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TB108: Chemical and Physical Properties of the Becket, Colton, Finch, Lyman, Masardis, Naumburg, and Skerry Soil Mapping Units

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**CHEMICAL AND PHYSICAL
PROPERTIES OF THE BECKET,
COLTON, FINCH, LYMAN,
MASARDIS, NAUMBURG, AND
SKERRY SOIL MAPPING UNITS**

by

R. V. Rourke and D. C. Bull

**MAINE AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF MAINE AT ORONO**

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Summary

Soil morphology and soil characterization studies were done on seven soil mapping units in Maine. Soil profiles were selected, described and sampled jointly by soil scientists from the Soil Conservation Service, USDA and the Maine Agricultural Experiment Station. Chemical and physical measurements of each soil mapping unit were made in the laboratory. Soil profile description and the laboratory determinations are presented for each sample site.

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TABLE OF CONTENTS

	Page
SUMMARY	
INTRODUCTION	1
MATERIALS	2
Field Procedure	3
Laboratory Procedure	4
RESULTS AND DISCUSSION	5
Becket Soil Mapping Unit	5
Colton Soil Mapping Unit	6
Finch Soil Mapping Unit	7
Lyman Soil Mapping Unit	8
Masardis Soil Mapping Unit	9
Naumburg Soil Mapping Unit	10
Skerry Soil Mapping Unit	11
CONCLUSION	12
LITERATURE CITED	14
APPENDIX A COMPOSITE PROFILE DATA	17
Becket	18
Colton	19
Finch	20
Lyman	21
Masardis	22
Naumburg	23
Skerry	24
APPENDIX B PROFILE DESCRIPTION & DATA	25
Becket	26
Colton	36
Finch	46
Lyman	56
Masardis	66
Naumburg	76
Skerry	86

Characterization of the Chemical and Physical Soil
Properties of the Becket, Colton, Finch, Lyman,
Masardis, Naumburg, and Skerry Soil Mapping Units

R. V. Rourke and D. C. Bull¹

INTRODUCTION

Soils in Maine have developed from materials that were deposited from glacial ice, glacial melt waters, organic materials, during marine or lacustrine submergence, or from sediments that have been dropped from recent flooding by rivers and streams. These many sources of soil materials are frequently in close association with one another resulting in a landscape composed of several parent material sources. Soil from the various materials differs in one or more characteristics that make observation and separation of soils possible.

Within sources of soil material, there are variations in depth of deposit, slope, drainage or stoniness and a soil mapper in the field is able to separate these features using aerial photographs as a mapping base. These soil mapping units are delineated at scales that are limited only by the detail of the base material or by the cost of time needed to make the separations. The intensity at which the soil map is to be used will determine the scale of the soils map. Regardless of scale, within each soil mapping unit there will be a range of properties and it is to this variation that soil characterization is addressed.

Other publications concerning soil characterization studies have been published in previous years (5,11,12,13,14,15). This publication presents soils developed from glacial till or glacialfluvial sediments. The various mapping units presented here come from widely separated areas in Maine. With these data and a soils map, soil interpretations may be made to estimate the suitability or potential of the soil for various uses (4). The Soil Conservation Service, USDA, in cooperation with the Maine Agricultural Experiment Station and the Maine Soil and

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Water Conservation Commission have developed suitability interpretations for each soil mapping unit in Maine (3). A method of developing soil potential ratings for soil mapping units in Maine has been presented by Mitchell (7).

MATERIALS

The Becket soil mapping units have developed in sloping, very deep, well drained, predominantly moderately coarse textured glacial till materials. They have a friable solum and dense substratum. These soil mapping units are being used in Oxford and York Counties.

Colton soil mapping units are composed of very deep, excessively drained, gravelly, coarse textured glacialfluvial materials. Their topography ranges from nearly level to steep. They have more than 35% materials larger than 2mm on a volume basis when the area between 25cm and 100cm is evaluated. This mapping unit appears in the Maine soil survey legends of Franklin, Hancock, Oxford, Penobscot, Piscataquis, York and Washington Counties.

Finch soil mapping units have developed in very deep, sandy, somewhat poorly drained sediments, derived from glacial outwash. It has little relief. These units have been called Saugatuck in previous publications but were correlated to Finch because the soil temperature regime is colder than that allowed for Saugatuck. It has an ortstein present in the B horizon of the soil profile. It will appear in the updated soil survey legend of Cumberland County.

The Lyman soil mapping units have developed in shallow, moderately coarse to medium textured, glacial till deposits. They are somewhat excessively drained and vary in relief from gently sloping to steep. This soil unit is frequently associated with rock outcrop and moderately deep soils, and has previously been called Hollis in some Maine counties but was correlated to Lyman because its average soil temperatures were too low to meet temperature requirements of the mesic soil temperature class. It is widely found in Maine and is in the soil survey legends of coastal and inland counties except Aroostook, Piscataquis and Penobscot.

Masardis soil mapping units have developed in very deep, somewhat excessively drained, deposits of glacialfluvial origin. Surface horizons to 25cm having a loam texture separate this unit from the Colton unit. It has more than 35% rock fragments on a volume basis at depths between 25cm and 100cm. This unit was previously called "Colton dark materials" but was correlated to Masardis as a result of its loamy surface. Counties in which either of these mapping units have been used are: Aroostook, Knox, Lincoln, Penobscot, Piscataquis, Somerset and Waldo.

The Naumburg soil mapping units are composed of very deep, somewhat poorly drained, sandy soils. It has formed in nearly level, coarse, water sorted materials deposited by glacial melt waters. It will be in the updated soil survey legends of Cumberland, Hancock, Knox, Lincoln, Oxford and York Counties.

The Skerry mapping units have developed in gently sloping, very deep, moderately well drained, glacial till. They have a dense substratum. These soil units are used in Oxford and York Counties and are closely associated with the Becket soil mapping units.

The soils in these mapping units have been classified according to Soil Taxonomy (17) as follows:

- Becket coarse-loamy, mixed, frigid Typic Haplorthods
- Colton sandy-skeletal, mixed, frigid Typic Haplorthods
- Finch sandy, mixed, frigid, ortstein Aeric Haplaquods
- Lyman loamy, mixed, frigid, Lithic Haplorthods
- Naumburg sandy, mixed, frigid Aeric Haplaquods
- Skerry coarse-loamy, mixed, frigid Aquic Haplorthods

Field Procedure

Sampling sites were selected in cooperation with soil scientists from the Soil Conservation Service, USDA. Five pedons of each mapping unit were sampled at locations at least one mile apart. Profiles were sampled on an horizontal basis to 100cm or bedrock whichever occurred

first. Soil descriptions were made of each pedon by methods as described in the Soil Survey Manual (16,18). A volume of 900 square cm by the depth of the horizon was removed from each horizon. Soil cores were removed in triplicate from horizons that were not too high in rock fragments.

Soils previously described as having fragipans are described as having Cr horizons in compact glacial till (18). There is no evidence of genetic development of a fragipan layer.

Laboratory Procedure

Bulk samples of each horizon taken in the field were screened and the volume of rock fragments retained on each sieve determined by water displacement. Subsamples of the material passing the 2mm sieve were taken for laboratory analysis.

Soil moisture retention was determined using soil cores from each horizon at pressures of 0.06, 0.1, 0.33, 0.67 and 1 bars. The soil cores were placed on porous ceramic plates at the various pressures up to 1 bar as described by Richards (10). Moisture retention at pressures greater than 1 bar was determined using pressure membrane apparatus and soil material that had passed a 2mm sieve (10). Available soil water was determined using moisture retention values at 0.1 and 15 bar pressures.

Bulk density was based upon the rock fragment free content of the oven dry weight of the soil cores. Rock fragment volume and weight were determined for each soil core using water displacement methods for volume adjustment and oven dry weight for weight changes.

Particle size analysis was determined for the less than 2mm size fraction using dry sieve and pipet methods that have been described by Day (2). Hydrogen peroxide and heat were used to remove organic matter from the samples. The oxidized soils were dispersed by shaking 12 hours in a dilute solution of sodium metaphosphate.

Organic carbon analyses were by methods described by Allison (1). A factor of 1.3 was utilized.

Soil reaction was determined in a soil:solution ratio of 1:1 in water and KCl and at a ratio of 2:1 in 0.01M CaCl₂. Samples were allowed to stand overnight before pH measurements were made. Measurements were by glass electrode techniques as described by Peech (9).

Exchangeable cations were determined by leaching the soil with 1N ammonium acetate at pH 7.0 and analyzing the leachate using atomic absorption methods described previously (13). Extractable acidity was measured by the barium chloride triethanolamine procedure described by Peech (8). Exchangeable Al and H as removed by 1N KCl were measured using titration methods described by Maclean (6). Cation exchange capacity (CEC) was determined by summation of exchangeable bases and extractable acidity. Effective cation exchange capacity (ECEC) was found by adding exchangeable bases and KCl exchangeable Al and H.

RESULTS AND DISCUSSION

Weighted means of the soil properties measured are reported by mineral horizons in Appendix A. Weighted means were computed for each determined variable using horizon thickness as the weight and combining A and E, B, BC, and C horizons within soil mapping units. These composite profiles are used to present the central concept of each soil mapping unit in the following discussion. The profile description and laboratory analysis of each soil mapping unit are presented in Appendix B.

Becket Soil Mapping Unit

The sand content within this soil increased as genetic horizon development decreased. Silt and clay decreased or remained nearly constant as soil development decreased. There was little difference between A and B horizons and between BC and C horizons in sand content. The data indicated that the soil texture was sandy loam throughout.

Organic carbon was highest in the surface mineral horizon and decreased as soil development decreased.

Bulk density increased as soil development decreased.

Available moisture retention was highest in the B horizon when 0.1 bar was used as field capacity. If 0.33 bar values were used there was little variation in moisture available for plant use when A and B horizons were compared. The reduction in organic matter and the increase in sand in the BC and C horizons as well as higher bulk density values resulted in a decrease in available water in these less developed horizons when compared to the A and B horizons.

Soil reaction was low in the A and B horizons but increased to above 6.0 in water and CaCl_2 in the BC and C horizons.

Exchangeable bases were highest in the A and B horizons and decreased to very low amounts in the BC and C horizons. The CEC reflected mostly extractable acidity and was highest in the horizons having the greatest amounts of organic carbon. The low clay content of this soil limited the contribution of this material to the exchange complex. The variable charge nature of these soils was demonstrated by ECEC which was much lower than CEC in all horizons. Regardless of the method of measurement used, total exchange values were greatest in the horizons that had undergone the greatest genetic development.

This soil unit contained considerable material larger than 2mm but did not reach a particle size classification of skeletal. Rock fragments in diameters of less than 2 inches varied only slightly among horizons.

Colton Soil Mapping Unit

Soil texture in this mapping unit was coarse sandy loam in the surface horizon. In the B horizon composite data the texture was gravelly loamy coarse sand. The BC and C horizons had very gravelly coarse sand textures. Lack of rock fragments in the surface horizon suggested that finer texture was the result of deposition rather than weathering.

Organic carbon was highest in the E and B horizons and decreased to very low levels in the BC and C horizons.

Bulk density and low moisture values were not determined because the high rock fragment content of the soil prevented core removal from most horizons.

Soil reaction was acid in the surface horizons and increased only slightly as depth increased. The highly weathered E horizon was the most acidic, however the C horizon did not have any measureable bases present. As a result of the sandy nature of the soil material it had little cation retention and was easily leached.

The CEC of the soil mapping unit was composed entirely of extractable acidity in areas below the E horizon. Some bases were present in the E horizon. The most highly developed horizons had the highest ECEC but this dropped rapidly as soil development and organic matter accumulation decreased.

The rock fragment content in this soil exceeded the skeletal minimum in the BC and C horizons. The lower horizons had more material larger than 2mm than did the E and B horizons. The B horizon contained more coarse material than the E, thus an increase of rock fragment content was noted as depth increased.

Finch Soil Mapping Unit

The E horizon was loamy coarse sand but other horizons were coarse sand in texture. Very coarse sands increased as depth increased. Coarse and medium sands remained nearly constant below the E horizon. The increase of coarse material was at the expense of materials smaller than 0.25mm diameter. Soil development and weathering have not resulted in an increase of fine materials except possibly in the very fine sand and coarse silt fraction of the E horizon. This increase could also have been the result of wind deposits following emergence from under water and before being stabilized by vegetation.

Bulk density increased in the BC and C horizons but was lower in the B horizon than in the E horizon. The impact of the high organic

content in the B horizon resulted in the lower density value.

Available water was highest in the E horizon and decreased to the BC horizon. The available water of the C horizon was not related to a decrease in pore space that reduced available water.

Soil reaction was acid in all horizons. The pH of the E, B and C horizons was lower than in the BC horizon. The E horizon was strongly leached and was the most acidic.

Exchangeable bases consisted entirely of Ca. The BC horizon had no measureable basic cations present. The CEC was composed mostly of extractable acidity with the highest amount in the B horizon which also had the highest organic content. The lowest CEC was in the BC horizon. The variable charge nature of the soil was noted in the ECEC values which were much lower than the CEC. The increase of ECEC in the C horizon as compared to the BC horizon may have resulted from a combination of a lack of leaching and the slight increase of fine materials in the C. The exchange capacity in this soil related to the presence of organic materials more than to other sources as evidenced by the comparison of CEC and ECEC values.

Rock fragment volume was low in all horizons of this soil mapping unit. This soil has developed in alluvial sediments of low rock fragment content.

Lyman Soil Mapping Unit

Average soil textures of this mapping unit were loams. There was little difference between the surface and subsurface horizons. This suggests a uniform parent material in which the soil had developed.

The organic carbon levels were high from the soil surface to bedrock. The movement of organic materials from the soil surface into lower regions has resulted in this accumulation of organic matter.

Bulk density of the A and B soil layers was low because of high organic carbon illuviation and granular soil structure that increased pore space. There was no evidence of a physical restriction to root penetration or water flow in the mineral soil horizons. The low bulk

density observed indicated an open and porous soil medium.

Available water was high in the soil horizons present in spite of the high amounts of water retained at pressures of 15 bars. The impact of the high organic content has influenced both factors.

Soil reaction was acid in both the A and B horizons. Little variation in pH was noted between the two horizons.

Exchangeable bases were highest in the A horizon. This again relates to the high amounts of organic carbon present in this horizon. Effective cation exchange capacity was higher in the A with the pH dependent exchange capacity being about equal in the A and B horizons.

Rock fragment content varied slightly between the two horizons but was below 15%.

Masardis Soil Mapping Unit

Soil textures in this mapping unit were loamy in the strongly leached E horizon. As depth increased textures rapidly became coarser and were very gravelly coarse sand in the slightly developed BC and C horizons. The finer texture of the upper soil horizons in this mapping unit improves its potential for agricultural use when compared to the Colton mapping unit.

Organic carbon levels were highest in the surface layers and decreased regularly as horizon development below the B decreased.

Bulk density and low moisture retention data were not available because the high rock fragment content in this soil prevented consistent sample removal.

The 15 bar moisture data in this soil were greater than in the Colton soil mapping unit. This was the result of higher organic carbon, silt, and, with the exception of the BC horizons, clay in the Masardis mapping unit.

Soil reaction was lowest in the E horizon and increased slowly as leaching decreased. Small differences between pH in KCl and water in the lower horizons showed that little increase in exchangeable H ion was caused by the introduction of a salt solution. These data reflect the

changes in organic carbon content that took place as horizon development and weathering decreased.

Exchangeable bases and extractable acidity were highest in the E horizon. This again reflected the accumulation of organic carbon. The higher clay and silt content of this horizon could also have contributed to the increase in CEC. The ECEC was lower and both measures of exchange capacity decreased rapidly as accumulation of organic matter, silt, and clay content decreased. Exchange values were higher in this soil mapping unit than those found in the Colton mapping unit.

The volume of rock fragments increased as depth of the deposit increased. The greatest increase was in the smallest size. The soil was gravelly in the E and B horizons and very gravelly in the BC and C horizons. Rock fragment volume in this mapping unit was generally higher than in the Colton soil mapping unit. This would cause a slightly greater reduction in cation retention and water retention in the Masardis soil mapping unit as compared to the Colton mapping unit because of dilution.

Naumburg Soil Mapping Unit

The Naumburg soil mapping unit had a loamy sand surface layer above sandy subsurface layers. The slightly finer texture of the soil surface horizon was primarily from a slight increase of very fine sand, silt and clay as compared to deeper horizons. This material may have been deposited as such or there may have been additions of aeolian materials before vegetation stabilized the surrounding areas.

Organic carbon was highest in the soil surface and decreased in deeper horizons.

Bulk density was lowest in the B horizon and increased in other horizons. Higher densities were in horizons of lower organic carbon content and higher sand content.

Available water was highest in the surface horizon. There was little change in the available water content among other horizons. The

water retained at 15 bars was highest in the horizon having the highest organic carbon content.

Soil reaction was lowest in the surface leached horizon and increased in horizons below it until the C horizon. The decrease in soil reaction in the C horizon was associated with a lack of exchangeable bases. The increase of acidity in the C as compared to the BC horizon was consistent regardless of the measurement technique used.

Exchangeable bases were highest in the soil horizon having the most organic carbon. There was no difference in exchangeable bases when the B and BC horizons were compared. Extractable acidity was highest in the B horizon but CEC was highest in the E horizon. Exchangeable Al and H was highest in the E horizon followed by the B horizon. There was higher pH dependent cation exchange in the B than in the E horizon.

Rock fragment volume was low in all horizons and reflected the depositional processes that were in existence when the material was deposited.

Skerry Soil Mapping Unit

Soil texture in this mapping unit averaged a sandy loam throughout. Clay content decreased between the A and B horizon by nearly one half. Silt content increased slightly in the B as compared to the A horizon and decreased below the B in the BC and again in the C horizons. Very fine sands were distributed in a manner similar to silts. Other sand sizes either remained nearly the same or increased slightly as progressive comparisons were made between the A, B, BC and C horizons.

Organic carbon contents were highest in the A horizon and in comparison decreased steadily to the B, BC with lowest values in the C. The orderly decrease of organic carbon from highly developed horizons to those that have undergone little change is an indication of a stable undisturbed environment.

Bulk density values increased as soil development decreased. Values in the C horizon were highest and approached levels that would decrease water movement and inhibit root growth.

Available water was highest in the B horizon and lowest in the C horizon. More water was retained in the A horizon but there was more water retained at permanent wilting point in this horizon than in the B. Horizons with higher organic and silt content retained more water than horizons with lower organic levels.

Soil reaction was lowest in the surface A horizon but increased in the lower horizons. There was considerable difference noted in the B, BC, and C horizons between measurement of pH in water and KCl which indicates a reserve of acidic materials.

Exchangeable bases and extractable acidity were highest in the A horizon and decreased successively in B, BC and C horizons. The principle cation present was Ca. Cation exchange capacity was composed mostly of extractable acidity. The ECEC was considerably lower but arrayed in a manner similar to CEC. The difference between CEC and ECEC indicated that much of the CEC was pH dependent. Highest exchange values were in horizons having highest organic carbon levels and decreased with organic carbon.

Rock fragment volume was lowest in the A horizon but changed little between B, BC and C horizons. The low volume of coarse material in the A may be explained by stone removal during agricultural management. There was no indication of stratification of coarse fragments by horizon and the soil materials appeared to be from a single deposit.

CONCLUSION

Becket and Skerry soil mapping units were developed from moderately coarse textured glacial till. Soil reaction increased in lower horizons. Much of the CEC was pH dependent. Soil moisture and cation retention were closely associated with organic carbon content. The C horizon had density values that would inhibit root growth and water movement.

Colton and Masardis soil mapping units were developed in gravelly glacialfluvial deposits. Masardis soil units had a finer texture in the

upper portion of the soil profile. Soil moisture retention data were difficult to obtain because of the high coarse fragment content in both soils. Exchange capacity in these soils related mostly to organic carbon content and was highly pH dependent. The soils were acid in all horizons.

Naumburg and Finch soil mapping units were developed in sandy alluvial deposits. Naumburg soils were slightly finer in the surface layers but both soil mapping units had sandy lower layers. Finch soils had more very coarse and coarse sands than Naumburg which was higher in fine sands. Organic carbon levels were higher in the Finch. Finch had an ortstein that Naumburg lacked. Exchange capacity of these soils was highly pH dependent and was highest in horizons having the highest organic carbon content. Rock fragments were low in both soils.

The Lyman soil mapping units were developed in shallow loamy materials. They had high organic carbon contents and low bulk density. Much of the exchange capacity of this soil unit was pH dependent. The soil was acid throughout. Available water was limited because of soil depth.

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APPENDIX A

Table 1. Weighted mean of characterization values of 5 Becket soil mapping units.

Horizon	Sand					Silt		Clay
	2-1	1-.5	.5-.25	.25-.1	.1-.05 % of <2mm	.05-.02	.02-.002	<.002
A	7.0	12.4	12.4	16.3	9.9	23.4	12.0	6.6
B	7.6	13.2	13.2	15.0	9.4	21.9	14.2	5.5
BC	9.0	14.4	16.2	18.8	10.0	15.9	12.4	3.3
C	10.2	14.6	16.6	20.6	10.1	15.4	9.0	3.5

Horizon	Organic carbon %	BD g/cc	Water Content - Bars							Avail Water cm/cm		
			0.06	0.1	0.33	0.67	%	1	2		3	5
A	4.27	0.90	45.2	39.9	27.1	23.4	22.2	13.8	12.3	11.2	10.8	0.26
B	2.04	0.91	48.4	42.3	26.9	22.6	21.7	11.4	10.3	9.5	8.8	0.30
BC	0.37	1.26	23.3	19.4	12.7	9.7	8.7	5.0	4.1	3.4	2.9	0.21
C	0.16	1.40	17.0	13.9	8.9	6.6	6.0	3.7	3.0	2.4	2.0	0.16

Horizon	Soil Reaction			Bases				Acidity	KCl	CEC	ECEC
	KCl	CaCl ₂	H ₂ O	Ca	Mg	Na	K	meq/100gm	Al+H		
A	4.16	4.76	5.34	2.9	<0.1	<0.1	0.2	17.2	2.2	20.3	5.3
B	4.39	5.45	5.99	0.8	<0.1	<0.1	<0.1	14.1	0.9	14.9	1.7
BC	4.73	6.27	6.86	0.2	<0.1	<0.1	<0.1	5.8	0.5	6.0	0.7
C	4.68	6.44	6.96	<0.1	<0.1	<0.1	<0.1	3.9	0.4	3.9	0.4

Horizon	% Rock Fragments - Volume							Total
	2"+	2-1½"	1½-1"	1-¾"	¾-½"	½-¼"	¼"-2mm	
A	11.2	0.2	1.2	0.6	0.5	0.9	1.7	16.3
B	15.6	1.0	1.2	0.7	1.2	2.4	3.7	25.8
BC	6.3	0.8	2.0	1.2	0.6	3.2	4.9	19.0
C	7.8	1.0	1.4	1.0	1.4	2.9	5.0	20.5

Table 2. Weighted mean of characterization values of 5 Colton soil mapping units.

Horizon	Sand					Silt		Clay
	2-1	1-.5	.5-.25	.25-.1	.1-.05	.05-.02	.02-.002	<.002
	% of <2mm							
E	11.5	23.5	18.1	12.7	6.0	14.1	9.4	4.7
B	18.6	26.4	17.4	9.2	3.7	10.3	9.8	4.6
BC	31.3	37.7	17.2	6.0	1.7	1.4	2.7	2.0
C	28.1	40.0	22.4	5.6	0.8	0.7	1.7	0.7

Horizon	Organic carbon %	Water Content - Bars					Avail Water cm/cm				
		0.06	0.1	0.33	0.67	%	1	2	3	5	15
E	2.25						11.1	9.0	8.2	7.8	
B	1.38						11.8	9.9	8.7	7.9	
BC	0.17						3.5	2.9	2.4	2.1	
C	0.08						2.5	1.9	1.6	1.3	

Horizon	Soil Reaction			Bases				Acidity		KCl		ECEC
	KCl	CaCl ₂	H ₂ O	Ca	Mg	Na	K	meq/100gm	Al+H	CEC		
E	3.58	3.38	3.99	0.5	0.2	<0.1	<0.1	13.1	4.5	13.8	5.2	
B	5.03	4.48	4.51	<0.1	<0.1	<0.1	<0.1	13.2	1.4	13.2	1.4	
BC	5.47	4.90	4.99	<0.1	<0.1	<0.1	<0.1	3.2	0.3	3.2	0.3	
C	5.38	4.92	5.15	<0.1	<0.1	<0.1	<0.1	1.8	0.2	1.8	0.2	

Horizon	% Rock Fragments - Volume							
	2"+	2-1½"	1¼-1"	1-3/4-½"	¾-½"	½-¼"	¼"-2mm	Total
E	2.4	0.6	0.9	0.4	1.4	1.2	2.5	9.4
B	5.2	2.4	3.4	2.6	3.3	4.7	6.2	27.8
BC	4.6	3.2	4.1	3.4	4.8	8.7	14.0	42.8
C	6.1	3.7	3.4	3.2	4.3	6.3	12.2	39.2

Table 3. Weighted mean of characterization values of 5 Finch soil mapping units.

Horizon	Sand					Silt			Clay
	2-1	1-.5	.5-.25	.25-.1	% of <2mm	0.5-.02	0.2-.002	<.002	
E	6.8	20.1	25.3	23.3	8.2	8.0	4.5	3.8	
B	12.5	33.6	26.5	16.7	2.3	2.4	2.5	3.5	
BC	16.9	36.5	32.5	10.3	1.1	1.6	0.2	0.9	
C	18.7	33.3	26.3	13.3	3.7	2.0	1.1	1.6	

Horizon	Organic carbon %	BD g/cc	Water Content - Bars								Avail Water cm/cm	
			0.06	0.1	0.33	0.67	%	1	2	3		5
E	1.99	1.32	21.6	19.1	14.8	12.1	11.2	6.6	5.9	5.1	4.6	0.19
B	3.00	1.24	20.3	18.1	16.2	15.0	14.1	7.0	6.2	5.8	5.1	0.16
BC	0.67	1.47	9.5	7.9	6.9	6.2	5.4	3.8	2.6	2.2	2.0	0.09
C	0.63	1.55	13.4	11.4	9.8	8.2	6.9	3.3	2.5	2.4	2.2	0.14

Horizon	Soil Reaction			Ca	Mg	Bases		K	Acidity		KCl A1+H	CEC	ECEC
	KCl	CaCl ₂	H ₂ O			Na	meq/100gm						
E	3.44	3.61	4.32	0.2	<0.1	<0.1	<0.1	8.1	3.0	8.3	3.2		
B	4.18	4.27	5.00	0.1	<0.1	<0.1	<0.1	19.3	2.7	19.4	2.8		
BC	4.48	4.62	5.31	<0.1	<0.1	<0.1	<0.1	6.6	0.7	6.6	0.7		
C	4.31	4.42	5.19	0.1	<0.1	<0.1	<0.1	11.0	1.6	11.1	1.7		

Horizon	% Rock Fragments - Volume							
	2"+	2-1½"	1½-1"	1-3/4"	3/4-½"	½-¼"	¼"-2mm	Total
A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.8	0.8
B	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	2.0	2.5
BC	<0.1	<0.1	<0.1	<0.1	<0.1	1.2	3.0	4.2
C	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.4	1.4

Table 4. Weighted mean of characterization values of 5 Lyman soil mapping units.

Horizon	Sand					Silt			Clay
	2-1	1-.5	.5-.25	.25-.1	% of $\frac{1-.05}{<2\text{mm}}$.05-.02	.02-.002	<.002	
A	3.8	6.3	8.7	14.5	10.5	28.2	19.2	8.8	
B	5.1	7.2	8.3	13.7	10.	27.8	20.8	7.1	

Horizon	Organic carbon %	BD g/cc	Water Content - Bars								Avail Water cm/cm	
			0.06	0.2	0.33	0.67	%	1	2	3		5
A	8.17	0.67	74.7	65.2	53.6	48.0	47.1	26.0	22.0	19.6	17.4	0.32
B	4.37	0.73	70.6	62.1	45.9	39.5	37.6	23.4	19.7	18.1	16.2	0.34

Horizon	Soil Reaction			Ca	Mg	Bases		K	Acidity		KCl Al+H	CEC	ECEC
	KCl	CaCl ₂	H ₂ O			Na	meq/100gm		meq/100gm				
A	3.91	3.57	4.13	0.4	0.1	0.1	0.2	28.6	5.6	29.3	6.3		
B	4.57	4.30	4.36	0.1	<0.1	<0.1	<0.1	26.8	3.4	26.9	3.5		

Horizon	% Rock Fragments - Volumes							Total
	>2"+	2-1½"	1½-1"	1-¾"	¾-½"	½-¼"	¼"-2mm	
A	5.0	0.4	0.6	0.4	0.2	0.2	0.5	7.3
B	5.4	0.9	1.5	0.9	0.8	1.2	1.3	12.0

Table 5. Weighted mean of characterization values of 5 Marsardis soil mapping unit.

Horizon	Sand					Silt		Clay
	2-1	1-.5	.5-.25	.25-.1	.1-.05 % of < 2mm	.05-.02	.02-.002	<.002
E	8.0	11.6	8.4	7.9	6.1	21.5	26.3	10.2
B	20.0	25.9	14.1	7.7	4.0	10.8	10.8	6.7
BC	33.3	38.0	11.7	4.6	1.9	5.0	4.1	1.4
C	34.2	37.6	12.8	4.5	2.1	2.8	2.9	3.0

Horizon	Organic carbon %	Water Content - Bars								
		0.06	0.1	0.33	0.67	1	2	3	5	15
E	3.75						20.4	17.2	15.0	13.5
B	2.27						15.6	13.7	12.9	11.7
BC	0.60						6.5	5.7	5.2	4.6
C	0.28						4.7	4.3	3.8	3.3

Horizon	Soil Reaction			Bases				Acidity	KCl	CEC	ECEC
	KCl	CaCl ₂	H ₂ O	Ca	Mg	Na	K	meq/100gm	Al+H		
E	3.70	3.71	4.38	1.3	0.4	<0.1	<0.1	19.3	7.6	21.0	9.3
B	4.35	4.39	4.88	0.3	<0.1	<0.1	<0.1	18.7	2.5	19.0	2.8
BC	4.70	4.60	5.34	0.1	<0.1	<0.1	<0.1	6.9	0.5	7.0	0.6
C	4.88	4.84	5.06	<0.1	<0.1	<0.1	<0.1	4.6	0.5	4.6	0.5

Horizon	% Rock Fragments - Volume							Total
	2"+	2-1½"	1½-1"	1-3/4"	3/4-½"	½-¼"	¼"-2mm	
E	8.7	0.8	1.3	0.9	1.1	1.6	1.8	16.2
B	5.2	3.3	5.2	3.6	4.5	5.6	6.2	33.6
BC	11.8	4.6	3.8	2.4	2.7	4.3	9.6	39.2
C	7.7	3.6	6.0	4.6	5.9	9.9	15.0	52.7

Table 6. Weighted means of characterization values of 5 Naumburg soil mapping units.

Horizon	Sand					Silt			Clay
	2-1	1-.5	.5-.25	.25-.1	1-.05 % of <2mm	.05-.02	.02-.002	<.002	
E	4.8	11.9	26.1	28.0	6.6	8.2	7.8	6.7	
B	5.1	16.4	44.8	22.7	4.0	2.4	2.3	2.3	
BC	6.0	11.1	29.0	35.9	9.5	4.1	2.9	1.5	
C	1.1	5.1	38.0	43.7	6.7	1.2	2.5	1.7	

Horizon	Organic carbon %	BD g/cc	Water Content - Bars								Avail Water cm/cm	
			0.06	0.1	0.33	0.67	%	1	2	3		5
E	1.70	1.40	27.9	23.5	19.4	18.2	16.3	10.1	7.9	7.0	6.7	0.24
B	1.03	1.38	20.4	16.7	13.7	13.0	12.1	6.6	4.7	4.3	3.9	0.17
BC	0.36	1.52	18.0	12.9	8.8	8.2	7.2	5.3	3.1	2.6	2.1	0.16
C	0.20	1.55	17.5	12.7	8.8	8.2	7.2	4.1	2.1	1.6	1.4	0.18

Horizon	Soil Reaction			Bases				Acidity	KCl Al+H	CEC	ECEC
	KCl	CaCl ₂	H ₂ O	Ca	Mg	Na	K	meq/100gm			
A	4.21	4.46	5.13	2.3	0.2	<0.1	<0.1	9.8	2.6	12.3	5.1
B	4.17	4.54	5.35	0.3	<0.1	<0.1	<0.1	10.4	1.1	10.7	1.4
BC	4.83	5.03	5.84	0.3	<0.1	<0.1	<0.1	5.0	0.5	5.3	0.8
C	4.62	4.61	5.71	<0.1	<0.1	<0.1	<0.1	3.2	0.4	3.2	0.4

Horizon	% Rock Fragments - Volume							Total
	>2"+	2-1½"	1½-1"	1-3/4"	3/4-½"	½-¼"	¼"-2mm	
A	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	1.4	1.7
B	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	2.1	2.8
BC	<0.1	0.2	<0.1	<0.1	<0.1	0.5	3.1	3.8
C	0.7	0.2	<0.1	0.1	0.1	0.4	0.6	2.1

Table 7. Weighted means of characterization values of 5 Skerry soil mapping units.

Horizon						Silt		Clay
	2-1	1-.5	.5-.25	.25-.1	.1-.05	.05-.02	.02-.002	<.002
% of < 2mm								
A	6.7	11.1	12.2	15.0	8.5	20.3	17.5	8.6
B	6.7	10.7	12.0	14.6	10.5	26.6	14.0	4.9
BC	10.1	13.8	14.9	17.8	8.6	14.8	15.4	4.6
C	10.1	13.8	15.1	18.5	9.4	16.4	12.0	4.4

Horizon	Organic carbon %	BD g/cc	Water Content - Bars								Avail. Water cm/cm	
			0.06	0.1	0.33	0.67	1	2	3	5		15
%												
A	4.71	0.78	56.8	49.5	40.8	38.9	36.5	19.7	18.3	16.6	15.6	0.26
B	2.13	0.90	49.8	42.9	28.5	24.6	23.4	13.8	12.5	11.6	10.6	0.29
BC	0.61	1.22	27.8	24.4	18.3	15.0	13.7	8.3	7.0	5.7	4.4	0.24
C	0.17	1.45	17.1	14.9	11.3	9.1	7.8	5.2	4.5	3.8	2.4	0.18

Horizon	Soil Reaction			Bases			Acidity		KCl Al+H	CEC	ECEC
	KCl	CaCl ₂	H ₂ O	Ca	Mg	Na	K	meq/100gm			
A	4.27	4.85	5.42	1.9	0.3	<0.1	0.3	15.5	2.0	18.0	4.5
B	4.53	5.53	6.12	0.8	0.1	<0.1	<0.1	12.4	0.9	13.3	1.8
BC	4.53	6.08	6.50	0.3	<0.1	<0.1	<0.1	5.9	0.6	6.2	0.9
C	4.49	6.17	6.91	0.1	<0.1	<0.1	<0.1	3.6	0.5	4.7	0.6

Horizon	% Rock Fragments - Volume							Total
	2"+	2-1½"	1½-1"	1-¾"	¾-½"	½-¼"	¼"-2	
A	1.1	0.6	1.0	0.5	0.6	1.1	3.0	7.9
B	7.2	1.3	2.4	1.2	1.7	2.8	5.4	22.0
BC	4.5	0.8	1.4	0.9	1.4	2.8	6.6	18.4
C	2.6	1.6	1.7	1.1	1.6	3.4	9.6	22.1

APPENDIX B

Becket Mapping Unit
Site 1

Location: Porter, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Oa	0-1	Dark reddish brown (5YR2.5/2) organic material; strong fine granular structure; very friable; many very fine, common fine and medium roots; abrupt wavy boundary.
E	1-6	Gray (10YR5/1) gravelly fine sandy loam; moderate thin and medium platy structure; very friable; common very fine and fine, few medium roots; abrupt wavy boundary.
Bs1	6-27	Strong brown (7.5YR5/6) gravelly sandy loam; moderate medium and fine granular with some weak medium platy structure; friable; common very fine, fine, medium and coarse roots; clear wavy boundary.
Bs2	27-41	Yellowish brown (10YR5/6) gravelly coarse sandy loam; moderate fine and medium granular structure; friable; few very fine and fine roots; clear wavy boundary.
Bc	41-65	Light olive brown (2.5Y5/6) gravelly coarse sandy loam; weak fine granular structure; very friable; few very fine, fine, medium, and coarse roots; clear wavy boundary.
C	65-81	Light olive brown (2.5Y5/4) gravelly loamy coarse sand; few medium distinct light brownish gray (2.5Y6/2) mottles; structureless; friable; few fine roots; clear wavy boundary.
Cr	81-100	Light yellowish brown (2.5Y6/4) gravelly loamy coarse sand; structureless; very firm.

SOIL		Becket		SOIL Nos.				1				LOCATION				Oxford County	
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)						

Pct. of <2 mm

0-1	Oa																
1-6	E	59.84	32.41	7.75	6.84	11.15	11.75	16.43	13.68	19.46	12.95						
6-27	Bs1	61.07	31.19	7.73	9.41	13.56	11.48	15.45	11.19	18.68	12.51						
27-41	Bs2	67.34	28.38	4.28	10.05	15.16	14.67	16.80	9.68	18.54	9.84						
41-65	BC	73.34	22.87	3.79	11.48	16.74	16.53	18.76	9.84	11.97	10.90						
65-81	C	81.83	15.08	3.09	17.49	18.80	18.06	19.14	8.37	10.37	4.71						
81-100	Cr	77.39	19.12	3.49	13.32	17.28	17.80	19.64	9.36	13.48	5.63						

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH				
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-1																	
1-6	1.80	0.93	38.1	33.0	21.1	17.5	16.4	8.6	6.5	5.6	4.7	0.26	3.45	4.20	4.65		
6-27	2.20	0.86	42.3	45.5	28.6	24.4	23.9	13.3	11.4	10.9	9.1	0.31	3.95	4.90	5.35		
27-41	1.22	1.03	36.5	29.7	16.4	13.6	12.9	7.5	6.9	6.2	5.2	0.25	4.15	5.15	5.65		
41-65	0.55	1.10	25.3	19.8	11.3	8.8	7.9	4.6	3.9	3.4	2.8	0.19	4.55	5.75	6.15		
65-81	0.21	1.30	18.0	13.8	7.1	4.7	4.6	2.8	2.4	2.2	1.6	0.16	4.65	6.20	6.70		
81-100	0.11	1.29	15.7	12.8	8.6	6.7	6.3	2.9	2.2	1.7	1.6	0.14	4.60	6.20	6.75		

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock Fragments					Total
	Ca	Mg	Na	K				Al+H	ECEC	2"	2-1½	1½-1	1-3/4	3/4-½	½-¼	¼-2mm	
0-1																	
1-6	0.2	0.1	<0.1	0.1	20.7	21.0	1	3.80	4.10	0.0	1.1	2.0	1.6	1.7	2.4	2.6	11.4
6-27	0.2	0.1	<0.1	0.1	16.1	16.4	2	1.35	1.65	5.5	0.1	0.6	0.8	1.8	3.8	4.4	17.0
27-41	0.2	<0.1	<0.1	0.1	9.8	10.0	2	0.95	1.15	25.3	2.6	2.6	1.3	2.4	4.7	5.4	44.3
61-65	0.2	<0.1	<0.1	0.1	5.8	6.0	3	0.75	0.95	15.4	2.6	2.6	1.4	2.4	4.6	5.8	33.8
65-81	0.1	<0.1	<0.1	0.1	4.6	4.7	2	0.55	0.65	33.1	4.2	4.2	2.7	3.1	5.2	6.4	57.0
81-100	0.1	<0.1	<0.1	0.1	4.4	4.5	2	0.40	0.50	4.3	1.9	1.9	1.7	2.0	4.3	5.7	21.0

Becket Mapping Unit
Site 2

Location: Brownfield, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Ap	0-16	Dark brown (10YR3/3) sandy loam, brown (10YR5/3) dry; weak fine granular structure; very friable; many very fine, common fine, medium, and coarse roots; abrupt smooth boundary.
Bs1	16-39	Dark yellowish brown (10YR4/6) gravelly silt loam; weak fine granular structure; very friable; common very fine, fine, medium and coarse roots; clear wavy boundary.
Bs2	39-70	Yellowish brown (10YR5/6) gravelly silt loam; weak fine granular structure; friable; common very fine, fine, medium and coarse roots; clear wavy boundary.
BC	70-78	Light yellowish brown (2.5Y6/4) coarse sandy loam; weak fine granular with some weak medium platy structure; few very fine and fine, common medium roots; abrupt smooth boundary.
Cr	78-100	Light brownish gray (2.5Y6/2) with light yellowish brown (2.5Y6/4) gravelly loamy coarse sand; weak medium platy separating to granular structure; very firm; some yellowish brown (10YR5/8) stains.

SOIL		Becket	SOIL Nos.					2					LOCATION	Oxford County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm					
0-16	Ap	58.20	32.71	9.09	9.91	14.12	12.46	13.36	8.42	24.38	8.33						
16-39	Bs1	46.93	50.14	2.93	8.27	10.83	9.55	9.90	8.40	30.62	19.52						
39-70	Bs2	41.77	54.29	3.94	3.66	11.12	8.12	9.13	9.75	36.70	17.59						
70-78	BC	77.36	22.64	3.90	11.69	17.39	18.11	20.41	9.78	16.92	5.72						
78-100	Cr	80.60	16.86	2.54	13.36	18.48	18.64	20.74	9.37	10.73	6.12						

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-16	7.03	0.76	60.3	52.3	30.7	26.9	26.2	16.9	14.7	13.8	13.4	0.30	4.05	4.60	4.95
16-39	4.26	0.75	71.1	63.2	38.3	32.9	32.0	16.6	15.5	14.6	14.3	0.37	4.05	5.05	5.35
39-70	2.51	0.81	62.2	55.6	32.5	27.2	25.9	13.9	13.1	12.1	11.7	0.36	4.45	5.20	5.60
70-78	0.42	1.38	20.1	15.2	7.8	5.8	5.4	3.0	2.6	2.3	2.2	0.18	4.40	5.45	5.95
78-100	0.17	1.43	14.3	9.9	5.2	4.3	3.5	2.4	2.0	1.6	1.5	0.12	4.35	5.85	6.20

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock Fragments					Total
	Ca	Mg	Na	K				Al+H	ECEC	2 ⁺	2-1½	1½-1	1-3/4	3/4-½	½-¼	¼-2mm	
0-16	0.4	<0.1	<0.1	0.3	21.5	22.2	3	3.60	4.30	0.8	0.0	2.2	0.7	0.4	0.9	1.6	6.6
16-39	0.1	<0.1	<0.1	<0.1	23.5	23.6	<1	2.30	2.40	17.3	0.8	1.0	0.5	0.7	2.0	3.1	25.4
39-70	<0.1	<0.1	<0.1	<0.1	19.9	19.9	0	0.95	0.95	14.6	1.4	1.0	0.4	0.7	0.8	1.7	20.6
70-78	<0.1	<0.1	<0.1	<0.1	5.6	5.6	0	0.45	0.45	0.0	1.3	0.4	0.8	1.5	4.5	6.2	14.6
78-100	<0.1	<0.1	<0.1	<0.1	5.2	5.2	0	0.30	0.30	8.6	0.6	0.9	0.6	1.4	2.8	4.8	19.7

Becket Mapping Unit
Site 3

Location: Lovell, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Oa	0-4	Black (5YR 2.5/1) organic material; moderate medium and coarse granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt wavy boundary.
E	4-12	Reddish gray (5YR5/2) with pinkish gray (5YR7/2) sandy loam; moderate fine and medium granular structure; very friable; many very fine, fine and medium roots; abrupt irregular boundary.
Bs1	12-24	Strong brown (7.5YR5/6) sandy loam; moderate fine, medium granular structure; friable; many very fine, fine and coarse roots; clear wavy boundary.
Bs2	24-55	Yellowish brown (10YR5/6) gravelly sandy loam; moderate medium granular structure; friable; many very fine and fine, common medium roots; clear wavy boundary.
BC1	55-66	Yellowish brown (10YR5/4) with few fine prominent dark reddish brown (5YR3/3), medium distinct yellowish brown (10YR5/6) mottles and light brownish gray (10YR6/2) stains, gravelly sandy loam; moderate medium platy structure; friable; common very fine, fine and medium roots; clear wavy boundary.
BC2	66-80	Light yellowish brown (2.5Y6/4) gravelly sandy loam; few fine distinct yellowish brown (10YR5/6) and light brownish gray (10YR6/2) mottles; structureless; firm; common very fine, fine and medium roots; abrupt wavy boundary.
Cr	80-100	Grayish brown (2.5Y5/2) coarse sandy loam; few fine prominent yellowish brown (10YR5/6) mottles; moderate medium platy structure; firm; loamy sand lenses on the outside of the peds; few very fine and fine roots.

SOIL		Becket		SOIL Nos. 3				LOCATION Oxford County				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	
Pct. of <2 mm												

0-4	Oa										
4-12	E	66.72	27.11	6.18	5.56	16.25	18.65	17.26	9.03	13.78	13.33
12-24	Bs1	60.77	35.16	4.07	6.15	14.83	16.61	15.24	7.94	21.31	13.85
24-55	Bs2	65.61	25.84	8.55	8.79	16.70	17.18	15.37	7.58	11.79	14.05
55-66	BC1	65.26	30.59	4.15	8.87	14.68	16.63	17.21	7.89	14.56	16.03
66-80	BC2	61.95	35.98	2.07	7.58	12.90	14.23	17.49	9.67	18.01	17.97
80-100	Cr	67.41	27.57	5.02	11.04	14.30	14.83	18.39	8.87	15.34	12.23

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH			
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)	
0-4		0.68												3.80	4.70	5.25
4-12	1.41	1.00	34.0	29.4	19.8	15.3	14.7	7.3	6.3	6.0	5.8	0.24	4.15	4.95	5.45	
12-24	2.77	0.88	48.3	42.2	28.8	25.2	23.9	13.3	11.7	10.8	10.5	0.28	4.40	5.20	5.95	
24-55	1.24	0.98	42.4	36.0	24.4	21.4	20.7	10.5	9.3	8.4	7.8	0.28	4.65	5.90	6.55	
55-66	0.35	1.44	23.6	20.4	14.5	11.8	10.7	6.1	4.8	3.9	3.3	0.25	4.85	6.95	7.55	
66-80	0.29	1.22	26.8	24.0	17.8	14.3	12.7	6.8	5.4	4.1	3.3	0.25	4.55	7.35	7.85	
80-100	0.19	1.52	17.9	15.8	11.8	9.8	9.0	5.7	4.6	3.4	2.3	0.21	4.70	7.15	7.85	

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock Fragments				Total	
	Ca	Mg	Na	K				Al+H	ECEC	2+''	2-1½	1½-1	1-3/4	3/4-½	½-¼		¼-2mm
0-4	8.3	1.0	<0.1	0.3	23.3	32.9	29	0.85	10.45	0.0	0.0	0.4	0.2	0.1	0.0	0.8	1.5
4-12	4.1	0.3	<0.1	<0.1	9.0	13.4	33	1.15	5.55	0.0	0.0	1.1	0.4	0.4	0.3	0.7	2.9
12-24	5.4	0.3	<0.1	<0.1	16.9	22.6	25	0.70	6.40	37.9	0.0	0.6	0.6	0.7	1.0	2.3	43.1
24-55	2.2	<0.1	<0.1	<0.1	11.9	14.1	16	0.40	2.60	20.6	1.8	2.7	1.0	1.6	2.8	3.9	34.4
55-66	0.5	<0.1	<0.1	<0.1	6.0	6.5	8	0.20	0.70	3.7	2.6	2.2	1.8	2.3	3.3	4.6	20.5
66-80	0.5	<0.1	<0.1	0.1	8.0	8.6	7	0.45	1.05	1.3	0.0	2.6	1.1	1.7	2.7	6.2	15.6
80-100	0.3	<0.1	<0.1	<0.1	5.0	5.3	6	0.30	0.33	1.9	0.9	0.6	0.7	1.0	2.2	6.5	13.8

Becket Mapping Unit
Site 4

Location: Brownfield, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
O2	0-2	Dark reddish brown (5YR2.5/2) organic materials; strong medium granular structure; very friable; many very fine and fine, common medium roots; abrupt wavy boundary.
Ap	2-16	Dark brown (10YR3/3) sandy loam dark brown (10YR4/3) dry; weak fine granular structure; very friable; many very fine, fine and medium, common coarse roots; abrupt wavy boundary.
Bs1	16-22	Dark brown (7.5YR4/4) sandy loam; weak fine granular structure; friable; common very fine and fine, few medium roots; yellow (10YR7/6) stains; clear wavy boundary.
Bs2	22-34	Yellowish brown (10YR5/6) coarse sandy loam; moderate fine granular structure; friable; common very fine and fine, few coarse roots; few fine distinct pale yellow (2.5Y7/4) stains; clear smooth boundary.
Bs3	34-49	Yellowish brown (10YR5/4) sandy loam; moderate fine granular structure; friable; common very fine, fine, medium roots; clear smooth boundary.
BC	49-66	Olive (5Y5/3) sandy loam; structureless; friable; few very fine, fine roots; clear smooth boundary.
Cr1	66-85	Light olive brown (2.5Y5/4) gravelly sandy loam; common fine distinct light brownish gray (2.5Y6/2) and few fine prominent strong brown (7.5YR5/6) mottles; structureless; firm; few fine roots; clear wavy boundary.
Cr2	85-100	Grayish brown (2.5Y5/2) coarse sandy loam; few fine distinct light yellowish brown (2.5Y6/4) mottles; structureless; very firm.

SOIL		Becket		SOIL Nos.		4		LOCATION		Oxford County							
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)						
Pct. of <2 mm																	
0-2	Oa																
2-16	Ap	60.45	34.15	5.40	7.97	12.53	14.13	16.96	8.88	19.87	14.28						
16-22	Bs1	60.98	26.60	12.43	10.17	13.15	13.40	15.71	8.54	12.96	13.64						
22-34	Bs2	63.84	30.21	5.95	12.11	13.52	13.37	16.28	8.59	17.08	13.13						
34-49	Bs3	69.08	26.38	4.54	9.71	14.99	16.39	19.08	8.93	15.73	10.65						
49-66	BC	69.98	25.14	4.88	9.64	14.56	16.20	15.84	9.75	13.47	11.67						
66-85	Cr1	69.16	26.89	3.95	10.22	13.64	15.87	19.63	9.83	14.68	12.21						
85-100	Cr2	71.49	25.57	2.94	10.48	15.10	16.12	20.05	9.76	15.39	10.18						
Water Content (Bar Pressures)																	
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	Avail. H ₂ O cm/cm	pH KCl (1:1)	pH CaCl (2:1)	pH H ₂ O (1:1)		
0-2													2.95	4.35	4.85		
2-16	4.34	0.80	42.5	38.1	28.2	24.6	22.3	13.4	12.2	11.1	11.0	0.22	3.45	4.15	4.80		
16-22	3.28	0.77	48.6	42.8	29.5	23.8	23.0	13.6	12.7	11.6	11.2	0.24	4.30	4.90	5.40		
22-34	1.90	0.85	44.3	38.4	26.3	20.7	19.8	10.4	9.8	8.8	8.5	0.25	4.35	5.35	5.85		
34-49	0.81	0.98	30.3	25.9	17.9	13.9	13.1	7.2	6.2	5.5	4.8	0.21	4.25	5.55	6.15		
49-66	0.36	1.20	20.7	17.6	12.2	8.6	7.7	5.2	4.4	3.8	3.0	0.18	4.60	5.75	6.55		
66-85	0.13	1.32	16.9	14.1	9.8	6.8	6.1	4.5	3.9	3.2	2.5	0.15	4.65	5.65	6.15		
85-100	0.17	1.47	16.6	13.6	9.0	5.7	5.5	3.9	3.3	2.6	2.2	0.17	4.75	5.85	6.45		
Depth cm	Extractable bases Ca Mg Na K meq/100g				Ex Acid	CEC	Base Sat. %	KCl Al+H	ECEC	2+"	2-1½	Volume - % Rock Fragments 1½-1 1-3/4 3/4-½ ½-¼				¼-2mm	Total
0-2	3.2	0.8	<0.1	1.2	40.0	45.2	12	5.45	10.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-16	0.2	<0.1	<0.1	0.1	19.3	19.6	2	2.70	3.00	0.8	0.4	0.4	0.2	0.2	0.7	1.6	4.3
16-22	0.1	<0.1	<0.1	<0.1	16.5	16.6	1	1.30	1.40	0.0	1.0	1.7	1.3	1.3	3.0	4.5	12.8
22-34	<0.1	<0.1	<0.1	<0.1	10.4	10.4	0	0.85	0.85	2.2	0.5	1.1	0.9	0.8	2.5	4.6	12.6
34-49	<0.1	<0.1	<0.1	<0.1	6.8	6.8	0	0.40	0.40	0.0	0.5	0.4	0.6	1.3	3.2	7.4	13.4
49-66	<0.1	<0.1	<0.1	<0.1	5.2	5.2	0	0.45	0.45	8.2	1.8	1.4	0.9	1.1	2.3	4.5	20.2
66-85	<0.1	<0.1	<0.1	<0.1	3.2	3.2	0	0.45	0.45	4.0	0.8	0.8	0.9	1.2	2.7	5.1	15.5
85-100	<0.1	<0.1	<0.1	<0.1	3.2	3.2	0	0.45	0.45	0.0	0.8	1.4	1.2	1.6	3.5	6.4	14.9

Becket Mapping Unit
Site 5

Location: Sumner, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Ap	0-18	Dark brown (10YR3/3) fine sandy loam; moderate fine granular structure; very friable; many very fine and fine roots; abrupt smooth boundary.
Bs1	18-25	Strong brown (7.5YR5/8) fine sandy loam; weak fine granular structure; very friable; common very fine, fine and medium roots; abrupt irregular boundary.
Bs2	25-38	Yellowish brown (10YR5/6) fine sandy loam; moderate fine granular structure; very friable; common very fine roots; few dark brown to brown (7.5YR4/4) root stains; clear smooth boundary.
Bs3	38-44	Light olive brown (2.5Y5/6) sandy loam; moderate fine granular structure; friable; common very fine roots; abrupt smooth boundary.
BC	44-60	Light olive brown (2.5Y5/4) sandy loam; weak thin and medium platy structure; friable; few very fine roots; clear wavy boundary.
Cr1	60-80	Olive (5Y5/3) sandy loam; few fine faint light olive gray (5Y6/2) and prominent yellowish brown (10YR5/6) mottles; weak thin platy structure; very firm; clear wavy boundary.
Cr2	80-100	Olive (5Y5/3) fine sandy loam; few fine faint light olive gray (5Y6/2) and prominent yellowish brown (10YR5/6) mottles; weak thick platy structure; very firm.

SOIL		Becket		SOIL Nos. 5				LOCATION				Oxford County					
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm					
0-18	Ap	56.17	38.74	5.09	4.27	9.34	8.26	17.95	11.35	25.94	12.80						
18-25	Bs1	58.90	33.08	8.02	3.16	11.71	14.09	18.97	10.98	21.53	11.55						
25-38	Bs2	64.38	33.24	2.38	4.94	9.54	14.81	22.50	12.62	19.71	13.54						
38-44	Bs3	65.57	31.66	2.77	4.07	10.34	15.65	23.01	12.54	20.29	11.37						
44-60	BC	66.91	31.81	1.28	4.85	10.33	16.00	23.24	12.53	20.21	11.60						
60-80	Cr1	68.16	27.57	4.27	4.43	10.91	16.77	23.44	12.62	20.11	7.46						
80-100	Cr2	62.30	35.28	2.42	3.03	9.04	15.03	22.87	12.34	21.93	13.35						
Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH				
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-18	3.75	1.05	40.8	37.0	27.9	24.7	23.5	15.6	14.4	12.9	12.4	0.26	5.00	5.45	6.25		
18-25	2.08	0.97	44.8	40.2	30.4	25.9	25.5	12.4	11.2	10.0	9.4	0.30	5.95	6.20	6.65		
25-38	0.55	1.13	32.9	28.6	19.2	15.0	14.0	5.0	4.1	3.6	3.3	0.29	5.00	6.60	7.40		
38-44	0.47	1.13	27.8	24.4	16.0	12.3	11.6	4.4	3.5	2.9	2.7	0.25	4.75	6.45	7.25		
44-60	0.18	1.39	21.4	18.2	12.2	8.5	7.6	4.1	3.3	2.7	2.6	0.22	5.40	6.65	7.40		
60-80	0.11	1.38	19.3	16.5	10.7	7.8	7.0	2.9	2.5	1.8	1.7	0.20	4.90	7.15	7.75		
80-100	0.23	1.52	17.6	15.0	9.0	6.5	6.0	4.3	3.6	2.6	2.3	0.19	4.85	7.25	7.70		
Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock Fragments					
	Ca	Mg	Na	K				Al+H	ECEC	2+ ["]	2-1½	1½-1	1-¾	¾-½	½-¼	¼-2mm	Total
0-18	7.4	0.1	<0.1	0.2	14.5	22.2	35	0.55	8.25	36.5	0.0	0.8	0.6	0.5	0.9	2.1	41.4
18-25	2.0	<0.1	<0.1	<0.1	13.1	15.1	13	0.60	2.60	61.8	1.0	0.7	0.0	0.9	1.2	2.0	67.6
25-38	0.4	<0.1	<0.1	<0.1	4.4	4.8	8	0.35	0.75	6.0	0.5	0.6	0.5	0.8	1.7	3.1	13.2
38-44	0.3	<0.1	<0.1	<0.1	3.6	3.9	8	0.30	0.33	6.0	0.5	0.6	0.5	0.8	1.7	3.1	8.0
44-60	0.2	<0.1	<0.1	<0.1	4.6	4.8	4	0.40	0.42	0.0	0.3	1.8	1.0	0.7	1.6	2.6	12.8
60-80	0.1	<0.1	<0.1	<0.1	2.8	2.9	4	0.35	0.45	4.7	1.4	1.4	0.8	1.0	1.8	3.1	14.2
80-100	0.1	<0.1	<0.1	<0.1	2.6	2.7	4	0.45	0.55	8.1	0.6	0.4	0.3	0.5	1.1	2.9	13.9

Colton Mapping Unit
Site 1

Location: Township 30 M.D., Washington County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-5	Black (5YR2.5/1) organic material; weak fine granular structure; friable; abrupt wavy boundary.
E	5-17	Dark gray (5YR4/1) loamy coarse sand; weak medium platy separating to weak fine granular structure; very friable; many very fine, common fine and medium roots; abrupt wavy boundary.
Bh	17-20	Dark reddish brown (5YR3/3) coarse sandy loam with slightly cemented nodules of dark reddish brown (5YR3/2); moderate very fine and fine granular structure; friable; common very fine, few medium roots; abrupt wavy boundary.
Bs1	20-33	Reddish brown (5YR4/4) coarse sandy loam; weak very fine granular structure; very friable; common very fine and fine, few medium roots; abrupt wavy boundary.
Bs2	33-56	Yellowish brown (10YR5/6) gravelly coarse sandy loam; weak very fine granular structure; very friable; common very fine, few fine roots; abrupt wavy boundary.
BC	56-70	Pale olive (5Y6/3) 60% mixed with 40% yellowish brown (10YR5/6) gravelly coarse sand; structureless; loose; few very fine and fine roots; abrupt smooth boundary.
C	70-100	Olive (5Y5/3) gravelly coarse sand; structureless; loose; few very fine and fine roots.

SOIL	Colton	SOIL Nos.					1					LOCATION	Washington County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm				

0-5	Oa																				
5-17	E	75.39	20.23	4.38	10.95	18.34	19.55	19.09	7.46	12.65	7.58										
17-33	Bh+B _s 1	72.04	24.31	3.65	11.12	18.72	19.08	16.61	6.51	12.85	11.46										
33-56	B _s 2	72.31	22.53	5.16	11.22	16.73	18.79	18.42	7.15	12.46	10.07										
56-70	BC	90.14	6.73	3.13	19.96	19.64	20.42	22.37	7.75	3.78	2.95										
70-100	C	95.96	3.47	0.57	30.25	31.94	23.47	8.50	1.80	1.74	1.73										

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH									
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)							
0-5																						
5-17	1.26	1.19	24.4	21.4	15.4	12.5	11.8	8.0	6.6	5.9	5.8	0.18	3.60	3.40	4.10							
17-33	1.85	1.11	29.8	26.4	21.2	19.3	18.3	16.4	13.8	11.8	11.8	0.17	4.90	4.30	4.20							
33-56	0.58	1.11	23.3	24.8	19.2	17.1	17.0	10.0	8.2	6.8	6.0	0.21	5.15	4.50	4.50							
56-70	0.19	1.43	12.7	10.0	7.6	6.4	5.7	3.5	2.9	2.6	2.2	0.11	5.10	4.50	4.50							
70-100	0.10							2.8	2.2	1.9	1.5		5.20	4.60	4.50							

Depth cm	Extractable bases				Ex Acid	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume - % Rock Fragments				¼-2mm	Total	
	Ca	Mg	Na	K							1½-1	1-3/4	3/4-½	½-¼			
0-5																	
5-17	0.3	0.2	<0.1	<0.1	9.0	9.5	5.3	3.35	3.85	2.5	1.0	0.9	0.3	1.1	2.1	3.8	11.7
17-33	0.2	<0.1	<0.1	<0.1	18.2	18.4	1.1	1.65	1.30	0.6	2.0	1.2	1.1	1.2	2.6	3.9	12.6
33-56	0.1	<0.1	<0.1	<0.1	7.7	7.8	1.3	0.70	0.80	4.6	1.9	1.8	1.6	2.0	3.6	5.9	21.4
56-70	0.1	<0.1	<0.1	<0.1	3.3	3.4	3.0	0.35	0.45	7.2	4.6	4.3	2.8	3.9	8.7	14.2	45.7
70-100	<0.1	<0.1	<0.1	<0.1	1.6	1.6	0.0	0.30	0.30	4.6	3.9	3.0	2.8	4.1	9.4	19.3	47.1

Colton Mapping Unit
Site 2

Location: Limington, York County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-1	Black (5YR2/1) organic material; weak very fine granular structure; very friable; abrupt smooth boundary.
E	1-4	Dark gray (5YR4/1) loamy coarse sand; weak very fine granular structure; very friable; common very fine, medium and coarse, few fine roots; abrupt wavy boundary.
Bh	4-22	Dark reddish brown (5YR3/3) gravelly loamy coarse sand; weak very fine granular structure; very friable; common very fine, medium and coarse, few roots; clear smooth boundary.
Bs1	22-35	Brown (7.5YR4/4) very gravelly loamy coarse sand; weak very fine granular structure; very friable; common very fine, medium and coarse, few fine roots; abrupt smooth boundary.
Bs2	35-43	Strong brown (7.5YR5/6) gravelly coarse sand; structureless; loose; common very fine roots; abrupt smooth boundary.
BC	43-61	Light olive brown (2.5Y5/6) gravelly coarse sand; structureless; loose; clear smooth boundary.
C1	61-76	Pale olive (5Y6/4) very gravelly coarse sand; structureless; loose; few very fine and fine roots; clear smooth boundary.
C2	76-100	Pale olive (5Y6/4) gravelly coarse sand; structureless; loose.

SOIL		Colton				SOIL Nos.		2		LOCATION		York County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm			

0-1	Oa																		
1-4	E	77.33	16.01	6.66	9.81	29.80	21.94	11.39	4.39	9.22	6.79								
4-22	Bh	74.46	20.83	4.71	10.94	29.07	20.67	9.99	3.79	10.92	9.91								
22-35	Bs1	82.30	15.65	2.05	14.45	34.58	22.65	7.95	2.67	7.57	8.08								
35-43	Bs2	90.42	8.61	0.97	19.95	37.35	26.08	5.58	1.46	4.05	4.56								
43-61	BC	98.14	1.11	0.75	29.36	42.65	23.91	2.02	0.20	0.07	1.04								
61-76	C1	97.57	1.64	0.79	23.83	39.85	29.40	3.96	0.53	0.50	1.14								
76-100	C2	99.03	0.41	0.56	18.14	50.04	28.55	2.18	0.12	0.13	0.28								

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O		pH	
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	cm/cm	KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)

0-1																			
1-4	4.27	1.07	32.4	26.5	18.5	16.5	16.1	13.5	11.7	11.0	10.6	0.17	3.80	3.40	4.10				
4-22	2.45	0.88	47.6	38.9	27.1	25.2	24.7	15.9	12.3	11.0	10.0	0.25	5.00	4.20	4.50				
22-35	1.17							10.3	7.7	6.7	5.7		5.50	4.65	4.70				
35-43	0.52							6.1	4.4	3.6	3.1		5.40	4.60	4.70				
43-61	0.11							2.0	1.8	1.6	1.2		5.50	5.00	5.10				
61-76	0.16							2.1	2.0	1.7	1.1		5.40	4.80	5.00				
76-100	0.09							1.9	1.3	1.2	0.8		5.55	4.90	5.70				

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl		2+''	2-1½	Volume - % Rock			Fragments		½-2mm	Total
	Ca	Mg	Na	K				Al+H	ECEC			1½-1	1-3/4	3/4-½	½-¼			

0-1																		
1-4	0.1	0.2	<0.1	0.1	16.9	17.3	2.3	5.00	5.40	0.0	1.1	1.6	0.4	0.4	0.5	1.4	5.4	
4-22	<0.1	<0.1	<0.1	0.1	17.6	17.6	0.0	0.60	0.60	14.3	2.7	1.7	1.4	2.1	1.9	1.8	25.9	
22-35	<0.1	<0.1	<0.1	0.1	9.6	9.6	0.0	0.35	0.35	19.4	4.0	5.3	4.8	4.9	4.5	3.6	46.5	
34-43	<0.1	<0.1	<0.1	0.1	6.8	6.8	0.0	0.40	0.40	1.2	5.1	4.4	4.4	6.1	7.1	5.8	34.1	
43-61	<0.1	<0.1	<0.1	0.1	2.0	2.0	0.0	0.20	0.20	6.8	1.9	1.5	1.5	2.5	3.4	8.3	25.9	
61-76	<0.1	<0.1	<0.1	0.1	2.2	2.2	0.0	0.30	0.30	32.3	9.0	6.6	4.9	4.1	5.1	6.8	68.8	
76-100	<0.1	<0.1	<0.1	0.1	1.5	1.5	0.0	0.20	0.20	2.5	2.4	3.0	2.4	2.3	3.4	5.0	21.0	

Colton Mapping Unit
Site 3

Location: Lamoine, Hancock County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-4	Black (5YR2/1) organic material; weak very fine granular structure; very friable; many very fine and fine roots; clear wavy boundary.
E	4-14	Gray (5YR5/1) coarse sandy loam; weak very fine granular structure; very friable; common medium, fine and very fine roots; abrupt wavy boundary.
Bhs	14-24	Dark red (2.5YR2/4) mixed equally with yellowish red (5YR5/6) coarse sandy loam; weak very fine and fine granular structure; very friable; common medium, fine and very fine roots; abrupt smooth boundary.
Bs1	24-34	Yellowish red (5YR5/6) gravelly loamy coarse sand; structureless; firm; few medium, fine and very fine roots; abrupt wavy boundary.
Bs2	34-47	Yellowish red (5YR5/8) very gravelly coarse sand; structureless; very firm; few medium, fine and very fine roots; clear wavy boundary.
BC	47-63	Olive brown (2.5Y4/4) very gravelly coarse sand; structureless; loose; few fine and very fine roots; clear smooth boundary.
C1	63-77	Olive (5Y4/3) very gravelly coarse sand; structureless; loose; few fine roots; clear smooth boundary.
C2	77-100	Olive (5Y4/3) mixed with olive gray (5Y5/2) gravelly coarse sand with common, medium, faint olive gray (5Y5/2) and distinct yellowish brown (10YR5/8) mottles; structureless; loose; few fine roots.

SOIL		SOIL Nos.					LOCATION				
Colton		3					Hancock County				
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)
Pct. of .2 mm											

0-4	Oa										
4-14	E	62.72	34.20	3.08	10.83	20.64	15.08	9.40	6.77	19.31	14.89
14-24	Bhs	56.75	36.16	7.09	12.06	21.11	13.47	6.47	3.64	16.15	20.01
24-34	Bs1	79.06	17.36	3.58	20.74	28.22	19.01	8.02	3.07	6.32	11.04
34-47	Bs2	92.35	7.08	0.57	24.05	34.90	24.77	7.60	1.03	4.11	2.97
47-63	BC	91.11	5.27	3.62	28.63	36.67	20.01	5.04	0.76	1.78	3.49
63-77	C1	94.77	4.24	0.99	32.59	35.10	20.51	5.94	0.63	0.24	4.00
77-100	C2	96.17	3.14	0.69	29.89	27.14	23.92	13.64	1.58	1.28	1.86

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail.			pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	H ₂ O cm/cm	KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-4	22.50							71.7	54.1	50.1	49.3		3.40	3.40	3.65		
4-14	1.19							9.0	7.2	6.7	5.9		3.50	3.40	3.60		
14-24	2.49							22.9	18.0	16.2	15.0		4.45	3.50	3.60		
24-34	1.17							16.2	13.4	12.0	10.7		5.30	4.00	4.00		
34-47	0.23							6.0	5.2	5.1	4.0		5.55	4.50	4.00		
47-63	0.10							4.1	3.8	3.1	2.8		5.70	4.70	4.70		
63-77	0.06							3.7	3.1	2.6	2.3		5.65	4.80	4.40		
77-100	0.04							2.6	2.4	2.1	1.8		5.60	5.30	5.30		

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock					Fragments ½-2mm	Total
	Ca	Mg	Na	K				Al+H	ECEC	2"	2-1½	1½-1	1-3/4	3/4-½	½-¼			
0-4	5.4	2.3	0.2	0.9	38.5	47.3	19	7.85	16.65	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.6	
4-14	0.4	0.3	<0.1	<0.1	10.7	11.4	6	5.95	6.65	4.9	0.5	1.2	0.9	2.8	1.1	2.5	13.9	
14-24	0.1	0.1	<0.1	<0.1	22.8	23.0	1	6.20	6.40	1.7	1.6	1.7	0.9	1.9	1.7	2.9	12.4	
24-34	<0.1	0.1	<0.1	<0.1	17.2	17.3	1	0.95	1.05	0.0	0.7	4.3	2.0	3.9	6.5	6.4	23.8	
34-47	<0.1	<0.1	<0.1	<0.1	7.9	7.0	0	0.35	0.35	9.9	1.7	4.9	3.4	5.2	8.0	12.2	45.3	
47-63	<0.1	<0.1	<0.1	<0.1	4.3	4.3	0	0.30	0.30	5.7	3.1	4.1	3.4	4.3	8.2	17.3	46.1	
63-77	<0.1	<0.1	<0.1	<0.1	3.1	3.1	0	0.25	0.25	5.4	2.2	3.3	3.0	4.6	9.9	20.6	49.0	
77-100	<0.1	<0.1	<0.1	<0.1	1.8	1.8	0	0.20	0.20	0.0	0.1	1.0	1.1	1.8	5.7	19.0	28.7	

Colton Mapping Unit
Site 4

Location: Columbia, Washington County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-7	Black (5YR2/1) organic material; weak very fine granular structure; very friable; many very fine, fine and medium roots; abrupt smooth boundary.
E	7-9	Dark gray (5YR4/1) sandy loam; weak thin platy structure; very friable; many very fine, fine and medium roots; abrupt wavy boundary.
Bh	9-18	Dark reddish brown (5YR3/2) sandy loam; weak very fine granular structure; very friable; common very fine and fine, many medium roots; abrupt smooth boundary.
Bs1	18-29	Dark reddish brown (5YR3/4) gravelly coarse sandy loam; weak very fine granular structure; very friable; common very fine, fine and medium roots; clear smooth boundary.
Bs2	29-49	Yellowish brown (10YR5/4) very gravelly coarse sand; structureless; loose; many very fine, common fine roots; clear smooth boundary.
BC	49-65	Light olive brown (2.5Y5/4) extremely gravelly coarse sand; structureless; loose; few very fine and fine roots; abrupt smooth boundary.
C1	65-79	Olive (5Y5/3) extremely gravelly coarse sand; structureless; loose; few very fine and fine roots; abrupt smooth boundary.
C2	79-100	Olive (5Y5/3) very gravelly coarse sand; structureless; loose.

SOIL		SOIL Nos.					LOCATION				
Colton		4					Washington County				
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)

Pct. of <2 mm

0-7	Oa										
7-9	E	52.51	43.48	4.01	8.78	17.41	12.76	7.89	5.67	26.98	16.50
9-18	Bh	46.56	43.32	10.12	10.05	15.38	10.34	6.05	4.74	21.39	21.93
18-29	Bs1	51.03	43.05	5.92	11.38	16.10	12.04	6.51	5.00	21.11	21.94
29-49	Bs2	84.73	11.88	3.39	43.96	28.13	6.66	3.83	2.15	7.50	4.38
49-65	BC	91.33	7.22	1.45	42.27	39.32	6.48	2.22	1.04	0.58	6.64
65-79	C1	95.67	3.91	0.42	46.92	40.48	7.10	0.90	0.27	2.16	1.75
79-100	C2	95.36	3.00	1.64	21.95	49.16	19.14	4.07	1.04	0.13	2.87

Water Content (Bar Pressures)

Depth cm	Organic carbon	BD g/cc	Water Content									Avail. H ₂ O cm/cm	pH					
			.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)			
0-7																		
7-9	3.93									52.4	43.1	40.8	40.7		3.50	3.40	4.35	
9-18	3.90									17.9	14.1	14.0	13.6		3.50	3.30	4.30	
18-29	1.77									21.1	19.0	17.9	16.8		4.50	3.80	4.60	
29-49	0.40									16.2	14.7	13.2	12.0		4.80	4.25	4.50	
49-65	0.19									6.2	5.8	4.2	3.6		5.20	4.40	4.60	
65-79	0.14									5.1	3.8	2.7	2.4		5.35	4.50	4.80	
79-100	0.06									3.7	2.5	1.9	1.7		5.50	4.60	4.60	
										2.8	1.8	1.3	1.2		5.40	4.70	4.60	

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl		Volume - % Rock				Fragments		Total	
	Ca	Mg	Na	K				Al+H	ECEC	2+''	2-1½	1½-1	1-3/4	3/4-½	½-¼		¼-2mm
0-7	6.0	1.2	0.1	0.4	42.1	49.8	16	7.70	15.40								
7-9	0.6	0.2	0.1	0.1	18.3	19.3	5	4.50	6.20	0.0	0.0	0.0	0.0	0.5	0.5	1.2	2.2
9-18	0.3	0.1	0.1	0.1	22.3	22.9	3	5.45	6.05	0.0	0.0	0.3	0.0	0.1	0.4	1.4	2.2
18-29	<0.1	0.1	<0.1	0.1	14.7	14.9	1	1.60	1.70	4.4	4.7	3.7	1.8	2.2	2.9	5.0	24.7
29-49	<0.1	<0.1	<0.1	<0.1	5.7	5.7	0	0.55	0.55	2.2	1.7	5.2	4.4	6.0	11.4	16.0	46.5
49-65	<0.1	<0.1	<0.1	<0.1	3.0	3.0	0	0.40	0.40	4.8	4.4	6.7	5.0	8.9	16.6	21.0	67.4
65-79	<0.1	<0.1	<0.1	<0.1	2.6	2.6	0	0.25	0.25	4.9	3.3	6.3	6.5	9.6	17.8	19.7	68.1
79-100	<0.1	<0.1	<0.1	<0.1	1.2	1.2	0	0.20	0.20	10.8	3.4	4.6	3.0	4.9	6.1	7.6	40.4

Colton Mapping Unit
Site 5

Location: Hiram, Oxford County, Maine. 1978.

Horizon	Depth (cm)	Description
Oi	2-0	Loose leaves and needles.
A/E	0-6	Black (2.5YR2.5/0) and light brownish gray (10YR6/2) loamy coarse sand; weak fine granular structure; very friable; many very fine, fine and medium, few common roots; abrupt wavy boundary.
Bh	6-12	Dark reddish brown (5YR3/3) loamy sand; weak fine granular structure; very friable; common very fine and fine, many medium roots; abrupt wavy boundary.
Bs1	12-19	Dark brown (7.5YR4/4) gravelly loamy coarse sand; weak fine granular structure; very friable; common very fine and fine, many medium roots; abrupt wavy boundary.
Bs2	19-29	Dark yellowish brown (10YR4/4) very gravelly loamy coarse sand; weak fine granular structure; very friable; few very fine and fine roots; clear smooth boundary.
BC	29-50	Yellowish brown (10YR5/4) mixed with light yellowish brown (10YR6/4) gravelly coarse sand; structureless; loose; few very fine and fine roots; clear wavy boundary.
C1	50-74	Pale yellow (2.5Y7/4) mixed with pale brown (10YR7/4) very gravelly coarse sand; structureless; loose; abrupt smooth boundary.
C2	74-100	Pale yellow (2.5Y7/4) mixed with pale brown (10YR7/4) coarse sand; structureless; loose.

SOIL Colton		SOIL Nos. 5						LOCATION Oxford County				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	
Pct. of <2 mm												
0-6	A/E	83.84	8.70	7.46	15.58	37.61	20.30	7.55	2.80	6.00	2.70	
6-12	Bh	80.90	9.11	9.99	16.87	35.73	18.59	7.02	2.69	4.36	4.75	
12-19	Bs1	82.18	8.40	9.42	22.54	35.59	16.81	5.33	1.91	4.26	4.14	
19-29	Bs2	86.50	9.68	3.82	26.54	34.95	18.33	5.16	1.52	5.82	3.86	
29-50	BC	96.76	1.67	1.57	34.14	44.97	15.30	2.12	0.23	1.31	0.36	
50-74	C1	98.13	1.29	0.58	28.39	44.51	21.44	3.49	0.30	0.00	1.29	
74-100	C2	97.83	1.89	0.28	27.58	42.26	23.21	4.72	0.06	0.71	1.18	

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-6	4.42	0.77	63.6	39.2	35.9	32.4	32.1	17.3	13.6	12.2	11.5	0.21	3.60	3.35	4.25
6-12	2.94	0.89	49.0	36.8	31.2	25.6	25.0	13.5	12.0	11.0	10.4	0.24	4.15	4.00	5.05
12-19	2.45	0.87	49.0	36.7	32.2	25.0	24.6	15.4	13.6	12.6	11.5	0.22	5.25	4.60	5.40
19-29	0.99							9.4	8.1	7.4	6.6		5.45	5.10	5.50
29-50	0.24							3.0	2.3	2.3	2.0		5.60	5.55	5.60
50-74	0.10							2.2	1.6	1.5	1.0		5.50	5.10	5.85
74-100	0.04							1.5	1.1	1.0	1.0		5.30	5.30	5.85

Depth cm	Extractable bases meq/100g				Ex Acid	CEC	Base Sat. %	KCl meq/100g				Volume % Rock Fragments				Total	
	Ca	Mg	Na	K				Al+H	ECCEC	2"	2-1½	1½-1	1-¾	¾-½	½-¼		¼-2mm
0-6	1.1	0.1	<0.1	0.2	21.5	21.9	6	4.40	5.80	0.0	0.0	0.2	0.0	0.2	<0.1	1.1	1.5
6-12	0.4	0.1	<0.1	0.1	20.3	20.9	3	3.10	3.70	0.0	0.0	0.0	0.7	0.3	0.7	2.3	4.0
12-19	0.2	<0.1	<0.1	0.1	18.4	18.7	2	1.15	1.45	0.0	0.0	4.2	2.7	1.5	2.6	4.1	19.5
19-29	0.1	0.0	<0.1	<0.1	11.3	11.4	1	0.40	0.50	3.4	3.4	9.4	6.3	6.9	8.5	7.9	45.8
29-50	<0.1	<0.1	0.0	<0.1	3.3	3.3	0	0.30	0.30	0.0	2.5	4.3	4.2	4.5	7.8	11.0	34.3
50-74	<0.1	0.0	<0.1	<0.1	2.1	2.1	0	0.25	0.25	4.8	10.2	5.6	7.0	9.1	3.0	7.9	47.6
74-100	<0.1	0.0	0.0	<0.1	0.9	0.9	0	0.20	0.20	0.0	0.0	0.2	0.4	0.7	1.6	7.0	9.9

Finch Mapping Unit
Site 1

Location: Oxford, Oxford County, Maine. 1978.

Horizon	Depth (cm)	Description
Oa	0-3	Reddish black (10R2.5/1) organic material; weak fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt smooth boundary.
E	3-14	Brown (7.5YR4/2) loamy sand; common fine and medium faint pinkish gray (7.5YR6/2) mottles; weak medium platy structure; friable; common very fine, fine and coarse roots; abrupt wavy boundary.
Bh	14-26	Reddish black (10R2.5/1) loamy coarse sand; common coarse prominent dark reddish brown (2.5YR3/4) mottles; moderate medium platy structure; friable; few very fine and fine, common medium and coarse roots; abrupt smooth boundary.
Bhsm	26-36	Dusky red (2.5YR3/2) loamy coarse sand; common medium prominent reddish brown (5YR4/4) mottles; moderate medium platy structure; indurated; common very fine and fine roots; abrupt smooth boundary.
Bsm	36-46	Dark reddish brown (2.5YR3/4) coarse sand; common medium prominent brown (7.5YR5/4) mottles; strong medium platy structure; strongly cemented; few fine roots; abrupt smooth boundary.
Bs	46-63	Reddish brown (5YR4/4) coarse sand; common medium distinct brown (7.5YR5/4) mottles; structureless; very firm; abrupt smooth boundary.
BC	63-86	Dark brown (7.5YR4/4) coarse sand; structureless; nonplastic, nonsticky; dark red (2.5YR3/6) stains; gradual smooth boundary.
C	86-100	Yellowish brown (10YR5/4) sand; structureless; nonplastic, nonsticky.

SOIL		Finch		SOIL Nos.				1		LOCATION				Oxford County					
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm							
0-3	Oa																		
3-14	E	76.36	20.58	3.06	2.63	19.87	29.31	18.57	5.98	11.34	9.24								
14-26	Bh	82.99	8.67	8.34	4.33	26.01	32.01	16.72	3.92	5.08	3.59								
26-36	Bhsm	85.63	8.02	6.35	3.34	28.05	34.23	15.72	4.39	6.26	1.76								
36-46	Bsm	93.88	3.62	2.50	4.68	35.85	30.41	20.84	2.10	0.41	3.21								
46-63	Bs	96.22	1.78	2.00	4.84	45.29	27.51	15.54	3.04	0.38	1.40								
63-86	BC	98.45	0.59	0.96	2.69	35.96	52.11	6.96	0.73	0.40	0.19								
86-100	C	98.91	0.74	0.35	0.76	14.72	67.47	14.64	1.32	0.14	0.60								
		Water Content (Bar Pressures)										Avail.			pH				
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	H ₂ O cm/cm	KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)				
0-3	27.38												2.70	3.00	3.75				
3-14	1.29	1.42	21.8	16.1	13.8	11.8	10.8	7.5	5.5	5.1	4.8	0.16	3.10	3.45	4.10				
14-26	5.19	0.84	48.3	38.6	37.1	36.7	36.0	16.9	14.9	14.5	13.6	0.21	3.55	3.75	4.65				
26-36	3.60	1.06	28.1	24.6	24.1	24.1	22.9	11.0	10.6	10.2	9.5	0.16	3.90	4.00	5.00				
36-46	1.43	1.20	15.8	15.2	14.8	14.8	14.3	6.9	5.7	5.7	5.1	0.12	4.10	4.30	5.30				
46-63	0.65	1.41	13.4	11.0	9.8	9.4	8.8	6.6	3.2	3.2	2.8	0.12	4.35	4.50	5.50				
63-86	0.30	1.58	8.9	8.2	7.7	7.6	7.1	4.4	2.0	2.0	1.8	0.11	4.50	4.60	5.50				
86-100	0.17							2.1	1.3	1.2	1.1		4.50	4.65	5.60				
Depth cm	Extractable bases			Ex	Base	KCl		Volume - %				Rock Fragments							
	Ca	Mg	Na	K	CEC	Sat. %	Al+H	ECEC	2+ ⁺	2-1 $\frac{1}{2}$	1 $\frac{1}{2}$ -1	1-3/4	3/4- $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{4}$	$\frac{1}{4}$ -2mm	Total			
0-3	3.3	1.0	0.2	1.0	40.1	45.6	12	10.35	15.85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Trace		
3-14	0.1	<0.1	<0.1	<0.1	8.7	8.8	1	4.20	4.30	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	Trace		
14-26	<0.1	<0.1	<0.1	<0.1	28.0	28.0	0	5.70	5.70	0.0	0.0	0.0	0.0	0.0	<0.1	0.2	0.2		
26-36	<0.1	<0.1	<0.1	<0.1	26.3	26.3	0	2.45	2.45	0.0	0.0	0.0	0.0	0.0	<0.1	0.2	0.2		
36-46	<0.1	<0.1	<0.1	<0.1	16.4	16.4	0	1.45	1.45	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.2		
46-63	<0.1	<0.1	<0.1	<0.1	9.3	9.3	0	0.95	0.95	0.0	0.0	0.0	0.0	0.0	<0.1	0.2	0.2		
63-86	<0.1	<0.1	<0.1	<0.1	5.3	5.3	0	0.65	0.65	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.6		
86-100	<0.1	<0.1	<0.1	<0.1	2.8	2.8	0	0.45	0.45	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0		

Finch Mapping Unit
Site 2

Location: Scarborough, Cumberland County, Maine. 1980.

Horizon	Depth (cm)	Description
Oa	0-5	Black (5YR2.5/1) organic material; moderate fine and medium granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt wavy boundary.
E	5-10	Pinkish gray (7.5YR6/2) loamy sand; weak thin platy structure; friable; common very fine, fine and medium roots; abrupt wavy boundary.
Bh	10-20	Black (5YR2.5/1) with very dusky red (2.5YR2.5/2) coarse sand; weak thin and medium platy structure; friable; few very fine and fine roots; abrupt smooth boundary.
Bhsm	20-25	Very dusky red (2.5YR2.5/2) with reddish brown (5YR4/4) coarse sand; common medium prominent brown (7.5YR5/2) mottles; strong medium platy structure; strongly cemented; clear smooth boundary.
Bsm1	25-38	Dark reddish brown (2.5YR3/4) with reddish brown (5YR4/4) coarse sand; common medium prominent brown (7.5YR5/2) mottles; strong medium platy structure; strongly cemented; clear smooth boundary.
Bsm2	38-46	Yellowish brown (10YR5/4) coarse sand; common medium prominent grayish brown (2.5Y5/2) mottles; moderate medium platy structure; weakly cemented; clear smooth boundary.
BC	46-83	Light olive brown (2.5Y5/4) and light brownish gray (2.5Y6/2) with dark reddish brown (5YR3/4) coarse sand; common medium prominent light olive gray (5Y6/2) mottles; moderate medium platy structure grading to structureless; weakly cemented; dark reddish brown (5YR3/2) manganese stains common; clear smooth boundary.
C	83-100	Dark yellowish brown (10YR4/4) with dark brown (7.5YR3/2) coarse sand; structureless; weakly cemented; thin discontinuous olive gray (5Y5/2) silt lenses between 84 and 87 cm.

SOIL	Finch		SOIL Nos.					2					LOCATION Cumberland County				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse (0.05-0.02)	Fine Silt (0.02-0.002)	Pct. of <2 mm					
Depth cm	Horizon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	Avail. H ₂ O cm/cm	pH KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-5	Oa																
5-10	E	80.98	14.21	4.81	8.50	15.64	17.00	35.77	4.09	8.54	5.67						
10-20	Bh	87.27	10.85	1.88	15.42	26.75	14.59	28.93	1.59	5.92	4.93						
20-25	Bhsm	88.65	4.80	6.55	27.59	24.00	12.60	23.07	1.42	3.52	1.28						
25-38	Bsm1	94.27	2.83	2.90	29.91	32.55	23.79	6.96	1.07	1.21	1.62						
38-46	Bsm2	95.32	2.61	2.07	19.20	33.59	27.69	10.79	1.00	0.50	2.11						
46-83	BC	96.21	2.41	1.38	29.23	39.13	22.38	4.78	0.69	2.08	0.33						
83-100	C	91.13	4.50	4.37	21.05	41.69	23.35	4.13	0.63	1.03	3.47						
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	Avail. H ₂ O cm/cm	pH KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-5																	
5-10	3.37	1.10	31.6	27.5	19.7	17.3	16.8	14.3	11.6	10.3	6.0	0.24	3.00	3.10	3.50		
10-20	7.43	1.06	22.7	18.4	14.0	12.5	12.1	13.9	12.0	11.4	10.7	0.08	3.40	3.50	3.90		
20-25	6.18	0.99	17.0	14.6	11.8	9.1	8.3	9.1	8.9	8.2	7.9	0.07	3.80	3.90	4.40		
25-38	2.21	1.03	16.2	14.7	10.0	8.4	7.7	4.9	4.6	4.5	4.3	0.11	4.00	4.10	4.65		
38-46	0.56	1.29	12.7	11.3	8.6	7.4	7.0	3.3	2.8	2.6	1.5	0.13	4.40	4.50	5.00		
46-83	0.90	1.45	8.9	7.8	6.8	5.8	5.3	3.4	3.1	2.2	2.2	0.08	4.60	4.70	5.10		
83-100	0.84	1.58	10.5	8.8	6.0	5.1	4.6	2.9	2.6	2.4	2.2	0.10	4.55	4.60	5.05		
													4.50	4.50	5.00		
Depth cm	Extractable bases meq/100g				Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ["]	2-1½	Volume - %		Rock Fragments			
	Ca	Mg	Na	K								1½-1	1-3/4	3/4-½	½-¼	¼-2mm	Total
0-5	0.3	0.4	0.4	0.8	96.6	98.5	2	17.40	19.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-10	<0.1	<0.1	<0.1	<0.1	16.8	16.8	0	6.30	6.30	0.0	0.0	0.0	0.0	<0.1	0.2	0.4	0.6
10-20	0.1	<0.1	<0.1	<0.1	36.0	36.1	0	7.25	7.26	0.0	0.0	0.0	0.0	<0.1	0.4	2.3	2.7
20-25	0.1	<0.1	<0.1	<0.1	32.1	32.2	0	4.40	4.41	0.0	0.0	0.0	0.0	<0.1	1.5	9.5	11.0
25-38	0.1	<0.1	<0.1	<0.1	19.0	19.1	1	1.75	1.76	0.0	0.0	0.0	0.0	<0.1	1.4	8.2	9.6
38-46	0.1	<0.1	<0.1	<0.1	6.7	6.8	1	0.85	0.86	0.0	0.0	0.0	0.0	0.2	3.2	4.4	7.8
46-83	<0.1	<0.1	<0.1	<0.1	9.1	9.1	0	0.80	0.80	0.0	0.0	0.0	<0.1	0.1	2.5	5.7	8.3
83-100	0.1	<0.1	<0.1	<0.1	7.1	7.2	1	1.25	1.26	0.0	0.0	0.0	0.0	0.0	<0.1	1.9	1.9

Finch Mapping Unit
Site 3

Location: Scarborough, Cumberland County, Maine. 1980.

Horizon	Depth (cm)	Description
Oa	0-5	Very dusky red (2.5YR2.5/2) organic material; weak fine and medium granular structure; very friable; many very fine and fine, common medium roots; a mat of very fine and fine roots at the lower horizon boundary; abrupt smooth boundary.
E	5-19	Gray (10YR5/1) coarse sand; common coarse faint light gray (10YR7/1) mottles; weak fine and medium granular structure; friable; common very fine and fine roots; abrupt wavy boundary.
E/B	19-33	Gray (10YR5/1) and dark reddish brown (5YR2.5/2) coarse sand; common coarse prominent light gray (10YR7/1) mottles; weak fine granular structure; friable; few very fine, fine and common medium roots; abrupt wavy boundary.
Bhm	33-51	Reddish black (10R2.5/1) coarse sand; common coarse prominent light gray (10YR7/1) mottles; strong thick and medium platy structure; strongly cemented; few very fine and fine roots between plates; abrupt smooth boundary.
Bhsm	51-63	Dark yellowish brown (10YR4/4) with reddish black (10R2.5/1) and dark brown (7.5YR4/4) coarse sand; common coarse prominent light brownish gray (2.5Y6/2) mottles; strong thin and medium platy structure; strongly cemented; clear smooth boundary.
C	63-100	Reddish black (10R2.5/1) and very dusky red (10R2.5/2) coarse sand; structureless; firm, 40% strongly cemented.

SOIL	Finch	SOIL Nos.					3					LOCATION	Cumberland County						
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	Pct. of <2 mm							
0-5	Oa																		
5-19	E	87.69	9.23	3.08	11.33	27.78	27.89	17.11	3.60	6.28	2.95								
19-33	E/B	92.72	4.18	3.10	11.20	27.12	31.41	20.09	2.93	0.98	3.20								
33-51	Bhm	93.22	1.64	5.14	18.90	30.00	28.65	14.89	0.79	0.10	1.54								
51-63	Bhsm	95.05	2.25	2.70	16.96	33.47	28.93	14.24	1.47	1.38	0.87								
63-100	C	96.22	2.72	1.06	28.91	44.29	17.55	4.76	0.74	2.52	0.20								

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-5		0.17	312.6	304.7	268.9	256.6	251.0	74.4	71.4	70.7	69.8	0.40	2.90	3.10	4.00
5-19	1.10	1.48	15.6	14.3	11.6	9.0	7.4	4.8	4.3	3.8	3.5	0.16	3.00	3.25	4.00
19-33	4.09	1.38	11.5	10.1	8.6	6.8	6.3	4.3	3.5	3.2	3.1	0.10	3.45	3.55	4.20
33-51	2.75	1.34	19.5	17.8	17.2	15.7	14.1	6.5	6.2	5.9	5.1	0.17	4.00	4.10	4.70
51-63	2.55	1.33	16.6	15.4	14.6	10.7	10.1	4.8	3.6	3.5	3.5	0.16	4.25	4.30	4.90
63-100	0.84	1.53	14.3	12.7	12.0	10.0	8.2	4.4	3.2	3.1	3.0	0.15	4.10	4.20	5.00

Depth cm	Extractable bases				Ex Acid	Base CEC	KCl Sat. %	KCl Al+H meq/100g	ECEC	2+ ["]	2-1 $\frac{1}{2}$	Volume - % Rock Fragments					Total	
	Ca	Mg	Na	K								1 $\frac{1}{2}$ -1	1-3/4	3/4- $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{4}$	$\frac{1}{4}$ -2mm		
0-5	1.7	1.0	1.0	0.9	93.9	98.5	5	12.40	17.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-19	0.2	<0.1	<0.1	<0.1	4.0	4.2	5	1.75	1.95	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	1.4	1.4
19-33	0.2	<0.1	<0.1	<0.1	3.6	3.8	5	1.70	1.90	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	1.8	1.8
33-51	0.1	<0.1	<0.1	<0.1	23.4	23.5	<1	4.60	4.70	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.2	0.2
51-63	0.1	<0.1	<0.1	<0.1	19.0	19.1	1	2.15	2.25	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.4	0.4
63-100	0.2	<0.1	<0.1	<0.1	18.0	18.2	1	2.40	2.60	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	2.0	2.0

Finch Mapping Unit
Site 4

Location: Brunswick, Cumberland County, Maine. 1980.

Horizon	Depth (cm)	Description
Oi	6-0	Dusky red (2.5YR3/2) slightly decomposed organic debris; structureless; very friable; many very fine, fine, medium and common coarse roots; abrupt wavy boundary.
E1	0-13	Grayish brown (10YR5/2) loamy coarse sand; common medium faint light gray (10YR7/1) and distinct dark yellowish brown (10YR4/4) mottles; weak medium granular structure; friable; common very fine, fine, medium and coarse roots; abrupt wavy boundary.
E2	13-15	Light gray (10YR7/1) with grayish brown (10YR5/2) coarse sand; few medium distinct light brownish gray (2.5Y6/2) and prominent yellowish brown (10YR5/6) mottles; weak fine granular structure; very friable; common very fine, fine and medium roots; abrupt irregular boundary.
Bh	15-44	Reddish black (10R2.5/1) with dusky red (2.5YR3/2) coarse sand; moderate medium platy structure; friable; few very fine and fine roots; rootmats between peds; abrupt smooth boundary.
Bhsm1	44-50	Reddish black (10R2.5/1) with dark reddish brown (5YR3/3) and yellowish brown (10YR5/6) coarse sand; few medium prominent light brownish gray (2.5Y6/2) mottles; strong medium and thick platy structure; strongly cemented; few very fine roots between peds; clear wavy boundary.
Bhsm2	50-73	Yellowish brown (10YR5/4) with reddish black (10R2.5/1) and very dusky red (2.5YR2.5/2) coarse sand; few medium prominent light brownish gray (2.5Y6/2) mottles; strong medium and thin platy structure; strongly cemented; few very fine roots between peds; abrupt wavy boundary.
B'h1	73-101	Reddish black (10R2.5/1) coarse sand; strong medium and thick platy structure; strongly cemented; clear wavy boundary.
B'h2	101-114	Very dusky red (2.5YR2.5/2) coarse sand; structureless; weak cemented.

SOIL	Finch		SOIL Nos. 4					LOCATION Cumberland County									
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)						
Pct. of <2 mm																	
6-0	0i																
0-13	E1	84.70	8.29	7.01	7.00	23.98	32.42	15.52	5.79	4.41	3.88						
13-15	E2	90.01	5.80	4.19	9.03	32.23	34.63	10.90	3.23	2.79	3.01						
15-44	Bh	89.69	6.47	3.84	10.22	33.54	33.04	9.70	3.20	3.15	3.32						
44-50	Bhsm1	91.64	6.12	2.24	11.97	29.08	27.48	20.41	2.71	2.65	3.47						
50-73	Bhsm2	93.05	4.06	2.89	16.40	28.37	22.68	13.53	2.07	2.10	1.96						
73-101	B'h1	94.03	3.36	2.61	16.87	52.50	21.36	2.74	0.57	0.47	2.89						
101-114	B'h2	94.68	2.86	2.46	17.23	51.84	21.96	2.95	0.71	0.69	2.17						
Water Content (Bar Pressures)																	
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	Avail. H ₂ O cm/cm	pH KCl (1:1)	pH CaCl (2:1)	H ₂ O (1:1)		
6-0		0.13	310.1	297.2	251.0	239.3	234.2	77.2	76.7	73.6	72.5	0.29	3.40	3.50	4.30		
0-13	2.43	1.06	27.7	24.4	20.2	17.2	16.4	7.8	7.6	6.7	6.4	0.19	3.60	3.80	4.35		
13-15	1.02	1.36	13.8	11.8	9.7	7.4	5.8	4.1	3.7	3.3	3.2	0.12	4.00	4.10	4.85		
15-44	4.83	1.00	43.4	40.6	37.2	34.6	32.1	10.0	9.1	8.6	7.4	0.33	4.40	4.40	5.00		
44-50	2.59	1.22	13.7	12.6	10.9	10.4	9.7	5.4	4.9	4.6	4.2	0.10	4.50	4.50	5.10		
50-73	4.41	1.28	12.9	11.8	10.0	9.5	8.7	6.0	5.5	4.0	4.0	0.10	4.35	4.40	5.10		
73-101	2.43	1.40	9.6	8.9	8.1	7.7	7.2	2.9	2.7	2.6	2.1	0.10	4.10	4.30	4.95		
101-114	1.10	1.49	7.5	6.5	5.6	5.1	4.6	3.8	3.2	3.0	1.8	0.07	4.20	4.30	5.00		
Extractable bases																	
Depth cm	Ca	Mg	Na	K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+"	2-1½	Volume 1½-1	- % Rock Sat. 1-3/4	Fragments 3/4-½	½-¼	½-2mm	Total
6-0	0.9	0.8	0.6	0.8	91.1	94.2	3	14.95	18.05	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1
0-13	0.2	0.1	<0.1	<0.1	11.3	11.6	2	3.40	3.70	0.0	0.0	0.0	0.0	<0.1	0.2	0.3	0.5
13-15	0.2	<0.1	<0.1	<0.1	4.8	5.0	4	2.20	2.40	0.0	0.0	0.0	0.0	<0.1	<0.1	<0.1	<0.1
15-44	0.1	<0.1	<0.1	<0.1	27.9	28.0	<1	2.15	2.25	0.2	0.0	0.4	0.0	0.2	0.8	1.2	2.8
44-50	0.1	<0.1	<0.1	<0.1	14.1	14.2	<1	1.45	1.55	0.0	0.0	0.0	0.2	0.8	2.5	3.3	6.8
50-73	0.1	<0.1	<0.1	<0.1	16.5	16.6	<1	2.20	2.30	0.0	0.0	0.0	0.0	0.1	0.5	2.4	3.0
73-101	0.2	<0.1	<0.1	<0.1	16.2	16.4	1	2.20	2.40	0.0	0.0	0.0	0.0	0.0	0.1	2.1	2.2
101-114	0.2	<0.1	<0.1	<0.1	7.7	7.9	2	1.80	2.00	0.0	0.0	0.0	0.0	0.0	0.4	5.0	5.4

Finch Mapping Unit
Site 5

Location: Gorham, Cumberland County, Maine. 1980.

Horizon	Depth (cm)	Description
Oa	0-6	Black (5YR2.5/1) organic material; strong medium granular structure; very friable; many very fine, fine and medium roots; abrupt wavy boundary.
E1	6-26	Gray (10YR5/1) with dark reddish gray (5YR4/2) loamy fine sand; weak thin platy structure; very friable; few very fine and fine, common medium roots; some dark reddish brown (5YR2.5/2) organic material mixing; abrupt irregular boundary.
E2	26-31	Light brownish gray (10YR6/2) and brown (7.5YR5/2) sand; few medium distinct light brownish gray (2.5Y6/2) mottles; structureless; friable; few very fine and fine roots; abrupt wavy boundary.
Bhm	31-59	Reddish black (10R2.5/1) with very dusky red (2.5YR2.5/2) coarse sand; common medium prominent gray (5Y6/1) mottles; structureless; strongly cemented; few very fine roots; abrupt wavy boundary.
Bsm	59-73	Dark reddish brown (5YR3/4) fine sand; common medium prominent light brownish gray (2.5Y6/2) mottles; structureless; weakly cemented; clear smooth boundary.
BC	73-91	Light olive brown (2.5Y5/4) coarse sand; common medium distinct light brownish gray (2.5Y6/2) and few coarse prominent dark brown (7.5YR4/4) mottles; structureless; friable; abrupt wavy boundary.
C	91-100	Pale olive (5Y6/3) with dark yellowish brown (10YR4/4) fine sand; structureless; friable.

SOIL		Finch		SOIL Nos.				5		LOCATION				Cumberland County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)						
												Pct. of <2 mm					
0-6	Oa																
6-26	E1	75.99	20.42	3.59	2.71	8.61	13.49	32.39	18.80	15.56	4.86						
26-31	E2	91.80	6.58	1.62	3.85	14.60	25.97	36.00	11.39	5.12	1.46						
31-59	Bhm	87.94	7.11	4.95	7.52	25.34	29.34	22.61	2.63	3.09	4.02						
59-73	Bsm	95.92	4.08	0.00	1.72	15.02	19.20	55.48	4.74	4.08	0.00						
73-91	BC	98.32	1.68	0.00	9.67	31.80	28.37	26.02	2.49	1.68	0.00						
91-100	C	94.31	5.44	0.25	0.36	1.52	3.52	63.53	25.40	4.05	1.39						

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		H ₂ O (1:1)
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	
0-6		0.32	227.8	211.5	184.0	170.5	166.5	38.9	38.7	37.7	36.5	0.56	3.10	3.30	4.00
6-26	1.40	1.33	29.8	28.1	19.6	15.8	14.8	7.4	7.1	5.7	5.3	0.30	3.60	3.70	4.60
26-31	0.34	1.34	10.6	8.9	6.5	5.4	4.9	3.4	3.3	2.8	2.6	0.08	4.10	4.15	5.10
31-59	1.90	1.35	17.5	16.0	13.6	12.8	12.1	6.5	6.3	6.0	4.4	0.16	4.00	4.10	4.95
59-73	0.52	1.55	7.4	5.8	4.2	3.6	2.8	2.0	2.0	2.0	1.3	0.07	4.40	4.50	5.50
73-91	0.22	1.58	5.9	4.3	3.3	2.8	1.5	1.2	1.0	0.9	0.7	0.06	4.50	4.80	5.60
91-100	0.10	1.56	15.2	10.9	7.7	6.7	5.7	1.3	1.2	1.1	1.0	0.15	4.50	4.85	5.70

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ^{''}	2-1½	Volume			- % Rock Fragments			½-2mm	Total
	Ca	Mg	Na	K								meq/100g	1½-1	1-¾	¾-½	½-¼			
0-6	1.5	0.6	0.3	0.5	68.9	71.8	4	9.30	12.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6-26	0.4	<0.1	<0.1	<0.1	11.3	11.7	3	3.70	4.10	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.4	0.4	
26-31	0.2	<0.1	<0.1	<0.1	2.8	3.0	7	1.25	1.45	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	2.4	
31-59	0.2	<0.1	<0.1	<0.1	17.2	17.4	1	3.60	3.80	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	2.5	2.5	
59-73	0.3	<0.1	<0.1	<0.1	5.5	5.8	5	1.10	1.40	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.2	0.2	
73-91	0.2	<0.1	<0.1	<0.1	3.2	3.4	6	0.70	0.90	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	0.8	0.8	
91-100	0.2	<0.1	<0.1	<0.1	2.6	2.8	7	0.60	0.80	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	0.3	0.3	

Lyman Mapping Unit
Site 1

Location: Cornish, York County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-2	Black (5YR2/1) organic material; massive; friable; many very fine and medium, common fine roots; abrupt wavy boundary.
A	2-10	Black (5YR2/1) loam; weak very fine granular structure; very friable; many very fine and fine, common medium roots; abrupt irregular boundary.
Bh	10-15	Dark reddish brown (5YR3/4) fine sandy loam; weak very fine and fine granular structure; very friable; common very fine and medium, few fine roots; abrupt wavy boundary.
Bs1	15-28	Brown (7.5YR4/4) gravelly fine sandy loam; weak very fine and fine granular structure; very friable; common very fine and medium, few fine roots; gradual wavy boundary.
Bs2	28-38	Brown (7.5YR4/4) fine sandy loam; weak very fine and fine granular structure; friable; common very fine and medium, few fine roots; abrupt wavy boundary.
R	38 +	Bedrock

SOIL		Lyman		SOIL Nos.					LOCATION				York County	
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)			

Pct. of <2 mm

0-2	Oa										
2-10	A	49.78	40.85	9.37	3.89	6.81	9.82	17.05	12.21	24.82	16.03
10-15	Bh	52.07	41.69	6.24	4.73	7.75	9.97	17.64	11.98	27.07	14.62
15-28	Bs1	52.35	44.04	3.61	4.99	8.07	9.70	16.94	12.65	26.20	17.84
28-38	Bs2	46.75	49.73	3.52	4.87	7.31	8.17	14.66	11.74	30.53	19.20
38 +	R										

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH				
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-2																	
2-10	8.02	0.64	86.3	74.7	63.7	54.2	53.1	22.9	22.0	19.8	16.4	0.37	4.10	3.50	4.20		
10-15	4.60	0.78	67.6	57.3	38.3	34.7	33.1	20.4	19.7	18.5	17.4	0.31	4.50	4.15	4.40		
15-28	3.51	0.66	70.5	58.5	39.3	34.8	33.3	20.1	19.3	17.9	15.6	0.28	4.70	4.50	4.50		
28-38	3.99	0.79	67.9	61.5	44.2	36.0	33.0	21.6	20.2	17.9	15.4	0.36	4.80	4.50	4.70		
38 +																	

Depth cm	Extractable bases				Ex Acid	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ¹	2-1 ¹ / ₂	Volume - % Rock Fragments				1/2-2mm	Total	
	Ca	Mg	Na	K							1 ¹ / ₂ -1	1-3/4	3/4-1/2	1/2-1/4			
0-2																	
2-10	0.3	0.4	<0.1	0.2	29.5	30.4	3	5.15	6.05	9.9	0.7	1.0	0.3	0.2	0.1	0.3	12.5
10-15	0.2	0.2	<0.1	<0.1	26.0	26.4	2	3.15	3.55	2.5	1.6	3.4	1.5	1.2	1.6	1.0	12.8
15-28	0.1	0.1	<0.1	<0.1	24.1	24.3	1	1.70	1.90	5.9	0.5	2.9	1.5	1.1	1.9	1.5	15.3
28-38	<0.1	<0.1	<0.1	<0.1	26.5	26.6	<1	1.60	1.70	3.9	0.4	1.0	0.6	0.7	0.6	0.8	8.0
38 +																	

Lyman Mapping Unit
Site 2

Location: York, York County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-2	Black (5YR2/1) organic material; weak fine granular structure; very friable; many very fine and few coarse roots; clear wavy boundary.
A	2-4	Dark reddish brown (5YR2/2) silt loam; weak very fine granular structure; very friable; common very fine and fine roots; abrupt wavy boundary.
Bh	4-12	Dark reddish brown (5YR3/2) silt loam; weak very fine granular structure; very friable; many very fine, common fine and medium roots; abrupt smooth boundary.
Bs1	12-32	Dark reddish brown (5YR3/4) silt loam; weak very fine and fine granular structure; common very fine and medium, few fine roots; clear wavy boundary.
Bs2	32-34	Brown (7.5YR4/4) silt loam; weak very fine and fine granular structure; many very fine, few fine, common medium roots; abrupt smooth boundary.
R	34 +	Bedrock

SOIL	Lyman	SOIL Nos. 2						LOCATION York County				
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02 0.002)	
Pct. of <2 mm												
0-2	Oa											
2-4	A	24.66	65.79	9.55	1.97	3.55	4.37	7.39	7.38	36.53	29.26	
4-12	Bh	26.40	64.20	9.40	3.29	3.80	4.36	7.54	7.41	36.46	27.74	
12-32	Bs1	29.58	67.74	2.68	3.49	4.60	4.92	8.10	8.47	39.30	28.44	
32-34	Bs2	27.56	68.27	4.17	3.17	3.97	4.41	7.68	8.33	40.54	27.73	
34 +	R											

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH				
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		H ₂ O (1:1)	CaCl (2:1)	H ₂ O (1:1)		
0-2																	
2-4	15.42	0.41	89.5	80.1	61.2	59.7	58.8	48.5	35.6	31.6	30.3	0.20	3.80	3.70	4.00		
4-12	5.43	0.76	65.5	56.7	39.2	34.8	33.3	24.4	20.4	19.1	17.8	0.30	4.30	4.05	4.40		
12-32	2.87	0.80	62.4	55.3	37.6	29.6	26.8	22.3	17.3	15.9	14.3	0.33	4.70	4.40	4.40		
32-34	2.50	0.79	66.4	60.2	40.6	30.9	28.1	22.4	17.6	16.2	14.2	0.36	4.80	4.50	4.40		
34 +																	

Depth cm	Extractable bases				Ex Acid	Base Sat. %	CEC	KCl				Volume - % Rock Fragments					
	Ca	Mg	Na	K				A1+H meq/100g	ECEC	2+''	2-1½	1½-1	1-3/4	3/4-½	½-¼	¼-2mm	Total
0-2																	
2-4	0.7	0.6	0.1	0.5	39.1	41.0	5	9.10	11.00	0.0	0.0	0.0	0.0	0.0	Trace	Trace	Trace
4-12	0.2	0.2	<0.1	0.1	26.0	26.5	2	4.05	4.55	3.4	0.0	0.5	1.0	0.6	0.5	0.5	6.5
12-32	0.1	<0.1	<0.1	<0.1	18.6	18.7	1	1.70	1.80	2.0	1.0	1.4	1.5	0.8	1.1	0.8	8.6
32-34	0.1	<0.1	<0.1	<0.1	19.2	19.3	1	1.50	1.60	0.0	0.0	0.9	2.7	1.5	1.8	2.0	8.9
34 +																	

Lyman Mapping Unit
Site 3

Location: N. Anson, Somerset County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-4	Black (5YR2.5/1) organic material; weak very fine granular structure; very friable; many very fine and medium roots; abrupt smooth boundary.
E	4-4.3	Gray (5YR5/1) silt loam; weak very fine granular structure; very friable; many very fine, common fine and medium roots; abrupt broken boundary.
Bh1	4-16	Dark reddish brown (5YR3/3) silt loam; moderate very fine and fine granular structure; very friable; common very fine, fine, medium, few coarse roots; clear smooth boundary.
Bh2	16-29	Reddish brown (5YR4/4) silt loam; weak very fine and fine granular structure; friable; few very fine and fine, common medium roots; clear smooth boundary.
Bs	29-37	Yellowish red (5YR4/6) silt loam; weak very fine granular structure; friable; few very fine, fine and coarse, common medium roots; abrupt smooth boundary.
R	37 +	Bedrock.

SOIL	Lyman	SOIL Nos.					3					LOCATION	Somerset County		
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (>0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm			
0-4	Oa														
4-16	Bh1/E	33.96	52.81	13.23	2.52	4.10	5.71	11.63	10.00	25.74	27.07				
16-29	Bh2	35.41	52.27	12.32	3.62	5.12	6.03	11.43	9.21	24.42	27.85				
29-37	Bs	38.77	52.92	8.31	3.88	5.07	6.21	12.57	11.04	31.08	21.84				
37 +	R														

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-4	36.93	0.14											3.30	3.20	4.75
4-16	5.56	0.64	61.4	58.2	47.5	40.3	39.2	26.2	22.0	20.2	18.7	0.25	4.40	4.10	4.50
16-29	4.13	0.74	68.4	63.8	49.7	43.4	42.9	25.7	22.5	21.4	17.8	0.34	4.70	4.20	4.50
29-37	2.64	0.81	61.5	56.3	43.4	38.2	37.0	21.4	18.2	17.4	14.6	0.34	4.60	4.20	4.45
37 +															

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - %				Rock Fragments		Total
	Ca	Mg	Na	K				A1+H meq/100g	ECEC	2+''	2-1½	1½-1	1-3/4	3/4-½	½-¼	¼-2mm		
0-4	2.8	1.9	0.1	0.8	53.6	59.2	10	13.05	18.65	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4-16	0.2	0.2	<0.1	<0.1	24.6	25.0	2	3.50	3.90	0.9	0.4	0.2	0.3	0.5	0.7	1.1	4.1	
16-29	<0.1	<0.1	<0.1	<0.1	24.4	24.4	0	2.65	2.65	0.0	0.4	0.6	0.3	0.7	1.1	1.5	4.6	
29-37	<0.1	<0.1	<0.1	<0.1	21.0	21.0	0	3.35	3.35	0.0	0.0	1.3	0.4	0.3	0.8	1.3	4.1	
37 +																		

Lyman Mapping Unit
Site 4

Location: Hebron, Oxford County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-3	Black (5YR2/1) organic material; weak very fine granular structure; very friable; many very fine, fine and medium, common coarse roots; abrupt smooth boundary.
A	3-6	Dark reddish brown (5YR2/2) fine sandy loam; weak very fine granular structure; very friable; many very fine, fine and medium, common coarse roots; abrupt wavy boundary.
Bh1	6-15	Dusky red (2.5YR3/2) fine sandy loam; weak very fine granular structure; very friable; many very fine, fine and medium, common coarse roots; abrupt smooth boundary.
Bh2	15-25	Dusky red (2.5YR3/2) fine sandy loam; weak very fine granular structure; very friable; many very fine, fine and medium, common coarse roots; abrupt smooth boundary.
Bh3	25-40	Dark reddish brown (5YR3/2) sandy loam; weak very fine granular structure; very friable; common very fine, fine, medium and coarse roots; clear smooth boundary.
Bh4	40-51	Dark reddish brown (5YR3/3) sandy loam; weak very fine granular structure; very friable; common very fine, fine, and medium roots.
R	51 +	Bedrock.

SOIL	Lyman	SOIL Nos. 4						LOCATION Oxford County				
Depth cm	Horizon	Sand (0.05-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	
		Pct. of <2 mm										
0-3	Oa											
3-6	A	52.86	37.31	9.83	4.72	8.44	11.92	18.28	9.50	24.58	12.73	
6-15	Bh1	59.45	33.33	7.22	7.63	10.44	12.47	18.63	10.28	22.39	10.94	
15-25	Bh2	55.51	32.25	12.24	5.77	9.30	12.09	18.29	10.06	19.83	12.42	
25-40	Bh3	62.45	29.62	7.93	8.48	10.96	12.30	19.62	11.09	19.86	9.76	
40-51	Bh4	70.13	26.50	3.37	8.39	11.30	13.64	24.00	12.80	18.32	8.18	
51 +	R											

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-3	23.94							68.1	64.7	45.9	41.9		3.60	3.70	4.50
3-6	7.78	0.54	69.3	58.6	43.9	42.3	41.3	29.4	22.0	19.7	18.4	0.22	4.40	4.20	4.60
6-15	6.54	0.66	81.6	69.0	50.6	47.2	46.5	25.3	21.2	19.5	19.2	0.33	4.60	4.30	4.70
15-25	5.73	0.68	80.0	70.8	51.2	44.5	42.9	29.1	23.5	20.1	18.3	0.36	4.70	4.40	4.50
25-40	4.67	0.77	72.2	64.5	47.8	39.0	35.6	24.6	18.4	16.1	14.1	0.39	4.70	4.40	4.45
40-51	4.32	0.90	60.2	51.0	35.8	29.9	27.6	18.5	16.2	14.6	13.2	0.34	4.70	4.35	4.40
51 +															

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ "	2-1½	Volume - % Rock Fragments					Total	
	Ca	Mg	Na	K								1½-1	1-¾	¾-½	½-¼	¼-2mm		
0-3	0.3	0.8	0.2	0.8	40.8	42.9	5	9.70	11.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-6	0.1	0.2	<0.1	0.3	27.3	27.9	2	4.15	4.75	0.0	0.0	0.0	0.0	0.3	0.4	0.9	1.6	1.6
6-15	0.1	0.1	<0.1	0.1	31.2	31.5	1	3.25	3.55	1.6	0.0	1.2	0.5	0.8	0.8	1.5	6.4	6.4
15-25	0.1	0.1	<0.1	<0.1	32.7	32.9	<1	3.10	3.30	8.6	0.7	1.2	0.5	0.9	1.2	1.9	15.0	15.0
25-40	0.1	<0.1	<0.1	<0.1	29.7	29.8	<1	2.75	2.85	0.0	0.4	0.6	0.8	0.9	1.3	1.6	5.6	5.6
40-51	<0.1	<0.1	<0.1	<0.1	28.4	28.4	0	2.70	2.70	0.0	0.3	0.2	0.8	0.7	2.4	1.6	6.0	6.0
51 +																		

Lyman Mapping Unit
Site 5

Location: Rangeley Plantation, Franklin County, Maine. 1977.

Horizon	Depth (cm)	Description
0a	0-18	Very dusky red (2.5YR2.5/2) organic material; weak very fine granular structure; very friable; many very fine and fine, common medium, few coarse roots; abrupt smooth boundary.
E	18-21	Dark gray (N4/0) silt loam; weak very thin to thin platy structure; very friable; many very fine, common fine and medium roots; abrupt wavy boundary.
Bh1	21-26	Very dusky red (2.5YR2.5/2) silt loam; weak very fine granular structure; very friable; many very fine, common fine, few medium roots; abrupt smooth boundary.
Bh2	26-36	Dark reddish brown (2.5YR3/4) silt loam; weak very fine granular structure; common very fine and fine, few medium roots; abrupt smooth boundary.
Bh3	36-58	Dark reddish brown (5YR3/4) gravelly silt loam; weak very fine granular structure; very friable; few very fine, fine and medium roots; abrupt smooth boundary.
R	58 +	Bedrock.

SOIL		Lyman				SOIL Nos.				5				LOCATION				Franklin County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm									
0-18	Oa																				
18-21	E	31.80	62.22	5.98	4.04	4.58	5.37	8.70	9.11	34.50	27.72										
21-26	Bh1	32.51	56.23	11.26	3.88	5.99	5.98	8.77	7.89	28.79	27.44										
26-36	Bh2	39.47	52.71	7.82	5.46	7.60	7.54	10.50	8.37	28.22	24.49										
36-58	Bh3	39.07	55.50	5.43	5.10	7.65	7.33	10.43	8.56	30.48	25.02										
58 +	R																				

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH									
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)							
0-18	52.67																					
18-21	4.13	1.05	39.4	36.7	31.5	29.5	28.9	15.6	12.9	10.8	10.7	0.27	2.70	2.95	4.10							
21-26	6.78	0.63	73.4	64.6	52.2	49.8	48.8	28.1	24.4	22.5	21.9	0.27	3.00	3.05	3.55							
26-36	5.98	0.56	86.6	72.6	56.1	51.7	48.9	27.9	23.7	21.9	20.8	0.29	3.20	3.90	3.85							
36-58	4.05	0.69	75.3	66.1	52.4	44.4	42.2	21.2	16.4	15.3	14.0	0.36	4.30	3.60	4.00							
58 +													4.40	4.50	3.90							

Depth cm	Extractable bases				Ex Acid	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume - % Rock				Fragments ½-¼	½-2mm	Total
	Ca	Mg	Na	K							1½-1	1-¾	¾-½	½-¼			
0-18	12.0	3.2	0.1	0.6	50.7	66.6	24	11.00	26.90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18-21	0.6	0.2	<0.1	<0.1	20.8	21.6	4	5.65	6.45	0.0	0.0	0.3	1.3	0.3	0.5	0.8	3.2
21-26	0.5	0.4	<0.1	<0.1	41.0	41.9	2	11.60	12.50	2.6	0.0	0.6	0.8	1.0	0.9	1.1	7.0
26-36	0.2	0.1	<0.1	<0.1	36.2	36.5	<1	6.65	6.95	31.7	0.3	1.1	0.5	0.5	0.7	0.8	35.6
36-58	0.2	<0.1	<0.1	<0.1	27.0	27.2	<1	4.50	4.70	13.8	4.0	4.5	1.3	1.3	1.4	1.5	27.8
58 +																	

Masardis Mapping Unit
Site 1

Location: Monroe, Waldo County. 1977.

Horizon	Depth (cm)	Description
Ap	0-14	Dark brown (10YR3/3) silt loam; weak very fine granular structure; very friable; common very fine, fine and medium roots; abrupt wavy boundary.
E	9-14	Light grayish brown (10YR6/2) silt loam; weak very fine and fine granular structure; very friable; common very fine, fine and medium roots; abrupt broken boundary.
Bs1	14-21	Yellowish red (5YR4/6) gravelly loam; weak very fine granular structure; friable; common very fine and medium roots; abrupt wavy boundary.
Bs2	21-27	Yellowish red (5YR5/6) gravelly loam; weak very fine granular structure; friable; common very fine, fine and medium roots; clear smooth boundary.
Bs3	27-36	Brown (7.5YR4/4) gravelly loamy coarse sand; structureless; loose; common very fine, fine and medium roots; clear wavy boundary.
BC	36-53	Olive brown (2.5Y4/4) very gravelly coarse sand; structureless; loose; few very fine and coarse roots; gradual wavy boundary.
C1	53-70	Olive brown (2.5Y4/4) very gravelly coarse sand; structureless; loose; few coarse roots.
C2	70-84	Olive brown (2.5Y4/4) very gravelly coarse sand; structureless; loose; few coarse roots.
C3	84-100	Olive brown (2.5Y4/4) very gravelly coarse sand; structureless; loose; few coarse roots.

SOIL		Masardis		SOIL Nos.				1		LOCATION				Waldo County						
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)									
												Pct. of <2 mm								
0-14	Ap/E	33.49	55.68	10.83	11.54	8.89	4.32	4.11	4.63	24.94	29.74									
14-21	Bs1	43.60	48.04	8.36	19.55	13.67	4.74	2.88	2.76	22.57	25.47									
21-27	Bs2	64.41	28.69	6.90	33.84	21.02	5.21	2.57	1.77	15.77	12.92									
27-36	Bs3	85.90	10.94	3.16	47.39	30.94	5.03	1.53	1.01	4.64	6.30									
36-53	BC	92.59	5.34	2.07	43.44	38.91	7.61	1.77	0.86	3.30	2.04									
53-70	C1	92.14	5.63	2.23	45.34	32.55	10.34	2.34	1.57	3.03	2.60									
70-84	C2	90.99	6.93	2.08	43.14	35.28	8.66	2.53	1.38	2.91	4.02									
84-100	C3	95.36	1.58	3.06	44.62	38.80	9.42	1.78	0.74	0.00	1.58									
												Water Content (Bar Pressures)					Avail.		pH	
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	H ₂ O cm ³ /cm	KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)					
0-14	2.16	0.94	4.87	45.2	37.1	31.6	28.8	19.1	14.1	11.9	10.8	0.32	3.70	3.90	4.40					
14-21	2.07	0.94	61.4	57.2	46.1	40.4	39.1	22.0	18.6	16.7	15.4	0.39	4.00	3.95	4.45					
21-27	1.96	0.88	47.5	42.0	33.3	29.8	28.6	16.7	14.3	13.4	12.1	0.26	4.50	4.25	4.60					
27-36	0.65							7.5	6.5	5.4	4.3		4.55	4.30	4.60					
36-53	0.31							5.2	4.9	4.4	3.6		4.80	4.45	4.80					
53-70	0.31							5.4	4.6	4.1	3.9		4.85	4.60	4.80					
70-84	0.30							4.8	4.4	3.8	3.7		4.70	4.50	4.70					
84-100	0.25							4.1	3.7	3.3	2.9		4.80	4.50	4.80					
Depth cm	Extractable bases meq/100g				Ex Acid	Base CEC	Base Sat. %	KCl Al+H ECEC meq/100g		Volume - % 2+'' 2-1½		Rock Fragments 1½-1 1-3/4		3/4-½ ½-¼		½-2mm	Total			
0-14	0.6	0.2	<0.1	<0.1	17.8	18.6	4	6.55	7.35	0.0	1.7	2.0	1.7	1.6	3.1	3.5	13.6			
14-21	0.3	0.1	<0.1	<0.1	22.0	22.4	2	5.95	6.35	1.4	0.0	1.2	1.0	2.3	4.8	7.6	18.3			
21-27	0.3	0.1	<0.1	<0.1	17.7	18.1	2	1.65	2.05	0.0	0.6	2.6	2.3	2.2	5.2	9.6	22.5			
27-36	<0.1	<0.1	<0.1	<0.1	8.8	8.8	0	0.95	0.95	2.5	1.0	2.7	3.1	3.6	7.6	14.0	34.5			
36-53	<0.1	<0.1	<0.1	<0.1	4.7	4.7	0	0.55	0.55	15.5	4.7	3.2	2.7	3.3	4.7	11.8	45.9			
53-70	<0.1	<0.1	<0.1	<0.1	4.2	4.2	0	0.35	0.35	11.8	3.5	7.6	5.1	6.3	8.4	13.2	55.9			
70-84	<0.1	<0.1	<0.1	<0.1	5.1	5.1	0	0.45	0.45	7.8	3.4	5.6	5.5	7.9	15.9	21.7	67.8			
84-100	<0.1	<0.1	<0.1	<0.1	3.8	3.8	0	0.30	0.30	2.6	1.3	5.1	3.2	4.7	8.8	15.6	41.3			

Masardis Mapping Unit
Site 2

Location: West Rockport, Knox County, Maine. 1977.

Horizon	Depth (cm)	Description
Ap	0-11	Dark reddish brown (5YR3/2) coarse sandy loam; weak very fine granular structure; very friable; many very fine, common fine and medium roots; abrupt smooth boundary.
Bh	11-23	Dark reddish brown (5YR3/3) gravelly coarse sandy loam; weak very fine granular structure; very friable; many very fine, common fine and medium roots; abrupt smooth boundary.
Bs1	23-42	Brown (7.5YR4/4) very gravelly loamy coarse sand; weak very fine granular structure; very friable; common very fine, few fine and medium roots; abrupt smooth boundary.
Bs2	42-54	Brown (7.5YR4/4) extremely gravelly loamy coarse sand; structureless; loose; common very fine, few fine roots; abrupt smooth boundary.
C1	54-72	Dark grayish brown (2.5Y4/2) very gravelly coarse sand; structureless; loose; few very fine roots, abrupt smooth boundary.
C2	72-81	Dark grayish brown (2.5Y4/2) very gravelly coarse sand; structureless; loose; abrupt smooth boundary.
C3	81-100	Olive brown (2.5Y4/4) mixed with brown (10YR4/3) very gravelly coarse sand; structureless; 60% loose, 40% very firm.

SOIL		Masardis		SOIL Nos.				2		LOCATION		Knox County		
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)			
						Pct. of <2 mm								
0-11	Ap	58.87	34.96	6.17	8.96	19.76	14.17	9.54	6.44	18.25	16.71			
11-23	Bh	64.54	30.18	5.28	13.67	22.63	14.10	8.71	5.43	18.63	11.55			
23-42	Bs1	70.51	28.89	0.54	14.05	26.86	15.50	8.85	5.31	15.23	13.66			
42-54	Bs2	81.41	12.52	6.07	18.22	32.95	16.23	8.73	5.28	9.11	3.41			
54-72	C1	91.46	5.13	3.41	26.11	45.22	12.68	4.65	2.80	3.13	2.00			
72-81	C2	93.93	4.79	1.28	29.59	43.59	12.54	5.74	2.47	1.95	2.84			
81-100	C3	93.25	3.96	2.79	37.82	33.60	13.59	5.69	2.56	2.40	1.56			

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-11	7.68	0.77	52.8	46.6	38.4	37.2	36.3	27.6	25.0	24.3	24.3	0.17	4.45	4.20	4.90
11-23	3.45	0.87	44.5	38.7	28.4	26.1	24.7	17.5	15.9	15.0	13.7	0.22	4.60	4.20	4.90
23-42	1.35	0.99	29.4	32.0	22.8	20.2	19.3	11.6	10.9	10.2	8.9	0.23	4.80	4.70	4.70
42-54	0.62							7.8	7.3	6.7	6.3		5.00	5.00	4.75
54-72	0.22							4.2	3.8	3.4	3.0		5.20	5.10	4.80
72-81	0.15							3.5	3.0	2.8	2.4		5.40	5.20	4.80
81-100	0.14							3.8	3.3	3.0	2.4		5.40	5.30	4.85

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume			- % Rock	Fragments		½-2mm	Total
	Ca	Mg	Na	K								1½-1	1-3/4	3/4-½		½-¼			
0-11	2.7	0.7	<0.1	<0.2	19.6	23.2	16	1.35	4.95	0.0	0.5	1.8	0.9	1.3	1.1	1.4	7.0		
11-23	1.1	0.1	<0.1	<0.1	15.8	17.0	7	1.15	2.35	7.4	2.0	4.0	2.4	2.4	2.1	1.8	22.1		
23-42	0.2	<0.1	<0.1	<0.1	10.3	10.5	2	0.75	0.95	4.3	3.3	9.4	6.4	7.2	5.2	2.6	38.4		
42-54	<0.1	<0.1	<0.1	<0.1	7.8	7.8	0	0.40	0.40	10.7	10.5	14.7	7.9	8.9	5.9	2.8	61.4		
54-72	<0.1	<0.1	<0.1	<0.1	4.3	4.3	0	0.20	0.20	5.1	3.8	7.5	5.6	5.3	3.9	5.9	37.1		
72-81	<0.1	<0.1	<0.1	<0.1	3.3	3.3	0	0.25	0.25	9.8	0.0	2.0	1.7	2.9	10.3	24.0	50.7		
81-100	<0.1	<0.1	<0.1	<0.1	3.4	3.4	0	0.20	0.20	3.8	1.1	4.5	3.8	5.8	12.1	20.5	51.6		

Masardis Mapping Unit
Site 3

Location: Langtown, Plt., Franklin County, Maine. 1977.

Horizon	Depth (cm)	Description
Oi	6-0	Loose leaves, twigs and mosses.
Oa	0-27	Very dark red (2.5YR2.5/2) organic material; weak fine and medium granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt wavy boundary.
E	27-29	Gray (10YR5/1) loam; weak very fine granular structure; very friable; common very fine and fine, few medium roots; abrupt wavy boundary.
Bh	29-34	Dark reddish brown (2.5YR2.5/4) loam; weak very fine granular structure; very friable; many very fine and fine, common medium roots; abrupt wavy boundary.
Bs1	34-48	Yellowish red (5YR4/6) gravelly loamy coarse sand; weak very fine granular structure; very friable; common very fine and fine, few medium roots; abrupt wavy boundary.
Bs2	48-67	Strong brown (7.5YR5/6) very gravelly coarse sand; structureless; loose; few very fine and fine roots; abrupt wavy boundary.
Bs3	67-90	Brown (7.5YR4/4) mixed with very dusky red (2.5YR2.5/2) concretions, gravelly coarse sand; structureless; loose except concretions are friable; few very fine roots; gradual smooth boundary.
BC	90-109	Very dark grayish brown (10YR3/2) and dark yellowish brown (10YR4/4) coarse sand; structureless; loose; abrupt smooth boundary.
C	109-127	Dark olive gray (5Y3/2) very gravelly coarse sand; structureless; loose.

SOIL		Masardis		SOIL Nos.					3		LOCATION		Franklin County				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	Pct. of <2 mm					
0-27	Oa																
27-29	E	64.59	27.51	7.90	8.95	25.12	19.30	7.68	3.54	4.83	22.68						
29-34	Bh	75.05	17.39	7.56	15.10	33.54	19.20	5.28	1.93	4.49	12.90						
34-48	Bs1	83.82	13.82	2.36	16.29	38.40	22.27	5.26	1.60	4.96	8.86						
48-67	Bs2	90.96	7.81	1.23	20.53	42.87	21.40	4.88	1.28	5.27	2.54						
67-90	Bs3	95.70	3.13	1.17	28.22	46.98	17.62	2.42	0.46	1.12	2.01						
90-109	BC	94.12	5.42	0.46	27.64	51.87	13.48	0.99	0.14	4.35	1.07						
109-127	C	97.79	0.78	1.43	33.32	48.33	13.64	2.03	0.47	0.30	0.48						

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H2O cm/cm	pH					
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H2O (1:1)			
0-27	53.48											196.0	134.9	117.8	114.8	2.40	2.40	3.65
27-29	2.47	1.02	2.43	22.4	20.1	18.2	17.4	13.2	10.9	8.4	7.2	0.16	2.40	2.70	4.05			
29-34	2.76	0.95	25.5	23.5	20.3	19.2	18.7	12.6	11.5	10.9	8.9	0.14	3.40	3.20	4.10			
34-48	1.89	0.99	21.4	19.1	15.2	14.2	13.8	9.8	8.6	8.6	7.4	0.12	4.05	4.15	4.70			
48-67	0.97							6.1	6.1	6.0	5.2		4.40	4.55	5.20			
67-90	0.50							5.0	3.7	3.4	3.1		4.60	4.70	5.40			
90-109	0.23							3.7	2.2	2.1	1.6		4.85	5.00	5.80			
109-127	0.19							2.4	2.0	1.9	1.4		4.90	5.10	5.90			

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume		% Rock Fragments			½-2mm	Total
	Ca	Mg	Na	K				Al+H	ECEC	2+"	2-1½	1½-1	1-¾	¾-½	½-¼			
0-27	7.0	1.8	0.1	0.5	51.2	60.6	16	11.80	21.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
27-29	0.3	0.3	<0.1	<0.1	17.6	18.2	3	7.25	7.85	0.0	0.0	1.8	0.0	0.0	0.4	1.1	3.3	
29-34	0.1	0.3	0.1	<0.1	23.9	24.4	2	6.40	6.90	0.0	0.8	1.2	0.5	1.3	1.8	3.0	8.6	
34-48	<0.1	<0.1	<0.1	<0.1	17.7	17.7	0	3.05	3.05	1.5	2.2	4.6	2.6	2.7	3.2	4.4	21.2	
48-67	<0.1	<0.1	<0.1	<0.1	11.5	11.5	0	1.10	1.10	1.9	5.2	8.7	5.3	5.9	6.5	7.1	40.6	
67-90	<0.1	<0.1	<0.1	<0.1	7.8	7.8	0	0.55	0.55	1.5	2.1	1.6	1.8	2.3	4.0	8.1	21.4	
90-109	<0.1	<0.1	<0.1	<0.1	3.2	3.2	0	0.40	0.40	0.0	0.2	0.1	0.4	0.6	2.0	8.2	11.5	
109-127	<0.1	<0.1	<0.1	<0.1	2.7	2.7	0	0.25	0.25	0.5	1.6	2.3	2.4	4.0	9.1	15.6	35.5	

Masardis Mapping Unit
Site 4

Location: Greenville, Piscataquis County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-22	Very dusky red (2.5YR2/2) organic material; weak very fine granular structure; very friable; many very fine, fine and medium, few coarse roots; abrupt wavy boundary.
E	22-28	Grayish brown (10YR5/2) gravelly loam; weak very fine and fine granular structure; very friable; common very fine and fine roots; abrupt wavy boundary.
Bh1	28-42	Dark reddish brown (2.5YR3/4) gravelly loam; weak very fine granular structure; friable; common fine and very fine roots; clear wavy boundary.
Bh2	42-64	Yellowish red (5YR4/6) very gravelly loam; weak very fine and fine granular structure; very friable; common very fine, fine and medium roots; clear wavy boundary.
Bs	64-84	Brown (7.5YR4/4) very gravelly loamy coarse sand; weak very fine granular structure; very friable; common very fine and fine roots; clear wavy boundary.
BC	84-112	Dark yellowish brown (10YR4/4) very gravelly loamy coarse sand; structureless; loose; few very fine and fine roots; clear wavy boundary.
C	112-136	Olive (5Y4/3) very gravelly loamy coarse sand; structureless; loose.

SOIL		Masardis			SOIL Nos.			4			LOCATION			Piscataquis County					
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)								
												Pct. of <2 mm							
0-22	Oa																		
22-28	E	41.69	49.67	8.64	4.86	6.74	5.84	13.75	10.50	22.57	27.10								
28-42	Bh1	41.36	39.49	19.15	8.93	7.44	5.85	11.49	7.65	17.62	21.87								
42-64	Bh2	67.96	23.43	8.61	18.55	15.99	11.17	13.93	8.32	14.32	9.11								
64-84	Bs	79.54	16.98	3.48	33.76	19.79	11.02	10.06	4.91	8.15	8.83								
84-112	BC	80.88	17.46	1.66	29.16	20.62	13.82	12.07	5.21	7.53	9.93								
112-136	C	80.37	18.44	1.19	33.92	21.22	11.92	9.55	3.76	9.49	8.95								
Water Content (Bar Pressures)																			
Depth cm	Organic carbon	BD g/cc	Water Content										Avail. H ₂ O cm/cm	pH					
			.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	KCl (1:1)		CaCl (2:1)	H ₂ O (1:1)				
0-22	46.98																		
22-28	4.50								191.4	121.1	117.7	108.2		2.50	2.90	3.25			
28-42	5.67								19.3	17.2	14.1	12.1		3.70	3.05	3.50			
42-64	4.63								29.1	24.5	23.9	22.4		3.50	3.90	4.45			
64-84	2.65								32.6	25.7	25.3	24.2		4.30	4.35	5.00			
84-112	1.03								17.0	15.0	14.1	13.7		4.60	4.65	5.30			
112-136	0.53								9.8	8.9	8.2	7.4		4.70	4.65	5.85			
									6.8	5.9	5.6	4.1		4.80	5.00	5.80			
Depth cm	Extractable bases				Ex Acid	Base CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ¹¹	2-1 ₂	Volume			Rock Fragments			1/2-2mm	Total
	Ca	Mg	Na meq/100g	K								1-3/4	3/4-1/2	1/2-1/4	1-3/4	3/4-1/2	1/2-1/4		
0.22	18.8	4.8	0.2	0.5	57.2	81.5	30	12.95	37.25	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1		
22-28	1.3	0.5	<0.1	0.1	27.2	29.0	6	17.05	18.85	61.0	0.6	0.6	0.8	1.4	1.2	1.0	66.6		
28-42	0.7	0.4	<0.1	0.1	36.6	37.7	3	2.05	3.15	5.2	1.0	3.0	2.1	2.9	4.3	4.2	22.7		
42-64	0.4	0.2	<0.1	0.1	33.5	34.1	2	3.05	3.65	10.2	4.0	5.8	4.3	6.0	8.2	8.0	46.5		
64-84	0.4	0.3	<0.1	0.1	23.8	25.5	3	1.35	3.05	13.8	4.4	4.0	3.0	3.8	4.9	6.5	40.4		
84-112	0.4	0.3	<0.1	0.1	13.6	14.3	5	0.55	1.25	21.8	9.7	8.7	4.3	4.7	6.7	9.1	65.0		
112-136	0.4	0.2	<0.1	0.1	9.0	9.6	6	0.25	0.85	39.0	4.1	5.3	3.2	4.1	6.5	9.8	72.0		

Masardis Mapping Unit
Site 5

Location: Washburn, Aroostook County, Maine. 1977.

Horizon	Depth (cm)	Description
Oa	0-5	Dark reddish brown (5YR2/2) organic material; weak fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt wavy boundary.
E	5-14	Pinkish gray (7.5YR6/2) loam; weak very thin and thin platy structure; very friable; many very fine and fine, common medium and coarse roots; abrupt broken boundary.
Bh/E	5-34	Pinkish gray (7.5YR6/2) mixed with dark reddish brown (5YR3/4) loam; weak very fine granular structure; very friable; many very fine, fine and common medium roots; clear wavy boundary.
Bs1	34-48	Strong brown (7.5YR5/6) very gravelly coarse sandy loam; weak fine granular structure; very friable; many very fine, common fine and medium roots; abrupt wavy boundary.
Bs2	48-61	Yellowish brown (10YR5/6) very gravelly loamy coarse sand; structureless; loose; common very fine and fine roots; clear wavy boundary.
C1	61-75	Olive (5Y4/3) extremely gravelly loamy coarse sand; structureless; loose; few very fine and fine roots; clear wavy boundary.
C2	75-93	Olive (5Y4/3) very gravelly loamy coarse sand; structureless; loose; clear wavy boundary.
C3	93-100	Olive gray (5Y4/2) extremely gravelly coarse sand; structureless; loose; few very fine and fine roots.

SOIL		Masardis		SOIL Nos.			5		LOCATION				Aroostook County								
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm									
0-5	Oa																				
5-14	E	29.96	54.40	15.64	3.30	6.03	7.04	7.87	5.72	21.58	32.82										
5-34	Bh/E	35.73	45.56	18.71	6.68	9.90	7.76	6.77	4.62	20.22	25.34										
34-48	Bs1	68.75	23.13	8.12	16.11	20.36	17.08	10.46	4.74	11.47	11.66										
48-61	Bs2	80.62	13.57	5.81	19.43	24.45	22.61	10.85	3.28	6.62	6.95										
61-75	C1	85.21	10.18	4.61	26.41	31.82	15.96	8.12	2.90	5.19	4.99										
75-93	C2	83.52	11.22	5.26	23.38	32.66	16.20	7.81	3.47	5.87	5.35										
93-100	C3	87.18	8.77	4.05	29.15	31.61	16.74	7.14	2.54	3.04	5.73										
				Water Content (Bar Pressures)						Avail.		pH									
Depth cm	Organic carbon	BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %	H ₂ O cm/cm	KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)						
0-5	16.26							51.1	41.7	38.4	38.1		3.35	3.40	4.30						
5-14	1.21							16.2	14.0	10.6	6.8		3.05	3.50	4.35						
5-34	3.22							24.9	23.6	20.8	17.1		3.75	4.05	4.50						
34-48	2.22							15.7	14.7	14.0	12.0		4.45	4.50	4.90						
48-61	1.06							9.5	8.8	8.5	7.3		4.40	4.50	5.10						
61-75	0.56							7.4	7.0	6.4	5.1		4.50	4.60	5.10						
75-93	0.36							6.6	6.2	5.5	4.7		4.50	4.70	5.40						
93-100	0.31							6.0	5.5	5.0	4.2		4.40	4.60	5.50						
		Extractable bases		Ex		Base		KCl		Volume		% Rock		Fragments							
Depth cm	Ca	Mg	Na	K	Acid	CEC	Sat. %	Al+H meq/100g	ECEC	2+ ["]	2-1½	1½-1	1-¾	¾-½	½-¼	¼-2mm	Total				
0-5	0.6	1.4	<0.1	0.6	35.3	37.9	7	9.15	11.75	0.0	0.0	0.0	0.0	0.2	0.7	0.9	1.8				
5-14	1.0	0.3	<0.1	<0.1	16.4	17.7	7	10.75	12.05	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.7				
5-34	1.3	0.3	<0.1	0.1	26.3	28.0	6	9.85	11.55	0.0	0.4	1.7	1.3	2.1	3.9	3.8	13.2				
34-48	0.2	0.1	<0.1	<0.1	20.1	20.4	2	2.30	2.60	5.3	3.9	6.0	6.1	7.6	10.2	8.2	47.3				
48-61	<0.1	<0.1	<0.1	<0.1	12.3	12.3	0	1.50	1.50	9.4	8.0	7.7	5.0	6.5	10.1	9.4	56.1				
61-75	<0.1	<0.1	<0.1	<0.1	8.1	8.1	0	1.10	1.10	15.2	7.7	8.7	7.3	7.6	11.8	13.1	71.4				
75-93	<0.1	<0.1	<0.1	<0.1	6.4	6.4	0	1.15	1.15	11.7	8.0	7.4	4.6	6.4	9.6	10.7	58.4				
93-100	0.1	0.1	<0.1	<0.1	6.0	6.2	3	0.95	1.15	17.3	7.1	11.6	8.1	9.2	11.7	14.0	79.0				

Naumburg Mapping Unit
Site 1

Location: Bremen, Lincoln County, Maine. 1978.

Horizon	Depth (cm)	Description
Oa	0-8	Dark reddish brown (5YR2.5/2) organic material; weak fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt wavy boundary.
E	8-23	Grayish brown (10YR5/2) sandy loam; common medium and coarse prominent dark reddish brown (5YR3/4) and brown (7.5YR4/4) mottles; weak thick platy structure; very friable; many very fine and fine, common medium roots; abrupt smooth boundary.
Bh	23-42	Dark brown (7.5YR3/2) sand; common medium faint dark brown (7.5YR3/2) with common medium faint brown (7.5YR4/2), prominent reddish brown (5YR4/4) and coarse prominent brown (10YR5/3) mottles; weak thick platy structure; very friable; few very fine and fine, common medium and coarse roots; abrupt smooth boundary.
Bs1	42-45	Dark yellowish brown (10YR4/4) sand; common coarse prominent dark reddish brown (5YR3/2) and medium and coarse distinct grayish brown (10YR5/2) mottles; structureless; firm; abrupt smooth boundary.
Bs2	45-63	Dark brown (10YR4/3) sand; common medium, medium prominent reddish brown (5YR4/4) and distinct yellowish brown (10YR5/4) mottles; structureless; firm; gradual smooth boundary.
BC	63-78	Olive brown (2.5Y4/4) sand; common coarse prominent dark yellowish brown (10YR4/6) mottles; structureless; nonplastic, nonsticky; gradual smooth boundary.
C	78-100	Dark grayish brown (2.5Y4/2) sand; many medium and coarse prominent dark yellowish brown (10YR4/6) mottles; structureless; nonplastic, nonsticky.

SOIL	Naumburg	SOIL Nos. 1						LOCATION Lincoln County, Maine				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	
Pct. of <2 mm												
0-8	Oa											
8-23	E	74.16	20.28	5.56	0.97	7.87	27.84	32.71	5.37	11.20	9.08	
23-42	Bh	90.26	8.49	1.25	2.87	13.60	40.30	29.74	3.75	4.74	3.75	
42-45	Bs1	94.60	3.67	1.73	2.80	15.68	36.06	35.76	4.30	2.92	0.75	
45-63	Bs2	96.09	0.71	3.20	3.37	21.68	48.52	20.30	2.22	0.10	0.61	
63-78	BC	96.39	3.23	0.38	0.43	4.70	61.04	28.78	1.44	2.03	1.20	
78-100	C	96.45	3.14	0.41	2.21	5.59	47.38	39.24	2.03	0.73	2.41	

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH KC1 (1:1)	pH CaCl (2:1)	H ₂ O (1:1)
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %				
0-8	18.02							65.0	48.3	47.4	46.8		3.65	3.55	4.00
8-23	1.26	1.41	21.3	15.9	13.6	11.6	10.1	7.8	6.2	5.4	5.0	0.15	4.00	4.05	4.55
23-42	0.71	1.39	16.7	13.3	11.4	11.1	10.0	4.6	3.9	3.5	2.9	0.14	4.30	4.45	5.00
42-45	0.59	1.44	16.4	14.1	12.0	10.8	9.4	4.4	3.6	3.5	3.0	0.16	4.65	4.45	5.30
45-63	0.45	1.50	13.0	11.2	10.6	9.6	9.2	4.1	3.2	3.2	2.8	0.13	4.70	4.50	5.40
63-78	0.28	1.46	14.7	11.6	10.5	10.3	10.0	4.6	2.2	2.1	1.9	0.14	4.80	4.65	5.60
78-100	0.27	1.50	14.0	12.0	11.1	10.6	9.9	4.5	2.2	2.1	1.8	0.15	4.85	4.70	5.50

Depth cm	Extractable bases			Ex Acid	Base CEC	Base Sat. %	KC1 Al+H meq/100g	ECEC	2+ "	2-1½	Volume - % Rock Fragments				½-2mm	Total
	Ca	Mg	Na meq/100g								1½-1	1-¾	¾-½	½-¼		
0-8	2.3	1.3	0.4	1.0	38.6	43.6	11	9.15	14.15	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8-23	0.2	<0.1	0.1	0.1	7.8	8.0	2	2.30	2.50	0.0	0.0	0.1	0.1	0.1	0.1	0.5
23-42	0.2	<0.1	0.1	0.1	7.3	7.5	3	1.35	1.55	0.7	0.0	0.0	0.1	0.2	0.4	1.4
42-45	0.2	<0.1	0.1	0.1	8.2	8.4	2	0.95	1.15	0.0	0.0	0.0	0.0	0.0	0.3	1.4
45-63	0.1	<0.1	0.1	0.1	7.1	7.2	1	0.80	0.90	0.0	0.0	0.0	0.0	0.1	0.6	0.6
63-78	<0.1	<0.1	0.1	0.1	4.5	4.5	0	0.40	0.40	0.0	0.0	0.0	0.0	0.1	0.2	3.0
78-100	<0.1	<0.1	0.1	0.1	4.3	4.3	0	0.50	0.50	3.6	1.1	0.5	0.3	0.4	1.0	8.5

Naumburg Mapping Unit
Site 2

Location: Scarborough, Cumberland County, Maine. 1978.

Horizon	Depth (cm)	Description
Oa	0-7	Black (5YR2.5/1) organic material; weak fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt smooth boundary.
E	7-20	Light gray (10YR7/1) loamy coarse sand; common medium faint light brownish gray (10YR6/2) mottles; weak medium platy structure; very friable; common very fine, fine, medium and coarse roots; abrupt wavy boundary.
Bh	20-33	Very dusky red (2.5YR2.5/2) and very dusky red (10R2.5/2) and dark brown (10YR4/3) coarse sand; weak medium platy structure; friable; few fine, very fine, medium and coarse roots; 10% firm concretions; abrupt smooth boundary.
Bs1	33-45	Strong brown (7.5YR5/6) coarse sand; very dusky red (2.5YR2.5/2) and common medium prominent yellowish red (5YR4/6) and brownish yellow (10YR6/6) mottles; weak medium and thin platy structure; firm; few very fine and fine roots; very firm concretions; clear wavy boundary.
Bs2	45-69	Brownish yellow (10YR6/6) coarse sand; very dusky red (2.5YR2.5/2) and common medium distinct light gray (10YR7/2) and few fine distinct strong brown (7.5YR5/6) mottles; moderate thin platy structure with 30% of areas structureless; firm; few very fine roots; extremely firm concretions; clear wavy boundary.
BC	69-89	Yellowish brown (10YR5/4) coarse sand; common medium distinct light brownish gray (10YR6/2) and many coarse prominent reddish brown (5YR4/4) mottles; structureless; loose; few very fine roots; gradual wavy boundary.
C	89-100	Yellowish brown (10YR5/4) fine sand; common coarse faint pale brown (10YR6/3) mottles; structureless; loose; few very fine roots.

SOIL Naumburg SOIL Nos. 2 LOCATION Cumberland County

Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)
0-7	Oa										
7-20	E	85.19	11.53	3.28	14.56	21.26	22.04	23.47	3.86	4.59	6.94
20-33	Bh	87.16	8.24	4.60	19.75	22.91	21.66	20.73	2.11	3.40	4.84
33-45	Bs1	96.03	2.83	1.14	11.79	19.40	44.95	17.14	2.75	0.43	2.40
45-69	Bs2	97.26	1.39	1.35	10.67	18.30	48.50	19.03	0.76	0.26	1.13
69-89	BC	96.46	2.67	0.87	20.13	31.89	31.97	11.37	1.10	1.85	0.82
89-100	C	98.16	1.80	0.04	3.01	6.89	35.25	49.46	3.55	0.68	1.12

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH					
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)			
0-7	28.48																	
7-20	0.85	1.31	29.9	20.7	15.0	13.4	10.9	6.8	5.4	5.3	5.2	0.20	3.10	3.25	4.10			
20-33	2.76	1.14	29.6	20.8	16.9	16.4	16.1	12.8	8.6	8.5	8.4	0.14	4.10	4.15	5.10			
33-45	1.33	1.33	23.1	16.7	14.9	14.0	12.8	9.6	6.5	6.1	5.9	0.14	4.50	4.50	5.35			
45-69	0.42	1.58	19.3	13.0	11.0	10.8	9.2	6.2	2.8	2.6	2.5	0.16	4.65	4.70	5.30			
69-89	0.33	1.52	14.3	7.9	5.6	5.4	4.5	2.1	2.0	1.8	1.5	0.10	4.50	4.70	5.25			
89-100	0.22	1.47	15.5	7.9	6.9	6.4	5.6	3.7	1.6	1.4	1.4	0.10	4.20	4.60	5.50			

Depth cm	Extractable bases		K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume - % Rock			Fragments		½-2mm	Total
	Ca	Mg									Na	1½-1	1-3/4	3/4-½	½-¼		
0-7	1.4	1.4	0.3	1.6	39.0	43.7	11	7.00	11.70	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
7-20	<0.1	0.1	<0.1	<0.1	4.1	4.2	2	1.55	1.65	0.0	0.0	0.0	0.0	<0.1	1.1	3.8	4.9
20-33	0.1	<0.1	<0.1	<0.1	21.8	21.9	<1	2.25	2.35	0.0	0.0	0.0	0.0	0.3	3.8	9.9	14.0
33-45	<0.1	<0.1	<0.1	<0.1	15.0	15.0	0	1.20	1.20	0.0	0.0	0.0	0.1	0.3	3.6	6.5	10.5
45-69	<0.1	<0.1	<0.1	<0.1	6.7	6.7	0	0.55	0.55	0.0	0.0	0.0	0.0	<0.1	1.4	4.0	5.4
69-89	<0.1	<0.1	<0.1	<0.1	4.3	4.3	0	0.55	0.55	0.0	0.0	0.0	0.0	<0.1	1.0	7.6	8.6
89-100	<0.1	<0.1	<0.1	<0.1	2.9	2.9	0	0.60	0.60	0.0	0.0	0.0	0.0	0.1	1.7	2.6	4.4

Naumburg Mapping Unit
Site 3

Location: Oxford, Oxford County, Maine. 1978.

Horizon	Depth (cm)	Description
Oa1	0-5	Very dusky red (2.5YR2.5/2) organic material; weak fine granular and thin platy structure; very friable; many very fine, fine and medium, few common roots; abrupt smooth boundary.
Oa2	5-10	Black (N2.5/0) organic material; weak fine granular and thin platy structure; very friable; many very fine, fine and medium, few common roots; abrupt wavy boundary.
E/B	10-20	Pinkish gray (7.5YR6/2) with reddish gray (5YR5/2) coarse sand; weak medium, thick platy structure; very friable; many very fine and fine, common medium roots; clear wavy boundary.
Bh1	20-34	Reddish black (10R2.5/1) with reddish gray (5YR5/2) coarse sand; weak medium, thick platy structure; friable with few firm concretions; few very fine and fine roots; abrupt smooth boundary.
Bh2	34-40	Dark reddish brown (2.5YR2.5/4) sand; weak medium and thick platy structure; friable; few very fine and fine roots; abrupt wavy boundary.
Bh3	40-46	Dark reddish brown (5YR3/3) and (5YR3/2) sand; weak medium, thin platy structure; friable; few very fine and fine roots; abrupt wavy boundary.
BC	46-53	Dark reddish brown (5YR3/3) fine sand; common medium prominent pale brown (10YR6/3) mottles; structureless; friable; abrupt wavy boundary.
C	53-100	Brown (10YR5/3) fine sand; dark reddish brown (5YR3/2) lenses and few medium prominent reddish brown (5YR4/4) and common distinct light brownish gray (2.5Y6/2) mottles; structureless; friable.

SOIL		Naumburg		SOIL Nos.		3		LOCATION		Oxford County								
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)							
Pct. of <2 mm																		
0-5	Oa1																	
5-10	Oa2																	
10-20	E/B	84.99	9.04	5.97	6.14	15.35	27.30	28.57	7.63	7.44	1.60							
20-34	Bh1	92.05	2.99	4.69	3.43	21.85	37.47	25.02	4.28	0.60	2.39							
34-40	Bh2	92.70	5.91	1.39	4.07	13.54	37.47	32.74	4.88	2.45	3.46							
40-46	Bh3	92.59	3.02	4.39	4.08	13.03	32.23	35.45	7.80	1.43	1.59							
46-53	BC	93.50	4.94	1.56	0.91	5.32	25.15	53.15	8.97	4.14	0.80							
53-100	C	94.59	3.82	1.59	0.29	2.59	21.43	59.77	10.51	1.75	2.07							
Depth cm	Organic carbon	BD g/cc	.06 %	Water Content % .1	.33 %	(Bar Pressures) .67 %	1 %	2 %	3 %	5 %	15 %	Avail. H ₂ O cm/cm	pH KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)			
0-5	38.30							252.3	140.8	140.3	137.4		3.45	3.75	4.50			
5-10	22.87							106.7	52.5	47.3	46.4		3.00	3.25	4.15			
10-20	1.66	1.41	32.2	21.3	15.7	14.2	12.5	8.9	7.4	6.2	5.8	0.22	3.65	4.00	4.75			
20-34	3.14	1.07	42.3	34.1	30.0	28.1	27.4	14.9	11.1	9.5	8.2	0.28	3.95	4.20	5.10			
34-40	1.91	1.25	30.4	19.8	16.3	15.1	13.9	9.1	7.4	6.6	5.4	0.18	4.00	4.30	5.30			
40-46	1.13	1.37	23.8	14.9	11.0	9.2	7.8	7.3	5.7	4.9	4.0	0.15	4.10	4.45	5.30			
46-53	0.84	1.49	26.3	20.0	12.6	11.6	9.8	8.4	4.7	4.1	3.4	0.25	4.20	4.50	5.40			
53-100	0.23	1.53	24.9	16.8	9.4	8.8	7.6	4.7	2.0	1.3	1.1	0.24	4.50	4.30	5.70			
Depth cm	Extractable bases meq/100g		Na	K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ¹¹	2-1 ¹²	1 ¹³ -1	Volume - % Rock 1-3/4	3/4- ¹⁴ ₂	1 ¹⁵ - ¹⁶ ₂	Fragments 1 ¹⁷ - ¹⁸ ₂	1 ¹⁹ -2mm	Total
0-5	5.0	2.0	0.3	1.8	37.2	46.3	20	15.40	24.50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-10	1.0	0.8	0.2	0.8	38.0	40.8	7	11.65	14.45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	Trace
10-20	0.1	<0.1	<0.1	<0.1	9.4	9.5	1	2.90	3.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.8	0.9
20-34	0.2	<0.1	<0.1	<0.1	23.6	23.8	1	2.85	3.05	0.0	0.0	0.0	0.0	0.0	0.0	<0.1	1.0	Trace
34-40	0.2	<0.1	<0.1	<0.1	20.2	20.4	1	1.90	2.10	0.0	0.0	0.0	0.0	0.0	<0.1	1.0	1.0	
40-46	0.1	<0.1	<0.1	<0.1	15.0	15.1	1	1.50	1.60	0.0	0.0	0.0	0.0	0.0	0.1	3.2	3.3	
46-53	<0.1	<0.1	<0.1	<0.1	10.7	10.7	0	1.15	1.15	0.0	0.0	0.0	0.0	0.0	<0.1	0.5	0.5	
53-100	<0.1	<0.1	<0.1	<0.1	3.5	3.5	0	0.50	0.50	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	Trace	

Naumburg Mapping Unit
Site 4

Location: Brunswick, Cumberland County, Maine. 1978.

Horizon	Depth (cm)	Description
Oa	0-10	Dark reddish brown (5YR2.5/2) organic material; weak very fine granular structure; very friable; many very fine, common fine and medium, few coarse roots; abrupt wavy boundary.
E	10-21	Pinkish gray (7.5YR6/2) loamy sand; weak thick platy structure; very friable; common very fine, fine and few medium roots; abrupt wavy boundary.
Bh	21-35	Dusky red (2.5YR3/2) with yellowish red (5YR5/8) and dark reddish gray (5YR4/2) sand; strong coarse platy structure; firm; few very fine and fine roots; abrupt wavy boundary.
Bs1	35-46	Yellowish brown (10YR5/6) with dark reddish brown (2.5YR2.5/4) sand; few medium prominent light gray (10YR7/2) mottles; weak coarse and very coarse platy structure; friable; clear smooth boundary.
Bs2	46-55	Yellowish brown (10YR5/4) sand; common medium distinct light gray (10YR7/2) and prominent yellowish red (5YR5/8) mottles; weak thin and medium platy structure; very friable; clear smooth boundary.
Bs3	55-78	Yellowish brown (10YR5/6) sand; common medium distinct light gray (10YR7/2) mottles and common prominent dark red (2.5YR3/6) streaks; structureless; very friable; clear smooth boundary.
C	78-100	Yellowish brown (10YR5/4) sand; common medium distinct grayish brown (2.5Y5/2) mottles and common prominent dark red (2.5YR3/6) and dark reddish brown (2.5YR3/4) streaks; structureless; very friable.

SOIL		Naumburg				SOIL Nos. 4				LOCATION Cumberland County									
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)								
												Pct. of <2 mm							
0-10	Oa																		
10-21	E	77.98	18.61	3.41	4.94	15.72	35.49	16.49	5.34	11.38	7.23								
21-35	Bh	90.52	5.71	3.77	3.30	16.89	52.55	15.29	2.49	2.93	2.78								
35-46	Bs1	97.06	2.75	0.19	1.09	22.14	58.44	14.42	0.97	0.49	2.26								
46-55	Bs2	98.31	0.48	1.21	1.21	17.05	64.30	15.06	0.69	0.04	0.44								
55-78	Bs3	98.61	0.82	0.57	0.50	13.84	71.31	12.58	0.38	0.05	0.77								
78-100	C	98.93	0.74	0.33	0.47	9.50	76.71	12.11	0.14	0.12	0.62								

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH	H ₂ O (1:1)	
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %				
0-10	27.50							115.0	79.3	66.0	63.6		3.15	3.10	3.95
10-21	1.78	1.44	22.0	19.8	14.6	13.7	12.9	9.4	7.3	6.0	5.9	0.20	3.40	3.35	4.30
21-35	1.70	1.11	27.1	24.8	22.8	22.7	22.6	7.6	6.8	5.8	5.5	0.21	4.10	4.00	5.05
35-46	0.51	1.44	10.9	10.2	9.0	8.8	8.4	3.6	3.2	2.8	2.4	0.11	4.50	4.35	5.30
46-55	0.21	1.52	10.0	9.5	8.2	7.6	7.4	3.7	1.8	1.6	1.3	0.12	4.50	4.50	5.30
55-78	0.21	1.51	9.5	8.9	8.2	7.4	6.8	2.0	1.5	1.4	1.3	0.11	4.50	4.55	5.40
78-100	0.11	1.59	6.9	6.3	5.3	5.1	4.9	1.4	1.2	1.2	1.0	0.08	4.70	4.65	5.70

Depth cm	Extractable bases			Ex Acid	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ¹¹	2-1 $\frac{1}{2}$	Volume 1 $\frac{1}{2}$ -1	- % Rock Fragments			1 $\frac{1}{2}$ -2mm	Total		
	Ca	Mg	Na meq/100g								1-3/4	3/4-1 $\frac{1}{2}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$				
0-10	1.0	1.0	0.2	0.9	43.8	46.9	7	12.05	15.15	0.0	0.0	0.0	0.0	0.0	<0.1	0.1	0.1
10-21	0.1	<0.1	<0.1	<0.1	7.5	7.6	1	3.10	3.20	0.0	0.0	0.0	0.0	0.0	0.1	1.2	1.3
21-35	<0.1	<0.1	<0.1	<0.1	16.6	16.6	0	2.00	2.00	0.0	0.0	<0.1	0.0	<0.1	<0.1	0.8	0.8
35-46	<0.1	<0.1	<0.1	<0.1	7.7	7.7	0	0.70	0.70	0.0	0.0	0.0	0.0	<0.1	<0.1	0.1	0.1
46-55	<0.1	<0.1	<0.1	<0.1	3.3	3.3	0	0.40	0.40	0.0	0.0	0.0	0.0	<0.1	<0.1	0.3	0.3
55-78	<0.1	<0.1	<0.1	<0.1	2.8	2.8	0	0.30	0.30	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	Trace
78-100	<0.1	<0.1	<0.1	<0.1	2.2	2.2	0	0.30	0.30	0.0	0.0	0.0	0.0	0.0	<0.1	<0.1	Trace

Naumburg Mapping Unit
Site 5

Location: Rockland, Knox County, Maine. 1978.

Horizon	Depth (cm)	Description
Ap1	0-15	Black (5YR2.5/1) sandy loam; few medium prominent dark red (10R3/6) and common coarse prominent reddish gray (5YR5/2) mottles; weak thin platy structure; friable; many very fine, common fine roots; clear smooth boundary.
Ap2	15-27	Dark brown (7.5YR3/2) fine sandy loam; common medium distinct reddish brown (5YR4/4) and few fine distinct reddish gray (5YR5/2) mottles; structureless; friable; common very fine and few fine roots; clear smooth boundary.
E	27-34	Reddish gray (5YR5/2) with dark brown (7.5YR3/2) fine sandy loam; common medium distinct reddish brown (5YR4/4) mottles; structureless; friable; common very fine roots; abrupt smooth boundary.
Bh	34-47	Dark brown (7.5YR3/2) loamy fine sand; common coarse prominent weak red (2.5YR5/2) and few medium distinct reddish brown (5YR4/4) mottles; structureless; very friable; few very fine roots; clear smooth boundary.
Bs	47-52	Dark yellowish brown (10YR3/4) loamy fine sand; common medium and coarse distinct grayish brown (10YR5/2) and common coarse prominent yellowish red (5YR4/6) mottles; weak thin platy structure; very friable; few very fine roots; clear smooth boundary.
BC	52-85	Olive gray (5Y5/2) loamy fine sand; common coarse prominent yellowish red (5YR4/6) and strong brown (7.5YR5/6) mottles; weak thick platy structure; very friable; abrupt wavy boundary.
C	85-100	Gray (5Y5/1) loamy fine sand; common coarse prominent strong brown (7.5YR5/8) mottles; structureless; very friable.

SOIL		Naumburg				SOIL Nos.		5		LOCATION		Knox County			
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)				
												Pct. of <2 mm			
0-15	Ap1	71.70	16.50	11.80	2.13	8.93	25.60	28.36	6.68	6.80	9.70				
15-27	Ap2	73.74	18.10	8.16	2.90	7.67	23.14	31.84	8.19	7.97	10.13				
27-34	E	76.06	16.08	7.86	1.51	6.33	20.08	35.98	12.16	7.83	8.25				
34-47	Bh	80.03	15.90	4.07	0.67	2.23	13.13	43.62	20.38	10.96	4.94				
47-52	Bs	73.31	18.65	3.04	0.32	1.52	11.91	43.37	21.19	13.87	4.78				
52-85	BC	84.84	11.72	2.44	1.04	2.55	13.51	50.43	18.31	6.28	5.44				
85-100	C	82.41	10.48	7.11	1.68	4.58	21.17	41.92	13.06	2.55	7.93				

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H O (1:1)
0-15	3.25	1.30	36.1	35.3	31.7	30.8	30.3	16.8	13.3	11.9	11.3	0.31	5.25	5.70	6.10
15-27	1.56	1.51	27.0	26.8	24.0	23.0	18.3	10.6	7.9	7.2	6.7	0.30	4.85	5.35	6.00
27-34	1.14	1.47	25.0	23.5	18.9	18.6	17.3	8.4	6.7	6.0	5.5	0.26	5.10	5.40	6.10
34-47	0.66	1.51	23.5	19.4	13.1	11.8	10.2	5.7	4.5	4.1	3.4	0.24	5.30	5.70	6.35
47-52	0.69	1.35	25.1	20.2	13.7	12.3	10.9	7.5	4.8	4.3	3.7	0.22	5.40	5.70	6.50
52-85	0.31	1.54	20.4	14.8	9.0	8.0	7.0	7.0	3.8	2.9	2.4	0.19	5.15	5.50	6.45
85-100	0.14	1.66	16.4	13.8	10.0	8.6	7.0	5.9	4.0	3.0	2.1	0.19	4.85	5.40	6.25

Depth cm	Extractable bases		Na meq/100g	K	Ex Acid	CEC	Base Sat. %	KCl		2+''	2-1½	Volume - % Rock Fragments				½-2mm	Total
	Ca	Mg						Al+H	ECEC			1½-1	1-3/4	3/4-½	½-¼		
0-15	8.1	0.2	0.1	<0.1	6.6	15.0	56	0.25	8.65	0.0	0.0	0.0	<0.1	<0.1	0.2	1.0	1.2
15-27	3.2	0.1	<0.1	<0.1	5.1	8.4	39	0.20	3.50	0.0	0.0	0.3	0.0	<0.1	0.2	1.0	1.5
27-34	2.7	<0.1	<0.1	<0.1	3.5	6.2	44	0.20	2.90	0.0	0.0	0.0	0.0	0.0	0.4	2.7	3.1
34-47	2.3	<0.1	<0.1	<0.1	5.2	7.5	31	0.20	2.50	0.0	0.0	0.0	0.0	<0.1	0.2	1.2	1.4
47-52	2.2	<0.1	<0.1	<0.1	7.0	9.2	24	0.20	2.40	0.0	0.0	0.0	0.0	<0.1	0.5	1.1	1.6
52-85	0.7	<0.1	<0.1	<0.1	4.5	5.2	13	0.30	1.00	0.0	0.5	<0.1	0.1	0.2	0.4	1.0	2.2
85-100	0.4	<0.1	<0.1	<0.1	2.8	3.2	12	0.35	0.75	0.0	0.0	0.3	<0.1	0.2	0.3	0.5	1.3

Skerry Mapping Unit
Site 1

Location: Sumner, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Oa	0-4	Very dusky red (2.5YR2.5/2) organic material; moderate medium granular structure; very friable; many very fine and fine roots; abrupt smooth boundary.
A	4-16	Very dark grayish brown (10YR3/2) sandy loam; moderate medium and fine granular structure; very friable; many very fine, fine and medium, few coarse roots; abrupt irregular boundary.
Bs1	16-21	Dark yellowish brown (10YR4/4) gravelly sandy loam; moderate medium granular structure; friable; many very fine and fine, common coarse roots; clear broken boundary.
Bs2	21-32	Yellowish brown (10YR5/4) sandy loam; moderate fine and medium granular structure; friable; common very fine, fine and medium roots; clear wavy boundary.
BC1	32-41	Light olive brown (2.5Y5/4) sandy loam; moderate fine granular structure; friable; common very fine, fine and medium roots; clear wavy boundary.
BC2	41-52	Light olive brown (2.5Y5/4) fine sandy loam; moderate thin and medium platy structure; friable; common very fine, few fine roots; clear wavy boundary.
BC3	52-78	Dark grayish brown (2.5Y4/2) sandy loam; common medium distinct light gray (10YR6/1) mottles; moderate thin and medium platy structure; friable; few very fine, fine and medium roots; clear wavy boundary.
Cr	78-100	Dark grayish brown (2.5Y4/2) fine sandy loam; common medium distinct light gray (10YR6/1) and few medium prominent reddish brown (2.5YR4/4) mottles; moderate thin and medium platy structure; very firm.

SOIL		Skerry																																																																																													
		SOIL Nos.					1					LOCATION Oxford County																																																																																			
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)																																																																																				
												Pct. of <2 mm																																																																																			
0-4	Oa											4-16	A	58.08	32.57	9.35	6.43	11.07	14.91	18.53	7.14	13.43	19.14	16-21	Bs1	53.79	39.50	6.70	6.81	9.56	13.96	16.60	6.86	20.76	18.74	21-32	Bs2	59.25	35.66	5.09	6.56	11.08	15.83	18.69	7.09	15.48	20.18	32-41	BC1	58.60	38.94	2.46	6.60	11.78	15.34	18.04	6.83	15.79	23.15	41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45
4-16	A	58.08	32.57	9.35	6.43	11.07	14.91	18.53	7.14	13.43	19.14	16-21	Bs1	53.79	39.50	6.70	6.81	9.56	13.96	16.60	6.86	20.76	18.74	21-32	Bs2	59.25	35.66	5.09	6.56	11.08	15.83	18.69	7.09	15.48	20.18	32-41	BC1	58.60	38.94	2.46	6.60	11.78	15.34	18.04	6.83	15.79	23.15	41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45												
16-21	Bs1	53.79	39.50	6.70	6.81	9.56	13.96	16.60	6.86	20.76	18.74	21-32	Bs2	59.25	35.66	5.09	6.56	11.08	15.83	18.69	7.09	15.48	20.18	32-41	BC1	58.60	38.94	2.46	6.60	11.78	15.34	18.04	6.83	15.79	23.15	41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																								
21-32	Bs2	59.25	35.66	5.09	6.56	11.08	15.83	18.69	7.09	15.48	20.18	32-41	BC1	58.60	38.94	2.46	6.60	11.78	15.34	18.04	6.83	15.79	23.15	41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																																				
32-41	BC1	58.60	38.94	2.46	6.60	11.78	15.34	18.04	6.83	15.79	23.15	41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																																																
41-52	BC2	54.55	39.99	5.45	5.83	9.94	13.74	17.54	7.50	16.25	23.74	52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																																																												
52-78	BC3	64.36	32.82	2.83	8.85	13.68	16.04	18.34	7.45	12.59	20.23	78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																																																																								
78-100	Cr	61.98	35.39	2.62	5.06	8.95	13.68	23.02	11.27	19.94	15.45																																																																																				

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH																																																																																																																																		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)																																																																																																																																
0-4																		4-16	7.33	0.45	96.0	83.4	77.7	76.8	75.7	28.3	27.1	23.0	21.7	0.28	4.05	4.40	5.00			16-21	4.01	0.71	64.1	52.2	39.2	36.7	35.4	19.2	17.6	16.4	15.4	0.26	4.35	4.65	5.20			21-32	1.80	0.99	41.3	35.5	26.3	22.8	21.3	14.8	12.0	10.2	9.1	0.26	4.35	5.20	5.50			32-41	1.00	1.09	34.8	30.5	23.9	20.6	18.7	12.7	10.4	8.2	6.6	0.26	4.45	5.35	5.65			41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65		
4-16	7.33	0.45	96.0	83.4	77.7	76.8	75.7	28.3	27.1	23.0	21.7	0.28	4.05	4.40	5.00			16-21	4.01	0.71	64.1	52.2	39.2	36.7	35.4	19.2	17.6	16.4	15.4	0.26	4.35	4.65	5.20			21-32	1.80	0.99	41.3	35.5	26.3	22.8	21.3	14.8	12.0	10.2	9.1	0.26	4.35	5.20	5.50			32-41	1.00	1.09	34.8	30.5	23.9	20.6	18.7	12.7	10.4	8.2	6.6	0.26	4.45	5.35	5.65			41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																				
16-21	4.01	0.71	64.1	52.2	39.2	36.7	35.4	19.2	17.6	16.4	15.4	0.26	4.35	4.65	5.20			21-32	1.80	0.99	41.3	35.5	26.3	22.8	21.3	14.8	12.0	10.2	9.1	0.26	4.35	5.20	5.50			32-41	1.00	1.09	34.8	30.5	23.9	20.6	18.7	12.7	10.4	8.2	6.6	0.26	4.45	5.35	5.65			41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																						
21-32	1.80	0.99	41.3	35.5	26.3	22.8	21.3	14.8	12.0	10.2	9.1	0.26	4.35	5.20	5.50			32-41	1.00	1.09	34.8	30.5	23.9	20.6	18.7	12.7	10.4	8.2	6.6	0.26	4.45	5.35	5.65			41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																																								
32-41	1.00	1.09	34.8	30.5	23.9	20.6	18.7	12.7	10.4	8.2	6.6	0.26	4.45	5.35	5.65			41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																																																										
41-52	0.88	1.24	34.0	31.0	25.8	22.7	20.5	12.6	10.2	7.6	6.6	0.30	4.45	5.45	5.80			52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																																																																												
52-78	0.39	1.36	27.8	26.0	22.4	18.8	16.8	9.2	7.6	5.2	3.7	0.30	4.45	5.60	5.85			78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																																																																																														
78-100	0.09	1.71	18.6	17.0	14.8	12.4	11.2	6.7	5.4	4.3	2.7	0.24	4.55	5.85	6.65																																																																																																																																

Depth cm	Extractable bases				Ex Acid	CEC	Base Sat. %	KCl				Volume - % Rock Fragments					Total																																																																																																																																						
	Ca	Mg	Na	K				Al+H	ECEC	2+''	2-1½	1½-1	1-3/4	3/4-½	½-¼	¼-2mm																																																																																																																																							
0-4																			4-16	1.1	0.3	<0.1	0.8	27.9	30.1	7	3.80	6.00	0.0	0.0	0.4	0.5	0.4	0.6	0.9	2.8		16-21	0.4	0.1	<0.1	0.4	19.1	20.0	4	2.25	3.15	17.2	0.0	2.2	1.6	1.7	2.5	5.3	30.5		21-32	0.2	<0.1	<0.1	0.1	12.3	12.6	2	1.30	1.60	2.8	1.1	1.7	0.5	1.0	2.5	4.4	14.0		32-41	0.2	<0.1	<0.1	<0.1	10.2	10.4	2	0.80	1.00	0.0	0.5	1.9	0.5	0.9	2.2	3.7	9.7		41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7	
4-16	1.1	0.3	<0.1	0.8	27.9	30.1	7	3.80	6.00	0.0	0.0	0.4	0.5	0.4	0.6	0.9	2.8		16-21	0.4	0.1	<0.1	0.4	19.1	20.0	4	2.25	3.15	17.2	0.0	2.2	1.6	1.7	2.5	5.3	30.5		21-32	0.2	<0.1	<0.1	0.1	12.3	12.6	2	1.30	1.60	2.8	1.1	1.7	0.5	1.0	2.5	4.4	14.0		32-41	0.2	<0.1	<0.1	<0.1	10.2	10.4	2	0.80	1.00	0.0	0.5	1.9	0.5	0.9	2.2	3.7	9.7		41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																				
16-21	0.4	0.1	<0.1	0.4	19.1	20.0	4	2.25	3.15	17.2	0.0	2.2	1.6	1.7	2.5	5.3	30.5		21-32	0.2	<0.1	<0.1	0.1	12.3	12.6	2	1.30	1.60	2.8	1.1	1.7	0.5	1.0	2.5	4.4	14.0		32-41	0.2	<0.1	<0.1	<0.1	10.2	10.4	2	0.80	1.00	0.0	0.5	1.9	0.5	0.9	2.2	3.7	9.7		41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																							
21-32	0.2	<0.1	<0.1	0.1	12.3	12.6	2	1.30	1.60	2.8	1.1	1.7	0.5	1.0	2.5	4.4	14.0		32-41	0.2	<0.1	<0.1	<0.1	10.2	10.4	2	0.80	1.00	0.0	0.5	1.9	0.5	0.9	2.2	3.7	9.7		41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																																										
32-41	0.2	<0.1	<0.1	<0.1	10.2	10.4	2	0.80	1.00	0.0	0.5	1.9	0.5	0.9	2.2	3.7	9.7		41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																																																													
41-52	0.2	<0.1	<0.1	<0.1	9.4	9.6	2	0.75	0.95	7.8	0.5	0.8	1.3	1.1	1.9	3.4	16.8		52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																																																																																
52-78	0.1	<0.1	<0.1	<0.1	5.6	5.7	2	0.75	0.85	5.3	0.7	0.9	0.5	1.3	2.7	7.2	18.6		78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																																																																																																			
78-100	0.1	<0.1	<0.1	<0.1	3.6	3.7	3	0.60	0.70	1.9	1.3	1.6	1.0	1.5	2.7	3.7	13.7																																																																																																																																						

Skerry Mapping Unit
Site 2

Location: Paris, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Ap1	0-13	Very dark grayish brown (10YR3/2) loam, dark brown (10YR4/3) dry; moderate fine and medium granular structure; very friable; many very fine and fine, common medium roots; abrupt smooth boundary.
Ap2	13-19	Dark brown (10YR3/3) with dark yellowish brown (10YR4/6) loam; moderate fine and medium granular structure; friable; many very fine and fine, common medium roots; abrupt smooth boundary.
Bh	19-29	Dark reddish brown (5YR3/4) fine sandy loam; moderate fine and medium granular structure; friable; many very fine, common fine roots; abrupt smooth boundary.
Bs1	29-49	Dark yellowish brown (10YR4/6) gravelly sandy loam; moderate fine and medium granular structure; friable; common very fine and fine roots; abrupt smooth boundary.
Bs2	49-57	Dark yellowish brown (10YR4/4) gravelly sandy loam; moderate fine and medium granular structure; friable common very fine, few fine roots; clear smooth boundary.
BC	57-78	Grayish brown (10YR5/2) sandy loam; common fine faint grayish brown (2.5Y5/2), medium distinct light olive brown (2.5Y5/4) and pale olive (5Y6/3) mottles; moderate thin platy structure; friable; few very fine and fine roots; abrupt wavy boundary.
Cr	78-100	Grayish brown (2.5Y5/2) gravelly fine sandy loam; few fine distinct light gray (10YR7/1) and common medium prominent yellowish brown (10YR5/6) mottles; moderate very thin and thin platy structure; firm; few very fine, common coarse roots.

SOIL Skerry		SOIL Nos. 2					LOCATION Oxford County				
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)

Pct. of <2 mm											
0-13	Ap1	49.28	39.42	11.30	5.53	8.34	9.93	15.35	10.15	21.94	17.48
13-19	Ap2	47.78	39.95	12.27	5.17	8.26	9.66	14.64	10.08	25.16	14.79
19-29	Bh	51.64	42.05	6.31	3.88	10.77	11.39	15.15	10.45	30.54	11.51
29-49	Bs1	64.85	30.07	5.07	8.28	12.94	16.48	17.87	9.28	21.44	8.62
49-57	Bs2	65.00	32.60	2.39	5.04	10.56	15.68	21.78	11.95	21.80	10.80
57-78	Bc	64.25	30.89	4.86	5.59	9.60	14.49	22.50	12.07	18.28	12.61
78-100	Cr	62.39	32.72	4.89	6.29	9.24	13.21	21.28	12.36	19.49	13.21

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-13	4.92	0.81	53.2	46.1	38.7	37.8	36.9	23.5	22.4	20.8	19.8	0.21	4.70	5.55	5.90
13-19	3.62	0.95	52.2	44.2	33.6	32.0	29.4	19.6	18.6	16.8	15.9	0.27	4.80	5.75	6.25
19-29	3.34	0.81	62.1	53.9	36.2	33.6	29.7	17.4	17.0	15.5	14.9	0.32	4.90	6.15	6.80
29-49	2.18	0.90	47.6	40.4	27.5	24.6	23.3	13.6	13.1	11.6	10.8	0.27	5.05	6.10	6.65
49-57	1.43	1.14	38.7	32.2	21.8	19.4	17.8	11.7	10.8	9.8	8.9	0.27	5.10	6.55	7.30
57-78	0.55	1.25	29.5	25.3	17.9	14.6	13.2	8.4	7.5	6.7	5.0	0.25	5.00	7.05	7.55
78-100	0.23	1.45	25.6	23.1	17.9	14.6	12.2	6.7	5.8	5.2	3.4	0.29	4.65	7.15	7.50

Depth cm	Extractable bases meq/100g			K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume % Rock Fragments				½-2mm Total	
	Ca	Mg	Na									1½-1	1-3/4	3/4-½	½-¼		
0-13	4.4	0.8	<0.1	0.4	18.3	24.9	22	1.35	7.95	0.0	0.0	0.6	0.2	0.5	1.1	4.1	6.5
13-19	3.7	0.6	<0.1	0.1	17.7	22.1	20	0.65	5.05	1.5	0.0	2.4	0.7	0.7	1.8	5.6	12.7
19-29	2.2	0.6	<0.1	<0.1	17.7	20.5	14	0.35	3.15	0.4	1.5	2.3	0.9	1.1	2.1	4.0	12.3
29-49	1.8	0.3	<0.1	0.1	11.7	13.9	16	0.65	2.85	13.8	2.8	5.9	3.3	4.4	6.6	8.1	44.9
49-57	1.4	0.2	<0.1	0.2	12.3	14.1	13	0.75	2.55	6.7	1.0	2.0	1.6	2.3	3.9	10.6	28.1
57-78	0.7	0.1	<0.1	0.2	6.8	7.8	13	0.65	1.65	6.6	0.9	0.7	0.7	0.9	1.5	4.8	16.1
78-100	0.4	<0.1	<0.1	0.2	9.6	10.2	6	0.55	1.15	0.0	0.0	0.9	0.4	0.5	1.7	14.7	18.2

Skerry Mapping Unit
Site 3

Location: Fryeburg, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Ap	0-17	Brown (10YR4/3) sandy loam; weak fine granular structure; very friable; many very fine, common fine and medium roots; abrupt wavy boundary.
B/E	17-30	Strong brown (7.5YR5/6) with light brownish gray (10YR6/2) sandy loam; moderate fine granular structure; very friable; common very fine, fine and medium roots; abrupt smooth boundary.
Bs	30-36	Yellowish brown (10YR5/6) coarse sandy loam; moderate medium granular structure; friable; common very fine, fine and medium roots; clear smooth boundary.
BC	36-64	Light olive brown (2.5Y5/4) coarse sandy loam; common medium distinct light brownish gray (2.5Y6/2) and few fine faint yellowish brown (10YR5/4) mottles; moderate fine and medium granular structure; friable; common very fine and fine roots; clear smooth boundary.
Cr1	64-80	Olive (5Y5/3) with light olive brown (2.5Y5/6) ped coats gravelly coarse sandy loam; many medium faint light gray (5Y6/1) and common fine prominent dark brown (7.5YR4/4) mottles; strong medium and thick platy structure; very firm; few very fine roots.
Cr2	80-100	Olive (5Y5/3) with light olive brown (2.5Y5/6) ped coats gravelly coarse sandy loam; many medium faint light gray (5Y6/1) and common fine prominent dark brown (7.5YR4/4) mottles and few black (N2/0) manganese stains on ped surfaces; strong medium and thick platy structure; very firm.

SOIL	Skerry	SOIL Nos.					3					LOCATION	Oxford County		
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)				
												Pct. of <2 mm			
0-17	Ap	56.61	38.09	5.31	7.96	12.70	12.91	14.29	8.75	21.61	16.48				
17-30	B/E	56.20	39.42	4.38	7.93	11.87	12.33	14.04	10.03	24.66	14.76				
30-36	Bs	61.91	33.31	4.78	11.17	14.95	13.49	13.84	8.47	19.76	13.55				
36-64	BC	68.44	26.59	4.98	12.40	15.90	15.26	16.70	8.18	13.95	12.63				
64-80	Cr1	67.52	26.63	5.85	13.12	15.47	15.37	16.23	7.34	12.84	13.79				
80-100	Cr2	66.20	26.30	7.50	12.08	15.79	15.19	15.76	7.39	11.97	14.33				

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-17	3.38	0.94	38.2	33.4	25.5	23.2	21.1	15.1	13.2	11.9	11.1	0.21	4.45	5.05	5.65
17-30	2.40	0.87	55.6	43.2	29.4	23.1	22.0	13.5	12.9	11.6	10.6	0.28	4.55	5.45	6.70
30-36	1.84	0.94	37.7	32.4	23.0	19.3	18.6	13.0	12.4	11.5	9.6	0.21	4.95	6.15	6.65
36-64	0.68	1.12	28.2	24.4	17.1	13.7	13.0	7.2	6.5	5.6	4.2	0.23	4.45	6.55	7.15
64-80	0.25	1.49	12.5	11.2	8.8	7.5	7.3	6.1	5.6	4.6	2.8	0.13	4.50	6.55	7.25
80-100	0.07	1.48	13.2	11.5	9.1	7.8	7.4	5.9	5.2	4.5	2.3	0.14	4.85	6.75	7.65

Depth cm	Extractable bases				Ex Acid	Base CEC	Base Sat. %	KCl			Volume - % Rock Fragments					Total	
	Ca	Mg	Na meq/100g	K				Al+H meq/100g	ECEC	2+"	2-1½	1½-1	1-3/4	3/4-½	½-¼		¼-2mm
0-17	1.8	0.1	<0.1	<0.1	15.7	17.7	11	0.95	2.95	3.1	1.9	1.0	0.6	0.7	1.4	2.8	12.5
17-30	2.0	<0.1	<0.1	<0.1	13.5	15.5	13	0.45	2.45	7.0	0.6	1.6	0.9	1.1	1.3	3.1	15.6
30-36	1.4	<0.1	<0.1	<0.1	13.9	15.3	9	0.45	1.85	0.0	0.0	0.8	0.3	0.7	2.3	5.9	10.0
36-64	0.7	<0.1	<0.1	<0.1	6.8	7.5	9	0.40	1.10	2.7	0.2	0.3	0.6	0.7	2.4	8.1	15.0
64-80	0.3	<0.1	<0.1	<0.1	4.2	4.5	7	0.30	0.33	0.0	1.2	1.1	0.5	0.8	3.9	12.1	19.6
80-100	0.2	<0.1	<0.1	<0.1	3.6	3.8	5	0.35	0.55	0.6	1.0	1.7	0.6	1.4	4.4	13.7	23.4

Skerry Mapping Unit
Site 4

Location: Brownfield, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Oa	0-2	Dark reddish brown (5YR2.5/2) organic material; strong medium and coarse granular structure; very friable; many very fine and fine, common medium roots; abrupt smooth boundary.
Ap	2-20	Brown (10YR4/3) sandy loam; weak fine granular structure; very friable; many very fine and fine, common medium, coarse roots; abrupt wavy boundary.
Bh	20-24	Strong brown (7.5YR5/6) with reddish brown (5YR4/4) gravelly sandy loam; weak fine granular structure; very friable; common very fine, fine, medium and coarse roots; abrupt wavy boundary.
Bs	24-39	Yellowish brown (10YR5/6) coarse sandy loam; few medium prominent light brownish gray (2.5Y6/2) mottles; weak fine granular structure; friable; common very fine and fine roots; clear wavy boundary.
Bc	39-58	Light olive brown (2.5Y5/4) gravelly coarse sandy loam; common medium distinct light brownish gray (2.5Y6/2) and few fine distinct dark yellowish brown (10YR4/6) mottles; weak fine and medium granular structure; friable; common very fine and fine roots; clear smooth boundary.
Cr1	58-72	Olive (5Y5/3) gravelly coarse sandy loam; common medium distinct light brownish gray (2.5Y6/2) with few fine prominent brown (7.5YR5/4) mottles; moderate medium platy structure; extremely firm; common very fine, fine and medium roots.
Cr2	72-100	Olive (5Y5/3) gravelly loamy coarse sand; common medium distinct light brownish gray (2.5Y6/2) mottles; moderate thin and medium platy structure; extremely firm.

SOIL		Skerry										SOIL Nos. 4		LOCATION		Oxford County		
Depth cm	Horizon	Sand (2-0.05)	Silt (0.05-0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5-0.25)	Fine (0.25-0.1)	Very Fine (0.1-0.05)	Coarse Silt (0.05-0.02)	Fine Silt (0.02-0.002)	Pct. of <2 mm						
0-2	Oa																	
2-20	Ap	52.72	39.05	8.23	7.17	12.61	12.41	13.01	7.53	20.81	18.24							
20-24	Bh	58.24	38.60	3.16	9.64	14.71	12.94	13.64	7.34	21.06	17.54							
24-39	Bs	63.48	30.21	6.30	11.80	15.27	14.35	14.69	7.37	13.74	16.47							
39-58	Bc	68.66	24.86	6.48	13.06	17.93	15.79	14.64	6.95	11.83	13.03							
58-72	Cr1	69.65	25.25	5.10	9.77	16.34	16.53	17.75	8.22	16.19	9.06							
72-100	Cr2	74.59	22.77	2.64	11.18	17.14	18.50	18.63	9.18	14.63	7.85							

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH			
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)	
0-2														3.45	4.10	4.15
2-20	4.42	0.78	52.4	46.5	34.6	31.5	27.0	15.7	14.1	13.6	12.5	0.27	3.75	4.15	4.85	
20-24	3.38	0.78	49.2	42.9	29.0	24.8	24.0	15.5	15.1	13.8	13.1	0.23	4.30	4.65	5.15	
24-39	2.16	0.94	35.9	31.0	22.0	18.2	16.8	11.1	10.2	9.6	8.9	0.21	4.05	4.80	5.45	
39-58	1.02	1.13	26.4	22.0	15.2	12.1	11.7	7.6	6.7	5.9	4.7	0.20	4.45	5.45	5.85	
58-72	0.35	1.29	16.2	13.2	9.4	7.3	5.5	4.7	4.2	3.7	2.4	0.14	4.05	5.20	5.85	
72-100	0.10	1.46	14.2	11.6	8.1	5.6	4.3	2.8	2.4	2.0	1.4	0.15	4.45	5.65	6.55	

Depth cm	Extractable bases			K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+''	2-1½	Volume - % Rock Fragments					½-2mm	Total
	Ca	Mg	Na meq/100g									1½-1	1-¾	¾-½	½-¼			
0-2	4.7	0.7	0.3	0.9	43.0	49.6	13	7.70	14.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2-20	0.2	<0.1	<0.1	0.2	4.4	4.8	8	2.75	3.15	0.7	0.5	1.2	0.7	0.5	0.9	2.8	7.3	
20-24	<0.1	<0.1	<0.1	0.1	3.4	3.4	0	2.15	2.15	0.0	3.0	4.1	1.4	1.1	2.9	8.8	21.3	
24-39	<0.1	<0.1	<0.1	0.1	2.2	2.2	0	1.25	1.25	3.0	0.0	1.4	0.6	1.0	2.1	5.0	13.1	
39-58	<0.1	<0.1	<0.1	0.1	1.0	1.0	0	0.90	0.90	3.6	0.9	1.6	0.9	1.6	2.8	7.5	18.9	
58-72	<0.1	<0.1	<0.1	0.1	0.4	0.4	0	0.75	0.75	11.6	2.7	2.5	1.7	1.8	3.4	12.9	36.6	
72-100	<0.1	<0.1	<0.1	0.1	0.1	0.1	0	0.35	0.35	4.1	2.4	2.7	1.0	1.8	3.2	7.8	23.0	

Skerry Mapping Unit
Site 5

Location: Fryeburg, Oxford County, Maine. 1979.

Horizon	Depth (cm)	Description
Oa	0-5	Dark reddish brown (5YR2.5/2) organic material; moderate medium and coarse granular structure; very friable; many very fine and fine, common medium roots; abrupt smooth boundary.
E	5-5.4	Gray (5YR5/1) silt loam; weak fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt broken boundary.
Bh	5-10	Brown (7.5YR4/4) silt loam; moderate fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt smooth boundary.
Bs1	10-19	Dark yellowish brown (10YR4/6) silt loam; moderate fine granular structure; very friable; many very fine and fine, common medium and coarse roots; abrupt smooth boundary.
Bs2	19-44	Dark yellowish brown (10YR4/6) gravelly silt loam; moderate medium and coarse granular structure; friable; common very fine and fine, many medium roots; clear wavy boundary.
BC	44-67	Light yellowish brown (2.5Y6/4) gravelly coarse sandy loam; few medium prominent light brownish gray (10YR6/2) and common fine prominent yellowish brown (10YR5/6) mottles; weak thin and medium platy structure; friable; few very fine and fine, common coarse roots; clear wavy boundary.
Cr	67-100	Light yellowish brown (2.5Y6/4) gravelly coarse sandy loam; common medium prominent yellowish brown (10YR5/6) mottles; weak medium and thick platy structure; very firm; few very fine and fine, common medium roots; few dark reddish brown (2.5YR3/4) stains on some stones; tops of coarse fragments are coated with silts.

SOIL		Skerry		SOIL Nos.				5				LOCATION				Oxford County				
Depth cm	Horizon	Sand (2- 0.05)	Silt (0.05- 0.002)	Clay (<0.002)	Very Coarse (2-1)	Coarse (1-0.5)	Medium (0.5- 0.25)	Fine (0.25- 0.1)	Very Fine (0.1- 0.05)	Coarse Silt (0.05- 0.02)	Fine Silt (0.02- 0.002)	Pct. of <2 mm								
0-5	Oa																			
5-10	Bh/E	38.86	56.27	4.87	3.53	5.42	6.11	10.34	12.98	38.97	17.30									
10-19	Bs1	38.60	58.15	3.25	2.81	6.97	5.87	9.28	13.69	43.84	14.31									
19-44	Bs2	42.39	52.83	4.78	3.97	6.24	6.74	10.53	14.93	39.49	13.34									
44-67	Bc	68.51	26.83	4.66	13.70	14.59	13.37	16.80	10.07	16.29	10.54									
67-100	Cr	66.38	29.63	3.99	12.60	14.31	13.68	16.83	8.97	18.00	11.62									

Depth cm	Organic carbon	Water Content (Bar Pressures)										Avail. H ₂ O cm/cm	pH		
		BD g/cc	.06 %	.1 %	.33 %	.67 %	1 %	2 %	3 %	5 %	15 %		KCl (1:1)	CaCl (2:1)	H ₂ O (1:1)
0-5	3.14	0.91	51.8	46.8	28.3	22.9	21.2	15.4	13.3	12.8	11.9	0.32	3.75	4.65	4.35
5-10	2.32	0.80	64.5	58.8	38.4	33.4	32.6	18.4	15.8	15.4	14.5	0.35	3.70	4.25	4.65
10-19	1.04	0.89	53.7	48.5	28.6	24.2	24.0	11.6	9.5	9.3	8.4	0.36	4.05	4.95	5.45
19-44	0.22	1.28	21.2	18.3	12.3	9.1	8.1	5.2	4.0	3.3	2.6	0.20	4.45	5.75	6.15
44-67	0.19	1.34	18.0	15.3	10.5	8.5	7.3	4.8	3.9	3.1	2.1	0.18	4.45	6.30	6.70
67-100													4.35	6.05	6.85

Depth cm	Extractable bases			K	Ex Acid	CEC	Base Sat. %	KCl Al+H meq/100g	ECEC	2+ ^{''}	2-1 $\frac{1}{2}$	Volume - %			Rock Fragments		$\frac{1}{4}$ -2mm	Total
	Ca	Mg	Na meq/100g									1 $\frac{1}{2}$ -1	1-3/4	3/4- $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{4}$			
0-5	1-4	0.8	0.2	0.9	46.0	49.3	7	13.50	16.80	12.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	12.7
5-10	0.1	<0.1	<0.1	0.2	23.3	23.6	1	4.20	4.50	0.0	0.0	0.0	0.6	0.3	0.4	1.8	3.1	
10-19	<0.1	<0.1	<0.1	<0.1	20.7	20.7	0	0.70	0.70	1.4	0.0	0.0	0.2	0.3	0.6	2.4	4.9	
19-44	<0.1	<0.1	<0.1	<0.1	11.3	11.3	0	0.45	0.45	13.8	2.5	2.7	1.1	1.7	2.6	5.0	29.4	
44-67	<0.1	<0.1	<0.1	<0.1	5.2	5.2	0	0.35	0.35	4.7	1.6	3.7	1.8	2.7	5.0	7.8	27.3	
67-100	<0.1	<0.1	<0.1	<0.1	3.8	3.8	0	0.45	0.45	3.8	2.5	1.5	1.9	2.5	4.6	7.3	24.1	