASS survey is 62.6 cm (SD=94) suggesting that Helluland is a consistent and just slightly deeper than the average deposit. The 96 cores that contained cultural material averaged 79.5 cm, (SD=29.2), about 20% deeper than those without cultural material. Similarly, for the whole SCASS survey, the average core with cultural material is almost 17 cm deeper than those without (Avg =79.3 cm, SD=38.9).

The distribution of cultural material in cores in relationship to various tephra layers suggests that the farmmound area almost doubled in size and shifted southeast slightly (Figure 8). The pre-1104 farmstead size is 10,270 m^2, AD. Between AD 1104 and 1300, it grew to 17,630 m^2, and after AD 1300 the main farm mound encompasses an area of 19,360 m^2. The pre-1104 farmmound is quite irregular with island of confirmed area of deposit to the north of the farmmound along the stream. Additionally, there is an area of pre-1104 deposits west of the modern farm buildings. The AD 1104-1300 farmmound is centered on the main farm buildings, as is the larger post AD 1300 farm mound. Northwest of the main post-1300 farmmound is a distinct island of later turf deposits. This or one of the pre-1104 outlying area could be associated with the Háagerði location (Catlin, et al. 2017; Pálsson 2010).

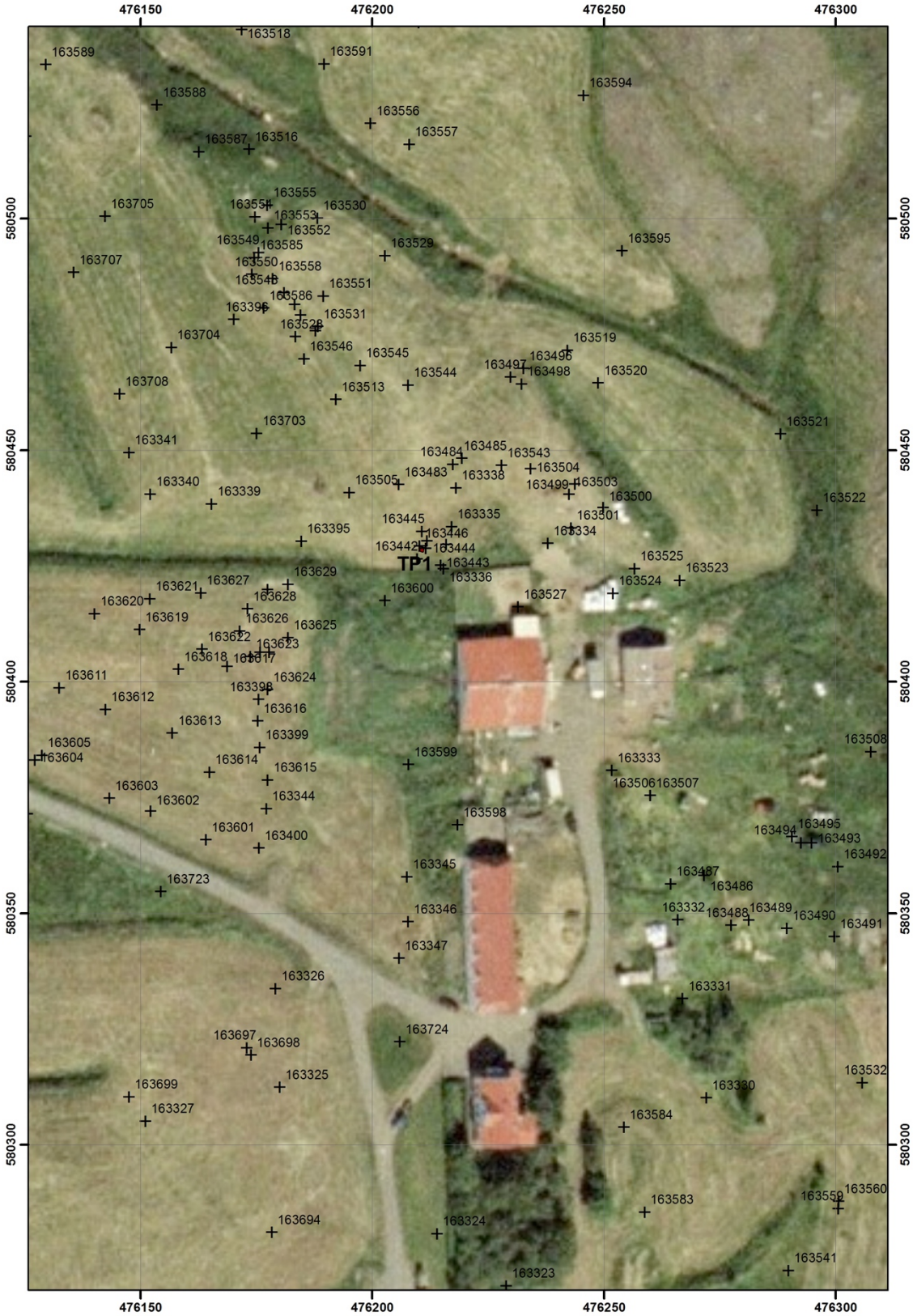

Figure 3. Area around modern farm buildings showing core locations.

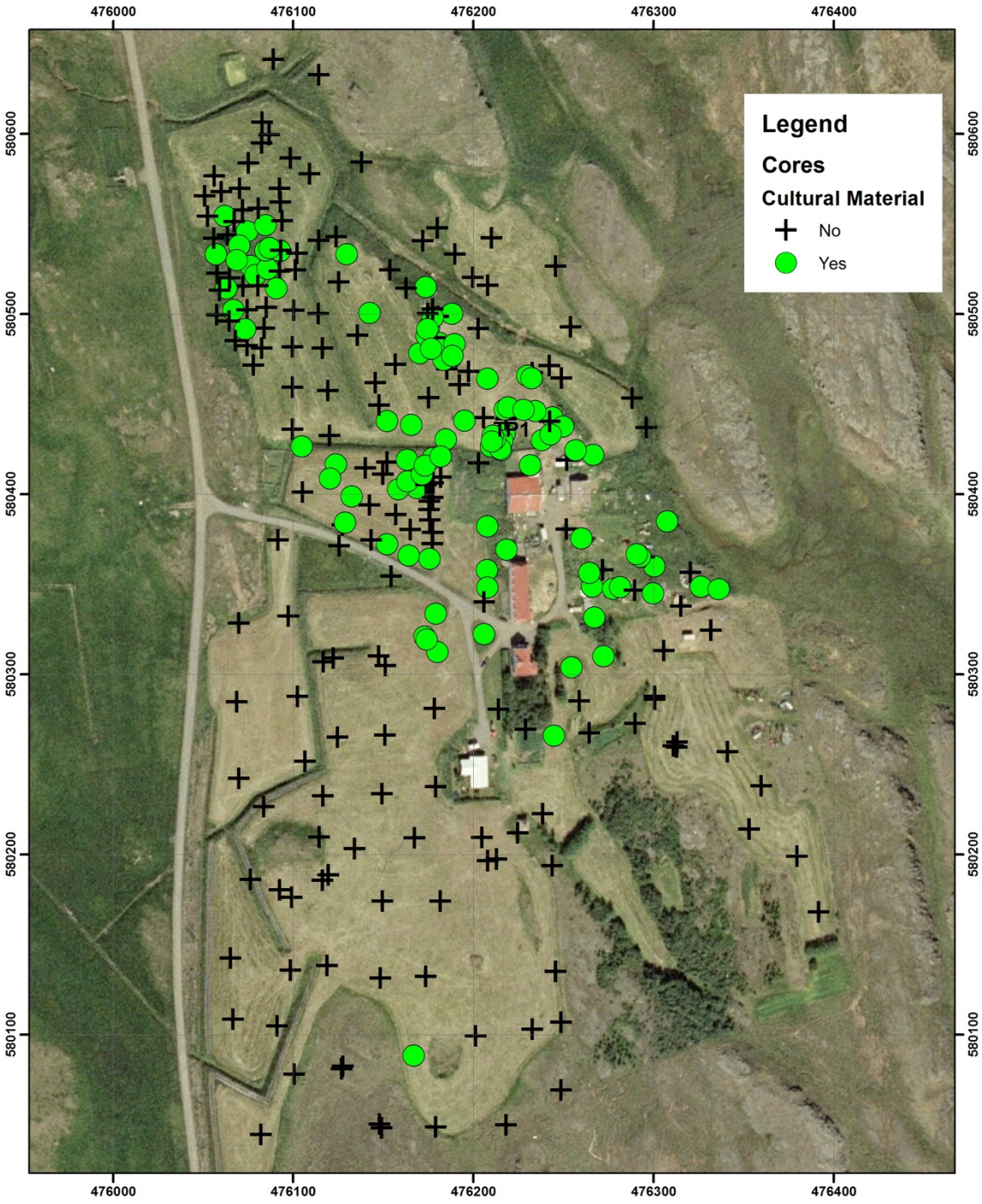

Figure 4. Distribution of cultural material in cores.

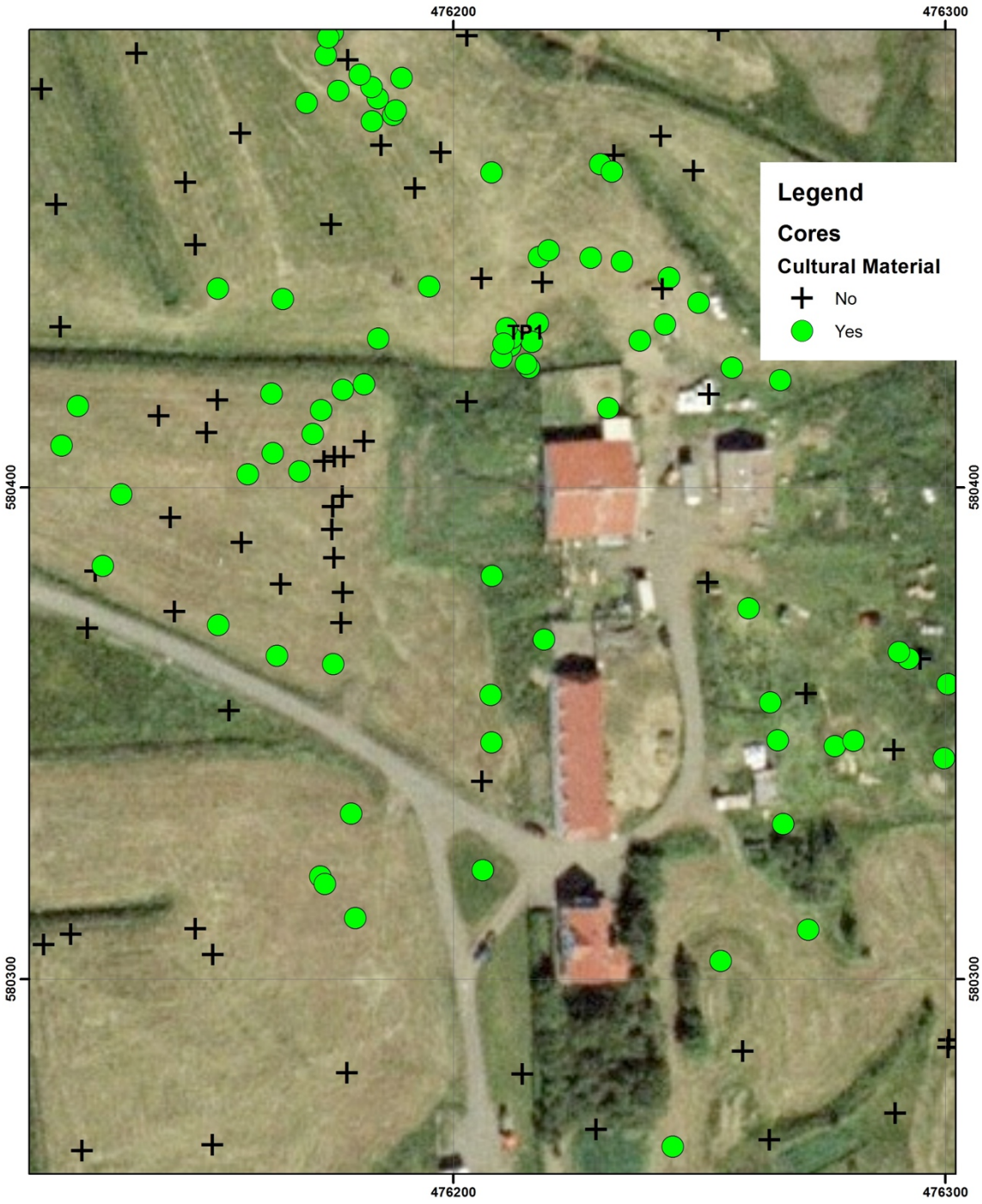

Figure 5. Distribution of cultural material in cores around farm buildings.

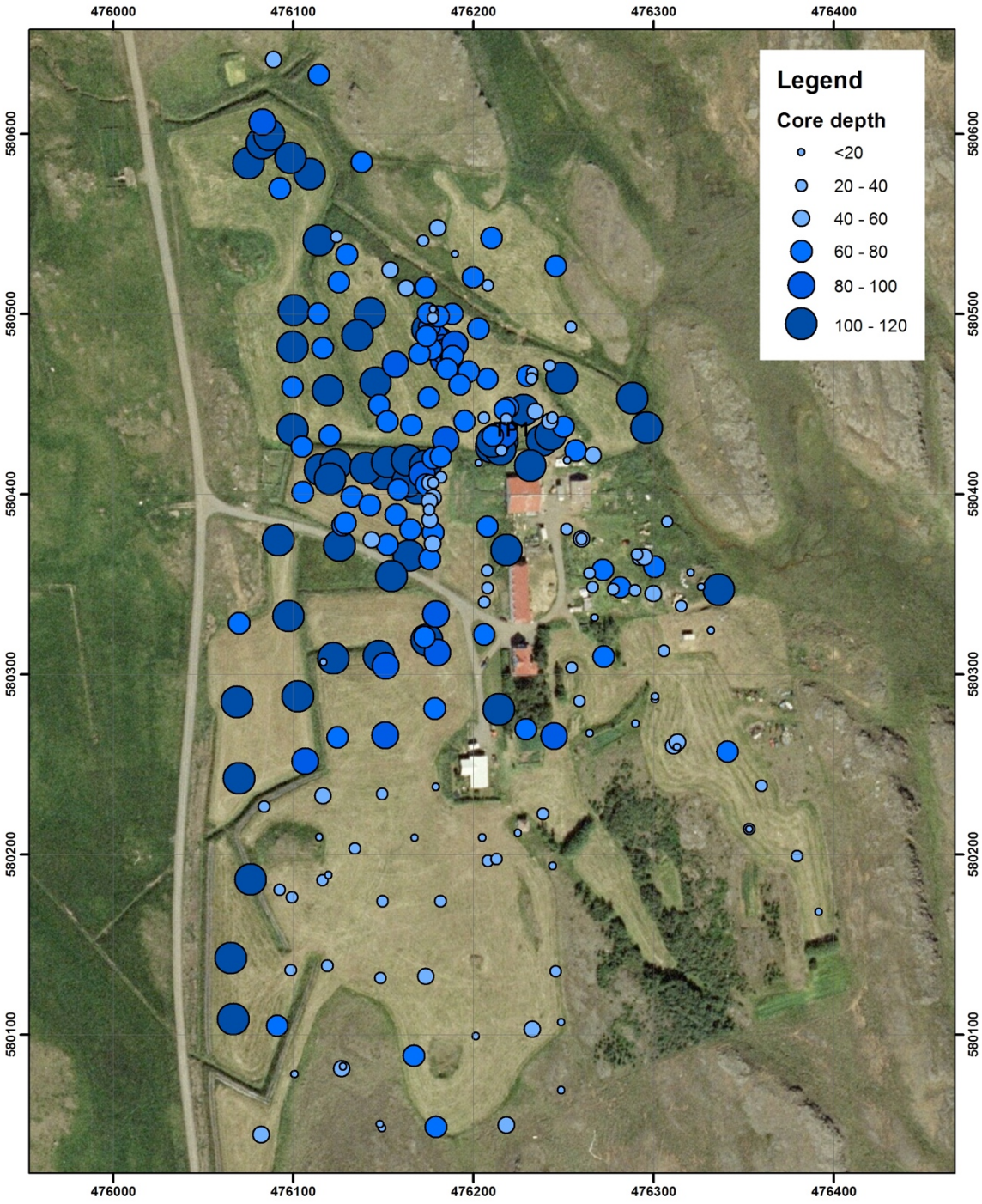

Figure 6. Depth of cores.

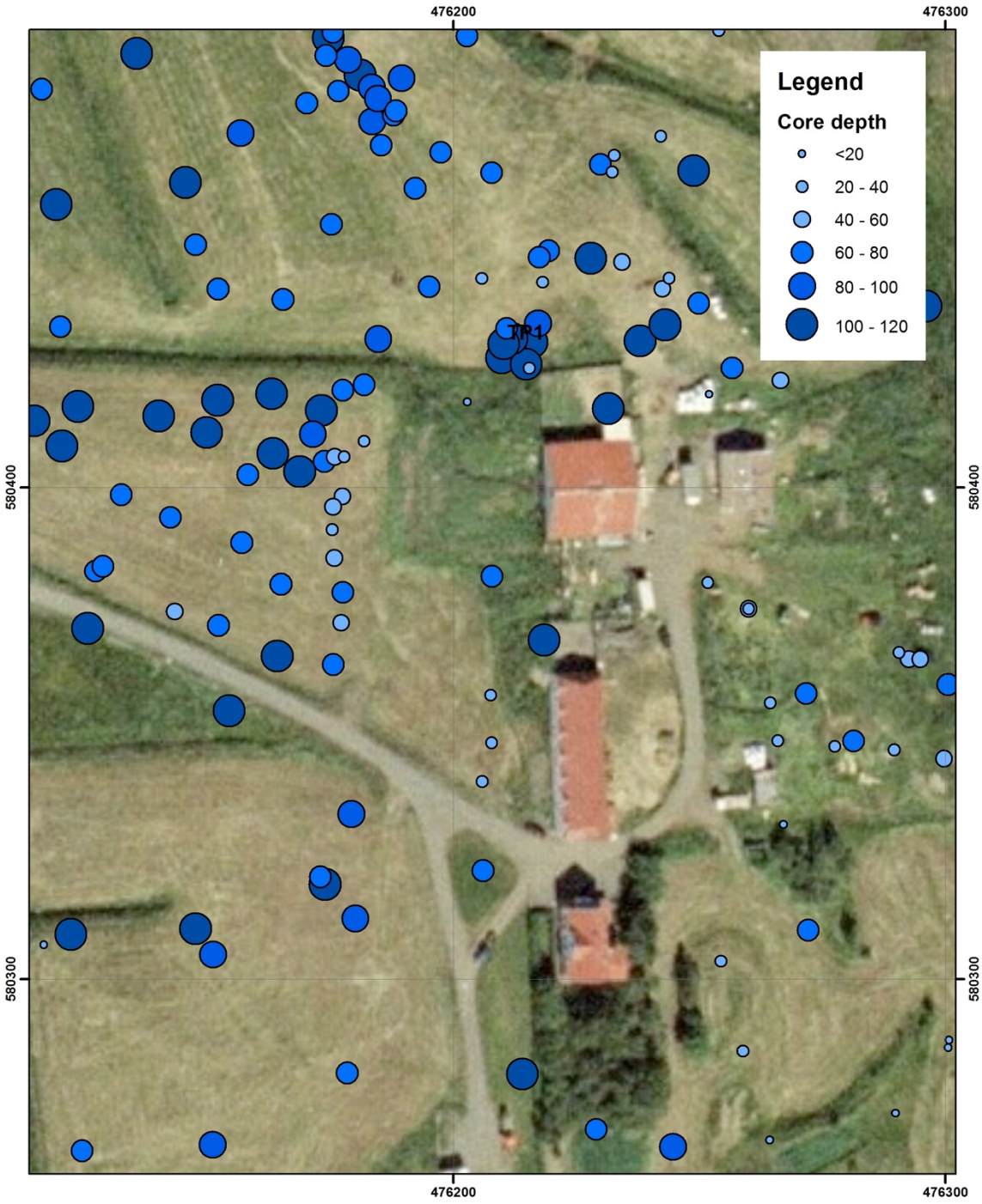

Figure 7. Depth of cores (cm) around farm buildings.

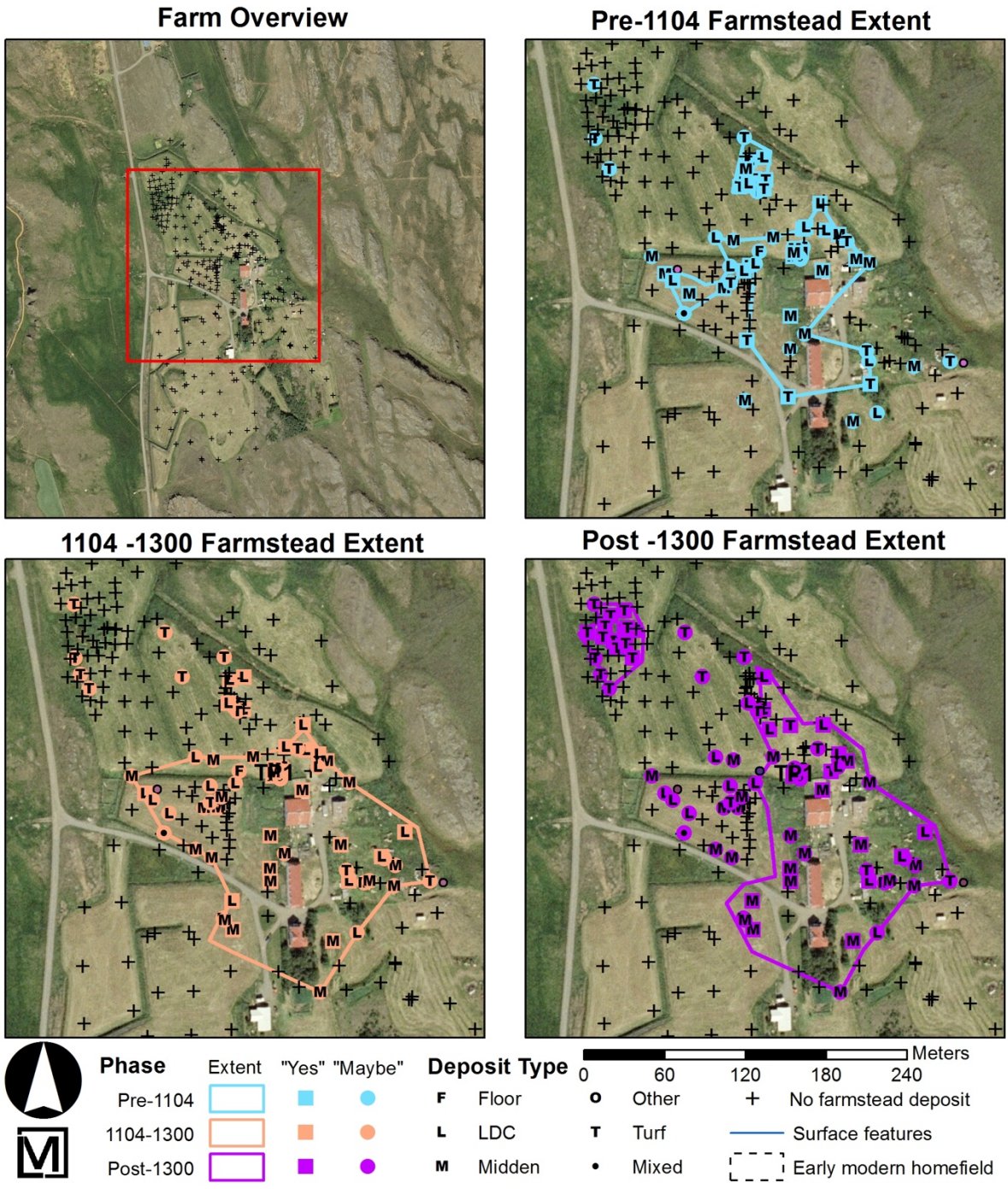

Figure 8. Farm mound sizes for different time periods based on coring at Helluland.

4.0 TEST EXCAVATIONS

The test pit (TP1) was placed based on the sequence seen in core 163446, which was used for the northwest corner of the unit. Core 163446 presented a very disturbed top 50 cm followed by a shallow layer (5 cm) of LDC followed by midden from 55 cm bgs to 115 bgs. Most of the tephra layers were identified in the core (1300, 1104, 1000, 950, and H3). Other cores in the area also suggested substantial cultural deposits and good tephra preservation (Figure 7). The test pit was excavated with shovel and trowel. It was placed just north of the pig barn (Figure 9) and just south of the path that runs east-west along the north side of the buildings down to the road (Figure 10).

TP1 had five contexts [101-105] as well as 4 tephra layers (Table B4). Context 101 of TP1 includes the root mat and the relatively homogeneous deposit with some cobbles, down to about 50 cm bgs, where the 1300 tephra layer was encountered. The 1300 tephra layer followed a small gully. Below the 1300 tephra layer, [102] was mostly an aeolian deposit, with gravel and pebbles, along with some signs of peat ash, which ended between 50 and 65 cm bgs, on the 1104 tephra layer. Below the 1104 tephra layer, [103] presented substantial peat and charcoal deposits along with significant wood and animal bones. It bottomed out on what was interpreted in the field as the "1000" tephra layer, between 78 and 93 cm bgs. Context 104 was truncated in the northwest part of the test unit (Figure 11). It bottomed out on a LNS in the northeast part of the unit and on a sterile [105] deposit in the western part of the unit (Figure 12). The eastern deposit with [104] contains upcast from tephra from the LNS and H3/H4 (Figure 13). Context 105, below the "871" in most of the unit, was sterile.

Flotation samples (Table B6) were taken from the layers below the 1300 tephra [102] and while the samples have not yet been fully processed, an initial scan of the samples identified one barley grain from sample #9, in [104]. Sample #9 was taken from the bottom of [104], just above the LNS. The barley was charred and in very good shape (Figure 14). It was AMS dated at the W. M. Keck Carbon Cycle Accelerator Mass Spectrometry Laboratory to 1185 ±15 radiocarbon years before present. This date calibrates at the 2-sigma range to A.D. 775-887 (Figure 15). Assuming that the LNS below the floatation sample constrains the 2-sigma range, the lower part of [104] may have a date range of less than 20 years after the beginning of the settlement of Iceland (AD 871-887).

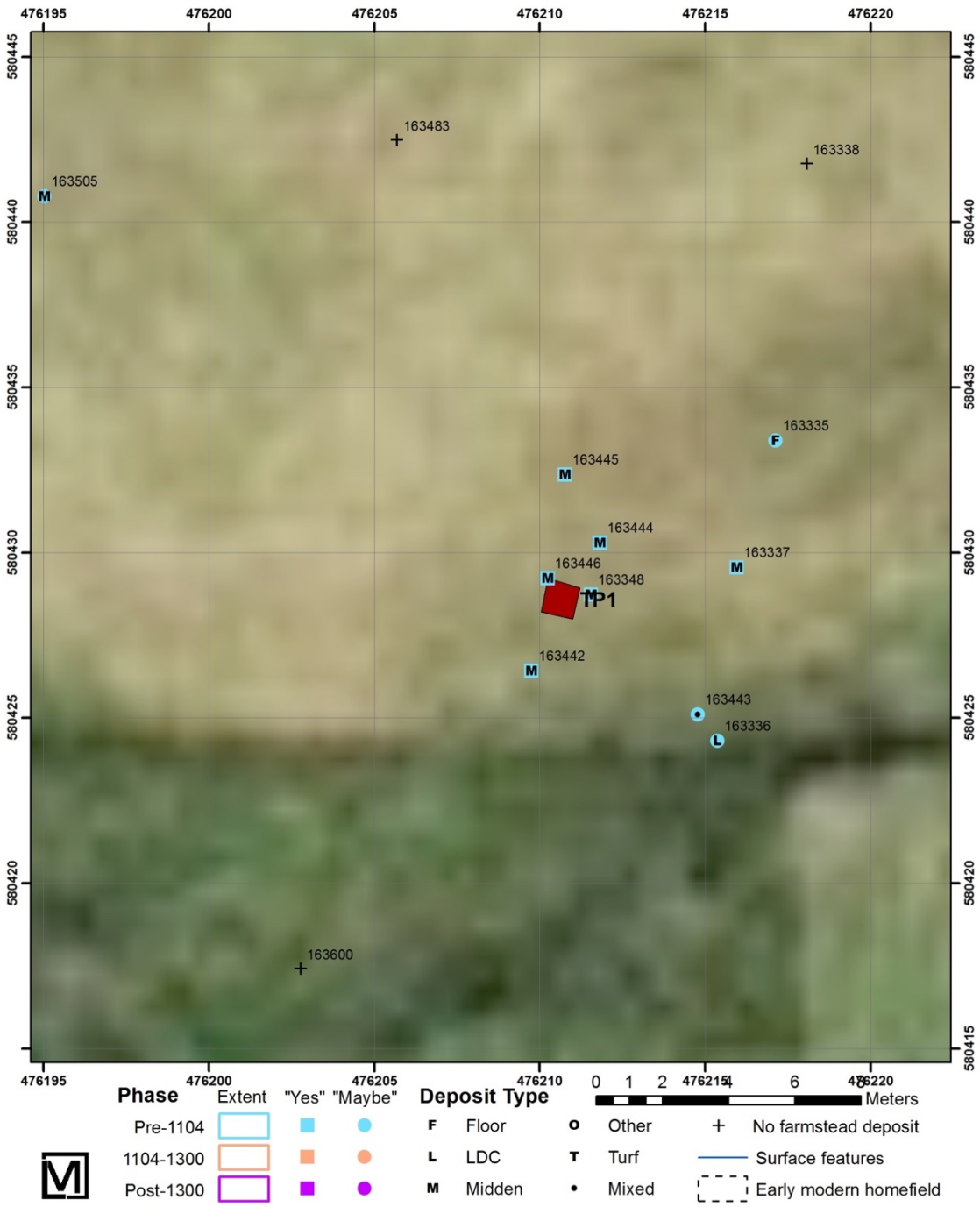

Figure 9. Test pit location in relation to cores.

Figure 10. Test pit at Helluland looking to the west.

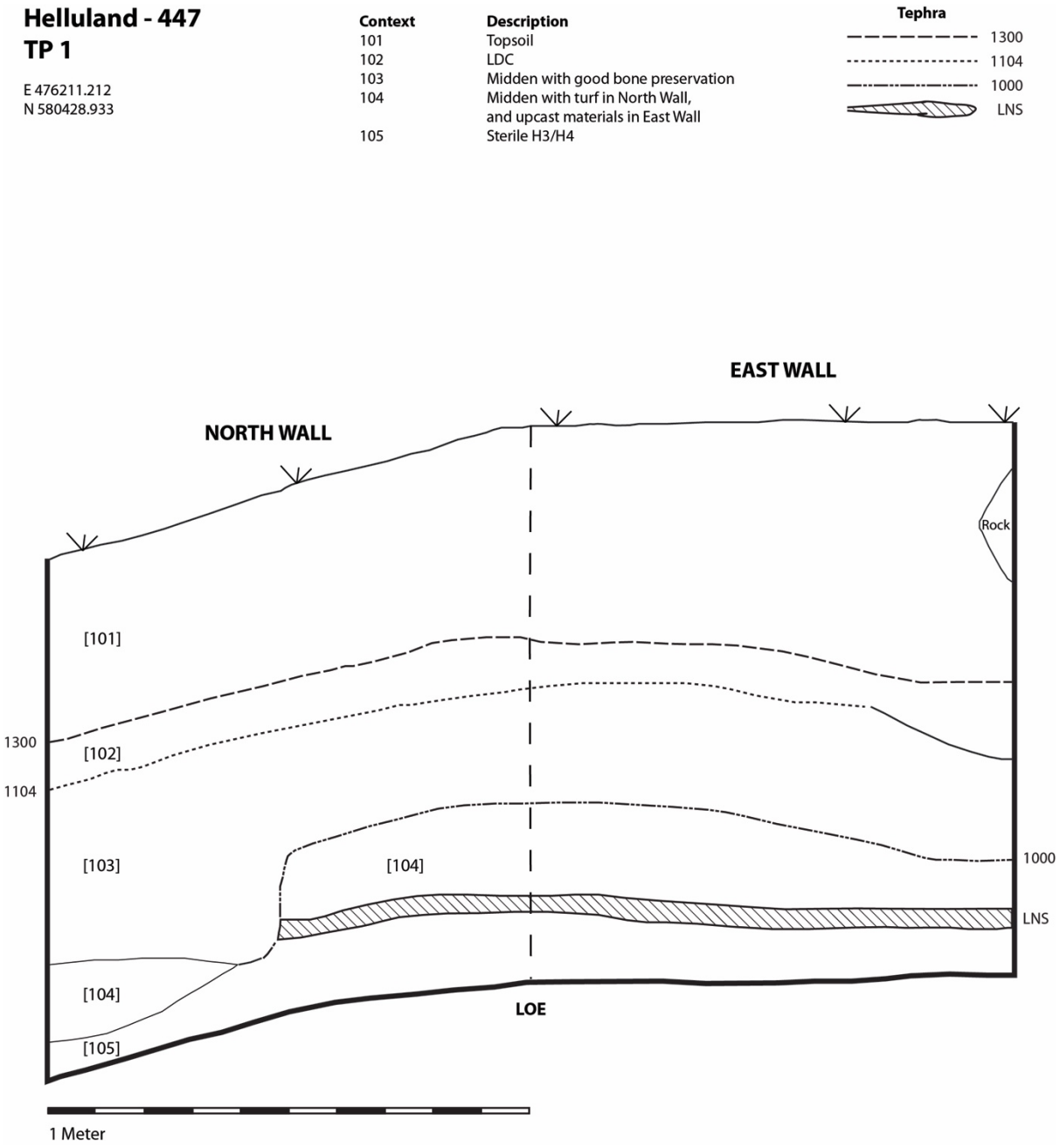

Figure 11. Profile of north and east wall of TP 1

Figure 12. Photo of north wall

Figure 13. Photo of east wall

Figure 14. Three views of chaired barley grain from [104] that was AMS dated to 1185 yeas PB.

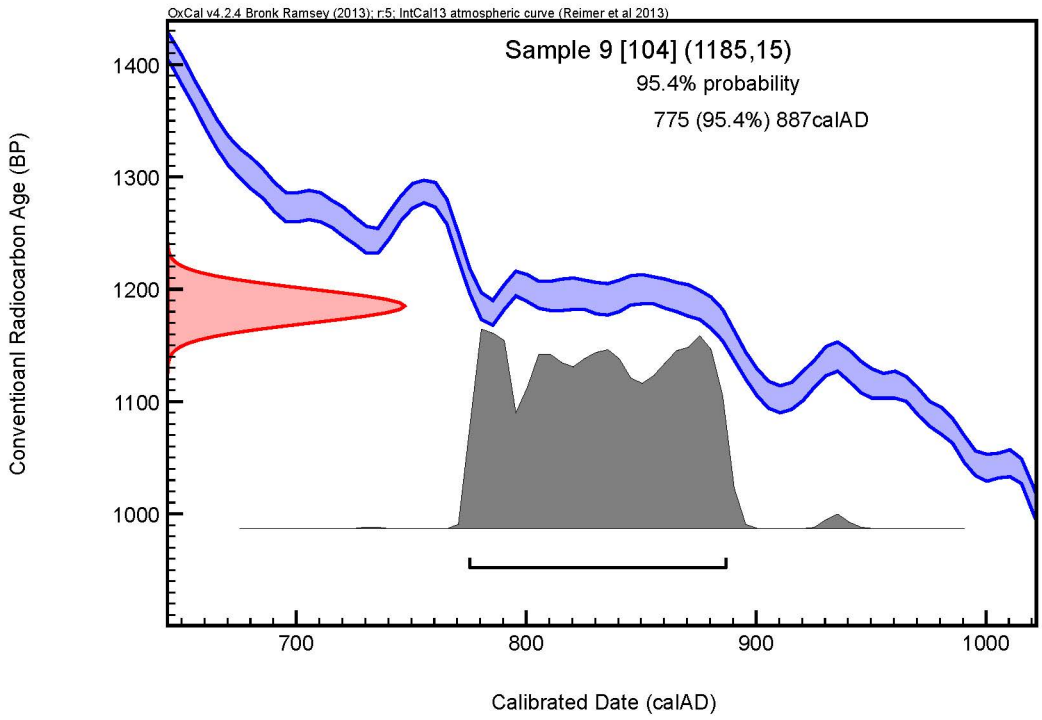

Figure 15. Radiocarbon calibration for charred barley grain from [104]

5.0 CONCLUSIONS

In general, the locus of cultural activity at Helluland seems to have moved south over the period of occupation. The area around the pig barn, where the test pit was placed, seems to be more central to the activity areas of the pre-1104 occupants. Over time the farmmound doubles in size from an already substantial area of slightly over 10,000 m^2.

This northern area seems to have been settled very soon after the beginning of the settlement of Iceland, given the AMS date on the charred barley from TP1 [104]. AMS dates from charred barley from [109] at TP 1 at Ásgrímsstaðir (Bolender, et al. 2017), on the land of Helluland, from below a field identified "1000" tephra came in at 1095±15 radiocarbon years before present. This Ásgrímsstaðir date calibrates out to a 2-sigma range of AD 895-990, probably later than the main farm mound at Helluland. This sequence suggests that Helluland is settled earlier than Ásgrímsstaðir. Also on the land of Helluland is Kotið (Catlin, et al. 2017) which yields a slightly earlier date than Helluland, from some burnt ericoid leaves found in the LTL (1190±15 radiocarbon years before present). The date at

Kotið calibrates to AD 775-884 in the 2-sigma range. These dates suggest that Kotið and the main farm at Helluland had activity very soon after the settlement of Iceland began, and that Ásgrímsstaðir, is potentially a generation or so later.

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APPENDIX A – CORING DATA

Table A1. Coring locations

Core Number	ISNet East	ISNet North	End Depth
163322	476244.603	580265.93	100
163323	476228.964	580269.451	70
163324	476214.013	580280.71	120
163325	476180.057	580312.363	100
163326	476179.1864	580333.64	90
163327	476151.113	580305.006	100
163328	476207.955	580196.666	40
163329	476238.439	580222.564	38
163330	476272.095	580310.052	65
163331	476266.996	580331.491	20
163332	476265.909	580348.522	40
163333	476251.707	580380.751	40
163334	476237.894	580429.776	120
163335	476217.136	580433.383	100
163336	476215.377	580424.306	25
163395	476184.704	580430.259	85
163337	476215.959	580429.555	120
163338	476218.088	580441.765	30
163339	476165.379	580438.292	80
163396	476170.184	580478.13	79
163340	476152.168	580440.416	75
163341	476147.572	580449.397	80
163342	476177.805	580406.291	35
163397	476177.489	580419.798	80
163398	476175.518	580396.098	45
163343	476175.833	580406.315	55
163399	476175.776	580385.708	45
163344	476177.215	580372.512	50
163400	476175.572	580364.021	80
163345	476207.548	580357.767	40
163346	476207.725	580348.082	40
163347	476205.835	580340.218	33
163348	476211.553	580428.732	120
163442	476209.754	580426.434	120
163443	476214.785	580425.101	120
163444	476211.829	580430.299	120
163445	476210.768	580432.36	80
163446	476210.245	580429.223	120
163483	476205.6932	580442.4757	30
163484	476217.434	580446.8397	65
163485	476219.3727	580448.1619	70
163505	476195.03	580440.7791	80
163506	476259.997	580375.3501	30
163486	476271.6529	580358.0828	70
163507	476259.997	580375.3501	44

Core Number	ISNet East	ISNet North	End Depth
163487	476264.3852	580356.2467	25
163488	476277.4866	580347.3305	32
163489	476281.3054	580348.4144	65
163490	476289.5079	580346.6747	40
163491	476299.7301	580344.9186	50
163492	476300.4497	580359.9661	65
163493	476294.8459	580365.1412	55
163508	476307.5837	580384.7737	30
163509	476320.5277	580356.5685	1
163510	476326.2007	580348.6053	20
163494	476292.505	580365.1603	60
163511	476336.1492	580347.0745	120
163512	476315.0963	580337.8798	30
163495	476290.5422	580366.5144	40
163513	476192.1653	580460.8737	65
163496	476232.6596	580467.5666	40
163514	476184.6035	580479.1113	90
163497	476229.8443	580465.6941	70
163515	476187.7431	580475.7404	80
163498	476232.2192	580464.2251	40
163516	476173.4678	580514.8848	80
163499	476243.793	580442.6096	40
163500	476249.8565	580437.5421	65
163517	476138.0074	580584.4217	80
163501	476242.9352	580433.1385	110
163518	476171.8902	580540.7672	38
163519	476242.1476	580471.5032	35
163503	476242.4437	580440.3905	60
163520	476248.7913	580464.4239	120
163521	476288.1308	580453.3975	120
163504	476234.2266	580445.9216	60
163522	476295.9833	580436.9419	120
163523	476266.3902	580421.796	55
163543	476227.944	580446.6421	120
163524	476251.9541	580419.0149	0
163525	476256.6337	580424.3289	80
163544	476207.7515	580463.9796	75
163545	476197.4123	580468.1901	68
163526			79
163546	476185.3519	580469.6271	70
163527	476231.4574	580416.0606	120
163547	476183.3367	580481.3518	92
163528	476183.4635	580474.4374	95
163529	476202.7477	580491.8972	80
163548	476181.0169	580483.9355	120
163530	476188.2179	580500.0449	70
163549	476175.4878	580492.5669	80
163550	476174.0265	580487.8956	63

Core Number	ISNet East	ISNet North	End Depth
163551	476189.5026	580483.1968	82
163552	476180.4492	580498.659	70
163553	476177.5054	580497.9027	35
163554	476174.7248	580500.2671	65
163555	476177.4079	580502.8097	10
163556	476199.6771	580520.468	65
163557	476207.994	580515.9395	32
163531	476188.3012	580476.6278	75
163558	476178.5631	580486.9663	96
163532	476305.7149	580313.3135	40
163559	476300.5354	580286.1482	12
163533	476331.6959	580324.4751	5
163560	476300.6859	580287.7081	5
163534	476331.6959	580324.4751	1
163535	476341.0623	580257.1604	79
163561	476312.8976	580259.7318	10
163562	476312.9645	580262.2959	55
163536	476359.6818	580238.0526	40
163537	476379.6556	580199.1973	30
163538	476391.6604	580168.2124	5
163539	476353.1051	580214.0209	10
163540	476353.1051	580214.0209	40
163541	476289.776	580272.7439	10
163563	476310.8825	580260.3058	58
163542	476264.255	580267.3772	1
163583	476258.8018	580285.3743	30
163584	476254.3154	580303.6981	30
163585	476174.571	580491.477	115
163586	476176.571	580480.61	80
163587	476162.616	580514.36	45
163588	476153.616	580524.453	45
163589	476129.58	580533.176	80
163590	476123.966	580543.125	35
163591	476189.618	580533.327	20
163592	476179.99	580547.753	50
163593	476210.042	580542.266	80
163594	476245.619	580526.54	80
163595	476253.894	580492.942	40
163596			80
163598	476218.4485	580369	120
163564	476248.5865	580069.2473	3
163565	476218.1293	580049.9832	43
163599	476207.8139	580382.0219	75
163600	476202.7794	580417.4107	10
163566	476179.1889	580048.7415	62
163601	476164.1643	580365.7657	120
163567	476147.8925	580050.3366	5
163568	476149.0696	580048.3198	20

Core Number	ISNet East	ISNet North	End Depth
163569	476082.1957	580044.5215	52
163602	476152.1888	580371.9969	80
163603	476143.3062	580374.7461	45
163604	476127.2622	580383.018	80
163570	476100.5606	580078.1565	15
163605	476128.7393	580384.0094	80
163571	476127.5434	580082.3947	13
163572	476126.7979	580081.0628	50
163573	476166.7973	580088.3164	65
163606	476105.2404	580401.1518	80
163607	476114.7985	580413.5618	120
163574	476201.364	580099.2949	12
163575	476232.7487	580102.9404	41
163576	476248.6654	580106.9358	18
163577	476245.6821	580135.0598	25
163578	476245.6821	580135.0598	40
163608	476104.8062	580426.4673	80
163579	476173.4947	580132.4179	41
163609	476123.7278	580416.499	120
163580	476148.3761	580131.5092	23
163581	476118.869	580138.4422	30
163610	476120.4029	580408.4979	120
163582	476065.3287	580142.4515	120
163611	476132.5314	580398.5856	80
163631	476066.5639	580108.5434	120
163612	476142.4541	580393.9322	80
163613	476156.9172	580388.7955	80
163614	476164.9269	580380.3667	80
163632	476091.0933	580104.773	67
163615	476177.4907	580378.7025	80
163633	476098.5116	580135.9337	40
163616	476175.3459	580391.4318	40
163617	476168.7407	580403.1942	120
163634	476076.3405	580186.2942	120
163618	476158.2242	580402.6116	80
163619	476149.8483	580411.1549	120
163635	476092.5883	580180.362	40
163620	476140.1451	580414.5799	120
163636	476099.0735	580176.2943	40
163621	476152.0606	580417.8271	120
163637	476116.1825	580185.743	30
163638	476119.6041	580188.7255	12
163622	476163.3089	580406.9185	120
163639	476149.5983	580174.0945	27
163640	476181.5965	580174.2777	40
163623	476173.7162	580405.3835	80
163624	476177.4673	580398.2163	50
163641	476212.82	580197.5494	40

Core Number	ISNet East	ISNet North	End Depth
163625	476181.8743	580409.4422	40
163626	476171.4202	580410.8662	100
163642	476243.7302	580193.8395	11
163643	476224.5981	580211.9487	12
163627	476163.0874	580419.0746	120
163644	476204.7012	580209.5472	13
163645	476167.3309	580209.1848	11
163628	476173.1578	580415.6467	105
163646	476133.9551	580203.3263	29
163647	476114.4978	580209.7307	15
163629	476181.8767	580420.9274	65
163648	476083.6504	580226.5992	32
163630	476149.2174	580233.865	40
163649	476116.5689	580232.684	52
163669	476179.0877	580237.7454	10
163694	476178.3871	580281.0156	70
163695	476091.6136	580374.5875	120
163696	476097.2649	580332.4637	120
163697	476172.9304	580320.8681	74
163717	476102.4347	580287.9044	110
163698	476173.9274	580319.2989	120
163718	476106.5512	580251.8637	84
163719	476069.7767	580242.3157	120
163699	476147.5501	580310.2605	120
163720	476068.5921	580284.8373	120
163721	476069.7948	580328.4936	73
163700	476150.9988	580266.2987	86
163722	476125.6072	580371.3682	120
163670	476124.5025	580265.1785	63
163723	476154.4109	580354.607	120
163701	476122.2475	580309.1306	120
163724	476205.9919	580322.1579	65
163702	476116.722	580307.0574	
163725	476099.6798	580435.9967	120
163703	476175.1215	580453.5427	80
163726	476099.664	580459.2927	80
163704	476156.6836	580472.0927	90
163705	476142.4116	580500.4211	110
163727	476099.611	580481.8178	120
163728	476100.4011	580502.0696	120
163706	476125.2952	580517.7339	65
163707	476135.6105	580488.3229	110
163729	476113.9206	580500.1777	80
163708	476145.5387	580462.0372	120
163730	476116.2867	580481.0076	80
163731	476119.2836	580457.6077	120
163709	476114.2871	580541.0178	120
163732	476120.1559	580432.6971	80

Core Number	ISNet East	ISNet North	End Depth
163710	476109.1292	580577.9689	120
163711	476086.8171	580599.6735	119
163733	476092.5019	580569.7228	80
163712	476082.6975	580606.6208	100
163734	476075.2064	580583.9504	120
163713	476089.0884	580641.3582	52
163735	476082.5646	580594.9605	120
163736	476098.544	580586.7535	120
163714	476114.3091	580632.899	80
163715	476112.4026	580707.9585	120
163737	479358.2078	574913.1382	13
163738	479354.9921	574894.2055	11
163739	479356.3768	574856.0615	15
163740	479359.1323	574836.0828	6
163741	479357.9545	574799.741	10
163742	479324.0041	574914.8309	120
163743	479319.3705	574884.0888	90

Table A2. Tephra layers in cores

Core Number	Depth	Tephra Layer	Description
163322	41	H1	
163323	70	H1	
163324	75	H1	
163324	100	H3	
163325	55	1300	
163325	65	H1	
163326	55	1300	
163326	65	H1	
163327	50	H1	
163327	65	Katla 850	
163327	80	H3	
163328	30	H3	
163328	35	H4	
163330	55	H3	
163331	5	H1	
163332	27	1300	
163333	18	H1	
163335	70	H3	
163337	60	1300	
163337	71	H1	
163339	42	H3	
163339	47	H4	
163341	12	H1	
163341	30	1000	
163343	33	H3	
163344	30	H1	

Core Number	Depth	Tephra Layer	Description
163345	27	H1	
163345	35	H3	
163346	20	1300	
163346	30	H1	
163348	60	H1	
163348	80	1000	
163348	115	934/950	
163348	118	LNL	
163396	11	H1	
163397	25	H1	
163399	22	1300	
163399	29	H1	
163400	50	H1	
163442	53	1300	
163442	60	H1	
163442	99	934/950	
163444	51	H1	
163445	25	H1	
163445	71	H3	
163445	80	H4	
163446	53	1300	
163446	59	H1	
163446	73	1000	
163446	115	934/950	
163446	119	H3	
163484	22	H1	Disturbed
163485	17	1300	
163485	28	H1	
163485	32	934/950	Patchy
163486	18	1300	Disturbed
163486	30	H1	Patchy
163488	29	H1	
163489	26	H1	
163491	35	H3	
163492	33	H1	
163493	28	H1	
163494	30	H1	
163495	17	1300	Disturbed
163495	25	H1	
163497	20	1300	
163497	30	H1	
163498	23	1300	Disturbed
163498	30	H1	
163499	22	1300	
163499	31	H1	
163500	24	1300	
163501	30	H1	
163504	20.5	1300	

Core Number	Depth	Tephra Layer	Description
163504	35	H1	
163504	48	unknown	
163505	33	H3	
163505	65	H4	
163507	14	1300	
163507	23	H1	
163508	15	1300	
163508	21	H1	
163513	25	1300	
163513	38	H1	
163513	53	H3	
163513	62	H4	
163514	20	H1	
163514	73	H3	
163515	21	1300	
163515	26	H1	
163515	32	1000	
163515	60	H3	
163515	70	H4	
163516	75	H3	
163517	15	1300	
163517	70	H3	
163517	77	H4	
163519	15	1300	
163521	19	H3	
163521	30	H4	
163522	20	1300	
163522	39	934/950	
163523	31	LNS	
163523	33	H3	
163523	36	H4	
163525	22	1300	
163525	32	H1	
163525	69	H3	
163525	71	H4	
163526	15	1300	
163526	25	H1	
163526	78	LNS	
163527	38	1300	
163527	70	H1	
163527	110	H3	
163528	65	H3	
163528	70	H4	
163528	78	Katla 850	
163529	20	1300	
163529	30	H1	
163529	40	H3	
163530	13	1300	

Core Number	Depth	Tephra Layer	Description
163530	20	H1	
163530	32	LNS	
163530	34	H3	
163531	20	1300	
163531	27	H1	
163531	60	H3	
163531	70	H4	
163535	15	1300	
163535	60	H3	
163536	28	H3	
163536	35	H4	
163543	72	LNS	
163545	13	1766	
163545	14	1300	
163545	25	H1	Cryoturbated
163545	45	H3	
163545	49	H4	
163546	24	H1	Patchy
163546	41	H4	
163547	6	H4	
163547	20	1300	
163547	28	H1	
163547	60	H3	
163548	30	H1	
163549	31	H1	
163549	67	LNS	
163549	75	H3	
163550	24	H1	
163551	22	1300	
163551	29	H1	
163552	22	1300	
163553	18	1300	Patchy
163553	22	H1	
163556	20	1300	Disturbed
163558	20	1300	
163558	28	H1	
163562	34	H1	Cryoturbated
163562	40	H3	
163565	16	1300	Patchy
163565	27	H1	
163565	38	1000	
163566	35	unknown	
163578	22	1300	Patchy
163578	25	H1	
163579	30	H4	
163580	13	1300	
163581	20	1300	Patchy
163582	45	H3	

Core Number	Depth	Tephra Layer	Description
163583	20	1300	
163584	25	1300	
163585	33	H1	
163585	74	LNS	
163585	100	H3	
163586	25	H1	
163586	70	H3	
163586	75	H4	
163587	20	1300	
163587	30	H1	
163589	65	H3	
163589	77	H4	
163591	18	H1	
163592	35	H1	
163593	10	1766	
163593	16	1300	
163593	18	H1	
163593	35	H3	
163593	70	H4	
163594	60	H3	
163594	75	H4	
163599	40	H1	
163599	55	1000	
163601	65	H1	
163601	92	H3	
163601	118	H4	
163602	35	H1	
163602	54	H3	
163602	75	H4	
163604	55	H3	
163604	68	H4	
163606	75	H4	
163607	49	H1	
163607	53	1000	
163607	64	H3	
163607	109	H4	
163608	52	H3	
163608	60	H4	
163610	55	H1	
163610	75	H3	
163610	95	H4	
163611	26	1000	
163611	32	934/950	
163611	60	H3	
163611	77	H4	
163612	58	H3	
163612	70	H4	
163613	58	H3	

Core Number	Depth	Tephra Layer	Description
163613	68	H4	
163614	60	H3	
163614	70	H4	
163615	65	H3	
163615	70	H4	
163616	22	H1	
163616	35	H3	
163617	53	H1	
163617	61	H3	
163617	80	H4	
163618	37	H1	
163618	65	H3	
163618	75	H4	
163619	51	H3	
163619	58	H4	
163620	35	H3	
163620	55	H4	
163621	60	H3	
163623	68	H3	
163623	80	H4	
163624	30	H3	
163624	45	H4	
163626	63	H1	
163626	69	H3	
163627	62	H3	
163627	115	H4	
163628	18	H1	
163628	55	H3	
163628	75	H4	
163629	23	H3	
163630	20	H1	
163631	20	1300	
163634	50	H3	
163636	30	H3	
163636	39	H4	
163637	20	H3	
163646	19	H3	Diffuse
163648	18	1300	
163670	39	H3	
163697	47	1300	
163697	56	H1	
163699	29	1300	
163699	34	H1	
163699	57	H3	
163699	68	H4	
163700	50	H3	
163701	6	1766	
163701	9	1300	

Core Number	Depth	Tephra Layer	Description
163701	34	H1	
163701	60	H3	
163701	63	H4	
163703	33	H1	
163703	40	H3	
163703	52	H4	
163704	33	H3	
163704	39	H4	
163705	60	H1	
163706	48	H3	
163706	50	H4	
163707	29	H1	
163708	25	1300	
163708	30	H1	
163708	48	H3	
163708	67	H4	
163709	18	1766	
163709	23	1300	
163709	42	H1	Diffuse
163710	20	1766	
163711	10	1766	
163712	10	1766	
163713	32	H3	
163714	45	H3	
163714	50	H4	
163715	15	H1	
163715	37	H3	
163715	80	H4	
163718	24	H3	
163718	26	H4	
163719	33	H3	
163719	61	H4	
163720	58	H3	
163724	37	H1	
163725	46	H1	
163726	24	H1	
163726	72	H3	
163728	10	1300	
163729	20	H1	
163729	44	H3	
163729	58	H4	
163730	22	H1	
163730	45	H3	
163730	56	H4	
163731	49	H3	
163731	70	H4	
163732	28	H3	
163732	58	H4	

Core Number	Depth	Tephra Layer	Description
163743	70	H1	

Table A3. Stratigraphic layers in cores.

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163322	0	15	Root Mat		
163322	15	39	Aeolian Deposit		
163322	39	41	Midden		
163322	41	100	Aeolian Deposit		
163322	100	100	Rock		
163323	0	70	Disturbed		
163323	70	70	Rock		
163324	0	70	Disturbed		
163324	70	120	Aeolian Deposit		
163325	0	5	Root Mat		
163325	5	30	Disturbed		
163325	30	60	Midden		
163325	60	65	Low Density Cultural		
163325	65	100	Aeolian Deposit		
163325	100	100	Rock		
163326	0	10	Root Mat		
163326	10	50	Midden		
163326	50	65	Low Density Cultural		
163326	65	90	Aeolian Deposit		
163326	90	90	Rock		
163327	0	50	Disturbed		
163327	50	75	Bog		
163327	75	100	Clay		
163327	100	100	Gravel		
163328	0	10	Root Mat		
163328	10	40	Aeolian Deposit		
163328	40	40	Gravel		
163329	0	5	Root Mat		
163329	5	38	Aeolian Deposit		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163329	38	38	Gravel		
163330	0	10	Root Mat		
163330	10	20	Low Density Cultural		
163330	20	65	Aeolian Deposit		
163330	65	65	Gravel		
163331	0	5	Root Mat		
163331	5	15	Turf		
163331	15	20	Aeolian Deposit		
163331	20	20	Rock		
163332	0	10	Root Mat		
163332	10	20	Disturbed		
163332	20	30	Low Density Cultural		
163332	30	40	Aeolian Deposit		
163332	40	40	Rock		
163333	0	20	Disturbed		
163333	20	40	Aeolian Deposit		
163333	40	40	Gravel		
163334	0	10	Disturbed		
163334	10	100	Turf		1300 H1 LNL/LNS H3/H4
163334	100	120	Subsoil		
163335	0	10	Root Mat		
163335	10	20	Disturbed		
163335	20	22	Aeolian Deposit		
163335	22	23	Floor		
163335	23	70	Midden		
163335	70	100	Aeolian Deposit		
163335	100	100	Gravel		
163336	0	5	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163336	5	25	Low Density Cultural		
163336	25	25	Rock		
163337	0	7	Root Mat		
163337	7	25	Aeolian Deposit		
163337	25	40	Low Density Cultural		
163337	40	72	Aeolian Deposit		
163337	72	120	Midden		
163338	0	10	Root Mat		
163338	10	30	Aeolian Deposit		
163338	30	30	Rock		
163339	0	5	Root Mat		
163339	5	10	Disturbed		
163339	10	13	Midden		
163339	13	42	Low Density Cultural		
163339	42	62	Bog	Dry	
163339	62	80	Aeolian Deposit		
163340	0	10	Root Mat		
163340	10	20	Low Density Cultural		
163340	20	75	Aeolian Deposit	Boggy	
163340	75	75	Rock		
163341	0	5	Root Mat		
163341	5	41	Aeolian Deposit		
163341	41	80	Bog		
163341	80	80	Rock		
163342	0	7	Root Mat		
163342	7	35	Aeolian Deposit		
163342	35	35	Rock		
163343	0	5	Root Mat		
163343	5	55	Aeolian Deposit		
163343	55	55	Rock		
163344	0	5	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163344	5	50	Aeolian Deposit		
163344	50	50	Rock		
163345	0	7	Root Mat		
163345	7	15	Disturbed		
163345	15	28	Midden		
163345	28	40	Aeolian Deposit		
163345	40	40	Rock		
163346	0	10	Root Mat		
163346	10	20	Aeolian Deposit		
163346	20	30	Midden		
163346	30	40	Aeolian Deposit		
163346	40	40	Rock		
163347	0	33	Disturbed		
163347	33	33	Rock		
163348	0	50	Disturbed		
163348	50	60	Low Density Cultural		
163348	60	93	Midden		
163348	93	110	Disturbed		
163348	110	120	Aeolian Deposit		
163395	0	5	Root Mat		
163395	5	39	Turf		H1
163395	39	40	Floor		
163395	40	65	Turf		H1
163395	65	70	Clay		
163395	70	80	Midden		
163395	80	85	Aeolian Deposit		
163396	0	10	Root Mat		
163396	10	40	Aeolian Deposit		
163396	40	70	Turf		
163396	70	79	Midden		
163397	0	10	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163397	10	30	Aeolian Deposit		
163397	30	75	Turf		
163397	75	78	Aeolian Deposit		
163397	78	80	Clay		
163397	80	80	Rock		
163398	0	10	Root Mat		
163398	10	45	Aeolian Deposit		
163398	45	45	Rock		
163399	0	10	Root Mat		
163399	10	45	Aeolian Deposit		
163399	45	45	Rock		
163400	0	10	Root Mat		
163400	10	50	Aeolian Deposit		
163400	50	70	Turf		H1
163400	70	80	Clay		
163442	0	10	Root Mat		
163442	10	45	Disturbed		
163442	45	65	Low Density Cultural		
163442	65	96	Midden		
163442	96	120	Aeolian Deposit		
163443	0	50	Disturbed		
163443	50	100	Midden		
163443	100	120	Turf		
163444	0	35	Disturbed		
163444	35	40	Aeolian Deposit		
163444	40	65	Low Density Cultural		
163444	65	120	Midden		
163445	0	20	Disturbed		
163445	20	25	Low Density Cultural		
163445	25	60	Midden		
163445	60	80	Aeolian Deposit		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163446	0	50	Disturbed		
163446	50	55	Low Density Cultural		
163446	55	115	Midden		
163446	115	120	Aeolian Deposit		
163483	0	10	Root Mat		
163483	10	30	Aeolian Deposit		
163483	30	30	Rock		
163484	0	20	Root Mat		
163484	20	55	Aeolian Deposit		
163484	55	60	Low Density Cultural		
163484	60	65	Aeolian Deposit		
163484	65	65	Rock		
163485	0	15	Root Mat		
163485	15	17	Aeolian Deposit		
163485	17	20	Low Density Cultural		
163485	20	33	Aeolian Deposit		
163485	33	40	Low Density Cultural		
163485	40	50	Aeolian Deposit		
163485	50	70	Aeolian Deposit		
163486	0	40	Disturbed		
163486	40	65	Aeolian Deposit	Striated	
163486	65	70	Gravel		
163487	0	5	Root Mat		
163487	5	15	Aeolian Deposit		
163487	15	20	Aeolian Deposit		
163487	20	25	Turf		
163487	25	25	Rock		
163488	0	15	Disturbed		
163488	15	18	Midden		
163488	18	32	Aeolian Deposit		
163488	32	32	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163489	0	5	Root Mat		
163489	5	10	Disturbed		
163489	10	17	Aeolian Deposit		
163489	17	20	Midden		
163489	20	45	Aeolian Deposit		
163489	45	55	Gravel		
163489	55	65	Subsoil		
163489	65	65	Rock		
163490	0	5	Root Mat		
163490	5	10	Disturbed		
163490	10	40	Aeolian Deposit	Boggy	
163490	40	40	Rock		
163491	0	10	Aeolian Deposit		
163491	10	15	Aeolian Deposit		
163491	15	18	Midden		
163491	18	50	Aeolian Deposit		
163491	50	50	Rock		
163492	0	10	Disturbed		
163492	10	20	Aeolian Deposit		
163492	20	23	Midden		
163492	23	65	Aeolian Deposit		
163493	0	10	Disturbed		
163493	10	55	Aeolian Deposit		
163493	55	55	Rock		
163494	0	15	Disturbed		
163494	15	20	Low Density Cultural		
163494	20	58	Aeolian Deposit		
163494	58	60	Gravel		
163495	0	15	Disturbed		
163495	15	20	Low Density Cultural		
163495	20	40	Aeolian Deposit		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163495	40	40	Rock		
163496	0	15	Root Mat		
163496	15	25	Aeolian Deposit		
163496	25	40	Aeolian Deposit		
163496	40	40	Rock		
163497	0	7	Root Mat		
163497	7	57	Aeolian Deposit		
163497	57	60	Low Density Cultural		
163497	60	70	Aeolian Deposit		
163497	70	70	Gravel		
163498	0	8	Root Mat		
163498	8	22	Disturbed		
163498	22	25	Low Density Cultural		
163498	25	40	Aeolian Deposit		
163498	40	40	Gravel		
163499	0	10	Root Mat		
163499	10	20	Disturbed		
163499	20	27	Low Density Cultural		
163499	27	35	Aeolian Deposit		
163499	35	36	Midden		
163499	36	40	Aeolian Deposit		
163499	40	40	Rock		
163500	0	15	Disturbed		
163500	15	22	Aeolian Deposit		
163500	22	25	Midden		
163500	25	30	Aeolian Deposit		
163500	30	35	Turf		
163500	35	65	Aeolian Deposit		
163500	65	65	Rock		
163501	0	3	Root Mat		
163501	3	13	Disturbed		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163501	13	19	Aeolian Deposit		
163501	19	25	Low Density Cultural		
163501	25	105	Aeolian Deposit	Striated	
163501	105	110	Gravel		
163503	0	13	Root Mat		
163503	13	20	Disturbed		
163503	20	35	Aeolian Deposit		
163503	35	60	Aeolian Deposit	Boggy	
163504	0	7	Root Mat		
163504	7	15	Disturbed		
163504	15	21	Aeolian Deposit		
163504	21	50	Low Density Cultural		
163504	50	55	Aeolian Deposit		
163504	55	60	Sand		
163505	0	8	Root Mat		
163505	8	15	Aeolian Deposit		
163505	15	20	Turf		None
163505	20	25	Low Density Cultural		
163505	25	35	Aeolian Deposit		
163505	35	65	Bog		
163505	65	79	Aeolian Deposit		
163505	79	80	Clay		
163506	0	25	Root Mat		
163506	25	30	Clay		
163506	30	30	Rock		
163507	0	10	Aeolian Deposit		
163507	10	20	Midden		
163507	20	44	Aeolian Deposit		
163507	44	44	Gravel		
163508	0	10	Disturbed		
163508	10	20	Low Density Cultural		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163508	20	30	Aeolian Deposit		
163508	30	30	Gravel		
163509	0	1	Top Soil		
163509	1	1	Rock		
163510	0	10	Turf		None
163510	10	20	Aeolian Deposit		
163510	20	20	Gravel		
163511	0	15	Turf		None
163511	15	40	Aeolian Deposit		
163511	40	120	Turf		None
163512	0	12	Turf		
163512	12	20	Disturbed		
163512	20	30	Aeolian Deposit		
163512	30	30	Gravel		
163513	0	10	Root Mat		
163513	10	25	Low Density Cultural		
163513	25	60	Aeolian Deposit		
163513	60	62	Bog		
163513	62	65	Aeolian Deposit		
163513	65	65	Gravel		
163514	0	3	Root Mat		
163514	3	15	Disturbed		
163514	15	20	Aeolian Deposit		
163514	20	30	Turf		
163514	30	40	Grave Fill		
163514	40	65	Disturbed		
163514	65	75	Aeolian Deposit		
163514	75	85	Clay		
163514	85	90	Iron Pan		
163514	90	90	Gravel		
163515	0	10	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163515	10	22	Low Density Cultural		
163515	22	79	Aeolian Deposit		
163515	79	80	Iron Pan		
163516	0	70	Turf		
163516	70	80	Aeolian Deposit		
163516	80	80	Rock		
163517	0	10	Root Mat		
163517	10	70	Aeolian Deposit		
163517	70	75	Bog		
163517	75	80	Iron Pan		
163518	0	5	Root Mat		
163518	5	39	Aeolian Deposit		
163518	38	38	Rock		
163519	0	10	Root Mat		
163519	10	35	Bog		1300
163519	35	35	Rock		
163520	0	5	Root Mat		
163520	5	120	Bog		
163521	0	8	Root Mat		
163521	8	25	Aeolian Deposit		
163521	25	120	Bog		
163522	0	10	Root Mat		
163522	10	35	Disturbed		
163522	35	120	Bog		
163523	0	5	Root Mat		
163523	5	25	Disturbed		
163523	25	30	Midden		
163523	30	35	Aeolian Deposit		
163523	35	37	Bog		
163523	37	45	Aeolian Deposit		
163523	45	55	Clay		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163524	0	0	Gravel		
163525	0	10	Root Mat		
163525	10	20	Disturbed		
163525	20	39	Aeolian Deposit		
163525	39	62	Midden		
163525	62	80	Aeolian Deposit		
163525	80	80	Gravel		
163526	0	5	Root Mat		
163526	5	15	Disturbed		
163526	15	45	Midden		
163526	45	79	Aeolian Deposit		
163526	79	79	Rock		
163527	0	25	Gravel		
163527	25	35	Disturbed		
163527	35	105	Midden		
163527	105	120	Aeolian Deposit		
163528	0	10	Root Mat		
163528	10	40	Low Density Cultural		
163528	40	65	Turf		
163528	65	80	Bog		
163528	85	90	Clay		
163528	90	95	Iron Pan		
163529	0	5	Root Mat		
163529	5	40	Aeolian Deposit		
163529	40	65	Bog		
163529	67	70	Clay		
163529	75	80	Iron Pan		
163530	0	10	Root Mat		
163530	10	30	Low Density Cultural		
163530	30	70	Aeolian Deposit		
163530	70	70	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163531	0	10	Root Mat		
163531	10	39	Aeolian Deposit		
163531	39	45	Turf		
163531	45	75	Aeolian Deposit		
163531	75	75	Iron Pan		
163532	0	15	Root Mat		
163532	15	20	Gravel		
163532	20	30	Disturbed		
163532	30	40	Aeolian Deposit		
163532	40	40	Rock		
163533	0	5	Root Mat		
163533	5	5	Rock		
163534	0	1	Root Mat		
163534	1	1	Rock		
163535	0	10	Root Mat		
163535	10	79	Aeolian Deposit		
163535	79	79	Rock		
163536	0	20	Root Mat		
163536	20	40	Aeolian Deposit		
163536	40	40	Rock		
163537	0	10	Root Mat		
163537	10	30	Aeolian Deposit		
163537	30	30	Rock		
163538	0	5	Root Mat		
163538	5	5	Rock		
163539	0	10	Root Mat		
163539	10	10	Rock		
163540	0	5	Root Mat		
163540	5	40	Aeolian Deposit		
163540	40	40	Rock		
163541	0	10	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163541	10	10	Rock		
163542	0	1	Root Mat		
163542	1	1	Rock		
163543	0	12	Root Mat		
163543	12	72	Turf		H1
163543	72	120	Aeolian Deposit		
163544	0	5	Root Mat		
163544	5	10	Aeolian Deposit		
163544	10	50	Turf		H1 1300
163544	50	75	Aeolian Deposit	Boggy	
163544	75	75	Rock		
163545	0	7	Root Mat		
163545	7	63	Aeolian Deposit		
163545	63	68	Gley		
163546	0	5	Root Mat		
163546	5	15	Disturbed		
163546	15	40	Aeolian Deposit		
163546	40	70	Aeolian Deposit		
163547	0	5	Root Mat		
163547	5	20	Disturbed		
163547	20	42	Aeolian Deposit		
163547	43	56	Turf		unknown
163547	56	90	Aeolian Deposit	Boggy	
163547	90	92	Gravel		
163548	0	8	Root Mat		
163548	8	22	Disturbed		
163548	22	40	Aeolian Deposit		
163548	40	65	Low Density Cultural		
163548	65	118	Grave Fill		
163548	118	120	Gravel		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163549	0	12	Root Mat		
163549	12	40	Aeolian Deposit		
163549	40	65	Low Density Cultural		
163549	65	75	Aeolian Deposit		
163549	75	80	Subsoil		
163550	0	5	Root Mat		
163550	5	15	Disturbed		
163550	15	2	Aeolian Deposit		
163550	25	57	Aeolian Deposit		
163550	58	63	Midden	Burnt	
163550	63	63	Rock		
163551	0	7	Root Mat		
163551	7	40	Aeolian Deposit		
163551	40	62	Turf		unknown
163551	62	68	Aeolian Deposit		
163551	68	82	Sand		
163551	82	82	Gravel		
163552	0	7	Root Mat		
163552	7	13	Disturbed		
163552	13	70	Aeolian Deposit		
163552	70	70	Rock		
163553	0	4	Root Mat		
163553	4	10	Disturbed		
163553	10	18	Aeolian Deposit		
163553	18	23	Low Density Cultural		
163553	23	35	Aeolian Deposit		
163553	35	35	Rock		
163554	0	10	Root Mat		
163554	10	28	Disturbed		
163554	28	40	Sand	Irony	
163554	40	65	Aeolian Deposit	Boggy	

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163554	65	65	Rock		
163555	0	10	Root Mat		
163555	10	10	Rock		
163556	0	10	Root Mat		
163556	10	20	Disturbed		
163556	20	65	Aeolian Deposit	Boggy	
163556	65	65	Iron Pan		
163557	0	10	Root Mat		
163557	10	18	Aeolian Deposit	Boggy	
163557	18	19	Iron Pan		
163557	19	32	Aeolian Deposit	Boggy	
163557	32	32	Gravel		
163558	0	5	Root Mat		
163558	10	29	Aeolian Deposit		
163558	29	50	Aeolian Deposit		
163558	50	90	Aeolian Deposit	Boggy	
163558	90	96	Gley		
163558	96	96	Gravel		
163559	0	7	Root Mat		
163559	7	12	Disturbed		
163559	12	12	Rock		
163560	0	5	Root Mat		
163560	5	5	Rock		
163561	0	10	Root Mat		
163561	10	10	Gravel		
163562	0	10	Root Mat		
163562	10	22	Aeolian Deposit		
163562	22	24	Gravel		
163562	24	45	Aeolian Deposit		
163562	45	55	Subsoil		
163562	55	55	Gravel		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163563	0	7	Root Mat		
163563	7	11	Disturbed		
163563	11	30	Aeolian Deposit	Boggy	
163563	30	40	Aeolian Deposit	Sandy	
163563	40	58	Subsoil		
163563	58	58	Rock		
163564	0	3	Root Mat		
163564	3	3	Rock		
163565	0	13	Root Mat		
163565	13	33	Aeolian Deposit		
163565	33	43	Subsoil		
163565	43	43	Rock		
163566	0	10	Root Mat		
163566	10	62	Aeolian Deposit	Boggy	
163566	62	62	Rock		
163567	0	5	Root Mat		
163567	5	5	Rock		
163568	0	15	Root Mat		
163568	15	20	Gravel		
163568	20	20	Rock		
163569	0	7	Root Mat		
163569	7	52	Bog		
163570	0	5	Root Mat		
163570	5	15	Aeolian Deposit		
163570	15	15	Rock		
163571	0	13	Root Mat		
163571	13	13	Rock		
163572	0	11	Root Mat		
163572	11	17	Disturbed		
163572	17	40	Aeolian Deposit		
163572	40	50	Subsoil		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163572	50	50	Gravel		
163573	0	12	Root Mat		
163573	12	13	Disturbed		
163573	13	40	Turf		H1
163573	40	65	Aeolian Deposit		
163573	65	65	Rock		
163574	0	12	Root Mat		
163574	12	12	Rock		
163575	0	13	Root Mat		
163575	13	35	Aeolian Deposit		
163575	35	38	Sand		
163575	38	41	Subsoil		
163575	41	41	Rock		
163576	0	12	Root Mat		
163576	12	18	Disturbed		
163576	18	18	Rock		
163577	0	15	Root Mat		
163577	15	25	Disturbed		
163577	25	25	Rock		
163578	0	15	Root Mat		
163578	15	18	Disturbed		
163578	18	32	Aeolian Deposit		
163578	32	40	Subsoil		
163578	40	40	Rock		
163579	0	10	Root Mat		
163579	10	15	Disturbed		
163579	15	41	Aeolian Deposit		
163579	41	41	Gravel		
163580	0	13	Root Mat		
163580	13	23	Aeolian Deposit		
163580	23	23	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163581	0	8	Root Mat		
163581	8	15	Disturbed		
163581	15	27	Aeolian Deposit		
163581	27	30	Gravel		
163582	0	5	Root Mat		
163582	5	120	Bog		
163583	0	10	Root Mat		
163583	10	30	Aeolian Deposit		
163583	30	30	Gravel		
163584	0	5	Root Mat		
163584	5	10	Disturbed		
163584	10	20	Aeolian Deposit		
163584	20	30	Midden		
163584	30	30	Rock		
163585	0	10	Root Mat		
163585	10	45	Aeolian Deposit		
163585	45	70	Midden		
163585	70	105	Aeolian Deposit		
163585	105	110	Clay		
163585	110	115	Clay		
163585	115	115	Rock		
163586	0	10	Root Mat		
163586	10	30	Low Density Cultural		
163586	30	80	Aeolian Deposit		
163586	80	80	Rock		
163587	0	10	Root Mat		
163587	10	45	Aeolian Deposit		
163587	45	45	Rock		
163588	0	10	Root Mat		
163588	10	45	Aeolian Deposit		
163588	45	45	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163589	0	10	Root Mat		
163589	10	20	Aeolian Deposit		
163589	20	30	Turf		H1 1000 LNL/LNS
163589	30	70	Aeolian Deposit		
163589	70	80	Bog		
163590	0	10	Root Mat		
163590	10	30	Aeolian Deposit		
163590	30	35	Gravel		
163591	0	20	Aeolian Deposit		
163591	20	20	Rock		
163592	0	5	Root Mat		
163592	5	50	Aeolian Deposit		
163592	50	50	Rock		
163593	0	5	Root Mat		
163593	5	80	Bog		
163593	80	80	Rock		
163594	0	10	Root Mat		
163594	10	25	Aeolian Deposit		
163594	25	50	Clay		
163594	50	80	Bog		
163595	0	20	Root Mat		
163595	20	40	Aeolian Deposit		
163595	40	40	Gravel		
163596	0	10	Root Mat		
163596	10	50	Bog		
163596	50	80	Sand		
163598	0	40	Disturbed		
163598	40	80	Low Density Cultural		
163598	80	120	Midden		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163599	0	35	Disturbed		
163599	35	75	Midden		
163599	75	75	Rock		
163600	0	10	Disturbed		
163600	10	10	Gravel		
163601	0	10	Root Mat		
163601	10	22	Disturbed		
163601	22	45	Aeolian Deposit		
163601	45	58	Midden		
163601	58	63	Aeolian Deposit		
163601	63	120	Bog		
163602	0	10	Root Mat		
163602	10	30	Aeolian Deposit		
163602	30	35	Midden		
163602	35	80	Bog		
163602	80	80	Rock		
163603	0	10	Root Mat		
163603	10	30	Disturbed		
163603	30	45	Aeolian Deposit		
163603	45	45	Rock		
163604	0	10	Root Mat		
163604	10	30	Disturbed		
163604	30	80	Bog		
163605	0	10	Root Mat		
163605	10	15	Disturbed		
163605	15	28	Turf		None
163605	33	33	Low Density Cultural		
163605	33	80	Bog		
163606	0	10	Root Mat		
163606	10	30	Disturbed		
163606	30	80	Bog		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163607	0	10	Root Mat		
163607	10	32	Disturbed		
163607	32	51	Low Density Cultural		
163607	51	54	Midden		
163607	54	120	Bog		
163608	0	15	Root Mat		
163608	10	15	Disturbed		
163608	15	36	Low Density Cultural		
163608	36	38	Midden		
163608	38	80	Bog		
163609	0	10	Root Mat		
163609	10	21	Low Density Cultural		
163609	21	22	Midden		
163609	22	120	Bog		
163610	0	10	Root Mat		
163610	10	35	Disturbed		
163610	35	51	Aeolian Deposit		
163610	51	61	Low Density Cultural		
163610	61	120	Bog		
163611	0	10	Root Mat		
163611	10	22	Disturbed		
163611	22	30	Low Density Cultural		
163611	30	35	Midden		
163611	35	55	Aeolian Deposit		
163611	55	80	Bog		
163612	0	10	Root Mat		
163612	10	30	Disturbed		
163612	30	53	Aeolian Deposit	Clayey	
163612	53	80	Bog		
163613	0	10	Root Mat		
163613	10	30	Disturbed		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163613	30	60	Aeolian Deposit		
163613	60	80	Bog		
163614	0	10	Root Mat		
163614	10	35	Disturbed		
163614	35	55	Aeolian Deposit		
163614	55	80	Bog		
163615	0	10	Root Mat		
163615	10	20	Disturbed		
163615	20	80	Aeolian Deposit		
163616	0	5	Root Mat		
163616	5	20	Disturbed		
163616	20	40	Aeolian Deposit		
163616	40	40	Iron Pan		
163617	0	10	Root Mat		
163617	10	30	Disturbed		
163617	30	45	Aeolian Deposit		
163617	45	53	Midden		
163617	53	65	Aeolian Deposit		
163617	65	115	Bog		
163617	115	120	Clay		
163618	0	10	Root Mat		
163618	10	35	Disturbed		
163618	35	40	Midden		
163618	40	60	Aeolian Deposit		
163618	60	80	Bog		
163619	0	10	Root Mat		
163619	10	30	Disturbed		
163619	30	50	Aeolian Deposit		
163619	50	120	Bog		
163620	0	10	Root Mat		
163620	10	20	Disturbed		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163620	20	35	Aeolian Deposit		
163620	35	120	Bog		
163621	0	10	Root Mat		
163621	10	35	Disturbed		
163621	35	60	Aeolian Deposit		
163621	60	100	Bog		
163621	100	115	Clay		
163621	115	118	Sand		
163621	118	120	Iron Pan		
163622	0	10	Root Mat		
163622	10	40	Disturbed		
163622	40	50	Aeolian Deposit		
163622	50	65	Turf		H3/H4
163622	65	70	Aeolian Deposit		
163622	70	100	Bog		
163622	100	120	Clay		
163623	0	10	Root Mat		
163623	10	30	Disturbed		
163623	30	63	Aeolian Deposit		
163623	63	80	Bog		
163624	0	10	Root Mat		
163624	10	50	Aeolian Deposit		
163624	50	50	Iron Pan		
163625	0	10	Root Mat		
163625	10	35	Aeolian Deposit		
163625	35	40	Clay		
163625	40	40	Iron Pan		
163626	0	5	Root Mat		
163626	5	35	Disturbed		
163626	35	55	Aeolian Deposit		
163626	55	57	Midden		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163626	57	75	Bog		
163626	75	90	Clay		
163626	90	100	Iron Pan		
163627	0	5	Root Mat		
163627	5	25	Disturbed		
163627	25	35	Low Density Cultural		
163627	35	110	Bog		
163627	110	120	Clay		
163628	0	10	Root Mat		
163628	10	25	Aeolian Deposit		
163628	25	35	Low Density Cultural		
163628	35	42	Aeolian Deposit		
163628	42	90	Bog		
163628	90	100	Clay		
163628	100	105	Iron Pan		
163629	0	10	Root Mat		
163629	10	20	Aeolian Deposit		
163629	20	23	Low Density Cultural		
163629	23	50	Aeolian Deposit		
163629	50	60	Clay		
163629	60	65	Iron Pan		
163630	0	10	Root Mat		
163630	10	40	Aeolian Deposit		
163630	40	40	Rock		
163631	0	7	Root Mat		
163631	7	120	Bog		
163632	0	6	Root Mat		
163632	6	13	Disturbed		
163632	13	67	Bog		
163632	67	67	Gravel		
163633	0	7	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163633	7	14	Disturbed		
163633	14	40	Bog	Sandy	
163633	40	40	Gravel		
163634	0	5	Root Mat		
163634	5	120	Bog		
163635	0	3	Root Mat		
163635	5	23	Bog		
163635	23	40	Aeolian Deposit		
163635	40	40	Gravel		
163636	0	7	Root Mat		
163636	7	18	Disturbed		
163636	18	30	Aeolian Deposit		
163636	30	40	Subsoil		
163637	0	7	Root Mat		
163637	7	12	Disturbed		
163637	12	23	Aeolian Deposit		
163637	23	30	Subsoil		
163637	30	30	Gravel		
163638	0	12	Root Mat		
163638	12	12	Rock		
163639	0	11	Root Mat		
163639	11	27	Aeolian Deposit		
163639	27	27	Rock		
163640	0	14	Root Mat		
163640	14	20	Disturbed		
163640	20	40	Aeolian Deposit		
163640	40	40	Rock		
163641	0	20	Root Mat		
163641	20	25	Disturbed		
163641	25	40	Aeolian Deposit		
163641	40	40	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163642	0	11	Root Mat		
163642	11	11	Rock		
163643	0	12	Root Mat		
163643	12	12	Rock		
163644	0	13	Root Mat		
163644	13	13	Rock		
163645	0	11	Root Mat		
163645	11	11	Rock		
163646	0	7	Root Mat		
163646	7	29	Aeolian Deposit		
163646	29	29	Rock		
163647	0	3	Root Mat		
163647	3	15	Aeolian Deposit		
163647	15	15	Rock		
163648	0	11	Root Mat		
163648	11	32	Bog	Dry	
163648	32	32	Rock		
163649	0	7	Root Mat		
163649	7	52	Aeolian Deposit		
163649	52	52	Gravel		
163669	0	10	Disturbed		
163669	10	10	Rock		
163670	0	12	Root Mat		
163670	12	31	Aeolian Deposit		
163670	31	33	Iron Pan		
163670	33	63	Aeolian Deposit	Wet	
163670	63	63	Rock		
163694	0	11	Root Mat		
163694	11	70	Aeolian Deposit	Boggy	
163694	70	70	Rock		
163695	0	7	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163695	7	24	Aeolian Deposit	Boggy	
163695	24	120	Bog		
163696	0	15	Plow Zone		
163696	15	26	Aeolian Deposit	Boggy	
163696	26	120	Bog		
163697	0	7	Root Mat		
163697	7	44	Midden		
163697	44	56	Aeolian Deposit		
163697	56	74	Aeolian Deposit		
163697	74	74	Rock		
163698	0	2	Root Mat		
163698	2	20	Aeolian Deposit		
163698	20	26	Midden		
163698	26	120	Bog		
163699	0	5	Root Mat		
163699	5	40	Aeolian Deposit		
163699	40	120	Bog		
163700	0	7	Root Mat		
163700	7	26	Aeolian Deposit		
163700	26	86	Bog		
163700	86	86	Gravel		
163701	0	4	Root Mat		
163701	4	120	Bog		
163702					
163703	0	10	Root Mat		
163703	10	59	Aeolian Deposit		
163703	59	62	Iron Pan		
163703	62	80	Gley		
163703	80	80	Rock		
163704	0	5	Root Mat		
163704	5	55	Aeolian Deposit	Boggy	

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163704	55	62	Bog		
163704	62	90	Aeolian Deposit	Clayey	
163704	90	90	Gravel		
163705	0	10	Root Mat		
163705	10	25	Turf		H1
163705	25	70	Aeolian Deposit		
163705	70	110	Aeolian Deposit	Boggy	
163705	110	110	Rock		
163706	0	10	Root Mat		
163706	10	64	Aeolian Deposit	Boggy	
163706	64	65	Iron Pan		
163707	0	8	Root Mat		
163707	8	59	Aeolian Deposit	Boggy	
163707	59	92	Bog		
163707	92	110	Aeolian Deposit		
163707	110	110	Gravel		
163708	0	10	Root Mat		
163708	10	20	Disturbed		
163708	20	39	Aeolian Deposit		
163708	39	42	Iron Pan		
163708	42	120	Bog		
163709	0	6	Root Mat		
163709	6	23	Bog		
163709	23	40	Aeolian Deposit	Boggy	
163709	40	120	Bog		
163710	0	4	Root Mat		
163710	4	24	Aeolian Deposit	Boggy	
163710	24	120	Bog		
163711	0	4	Root Mat		
163711	4	118	Bog		
163711	118	119	Sand		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163711	119	119	Rock		
163712	0	4	Root Mat		
163712	4	100	Bog		
163712	100	100	Gravel		
163713	0	10	Root Mat		
163713	10	40	Aeolian Deposit		
163713	40	52	Aeolian Deposit	Boggy	
163713	52	52	Gravel		
163714	0	10	Root Mat		
163714	10	50	Aeolian Deposit		
163714	50	80	Aeolian Deposit	Boggy	
163714	80	80	Rock		
163715	0	6	Root Mat		
163715	6	120	Bog		
163717	0	6	Root Mat		
163717	6	14	Aeolian Deposit	Boggy	
163717	14	110	Bog		
163717	110	110	Rock		
163718	0	16	Plow Zone		
163718	16	29	Aeolian Deposit	Boggy	
163718	29	84	Bog		
163718	84	84	Rock		
163719	0	10	Root Mat		
163719	10	19	Aeolian Deposit	Boggy	
163719	19	120	Bog		
163720	0	12	Root Mat		
163720	12	40	Aeolian Deposit	Boggy	
163720	40	120	Bog		
163721	0	5	Root Mat		
163721	5	34	Aeolian Deposit	Boggy	
163721	34	73	Bog		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163721	73	73	Rock		
163722	0	16	Plow Zone		
163722	16	120	Bog		
163723	0	12	Root Mat		
163723	12	40	Aeolian Deposit	Boggy	
163723	40	120	Bog		
163724	0	5	Root Mat		
163724	5	35	Disturbed		
163724	35	45	Aeolian Deposit		
163724	45	65	Turf		
163724	65	65	Rock		
163725	0	19	Plow Zone		
163725	19	33	Aeolian Deposit	Boggy	
163725	33	120	Bog		
163726	0	5	Root Mat		
163726	5	16	Disturbed		
163726	16	36	Aeolian Deposit	Boggy	
163726	36	80	Bog		
163727	0	5	Root Mat		
163727	5	22	Aeolian Deposit		
163727	22	120	Bog		
163728	0	4	Root Mat		
163728	4	22	Aeolian Deposit	Boggy	
163728	22	120	Bog		
163729	0	4	Root Mat		
163729	4	58	Aeolian Deposit	Boggy	
163729	58	80	Bog		
163730	0	9	Root Mat		
163730	9	48	Aeolian Deposit	Boggy	
163730	48	80	Bog		
163731	0	6	Root Mat		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163731	6	36	Aeolian Deposit	Boggy	
163731	36	120	Bog		
163732	0	6	Root Mat		
163732	6	31	Aeolian Deposit	Boggy	
163732	31	80	Bog		
163733	0	3	Root Mat		
163733	3	18	Aeolian Deposit	Boggy	
163733	18	21	Sand		
163733	21	40	Aeolian Deposit	Boggy	
163733	40	80	Bog		
163733	80	80	Rock		
163734	0	3	Root Mat		
163734	3	49	Aeolian Deposit	Boggy	
163734	49	120	Bog		
163735	0	6	Root Mat		
163735	6	120	Aeolian Deposit	Boggy	
163736	0	4	Root Mat		
163736	4	17	Disturbed		
163736	17	40	Aeolian Deposit	Boggy	
163736	40	120	Bog		
163737	0	13	Aeolian Deposit		
163737	13	13	Rock		
163738	0	11	Aeolian Deposit		
163738	11	11	Rock		
163739	0	10	Root Mat		
163739	10	15	Aeolian Deposit		
163739	15	15	Rock		
163740	0	6	Root Mat		
163740	6	6	Rock		
163741	0	10	Root Mat		
163741	10	10	Rock		

Core Number	top depth	bottom depth	Category	Description	Tephra in Turf
163742	0	3	Root Mat		
163742	3	36	Aeolian Deposit		
163742	36	51	Aeolian Deposit	Boggy	
163742	51	120	Bog		
163743	0	3	Root Mat		
163743	3	26	Aeolian Deposit		
163743	26	90	Aeolian Deposit	Boggy	
163743	90	90	Rock		

APPENDIX B – TEST PIT DATA

Table B4. Contexts

EXCAVATION	CONTEXT	TYPE	CLASS	SUBCLASS	METHOD	DATE	ID	STRAT ABOVE	STRAT BELOW	COMMENTS
TP1	101	Deposit	Topsoil		Shovel Trowel	08/09/2016	AHS		1300	Context 101 includes root mat and sterile aeoli deposit down to the 1300 tephra.
TP1	1300	Deposit	Tephra	1300	Trowel	08/09/2016	AHS	101	102	
TP1	102	Deposit	Aeolian Deposit		Trowel Shovel	08/09/2016	AHS	1300	1104	
TP1	1104	Deposit	Tephra	1104	Trowel	08/10/2016	LWO	102		Tephra not present in the southern edge of the pit, it seems to have been washed away in that area. The overlying sediments follow the conto of a small gully in this portion of the unit (especially clear in the 1300)
TP1	103	Deposit	Midden		Trowel Shovel	08/10/2016	AHS	1104	1000	Midden fill with good bone preservation. Wooc was present at the base of the midden in the N corner no samples were collected because the wood was poorly preserved.
TP1	1000	Deposit	Tephra	1000	Trowel	08/10/2016	AHS	103	104	
TP1	104	Deposit	Midden		Trowel Shovel	08/10/2016	AHS	1000	934	Context 104 includes a cut feature in the weste edge of the unit, the material from that cut wa deposited directly next to the cut and can be se in the north, east, and south walls. The cut contains turf.
TP1	871	Deposit	Tephra	LNS	Trowel	08/10/2016	AHS	104	105	Note: changed context name from LNS to 871, KAC 29 Sep
TP1	105	Deposit	Aeolian Deposit		Trowel	08/10/2016	AHS	934	Sterile	Sterile H3/H4 shows signs of saturation, tephra bleached and mottled.

Table B5.Photos

EXCAVATION	IMAGE NUMBER	CONTEXT	DATE	DESCRIPTION	ID
TP1	1	101	08/09/2016	1300 - end of cxt 101	LWO
TP1	2	102	08/09/2016	Bottom of cxt 102	LWO
TP1	3	1000	08/10/2016	Top of cxt 1000	LWO
TP1	5	105	08/10/2016	North wall profile	LWO
TP1	6	105	08/10/2016	East wall profile	LWO

EXCAVATION	CONTEXT	SAMPLE	BAGS	DATE	ID	TYPE	DESCRIPTION
TP1	102	1	2	08/09/2016	LWO	Flotation	Top of context 102
TP1	1104	2	1	08/10/2016	LWO	Flotation	1104 context
TP1	103	3	1	08/10/2016	LWO	Bone, Animal	Bones
TP1	103	4	2	08/10/2016	LWO	Flotation	Top of cxt 103
TP1	103	5	2	08/10/2016	LWO	Flotation	Middle of cxt 103
TP1	103	6	2	08/10/2016	LWO	Flotation	Bottom of cxt 103
TP1	1000	7	1	08/10/2016	LWO	Flotation	1000 cxt
TP1	104	8	2	08/10/2016	LWO	Flotation	Top of cxt 104
TP1	104	9	1	08/10/2016	LWO	Flotation	Bottom of cxt 104
TP1	105	10	1	08/10/2016	LWO	Flotation	Context 934
TP1	104	11	1	08/10/2016	LWO	Bone, Animal	Bones
TP1	871	12	2	08/10/2016	LWO	Flotation	Top of context 105

Table B6.
Samples