OPEN MATERIALS SITES; SAMPLED

LEGEND

====== Trail or lane

Road

Railroad

Hedge or trees

Major streams

Intermittent streams

Pond or lake

Open materials sites; sampled

Open materials sites; not sampled

Prospective materials sites; sampled

Prospective materials sites; not sampled

Center of section

Dwelling

Cemetery

School

Church

Town or city
**MATERIAL SITE DATA FORM**

<table>
<thead>
<tr>
<th>Site No.</th>
<th>LS+1</th>
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<tbody>
<tr>
<td>Date</td>
<td>June 27, 1978</td>
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<tr>
<td>Material</td>
<td>Limestone</td>
</tr>
<tr>
<td>County</td>
<td>Neosho</td>
</tr>
<tr>
<td>Location</td>
<td>NE 1/4 Sec. 19 Twp. 27S Range 18E</td>
</tr>
<tr>
<td>Owner</td>
<td>Harry Byers &amp; Sons, Inc. Box 491 Chanute, KS 66720</td>
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<tr>
<td>Nature of Deposit</td>
<td>Dry</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Good</td>
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<td>Status of Site</td>
<td>Open Materials Site; Sampled</td>
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**EXPLORATION DATA**

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<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
<th>1/2</th>
<th>3/4</th>
<th>3/8</th>
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<th>G.F.</th>
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**CORRELATION DATA**

Geological Age: Pennsylvanian
Geological Source: Raytown Limestone Mbr. - Iola Limestone Fm.
Material Similar To: KDOT Lab. No.s 75-141, 76-46, 77-89

Specific Gravity (Sat) 2.64-2.66 (Dry) 2.60-2.63
Los Angeles Wear 27(B) - 30(B)
Absorption 1.0-1.8 Soundness 0.96-0.97
Wt. Cu. Ft. Sr. Ratio

Remarks: Permanent type crushing operation. Soft chalky seam 1' thick (.3m) approximately 9' (2.7m) from bottom. Matl's. Dept. Site No. 67-3

Scale: 1 inch = ¼ mile
MATERIAL SITE DATA FORM

Site No. LS+2 Pd

Date June 27, 1978

Material Limestone

County Neosho

Location SE_{1,2}, SE_{3,4}

Sec. 10

Twp. 27S

Range 19E

Owner Kenneth D. Clasen & W R.R. 1 Erie, KS 66733

Nature of Deposit Dry

Accessibility Good

Status of Site Open Materials Site; Sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Overburden | Depth of Material | 1/8 | 1/4 | 3/8 | 1/2 | 1 | 2 | 3 | 4 | 5 | 8 | 16 | 30 | 50 | 100 | Wash | O.F. | L.L. | P.L. |
|-----------|---------------------------|---------------------|------------------|-----|-----|-----|-----|---|---|---|---|---|---|----|----|----|----|-----|------|------|------|------|

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To KDOT Lab No. 10266

Specific Gravity (Sat.) 2.47 (Dry) 2.38

Los Angeles Wear 38.7 (B)

Absorption 3.61 Soundness 0.96

Wt. Cu.Ft. Str. Ratio

Remarks Periodic crushing operation. Ledge contains several vertical clay seams. Mat'ls. Dept. Site No. 67-29

Scale: 1 inch = 1/8 Mile
MATERIAL SITE DATA FORM

Site No. LS+3

Date June 27, 1978

Material Limestone

County Neosho

Location NW ¼, SW ¼ Sec. 23 Twp. 27S Range 19E

Owner H. Eddie Smith & Wife

Address Stark, KS 66775

Nature of Deposit Dry

Accessibility Good

Site Located on Plate II

Status of Site Open Materials Site; Sampled

EXPLORATION DATA

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Over-Burden</th>
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CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To KDOT Lab No.s 100524 & 73-605

Specific Gravity (Sat.) 2.54, 2.56 (Dry) 2.46, 2.47

Los Angeles Wear 32.0 (C), 33 (B)

Absorption 3.19, 3.52 Soundness 0.94, 0.91

Wt. Cu. Ft. Str. Rotla

**MATERIAL SITE DATA FORM**

**Site No.**

**Date**

**June 27, 1978**

**Material**

**Limestone**

**County**

**Neosho**

**Location**

SW\(_1\)/NW\(_1\) 27Twp. 27S 20E

**Owner**

William C. Weir & wife 115 S. Main Erie, KS 66733

**Nature of Deposit**

Dry

**Accessibility**

Good

**Site Located on Plate**

II

**Status of Site**

Open Materials Site; Sampled

### EXPLORATION DATA

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### CORRELATION DATA

**Geological Age**

Pennsylvanian

**Geological Source**

Winterset Limestone Mbr. - Dennis Limestone Fm.

**Material Similar To**

KDOT Lab No. 77-896

**Specific Gravity (Sat)**

2.53 (Dry) 2.43

**Los Angeles Wear**

38(B)

**Absorption**

3.8

**Soundness**

0.99

**Wt. Cu. Ft.**


**Stn. Ratio**

Remarks

Periodic portable crushing operation. Mat'ls. Dept.

**Site No.** 67-34.
MATERIAL SITE DATA FORM

Site No. LS+5 Td
Date June 27, 1978

Material Limestone
County Neosho

Location SE 4, SE 5
Sec. 12
Twp. 27S
Range 20E

Owner Charles M. Hill, Jr. et al
Stark, KS 66775

Nature of Deposit Dry
Accessibility Good
Site Located on Plate II
Status of Site Open Materials Site; Sampled

EXPLORATION DATA

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CORRELATION DATA

Geological Age Pennsylvanian
Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.
KDOT Lab No.s 100527, 11995, 21111 & 37421

Specific Gravity (Sat.) 2.54 - 2.57 (Dry) 2.46 - 2.50
Los Angeles Wear 33.6 - 39.8
Absorption 2.66 - 3.21 Soundness .93 - .97
Wt. Cu. Ft. Str. Ratio

Remarks Periodic portable crushing operation. Mat'ls. Dept.
Site No. 67-23.

Scale: 1 inch = ½ Mile
MATERIAL SITE DATA FORM

Site No.       LS+6

Date          June 27, 1978

Material       Limestone

County         Neosho

Location       NE 1/4, NW 1/4

Sec.           36

Twp.           27S

Range          20E

Owner          J. R. Clements

R. #1 Box 67

Erie, KS 66733

Nature of Deposit          Dry

Accessibility            Good

Status of Site       Open Materials Site; Sampled

EXPLORATION DATA

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<th>Depth of Material</th>
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CORRELATION DATA

Geological Age       Pennsylvanian

Geological Source     Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To  KDOT Lab No. 65-4880

Specific Gravity (Sat)  2.56

(Dry)                    2.47

Los Angeles Wear        36.4(B)

Absorption              3.39

Soundness               0.96

Wt. Cu. Ft.             Str. Rota

Remarks          Periodic portable crushing operation. Mat'l's. Dept. Site No. 67-31

Scale: 1 inch = 1/4 Mile
MATERIAL SITE DATA FORM

Site No. 7

Date June 27, 1978

Material Limestone

County Neosho

Location SE 1/4 Sec. 30 Twp. 28S Range 19E

Owner William G. Neely & wife

R. #4 Chanute, KS 66720

Nature of Deposit Dry

Accessibility Good

Status of Site Open Materials Site; Sampled

EXPLORATION DATA

<table>
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<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Material</th>
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</table>

CORRELATION DATA

Geological Age Pennsylvania

Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To KDOT Lab No. s 10515, 21112, & 77-898

Specific Gravity (Sat.) 2.46 - 2.56

(Dry) 2.34 - 2.49

Los Angeles Wear 35.1 (B) - 43.3 (B)

Absorption 3.06 - 4.81

Soundness 0.93

Site No. 67-24

Remarks Periodic portable crushing operation. Mat'ls. Dept.
MATERIAL SITE DATA FORM

Site No. | Date | June 27, 1978
---------|------|------------------
Limestone | County | Neosho
Material | Location | NE 1/4, SE 1/4
| Sec. | Twp. | Range |
9 | 29S | 19E
Wayne C. Johnson | R. #2 | Box 127 | Erie, KS 66733
Owner | Name | Address
| Nature of Deposit | Accessibility | Site Located on Plate |
Dry | Good | III
Status of Site | Open Materials Site; Sampled

EXPLORATION DATA

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CORRELATION DATA

Geological Age | Pennsylvania
Geological Source | Winterset Limestone Mbr. - Dennis Limestone Fm.
Material Similar To | KDOT Lab No.s 76-1487 & 77-75
Specific Gravity (Sol.) | 2.59, 2.56 (Dry) 2.53, 2.48
Los Angeles Wear | 30(B) 34(B)
Absorption | 2.4, 3.1
Soundness | 0.97, 0.99
Wt. Cu. Ft. | Str. Ratio
Remarks | Periodic portable crushing operation. Mat'l's. Dept.
Site No. 67-35

Scale: 1 inch = 3/4 Mile
MATERIAL SITE DATA FORM

LS+9
Pd

Site No. Limestone

June 27, 1978

Date

Material Neosho

County

Location NE ¼, NW ¼ Sec. 12 Twp. 29S Range 19E

Virgil Hines & wife R.#2 Box 166 Erie, KS 66733

Owner

Nature of Deposit Dry

Accessibility Good

Status of Site Open Materials Site; Sampled

EXPLORATION DATA

Test Hole Material at Bottom of Hole Depth of Over. Burden Depth of Material 1/2 ¾ 3/8 ¾ 4 8 16 30 50 100 Wash 200 G.F. LL P.I.

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To KDOT Lab No.s 9430 & 20597

Specific Gravity (Sat.) 2.53 (Dry) 2.46

Los Angeles Wear 38.8 (B), 38.1 (B)

Absorption 3.04, 3.10 Soundness 0.97, 0.99

Wt. Cu. Ft. Strait Ratio

Remarks Periodic portable crushing operation. Mat'l's. Dept.

Site No. 67-28
**MATERIAL SITE DATA FORM**

**CG+10**  
Qal  
June 27, 1978

**Material**  Chert Gravel  
**County**  Neosho  
**Location**  
Sec. 15  
Twp. 29S  
Range 20E

**Owner**  Hy Grade Const. & Materials, Inc.  
St. Paul, KS 66771

**Nature of Deposit**  Wet  
**Accessibility**  Good  
**Site Located on Plate**  IV  
**Status of Site**  Open Materials Site; Sampled

### EXPLORATION DATA

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<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Over-Burden</th>
<th>Depth of Material</th>
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</table>

### CORRELATION DATA

**Geological Age**  Quaternary  
**Geological Source**  Alluvium and Terrace Deposits  
**Material Similar To**  KDOT Lab No.s 77-72 and 77-73

- Specific Gravity (Sat)  2.53 - 2.56  
- (Dry)  2.47  
- Los Angeles Wear  19(B)  
- Absorption  2.4 - 2.0  
- Soundness  0.99

**Material is very difficult to saw. Mat'ls. Dept.**  
**Site No. 67-11**

Scale: 1 inch = ¼ Mile
MATERIAL SITE DATA FORM

Site No. LS+11 Pa
Date: June 27, 1978
Material: Limestone
County: Neosho
Location: E3/2 Sec. 4 Twp. 29S Range 21E
Owner: Joe O'Brien and wife, R.1
St. Paul, KS 66771
Nature of Deposit: Dry
Accessibility: Good
Site Located on Plate: IV
Status of Site: Open Materials Site; Sampled

EXPLORATION DATA

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<th>Wash 200</th>
<th>G.F.</th>
<th>LL</th>
<th>P.I.</th>
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</table>

CORRELATION DATA

Geological Age: Pennsylvanian
Geological Source: Worland Limestone Mbr. - Altamont Limestone Fm.
KDOT Lab No.s: 75-1450, 75-3575, & 77-74
Material Similar To: -

Specific Gravity (Sat.)
- 2.58 - 2.63 (Dry) 2.54 - 2.59

Los Angeles Wear
- 24(B) - 27(B)

Absorption
- 1.3 - 2.0

Soundness
- 0.98

Wt. Cu. Ft.
- Str. Ratio

Remarks: Periodic portable crushing operation. Mat'l's. Dept.
Site No. 67-32

Scale: 1 inch = 1/2 Mile
**MATERIAL SITE DATA FORM**

- **Site No.** LS+12
- **Pa**
- **Date** June 27, 1978
- **Material** Limestone
- **County** Neosho
- **Location** SW 4th Sec. 3 Twp. 29S Range 21E
- **Owner** Cleo O'Brien R.R. 1
- **St. Paul, KS 66771**
- **Nature of Deposit** Dry
- **Accessibility** Good
- **Status of Site** Open Materials Site; Sampled

**EXPLORATION DATA**

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<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
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**CORRELATION DATA**

- **Geological Age** Pennsylvanian
- **Geological Source** Worland Limestone Mbr. - Altamont Limestone Fm.
- **Material Similar To** KDOT Lab No.s 10229, 20922, 32148 & 38411
- **Specific Gravity (Sat) (Dry)** 2.56 - 2.61
- **Los Angeles Wear** 21.3 - 24.6
- **Absorption** 1.16 - 1.99

**Remarks** Mat'ls. Dept. Site No. 62-21

**Scale:** 1 inch = ¼ mile
MATERIAL SITE DATA FORM

LS+13  

Site No.  

Date  June 27, 1978  

Material  Limestone  

County  Neosho  

Location  NE1/4, NE1/4  

Sec.  33  

Twp.  29S  

Range  19E  

Owner  Horace Jones  

R.#2  

Box 136  

Erie, KS 66733  

Nature of Deposit  Dry  

Accessibility  Good  

Site Located on Plate  V  

Status of Site  Open Materials Site; Sampled  

EXPLORATION DATA

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<th>Test Hole</th>
<th>Material of Bottom of Hole</th>
<th>Depth of Material</th>
<th>Depth of Over-Burden</th>
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CORRELATION DATA

Geological Age  Pennsylvania

Geological Source  Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To  KDOT Lab. No. 10157

Specific Gravity (Sat.)  2.54  (Dry)  2.45

Los Angeles Wear  41.0 (B)

Absorption  3.51  Soundness  0.98

Wt. Cu. Ft.  

Str. Ratio  

Remarks  Periodic portable crushing operation. Ledge contains some thin clay seams. Mat'ls. Dept. Site No. 67-27

Scale: 1 inch = 1/4 Mile
MATERIAL SITE DATA FORM

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**Site No.**

**Date** June 27, 1978

**Material** Limestone

**County** Neosho

**Location**

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**Owner** Eva E. Kramer

**Address** R.R.1 Box 194 Galesburg, KS 66740

**Nature of Deposit** Dry

**Accessibility** Good

**Site Located on Plat** V

**Status of Site** Open Materials Site; Sampled

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**EXPLORATION DATA**

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**CORRELATION DATA**

**Geological Age** Pennsylvanian

**Geological Source** Winterset Limestone Mbr. - Dennis Limestone Fm.

**Material Similar To** KDOT Lab No.s 10156, 20595, 21113, 31260 & 32147

**Specific Gravity (Sat.)** 2.52 - 2.54

**Dry** 2.43 - 2.46

**Los Angeles Wear** 36.8 - 41.6

**Absorption** 3.40 - 3.97

**Soundness** 0.90 - 0.98

**Wt. Cu. Ft.**

**Str. Ratio**

**Remarks** Periodic portable crusher operation. Mat'ls. Dept. Site No. 67-26

---

Scale: 1 inch = 1/4 mile
MATERIAL SITE DATA FORM

Site No. LS+15

Date June 27, 1978

Material Limestone

County Neosho

Location NW₁ / NE₁ Sec. 16 Twp. 30S Range 20E

Owner LeRoy H. Lacen et al

Address Thayer, KS 66776

Nature of Deposit Dry

Accessibility Good

Site Located on Plate VI

Status of Site Open Materials Site; Sampled

EXPLORATION DATA

<table>
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<tr>
<th>Test Hole</th>
<th>Material</th>
<th>Depth of Over/</th>
<th>Depth of Material</th>
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<th>Wash 200</th>
<th>G.F.</th>
<th>LL</th>
<th>P.I.</th>
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</table>

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Hertha Limestone Fm.

Material Similar To KDOT Lab Nos. 28396 & 30102

Specific Gravity (Sat.) 2.64 (Dry) 2.61, 2.60

Los Angeles Wear 27.3(B) 26.8(B)

Absorption 1.24, 1.61 Soundness 0.98, 0.97

Wt. Cu. Ft. Sh. Ratio

Remarks Periodic portable crushing operations. Mat'l's. Dept.

Site No. 67-30.

Scale: 1 inch = ¼ Mile
MATERIAL SITE DATA FORM

LS-16

Site No. P1       Date       June 27, 1978

Limestone    County    Neosho

Location     Sec.    13    Twp.    27S    Range.   17E

Owner

Nature of Deposit    Dry

Accessibility   Good

Site Located on Plate   I

Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
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<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
<th>1 1/2</th>
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<th>Wash 200</th>
<th>G.F</th>
<th>L.L</th>
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CORRELATION DATA

Geological Age    Pennsylvanian

Geological Source
Raytown Limestone Mbr. - Iola Limestone Fm.

Material Similar To

Specific Gravity (Sat.)  (Dry)

Los Angeles Wear

Absorption

Soundness

Wt. Cu. Ft.

Shr. Ratio

Remarks    Area has been extensively quarried for material to manufacture cement.

Scale: 1 inch = ¼ Mile
OPEN MATERIALS SITES; NOT SAMPLED

LEGEND

======= Trail or lane

----------- Road

----------- Railroad

Hedge or trees

Name

Major streams

-------------- Intermittent streams

Pond or lake

Open materials sites; sampled

Open materials sites; not sampled

Prospective materials sites; sampled

Prospective materials sites; not sampled

Center of section

Dwelling

Cemetery

School

Church

Town or city
MATERIAL SITE DATA FORM

LS+17
Date: June 27, 1978

Site No. Fi

Material: Limestone
County: Neosho

Location: SW\(\frac{1}{4}\) Sec. 18 Twp. 27S Range 18E

Owner: Ash Grove & Portland Cement Co. 101 W. 11th Kansas City, MO

Nature of Deposit: Dry
Accessibility: Good
Site Located on Plat: 1

Status of Site: Open Materials Site; Not Sampled

EXPLORATION DATA

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<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
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CORRELATION DATA

Geological Age: Pennsylvanian
Geological Source: Raytown Limestone Mbr. - Iola Limestone Fm.

Material Similar To:

Specific Gravity (Sat.) (Dry):

Los Angeles Wear:

Absorption:

Soundness:

Wt. Cu. Ft.:

Str. Ratio:

Remarks: Material from this location is being used to manufacture cement.

Scale: 1 inch = ¼ Mile

49
Material Site Data Form

Site No. LS+18

Date June 27, 1978

Material Limestone
County Neosho

Location
SE 1/4 Sec. 8 Twp. 27S Range 18E

Owner
Ash Grove & Portland Cement Co. 101 W. 11th Kansas City, MO

Nature of Deposit
Dry

Accessibility
Good

Site Located on Plate
I

Status of Site
Open Materials Site; Not Sampled

Exploration Data

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
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<th>Wash 200</th>
<th>G.F.</th>
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Correlation Data

Geological Age
Pennsylvania

Geological Source
Raytown Limestone Mbr. - Iola Limestone Fm.

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption

Soundness

Wt. Cu. Ft.

Sh. Ratio

Remarks
Material from this location is used to manufacture cement.

Scale: 1 Inch = 1/4 Mile
MATERIAL SITE DATA FORM

LS+19

Site No. Date

Limestone

County

Neosho

Material

Location

24 Sec.

27S Twp.

17E Range

Owner

Ash Grove and Portland Cement Co. 101 W. 11th Kansas City, MO

Nature of Deposit

Dry

Accessibility

Good

Status of Site

Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
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<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Over-Burden</th>
<th>Depth of Material</th>
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<th>100</th>
<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.I.</th>
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</table>

CORRELATION DATA

Geological Age

Pennsylvanian

Geological Source

Raytown Limestone Mbr. - Iola Limestone Fm.

Material Similar To

Specific Gravity (Sat.)

(Dry)

Los Angeles Wear

Absorption

Soundness

Wt. Cu. Ft.

Str. Ratio

Remarks

Material quarried for cement manufacturer.
**MATERIAL SITE DATA FORM**

**LS+20**

**Site No.**

**Date**

**June 27, 1978**

**Material**

Limestone

**County**

Neosho

**Location**

SE₁, NE₁

**Sec.**

22

**Twp.**

27S

**Range**

19E

**Owner**

Marion P. & wife & Nelle H. Stevens R.R.3 Chanute, KS 66720

**Nature of Deposit**

Dry

**Accessibility**

Good

**Site Located on Plate**

I

**Status of Site**

Open Materials Site; Not Sampled

**EXPLORATION DATA**

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
<th>1½</th>
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<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.I.</th>
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**CORRELATION DATA**

**Geological Age**

Pennsylvanian

**Geological Source**

Winterset Limestone Mbr. - Dennis Limestone Fm.

**Material Similar To**


**Specific Gravity (Sat.)**

(Dry)

**Los Angeles Wear**


**Absorption**

Soundness

**Wt. Cu. Ft.**

Str. Ratio

**Remarks**

Abandoned

Scale: 1 inch = ¼ Mile
MATERIAL SITE DATA FORM

Site No. SH+21

Date June 27, 1978

Material Shale

County Neosho

Location SW 25 Sec. 25 Twp. 27S Range 17E

Owner Ash Grove & Portland Cement Co. 101 W. 11th Kansas City, MO

Nature of Deposit Dry

Accessibility Good

Status of Site Open Materials Site; Not Sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Overburden | Depth of Material 1\% 3/8 4 8 16 30 50 100 Wash 200 G.F. LL P.I. |
|-----------|---------------------------|---------------------|-----------------------------|---------------------------------|---|
|           |                           |                     |                             |                                 |   |
|           |                           |                     |                             |                                 |   |

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Chanute Shale

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu. Ft. Str. Ratio

Remarks Material quarried for manufacturer of cement.
MATERIAL SITE DATA FORM

Site No. LS+22

Material Limestone
County Neosho

Location NW14 Sec. 10 Twp. 28S Range 19E

Owner Homer J. LaRue & wife R.R. II
Address Erie, KS 66733

Nature of Deposit Dry
Accessibility Fair
Site Located on Plate III

Status of Site Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
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<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
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<th>Wash</th>
<th>200</th>
<th>G.F.</th>
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CORRELATION DATA

Geological Age Pennsylvanian
Geological Source Winterset Limestone Mbr. - Dennis Limestone Fm.

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu. Ft. Str. Ratio

Remarks Abandoned

Scale: 1 inch = ¼ Mile
MATERIAL SITE DATA FORM

LS+23  Ph  
Site No.  Date  June 27, 1978

Limestone  Neosho
Material  County

SW 22  Twp.  27S  Range  21E
Location  Sec.  

H. Edward Smith & wife  Stark, KS  66775
Owner  Address

Dry  Good  II
Nature of Deposit  Accessibility  Site Located on Map

Open Materials Site; Not Sampled
Status of Site

EXPLORATION DATA

<table>
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<th>Test Hole</th>
<th>Material of Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
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<th>100</th>
<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
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</table>

CORRELATION DATA

Pennsylvanian
Geological Age

Hertha Limestone Formation
Geological Source

Material Similar To

Specific Gravity (Sat.)  [Dry]

Los Angeles Wear

Absorption  Soundness

Wt. Cu. Ft.  Str. Ratio

Remarks  Abandoned

Scale: 1 inch = 1/4 Mile
MATERIAL SITE DATA FORM

CG-24
Quo

Date June 27, 1978

Site No. 

Material Chert Gravel

County Neosho

Location SE ¼ Sec. 22 Twp. 28S Range 18E

Owner Lewis E. Taylor & W. 924 S Western Chanute, KS

Nature of Deposit Dry

Accessibility Good

Site Located on Plate III 66720

Status of Site Open Materials Site; Not Sampled

EXPLORATION DATA

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<th>Test Hole</th>
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<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.I.</th>
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</table>

CORRELATION DATA

Geological Age Quaternary

Geological Source Undifferentiated Terrace Deposits (Kansan–Nebraskan)

Material Similar To

Specific Gravity (Sat.) [Dry]

Los Angeles Wear

Absorption

Soundness

Wt. Cu. Ft.

Str. Ratio

Remarks Depleted

Scale: 1 inch = ½ Mile
MATERIAL SITE DATA FORM

LS+25

Site No.  

Date  June 27, 1978

Material  Limestone

County  Neosho

Location  SE1/4, SW1/4 Sec. 28  Twp. 29S  Range 19E

Owner  Stella Burke

Address  Galesburg, KS 66740

Nature of Deposit  Dry

Accessibility  Good

Status of Site  Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Material</th>
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CORRELATION DATA

Geological Age  Pennsylvanian

Geological Source  Winterset Limestone Mbr.-Dennis Limestone Fm.

Material Similar To

Specific Gravity (Sat.)  (Dry)

Los Angeles Wear

Absorption  Soundness

Wt. Cu. Ft.  Str. Ratio

Remarks  Material should be similar to Mat'ls. Dept. Site No. 67-27
MATERIAL SITE DATA FORM

LS+26

Site No. Ed

Date June 27, 1978

Material Limestone

County Neosho

Location SE 1/4, SE 1/4

Sec. 28

Twp. 29S

Range 19E

Owner Ira, or Nannie E. Doris

321 S Lincoln Erie, KS

name

address 66/33

Nature of Deposit Dry

Accessibility Good

Site Located on Plate V

Status of Site Open Materials Site; Not Sampled

EXPLORATION DATA

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<th>Wash</th>
<th>G.F.</th>
<th>L.L.</th>
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</table>

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Winterset Limestone Mbr.-Dennis Limestone Fm.

Material Similar To

Specific Gravity (Sat) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu. Ft. Str. Ratio

Remarks Material should be similar to Mat'ls. Dept.

Site No. 67-27

Scale: 1 inch = 1/4 Mile
MATERIAL SITE DATA FORM

LS+27
Site No. 

June 27, 1978
Date 

Limestone
Material 

Neosho
County 

SE_1, SE_2, SE_3 Sec. 36 Twp. 29S Range 18E
Location 

Jack E. Shields & W. 411 Manor Dr. Belton, MO 64012
Owner 

Dry
Nature of Deposit 

Good
Accessibility 

Site Located on Plate V
Pl. Site 

Open Materials Site; Not Sampled
Status of Site 

EXPLORATION DATA

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<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
<th>1%</th>
<th>3%</th>
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CORRELATION DATA

Pennsylvanian
Geological Age

Winterset Limestone Mbr.-Dennis Limestone Fm.
Geological Source

Material Similar To

Specific Gravity (Sat.) (Dry)
Los Angeles Wear
Absorption
Soundness
Wt. Cu. Ft.
Str. Ratio

Remarks Abandoned
MATERIAL SITE DATA FORM

CG+28
Qal

Site No. Date June 27, 1978

Chert Gravel County Neosho

Location NE¼, SE¼ Sec. 7 Twp. 30S Range 21E

Melvin E. Harris St. Paul, Kansas 66771

Owner name Wet

Nature of Deposit Accessibility Site Located on Plate VI

Open Materials Site; Not Sampled

Status of Site

EXPLORATION DATA

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<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.L.</th>
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</table>

CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu. Ft. Str. Ratio

Remarks Material only accessible during periods of low flow in Neosho River channel.
MATERIAL SITE DATA FORM

CG+29
Qal

Site No. Date June 27, 1978

Chert Gravel Neosho
Material County

Location Sec. Twp. Range
W1/2 8 30S 21E

Owner Wilbur R. Goley Box 203 Erie, Kansas 66733
Name Address

Nature of Deposit Accessibility Site Located on Plate
Wet Fair VI

Status of Site Open Materials Site; Not Sampled

EXPLORATION DATA

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<th>Test Hole</th>
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<th>Depth of Material</th>
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CORRELATION DATA

Geological Age Quaternary

Geological Source Alluvium

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness

Wt. Cu. Ft. Str. Ratio

Remarks Material only accessible during periods of low flow in River channel.

Scale: 1 inch = 1/4 mile
MATERIAL SITE DATA FORM

CG+30  
Qal

Site No.  Date: June 27, 1978

Material  County: Neosho
Chert Gravel

Location  Twp: 30S  Range: 21E
SE\(\frac{1}{4}\)  Sec: 5

Owner  Name: Wesley Kroeker et al
Address: RR 4 Box 99 Enid, OK

Nature of Deposit  Accessibility: Fair
Wet
Site Located on Plate: VI

Status of Site: Open Materials Site; Not Sampled

EXPLORATION DATA

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<th>100</th>
<th>Wash</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.L.</th>
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</table>

CORRELATION DATA

Geological Age: Quaternary
Geological Source: Alluvium
Material Similar To:

Specific Gravity (Sat.)
Los Angeles Wear
Absorption
Soundness
Wt. Cu. Ft.
Str. Ratio

Remarks: Material only accessible during periods of low flow.
MATERIAL SITE DATA FORM

CG+31

Date: June 27, 1978

Site No. Qtu

Material: Chert Gravel

County: Neosho

Location: NW 4

Sec. 30S

Twp. 21E

Owner: Bertha Mansker

Address: Rt. # 1 St. Paul, KS 66771

Nature of Deposit: Dry

Accessibility: Good

Status of Site: Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth of Overburden</th>
<th>Depth of Material</th>
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<th>100</th>
<th>Wash 200</th>
<th>G.F.</th>
<th>L.L.</th>
<th>P.I.</th>
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</thead>
</table>

CORRELATION DATA

Geological Age: Quaternary

Geological Source: Undifferentiated Terrace (Nebraskan-Kansan?)

Material Similar To:

Specific Gravity (Sat.) (Dry):

Los Angeles Wear:

Absorption:

Soundness:

Wt. Cu. Ft.:

Str. Ratio:

Remarks:

Scale: 1 inch = ½ mile
CG+32

Date: June 27, 1978

Material: Chert Gravel
County: Neosho

Location: SW\(\frac{1}{4}\) Sec. 34 Twp. 29S Range 21E

Owner: R. Dean Rose & W. R. L. St. Paul, Kansas 66771

Nature of Deposit: Dry
Accessibility: Good

Status of Site: Open Materials Site; Not Sampled

EXPLORATION DATA

<table>
<thead>
<tr>
<th>Test Hole</th>
<th>Material at Bottom of Hole</th>
<th>Depth at Overburden</th>
<th>Depth of Material</th>
<th>1(\frac{1}{2})</th>
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CORRELATION DATA

Geological Age: Quaternary

Geological Source: Undifferentiated Terrace (Nebraskan-Kansan?)

Material Similar To:

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption

Soundness

Wt. Cu. Ft.

Str. Ratio

Remarks
MATERIAL SITE DATA FORM

CG+33  
Qal

Site No.  Date  June 27, 1978

Chert Gravel  County  Neosho

Material  Location

SEk  Sec. 29  Twp. 30S  Range 21E

Owner  Harold Wright & W. St. Paul, Kansas 66771

Nature of Deposit  Accessibility  Good  Site Located on Plate

Wet

Status of Site  Open Materials Site; Not Sampled

EXPLORATION DATA

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CORRELATION DATA

Geological Age  Quaternary

Geological Source  Alluvium

Material Similar To

Specific Gravity (Sat.)  (Dry)

Los Angeles Wear

Absorption  Soundness

Wt. Cu. Ft.  Str. Ratio

Remarks  Abandoned

Scale: 1 inch = ¼ Mile
MATERIAL SITE DATA FORM

CG+34
Qal

Date       June 27, 1978

Material       Chert Gravel
County       Neosho

Location       NW
Sec.     33
Twp.     30S
Range     21E

Owner      Harold Wright
Address       St. Paul, Kansas 66771

Nature of Deposit  Wet
Accessibility  Good
Site Located on Plate  VI

Status of Site      Open Materials Site: Not Sampled

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CORRELATION DATA

Geological Age       Quaternary
Geological Source       Alluvium

Material Similar To

Specific Gravity (Sat.)
Los Angeles Wear
Absorption
Wt. Cu. Ft.
Remarks

Scale: 1 Inch = 1/2 Mile
MATERIAL SITE DATA FORM

CG-35  
Quo  

Site No.  

Date  
June 27, 1978  

Material  
Chert Gravel  

County  
Neosho  

Location  
SW¼, NE¼  
Sec. 3  
Twp. 29S  
Range 19E  

Owner  
Wesley Kroeker & W.  

Address  
RR 4 Box 99 Enid, OK  

Nature of Deposit  
Dry  

Accessibility  
Good  

Site Located on Plate  
III  

Status of Site  
Prospective Materials Site; Not Sampled  

EXPLORATION DATA

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CORRELATION DATA

Geological Age  
Quaternary  

Geological Source  
Undifferentiated Terrace (Nebraskan-Kansan?)  

Material Similar To  

Specific Gravity (Sat.)  
(Dry)  

Los Angeles Wear  

Absorption  

Soundness  

Wt. Cu. Ft.  

Str. Ratio  

Remarks  

Scale: 1 inch = ¼ mile
GLOSSARY


Absorption: Determined by tests performed in accordance with A.A.S.H.O. designation T85.

Aggrade: To raise the grade or level of a valley or stream bed by depositing particles of clay, silt, sand, and gravel.

Aggregate: Any of several hard, inert, construction materials (such as sand, gravel, shells, slag, crushed stone, or other mineral material), or combinations thereof, used by mixing of various-sized fragments with a cementing or bituminous material to form concrete of bituminous mix.

Alluvium: A deposit of clay, silt, sand, or gravel deposited by a stream or other body of running water.

Aquifer: A body of rock that includes sufficient saturated permeable material to conduct ground water and to yield economically significant quantities of ground water to wells and springs.

Arenaceous: A sediment consisting wholly or in part of sand-size fragments, or having a sandy texture or the appearance of sand.

Bedded: A characteristic of some rock units which shows distinct layers due to the manner in which they were deposited.

Brachiopod: Shelled animal of marine origin, having two unequal shells or valves, each of which are normally bilaterally symmetrical.

Chat: Crushed gangue remaining after the extraction of lead and zinc materials.

Chert: A dull, flint-like siliceous rock.

Chonetes: Small fossil brachiopods with a shallow concave-convex shell and short pointed spines.

Consolidated deposit: A deposit of limestone, shale, or sandstone. In Kansas, this term generally applies to rock older than Pliocene age.

Construction aggregate: Processed rock that will meet standard specifications for concrete and bituminous construction.

Crinoid columns: Fossils of an ancient group of sea-lily type animals belonging to the phylum Echinodermata.
**Cross bedding:** Term applied to sedimentary deposits whose bedding is inclined at various angles to the stratification.

**Degrade:** To lower the level of a stream or river valley by stream erosive action.

**Detritus:** Loose rock and mineral material that is worn off or removed directly by mechanical means, as by disintegration or abrasion; esp. fragmental material, such as sand, silt, and clay, derived from older rocks and moved from its place of origin.

**Dolomitic limestone:** A limestone in which the mineral dolomite (CaMg(CO3)2) is conspicuous but calcite is more abundant.

**Exposure patterns:** Topographic features formed on the land surface by the exposure of geologic units.

**Facies change:** A lateral or vertical variation in the lithologic or paleontologic characteristics of sedimentary deposits caused by a change in the depositional environment.

**Flaggy:** Descriptive of a sedimentary rock that splits into layers from 1 cm to 5 cm in thickness.

**Fluvial deposit:** A sedimentary deposit consisting of material transported by, suspended in, or laid down by a river stream.

**Formation:** A persistent body of rocks, having easily recognizable upper and lower boundaries that can be traced in the field without recourse to detailed paleontologic or petrologic analysis, and large enough to be represented on a geologic map as a practical or convenient unit for mapping and description.

**Fossil:** Any remains, trace, or imprint of a plant or animal that has been preserved, by natural processes, in the Earth's crust since some past geologic time.

**Fusulinids:** Small marine fossils, about the size and shape of a grain of wheat, belonging to the *Foraminifera*.

**Geologic Era:** Largest unit of geologic time (e.g. Paleozoic, Mesozoic and Cenozoic).

**Geologic period:** A unit of geologic time, shorter than an era and longer than an epoch (e.g. Cambrian, Cretaceous, and Tertiary).

**Geologic process:** Term pertaining to erosion, deposition, and diastrophic methods by which the Earth's surface has been shaped.

**Geologic structure:** The attitude of the rock units (i.e., whether they are horizontal or tilted).

**Geologic system:** A term that refers to rocks or deposits that were laid down during a particular geologic period (e.g. the Pennsylvanian, Permian, and Quaternary).

**Geologic unit:** A general term used to denote a geologic formation, member, or unconsolidated deposit.
**Gradation factor:** The value obtained by adding the percentages of material retained on the 1½", 3/4", 3/8", 4, 8, 16, 30, 50 and 100 sieves, respectively and dividing the sum by 100.


**Ground-water:** That part of the subsurface water that is the zone of saturation, including underground streams.

**Igneous rocks:** Rocks produced from molten or partly molten material.

**Landform:** Any physical, recognizable form or feature of the Earth's surface, having a characteristic shape, and produced by natural causes; it includes major forms such as plain, plateau, mountain, hill, valley, slope, esker, and dune.

**Light type surfacing:** A surface course constructed from aggregate which is not bound by water, cement, or bituminous material.

**Liquid limit:** The water-content boundary between the semiliquid and the plastic states of sediment. Determined by tests performed in accordance with the Kansas Test Method KT-10 of the State Highway Commission of Kansas Construction Manual, Part V, 1969 edition.

**Lithographic limestone:** A very fine-grained, dense, light-colored limestone.

**Lithology:** Physical properties of rocks such as grain size, mineral content, and color.

**Los Angeles wear:** Determined by tests performed in accordance with A.A.S.H.O. designation T96 as modified by section 1001 of the State Highway Commission of Kansas Standard Specifications, 1973 edition.

**Marine deposits:** Deposits laid down in a sea.

**Material source bed:** A geologic unit from which construction material is being or can be produced.

**Member:** A division of a formation, generally of distinct lithologic character or of only local extent.

**Micaceous:** Consisting of, containing, or pertaining to mica.

**Oolitic limestone:** A textural term for rock containing small, rounded grains that resemble fish eggs.

**Open materials site:** A pit or quarry from which material is produced for possible construction purposes.

**Physiographic division:** A division of the state, based on general geologic and/or geographic features.
**Plasticity index:** The water-content range of a soil at which it is plastic; determined by tests performed in accordance with the Kansas Test Method KT-10 of the State Highway Commission of Kansas Construction Manual, Part V, 1969 edition.

**Pleistocene Series:** Deposits laid down during the Pleistocene Epoch.

**Pliocene Epoch:** The youngest major subdivision of the Tertiary Period.

**Prospective materials site:** A location where the geologic conditions are favorable for finding and producing construction aggregate.

**Residual soil:** In place soil material resulting from the decomposition of rock.

**Siltstone:** A very fine-grained stone composed of silt-sized particles.

**Soundness:** Determined by tests performed in accordance with section 1001 of the State Highway Commission of Kansas Standard Specifications, 1973 edition.

**Specific gravity:** Determined by tests performed in accordance with A.A.S.H.O. designation T84 for fine aggregate and T85 for coarse aggregate.

**Stereoscopic vision:** Three-dimensional vision by means of viewing identical images on two photographs exposed from equal distance but at different angles.

**Stratigraphic position:** The vertical position of a geologic unit in relation to other geologic units.

**Stream meander:** One of a series of beds or curves in the course of a stream caused by lateral movement of a stream in its valley.

**Stream scour:** Downward erosion of a stream through its alluvium.

**Strength ratio:** Determined by tests performed in accordance with A.A.S.H.O. designation T19.

**Sweetner:** Gravel or crushed stone courser than No. 8 sieve, added to sand and gravel to meet gradation specifications.

**Terrace:** A plain built up by the deposition of sediments by water.

**Unconsolidated deposits:** A sediment that is loosely arranged or unstratified, or whose particles are not cemented together, occurring either at the surface or at depth.

**Vadose water:** Suspended water.

**Wash:** (Material passing the No. 200 sieve). Determined by tests performed in accordance with A.A.S.H.O. designation T11.

**Weathering:** The disintegration (physical change) or decomposition (chemical change) of rock by atmospheric agents.

**Weight per cubic foot:** Determined by tests performed in accordance with A.A.S.H.O. designation T19.
Selected References


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* This Report
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