

Table H. - Engineering Index Properties

Essex County, Virginia

Absence of an entry indicates that the data were not estimated.

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
1A:												
Atlee	0-10	Silt Loam Loam Fine Sandy Loam	CL CL-ML ML	A-4	0	0	95-100	95-100	70-100	40-90	10-25	2-10
	10-26	Clay Loam Loam Silt Loam	CL CL-ML	A-4 A-6	0	0	95-100	95-100	85-100	60-90	24-40	6-16
	26-52	Loam Clay Loam	CL CL-ML	A-4 A-6	0	0	95-100	95-100	85-100	60-80	24-50	6-22
	52-72	Clay Silty Clay Loam Clay Loam	CH CL MH ML	A-6 A-7	0	0	95-100	95-100	90-100	70-95	32-60	12-28
Emporia	---				---	---	---	---	---	---	---	---
Kempsville	---				---	---	---	---	---	---	---	---
2A:												
Augusta	0-7	Sandy Loam Fine Sandy Loam	ML SC-SM SM	A-2-4 A-4	0	0	98-100	95-100	57-85	28-55	15-25	NP-7
	7-50	Loam Clay Loam Sandy Clay Loam	CL CL-ML	A-4 A-6 A-7	0	0	98-100	95-100	76-100	33-80	20-45	5-25
	50-72	Stratified Sand To Clay Loam Clay Loam	CL CL-ML SC SC-SM SM	A-2-4 A-4 A-6 A-7	0	0	98-100	95-100	48-100	5-80	10-45	NP-25

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				Pct	Pct					Pct	
2A:												
Munden	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
Tomotley	---				---	---	---	---	---	---	---	---
3A:												
Bibb	0-4	Silt Loam Loamy Sand Loam	CL-ML ML SC-SM	A-2-4 A-4	0	0-3	95-100	85-100	42-100	13-90	15-25	NP-7
	4-72	Sandy Loam Sandy Loam Gravelly Loam Silt Loam Loamy Sand Loam	CL-ML ML SC-SM SM	A-2-4 A-4	0	0-5	75-100	50-100	25-100	8-90	15-30	NP-7
	72-76	Stratified Gravelly Coarse Sand To Silt Loam Sandy Loam	CL-ML ML SC-SM SM	A-2-4 A-4	0	0-5	75-100	50-100	25-100	2-90	15-30	NP-7
Catpoint	---				---	---	---	---	---	---	---	---
Rappahanock	---				---	---	---	---	---	---	---	---

4A:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
4A:												
Bojac	0-7	Sandy Loam Loamy Sand	SC-SM SM	A-2-4	0	0	95-100	90-100	45-70	14-40	15-20	NP
	7-40	Sandy Loam Sandy Clay Loam Fine Sandy Loam	ML SM	A-2-4 A-4	0	0	95-100	90-100	55-90	30-55	15-35	NP-10
	40-72	Loamy Sand Sand	SC-SM SM SP SW-SM	A-1 A-2-4 A-3	0	0	90-100	80-100	40-75	4-30	15-20	NP
Munden	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
5A:												
Bolling	0-8	Loam Silt Loam Fine Sandy Loam	CL ML SC SM	A-4	0	0	95-100	80-100	60-95	35-85	15-30	NP-10
	8-40	Sandy Clay Loam Clay Loam Silty Clay Loam Loam	CL SC	A-6 A-7-6	0	0	95-100	80-100	70-95	40-90	30-45	11-20
	40-72	Stratified Sand To Clay Sand Loamy Sand	CH CL SC	A-2-4 A-6 A-7-6	0	0	95-100	80-100	40-100	4-95	10-60	5-35
Molena	---				---	---	---	---	---	---	---	---
Pamunkey	---				---	---	---	---	---	---	---	---

6B:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
6B:												
Catpoint	0-7	Fine Sand Loamy Sand	SC-SM SM SW-SM	A-1 A-2-4	0	0	85-100	80-100	40-80	12-35	7-16	NP-2
	7-35	Fine Sand Sand Loamy Sand	SC-SM SM SW SW-SM	A-1 A-2-4 A-3	0	0	85-100	80-100	40-80	4-35	7-16	NP-2
	35-72	Fine Sand Sand	SC-SM SM SW SW-SM	A-1 A-2-4 A-3	0	0-3	85-100	80-100	40-80	4-35	7-16	NP-2
Munden	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
7A:												
Chickahominy	0-8	Silt Loam Loam	CL CL-ML ML	A-4	0	0	98-100	95-100	81-100	57-90	15-25	NP-8
	8-46	Silty Clay Loam Clay Clay Loam Silty Clay	CH CL	A-6 A-7-6	0	0	98-100	95-100	86-100	66-95	30-55	12-30
	46-72	Silty Clay Loam Clay Loam Silty Clay Clay	CH CL	A-6 A-7-6	0	0	98-100	95-100	85-100	66-95	40-75	15-45
Ponded soils	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
7A:												
Tomotley	---				---	---	---	---	---	---	---	---
8A:												
Dogue	0-8	Fine Sandy Loam Loam Silt Loam	CL ML SC SM	A-4	0	0	95-100	80-100	60-100	35-90	15-30	NP-10
	8-53	Clay Sandy Clay Clay Loam	CH CL SC	A-6 A-7-6	0	0	95-100	80-100	68-100	36-90	35-60	16-40
	53-72	Loam Stratified Sand To Clay Loam	SC SC-SM SM SP-SM	A-1 A-2-4 A-4	0	0	80-100	60-100	30-100	3-80	15-30	NP-10
Chickahominy	---				---	---	---	---	---	---	---	---
Newflat	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
9A:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
9A: Emporia	0-9	Loam Fine Sandy Loam Sandy Loam	CL ML SC SM	A-2-4 A-4 A-6	0	0-3	90-100	80-100	50-95	25-75	15-25	NP-15
	9-24	Sandy Clay Loam Fine Sandy Loam Clay Loam Sandy Loam Loam	CL SC	A-2-4 A-4 A-6 A-7-6	0	0-3	90-100	80-100	50-100	25-80	20-50	8-30
	24-42	Sandy Clay Clay Loam Sandy Clay Loam	CH CL SC	A-4 A-6 A-7-6	0	0-3	90-100	80-100	68-100	36-80	25-55	8-30
	42-72	Clay Clay Loam Sandy Clay Loam Loam Fine Sandy Loam Sandy Loam Stratified Gravelly Sandy Loam To Clay Sandy Clay	CL ML SC SM	A-1 A-2-4 A-4 A-6	0	0-3	80-100	70-100	42-100	21-95	15-40	NP-25
Kempsville	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---

9B:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
9B: Emporia	0-9	Sandy Loam Loam Fine Sandy Loam	CL ML SC SM	A-2-4 A-4 A-6	0	0-3	90-100	80-100	50-95	25-75	15-25	NP-15
	9-24	Fine Sandy Loam Loam Clay Loam Sandy Loam Sandy Clay Loam	CL SC	A-2-4 A-4 A-6 A-7-6	0	0-3	90-100	80-100	50-100	25-80	20-50	8-30
	24-42	Sandy Clay Clay Loam Sandy Clay Loam	CH CL SC	A-4 A-6 A-7-6	0	0-3	90-100	80-100	68-100	36-80	25-55	8-30
	42-72	Sandy Clay Sandy Clay Loam Sandy Loam Stratified Gravelly Sandy Loam To Clay Clay Loam Loam Clay Fine Sandy Loam	CL ML SC SM	A-1 A-2-4 A-4 A-6	0	0-3	80-100	70-100	42-100	21-95	15-40	NP-25
Kempsville	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---

9C:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
9C: Emporia	0-9	Loam Fine Sandy Loam Sandy Loam	CL ML SC SM	A-2-4 A-4 A-6	0	0-3	90-100	80-100	50-95	25-75	15-25	NP-15
	9-24	Loam Fine Sandy Loam Clay Loam Sandy Loam Sandy Clay Loam	CL SC	A-2-4 A-4 A-6 A-7-6	0	0-3	90-100	80-100	50-100	25-80	20-50	8-30
	24-42	Clay Loam Sandy Clay Sandy Clay Loam	CH CL SC	A-4 A-6 A-7-6	0	0-3	90-100	80-100	68-100	36-80	25-55	8-30
	42-72	Sandy Clay Stratified Gravelly Sandy Loam To Clay Sandy Loam Fine Sandy Loam Loam Sandy Clay Loam Clay Loam Clay	CL ML SC SM	A-1 A-2-4 A-4 A-6	0	0-3	80-100	70-100	42-100	21-95	15-40	NP-25
Kempsville	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---

10A:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
	In				Pct	Pct					Pct	
10A:												
Kempsville	0-8	Loam	CL-ML	A-2-4	0	0-2	90-100	70-100	40-85	22-75	15-18	NP-7
		Coarse Sandy Loam	ML	A-4								
		Gravelly Sandy Loam	SC-SM									
		Sandy Loam	SM									
		Fine Sandy Loam										
	8-22	Fine Sandy Loam	CL	A-2-4	0	0-2	90-100	70-100	45-90	25-75	15-22	NP-10
		Gravelly Sandy Clay Loam	ML	A-4								
		Loam	SC									
		Sandy Loam	SM									
		Sandy Clay Loam										
	22-49	Gravelly Sandy Clay Loam	CL	A-6	0	0-2	90-100	70-100	55-95	30-75	25-40	10-20
		Loam	SC									
		Sandy Clay Loam										
		Fine Sandy Loam										
	49-72	Sandy Loam	SC	A-1	0	0-3	85-100	65-100	35-90	15-55	15-30	NP-15
		Stratified Gravelly Loamy	SC-SM	A-2-4								
		Sand To Sandy Clay Loam	SM	A-4								
				A-6								
Emporia	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---
Suffolk	---				---	---	---	---	---	---	---	---

10B:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
10B: Kempsville	0-8	Loam Coarse Sandy Loam Fine Sandy Loam Sandy Loam Gravelly Sandy Loam	CL-ML ML SC-SM SM	A-2-4 A-4	0	0-2	90-100	70-100	40-85	22-75	15-18	NP-7
	8-22	Loam Sandy Clay Loam Gravelly Sandy Clay Loam Sandy Loam Fine Sandy Loam	CL ML SC SM	A-2-4 A-4	0	0-2	90-100	70-100	45-90	25-75	15-22	NP-10
	22-49	Loam Sandy Clay Loam Gravelly Sandy Clay Loam Fine Sandy Loam	CL SC	A-6	0	0-2	90-100	70-100	55-95	30-75	25-40	10-20
	49-72	Sandy Loam Stratified Gravelly Loamy Sand To Sandy Clay Loam	SC SC-SM SM	A-1 A-2-4 A-4 A-6	0	0-3	85-100	65-100	35-90	15-55	15-30	NP-15
Emporia	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---
Suffolk	---				---	---	---	---	---	---	---	---

10C:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
10C:												
Kempsville	0-8	Loam	CL-ML	A-2-4	0	0-2	90-100	70-100	40-85	22-75	15-18	NP-7
		Coarse Sandy Loam	ML	A-4								
		Fine Sandy Loam	SC-SM									
		Sandy Loam	SM									
		Gravelly Sandy Loam										
	8-22	Sandy Clay Loam	CL	A-2-4	0	0-2	90-100	70-100	45-90	25-75	15-22	NP-10
		Gravelly Sandy Clay Loam	ML	A-4								
		Loam	SC									
		Sandy Loam	SM									
		Fine Sandy Loam										
	22-49	Gravelly Sandy Clay Loam	CL	A-6	0	0-2	90-100	70-100	55-95	30-75	25-40	10-20
		Fine Sandy Loam	SC									
		Loam										
	49-72	Sandy Clay Loam										
		Sandy Loam	SC	A-1	0	0-3	85-100	65-100	35-90	15-55	15-30	NP-15
Stratified Gravelly Loamy Sand To Sandy Clay Loam		SC-SM SM	A-2-4 A-4 A-6									
Emporia	---			---	---	---	---	---	---	---	---	
11A:												
Levy	0-12	Silt Loam	CH	A-6	0	0	100	100	98-100	85-100	30-65	12-35
		Silty Clay Loam	CL	A-7-6								
	12-48	Silty Clay	CH	A-6	0	0	100	100	98-100	85-100	35-65	15-35
		Silty Clay Loam	CL	A-7-6								
	48-72	Clay										
		Muck	PT	A-8	---	---	---	---	---	---	---	---
Rappahannock	---			---	---	---	---	---	---	---	---	

12A:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
12A:												
Molena	0-8	Sand Loamy Sand	SC-SM SM SP-SM	A-2-4 A-3	0	0	100	92-100	50-75	5-30	14-18	NP-2
	8-23	Loamy Sand Loamy Fine Sand	SC-SM SM SP-SM	A-2-4 A-3	0	0	100	92-100	55-85	5-45	17-21	NP-4
	23-72	Gravelly Sand Coarse Sand Sand	SP SP-SM	A-1-b A-2-4 A-3	0	0-3	90-100	50-100	25-70	2-15	0-17	NP-1
Munden	---				---	---	---	---	---	---	---	---
Pamunkey	---				---	---	---	---	---	---	---	---
12B:												
Molena	0-8	Sand Loamy Sand	SC-SM SM SP-SM	A-2-4 A-3	0	0	100	92-100	50-75	5-30	14-18	NP-2
	8-23	Loamy Sand Loamy Fine Sand	SC-SM SM SP-SM	A-2-4 A-3	0	0	100	92-100	55-85	5-45	17-21	NP-4
	23-72	Coarse Sand Sand Gravelly Sand	SP SP-SM	A-1-b A-2-4 A-3	0	0-3	90-100	50-100	25-70	2-15	0-17	NP-1
Munden	---				---	---	---	---	---	---	---	---
Pamunkey	---				---	---	---	---	---	---	---	---
13A:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
13A:												
Munden	0-11	Loamy Sand	SC	A-2-4	0	0	100	92-100	45-85	15-55	15-22	NP-10
		Loamy Fine Sand	SC-SM	A-4								
		Sandy Loam	SM									
		Fine Sandy Loam										
	11-30	Loam	ML	A-2-4	0	0	100	92-100	60-95	30-75	15-30	NP-15
		Sandy Loam	SC	A-4								
		Fine Sandy Loam	SC-SM	A-6								
			SM									
	30-72	Sandy Loam	SC-SM	A-2-4	0	0	100	92-100	50-100	5-95	15-18	NP-7
		Stratified Sandy Clay Loam To Silty Clay	SM	A-3								
		Fine Sandy Loam	SP-SM									
		Sand										
		Loamy Sand										
Bojac	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
14A:												
Newflat	0-8	Loam	CL	A-4	0	0	98-100	95-100	81-100	57-90	15-25	NP-8
		Silt Loam	CL-ML									
			ML									
	8-42	Silty Clay Loam	CH	A-6	0	0	98-100	95-100	86-100	66-95	30-55	12-30
		Clay Loam	CL	A-7-6								
		Clay										
	42-72	Clay Loam	CH	A-6	0	0	98-100	95-100	85-100	66-95	40-75	15-45
		Silty Clay	CL	A-7-6								
		Silty Clay Loam										
		Clay										

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
14A:												
Chickahominy	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
15A:												
Pamunkey	0-12	Sandy Loam	CL	A-2-4	0	0	95-100	85-100	55-95	30-75	18-30	2-10
		Fine Sandy Loam	CL-ML	A-4								
		Loam	ML									
	12-51	Sandy Clay Loam	CL	A-2-4	0	0-3	90-100	85-100	65-100	30-80	20-30	5-15
		Fine Sandy Loam	SC	A-4								
		Loam		A-6								
		Clay Loam										
	51-72	Loamy Fine Sand	SC-SM	A-1	0	0-3	90-100	80-100	40-85	4-45	15-20	NP-6
		Stratified Sandy Loam To Sand	SM	A-2-4								
			SW	A-3								
			SW-SM									
Bolling	---				---	---	---	---	---	---	---	---
Molena	---				---	---	---	---	---	---	---	---
16:												
Pits	---				---	---	---	---	---	---	---	---
17A:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
17A:												
Rappahannock	0-30	Mucky Peat Muck	PT	A-8	0	0	100	100	90-100	80-100	---	---
	30-65	Silt Loam Silty Clay Loam Clay Sandy Loam Loamy Sand Mucky Silty Clay Loam	CL ML SC SM	A-2-4 A-4 A-6	0	0	100	100	95-100	15-95	15-40	NP-20
	65-72	Mucky Silty Clay Loam Stratified Loamy Sand To Clay	CL ML SC SM	A-2-4 A-4 A-6	0	0	100	100	95-100	15-95	15-40	NP-20
18B:												
Rumford	0-14	Sandy Loam Loamy Fine Sand Loamy Sand Fine Sandy Loam	SC SM	A-1 A-2-4	0	0	90-100	80-100	45-85	15-55	15-20	NP
	14-52	Fine Sandy Loam Sandy Clay Loam Sandy Loam	SC SC-SM SM	A-2-4 A-4 A-6	0	0	80-100	80-100	52-90	28-55	15-34	NP-12
	52-72	Fine Sand Sandy Loam Stratified Sandy Loam To Gravelly Sand Sand Fine Sandy Loam	GM GP SC SM SP	A-1 A-2-4 A-3 A-4	0	0	50-100	35-100	20-85	2-55	15-25	NP-6
Kempsville	---				---	---	---	---	---	---	---	---
Suffolk	---				---	---	---	---	---	---	---	---

19E:

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
19E: Rumford	0-14	Loamy Fine Sand	SC	A-1	0	0	90-100	80-100	45-85	15-55	15-20	NP
		Fine Sandy Loam	SM	A-2-4								
		Sandy Loam										
		Loamy Sand										
	14-52	Fine Sandy Loam	SC	A-2-4	0	0	80-100	80-100	52-90	28-55	15-34	NP-12
		Sandy Clay Loam	SC-SM	A-4								
		Sandy Loam	SM	A-6								
	52-72	Fine Sand	GM	A-1	0	0	50-100	35-100	20-85	2-55	15-25	NP-6
		Sandy Loam	GP	A-2-4								
		Fine Sandy Loam	SC	A-3								
		Stratified Sandy Loam To	SM	A-4								
		Gravelly Sand	SP									
		Sand										

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
19E:												
Emporia	0-9	Fine Sandy Loam	CL	A-2-4	0	0-3	90-100	80-100	50-95	25-75	15-25	NP-15
		Loam	ML	A-4								
		Sandy Loam	SC	A-6								
			SM									
	9-24	Sandy Loam	CL	A-2-4	0	0-3	90-100	80-100	50-100	25-80	20-50	8-30
		Fine Sandy Loam	SC	A-4								
		Loam		A-6								
		Clay Loam		A-7-6								
		Sandy Clay Loam										
	24-42	Sandy Clay	CH	A-4	0	0-3	90-100	80-100	68-100	36-80	25-55	8-30
		Clay Loam	CL	A-6								
		Sandy Clay Loam	SC	A-7-6								
	42-72	Fine Sandy Loam	CL	A-1	0	0-3	80-100	70-100	42-100	21-95	15-40	NP-25
		Clay	ML	A-2-4								
		Clay Loam	SC	A-4								
		Sandy Clay Loam	SM	A-6								
		Stratified Gravelly Sandy Loam To Clay Loam										
		Sandy Loam										
		Sandy Clay										
Bibb	---				---	---	---	---	---	---	---	---
Kempsville	---				---	---	---	---	---	---	---	---
Slagle	---				---	---	---	---	---	---	---	---
20D:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
20D: Rumford	0-14	Fine Sandy Loam Loamy Sand Sandy Loam Loamy Fine Sand	SC SM	A-1 A-2-4	0	0	90-100	80-100	45-85	15-55	15-20	NP
	14-52	Sandy Clay Loam Sandy Loam Fine Sandy Loam	SC SC-SM SM	A-2-4 A-4 A-6	0	0	80-100	80-100	52-90	28-55	15-34	NP-12
	52-72	Sandy Loam Stratified Sandy Loam To Gravelly Sand Fine Sand Fine Sandy Loam Sand	GM GP SC SM SP	A-1 A-2-4 A-3 A-4	0	0	50-100	35-100	20-85	2-55	15-25	NP-6
Slagle	0-10	Fine Sandy Loam Loam Sandy Loam	SC SC-SM SM	A-2-4 A-4	0	0-2	95-100	90-100	55-95	30-75	15-25	NP-10
	10-29	Sandy Clay Loam Clay Loam Loam Sandy Loam	CL CL-ML SC SC-SM	A-4 A-6	0	0-2	95-100	90-100	55-100	30-80	20-40	5-20
	29-58	Loam Clay Loam Sandy Loam Stratified Sandy Loam To Loam To Sandy Clay Loam To Sandy Clay Sandy Clay Loam	CL SC	A-4 A-6 A-7-6	0	0-2	95-100	90-100	60-100	35-80	25-50	8-30
	58-72	Stratified Loamy Sand To Clay Loam	CL ML SC SM	A-1 A-2-4 A-4 A-6	0	0-2	95-100	90-100	45-100	14-95	15-40	NP-25

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
20D:												
Bibb	---				---	---	---	---	---	---	---	---
Dogue	---				---	---	---	---	---	---	---	---
Kempsville	---				---	---	---	---	---	---	---	---
Suffolk	---				---	---	---	---	---	---	---	---
21B:												
Slagle	0-10	Sandy Loam	SC	A-2-4	0	0-2	95-100	90-100	55-95	30-75	15-25	NP-10
		Fine Sandy Loam	SC-SM	A-4								
		Loam	SM									
	10-29	Loam	CL	A-4	0	0-2	95-100	90-100	55-100	30-80	20-40	5-20
		Sandy Loam	CL-ML	A-6								
		Clay Loam	SC									
		Sandy Clay Loam	SC-SM									
	29-58	Sandy Loam	CL	A-4	0	0-2	95-100	90-100	60-100	35-80	25-50	8-30
		Clay Loam	SC	A-6								
		Loam		A-7-6								
		Sandy Clay Loam										
		Stratified Sandy Loam To Loam To Sandy Clay Loam To Sandy Clay										
	58-72	Stratified Loamy Sand To Clay Loam	CL	A-1	0	0-2	95-100	90-100	45-100	14-95	15-40	NP-25
			ML	A-2-4								
			SC	A-4								
			SM	A-6								
Atlee	---				---	---	---	---	---	---	---	---
Emporia	---				---	---	---	---	---	---	---	---

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
21B: Kempsville	---				---	---	---	---	---	---	---	---
21C: Slagle	0-10	Sandy Loam	SC	A-2-4	0	0-2	95-100	90-100	55-95	30-75	15-25	NP-10
		Fine Sandy Loam	SC-SM	A-4								
		Loam	SM									
	10-29	Loam	CL	A-4	0	0-2	95-100	90-100	55-100	30-80	20-40	5-20
		Sandy Clay Loam	CL-ML	A-6								
		Sandy Loam	SC									
		Clay Loam	SC-SM									
	29-58	Stratified Sandy Loam To Loam To Sandy Clay Loam To Sandy Clay	CL SC	A-4 A-6 A-7-6	0	0-2	95-100	90-100	60-100	35-80	25-50	8-30
		Sandy Loam										
		Clay Loam										
		Loam										
		Sandy Clay Loam										
	58-72	Stratified Loamy Sand To Clay Loam	CL ML SC SM	A-1 A-2-4 A-4 A-6	0	0-2	95-100	90-100	45-100	14-95	15-40	NP-25
Emporia	---				---	---	---	---	---	---	---	---
Kempsville	---				---	---	---	---	---	---	---	---
22A:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
22A:												
State	0-12	Fine Sandy Loam Loam Sandy Loam	CL-ML ML SC-SM	A-2-4 A-4	0	0	95-100	95-100	57-95	28-75	15-28	NP-7
	12-42	Clay Loam Loam Sandy Loam Sandy Clay Loam	CL SC	A-4 A-6	0	0	95-100	95-100	60-100	30-80	24-40	8-22
	42-72	Stratified Sand To Fine Sandy Loam Loamy Sand	SC-SM SM SP-SM	A-1 A-2-4 A-3 A-4	0	0	90-100	80-100	40-85	5-55	15-25	NP-7
Bojac	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
22B:												
State	0-12	Loam Sandy Loam Fine Sandy Loam	CL-ML ML SC-SM	A-2-4 A-4	0	0	95-100	95-100	57-95	28-75	15-28	NP-7
	12-42	Sandy Loam Loam Sandy Clay Loam Clay Loam	CL SC	A-4 A-6	0	0	95-100	95-100	60-100	30-80	24-40	8-22
	42-72	Loamy Sand Stratified Sand To Fine Sandy Loam	SC-SM SM SP-SM	A-1 A-2-4 A-3 A-4	0	0	90-100	80-100	40-85	5-55	15-25	NP-7

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
22B:												
Bojac	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
23A:												
Suffolk	0-13	Fine Sandy Loam	CL-ML	A-2-4	0	0	95-100	90-100	55-85	25-55	15-25	NP-7
		Loamy Fine Sand	ML	A-4								
		Loamy Sand	SC-SM									
		Sandy Loam	SM									
	13-37	Sandy Clay Loam	CL	A-2-4	0	0	95-100	90-100	31-100	25-80	15-35	5-15
		Clay Loam	SC	A-4								
		Sandy Loam		A-6								
		Fine Sandy Loam										
		Loam										
	37-72	Gravelly Sand	SC-SM	A-1-b	0	0	75-100	55-100	32-85	5-45	15-18	NP-6
		Loamy Fine Sand	SM	A-2-4								
		Loamy Sand		A-3								
		Sand		A-4								
Kempsville	---				---	---	---	---	---	---	---	---
Rumford	---				---	---	---	---	---	---	---	---
23B:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
23B:												
Suffolk	0-13	Loamy Fine Sand	CL-ML	A-2-4	0	0	95-100	90-100	55-85	25-55	15-25	NP-7
		Fine Sandy Loam	ML	A-4								
		Loamy Sand	SC-SM									
		Sandy Loam	SM									
	13-37	Loam	CL	A-2-4	0	0	95-100	90-100	31-100	25-80	15-35	5-15
		Sandy Clay Loam	SC	A-4								
		Clay Loam		A-6								
		Fine Sandy Loam										
		Sandy Loam										
	37-72	Sand	SC-SM	A-1-b	0	0	75-100	55-100	32-85	5-45	15-18	NP-6
		Gravelly Sand	SM	A-2-4								
		Loamy Fine Sand		A-3								
		Loamy Sand		A-4								
Kempsville	---				---	---	---	---	---	---	---	---
Rumford	---				---	---	---	---	---	---	---	---
24A:												
Tetotum	0-11	Silt Loam	CL	A-4	0	0	90-100	80-100	60-100	35-90	15-30	NP-15
		Fine Sandy Loam	ML	A-6								
		Loam	SC									
			SM									
	11-49	Clay Loam	CL	A-6	0	0-2	85-100	80-100	65-100	30-90	30-45	10-20
		Loam	SC	A-7-6								
		Silt Loam										
		Sandy Clay Loam										
	49-72	Stratified Sand To Sandy	CL	A-2-4	0	0-2	85-100	80-100	40-90	4-55	15-30	NP-15
		Clay Loam	ML	A-4								
		Sandy Loam	SC	A-6								
			SM									

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
24A:												
Munden	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
Tomotley	---				---	---	---	---	---	---	---	---
24B:												
Tetotum	0-11	Silt Loam Fine Sandy Loam Loam	CL ML SC SM	A-4 A-6	0	0	90-100	80-100	60-100	35-90	15-30	NP-15
	11-49	Silt Loam Loam Clay Loam Sandy Clay Loam	CL SC	A-6 A-7-6	0	0-2	85-100	80-100	65-100	30-90	30-45	10-20
	49-72	Sandy Loam Stratified Sand To Sandy Clay Loam	CL ML SC SM	A-2-4 A-4 A-6	0	0-2	85-100	80-100	40-90	4-55	15-30	NP-15
Munden	---				---	---	---	---	---	---	---	---
State	---				---	---	---	---	---	---	---	---
Tomotley	---				---	---	---	---	---	---	---	---
25A:												

Table H. - Engineering Index Properties - Continued

Essex County, Virginia

Map Symbol and Soil Name	Depth	USDA Texture	Classification		Fragments		Percent Passing Sieve Number				Liquid Limit	Plasticity Index
			Unified	AASHTO	>10 Inches	3-10 Inches	4	10	40	200		
		In			Pct	Pct					Pct	
25A: Tomotley	0-9	Loam Sandy Loam Fine Sandy Loam	SC-SM SM	A-2-4 A-4	0	0	98-100	95-100	57-95	28-75	15-30	NP-7
	9-18	Loam Clay Loam Sandy Clay Loam	CL CL-ML SC	A-2-4 A-4 A-6	0	0	98-100	95-100	76-100	33-80	20-40	6-23
	18-49	Clay Loam Sandy Clay Loam Loam	SC-SM CL CL-ML SC	A-4 A-6 A-7-6	0	0	98-100	95-100	75-100	33-80	20-45	6-22
	49-72	Clay Loam Stratified Sand To Clay	SC-SM CL CL-ML ML SC SC-SM	A-4 A-6 A-7-6	0	0	98-100	95-100	48-100	5-95	10-45	NP-22
Augusta	---				---	---	---	---	---	---	---	---
Chickahominy	---				---	---	---	---	---	---	---	---
Tetotum	---				---	---	---	---	---	---	---	---
W: Water	---				---	---	---	---	---	---	---	---