PRELIMINARY MATERIALS MAP OF THE SOUTH SANDISFIELD QUADRANGLE, MASSACHUSETTS-CONNECTICUT

BY
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1. Lake Superior seismic experiment, by W. H. Jackson and B. L. Tibbetts. 4 p., and Appendix of seismograms, 4 figs., 1 table.

2. Preliminary materials map of the Great Barrington quadrangle, Massachusetts, by G. William Holmes. 1 map, scale 1:24,000, and 21 data sheets. Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass.; U. S. Bureau of Public Roads, 31 St. James Ave., Boston, Mass.; Room 1, 270 Dartmouth St., Boston, Mass. Copies from which reproductions can be made at private expense are available in the last-named office.

3. Preliminary materials map of the South Sandisfield quadrangle, Massachusetts-Connecticut, by G. William Holmes. 1 map, scale 1:24,000, and 9 data sheets. Massachusetts Dept. of Public Works, 100 Nashua St., Boston, Mass.; U. S. Bureau of Public Roads, 31 St. James Ave., Boston, Mass.; Room 1, 270 Dartmouth St., Boston, Mass. Copies from which reproductions can be made at private expense are available in the last-named office.

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Field and megascopic observations:

Station number 1

Location: County Litchfield Town Norfolk Pit ___ Active X Inactive

Road location Just north intersection of Conn.-U.S. Rt. 44 and Ashpohtag Road. Coordinates 42°00'30" N 73°13'30" W

Geologic unit or occurrence ice-contact stratified drift in kame

Textural description pebbly sand Eng. Soil Type SW

Dimensions of deposit: Areal extent (ca)300' x 500' Estimated thickness 70'

Dimensions of pit: Areal extent 50' x 50' Exposed thickness 70'

Lithologic composition (approximate %) 70%-80% quartzite

Grain size: Maximum 10" Mean .5" Est. % of sand 80% Est. % fines 1-3%

Rounding subrounded Grading well graded Sorting medium

Soil development 5" A 10 yr 4/4 moist; 34" B 10 yr 5/8 sand of C Horizon Color ___

Oxidation or staining colored: 10 yr 7/3 Leaching ___

Secondary deposition ___ Reactive matter $CaCO_3$

Section:

Rock type	

General Description: Walls of pit are badly slumped. 50'(?) of well stratified, well graded sand including lenses of well sorted pebble gravel.

QUADRANGLE South Sandisfield

STATE Connecticut

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. Materials

Field and megascopic observations:

Station number 2

Location: **County** Berkshire **Town** New Marlboro **Pit** X **Active** ___ **Inactive**

Road location 4500' E SE on unnamed private road intersecting Norfolk road at Huxley Cem. **Coordinates** ___

Geologic unit or occurrence ice-contact stratified drift in kame

Textural description sandy gravel **Eng. Soil Type** GW

Dimensions of deposit: **Areal extent** 600' x 1500' **Estimated thickness** 10'-30'

Dimensions of pit: **Areal extent** 75' x 250' **Exposed thickness** 20'

Lithologic composition (approximate %) ___

Grain size: **Maximum** 96" **Mean** 2" **Est. % of sand** 60% **Est. % fines** 7-9%

Rounding subangular subrounded **Grading** well graded **Sorting** poor

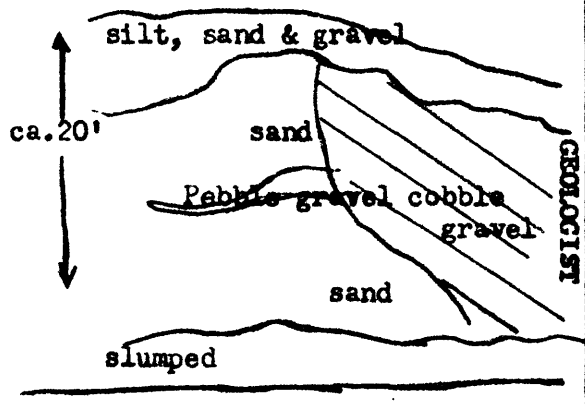
Soil development much of topsoil stripped; 4" A, A_2; 32" B **Color** A: 10 yr 4/4 A_2: 10 yr 7/1 all colors dry B: 10 yr 5/8

Oxidation or staining slight staining throughout section **Leaching** ___

Secondary deposition ___ **Reactive matter** C: sandy cobble gravel: 10 yr 7/4

Rock type	Remarks	Percent
Quartzite		8
Sandstone, conglomerate		
Limestone, dolostone, marble		
Gneiss		81
Schists	predominantly chlorite	6
Igneous { mafic / felsic		3
Free quartz		
Miscellaneous		2

Section:



General Description: Section exposed on west wall: 10' of poorly sorted silt, sand, coarse pebble gravel overlying 10' of coarse sand, and fine pebble gravel.

Although of predominantly sandy pebble gravel, materials exposed in this pit include 10%-15% cobbles and boulders. Surface of kame is littered with boulders averaging (ca) 36" diam. Most boulders are of gneiss.

QUADRANGLE South Sandisfield

STATE Massachusetts

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. materials

Field and megascopic observations:

Station number 3

Location: County Berkshire Town Stockbridge Pit X Active ___ Inactive

Road location West side of Cherry Road; 1800' S. of intersection Cherry and Glendale Roads Coordinates 42°16'30" N 73°21'45" W

Geologic unit or occurrence Ice-contact deposit: kame delta

Textural description pebble gravel Eng. Soil Type GW

Dimensions of deposit: Areal extent 1000' x 3300' Estimated thickness 90'-100'

Dimensions of pit: Areal extent 200' x 400' Exposed thickness 60'

Lithologic composition (approximate %) ___

Grain size: Maximum 10" Mean 0.75" Est. % of sand 30% Est. % fines 0-3%

Rounding rounded Grading well graded Sorting medium

Soil development top soil stripped Color gravel of C horizon 10 yr 7/1&2

Oxidation or staining variable; little or no staining of gravel beds; sandy beds 10 yr 5/3 Leaching ___

Secondary deposition Fe_2O_3 on some pebbles; caliche common Reactive matter $CaCO_3$

Section:

Rock type	Remarks	Percent
Quartzite	some green	13
Sandstone, conglomerate	arkose; some calcareous sandstone	8
Limestone, dolostone marble		60
Gneiss		1
Schists		7
Igneous {mafic / felsic}		
Free quartz	commonly assoc. with chlorite schist	11
Miscellaneous		

General Description: Exposures are generally poor as walls are badly slumped. Best exposure on south wall: 60' of interbedded fine to medium pebble gravel and coarse to medium pebble sand (as lenses and sheets). Occasional fine sandy bed.

Exposure on east end of north wall shows pebbly sand of foresets overlying finer sand and silty sand of delta bottom sets(?).

Caliche is common; large chunks and sheets of calcified coarse sand and fine pebble gravel may be found along south wall.

QUADRANGLE South Sandisfield

STATE Massachusetts

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. Materials

Field and megascopic observations:

Station number 4

Location: County Berkshire Town New Marlboro Pit X Active Inactive

Road location SE side Hotchkiss Road; 3000' east of intersection Hotchkiss and Norfolk Roads. Coordinates 42°04' N 73°12' 30" W

Geologic unit or occurrence ice contact stratified drift in kame

Textural description sandy gravel Eng. Soil Type GM

Dimensions of deposit: Areal extent 500' x 1000' Estimated thickness 10'-40'

Dimensions of pit: Areal extent 100' x 150' Exposed thickness 30'

Lithologic composition (approximate %)

Grain size: Maximum 18" Mean 1" Est. % of sand 50% Est. % fines 9-12%

Rounding subangular subrounded Grading medium Sorting poor

Soil development 10" A; A_2 24"-30" B C horizon: 10 yr 7/4 dry Color see below

Oxidation or staining Fe_2O_3 coatings common on pebbles Leaching

Secondary deposition Reactive matter $CaCO_3$

Section:

Rock type	Remarks	Percent
Quartzite Sandstone, conglomerate		13
Limestone, dolostone, marble		
Gneiss Schists	 badly weathered	58 15
Igneous {mafic {felsic		
Free quartz		11
Miscellaneous		3

General Description: 3'-5' of non-stratified cobbly silt and sand mix overlying 15'-25' of sandy pebble gravel. Gravel matrix is slightly cohesive (some silt). About 3% boulders. Greater part of pit area has been graded. South wall remains.

QUADRANGLE South Sandisfield

STATE Massachusetts

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. Materials

Field and megascopic observations:

Station number 5

Location: County Berkshire Town New Marlboro Pit X Active ___ Inactive

Road location NW side Hotchkiss Road; 3000' east of intersection Hotchkiss and Norfold Roads Coordinates 42°04' N 73°12'30" W

Geologic unit or occurrence ice contact stratified drift as kame

Textural description sandy gravel **Eng. Soil Type** GM

Dimensions of deposit: Areal extent 500' x 100' Estimated thickness 10'-40'

Dimensions of pit: Areal extent 75' x 100' Exposed thickness 25'

Lithologic composition (approximate %) ___

Grain size: Maximum 30" Mean 1.75" Est. % of sand 45% Est. % fines 9-15%

Rounding angular to subrounded **Grading** medium **Sorting** poor

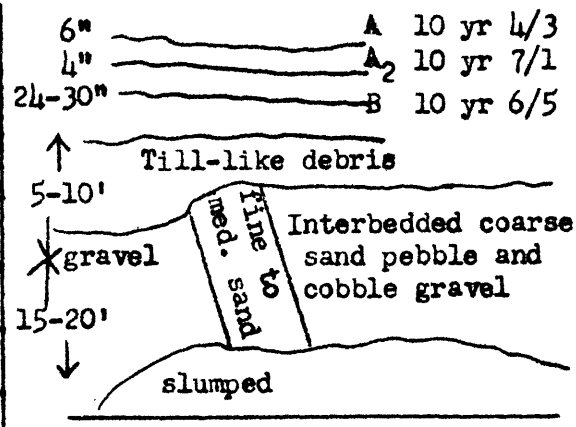
Soil development 10" A, A_2; 24"-30" B **Color** see below

Oxidation or staining Fe_2O_3 coatings common on pebbles, some ferruginous cementation **Leaching** ___

Secondary deposition ___ **Reactive matter** $CaCO_3$

Rock type	Percent
Quartzite Sandstone, conglomerate	13
Limestone, dolostone marble	
Gneiss Schists	67 14
Igneous {mafic felsic	
Free quartz	5
Miscellaneous	1

Section:



General Description: 5'-10' of non-stratified to poorly stratified cobbly silt with boulders; and silt, sand, cobbles overlying 15' to 20' poorly stratified sandy pebble and cobble gravel. About 3% boulders.

QUADRANGLE South Sandisfield

STATE Massachusetts

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. Materials

Field and megascopic observations:

Station number 6

Location: County Berkshire Town New Marlboro Pit X Active Inactive

Road location S side of Mill River Road; 1100' W SW of intersection Mill River and River Roads

Coordinates 42°06' N 73°14'30" W

Geologic unit or occurrence kame

Textural description pebbly sand Eng. Soil Type SW

Dimensions of deposit: Areal extent 400' x 700' Estimated thickness 35'

Dimensions of pit: Areal extent 50' x 50' Exposed thickness 5'-30'

Lithologic composition (approximate %) 75% quartzite/20% gneiss and schists

Grain size: Maximum 3" Mean 0.3" Est. % of sand 75% Est. % fines 5-7%

Rounding subrounded Grading well graded Sorting medium

Soil development 4" A 10 yr 4/4 32" B 10 yr 5/8 Color materials of C horizon: 10 yr 6/3 moist.

Oxidation or staining _____ Leaching _____

Secondary deposition _____ Reactive matter $CaCO_3$

Section:

Rock type	

General Description: Walls of pit are very badly slumped and incompletely vegetated. Textural description and approximation of lithologic composition are from appearance of slump debris.

QUADRANGLE South Sandisfield

STATE Massachusetts

GEOLOGIST J. Atherton

DATE August 1963

PROJECT Mass. Materials

Estimated Engineering Characteristics of Major Deposits
of Unexploited Construction Materials

Geologist G. William Holmes Date September 1963 Project Mass. Materials

Location: Quadrangle South Sandisfield State Mass. Town Sandisfield

Identifying symbol A Lat 42°03' N. Long 73°09' W.

Road coordinates One-fourth mile west of Norfolk Road

Accessibility Road must be constructed to deposit

Geologic unit Ice-contact stratified drift: kame

Topography Low, uneven hill

Water supply Small brook to west probably inadequate

Estimated texture Sand

Dimensions: Areal extent 1500 x 900' Estimated thickness 20'

Present land use Forest

Local abundance of similar materials This and small kame to west are among the few possible sources of sand in the quadrangle.

General description:

Well-sorted clean sand, possibly with a few pebbles, occuring in a group of small hillocks.

Evaluation: Suitability, and potential utilization.

Owing to the small quantity of construction material resources in the quadrangle, this kame has relative value, in spite of lack of water supply and problems of immediate access. A small kame to the west is probably of similar materials and would yield a slightly smaller quantity of materials. This kame is separated from A by a swamp.

Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist John Atherton Date September 1963 Project Mass. Materials

Location: Quadrangle South Sandisfield State Mass. Town Sandisfield

Identifying symbol B Lat 42°06' N Long 73°08' W.

Road coordinates Junction of Sandisfield and Dodd Roads

Accessibility On roads

Geologic unit Ice-contact stratified drift: kame

Topography Low, gently rolling hillock

Water supply Small supply from Silver Brook

Estimated texture Sand

Dimensions: Areal extent 700 x 900' Estimated thickness 20'

Present land use Agriculture

Local abundance of similar materials Kame to the southeast and deposits at A are only other significant sources of sand in the quadrangle.

General description:

Well-sorted sand with possibly a few pebbles.

Evaluation: Suitability, and potential utilization.

Easy access, water supply, and scarcity of construction materials in the area make the deposit relatively valuable. Small kame to the southeast is partially forested and land costs may be lower.

Estimated Engineering Characteristics of Major Deposits of Unexploited Construction Materials

Geologist G. William Holmes **Date** September 1963 **Project** Mass. Materials

Location: **Quadrangle** South Sandisfield **State** Conn. **Town** North Canaan/ Norfolk

Identifying symbol C **Lat** 42°00' N. **Long** 73°14' W.

Road coordinates On Route 44, 2-3 miles west of Norfolk Center

Accessibility Mostly south of Blackberry River

Geologic unit Outwash deposit

Topography Nearly featureless

Water supply Large supply from Blackberry River

Estimated texture Boulder gravel

Dimensions: **Areal extent** 9000 x 500' **Estimated thickness** 10'

Present land use Pasture

Local abundance of similar materials Only large supply of boulder gravel

General description:

Poorly sorted, poorly stratified boulder gravel; some boulders up to 2 feet across. Probably contains local bodies of cobble gravel and sand.

Evaluation: **Suitability, and potential utilization.**

Marginal source except for very coarse fill, but because of absence of similar materials may be of some use.