











OPEN MATERIALS SITES ; SAMPLED

LEGEND

=====	Trail or lane		Open materials sites; sampled
—————	Road		Open materials sites; not sampled
+++++	Railroad		Prospective materials sites; sampled
~~~~~	Hedge or trees		Prospective materials sites; not sampled
~~~~~ Name	Major streams		Center of section
~~~~~	Intermittent streams		Dwelling
~~~~~	Pond or lake		Cemetery
			School
			Church
			Town or city

MATERIAL SITE DATA FORM

Site No. LS+1 Date Nov. 1968
PBW
 Material Limestone County Greenwood
 Location SW 1/4 NW 1/4 NE 1/4 Sec. 16 Twp. 22 Range 11
 Owner Billy D. Greenwood 1211 N. Oak, Eureka, Ks.
 name address
 Nature of Deposit dry Accessibility Fair Site Located on Plate I
 Status of Site Open Site; sampled

EXPLORATION DATA

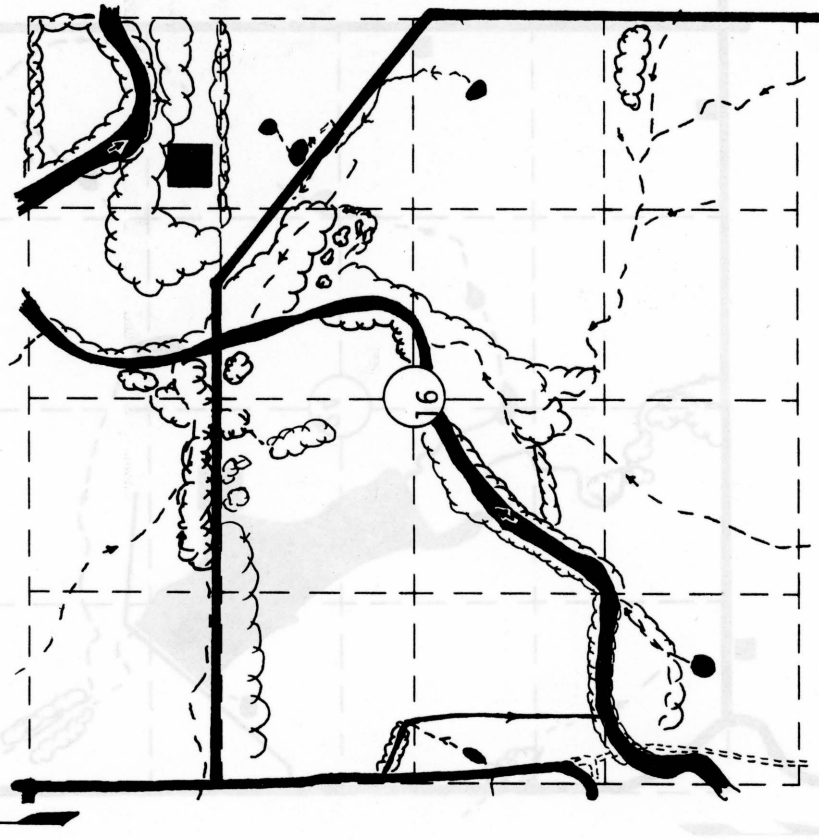
Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash						G.F.	L.L.	P.I.			
				1 1/2	3/4	4	8	16	30				50	100	200

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Limestone Formation - Wakarusa Member
 Material Similar To Aggregate tested under SHC Lab. No. 50022

Specific Gravity (Sat.) 2.67 (Dry) 2.64
 Los Angeles Wear 26.4 (A)
 Absorption 1.08 Soundness 0.85
 Wt. Cu. Ft. 12+5 Str. Ratio

Remarks Photo No. 13-27 & 26



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

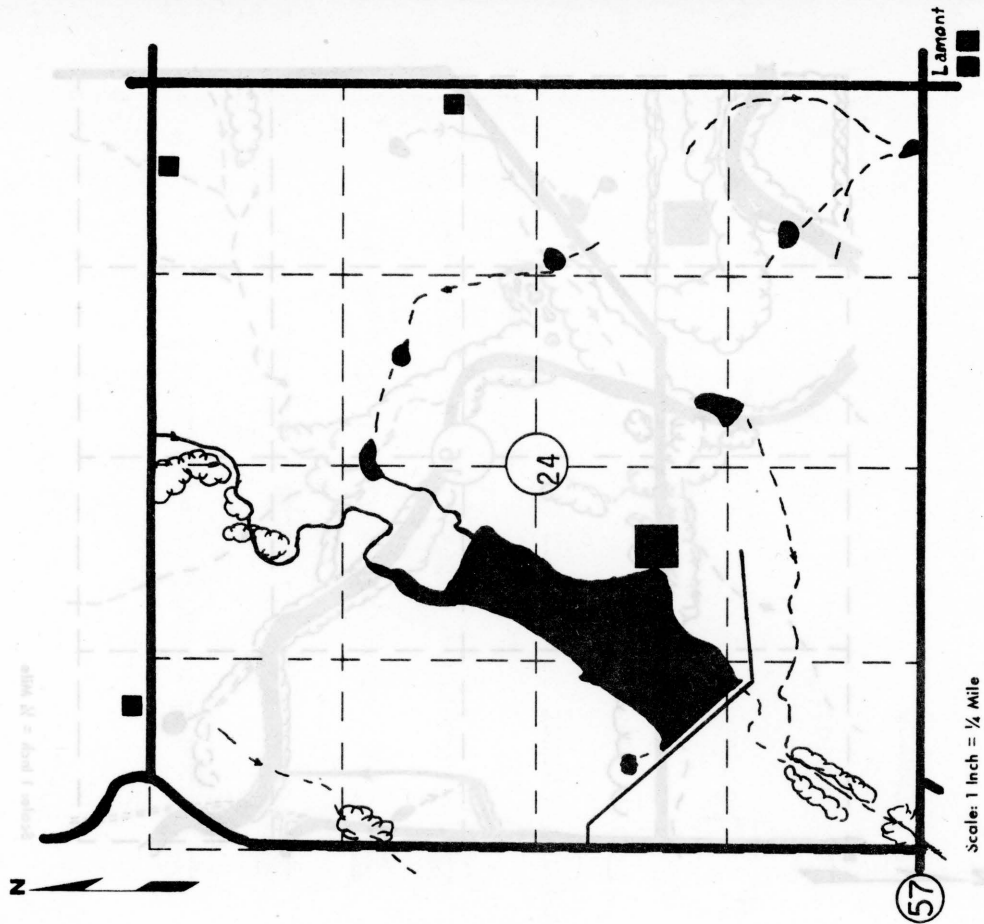
Site No. LS+2 Date November 1968
Ptc
 Material Limestone County Greenwood
 Location SW 1/4 Sec. 24 Twp. 22 Range 12
Robert F. Frankhouser Madison, Ks.
 Owner name address
 Nature of Deposit dry Accessibility Good Site Located on Plate II
 Status of Site Open site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation - Curzon Member
 Material Similar To Material reported under SHC Lab No. 65-1487
 Specific Gravity (Sat.) 2.58 (Dry) 2.53
 Los Angeles Wear 31.8 (B)
 Absorption 1.90 Soundness 0.97
 Wt. Cu. Ft. Str. Ratio
 Remarks Photo No. 13-42 & 43



MATERIAL SITE DATA FORM

Site No. LS+3 Pth Date November 1968
 Material Limestone County Greenwood
 Location NE 1/4 Sec. 31 Twp. 22 Range 13
 Owner L. Schwab Christie name Lamont, Ks. address
 Nature of Deposit dry Accessibility Good Site Located on Plate II
 Status of Site Open site; sampled

EXPLORATION DATA

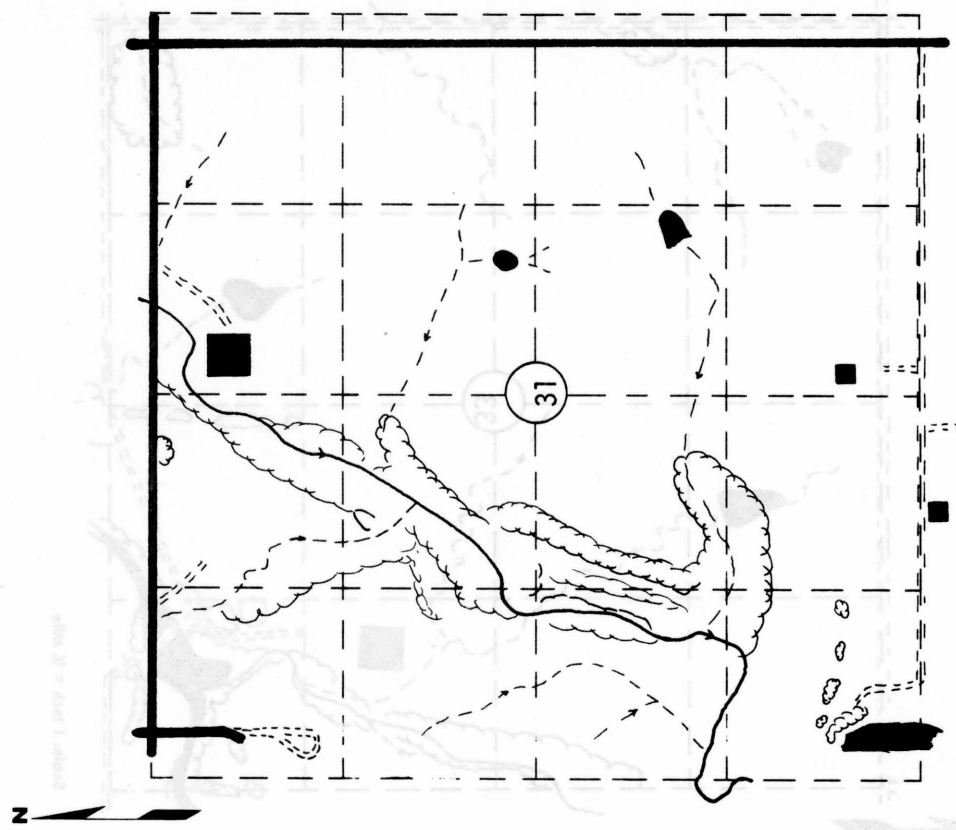
Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material							Wash 200	G.F.	L.L.	P.I.
			1 1/2	3/4	4	8	16	30	50				

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation - Hartford Member
 Material Similar To Material Reported Under SHC Lab No. 68-389

Specific Gravity (Sat.) 2.62 (Dry) 2.57
 Los Angeles Wear 36.1 (B)
 Absorption 1.71 Soundness 0.99
 Wt. Cu. Ft. 5 PM Str. Ratio
 Remarks

Photo No. 13-42 & 43



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+4 Date November 1968
PBW
 Material Limestone County Greenwood
 Location NE 1/4 SW 1/4 Sec. 33 Twp. 23 Range 11
 Owner Robert L. Carson Hamilton, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate IV
 Status of Site Open Site; Sampled

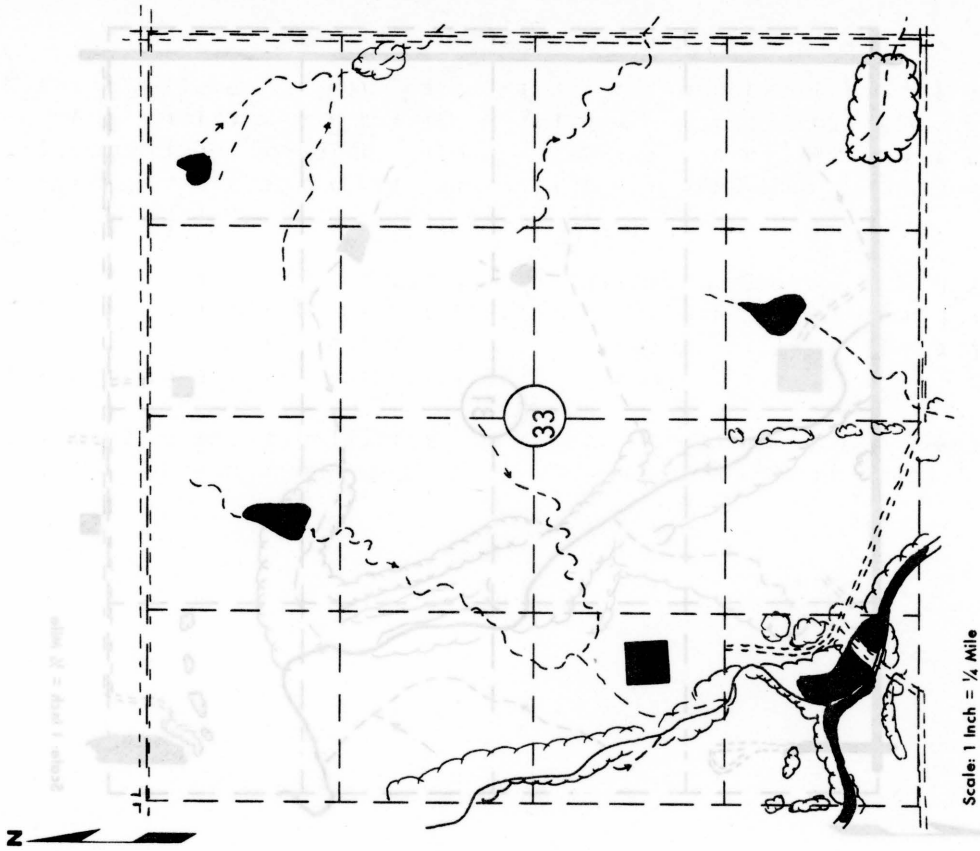
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Core Burden	Depth of Material	CORRELATION DATA								Wash	G.F.	L.L.	P.I.				
				1 1/2	3/8	4	8	16	30	50	100					200			

Geological Age Pennsylvanian
 Geological Source Bern Limestone Formation-Wakarusa Member
 Material Similar To Aggregate tested under KDOT Lab. No. 77-291

Specific Gravity (Sat.) 2.60 (Dry) 2.53
 Los Angeles Wear 26 (B)
 Absorption 2.8 Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 15-10 & 11



MATERIAL SITE DATA FORM

Site No. LS+5 Date November 1968
Pt h/c
 Material Limestone County Greenwood
 Location SW 1/4 Sec. 11 Twp. 23 Range 12
 Owner Elsie O. Porter 421 N. Oak, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open Site ; sampled

EXPLORATION DATA

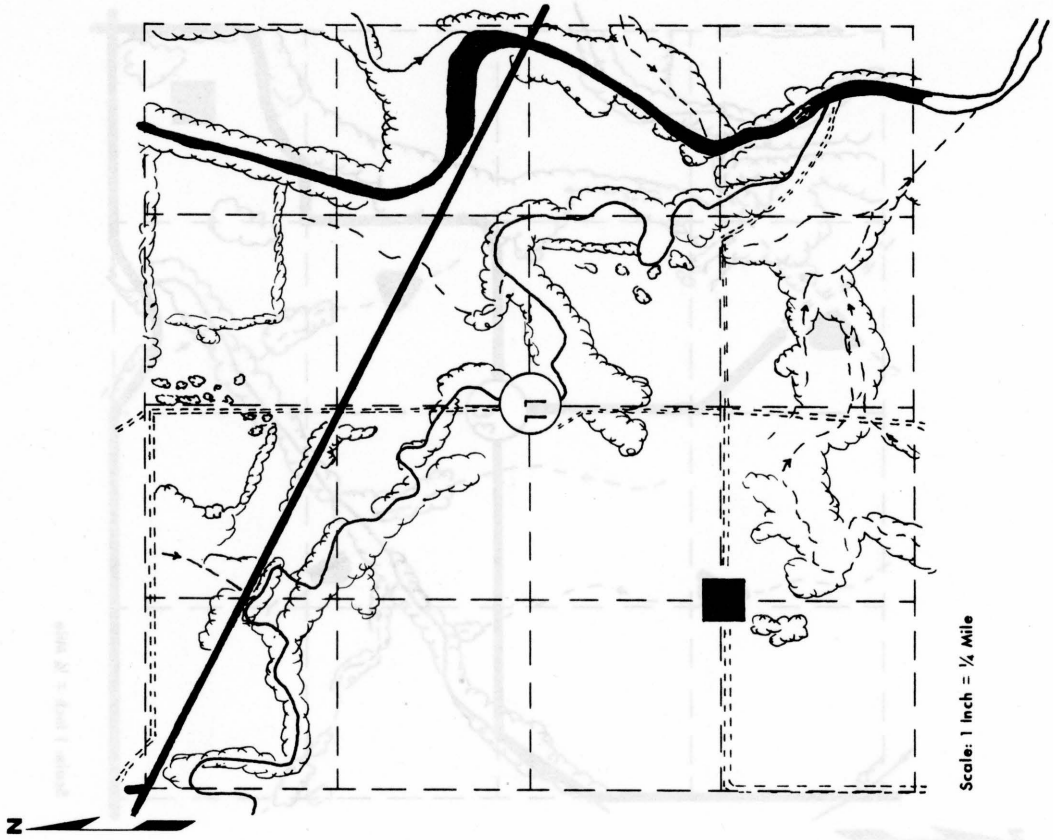
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash					G.F.	L.L.	P.I.									
				1 1/2	3/8	4	8	16				30	50	100	200					

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation-Hartford/Curzon Mbr.
 Material Similar To SHC Form 619 No. 37-23

Specific Gravity (Sat.) 2.61 (Dry) 2.55
 Los Angeles Wear 34. 3% (B)
 Absorption 2.17% Soundness 0.98
 Wt. Cu. Ft. 1965 Str. Ratio
 Remarks

Photo No. 14-3



MATERIAL SITE DATA FORM

Site No. CG-6 Date November 1968
Qt
 Material Clay-Gravel County Greenwood
 Location SE 1/4 Sec. 36 Twp. 23 Range 12
 Owner N. L. Tomlin address Virgil, Kansas
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open Site; Sampled

EXPLORATION DATA

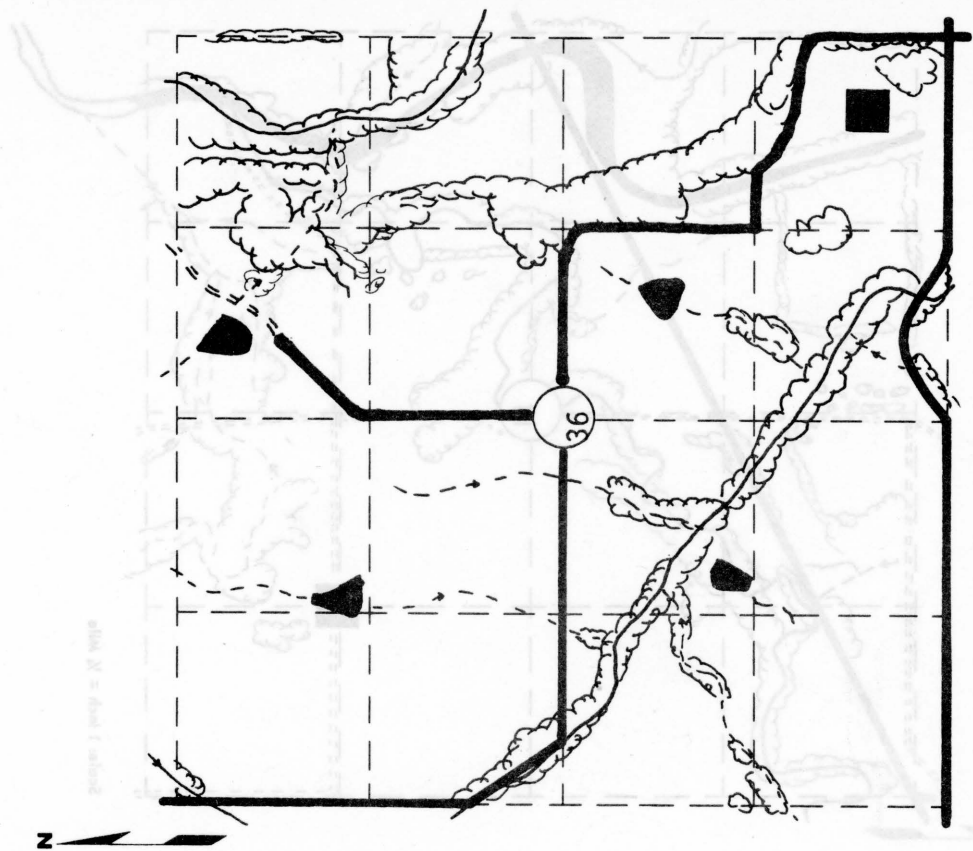
Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash							G.F.	L.L.	P.I.	
				1 1/2"	3/4"	3/8"	4"	8"	16"	30"				50"
1				28	73	78	86	91	93	95	98	6.43		

CORRELATION DATA

Geological Age _____
 Geological Source Quaternary (Nebraskan-Kansan)
Terrace Deposits - Chert Gravel
 Material Similar To Aggregate tested under Lab No. 63300
Graduation only, sample processed to remove clay before sieve analysis.

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

Photo No. 15-4 & 5



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+7 Date November 1968
Ptc
 Material Limestone County Greenwood
 Location SE 1/4 NW 1/4 Sec. 7 Twp. 23 Range 13
 Owner Harshman Farms Inc. Virgil, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open Site; Sampled

EXPLORATION DATA

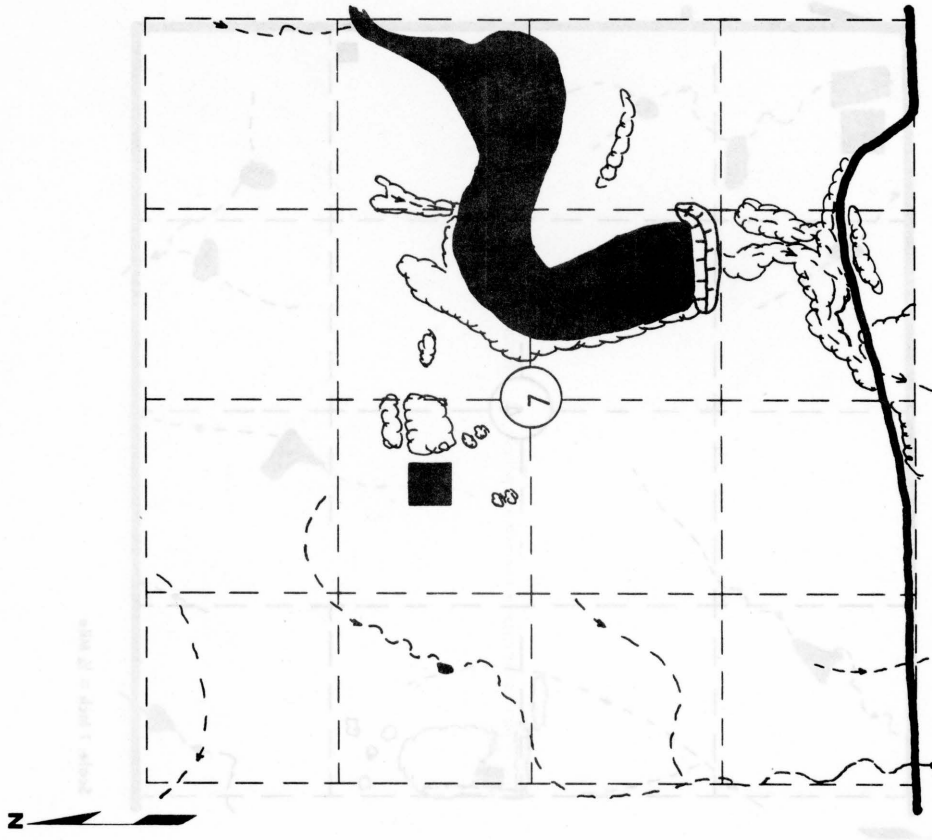
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash							P.I.		
				1/2	3/8	4	8	16	30	50		100	200

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation - Curzon Member
 Material Similar To _____

Specific Gravity (Sat.) 2.56 (Dry) 2.50
 Los Angeles Wear 29. % (B)
 Absorption 2.4% Soundness 0.98
 Wt. Cu. Ft. _____ Str. Ratio _____

Remarks No quarry visible in aerial photos.
1976 Photo No. 14-1, 2 & 3



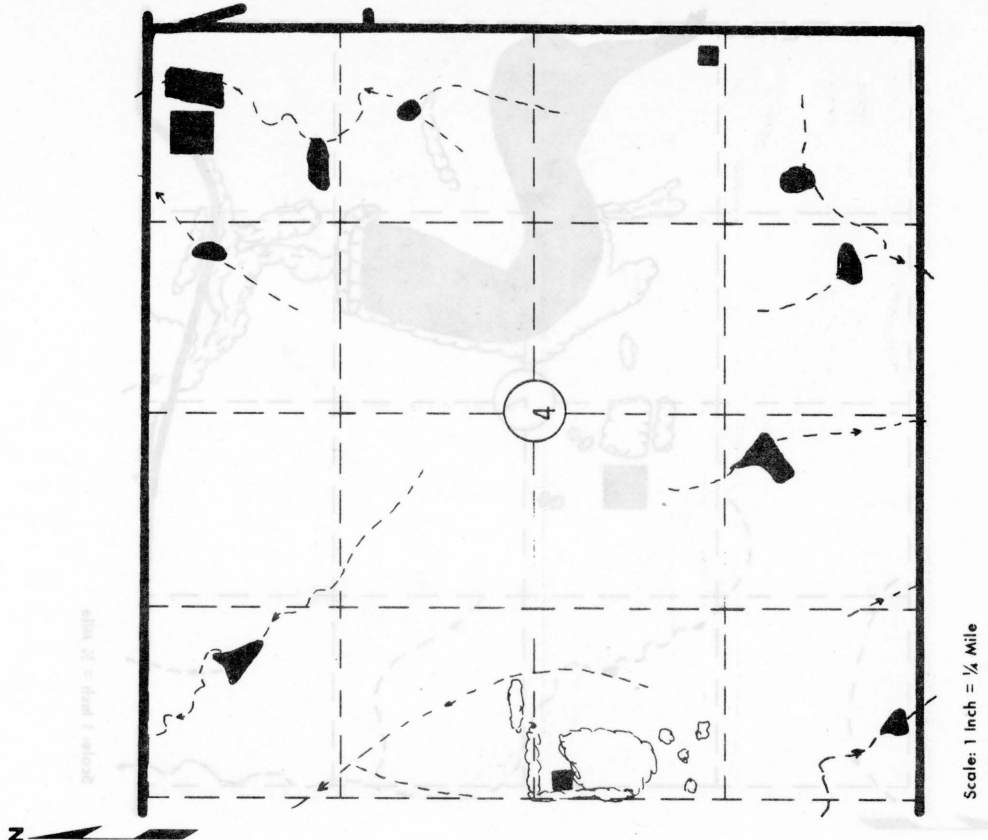
MATERIAL SITE DATA FORM

Site No. LS+8 Date November 1968
PTa
 Material Limestone County Greenwood
 Location NE 1/4 NE 1/4 Sec. 4 Twp. 25 Range 12
 Owner Allen DuBois Neal, Kansas
 Name dry address VIII
 Nature of Deposit Good Site Located on Plate
 Status of Site Open Site ; sampled

EXPLORATION DATA

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

CORRELATION DATA
 Geological Age Pennsylvanian
 Geological Source Lecompton Limestone Formation-Avooca Member
 Material Similar To Material reported under SHC Lab No. 96836
 Specific Gravity (Sat.) 2.71 (Dry) 2.68
 Los Angeles Wear 22.6 (B)
 Absorption 1.22 Soundness 0.97
 Wt. Cu. Ft. Str. Ratio
 Remarks Date tested - 3-14-57
Photo No. 15-54 & 55



MATERIAL SITE DATA FORM

Site No. LS+9 Date November 1968
PBW County Greenwood
 Material Limestone
 Location NW 1/4 Sec. 13 Twp. 26 Range 9
 Owner John G. Borst 402 N. Mulberry, Eureka, Ks.
 name Dry address
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; sampled

EXPLORATION DATA

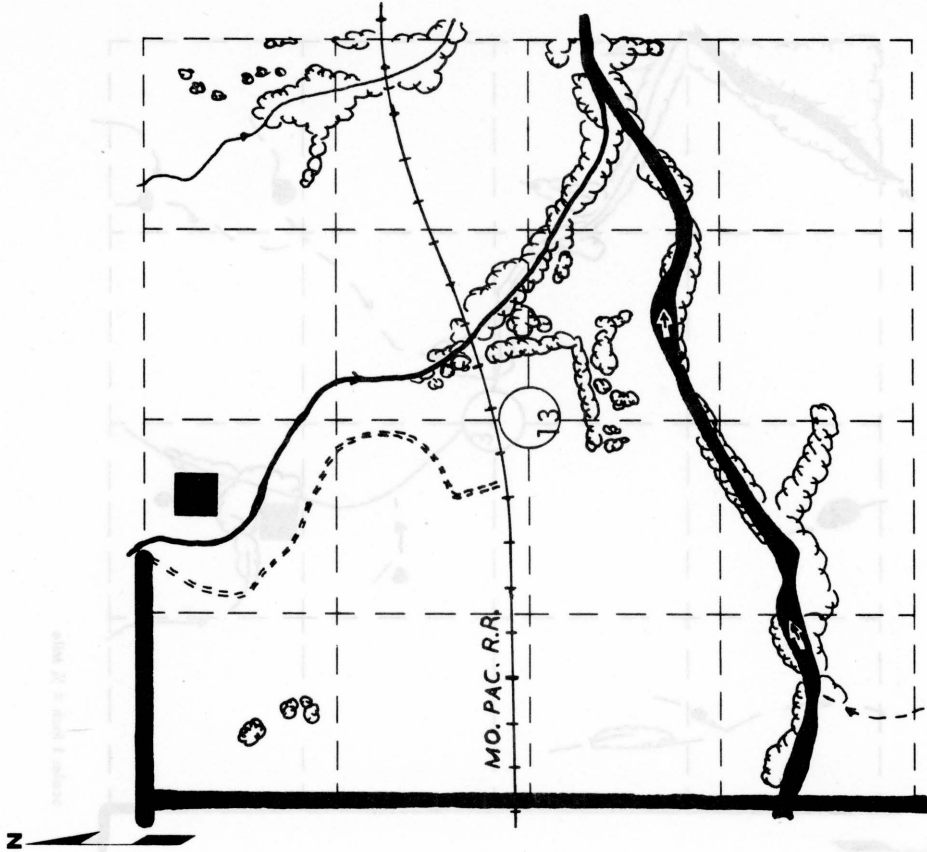
Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash					G.F.	L.L.	P.I.									
				1 1/2	3/8	4	8	16				30	50	100	200					

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Formation - Wakarusa Member
 Material Similar To SHC 619 No. 37-29 Lab. No. 18215
Lab. No. 81-1057

Specific Gravity (Sat.) 2.62 (Dry) 2.58
 Los Angeles Wear 26.0% (B)
 Absorption 1.9% Soundness 0.97
 Wt. Cu. Ft. Str. Ratio
 Remarks Most recent test. 1981

Photo No. 16-17 & 18



MATERIAL SITE DATA FORM

Site No. LS+10 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location E 1/2 SW 1/4 Sec. 31 Twp. 25 Range 10
 Owner Floy T. George Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; sampled

EXPLORATION DATA

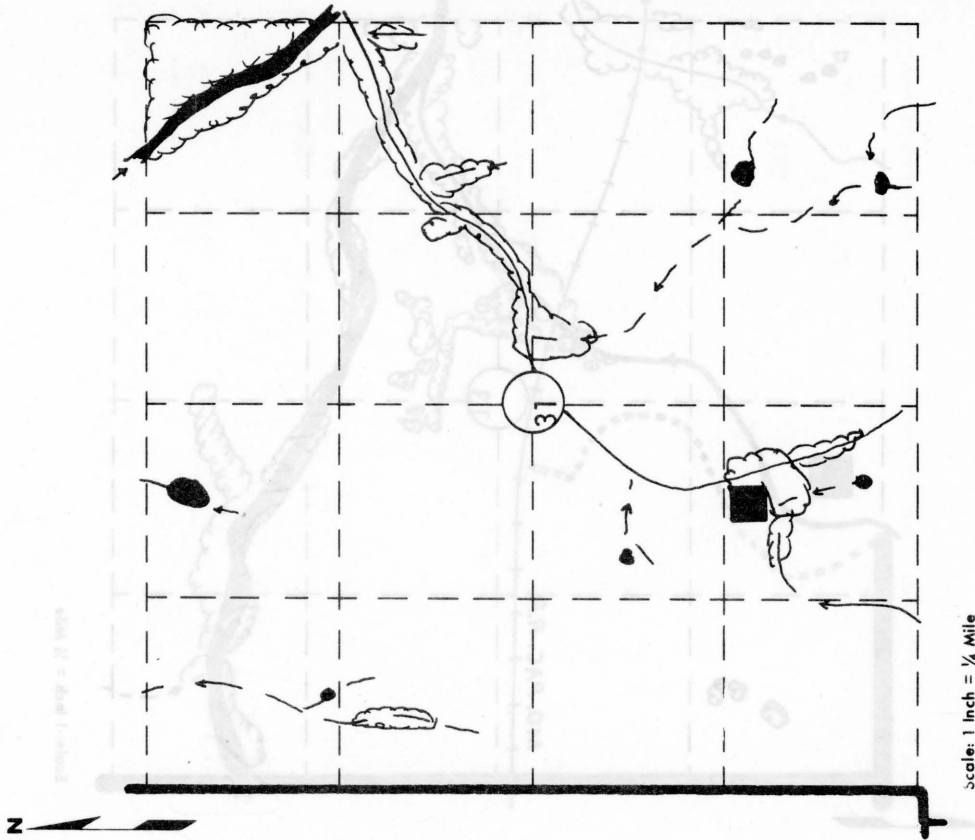
Test Hole	Material Bottom of Hole	Depth of Overburden	Depth of Material	Wash							G.F.	L.L.	P.I.				
				1/2	3/4	1	2	4	8	16				30	50	100	200

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Formation - Wakarusa Member
 Material Similar To _____

Specific Gravity (Sat.) 2.59 (Dry) 2.49
 Los Angeles Wear 35.0% (C)
 Absorption 3.9% Soundness 0.95
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 9-1978

Photo No. 15-114 & 115



MATERIAL SITE DATA FORM

Site No. LS+11 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location NW 1/4 NW 1/4 Sec. 18 Twp. 26 Range 10
 Owner Howard Shinkle 307 S. Mulberry, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open Site ; sampled

EXPLORATION DATA

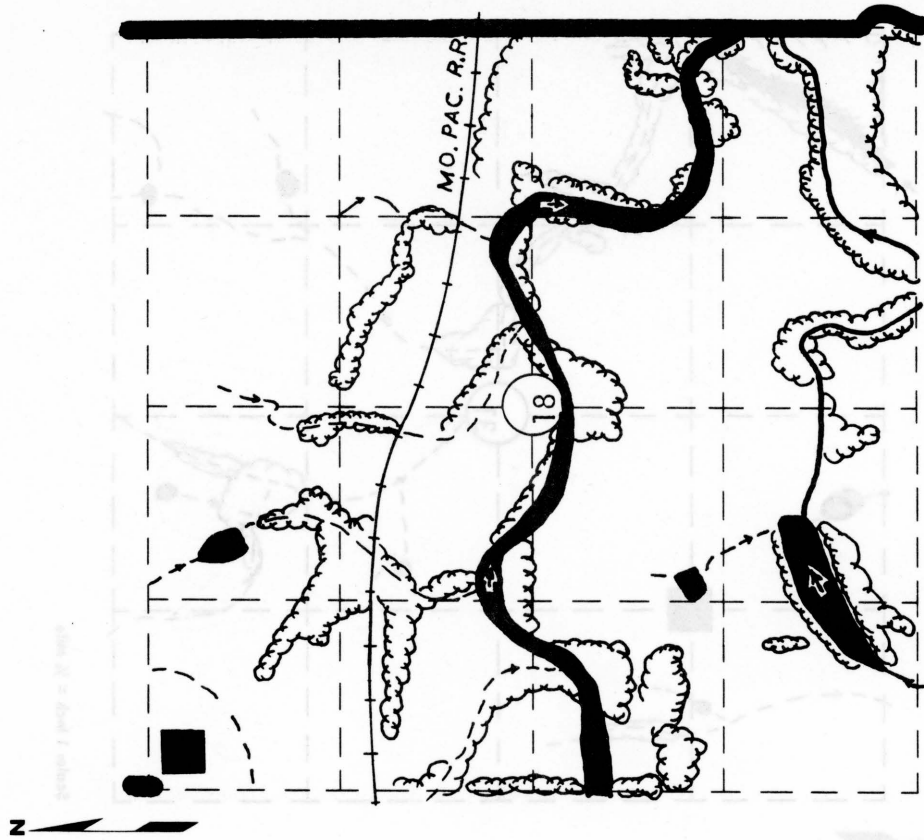
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash							G.F.	L.L.	P.I.			
				1 1/2	3/4	3/8	4	8	16	30				50	100	200

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Formation - Wakarusa Member
 Material Similar To SHC 619 No. 37-25 Lab. No. 32306

Specific Gravity (Sat.) 2.57 (Dry) 2.50
 Los Angeles Wear 29.2 (B)
 Absorption 2.77 Soundness 0.98
 Wt. Cu. Ft. Str. Ratio
 Remarks Last test 1964

Photo No. 16-17 & 18



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS-12 Date November 1968
RBW
 Material Limestone County Greenwood
 Location NW 1/4 Sec. 31 Twp. 25 Range 10
 Owner Phyllis Huntington address Eureka, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate IX
 Status of Site Open site ; sampled

EXPLORATION DATA

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

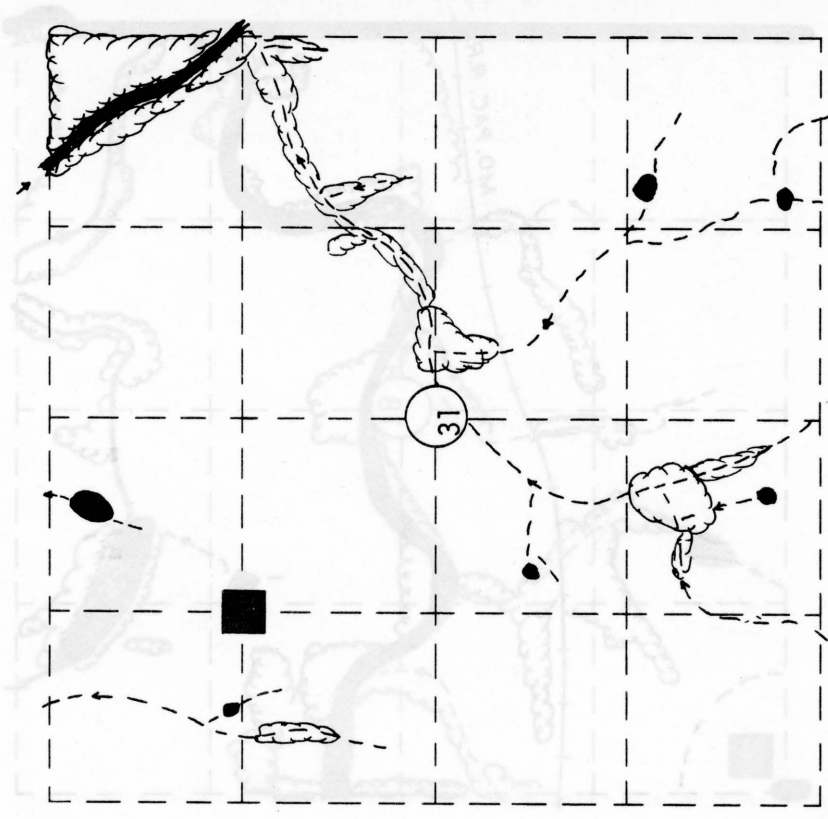
CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Limestone Formation - Wakarusa Member

Material Similar To _____
 Specific Gravity (Sat.) 2.58 (Dry) 2.51
 Los Angeles Wear 28. %
 Absorption 3.1 % Soundness 0.97

Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 15-114 & 115



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+13 Date November 1968
PBW
 Material Limestone County Greenwood
 Location NW 1/4 NE 1/4 Sec. 5 Twp. 26 Range 10
 Owner R. Wixon Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Open site ; sampled

EXPLORATION DATA

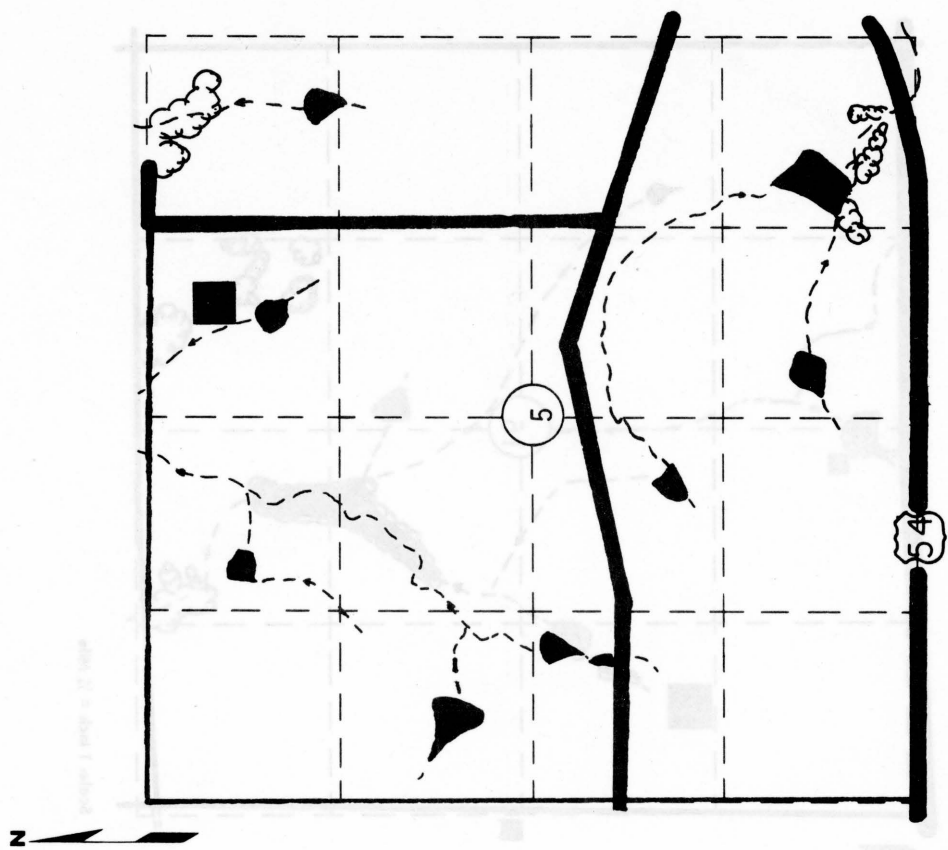
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash							G.F.	L.L.	P.I.		
				1 1/2	3/8	4	8	16	30	50				100	200

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Limestone Formation - Wakarusa Member
 Material Similar To Material Reported under SHC Lab No. 81546

Specific Gravity (Sat.) 2.61 (Dry) 2.55
 Los Angeles Wear 31.5 (B)
 Absorption 2.22 Soundness 0.90
 Wt. Cu. Ft. Str. Ratio

Remarks Photo No. 15-129 & 130



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

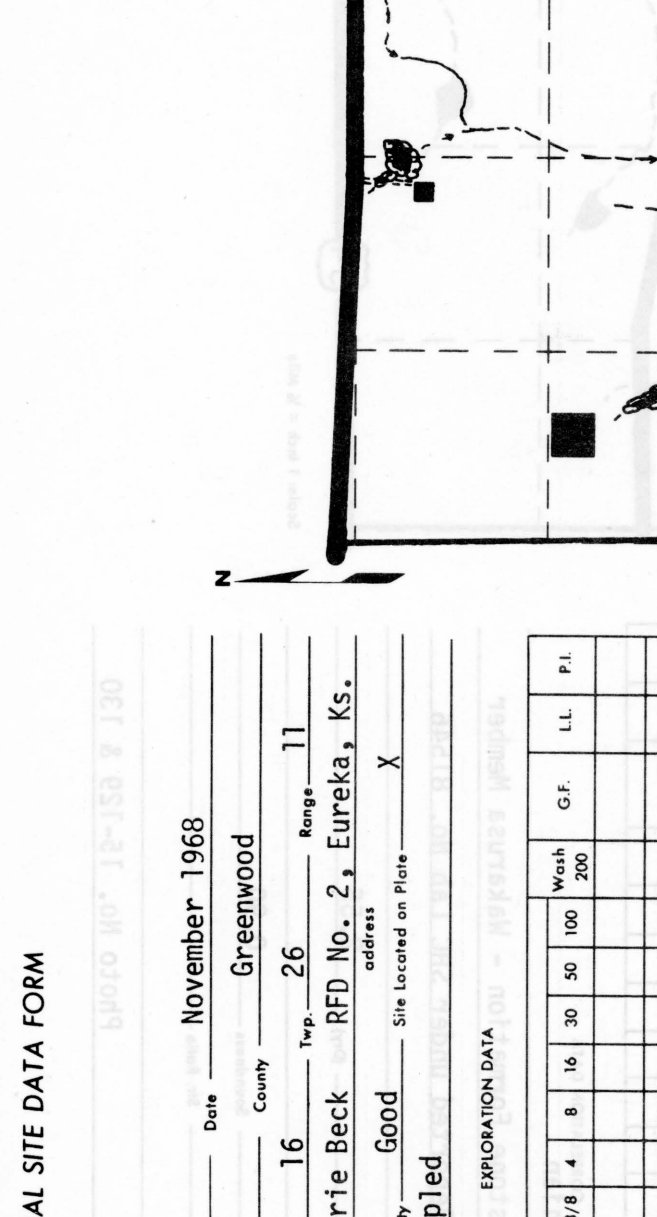
Site No. LS+14 Date November 1968
Ptc
 Material Limestone County Greenwood
 Location NW 1/4 Sec. 16 Twp. 26 Range 11
 Owner Harold & Ida Marie Beck RFD No. 2, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; sampled

EXPLORATION DATA

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

CORRELATION DATA
Pennsylvanian
 Geological Age Topeka Limestone - Curzon Member
 Geological Source _____
 Material Similar To _____
 Specific Gravity (Sat.) 2.60 (Dry) 2.53
 Los Angeles Wear 25% (B)
 Absorption 2.9 Soundness 0.99
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks 1973 Test Data (73-3551)

Photo No. 16-11 & 12



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+15 Date November 1968
Rtc
 Material Limestone County Greenwood
 Location S 1/4 SW 1/4 Sec. 16 Twp. 26 Range 11
 Owner C. R. Vinson & Leola Y. Cisen address Eureka, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; sampled

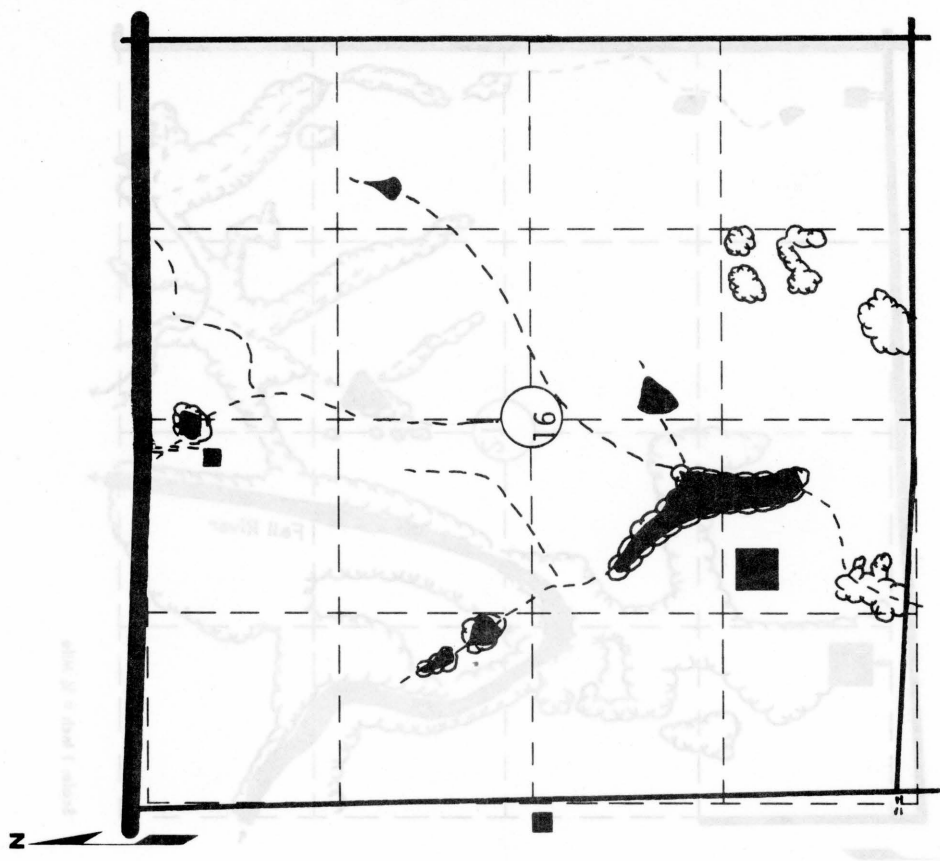
EXPLORATION DATA

Test Hole	Material Bottom of Hole	Depth of Overburden	Depth of Material										Wash	G.F.	L.L.	P.I.	
			1 1/2	3/4	4	8	16	30	50	100	200	300					

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation - Curzon Member
 Material Similar To _____

Specific Gravity (Sat.) 2.58 (Dry) 2.50
 Los Angeles Wear 28 % (B)
 Absorption 3.1% Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks From 1972 test (72-455)
 Photo No. 16-12



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Photo No. 16-12

Site No. LS+16 Date November 1968
PTC
 Material Limestone County Greenwood
 Location NE 1/4 NW 1/4 Sec. 21 Twp. 26 Range 11
 Owner W. E. Hughes 1202 N. Main, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; sampled

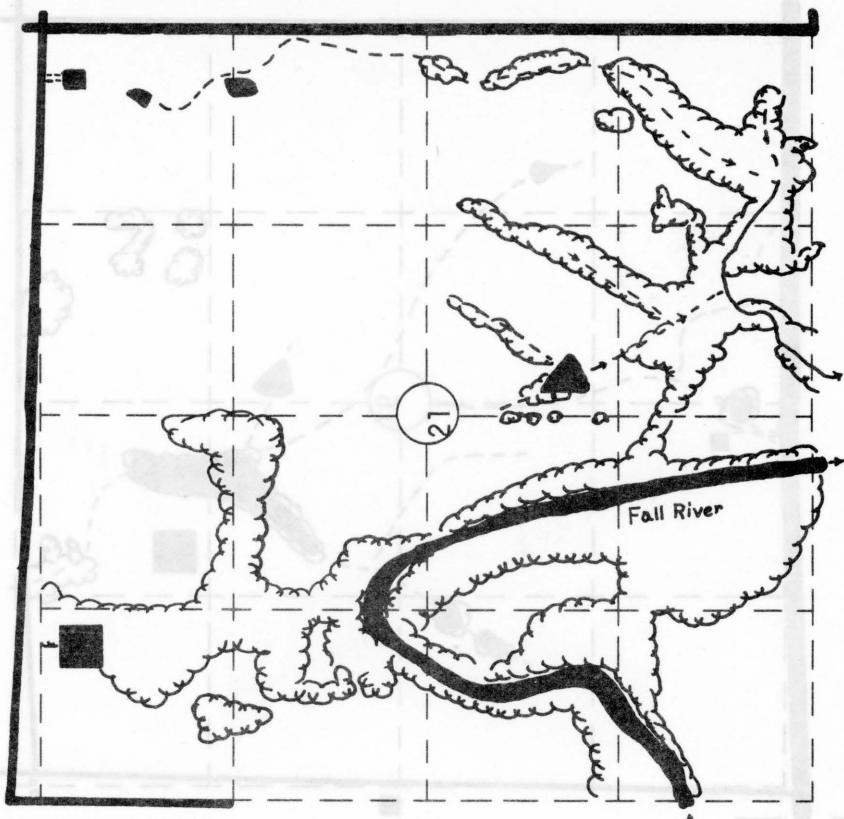
EXPLORATION DATA

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

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Formation-Curzon Member
 Material Similar To SHC Form 619 No. 37-31

Specific Gravity (Sol.) 2.50 (Dry) 2.40
 Los Angeles Wear 36.6 (B)
 Absorption 4.46 Soundness 0.94
 Wt. Cu. Ft. Str. Ratio
 Remarks Most recent test (17348)

Photo No. 16-12



Scale: 1 inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+17 Date November 1968
Pts
 Material Limestone County Greenwood
 Location NE 1/4 SE 1/4 Sec. 34 Twp. 25 Range 11
 Owner G. R. Blake Tonovay, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XI
 Status of Site Open Site ; sampled

EXPLORATION DATA

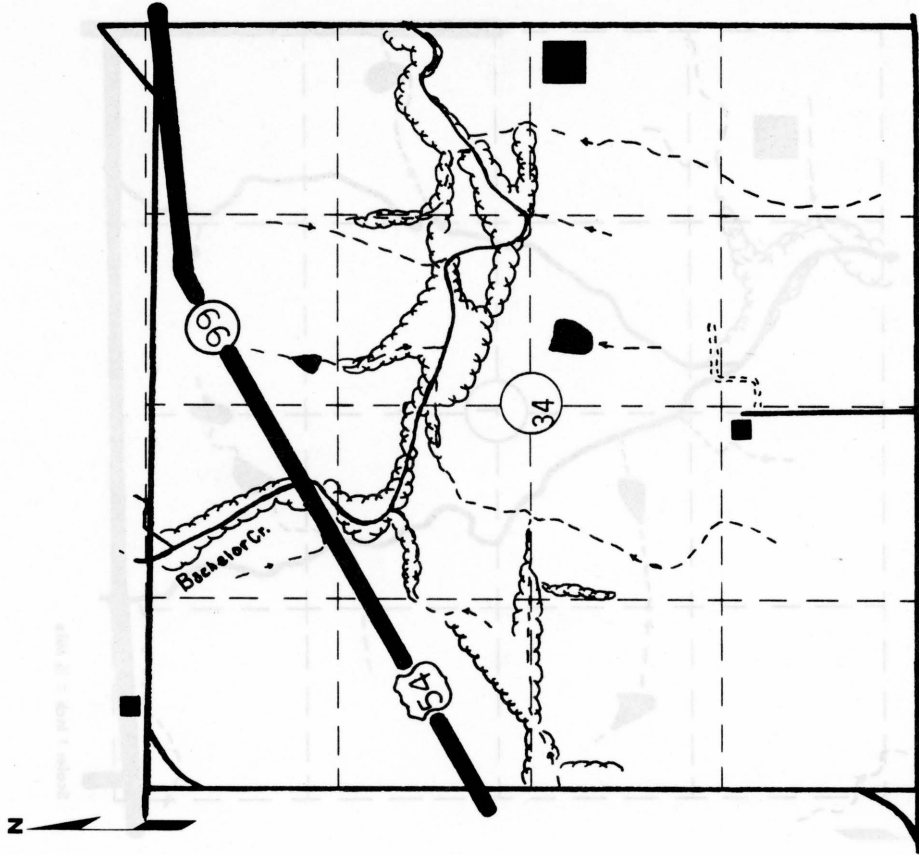
Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash							G.F.	L.L.	P.I.				
				1/2	3/8	4	8	16	30	50				100	200		

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Formation - Sheldon Member
 Material Similar To SHC Form 619 No. 37-27
Lab No. 70-3592

Specific Gravity (Sat.) 2.57 (Dry) 2.49
 Los Angeles Wear 25.1
 Absorption 2.88 Soundness 0.87
 Wt. Cu. Ft. Str. Ratio
 Remarks Most recent test 1-71

Photo No. 15-108



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+18 Date November 1968
Pth/c
 Material Limestone County Greenwood
 Location NE 1/4 Sec. 1 Twp. 26 Range 11
Harold G. Boone Tonovay, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XI
 Status of Site Open site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Fm - Hartford/Curzon Member

Material Similar To _____

Specific Gravity (Sat.) 2.59 (Dry) 2.50

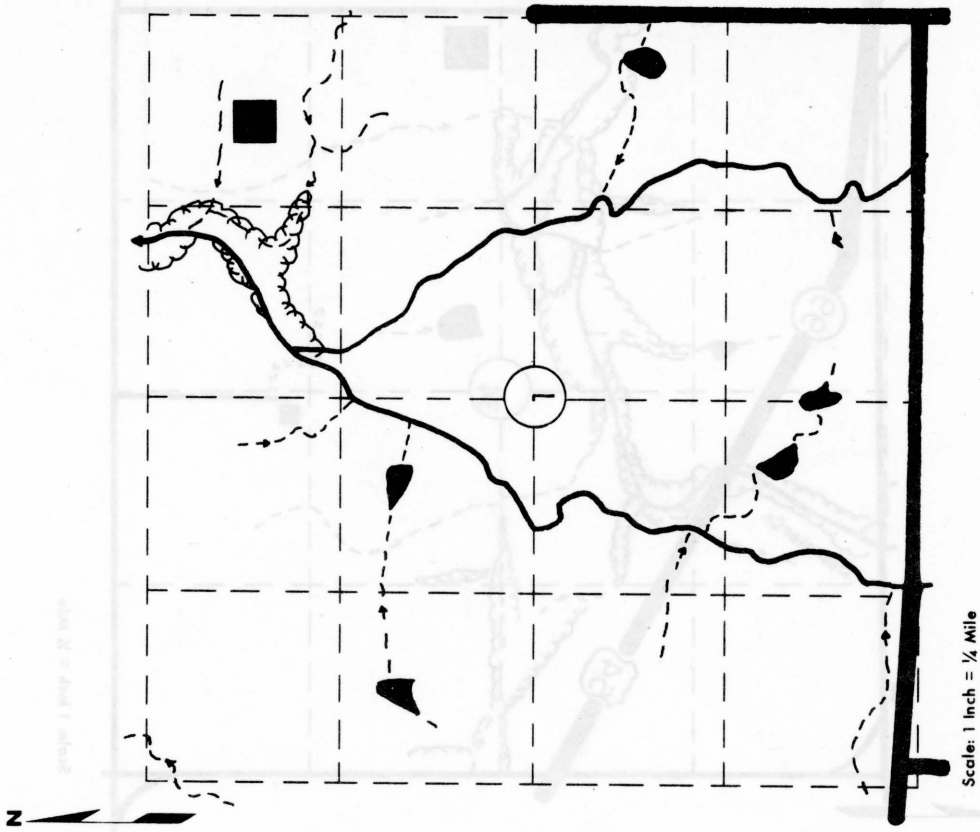
Los Angeles Wear 33 %

Absorption 3.7 % Soundness 0.94

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks Test date 1978 (78-124)

Photo No. 15-137 & 138



MATERIAL SITE DATA FORM

Site No. LS+19 Date November 1968
Pot
 Material Limestone County Greenwood
 Location SW 1/4 NW 1/4 Sec. 10 Twp. 26 Range 13
 Owner Charles E. Williams Toronto, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XI
 Status of Site Open Site ; sampled

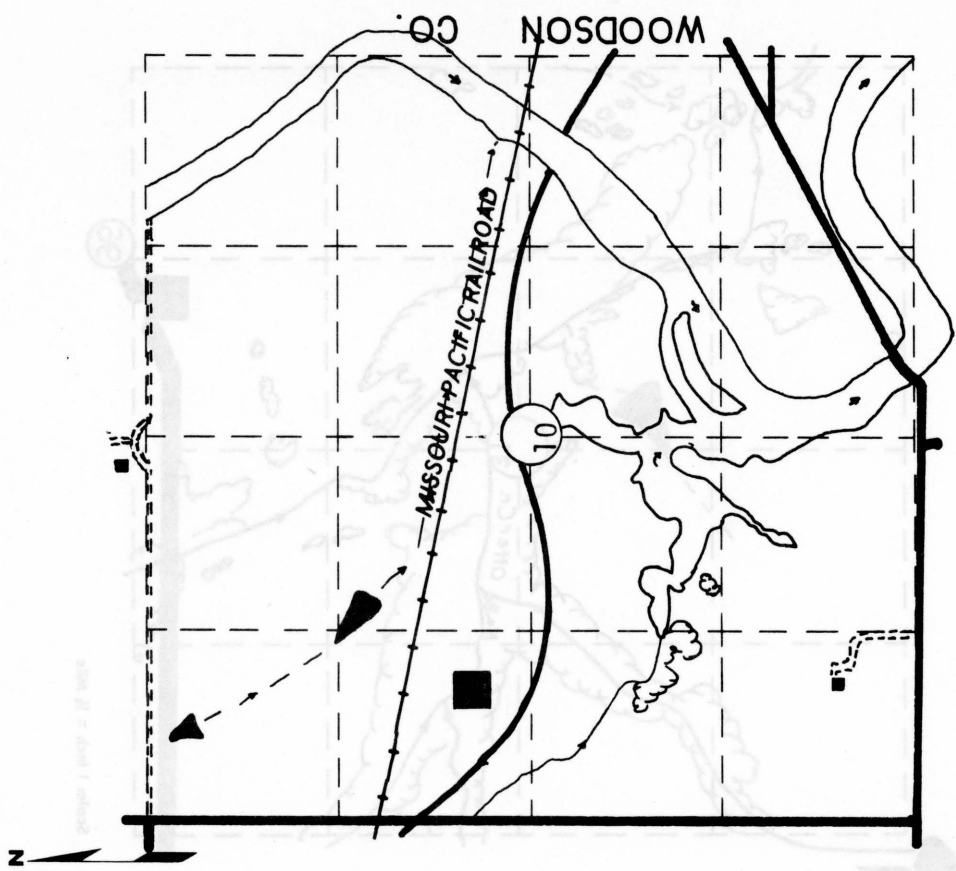
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Limestone Fm - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) 2.59 (Dry) 2.52
 Los Angeles Wear 28.2 % (B)
 Absorption 2.67 % Soundness 0.97
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 1962 (21 425)

Photo No. 15-143 & 144



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+20 Prb Date November 1968
 Material Limestone County Greenwood
 Location SE 1/4 SW 1/4 SE 1/4 Sec. 31 Twp. 27 Range 9
 Owner Carl M. Coonrod Piedmont, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XII
 Status of Site Open Site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Lower Permian
 Geological Source Red Eagle Ls. Fm. - "Bennette Reef"

Material Similar To _____

Specific Gravity (Sat.) 2.27 (Dry) 2.11

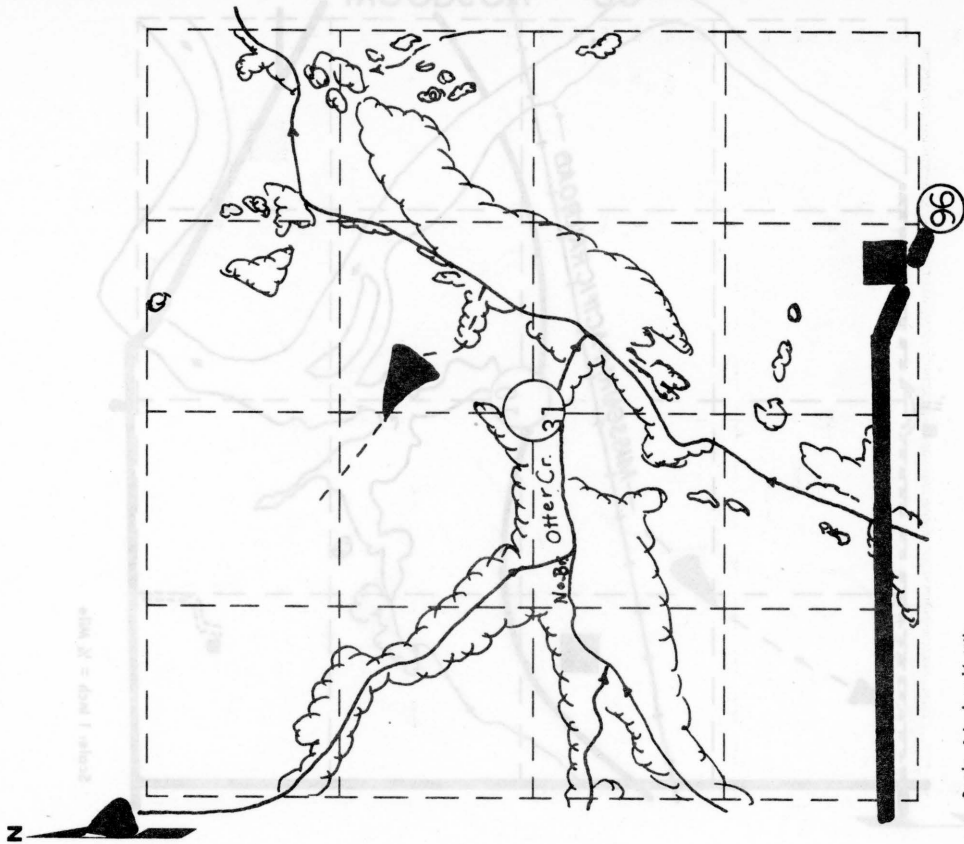
Los Angeles Wear 46.4 (A)

Absorption 7.44 % Soundness 0.92

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks Tested 1946 (50017 & 50018)

Photo No. 16-75



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+21 Date November 1968
7BW
 Material Limestone County Greenwood
 Location NW 1/4 NE 1/4 Sec. 19 Twp. 27 Range 10
 Owner Willard L. Gettle & Jack R. Hunt, et al Climax, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate XII
 Status of Site Open site ; sampled

EXPLORATION DATA

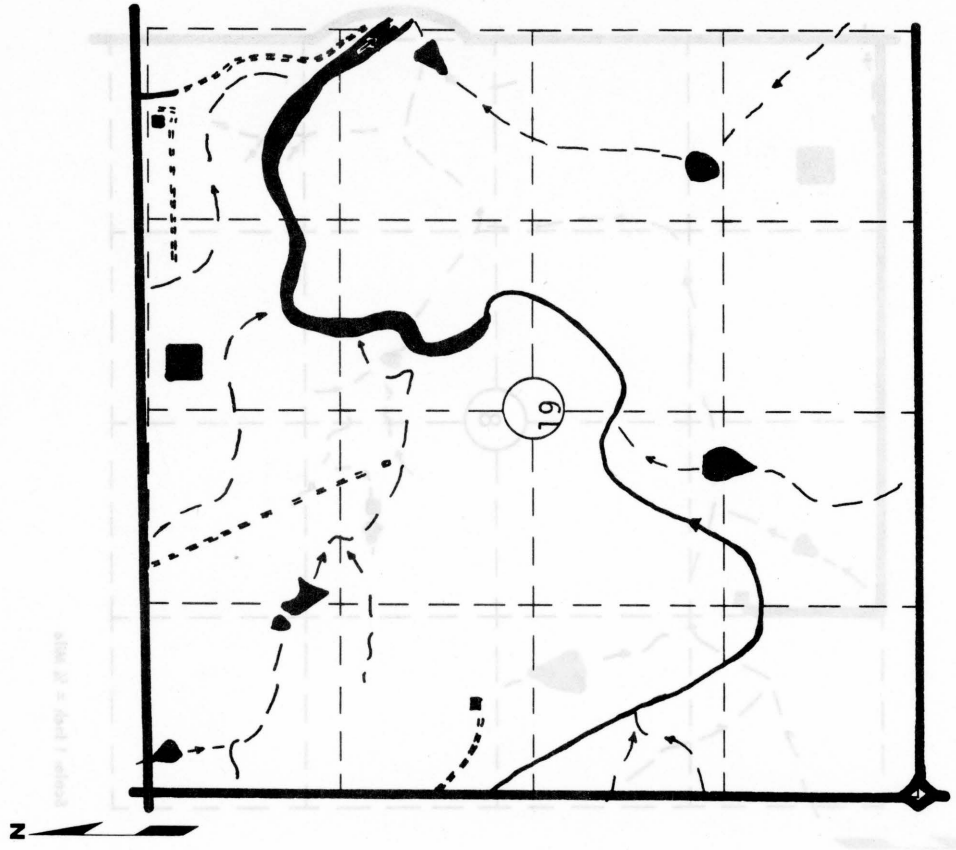
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash					G.F.	L.L.	P.I.									
				1/2	3/8	4	8	16				30	50	100	200					

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Limestone Fm. - Wakarusa Member
 Material Similar To Material reported under SHC Lab. No. 85456

Specific Gravity (Sat.) 2.58 (Dry) 2.53
 Los Angeles Wear 25.0 (B)
 Absorption 1.96 % Soundness 0.98
 Wt. Cu. Ft. Tested 1954 (85456) Str. Ratio
 Remarks

Photo No. 16-65 & 66



MATERIAL SITE DATA FORM

Site No. LS+22 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location NE 1/4 Sec. 8 Twp. 27 Range 10
 Owner Pauline E. Anspaugh et al 1301 E. River, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIII
 Status of Site Open site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian

Geological Source Bern Limestone Fm. - Wakarusa Mbr.

Material Similar To _____

Specific Gravity (Sat.) 2.54 (Dry) 2.48

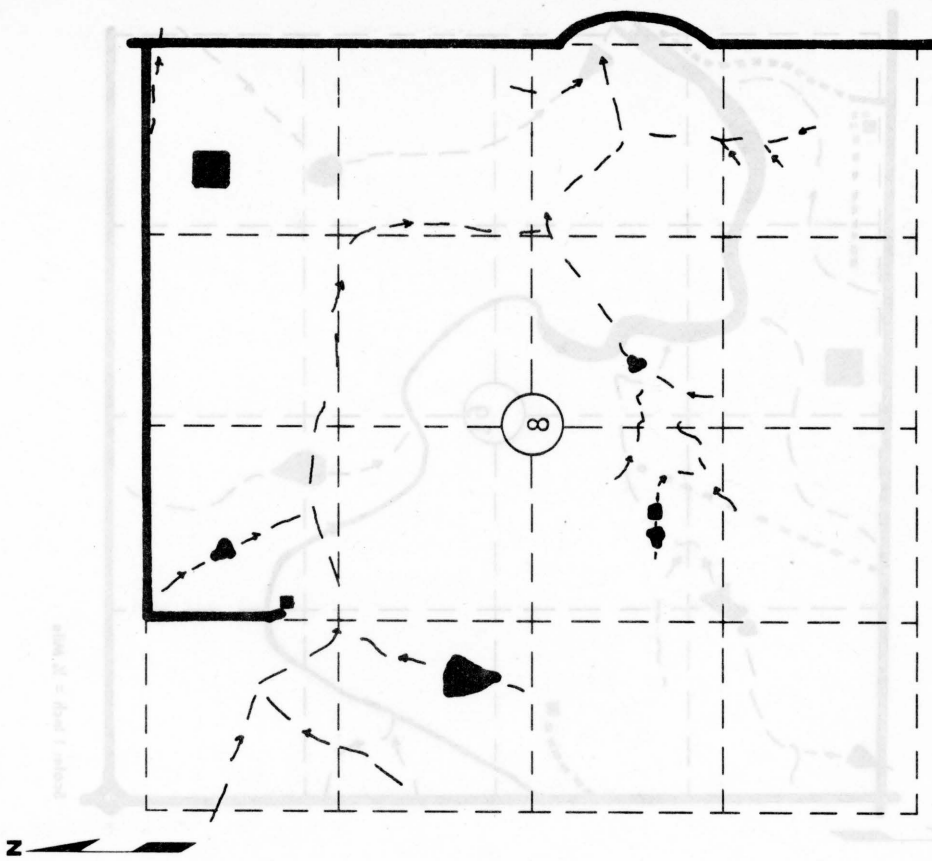
Los Angeles Wear 33 % (B)

Absorption 2.5 % Soundness 0.99

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks Tested 1977 (77-1110)

Photo No. 16-64 & 65



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+23 Date November 1968
PBW
 Material Limestone County Greenwood
 Location NW³/₄ Sec. 5 Twp. 28 Range 10
 Owner Blake Limestone Co. address Sedan, Kansas
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIII
 Status of Site Open site ; sampled

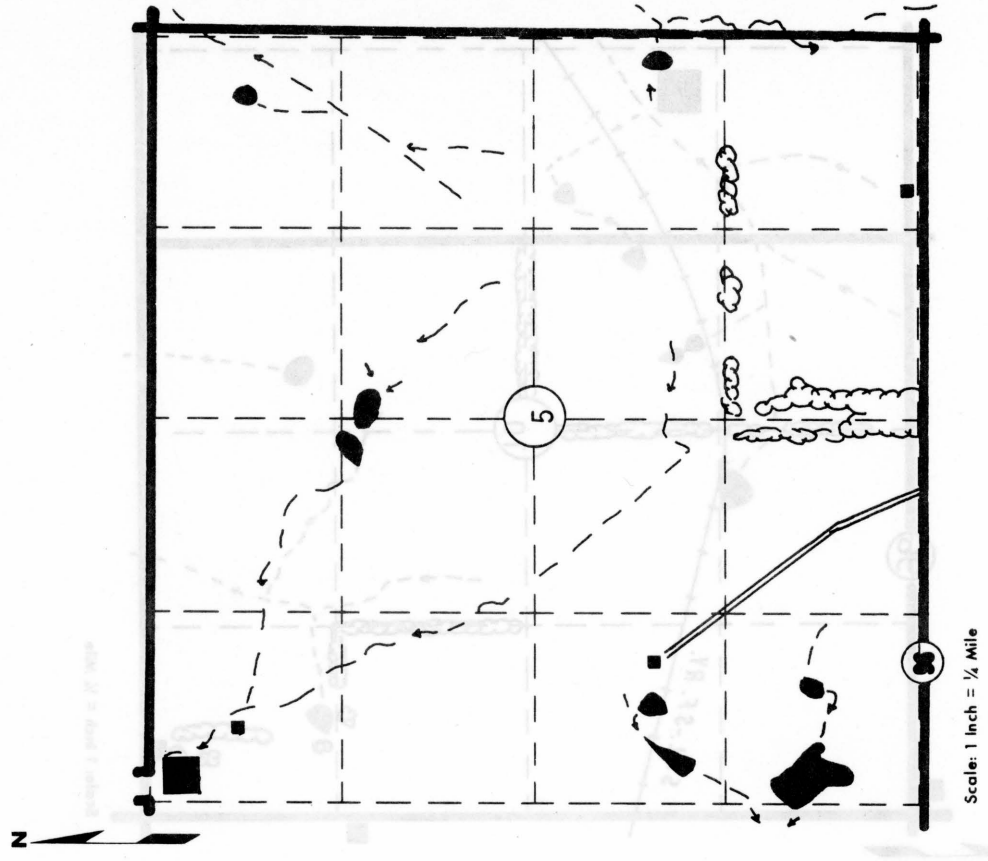
EXPLORATION DATA

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

Geological Age Pennsylvanian
 Geological Source Bern Ls. Fin. - Wakarusa Mbr.
 Material Similar To Tested 1976 (76-3436)

Specific Gravity (Sat.) 2.64 (Dry) 2.61
 Los Angeles Wear 37 % (B)
 Absorption 1.2 % Soundness 0.99
 Wt. Cu. Fi. Str. Ratio

Remarks The quality of the limestone may vary greatly because of lithologic changes (reefing) at location. Photo No. 16-15



MATERIAL SITE DATA FORM

Site No. LS+24 Date November 1968
10 County Greenwood
 Material Limestone
 Location SE 1/4 NE 1/4 Sec. 10 Twp. 28 Range 11
 Owner M.I. Blake, et al Sedan, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIII
 Status of Site Open Site ; Sampled

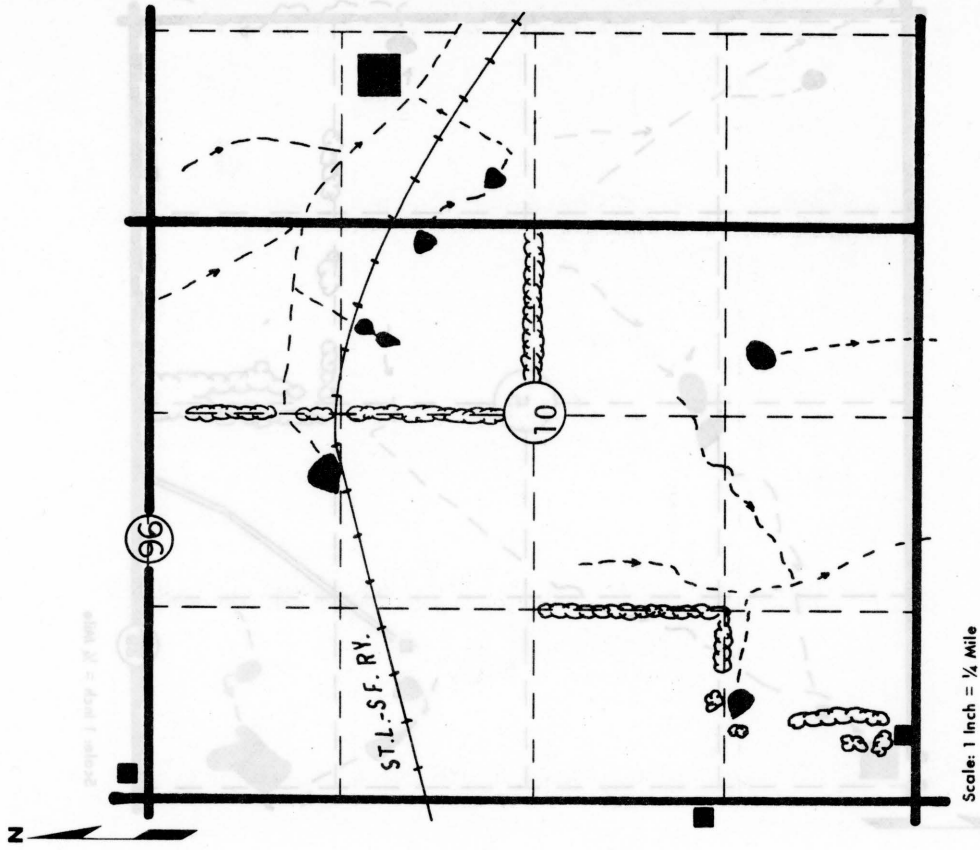
EXPLORATION DATA

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

Geological Age Pennsylvanian
 Geological Source Deer Creek Fm. - Ervine Creek Mbr.
 Material Similar To SHC Form 619 No. 37-24

Specific Gravity (Sat.) 2.55 (Dry) 2.48
 Los Angeles Wear 34% (B)
 Absorption 2.85% Soundness 0.96
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 1973 (73-947)

Photo No. 16-107



MATERIAL SITE DATA FORM

Site No. LS+25 Date November 1968
Pde Material Limestone County Greenwood
 Location E 1/4 SE 1/4 Sec. 10 Twp. 28 Range 11
 Owner Carl H. Jordan Fall River, Kansas
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIII
 Status of Site Open Site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Deer Creek Fm. - Irvine Creek Mbr.

Material Similar To _____

Specific Gravity (Sat.) 2.55 (Dry) 2.46

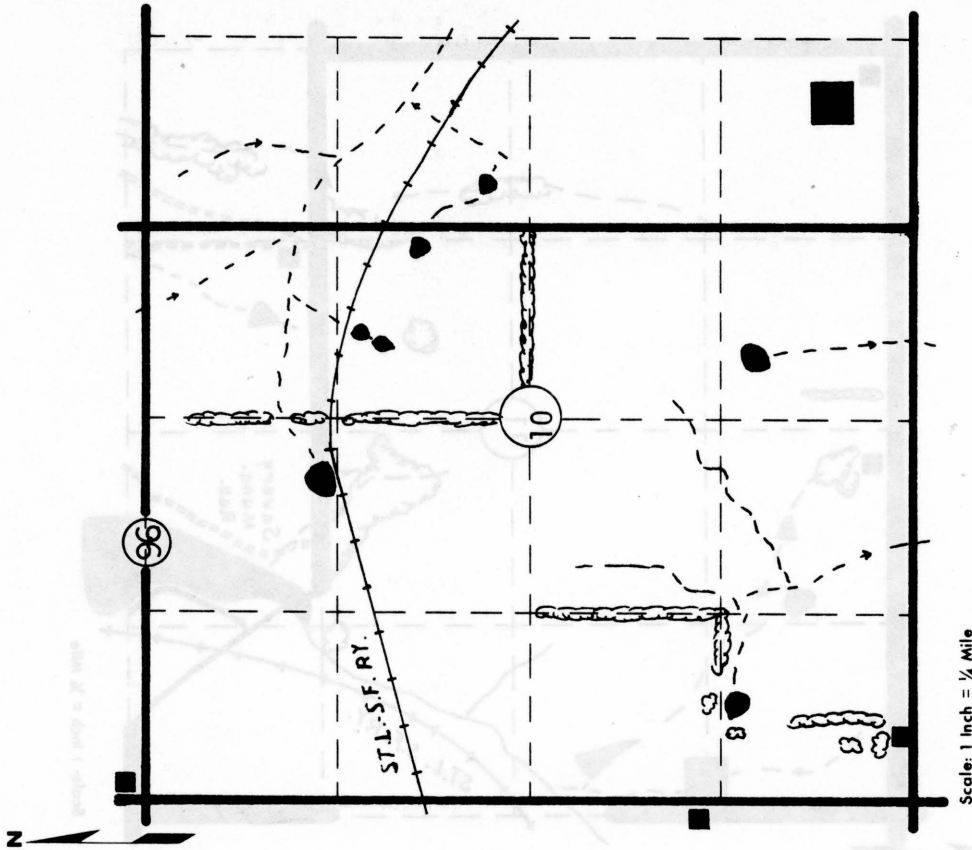
Los Angeles Wear 32% (C)

Absorption 3.8% Soundness 0.98

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks Tested 1973 (73-3549)

Photo No. 16-108



MATERIAL SITE DATA FORM

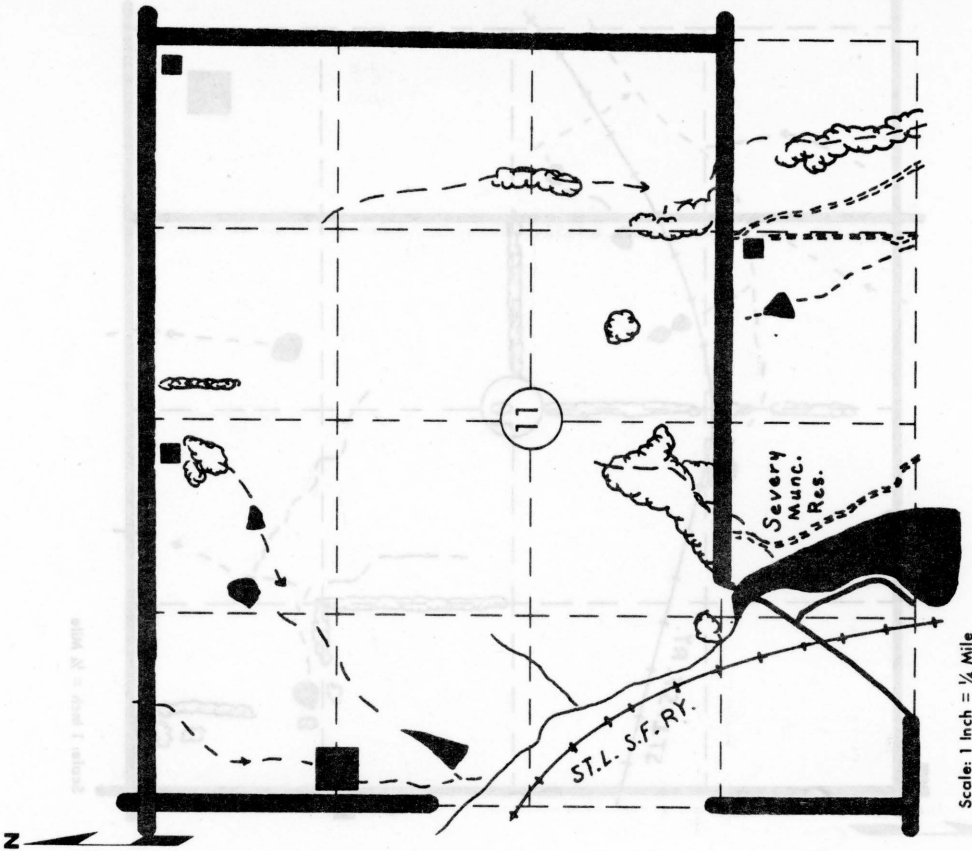
Site No. LS+26 Date November 1968
Pde
 Material Limestone County Greenwood
 Location W $\frac{1}{2}$ NW $\frac{1}{4}$ Sec. 11 Twp. 28 Range 11
 Owner M. I. Blake et al Sedan, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIII
 Status of Site Open site ; sampled

EXPLORATION DATA

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

Geological Age Pennsylvanian
 Geological Source Deer Creek Formation - Ervine Creek Member
 Material Similar To _____
 Specific Gravity (Sat) 2.63 (Dry) 2.59
 Los Angeles Wear 27.7%
 Absorption 1.36% Soundness 0.98
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 1962 (21496)

Photo No. 16-108



MATERIAL SITE DATA FORM

Site No. LS+27 Date November 1968
Pot
 Material Limestone County Greenwood
 Location SE 1/4 SE 1/4 Sec. 2 Twp. 28 Range 12
Fall River, Kansas
 Owner M. P. Burns address XIV
 Nature of Deposit Dry Accessibility Poor Site Located on Plate
 Status of Site Open site ; sampled

EXPLORATION DATA

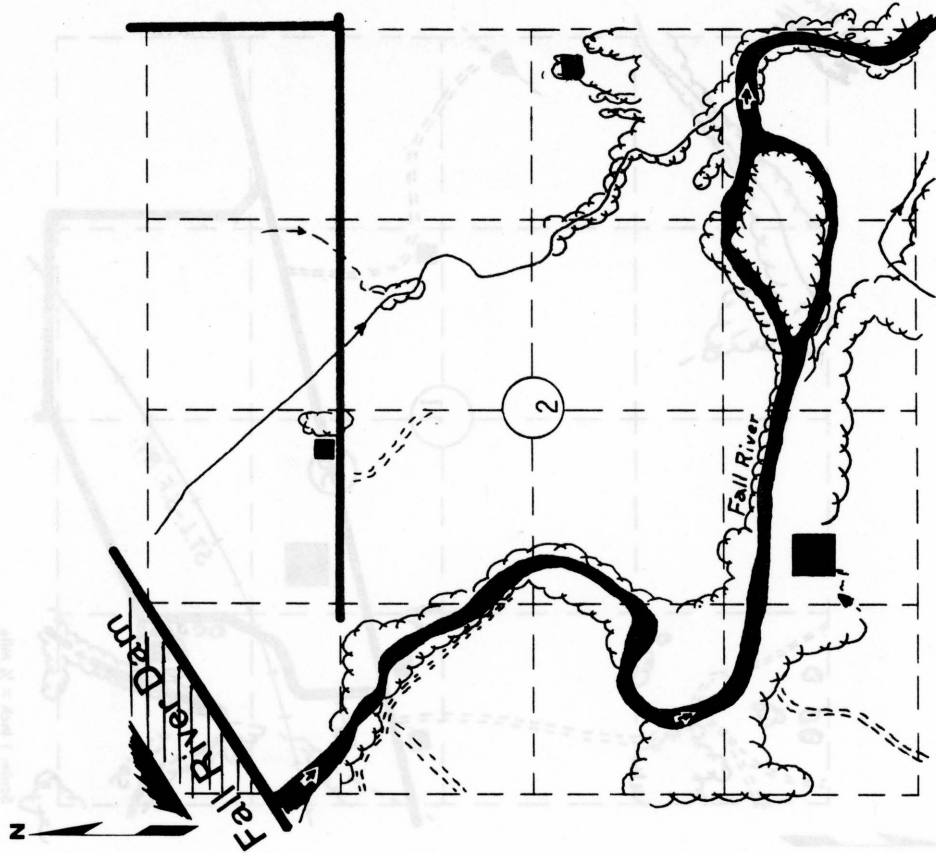
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	Wash					G.F.	L.L.	P.I.										
				1 1/2	3/4	4	8	16				30	50	100	200						

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Ls. Formation - Toronto Mbr.
 Material Similar To SHC Form 619 No. 37-28

Specific Gravity (Sol.) 2.65, 2.63 (Dry) 2.61, 2.59
 Los Angeles Wear 29.1 (B), 27.7 (B)
 Absorption 1.24, 1.36 Soundness 0.98, 0.98
 Wt. Cu. Ft. Str. Ratio

Remarks Photo No. 16-104



MATERIAL SITE DATA FORM

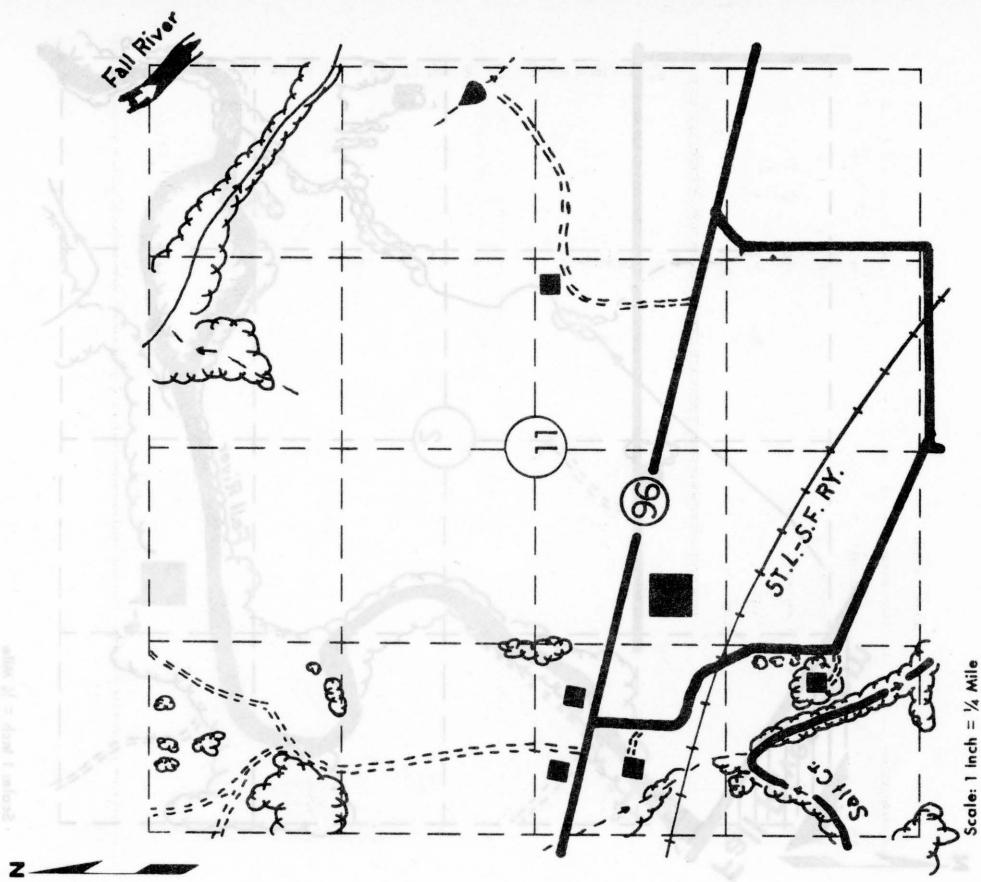
Site No. LS+28 Date November 1968
Pot
 Material Limestone County Greenwood
 Location NE 1/4 SW 1/4 Sec. 11 Twp. 28 Range 12
Fall River, Ks.
 Owner C. L. Esbaugh name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIV
 Status of Site Open site ; sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Ls. Fm. - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) 2.68 (Dry) 2.65
 Los Angeles Wear 26.4 % (A)
 Absorption 0.93 % Soundness 0.83
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 1946 (50011 & 50012) Photo No. 16-104



MATERIAL SITE DATA FORM

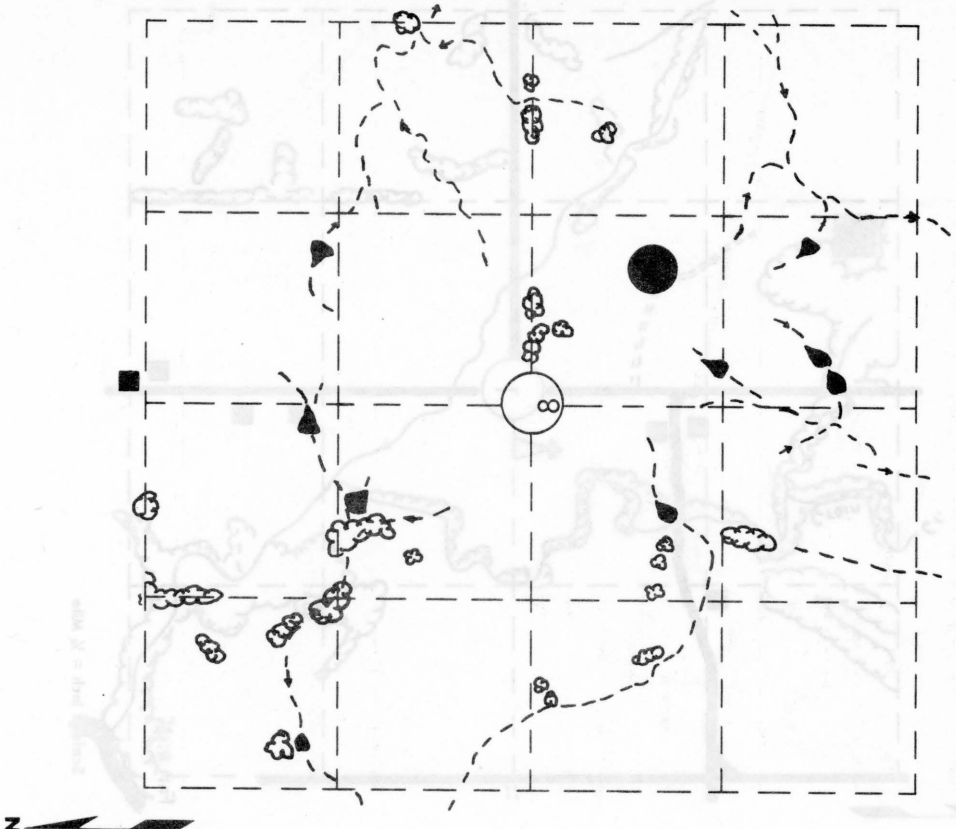
Site No. CG-33 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NW 1/4 SE 1/4 Sec. 8 Twp. 22 Range 13
 Owner Lee A. Blanck Fall River, Kansas
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate II
 Status of Site Open Site ; sampled

EXPLORATION DATA

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

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Less than 12,000

Photo No. 13-34 & 35



Scale: 1 Inch = 1/4 Mile

OPEN MATERIALS SITES ; NOT SAMPLED

LEGEND

=====	Trail or lane	■	Open materials sites; sampled
—————	Road	●	Open materials sites; not sampled
-+ + + + + + + -	Railroad	▼	Prospective materials sites; sampled
~~~~~	Hedge or trees	◆	Prospective materials sites; not sampled
~~~~~ Name	Major streams	○ 5	Center of section
~~~~~	Intermittent streams	□	Dwelling
~~~~~	Pond or lake	□ +	Cemetery
		□	School
		□	Church
		▒	Town or city

MATERIAL SITE DATA FORM

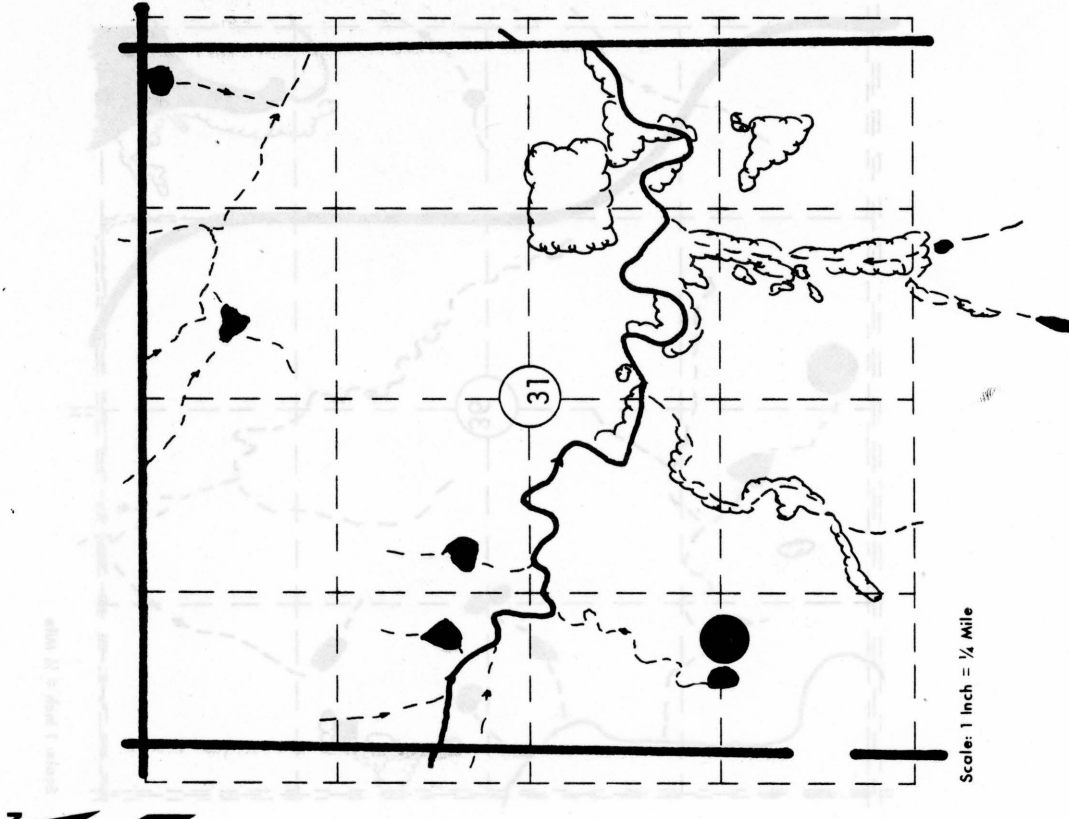
Site No. LS+30 Date November 1968
17BW
 Material Limestone County Greenwood
 Location W 1/2 SW 1/4 Sec. 31 Twp. 22 Range 12
 Owner F. D. Lose address Madison, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate II
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Ls. Fm. - Burlingame Mbr.
 Material Similar To _____
 Specific Gravity (Sat) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Photo No. 13-47 & 48



MATERIAL SITE DATA FORM

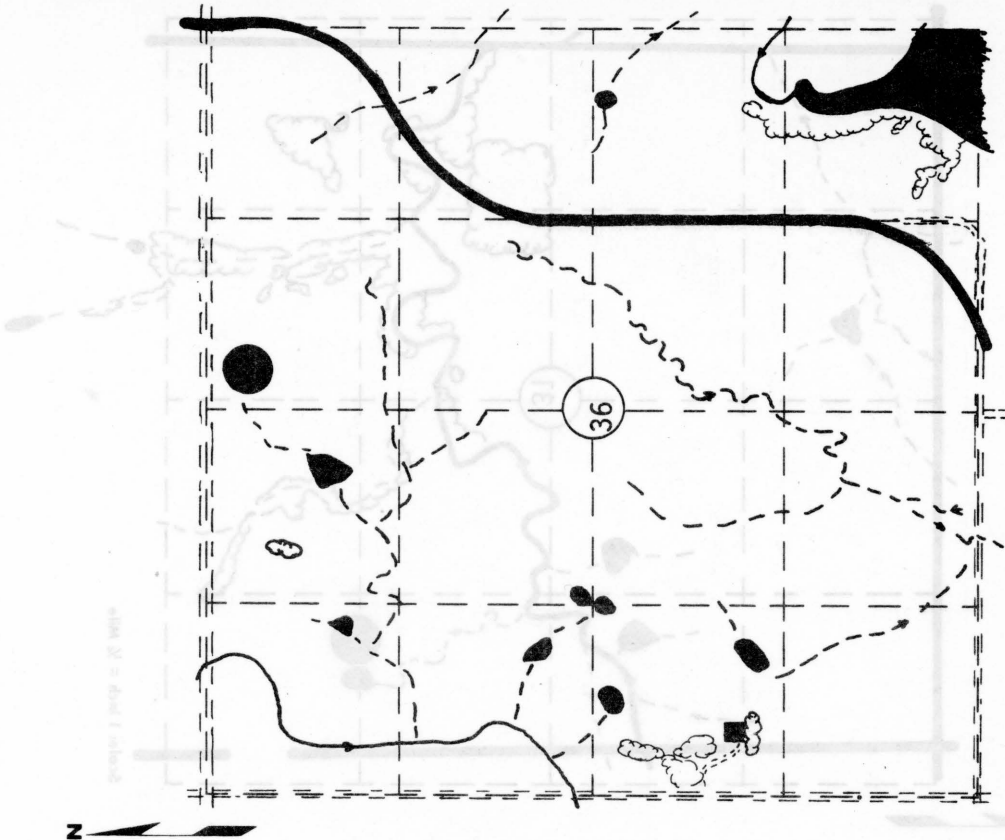
Site No. CG+31 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 36 Twp. 22 Range 12
Buffalo, Ks.
 Owner Ralph Lutz address
 Nature of Deposit Dry Accessibility Good Site Located on Plate II
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Photo No. 13-42 & 43



MATERIAL SITE DATA FORM

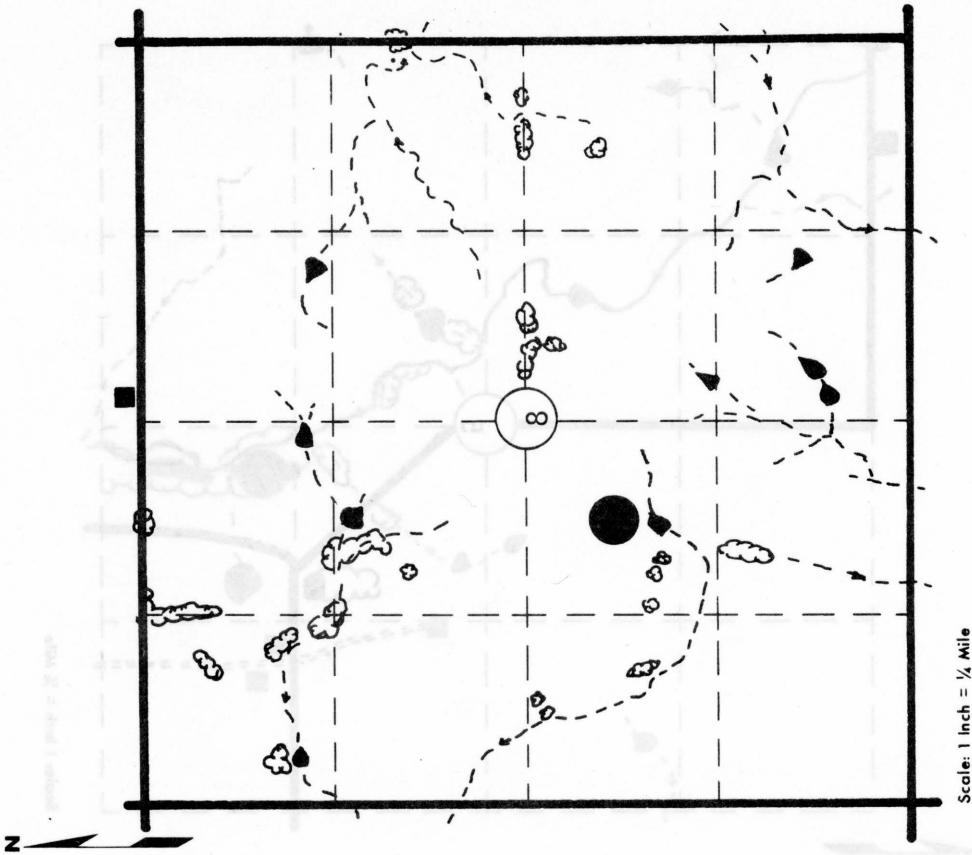
Site No. CG-32 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NE 1/4 SW 1/4 Sec. 8 Twp. 22 Range 13
 Owner Harold Luthi address Gridley, Ks.
 Nature of Deposit Dry Accessibility Fair Site Located on Plate II
 Status of Site Open site; not sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash					G.F.	L.L.	P.I.									
				1 1/2"	3/8"	4"	8"	16"				30"	50"	100"	200"					

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Less than 12,000 yds. of material available
 Photo No. 13-34 & 35



Scale: 1 inch = 1/4 Mile

MATERIAL SITE DATA FORM

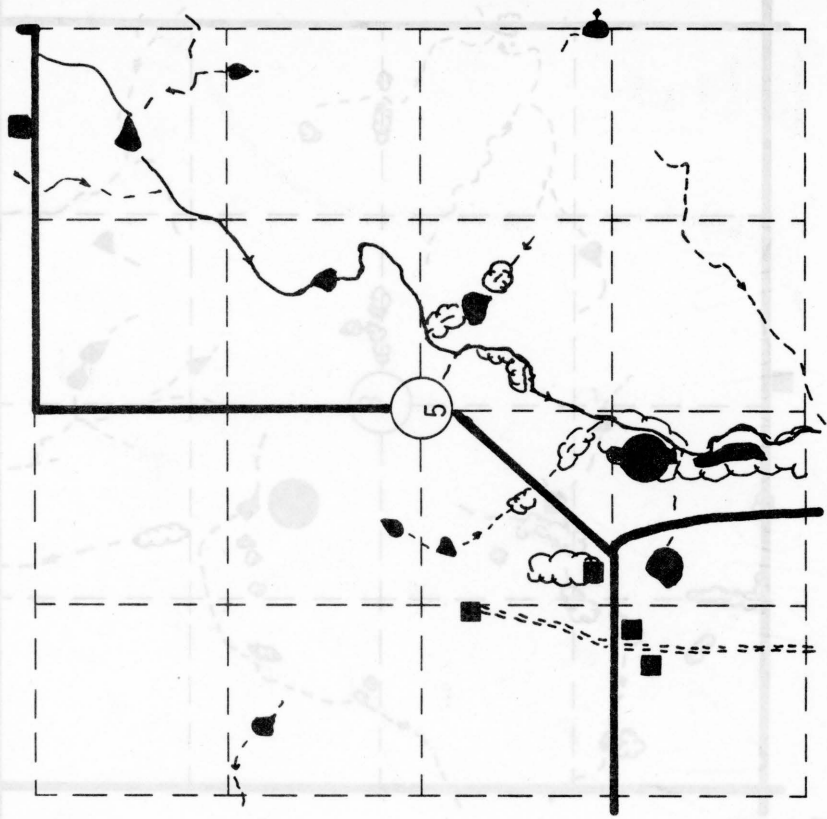
Site No. LS+34 Date November 1968
PtCC
 Material Limestone County Greenwood
 Location SW $\frac{1}{4}$ Sec. 5 Twp. 24 Range 12
 Owner W. A. Lockard Buffalo, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open Site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Ls. Fm. - Coal Creek Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Conglomeritic Limestone
 Photo No. 15-7



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+35 Date November 1968
Ptcc
 Material Limestone County Greenwood
 Location NE 1/4 NW 1/4 Sec. 8 Twp. 24 Range 12
Glenn Sup Buffalo, Ks.
 Owner name Glenn Sup address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open site ; not sampled

EXPLORATION DATA

Test Hole	Material Bottom of Hole	Depth of Burden	Depth of Material	Wash							G.F.	L.L.	P.I.	
				1 1/2	3/4	4	8	16	30	50				100

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Formation - Coal Creek Member

Material Similar To _____

Specific Gravity (Sat) _____ (Dry) _____

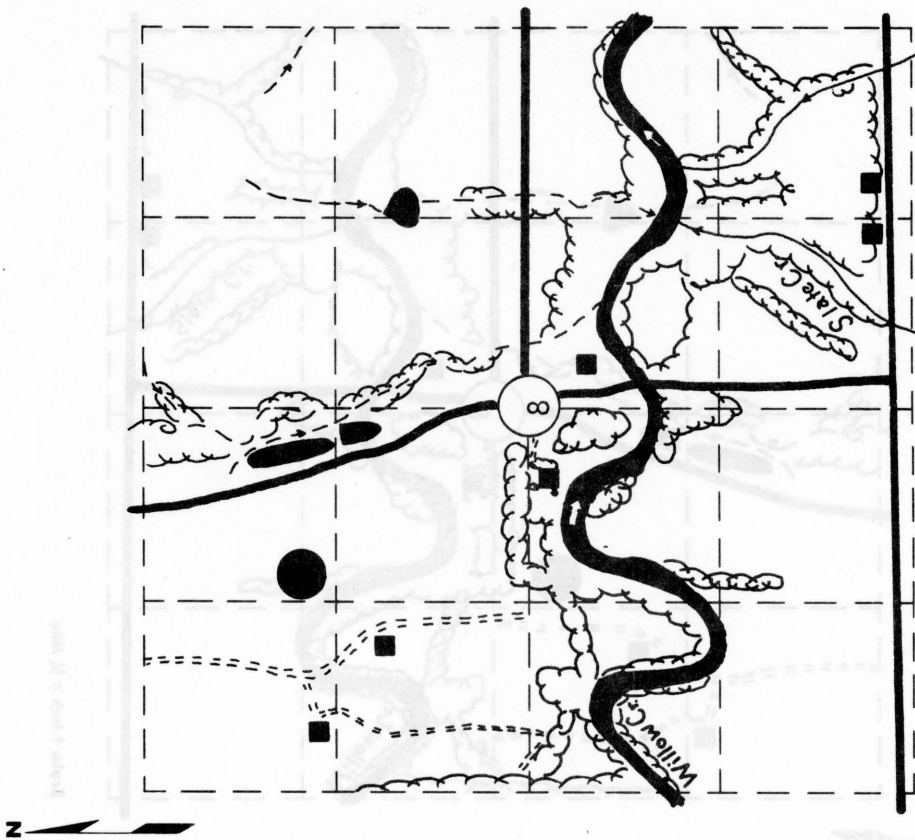
Los Angeles Wear _____

Absorption _____ Soundness _____

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks Site Flooded - Conglomeritic Limestone

Photo No. 15-7 & 8



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+36 Date November 1968
Ptcc
 Material Limestone County Greenwood
 Location SE 1/4 NW 1/4 Sec. 8 Twp. 24 Range 12
Glenn Sup Buffalo, Kansas
 Owner name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Open site ; not sampled

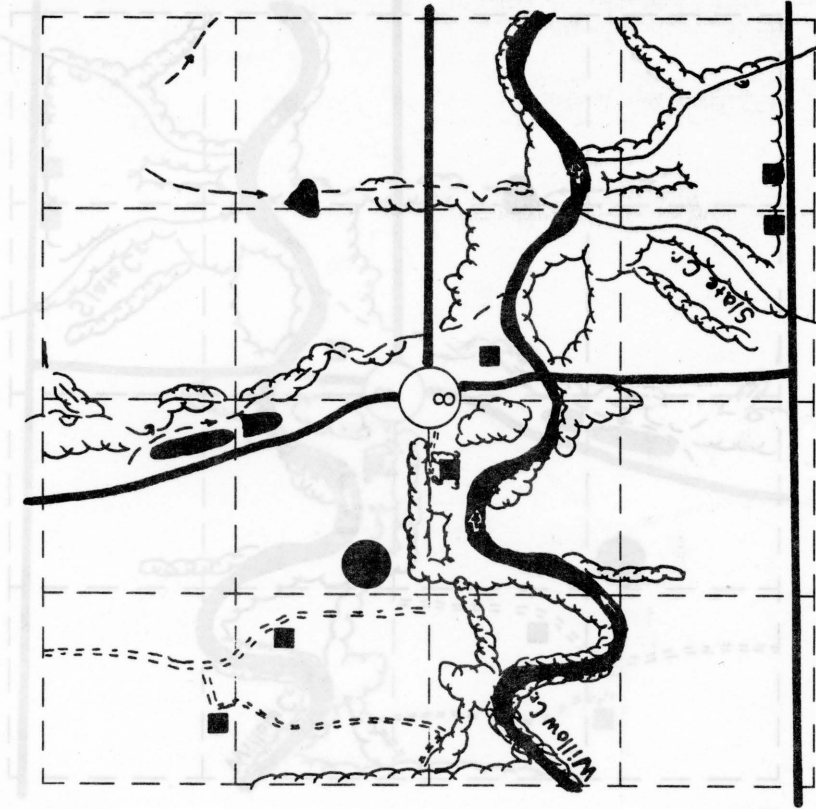
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Formation - Coal Creek Member
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Conglomeritic Limestone

Photo No. 15-7 & 8



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

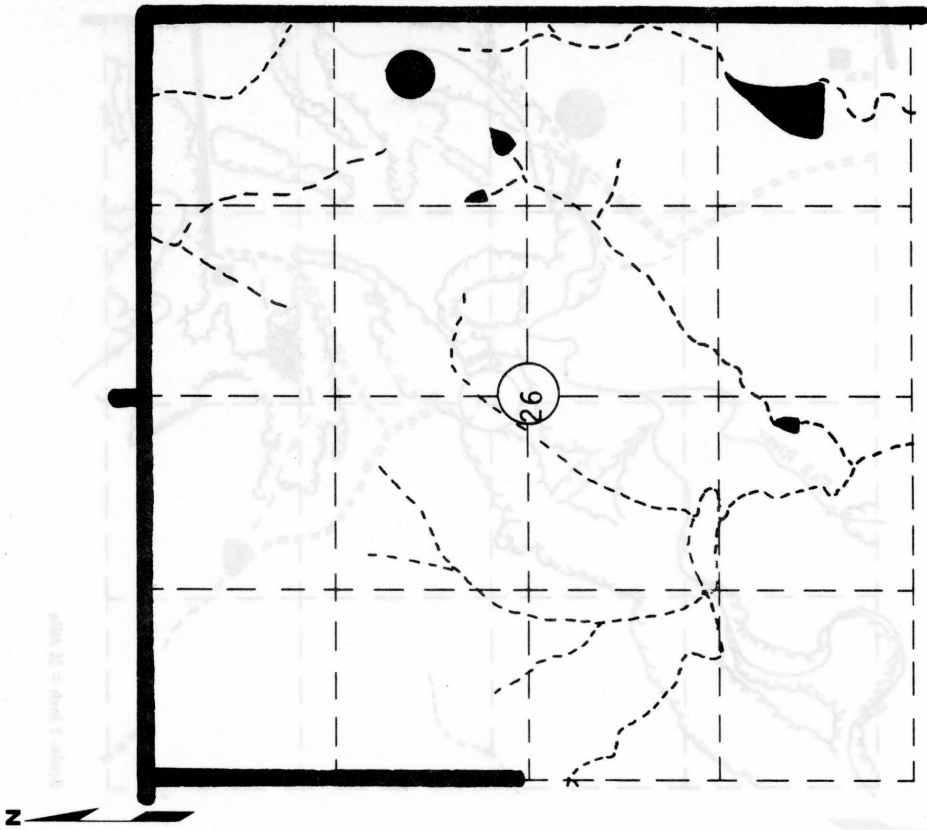
Site No. CG-37 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location SE 1/4 NE 1/4 Sec. 26 Twp. 23 Range 12
 Owner Elsie O. Porter 421 N. Oak, Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate V
 Status of Site Open site ; not sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Core Burden	Depth of Material	CORRELATION DATA							Wash	G.F.	L.L.	P.I.			
				1/2	3/8	4	8	16	30	50					100	200	

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 14-35 & 36



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. CG-38 Date November 1968
Qa1
 Material Chert Gravel County Greenwood
 Location SE 1/4 NE 1/4 Sec. 9 Twp. 25 Range 9
 Owner Bruce R. Dunlap et al Lapland, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate VI
 Status of Site Open Site - not sampled

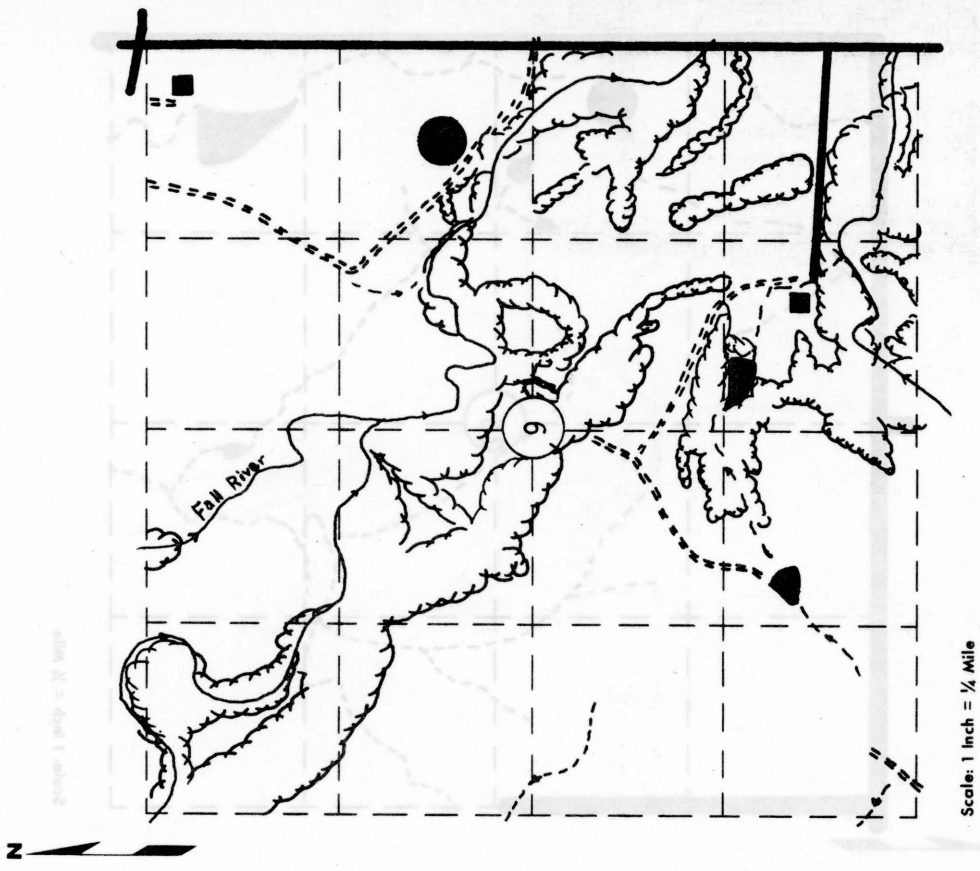
EXPLORATION DATA

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

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 _____

Photo No. 15-78



MATERIAL SITE DATA FORM

Site No. CG-39 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location SE 1/4 NE 1/4 Sec. 28 Twp. 24 Range 12
 Owner Linda K. Bevan Buffalo, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate VIII
 Status of Site Open Site ; not sampled

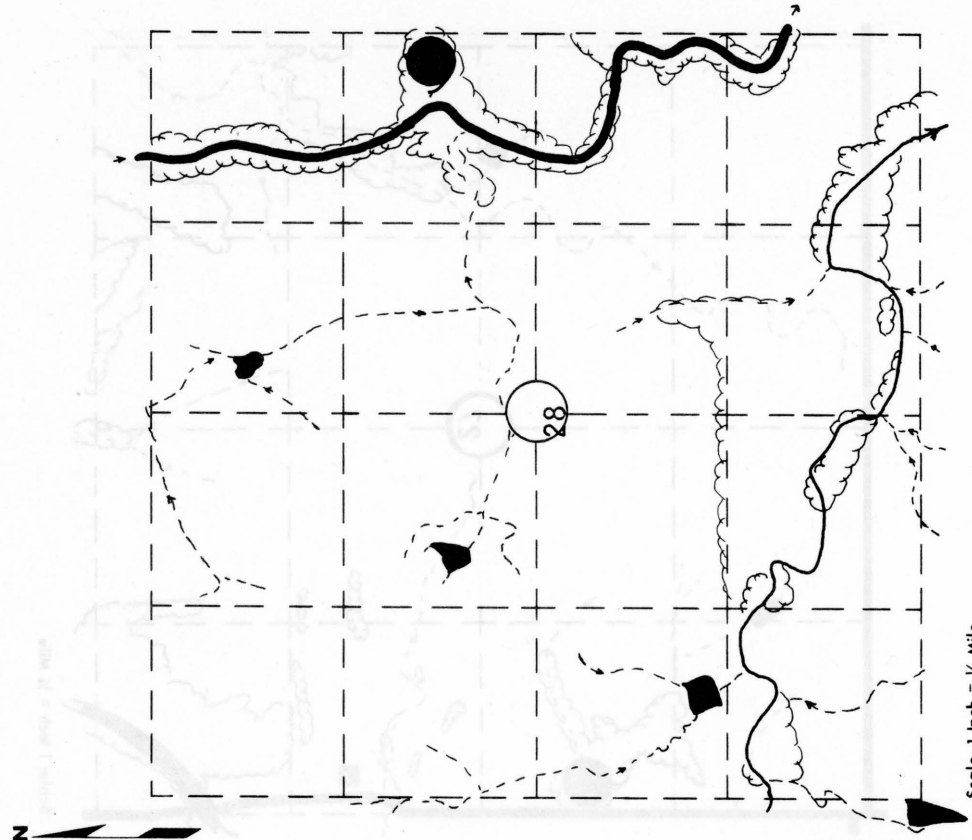
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____

Remarks _____
 Photo No. 15-54



MATERIAL SITE DATA FORM

Site No. CG-40 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location SW 1/4 NW 1/4 Sec. 27 Twp. 24 Range 12
 Owner W. B. Short address Hamilton, Kansas
 Nature of Deposit Dry Accessibility Fair Site Located on Plate VIII
 Status of Site Open site ; not sampled

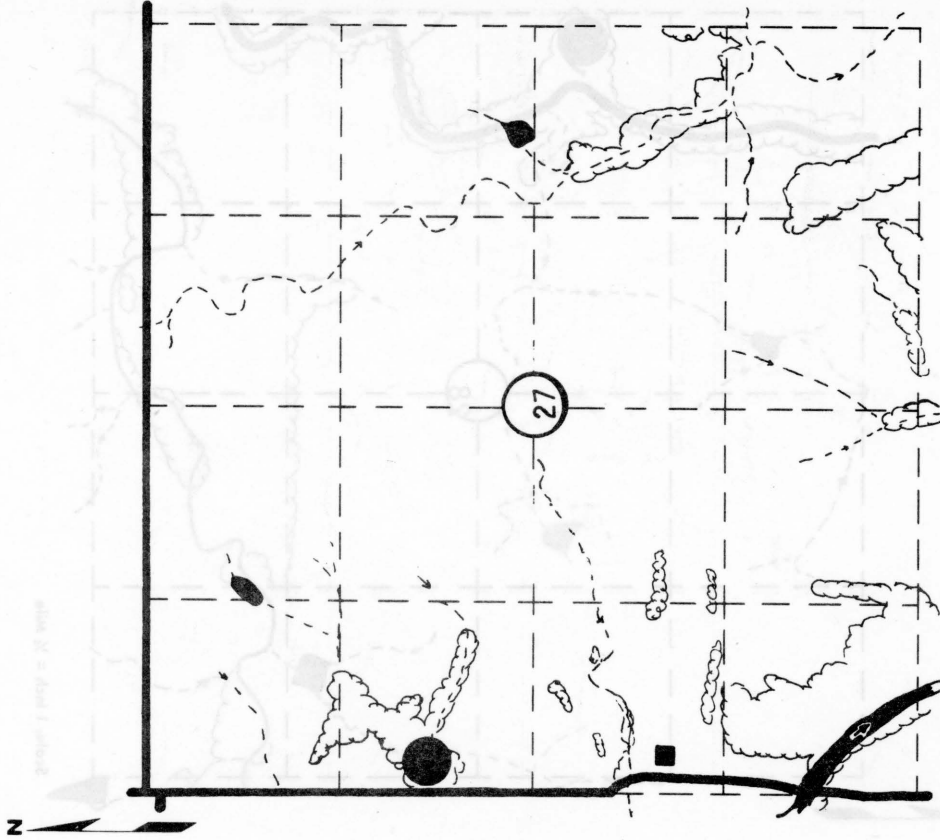
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 15-54



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+41 Date November 1968
Pfh
 Material Limestone County Greenwood
 Location SE 1/4 SE 1/4 Sec. 1 Twp. 26 Range 8
Ralph Hardiman Reese, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate IX
 Status of Site Open site ; not sampled

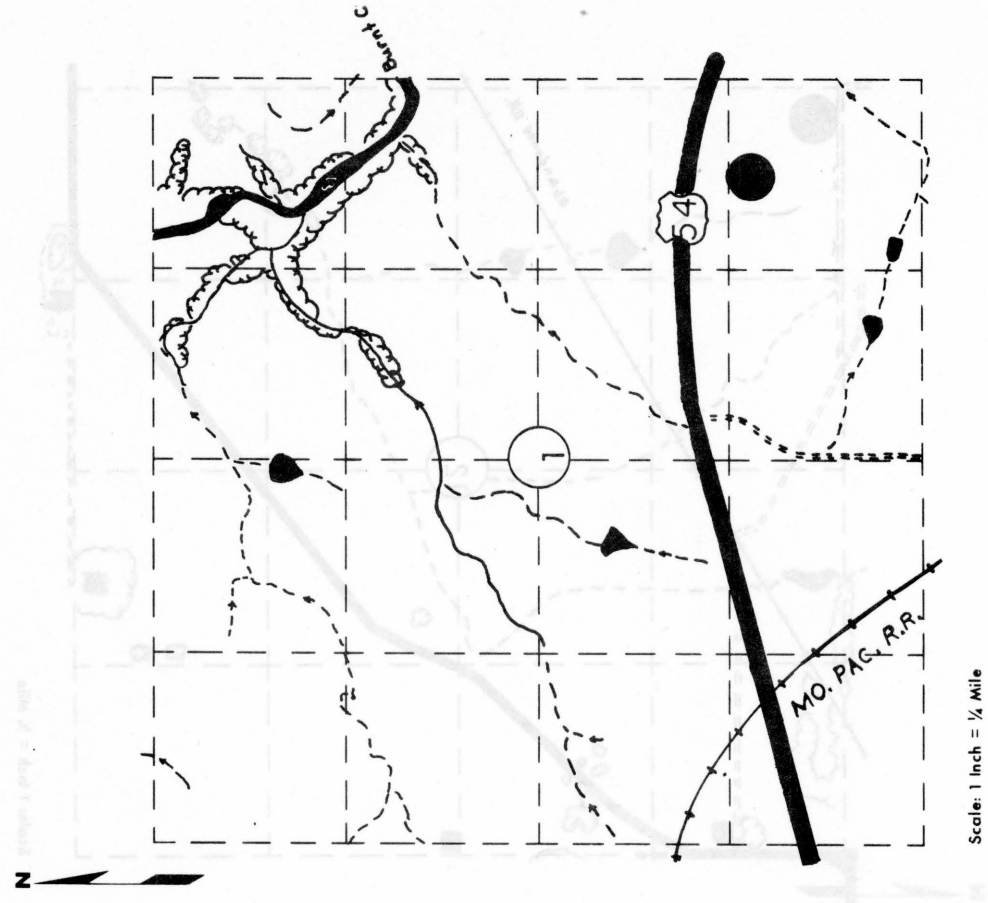
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Permian
 Geological Source Foraker Ls. Fm. - Hughes Creek Member
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks "Thrall" Limestone zone

Photo No. 15-124 & 125



MATERIAL SITE DATA FORM

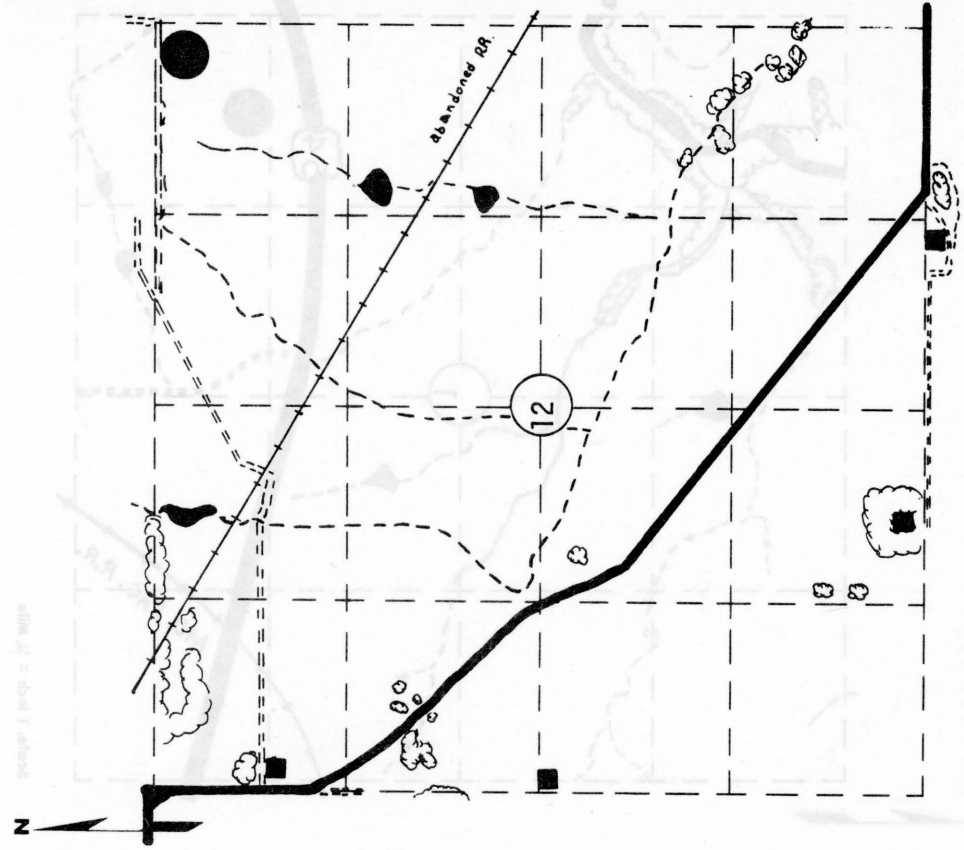
Site No. CG-42 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NE 1/4 NE 1/4 Sec. 12 Twp. 26 Range 10
 Owner O. & B. Holdings, Inc. Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Open Site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. CG-43 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location S 1/2 NE 1/4 Sec. 7 Twp. 26 Range 11
 Owner O. & B. Holdings, Inc. address Eureka, Ks.
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Open Site ; not sampled

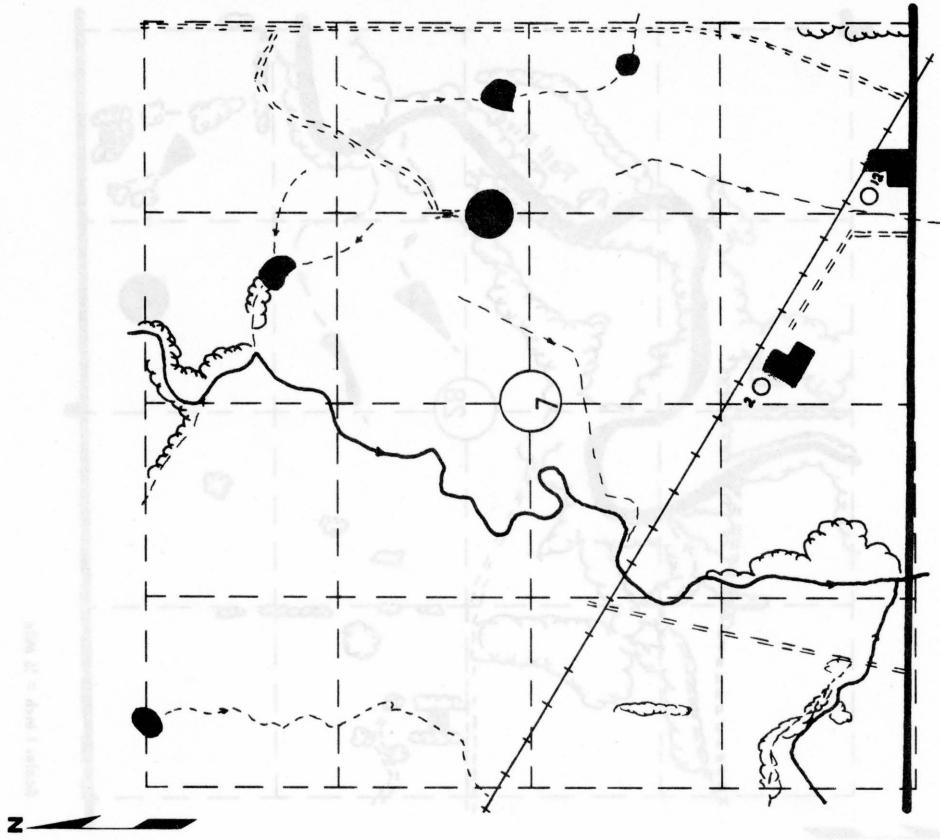
EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary
 Geological Source Chert Gravel - Terrace Deposits
 Material Similar To _____
 Specific Gravity (Sat) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 15-34



MATERIAL SITE DATA FORM

Site No. CG-44 Date November 1968
 Material Chert Gravel County Greenwood
 Location SW $\frac{1}{4}$ SE $\frac{1}{4}$ Sec. 28 Twp. 26 Range 11
 Owner G. H. Rice RFD No. 2, Eureka, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate X
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

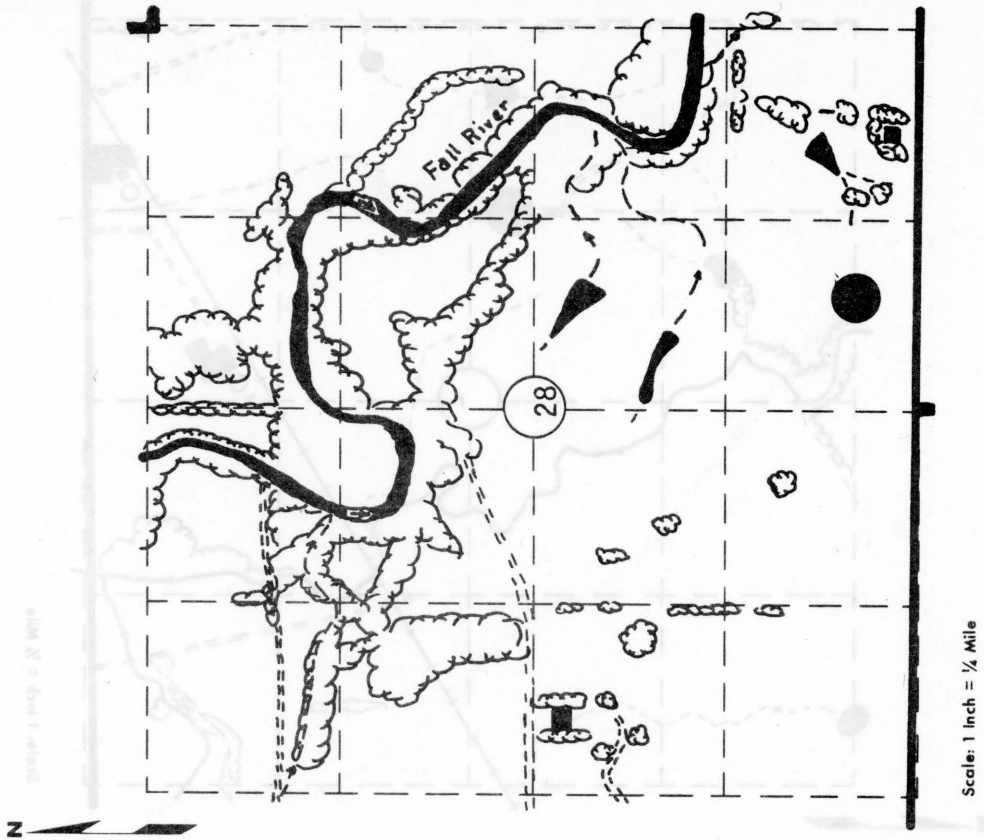


Photo 16-40

MATERIAL SITE DATA FORM

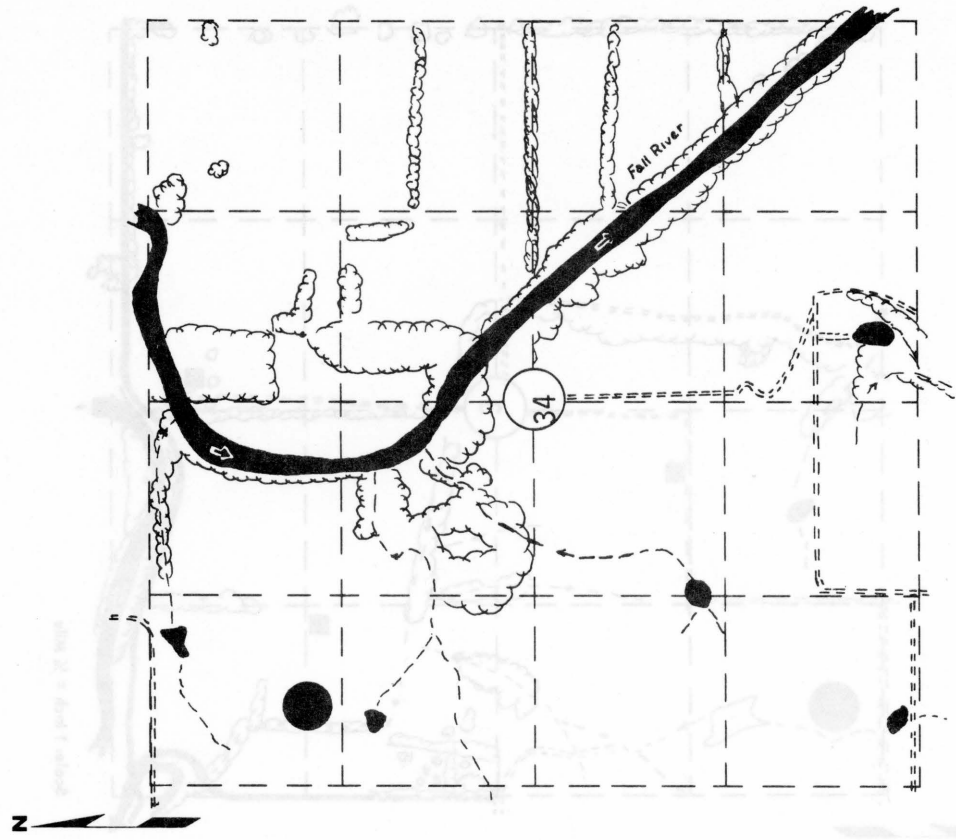
Site No. CG-45 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NW¹/₄ NW¹/₄ Sec. 34 Twp. 26 Range 11
 Owner Guy Shumard RFD 2, Eureka, Ks.
 name Dry Accessibility Poor Site Located on Plate X
 Nature of Deposit Open Site ; Not Sampled
 Status of Site _____

EXPLORATION DATA

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

Geological Age Quaternary (Nerbaskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 16-40



Scale: 1 Inch = 1/4 Mile

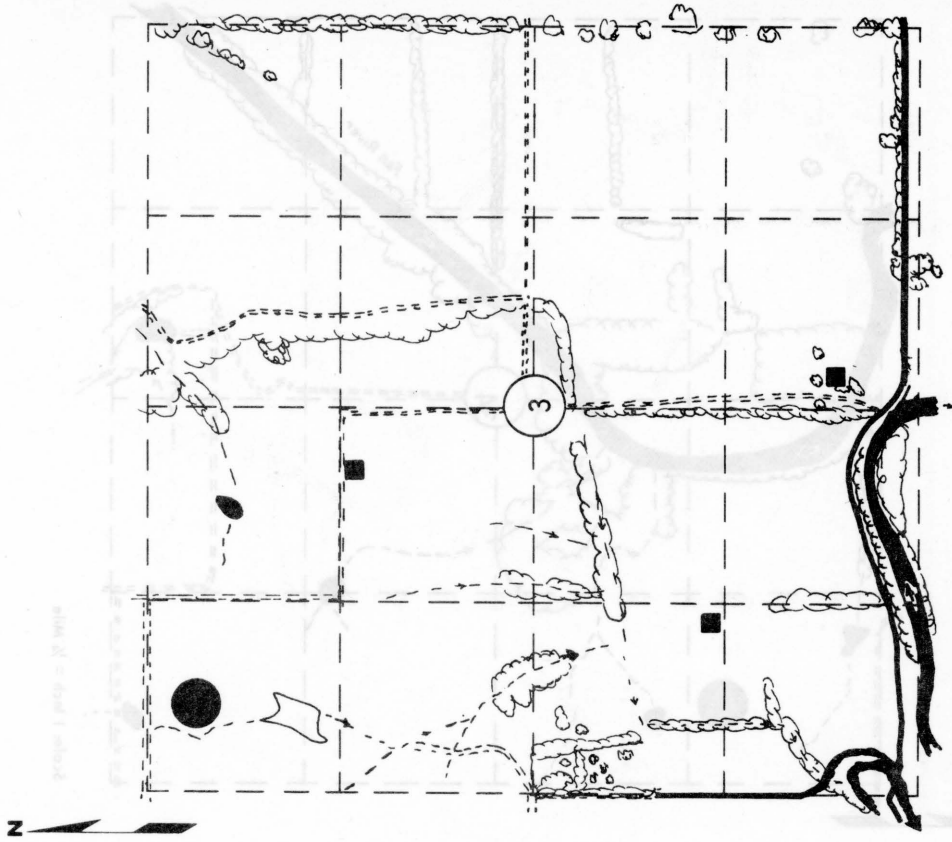
MATERIAL SITE DATA FORM

Site No. CG-46 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 3 Twp. 27 Range 11
L. G. Twadell Climax, Ks.
 Owner name L. G. Twadell address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Open site ; not sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	CORRELATION DATA							Wash	G.F.	L.L.	P.I.					
				1 1/2	3/4	4	8	16	30	50					100	200			

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Photo No. 16-40



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. CG-47 Date November 1968
Qt
 Material Chert Gravel County Greenwood
 Location NE 1/4 NW 1/4 Sec. 3 Twp. 27 Range 11
 Owner M. French RFD No. 2 Eureka, Ks.
 name Dry address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Open site ; not sampled

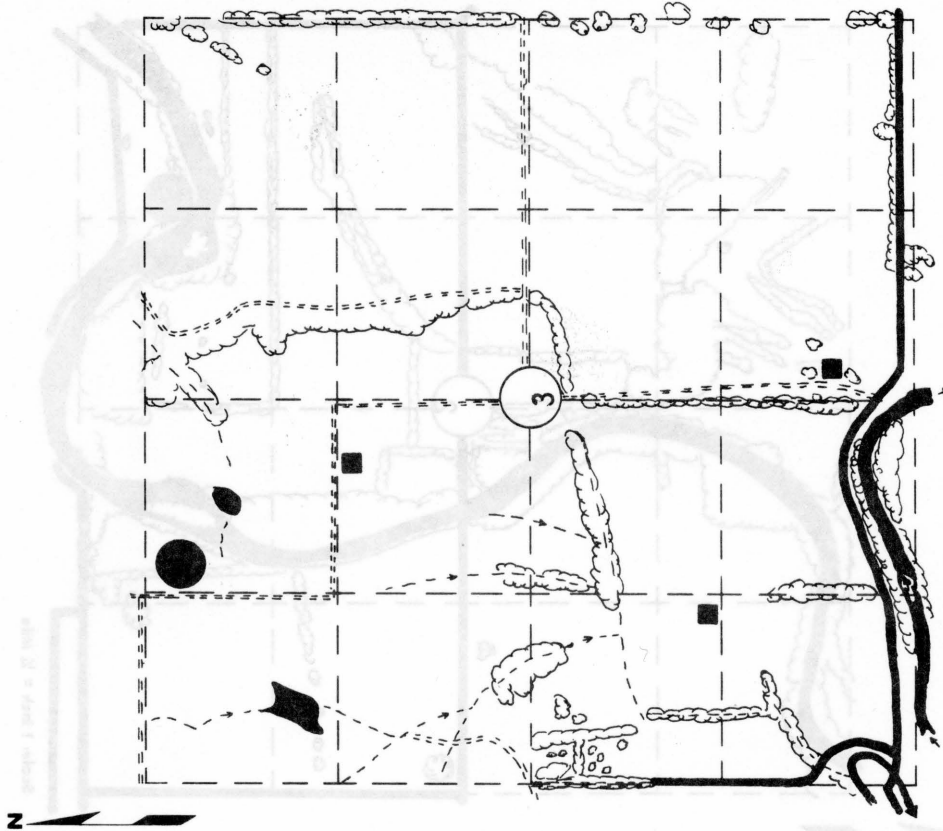
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash							P.I.				
				1/2	3/8	4	8	16	30	50		100	200		

CORRELATION DATA

Geological Age Quaternary (Nebraskan-Kansan)
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry)
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 16-40



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. CG-48
Qt

Date November 1968

Material Chert Gravel County Greenwood

Location S½ SE¼ Sec. 2 Twp. 27 Range 11

Owner U.S. Gov. USCE Fall River, KS.

Nature of Deposit Dry Accessibility Poor Site Located on Plate X

Status of Site Open site - not sampled

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	EXPLORATION DATA								Wash	G.F.	L.L.	P.L.			
				1½	¾	3/8	4	8	16	30	50					100	200	

CORRELATION DATA

Geological Age Quaternary

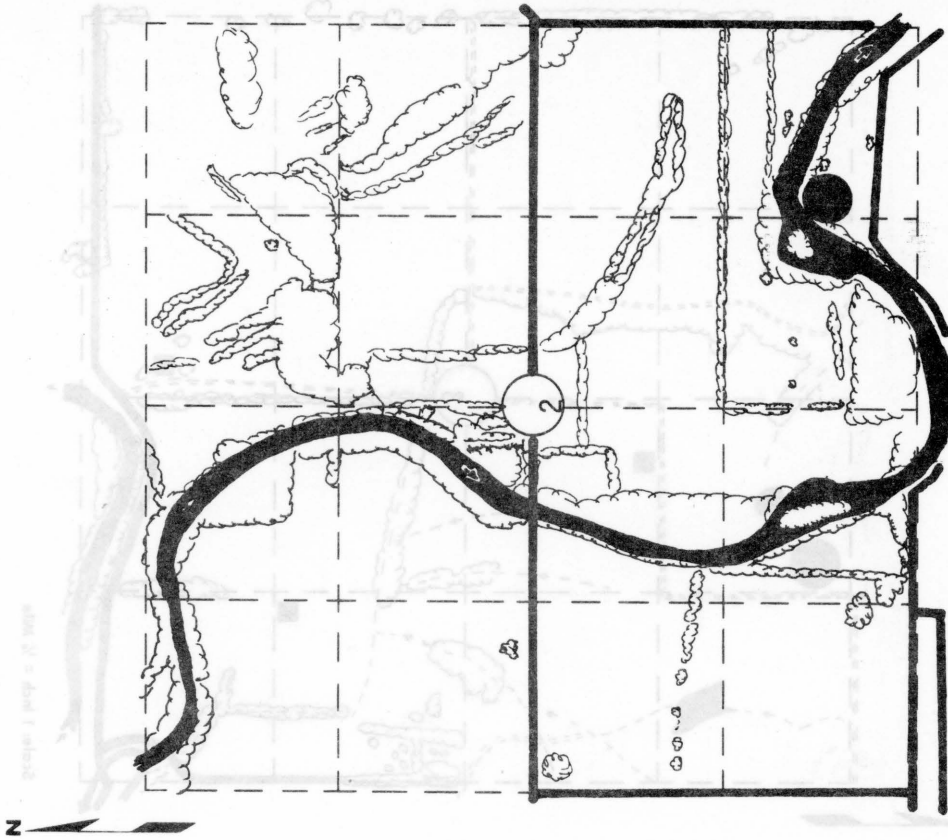
Geological Source Alluvium

Material Similar To

Specific Gravity (Sat.) (Dry)

Los Angeles Wear

Absorption Soundness



Scale: 1 Inch = ¼ Mile

MATERIAL SITE DATA FORM

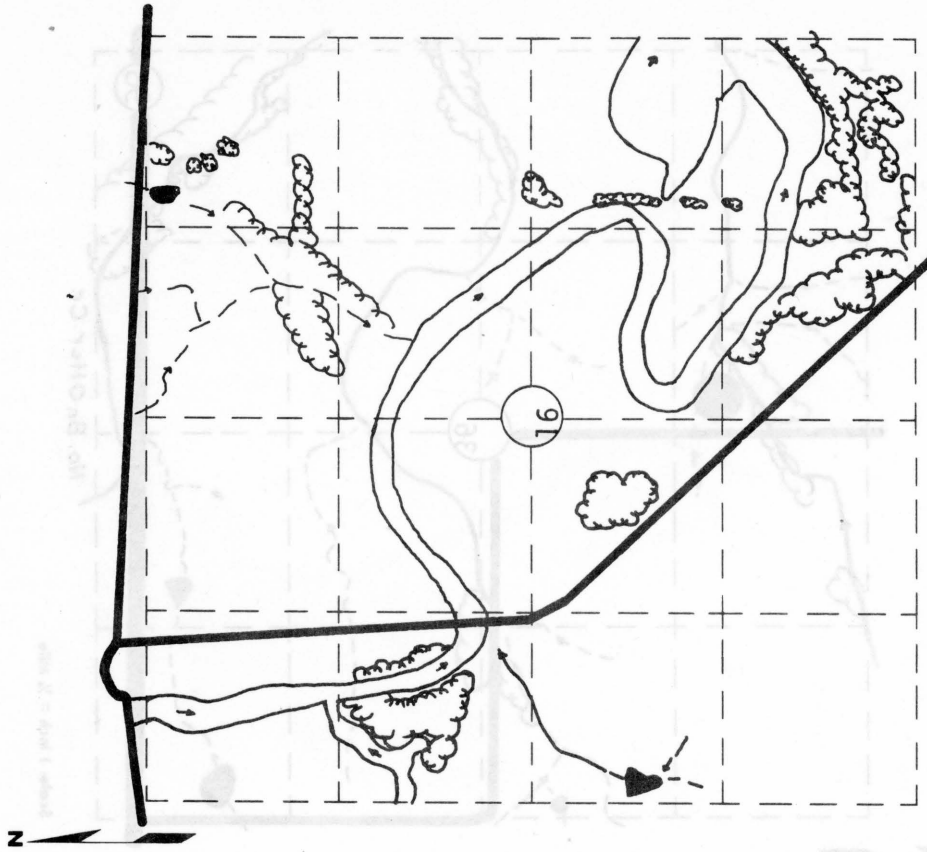
Site No. LS+49 Date November 1968
Pot
 Material Limestone County Greenwood
 Location NE 1/4 NW 1/4 Sec. 16 Twp. 26 Range 13
 Owner Ken J. Baker address Toronto, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate XI
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Ls. Fm. - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Sr. Ratio _____
 Remarks _____



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+50 Date November 1968
Pfa
 Material Limestone County Greenwood
 Location NW 1/4 NE 1/4 Sec. 36 Twp. 27 Range 8
 Owner P. L. Lewis address 403 E. Vermont, Eureka, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate XII
 Status of Site Open site ; not sampled

EXPLORATION DATA

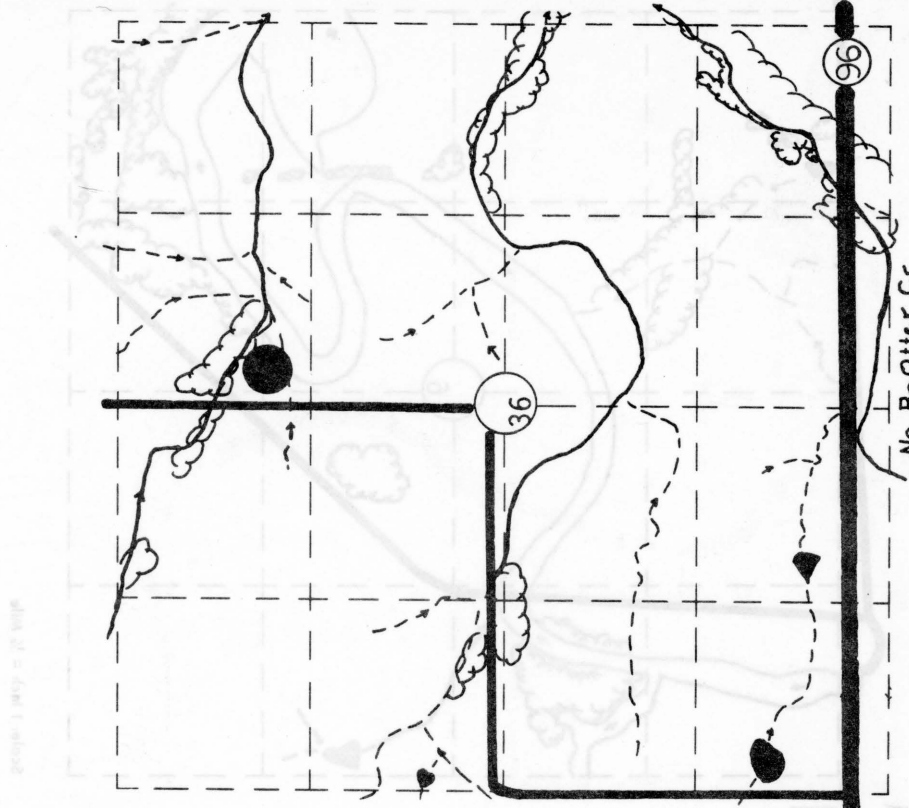
Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	CORRELATION DATA					Wash 200	G.F.	L.L.	P.I.
				1 1/2	3/8	4	8	16				

CORRELATION DATA

Geological Age Permian
 Geological Source Foraker Ls. Fm. - Americus Mbr.
 Material Similar To _____

Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. 12-170 Str. Ratio _____
 Remarks Pit expanded to north side of tributary

Photo 16-75



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

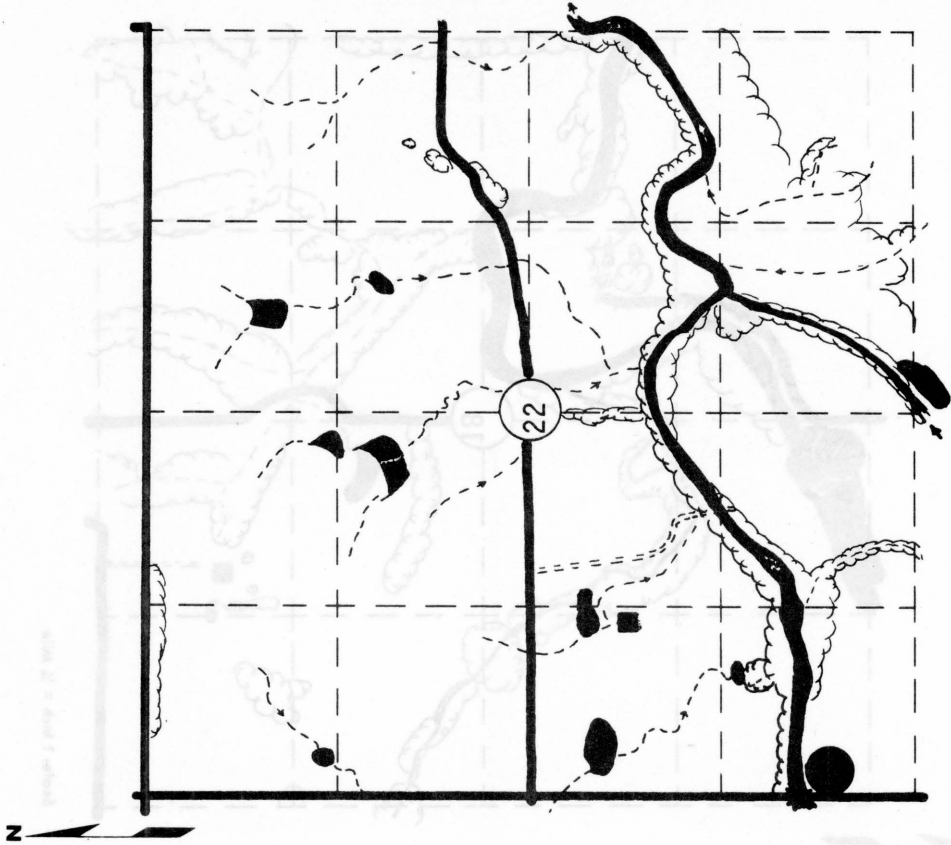
Site No. Gr-51 Date November 1968
Qa1
 Material Limestone County Greenwood
 Location SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 22 Twp. 27 Range 9
W. Newton Male name Piedmont, Ks.
 Nature of Deposit Dry Accessibility Fair Site Located on Plate XII
 Status of Site Open site ; not sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash							G.F.	L.L.	P.I.	
				1 1/2	3/4	4	8	16	30	50				100

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 _____



Scale: 1 Inch = 1/4 Mile

Photo No. 16-78 - 1/1-68

MATERIAL SITE DATA FORM

Site No. Gr-52 Date November 1968
Qa1
 Material Limestone Gravel County Greenwood
 Location NE 1/4 NW 1/4 Sec. 18 Twp. 27 Range 11
 Owner Leda Christlieb RFD 1, Severy, Ks.
 name address
 Nature of Deposit Dry Accessibility Poor Site Located on Plate XIII
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary
 Geological Source Alluvium

Material Similar To _____

Specific Gravity (Sat.) _____ (Dry) _____

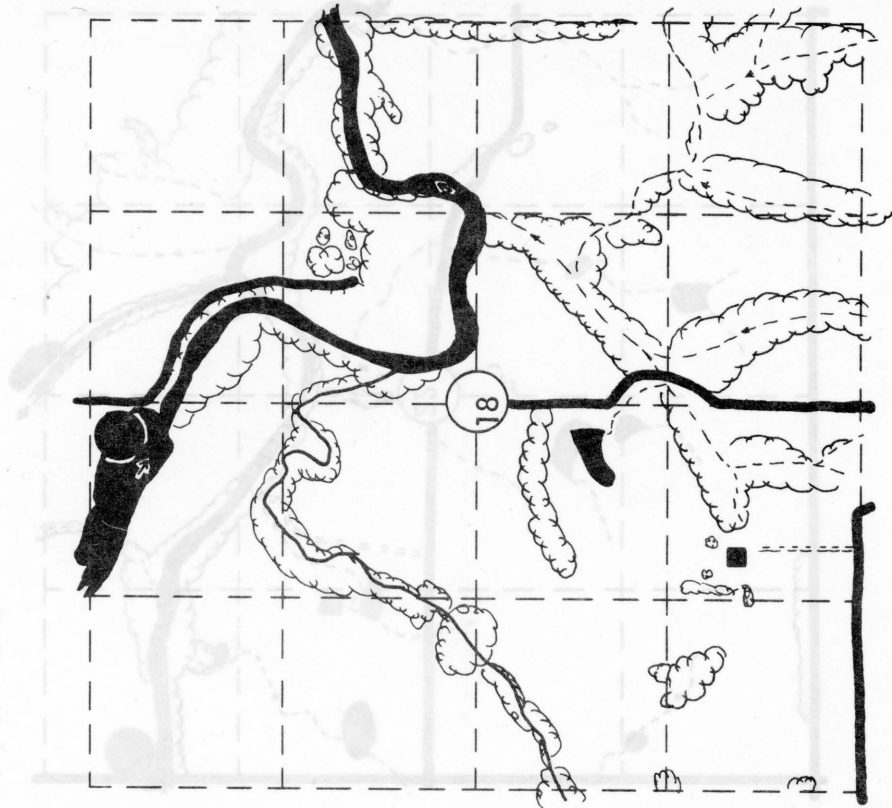
Los Angeles Wear _____

Absorption _____ Soundness _____

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks _____

Photo No. 16-61



Scale: 1 inch = 1/4 Mile

MATERIAL SITE DATA FORM

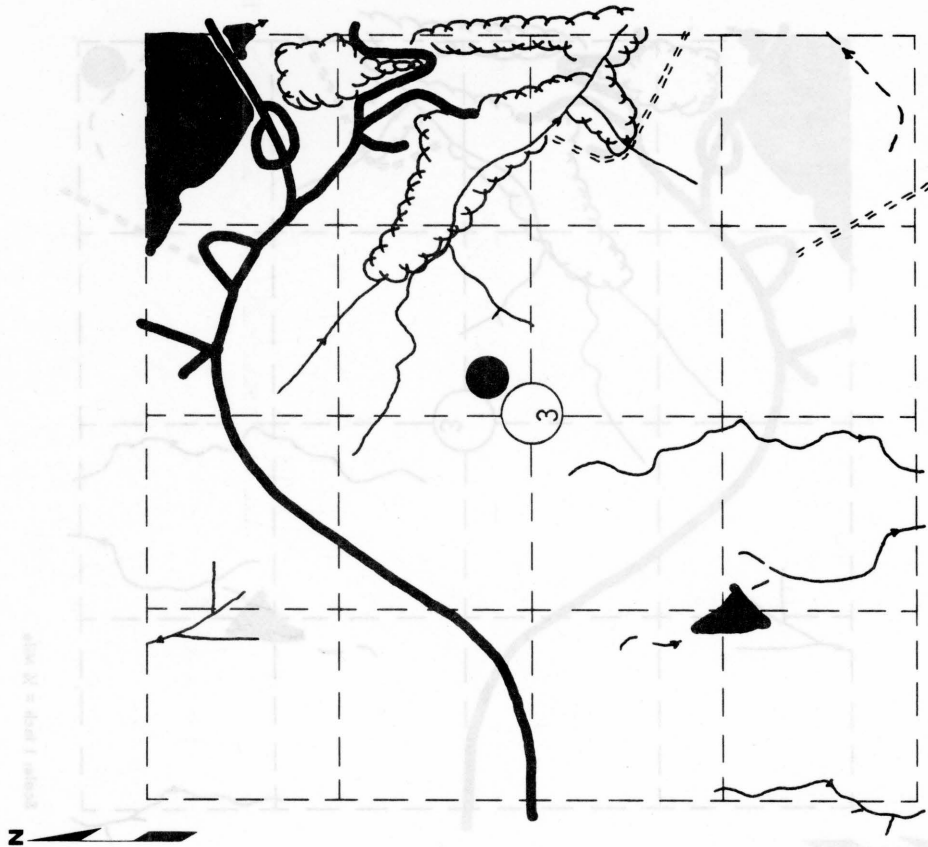
Site No. LS+53 Date November 1968
Pot
 Material Limestone County Greenwood
 Location SE 1/4 NE 1/4 Sec. 3 Twp. 28 Range 12
 Owner U.S. Gov. USCE Fall River, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIV
 Status of Site Open Site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Ls. Fm. - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____



Scale: 1 inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+54 Date November 1968
Pot
 Material Limestone County Greenwood
 Location E 1/2 SE 1/4 SE 1/4 Sec. 3 Twp. 28 Range 12
 Owner Robert W. Morton, etal address Fall River, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIV
 Status of Site Open site ; not sampled

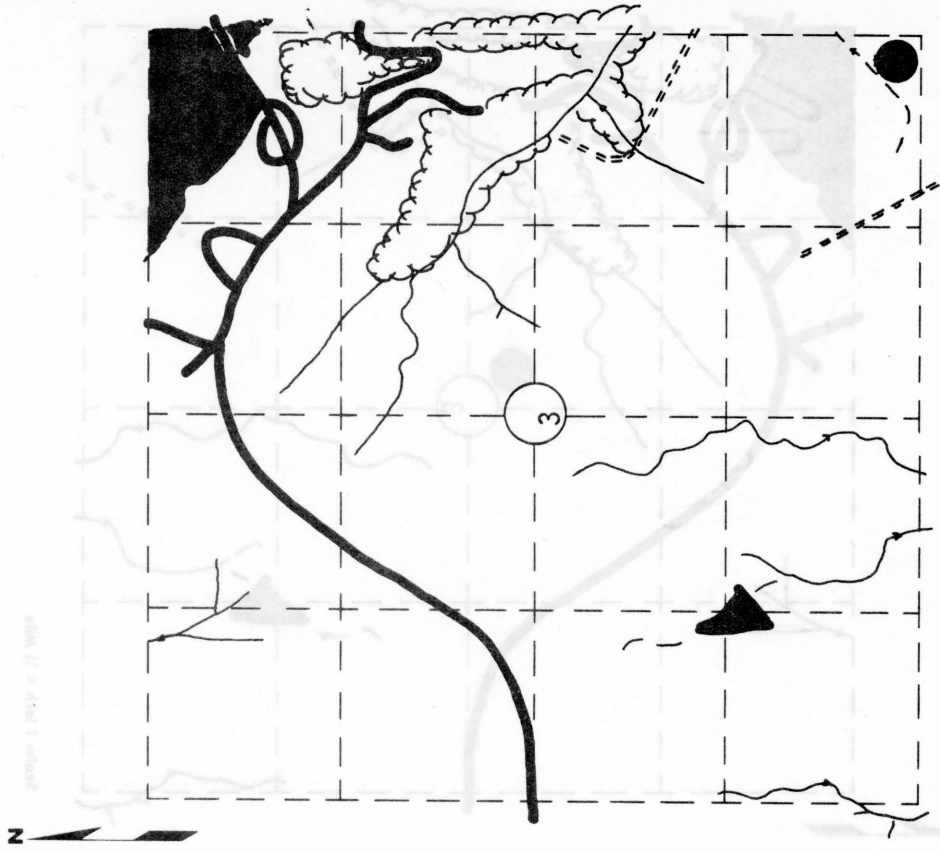
EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Overburden	Depth of Material	Wash							P.I.				
				1/2	3/8	4	8	16	30	50		100	200		

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Limestone Fm. - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

Photo No. 16-104



MATERIAL SITE DATA FORM

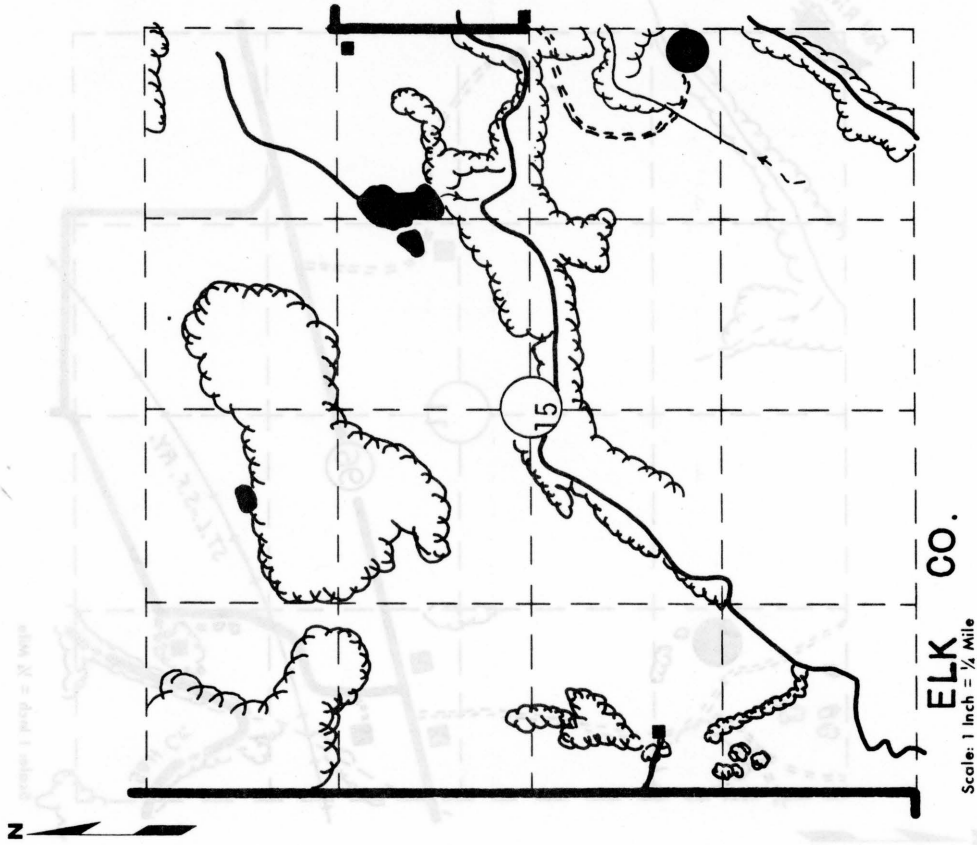
Site No. LS+55 Date November 1968
Pot
 Material Limestone County Greenwood
 Location SE 1/4 NE 1/4 SE 1/4 Sec. 15 Twp. 28 Range 12
Darrell L. Ralph name address
 Nature of Deposit Dry Accessibility Poor Site Located on Plate XIV
 Status of Site Open Site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Oread Fm - Toronto Mbr.
 Material Similar To
 Specific Gravity (Sat.) (Dry)
 Los Angeles Wear
 Absorption Soundness
 Wt. Cu. Ft. Str. Ratio
 Remarks



MATERIAL SITE DATA FORM

Site No. CG-56 Date November 1963
Qt
 Material Chert Gravel County Greenwood
 Location NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 11 Twp. 28 Range 12
Robert W. Morton, etal Fall River, Ks.
 Owner Robert W. Morton, etal address
 Nature of Deposit Dry Accessibility Poor Site Located on Plate XIV
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

CORRELATION DATA

Geological Age Quaternary
 Geological Source Chert Gravel - Terrace Deposit
 Material Similar to _____
 Specific Gravity (Sat.) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks _____

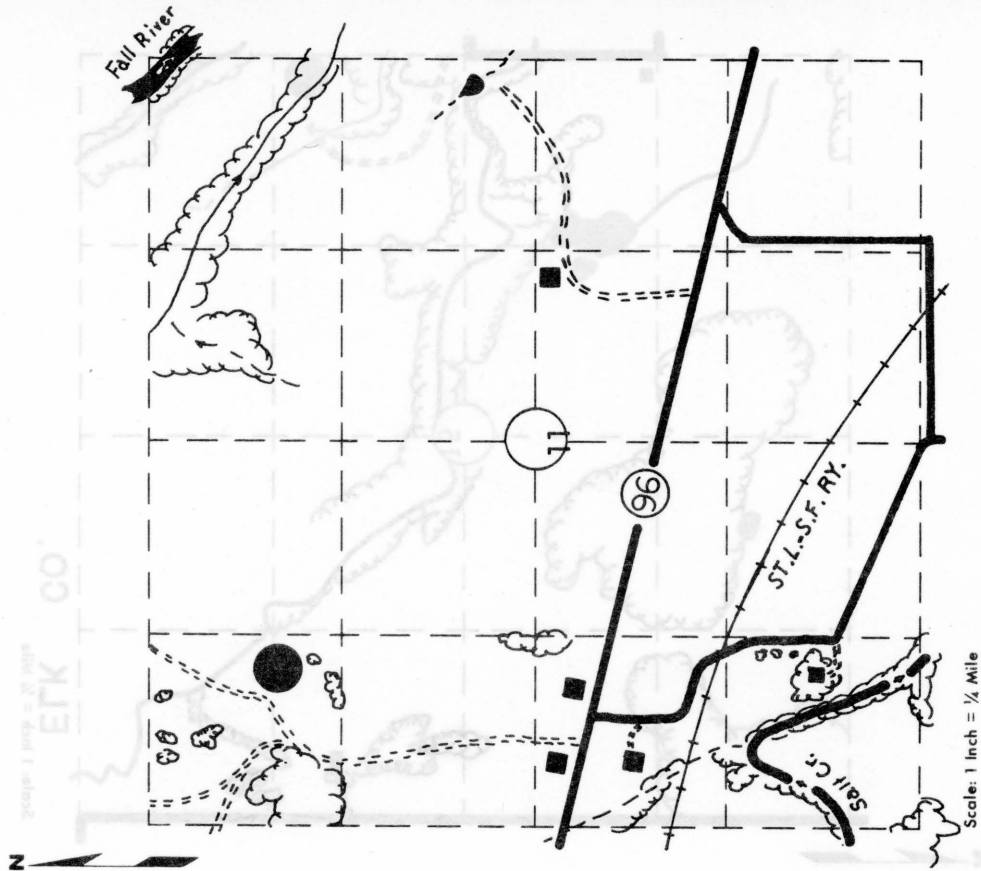


Photo No. 16-104

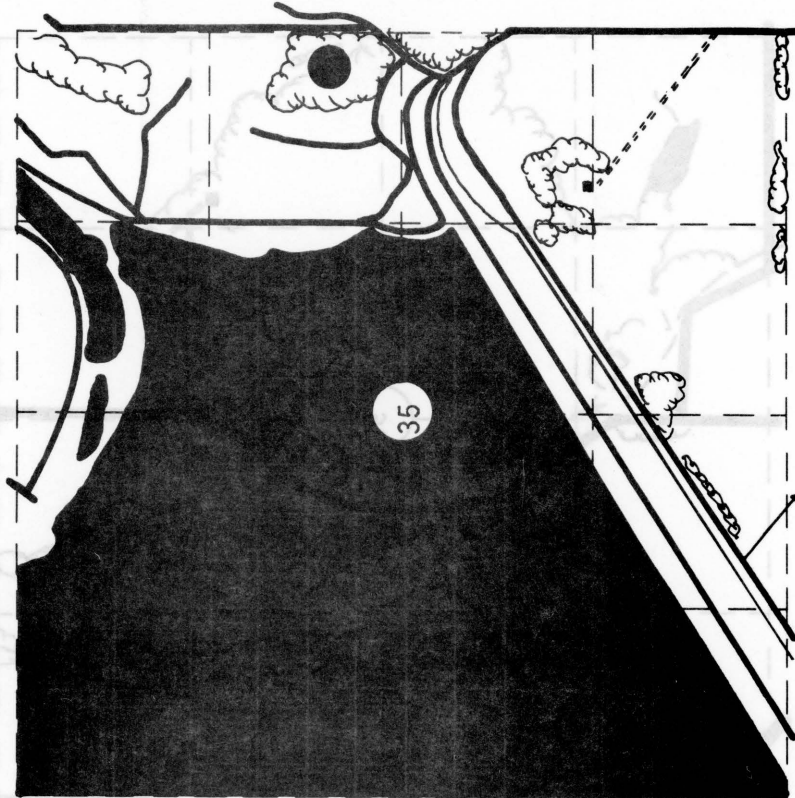
MATERIAL SITE DATA FORM

Site No. LS+57 Date November 1968
Pot
 Material Limestone County Greenwood
 Location NE 1/4 Sec. 35 Twp. 27 Range 12
 Owner U.S. Gov. USCE Fall River, Ks.
 Nature of Deposit Wet Accessibility Good Site Located on Plate XIV
 Status of Site Open site ; not sampled

EXPLORATION DATA

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

Geological Age Pennsylvanian
 Geological Source Oread Ls Fm. - Toronto Mbr.
 Material Similar To _____
 Specific Gravity (Sat) _____ (Dry) _____
 Los Angeles Wear _____
 Absorption _____ Soundness _____
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Flooded by Fall River Reservoir
 Photo No. 16-92 & 93



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+58 Date November 1968
Pot
 Material Limestone County Greenwood
 Location SE 1/4 NW 1/4 Sec. 36 Twp. 27 Range 12
J. H. Richerson, etal Fall River, Ks.
 Owner name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIV
 Status of Site Open site ; not sampled

EXPLORATION DATA

Test Hole	Material at Bottom of Hole	Depth of Over-Burden	Depth of Material	CORRELATION DATA										Wash	G.F.	L.L.	P.I.	
				1/2"	3/8"	4"	8"	16"	30"	50"	100"	200"	300"					400"

Geological Age Pennsylvanian
 Geological Source Oread Ls. Fm. - Toronto Mbr.

Material Similar To _____

Specific Gravity (Sat.) (Dry)

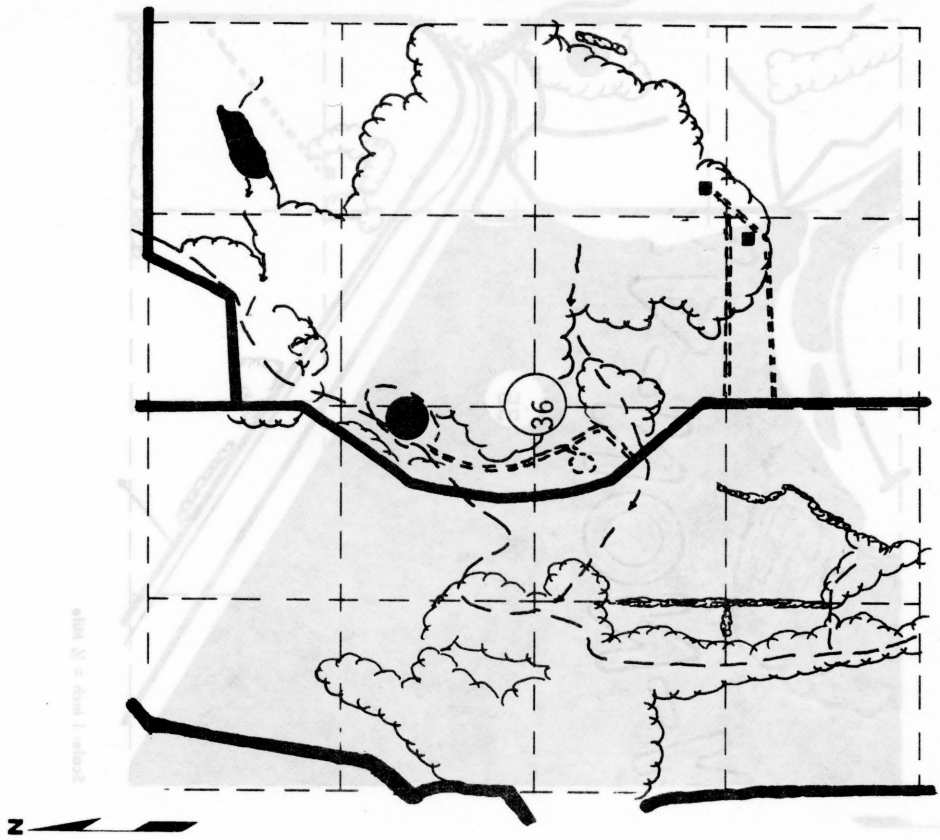
Los Angeles Wear _____

Absorption _____ Soundness _____

Wt. Cu. Ft. _____ Str. Ratio _____

Remarks _____

Photo No. 16-93



1 inch = 1/4 Mile

PROSPECTIVE MATERIALS SITES ; SAMPLED

LEGEND

===== Trail or lane

———— Road

+++++ Railroad

~~~~~ Hedge or trees

~~~~~  
Name

~~~~~ Intermittent streams

~~~~~ Pond or lake

■ Open materials sites; sampled

● Open materials sites; not sampled

▼ Prospective materials sites; sampled

◆ Prospective materials sites; not sampled

⑤ Center of section

□ Dwelling

⊕ Cemetery

▣ School

⊕ Church

▣ Town or city

MATERIAL SITE DATA FORM

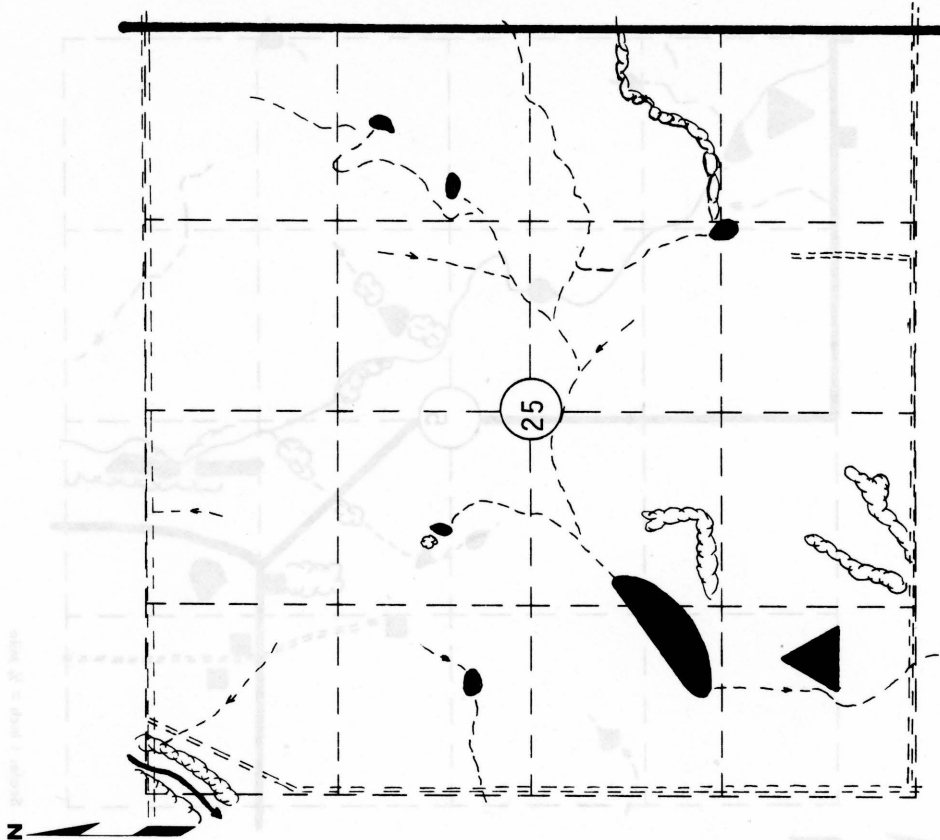
Site No. LS+59 Date November 1968
PTC
 Material Limestone County Greenwood
 Location SW 1/4 SW 1/4 Sec. 25 Twp. 22 Range 12
 Owner Roy W. Wernli address Lamont, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate II
 Status of Site Perspective Site ; sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | G.F. | L.L. | P.I. | | | | | | | | | |
|-----------|----------------------------|----------------------|-------------------|------|-----|---|---|----|------|------|------|----|----|-----|-----|--|--|--|--|--|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | | | | 30 | 50 | 100 | 200 | | | | | |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Limestone Fm. - Curzon Member
 Material Similar To _____
 Specific Gravity (Sat.) 2.52 (Dry) 2.45
 Los Angeles Wear 33.0
 Absorption 2.89 Soundness 0.98
 Wt. Cu. Ft. _____ Str. Ratio _____
 Remarks Tested 1964 (33537) Photo No. 13-42



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

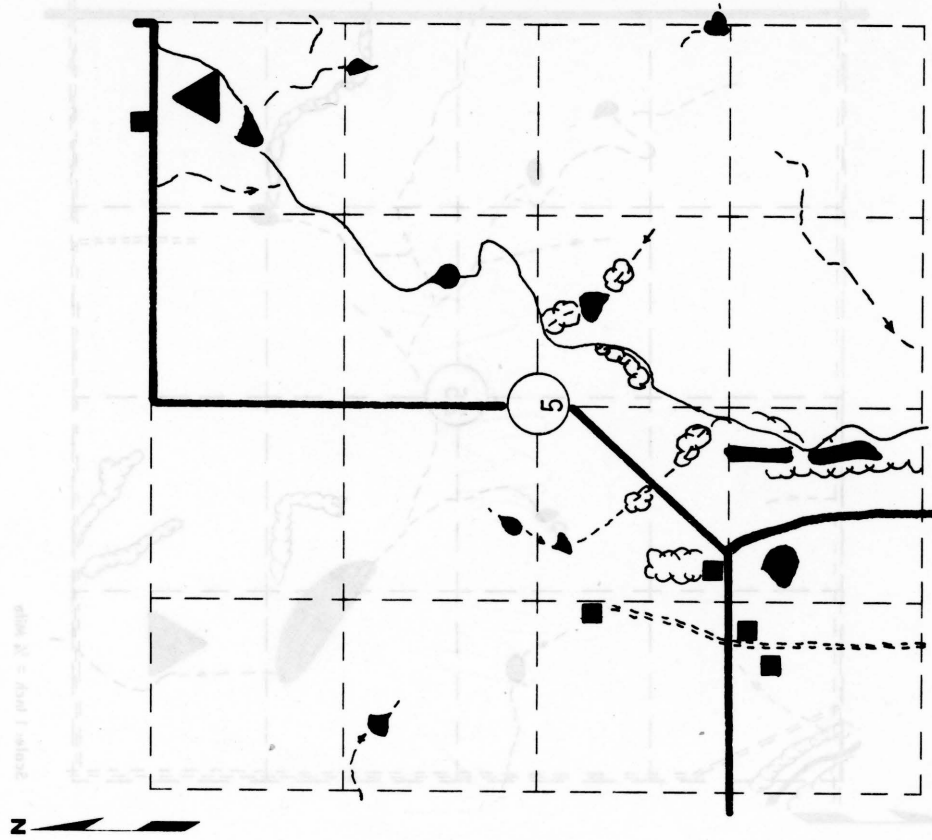
Site No. LS+60 Date November 1968
Ptcc
 Material Limestone County Greenwood
 Location NE 1/4 NE 1/4 Sec. 5 Twp. 24 Range 12
 Owner Harold L. Beuchat Hamilton, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate V
 Status of Site Prospective site ; sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Overburden | Depth of Material | Wash | | | | | | | P.I. | | |
|-----------|----------------------------|---------------------|-------------------|--------|------|----|----|-----|-----|-----|------|------|------|
| | | | | 1 1/2" | 3/4" | 4" | 8" | 16" | 30" | 50" | | 100" | 200" |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Topeka Ls. Fm. - Coal Creek Mbr.
 Material Similar To Material reported under SHC Lab No. 50023
(1946)
 Specific Gravity (Sat.) 2.52 (Dry) 2.46
 Los Angeles Wear 30.3 (A)
 Absorption 2.48 Soundness 0.97
 Wt. Cu. Ft. Str. Ratio
 Remarks This material is a conglomerate in the Coal Creek Limestone, with a limited areal distribution. Photo No. 15-7



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+61 Date November 1968
Pfa
 Material Limestone County Greenwood
 Location NW $\frac{1}{4}$ NW $\frac{1}{4}$ Sec. 36 Twp. 24 Range 9
 Owner R. W. Watchous RFD #1, Eureka, Ks.
 name Dry Accessibility Good Site Located on Plate VI
 Nature of Deposit Dry address
 Status of Site Prospective Site ; sampled

EXPLORATION DATA

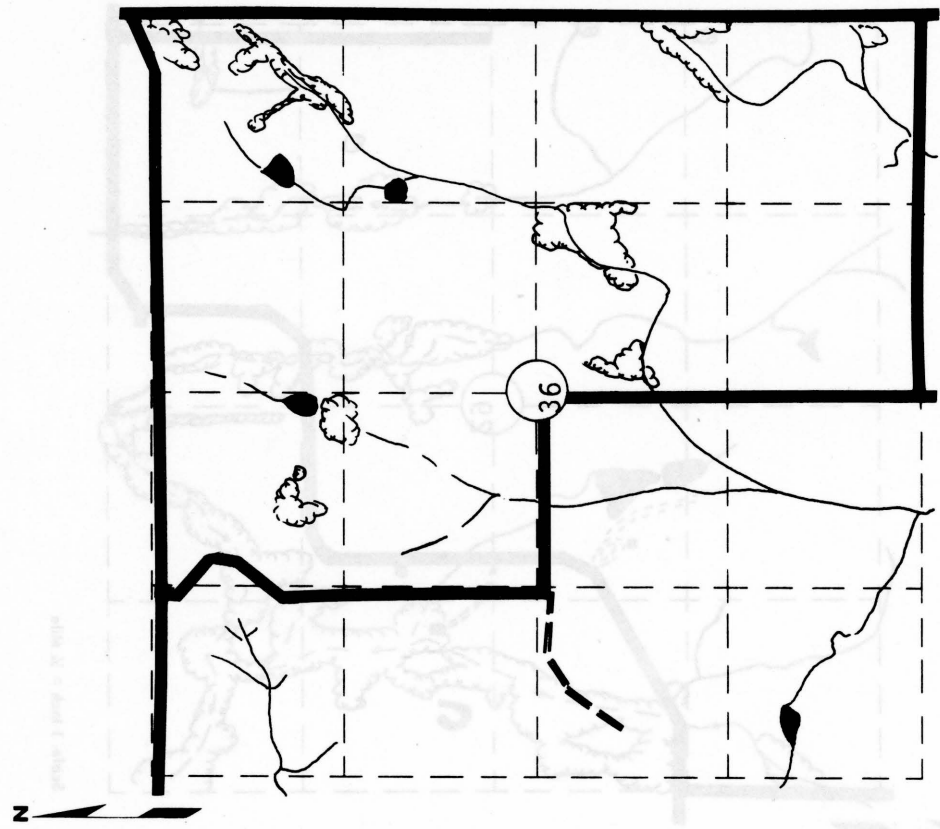
| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | G.F. | L.L. | P.I. | | | | | | | | | |
|-----------|----------------------------|----------------------|-------------------|------|-----|---|---|----|------|------|------|----|----|-----|-----|--|--|--|--|--|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | | | | 30 | 50 | 100 | 200 | | | | | |
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CORRELATION DATA

Geological Age Permian
 Geological Source Foraker Ls. Fm. - Americus Mbr.
 Material Similar To Material reported under SHC Lab. No. 50009

Specific Gravity (Sat) 2.55 (Dry) 2.49
 Los Angeles Wear 27.5 (A)
 Absorption 2.49 Soundness 0.94
 Wt. Cu. Ft. Str. Ratio
 Remarks Tested 1946 (50009)

Photo No. 15-67



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+62 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location NE 1/4 SW 1/4 Sec. 29 Twp. 25 Range 10
 Owner Phyllis Huntington Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate VII
 Status of Site Prospective Site ; Sampled

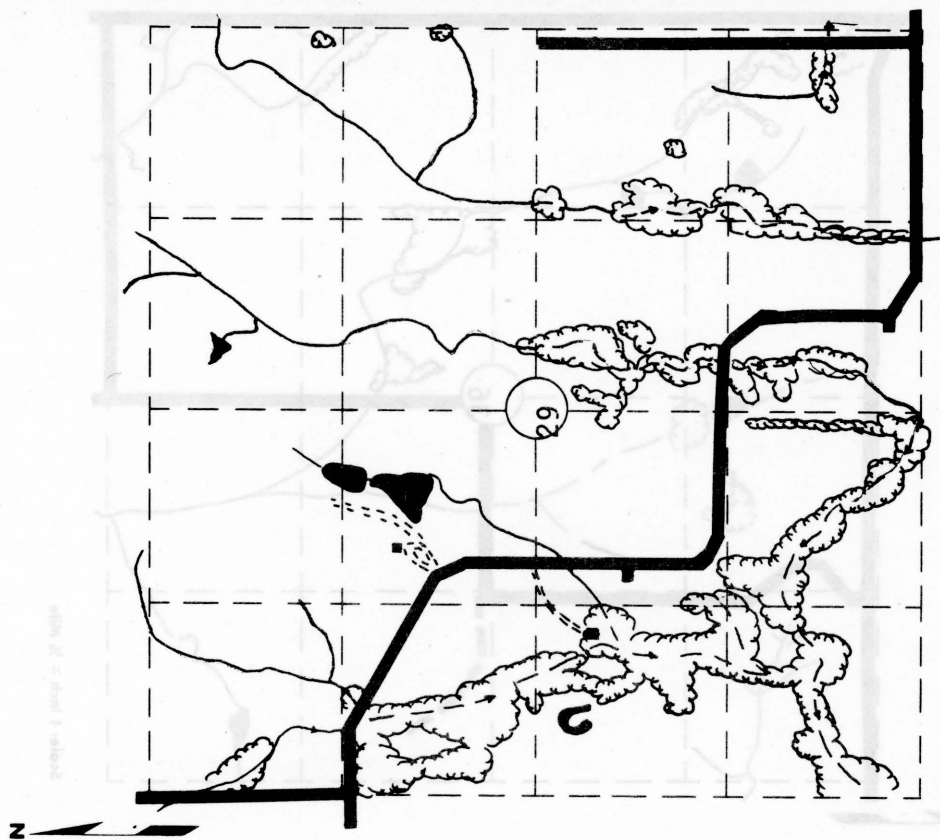
EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | | | G.F. | L.L. | P.I. | | | |
|-----------|----------------------------|----------------------|-------------------|-------|-----|-----|---|---|----|----|------|------|------|----|-----|-----|
| | | | | 1 1/2 | 3/4 | 3/8 | 4 | 8 | 16 | 30 | | | | 50 | 100 | 200 |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Ls. Fm. - Wakarusa Mbr.
 Material Similar To Material reported under SHC Lab. No. 50001
 Specific Gravity (Sat) 2.63 (Dry) 2.60
 Los Angeles Wear 28.1 (A)
 Absorption 1.24 Soundness 0.91
 Wt. Cu. Ft. Str. Ratio
 Remarks Tested 1946 (50001)

Photo No. 15-113



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+63 Date November 1968
FBW
 Material Limestone County Greenwood
 Location NW 1/4 NW 1/4 Sec. 23 Twp. 25 Range 10
Ruth Colvin, etal Eureka, Ks.
 Owner name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate VII
 Status of Site Prospective Site ; Sampled

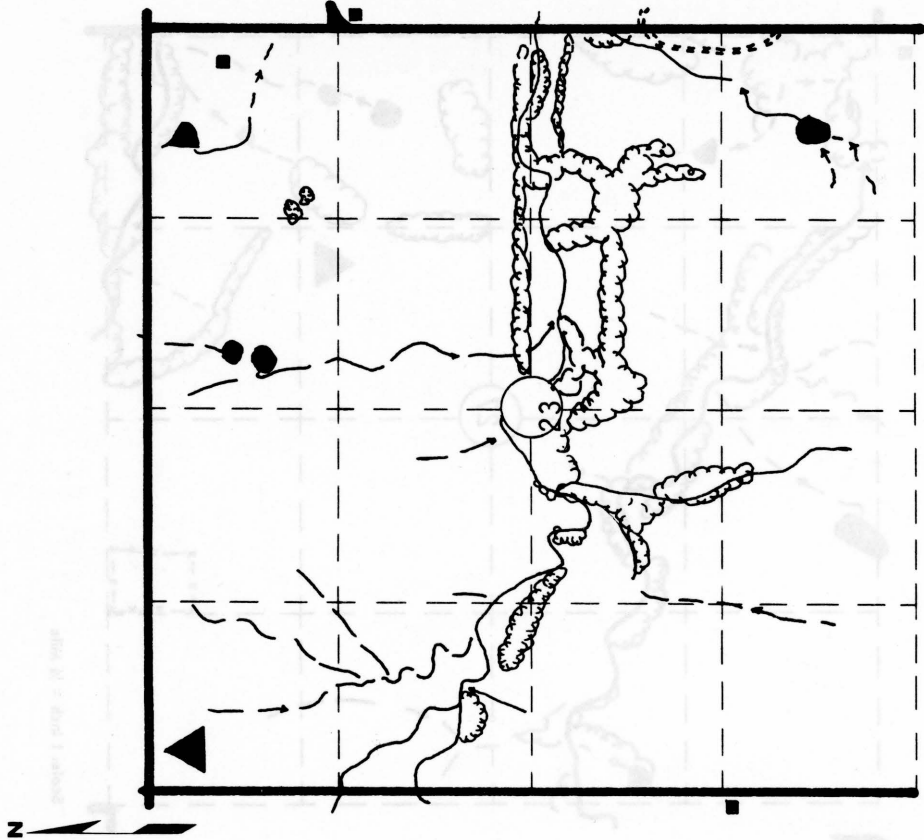
EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Overburden | Depth of Material | Wash | | | | | | | | G.F. | L.L. | P.I. | | |
|-----------|----------------------------|---------------------|-------------------|------|-----|---|---|----|----|----|-----|------|------|------|-----|--|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | 30 | 50 | 100 | | | | 200 | |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern ls. Fm. - Wakarusa Mbr.
 Material Similar To Material reported under SHC Lab No. 50002

Specific Gravity (Sat) 2.58 (Dry) 2.52
 Los Angeles Wear 31.4 (A)
 Absorption 2.37 Soundness 0.95
 Wt. Cu. Ft. Tested 1946 (50002-50003) Str. Ratio
 Remarks Photo No. 15-84



Scale: 1 inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+64 Date November 1968
PBW
 Material Limestone County Greenwood
 Location NW 1/4 SE 1/4 Sec. 27 Twp. 26 Range 10
 Owner Edna H. Braden Eureka, Ks.
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate X
 Status of Site Prospective Site ; sampled

EXPLORATION DATA

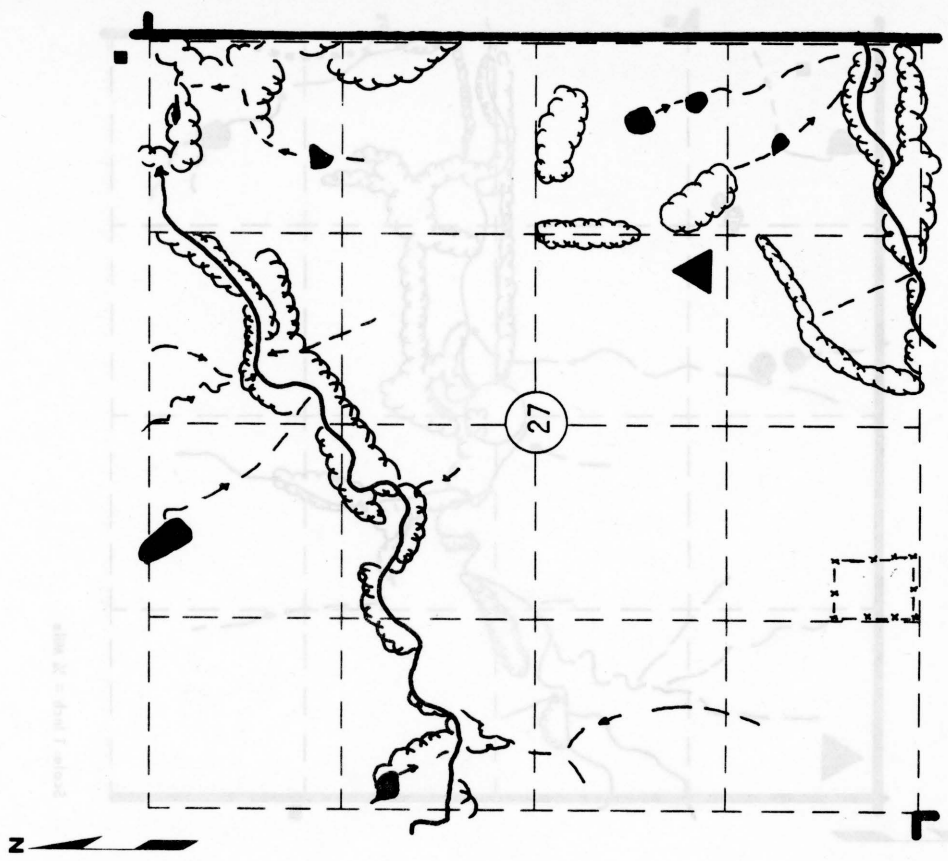
| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | | | G.F. | L.L. | P.I. | | | |
|-----------|----------------------------|----------------------|-------------------|-------|-----|---|---|----|----|----|------|------|------|-----|-----|--|
| | | | | 1 1/2 | 3/8 | 4 | 8 | 16 | 30 | 50 | | | | 100 | 200 | |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Ls. Fm. - Wakarusa Mbr.
 Material Similar To Material reported under SHC Lab No. 55533

Specific Gravity (Sat) 2.62 (Dry) 2.57
 Los Angeles Wear 25.3 (B)
 Absorption 1.90 Soundness 0.91
 Wt. Cu. Ft. Tested 1947 Str. Ratio _____
 Remarks _____

Photo No. 16-14 & 15



MATERIAL SITE DATA FORM

Site No. LS+65 Date November 1968
Rde
 Material Limestone County Greenwood
 Location SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 27 Twp. 26 Range 12
Neal, Ks.
 Owner John R. Grimes address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XI
 Status of Site Prospective site ; sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | | | G.F. | L.L. | P.I. | | | | |
|-----------|----------------------------|----------------------|-------------------|------|-----|---|---|----|----|----|------|------|------|-----|-----|--|--|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | 30 | 50 | | | | 100 | 200 | | |
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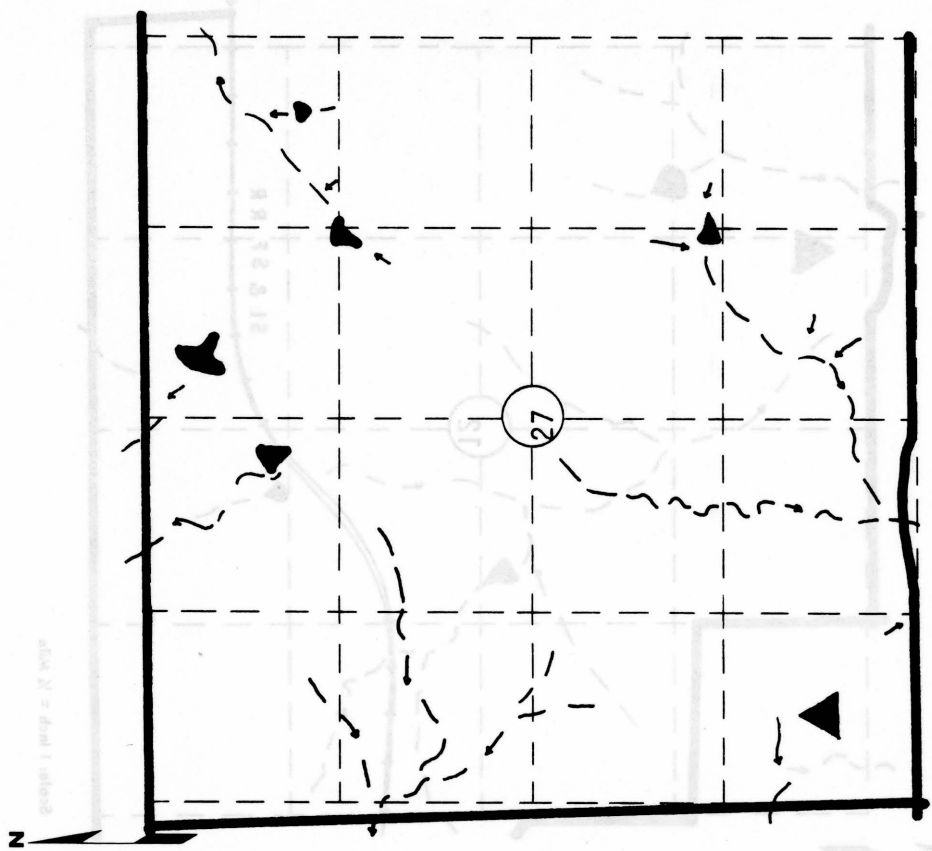
CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Deer Creek Fm. - Ervine Creek Member
 Material Similar to Material reported under SHC Lab No. 50006

Specific Gravity (Sat) 2.50 (Dry) 2.42
 Los Angeles Wear 33.0 (A)
 Absorption 3.19 Soundness 0.93
 Wt. Cu. Ft. Tested 1946 Str. Ratio _____
 Remarks _____

Photo No. 16-45

Scale: 1 Inch = 1/4 Mile



MATERIAL SITE DATA FORM

Site No. LS+66 Date November 1968
Prb
 Material Limestone County Greenwood
 Location N½ NE¼ Sec. 12 Twp. 28 Range 8
Ralph E. Struthers Beaumont, Texas
 name address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate XIII
 Status of Site Prospective Site ; sampled

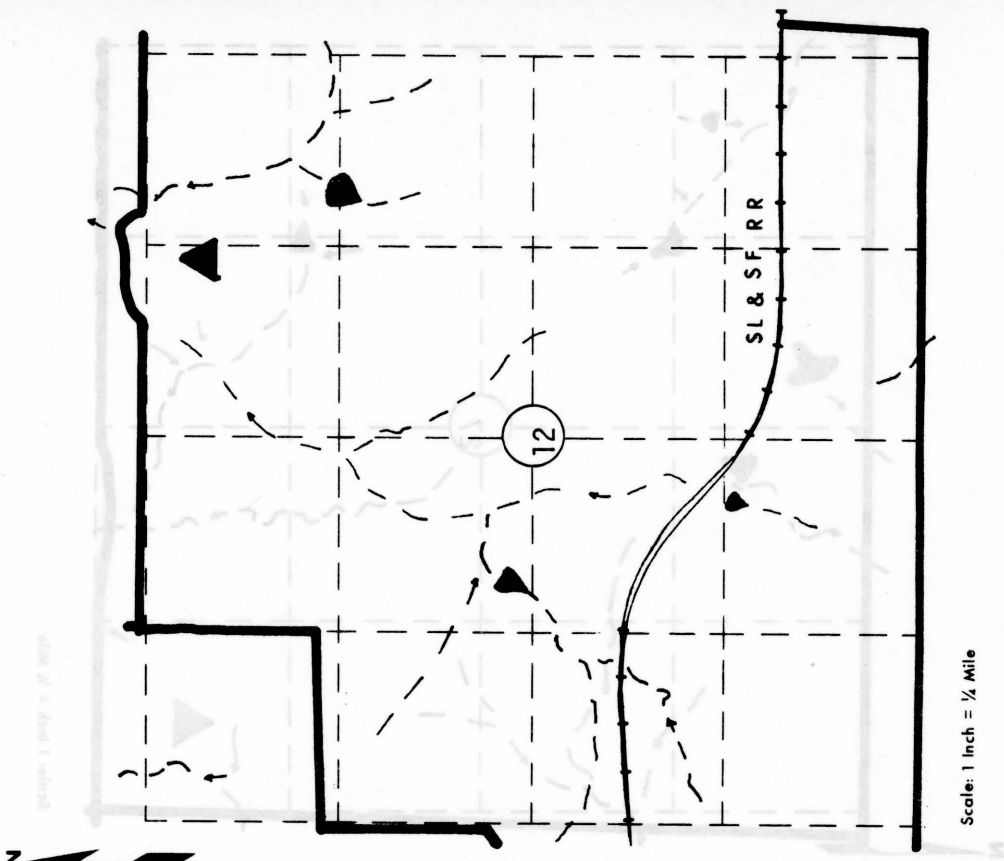
EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | CORRELATION DATA | | | | | Wash | G.F. | L.L. | P.I. |
|-----------|----------------------------|----------------------|-------------------|------------------|-----|---|---|----|------|------|------|------|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | | | | |
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Geological Age Permian
 Geological Source Red Eagle Ls. Fm. - "Bennet Reef" Mbr.
 Material Similar To Material reported under SHC Lab. No. 50005

Specific Gravity (Sat.) 2.43 (Dry) 2.35
 Los Angeles Wear 38.2 (A)
 Absorption 3.30 Soundness 0.95
 Wt. Cu. Ft. Str. Ratio
 Remarks

Photo No. 16-121 & 122



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+67 Date November 1968
Prb
 Material Limestone County Greenwood
 Location NE 1/4 NE 1/4 Sec. 4 Twp. 28 Range 9
 Owner Wayne Davis Blodgett, Kansas
 name address
 Nature of Deposit Dry Accessibility Good Site Located on Plate XII
 Status of Site Prospective Site ; sampled

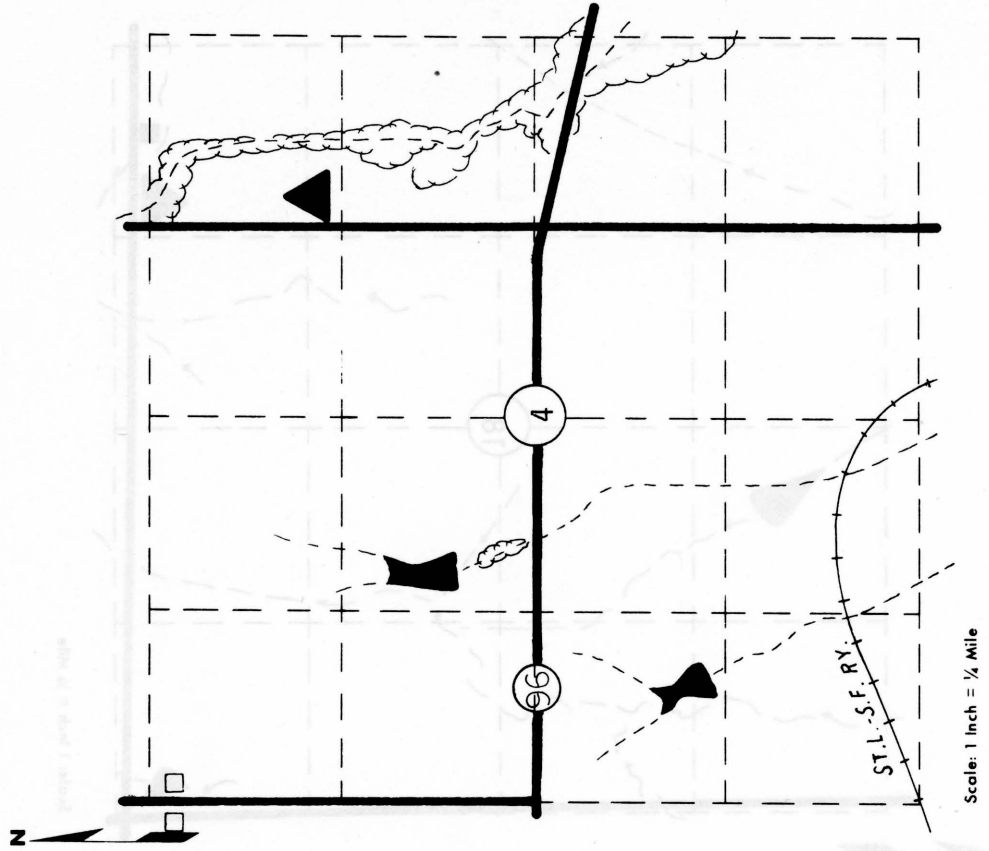
EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Overburden | Depth of Material | Wash | | | | | | | G.F. | L.L. | P.I. | | | | |
|-----------|----------------------------|---------------------|-------------------|------|-----|---|---|----|----|----|------|------|------|-----|-----|--|--|
| | | | | 1/2 | 3/8 | 4 | 8 | 16 | 30 | 50 | | | | 100 | 200 | | |
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CORRELATION DATA

Geological Age Permian
 Geological Source Red Eagle Ls. Fm. - "Bennett Reef" mbr.
 Material Similar To Material reported under SHC Lab No. 50014

Specific Gravity (Sat.) 2.55 (Dry) 2.49
 Los Angeles Wear 32.5 (A)
 Absorption 2.74 Soundness 0.83
 Wt. Cu. Ft. Tested 1946 Str. Ratio
 Remarks Photo No. 16-77 & 78



MATERIAL SITE DATA FORM

Site No. LS+68 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location SE 1/4 SE 1/4 Sec. 18 Twp. 27 Range 10
Willard L. Gettle & Jack R. Hunt, etal Climax, Ks.
 Owner name
 Nature of Deposit Dry Accessibility Fair Site Located on Plate XIII
 Status of Site Prospective Site ; sampled address

EXPLORATION DATA

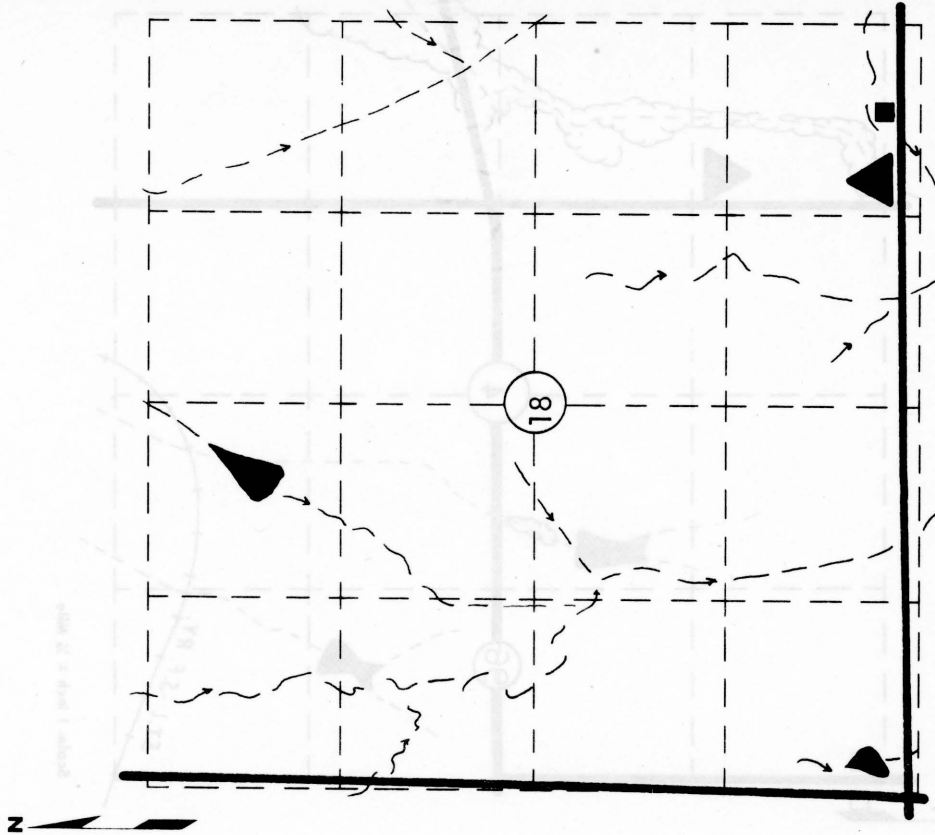
| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | Wash | | | | | | | G.F. | L.L. | P.I. | | | |
|-----------|----------------------------|----------------------|-------------------|------|-----|---|---|----|----|----|------|------|------|-----|-----|--|
| | | | | 1/2 | 3/4 | 4 | 8 | 16 | 30 | 50 | | | | 100 | 200 | |
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CORRELATION DATA

Geological Age Pennsylvanian
 Geological Source Bern Ls. Fm. - Wakarusa Mbr.
 Material Similar To Material reported under SHC Lab No. 50004

Specific Gravity (Sat.) 2.52 (Dry) 2.47
 Los Angeles Wear 23.4 (A)
 Absorption 2.10 Soundness 0.94
 Wt. Cu. Ft. Str. Ratio
 Remarks Tested 1946

Photo No. 16-65 & 66



Scale: 1 Inch = 1/4 Mile

MATERIAL SITE DATA FORM

Site No. LS+69 Date November 1968
Pbw
 Material Limestone County Greenwood
 Location SE 1/4 NE 1/4 Sec. 27 Twp. 27 Range 10
 Owner Boyd H. Stewart Piedmont, Ks.
 Name Boyd H. Stewart address
 Nature of Deposit Dry Accessibility Fair Site Located on Plate XIII
 Status of Site Prospective Site ; sampled

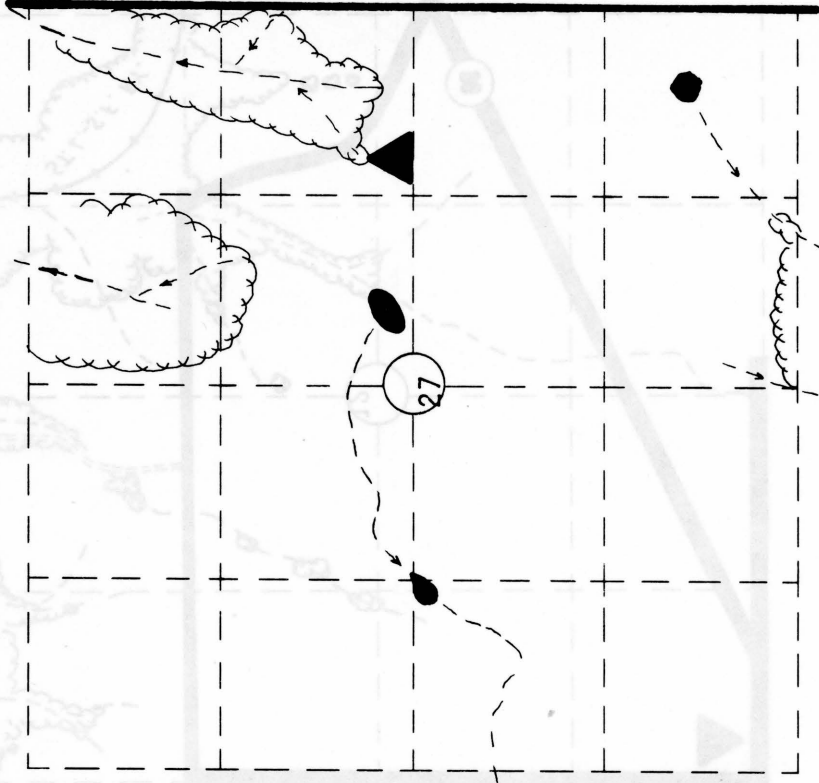
EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | CORRELATION DATA | | | | | | | G.F. | L.L. | P.I. | | | | | |
|-----------|----------------------------|----------------------|-------------------|------------------|-----|-----|---|---|----|----|------|------|------|----|-----|-----|--|--|
| | | | | 1 1/2 | 3/4 | 3/8 | 4 | 8 | 16 | 30 | | | | 50 | 100 | 200 | | |
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Geological Age Pennsylvanian
 Geological Source Bern Ls. Fm. - Wakarusa Mbr.
 Material Similar To Material reported under SHC Lab. No. 59502

Specific Gravity (Sat.) 2.46 (Dry) 2.46
 Los Angeles Wear 27.9 (A)
 Absorption 3.11 Soundness 0.97
 Wt. Cu. Ft. Tested 1948 Str. Ratio

Remarks Tested 1948 Photo No. 16-83



Scale: 1 Inch = 1/4 Mile

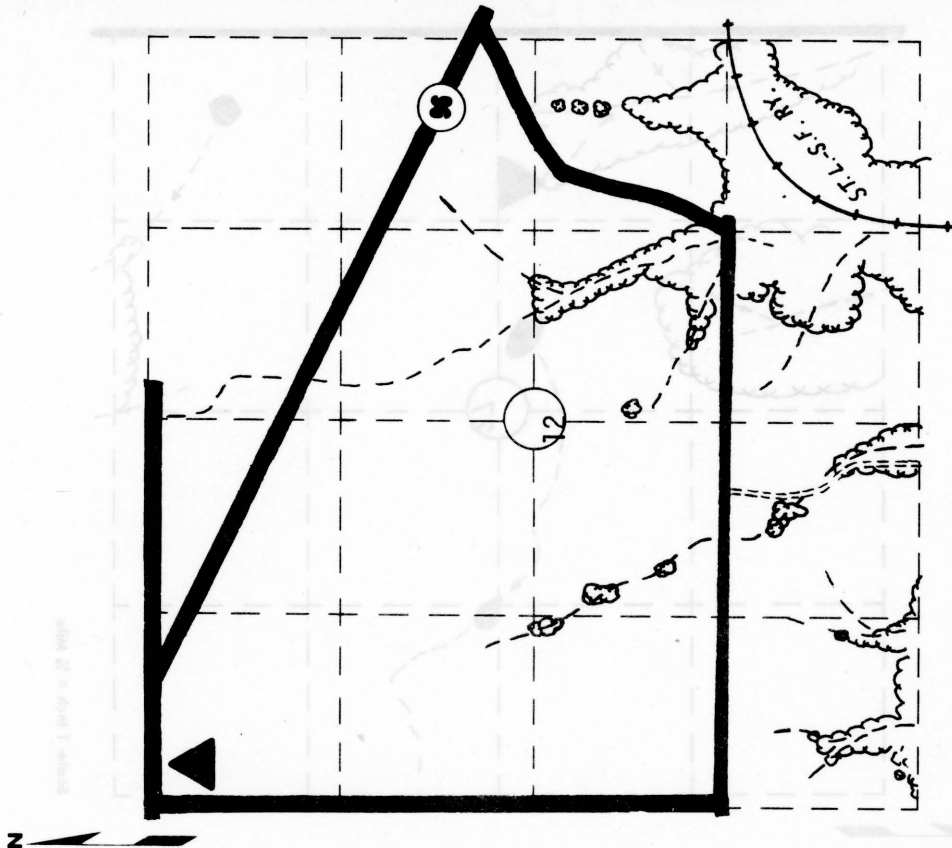
MATERIAL SITE DATA FORM

Site No. LS+70 Date November 1968
Pde
 Material Limestone County Greenwood
 Location NW 1/4 Sec. 12 Twp. 28 Range 11
 Owner A. G. Hyer address Severy, Ks.
 Nature of Deposit Dry Accessibility Good Site Located on Plate XIV
 Status of Site Prospective Site ; sampled

EXPLORATION DATA

| Test Hole | Material at Bottom of Hole | Depth of Over-Burden | Depth of Material | CORRELATION DATA | | | | | | | | Wash 200 | G.F. | L.L. | P.I. | |
|-----------|----------------------------|----------------------|-------------------|------------------|-----|-----|---|---|----|----|----|----------|------|------|------|-----|
| | | | | 1 1/2 | 3/4 | 3/8 | 4 | 8 | 16 | 30 | 50 | | | | | 100 |
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Geological Age Pennsylvanian
 Geological Source Deer Creek Fm. - Ervine Creek Mbr.
 Material Similar To Material reported under SHC Lab No. 50020
 Specific Gravity (Sat) 2.62 (Dry) 2.59
 Los Angeles Wear 30.2 (A)
 Absorption 1.24 Soundness 0.95
 Wt. Cu. Ft. Tested 1946
 Remarks Photo No. 16-108



Scale: 1 Inch = 1/4 Mile

GLOSSARY

- A.A.S.H.T.O.: American Association of State Highway and Transportation Officials.
- Absorption: Determined by tests performed in accordance with A.A.S.H.O. designated T85.
- Aggrade: To raise the grade or level of a river 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 by 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.
- Bedded: A characteristic of some rock units which shows distinct layers due to the manner in which they were deposited.
- Brecciated: Broken pieces of rock in a fine-grained matrix.
- Channel Fill: A trough that has been cut in a unit (such as shale) shortly after deposition and later the depression is filled with another materials. (Such as limestone, sandstone, or conglomerate).
- Chert: A dull, flint-like siliceous rock.
- Concretion: Oddly shaped nodules that occur in sedimentary rocks which form gradually by precipitation around definite nucleus.
- Conglomerate: Rock made up of various sizes and kinds of material.
- Construction aggregate: Processed rock that will meet standard specifications for concrete and bituminous construction.
- Consolidated deposit: A deposit of limestone, shale, or sandstone. In Kansas, this term generally applies to rock older than Pliocene age.
- Cross bedding: Term applied to sedimentary deposits whose bedding is inclined at various angles to the stratification.
- Detrital: A product of disintegration or wearing away of rock.
- Dolomitic limestone: A limestone in which the mineral dolomite ($\text{CaMg}(\text{CO}_3)_2$) is conspicuous but calcite is more abundant.
- Exposure patterns: Topographic features formed on the land surface by the exposure of geologic units.

Fine sand: An aggregate of consolidated minerals or rock particles, the dimensions of which are less than 0.05 of a millimeter and not more than 0.42 of a millimeter. The term refers to size of grain and not to composition; however, since most sands are composed of quartz and feldspar, and the term is used without qualification, a siliceous composition is implied.

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.

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

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

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 1 1/2", 3/4", 3/8", 4, 8, 16, 30, 50 and 100 sieves, respectively and dividing the sum by 100.

Grading A, B, C, and D: Determined by the abrasive charge for the Los Angeles wear test as specified in A.A.S.H.O. designation T96 and section 1001 of the State Highway Commission of Kansas, Standard Specifications, 1973 edition.

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

Hiatus: A break or interruption in the continuity of the geologic record.

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

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, 1980 edition.

Lithology: Physical properties of rock 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, 1980 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.

Matrix: The binding material which bonds or encloses sand and gravel particles at their place of deposition.

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

Metamorphic rock: Rock which has been crystallized or otherwise altered by intense heat or pressure.

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.

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

Reef: Calcareous debris built up by shell-forming calcareous secreting animals that live in a shallow, warm water marine environment.

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

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.

Stereogram: A stereoscopic pair of photographs correctly oriented and mounted for viewing with a stereoscope.

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.

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

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 above the permanent groundwater level.

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.

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CONSTRUCTION MATERIALS INVENTORY SERIES

| | | | |
|-------|--------------------------|------|------------------------------|
| 1. | Ellis County, Kansas | 1963 | A. H. Stallard |
| 2. | Coffey County, Kansas | 1966 | A. H. Stallard |
| 3. | Mitchell County, Kansas | 1965 | G. Hargadine |
| 4. | Sumner County, Kansas | 1964 | G. Hargadine |
| 5. | Linn County, Kansas | 1966 | G. Hargadine |
| 6. | Sherman County, Kansas | 1964 | G. Hargadine |
| 7. | Marshall County, Kansas | 1965 | G. Hargadine |
| 8. | Brown County, Kansas | 1966 | A. H. Stallard & G. Fenity |
| 9. | McPherson County, Kansas | 1969 | G. Hargadine |
| 10. | Harvey County, Kansas | 1966 | G. Hargadine |
| 11. | Osage County, Kansas | 1966 | A. H. Stallard |
| 12. | Kingman County, Kansas | 1966 | G. Hargadine |
| 13. | Pratt County, Kansas | 1969 | G. Hargadine |
| 14. | Morton County, Kansas | 1971 | G. Hargadine |
| 15. | Seward County, Kansas | 1970 | G. Hargadine |
| 16. | Stevens County, Kansas | 1970 | G. Hargadine |
| 17. | Rawlins County, Kansas | 1968 | A. H. Stallard |
| 18. | Franklin County, Kansas | 1969 | A. H. Stallard |
| 19. | Nemaha County, Kansas | 1970 | G. Hargadine |
| 20. | Jefferson County, Kansas | 1971 | A. H. Stallard |
| 21. | Butler County, Kansas | 1967 | G. Hargadine |
| 22. | Doniphan County, Kansas | 1974 | G. E. Petersen |
| 23. | Bourbon County, Kansas | 1976 | L. D. Myers |
| 24. | Johnson County, Kansas | 1970 | G. E. Hilmes |
| 25. | Douglas County, Kansas | 1972 | J. Jimenez |
| 26. | Shawnee County, Kansas | 1974 | G. E. Petersen |
| 27. | Miami County, Kansas | 1975 | G. E. Petersen & L. D. Myers |
| 28. | Crawford County, Kansas | 1975 | G. E. Petersen |
| 29. | Republic County, Kansas | 1976 | G. E. Petersen |
| 30. | Cloud County, Kansas | 1978 | L. D. Myers |
| 31. | Ottawa County, Kansas | 1977 | G. E. Petersen |
| 32. | Cowley County, Kansas | 1978 | G. E. Petersen |
| 33. | Neosho County, Kansas | 1978 | G. E. Petersen |
| 34. | Allen County, Kansas | 1979 | G. E. Petersen |
| 35. | Riley County, Kansas | 1978 | P. C. Clark |
| *36. | Greenwood County, Kansas | 1982 | L. D. Myers |
| **37. | Marion County, Kansas | -- | |
| 40. | Kiowa County, Kansas | 1980 | L. D. Myers & G. E. Petersen |

*This Report

**In Progress