Report of the Skagafjörður Archaeological Settlement Survey 2009:

Coring and Test pits at Stóra-Gröf (61)

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Additional copies of this report and other reports, as well as much of the raw data can be downloaded from http://www.fiskecenter.umb.edu/SASS.htm

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The work described below took place at the modern farm of Stóra-Gröf sydri in Langholt. The *Jonsbook* designation (61) encompasses both Stóra-Gröf sydri and Stóra-Gröf ytri (which were split in about 1930). We did not work on Stóra-Gröf ytri in 2009 although we bet that the house associated with the midden at Area B is on the land at Stóra-Gröf ytri.

Goals

The goal of the work at Stóra-Gröf (61) was straightforward. We used cores to identify any areas away from the farm mound that may be areas of early occupations. If any of these earlier occupations were identified, and were substantial, they would be targets for geophysics and further archaeological exploration. Two of these areas were encountered at Stóra-Gröf but because time and the many metal fences and other iron pieces in the area, we did not do any shallow geophysics. We also sought to date the earliest occupation of the visible farmmound by placing and excavating a 1x1 m test pit in the oldest part of the midden.

Coring

Coring at Stóra-Gröf began on 7/16/2009 and went through 7/21/2009. Joanna Curtis, Kathryn Catlin, Heather Trigg, Susan Ann Jacobucci, Robert de Picciotto, Kelly Hale, and John Steinberg took the cores. We used a JMC backsaver core with two extensions if necessary. For deep midden exploration we sometimes used the N-3 handle, but mostly the standard backsaver handle. We employed the 18 in long 1.5 in wide JMC large diameter sampling tubes. The sample tube was cleaned between each sample and grass placed in the core hole between samples of the same core hole so as to distinguish loose soil fall from in situ deposits. Core locations were recorded with a sub-meter GPS in Real time. These coordinates were post-processed and those post-processed coordinates are the ones associated with the cores in this report. Tephra layers were recorded along with natural and cultural deposits and any inclusions.

We took 260 cores at Stóra-Gröf tephra was found in 162 of them (62%): 26 with 1776, 29 with 1300, 88 with H1, 20 with 1000 and 40 with the LNL/LNS. Of those cores, there were 8 spots off the visible mound had cultural material (Figure 2). Besides the visible farmmound, two others were confirmed to have midden below the 1104 tephra layer. The other cores with midden or cultural material in them were all above the 1104 tephra layer (Figure 2).

In order to locate the oldest part of the midden at the old farm mound we took 23 cores around the visible mound (Area A). We wanted to identify the area where there was substantial midden under the 1000 tephra layer or midden deposits very close to the LNL (Figure 4). The cultural deposits on top of the area also had to be less than 3 m, as test pits become difficult after that depth. In general we first placed cores on a 10m grid. The spacing was then confined to identify the deepest part of the midden as well as the oldest part of the midden (close to the LNS). We took several cores that had those characteristics well down the farmmound (almost at its base) to the northeast of the dilapidated farmhouse building at the top of the visible farm mound (Figure 5 and Figure 6).

We took 28 cores just to the north of the visible area in what would become Area B (Figure 3, Figure 4, and Figure 10). The 1104, 1000, and LNL were relatively plentiful and in clear conjunction with the dark cultural layers. These cultural layers were not particularly thick, but seemed to be quite early and isolated. Therefore, we identified the deepest midden deposit and put the test pit for Area B there.

A third core identified cultural material even more north of Area B but could not be identified in any of the other 4 cores taken in the area. We still think this area may contain early cultural material.

Test pits

Test pitting at Stóra-Gröf began 7/16/2009 and went through 7/22/2009, excavated by Emily Button & Rita Shepard with the assistance of Heather Trigg, Susan Jacobucci, Christa Beranek and Katharine Corwin.

The location of the test pit at Area A (E 475562.4, N 572138.8) was determined by the cores (Figure 5 and Figure 6). In general, the midden was very dry and relatively homogeneous. Unfortunately, there was no 1000 or LNL/LNS identified during excavation and could not be identified in any of the sidewalls after excavation. H3/H4 was identified at the bottom of the excavation. This means that we have no good tephra date other than early than 1104. There is almost 50 cm of midden below the 1104 tephra layer that would suggest an early establishment date, but none could be confirmed. A piece of charcoal was identified at the bottom of context 115 just above the iron pan. The wood was clearly hardwood and probably birch. It was send for AMS dating. The sample (77359) was run by Brian Damiata at the W. M. Keck Carbon Cycle Accelerator Mass Spectrometry Laboratory at the University of California, Irvine. The date came back at 1130 ± 15 radiocarbon years before present. Calibrated this comes out to 886-973 AD (95.4%)

The location of the test pit at Area B (E 475577.26 , N 572191.72 22.73 m asl) was determined by the cores (Figure 3 and Figure 4). The midden at area B did not start until below the 1104 tephra layer with a very low-density cultural layer (Figure 8). The high-density charcoal (dark black) midden begins 15 cm below the 1104 tephra layer and extends for 15-20 cm down. This dark back midden contained numerous small fragments of domesticated animal bones that have not yet been analyzed. This dark black midden layer rested directly on an H3/H4 aeolian mix. Many of the surrounding cores contained both the 1000 tephra and the LNL, which seemed to sandwich the dark black midden deposit. We believe that small bits of the 1000 tephra were on top of the dark black midden (just above context 123). This 1000 tephra was confirmed by Magnús Á. Sigurgeirsson. A small spearhead was recovered from context 124 and two rivets were recovered from context 125. All of these finds were recovered in the screen. We did identify, during excavation, a small sheep or goat bone at the very bottom of the dark black midden [128] and submitted it for AMS dating. The sample (72205) was run by Brian Damiata at the W. M. Keck Carbon Cycle Accelerator Mass Spectrometry Laboratory at the University of California, Irvine. The date came back at 1110 ± 20 radiocarbon years before present. Calibrated this comes out to 888 – 980 AD (95.4%).

Floatation

Samples for flotation from all pre 1300 AD contexts were taken at both Area A and B. While they have all been floated, they have not been analyzed.

Interpretation

Stóra-Gröf is difficult to interpret. Our basic question is if Area A and B are occupied contemporaneously during the Viking Age. Clearly Area B is abandoned early, possibly by 1000, and certainly by 1104. Area A seems to be continuously occupied, but its establishment is not attested to by tephra, but it was established before 1104 AD. The distribution of midden in the cores strongly suggests that there is a distinct separation between Area A and B. This is confirmed by the dirt road cuts. The midden at Area A, below 1104 tephra, as identified in the cores, is about 2471 m^2 while the midden at Area B (all below 1104) is about 1061 m^2. If these two areas were ever occupied contemporaneously, that would put the total occupation area at Stóra-Gröf before 1104 AD at 3532 m^3.

If Area B was abandoned by 1000, it is the earliest example of a Viking Age abandonment in Langholt that we know of. The occupants of Seyla (104) seem to move midway between 1000 and 1104. The occupants of Glaumbaer (111) seem to move just before 1104. Did the occupants at Stóra-Gröf simply move across the small "Gröf" and a little uphill from Area B to A or were they both occupied at the same time? For our interpretation, we are not going to disregard the early charcoal date from Area A and argue that Area A and B are, for a short time, occupied together. Clearly more work is needed on this important farm.

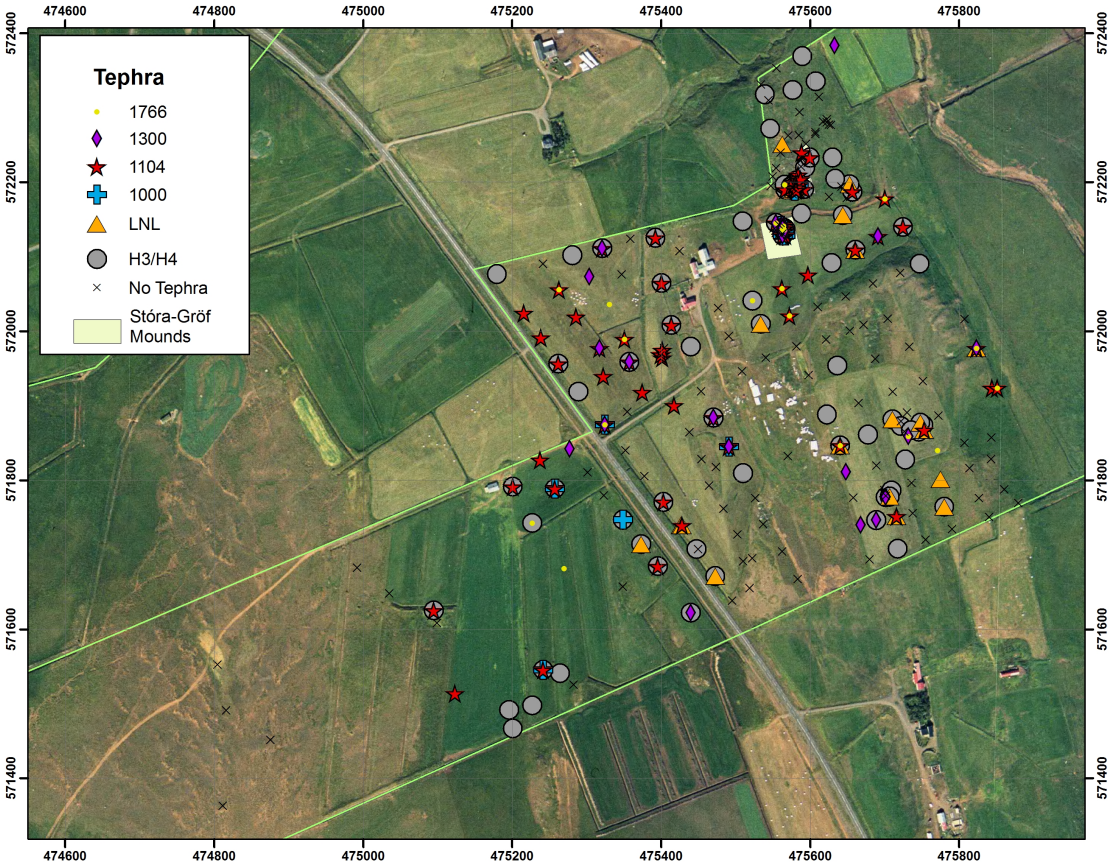

Figure 1. Tephra distribution.

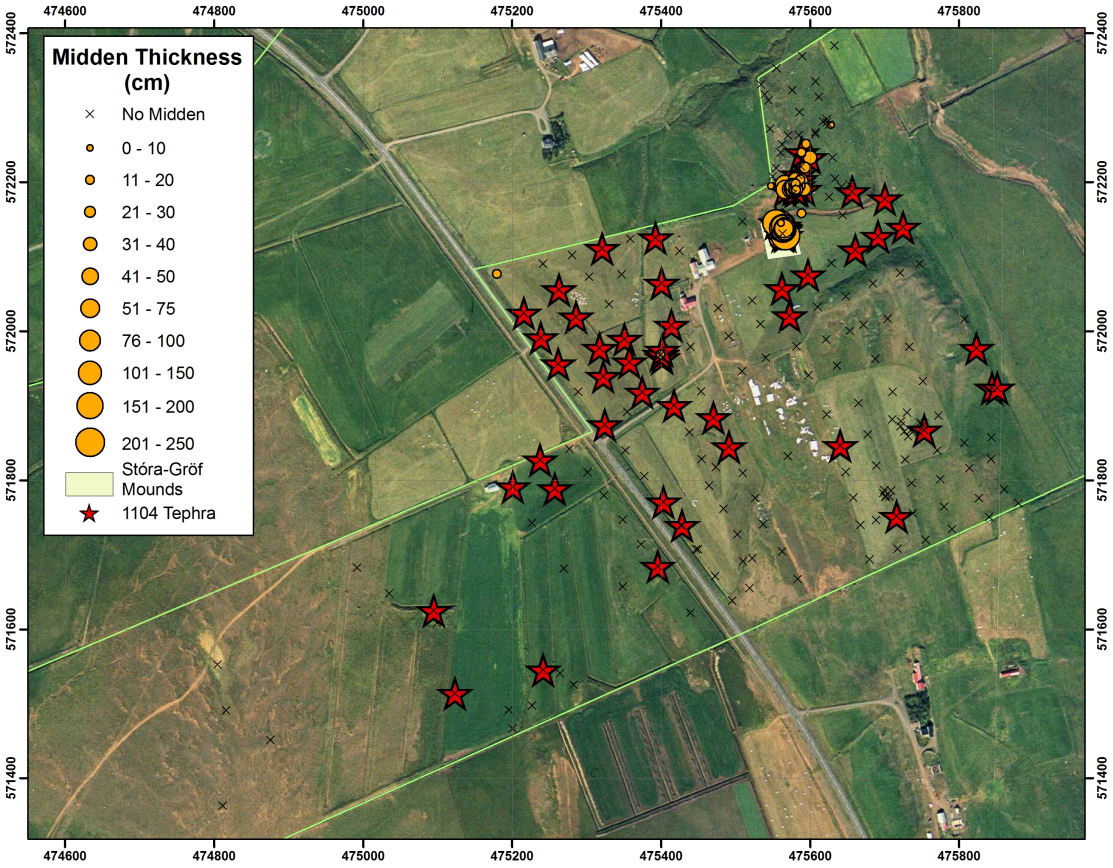

Figure 2. Distribution of midden.

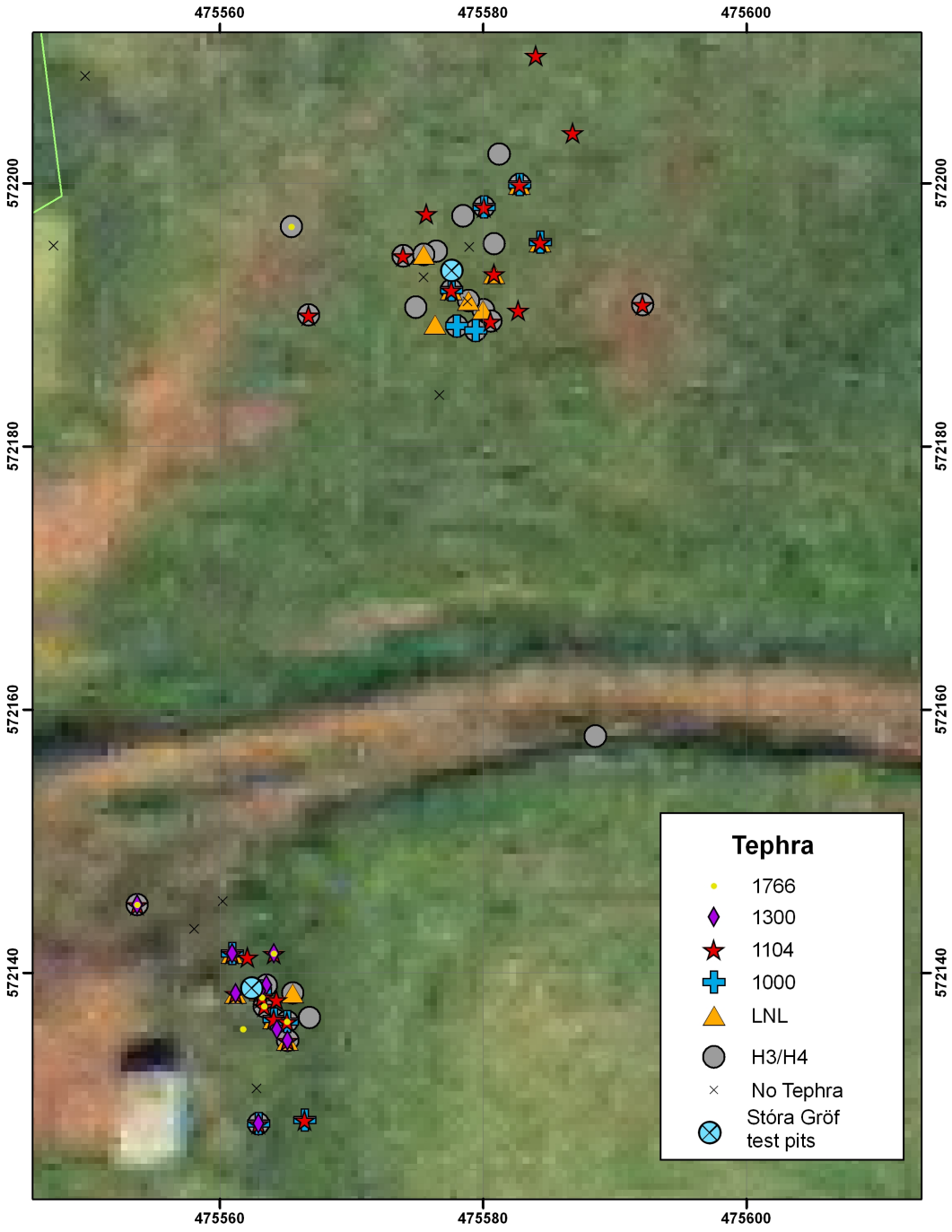

Figure 3. Distribution of tephra layers in Farmmound areas.

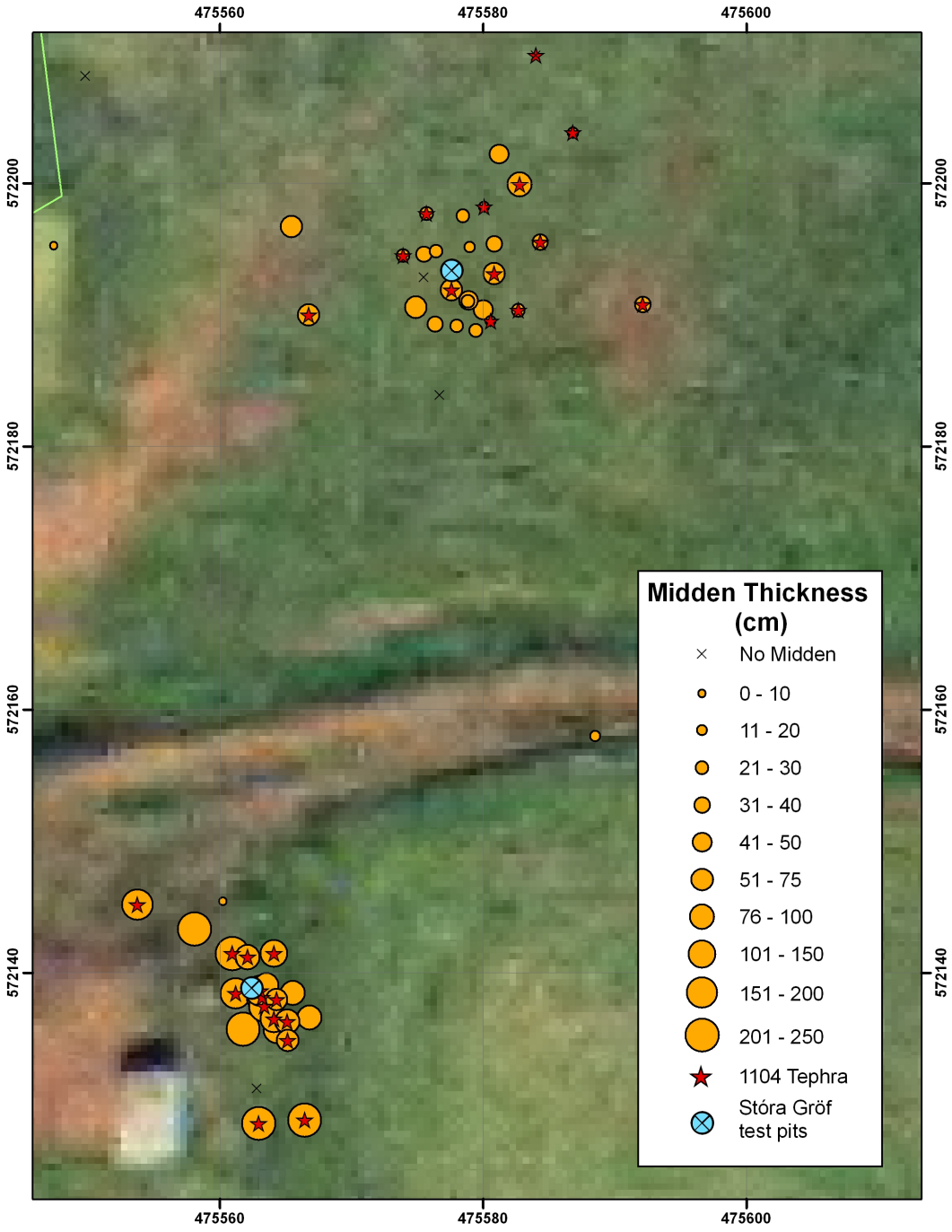

Figure 4. Distribution of midden in Farmmound areas.

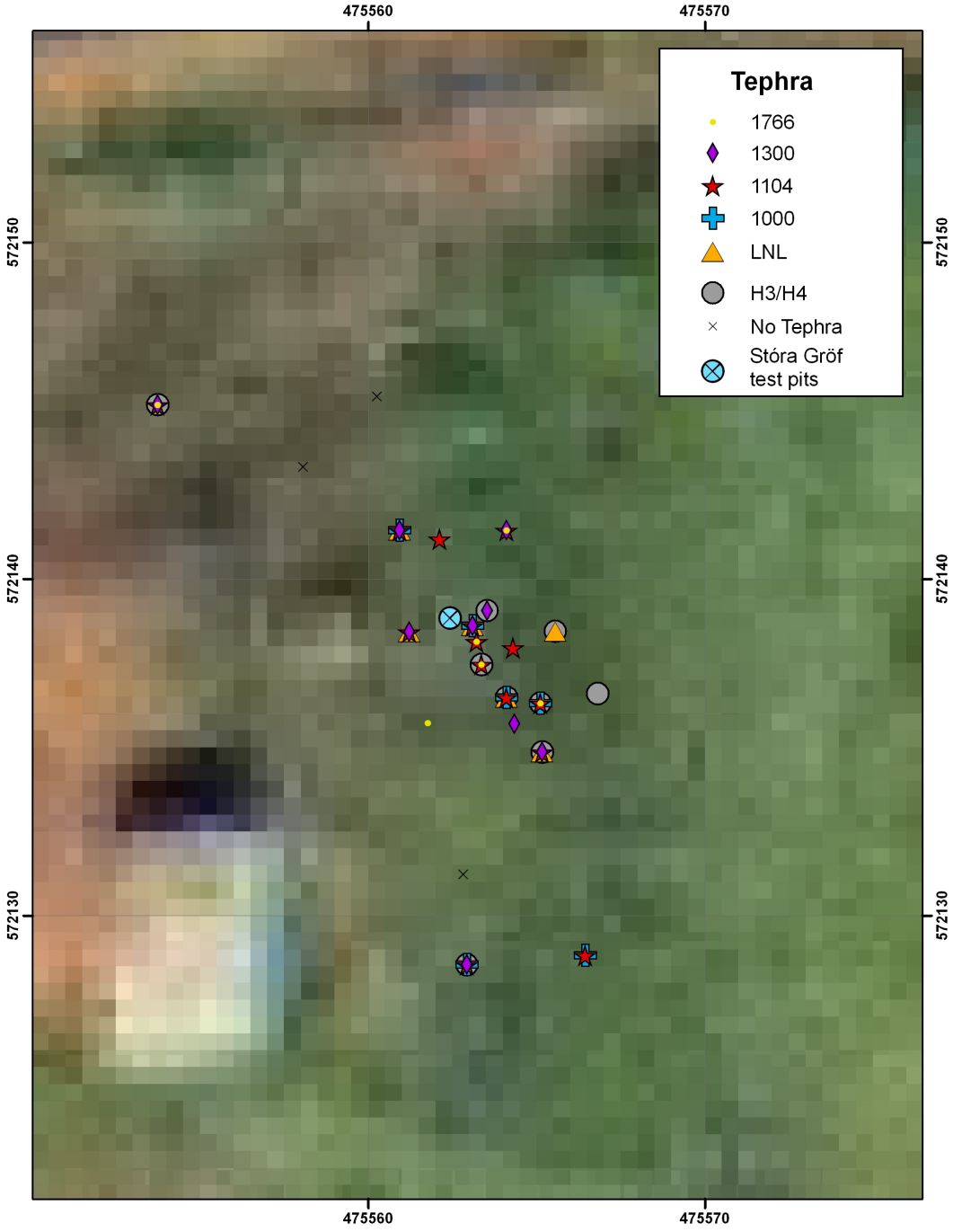

Figure 5. Distribution of tephra around visible farmmound (Area A)

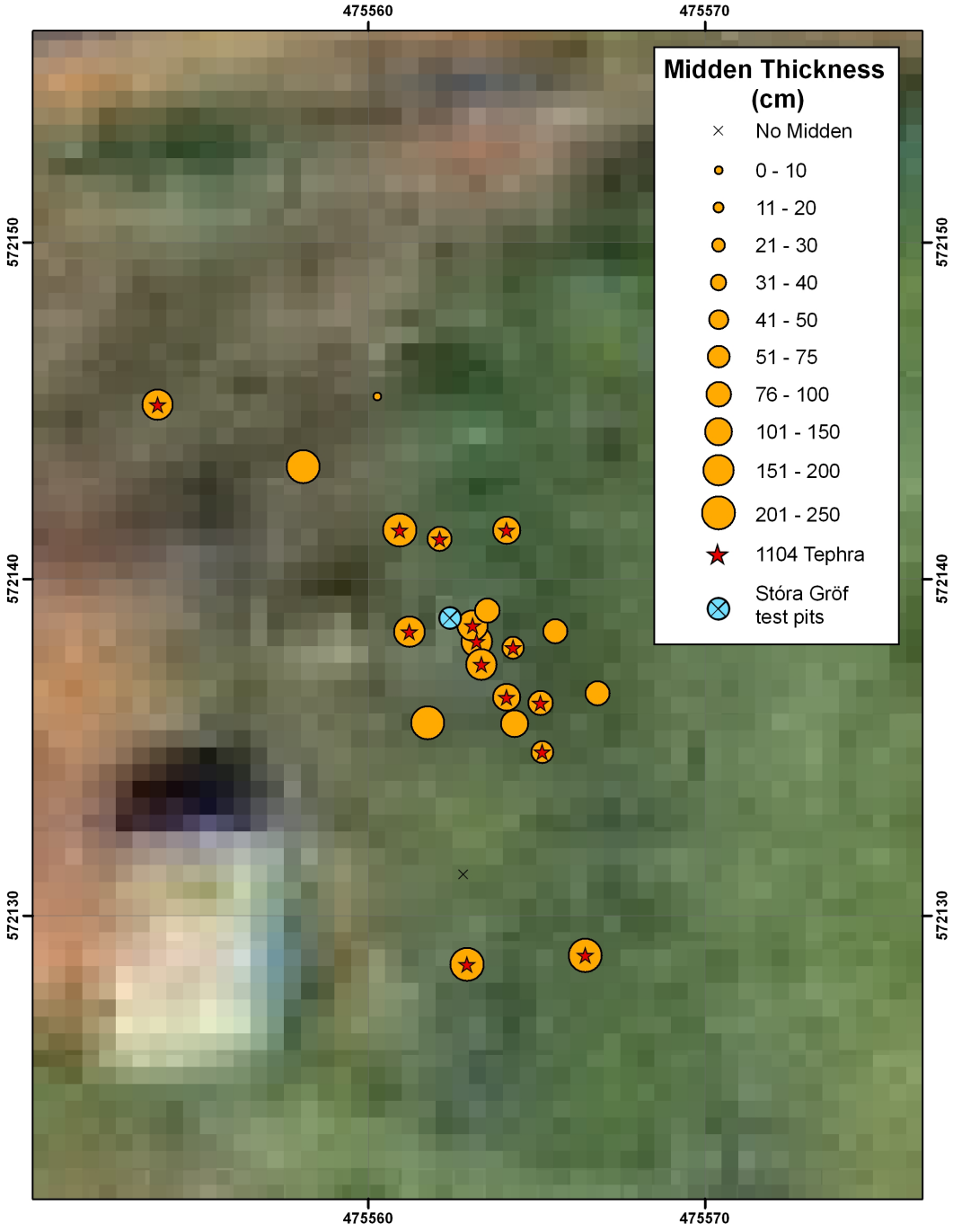

Figure 6. Distribution of midden around visible farmmound (Area A)

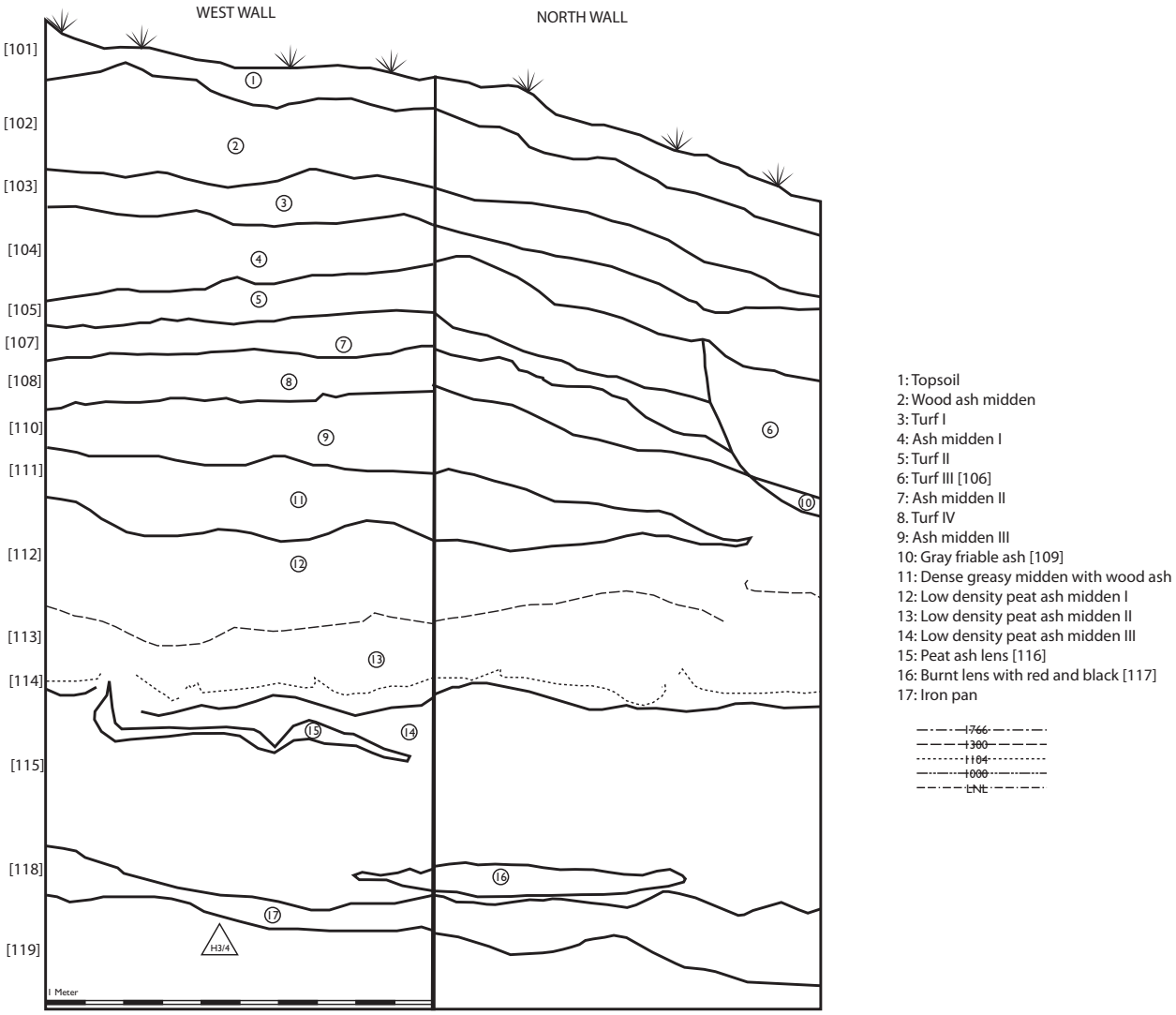

Figure 7. Profile of test pit area A

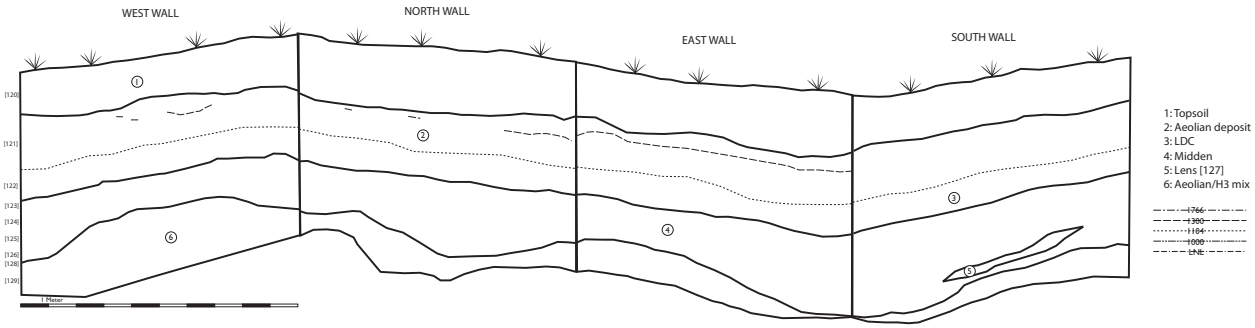

Figure 8. Profile of test pit area B

Figure 9. West wall test pit profile A.

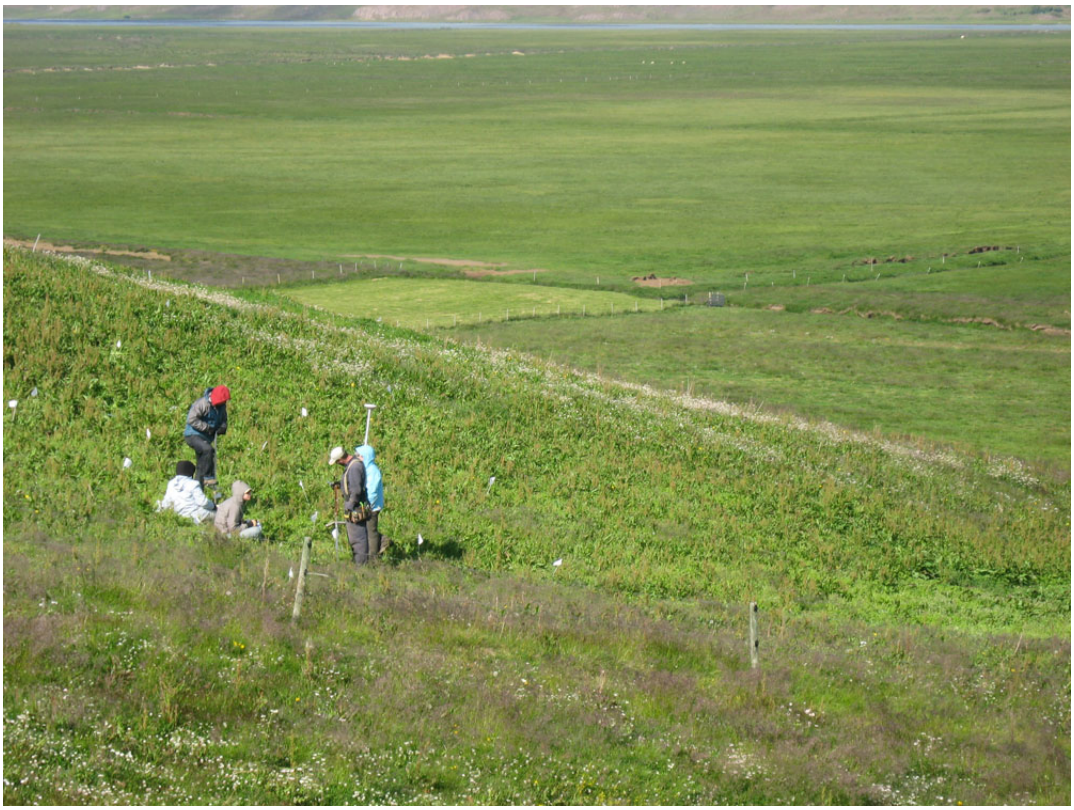

Figure 10. Coring near test pit at area B.

Site 61		Tephra Layer	Depth	East	North
Core	1721			475560.932	572141.46
		1300	145		
		H1	154		
		H1	230		
		1000	253		
		LNL	260		
Core	1722			475553.741	572145.187
		1766	68		
		1300	170		
		H1	194		
		H3	201		
Core	1723			475566.456	572128.82
		H1	66		
		1000	97		
Core	1724			475562.129	572141.196
		H1	90		
Core	1725			475564.104	572141.454
		1766	30		
		1300	50		
		H1	107		
Core	1726			475562.938	572128.553
		1766	27		
		1300	138		
		H1	141		
		1000	148		
		H3	177		
		H4	185		
Core	1727			475561.772	572135.725
		1766	62		
Core	1729			475561.223	572138.44
		H1	235		
		LNL	245		
		1300	145		
Core	1731			475563.537	572139.056
		1300	142		
		H3	180		
Core	1732			475565.565	572138.451
		LNL	93		
		H3	103		
		H4	110		

Site 61		Tephra Layer	Depth	East	North
Core	1733			475564.104	572136.492
		H1	118		
		1000	151		
		LNL	170		
		H3	173		
		H4	180		
Core	1735			475565.113	572136.311
		1766	58		
		H1	75		
		1000	115		
		H3	135		
		H4	142		
Core	1736			475566.823	572136.599
		H3	107		
Core	1737			475564.341	572135.705
		1300	65		
Core	1738			475565.167	572134.867
		1300	85		
		H1	95		
		LNL	105		
		H3	135		
		H4	155		
Core	1739			475563.367	572137.461
		1766	78		
		H1	152		
		H3	191		
Core	1740			475563.219	572138.147
		1766	75		
		H1	175		
Core	1741			475563.097	572138.622
		1300	141		
		H1	160		
		1000	165		
		LNL	199		
Core	1742			475564.304	572137.969
		H1	118		
Core	1743			475588.516	572157.996
		H1	42		
		1000	50		
		H4	65		

Site 61		Tephra Layer	Depth	East	North
Core	1744			475643.656	572155.885
		LNL	30		
		H3	40		
Core	1745			475700.32	572177.678
		1766	35		
		H1	80		
Core	1746			475724.435	572139.642
		H1	20		
		H3	28		
		H4	35		
Core	1747			475747.054	572090.685
		H3	90		
Core	1750			475691.042	572127.48
		1300	27		
		H1	38		
Core	1751			475660.635	572109.122
		H1	25		
		LNL	37		
		H3	48		
		H4	54		
Core	1752			475628.351	572091.787
		H3	32		
		H4	45		
Core	1755			475572.127	572020.728
		1766	30		
		H1	102		
Core	1756			475561.933	572057.377
		1766	35		
		H1	65		
Core	1757			475596.755	572075.832
		H1	28		
		H1	75		
Core	1758			475533.711	572009.798
		LNL	40		
		H3	54		
		H4	65		
Core	1759			475522.362	572041.2
		1766	30		
		H3	50		

Site 61		Tephra Layer	Depth	East	North
Core	1764			475636.003	571954.054
		H3	20		
		H4	35		
Core	1782			475721.975	571878.985
		H3	20		
		LNL	27		
		H3	35		
Core	1784			475751.199	571874.377
		H3	35		
Core	1786			475677.37	571861.403
		H3	23		
		H3	30		
		H4	37		
Core	1787			475745.669	571865.04
		H3	35		
		H4	40		
Core	1788			475752.966	571867.475
		H1	35		
		LNL	50		
Core	1789			475747.702	571877.308
		LNL	25		
		H3	30		
		H4	40		
Core	1790			475640.171	571846.874
		1766	25		
		H1	59		
		LNL	62		
		H3	75		
Core	1791			475622.607	571888.209
		H4	30		
Core	1792			475710.26	571881.749
		LNL	20		
		H3	37		
Core	1793			475721.625	571872.449
		H3	25		
		H4	30		
Core	1796			475731.666	571858.671
		1766	31		
		1300	34		

Site 61		Tephra Layer	Depth	East	North
Core	1797			475734.923	571866.829
		H3	40		
Core	1798			475566.748	572189.959
		H1	38		
		H3	99		
Core	1799			475575.692	572197.66
		H1	35		
Core	1801			475592.103	572190.759
		H1	36		
		H3	60		
		H4	70		
Core	1802			475583.995	572209.668
		H1	39		
Core	1803			475592.724	572219.527
		H4	60		
Core	1806			475588.36	572239.995
		H1	33		
Core	1807			475599.288	572233.186
		H1	40		
		H4	55		
Core	1813			475562.331	572251.312
		LNL	40		
Core	1814			475560.572	572239.749
		1766	40		
Core	1817			475565.443	572196.678
		1766	25		
		H3	70		
Core	1818			475574.898	572190.561
		H3	75		
Core	1819			475582.778	572199.858
		H1	36		
		1000	40		
		LNL	62		
		H3	65		
Core	1820			475622.549	572280.519
		H3	48		
Core	1821			475622.485	572284.445
		H3	35		
		H4	45		

Site 61		Tephra Layer	Depth	East	North
Core	1822			475625.171	572277.518
		H1	28		
		H1	30		
		LNL	63		
Core	1824			475584.339	572195.514
		H1	30		
		1000	40		
		LNL	50		
Core	1825			475627.742	572276.716
		H1	11		
Core	1827			475582.682	572190.328
		H1	25		
Core	1828			475576.703	572183.879
		H1	66		
		LNL	75		
Core	1830			475581.187	572202.178
		H3	77		
Core	1831			475586.818	572203.8
		H1	28		
Core	1832			475576.436	572194.791
		H3	65		
		H4	70		
Core	1833			475580.058	572198.162
		H1	30		
		1000	38		
		H3	70		
Core	1834			475578.453	572197.502
		H3	62		
		H4	68		
Core	1835			475573.929	572194.478
		H1	37		
		H3	60		
Core	1836			475575.494	572194.561
		LNL	63		
		H3	70		
Core	1837			475580.827	572195.355
		H3	72		
Core	1838			475577.585	572191.876
		H1	34		

Site 61		Tephra Layer	Depth	East	North
		1000	37		
		LNL	76		
		H3	80		
Core	1839			475580.002	572190.355
		LNL	74		
		H3	80		
Core	1840			475578.01	572189.131
		1000	36		
		H3	62		
		H4	73		
Core	1841			475580.831	572193.092
		H1	47		
		LNL	73		
Core	1842			475580.583	572189.48
		H1	30		
		H3	70		
Core	1844			475579.448	572188.805
		1000	66		
		H3	71		
Core	1845			475576.368	572189.248
		LNL	55		
Core	1846			475578.891	572191.077
		LNL	70		
		H3	75		
Core	1850			475647.719	571811.002
		1300	30		
Core	1852			475667.404	571739.885
		1300	27		
Core	1853			475688.589	571746.547
		1300	30		
		H3	62		
Core	1856			475716.062	571751.714
		H1	34		
		LNL	42		
Core	1857			475701.572	571779.287
		H3	21		
		LNL	25		
		H4	35		
		H3	43		
		H1	58		

Site 61		Tephra Layer	Depth	East	North
Core	1858			475727.359	571828.043
		H3	12		
		H4	20		
Core	1859			475701.156	571777.528
		1300	23		
		H3	48		
Core	1861			475708.819	571786.068
		H1	32		
		H1	36		
		H3	48		
		H1	25		
		H3	28		
		H4	32		
Core	1862			475706.847	571777.975
		H1	25		
		H1	31		
		LNL	57		
		H3	77		
Core	1863			475770.687	571839.907
		1766	27		
Core	1866			475779.907	571764.68
		LNL	35		
		H3	67		
		H4	77		
Core	1868			475774.68	571801.52
		LNL	63		
Core	1874			475844.06	571923.952
		1766	11		
		H1	30		
Core	1875			475850.725	571923.947
		1766	15		
		H1	35		
Core	1876			475822.835	571977.067
		1766	37		
		1300	74		
		H1	100		
		LNL	140		
Core	1881			475439.339	571979.528
		H3	18		
		H3	23		

Site 61		Tephra Layer	Depth	East	North
		H3	27		
		LNL	31		
		H3	41		
Core	1882			475413.709	572008.356
		H1	22		
		H3	28		
		H4	35		
Core	1883			475399.841	571969.077
		H1	22		
		H1	27		
		H1	35		
Core	1884			475416.981	571900.696
		H1	30		
		1000	66		
		950	75		
Core	1886			475398.969	571967.552
		H1	18		
		H1	25		
		H1	28		
Core	1887			475401.348	571964.389
		H1	15		
Core	1888			475399.476	571968.543
		H1	48		
Core	1889			475401.319	571974.876
		H1	22		
		H1	25		
		H1	32		
Core	1890			475404.053	571977.447
		H1	20		
		H1	30		
Core	1891			475350.575	571989.618
		1766	10		
		H1	17		
Core	1892			475357.337	571959.122
		1300	14		
		H1	32		
		H1	39		
		H3	52		
Core	1893			475374.675	571918.526
		H1	35		

Site 61		Tephra Layer	Depth	East	North
		H1	63		
Core	1894			475321.993	571939.695
		H1	8		
Core	1895			475288.882	571918.873
		H3	35		
Core	1896			475261.824	571956.621
		H1	8		
		H3	35		
Core	1897			475324.042	571874.437
		1766	20		
		1300	30		
		1000	65		
		H1	38		
Core	1898			475317.251	571977.456
		1300	18		
		H1	25		
Core	1899			475285.474	572019.616
		H1	23		
Core	1900			475238.493	571991.566
		H1	45		
Core	1901			475215.524	572024.596
		H1	21		
Core	1903			475262.791	572056.023
		1766	9		
		H1	71		
Core	1905			475179.624	572076.844
		H3	25		
Core	1906			475280.498	572102.097
		H3	23		
		H4	35		
Core	1907			475320.432	572111.123
		1300	18		
		H1	23		
		H1	28		
		H4	35		
Core	1908			475330.337	572036.055
		1766	35		
Core	1909			475303.231	572073.079
		1300	15		

Site 61		Tephra Layer	Depth	East	North
Core	1912			475400.268	572064.519
		H1	21		
		H3	36		
Core	1913			475392.448	572125.643
		H1	18		
		H3	34		
		H4	38		
Core	1915			475277.093	571842.282
		1300	14		
Core	1916			475237.294	571827.324
		H1	22		
Core	1917			475200.926	571791.239
		H1	22		
		H3	33		
		H4	40		
Core	1918			475301.519	571810.704
		H3	22		
		LNL	32		
		H1	37		
		1300	40		
Core	1919			475256.982	571788.593
		H1	13		
		1000	17		
		H3	23		
		H4	32		
Core	1920			475226.665	571742.598
		1766	25		
		H3	62		
		H4	70		
Core	1922			475348.602	571747.215
		H1	15		
		H1	22		
		H1	28		
		H1	30		
		1000	32		
		H3	38		
Core	1923			475269.117	571681.401
		1766	35		
Core	1924			475373.217	571714.07
		LNL	30		

Site 61		Tephra Layer	Depth	East	North
		H3	32		
		H4	37		
Core	1925			475395.137	571684.436
		H1	18		
		H3	32		
		H4	45		
Core	1927			475264.069	571540.766
		H3	37		
		H4	40		
Core	1928			475439.419	571622.148
		1300	17		
		H3	45		
Core	1929			475241.204	571545.483
		H1	15		
		1000	27		
		H3	55		
Core	1930			475226.662	571497.544
		H3	30		
		H4	37		
Core	1931			475195.756	571491.603
		H3	19		
		H4	29		
Core	1932			475200.826	571466.52
		H3	25		
		unknown	30		
Core	1933			475123.071	571514.196
		H1	30		
Core	1935			475094.624	571625.255
		H1	35		
		H3	42		
Core	1942			475509.324	572147.516
		H3	52		
		H4	60		
Core	1943			475546.41	572271.634
		H3	27		
		H4	35		
Core	1946			475538.836	572318.11
		H3	30		

Site 61		Tephra Layer	Depth	East	North
Core	1948			475589.481	572369.451
		H3	35		
		H4	47		
Core	1949			475576.343	572323.791
		H3	47		
		H4	56		
Core	1950			475632.683	572383.76
		1300	38		
Core	1951			475607.197	572335.45
		H3	51		
		H4	66		
Core	1954			475630.162	572233.15
		H3	70		
		H4	82		
Core	1955			475652.798	572197.247
		1000	18		
		H1	22		
		H1	25		
		H1	29		
		LNL	35		
		H1	37		
		H3	40		
		LNL	60		
		H3	67		
		H4	85		
Core	1956			475656.426	572187.648
		H1	23		
		H4	37		
Core	1957			475642.333	572194.087
		LNL	34		
		H3	53		
Core	1959			475633.728	572204.806
		H3	47		
Core	1961			475469.948	571884.198
		1300	17		
		H1	22		
		H3	64		
Core	1964			475490.713	571845.163
		1300	17		
		H1	19		

Site 61		Tephra Layer	Depth	East	North
		1000	51		
Core	1965			475509.511	571809.573
		H3	27		
Core	1978			475472.436	571671.486
		LNL	42		
		H3	52		
Core	1979			475447.139	571707.351
		1300	10		
		H1	23		
		LNL	28		
		H3	58		
		H4	75		
Core	1981			475426.223	571739.366
		H1	22		
		H1	28		
		H3	38		
		LNL	65		
Core	1982			475427.661	571739.758
		1766	15		
		1300	18		
		H1	28		
		LNL	40		
		H1	55		
		LNL	75		
Core	1983			475403.019	571770.929
		H1	28		
		H3	35		
		H4	45		
Core	2008			475717.469	571708.025
		H3	30		
		H4	35		

Site 61	description	top depth	bottom depth	Thickness
CORE 1721	475560.932	572141.46		
	Midden	0	250	250
	Aeolian Deposit	250	270	20
	Rock	270	270	0
CORE 1722	475553.741	572145.187		
	Plow Zone	0	8	8
	Midden	8	200	192
	Aeolian Deposit	200	220	20
CORE 1723	475566.456	572128.82		
	Plow Zone	0	10	10
	Midden	10	120	110
	Aeolian Deposit	120	160	40
	Plow Zone	0	10	10
	Midden	10	122	112
	Aeolian Deposit	122	130	8
CORE 1724	475562.129	572141.196		
	Plow Zone	0	10	10
	Midden	10	102	92
	Aeolian Deposit	102	120	18
CORE 1725	475564.104	572141.454		
	Plow Zone	0	10	10
	Midden	10	120	110
CORE 1726	475562.938	572128.553		
	Midden	0	20	20
	Turf	20	30	10
	Midden	30	50	20
	Turf	50	60	10
	Midden	60	65	5
	Turf	65	70	5
	Midden	70	145	75
	Aeolian Deposit	145	179	34
	River Sand	179	185	6
	Aeolian Deposit	185	200	15
	Midden	0	20	20
	Turf	20	40	20
	Midden	40	50	10
	Turf	50	60	10
	Midden	60	65	5

Site 61	description	top depth	bottom depth	Thickness
	Turf	65	71	6
	Midden	71	145	74
	Aeolian Deposit	145	179	34
	River Sand	179	185	6
CORE	1727	475561.772	572135.725	
	Plow Zone	0	15	15
	Midden	15	94	79
	Turf	94	102	8
	Midden	102	138	36
	Turf	138	146	8
	Midden	146	178	32
	Turf	178	188	10
	Midden	188	208	20
	Turf	208	213	5
	Midden	213	272	59
CORE	1728	475562.827	572131.234	
	Plow Zone	0	8	8
	Turf	8	80	72
CORE	1729	475561.223	572138.44	
	Plow Zone	0	25	25
	Midden	25	225	200
	Aeolian Deposit	225	280	55
CORE	1730	475558.065	572143.341	
	Plow Zone	0	10	10
	Midden	10	120	110
	Plow Zone	0	8	8
	Midden	8	120	112
CORE	1731	475563.537	572139.056	
	Plow Zone	0	10	10
	Midden	10	60	50
	Turf	60	90	30
	Midden	90	140	50
	Aeolian Deposit	140	160	20
CORE	1732	475565.565	572138.451	
	Plow Zone	0	10	10
	Midden	10	60	50
	Turf	60	65	5
	Midden	65	92	27

Site 61	description	top depth	bottom depth	Thickness
	Aeolian Deposit	92	120	28
CORE	1733	475564.104	572136.492	
	Plow Zone	0	15	15
	Turf	15	53	38
	Midden	53	140	87
	Low Density Cultural	140	160	20
	Aeolian Deposit	160	190	30
CORE	1734	475560.261	572145.433	
	Plow Zone	0	30	30
	Midden	30	40	10
	Rock	40	40	0
CORE	1735	475565.113	572136.311	
	Plow Zone	0	10	10
	Turf	10	35	25
	Midden	35	105	70
	Turf	105	112	7
	Midden	112	120	8
	Aeolian Deposit	120	160	40
CORE	1736	475566.823	572136.599	
	Plow Zone	0	10	10
	Midden	10	105	95
	Aeolian Deposit	105	120	15
CORE	1737	475564.341	572135.705	
	Plow Zone	0	10	10
	Midden	10	50	40
	Turf	50	65	15
	Midden	65	135	70
	Aeolian Deposit	135	170	35
	Iron Pan	170	175	5
CORE	1738	475565.167	572134.867	
	Plow Zone	0	12	12
	Midden	12	30	18
	Turf	30	40	10
	Midden	40	60	20
	Turf	60	75	15
	Midden	75	105	30
	Aeolian Deposit	105	160	55

Site 61	description	top depth	bottom depth	Thickness
CORE 1739	475563.367	572137.461		
	Plow Zone	0	12	12
	Midden	12	180	168
	Iron Pan	180	191	11
	Aeolian Deposit	191	200	9
CORE 1740	475563.219	572138.147		
	Plow Zone	0	10	10
	Midden	10	180	170
	Rock	180	180	0
CORE 1741	475563.097	572138.622		
	Plow Zone	0	10	10
	Midden	10	32	22
	Low Density Cultural	32	40	8
	Midden	40	175	135
	Aeolian Deposit	175	200	25
CORE 1742	475564.304	572137.969		
	Plow Zone	0	10	10
	Turf	10	60	50
	Midden	60	120	60
CORE 1743	475588.516	572157.996		
	Plow Zone	0	25	25
	Low Density Cultural	25	40	15
	Turf	40	55	15
	Aeolian Deposit	55	65	10
	Iron Pan	65	80	15
CORE 1744	475643.656	572155.885		
	Plow Zone	0	20	20
	Aeolian Deposit	20	40	20
CORE 1745	475700.32	572177.678		
	Bog	0	80	80
CORE 1746	475724.435	572139.642		
	Plow Zone	0	01	1
	Aeolian Deposit	10	40	30
CORE 1747	475747.054	572090.685		
	Aeolian Deposit	0	90	90

Site 61	description	top depth	bottom depth	Thickness
CORE 1748	475720.688	572078.199		
	Rock	0	0	0
CORE 1749	475684.395	572064.121		
	Rock	0	0	0
CORE 1750	475691.042	572127.48		
	Plow Zone	0	10	10
	Aeolian Deposit	10	59	49
	Rock	92	92	0
	River Sand	59	60	1
	Aeolian Deposit	60	92	32
CORE 1751	475660.635	572109.122		
	Plow Zone	0	15	15
	Aeolian Deposit	15	80	65
CORE 1752	475628.351	572091.787		
	Plow Zone	0	8	8
	Aeolian Deposit	8	80	72
CORE 1753	475647.951	572047.042		
	Rock	0	0	0
CORE 1754	475610.272	572032.616		
	Aeolian Deposit	0	35	35
	Rock	35	35	0
CORE 1755	475572.127	572020.728		
	Top Soil	0	10	10
	Aeolian Deposit	10	70	60
	Top Soil	0	10	10
	Aeolian Deposit	10	40	30
	Gravel	40	41	1
	Aeolian Deposit	41	90	49
	Gravel	90	100	10
	Aeolian Deposit	100	120	20
CORE 1756	475561.933	572057.377		
	Plow Zone	0	15	15
	Aeolian Deposit	15	70	55
	Iron Pan	70	80	10
	Rock	80	80	0

Site 61	description	top depth	bottom depth	Thickness
CORE 1757	475596.755	572075.832		
	Plow Zone	0	5	5
	Aeolian Deposit	5	84	79
	Clay	84	90	6
	Iron Pan	90	94	4
CORE 1758	475533.711	572009.798		
	Top Soil	0	10	10
	Aeolian Deposit	10	70	60
	Rock	70	70	0
CORE 1759	475522.362	572041.2		
	Top Soil	0	10	10
	Aeolian Deposit	10	27	17
	Iron Pan	27	40	13
	Aeolian Deposit	40	56	16
	Rock	56	56	0
	Top Soil	0	10	10
	Aeolian Deposit	10	30	20
	Iron Pan	30	56	26
	Rock	56	56	0
CORE 1760	475540.82	571964.502		
	Top Soil	0	9	9
	Bulldozed	9	30	21
	Rock	30	30	0
CORE 1761	475581.544	571979.59		
	Rock	0	0	0
	Top Soil	0	10	10
	Bulldozed	10	30	20
	Rock	30	30	0
	Rock	0	0	0
CORE 1762	475598.041	571941.217		
	Top Soil	0	10	10
	Aeolian Deposit	10	30	20
	Gravel	30	32	2
	Top Soil	0	10	10
	Aeolian Deposit	10	30	20
	Gravel	30	31	1
CORE 1763	475621.403	571989.182		
	Plow Zone	0	13	13

Site 61	description	top depth	bottom depth	Thickness
	Rock	13	13	0
CORE	1764	475636.003	571954.054	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
	Top Soil	0	10	10
	Aeolian Deposit	10	40	30
CORE	1765	475653.469	572000.682	
	Plow Zone	0	10	10
	Aeolian Deposit	10	53	43
	Rock	53	53	0
CORE	1766	475671.441	572008.516	
	Gravel	0	2	2
CORE	1767	475687.473	571963.067	
	Plow Zone	0	15	15
	Aeolian Deposit	15	35	20
	Gravel	35	35	0
	Top Soil	0	15	15
	Aeolian Deposit	15	34	19
	Gravel	34	35	1
CORE	1768	475704.021	572016.87	
	Plow Zone	0	12	12
	Aeolian Deposit	12	31	19
	Rock	31	31	0
CORE	1769	475733.333	571979.162	
	Rock	0	0	0
	Rock	0	0	0
CORE	1770	475751.643	571933.14	
	Top Soil	0	8	8
	Aeolian Deposit	8	18	10
	Rock	18	18	0
	Top Soil	0	8	8
	Aeolian Deposit	8	19	11
	Rock	19	19	0
CORE	1781	475710.799	571919.008	
	Plow Zone	0	14	14
	Aeolian Deposit	14	40	26
	Rock	40	40	0

Site 61	description	top depth	bottom depth	Thickness
CORE 1782	475721.975	571878.985		
	Plow Zone	0	17	17
	Turf	17	40	23
CORE 1783	475771.988	571886.73		
	Top Soil	0	10	10
	Aeolian Deposit	10	35	25
	Gravel	35	36	1
	Top Soil	0	10	10
	Aeolian Deposit	10	33	23
	Gravel	33	34	1
CORE 1784	475751.199	571874.377		
	Top Soil	0	10	10
	Turf	10	35	25
	Aeolian Deposit	35	40	5
CORE 1785	475664.804	571903.412		
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25
CORE 1786	475677.37	571861.403		
	Plow Zone	0	8	8
	Aeolian Deposit	8	40	32
CORE 1787	475745.669	571865.04		
	Top Soil	0	20	20
	Aeolian Deposit	20	40	20
CORE 1788	475752.966	571867.475		
	Top Soil	0	20	20
	Turf	20	30	10
	Aeolian Deposit	30	55	25
	Gravel	55	60	5
CORE 1789	475747.702	571877.308		
	Plow Zone	0	20	20
	Aeolian Deposit	20	40	20
CORE 1790	475640.171	571846.874		
	Plow Zone	0	11	11
	Aeolian Deposit	11	80	69
CORE 1791	475622.607	571888.209		
	Top Soil	0	10	10

Site 61	description	top depth	bottom depth	Thickness
	Aeolian Deposit	10	40	30
CORE	1792	475710.26	571881.749	
	Plow Zone	0	8	8
	Aeolian Deposit	8	40	32
CORE	1793	475721.625	571872.449	
	Top Soil	0	10	10
	Turf	10	25	15
	Aeolian Deposit	25	40	15
CORE	1794	475726.665	571865.664	
	Top Soil	0	10	10
	Aeolian Deposit	10	18	8
	Diatoms	18	20	2
	Turf	20	30	10
	Aeolian Deposit	30	40	10
CORE	1795	475729.816	571891.14	
	Plow Zone	0	12	12
	Aeolian Deposit	12	45	33
	Rock	45	45	0
CORE	1796	475731.666	571858.671	
	Plow Zone	0	10	10
	Aeolian Deposit	10	38	28
	Gravel	38	40	2
CORE	1797	475734.923	571866.829	
	Top Soil	0	10	10
	Aeolian Deposit	10	30	20
	Gravel	30	40	10
CORE	1798	475566.748	572189.959	
	Plow Zone	0	20	20
	Low Density Cultural	20	70	50
	Midden	70	80	10
	Aeolian Deposit	80	120	40
CORE	1799	475575.692	572197.66	
	Top Soil	0	10	10
	Aeolian Deposit	10	40	30
	Low Density Cultural	40	70	30
	Aeolian Deposit	70	80	10

Site 61	description	top depth	bottom depth	Thickness
CORE 1800	475547.4	572195.247		
	Plow Zone	0	20	20
	Aeolian Deposit	20	40	20
	Ash	40	41	1
	Aeolian Deposit	41	80	39
CORE 1801	475592.103	572190.759		
	Top Soil	0	10	10
	Low Density Cultural	10	50	40
	Aeolian Deposit	50	80	30
CORE 1802	475583.995	572209.668		
	Plow Zone	0	30	30
	Aeolian Deposit	30	100	70
CORE 1803	475592.724	572219.527		
	Top Soil	0	20	20
	Low Density Cultural	20	50	30
	Aeolian Deposit	50	70	20
	Rock	70	70	0
CORE 1804	475587.759	572221.094		
	Plow Zone	0	25	25
	Aeolian Deposit	25	72	47
	Rock	72	72	0
CORE 1805	475589.377	572231.284		
	Turf	0	70	70
	Rock	70	70	0
CORE 1806	475588.36	572239.995		
	Plow Zone	0	15	15
	Aeolian Deposit	15	25	10
	Low Density Cultural	25	40	15
	Aeolian Deposit	40	65	25
	Rock	65	65	0
CORE 1807	475599.288	572233.186		
	Top Soil	0	10	10
	Low Density Cultural	10	50	40
	Aeolian Deposit	50	70	20
	Rock	70	70	0
CORE 1808	475594.263	572251.508		
	Plow Zone	0	15	15

Site 61	description	top depth	bottom depth	Thickness
	Turf	15	61	46
	Low Density Cultural	61	72	11
	Aeolian Deposit	72	88	16
	Gravel	88	102	14
	Rock	102	102	0
CORE	1809	475607.08	572264.932	
	Plow Zone	0	11	11
	Aeolian Deposit	11	22	11
	Turf	22	65	43
	Rock	65	65	0
CORE	1810	475584.822	572263.447	
	Top Soil	0	10	10
	Gravel	10	32	22
CORE	1811	475607.051	572267.305	
	Plow Zone	0	10	10
	Turf	10	70	60
	Aeolian Deposit	70	95	25
	Rock	95	95	0
CORE	1812	475570.525	572262.529	
	Top Soil	0	11	11
	Aeolian Deposit	11	20	9
	Rock	20	20	0
CORE	1813	475562.331	572251.312	
	Top Soil	0	10	10
	Turf	10	20	10
	Aeolian Deposit	20	40	20
CORE	1814	475560.572	572239.749	
	Turf	0	45	45
	Gravel	45	46	1
CORE	1815	475554.199	572218.867	
	Turf	0	10	10
	Gravel	10	12	2
CORE	1816	475549.788	572208.116	
	Turf	0	20	20
	Aeolian Deposit	20	40	20
	Sand	40	60	20
	Rock	60	60	0

Site 61	description	top depth	bottom depth	Thickness
CORE 1817	475565.443	572196.678		
	Top Soil	0	10	10
	Low Density Cultural	10	80	70
	Gravel	80	82	2
CORE 1818	475574.898	572190.561		
	Top Soil	0	10	10
	Low Density Cultural	10	60	50
	Midden	60	70	10
	Aeolian Deposit	70	80	10
CORE 1819	475582.778	572199.858		
	Low Density Cultural	0	55	55
	Midden	55	70	15
	Low Density Cultural	70	95	25
CORE 1820	475622.549	572280.519		
	Plow Zone	0	15	15
	Turf	15	70	55
	Silt	70	80	10
CORE 1821	475622.485	572284.445		
	Plow Zone	0	10	10
	Turf	10	65	55
	Iron Pan	65	80	15
CORE 1822	475625.171	572277.518		
	Plow Zone	0	12	12
	Turf	12	70	58
	Gravel	70	80	10
CORE 1823	475578.982	572195.149		
	Top Soil	0	50	50
	Midden	50	70	20
CORE 1824	475584.339	572195.514		
	Plow Zone	0	20	20
	Low Density Cultural	20	60	40
	Rock	60	60	0
CORE 1825	475627.742	572276.716		
	Plow Zone	0	7	7
	Turf	7	18	11
	Low Density Cultural	18	28	10
	Gravel	28	40	12

Site 61	description	top depth	bottom depth	Thickness
CORE 1826	475617.352	572281.397		
	Plow Zone	0	10	10
	Turf	10	40	30
	Gravel	40	55	15
	Rock	55	55	0
CORE 1827	475582.682	572190.328		
	Plow Zone	0	20	20
	Aeolian Deposit	20	28	8
	Low Density Cultural	28	57	29
	Rock	57	57	0
CORE 1828	475576.703	572183.879		
	Plow Zone	0	10	10
	Turf	10	80	70
CORE 1829	475575.492	572192.831		
	Plow Zone	0	10	10
	Turf	10	40	30
	Aeolian Deposit	40	80	40
CORE 1830	475581.187	572202.178		
	Plow Zone	0	22	22
	Low Density Cultural	22	64	42
	Aeolian Deposit	64	105	41
	River Sand	105	106	1
	Aeolian Deposit	106	120	14
CORE 1831	475586.818	572203.8		
	Plow Zone	0	20	20
	Low Density Cultural	20	40	20
	Aeolian Deposit	40	57	17
	Gravel	57	62	5
CORE 1832	475576.436	572194.791		
	Plow Zone	0	30	30
	Low Density Cultural	30	40	10
	Midden	40	55	15
	Aeolian Deposit	55	80	25
CORE 1833	475580.058	572198.162		
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25
	Midden	40	60	20

Site 61	description	top depth	bottom depth	Thickness
	Aeolian Deposit	60	80	20
CORE	1834	475578.453	572197.502	
	Plow Zone	0	40	40
	Low Density Cultural	40	50	10
	Midden	50	62	12
	Aeolian Deposit	62	80	18
CORE	1835	475573.929	572194.478	
	Plow Zone	0	30	30
	Low Density Cultural	30	53	23
	Aeolian Deposit	53	100	47
	Gravel	100	120	20
CORE	1836	475575.494	572194.561	
	Plow Zone	0	22	22
	Low Density Cultural	22	40	18
	Midden	40	60	20
	Aeolian Deposit	60	80	20
CORE	1837	475580.827	572195.355	
	Plow Zone	0	30	30
	Low Density Cultural	30	40	10
	Midden	40	63	23
	Aeolian Deposit	63	80	17
CORE	1838	475577.585	572191.876	
	Plow Zone	0	20	20
	Low Density Cultural	20	40	20
	Midden	40	75	35
	Aeolian Deposit	75	80	5
CORE	1839	475580.002	572190.355	
	Plow Zone	0	23	23
	Low Density Cultural	23	63	40
	Midden	63	73	10
	Aeolian Deposit	73	80	7
CORE	1840	475578.01	572189.131	
	Plow Zone	0	20	20
	Aeolian Deposit	20	33	13
	Midden	33	60	27
	Aeolian Deposit	60	80	20

Site 61	description	top depth	bottom depth	Thickness
CORE 1841	475580.831	572193.092		
	Plow Zone	0	20	20
	Low Density Cultural	20	32	12
	Midden	32	73	41
	Aeolian Deposit	73	80	7
CORE 1842	475580.583	572189.48		
	Plow Zone	0	20	20
	Aeolian Deposit	20	50	30
	Low Density Cultural	50	65	15
	Aeolian Deposit	65	80	15
CORE 1843	475578.834	572191		
	Plow Zone	0	25	25
	Low Density Cultural	25	47	22
	Rock	47	47	0
CORE 1844	475579.448	572188.805		
	Plow Zone	0	20	20
	Aeolian Deposit	20	40	20
	Midden	40	70	30
	Aeolian Deposit	70	80	10
CORE 1845	475576.368	572189.248		
	Plow Zone	0	22	22
	Low Density Cultural	22	36	14
	Midden	36	55	19
	Aeolian Deposit	55	80	25
CORE 1846	475578.891	572191.077		
	Plow Zone	0	20	20
	Low Density Cultural	20	35	15
	Midden	35	65	30
	Aeolian Deposit	65	80	15
CORE 1850	475647.719	571811.002		
	Rock	0	0	0
	Plow Zone	0	15	15
	Aeolian Deposit	15	65	50
	Rock	65	65	0
CORE 1851	475658.023	571776.619		
	Plow Zone	0	15	15
	Aeolian Deposit	15	58	43

Site 61	description	top depth	bottom depth	Thickness
	Sand	58	72	14
	Rock	72	72	0
CORE	1852	475667.404	571739.885	
	Plow Zone	0	12	12
	Aeolian Deposit	12	85	73
	Gravel	85	86	1
	Top Soil	0	13	13
	Aeolian Deposit	13	84	71
	Gravel	84	85	1
CORE	1853	475688.589	571746.547	
	Plow Zone	0	15	15
	Aeolian Deposit	15	80	65
	Gravel	80	81	1
	Plow Zone	0	16	16
	Aeolian Deposit	16	80	64
	Gravel	80	81	1
CORE	1854	475699.341	571786.997	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
	Iron Pan	40	52	12
	Rock	52	52	0
CORE	1855	475688.728	571819.581	
	Plow Zone	0	5	5
	Aeolian Deposit	5	65	60
	Rock	65	65	0
CORE	1856	475716.062	571751.714	
	Plow Zone	0	15	15
	Aeolian Deposit	15	55	40
	Gravel	55	56	1
	Plow Zone	0	17	17
	Aeolian Deposit	17	56	39
	Gravel	56	57	1
CORE	1857	475701.572	571779.287	
	Plow Zone	0	10	10
	Turf	10	60	50
	Iron Pan	60	80	20
	Rock	80	80	0

Site 61	description	top depth	bottom depth	Thickness
CORE	1858	475727.359	571828.043	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
CORE	1859	475701.156	571777.528	
	Plow Zone	0	10	10
	Aeolian Deposit	10	35	25
	Sand	35	40	5
	Aeolian Deposit	40	60	20
	Iron Pan	60	80	20
CORE	1860	475698.195	571782.73	
	Plow Zone	0	13	13
	Aeolian Deposit	13	25	12
	Turf	25	35	10
	Aeolian Deposit	35	49	14
	Gravel	49	50	1
CORE	1861	475708.819	571786.068	
	Plow Zone	0	13	13
	Aeolian Deposit	13	25	12
	Turf	25	37	12
	Aeolian Deposit	37	49	12
	Gravel	49	50	1
	Plow Zone	0	22	22
	Aeolian Deposit	11	40	29
CORE	1862	475706.847	571777.975	
	Plow Zone	0	10	10
	Disturbed	10	30	20
	Turf	30	80	50
CORE	1863	475770.687	571839.907	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
	Rock	40	40	0
CORE	1864	475735.979	571796.675	
	Plow Zone	0	20	20
	Iron Pan	20	30	10
	Rock	30	30	0
CORE	1865	475737.793	571755.682	
	Plow Zone	0	15	15

Site 61	description	top depth	bottom depth	Thickness
	Aeolian Deposit	15	32	17
	Rock	32	32	0
	Plow Zone	0	15	15
	Aeolian Deposit	15	35	20
	Rock	35	35	0
CORE	1866	475779.907	571764.68	
	Plow Zone	0	17	17
	Aeolian Deposit	17	59	42
	Bog	59	80	21
	Plow Zone	0	18	18
	Aeolian Deposit	18	59	41
	Bog	19	80	61
CORE	1867	475807.397	571850.089	
	Aeolian Deposit	0	15	15
	Bog	15	28	13
	River Sand	28	30	2
	Rock	30	30	0
CORE	1868	475774.68	571801.52	
	Plow Zone	0	50	50
	Bog	50	80	30
CORE	1869	475826.821	571776.223	
	Plow Zone	0	5	5
	Aeolian Deposit	5	45	40
	Gravel	45	48	3
	Top Soil	0	5	5
	Aeolian Deposit	5	47	42
	Gravel	47	47	0
CORE	1870	475813.995	571816.485	
	Rock	5	5	0
CORE	1871	475843.216	571857.466	
	Bog	0	40	40
CORE	1872	475842.965	571828.459	
	Plow Zone	0	15	15
	Silt	15	40	25
	Rock	40	40	0
CORE	1873	475860.649	571787.716	
	Bog	0	55	55

Site 61	description	top depth	bottom depth	Thickness
	Bog	0	80	80
CORE	1874	475844.06	571923.952	
	Bog	0	10	10
	Turf	10	20	10
	Aeolian Deposit	20	50	30
	Rock	50	50	0
CORE	1875	475850.725	571923.947	
	Bog	0	40	40
	Bog	0	40	40
CORE	1876	475822.835	571977.067	
	Plow Zone	0	10	10
	Aeolian Deposit	10	25	15
	River Sand	25	35	10
	Aeolian Deposit	35	105	70
	River Sand	105	106	1
	Aeolian Deposit	106	160	54
	Top Soil	0	10	10
	Aeolian Deposit	10	25	15
	River Sand	25	35	10
	Aeolian Deposit	35	105	70
	River Sand	105	106	1
	Aeolian Deposit	106	160	54
CORE	1877	475807.173	572016.535	
	Aeolian Deposit	0	011	11
	Gravel	011	12	1
	Aeolian Deposit	12	40	28
	Rock	40	40	0
CORE	1878	475476.4	572031.088	
	Rock	0	0	0
CORE	1879	475490.632	571993.684	
	Rock	0	0	0
CORE	1880	475508.364	571946.295	
	Rock	0	0	0
	Rock	0	0	0
CORE	1881	475439.339	571979.528	
	Plow Zone	0	10	10
	Turf	10	32	22

Site 61	description	top depth	bottom depth	Thickness
	Iron Pan	32	58	26
	Rock	58	58	0
CORE	1882	475413.709	572008.356	
	Plow Zone	0	22	22
	Aeolian Deposit	22	40	18
	Rock	40	40	0
CORE	1883	475399.841	571969.077	
	Plow Zone	0	20	20
	Turf	20	30	10
	Sand	30	35	5
	Turf	35	62	27
	Rock	62	62	0
CORE	1884	475416.981	571900.696	
	Plow Zone	0	15	15
	Bog	15	30	15
	Aeolian Deposit	30	45	15
	Bog	45	80	35
	Rock	80	80	0
	Plow Zone	0	15	15
	Bog	15	30	15
	Aeolian Deposit	30	45	15
	Bog	45	80	35
	Rock	80	80	0
CORE	1885	475453.756	571919.541	
	Rock	0	0	0
	Rock	0	0	0
CORE	1886	475398.969	571967.552	
	Plow Zone	0	10	10
	Turf	10	40	30
CORE	1887	475401.348	571964.389	
	Plow Zone	0	10	10
	Buried Humic	10	15	5
	Bog	15	70	55
	Rock	70	70	0
CORE	1888	475399.476	571968.543	
	Plow Zone	0	25	25
	Hay	25	35	10
	Bog	35	60	25

Site 61	description	top depth	bottom depth	Thickness
	Rock	60	60	0
	Bulldozed	0	27	27
	Hay	27	35	8
	Bog	35	60	25
	Rock	60	60	0
CORE	1889	475401.319	571974.876	
	Plow Zone	0	10	10
	Bulldozed	10	20	10
	Turf	20	30	10
	Bog	30	40	10
CORE	1890	475404.053	571977.447	
	Plow Zone	0	20	20
	Turf	20	40	20
	Bog	40	50	10
	River Sand	50	51	1
	Bog	51	60	9
	Rock	60	60	0
	Bulldozed	0	20	20
	Turf	20	40	20
	Bog	40	49	9
	Rock	60	60	0
	Gravel	49	50	1
	Bog	50	60	10
CORE	1891	475350.575	571989.618	
	Plow Zone	0	10	10
	Bog	10	80	70
CORE	1892	475357.337	571959.122	
	Plow Zone	0	10	10
	Bog	10	31	21
	Iron Pan	31	40	9
	Bog	40	60	20
CORE	1893	475374.675	571918.526	
	Plow Zone	0	15	15
	Bog	15	160	145
	Top Soil	0	15	15
	Bog	15	160	145
CORE	1894	475321.993	571939.695	
	Plow Zone	0	8	8

Site 61	description	top depth	bottom depth	Thickness
	Bog	8	15	7
	Iron Pan	15	16	1
	Bog	16	40	24
CORE	1895	475288.882	571918.873	
	Plow Zone	0	10	10
	Bog	10	40	30
CORE	1896	475261.824	571956.621	
	Plow Zone	0	10	10
	Bog	10	80	70
CORE	1897	475324.042	571874.437	
	Bulldozed	0	15	15
	Bog	15	90	75
	Rock	90	90	0
	Aeolian Deposit	0	15	15
	Bog	15	90	75
	Rock	90	90	0
CORE	1898	475317.251	571977.456	
	Plow Zone	0	10	10
	Bog	10	40	30
CORE	1899	475285.474	572019.616	
	Plow Zone	0	5	5
	Bog	5	80	75
CORE	1900	475238.493	571991.566	
	Plow Zone	0	10	10
	Bog	10	80	70
CORE	1901	475215.524	572024.596	
	Plow Zone	0	10	10
	Iron Pan	10	20	10
	Bog	20	80	60
	Plow Zone	0	10	10
	Iron Pan	10	20	10
	Bog	20	80	60
CORE	1902	475354.856	571891.941	
	Plow Zone	0	8	8
	Bulldozed	8	30	22
	Bog	30	160	130
	Top Soil	0	10	10

Site 61	description	top depth	bottom depth	Thickness
	Bulldozed	10	30	20
	Bog	30	160	130
CORE	1903	475262.791	572056.023	
	Plow Zone	0	5	5
	Bog	5	50	45
	Diatoms	50	51	1
	Bog	51	120	69
CORE	1904	475241.479	572090.468	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
	Plow Zone	0	10	10
	Aeolian Deposit	10	16	6
	Disturbed	16	35	19
CORE	1905	475179.624	572076.844	
	Plow Zone	0	10	10
	Low Density Cultural	10	20	10
	Bog	20	40	20
	Plow Zone	0	10	10
	Low Density Cultural	10	20	10
	Bog	20	40	20
CORE	1906	475280.498	572102.097	
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
	Plow Zone	0	10	10
	Aeolian Deposit	10	40	30
CORE	1907	475320.432	572111.123	
	Plow Zone	0	20	20
	Aeolian Deposit	20	37	17
	Iron Pan	37	40	3
	Plow Zone	0	20	20
	Aeolian Deposit	20	38	18
	Iron Pan	38	40	2
CORE	1908	475330.337	572036.055	
	Plow Zone	0	22	22
	Aeolian Deposit	22	52	30
	Bog	52	160	108
	Top Soil	0	22	22
	Aeolian Deposit	22	53	31

Site 61	description	top depth	bottom depth	Thickness
	Bog	53	160	107
CORE	1909	475303.231	572073.079	
	Plow Zone	0	8	8
	Aeolian Deposit	8	34	26
	Iron Pan	34	40	6
	Rock	40	40	0
CORE	1910	475358.548	572124.171	
	Plow Zone	0	10	10
	Bog	10	33	23
	Sand	33	40	7
	Plow Zone	0	10	10
	Bog	10	32	22
	Sand	32	40	8
CORE	1911	475346.837	572076.281	
	Plow Zone	0	10	10
	Iron Pan	10	40	30
CORE	1912	475400.268	572064.519	
	Top Soil	0	18	18
	Aeolian Deposit	18	45	27
CORE	1913	475392.448	572125.643	
	Plow Zone	0	15	15
	Aeolian Deposit	15	35	20
	Iron Pan	35	37	2
	Plow Zone	0	15	15
	Aeolian Deposit	15	33	18
	Iron Pan	33	38	5
	Aeolian Deposit	38	40	2
CORE	1914	475424.605	572107.742	
	Aeolian Deposit	0	15	15
	Rock	15	15	0
CORE	1915	475277.093	571842.282	
	Plow Zone	0	10	10
	Aeolian Deposit	10	25	15
	Rock	25	25	0
	Plow Zone	0	10	10
	Aeolian Deposit	10	23	13
	Rock	23	23	0

Site 61	description	top depth	bottom depth	Thickness
CORE 1916	475237.294	571827.324		
	Bog	0	80	80
CORE 1917	475200.926	571791.239		
	Bulldozed	0	12	12
	Aeolian Deposit	12	40	28
	Bulldozed	0	13	13
	Aeolian Deposit	13	40	27
CORE 1918	475301.519	571810.704		
	Plow Zone	0	10	10
	Iron Pan	10	20	10
	Turf	20	45	25
	Rock	45	45	0
	Plow Zone	0	10	10
	Iron Pan	10	20	10
	Turf	20	45	25
	Rock	45	45	0
CORE 1919	475256.982	571788.593		
	Bulldozed	0	5	5
	Bog	5	40	35
CORE 1920	475226.665	571742.598		
	Plow Zone	0	14	14
	Bog	14	80	66
	Plow Zone	0	14	14
	Bog	14	80	66
CORE 1921	475323.402	571779.818		
	Plow Zone	0	5	5
	Rock	5	5	0
	Rock	0	5	5
CORE 1922	475348.602	571747.215		
	Plow Zone	0	10	10
	Turf	10	30	20
	Aeolian Deposit	30	40	10
CORE 1923	475269.117	571681.401		
	Plow Zone	0	10	10
	Bulldozed	10	27	17
	Bog	27	48	21
	Iron Pan	48	50	2

Site 61	description	top depth	bottom depth	Thickness
CORE 1924	475373.217	571714.07		
	Plow Zone	0	10	10
	Bog	10	37	27
	Iron Pan	37	40	3
CORE 1925	475395.137	571684.436		
	Plow Zone	0	10	10
	Iron Pan	10	15	5
	Aeolian Deposit	15	37	22
	Bog	37	80	43
CORE 1926b	475282.365	571525.528		
	Top Soil	0	8	8
	Rock	8	8	0
	Plow Zone	0	15	15
	Rock	15	15	0
CORE 1927	475264.069	571540.766		
	Plow Zone	0	8	8
	Bog	8	40	32
CORE 1928	475439.419	571622.148		
	Plow Zone	0	10	10
	Bog	10	80	70
CORE 1929	475241.204	571545.483		
	Bog	0	70	70
CORE 1930	475226.662	571497.544		
	Top Soil	0	10	10
	Bog	10	40	30
CORE 1931	475195.756	571491.603		
	Bulldozed	0	18	18
	Bog	18	40	22
CORE 1932	475200.826	571466.52		
	Plow Zone	0	18	18
	Aeolian Deposit	18	40	22
CORE 1933	475123.071	571514.196		
	Top Soil	0	8	8
	Bog	8	40	32
CORE 1934	475099.148	571608.269		
	Bulldozed	0	40	40

Site 61	description	top depth	bottom depth	Thickness
	Bog	40	80	40
CORE	1935	475094.624	571625.255	
	Plow Zone	0	33	33
	Aeolian Deposit	33	50	17
CORE	1936	475035.426	571647.997	
	Top Soil	0	10	10
	Bog	10	40	30
CORE	1937	474992.11	571682.522	
	Aeolian Deposit	0	30	30
	Rock	30	30	0
CORE	1938	474816.501	571491.176	
	Rock	0	0	0
CORE	1939	474875.796	571451.756	
	Plow Zone	0	10	10
	Aeolian Deposit	10	30	20
	Sand	30	32	2
	Aeolian Deposit	32	45	13
	Rock	45	45	0
	Plow Zone	0	10	10
	Aeolian Deposit	10	30	20
	Sand	30	31	1
	Aeolian Deposit	31	43	12
	Rock	43	43	0
CORE	1940	474811.904	571363.227	
	Plow Zone	0	15	15
	Aeolian Deposit	15	50	35
	Rock	50	50	0
CORE	1941	474804.723	571552.634	
	Rock	0	0	0
CORE	1942	475509.324	572147.516	
	Plow Zone	0	20	20
	Turf	20	40	20
	Aeolian Deposit	40	70	30
	Rock	70	70	0
CORE	1943	475546.41	572271.634	
	Plow Zone	0	12	12
	Aeolian Deposit	12	40	28

Site 61	description	top depth	bottom depth	Thickness
	Plow Zone	0	13	13
	Aeolian Deposit	13	40	27
CORE	1944	475544.116	572309.735	
	Plow Zone	0	11	11
	Sod	11	50	39
	Rock	50	50	0
	Plow Zone	0	10	10
	Aeolian Deposit	10	51	41
	Rock	51	51	0
CORE	1945	475534.21	572331.209	
	Rock	0	5	5
CORE	1946	475538.836	572318.11	
	Aeolian Deposit	0	40	40
CORE	1947	475554.9	572353.383	
	Plow Zone	0	10	10
	Sod	10	35	25
	Silt	35	48	13
	Rock	48	50	2
	Plow Zone	0	10	10
	Sod	10	35	25
	Silt	35	49	14
	Rock	49	49	0
CORE	1948	475589.481	572369.451	
	Top Soil	0	12	12
	Aeolian Deposit	12	52	40
	River Sand	52	70	18
CORE	1949	475576.343	572323.791	
	Plow Zone	0	20	20
	Iron Pan	20	28	8
	Aeolian Deposit	28	80	52
	Plow Zone	0	20	20
	Iron Pan	20	28	8
	Aeolian Deposit	28	80	52
CORE	1950	475632.683	572383.76	
	Top Soil	0	10	10
	River Sand	10	49	39
	Gravel	49	50	1

Site 61	description	top depth	bottom depth	Thickness
CORE 1951	475607.197	572335.45		
	Plow Zone	0	20	20
	Aeolian Deposit	20	80	60
	Plow Zone	0	20	20
	Aeolian Deposit	20	80	60
CORE 1952	475611.655	572314.775		
	Plow Zone	0	21	21
	Rock	21	21	0
	Plow Zone	0	21	21
	Rock	21	21	0
CORE 1953	475585.59	572294.016		
	Top Soil	0	10	10
	Aeolian Deposit	10	57	47
	Gravel	57	60	3
CORE 1954	475630.162	572233.15		
	Plow Zone	0	28	28
	Aeolian Deposit	28	95	67
	Rock	95	95	0
	Plow Zone	0	28	28
	Aeolian Deposit	28	93	65
	Rock	93	93	0
CORE 1955	475652.798	572197.247		
	Rock	0	10	10
	Turf	10	58	48
	Aeolian Deposit	58	100	42
	Gravel	100	101	1
CORE 1956	475656.426	572187.648		
	Plow Zone	0	12	12
	Aeolian Deposit	12	80	68
CORE 1957	475642.333	572194.087		
	Plow Zone	0	12	12
	Aeolian Deposit	12	80	68
	Top Soil	0	10	10
	Turf	10	45	35
	Aeolian Deposit	45	58	13
	Iron Pan	58	65	7

Site 61	description	top depth	bottom depth	Thickness
CORE 1958	475649.244		572178.818	
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25
	Iron Pan	40	80	40
CORE 1959	475633.728		572204.806	
	Top Soil	0	10	10
	Turf	10	30	20
	Aeolian Deposit	30	55	25
	Iron Pan	55	60	5
CORE 1961	475469.948		571884.198	
	Plow Zone	0	10	10
	Aeolian Deposit	10	100	90
	Rock	100	100	0
	Top Soil	0	13	13
	Aeolian Deposit	13	73	60
	Rock	73	73	0
CORE 1962	475437.843		571864.727	
	Plow Zone	0	20	20
	Sand	20	27	7
	Iron Pan	27	40	13
CORE 1963	475454.157		571828.587	
	Plow Zone	0	3	3
	Rock	3	3	0
CORE 1964	475490.713		571845.163	
	Plow Zone	0	10	10
	Aeolian Deposit	10	70	60
	Rock	70	70	0
	Plow Zone	0	10	10
	Aeolian Deposit	10	68	58
	Rock	68	68	0
CORE 1965	475509.511		571809.573	
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25
	Rock	40	40	0
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25
	Rock	40	40	0

Site 61	description	top depth	bottom depth	Thickness
CORE	1966	475464.288	571792.952	
	Plow Zone	0	3	3
	Rock	3	3	0
CORE	1967	475483.694	571761.72	
	Plow Zone	0	5	5
	Rock	5	5	0
	Rock	0	0	0
CORE	1968	475502.33	571727.276	
	Plow Zone	0	10	10
	Aeolian Deposit	10	35	25
	Rock	35	35	0
	Plow Zone	0	10	10
	Aeolian Deposit	10	35	25
	Rock	35	35	0
CORE	1969	475526.285	571776.094	
	Plow Zone	0	5	5
	Rock	5	5	0
	Rock	0	0	0
CORE	1970	475569.968	571832.501	
	Plow Zone	0	8	8
	Rock	8	8	0
	Plow Zone	0	8	8
	Rock	8	8	0
CORE	1971	475562.607	571704.391	
	Plow Zone	0	5	5
	Aeolian Deposit	5	60	55
	Rock	60	60	0
	Top Soil	0	5	5
	Aeolian Deposit	5	60	55
	Rock	60	60	0
CORE	1972	475537.28	571741.158	
	Plow Zone	0	12	12
	Rock	12	12	0
	Plow Zone	0	11	11
	Rock	11	11	0
CORE	1973	475522.367	571695.543	
	Plow Zone	0	22	22

Site 61	description	top depth	bottom depth	Thickness
	Rock	22	22	0
	Plow Zone	0	25	25
	Rock	25	25	0
CORE	1974	475510.364	571691.44	
	Plow Zone	0	5	5
	Rock	5	5	0
	Rock	0	0	0
CORE	1975	475583.494	571667.361	
	Plow Zone	0	20	20
	Aeolian Deposit	20	55	35
	Rock	55	55	0
	Top Soil	0	20	20
	Aeolian Deposit	20	55	35
	Rock	55	55	0
CORE	1976	475518.861	571655.447	
	Plow Zone	0	5	5
	Rock	5	5	0
	Rock	0	0	0
CORE	1977	475495.309	571638.308	
	Plow Zone	0	18	18
	Rock	18	18	0
CORE	1978	475472.436	571671.486	
	Plow Zone	0	10	10
	Iron Pan	10	25	15
	Aeolian Deposit	25	60	35
	Iron Pan	60	80	20
	Plow Zone	0	10	10
	Iron Pan	10	25	15
	Aeolian Deposit	25	60	35
	Iron Pan	60	80	20
CORE	1979	475447.139	571707.351	
	Plow Zone	0	8	8
	Turf	8	40	32
	Bog	40	80	40
	Plow Zone	0	8	8
	Turf	8	40	32
	Bog	40	80	40

Site 61	description	top depth	bottom depth	Thickness
CORE 1980	475449.67		571707.563	
	Plow Zone	0	10	10
	Turf	10	22	12
	Iron Pan	22	35	13
	Rock	35	35	0
CORE 1981	475426.223		571739.366	
	Plow Zone	0	10	10
	Turf	10	42	32
	Bog	42	80	38
CORE 1982	475427.661		571739.758	
	Plow Zone	0	8	8
	Turf	8	45	37
	Bog	45	120	75
	Top Soil	0	8	8
	Turf	8	45	37
	Bog	45	120	75
CORE 1983	475403.019		571770.929	
	Plow Zone	0	10	10
	Disturbed	10	38	28
	Bog	38	80	42
CORE 1984	475377.422		571805.609	
	Plow Zone	0	10	10
	Bog	10	40	30
CORE 1985	475352.024		571840.229	
	Plow Zone	0	10	10
	Bog	10	35	25
CORE 1986	475473.357		571817.724	
	Rock	0	5	5
CORE 2007	475679.784		571693.963	
	Plow Zone	0	12	12
	Aeolian Deposit	12	75	63
	Rock	75	75	0
CORE 2008	475717.469		571708.025	
	Plow Zone	0	15	15
	Aeolian Deposit	15	40	25

Site 61	description	top depth	bottom depth	Thickness
CORE 2009	475754.83	571720.222		
	Plow Zone	0	15	15
	Bog	15	40	25
	Iron Pan	40	48	8
CORE 2010	475790.687	571734.603		
	Bog	0	35	35
	Rock	35	35	0
CORE 2011	475840.1	571750.961		
	Bog	0	40	40
CORE 2012	475879.367	571769.515		
	Plow Zone	0	15	15
	Bog	15	35	20
	River Sand	35	40	5

SITE	FIND	AREA	CONTEXT
61	3	B	123

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009		61B123F3	7/23/2009	Gregory Bailey

Material Characteristics

Iron pin or thin bar, 42mm length, 3mm diameter, 1.3g

Condition

Dirt, corrosion present on all surfaces.

Storage Location

SASS Other Sites 2009 Box Metals Container

Treatment

Object was cleaned mechanically using bamboo skewer and soft nylon bristle brush. Object was then rinsed under running tap water and placed in a bath of deionized water with <1% tannic acid by weight. The object was removed after 5 days and scrubbed with a nylon bristle brush under running tap water, then allowed to air dry for 24 hours. The object was then treated with two applications of tannic acid solution (10% by weight tannic acid in a 50/50 mixture of deionized water and isopropyl alcohol) with 3 hours between applications. The object was then given an additional 24 hours to dry.

Storage Recommendations

Other Notes

Image

Before treatment

SITE	FIND	AREA	CONTEXT
61	1	A	114

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION
Lithic	Fragment - Obsidian?	In peat midden under	N

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009	RSS	61A114F1	7/22/2009	Gregory Bailey

Material Characteristics

Fragment of black slag or vitrified material, 23 x 15 x 5mm, 2.2g. Small organic inclusion, off-white and fibrous, possibly bone. Found in peat midden under 1104 tephra.

Condition

Dirt present on all surfaces

Storage Location

SASS Other Sites 2009 Box

Treatment

Cleaned mechanically using bamboo skewers and soft nylon bristle brush.

Storage Recommendations

Other Notes

Image

After treatment

SITE	FIND	AREA	CONTEXT
61	2	A	109

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION
Wood	stake?	Worked wood stake	Y

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009	ELB	61A109F2	7/17/2009	Gregory Bailey

Material Characteristics

3 sided wood object, 265 x 22 x 13mm, 36.0g wet,19.8g dry, identified as “stake,” found under turf in NE corner in ash

Condition

Damp, dirt/associated organic material on all surfaces, fragile, at risk of disintegration or biological growth.

Storage Location

SASS Other Sites 2009 Box

Treatment

Placed in partially sealed solvent tent with 3ml of isopropyl alcohol for one week to equilibrate with ambient temperature and RH. Object was allowed to air dry for three additional days. The object was then cleaned mechanically using a soft hair bristle brush to remove dirt and dust. The object was placed in a ventilated polyethylene bag, to be stored in a low RH.

Storage Recommendations

Other Notes

Image

Before treatment

After treatment

SITE	FIND	AREA	CONTEXT
61	4	B	124

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION
Metal	iron - spearhead?	Viking weapon! In	Y

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009	ELB	61A124F4	7/23/2009	Gregory Bailey

Material Characteristics

Pointed iron object with tang, likely arrowhead. Palmate point with diamond cross-section, tapered tang. 93 x 23 x 5mm, 19.7g.

Condition

Dirt, corrosion present on all surfaces. Object shows signs of previous spalls.

Storage Location

SASS Other Sites 2009 Box Metals Container

Treatment

Object was cleaned mechanically using bamboo skewers and a soft nylon bristle brush. During this process, a number of corrosion blisters spalled off with only slight pressure. Object was then scrubbed under running tap water with a nylon bristle brush, wrapped in aluminum foil, and immersed in a galvanic bath (5% by weight sodium carbonate in deionized water). After five days, object was removed and scrubbed with a nylon bristle brush. The object was allowed to dry over night, and then placed in a low concentration (~1% by weight) solution of tannic acid in deionized water. After three days, the object was removed and scrubbed once again, then left to dry. After drying, two final treatments of tannic acid solution (10% by weight in deionized water with a small amount of isopropyl alcohol) were applied, with approximately 3 hours between applications.

Storage Recommendations

Other Notes

Image

SITE	FIND	AREA	CONTEXT
61	5	B	125

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION
Metal	Iron - rivet?	In midden	

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009	ELB	61A125F5	7/23/2009	Gregory Bailey

Material Characteristics

Iron rivet with square head, 17 x 15 x 11mm, 3.3g. Found 23 cm under 1104 tephra in N wall, 20 cm E of W corner

Condition

Dirt, corrosion present on all surfaces. Object is fragile.

Storage Location

SASS Other Sites 2009 Box Metals Container

Treatment

Object was cleaned and corrosion was mechanically reduced using bamboo skewers, scalpels, and a soft nylon bristle brush. Object was then rinsed under running tap water and immersed in a bath of deionized water with <1% tannic acid by weight. The object was removed after 5 days and scrubbed with a nylon bristle brush under running tap water, then allowed to air dry for 24 hours. The object was then treated with two applications of tannic acid solution (10% tannic acid by weight in a 50/50 mixture of deionized water and isopropyl alcohol) with three hours between applications. The object was then given and additional 24 hours to dry.

Storage Recommendations

Other Notes

Image

Before treatment

SITE	FIND	AREA	CONTEXT
61	6	B	125

MATERIAL TYPE	OBJECT TYPE	DESCRIPTION	ATTENTION
Metal	Iron - rivet?	In midden.	Y

DATE	ID	UNIQUE_ID	Conservation Date	Conservator
7/22/2009	ARY	61A125F6	7/23/2009	Gregory Bailey

Material Characteristics

Iron nail or rivet with oblong head, 23 x 22 x 15mm, 5.4g

Condition

Dirt, corrosion present on all surfaces.

Storage Location

SASS Other Sites 2009 Box Metals Container

Treatment

Object was cleaned mechanically using bamboo skewers, scalpel, and soft nylon bristle brush. Object was then rinsed in running water and immersed in deionized water with <1% by weight tannic acid. The object was removed after 5 days and scrubbed with a nylon bristle brush under running tap water, then allowed to air dry for 24 hours. The object was then treated with two applications of tannic acid solution (10% by weight tannic acid in a 50/50 mixture of deionized water and isopropyl alcohol) with 3 hours between applications. The object was then given an additional 24 hours to dry.

Storage Recommendations

Other Notes

Image

Before treatment