MAP SHOWING LOCATION
OF
SAND, GRAVEL, AND TILL PITS AND QUARRIES
IN THE HAMPDEN QUADRANGLE, MASSACHUSETTS-CONNECTICUT

by

R. B. Colton and M. J. Mallory

Open File Report #69-57

K295

Field and megascopic observations:

Station number H1

Location: County Tolland Town Somers Pit x Active / Inactive

Road location 4000' E. of Rt. 83 at 42° N. 425,500 N. Coordinates 400' S. of Florida Rd. 684,500 E.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 300' Exposed thickness 15'

Lithologic composition (approximate %) 55% sandstone; 15% quartzite; 15% gneiss

Grain size: Maximum 6" Mean 1" Est. % of sand 70 Est. % fines 5

Rounding subrounded Grading fair to poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil color light yellowish brown

Oxidation or staining little Leaching yes leached

Secondary deposition some Reactive matter none seen

Section:

not exposed

Rock type	
Triassic sandstone, and	
conglomerate	57
Quartzite	16
Gneiss	15
Pegmatite	6
Granite	3
Unidentified	3

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Comm. Coop.

Field and megascopic observations:

Station number H2

Location: County Tolland Town Somers Pit x Active Inactive

Road location 2000' N. of 42 800' E. of Turnpike Rd. Coordinates 685,500 E. 427,300 N

Geologic unit or occurrence ice contact stratified drift

Textural description medium to coarse gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 1500' x 2500' Estimated thickness 70'

Dimensions of pit: Areal extent 500' x 500' Exposed thickness 15'

Lithologic composition (approximate %) 50% sandstone; 20% quartzite; 10% gneiss

Grain size: Maximum 6' Mean 1" Est. % of sand 70 Est. % fines 10

Rounding some large angular blocks; others subrounded Grading fair Sorting poor

Soil development 1' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching Yes leached

Secondary deposition some Reactive matter none seen

Rock type	
Triassic sandstone	52
Quartzite	21
Gneiss	12
Unidentified	9
Pegmatite	4
Granite	1
Basalt	1

Section:

Pit slumped and bedding poorly exposed; strata show collapse structures; area is one of many kettles and kames; numerous lenses of coarse gravel.

General Description: * Several pits have coalesced in this area.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H3

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 3400' S. of N. Somers; 1600' W. of Turnpike Rd. 3000' E. of Rt. 83 Coordinates 683,000 E 428,000 N.

Geologic unit or occurrence kame terrace

Textural description sand and fine to medium gravel ng. Soil Type SW

Dimensions of deposit: Areal extent 2000' x 2000' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 25'

Lithologic composition (approximate %) 65% sandstone; 15% gneiss; 15% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 80 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining little Leaching [illegible]

Secondary deposition little Reactive matter none seen

Rock type	
Triassic sandstone, and	
conglomerate	66
Gneiss	16
Quartzite	14
Pegmatite	4

Section:

pit walls slumped; mostly coarse sand with lenses of pebble gravel.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H4

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 3500' SW. of No. Somers 600' W. of Rt. 83 Coordinates 428,600 N. 679,600 E.

Geologic unit or occurrence outwash

Textural description sand and fine gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 10'

Lithologic composition (approximate %) 80% Triassic rocks; 10% quartzite

Grain size: Maximum 8" Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt veneer Soil Color light yellowish brown

Oxidation or staining little Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone, *and*	
conglomerate	79
Quartzite	11
Gneiss	5
Pegmatite	5

Section:

pit very old and grassed over except for 2 small fresh excavations; well bedded sand and lenses of fine gravel exposed

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H5

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 2200' N. of No. Somers 100' E. of Rt. 83 Coordinates 681,400 E. 433,000 N.

Geologic unit or occurrence kame--ice contact stratified drift

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 70'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 20'

Lithologic composition (approximate %) 65% ~~Triassic rocks~~ sandstone; 20% quartzite; 10% gneiss

Grain size: Maximum 1' Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

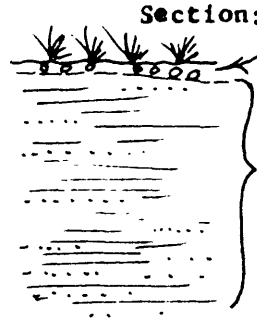
Soil development 2-4' eolian silt and sand Soil color light yellowish gray

Oxidation or staining none seen Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter micaceous flakes

Rock type	
Triassic sandstone, conglomerate	66
Quartzite	21
Gneiss	9
Pegmatite	4

Section:



scattered pebbles and cobbles horizontally and crossbedded sand 20'+

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H6

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 600' W. of Rose Haven Rd. 600' S. of Woods Rd. Coordinates 431,500 N. 684,800 E.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel and flowtill Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 50'

Dimensions of pit: Areal extent 500' x 300' Exposed thickness 25'

Lithologic composition (approximate %) 60% Triassic rocks; 20% gneiss; 15% quartzite

Grain size: Maximum 6' Mean 1" Est. % of sand 50 Est. % fines 20

Rounding well rounded to angular Grading fair Sorting fair to good

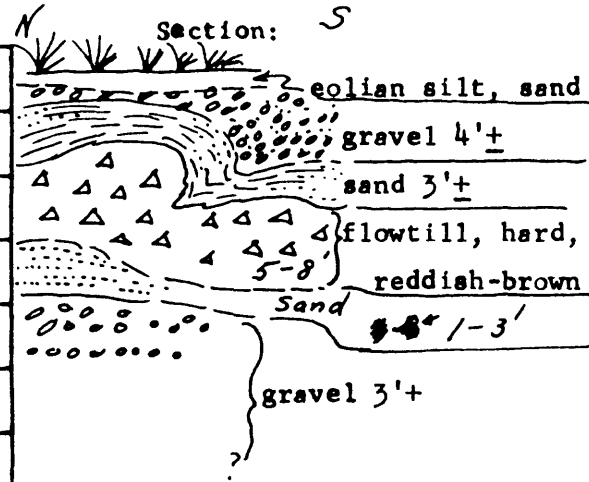
Soil development 1-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining yes Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone, conglomerate	58
Gneiss	19
Quartzite	16
Pegmatite	4
Basalt	2
Granite	1

Section: N S



General Description: Collapsed and contorted bedding; many faults.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H7

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 400' W. of Root Rd. 50' N. of Woods Rd. Coordinates 433,500 N. 687,500 E.

Geologic unit or occurrence kame terrace

Textural description gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 100'

Dimensions of pit: Areal extent 300' x 100' Exposed thickness 50'

Lithologic composition (approximate %) 70% Triassic rocks; 15% gneiss; 10% quartzite

Grain size: Maximum 4' Mean 1" Est. % of sand 65 Est. % fines 10

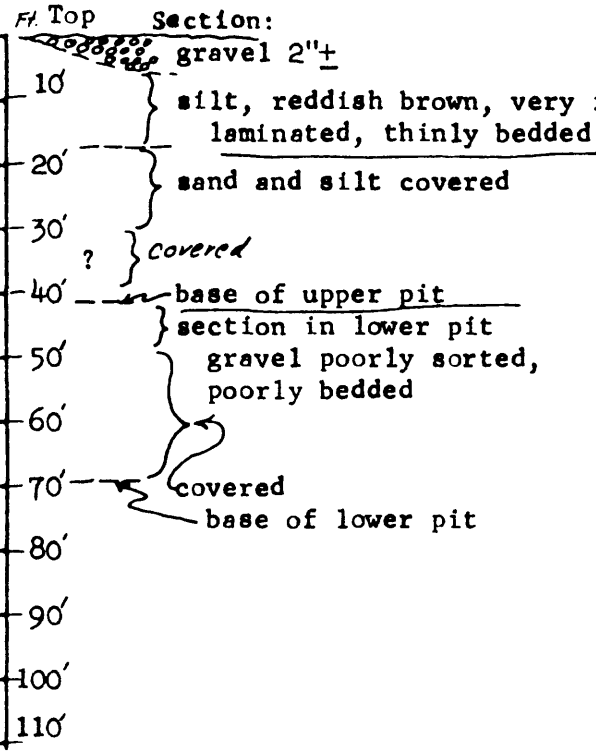
Rounding angular to well rounded Grading fair to poor Sorting fair to good

Soil development 2-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching ~~yes~~ leached

Secondary deposition some Reactive matter little

Rock type	
Triassic sandstone, conglomerate	70
Gneiss	15
Quartzite	11
Unidentified	2
Basalt	1
Amphibolite	1



General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H8

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 1000' E. of Root Road 200' S. of Stafford Rd. Coordinates 688,400 E. 434,800 N.

Geologic unit or occurrence probably kame terrace

Textural description gravel, sandy Eng. Soil Type SW-GW

Dimensions of deposit: Areal extent 500' x 200' Estimated thickness 60'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 30'

Lithologic composition (approximate %) 60% sandstone; 20% quartzite; 15% gneiss

Grain size: Maximum 4' Mean 1" Est. % of sand 70 Est. % fines 10

Rounding well Grading fair to poor Sorting poor to well

Soil development 1-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition little Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	58
Quartzite	18
Gneiss	18
Pegmatite	5
Basalt	1

Section:

Generally slumped

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 25, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H9

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 1400' E. of Rt. 83 / 400' N of Woods Rd. Coordinates 431,800 N. / 683,500 E

Geologic unit or occurrence ice contact stratified drift

Textural description sandy gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 500' x 1000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 250' Exposed thickness 15'

Lithologic composition (approximate %) 55% sandstone; 20% gneiss; 20% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 85 Est. % fines 10

Rounding well rounded Grading fair to poor Sorting well sorted

Soil development 1-2' eolian silt veneer Soil Color light yellowish gray

Oxidation or staining some Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	57
Gneiss	21
Quartzite	18
Pegmatite	3
Basalt	1

Section:

not exposed; pit not used for many years; trees 2' in diameter growing in it; pit partly filled with old farm machinery.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H10

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 2500' E. of Rt. 83 / 1000' N. of Woods Rd. Coordinates 432,800 N. / 684,500 E.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 3000' Estimated thickness 40'

Dimensions of pit: Areal extent 300' x 600' Exposed thickness 25'

Lithologic composition (approximate %) 80% sandstone; 10% quartzite; 10% gneiss

Grain size: Maximum 4' Mean 1" Est. % of sand 60 Est. % fines 5

Rounding well rounded Grading fair to poor Sorting fair to good

Soil development 1-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining little Leaching [redacted] leached

Secondary deposition some Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	80
Pegmatite	3
Quartzite	8
Gneiss	8
Granite	1

Section:

horizontally bedded gravel;

25% of section is intercolated beds of sand 6" to 2' thick.

General Description: much evidence of collapse (faulting, steep dips, etc.); many very coarse boulder beds.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H11

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 1200' S. of Stafford Rd. 2000' E. of Rt. 83 Coordinates 435,500 N. 684,200 E.

Geologic unit or occurrence kame terrace

Textural description sand, gravel, till Eng. Soil Type SW-GW-GC

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 60'

Dimensions of pit: Areal extent 1000' x 400' Exposed thickness 50'

Lithologic composition (approximate %) 65% sandstone; 15% quartzite; 10% gneiss

Grain size: Maximum 15' Mean 1" Est. % of sand 70 Est. % fines 10

Rounding angular to well rounded Grading well to poor Sorting nonsorted to well sorted

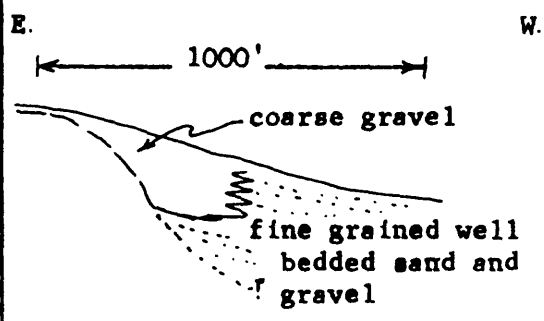
Soil development 2-4' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching upper part leached

Secondary deposition malachite and azurite Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	65
Quartzite	16
Gneiss	10
Unidentified	3
Granite	3
Pegmatite	2
Schist	1

Section:



General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H12

Location: County Tolland Town Somers Pit x Active ___ Inactive

Road location 1200' E. of Rt. 83 / 200' N. of Stafford Rd. Coordinates 684,500 E. / 437,000 N.

Geologic unit or occurrence kame terrace--ice contact stratified drift

Textural description pebbly sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 500' x 1000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 15'

Lithologic composition (approximate %) 60% sandstone; 15% gneiss; 15% quartzite

Grain size: Maximum 6" Mean sand Est. % of sand 75 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

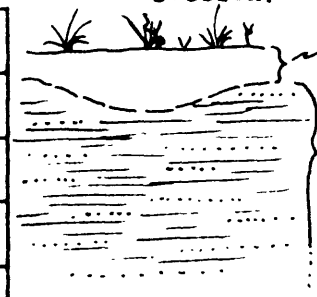
Soil development 2'± eolian silt mantle Soil Color light yellowish gray

Oxidation or staining some Leaching leached

Secondary deposition little Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	61
Gneiss	16
Quartzite	16
Pegmatite	5
Granite	2

Section:



General Description:

QUADRANGLE Hampden STATE Connecticut GEOLOGIST R. B. Colton DATE July 26, 1968 PROJECT Conn. Coop.

Field and megascopic observations:

Station number H13

Location: County Hampden Town Hampden Pit ___ Active x Inactive

Road location 100' N. of State line, 300' W. of Rt. 83 Coordinates 683,500 E. 437,500 N.

Geologic unit or occurrence kame--ice contact stratified drift

Textural description gravelly sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 40'

Dimensions of pit: Areal extent 200' x 400' Exposed thickness 15'

Lithologic composition (approximate %) 45% sandstone; 35% gneiss; 10% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 75 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 2'+ eolian silt mantle Soil Color light yellowish gray

Oxidation or staining none seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	45
Gneiss	36
Quartzite	9
Pegmatite	6
Basalt	2
Granite	2

Section:

not exposed; pit walls slumped and trees as much as 2" in diameter are growing in it.

General Description:

QUADRANGLE Hampden Massachusetts STATE

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H14

Location: County Tolland Town Somers Pit ___ Active x Inactive

2000' W. of Rt. 83 679,000 E.

Road location 1000' S. of/Grove Rd. Coordinates 434,300 N.

Kibbe

Geologic unit or occurrence kame--ice contact stratified drift

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 40'

Dimensions of pit: Areal extent 50' x 25' Exposed thickness 5'

Lithologic composition (approximate %) 75% sandstone; 15% quartzite; 5% gneiss

Grain size: Maximum 4" Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish gray

Oxidation or staining none seen Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone, conglomerate,	
etc.	77
Gneiss	5
Basalt	3
Quartzite	13
Schist	1
Granite	1

Section:

not exposed; presumably stratified sand.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H15

Location: County Tolland Town Somers Pit ___ Active x Inactive

Road location 3600' S. of State Line 2000' W. of Watchaug Rd. Coordinates 675,000 E. 434,000 N.

Geologic unit or occurrence kame--esker complex (ice contact stratified drift)

Textural description sand and gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 2500' x 600' Estimated thickness 50'

Dimensions of pit: Areal extent 300' x 100' Exposed thickness 10'

Lithologic composition (approximate %) 95% sandstone

Grain size: Maximum 2" Mean sand Est. % of sand 80 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining none seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	93
Quartzite	2
Gneiss	2
Pegmatite	3

Section:

not exposed; pit overgrown; walls slumped; pit now used as dump and storage area.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H16

Location: County Tolland Town Somers Pit ___ Active x Inactive

Road location 3000' E. of Rt. 186 just N. of Watchaug Rd. Coordinates 431,500 N. 675,000 E.

Geologic unit or occurrence outwash

Textural description sand with pebbles Eng. Soil Type SW

Dimensions of deposit: Areal extent 1 mi. x 1000'+ Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 150' Exposed thickness 10'

Lithologic composition (approximate %) 45% sandstone; 40% quartzite; 15% gneiss

Grain size: Maximum 1" Mean sand Est. % of sand 95 Est. % fines 5

Rounding well rounded Grading poor Sorting very well sorted

Soil development 1-2' eolian silt veneer Soil Color light brown

Oxidation or staining none seen Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	45
Quartzite	41
Gneiss	14

Section:

not exposed; pit long abandoned; each two holes/4' deep showed well bedded sand.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 26, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H17

Location: County Tolland Town Somers Pit ___ Active x Inactive

Road location 1400' S. of State Line 3000' W. of King Hill Rd. Coordinates 673,500 E. 436,400 N

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 3000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 50' x 100' Exposed thickness 5'

Lithologic composition (approximate %) 70% sandstone; 15% gneiss; 10% quartzite

Grain size: Maximum 4" Mean pea Est. % of sand 80 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish gray

Oxidation or staining none seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	69
Quartzite	9
Gneiss	16
Granite	1
Pegmatite	5

Section:

not exposed; pit nearly 100% grassed over.

General Description:

QUADRANGLE Hampden STATE Connecticut GEOLOGIST R. B. Colton DATE July 26, 1968 PROJECT Conn. Coop.

Field and megascopic observations:

Station number H18

Location: County Hampden Town Hampden Pit x Active ___ Inactive

800' NE. of Rt. 83 378,500 N.

Road location 800' N of Stafford Rd. Coordinates 340,000 E.

Geologic unit or occurrence outwash

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 2000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 300' Exposed thickness 25'

Lithologic composition (approximate %) 45% sandstone; 25% gneiss; 20% quartzite

Grain size: Maximum 6" Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 2' eolian mantle Soil Color light brown

Oxidation or staining none seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	45
Gneiss	23
Quartzite	20
Pegmatite	11
Unidentified	1

Section:

not exposed; pit old, slumped; trees 1' in diameter growing in it.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H19

Location: County Tolland Town Somers Pit ___ Active x Inactive

1000' NE. of Rt. 83 437,000 N.

Road location 100' S. of Stafford Rd. Coordinates 680,000 E

Geologic unit or occurrence till

Textural description mixture of several sizes Eng. Soil Type GC

Dimensions of deposit: Areal extent 150' x 1000' Estimated thickness 50'+

Dimensions of pit: Areal extent 150' x 300' Exposed thickness 10'

Lithologic composition (approximate %) 95% sandstone

Grain size: Maximum 1' Mean 0.3" Est. % of sand 60 Est. % fines 20

Rounding angular to rounded Grading fair Sorting non sorted

Soil development 1-2' eolian silt veneer Soil Color light brown

Oxidation or staining some Leaching none seen

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	96
Quartzite	3
Granite	1

Section:

till; walls slumped; large trees growing in pit; partly filled with a sawmill and trash.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H20

Location: County Hampden Town Hampden Pit ___ Active x Inactive

Road location 1200' N. of State Line 1400' W. of Somers Rd. Coordinates 343,500 E. 379,400 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 60'

Dimensions of pit: Areal extent 100' x 500' Exposed thickness 25'

Lithologic composition (approximate %) 70% sandstone; 15% quartzite; 10% gneiss

Grain size: Maximum 3 Mean 0.3" Est. % of sand 70 Est. % fines 10

Rounding well rounded Grading poor Sorting well sorted

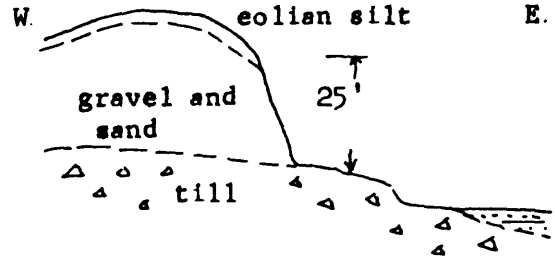
Soil development 1-2' eolian silt veneer Soil Color light brown

Oxidation or staining some Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	71
Quartzite	13
Gneiss	11
Basalt	3
Pegmatite	2

Section:



General Description:

QUADRANGLE Hampden Massachusetts STATE

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H21

Location: County Hampden Town Hampden Pit ___ Active X Inactive

Road location 1500' N. of Mass.-Conn. line just W. of Somers Rd. Coordinates 344,500 E. 379,500 N.

Geologic unit or occurrence ice contact stratified drift

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1500' x 800' Estimated thickness 50'

Dimensions of pit: Areal extent 200' x 150' Exposed thickness 5'

Lithologic composition (approximate %) 70% sandstone; 20% gneiss; 10% quartzite

Grain size: Maximum 3' Mean sand Est. % of sand 80 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	68
Quartzite	10
Gneiss	20
Pegmatite	2

Section:

not exposed, pit bulldozed over and has a sumac cover.

General Description:

QUADRANGLE Hampden Massachusetts STATE

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H22

Location: County Hampden Town Hampden Pit Active x Inactive

Road location 2600' N. of State Line just W. of Somers Rd. Coordinates 344,600 E. 380,800 N.

Geologic unit or occurrence ice contact stratified drift

Textural description sand, pebbly Eng. Soil Type SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 80'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 4'

Lithologic composition (approximate %) 55% sandstone; 20% quartzite; 15% gneiss

Grain size: Maximum 3' Mean 0.3" Est. % of sand 70 Est. % fines 10

Rounding well rounded Grading poor Sorting well

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching [illegible] leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and	
conglomerate	56
Quartzite	20
Gneiss	14
Pegmatite	6
Amphibolite	4

Section:

not exposed; trees 10" in diameter in it; pit grassed over

General Description:

QUADRANGLE Hampden Massachusetts STATE R. B. Colton GEOLOGIST July 31, 1968 DATE Mass. Coop. PROJECT

Field and megascopic observations:

Station number H23

Location: County Hampden Town Hampden Pit ___ Active x Inactive

Road location 3200' S. of Mill Rd. just E. of Somers Rd. Coordinates 345,000 E. 381,900 N.

Geologic unit or occurrence ice contact stratified drift

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 20'

Lithologic composition (approximate %) 55% sandstone; 25% gneiss; 15% quartzite

Grain size: Maximum 2' Mean 0.3" Est. % of sand 80 Est. % fines 10

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining little seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	54
Gneiss	25
Quartzite	14
Schist	1
Basalt	1
Pegmatite	5

Section:

not exposed; walls slumped; trees 1' in diameter growing in pit.

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE July 31, 1968 PROJECT Mass. Coop

Field and megascopic observations:

Station number H24

Location: County Hampden Town Hampden Pit ___ Active x Inactive

Road location 3900' N. of State Line, 800' E. of Somers Rd. Coordinates 345,800 E. 392,000 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel, sandy Eng. Soil Type GW

Dimensions of deposit: Areal extent 1500' x 500' Estimated thickness 60'

Dimensions of pit: Areal extent 500' x 150' Exposed thickness 40'

Lithologic composition (approximate %) 50% sandstone; 30% gneiss; 15% quartzite

Grain size: Maximum 3' Mean 0.3" Est. % of sand 60 Est. % fines 10

Rounding well rounded Grading fair to poor Sorting good to poor

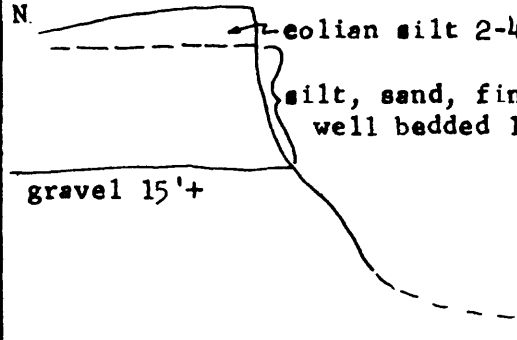
Soil development 2-4' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching none seen

Secondary deposition $CaCO_3$ coating on pebbles Reactive matter none seen

Rock type	
Triassic sandstone	51
Gneiss	28
Quartzite	17
Pegmatite	2
Granite	2

Section:



General Description: malachite coatings on many cobbles and boulders; pit is actually several coalesced pits.

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE July 31, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H25

Location: County Hampden Town Hampden Pit x Active ___ Inactive

4000' N. of State Line 346,500 E.

Road location 1500' E. of Somers Rd. Coordinates 382,000 N

Geologic unit or occurrence kame terrace

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 25'

Lithologic composition (approximate %) 55% sandstone; 25% gneiss; 10% quartzite

Grain size: Maximum 5' Mean 1" Est. % of sand 50 Est. % fines 10

Rounding well rounded Grading fair to poor Sorting fair to poor

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching ~~yes~~ leached

Secondary deposition little Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	57
Gneiss	26
Quartzite	11
Pegmatite	5
Basalt	1

Section:

slumped walls; section not exposed, presumably bedded sand and gravel

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE July 31, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H26

Location: County Hampden Town Hampden Pit x Active / Inactive

Road location 1400' S. of Mill Rd. 700' W. of Somers Rd. Coordinates 383,500 N. 344,300 E.

Geologic unit or occurrence ice contact stratified drift

Textural description coarse gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 2000' x 4000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 20'

Lithologic composition (approximate %) 45% sandstone; 30% gneiss; 15% quartzite

Grain size: Maximum 6' Mean 1" Est. % of sand 50 Est. % fines 10

Rounding well rounded to angular Grading fair Sorting poor

Soil development 1' eolian mantle Soil Color light yellowish brown soil

Oxidation or staining little Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	46
Gneiss	31
Quartzite	16
Pegmatite	7

Section:

1-2' eolian silt with cobbles, etc.

>20' coarse poorly bedded cobbles, boulders, pebbles; lenses of faulted stratified sand show thrusting southward.

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B Colton DATE July 31, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H27

Location: County Hampden Town Hampden Pit ___ Active x Inactive

Road location 2100' W. of Somers Rd. 400' N of Mill Rd. Coordinates 384,900 N 342,600 E.

Geologic unit or occurrence outwash

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 0.5 mi. x 0.5 mi. Estimated thickness 40'

Dimensions of pit: Areal extent 200' x 50' Exposed thickness 5'

Lithologic composition (approximate %) 50% gneiss; 20% sandstone; 10% quartzite; 10% pegmatite

Grain size: Maximum 8" Mean 0.3" Est. % of sand 50 Est. % fines 5

Rounding well rounded Grading fair Sorting poor

Soil development 1-2' eolian silt veneer Soil Color light yellowish brown

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	18
Gneiss	48
Basalt	1
Pegmatite	12
Granite	4
Quartzite	11
Schist	6

Section:

not exposed; pit partly filled with trash; trees several inches in diameter growing in it.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H28

Location: County Hampden Town Hampden Pit x Active ___ Inactive

Road location 800' E. of Carmody Rd. just S. of Mill Rd. Coordinates 383,000 N 340,000 E.

Geologic unit or occurrence pitted outwash plain

Textural description sand and gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 2 x 1 mi. Estimated thickness 40'

Dimensions of pit: Areal extent 500' x 500' Exposed thickness 10'

Lithologic composition (approximate %) 35% gneiss; 35% sandstone; 20% quartzite

Grain size: Maximum 6" Mean 1" Est. % of sand 75 Est. % fines 5

Rounding well rounded Grading poor Sorting good

Soil development 1-2' eolian silt mantle Soil Color light brown

Oxidation or staining none seen Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	37
Triassic sandstone and	
conglomerate	35
Quartzite	20
Pegmatite	6
Basalt	1
Granite	1

Section:

not exposed; pit bulldozed nearly flat.

General Description:

QUADRANGLE Hampden Massachusetts STATE

GEOLOGIST R. B. Colton

DATE July 31, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H29

Location: County Hampden Town Hampden Pit ___ Active ___ Inactive x

Road location 1200' NE. of Rt. 21(Springfield Rd.) 300' SE. of Oak Knoll Dr. Coordinates 342,000 E. 392,500 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 2000' x 500' Estimated thickness 40'

Dimensions of pit: Areal extent 200' x 300' Exposed thickness 20'

Lithologic composition (approximate %) 80% sandstone; 10% quartzite

Grain size: Maximum 1' Mean 0.3" Est. % of sand 75 Est. % fines 5

Rounding well rounded Grading fair to poor Sorting fair to well sorted

Soil development 1' eolian silt mantle Soil Color brown

Oxidation or staining some Leaching ~~none~~ leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	79
Quartzite	9
Gneiss	6
Pegmatite	5
Basalt	1

Section:

rudely stratified coarse gravel; pit walls slumped and bedding poorly exposed.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 1, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H30

Location: County Hampden Town Hampden Pit x Active ___ Inactive

Road location 600' E. of Town Line, 1000' SW. of Springfield Rd. Coordinates 337,600 E. 392,300 N.

Geologic unit or occurrence ice contact stratified drift

Textural description sand and pebbles Eng. Soil Type SW

Dimensions of deposit: Areal extent 1350' x 1250' Estimated thickness 40'

Dimensions of pit: Areal extent 350' x 250' Exposed thickness 15'

Lithologic composition (approximate %) 85% sandstone; 5% quartzite

Grain size: Maximum 3' Mean 1" Est. % of sand 80 Est. % fines 5

Rounding well rounded Grading poor Sorting fair to good

Soil development 1-2' eolian silt mantle Soil color light yellowish brown

Oxidation or staining little Leaching leached

Secondary deposition none seen Reactive matter none seen

Section:

not exposed

Rock type	
Triassic sandstone,	
conglomerate	86
Quartzite	7
Gneiss	4
Pegmatite	3

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 1, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H31

Location: County Hampden Town Wilbraham Pit Active x Inactive

Road location 600' N of Town Line, 1600' E. of Stony Hill Rd. Coordinates 340,700 E., 397,800 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 15'

Lithologic composition (approximate %) 40% sandstone; 25% gneiss; 15% quartzite 20% pegmatite

Grain size: Maximum 2' Mean 1" Est. % of sand 70 Est. % fines 5

Rounding well rounded Grading fair to poor Sorting poorly to well sorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish gray

Oxidation or staining little Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	40
Gneiss	24
Pegmatite	18
Quartzite	15
Granite	2
Schist	1

Section:

not exposed; pit long abandoned and overgrown with trees 6" in diameter; pit partly filled with trash

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B Colton DATE August 1, 1968 PROJECT Mass. Coop

Field and megascopic observations:

Station number H32

Location: County Hampden Town Wilbraham Pit x Active Inactive

Road location 1000' S. of Soule Rd just E. of Stony Hill Rd. Coordinates 339,000 E. 398,500 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 2000' x 2000' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 25'

Lithologic composition (approximate %) 65% sandstone; 15% gneiss; 10% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 70 Est. % fines 5

Rounding well Grading poor Sorting fair to good

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining little Leaching leached

Secondary deposition none Reactive matter none

Rock type	
Triassic sandstone and	
conglomerate	67
Gneiss	17
Quartzite	12
Pegmatite	2
Basalt	2

Section:

Not exposed; overgrown with trees 4" in diameter.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R B Colton

DATE August 1, 1968

PROJECT Mass Coop

Field and megascopic observations:

Station number H33

Location: County Hampden Town Wilbraham Pit x Active Inactive

Road location just N. of Oakland St. 300' W. of Wilbraham Rd Coordinates 345,800 E. 398,700 N

Geologic unit or occurrence till

Textural description till (materials of various sizes). Soil Type GC

Dimensions of deposit: Areal extent 1000' x 4000' Estimated thickness 50'

Dimensions of pit: Areal extent 75' x 100' Exposed thickness 15'

Lithologic composition (approximate %) 75% sandstone; 20% gneiss

Grain size: Maximum 3' Mean 1" Est. % of sand 60 Est. % fines 20

Rounding angular to subrounded Grading fair Sorting nonsorted

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone	73
Gneiss	18
Quartzite	7
Pegmatite	2

Section:

poorly exposed till; pit abandoned; overgrown with trees 4" in diameter.

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B Colton DATE August 1, 1968 PROJECT Mass Coop.

Field and megascopic observations:

Station number H34

Location: County Hampden Town Hampden Pit x Active Inactive

Road location 1 mi S. of Wilbraham Town Line, 400' W of Wilbraham Rd. Coordinates 345,300 E, 392,200 N

Geologic unit or occurrence kame terrace

Textural description gravel Eng. Soil Type GW-SW

Dimensions of deposit: Areal extent 3000' x 500' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 25'

Lithologic composition (approximate %) 65% sandstone; 15% gneiss; 15% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 70 Est. % fines 10

Rounding well rounded Grading fair to poor Sorting fair

Soil development 1' eolian silt veneer Soil Color light yellowish brown

Oxidation or staining little Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Triassic sandstone and conglomerate	64
Gneiss	15
Quartzite	13
Pegmatite	6
Basalt	2

Section:

not exposed; pit walls slumped; trees 3" in diameter growing in pit in some trash fill.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B Colton

DATE August 1, 1968

PROJECT Mass. Coop.

Field and [illegible] observations:

1135

Location: County Hampden Town Hampden Site x Active Inactive

2000' E of Wilbraham Rd. 346,800 E.

Road location just N. of Main St. Coordinates 386,800 N.

Geologic unit or occurrence kame terrace

Textural description gravel Eng. Soil Type SW-GW

Dimensions of deposit: Areal extent 1000' x 2000' Estimated thickness 100'

Dimensions of pit: Areal extent 500' x 700' Exposed thickness 50'

Lithologic composition (approximate %) 55% sandstone; 25% gneiss; 20% quartzite

Grain size: Maximum 6' Mean 1" Est. % of sand 70 Est. % fines 10

Rounding well Grading fair to good Sorting poor

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition little Reactive matter: none seen

Rock type	
Triassic sandstone and conglomerate	53
Gneiss	25
Quartzite	20
Pegmatite	2

Section:

not exposed; slumped; a few exposures show rudely stratified coarse gravel; some open work fine gravel; some lenses or lenticular beds of fine sand and silt.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 1, 1968

PROJECT Mass Coop

Field and megascopic observations:

Station number H36

Location: County Hampden Town Hampden pit x Active Inactive

Road location 1000' W. of North St 1500' N. of Hampden Main St Coordinates 350,700 E 390,000 N

Geologic unit or occurrence kame terrace overlying till

Textural description gravel and gray till Eng. Soil Type GC

Dimensions of deposit: Areal extent 500' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 25' x 200' Exposed thickness 12'

Lithologic composition (approximate %) 65% gneiss; 15% pegmatite; 10% quartzite

Grain size: Maximum 1' Mean 1" Est. % of sand 70 Est. % fines 5

Rounding well Grading fair to poor Sorting fair

Soil development 2' eolian silt mantle Soil Color light

Oxidation or staining some Leaching leached

Secondary deposition none Reactive matter none except mica

Rock type	
Gneiss	64
Pegmatite	14
Quartzite	12
Triassic sandstone	7
Schist	3

Section:

2-4' eolian silt + colluvium

2-4' stratified sand + gravel

till; gray, compact fissile

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B Colton DATE August 1, 1968 PROJECT Mass. Coop

Field and megascopic observations:

Station number: H37

Location: County Hampden Town Hampden Pit x Active Inactive

Road location: W of Cross Rd and N of Scantic Rd just S of Glendale Rd. coordinates 355,000 E 389,400 N

Geologic unit or occurrence: kame terrace

Textural description: sand and gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 2000' Estimated thickness 80'

Dimensions of pit: Areal extent 300' x 150' Exposed thickness 20'

Lithologic composition (approximate %) 50% gneiss; 20% quartzite; 15% pegmatite

Grain size: Maximum 2' Mean 1" Est. % of sand 80 Est. % fines 10

Rounding well rounded Grading poor Sorting well sorted

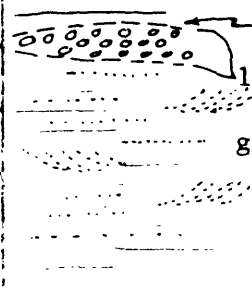
Soil development 1-2' eolian silt mantle Soil Color light gray

Oxidation or staining very little Leaching leached

Secondary deposition none Reactive matter micaceous

Rock type	
Gneiss	50
Quartzite	20
Pegmatite	13
Amphibolite	11
Basalt	1
Triassic	4
Granite	1

Section:



eolian silt

1-2' gravel

gray sand with lenses of gravel; crossbedded beds 3" to 1'; most beds 6"± gently dipping to SW; not steep enough to be deltaic.

General Description: Few Triassic clasts seen.

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 1, 1968

PROJECT Mass. Coop

Field and microscopic observations:

Station number H38

Location: County Hampden Town Hampden Pit x Active Inactive

Road location 0.9 mi. W of 72° 22' 30" Coordinates 357,900 E.
300' S of Bennett Rd. 391,200 N

Geologic unit or occurrence kame terrace

Textural description sand--little gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 200' x 100' Exposed thickness 5'

Lithologic composition (approximate %: 85% gneiss; 10% quartzite

Grain size: Maximum 6" Mean 0.5" Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading very poor Sorting well sorted

Soil development 1-2' eolian silt veneer Soil Color light yellowish gray

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	87
Quartzite	7
Pegmatite	4
Amphibolite	1
Granite	1

Section:

not exposed but presumably all fine, gray sand with small, thin lenses of gravel.

General Description: few Triassic pebbles seen

QUADRANGLE Hampden Massachusetts STATE

GEOLOGIST R. B. Colton DATE August 1, 1968

PROJECT Mass Coop.

Field and megascopic observations

Station number H39

Location: County Hampden Town Hampden Pit x Active Inactive

Road location 200' S of Ames Rd (S end) just E. of Glendale Rd. Coordinates 357,200 E. 396,000 N

Geologic unit or occurrence ice contact stratified drift

Textural description sand and gravel Eng. Soil Type SW-GW

Dimensions of deposit: Areal extent 500' x 200' Estimated thickness 40'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 20'

Lithologic composition (approximate %) 60% gneiss; 15% pegmatite; 10% quartzite

Grain size: Maximum 4' Mean 2" Est. % of sand 70 Est. % fines 10

Rounding well rounded Grading poor Sorting well sorted

Soil development 1' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

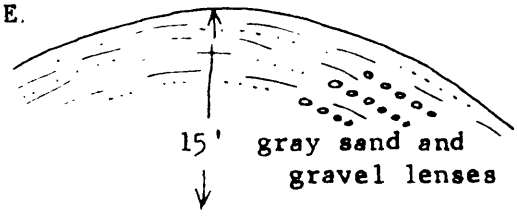
Secondary deposition none Reactive matter micaceous

Rock type	
Gneiss	61
Pegmatite	17
Quartzite	10
Triassic sandstone	8
Granite	3
Schist	1

Section:

Section not exposed in pit;

new basement excavation 50' to south.



General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R B Colton

DATE August 1, 1968

PROJECT Mass Coop

Field and megascopic observations:

Station number H40

Location: County Hampden m Monson Pit x Active Inactive

2000' N of Bennett Rd. 360,800 E.

Road location just W of Thayer Rd. Coordinates 410,500 N

Geologic unit or occurrence crevasse filling (ice contact stratified drift)

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 400' Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 5'

Lithologic composition (approximate %) 50% gneiss; 30% quartzite; 10% pegmatite

Grain size: Maximum 1' Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining none Leaching leached

Secondary deposition none Reactive matter none

Section:

not exposed

Rock type	
Gneiss	52
Quartzite	28
Pegmatite	10
Amphibolite	8
Triassic sandstone	2

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 2, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H41

Location: County Hampden Town Wilbraham Pit x Active ___ Inactive

1100' W. of Thayer Rd. 359,500 E.

Road location N. and S. of Bennett Rd. Coordinates 909,000 N.

W. of Thayer Brook

Geologic unit or occurrence esker (ice channel filling or ice contact stratified drift.)

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 2000' x 100' Estimated thickness 15'

Dimensions of pit: Areal extent 50' x 300'+ Exposed thickness 10'

Lithologic composition (approximate %) 50% gneiss; 20% quartzite; 15% amphibolite

Grain size: Maximum 12' Mean 1" Est. % of sand 60 Est. % fines 10

Rounding well rounded Grading fair to poor Sorting poor to fair

Soil development 1-2' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	49
Quartzite	19
Amphibolite	15
Pegmatite	10
Triassic sandstone and conglomerate	7

Section:

not exposed; esker core removed; partly filled with trash and overgrown with trees as much as 6" in diameter.

General Description: most of esker has been removed down to road level but two narrow ridges along each flank of esker remain.

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE August 2, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H42

Location: County Hampden Town Wilbraham Pit ___ Active x Inactive

Road location 30' ' N. of Monson Rd. 400' W. of Glendale Rd Coordinates 355,800 E. 409,500 N

Geologic unit or occurrence kame terrace--ice contact stratified drift

Textural description gray gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 40'

Dimensions of pit: Areal extent 50' x 10' Exposed thickness 15'

Lithologic composition (approximate %) 35% gneiss; 30% quartzite; 15% pegmatite

Grain size: Maximum 4' Mean 1" Est. % of sand 60 Est. % fines 10

Rounding subrounded Grading fair to poor Sorting poor to fair

Soil development 1' eolian silt mantle Soil Color light brown

Oxidation or staining some Leaching ~~yes~~ leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	35
Quartzite	27
Pegmatite	14
Amphibolite	11
Granite	10
Schist	2
Triassic sandstone	1

Section:

not exposed; pit walls slumped; trees several inches in diameter exposed; dug holes reveal poorly stratified gravel and lenses of sand.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B Colton

DATE August 2, 1968

PROJECT Mass. Coop

Field and megascopic observations:

Station number H43

Location: County Hampden Town Wilbraham Pit ___ Active x Inactive

Road location 1200' S. of Monson Rd. just W of Hollow Rd. Coordinates 405,500 N. 354,300 E.

Geologic unit or occurrence esker--ice contact stratified drift

Textural description coarse gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 200' Estimated thickness 25'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 3'

Lithologic composition (approximate %) 35% gneiss; 20% quartzite; 20% amphibolite

Grain size: Maximum 4' Mean 1" Est. % of sand 50 Est. % fines 10

Rounding angular to subrounded Grading fair to poor Sorting poor

Soil development not seen Color unknown

Oxidation or staining some Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	33
Amphibolite	20
Quartzite	20
Pegmatite	15
Triassic sandstone	8
Granite	4
Schist	1

Section:

not exposed; pit very old; long abandoned, shallow; large trees growing in it; many boulders left in it; almost completely covered by vegetation.

General Description:

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 2, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H44

Location: County Hampden Town Hampden Pit ___ x Active ___ Inactive

Road location NE. corner Scantic Rd. and So. Monson Rd. Coordinates 356,50[illegible] E. 388,100 N

Geologic unit or occurrence kame terrace

Textural description sand, gray Eng. Soil Type SW

Dimensions of deposit: Areal extent 100' x 500' Estimated thickness 50'

Dimensions of pit: Areal extent 100' x 50' Exposed thickness 25'

Lithologic composition (approximate %) 75% gneiss; 10% pegmatite; 10% quartzite

Grain size: Maximum 6" Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 1-2' eolian silt veneer Soil Color light brown

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	75
Quartzite	10
Pegmatite	11
Amphibolite	3
Schist	1

Section:

not exposed, but dug holes indicate thin, well bedded sand with thin, scattered lenses of gray gravel.

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE August 2, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H45

Location: County Hampden Town Hampden Pit x Active ___ Inactive

Road location 600' SW. of Stafford Rd. 900' E. Rocky Dundy Rd. Coordinates 360,500 E. 382,200 N.

Geologic unit or occurrence kame (ice contact stratified drift)

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 50'

Dimensions of pit: Areal extent 50' x 50' Exposed thickness 25'

Lithologic composition (approximate %) 45% gneiss; 25% quartzite; 15% pegmatite 15% amphibolite

Grain size: Maximum 6" Mean 0.3" Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 6" eolian silt mantle Soil Color brown

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter none seen

Rock type	
Gneiss	44
Quartzite	24
Pegmatite	14
Amphibolite	14
Triassic	3
Unidentified	1

Section:

not exposed; pit walls slumped but dug holes indicate well bedded gray sand with scattered pebbles, cobbles, and thin lenses of gravel throughout whole section.

General Description: Pit bottom partly filled with trash. A similar pit is 1/2 mile to east.

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE August 2, 1968 PROJECT Mass. Coop.

Field and megascopic observations:

Station number H46

Location: County Tolland Town Somers Pit x Active ___ Inactive

2200' N of 42° N. 689,300 E.

Road location just E. of Mountain Rd. Coordinates 427,200 N.

Geologic unit or occurrence ice contact stratified drift

Textural description sand and some gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 200' x 200' Exposed thickness 12'

Lithologic composition (approximate %) 40% gneiss; 20% quartzite; 15% pegmatite

Grain size: Maximum 6' Mean 0.5" Est. % of sand 80 Est. % fines 5

Rounding subrounded Grading poor Sorting fair to good

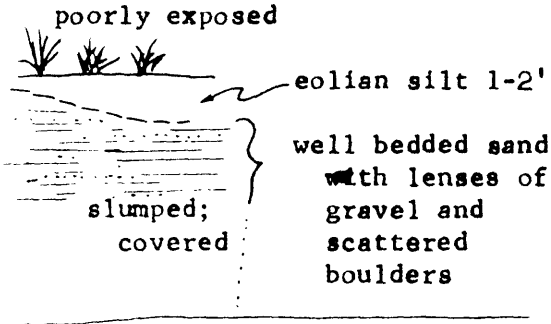
Soil development 1-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	39
Quartzite	20
Pegmatite	17
Triassic sandstone	13
Amphibolite	8
Schist	2
Granite	1

Section:



General Description: Several large angular boulders left in pit.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H47

Location: County Tolland Town Somers Pit ___ Active x Inactive

Road location 3000' E. of Root Rd. / 1000' NW. of Mountain Rd. / just E. of Worthington Pond Coordinates 690,600 E. / 430,900 N.

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 100' Exposed thickness 5'

Lithologic composition (approximate %) 45% gneiss; 20% pegmatite; 10% sandstone

Grain size: Maximum 1' Mean 1" Est. % of sand 60 Est. % fines 10

Rounding well rounded Grading fair Sorting poor

Soil development 1' eolian silt mantle Soil Color brown

Oxidation or staining none seen Leaching leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	47
Pegmatite	21
Triassic sandstone	10
Amphibolite	9
Quartzite	8
Schist	3
Granite	1
Basalt	1

Section:

not exposed; pit is old and partly filled with boulders, cobbles, trash; trees 6" in diameter are growing in it.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H48

Location: County Tolland Town Stafford Pit x Active ___ Inactive

Road location 800' S. of State Line just SE. of Rocky Dundy Coordinates 697,400 E. 436,400 N.

Geologic unit or occurrence till, sandy, gray

Textural description till Eng. Soil Type GC

Dimensions of deposit: Areal extent 2000' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 25' Exposed thickness 5'

Lithologic composition (approximate %) 75% gneiss; 20% pegmatite; 5% quartzite

Grain size: Maximum 5' Mean 1" Est. % of sand 80 Est. % fines 10

Rounding angular to subrounded Grading fair to good Sorting nonsorted

Soil development 1-2' eolian silt Soil Color light yellowish gray

Oxidation or staining little Leaching leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	73
Pegmatite	21
Quartzite	6

Section: till (as determined from dug holes); birch saplings 1" in diameter growing in this borrow pit.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H49

Location: County Tolland Town Stafford Pit x Active ___ Inactive

Road location 3200' E. of Rocky Dundy Rd. / 2400' S. of State Line Coordinates 700,100 E. / 434,900 N.

Geologic unit or occurrence kame terrace--ice contact stratified drift

Textural description gravel Eng. Soil Type SW

Dimensions of deposit: Areal extent 200' x 1000' Estimated thickness 30'

Dimensions of pit: Areal extent 150' x 75' Exposed thickness 15'

Lithologic composition (approximate %) 65% gneiss; 20% quartzite; 5% pegmatite

Grain size: Maximum 1' Mean 1" Est. % of sand 75 Est. % fines 5

Rounding well rounded Grading poor to fair Sorting fair

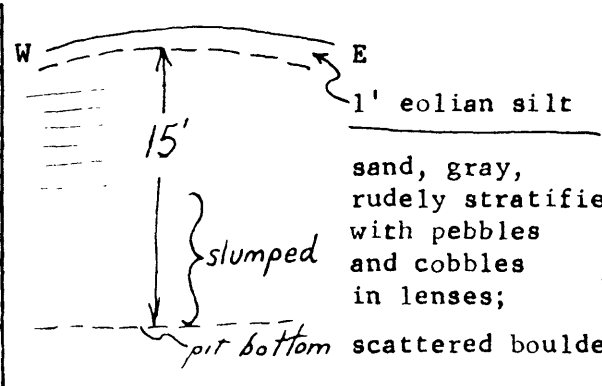
Soil development 1' eolian silt veneer Soil color light yellowish gray

Oxidation or staining little Leaching leached

Secondary deposition none Reactive matter micaceous

Rock type	
Gneiss	65
Quartzite	21
Pegmatite	6
Schist	4
Amphibolite	4

Section:



General Description: Some Triassic sandstone cobbles seen in pit.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H50

Location: County Tolland Town Stafford Pit x Active ___ Inactive

Road location 3300' E. of Rocky Dundy Rd. 3000' S. of State Line Coordinates 700,000 E. 434,300 N.

Geologic unit or occurrence kame terrace--ice contact stratified drift

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 40'

Dimensions of pit: Areal extent 50' x 50' Exposed thickness 20'

Lithologic composition (approximate %) 65% gneiss; 15% quartzite; 10% sandstone

Grain size: Maximum 1' Mean sand Est. % of sand 90 Est. % fines 5

Rounding well rounded Grading poor Sorting well sorted

Soil development 2-4' eolian silt and colluvium Soil Color yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	66
Quartzite	13
Triassic sandstone	10
Pegmatite	3
Amphibolite	2

Section:

General Description: Several Triassic sandstone pebbles seen. Nearby boulder of gneiss estimated to be 20' x 15' x 10'.

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H51

Location: County Tolland Town Stafford Pit x Active ___ Inactive

1200' NE. of Stafford Rd. 696,400 E.

Road location just W. of Gilbert Rd. Coordinates 432,000 N.

1200' W. of Culver Pond

Geologic unit or occurrence ice contact stratified drift

Textural description gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 20'

Dimensions of pit: Areal extent 200' x 100' Exposed thickness 15'

Lithologic composition (approximate %) 70% gneiss; 10% pegmatite; 10% amphibolite

Grain size: Maximum 5' Mean 2" Est. % of sand 50 Est. % fines 10

Rounding angular to subrounded Grading fair Sorting poor

Soil development 1' eolian silt Soil Color light yellowish brown soil

Oxidation or staining 1' some Leaching leached

Secondary deposition none seen Reactive matter micaceous

Rock type	
Gneiss	72
Pegmatite	12
Amphibolite	9
Quartzite	5
Granite	2

Section:

not exposed; pit long abandoned; trees 4" in diameter growing in it; numerous boulders left, each 4-6' in diameter.

General Description:

QUADRANGLE Hampden

STATE Connecticut

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Conn. Coop.

Field and megascopic observations:

Station number H52

Location: County Hampden Town Hampden Pit Active x Inactive

Road location 250' S. of E. end Burleigh Rd. Coordinates 397,900 N.
40' E. of North Rd. 353,000 E.

Geologic unit or occurrence kame terrace--ice contact stratified drift

Textural description coarse gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 500' Estimated thickness 30'

Dimensions of pit: Areal extent 100' x 200' Exposed thickness 15'

Lithologic composition (approximate %) 50% gneiss; 20% pegmatite; 10% quartzite

Grain size: Maximum 3' Mean 2" Est. % of sand 70 Est. % fines 5

Rounding angular to subrounded Grading fair to good Sorting poor

Soil development 1-3' eolian silt mantle Soil Color light yellowish brown

Oxidation or staining some Leaching leached

Secondary deposition none Reactive matter micaceous

Rock type	
Gneiss	52
Pegmatite	19
Quartzite	12
Amphibolite	9
Triassic sandstone	6
Schist	2

Section:

slumped; gravel rudely stratified.

General Description: Much oversized material including 1-4' boulders and Triassic sandstone cobbles and boulders was left in the pit.

QUADRANGLE Hampden

STATE Massachusetts

GEOLOGIST R. B. Colton

DATE August 5, 1968

PROJECT Mass. Coop.

Field and megascopic observations:

Station number H53

Location: County Hampden Town Springfield Pit x Active Inactive

Road location 3000' NE. Allen Rd. 200' E. of Cooley St. Coordinates 329,50 E. 401,500 N.

Geologic unit or occurrence outwash

Textural description sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 0.5 mi. x 0.5 mi. Estimated thickness 40'

Dimensions of pit: Areal extent 400' x 400' Exposed thickness 20'

Lithologic composition (approximate %) 50% gneiss; 15% quartzite; 20% sandstone

Grain size: Maximum 6" Mean 0.5" Est. % of sand 90 Est. % fines 5

Rounding well Grading poor Sorting well

Soil development 2'± eolian silt and sand Soil Color light yellowish brown

Oxidation or staining veneer some Leaching leached

Secondary deposition little Reactive matter none

Rock type	
Gneiss	49
Quartzite	17
Pegmatite	12
Triassic sandstone	21
Basalt	1

Section:

slumped, well stratified sand with thin lenses of fine gravel.

General Description:

QUADRANGLE Hampden STATE Massachusetts GEOLOGIST R. B. Colton DATE August 5, 1968 PROJECT Mass. Coop.