

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRm-1

Contestant I.D. _____

Contestant Name _____

SCHOOL _____

Describe 6 Horizons to a depth of 150 cm.
Blue nail in third horizon at 45 cm.

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTALIZATION				B. TEXTURE				C. COLOR			D. STRUCTURE		E. CONSIST.	F. MOTTLES		SCORE	
Master	Sub	No	Lower Depth (cm)	Sand % (+-5)	Clay % (+-5)	Cise. Frag.	Class	Hue	Value	Chroma	Grade	Shape	Moist Strength	Abundance	Contrast		
PM (2)	LTR (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		
-	A	-	20	C	62	17	-	FSL	10YR	3	3	1	SBK	FR	-	-	
-	B	t	41	G	53	22	-	SCL	10YR	3	4	1,2	PR,SBK	FR	-	-	
-	B	tK	1	57	G	53	24	-	SCL	7.5YR	4	4	2,2	PR,SBK	FR	-	-
-	B	tK	2	87	C	51	26	-	SCL	5YR	4	4	2,2	PR,SBK	FR	-	-
-	B	kk	1	126	C	40	38	-	CL	5YR	6	4	1,1	PR,SBK	FI	-	-
-	B	kk	2	150	-	37	34	-	CL	5YR	7	4	0	M	FI	-	-

II. Site and Soil Characteristics

A. Landform (5)

1. Construcional
- Flood plain
 - Stream terrace
 - Alluvial fan
 - Beach ridge
 - Sand dune
 - Lake plain
 - Loess hillslope
 - Outwash plain
 - Till plain/drumlin/moraine
 - Kame/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial fill
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1% *0.8%*
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

D. Erosion Class (5)

- Class 1
 - Class 2
 - Class 3
 - Class 4
 - Deposition
- Original Surface 15cm*

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor

Most restrictive feature *Low Strength*

B. Septic tank absorption fields (5)

- Slight
 - Moderate
 - Severe
- Percol slowly*

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Seepage Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollie
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralithic
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-2

Contestant I.D. _____

Describe 5 Horizons to a depth of 150 cm.

Contestant Name _____
SCHOOL _____

Blue nail in third horizon at 42 cm.

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTALIZATION				B. TEXTURE				C. COLOR			D. STRUCTURE		E. CONSIST.	F. MOTTLES		SCORE	
Master PM (2)	Sub LTR (2)	No (2)	Lower Depth (cm) (2)	Bnd. Dist. (2)	Sand % (+5) (2)	Clay % (+5) (2)	Cse. Frag (2)	Class (2)	Hue (2)	Value (2)	Chroma (2)	Grade (2)	Shape (2)	Moist Strength (2)	Abun- dance (2)	Contrast (2)	
-	A	-	15	C	52	14	-	4/ FSL	7.5YR	3	3	1	SBK	FR	-	-	
-	B	w	39	A	58	16	-	FSL	7.5YR	3	3	2	PR/ SBK	FR	-	-	
-	B	kk _m	75	C	-	-	-	-	-	-	-	-	-	-	-	-	
-	B	kk	118	C	65	22	-	SCL	7.5YR	7	3	0	M	FI	-	-	
-	B	kk	150	-	65	24	-	SCL	7.5YR	7	3	0	M	FI	-	-	

II. Site and Soil Characteristics

A. Landform (5)

1. Conformational

- Flood plain
- Stream terrace
- Alluvial fan
- Beach ridge
- Sand dune
- Lake plain
- Loess hillslope
- Outwash plain
- Till plain/drumlin/moraine
- Kame/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

3.2%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original Surface 15cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor

Most restrictive feature Depir to Rock

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

Depth to Rock Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Depth to Rock Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollic
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralitric
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-3

Contestant I.D. _____

Contestant Name _____

SCHOOL _____

Describe 6 Horizons to a depth of 150 cm.
Blue nail in third horizon at 50 cm.

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTALIZATION				B. TEXTURE				C. COLOR				D. STRUCTURE			E. CONSIST.		F. MOTTLES		SCORE
Master PM (2)	Sub LTR (2)	No (2)	Lower Depth (cm) (2)	Bnd. Dist. (2)	Sand % (+5) (2)	Clay % (+5) (2)	Crse. Frag (2)	Class (2)	Hue (2)	Value (2)	Chroma (2)	Grade (2)	Shape (2)	Moist Strength (2)	Abun- dance (2)	Contrast (2)			
-	A	-	20	C	61	16	-	FSL	7.5YR	3	3	1	SBK	FR	-	-			
-	B	t	1	37	C	57	12	-	FSL	5YR	3	4	1,2	PR,SBK	FR	-	-		
-	B	t	2	60	C	55	20	-	SCL	2.5YR	3	4	1,2	PR,SBK	FR	-	-		
-	B	tK	1	82	C	53	22	-	SCL	2.5YR	4	6	1,2	PR,SBK	FR	-	-		
-	B	tK	2	117	A	50	24	-	SCL	2.5YR	4	6	1,1	PR,SBK	FI	-	-		
-	B	kK	-	150	-	41	36	-	CL	5YR	7	4	2	SBK	FI	-	-		

II. Site and Soil Characteristics

A. Landform (5)

1. Construational

- Flood plain
- Stream terrace
- Alluvial fan
- Beach ridge
- Sand dune
- Lake plain
- Loess hillslope
- Outwash plain
- Till plain/drumlin/moraine
- Kame/esker

2. Erosional

Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

0.8%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original

Surface

15 cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor

Most restrictive feature

Low Strength

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

Percs Slowly Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Serpage Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollie
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillie
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralithic
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-4

Contestant I.D. _____

Describe 6 Horizons to a depth of 150 cm.

Contestant Name _____

Blue nail in third horizon at 54 cm.

SCHOOL _____

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONATION				B. TEXTURE				C. COLOR			D. STRUCTURE			E. CONSIST.	F. MOTTLES		SCORE
Master	Sub	No	Lower Depth (cm)	Sand % (+-5)	Clay % (+-5)	Crse. Frag	Class	Hue	Value	Chroma	Grade	Shape	Moist Strength	Abun-dance	Contrast		
PM (2)	LTR (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)		
-	A	-	28	C	13	58	-	C	7.5YR	3	1	1	SBK	FR	-	-	
-	B	ω	45	C	35	34	-	CL	7.5YR	3	2	1	SBK	FR	-	-	
2	A	b	66	G	60	25	-	SCL	10YR	3	2	3	PR	FI	-	-	
2	B	kb	93	G	48	32	-	SCL	7.5YR	4	6	1	SBK	FI	-	-	
2	B	Kkb	122	G	37	39	-	CL	7.5YR	6	6	1	SBK	FI	-	-	
2	B	kb	150	-	49	28	-	SCL	7.5YR	5	6	1	SBK	FI	F	F	

II. Site and Soil Characteristics

A. Landform (5)

1. Constructional
- Flood plain
 - Stream terrace
 - Alluvial fan
 - Beach ridge
 - Sand dune
 - Lake plain
 - Loess hillslope
 - Outwash plain
 - Till plain/drumlin/moraine
 - Kame/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit (**Buried**)
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor
- Shrink/Swell
- Most restrictive feature

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Flooding Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollic
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralitric
- None

C. Order (5) **(Classify Buried Soil)**

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-5

Contestant I.D. _____

Describe 7 Horizons to a depth of 155 cm.

Contestant Name _____

Blue nail in third horizon at 55 cm.

SCHOOL _____

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTALIZATION					B. TEXTURE			C. COLOR			D. STRUCTURE		E. CONSIST.	F. MOTTLES		SCORE	
Master PM (2)	Sub LTR (2)	No (2)	Lower Depth (cm) (2)	Bnd. Dist. (2)	Sand % (+5) (2)	Clay % (+5) (2)	Crse. Frag (2)	Class (2)	Hue (2)	Value (2)	Chroma (2)	Grade (2)	Shape (2)	Moist Strength (2)	Abun- dance (2)	Contrast (2)	
-	A	-	19	C	53	21	-	SCL	7.5YR	3	3	1	SBK	VFR	-	-	
-	B	w	46	C	60	25	-	SCL	5YR	4	4	2	PR, SBK	FR	-	-	
-	B	KK	1	C	45	41	-	C ₅ CL	5YR	5	6	3	SBK	FI	-	-	
-	B	KK	2	85	6	38	32	CL	7.5YR	6	6	2	SBK	FI	-	-	
-	B	KK	3	112	6	31	38	CL	7.5YR	6	6	2	SBK	FI	-	-	
-	B	KK	4	134	6	32	39	C ₅ C	7.5YR	5	6	2	SBK	FI	-	-	
-	B	tk	-	155	-	37	39	C ₂ C	7.5YR	5	6	2	SBK	FI	-	-	

II. Site and Soil Characteristics

A. Landform (5)

1. Constructional

- Flood plain
- Stream terrace
- Alluvial fan
- Beach ridge
- Sand dune
- Lake plain
- Loess hillslope
- Outwash plain
- Till plain/drumlin/moraine
- Kame/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

1.5%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original
Surface
20 cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor
- Low Strength / Shrink-Swell
- Most restrictive feature

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe
- Peres Slowly
- Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe
- Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollic
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralitthic
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-6

Describe 6 Horizons to a depth of 150 cm.
Blue nail in third horizon at 45 cm.

Contestant I.D. _____

Contestant Name _____

SCHOOL _____

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONATION				B. TEXTURE				C. COLOR			D. STRUCTURE		E. CONSIST.		F. MOTTLES		SCORE
Master PM (2)	Sub LTR (2)	No (2)	Lower Depth (cm) (2)	Bnd. Dist. (2)	Sand % (+-5) (2)	Clay % (+-5) (2)	Cise. Frag (2)	Class (2)	Hue (2)	Value (2)	Chroma (2)	Grade (2)	Shape (2)	Moist Strength (2)	Abur- dance (2)	Contrast (2)	
-	A	-	24	C	61	17	-	FSL	10YR	3	2	2	SBK	VFR	-	-	
-	B	t	1	39	6	53	25	-	SCL	7.5YR	3	4	3,3	PR,SBK	FR	-	-
-	B	t	2	68	6	47	34	-	SCL	7.5YR	4	4	3,3	PR,SBK	FR	-	-
-	B	tK	-	82	6	59	22	-	SCL	7.5YR	4	6	3,3	PR,SBK	FR	-	-
-	B	KK	1	116	C	30	42	-	C	7.5YR	7	4	1	SBK	FI	-	-
-	B	KK	2	150	-	35	40	-	C	7.5YR	7	4	1	SBK	FI	-	-

II. Site and Soil Characteristics

A. Landform (5)

1. Constructional

- Flood plain
- Stream terrace
- Alluvial fan
- Beach ridge
- Sand dune
- Lake plain
- Loess hillslope
- Outwash plain
- Till plain/drumlin/moraine
- Kames/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residuum

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

0.8%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original Surface
25cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor

Shrink-Swell
Most restrictive feature

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

Percolation
Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Seepage
Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollie
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Parallothic
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRm-7

Contestant I.D. _____

Describe 6 Horizons to a depth of 175 cm.

Contestant Name _____
SCHOOL _____

Blue nail in third horizon at 50 cm.

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTAL				B. TEXTURE				C. COLOR			D. STRUCTURE		E. CONSIST.	F. MOTTLES		SCORE
Master	Sub	No	Lower Depth (cm)	Sand % (+-5)	Clay % (+-5)	Crse. Frag	Class	Hue	Value	Chroma	Grade	Shape	Moist Strength	Abun- dance	Contrast	
PM (2)	LTR (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
-	A	-	15	C	53	15	-	FSL 5YR	3	4	2	SBK	VFR	-	-	
-	B	1	42	G	69	16	-	FSL 2.5YR	3	4	2,2	PR SBK	FR	-	-	
-	B	2	68	C	54	29	-	SCL 2.5YR	3	4	2,2	PR/SBK	FR	-	-	
-	B	3	95	G	61	31	-	SCL 2.5YR	4	6	2,2	PR,SBK	FR	-	-	
-	B	4	130	C	69	17	-	FSL 2.5YR	4	6	2,2	PR,SBK	FR	-	-	
-	BC	-	175	-	73	12	-	FSL 2.5YR	5	6	1	SBK	VFR	-	-	

II. Site and Soil Characteristics

A. Landform (5)

1. Constructional
- Flood plain
 - Stream terrace
 - Alluvial fan
 - Beach ridge
 - Sand dune
 - Lake plain
 - Loess hillslope
 - Outwash plain
 - Till plain/drumlin/moraine
 - Kame/esker

2. Erosional

- Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residium

C. Slope Profile (5)

- Concave
- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

0.5%

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original Surface
18cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor
- Low Strength
- Most restrictive feature

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

Per Skaly Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Seepage Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollic
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralitric
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

**SCORECARD
NACTA SOILS CONTEST
4 YR DIVISION**

Site No. NRM-8

Contestant I.D. _____

Describe 6 Horizons to a depth of 172 cm.

Contestant Name _____

Blue nail in third horizon at 47 cm.

SCHOOL _____

TOTAL SCORE _____

I. Soil Morphology

A. HORIZONTALIZATION				B. TEXTURE				C. COLOR			D. STRUCTURE		E. CONSIST.	F. MOTTLES		SCORE	
Master	Sub	No	Lower Depth (cm)	Bnd. Dist.	Sand % (+-5)	Clay % (+-5)	Crse. Frag	Class	Hue	Value	Chroma	Grade	Shape	Moist Strength	Abun-dance	Contrast	
PM (2)	LTR (2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
-	A	-	11	C	61	23	-	SCL	7.5YR	3	2	1	SBK	FR	-	-	
-	A	-	2	38	C	66	17	FSL	7.5YR	3	3	2	PR, SBK	FR	-	-	
-	B	tK	-	76	G	55	30	SCL	7.5YR	3	3	2	PR, SBK	FR	-	-	
2	B	+b	1	112	G	55	35	SC ₂	5YR	3	4	3	PR, SBK	FI	-	-	
2	B	+b	2	140	G	67	22	SCL ₂ FSL	5YR	4	6	2	DR, SBK	FI	-	-	
2	B	tKb	-	172	-	69	21	SCL, FSL	5YR	5	8	1,2	PR, SBK	FI	-	-	

II. Site and Soil Characteristics

A. Landform (5)

1. Constructional

- Flood plain
- Stream terrace
- Alluvial fan
- Beach ridge
- Sand dune
- Lake plain
- Loess hillslope
- Outwash plain
- Till plain/drumlin/moraine
- Kame/esker

2. Erosional

Upland

B. Parent Material(s) (5 each)

- Alluvium
- Glacial outwash
- Lacustrine deposit
- Glacial till
- Loess
- Eolian sand
- Beach deposit
- Colluvium
- Residuum

C. Slope Profile (5)

Concave

- <1%
- 1-4.9%
- 5-9.9%
- 10-14.9%
- 15-20%
- >20%

0.8%^o

D. Erosion Class (5)

- Class 1
- Class 2
- Class 3
- Class 4
- Deposition

Original

Surface

15cm

E. Runoff (5)

- Negligible
- Very Low
- Low
- Medium
- High
- Very high

F. Soil Drainage Class (5)

- Well drained
- Moderately well
- Somewhat poorly
- Poorly

G. Effective Soil Depth (5)

- Very deep (> 150 cm)
- Deep (100-150 cm)
- Mod. Deep (50-99 cm)
- Shallow (25-49 cm)
- Very shallow (< 25 cm)

H. Hyd. Cond., Surf. (5)

- High
- Moderate
- Low

I. Hyd. Cond., Limiting (5)

- High
- Moderate
- Low

J. Water Retention, Difference (5)

- Very low (< 7.5 cm)
- Low (7.5-14.9 cm)
- Mod. (15-22.5 cm)
- High (> 22.5 cm)

III. Soil Interpretations

A. Suitability as source of roadfill material (5)

- Good
- Fair
- Poor

Low Strength

Most restrictive feature

B. Septic tank absorption fields (5)

- Slight
- Moderate
- Severe

Pores slowly

Most restrictive feature

C. Limitation for sewage lagoons (5)

- Slight
- Moderate
- Severe

Seepage Most restrictive feature

IV. Soil Classification

A. Epipedon (5)

- Mollic
- Ochric
- None

B. Subsurface Horizon/ Feature (5 each)

- Albic
- Argillic
- Calcic
- Cambic
- Fragipan
- Lithic
- Paralithic
- None

C. Order (5)

- Alfisol
- Entisol
- Inceptisol
- Mollisol
- Ultisol
- Vertisol

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 1

Describe 6 horizons to a depth of 150 cm.

Blue Marker is in the third horizon at 45 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	6.9	65	1.1	0.7
2.	7.1	68	1.6	0.9
3.	7.5	72	1.3	1.2
4.	7.6	85	1.0	3.7
5.	7.9	100	0.6	51
6.	8.1	100	0.6	54

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 2

Describe 5 horizons to a depth of 150 cm.

Blue Marker is in the third horizon at 42 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	7.1	68	0.8	0.9
2.	7.4	75	0.9	1.8
3.	7.8	100	0.2	61
4.	7.9	100	0.2	71
5.	7.9	100	0.1	75

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 3

Describe 6 horizons to a depth of 150 cm.

Blue Marker is in the third horizon at 50 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	6.9	61	0.5	0.6
2.	7.0	68	0.5	1.2
3.	7.3	75	0.4	2.9
4.	7.7	84	0.3	6.3
5.	7.8	85	0.2	6.6
6.	7.8	100	0.1	48

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 4

Describe 6 horizons to a depth of 150 cm.

Blue Marker is in the third horizon at 54 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	7.0	55	1.5	0.7
2.	6.9	61	1.1	0.7
3.	7.6	54	0.5	6.0
4.	7.8	85	0.4	32
5.	7.9	100	0.3	52
6.	7.9	100	0.2	24

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 5

Describe 7 horizons to a depth of 155 cm.

Blue Marker is in the third horizon at 55 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	7.9	68	2.3	0
2.	8.1	75	1.4	4.1
3.	8.2	100	0.7	43
4.	8.1	100	0.5	46
5.	8.0	100	0.5	51
6.	8.2	100	0.6	41
7.	8.3	100	1.1	29

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 6

Describe 6 horizons to a depth of 150 cm.

Blue Marker is in the third horizon at 50 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	6.9	67	1.4	0.8
2.	7.2	71	1.5	0.7
3.	7.2	74	1.3	0.6
4.	7.3	76	1.3	3.2
5.	7.9	100	0.7	45
6.	8.0	100	0.6	43

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 7

Describe 6 horizons to a depth of 175 cm.

Blue Marker is in the third horizon at 50 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO ₃
1.	6.9	42	1.8	< 0.5
2.	6.9	45	0.8	< 0.5
3.	6.8	55	1.2	< 0.5
4.	7.1	58	0.8	< 0.5
5.	7.6	60	0.4	< 0.5
6.	7.8	61	0.3	< 0.5

NACTA SOILS CONTEST
4-Year Division
SITE CARD

SITE NO. NRM - 8

Describe 6 horizons to a depth of 172 cm.

Blue Marker is in the third horizon at 47 cm.

Horizon	pH	% Base Sat.	% Organic C	% CaCO₃
1.	7.4	66	1.5	0.7
2.	7.5	74	1.0	0.6
3.	7.9	82	1.1	0.5
4.	8.0	80	1.0	0.6
5.	8.0	85	0.6	0.5
6.	8.1	86	0.5	9.0